



Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

(Address of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, par value \$.01 per share	Nasdaq

Securities registered pursuant to Section 12(g) of the Act: NONE

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company)	Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2). Yes No

The aggregate market value of the shares of Common Stock held by non-affiliates of the registrant was approximately \$4,955 million as of June 30, 2016. For purposes of this computation, shares held by affiliates and by directors and officers of the registrant have been excluded.

As of February 6, 2017 there were 193,946,169 shares of the registrant's Common Stock outstanding.

Documents Incorporated by Reference

Portions of the Registrant's Proxy Statement for the 2017 Annual Meeting of Stockholders are incorporated by reference in Part III hereof.

---

CommScope Holding Company, Inc.

Form 10-K

December 31, 2016

Table of Contents

<u>Part I</u>	
<u>Item 1. Business</u>	3
<u>Item 1A. Risk Factors</u>	17
<u>Item 1B. Unresolved Staff Comments</u>	32
<u>Item 2. Properties</u>	32
<u>Item 3. Legal Proceedings</u>	33
<u>Item 4. Mine Safety Disclosures</u>	33
<u>Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	33
<u>Part II</u>	
<u>Item 6. Selected Financial Data</u>	35
<u>Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	36
<u>Item 7A. Quantitative and Qualitative Disclosures About Market Risk</u>	57
<u>Item 8. Financial Statements and Supplementary Data</u>	60
<u>Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	104
<u>Item 9A. Controls and Procedures</u>	104
<u>Item 9B. Other Information</u>	105
<u>Part III</u>	
<u>Item 10. Directors, Executive Officers and Corporate Governance</u>	105
<u>Item 11. Executive Compensation</u>	105
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	105
<u>Item 13. Certain Relationships and Related Transactions, and Director Independence</u>	106
<u>Item 14. Principal Accountant Fees and Services</u>	106
<u>Part IV</u>	
<u>Item 15. Exhibits and Financial Statement Schedule</u>	106
<u>Signatures</u>	107

## PART I

Unless the context otherwise requires, references to “CommScope Holding Company, Inc.,” “CommScope,” “the Company,” “we,” “us,” or “our” are to CommScope Holding Company, Inc. and its direct and indirect subsidiaries on a consolidated basis.

This Annual Report on Form 10-K includes forward-looking statements identified by certain terms and phrases including but not limited to “intend,” “goal,” “estimate,” “expect,” “project,” “projections,” “plans,” “anticipate,” “should,” “could,” “designed to,” “foreseeable future,” “believe,” “think,” “scheduled,” “outlook,” “target,” “guidance” and similar expressions. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statement was made. Item 1A, “Risk Factors,” of this Annual Report on Form 10-K sets forth more detailed information about the factors that may cause our actual results to differ, perhaps materially, from the views stated in such forward-looking statements. We are not undertaking any duty or obligation to update any forward-looking statements to reflect developments or information obtained after the date of this Annual Report on Form 10-K, except to the extent required by law.

### ITEM 1. BUSINESS

#### Company Overview

We are a global leader in providing infrastructure solutions for the core, access and edge layers of communications networks. During 2016, CommScope celebrated its 40<sup>th</sup> anniversary serving the needs of communication networks. Our portfolio includes robust and innovative wireless and fiber optic solutions for today’s evolving digital lifestyle. Our talented and experienced global team helps customers increase bandwidth; maximize existing capacity; improve network latency (i.e., response time) and performance; and simplify technology migration. Our solutions are found in some of the largest venues and outdoor spaces; in data centers and buildings of all shapes, sizes and complexities; at wireless cell sites; in telecom central offices and cable headends; in fiber-to-the-X (FTTX) deployments; and in airports, trains, and tunnels. Vital networks around the world run on CommScope solutions.

We have a team of over 25,000 people to serve our customers in over 100 countries through a network of more than 30 world-class manufacturing and distribution facilities strategically located around the globe. Our customers include substantially all of the leading global telecommunication operators and thousands of enterprise customers, including many Fortune 500 enterprises, and leading multi-system operators (MSOs). We have long-standing, direct relationships with our customers and serve them through a direct sales force and a global network of channel partners.

On August 28, 2015, we completed the acquisition of TE Connectivity’s Broadband Network Solutions (BNS) business in an all-cash transaction valued at approximately \$3.0 billion. The BNS business provides fiber optic and copper connectivity for wireline and wireless networks. Our results include net sales generated by the BNS business of approximately \$1.8 billion and \$0.5 billion for the years ended December 31, 2016 and 2015, respectively.

During 2016, The Carlyle Group (Carlyle) sold the remaining portion of its ownership of our Company and no longer holds any stock in CommScope.

As of January 1, 2016, we reorganized our internal management and reporting structure as part of the integration of the BNS acquisition. The reorganization changed the information regularly reviewed by our chief operating decision maker for purposes of allocating resources and assessing performance. As a result, we are reporting financial performance for 2016 based on these operating segments: CommScope Connectivity Solutions (CCS) and CommScope Mobility Solutions (CMS). Prior to this change, we operated and reported based on the following operating segments: Wireless, Enterprise, Broadband and BNS. Prior period amounts have been revised to conform to the 2016 presentation.

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

For the year ended December 31, 2016, our revenues were \$4.92 billion and our net income was \$222.8 million. For further discussion of our current and prior year financial results, see Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

CommScope provides solutions for the core, access and edge layers of telecommunications networks. The core layer is the central part of a network that provides very high-speed services to entities that are connected to the network. The core layer includes data centers, headends and central offices and the high-speed networks that connect them. The access layer connects subscribers and edge devices to the core and includes outside-plant distribution networks. The access layer typically runs from a central office or wiring center to cell sites, commercial buildings or homes. The edge layer is the entry point on or off the network. The edge network includes routers, certain wireless base stations and building and campus networks, including single and multi-dwelling unit residences. The table below summarizes 2016 revenue, global leadership position and solutions offerings for our two segments:

	Connectivity Solutions (CCS)	Mobility Solutions (CMS)
2016 Revenue	\$2,966 million	\$1,958 million
Global Leadership Position	A global leader in connectivity and network intelligence for indoor and outdoor network applications	A global leader in merchant radio frequency (RF) wireless network connectivity, distributed antenna systems (DAS) solutions and distributed radio (small cell) solutions
Network CORE	<ul style="list-style-type: none"> <li>• High density fiber connectivity (optical distribution frames, shelves/panels, modules, trunks, jumpers/arrays and cable)</li> <li>• Pre-terminated fiber/copper connectivity</li> <li>• Automated infrastructure management</li> <li>• Fiber optic raceways, closures and sealing systems</li> <li>• High-capacity fiber and apparatus</li> </ul>	
Network ACCESS	<ul style="list-style-type: none"> <li>• “Plug and Play” hardened connector systems for harsh environments</li> <li>• Fiber optics and copper closures and sealing systems</li> <li>• Fiber optic and coaxial cabling systems</li> <li>• Fiber distribution hubs and management systems</li> <li>• Broadband MSO solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Macro, metro and small cell solutions</li> <li>• Specialized antenna systems</li> <li>• Factory-assembled tower-top solutions</li> <li>• Backhaul antennas and power solutions</li> <li>• Metro cell concealment solutions</li> </ul>
Network EDGE	<ul style="list-style-type: none"> <li>• Automated infrastructure management</li> <li>• Single mode and multi-mode fiber and apparatus</li> </ul>	<ul style="list-style-type: none"> <li>• Metro cell concealment solutions</li> <li>• Active DAS and small cell solutions</li> </ul>

- Coaxial and structured copper cabling systems and apparatus
- Antennas and filters
- Campus network fiber cabling systems
- Coax and powered fiber cabling systems
- Physical layer maintenance
- In-building cellular solutions
- Automated infrastructure management
- Intelligent building infrastructure



## Industry Background

We participate in the large and growing global market for connectivity and essential communications infrastructure. This market is being driven by the growth in bandwidth demand associated with the continued adoption of smartphones, tablets and machine-to-machine (M2M) communication as well as the proliferation of data centers, Big Data, cloud-based services, streaming media content and the Internet of Things (IoT). Telecommunications operators are deploying 4G and fiber optic networks and are planning 5G networks to support the dramatic growth in bandwidth demand. As users consume more data on smartphones, tablets and computers, enterprises face a growing need for higher bandwidth networks, in-building cellular coverage and more robust, efficient and intelligent data centers. MSOs are investing in their networks to deliver a competitive triple-play of services (voice, video and high-speed data) and to maintain service quality. There are several major trends that we expect to drive network deployments and investment, including:

### Evolving Network Architecture

The pace of change in networking has increased as consumers and data-driven businesses utilize more bandwidth and shift toward ubiquitous mobile applications. Exponential growth in video and “universal mobility” are revolutionizing how we connect to each other and changing the network architecture needed to support consumer demand. This trend requires better network coverage, greater broadband access and increased capacity and data storage.

Operators are working to transition their networks to become faster and more efficient. CommScope sees several key network trends that will continue to impact CommScope and the industry during 2017 and beyond:

- 1) Network Convergence: Operators are moving toward converged or multi-use network architectures. Rather than building upon independent wireline and wireless networks, operators are now shifting toward networks that combine voice, video and data communications into a single, converged network. These changes are expected to help operators increase the efficiency and capability of the network, improve asset utilization and reduce cost. We expect that fiber and wireless technologies will be essential building blocks of converged networks.
- 2) Densification: As wireless operators work to meet consumer demand, they utilize three primary tools to increase capacity: a) adding wireless spectrum, b) improving network efficiency and c) increasing network density (i.e., adding more cell sites). Although the Company benefits from all three strategies, densification of cell sites is expected to be a key driver as operators transition toward 5G networks. Densification includes enhanced sectorization at macro cell sites, building new metro-level or small-cell sites and establishing better in-building coverage. The Company expects that densification will require significant fiber connectivity between wireless cell sites.
- 3) Virtualization and Centralization: Operators are virtualizing and centralizing wireless networks to make them more flexible and efficient. The first step toward capacity virtualization is deploying centralized radio access networks (CRAN). CRAN is a centralized computing architecture for radio networks which requires installation of direct fiber connectivity to individual cell sites. By leveraging the signal carrying capacity of fiber, operators can centrally control dozens or even hundreds of cell sites in the network. Centralizing independent wireless base stations can support the efficient distribution of capacity, improve network latency, reduce the amount of equipment needed at each individual cell site, and lower power and leasing costs. These CRAN nodes will evolve to become “Cloud RAN” nodes as operators “virtualize” the network by combining hardware and software network resources and network functionality into a single, software-based administrative entity. Network virtualization also supports the transition to 5G.
- 4) Optimization: Deployment of wired and wireless networks is complex and costly. Operators are highly focused on optimizing network resources and reducing the total cost of ownership. Optimization includes techniques such as innovative fiber connectivity solutions to reduce installation time, network intelligence to monitor equipment efficiency, spectrum reuse, offloading traffic into Wi-Fi and utilization of unlicensed spectrum—especially inside

buildings.

5

---

## FTTX Deployments

Residential and business bandwidth consumption continues to grow substantially. The proliferation of over-the-top video, multiscreen viewing, cloud services and social media are prompting operators to accelerate fiber deployment. Operators can increase network capacity by installing fiber deeper into their networks. Although consumer devices are increasingly connected to the network via a wireless connection such as LTE or Wi-Fi, these wireless access points must have abundant backhaul capacity available to provide consumers the experience they expect. Operators around the globe are deploying fiber-to-the-node (FTTN), fiber-to-the-premises (FTTP) and fiber-to-the-distribution point (FTTdP) to build next generation networks. These networks use the capabilities of fiber to enable consumers access to content at higher speeds with improved response time. As networks improve and deliver higher speed and greater reliability, many operators are choosing to provide both residential and business services over a common physical layer infrastructure, saving them time and money. In addition, with the coming deployments of outdoor small cells and fixed wireless broadband to the home, these same service providers are hoping to utilize this common physical layer infrastructure to provide connectivity to these wireless access points. FTTX deployments in North America are expected to remain one of the largest growth drivers for the industry over the next few years.

## Shift in Enterprise Spending

Several trends in the enterprise market are expected to create opportunities and challenges. First, the shift toward mobility in business enterprises is expected to impact the amount and type of structured copper connectivity needed over the longer-term. As the bandwidth requirements for Wi-Fi and indoor cellular networks increase, more access points will be needed throughout commercial buildings. As a result, enterprises are expected to adjust in-building cabling designs to deliver both power and high-speed data to those devices. While enterprises continue to need copper connectivity to power edge devices, enterprises are deploying fiber more extensively in both corporate facilities and in data centers. Over the longer term, we expect the ongoing demand for fiber solutions to be somewhat offset by decelerating demand for copper solutions in networks. Due to huge increases in data traffic and migration of applications to the cloud, enterprises are also shifting spending toward multi-tenant (co-located) data centers. In addition, new hyperscale cloud service providers now offer cloud data center services as a replacement to in-house corporate data centers.

An increase in average data center size and the number of assets in a data center significantly raises the total cost of ownership and the complexity of managing data center infrastructure. Data center operators strive to manage their resources efficiently and to reduce energy consumption by monitoring all elements within the data center. Automated infrastructure management software helps operators improve operational efficiency, maximize capability and reduce costs by providing clear insight into cooling capacity, power usage, utilization, applications and overall performance.

## Momentum of 5G

Although not expected to be standardized before the end of the decade, 5G wireless is evolving from an industry vision toward a tangible, next generation wireless technology. Some operators are already planning for a transition to 5G wireless and have announced trials and pre-standard deployments of 5G technology. The primary uses for 5G are expected to include:

- oEnhanced mobile broadband—to support significant improvement in data rates and user experience,
- oIoT and M2M communications to support the expected billions of connections between machines as well as short bursts of information to other systems and
- oUltra-fast response time—to support applications like public safety, autonomous vehicles and drones.



Densification, virtualization and optimization of the network are all required to support 5G. Operators will need to both acquire and launch new spectrum for 5G, as well as continue their strategy of re-allocation of spectrum from one generation to another. Some of this spectrum will be at much higher frequencies and will use new technologies to deliver exceptional amounts of bandwidth to subscribers. 5G also requires significant fiber to connect wireless access points to each other to improve latency of the network. As operators transition toward 5G, they must also manage fundamental network deployment issues of site acquisition, power, backhaul and in-building wireless proliferation.

#### Metro Cell, DAS and Small Cell Investment to Enhance and Expand Wireless Coverage and Capacity

The traditional macro cell network requires mobile users to connect directly to macro cell base stations. Macro cells are primarily designed to provide coverage over wide areas and typically transmit high power. They are not optimal for dense urban areas where physical structures often create coverage gaps and capacity is frequently constrained. Adding new macro cells or increasing the number of sectors on existing sites has been the traditional way to increase mobile capacity and will continue to be an important layer of the network. As demand growth continues to outpace capacity growth, new solutions are required for densely populated areas. Metro cells and indoor networks are emerging as important layers of the network. Metro cells are smaller outdoor cell sites, located closer to the ground, having a lower power level than a traditional macro cell site. Metro cells blend into their environment and are often found integrated with traditional street furniture, which helps alleviate zoning restrictions that have made traditional deployments difficult. Finally, there are small cell and DAS solutions that address the capacity and speed requirements from an indoor perspective. These systems provide coverage and capacity to the indoor environment and reduce the load from the macro and metro layers, which improves overall network performance. Small cell and DAS systems may range from small single operator, single-band, low-capacity systems for use in enterprise buildings to large multi-carrier, multi-technology, multi-band systems for use in high-capacity public venues.

Wireless operators view in-building coverage as a critical component of their network deployment strategies. Key challenges for wireless operators in providing in-building cellular coverage are signal loss while penetrating building structures and interference created by mobile devices while connected to macro cell sites. In-building DAS solutions bring the antenna significantly closer to the user, which results in better coverage and capacity while simultaneously reducing interference. In-building DAS provides seamless signal handover for users inside buildings and can support multi-operator, multi-frequency and multi-protocol (2G, 3G, 4G) solutions. Small cells are self-contained radio units that generally provide single frequency and single-provider service to a relatively small area, similar to a Wi-Fi access point. The benefits of small cell technologies are becoming increasingly important with the trend towards mobility in the enterprise market.

Operators also commonly use traditional DAS solutions to address outdoor capacity issues in urban areas, deploying them in effect as metro cells. By deploying multi-band, multi-technology solutions in this way, operators can create small coverage re-use areas, which optimizes use of existing licensed spectrum by increasing repeated usage of the same frequencies within a defined coverage area.

#### Strategy

We believe consumer demand for bandwidth, competition among operators and continuous technology advancements are driving communication network deployments and investment. We believe these trends position us for future growth and value creation because of our leading positions across diverse and growing segments and geographies, our platform of innovative solutions, complementary market opportunities and our strong financial profile. We see growth opportunities in the markets we serve and it is our plan to capitalize on these opportunities by providing our customers with products that can transform their networks with efficient solutions that optimize network performance and deployment speed. Our strategy and 2017 priorities are to:



### Become a Preferred Partner to Our Customers

We plan to expand our industry leadership positions in fiber and wireless by developing value-creating partner relationships with our customers, suppliers, distributors as well as our channel and technology partners. We intend to expand these relationships by innovating, collaborating and selling with our customers. We expect to meet our commitments and maintain our product quality while collaborating with our customers to provide solutions to their key network challenges.

### Relentlessly Focus on Innovation to Solve Critical Problems

We plan to build on our legacy of innovation and on our worldwide portfolio of patents and patent applications by continuing to invest in research and development. We also intend to utilize our deep industry expertise to offer unique perspectives to solve customers' challenges. We intend to focus our investment on high growth markets.

### Enhance Sales Growth

We expect to capitalize on our technology leadership, operational excellence, scale, market position, broad product offerings and quality to generate growth opportunities by:

- **Differentiating with speed.** We intend to make it easier for customers to do business with CommScope by improving our business velocity related to decisions, delivery, sales and customer service.

- **Enabling growth.** We intend to drive organic sales growth by refocusing on key markets and developing processes and tools to turn new ideas into growth.

- **Continuing to drive solutions offerings.** We intend to focus on selling solutions to our customers consistent with their evolving needs, thereby enhancing our position as a strategic partner. With the addition of the robust fiber portfolio of the BNS business, we have broadened our range of solutions.

- **Making strategic acquisitions.** We will continue our disciplined approach to evaluating, executing and integrating strategic acquisitions.

### Expand Culture of Excellence

We strive to be viewed as a top employment destination where premier talent is hired, developed and retained. We also intend to make high-performance and operational excellence the standard throughout the Company while prioritizing collaboration and zero-tolerance for quality issues.

### Complete the Integration of BNS and CommScope

We have successfully completed the first full year of our three-year BNS integration plan. During 2016, we established a new organizational structure, streamlined manufacturing and distribution facilities, delivered significant synergies and completed the North American phase of system integrations. During 2017, we expect to execute system integrations outside of North America and optimize our new organizational structure and continue to streamline our manufacturing and distribution operations.

### Continue to Enhance Operational Efficiency and Cash Flow Generation

We continuously pursue strategic initiatives aimed at optimizing our resources by reducing manufacturing and distribution costs and lowering our overall cost structure. We believe that we have a strong track record of improving operational efficiency and successfully executing on formalized annual profit improvement plans, cost-savings initiatives and working capital improvements to drive future profitability and cash flows. We intend to use the cash we generate to invest in our business, reduce our indebtedness and make strategic acquisitions. We may also consider

returning capital to stockholders through stock repurchases.

8

---



## Operating Segments

On January 1, 2016, we reorganized our internal management and reporting structure as part of integrating the BNS acquisition. The reorganization changed the information regularly reviewed by our chief operating decision maker to allocate resources and assess performance. We are reporting financial performance based on these operating segments: CCS and CMS. Prior to this change, we operated and reported based on the following operating segments: Wireless, Enterprise, Broadband and BNS. Our consolidated results include the impact of the BNS business subsequent to the acquisition date of August 28, 2015.

The distribution of net revenues between our two segments is as follows:

	Year Ended December 31,		
	2016	2015	2014
CCS	60.2 %	48.4 %	35.5 %
CMS	39.8	51.6	64.5
Total	100.0%	100.0%	100.0%

### CommScope Connectivity Solutions Segment (CCS)

The CCS segment provides connectivity and network intelligence for indoor and outdoor network applications. Indoor network solutions, which account for slightly over half of CCS net sales, are found in commercial buildings and in the network core—which includes data centers, central offices and cable television headends. Our outdoor network solutions are found in access and edge networks and include coaxial cabling, fiber optic cable and connectivity solutions, including a robust portfolio of fiber optic connectors and fiber management systems. Fiber optic solutions account for slightly less than half of CCS net sales.

### Indoor Connectivity Solutions

We have a leading global market position in enterprise connectivity for data centers and commercial buildings. Our solutions support mission-critical, high bandwidth applications. We integrate our structured cabling, connectors, in-building cellular solutions and network intelligence capabilities to create physical layer solutions that enable voice, video and data communication and building automation. We use proprietary modeling and simulation techniques to optimize networks to provide performance that exceeds established standards. Our global network of partners offers customers custom, turnkey network solutions that are tailored to each customer's unique requirements.

We believe that our strong market position results from our differentiated technology, long-standing relationships with customers and channel partners, strong brand recognition, premium product features and the performance and reliability of our solutions. These comprehensive solutions, sold primarily under the SYSTIMAX, AMP NETCONNECT and Uniprise brands, include optical fiber and twisted pair structured cable solutions, intelligent infrastructure software and network rack and cabinet enclosures.

Our data center, central office and headend solutions include a robust portfolio of fiber optic connectors. We also offer fiber management systems, patch cords and panels, complete cabling systems and cable assemblies for use in offices and data centers. These connectivity solutions can deliver data speeds of more than 100 gigabits per second (Gbps).



## Outdoor Connectivity Solutions

We have a leading global position in providing fiber optic and coaxial cable solutions that support the multichannel video, voice and high-speed data services provided by telecommunications operators and MSOs. We provide a broad portfolio of connectivity solutions including fiber-to-the-home (FTTH) equipment and headend solutions for these customers. Our fiber optic connectivity solutions are primarily comprised of hardened connector systems, fiber distribution hubs and management systems, couplers and splitters, “plug and play” multiport service terminals, hardened optical terminating enclosures, high density cable assemblies, splices and splice closures. These products are used in both local-area and wide-area networks and “last-mile” FTTH installations, including deployments of FTTN, FTTP, and FTTdP to homes, businesses and cell sites. These networks use the capabilities of fiber to enable consumers access to content at higher speeds and faster response times.

Our customers are pushing fiber deeper into networks. They are investing in broadband to deliver higher-speed data to homes and businesses; fiber to macro cell towers, metro cells and small cells; and enabling network virtualization in wireless networks. These networks are capital intensive with a high portion of deployment costs related to labor in the field. We are focused on enabling solutions for our customers to build an effective and efficient FTTX network. With our technological capabilities and diverse portfolio, we can help operators lower capital expenditures and reduce the total cost of ownership by creating solutions that shift labor from the field to the factory. We have a broad, technologically-advanced FTTX portfolio which we believe positions us to capitalize on the expected growth in fiber networks.

## CommScope Mobility Solutions Segment (CMS)

The CMS segment provides merchant RF wireless network solutions, as well as metro cell, DAS and small cell solutions. Our macro cell site solutions can be found at wireless tower sites and on rooftops. Macro cell site applications represent approximately three-quarters of our CMS segment net sales. Our metro cell solutions can be found on street poles and on other urban structures. Our DAS and small cell solutions allow wireless operators to increase spectral efficiency and enhance cellular coverage and capacity in challenging network conditions such as commercial buildings, urban areas, stadiums and transportation systems.

Our solutions, marketed primarily under the Andrew brand, enable wireless operators to meet coverage and capacity requirements for next generation networks. We focus our physical-layer solutions on all aspects of the Radio Access Network (RAN) from the macro through the metro, to the indoor layer. Our macro cell site, metro cell site, DAS and small cell solutions establish us as a global leader in RF infrastructure solutions for wireless operators and original equipment manufacturers (OEMs). We strive to provide a one-stop source for managing the technology lifecycle of a wireless network, including complete physical layer infrastructure solutions for 2G, 3G and 4G applications. In preparation for 5G networks, we continue to invest heavily in relevant research and development, support customer technology trials and actively participate in industry forums to help shape 5G standards. Our comprehensive solutions include products for every major wireless protocol and allow wireless network operators to operate across multiple frequency bands, reduce cost, achieve faster data rates, improve network latency and accelerate migration to the latest wireless technologies. Our wireless solutions are built using a modular approach, which has allowed us to leverage our core technology across generations of networks and mitigate technology risk. We provide a complete portfolio of RF infrastructure products, and we are recognized for our leading technologies, best-in-class performance, comprehensive product portfolio and global scale.

Our macro cell site solutions include base station antennas, microwave antennas, hybrid fiber-feeder and power cables, coaxial cables, connectors and filters. We also provide a comprehensive portfolio at the base of the tower including cabinets, platforms, fiber backhaul connectivity hubs and power solutions that allow operators to minimize capital expenditures, operating expenses and deployment time.

Our metro cell solutions include RF delivery, equipment, housing and concealment. The fully integrated outdoor systems include specialized antennas, filters/combiners, backhaul solutions, intra-system cabling and power distribution, all minimized to fit an urban environment. These solutions facilitate site acquisition and improve RF network performance in the metro area while minimizing interference with the macro layer. Furthermore, they enable faster zoning approvals and expedite construction.

Our small cell and DAS solutions are primarily comprised of distributed antenna systems and distributed cell solutions. We have expanded our portfolio of wireless solutions through the 2015 acquisition of operations of Airvana LP (Airvana), a leader in small cell solutions. This acquisition expanded our leadership and capabilities in providing indoor wireless capacity and coverage. The combination of Airvana's innovative small cell offerings and our industry-leading DAS portfolio enables us to provide a broader range of solutions, addressing single-operator, single-band, low capacity environments all the way through multi-carrier, multi-technology, multi-band, high capacity environments.

#### Manufacturing and Distribution

We develop, design, fabricate, manufacture and assemble many of our products and solutions in-house at our facilities located around the world. We have strategically located our manufacturing and distribution facilities to provide superior service levels to customers. We utilize lower-cost geographies for high labor content products while investing in largely automated plants in higher-cost regions close to customers. Most of our manufacturing employees are located in lower-cost geographies such as Mexico, China, India and the Czech Republic. We continually evaluate and adjust operations to improve service, lower cost and improve the return on our capital investments. In addition, we utilize contract manufacturers for many of our product groups, including certain cabinets and filter products. We added production capacity during 2016 to meet increased customer demand. We expect to continue modifying global operations to adapt to changing product demand or business conditions.

#### Research and Development

Research and development is important to preserve and expand our position as a market leader and to provide the most technologically advanced solutions in the marketplace. We invested over \$200 million in research and development during 2016 and expect to continue with substantial investments in future years. We intend to focus our major research and development activities on high-growth opportunities such as FTTX, base-station antennas, metro cell and small cell wireless deployment and data centers. We are also in the process of developing solutions that support the convergence of wireline and wireless networks in preparation for 5G. Many of our professionals are leaders and active contributors in standards-setting organizations which helps ensure that our products can be formulated to achieve broad market acceptance.

#### Customers

Our customers include substantially all of the leading global telecom operators and thousands of enterprise customers, including many Fortune 500 enterprises, and leading cable television providers or MSOs, which we serve both directly and indirectly. Major customers and distributors include companies such as Anixter International Inc., Verizon Communications Inc., Graybar Electric Company, Inc., Comcast Corporation, Wesco International Inc., Charter Communications, Inc., Ericsson, Inc., T-Mobile, Talley Inc. and AT&T Inc. Other global customers include Vodafone Group, Plc, America Movil, S.A.B. de C.V, Deutsche Telekom AG and NBN Co. Limited. We support our global sales organization with regional service centers in locations around the world.

Products from our CMS segment are primarily sold directly to wireless operators, OEMs that sell equipment to wireless operators or other service providers that deploy elements of wireless networks at the direction of wireless operators. Our customer service and engineering groups maintain close working relationships with these customers due to the significant amount of customization associated with some of these products. Direct sales to our top three CMS segment operator customers represented 17% and 14% of our consolidated net sales for the years ended December 31, 2016 and 2015, respectively. Sales to our top three OEM customers represented 5% and 6% of our consolidated net sales for the years ended December 31, 2016 and 2015, respectively. No direct CMS segment customer accounted for 10% or more of our consolidated net sales for the years ended December 31, 2016 and 2015.

Products from our CCS segment are primarily sold through independent distributors or system integrators. We also sell directly to cable television system operators, broadband operators or service providers that deploy broadband networks. Direct sales to our top three CCS segment customers, all of whom are distributors, represented 19% and 15% of our consolidated net sales for the years ended December 31, 2016 and 2015, respectively. Net sales to our largest distributor, Anixter International Inc. and its affiliates (Anixter), accounted for 11% and 12% of our consolidated net sales for the years ended December 31, 2016 and 2015, respectively.

We generally have no minimum purchase commitments with any of our distributors, system integrators, value-added resellers, wireless operators or OEM customers, and our contracts with these parties do not prohibit them from purchasing or offering products or services that compete with ours. Although we maintain long-term relationships with these parties and have not historically lost key customers, we have experienced variability in the level of purchases by our key customers, and any significant reduction in sales to these customers, including as a result of the inability or unwillingness of these customers to continue purchasing our products, or their failure to properly manage their business with respect to the purchase of and payment for our products, could materially and adversely affect our business, results of operations, financial condition and cash flows. See Part I, Item 1A, “Risk Factors.”

We employ a global manufacturing and distribution strategy to control production costs and improve service to customers. We support our international sales efforts with sales representatives based in Europe, Latin America, Asia and other regions throughout the world. Our net sales from international operations were \$2.3 billion, \$1.9 billion and \$1.7 billion for the years ended December 31, 2016, 2015 and 2014, respectively.

#### Patents and Trademarks

We pursue an active policy of seeking intellectual property protection, including patents and registered trademarks, for new products and designs. On a worldwide basis, we held approximately 10,600 patents and patent applications and approximately 2,700 registered trademarks and trademark applications as of December 31, 2016. We consider our patents and trademarks to be valuable assets, and while no single patent is material to our overall operations, we believe the CommScope, Andrew, SYSTIMAX, HELIAX and AMP NETCONNECT trade names and related trademarks are critical assets to our business. We intend to rely on our intellectual property rights, including our proprietary knowledge, trade secrets and continuing technological innovation, to develop and maintain our competitive position. We will continue to protect our key intellectual property rights.

#### Backlog and Seasonality

At December 31, 2016 and 2015 we had an order backlog of \$612 million and \$572 million, respectively. Orders typically fluctuate from quarter to quarter based on customer demand and general business conditions. Our backlog includes only orders that are believed to be firm. Sometimes, unfilled orders may be canceled prior to shipment of goods, but cancellations historically have not been material. However, our current order backlog may not indicate future demand.

Due to the variability of shipments under large contracts, customers’ seasonal installation considerations and variations in product mix and in profitability of individual orders, we can experience significant quarterly fluctuations in sales and operating income. Our operating performance is typically weaker during the first and fourth quarters and stronger during the second and third quarters. These variations are expected to continue in the future. It may be more meaningful to focus on annual rather than interim results.

#### Competition

The market for our products is highly competitive and subject to rapid technological change. We encounter significant domestic and international competition across both segments of our business. Our competitors include large, diversified companies — some of whom have substantially more assets and greater financial resources than we do. We also face competition from small to medium-sized companies and less diversified companies that have concentrated their efforts in one or more areas of the markets we serve. Our competitors include Amphenol Corporation, Belden Inc., Berk-Tek (a Company of Nexans S.A.), Comba Telecom Systems Holding Ltd., Corning Incorporated, Emerson Electric Co., Ericsson Inc., Huawei Technologies Co., Ltd., JMA Wireless, KATHREIN-Werke KG, Nokia Corp, Panduit Corp., RFS (a division of Alcatel-Lucent SA), Leviton Manufacturing Co., Inc., Ortronics (a brand of Legrand

NA, LLC), AFL (a subsidiary of Fujikura, Ltd.), Sumitomo Corp, ACE Telecom, LLC, ZTE Corp, SOLiD Technologies and SpiderCloud Wireless, Inc. We compete primarily on the basis of delivering solutions, product specifications, quality, price, customer service and delivery time. We believe that we differentiate ourselves in many of our markets based on our market leadership, global sales channels, intellectual property, strong reputation with our customer base, the scope of our product offering, the quality and performance of our solutions and our service and technical support.



## Competitive Strengths

We are a global leader in connectivity and essential infrastructure solutions for communications networks, and we believe we hold leading market positions in our segments. Since our founding in 1976, CommScope has been a leading brand in connectivity solutions for communications networks. In the wireless industry, Andrew is one of the world's most recognized brands and a global leader in RF solutions for wireless networks. In the enterprise market, SYSTIMAX, Uniprise and AMP NETCONNECT are recognized as global market leaders in enterprise connectivity solutions for business enterprise and data center applications.

We believe the following competitive strengths have been instrumental to our success and position us well for future growth and strong financial performance:

### Differentiated Solutions Supported by Ongoing Innovation and Significant Proprietary Intellectual Property (IP)

Our integrated solutions for wireless, enterprise, fiber optic and broadband networks are differentiated in the marketplace and are a significant global competitive advantage. We invested over \$200 million in research and development during 2016 and expect to continue with substantial investments in future years. We have also added significant IP and innovation through acquisitions, such as Airvana, which expanded our leadership and capabilities in providing indoor wireless capacity and coverage and Argus Technologies (Argus), which enhanced our next-generation base station antenna technology. Our ongoing innovation, supported by proprietary IP and technology know-how, has allowed us to sustain this competitive advantage. The transformational BNS acquisition substantially expanded our foundation of innovation with the addition of BNS' approximately 7,000 patents and patent applications worldwide. Further, BNS' leading fiber technology will help us better address a transition to fiber deployments deeper into networks and data centers as consumers and businesses generate increasing bandwidth requirements. With these new innovative solutions, we expect to solve more customer communications challenges, while providing greater opportunities to our business partners.

**Integrated solutions.** Our wireless network offerings include complete connectivity solutions supporting 2G, 3G and 4G wireless technologies for both macro and metro, as well as DAS and small cell sites. We are also developing solutions that support the convergence of wireline and wireless networks in preparation for 5G. We provide a complete portfolio of integrated RF solutions from the output of the base station (or baseband processor) at the bottom of the tower to the antenna at the top of the tower. In the enterprise market, we deliver a comprehensive solution including connectivity and cables, enclosures and network intelligence software. In the FTTX market, we offer end-to-end solutions including connectors, cabling, splice closures and fiber management systems. Our ability to provide integrated connectivity solutions for wireless, enterprise, fiber optic and broadband networks makes us a value-added solutions provider to our customers and gives us a significant competitive advantage.

**Strong design capabilities and technology know-how.** We have a long tradition of developing highly engineered connectivity solutions, demonstrating superior performance across various generations of networks. Our ongoing focus on engineering innovation has enabled us to create high quality products that are reliable, have a desirable form factor and enable our customers to optimize the performance, flexibility, installation time, energy consumption and space requirements of their network deployments.

**Significant proprietary IP.** Our proven record of innovation and decades of experience creating market-leading technology products are evidenced by our approximately 10,600 patents and patent applications, as well as our approximately 2,700 registered trademarks and trademark applications, worldwide. Our significant proprietary IP, when combined with our deep engineering expertise, allows us to create industry defining solutions for customers around the world.

### Established Sales Channels and Customer Relationships

We serve customers in over 100 countries and have become a trusted advisor to many of them through our industry expertise, quality products, leading technology and long-term relationships. These factors enable us to provide mission-critical connectivity solutions that our customers need to build high-performing communication networks.

Our customers include substantially all of the leading global telecom operators and thousands of enterprise customers, including many Fortune 500 enterprises, and leading cable television providers or MSOs. We are a key merchant supplier within the wireless infrastructure market and enjoy established sales channels across all geographies and technologies. Our long-standing relationships with telecommunication operators enable us to work closely with them in providing highly customized solutions aligned with their technology roadmaps. We have a global sales force with sales representatives based in North America, Europe, Latin America, Asia and other regions, and an extensive global network of channel partners including independent distributors, system integrators and value-added resellers. Our sales force has direct relationships with our customers and generates demand for our products, with a large portion of our sales fulfilled through channel partners. Our direct sales force and channel partner relationships give us extensive reach and distribution capabilities to customers globally.

#### Global Scale and Manufacturing Footprint

Our global manufacturing and distribution footprint and worldwide sales force give us significant scale within our addressable markets. We believe our scale and stability make us an attractive strategic partner to our large global customers, and we have been repeatedly recognized by key customers for these attributes. In addition, our ability to leverage our core competencies across our business coupled with our successful track record of operational efficiencies has allowed us to improve our margins and cash flows while continuing to invest in research and development and acquisitions targeting new products and new markets.

Our manufacturing and distribution facilities are strategically located to optimize service levels and product delivery times. We also utilize lower-cost geographies for high labor content products and largely automated plants in higher-cost regions. Over half of our manufacturing employees are in lower-cost geographies such as Mexico, China, India and the Czech Republic. Our dynamic manufacturing and distribution organization allows us to:

- Flex our capacity to meet market demand and expand our market position;
- Provide high customer service levels due to proximity to the customer; and
- Effectively integrate acquisitions and capitalize on related synergies.

#### Proven Management Team with Record of Operational Excellence and Successful M&A Integration

We have a strong track record of organically growing market share, establishing leadership positions in new markets, managing cash flows, delivering profitable growth across multiple economic cycles and integrating large and small acquisitions. Our senior management team has an average of over 20 years of experience in connectivity solutions for the communications infrastructure industry.

We have a history of strong operating cash flow and have generated approximately \$1.2 billion in cumulative operating cash flow over the last three years. Our strong cash flow profile has allowed us to continue to invest in innovative research and development, pursue strategic acquisitions, repay debt and return cash to stockholders prior to our initial public offering in 2013 (the IPO). We continuously pursue strategic initiatives aimed at optimizing our resources, reducing manufacturing and distribution costs and lowering our overall cost structure.

Throughout our history, we have successfully complemented our strong organic growth with strategic acquisitions. Although we have not yet fully integrated the BNS business, we have already delivered substantial synergies, completed significant system integrations and re-organized the business. We expect to have substantially completed the BNS integration by the end of 2017. Our management team has effectively integrated other large acquisitions, such as Andrew Corporation in 2007 and Avaya Connectivity Solutions in 2004. We have also executed tuck-in acquisitions, such as Argus and Alifabs, to help expand our market opportunities and continue to solve our customers' business challenges in multiple growth areas. We have also made strategic minority investments in order to gain access to key technologies or capabilities.



## Raw Materials

Our products are manufactured or assembled from both standard components and parts that are unique to our specifications. Our internal manufacturing operations are largely process oriented and we use significant quantities of various raw materials, including copper, aluminum, steel, brass, plastics and other polymers, fluoropolymers, bimetals and optical fiber, among others. We use significant volumes of copper, aluminum, steel and polymers manufacturing coaxial and twisted pair cables and antennas. Other parts are produced using processes such as stamping, machining, molding and pressing from metals or plastics. Portions of the requirements for these materials are purchased under supply arrangements where some portion of the unit pricing may be indexed to commodity market prices for these metals. We may occasionally enter forward purchase commitments for a specific commodity to mitigate our exposure to price changes for a portion of our anticipated purchases. Certain of the raw materials utilized in our products may only be available from a few suppliers. We may, therefore, encounter availability issues and/or significant price increases.

Our profitability may be materially affected by changes in the market price of our raw materials, most of which are linked to the commodity markets. Prices for copper, aluminum, fluoropolymers and certain other polymers derived from oil and natural gas have fluctuated substantially during the past several years. We have adjusted our prices for certain products and may have to adjust prices again. Delays in implementing price increases, failure to achieve market acceptance of price increases, or price reductions in response to a rapid decline in raw material costs, could have a material adverse impact on the results of our operations.

In addition, some of our products are assembled from specialized components and subassemblies manufactured by suppliers. We depend upon sole suppliers for certain key components for some of our products. If these sources could not provide these components in sufficient quantity and quality on a timely and cost efficient basis, it could materially impact our results of operations until another qualified supplier is found. We believe that our supply contracts and our supplier contingency plans mitigate some of this risk.

## Environment

We are subject to various federal, state, local and foreign environmental laws and regulations governing, among other things, discharges to air and water, management of regulated materials, handling and disposal of solid and hazardous waste, and investigation and remediation of contaminated sites. In addition, we are or may be subject to laws and regulations regarding the types of substances allowable in certain of our products and the handling of our products at the end of their useful life. Because of the nature of our business, we have incurred and will continue to incur costs relating to compliance with or liability under these environmental laws and regulations. In addition, new laws and regulations, new or different interpretations of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new remediation or discharge requirements, could require us to incur costs or become the basis for new or increased liabilities that could have a material adverse effect on our financial condition and results of operations. If we do not comply with these laws or sufficiently increase prices or otherwise reduce costs to offset the increased cost of compliance, there could be a material adverse effect on our business, financial condition and results of operations.

Efforts to regulate emissions of greenhouse gases (GHGs), such as carbon dioxide, have been underway throughout the world which could increase the cost of raw materials, production processes and transportation of our products. If we are unable to comply with such regulations or sufficiently increase prices or otherwise reduce costs to offset the increased costs of compliance, GHG regulation could have a material adverse effect on our business, financial condition and results of operations.



Certain environmental laws impose strict and in some circumstances joint and several liability on current or former owners or operators of a contaminated property, as well as companies that generated, disposed of or arranged for the disposal of hazardous substances at a contaminated property, for the costs of investigation and remediation of the contaminated property. This can have the effect that an entity pays more than its fair share to address such contamination. Our present and past facilities have been in operation for many years and over that time, in the course of those operations, hazardous substances and wastes have been used, generated and occasionally disposed of at such facilities. Consequently, from time to time it has been necessary to undertake investigation and remediation projects at a few of these sites. There can be no assurance that the contractual indemnifications we have received from prior owners and operators of certain of these facilities will continue to be honored. In addition, we have disposed of waste products either directly or through third parties at numerous disposal sites, and from time to time we have been and may be held responsible for investigation and clean-up costs at these sites, particularly where those owners and operators have been unable to pay for investigation and clean-up. Also, there can be no guarantee that new environmental requirements or changes in their enforcement or the discovery of previously unknown conditions will not cause us to incur additional costs for environmental matters which could be material.

### Employees

As of December 31, 2016 we had a team of over 25,000 people to serve our customers worldwide. The majority of our employees are located outside of the United States. As a matter of policy, we seek to maintain good relations with our employees at all locations. We are not subject to any collective bargaining agreements in the United States. A significant portion of our international employees are members of unions or subject to workers' councils or similar statutory arrangements. From a Companywide perspective, we believe that our relations with our employees and unions or workers' councils are satisfactory though we have experienced challenges in certain countries and may encounter more such challenges. Historically, periods of labor unrest or work stoppage have not had a material impact on our operations or results.

### Available Information

Our website ([www.commscope.com](http://www.commscope.com)) contains frequently updated information about us and our operations. Our filings with the Securities and Exchange Commission (SEC) on Form 10-K, Form 10-Q, Form 8-K and Proxy Statements and all amendments to those reports can be viewed and downloaded free of charge as soon as reasonably practicable after the reports and amendments are electronically filed with or furnished to the SEC by accessing [www.commscope.com](http://www.commscope.com) and clicking on Investors and then clicking on SEC Filings. The information contained on or incorporated by reference to our website is not a part of this Annual Report on Form 10-K.

### SEC Certifications

The certifications by the Chief Executive Officer and Chief Financial Officer of the Company, required under Section 302 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act), have been filed as exhibits to this Annual Report on Form 10-K.

## ITEM 1A. RISK FACTORS

The following is a cautionary discussion of risks, uncertainties and assumptions that we believe are significant to our business. In addition to the factors discussed elsewhere in this Annual Report on Form 10-K, the following are some of the important factors that, individually or in the aggregate, we believe could make our results differ materially from those described in any forward-looking statements. It is impossible to predict or identify all such factors and, as a result, you should not consider the following factors to be a complete discussion of risks, uncertainties and assumptions.

### BNS Acquisition Risks

The completion of the integration of the BNS business (the Acquired Business) into our business will be difficult, costly and time-consuming and the anticipated benefits and cost savings of the BNS Acquisition (the Acquisition) may take longer to realize or may not be realized at all.

We currently expect to realize annual cost savings of more than \$200 million by 2018 related to the Acquisition. Our ability to realize the anticipated benefits of the Acquisition is dependent, to a large extent, on our ability to complete the integration of the two businesses. The combination of two independent businesses is a complex, costly and time-consuming process and there can be no assurance that we will be able to successfully integrate the Acquired Business into our business, or if such integration is successfully accomplished, that such integration will not be more costly or take longer than presently contemplated. If we cannot successfully complete the integration within a reasonable time frame, we may not be able to realize the anticipated benefits of the Acquisition, which could have a material adverse effect on our share price, business, cash flows, results of operations and financial position.

Our ability to realize the expected synergies and benefits of the Acquisition is subject to a number of risks and uncertainties, many of which are outside of our control. These risks and uncertainties include, among other things:

- our ability to successfully complete the timely integration of information technology systems;
- our ability to complete the effective integration of operations, standards, controls, policies and procedures, and technologies, as well as the harmonization of differences in the business cultures of legacy CommScope and the Acquired Business;
- our ability to minimize the diversion of management attention from ongoing business concerns of both our business and the Acquired Business during the process of integrating legacy CommScope and the Acquired Business;
- the risk that the Acquired Business may have liabilities we failed to or were unable to discover in the course of performing due diligence;
- the risk that integrating the Acquired Business' workforce into the legacy CommScope workforce may result in production disruptions or be more costly than anticipated;
- greater than expected difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects from the combination; and
- greater than expected difficulties in managing the expanded operations of a significantly larger and more complex combined business.

We are relying on TE Connectivity (TE) to provide a wide range of services required to operate a significant portion of the Acquired Business under Transition Services Agreements (TSAs) and such reliance is expected to continue at least through most of 2017.

Due to the high level of integration of the Acquired Business with the remainder of TE's business, it is highly complex and time-consuming to separate the Acquired Business and effectively integrate it into our business. As a result, we are dependent on TE to continue to perform elements of such critical functions as information technology, finance, logistics and operations for portions of the Acquired Business under TSAs. It may be late in 2017 or later before we are able to assume all of these functions and discontinue all of the support provided by TE under the TSAs.





While operating under these TSAs, we are exposed to various risks, including the following:

- costs of operating the Acquired Business may be greater than we anticipated;
- services provided under TSAs may not meet our requirements in a timely and effective manner; and
- we may not be able to make operational changes or to get information necessary to realize the anticipated synergies.

#### Competitive Risks

Our business is dependent on capital spending for data and communication networks by customers or end-users of our products and reductions in such capital spending could adversely affect our business.

Our performance is dependent on customers' or end-users' capital spending for constructing, rebuilding, maintaining or upgrading data and communication networks, which can be volatile or hard to forecast. Capital spending in the communications industry is cyclical and can be curtailed or deferred on short notice. A variety of factors affect the amount of capital spending in the communications industry and, therefore, our sales and earnings, including: competing technologies; general economic conditions; seasonality of outside deployments; timing and adoption of the global rollout of new technologies; customer specific financial or general market conditions; availability and cost of capital; governmental regulation; demands for network services; competitive pressures, including pricing pressures; acceptance of new services offered by our customers; industry consolidation; and real or perceived trends or uncertainties in these factors. As a result of these factors, we may not be able to maintain or increase our sales in the future, and our business, financial condition, results of operations and cash flows could be materially and adversely affected.

A substantial portion of our business is derived from a limited number of key customers and channel partners.

We derived 23% of our 2016 consolidated net sales from our top three direct customers and channel partners, including distributors, system integrators and value-added resellers. Our largest distributor, Anixter International Inc., accounted for 11% of our 2016 consolidated net sales. The concentration of our net sales among these three customers and other key customers and channel partners subjects us to a variety of risks that could have a material adverse impact on our net sales and profitability, including, without limitation:

- lower sales resulting from the loss of one or more of our key customers or channel partners;
- renegotiations of agreements with key customers or channel partners resulting in materially less favorable terms;
- financial difficulties experienced by one or more of our key customers, channel partners or our channel partners' end customers, resulting in reduced purchases of our products and/or delays or difficulties in collecting accounts receivable balances;
- reductions in inventory levels held by channel partners and original equipment manufacturers (OEMs) which may be unrelated to purchasing trends by the end customer;
- consolidations in the telecommunications, wireless or cable television industries or other key end-user markets resulting in delays in purchasing decisions, reduced or delayed purchases by the merged businesses or increased leverage to reduce prices or renegotiate terms;
- new or proposed laws or regulations affecting the telecommunications, wireless or cable television industries or other key end-user markets resulting in reduced capital spending; and
- increases in the cost of borrowing or otherwise raising capital and/or reductions in the amount of debt or equity capital available to the telecommunications, wireless or cable television industries or other key end-user markets resulting in reduced capital spending.

Additionally, the risks above may be further increased to the extent that we have significant indirect sales to one or more end-users of our products (who may also be direct customers) with such indirect sales taking place through numerous channel partners and/or OEMs.



We generally have no minimum purchase commitments from any of our channel partners, OEMs or other customers, and our contracts with these parties generally do not prohibit them from purchasing or offering products or services that compete with ours. Although we maintain long-term relationships with these parties and have not historically lost key customers, we have experienced variability in the level of purchases by our key customers and end-users of our products, and any significant reduction in sales to these customers and end-users of our products, including as a result of their inability or unwillingness to continue purchasing our products, or their failure to properly manage their businesses with respect to the purchase of and payment for our products, could materially and adversely affect our business, results of operations, financial condition and cash flows.

We face competitive pressures with respect to all of our major products.

Competition in our industry depends on a number of factors, including the level of customer capital spending, innovative solution offerings, quality and timing of the introduction of new products, customer service and pricing. In each of our major product groups, we compete with a substantial number of foreign and domestic companies, some of which have greater financial, technical, marketing and other resources or lower operating costs. They may also have broader product lines and market focus. This gives many of these enterprises a competitive advantage to withstand any significant reduction in capital spending by customers in our markets over the long term. Further, our industry is consolidating and the combination of any of our competitors could further increase these advantages and result in competitors with an even broader market presence.

Some competitors may also be able to bundle their products and services together to meet the needs of a particular customer and may be capable of delivering more complete solutions than we are able to provide which may cause us to lose sales opportunities and revenue. Competitors' actions, such as price reductions or the introduction of new innovative products, and the use of exclusively price driven Internet auctions by customers have caused lost sales opportunities in the past and may cause us to lose sales opportunities in the future. The rapid technological changes occurring in the communications industry could also lead to the entry of new competitors against whom we may not be able to compete successfully. In addition, if any of our competitors' products or technologies were to become the industry standard, our business would be negatively affected. Changes in trade policies (including some of those contemplated by the new administration in the U.S.) could decrease the price competitiveness of our products and/or increase our operating costs.

We cannot assure you that we will continue to compete successfully with our existing competitors or with new competitors. If we are unable to compete in any of our markets at the same level as we have in the past or are forced to reduce the prices of our products in order to continue to be competitive, our operating results, financial condition and cash flows could be materially and adversely affected.

Changes to the regulatory environment in which our customers operate may negatively impact our business.

The telecommunications and cable television industries are subject to significant and changing federal and state regulation, both in the U.S. and other countries, including regulations regarding the "Open Internet" or "net neutrality." We have benefited from government programs that encourage spending on our products. Changes to the way in which internet service providers are regulated, changes in government programs in our industry or uncertainty regarding future changes could adversely impact our customers' decisions regarding capital spending, which could decrease demand for our products.

#### Operational Risks

Our future success depends on our ability to anticipate and to adapt to technological changes and develop, implement and market product innovations.

Many of our markets are characterized by advances in information processing and communications capabilities that require increased transmission speeds and greater bandwidth. These advances require significant investments in research and development in order to improve the capabilities of our products and develop new products that will meet the needs of our customers. There can be no assurance that our investments in research and development will yield marketable product innovations.

We may not be successful in our ongoing innovation efforts if, among other things, our products are not cost effective; brought to market in a timely manner; compliant with evolving industry standards; accepted in the market; or recognized as meeting customer requirements. If we are not successful in our ongoing innovation efforts, these failures could have a material adverse effect on our results of operations and financial condition.

If we do not stay current with product life cycle developments, our business may suffer.

A significant portion of our revenues are dependent on the commercial deployment of technologies based on 2G, 3G and 4G wireless communications equipment and products. If we are not able to support our customers in an effective and cost-efficient manner as they advance from 2G or 3G networks to 4G networks or as they expand the capacity of their networks, our business will suffer. If we do not have competitively priced, market accepted products available to meet our customers' planned roll-out of 5G wireless communications systems, we may miss a significant opportunity and our business, financial condition and results of operations could be materially and adversely affected. In addition, a significant portion of our current revenue is also partially dependent on the core copper enterprise business and we could experience unfavorable financial impacts if this business erodes at a significantly increasing rate beyond current forecasts and we do not have adequate fiber-based solutions for our customers.

If our products, including material purchased from our suppliers, experience quality or performance issues, our business may suffer.

Our business depends on delivering products of consistently high quality. To this end, our products are tested for quality both by us and our customers. Nevertheless, many of our products are highly complex and testing procedures used by us and our customers are limited to evaluating our products under likely and foreseeable failure scenarios. For various reasons, once deployed, our products may fail to perform as expected. Performance issues could result from faulty design, defective raw materials or components purchased from suppliers, problems in manufacturing or installation errors. We have experienced such performance issues in the past and remain exposed to such performance issues in the future. In some cases, recall of some or all affected products, product redesigns or additional capital expenditures may be required to correct a defect. In addition, we generally offer warranties on most products, the terms and conditions of which depend upon the product subject to the warranty. In some cases, we indemnify our customers against damages or losses that might arise from certain claims relating to our products. Future claims may have a material adverse effect on our business, financial condition and results of operations. Any significant or systemic product failure could also result in lost future sales of the affected product and other products as well as reputational damage.

Our business depends on effective management information systems.

We rely on effective management information systems for critical business operations, for strategic business decisions and to maintain a competitive edge in the marketplace. We rely on our enterprise resource planning systems to support such critical business operations as processing sales orders and invoicing; manufacturing; shipping; inventory control; purchasing and supply chain management; human resources; and financial reporting. We also rely on management information systems to produce information for business decision-making and planning and to support e-commerce activities.

Our primary current major management information systems initiative is the completion of the integration of the BNS business into our legacy CommScope management information systems. If we are unable to successfully complete the integration, we could encounter difficulties that may cause us to experience a material adverse impact on our business, lapses in internal controls over financial reporting or an inability to timely and accurately report our financial results.

Our focus on the integration of the BNS business also creates the risk that we are not focusing enough on other major management information system initiatives, such as expanding our digital platform to accommodate the changing buying habits of our customers. Failure to maintain an adequate digital platform to produce information for business decision-making and support e-commerce activities could have a material adverse impact on our business through lost sales opportunities.

The hardware and software of our management information systems infrastructure is aging. If we are unable to maintain our IT infrastructure to support critical business operations and to produce information for business decision-making activities, we could experience a material adverse impact on our business or an inability to timely and accurately report our financial results.

Cyber-security incidents, including data security breaches or computer viruses, could harm our business by exposing us to various liabilities, disrupting our delivery of products and services and damaging our reputation.

We rely extensively on information technology systems to operate our business. We rely on our information systems and those of third parties for storing proprietary company information about our products and intellectual property, as well as for processing customer orders, manufacturing and shipping products, invoicing our customers, tracking inventory, supporting accounting functions and financial statement preparation, paying our employees and vendors, and otherwise running our business. Additionally, we and others on our behalf store “personally identifiable information” with respect to employees, vendors, customers and others. Despite implemented security measures, our facilities, systems and procedures, and those of our third-party service providers, may be vulnerable to security breaches, acts of vandalism, software viruses, misplaced or lost data, programming and/or human errors or other similar events. In particular, unauthorized access to our computer systems or stored data could result in the theft or improper disclosure of confidential or sensitive information, the deletion or modification of records or interruptions in our operations. Any such events, including those involving the misappropriation, loss or other unauthorized disclosure or use of confidential or sensitive information of the Company or our customers, vendors, employees or others, whether by us or a third party, could subject us to civil and criminal penalties; expose us to liabilities to our customers, employees, vendors, third parties or governmental authorities; disrupt our delivery of products and services; and have a negative impact on our reputation. Any of these events could have a material adverse effect on our business, financial condition and results of operations.

If our integrated global manufacturing operations suffer production or shipping delays, we may experience difficulty in meeting customer demands.

We internally produce, both domestically and internationally, a portion of the components used in our finished products. Disruption of our ability to produce at or distribute from these facilities due to failure of our manufacturing infrastructure, information technology outage, labor disturbances, fire, electrical outage, natural disaster, acts of terrorism, shipping interruptions or some other catastrophic event could have a material adverse effect on our ability to manufacture products at our other manufacturing facilities in a cost-effective and timely manner, which could have a material adverse effect on our business, financial condition and results of operations.

Capacity constraints, with respect to our internal facilities and/or existing or new contract manufacturers, could have an adverse impact on our business.

We rely on unaffiliated contract manufacturers, both domestically and internationally, to produce certain products or key components of products. If we do not have sufficient production capacity, either through our internal facilities or independent contract manufacturers, to meet customer demand for our products, we may experience lost sales opportunities and customer relations problems, which could have a material adverse effect on our business, financial condition and results of operations.



## Supply Chain Risks

Our dependence on commodities subjects us to cost volatility and potential availability constraints.

Our profitability may be materially affected by changes in the market price and availability of certain raw materials, most of which are linked to the commodity markets. The principal raw materials and components we purchase are made of metals such as copper, steel, aluminum or brass; plastics and other polymers; and optical fiber. Fabricated copper, steel and aluminum are used in the production of coaxial and twisted pair cables and polymers are used to insulate and protect cables. Prices for copper, steel, aluminum, fluoropolymers and certain other polymers, derived from oil and natural gas, have experienced significant volatility as a result of changes in the levels of global demand, supply disruptions and other factors. As a result, we have adjusted our prices for certain products and may have to adjust prices again in the future. Delays in implementing price increases or a failure to achieve market acceptance of price increases has in the past and could in the future have a material adverse impact on our results of operations. In an environment of falling commodities prices, we may be unable to sell higher-cost inventory before implementing price decreases, which could have a material adverse impact on our business, financial condition and results of operations.

We are dependent on a limited number of key suppliers for certain raw materials and components.

For certain of our raw material and component purchases, including certain polymers, copper rod, copper and aluminum tapes, fine aluminum wire, steel wire, optical fiber, circuit boards and other electronic components, we are dependent on a limited number of key suppliers.

Our key suppliers have in the past experienced and could in the future experience production, operational or financial difficulties, or there may be global shortages of the raw materials or components we use. Our inability to find sufficient sources of supply on reasonable terms could have a material adverse effect on our ability to manufacture products in a cost-effective manner, which could have a material adverse effect on our gross margin and results of operations.

We also source many of our components from international markets. Any changes in the laws and policies of the U.S. affecting trade, including changes to certain of these laws or policies contemplated by the new administration in the U.S., is a risk to us. To the extent there are unfavorable changes imposed by the U.S. and/or retaliatory actions taken by trading partners, such as the addition of new tariffs or trade restrictions, we may experience adverse impacts on earnings and such changes could be material.

If contract manufacturers we rely on encounter production, quality, financial or other difficulties, we may experience difficulty in meeting customer demands.

We rely on unaffiliated contract manufacturers, both domestically and internationally, to produce certain products or key components of products. If our contract manufacturers encounter production, quality, financial or other difficulties, including labor disturbances or geopolitical risks, and if acceptable alternative suppliers cannot be identified, we may encounter difficulty in meeting customer demands. Any such difficulties could have a material adverse effect on our business, financial results and results of operations.

## Strategic Risks

We may not fully realize anticipated benefits from past or future acquisitions or equity investments.

We anticipate that a portion of any future growth of our business might be accomplished by acquiring existing businesses, products or technologies. Although we expect to realize strategic, operational and financial benefits as a

result of our past or future acquisitions and equity investments, we cannot predict whether and to what extent such benefits will be achieved. There are significant challenges to integrating an acquired operation into our business, including, but not limited to: successfully managing the operations, manufacturing facilities and technology; integrating the sales organizations; maintaining and increasing the customer base; retaining key employees, suppliers and distributors; integrating management information systems and inventory, accounting and research and development activities; and addressing operating losses that may exist related to individual facilities or product lines. Further, many acquisitions involve new or developing technologies that may not achieve the expected results.

In addition, we might not be able to identify suitable acquisition opportunities or obtain any necessary financing on acceptable terms. We might spend time and money investigating and negotiating with potential acquisition or investment targets but not complete the transaction.

Any future acquisition could involve other risks, including the assumption of additional liabilities and expenses, issuances of debt, incurrence of transaction and integration costs and diversion of management's attention from other business concerns, and such acquisition may be dilutive to our financial results. See "BNS Acquisition Risks" for details related to that acquisition.

We may sell or discontinue one or more of our product lines, as a result of our evaluation of our products and markets.

We periodically evaluate our various product lines and may, as a result, consider the divestiture or discontinuance of one or more of those product lines. Any such divestiture or discontinuance could adversely affect our results of operations, cash flows and financial position.

Divestitures of product lines have inherent risks, including the expense of selling the product line; the possibility that any anticipated sale will not occur; possible delays in closing any sale; the risk of lower-than-expected proceeds from the sale of the divested business; unexpected costs associated with the separation of the business to be sold from our information technology and other operating systems; and potential post-closing claims for indemnification. Expected cost savings may also be difficult to achieve or maximize due to a fixed cost structure, and we may experience varying success in the timely reduction of fixed costs or transferring of liabilities previously associated with the divested or discontinued business.

Difficulties may be encountered in the realignment of manufacturing capacity and capabilities among our global manufacturing facilities that could adversely affect our ability to meet customer demands for our products.

We periodically realign manufacturing capacity among our global facilities in order to reduce costs by improving manufacturing efficiency and to strengthen our long-term competitive position. The implementation of these initiatives may include significant shifts of production capacity among facilities.

There are significant risks inherent in the implementation of these initiatives, including our failure to ensure the following: there is adequate inventory on hand or production capacity to meet customer demand while capacity is being shifted among facilities; there is no decrease in product quality as a result of shifting capacity; adequate raw material and other service providers are available to meet the needs at the new production locations; equipment can be successfully removed, transported and re-installed; and adequate supervisory, production and support personnel are available to accommodate the shifted production.

In the event manufacturing realignment initiatives are not successfully implemented, we could experience lost future sales and increased operating costs as well as customer relations problems, any of which could have a material adverse effect on our business, financial condition and results of operations.

We may need to undertake additional restructuring actions in the future.

We have previously recognized restructuring charges in response to slowdowns in demand for our products and in conjunction with implementation of initiatives to reduce costs and improve efficiency of our operations. Most recently, we have undertaken a number of initiatives to support the BNS integration which included the closure of certain domestic and international manufacturing facilities and various other workforce reductions. Restructuring actions as a result of the BNS acquisition are expected to continue and may be material. As a result of other changes in business conditions and other developments, we may need to initiate additional restructuring actions that could result

in workforce reductions and restructuring charges, which could be material.

## Financial Risks

Our substantial indebtedness could adversely affect our ability to raise additional capital to fund our operations, limit our ability to react to changes in the economy or our industry, expose us to interest rate risk to the extent of our variable rate debt and prevent us from meeting our obligations with respect to our indebtedness.

As of December 31, 2016, we had approximately \$4.6 billion of indebtedness on a consolidated basis. See Note 6 in the Notes to the Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for additional details of our indebtedness. We had no outstanding loans under our revolving credit facility and approximately \$441.1 million in borrowing capacity, reflecting a borrowing base of \$466.1 million and \$25.0 million of outstanding letters of credit. Our ability to borrow under our revolving credit facility depends, in part, on inventory, accounts receivable and other assets that fluctuate from time to time and may further depend on lenders' discretionary ability to impose reserves and availability blocks and to recharacterize assets that might otherwise incrementally decrease borrowing availability.

Our substantial indebtedness could have important consequences. For example, it could:

- limit our ability to obtain additional financing for working capital, capital expenditures, acquisitions, general corporate purposes or other purposes;
- require us to dedicate a substantial portion of our annual cash flow for the next several years to the payment of interest on our indebtedness;
- expose us to the risk of increased interest rates as, over the term of our debt, the interest cost on a significant portion of our indebtedness is subject to changes in interest rates;
- place us at a competitive disadvantage compared to certain of our competitors who have less debt;
- hinder our ability to adjust rapidly to changing market conditions;
- limit our ability to secure adequate bank financing in the future with reasonable terms and conditions; and
- increase our vulnerability to and limit our flexibility in planning for, or reacting to, a potential downturn in general economic conditions or in one or more of our businesses.

In addition, the indentures and credit agreements governing our indebtedness contain affirmative and negative covenants that limit our ability to engage in activities that may be in our long-term best interests. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of all of our debts.

Despite current indebtedness levels and restrictive covenants, we may incur additional indebtedness that could further exacerbate the risks associated with our substantial financial leverage.

We may incur significant additional indebtedness in the future under the agreements governing our indebtedness. Although the indentures and the credit agreements governing our indebtedness contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of thresholds, qualifications and exceptions, and the additional indebtedness incurred in compliance with these restrictions could be substantial. Additionally, these restrictions permit us to incur obligations that, although preferential to our common stock in terms of payment, do not constitute indebtedness.

In addition, if new debt is added or we buy back stock or pay dividends, the risks we face as a result of our leverage would increase.



To service our indebtedness, we will require a significant amount of cash and our ability to generate cash depends on many factors beyond our control.

Our operations are conducted through our global subsidiaries and our ability to make cash payments on our indebtedness will depend on the earnings and the distribution of funds from our subsidiaries. Certain of our subsidiaries may have limitations or restrictions on paying dividends and otherwise transferring assets to us. Our ability to make cash payments on and to refinance our indebtedness will depend upon our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to financial, business, legislative, regulatory and other factors beyond our control. We might not be able to maintain a level of cash flows from operating activities or transfer sufficient funds from our subsidiaries to permit us to pay the principal, premium, if any, and interest on our indebtedness.

If we are unable to generate sufficient cash flow or are otherwise unable to obtain funds necessary to meet required payments of principal, premium, if any, and interest on our indebtedness or if we fail to comply with the various covenants in the instruments governing our indebtedness and we are unable to obtain waivers from the required lenders, we could be in default under the terms of the agreements governing such indebtedness. In the event of such default, the holders of our indebtedness could elect to declare all the funds borrowed to be due and payable, together with accrued and unpaid interest. The lenders under our revolving credit facility could elect to terminate their commitments, cease making further loans and institute foreclosure proceedings against our assets. As a result, we could be forced into bankruptcy or liquidation.

We may need to recognize additional impairment charges related to goodwill, identified intangible assets and fixed assets.

We have substantial balances of goodwill and identified intangible assets. We are required to test goodwill for possible impairment on the same date each year and on an interim basis if there are indicators of a possible impairment. We are also required to evaluate amortizable intangible assets and fixed assets for impairment if there are indicators of a possible impairment.

If, as a result of a general economic slowdown, deterioration in one or more of the markets in which we operate or in our financial performance and/or future outlook, the estimated fair value of our long-lived assets decreases, we may determine that one or more of our long-lived assets is impaired. Any resulting impairment charge could have a material adverse effect on our financial condition and results of operations.

We may experience significant variability in our quarterly or annual effective income tax rate.

We have a large and complex international tax profile and a significant level of foreign tax credit carryforwards in the U.S. and other carryforwards in various jurisdictions. Variability in the mix and profitability of domestic and international activities, the level of repatriation of earnings from foreign affiliates, changes in tax laws, identification and resolution of various tax uncertainties and the inability to realize foreign tax credits and other carryforwards included in deferred tax assets, among other matters, may significantly impact our effective income tax rate in the future. A significant increase in our quarterly or annual effective income tax rate could have a material adverse impact on our results of operations.

There are proposals to change tax laws in many of the countries in which we do business. In particular, current U.S. tax reform proposals could significantly impact how we are taxed on both domestic operations as well as on earnings of foreign subsidiaries. Although we cannot predict whether, when or in what form proposed legislation may pass, if enacted, certain proposed tax law changes could have a material adverse impact on our income tax expense and cash flow.

We are commonly audited by various tax authorities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Significant judgment is required in determining our worldwide provision for income taxes. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our financial statements in the period or periods for which that determination is made.



## Labor Related Risks

We may not be able to attract and retain key employees.

Our business depends upon our continued ability to hire and retain key employees, including our sales force, operations management and skilled production workers, at our operations around the world. Competition for skilled personnel and highly qualified managers in the industries in which we operate is intense. Our growth by acquisitions creates challenges in retaining employees. As the corporate culture evolves to incorporate new workforces, some employees may not find the new culture appealing. In addition, the pace of integration may cause retention issues with our workforce due to integration fatigue. Difficulties in obtaining or retaining employees with the necessary management, technical and financial skills needed to achieve our business objectives may have a material adverse effect on our business, financial condition and results of operations.

Effective succession planning is important to our long-term success. We depend on our senior management team and other key employees for strategic success. Some of our key employees are nearing retirement age. Failure to ensure effective transfer of knowledge and smooth transitions involving key employees could hinder our strategic planning and execution.

As our workforce ages, we are challenged to find and attract a younger population to replace them. Younger generations are driven by progression and opportunity which may be limited by our current employee population. Our growth potential may be limited if we fail to attract and retain competent employees or we are unable to sustain necessary employment levels long-term.

Labor unrest could have a material adverse effect on our business, results of operations and financial condition.

While none of our U.S. employees are represented by unions, a significant part of our international employees are members of unions or subject to workers' councils or similar statutory arrangements. In addition, many of our direct and indirect customers and vendors have unionized workforces. Strikes, work stoppages or slowdowns experienced by these customers or vendors, contract manufacturers or other suppliers could have a negative impact on us. Organizations responsible for shipping our products may also be impacted by labor disruptions. Any interruption in the delivery of our products could harm our reputation, reduce demand for our products or increase costs and could have a material adverse effect on us.

We have obligations under our defined benefit employee benefit plans and may be required to make plan contributions in excess of current estimates.

At December 31, 2016, our net liability for pension and other postretirement benefits was \$30.2 million (benefit obligations of \$382.7 million and plan assets of \$352.5 million). See Note 10 in the Notes to the Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K. Significant declines in the assets and/or increases in the liabilities related to these obligations as a result of changes in actuarial estimates, asset performance, interest rates or benefit changes, among others, could have a material adverse impact on our financial position and/or results of operations.

The amounts and timing of the contributions we expect to make to our defined benefit plans reflect a number of actuarial and other estimates and assumptions with respect to our expected plan funding obligations. The actual amounts and timing of these contributions will depend upon a number of factors and the actual amounts and timing of our future plan funding contributions may differ materially from those presented in this Annual Report on Form 10-K. If we elect to terminate one or more of these plans and settle the obligation through the purchase of annuities, we could incur a charge and/or be required to make additional contributions and such amounts could be material.

Our financial condition may be adversely affected to the extent that we are required to make contributions to any of our defined benefit plans in excess of the amounts assumed in our current projections.

## International Risks

Our significant international operations expose us to economic, political and other risks.

We have significant international sales, manufacturing and distribution operations. We have major international manufacturing and/or distribution facilities in, among other countries, Australia, Belgium, China, the Czech Republic, Germany, India, Ireland, Mexico, Singapore and the United Kingdom (U.K.). For the years ended December 31, 2016, 2015 and 2014, international sales represented approximately 46%, 51% and 45%, respectively, of our consolidated net sales. In general, our international sales have lower gross margin percentages than our domestic sales. To the extent international sales represent a greater percentage of our revenue, our overall gross margin percentages may decline.

Our international sales, manufacturing and distribution operations are subject to the risks inherent in operating abroad, including, but not limited to, risks with respect to currency exchange rate fluctuations; economic and political destabilization; restrictive actions by foreign governments; wage inflation; nationalizations; the laws and policies of the U.S. affecting trade, anti-bribery, foreign investment and loans; foreign tax laws, including the ability to recover amounts paid as value-added and similar taxes; potential restrictions on the repatriation of cash; reduced protection of intellectual property; longer customer payment cycles; compliance with local laws and regulations; armed conflict; terrorism; shipping interruptions; and major health concerns (such as infectious diseases). A significant portion of our products sold in the U.S. are manufactured outside the U.S. We utilize lower-cost geographies for high labor content products while investing in largely automated plants in higher-cost regions close to customers. Most of our manufacturing employees are located in lower-cost geographies such as Mexico, China, India and the Czech Republic. To the extent there are changes in U.S. trade policies, such as significant increases in tariffs or duties for goods brought into the U.S., our competitive position may be adversely impacted and the resulting effect on our earnings could be material.

Risks related to fluctuations in foreign currency rates can impact our sales, results of operations, cash flows and financial position. Our foreign currency risk exposure is mainly concentrated in Chinese yuan, euro, Australian dollar, Indian rupee, British pound and Mexican peso. We manage our foreign currency rate risks through regular operating and financing activities and periodically use derivative financial instruments such as foreign exchange forward contracts. There can be no assurance that our risk management strategies will be effective or that the counterparties to our derivative contracts will be able to perform. In addition, foreign currency rates in many of the countries in which we operate have at times been extremely volatile and unpredictable. We may choose not to hedge or determine we are unable to effectively hedge the risks associated with this volatility. In such cases, we may experience declines in sales and adverse impacts on earnings and such changes could be material.

Our international operations expose us to increased challenges in complying with anti-corruption laws and regulations of the U.S. government and various international jurisdictions.

We are required to comply with the laws and regulations of the U.S. government and various international jurisdictions, and our failure to comply with these rules and regulations may expose us to significant liabilities. These laws and regulations may apply to companies, individual directors, officers, employees and agents, and may restrict our operations, trade practices, investment decisions and partnering activities. In particular, we are subject to U.S. and foreign anti-corruption laws and regulations, such as the U.S. Foreign Corrupt Practices Act (FCPA). The FCPA prohibits U.S. companies and their officers, directors, employees and agents acting on their behalf from improperly offering, promising, authorizing or providing anything of value to foreign officials for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. The FCPA also requires companies to keep books, records and accounts that accurately and fairly reflect transactions and dispositions of assets and to maintain a system of adequate internal accounting controls. As part of our business, we deal with state-owned business enterprises, the employees and representatives of which may be considered foreign officials for purposes of the FCPA. We frequently rely on distributors, sales agents and other channel partners in connection with our sales to these state-owned enterprises, and could be held responsible for the improper actions of these third parties if we were to benefit from their actions, even though we may have limited control over them. We are also subject to the U.K. Anti-Bribery Act, which prohibits both domestic and international bribery, as well as bribery across both public and private sectors. In addition, some of the international locations in which we operate lack a developed legal system and have elevated levels of corruption. As a result of our activities in these locations, we are exposed to an increased risk of violating anti-corruption laws. Violations of these legal requirements are punishable by criminal fines and imprisonment, civil penalties, disgorgement of profits, injunctions, debarment from government contracts as well as other remedial measures. We have established policies and procedures designed to assist us and our personnel in complying with applicable U.S. and international laws and regulations. However, our employees, subcontractors or channel partners could take actions that violate these requirements, which could adversely affect our reputation, business, financial condition and results of operations and such effects could be material.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

Certain of our products are subject to export controls and may be exported only with the required export license or through an export license exception. In addition, we are required to comply with certain U.S. and foreign sanctions and embargos. If we were to fail to comply with applicable export licensing, customs regulations, economic sanctions and other laws, we could be subject to substantial civil and criminal penalties, including fines for us and incarceration for responsible employees and managers, and the possible loss of export or import privileges. In addition, if our distributors fail to obtain appropriate import, export or re-export licenses or permits, we may also be adversely affected through reputational harm and penalties. Obtaining the necessary export license for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, export control laws and economic sanctions prohibit the shipment of certain products to embargoed or sanctioned countries, governments and persons. While we train our employees to comply with these regulations, we cannot assure that a violation will not occur, whether knowingly or inadvertently. Any such shipment could have negative consequences including government investigations, penalties, fines, civil and criminal sanctions, and reputational harm. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could result in our decreased ability to export or sell our products to existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products could adversely affect our business, financial condition and results of operations and such effects could be material.



## Litigation and Regulatory Risks

We may incur costs and may not be successful in protecting our intellectual property and in defending claims that we are infringing the intellectual property of others.

We may encounter difficulties and significant costs in protecting our intellectual property rights or obtaining rights to additional intellectual property to permit us to continue or expand our business. Other companies, including some of our largest competitors, hold intellectual property rights in our industry and the intellectual property rights of others could inhibit our ability to introduce new products unless we secure necessary licenses on commercially reasonable terms.

In addition, we have been required, and may be required in the future, to initiate litigation in order to enforce patents issued or licensed to us or to determine the scope and/or validity of a third party's patent or other proprietary rights. We also have been and may in the future be subject to lawsuits by third parties seeking to enforce their own intellectual property rights, including against certain of the products or intellectual property that we have acquired through acquisitions. Any such litigation, regardless of outcome, could subject us to significant liabilities or require us to cease using proprietary third party technology and, consequently, could have a material adverse effect on our results of operations and financial condition.

In certain markets, we may be required to address counterfeit versions of our products. We may incur significant costs in pursuing the originators of such counterfeit products and, if we are unsuccessful in eliminating them from the market, we may experience a reduction in the value of our products and/or a reduction in our net sales.

Compliance with current and future environmental laws and potential environmental liabilities may have a material adverse impact on our business, financial condition and results of operations.

We are subject to various federal, state, local and foreign environmental laws and regulations governing, among other things, discharges to air and water, management of regulated materials, handling and disposal of solid and hazardous waste, and investigation and remediation of contaminated sites. In addition, we are or may be subject to laws and regulations regarding the types of substances allowable in certain of our products and the handling of our products at the end of their useful life. Because of the nature of our business, we have incurred and will continue to incur costs relating to compliance with or liability under these environmental laws and regulations. In addition, new laws and regulations, new or different interpretations of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new remediation or discharge requirements, could require us to incur costs or become the basis for new or increased liabilities that could have a material adverse effect on our financial condition and results of operations. For example, the European Union has issued Restriction of Hazardous Substances Directive 2011/65/EU (RoHS 2), Registration, Evaluation, Authorization and restriction of Chemicals (REACH) and Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE) regulating the manufacture, use and disposal of electrical goods and chemicals. If we do not comply with these and similar laws in other jurisdictions or sufficiently increase prices or otherwise reduce costs to offset the increased cost of compliance, it could have a material adverse effect on our business, financial condition and results of operations.

Efforts to regulate emissions of greenhouse gases (GHGs), such as carbon dioxide, are underway in the U.S. and other countries which could increase the cost of raw materials, production processes and transportation of our products. If we are unable to comply with such regulations or sufficiently increase prices or otherwise reduce costs to offset the increased costs of compliance, GHG regulation could have a material adverse effect on our business, financial condition and results of operations.



Certain environmental laws impose strict and in some circumstances joint and several liability on current or former owners or operators of a contaminated property, as well as companies that generated, disposed of or arranged for the disposal of hazardous substances at a contaminated property, for the costs of investigation and remediation of the contaminated property. This can have the effect that an entity pays more than its fair share to address such contamination. Our present and past facilities have been in operation for many years and over that time, in the course of those operations, hazardous substances and wastes have been used, generated and occasionally disposed of at such facilities. Consequently, from time to time it has been necessary to undertake investigation and remediation projects at a few of these sites. There can be no assurance that the contractual indemnifications we have received from prior owners and operators of certain of these facilities will continue to be honored. In addition, we have disposed of waste products either directly or through third parties at numerous disposal sites, and from time to time we have been and may be held responsible for investigation and clean-up costs at these sites, particularly where those owners and operators have been unable to address such investigation and clean-up costs. Also, there can be no guarantee that new environmental requirements or changes in their enforcement or the discovery of previously unknown conditions will not cause us to incur additional costs for environmental matters which could be material.

### Stockholder Equity Risks

We do not intend to pay dividends on our common stock and, consequently, the ability of investors to achieve a return on their investment will depend on appreciation in the price of our common stock.

We do not intend to declare and pay dividends on our common stock for the foreseeable future. We currently intend to invest our future earnings, if any, to reduce indebtedness and fund our growth; in addition, we may from time to time make share repurchases. Therefore, the success of an investment of our common stock will depend upon any future appreciation in their value, and there can be no guarantee that our common stock will appreciate in value. The payment of future dividends will be at the discretion of our Board of Directors. In addition, the indentures and the credit agreements governing our indebtedness also effectively limit our ability to pay dividends. As a consequence of these limitations and restrictions, we may not otherwise be able to pay dividends on our common stock.

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law might discourage, delay or prevent a change of control of our company or changes in our management and, as a result, depress the trading price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions:

- authorize 1,300,000,000 shares of common stock, which, to the extent unissued, could be issued by the Board of Directors, without stockholder approval, to increase the number of outstanding shares and to discourage a takeover attempt;
- authorize the issuance, without stockholder approval, of blank check preferred stock that our Board of Directors could issue to increase the number of outstanding shares and to discourage a takeover attempt;
- grant to the Board of Directors the sole power to set the number of directors and to fill any vacancy on the Board of Directors;
- limit the ability of stockholders to remove directors only “for cause” and require any such removal to be approved by holders of at least three-quarters of the outstanding shares of common stock;
- prohibit our stockholders from calling a special meeting of stockholders;
  - prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
  -



provide that the Board of Directors is expressly authorized to adopt, or to alter or repeal our bylaws; establish advance notice and certain information requirements for nominations for election to our Board of Directors or for proposing matters that can be acted upon by stockholders at stockholder meetings;

30

---

- establish a classified Board of Directors, with three staggered terms; and
- require the approval of holders of at least three-quarters of the outstanding shares of common stock to amend the bylaws and certain provisions of the certificate of incorporation.

These anti-takeover defenses could discourage, delay or prevent a transaction involving a change in control of our company and may prevent our stockholders from receiving the benefit from any premium to the market price of our common stock offered by a bidder in a takeover context. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if the provisions are viewed as discouraging takeover attempts in the future. These provisions could also discourage proxy contests and make it more difficult for our stockholders to elect directors of their choosing and cause us to take corporate actions other than those our stockholders desire.

## ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

## ITEM 2. PROPERTIES

Our facilities are used primarily for manufacturing, distribution and administration. Facilities primarily used for manufacturing may also be used for distribution, engineering, research and development, storage, administration, sales and customer service. Facilities primarily used for administration may also be used for research and development, sales and customer service. As of December 31, 2016, our principal facilities, grouped according to the facility's primary use, were as follows:

Location	Approximate square feet	Principal segments	Owned or leased
<b>Administrative facilities:</b>			
Hickory, NC (1)	84,000	Corporate headquarters	Owned
Joliet, IL (2)	690,000	Corporate	Leased
Shakopee, MN	177,000	CCS	Leased
Lochgelly, United Kingdom (3)	132,000	CMS and CCS	Owned
Richardson, TX (1)	100,000	CMS	Owned
Richardson, TX	75,000	CCS	Leased
<b>Manufacturing and distribution facilities:</b>			
Catawba, NC (1)	1,000,000	CCS	Owned
Claremont, NC (1)	583,000	CCS	Owned
Kessel-Lo, Belgium	554,000	CCS	Owned
Suzhou, China (4)	414,000	CMS	Owned
Suzhou, China (4)	363,000	CCS	Owned
Santa Teresa, NM	334,000	CCS	Leased
Juarez, Mexico	327,000	CCS	Owned
Juarez, Mexico (5)	304,000	CCS	Leased
Goa, India (4)	298,000	CMS	Owned
Reynosa, Mexico	279,000	CMS	Owned
Greensboro, NC (1)	196,000	CCS	Owned
Brno, Czech Republic	166,000	CCS	Leased
Mission, TX	150,000	CMS	Leased
Delicias, Mexico	139,000	CCS	Owned
Campbellfield, Australia	133,000	CMS	Leased
Bray, Ireland	130,000	CCS	Owned
Brno, Czech Republic	120,000	CMS	Leased
Buchdorf, Germany	109,000	CMS	Owned
Berkeley Vale, Australia	99,000	CCS	Owned
<b>Vacant facilities and properties:</b>			
Orland Park, IL (1)(6)	—	CMS	Owned
Sidney, NE (7)	376,000	CCS	Owned
Sorocaba, Brazil (8)	152,000	CMS	Owned

(1) Our interest in each of these properties is encumbered by a mortgage or deed of trust lien securing our senior secured credit facilities (see Note 6 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K).

(2) The former manufacturing portion of the Joliet facility is vacant and is currently being marketed for sublease.

- (3) The former manufacturing portion of the Lochgelly, United Kingdom facility is vacant and is currently being marketed for sale.
- (4) The buildings in these facilities are owned while the land is held under long-term lease agreements.

32

---

(5) The Juarez, Mexico location, known as Praderas, consists of three buildings subject to one lease. One of the buildings consisting of 60,000 square feet is being subleased.

(6) The building at the Orland Park facility was demolished and cleared and the 73 acre parcel is vacant.

(7) The Sidney facility is currently being marketed for sale.

(8) The Sorocaba, Brazil facility is currently being marketed for sale.

We believe that our facilities and equipment generally are well maintained, in good condition and suitable for our purposes and adequate for our present operations. While we currently have excess manufacturing capacity in certain of our facilities, utilization is subject to change based on customer demand. We can give no assurances that we will not have excess manufacturing capacity or encounter capacity constraints over the long term.

### ITEM 3. LEGAL PROCEEDINGS

We are either a plaintiff or a defendant in certain pending legal matters in the normal course of business. Management believes none of these legal matters will have a material adverse effect on our business or financial condition upon their final disposition.

### ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

### ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

#### Stock Price and Dividends

Our common stock is traded on the Nasdaq Global Select Market under the symbol COMM. The following table sets forth the high and low sale prices as reported by Nasdaq for the periods indicated:

Common Stock		
	Price Range	
	High	Low
2015		
First Quarter	\$32.00	\$20.19
Second Quarter	\$32.53	\$27.75
Third Quarter	\$34.12	\$26.87
Fourth Quarter	\$33.54	\$24.85
2016		
First Quarter	\$28.14	\$19.37
Second Quarter	\$33.09	\$26.16
Third Quarter	\$32.77	\$28.28
Fourth Quarter	\$38.00	\$29.88

As of February 6, 2017, the approximate number of registered stockholders of record of our common stock was 370.

Although we have paid cash dividends from time to time in the past while we were a privately-held company, we do not currently intend to pay dividends in the foreseeable future. The declaration and payment of any dividends in the future will be determined by our Board of Directors, in its discretion, and will depend on a number of factors, including our earnings, capital requirements, overall financial condition and contractual restrictions, including covenants under our senior notes and senior secured credit facilities, which may limit our ability to pay dividends.



## Issuer Purchases of Equity Securities

Our employees surrendered 27,402 of common shares at an average share price of \$34.02 in the fourth quarter of 2016 and 143,000 of common shares at an average share price of \$27.16 in 2016 to satisfy the minimum withholding tax obligations related to restricted stock units that vested during the period.

## Stock Performance Graph

The following graph compares cumulative total return on \$100 invested on October 25, 2013 in each of CommScope's Common Stock, the Standard & Poor's 500 Stock Index (S&P 500 Index) and the Standard & Poor's 1500 Communications Equipment Index (S&P 1500 Communications Equipment). The return of the Standard & Poor's indices is calculated assuming reinvestment of dividends.

	Base Period	INDEXED RETURNS			
Company / Index	10/25/2013	12/31/2013	12/31/2014	12/31/2015	12/31/2016
CommScope Holding Company, Inc.	100	126.28	152.30	172.72	248.17
S&P 500 Index	100	105.49	119.93	121.58	136.13
S&P 1500 Communications Equipment	100	105.56	119.17	105.84	126.71

## PART II

## ITEM 6. SELECTED FINANCIAL DATA

The following table presents our historical selected financial data as of the dates and for the periods indicated. The data for each of the years presented are derived from our audited consolidated financial statements. The information set forth below should be read in conjunction with our audited consolidated financial statements and notes thereto and Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report.

## Five-Year Summary of Selected Financial Data

(In thousands, except per share amounts)

	Year Ended December 31,				
	2016	2015	2014	2013	2012
<b>Results of Operations:</b>					
Net sales	\$4,923,621	\$3,807,828	\$3,829,614	\$3,480,117	\$3,321,885
Gross profit	2,033,589	1,345,820	1,397,269	1,200,940	1,060,681
Restructuring costs, net	42,875	29,488	19,267	22,104	22,993
Asset impairments	38,552	90,784	12,096	45,529	40,907
Operating income	574,750	181,593	577,449	329,714	238,238
Net interest expense	(272,010 )	(230,533 )	(173,981 )	(205,492 )	(185,557 )
Net income (loss)	222,838	(70,875 )	236,772	19,396	5,353
<b>Earnings (Loss) Per Share Information:</b>					
Weighted average number of shares outstanding:					
Basic	192,470	189,876	186,905	160,641	154,708
Diluted	196,459	189,876	191,450	164,013	155,517
<b>Earnings (loss) per share:</b>					
Basic	\$1.16	\$(0.37 )	\$1.27	\$0.12	\$0.03
Diluted	\$1.13	\$(0.37 )	\$1.24	\$0.12	\$0.03
<b>Other Information:</b>					
Net cash generated by operating activities	\$606,225	\$302,060	\$289,418	\$237,701	\$286,135
Depreciation and amortization	399,050	303,500	259,504	256,616	262,279
Additions to property, plant and equipment	68,314	56,501	36,935	36,780	27,957
Cash dividends per share	\$—	\$—	\$—	\$3.47	\$1.29
<b>Balance Sheet Data:</b>					
	As of December 31,				
	2016	2015	2014	2013	2012
Cash and cash equivalents	\$428,228	\$562,884	\$729,321	\$346,320	\$264,375
Goodwill and intangible assets	4,567,369	4,838,119	2,712,814	2,872,698	3,052,615
Property, plant and equipment, net	474,990	528,706	289,371	310,143	355,212
Total assets <sup>(1)</sup>	7,141,986	7,502,631	4,917,058	4,690,800	4,740,893
Working capital	1,135,946	1,319,548	1,351,805	860,042	737,638
Long-term debt, including current maturities <sup>(1)</sup>	4,562,010	5,243,651	2,668,898	2,471,297	2,418,399
Stockholders' equity	1,394,084	1,222,720	1,307,619	1,088,016	1,182,282



(1) As of June 30, 2015, the Company adopted new accounting guidance that requires debt issuance costs related to a recognized debt liability be reported as a direct deduction from the carrying amount of that debt liability. The guidance has been applied retrospectively to the prior periods presented.

35

---

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" included in Part I, Item 1A or in other parts of this Annual Report on Form 10-K.

### OVERVIEW

We are a global provider of infrastructure solutions for the core, access and edge layers of communication networks. Our solutions and services for wired and wireless networks enable high-bandwidth data, video and voice applications. Our portfolio includes innovative wireless and fiber optic solutions for today's evolving digital lifestyle. Our global leadership position is built upon innovative technology, broad solution offerings, high-quality and cost-effective customer solutions and global manufacturing and distribution scale. Our talented and experienced global team helps customers increase bandwidth; maximize existing capacity; improve network latency (i.e., response time) and performance; and simplify technology migration. Our solutions are found in some of the largest venues and outdoor spaces; in buildings and data centers of all sizes and complexities; at wireless cell sites; in telecom central offices and cable headends; in fiber-to-the-X (FTTX) deployments; and in airports, trains, and tunnels. Vital networks around the world run on CommScope solutions.

On August 28, 2015, we completed the acquisition of TE Connectivity's Broadband Network Solutions (BNS) business in an all-cash transaction valued at approximately \$3.0 billion. The BNS business provides fiber optic and copper connectivity for wireline and wireless networks and also provides small-cell distributed antenna system (DAS) solutions for the wireless market. We believe the transaction has accelerated our strategy to drive profitable growth by expanding our business into attractive adjacent markets and to broaden our position as a leading communications infrastructure provider. In addition, the acquisition provides us with greater geographic and business diversity. The BNS business generated revenues of approximately \$1.8 billion for the year ended December 31, 2016 and \$0.5 billion for the four-month period ended December 25, 2015. During the years ended December 31, 2016 and 2015, we recognized \$62.3 million and \$96.9 million, respectively, of integration and transaction costs primarily related to the BNS acquisition. We will continue to incur costs as we complete the integration of BNS and these costs may be material.

The results of the BNS business are reported in our consolidated financial statements from August 28, 2015 to December 25, 2015 for the year ended December 31, 2015 and from December 26, 2015 to December 30, 2016 for the year ended December 31, 2016. The BNS fiscal calendar included 53 weeks in 2016.

As of January 1, 2016, we reorganized our internal management and reporting structure as part of the integration of the BNS acquisition. The reorganization changed the information regularly reviewed by our chief operating decision maker for purposes of allocating resources and assessing performance. As a result, we are reporting financial performance for 2016 based on our new operating segments: CommScope Connectivity Solutions (CCS) and CommScope Mobility Solutions (CMS). Prior to this change, we operated and reported based on the following operating segments: Wireless, Enterprise, Broadband and BNS. All prior year amounts throughout our management's discussion and analysis of financial condition and results of operations have been recast to reflect these operating segment changes.



Our CCS segment offers both indoor and outdoor connectivity solutions. Indoor solutions are primarily delivered through our SYSTIMAX, AMP NETCONNECT and Uniprise brands and offer a complete end-to-end physical layer solution, including optical fiber and twisted pair structured cable solutions, intelligent infrastructure software and network rack and cabinet enclosures. Our outdoor connectivity solutions include a broad portfolio of fiber-to-the-home equipment and headend solutions. Our fiber optic connectivity solutions are primarily comprised of hardened connector systems, fiber distribution hubs and management systems, couplers and splitters, “plug and play” multiport service terminals, hardened optical terminating enclosures, high density cable assemblies, splices and splice closures. The majority of the acquired BNS business is included in the CCS segment. Products from our CCS segment are sold to large multinational companies, primarily through a global network of distributors, system integrators and value-added resellers. Demand for CCS segment products depends primarily on information technology spending by enterprises, such as communications projects in new data centers, buildings or campuses and deployments of FTTX solutions.

Under our CMS segment, primarily through our Andrew brand, we are a global leader in providing merchant radio frequency (RF) wireless network connectivity solutions, including macro cell site, metro cell site, DAS and small cell solutions. The primary sources of revenue for our CMS segment are (i) product sales of primarily passive transmission devices for the wireless infrastructure market including base station and microwave antennas, hybrid fiber-feeder and power cables, coaxial cable connectors and equipment primarily used by wireless operators, (ii) product sales of active electronic devices and services including filters and tower-mounted amplifiers and (iii) engineering and consulting services and products like DAS that are used to extend and enhance the coverage of wireless networks in areas where signals are difficult to send or receive such as large buildings, urban areas, stadiums and transportation systems. Demand for CMS segment products depends primarily on capital spending by wireless operators to expand their distribution networks or to increase the capacity of their networks.

To expand our CMS segment offerings, we acquired operations from Airvana LP (Airvana) in October 2015 for approximately \$45 million. This acquisition expanded our leadership and capabilities in providing indoor wireless capacity and coverage. The combination of Airvana’s innovative small cell offerings and our industry-leading DAS portfolio enables us to provide a broader range of solutions, addressing single-operator, single-band, low capacity environments all the way through multi-carrier, multi-technology, multi-band, high capacity environments. Also within our CMS segment, we acquired two businesses of United Kingdom-based Alifabs Group (Alifabs) in July 2014 for approximately \$49 million. Alifabs designs and supplies metro cell enclosures, monopoles, smaller streetworks towers and tower solutions for the United Kingdom telecommunications, utility and energy markets.

Our future financial condition and performance will be largely dependent upon: our ability to successfully complete the integration of the BNS business; global spending by wireless operators; global spending by business enterprises on information technology; investment by cable operators and communications companies in the video and communications infrastructure; overall global business conditions; and our ability to manage costs successfully among our global operations. Our profitability is also affected by the mix and volume of sales among our various product groups and between domestic and international customers and competitive pricing pressures.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our consolidated financial statements have been prepared in conformity with generally accepted accounting principles (GAAP) in the United States (U.S.). The preparation of these financial statements requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. These estimates and their underlying assumptions form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other objective sources. Management bases its estimates on historical experience and on assumptions that are believed to be reasonable under the circumstances and revises its estimates, as appropriate, when changes in events or circumstances indicate that revisions may be necessary.



The following critical accounting policies and estimates reflected in our financial statements are based on management's knowledge of and experience with past and current events and on management's assumptions about future events. While we have generally not experienced significant deviations from our critical estimates in the past, it is reasonably possible that these estimates may ultimately differ materially from actual results. See Note 2 in the Notes to the Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for a description of all of our significant accounting policies.

#### Business Combinations

We use the acquisition method of accounting for business combinations which requires assets acquired and liabilities assumed be recorded at their fair values on the acquisition date. Goodwill represents the excess of the purchase price over the fair value of the net assets acquired. The fair values of the assets acquired and liabilities assumed are determined based upon management's valuation and involves making significant estimates and assumptions based on facts and circumstances that existed as of the acquisition date. We use a measurement period following the acquisition date to gather information that existed as of the acquisition date that is needed to determine the fair value of the assets acquired and liabilities assumed. The measurement period ends once all information is obtained, but no later than one year from the acquisition date.

#### Revenue Recognition

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or service has been rendered, the selling price is fixed or determinable and collectability is reasonably assured. The majority of our revenue comes from product sales. Revenue from product sales is recognized when the risks and rewards of ownership have passed to the customer and revenue is measurable. Revenue is not recognized related to products sold to contract manufacturers that the Company anticipates repurchasing in order to complete the sale to the ultimate customer.

Revenue for certain of the Company's products is derived from multiple-element contracts. The value of the revenue elements within these contracts is allocated based on the relative selling price of each element. The relative selling price is determined using vendor-specific objective evidence of selling price or other third party evidence of selling price, if available. If these forms of evidence are unavailable, revenue is allocated among elements based on management's best estimate of the stand-alone selling price of each element.

We record reductions to revenue for anticipated sales returns as well as customer programs and incentive offerings, such as discounts, allowances, rebates and distributor price protection programs. These estimates are based on contract terms, historical experience, inventory levels in the distributor channel and other factors.

Management generally believes it has sufficient historical experience to allow for reasonable and reliable estimation of these reductions to revenue. However, deteriorating market conditions could result in increased sales returns and allowances and potential distributor price protection incentives, resulting in future reductions to revenue. If management does not have sufficient historical experience to make a reasonable estimation of these reductions to revenue, recognition of the revenue is deferred until management believes there is a sufficient basis to recognize such revenue.

#### Inventory Reserves

We maintain reserves to reduce the value of inventory based on the lower of cost or net realizable value, including allowances for excess and obsolete inventory. These reserves are based on management's assumptions about and analysis of relevant factors including current levels of orders and backlog, forecasted demand, market conditions and new products or innovations that diminish the value of existing inventories. If actual market conditions deteriorate

from those anticipated by management, additional allowances for excess and obsolete inventory could be required.

38

---

### Product Warranty Reserves

We recognize a liability for the estimated claims that may be paid under our customer warranty agreements to remedy potential deficiencies of quality or performance of our products. The product warranties extend over periods ranging from one to twenty-five years from the date of sale, depending upon the product subject to the warranty. We record a provision for estimated future warranty claims based upon the historical relationship of warranty claims to sales and specifically identified warranty issues. We base our estimates on historical experience and on assumptions that are believed to be reasonable under the circumstances and revise our estimates, as appropriate, when events or changes in circumstances indicate that revisions may be necessary. Although these estimates are based on management's knowledge of and experience with past and current events and on management's assumptions about future events, it is reasonably possible that they may ultimately differ materially from actual results, including in the case of a significant product failure.

### Tax Valuation Allowances, Liabilities for Unrecognized Tax Benefits and Other Tax Reserves

We establish an income tax valuation allowance when available evidence indicates that it is more likely than not that all or a portion of a deferred tax asset will not be realized. In assessing the need for a valuation allowance, we consider the amounts, character, source and timing of expected future deductions or carryforwards as well as sources of taxable income and tax planning strategies that may enable utilization. We maintain an existing valuation allowance until sufficient positive evidence exists to support its reversal. Changes in the amount or timing of expected future deductions or taxable income may have a material impact on the level of income tax valuation allowances. If we determine that we will not be able to realize all or part of a deferred tax asset in the future, an increase to an income tax valuation allowance would be charged to earnings in the period such determination was made.

We recognize income tax benefits related to particular tax positions only when it is considered more likely than not that the tax position will be sustained if examined on its technical merits by tax authorities. The amount of benefit recognized is the largest amount of tax benefit that is evaluated to be greater than 50% likely to be realized. Considerable judgment is required to evaluate the technical merits of various positions and to evaluate the likely amount of benefit to be realized. Lapses in statutes of limitations, developments in tax laws, regulations and interpretations, and changes in assessments of the likely outcome of uncertain tax positions could have a material impact on the overall tax provision.

We establish deferred tax liabilities for the estimated tax cost associated with foreign earnings that we do not consider permanently reinvested. These liabilities are subject to adjustment if we determine that foreign earnings previously considered to be permanently reinvested should no longer be so considered.

We also establish allowances related to value-added and similar recoverable taxes when it is considered probable that those assets are not recoverable. Changes in the probability of recovery or in the estimates of the amount recoverable are recognized in the period such determination is made and may be material to earnings.



## Asset Impairment Reviews

### Impairment Reviews of Goodwill

We test goodwill for impairment annually as of October 1 and on an interim basis when events occur or circumstances indicate the carrying value may no longer be recoverable. Goodwill is evaluated at the reporting unit level, which may be the same as a reportable segment or a level below a reportable segment. The goodwill impairment test starts with a comparison of the carrying value of a reporting unit to its estimated fair value. We estimate the fair value of a reporting unit through the use of a discounted cash flow (DCF) valuation model. The significant assumptions in the DCF model are the annual revenue growth rate, the annual operating income margin and the discount rate used to determine the present value of the cash flow projections. Among other inputs, the annual revenue growth rate and operating income margin are determined by management using historical performance trends, industry data, insight derived from customers, relevant changes in the reporting unit's underlying business and other market trends that may affect the reporting unit. The discount rate is based on the estimated weighted average cost of capital as of the test date of market participants in the industry in which the reporting unit operates. The assumptions used in the DCF model are subject to significant judgment and uncertainty. Changes in projected revenue growth rates, projected operating income margins or estimated discount rates due to uncertain market conditions, loss of one or more key customers, changes in technology, or other factors, could result in one or more of our reporting units with a significant amount of goodwill failing the goodwill impairment test in the future. It is possible that future impairment reviews may indicate additional impairments of goodwill, which could be material to our results of operations and financial position. Our historical or projected revenues or cash flows may not be indicative of actual future results.

### 2016 Interim Goodwill Analysis

During the first quarter of 2016, we reorganized our internal management and reporting structure and as a result realigned our goodwill reporting units. We tested goodwill for possible impairment prior to the realignment and no impairment was indicated. We then reallocated goodwill to the new reporting units based on relative fair value as required by GAAP. After the reallocation, the goodwill impairment test was performed using a DCF model for each of the new reporting units. One reporting unit in the CCS segment did not pass the goodwill impairment test, and a \$15.3 million goodwill impairment charge was recorded as of January 1, 2016.

### 2016 Annual Goodwill Analysis

The annual test of goodwill was performed for each of the reporting units with goodwill balances as of October 1, 2016. The test was performed using a DCF valuation model. The weighted average discount rates used in the 2016 annual test were 10.0% for the CCS reporting units and 10.5% for the CMS reporting units. These discount rates were slightly higher than those used in the January 1, 2016 and the 2015 annual goodwill impairment tests. Based on the estimated fair values generated by our DCF models, the reporting units passed the annual goodwill impairment test and no impairment charge was deemed necessary. Future impairment tests could result in additional impairment charges and these could be material.

### Definite-Lived Intangible Assets and Other Long-Lived Assets

Management reviews definite-lived intangible assets, investments and other long-lived assets for impairment when events or changes in circumstances indicate that their carrying values may not be fully recoverable. This analysis differs from our goodwill impairment analysis in that an intangible or other long-lived asset impairment is only deemed to have occurred if the sum of the forecasted undiscounted future net cash flows related to the assets being evaluated is less than the carrying value of the assets. If the forecasted net cash flows are less than the carrying value, then the asset is written down to its estimated fair value. Changes in the estimates of forecasted net cash flows may

cause additional asset impairments, which could result in charges that are material to our results of operations. During 2016, the Company determined that certain intangible assets in the CCS segment were no longer recoverable and recorded impairment charges of \$15.0 million.

Also during 2016, the Company determined certain production assets acquired with the BNS business would no longer be utilized and a \$8.3 million impairment charge was recorded in the CCS segment to reduce the assets to their estimated fair value.

## RESULTS OF OPERATIONS

Comparison of results of operations for the year ended December 31, 2016 with the year ended December 31, 2015

	Year Ended December 31, 2016		2015			
		% of Net		% of Net	Dollar	%
	Amount	Sales	Amount	Sales	Change	Change
	(dollars in millions, except per share amounts)					
Net sales	\$4,923.6	100.0%	\$3,807.8	100.0%	\$1,115.8	29.3 %
Gross profit	2,033.6	41.3	1,345.8	35.3	687.8	51.1
Operating income	574.8	11.7	181.6	4.8	393.2	216.5
Non-GAAP adjusted operating income <sup>(1)</sup>	1,051.4	21.4	729.8	19.2	321.6	44.1
Net income (loss)	222.8	4.5	(70.9 )	(1.9 )	293.7	NM
Diluted earnings (loss) per share	\$1.13		\$(0.37 )		\$1.50	NM

(1) See "Reconciliation of Non-GAAP Measures".

NM - Not meaningful

Net sales

	Year Ended December 31,		Change	
	2016	2015	\$	%
	(dollars in millions)			
Net sales	\$4,923.6	\$3,807.8	\$1,115.8	29.3 %
Domestic net sales	2,634.9	1,869.4	765.5	40.9
International net sales	2,288.7	1,938.4	350.3	18.1

Net sales. Net sales for 2016 included \$1.24 billion of incremental net sales attributable to the BNS acquisition, which reflects the additional eight months that the BNS business was owned in 2016 compared to 2015. Legacy CommScope net sales for 2016 compared to the prior year were down \$0.12 billion, or 3.8%, reflecting decreases across all major geographical regions except the U.S. Net sales to customers located outside the U.S. comprised 46% of total net sales for 2016 compared to 51% for 2015. Foreign exchange rate changes had a negative impact of approximately 1% on net sales for 2016 compared to 2015.

From a segment perspective, net sales from the CCS segment increased 61.0% in 2016 compared to 2015 as a result of the BNS acquisition. In addition to the incremental eight months of net sales included in 2016 compared with 2015, BNS net sales for 2016 also included 53 weeks in the fiscal year. Excluding the incremental net sales related to the BNS acquisition, net sales from the CCS segment decreased by 6.4% in 2016 due to lower sales in international markets. Net sales in 2016 from the CMS segment decreased slightly compared to the prior year despite the addition

of incremental net sales as a result of the BNS acquisition. For further details by segment, see the section titled “Segment Results” below.

Gross profit, SG&A expense and R&D expense

	Year Ended		December 31,		Change	
	2016		2015		\$	%
	(dollars in millions)					
Gross profit	\$2,033.6		\$1,345.8		\$687.8	51.1%
Gross margin percentage	41.3	%	35.3	%		
SG&A expense	879.5		687.4		192.1	27.9
As a percent of sales	17.9	%	18.1	%		
R&D expense	200.7		136.0		64.7	47.6
As a percent of sales	4.1	%	3.6	%		

41

Gross profit (net sales less cost of sales). Gross profit for 2016 included \$651.6 million of incremental gross profit related to the BNS acquisition. This reflects the additional eight months that the BNS business was owned in 2016 compared to 2015 as well as the negative impact of the purchase accounting adjustments of \$81.6 million that were incurred in 2015, primarily related to the mark-up of inventory to its estimated fair value less the estimated costs associated with its sale. The increase in gross margin percentage reflected favorable changes in geographic and product mix and benefits from cost reduction initiatives as well as the impact of the purchase accounting adjustments on 2015 gross margin percentage.

Selling, general and administrative expense. Selling, general and administrative (SG&A) expense for 2016 increased compared to the prior year primarily due to incremental SG&A costs from the acquired BNS business and higher variable cash compensation expense partially offset by a decline in integration and transaction costs, lower bad debt expense and the benefit of cost reduction initiatives. SG&A expense as a percent of sales in 2016 remained in line with 2015. Excluding the impact of integration and transaction costs, SG&A as a percentage of sales increased to 16.6% in 2016 from 15.5% in 2015 primarily due to the higher cost structure of the BNS business compared to the legacy CommScope business.

Research and development. Research and development (R&D) expense increased in 2016 compared to the prior year primarily as a result of the incremental R&D costs from the BNS and Airvana acquisitions, both of which were acquired in the second half of 2015 and have historically made significant investments in R&D activities. Excluding the impact of the BNS and Airvana acquisitions, R&D expense and R&D expense as a percentage of net sales increased slightly in 2016 compared to 2015 primarily due to higher variable cash compensation expense.

Amortization of purchased intangible assets, Restructuring costs and Asset impairments

	Year Ended		Change	
	December 31,	December 31,	\$	%
	2016	2015		
	(dollars in millions)			
Amortization of purchased intangible assets	\$297.2	\$220.6	\$76.6	34.7 %
Restructuring costs, net	42.9	29.5	13.4	45.4
Asset impairments	38.6	90.8	(52.2)	(57.5)

Amortization of purchased intangible assets. The amortization of purchased intangible assets was higher in 2016 compared to the prior year primarily due to the additional amortization resulting from a full year of amortization related to the BNS acquisition.

Restructuring costs, net. The restructuring costs in 2016 were primarily related to the integration of BNS. The restructuring costs in 2015 were also primarily related to the integration of BNS but also included costs from the first half of the year related to our efforts to realign and lower our overall cost structure. We expect to incur additional pretax costs of \$0.5 million to \$1.0 million to complete actions announced to date. We expect to pay \$30.0 million to \$31.5 million in 2017 and an additional \$9.5 million to \$10.5 million between 2018 and 2022 related to restructuring actions that have been initiated. As a result of the continuing BNS integration, additional restructuring actions are expected to be identified and the resulting charges and cash requirements may be material.

Asset impairments. During 2016 we recorded impairment charges of \$15.0 million within the CCS segment due to the revised outlook for certain product lines that indicated their intangible assets would not be recoverable. Also during 2016, we recorded impairment charges of \$8.3 million related to certain long-lived assets acquired with the BNS business no longer expected to be utilized in operations in the CCS segment. In addition, we recorded a \$15.3 million goodwill impairment charge as of January 1, 2016 in the CCS segment as a result of the change in reportable segments.

During 2015 we recorded goodwill impairment charges of \$74.4 million in the CMS segment, primarily as a result of lower projected future operating results for a certain reporting unit. Also during 2015, we determined that certain intangible assets in the CMS segment were no longer recoverable and recorded a \$5.5 million impairment charge. In addition, we determined during 2015 that a note receivable related to a previous divestiture was impaired and recorded a \$10.9 million charge in the CCS segment.

Net interest expense, Other expense, net and Income taxes

	Year Ended		Change	
	December 31,	2015	\$	%
	2016			
	(dollars in millions)			
Net interest expense	\$ (272.0)	\$ (230.5)	\$ (41.5)	18.0 %
Other expense, net	(30.2 )	(13.1 )	(17.1 )	130.5
Income tax expense	(49.7 )	(8.9 )	(40.8)	458.4

Net interest expense. The increase in net interest expense in 2016 compared to 2015 was driven by increases in our long-term debt. In June 2015, we issued \$1.5 billion of 6.0% senior notes due 2025 (the 2025 Notes) and \$500.0 million of 4.375% senior secured notes due 2020 (the 2020 Notes) and we entered into a \$1.25 billion term loan due 2022 (the 2022 Term Loan). The proceeds from the 2025 Notes and the 2022 Term Loan were used to fund, in part, the BNS acquisition. The proceeds from the 2020 Notes were used to repay a portion of our existing term loans. We incurred \$67.0 million of incremental interest expense in 2016 as a result of the acquisition-related debt. In connection with various debt repayments and redemptions, we wrote off \$7.1 million and \$6.7 million of debt issuance costs and original debt discount in 2016 and 2015, respectively. These increases in interest expense were partially offset by reductions in interest expense resulting from the debt repayments and redemptions as well as the 2016 amendment of our 2022 Term Loan to lower the margin on the interest rate from 3.00% to 2.50%.

Our weighted average effective interest rate on outstanding borrowings, including the amortization of debt issuance costs and original issue discount was 5.24% as of December 31, 2016 and 5.50% as of December 31, 2015.

Other expense, net. In connection with the debt redeemed or repaid during 2016, we incurred redemption premiums of \$17.7 million and other fees of \$1.2 million, both of which were included in other expense, net. Foreign exchange losses of \$9.5 million were included in other expense, net for 2016 compared to losses of \$15.1 million for 2015.

During 2016 and 2015, we sold portions of our investment in Hydrogenics Corporation (Hydrogenics) that resulted in pretax gains of \$1.2 million and \$2.7 million, respectively, which were recorded in other expense, net.

Income taxes. Our effective income tax rate of 18.2% for 2016 was lower than the statutory rate of 35% primarily due to a reduction in tax expense related to the release of valuation allowances related to certain federal tax credit carryforwards and certain other deferred tax assets. The effective income tax rate was also favorably affected by the reduction of reserves for uncertain tax positions and earnings in foreign jurisdictions that we do not plan to repatriate. These foreign earnings are generally taxed at rates lower than the U.S. Offsetting these decreases in 2016 was the effect of the provision for state income taxes as well as the goodwill impairment charge for which only partial tax benefits were recorded.

Our effective income tax rate for 2015 was negatively impacted by tax valuation allowances related to federal tax credit carryforwards, impairment charges for which minimal tax benefits were recorded and losses in certain jurisdictions where we did not recognize tax benefits due to the likelihood of them not being realizable. These

negative impacts were partially offset by the favorable effects of earnings in foreign jurisdictions, lower levels of planned repatriation as a result of funds used outside the U.S. for a portion of the BNS purchase price, benefits recognized from adjustments related to prior years' tax returns and a reduction in tax expense related to uncertain tax positions.



# Segment Results

	Year Ended December 31,								
	2016			2015					
		% of			% of		Dollar	%	
	Amount	Sales		Amount	Sales		Change	Change	
	(dollars in millions)								
Net sales by segment:									
CCS	\$2,965.5	60.2	%	\$1,841.7	48.4	%	\$1,123.8	61.0	%
CMS	1,958.1	39.8		1,966.1	51.6		(8.0 )	(0.4 )	
Consolidated net sales	\$4,923.6	100.0	%	\$3,807.8	100.0	%	\$1,115.8	29.3	%
Operating income by segment:									
CCS	\$291.2	9.8	%	\$16.1	0.9	%	\$275.1	1,708.7	%
CMS	283.6	14.5		165.5	8.4		118.1	71.4	
Consolidated operating income	\$574.8	11.7	%	\$181.6	4.8	%	\$393.2	216.5	%
Non-GAAP adjusted operating income by segment:									
CCS	\$632.3	21.3	%	\$349.9	19.0	%	\$282.4	80.7	%
CMS	419.1	21.4		379.9	19.3		39.2	10.3	
Non-GAAP consolidated adjusted operating income <sup>(1)</sup>									
	\$1,051.4	21.4	%	\$729.8	19.2	%	\$321.6	44.1	%

(1) See “Reconciliation of Non-GAAP Measures”.  
CommScope Connectivity Solutions Segment

CCS segment net sales for 2016 were higher than the prior year in all major geographical regions as a result of the BNS acquisition. CCS segment 2016 net sales included incremental net sales from the BNS acquisition of \$1.21 billion. Legacy CommScope net sales in the CCS segment decreased across all major geographical regions except the U.S. compared to 2015. The decrease was primarily due to lower sales of indoor network solutions. Foreign exchange rate changes had a negative impact on legacy CommScope CCS segment net sales of approximately 1% in 2016 compared to 2015.

CCS segment operating income and non-GAAP adjusted operating income increased for 2016 compared to the prior year primarily due to the acquisition of the BNS business. In addition, the CCS segment also benefited from cost savings initiatives in 2016 partially offset by higher variable cash compensation costs. CCS segment operating income for 2016 included asset impairment charges of \$38.6 million which were excluded from the calculation of non-GAAP adjusted operating income. CCS operating income for 2015 included an asset impairment charge of \$16.4 million, purchase accounting adjustments related to the BNS acquisition of \$78.2 million and higher integration and transactions costs, all of which were excluded from the calculation of non-GAAP adjusted operating income.

We expect near-term and long-term demand for our indoor network CCS products to be driven by global information technology spending and spending in core networks as the ongoing need for bandwidth and intelligence in the network continues to create demand for high-performance connectivity solutions. We expect near-term and long-term demand for our outdoor network CCS products to be driven by global deployment of FTTX applications, new services in the access market (including backhaul capacity needed for 5G networks), ongoing maintenance requirements of cable networks and residential construction market activity in North America. Uncertain global economic conditions, variability in the levels of commercial and residential construction activity, uncertain levels of information technology spending and reductions in the levels of distributor inventories may negatively affect demand for our products. Over the longer term, the ongoing demand for fiber solutions is expected to be somewhat offset by decelerating demand for copper solutions in networks.

## CommScope Mobility Solutions Segment

The CMS segment experienced a slight decrease in net sales for 2016 compared to the prior year, with incremental net sales from the BNS acquisition of \$31.1 million. Legacy CommScope CMS segment net sales for 2016 decreased across all major geographical regions except the U.S., which benefited from an increase in spending by certain domestic operators. Foreign exchange rate changes had a negative impact of approximately 1% on legacy CommScope CMS segment net sales for 2016 compared to the prior year.

CMS segment operating income increased for 2016 primarily due to the unfavorable impact of the \$74.4 million goodwill impairment charge recorded in the prior year, which was excluded from the calculation of non-GAAP adjusted operating income. CMS segment operating income and non-GAAP adjusted operating income also increased in 2016 compared to 2015 due to more favorable geographic and product mix, partially offset by the effect of lower sales volumes, higher variable cash compensation costs and increased R&D spending as we continue to invest heavily in small cell technology.

Our sales to wireless operators can be volatile. We expect longer-term demand for our CMS products to be positively affected by wireless coverage and capacity expansion in emerging markets and growth in mobile data services (including 4G deployments) in developed markets. In addition, we expect the deployment of new technologies such as 5G to have a positive impact on longer-term demand for our products. Uncertainty in the global economy or a particular region or consolidation among wireless operators may slow the growth or cause a decline in capital spending by wireless operators and negatively impact our net sales.

Comparison of results of operations for the year ended December 31, 2015 with the year ended December 31, 2014

	Year Ended December 31, 2015		2014			
		% of Net		% of Net	Dollar	%
	Amount	Sales	Amount	Sales	Change	Change
	(dollars in millions, except per share amounts)					
Net sales	\$3,807.8	100.0%	\$3,829.6	100.0%	\$(21.8 )	(0.6 )%
Gross profit	1,345.8	35.3	1,397.3	36.5	(51.5 )	(3.7 )
Operating income	181.6	4.8	577.4	15.1	(395.8 )	(68.5 )
Non-GAAP adjusted operating income <sup>(1)</sup>	729.8	19.2	808.4	21.1	(78.6 )	(9.7 )
Net income (loss)	(70.9 )	(1.9 )	236.8	6.2	(307.7 )	(129.9 )
Diluted earnings (loss) per share	\$(0.37 )		\$1.24		\$(1.61 )	(129.8 )%

(1) See "Reconciliation of Non-GAAP Measures".

Net sales

Year Ended December 31,		Change	
2015	2014	\$	%

	(dollars in millions)			
Net sales	\$3,807.8	\$3,829.6	\$(21.8 )	(0.6 )%
Domestic net sales	1,869.4	2,107.6	(238.2)	(11.3)
International net sales	1,938.4	1,722.0	216.4	12.6

Net sales. Net sales for 2015 included sales from the BNS business of \$529.6 million. Excluding the BNS business, the decrease in net sales for 2015 compared to the prior year was primarily attributable to lower net sales in the U.S. mainly as a result of decreased spending by certain domestic wireless operators. In addition to the decline in the U.S., net sales (excluding incremental net sales from the BNS business) in the Europe, Middle East and Africa (EMEA) and Central and Latin America (CALA) regions were lower for 2015 compared to 2014 primarily due to the negative impact of foreign exchange rate changes. Net sales in 2015 in the Asia Pacific (APAC) region (excluding incremental net sales from the BNS business) were essentially unchanged compared to 2014. Foreign exchange rate changes had a negative impact of approximately 3% on net sales for 2015 compared to 2014.

Including the BNS business, net sales increased in all major geographic regions except the U.S. Net sales to customers outside the U.S. comprised 51% of total net sales for 2015 compared to 45% for 2014.

From a segment perspective, the year-over-year decrease in net sales for 2015 was driven by lower net sales in our CMS segment. The CCS segment experienced higher net sales due to the addition of the acquired BNS business. For further details by segment, see the section titled “Segment Results” below.

#### Gross profit, SG&A expense and R&D expense

	Year Ended December 31,		Change	
	2015	2014	\$	%
	(dollars in millions)			
Gross profit	\$1,345.8	\$1,397.3	\$(51.5)	(3.7)%
Gross margin percentage	35.3 %	36.5 %		
SG&A expense	687.4	484.9	202.5	41.8
As a percent of sales	18.1 %	12.7 %		
R&D expense	136.0	125.3	10.7	8.5
As a percent of sales	3.6 %	3.3 %		

Gross profit (net sales less cost of sales). Gross profit for 2015 was negatively affected by BNS business purchase accounting adjustments of \$81.6 million, primarily related to the mark-up of inventory to its estimated fair value less the estimated costs associated with its sale. Excluding this additional cost, gross margin percent was 37.5% for 2015. This increase in gross margin percent for 2015 compared to 2014 was primarily due to favorable product mix and lower material costs partially offset by the impact of lower sales volumes.

Selling, general and administrative expense. SG&A expense for 2015 increased compared to 2014 primarily due to an increase of \$84.8 million of transaction and integration costs mainly resulting from the acquisition of the BNS business. In addition, the inclusion of the BNS business contributed an additional \$117.8 million in SG&A expense for 2015 compared to 2014. During 2014, we recorded a \$13.1 million reduction in SG&A expense resulting from an adjustment to the estimated fair value of contingent consideration payable related to a 2013 acquisition.

Excluding transaction and integration costs, the addition of the BNS business and the adjustments to contingent consideration payable, SG&A expense was \$13.0 million lower for 2015 compared to 2014. This decrease was primarily attributable to lower variable cash compensation costs that were offset partially by higher bad debt expense.

Research and development. R&D expense increased in 2015 compared to 2014 due to \$24.8 million of R&D costs incurred by the BNS business and \$5.3 million of R&D costs incurred by Airvana. Excluding the BNS business and Airvana, R&D expense decreased for 2015 by \$19.3 million compared to 2014, primarily as a result of a decline in

variable cash compensation costs and benefits from cost savings initiatives. Excluding the impact of the BNS business and Airvana, R&D expense as a percentage of sales for 2015 was 3.2% compared to 3.3% for 2014.

## Amortization of purchased intangible assets, Restructuring costs and Asset impairments

	Year Ended		Change	
	December 31,	December 31,	\$	%
	2015	2014		
	(dollars in millions)			
Amortization of purchased intangible assets	\$220.6	\$178.3	\$42.3	23.7 %
Restructuring costs, net	29.5	19.3	10.2	52.8
Asset impairments	90.8	12.1	78.7	650.4

Amortization of purchased intangible assets. The amortization of purchased intangible assets was higher in 2015 compared to 2014 primarily due to the additional amortization resulting from the acquisition of the BNS business.

Restructuring costs, net. The restructuring costs recorded in 2015 were primarily related to the initial phases of integrating the BNS business. The restructuring costs recognized in 2014 and the first half of 2015 were primarily related to our continued efforts to realign and lower our overall cost structure.

Asset impairments. During 2015 and 2014, we recorded goodwill impairment charges of \$74.4 million and \$4.9 million, respectively, in the CMS segment, primarily as a result of lower projected future operating results for a certain reporting unit. During 2015, we determined that certain intangible assets in the CCS segment were no longer recoverable and recorded a \$5.5 million impairment charge. Also during 2015, we determined a note receivable related to a previous divestiture was impaired and recorded a charge for \$10.9 million in the CCS segment. During 2014, we determined that certain intangible assets in the CCS segment were no longer recoverable and recorded a \$7.2 million impairment charge.

## Net interest expense, Other expense, net and Income taxes

	Year Ended		Change	
	December 31,	December 31,	\$	%
	2015	2014		
	(dollars in millions)			
Net interest expense	\$(230.5)	\$(174.0)	\$(56.5)	32.5 %
Other expense, net	(13.1 )	(86.4 )	73.3	(84.8)
Income tax expense	(8.9 )	(80.3 )	71.4	(88.9)

Net interest expense. In June 2015, we issued the 2025 Notes and the 2020 Notes and we entered into the 2022 Term Loan. The proceeds from the 2025 Notes and the 2022 Term Loan were used in funding the acquisition of the BNS business. We incurred \$77.7 million of incremental interest expense in 2015 as a result of this acquisition-related debt. The proceeds from the 2020 Notes were used to repay a portion of our existing term loans. In connection with this repayment, \$6.7 million of original issue discount and debt issuance costs were written off and included in interest expense in 2015.

In May 2014, we issued \$1.3 billion of senior notes at a weighted average stated interest rate of 5.25% and used substantially all of the net proceeds to redeem \$1.1 billion of 8.25% senior notes that were due in 2019 (the 2019 Notes). In connection with the redemption of the 2019 Notes, we wrote off \$19.1 million of debt issuance costs to interest expense in 2014.

Our weighted average effective interest rate on outstanding borrowings, including the amortization of debt issuance costs and original issue discount was 5.50% as of December 31, 2015 and 5.38% as of December 31, 2014.

Other expense, net. Foreign exchange losses of \$15.1 million were included in other expense, net for 2015 compared to losses of \$2.7 million for 2014.

During 2015 and 2014, we sold portions of our investment in Hydrogenics that resulted in pretax gains of \$2.7 million and \$12.3 million, respectively, which were recorded in other expense, net. Other expense, net for 2014 also included our share of losses in our equity investments of \$1.5 million.



In connection with the redemption of the 2019 Notes in 2014, we recorded a redemption premium of \$93.9 million, which was included in other expense, net.

Income taxes. Our effective income tax rate for 2015 was negatively impacted by tax valuation allowances related to federal tax credit carryforwards, impairment charges for which minimal tax benefits were recorded and losses in certain jurisdictions where we did not recognize tax benefits due to the likelihood of them not being realizable. These negative impacts were partially offset by the favorable effects of earnings in foreign jurisdictions, lower levels of planned repatriation as a result of funds used outside the U.S. for a portion of the BNS purchase price, benefits recognized from adjustments related to prior years' tax returns and a reduction in tax expense related to uncertain tax positions.

Our effective income tax rate of 25.3% for 2014 included reductions in tax expense related to reductions in reserves for uncertain tax positions as a result of the lapse of statutes of limitations on certain matters. The benefits to the income tax rate were partially offset by the impact of losses in certain jurisdictions where we did not recognize tax benefits due to the likelihood of them not being realizable and the provision for state income taxes. Earnings in foreign jurisdictions reduce our effective tax rate. This reduction is largely offset by providing for the cost of repatriating the majority of these earnings.

## Segment Results

	Year Ended December 31, 2015			2014						
		% of Net			% of Net		Dollar	%		
	Amount	Sales		Amount	Sales		Change	Change		
	(dollars in millions)									
Net sales by segment:										
CCS	\$1,841.7	48.4	%	\$1,359.8	35.5	%	\$481.9	35.4	%	
CMS	1,966.1	51.6		2,469.8	64.5		(503.7)	(20.4	)	
Consolidated net sales	\$3,807.8	100.0	%	\$3,829.6	100.0	%	\$(21.8	)	(0.6	)%
Operating income by segment:										
CCS	\$16.1	0.9	%	\$109.3	8.0	%	\$(93.2	)	(85.3	)%
CMS	165.5	8.4		468.1	19.0		(302.6)	(64.6	)	
Consolidated operating income	\$181.6	4.8	%	\$577.4	15.1	%	\$(395.8)	(68.5	)%	
Non-GAAP adjusted operating income by segment:										
CCS	\$349.9	19.0	%	\$208.1	15.3	%	\$141.8	68.1	%	
CMS	379.9	19.3		600.3	24.3		(220.4)	(36.7	)	
Non-GAAP consolidated adjusted operating income <sup>(1)</sup>										
	\$729.8	19.2	%	\$808.4	21.1	%	\$(78.6	)	(9.7	)%

(1) See “Reconciliation of Non-GAAP Measures”.

CommScope Connectivity Solutions Segment

CCS segment net sales for 2015 were higher than the prior year across all major geographic regions due to the acquisition of the BNS business. Excluding the incremental net sales related to the BNS business, CCS segment net sales were down in 2015 driven by decreases in CALA offset partially by increases in the U.S. and APAC. The CCS segment also continued to prune less profitable products from its portfolio, which resulted in lower sales for the segment. Foreign exchange rate changes had a negative impact of approximately 1% on CCS segment net sales in 2015 compared to 2014.

CCS segment operating income decreased for 2015 as compared to 2014 primarily due to integration and transaction costs of \$82.3 million; purchase accounting charges related to the mark-up of inventory to its estimated fair value less the estimate cost associated with its sales of \$78.2 million; restructuring charges of \$16.9 million; and asset impairment charges of \$16.4 million, all of which were not included in non-GAAP adjusted operating income. CCS segment operating income for 2014 included a gain of \$13.1 million related to adjustments to contingent consideration payable and asset impairment charges of \$7.2 million. These charges were not included in non-GAAP adjusted operating income. CCS segment non-GAAP adjusted operating income increased for 2015 as compared to 2014 primarily due to the acquisition of the BNS business as well as favorable product mix, lower material costs and the benefits of cost reductions and product rationalization.

#### CommScope Mobility Solutions Segment

The CMS segment experienced a substantial decrease in net sales for 2015 compared to 2014, primarily as a result of lower sales in the U.S. due to a slowdown in spending by certain domestic operators. In addition to the slowdown in the U.S. during 2015, CMS segment net sales were lower in the EMEA region. CMS segment net sales in the APAC region were essentially unchanged year-over-year. The Airvana and Alifabs acquisitions provided incremental net sales to the CMS segment of \$20.4 million during 2015. Foreign exchange rate changes had a negative impact of approximately 5% on CMS segment net sales for 2015 compared to 2014.

CMS segment operating income and non-GAAP adjusted operating income decreased substantially in 2015 compared to 2014 as a result of lower sales volumes. In addition to the decline in sales, CMS segment operating income was negatively affected by a goodwill impairment charge of \$74.4 million during 2015 compared to an impairment charge of \$4.9 million in 2014. These impairment charges are not reflected in non-GAAP adjusted operating income. The CMS segment also recorded higher bad debt expense in 2015 as compared to 2014. The CMS segment reflected benefits from lower variable cash compensation costs as a result of its lower operating performance in 2015 as compared to 2014.

#### Liquidity and Capital Resources

The following table summarizes certain key measures of our liquidity and capital resources:

	December 31,		Dollar	%
	2016	2015	Change	Change
	(dollars in millions)			
Cash and cash equivalents	\$428.2	\$562.9	\$(134.7)	(23.9 )%
Working capital <sup>(1)</sup> , excluding cash and cash				
equivalents and current portion of long-term debt	720.2	769.2	(49.0 )	(6.4 )
Availability under revolving credit facility	441.1	278.2	162.9	58.6
Long-term debt, including current portion	4,562.0	5,243.7	(681.7)	(13.0 )
Total capitalization <sup>(2)</sup>	5,956.1	6,466.4	(510.3)	(7.9 )
Long-term debt, including current portion, as a				
percentage of total capitalization	76.6	%	81.1	%

- (1) Working capital consists of current assets of \$1,993.8 million less current liabilities of \$857.8 million as of December 31, 2016. Working capital consists of current assets of \$2,004.6 million less current liabilities of \$685.1 million as of December 31, 2015.
- (2) Total capitalization includes long-term debt, including the current portion, and stockholders' equity.
- 49
-

Our principal sources of liquidity on a short-term basis are cash and cash equivalents, cash flows provided by operations and availability under credit facilities. Refer to Note 6 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for information regarding the terms of our credit facilities. We believe these sources will be sufficient to meet our presently anticipated future cash needs. On a long-term basis, our potential sources of liquidity also include raising capital through the issuance of debt and/or equity. The primary uses of liquidity include debt service requirements (including voluntary debt repayments or redemptions), funding working capital requirements, funding acquisitions, paying acquisition integration costs, capital expenditures, paying restructuring costs, income tax payments (including cost of repatriation), funding pension and other postretirement obligations and potential stock repurchases.

Cash and cash equivalents decreased during 2016 mainly due to our voluntary redemptions of \$536.6 million of our senior PIK toggle notes and payments of \$162.5 of our senior secured term loans, largely offset by cash generated by our operations. As of December 31, 2016, approximately 78% of our cash and cash equivalents were held outside the U.S. Income taxes have been provided on foreign earnings such that there would be no significant incremental income tax expense to repatriate the portion of this cash that is not required to meet operational needs of our international subsidiaries.

Working capital, excluding cash and cash equivalents and current portion of long-term debt, decreased primarily due to higher accrued liability balances resulting from the timing of payments of variable cash compensation costs as well as higher accounts payable balances due to improved payment terms with vendors. These declines were offset partially by higher accounts receivable balances due to less favorable payment terms with certain customers. The net change in total capitalization during 2016 primarily reflected the payments of \$699.1 million of our long-term debt, partially offset by current year earnings.

#### Cash Flow Overview

Comparison for the year ended December 31, 2016 with the year ended December 31, 2015

	Year Ended		Dollar	%	
	December 31,	2015	Change	Change	
	(dollars in millions)				
Net cash generated by operating activities	\$606.2	\$302.1	\$304.1	100.7	%
Net cash used in investing activities	(54.6 )	(3,050.6)	2,996.0	(98.2 )	
Net cash generated by (used in) financing activities	(674.4)	2,603.1	(3,277.5)	NM	

NM - Not meaningful

#### Operating Activities

During 2016, we generated \$606.2 million of cash through operating activities compared to \$302.1 million during 2015. The improvement was primarily due to higher adjusted operating income in the current year as a result of the BNS acquisition. In addition, we benefited from initiatives to improve payment terms with vendors in 2016, the impact of lower variable cash compensation payments than in the prior year and lower payments of integration and transaction costs in 2016 compared to 2015. Cash paid for interest was \$53.4 million higher for 2016 than in the prior year primarily as a result of the incremental debt incurred to finance the acquisition of the BNS business. In

connection with the voluntary redemptions of the senior PIK toggle notes, we paid redemption premiums of \$17.7 million. Cash paid for taxes was \$26.4 million higher for 2016 compared to the prior year.

50

---

## Investing Activities

Investment in property, plant and equipment during 2016 was \$68.3 million, of which \$6.1 million was related to capital spending to support the integration of the BNS business. During 2015, investment in property, plant and equipment was \$56.5 million, of which \$12.7 million was related to capital spending to support the integration of the BNS business. The investment in property, plant and equipment was primarily related to supporting improvements in manufacturing operations, including expanding production capacity, and investing in information technology (including software developed for internal use).

During 2016, we sold a facility that was no longer being utilized for \$3.7 million.

During 2016, we received \$7.1 million in net settlements for working capital, pension and other adjustments related to the BNS acquisition. We do not expect any additional material net settlements with TE Connectivity related to the BNS acquisition. Also during 2016, we paid the final \$1.0 million in purchase price payable related to the Airvana acquisition.

During 2015, we acquired the BNS business and paid \$2,957.5 million, net of cash acquired, using a combination of cash on hand and proceeds from the issuance of long-term debt. Also in 2015, we acquired Airvana and paid \$43.5 million, net of cash acquired, using cash on hand.

## Financing Activities

During 2016, we voluntarily redeemed the remaining \$536.6 million of our senior PIK toggle notes. We also made a voluntary debt payment of \$150.0 million on our senior secured term loan due 2018 (2018 Term Loan) as well as mandatory debt repayments of \$12.5 million on our 2022 Term Loan. Also in 2016, in connection with the amendment of our 2022 Term Loan to reduce our interest rate, we recorded debt repayments and offsetting debt proceeds of \$19.8 million. We may voluntarily repay debt or repurchase our senior notes if market conditions are favorable and the applicable indenture and the senior secured credit facilities permit such repayment or repurchase. We also may refinance our existing debt to reduce interest rates, extend the term or adjust the total amount of fixed or floating-rate debt.

As of December 31, 2016, we had no outstanding borrowings under our revolving credit facility and availability of \$441.1 million, reflecting a borrowing base of \$466.1 million reduced by \$25.0 million of letters of credit issued under the revolving credit facility. In the third quarter of 2016, we increased our capacity under the revolver as additional domestic collateral resulting from the BNS acquisition was added to the borrowing base.

During 2016, we received proceeds of \$16.8 million and recognized \$15.0 million of excess tax benefits primarily related to the exercise of stock options. Also during 2016, employees surrendered 143,000 shares of our common stock to satisfy their tax withholding requirements on vested restricted stock units, which reduced cash flows by \$3.9 million.

During 2015, we received \$500.0 million from the issuance of the 2020 Notes which was used, together with cash on hand, to repay \$500.0 million of our existing term loans and to pay the fees, costs and expenses related to the issuance. In addition, we issued \$1.5 billion of 2025 Notes and borrowed \$1.25 billion under the 2022 Term Loan. The proceeds from the 2025 Notes and the 2022 Term Loan were used to fund a substantial portion of the BNS acquisition. In connection with these financing transactions and an amendment of our revolving credit facility, we incurred \$74.3 million of debt issuance costs. Also during 2015, we made a mandatory debt repayment of \$3.1 million on the 2022 Term Loan and a voluntary repayment of \$100.0 million on the 2018 Term Loan. We also voluntarily repurchased \$13.4 million of our senior PIK toggle notes and paid a \$0.3 million premium related to the repurchase. During 2015,

we received proceeds of \$25.6 million and recognized \$24.8 million of excess tax benefits primarily related to the exercise of stock options. Also during 2015, employees surrendered 24,656 shares of our common stock to satisfy their tax withholding requirements on vested restricted stock units, which reduced cash flows by \$0.7 million.



Comparison for the year ended December 31, 2015 with the year ended December 31, 2014

	Year Ended December 31,		Dollar	%	
	2015	2014	Change	Change	
	(dollars in millions)				
Net cash generated by operating activities	\$302.1	\$289.4	\$12.7	4.4	%
Net cash used in investing activities	(3,050.6)	(76.0)	(2,974.6)	NM	
Net cash generated by financing activities	2,603.1	190.8	2,412.3	NM	

NM - Not meaningful

### Operating Activities

During 2015, we generated \$302.1 million of cash through operating activities compared to \$289.4 million during 2014. Cash flow from operations for 2015 included the payment of \$96.1 million of integration and transaction costs, primarily related to the acquisition of the BNS business. Cash flow from operations for 2014 included the payment of a \$93.9 million premium related to redeeming the 2019 Notes. Excluding the integration and transaction costs paid in 2015 and the premium payment in 2014, we generated \$10.5 million more from operating activities in 2015 compared to 2014 as lower operating performance in 2015 was more than offset by favorable changes in working capital. Cash flow from operations improved in 2015 despite an increase of \$23.9 million in cash paid for taxes and an increase of \$22.4 million in cash paid for interest due to the additional debt incurred in 2015 related to the acquisition of the BNS business.

### Investing Activities

During 2015, we acquired the BNS business and paid \$2,957.5 million, net of cash acquired, using a combination of cash on hand and proceeds from the issuance of long-term debt. Also during 2015, we acquired Airvana and paid \$43.5 million, net of cash acquired, using cash on hand. During 2014, we paid \$46.7 million, net of cash acquired, in connection with the Alifabs acquisition and we also received \$4.7 million related to the final determination of the iTRACS purchase price.

Investment in property, plant and equipment during 2015 was \$56.5 million, of which \$12.7 million was related to capital spending to support the integration of the BNS business. The remainder of the investment in property, plant and equipment was primarily related to supporting improvements to manufacturing operations as well as investments in information technology (including software developed for internal use).

During 2015 and 2014, we received proceeds of \$2.8 million and \$12.8 million, respectively, related to the sale of a portion of our investment in Hydrogenics. During 2014, we paid \$15.0 million for the purchase of a non-controlling interest in a company developing high-speed transceivers and photonic integrated circuit products.

### Financing Activities

During 2015, we received \$500.0 million from the issuance of the 2020 Notes which was used, together with cash on hand, to repay \$500.0 million of our existing term loans. In addition, we issued \$1.5 billion of 2025 Notes and borrowed \$1.25 billion under the 2022 Term Loan. The proceeds from the 2025 Notes and the 2022 Term Loan were

used to fund a substantial portion of the acquisition of the BNS business. In connection with these financing transactions and the amendment of our revolving credit facility, we paid \$74.3 million of debt issuance costs during 2015.

During 2015, we made a mandatory debt repayment of \$3.1 million on the 2022 Term Loan and a voluntary repayment of \$100 million on our senior secured term loan due 2018. We also voluntarily repurchased \$13.4 million of our senior PIK toggle notes and paid a \$0.3 million premium related to the repurchase.

As of December 31, 2015, we had no outstanding borrowings under our revolving credit facility and the remaining availability was \$278.2 million, reflecting a borrowing base of \$299.6 million reduced by \$21.4 million of letters of credit issued under the revolving credit facility. During 2015, we received proceeds of \$25.6 million and recognized \$24.8 million of excess tax benefits primarily related to the exercise of stock options.

During 2014, we issued \$1.3 billion of new senior notes at a weighted average interest rate of 5.25%. Proceeds from the new senior notes were used to redeem the entire \$1.1 billion of outstanding 2019 Notes. In connection with issuing the new senior notes, we paid financing costs of \$23.3 million during 2014. Also during 2014, we borrowed and repaid \$15.0 million under our revolving credit facility and repaid \$8.8 million of our senior secured term loans. During 2014, we received proceeds from stock option exercises and the related excess tax benefits of \$23.5 million.

#### Reconciliation of Non-GAAP Measures

We believe that presenting certain non-GAAP financial measures enhances an investor's understanding of our financial performance. We further believe that these financial measures are useful financial metrics to assess our operating performance from period to period by excluding certain items that we believe are not representative of our core business. We also use certain of these financial measures for business planning purposes and in measuring our performance relative to that of our competitors. We believe these financial measures are commonly used by investors to evaluate our performance and that of our competitors. However, our use of the terms non-GAAP adjusted operating income and non-GAAP adjusted EBITDA may vary from that of others in our industry. These financial measures should not be considered as alternatives to operating income (loss), net income (loss) or any other performance measures derived in accordance with U.S. GAAP as measures of operating performance or operating cash flows or as measures of liquidity.

Our consolidated results include the impact of the BNS business subsequent to the acquisition date of August 28, 2015.

Although there are no financial maintenance covenants under the terms of our senior notes, there is a limitation, among other limitations, on certain future borrowings based on an adjusted leverage ratio or a fixed charge coverage ratio. These ratios are based on financial measures similar to adjusted EBITDA as presented below, but also give pro forma effect to certain events, including acquisitions and savings from cost reduction initiatives such as facility closures and headcount reductions. For the year ended December 31, 2016, our pro forma adjusted EBITDA, as measured pursuant to indentures governing our notes, was \$1,152.7 million, which included the impact of savings from announced cost reduction initiatives (\$20.9 million) so that the impact of the cost reduction initiatives are fully reflected in the twelve-month period used in the calculation of the ratios. In addition to limitations under these indentures, our senior secured credit facilities contain customary negative covenants. We believe we are in compliance with the covenants under our indentures and senior secured credit facilities at December 31, 2016.

The following tables exclude the impact of the BNS and Airvana acquisitions for periods prior to their respective acquisition:

## Consolidated

	Year Ended December 31,		
	2016	2015	2014
	(in millions)		
Operating income	\$574.8	\$181.6	\$577.4
Adjustments:			
Amortization of purchased intangible assets	297.2	220.6	178.3
Restructuring costs, net	42.9	29.5	19.3
Equity-based compensation	35.0	28.7	21.1
Asset impairments	38.6	90.8	12.1
Integration and transaction costs (a)	62.3	96.9	12.1
Purchase accounting adjustments (b)	0.6	81.7	(11.9)
Non-GAAP adjusted operating income	\$1,051.4	\$729.8	\$808.4
Depreciation	80.5	60.6	48.8
Non-GAAP adjusted EBITDA	\$1,131.8	\$790.3	\$857.2

(a) Reflects integration costs related to the acquisition of the BNS business, transaction costs related to potential and consummated acquisitions and costs related to secondary stock offerings.

(b) Reflects non-cash charges resulting from purchase accounting adjustments. The 2014 adjustment also includes \$13.1 million for the reduction in the estimated fair value of contingent consideration payable related to a previous acquisition.

CCS Segment

	Year Ended		
	December 31,		
	2016	2015	2014
	(in millions)		
Operating income	\$291.2	\$16.1	\$109.3
Adjustments:			
Amortization of purchased intangible assets	195.9	124.0	87.0
Restructuring costs, net	27.1	16.9	3.1
Equity-based compensation	19.8	16.1	9.4
Asset impairments	38.6	16.3	7.2
Integration and transaction costs	59.1	82.3	4.5
Purchase accounting adjustments	0.6	78.2	(12.5)
Non-GAAP adjusted operating income	\$632.3	\$349.9	\$208.1

## CMS Segment

	Year Ended December 31,		
	2016	2015	2014
	(in millions)		
Operating income	\$283.6	\$165.5	\$468.1
Adjustments:			
Amortization of purchased intangible assets	101.3	96.6	91.3
Restructuring costs, net	15.8	12.6	16.2
Equity-based compensation	15.2	12.6	11.7
Asset impairments	—	74.4	4.9
Integration and transaction costs	3.3	14.6	7.6
Purchase accounting adjustments	—	3.6	0.6
Non-GAAP adjusted operating income	\$419.1	\$379.9	\$600.3

Note: Components may not sum to total due to rounding

## Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2016:

Contractual Obligations	Amount of Payments Due per Period				
	Total				
	Payments Due	2017	2018-2019	2020-2021	Thereafter
(in millions)					
Long-term debt, including current					
maturities (a)	\$4,646.3	\$12.5	\$ 136.9	\$ 1,175.0	\$ 3,321.9
Interest on long-term debt (a)(b)	1,497.7	225.4	442.2	389.0	441.1
Operating leases	99.9	32.5	36.3	23.5	7.6
Purchase obligations (c)	7.2	7.2	—	—	—
Pension and other postretirement					
benefit liabilities (d)	16.2	8.6	3.2	1.9	2.5
Restructuring costs, net (e)	33.1	28.6	4.5	—	—
Unrecognized tax benefits (f)	—	—	—	—	—
Total contractual obligations	\$6,300.4	\$314.8	\$ 623.1	\$ 1,589.4	\$ 3,773.1

(a) No prepayment or redemption of any of our long-term debt balances has been assumed. Refer to Note 6 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for information regarding the terms of our long-term debt agreements.

(b)

Interest on long-term debt excludes the amortization of deferred financing fees and original issue discount. Interest on variable rate debt is estimated based upon rates in effect as of December 31, 2016.

- (c) Purchase obligations include minimum amounts owed under take-or-pay or requirements contracts. Amounts covered by open purchase orders are excluded as there is no contractual obligation until goods or services are received.
- (d) Amounts reflect expected contributions related to payments under the postretirement benefit plans through 2026 and expected pension contributions of \$6.9 million in 2017 (see Note 10 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K).
- (e) Future restructuring payments exclude payments due under lease arrangements which are included in operating leases above.

55

---

(f) Due to the uncertainty in predicting the timing of tax payments related to our unrecognized tax benefits, \$45.9 million has been excluded from the presentation. We anticipate a reduction of up to \$10.0 million of unrecognized tax benefits during the next twelve months (see Note 11 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K).

#### Recent Accounting Pronouncements

##### Adopted in 2016

During the fourth quarter of 2016, we prospectively adopted Accounting Standards Update (ASU) No. 2015-11, Simplifying the Measurement of Inventory. The guidance requires that inventory be measured at the lower of cost and net realizable value, which is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. This guidance simplifies the prior guidance by eliminating the options of measuring inventory at replacement cost or net realizable value less an approximate normal profit margin. Adoption of this ASU did not have a material impact on our consolidated financial statements.

##### Issued but Not Adopted

In August 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-15, Cash Flow Classification of Certain Cash Receipts and Cash Payments. The standard update amends or clarifies guidance on classification of certain transactions in the statement of cash flows, including classification of debt prepayments, debt extinguishment costs and contingent consideration payments after a business combination. ASU 2016-15 is effective for us as of January 1, 2018 and early adoption is permitted. We are evaluating the impact of this new guidance on the consolidated statement of cash flows and when it may be adopted.

In June 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments. The new guidance replaces the current incurred loss method used for determining credit losses on financial assets, including trade receivables, with an expected credit loss method. ASU No. 2016-13 is effective for us as of January 1, 2020 and early adoption is permitted. We are evaluating the impact of this new guidance on the consolidated financial statements and when it may be adopted.

In March 2016, the FASB issued ASU No. 2016-09, Improvements to Employee Share-Based Payment Accounting, which simplifies several aspects of the accounting for employee equity-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. ASU No. 2016-09 is effective for us as of January 1, 2017 and we do not expect that its application will have a significant impact on income before income taxes; however, it may impact our net income because excess tax benefits or deficiencies, which are currently reflected in additional paid in capital, must be reflected in income tax expense under ASU No. 2016-09. The significance of the impact will depend on the intrinsic value at the time of vesting or exercise of equity-based compensation awards. The impact to the Consolidated Statements of Cash Flows will be to present excess tax benefits or deficiencies as an operating activity instead of a financing activity in 2017. We also expect to make an accounting policy election to account for forfeitures as they occur instead of applying an estimated forfeiture rate over the vesting period of the award.

In February 2016, the FASB issued ASU No. 2016-02, Leases, which supersedes the current leasing guidance in Topic 840, Leases. Under the new guidance, lessees are required to recognize assets and lease liabilities for the rights and obligations created by leased assets previously classified as operating leases. ASU No. 2016-02 is effective for us as of January 1, 2019 and early adoption is permitted. We are evaluating the impact of this new guidance on the consolidated financial statements and when it may be adopted.





In January 2016, the FASB issued ASU No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, which modifies how entities measure equity investments (except those accounted for under the equity method of accounting) and present changes in the fair value of financial liabilities; simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; changes presentation and disclosure requirements; and clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. The guidance is effective for us as of January 1, 2018 and with the exception of certain provisions, early adoption is not permitted. We are evaluating the impact of this new guidance on the consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers. The new accounting standard defines a single comprehensive model in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the ASU is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. We will be required to adopt the new standard, including subsequently issued clarifying guidance, as of January 1, 2018 using either: (i) full retrospective application to each prior reporting period presented; or (ii) modified retrospective application with the cumulative effect of initially applying the standard recognized at the date of initial application and providing certain additional required disclosures. We plan to adopt the new accounting model as of January 1, 2018 using the modified retrospective method.

During 2016, we completed an impact assessment and determined that adoption of the standard will likely result in changes to revenue recognition related to the timing of when revenues are recognized for contracts containing both product and service obligations. These contract revenues are currently accounted for using the multi-element guidance and are primarily for metro cell, DAS and small cell solutions within the CMS segment. Due to the short-term nature of these contracts, the ultimate impact to the Company's consolidated financial statements will be based on customer-specific contract terms in effect at adoption and could be material.

We believe that changes to our accounting policies, processes, internal controls and information systems will be required to comply with this update. We are in the process of implementing the changes necessary to meet the new standard's reporting and disclosure requirements.

#### Off-Balance Sheet Arrangements

We are not a party to any significant off-balance sheet arrangements, except for operating leases.

#### Effects of Inflation and Changing Prices

We continually attempt to minimize the effect of inflation on earnings by controlling our operating costs and adjusting our selling prices. The principal raw materials purchased by us (copper, aluminum, steel, plastics and other polymers, bimetal and optical fiber) are subject to changes in market price as they are influenced by commodity markets and other factors. Prices for copper, fluoropolymers and certain other polymers derived from oil and natural gas have, at times, been volatile. As a result, we have adjusted our prices for certain products and may have to adjust prices again in the future. To the extent that we are unable to pass on cost increases to customers without a significant decrease in sales volume or must implement price reductions in response to a rapid decline in raw material costs, these cost changes could have a material adverse impact on the results of our operations.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks related to changes in interest rates, foreign currency exchange rates and commodity prices. We may utilize derivative financial instruments, among other methods, to hedge some of these exposures. We do not use derivative financial instruments for speculative or trading purposes.

57

---

## Interest Rate Risk

The table below summarizes the expected interest and principal payments associated with our variable rate debt outstanding as of December 31, 2016 (mainly the \$1.35 billion of variable rate term loans). The principal payments presented below are based on scheduled maturities and assume no borrowings under the revolving credit facility. The interest payments presented below assume the interest rates in effect as of December 31, 2016 (see Note 6 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K). The impact of a 1% increase in the interest rate index (taking into account the impact of the LIBOR floor on the term loans) on projected future interest payments on the variable rate debt is also included in the table below.

	2017	2018	2019	2020	2021	There- after
	(dollars in millions)					
Principal and interest payments						
on variable rate debt	\$57.8	\$165.7	\$53.2	\$52.2	\$51.0	\$1,210.2
Average cash interest rate	3.38%	3.38%	3.38%	3.33%	3.27%	3.27%
Impact of 1% increase in interest rate index	\$13.4	\$12.2	\$12.0	\$11.9	\$11.8	\$11.7

We also have \$3.30 billion aggregate principal amount of fixed rate senior notes. The table below summarizes our expected interest and principal payments related to our fixed rate debt at December 31, 2016.

	2017	2018	2019	2020	2021	There- after
	(dollars in millions)					
Principal and interest payments						
on fixed rate debt	\$180.1	\$180.1	\$180.1	\$668.8	\$792.0	\$2,552.8
Average cash interest rate	5.46%	5.46%	5.46%	5.55%	5.74%	5.90%

## Foreign Currency Risk

Approximately 46% and 51% of net sales for 2016 and 2015, respectively, were to customers located outside the U.S. Significant changes in foreign currency exchange rates could adversely affect our international sales levels and the related collection of amounts due. In addition, a significant decline in the value of currencies used in certain regions of the world as compared to the U.S. dollar could adversely affect product sales in those regions because our products may become more expensive for those customers to pay for in their local currency. Conversely, significant increases in the value of foreign currencies as compared to the U.S. dollar could adversely affect profitability as certain product costs increase relative to a U.S. dollar-denominated sales price. The foreign currencies to which we have the greatest exposure include the Chinese yuan, euro, Australian dollar, Indian rupee, British pound and Mexican peso. Local manufacturing provides a partial natural hedge and we continue to evaluate additional alternatives to help us reasonably manage the market risk related to foreign currency exposures.

We use derivative instruments such as forward exchange contracts to manage the risk of fluctuations in the value of certain foreign currencies. At December 31, 2016, we had foreign exchange contracts with a net unrealized loss of

\$8.1 million, with maturities of up to six months and aggregate notional value of \$328 million (based on exchange rates as of December 31, 2016). These instruments are not leveraged and are not held for trading or speculation. These contracts are not designated as hedges for accounting purposes and are marked to market each period through earnings and, as such, there were no unrecognized gains or losses as of December 31, 2016 or 2015. See Note 7 in the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for further discussion of these contracts. We continuously evaluate the amount and type of derivative instruments utilized to manage the market risk related to foreign currency exposures.

## Commodity Price Risk

Materials, in their finished form, account for a large portion of our cost of sales. These materials, such as copper, aluminum, steel, plastics and other polymers, bimetals and optical fiber, are subject to changes in market price as they are influenced by commodity markets and supply and demand levels, among other factors. Management attempts to mitigate these risks through effective requirements planning and by working closely with key suppliers to obtain the best possible pricing and delivery terms. As of December 31, 2016, we had forward purchase commitments outstanding under take-or-pay contracts for certain metals of approximately \$7.2 million that we expect to consume in the normal course of operations through the second quarter of 2017. We continuously evaluate the amount and type of derivative instruments utilized to manage commodity price risk.

59

---

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Financial Statements

<u>Reports of Independent Registered Public Accounting Firm</u>	61
<u>Consolidated Statements of Operations and Comprehensive Income (Loss)</u>	63
<u>Consolidated Balance Sheets</u>	64
<u>Consolidated Statements of Cash Flows</u>	65
<u>Consolidated Statements of Stockholders' Equity</u>	66
<u>Notes to Consolidated Financial Statements</u>	67

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of CommScope Holding Company, Inc.

We have audited the accompanying consolidated balance sheets of CommScope Holding Company, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of CommScope Holding Company, Inc. at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), CommScope Holding Company, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) and our report dated February 22, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Charlotte, North Carolina

February 22, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of CommScope Holding Company, Inc.

We have audited CommScope Holding Company, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). CommScope Holding Company, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, CommScope Holding Company, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the 2016 consolidated financial statements of CommScope Holding Company, Inc. and our report dated February 22, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP



Charlotte, North Carolina

February 22, 2017

62

---

CommScope Holding Company, Inc.  
Consolidated Statements of Operations  
and Comprehensive Income (Loss)  
(In thousands, except per share amounts)

	Year Ended December 31,		
	2016	2015	2014
Net sales	\$4,923,621	\$3,807,828	\$3,829,614
Operating costs and expenses:			
Cost of sales	2,890,032	2,462,008	2,432,345
Selling, general and administrative	879,495	687,389	484,891
Research and development	200,715	135,964	125,301
Amortization of purchased intangible assets	297,202	220,602	178,265
Restructuring costs, net	42,875	29,488	19,267
Asset impairments	38,552	90,784	12,096
Total operating costs and expenses	4,348,871	3,626,235	3,252,165
Operating income	574,750	181,593	577,449
Other expense, net	(30,171 )	(13,061 )	(86,405 )
Interest expense	(277,534 )	(234,661 )	(178,935 )
Interest income	5,524	4,128	4,954
Income (loss) before income taxes	272,569	(62,001 )	317,063
Income tax expense	(49,731 )	(8,874 )	(80,291 )
Net income (loss)	\$222,838	\$(70,875 )	\$236,772
Earnings (loss) per share:			
Basic	\$1.16	\$(0.37 )	\$1.27
Diluted	\$1.13	\$(0.37 )	\$1.24
Weighted average shares outstanding:			
Basic	192,470	189,876	186,905
Diluted	196,459	189,876	191,450
Comprehensive income (loss):			
Net income (loss)	\$222,838	\$(70,875 )	\$236,772
Other comprehensive income (loss), net of tax:			
Foreign currency translation loss	(93,528 )	(80,137 )	(51,411 )
Defined benefit plans:			
Change in unrecognized actuarial gain (loss)	(16,002 )	3,571	(11,584 )
Change in unrecognized net prior service cost (credit)	96	(6,181 )	(6,169 )
Available-for-sale securities	(4,001 )	(5,383 )	11,892
Total other comprehensive loss, net of tax	(113,435 )	(88,130 )	(57,272 )
Total comprehensive income (loss)	\$109,403	\$(159,005 )	\$179,500

See notes to consolidated financial statements.



CommScope Holding Company, Inc.  
Consolidated Balance Sheets  
(In thousands, except share amounts)

	December 31,	
	2016	2015
Assets		
Cash and cash equivalents	\$428,228	\$562,884
Accounts receivable, less allowance for doubtful accounts of		
\$17,211 and \$19,392, respectively	952,367	833,041
Inventories, net	473,267	441,815
Prepaid expenses and other current assets	139,902	166,900
Total current assets	1,993,764	2,004,640
Property, plant and equipment, net of accumulated depreciation		
of \$303,734 and \$243,806, respectively	474,990	528,706
Goodwill	2,768,304	2,690,636
Other intangible assets, net	1,799,065	2,147,483
Other noncurrent assets	105,863	131,166
Total assets	\$7,141,986	\$7,502,631
Liabilities and Stockholders' Equity		
Accounts payable	\$415,921	\$300,829
Other accrued liabilities	429,397	371,743
Current portion of long-term debt	12,500	12,520
Total current liabilities	857,818	685,092
Long-term debt	4,549,510	5,231,131
Deferred income taxes	199,121	202,487
Pension and other postretirement benefit liabilities	31,671	37,102
Other noncurrent liabilities	109,782	124,099
Total liabilities	5,747,902	6,279,911
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$.01 par value: Authorized shares: 200,000,000;		
Issued and outstanding shares: None	—	—
Common stock, \$.01 par value: Authorized shares: 1,300,000,000;		
Issued and outstanding shares: 193,837,437 and 191,368,727, respectively	1,950	1,923
Additional paid-in capital	2,282,014	2,216,202
Retained earnings (accumulated deficit)	(589,556 )	(812,394 )
Accumulated other comprehensive loss	(285,113 )	(171,678 )
Treasury stock, at cost: 1,129,222 shares and 986,222 shares, respectively	(15,211 )	(11,333 )
Total stockholders' equity	1,394,084	1,222,720
Total liabilities and stockholders' equity	\$7,141,986	\$7,502,631

See notes to consolidated financial statements.



CommScope Holding Company, Inc.  
Consolidated Statements of Cash Flows  
(In thousands)

	Year Ended December 31,		
	2016	2015	2014
Operating Activities:			
Net income (loss)	\$222,838	\$(70,875 )	\$236,772
Adjustments to reconcile net income (loss) to net cash generated by operating activities:			
Depreciation and amortization	399,053	303,500	259,504
Equity-based compensation	35,006	28,665	21,092
Deferred income taxes	(100,878)	(101,826 )	(33,278 )
Asset impairments	38,552	90,784	12,096
Excess tax benefits from equity-based compensation	(14,993 )	(24,754 )	(11,411 )
Changes in assets and liabilities:			
Accounts receivable	(100,867)	(6,984 )	(18,824 )
Inventories	(31,996 )	162,164	(4,324 )
Prepaid expenses and other current assets	14,273	(65,271 )	1,502
Accounts payable and other accrued liabilities	191,405	6,921	(109,922 )
Other noncurrent liabilities	(35,950 )	(13,320 )	(49,265 )
Other noncurrent assets	(1,834 )	(11,966 )	715
Other	(8,384 )	5,022	(15,239 )
Net cash generated by operating activities	606,225	302,060	289,418
Investing Activities:			
Additions to property, plant and equipment	(68,314 )	(56,501 )	(36,935 )
Proceeds from sale of property, plant and equipment	4,084	3,417	4,575
Cash paid for acquisitions including purchase price adjustments, net of cash acquired	6,098	(3,000,991)	(41,794 )
Proceeds from sale of businesses and long-term investments	1,292	2,817	12,761
Cash paid for long-term investments	—	—	(15,000 )
Other	2,253	646	441
Net cash used in investing activities	(54,587 )	(3,050,612)	(75,952 )
Financing Activities:			
Long-term debt repaid	(718,914)	(619,056 )	(1,124,392)
Long-term debt proceeds	19,764	3,246,875	1,315,026
Long-term debt financing costs	—	(74,319 )	(23,257 )
Proceeds from the issuance of common shares under equity-based compensation plans	16,756	25,570	12,052
Excess tax benefits from equity-based compensation	14,993	24,754	11,411
Tax withholding payments for vested equity-based compensation awards	(3,878 )	(698 )	—
Other	(3,094 )	—	—

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Net cash generated by (used in) financing activities	(674,373)	2,603,126	190,840
Effect of exchange rate changes on cash and cash equivalents	(11,921 )	(21,011 )	(21,305 )
Change in cash and cash equivalents	(134,656)	(166,437 )	383,001
Cash and cash equivalents, beginning of period	562,884	729,321	346,320
Cash and cash equivalents, end of period	\$428,228	\$562,884	\$729,321

See notes to consolidated financial statements.

65

CommScope Holding Company, Inc.  
Consolidated Statements of Stockholders' Equity  
(In thousands, except share amounts)

	Year Ended December 31,		
	2016	2015	2014
Number of common shares outstanding:			
Balance at beginning of period	191,368,727	187,831,389	185,861,777
Issuance of shares under equity-based compensation plans	2,611,710	3,561,994	1,969,612
Shares surrendered under equity-based compensation plans	(143,000 )	(24,656 )	—
Balance at end of period	193,837,437	191,368,727	187,831,389
Common stock:			
Balance at beginning of period	\$1,923	\$1,888	\$1,868
Issuance of shares under equity-based compensation plans	27	35	20
Balance at end of period	\$1,950	\$1,923	\$1,888
Additional paid-in capital:			
Balance at beginning of period	\$2,216,202	\$2,141,433	\$2,101,350
Issuance of shares under equity-based compensation plans	16,729	25,570	12,052
Equity-based compensation	34,756	25,087	16,620
Tax benefit from shares issued under equity-based compensation plans	14,327	24,112	11,411
Balance at end of period	\$2,282,014	\$2,216,202	\$2,141,433
Retained earnings (accumulated deficit):			
Balance at beginning of period	\$(812,394 )	\$(741,519 )	\$(978,291 )
Net income (loss)	222,838	(70,875 )	236,772
Balance at end of period	\$(589,556 )	\$(812,394 )	\$(741,519 )
Accumulated other comprehensive loss:			
Balance at beginning of period	\$(171,678 )	\$(83,548 )	\$(26,276 )
Other comprehensive loss, net of tax:	(113,435 )	(88,130 )	(57,272 )
Balance at end of period	\$(285,113 )	\$(171,678 )	\$(83,548 )
Treasury stock, at cost:			
Balance at beginning of period	\$(11,333 )	\$(10,635 )	\$(10,635 )
Net shares surrendered under equity-based compensation plans	(3,878 )	(698 )	—
Balance at end of period	\$(15,211 )	\$(11,333 )	\$(10,635 )
Total stockholders' equity	\$1,394,084	\$1,222,720	\$1,307,619

See notes to consolidated financial statements.



CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements

(In thousands, unless otherwise noted)

1. BACKGROUND AND DESCRIPTION OF THE BUSINESS

CommScope Holding Company, Inc., along with its direct and indirect subsidiaries (CommScope or the Company), is a global provider of infrastructure solutions for the core, access and edge layers of communication networks. The Company's solutions and services for wired and wireless networks enable high-bandwidth data, video and voice applications. CommScope's global leadership position is built upon innovative technology, broad solution offerings, high-quality and cost-effective customer solutions and global manufacturing and distribution scale.

On August 28, 2015, the Company acquired TE Connectivity's Broadband Network Solutions business (BNS) in an all-cash transaction valued at approximately \$3.0 billion. See Note 3 for additional discussion of the BNS acquisition.

As of January 1, 2016, the Company reorganized its internal management and reporting structure as part of the integration of the BNS acquisition. The reorganization changed the information regularly reviewed by the Company's chief operating decision maker for purposes of allocating resources and assessing performance. As a result, the Company is reporting financial performance for 2016 based on its new operating segments: CommScope Connectivity Solutions (CCS) and CommScope Mobility Solutions (CMS). Both CCS and CMS represent non-aggregated reportable operating segments. Prior to this change, the Company operated and reported the following operating segments: Wireless, Enterprise, Broadband and BNS. All prior year amounts in these consolidated financial statements have been recast to reflect these operating segment changes.

As of December 31, 2015, funds affiliated with The Carlyle Group (Carlyle) owned 32.0% of the outstanding shares of CommScope. During the year ended December 31, 2016, Carlyle sold its remaining shares and no longer holds any stock in CommScope.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Consolidation

The accompanying consolidated financial statements include CommScope Holding Company, Inc., along with its direct and indirect subsidiaries. All intercompany accounts and transactions are eliminated in consolidation.

The BNS acquisition was accounted for using the acquisition method of accounting. The results of the BNS business are reported in the Company's consolidated financial statements from August 28, 2015 to December 25, 2015 for the year ended December 31, 2015 and from December 26, 2015 to December 30, 2016 for the year ended December 31, 2016. The BNS fiscal calendar included 53 weeks in 2016.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Cash and Cash Equivalents

Cash and cash equivalents represent deposits in banks and cash invested temporarily in various instruments with a maturity of three months or less at the time of purchase.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are stated at the amount owed by the customer, net of allowances for estimated doubtful accounts, discounts, returns and rebates. The Company maintains allowances for doubtful accounts for estimated losses expected to result from the inability of its customers to make required payments. These estimates are based on management's evaluation of the ability of customers to make payments, focusing on historical experience, known customer financial difficulties and the age of receivable balances. Accounts receivable are charged to the allowance when determined to be no longer collectible.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Inventories

Inventories are stated at the lower of cost or net realizable value. Inventory cost is determined on a first-in, first-out (FIFO) basis. Costs such as idle facility expense, excessive scrap and re-handling costs are expensed as incurred. The Company maintains reserves to reduce the value of inventory to the lower of cost or net realizable value, including reserves for excess and obsolete inventory.

Long-Lived Assets

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Upon application of acquisition accounting, property, plant and equipment are measured at estimated fair value as of the acquisition date to establish a new historical cost basis. Provisions for depreciation are based on estimated useful lives of the assets using the straight-line method. Useful lives generally range from 10 to 35 years for buildings and improvements and 3 to 10 years for machinery and equipment. Expenditures for repairs and maintenance are expensed as incurred. Assets that management intends to dispose of and that meet held for sale criteria are carried at the lower of the carrying value or fair value less costs to sell.

Goodwill and Other Intangible Assets

Goodwill is assigned to reporting units, which are operating segments or one level below the operating segment level, based on the difference between the purchase price as allocated to the reporting units and the estimated fair value of the identified net assets acquired as allocated to the reporting units. Purchased intangible assets with finite lives are carried at their estimated fair values at the time of acquisition less accumulated amortization and any impairment charges. Amortization is recognized on a straight-line basis over the estimated useful lives of the respective assets (see Note 4).

Asset Impairments

Goodwill is tested for impairment annually or at other times if events have occurred or circumstances exist that indicate the carrying value of the reporting unit may exceed its fair value. Goodwill impairment charges of \$15.3 million, \$74.4 million and \$4.9 million were recorded during the years ended December 31, 2016, 2015 and 2014, respectively. See Notes 4 and 8 for further discussion of these impairment charges.

Property, plant and equipment and intangible assets with finite lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable, based on the undiscounted cash flows expected to be derived from the use and ultimate disposition of the assets. Assets identified as impaired are carried at estimated fair value. During the years ended December 31, 2016, 2015 and 2014, the Company recognized pretax impairment charges for long-lived assets, other than goodwill impairments, of \$23.3 million, \$5.5 million and \$7.2 million, respectively. See Notes 4 and 8 for further discussion of these impairment charges.

During the year ended December 31, 2015, the Company determined that a note receivable related to a previous divestiture was likely impaired and recorded a \$10.9 million impairment charge.

Due to uncertain market conditions, it is possible that future impairment reviews may indicate additional impairments of goodwill and/or other intangible assets, which could result in charges that are material to the Company's results of operations.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Income Taxes

Deferred income taxes reflect the future tax consequences of differences between the financial reporting and tax basis of assets and liabilities. The Company records a valuation allowance, when appropriate, to reduce deferred tax assets to an amount that is more likely than not to be realized.

Tax benefits that result from uncertain tax positions may be recognized only if they are considered more likely than not to be sustainable, based on their technical merits. The amount of benefit to be recognized is the largest amount of tax benefit that is at least 50% likely to be realized.

The cumulative amount of undistributed earnings from foreign subsidiaries for which no U.S. taxes have been provided was \$606.1 million as of December 31, 2016. In addition, the Company does not provide for U.S. taxes related to the foreign currency remeasurement gains and losses on its long-term intercompany loans with foreign subsidiaries. These loans are not expected to be repaid in the foreseeable future, and the foreign currency gains and losses are therefore recorded to accumulated other comprehensive loss.

Revenue Recognition

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or service has been rendered, the selling price is fixed or determinable and collectability is reasonably assured. The majority of the Company's revenue comes from product sales. Revenue from product sales is recognized when the risks and rewards of ownership have passed to the customer and revenue is measurable. Revenue is not recognized related to product sold to contract manufacturers that the Company anticipates repurchasing in order to complete the sale to the ultimate customer.

Revenue for certain of the Company's products is derived from multiple-element contracts. The value of the revenue elements within these contracts is allocated based on the relative selling price of each element. The relative selling price is determined using vendor-specific objective evidence of selling price or other third party evidence of selling price, if available. If these forms of evidence are unavailable, revenue is allocated among elements based on management's best estimate of the stand-alone selling price of each element. Revenue is generally recognized upon acceptance by the customer.

For sales to distributors, system integrators and value-added resellers (primarily for the CCS segment), revenue is recorded at the net amount to be received after deductions for estimated discounts, allowances, returns, rebates and distributor price protection programs. These estimates are determined based upon historical experience, contract terms, inventory levels in the distributor channel and other related factors. Adjustments are recorded when circumstances indicate revisions may be necessary. If management does not have sufficient historical experience to make a reasonable estimation of these reductions to revenue, recognition of the revenue is deferred until management believes there is a sufficient basis to recognize such revenue.

Product Warranties

The Company recognizes a liability for the estimated claims that may be paid under its customer warranty agreements to remedy potential deficiencies of quality or performance of the Company's products. These product warranties extend over periods ranging from one to twenty-five years from the date of sale, depending upon the product subject

to the warranty. The Company records a provision for estimated future warranty claims as cost of sales based upon the historical relationship of warranty claims to sales and specifically identified warranty issues. The Company bases its estimates on assumptions that are believed to be reasonable under the circumstances and revises its estimates, as appropriate, when events or changes in circumstances indicate that revisions may be necessary. Such revisions may be material.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Shipping and Handling Costs

CommScope includes shipping and handling costs billed to customers in net sales and includes the costs incurred to transport product to customers as cost of sales. Certain internal handling costs, which relate to activities to prepare goods for shipment, are recorded in selling, general and administrative expense and were approximately \$56.2 million, \$29.3 million and \$27.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Advertising Costs

Advertising costs are expensed in the period in which they are incurred. Advertising expense was \$20.0 million, \$13.6 million and \$10.5 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Research and Development

Research and development (R&D) costs are expensed in the period in which they are incurred. R&D costs include materials and equipment that have no alternative future use, depreciation on equipment and facilities currently used for R&D purposes, personnel costs, contract services and reasonable allocations of indirect costs, if clearly related to an R&D activity. Expenditures in the pre-production phase of an R&D project are recorded as R&D expense. However, costs incurred in the pre-production phase that are associated with output actually used in production are recorded in cost of sales. A project is considered finished with pre-production efforts when management determines that it has achieved acceptable levels of scrap and yield, which vary by project. Expenditures related to ongoing production are recorded in cost of sales.

Derivative Instruments and Hedging Activities

CommScope is exposed to risks resulting from adverse fluctuations in commodity prices, interest rates and foreign currency exchange rates. CommScope's risk management strategy includes the use of derivative financial instruments, such as forward contracts, options, cross currency swaps, certain interest rate swaps, caps and floors and non-derivative financial instruments, such as foreign-currency-denominated loans, as hedges of these risks, whenever management determines their use to be reasonable and practical. This strategy does not permit the use of derivative financial instruments for trading or speculation. The Company did not designate any transactions as hedges in the years ended December 31, 2016, 2015 or 2014. Derivative contracts are measured at fair value and are marked to market each period through earnings. As such, there were no unrecognized gains or losses as of December 31, 2016 or 2015. See Note 7 for further disclosure related to the derivative instruments and hedging activities.

The Company has elected and documented the use of the normal purchases and sales exception for normal purchase and sales contracts that meet the definition of a derivative financial instrument.

Foreign Currency Translation

For the years ended December 31, 2016, 2015 and 2014, approximately 46%, 51% and 45%, respectively, of the Company's net sales were to customers located outside the United States (U.S.). A portion of these sales were denominated in currencies other than the U.S. dollar, particularly sales from the Company's foreign subsidiaries. The financial position and results of operations of certain of the Company's foreign subsidiaries are measured using the local currency as the functional currency. Revenues and expenses of these subsidiaries have been translated into U.S.

dollars at average exchange rates prevailing during the period. Assets and liabilities of these subsidiaries have been translated at the exchange rates as of the balance sheet date. Translation gains and losses are recorded to accumulated other comprehensive loss.



## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Aggregate foreign currency gains and losses, such as those resulting from the settlement of receivables or payables, foreign currency contracts and short-term intercompany advances in a currency other than the subsidiary's functional currency, are recorded currently in earnings (included in other expense, net) and resulted in losses of \$9.5 million, \$15.1 million and \$2.7 million during the years ended December 31, 2016, 2015 and 2014, respectively. Foreign currency remeasurement gains and losses related to certain long-term intercompany loans that are not expected to be settled in the foreseeable future are recorded to accumulated other comprehensive loss. See Note 7 for disclosure of foreign currency gains and losses specifically related to foreign currency contracts.

## Equity-Based Compensation

The estimated fair value of stock awards that are ultimately expected to vest is recognized as expense over the requisite service periods. The Company records deferred tax assets related to compensation expense for awards that are expected to result in future tax deductions for the Company, based on the amount of compensation cost recognized and the Company's statutory tax rate in the jurisdiction in which it expects to receive a deduction. Differences between the deferred tax assets recognized for financial reporting purposes and actual tax deductions reported on the Company's income tax return are recorded in additional paid-in capital (if the tax deduction exceeds the deferred tax asset) or in the Consolidated Statements of Operations and Comprehensive Income (Loss) as additional income tax expense (if the deferred tax asset exceeds the tax deduction and no excess additional paid-in capital exists from previous awards).

## Earnings (Loss) Per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per share is based on net income (loss) divided by the weighted average number of common shares outstanding plus the dilutive effect of potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding equity-based awards (stock options, restricted stock units and performance share units). Certain outstanding equity-based awards were not included in the computation of diluted earnings (loss) per share because the effect was either antidilutive or the performance condition was not met (1.0 million, 5.9 million and 1.4 million shares for the years ended December 31, 2016, 2015 and 2014, respectively). Antidilutive securities for the year ended December 31, 2015 included 4.3 million shares of equity-based awards which would have been considered dilutive if the Company had not been in a net loss position.

The following table presents the basis for the earnings (loss) per share computations:

	Year Ended December 31,		
	2016	2015	2014
Numerator:			
Net income (loss) for basic and diluted earnings (loss)			
per share	\$ 222,838	\$(70,875 )	\$ 236,772
Denominator:			

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Weighted average common shares outstanding - basic	192,470	189,876	186,905
Dilutive effect of equity-based awards	3,989	—	4,545
Weighted average common shares outstanding - diluted	196,459	189,876	191,450
Earnings (loss) per share:			
Basic	\$ 1.16	\$(0.37 )	\$ 1.27
Diluted	\$ 1.13	\$(0.37 )	\$ 1.24

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Use of Estimates in the Preparation of the Financial Statements

The preparation of the accompanying consolidated financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. These estimates and their underlying assumptions form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other objective sources. The Company bases its estimates on historical experience and on assumptions that are believed to be reasonable under the circumstances and revises its estimates, as appropriate, when events or changes in circumstances indicate that revisions may be necessary. Significant accounting estimates reflected in the Company's financial statements include the allowance for doubtful accounts; reserves for sales returns, discounts, allowances, rebates and distributor price protection programs; inventory excess and obsolescence reserves; product warranty reserves and other contingent liabilities; tax valuation allowances and liabilities for unrecognized tax benefits; purchase price allocations; impairment reviews for investments, fixed assets, goodwill and other intangibles; and pension and other postretirement benefit costs and liabilities. Although these estimates are based on management's knowledge of and experience with past and current events and on management's assumptions about future events, it is at least reasonably possible that they may ultimately differ materially from actual results.

Business Combinations

The Company uses the acquisition method of accounting for business combinations which requires assets acquired and liabilities assumed to be recognized at their fair values on the acquisition date. Goodwill represents the excess of the purchase price over the fair value of the net assets acquired. The fair values of the assets acquired and liabilities assumed are determined based upon the Company's valuation and involves making significant estimates and assumptions based on facts and circumstances that existed as of the acquisition date. The Company uses a measurement period following the acquisition date to gather information that existed as of the acquisition date that is needed to determine the fair value of the assets acquired and liabilities assumed. The measurement period ends once all information is obtained, but no later than one year from the acquisition date.

Concentrations of Risk

Non-derivative financial instruments used by the Company in the normal course of business include letters of credit and commitments to extend credit, primarily accounts receivable. The Company generally does not require collateral on its accounts receivable. These financial instruments involve risk, including the credit risk of nonperformance by the counterparties to those instruments, and the maximum potential loss may exceed the reserves provided in the Company's balance sheet. See Note 14 for further discussion of customer-related concentrations of risk.

The Company manages its exposures to credit risk associated with accounts receivable using such tools as credit approvals, credit limits and monitoring procedures. CommScope estimates the allowance for doubtful accounts based on the actual payment history and individual circumstances of significant customers as well as the age of receivables. In management's opinion, as of December 31, 2016, the Company did not have significant unreserved risk of credit loss due to the nonperformance of customers or other counterparties related to amounts receivable. However, an adverse change in financial condition of a significant customer or group of customers or in the telecommunications industry could materially affect the Company's estimates related to doubtful accounts.

The principal raw materials purchased by CommScope (copper, aluminum, steel, plastics and other polymers, bimetals and optical fiber) are subject to changes in market price as these materials are linked to various commodity markets. The Company attempts to mitigate these risks through effective requirements planning and by working closely with its key suppliers to obtain the best possible pricing and delivery terms.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Recent Accounting Pronouncements

Adopted in 2016

During the fourth quarter of 2016, the Company prospectively adopted Accounting Standards Update (ASU) No. 2015-11, Simplifying the Measurement of Inventory. The guidance requires that inventory be measured at the lower of cost and net realizable value, which is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. This guidance simplifies the prior guidance by eliminating the options of measuring inventory at replacement cost or net realizable value less an approximate normal profit margin. Adoption of this ASU did not have a material impact on the Company's consolidated financial statements.

Issued but Not Adopted

In August 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-15, Cash Flow Classification of Certain Cash Receipts and Cash Payments. The standard update amends or clarifies guidance on classification of certain transactions in the statement of cash flows, including classification of debt prepayments, debt extinguishment costs and contingent consideration payments after a business combination. ASU 2016-15 is effective for the Company as of January 1, 2018 and early adoption is permitted. The Company is evaluating the impact of this new guidance on the Company's consolidated statement of cash flows and when it may be adopted.

In June 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments. The new guidance replaces the current incurred loss method used for determining credit losses on financial assets, including trade receivables, with an expected credit loss method. ASU No. 2016-13 is effective for the Company as of January 1, 2020 and early adoption is permitted. The Company is evaluating the impact of this new guidance on the Company's consolidated financial statements and when it may be adopted.

In March 2016, the FASB issued ASU No. 2016-09, Improvements to Employee Share-Based Payment Accounting, which simplifies several aspects of the accounting for employee equity-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. ASU No. 2016-09 is effective for the Company as of January 1, 2017. Its application is not expected to have a significant impact on income before income taxes; however, it may impact the Company's net income because excess tax benefits or deficiencies, which are currently reflected in additional paid in capital, must be reflected in income tax expense under ASU No. 2016-09. The significance of the impact will depend on the intrinsic value at the time of vesting or exercise of equity-based compensation awards. The impact to the Consolidated Statements of Cash Flows will be to present excess tax benefits or deficiencies as an operating activity instead of a financing activity in 2017. The Company also expects to make an accounting policy election to account for forfeitures as they occur instead of applying an estimated forfeiture rate over the vesting period of the award.

In February 2016, the FASB issued ASU No. 2016-02, Leases, which supersedes the current leasing guidance in Topic 840, Leases. Under the new guidance, lessees are required to recognize assets and lease liabilities for the rights and obligations created by leased assets previously classified as operating leases. ASU No. 2016-02 is effective for the Company as of January 1, 2019 and early adoption is permitted. The Company is evaluating the impact of this new guidance on the Company's consolidated financial statements and when it may be adopted.

In January 2016, the FASB issued ASU No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, which modifies how entities measure equity investments (except those accounted for under the equity method of accounting) and present changes in the fair value of financial liabilities; simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; changes presentation and disclosure requirements; and clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. The guidance is effective for the Company as of January 1, 2018 and with the exception of certain provisions, early adoption is not permitted. The Company is evaluating the impact of this new guidance on the Company's consolidated financial statements.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers. The new accounting standard defines a single comprehensive model in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the ASU is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. The Company will be required to adopt the new standard, including subsequently issued clarifying guidance, as of January 1, 2018 using either: (i) full retrospective application to each prior reporting period presented; or (ii) modified retrospective application with the cumulative effect of initially applying the standard recognized at the date of initial application and providing certain additional required disclosures. The Company plans to adopt the new accounting model as of January 1, 2018 using the modified retrospective method.

During 2016, the Company completed an impact assessment and determined that adoption of the standard will likely result in changes to revenue recognition related to the timing of when revenues are recognized for contracts containing both product and service obligations. These contract revenues are currently accounted for using the multi-element guidance and are primarily for metro cell, DAS and small cell solutions within the CMS segment. Due to the short-term nature of these contracts, the ultimate impact to the Company's consolidated financial statements will be based on customer-specific contract terms in effect at adoption, and could be material.

The Company believes that changes to its accounting policies, processes, internal controls and information systems will be required to comply with this update. The Company is in the process of implementing the changes necessary to meet the standard update's reporting and disclosure requirements.

### 3. ACQUISITIONS

#### Broadband Network Solutions

On August 28, 2015, the Company acquired TE Connectivity's BNS business for approximately \$3.0 billion in an all-cash transaction. Net sales of \$1,770.3 million and \$529.6 million related to the acquired business are reflected in the Consolidated Statements of Operations and Comprehensive Income (Loss) for the years ended December 31, 2016 and 2015, respectively, and are primarily reported in the CCS segment.

The purchase price for BNS was assigned to assets acquired and liabilities assumed based on their estimated fair values as of the date of acquisition and the excess was allocated to goodwill. The following table summarizes the preliminary allocation of the purchase price at the date of acquisition and the subsequent measurement period adjustments to arrive at the final allocation of the purchase price at the acquisition date (in millions):

	Amounts Recognized as of Acquisition Date	Measurement Period Adjustments	Amounts Recognized as of Acquisition Date (as adjusted)
Cash and cash equivalents	\$ 63.7	\$ —	\$ 63.7
Accounts receivable	252.9	(1.9 )	251.0

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Inventories	266.4	(12.3	)	254.1
Other current assets	40.0	1.6		41.6
Property, plant and equipment	247.6	(1.6	)	246.0
Goodwill	1,242.8	182.9		1,425.7
Identifiable intangible assets	1,150.0	(63.5	)	1,086.5
Other noncurrent assets	22.3	3.0		25.3
Current liabilities	(224.2	)	(4.8	) (229.0
Noncurrent pension liabilities	(30.5	)	18.9	(11.6
Other noncurrent liabilities	(27.1	)	(107.8	) (134.9
Net acquisition cost	\$ 3,003.9	\$ 14.5		\$ 3,018.4



## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The Company has recorded measurement period adjustments since the acquisition date primarily related to the finalization of the valuation of inventory, intangible assets, plant and equipment, pension liabilities and deferred taxes. The impact of these measurement period adjustments to the Consolidated Statements of Operations and Comprehensive Income (Loss) were not material to 2016 or 2015 and if these adjustments had been applied at the original acquisition date, the impact to current year and prior year periods would also have been immaterial.

The goodwill arising from the purchase price allocation of the BNS acquisition is believed to result from the business' reputation in the marketplace and assembled workforce. A significant portion of the goodwill is expected to be deductible for income tax purposes.

Various valuation techniques were used to estimate the fair value of the assets acquired and the liabilities assumed which use significant unobservable inputs, or Level 3 inputs as defined by the fair value hierarchy. Using these valuation approaches requires the Company to make significant estimates and assumptions.

The table below summarizes the valuations of the intangible assets acquired that were determined by management to meet the criteria for recognition apart from goodwill.

	Estimated Fair Value	Weighted Average Estimated Useful Life
	(in millions)	(in years)
Customer contracts and relationships	\$ 686.2	12
Trademarks	53.3	7
Patents and technologies	347.0	7
Total amortizable intangible assets	\$ 1,086.5	

There were certain foreign assets acquired and liabilities assumed in the BNS acquisition for which title did not transfer at the acquisition date although the consideration was paid as part of the overall purchase price discussed above. As of December 31, 2016, these transfers have been completed.

The BNS amounts included in the following pro forma information are based on their historical results prepared on a carve-out basis of accounting and, therefore, may not be indicative of the actual results when operated as part of CommScope. The pro forma adjustments represent management's best estimates based on information available at the time the pro forma information was prepared and may differ from the adjustments that may actually have been required. Accordingly, the pro forma financial information should not be relied upon as being indicative of the results that would have been realized had the acquisition occurred as of the date indicated or that may be achieved in the future.

The following table presents unaudited pro forma consolidated results of operations for CommScope for the years ended December 31, 2015 and 2014 as though the BNS acquisition had been completed as of January 1, 2014 (in

millions, except per share amounts):

	Year Ended December 31,	
	2015	2014
Net sales	\$4,978.4	\$5,721.4
Net income	46.7	157.3
Net income per diluted share	0.24	0.82

These pro forma results reflect adjustments for net interest expense for the debt related to the acquisition; depreciation expense for property, plant and equipment that has been adjusted to its estimated fair value; amortization for intangible assets with finite lives identified separate from goodwill; equity-based compensation for equity awards issued to BNS employees; and the related income tax impacts of these adjustments. The pro forma results for the year ended December 31, 2015, exclude \$93.6 million of integration and transaction costs related to the BNS acquisition and \$81.6 million of additional cost of goods sold related to the inventory mark up included in the purchase price allocation as these costs are nonrecurring to the Company.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## Airvana

On October 1, 2015, the Company acquired the assets and assumed certain liabilities of Airvana LP (Airvana), a provider of small cell solutions for wireless networks. The Company paid \$45.1 million (\$44.5 million net of cash acquired). Airvana provides 4G LTE and 3G small cell solutions that enable communication and access to information and entertainment in challenging and high-value environments, such as office buildings and public venues. Net sales of Airvana products reflected in the Consolidated Statements of Operations and Comprehensive Income (Loss) were \$17.1 million and \$4.2 million for the years ended December 31, 2016 and 2015, respectively, and are reported in the CMS segment.

The allocation of the purchase price, based on estimates of the fair values of assets acquired and liabilities assumed, is as follows (in millions):

	Estimated Fair
	Value
Cash and cash equivalents	\$ 0.6
Accounts receivable	4.2
Other assets	3.8
Property, plant and equipment	2.5
Goodwill	20.4
Identifiable intangible assets	19.1
Less: Liabilities assumed	(5.5 )
Net acquisition cost	\$ 45.1

The goodwill arising from the purchase price allocation of the Airvana acquisition is believed to result from the company's reputation in the marketplace and assembled workforce and is expected to be deductible for income tax purposes.

## 4. GOODWILL AND OTHER INTANGIBLE ASSETS

The following table presents details of the Company's intangible assets other than goodwill as of December 31, 2016 and 2015 (in millions):

2016			2015		
Gross		Net	Gross		Net
Carrying	Accumulated	Carrying	Carrying	Accumulated	Carrying
Amount	Amortization	Amount	Amount	Amortization	Amount

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Customer base	\$1,837.6	\$ 757.7	\$1,079.9	\$1,929.5	\$ 587.0	\$1,342.5
Trade names and trademarks	606.2	179.7	426.5	608.7	145.5	463.2
Patents and technologies	567.0	274.3	292.7	528.8	187.1	341.7
Non-compete agreements	0.3	0.3	—	0.3	0.2	0.1
Total intangible assets	\$3,011.1	\$ 1,212.0	\$1,799.1	\$3,067.3	\$ 919.8	\$2,147.5

During 2016, the Company determined that certain patent and technology intangible assets in the CCS segment were no longer recoverable as a result of revisions to the outlook for a particular product line. Pretax charges of \$15.0 million were recognized in asset impairments on the Consolidated Statements of Operations and Comprehensive Income (Loss). During 2015, the Company determined that certain patent and technology intangible assets in the CCS segment were no longer recoverable and recorded a pretax \$5.5 million impairment charge in asset impairments on the Consolidated Statements of Operations and Comprehensive Income (Loss).

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The Company's finite-lived intangible assets are being amortized on a straight-line basis over the weighted-average amortization periods in the following table. The aggregate weighted-average amortization period is 11.8 years.

	Weighted- Average Amortization Period (in years)
Customer base	11.0
Trade names and trademarks	18.9
Patents and technologies	6.8

Amortization expense for intangible assets was \$297.2 million, \$220.6 million and \$178.3 million for the years ended December 31, 2016, 2015 and 2014, respectively. Estimated amortization expense for the next five years is as follows (in millions):

	Estimated Amortization Expense
2017\$	265.3
2018	254.1
2019	225.2
2020	219.1
2021	199.6

As a result of the change in segments, goodwill was reallocated from the previous segments to the new segments. The following table presents goodwill after the reallocation to the new reportable segments (in millions):

	CCS	CMS	Total
Goodwill, gross, as of December 31, 2013	\$745.8	\$821.1	\$1,566.9
Acquisitions and adjustments to purchase price allocations	(5.7 )	15.3	9.6
Foreign exchange	—	(3.3 )	(3.3 )

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Goodwill, gross, as of December 31, 2014	740.1	833.1	1,573.2
Acquisitions and adjustments to purchase price allocations	1,265.1	69.7	1,334.8
Foreign exchange	(18.6 )	(3.1 )	(21.7 )
Goodwill, gross, as of December 31, 2015	1,986.6	899.7	2,886.3
Adjustments to purchase price allocations	107.7	4.4	112.1
Foreign exchange	(16.8 )	(2.3 )	(19.1 )
Goodwill, gross, as of December 31, 2016	\$2,077.5	\$901.8	\$2,979.3
Accumulated impairment charges as of December 31, 2013	\$(36.2 )	\$(80.2 )	\$(116.4 )
Impairment charges for year ended December 31, 2014	—	(4.9 )	(4.9 )
Accumulated impairment charges as of December 31, 2014	(36.2 )	(85.1 )	(121.3 )
Impairment charges for year ended December 31, 2015	—	(74.4 )	(74.4 )
Accumulated impairment charges as of December 31, 2015	(36.2 )	(159.5)	(195.7 )
Impairment charges for year ended December 31, 2016	(15.3 )	—	(15.3 )
Accumulated impairment charges as of December 31, 2016	\$(51.5 )	\$(159.5)	\$(211.0 )
Goodwill, net, as of December 31, 2016	\$2,026.0	\$742.3	\$2,768.3

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

During 2016, management assessed goodwill for impairment due to the change in reportable segments, which also resulted in changes to several reporting units. As a result, the Company performed impairment testing for goodwill under the reporting unit structure immediately before the change and determined that no impairment existed. The Company reallocated goodwill to the new reporting units under the new reporting structure and performed impairment testing for goodwill under the new segment reporting structure immediately after the change and determined that a \$15.3 million goodwill impairment existed within one of the CCS reporting units at January 1, 2016. The impairment test was performed using a discounted cash flow (DCF) valuation model. The significant assumptions in the DCF model are annual revenue growth rates, annual operating income margins and the discount rate used to determine the present value of the cash flow projections. The discount rate was based on the estimated weighted average cost of capital as of the test date for market participants in our reporting units' industries.

Goodwill impairment charges of \$74.4 million and \$4.9 million were recorded during 2015 and 2014, respectively, primarily due to lower future projected operating results for certain reporting units that are now part of the CMS segment.

## 5. SUPPLEMENTAL FINANCIAL STATEMENT INFORMATION

## Allowance for Doubtful Accounts

	Balance at	Charged to		Balance at End
	Beginning of	Costs and		
Period	Period	Expenses	Deductions (1)	of Period
Year ended December 31, 2014	\$ 12,617	\$ 772	\$ 4,592	\$8,797
Year ended December 31, 2015	8,797	12,508	1,913	19,392
Year ended December 31, 2016	19,392	(5,986 )	(3,805 )	17,211

(1)Uncollectible customer accounts written off, net of recoveries of previously written off customer accounts.  
Inventories

	December 31, 2016	2015
Raw materials	\$126,027	\$114,329
Work in process	135,848	131,030
Finished goods	211,392	196,456
	\$473,267	\$441,815

## Property, Plant and Equipment

	December 31, 2016	2015
Land and land improvements	\$53,182	\$55,751

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Buildings and improvements	208,515	219,953
Machinery and equipment	480,654	463,955
Construction in progress	36,373	32,853
	778,724	772,512
Accumulated depreciation	(303,734)	(243,806)
	\$474,990	\$528,706

Depreciation expense was \$80.5 million, \$60.6 million and \$48.8 million during the years ended December 31, 2016, 2015 and 2014, respectively. No interest was capitalized during 2016, 2015 or 2014.



## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## Other Accrued Liabilities

	December 31,	
	2016	2015
Compensation and employee benefit liabilities	\$ 169,923	\$ 108,852
Deferred revenue	25,859	23,811
Product warranty accrual	21,631	17,964
Accrued interest	8,586	12,468
Restructuring reserve	30,438	24,480
Income taxes payable	49,984	38,417
Value-added taxes payable	14,885	24,880
Accrued professional fees	10,621	14,303
Other	97,470	106,568
	\$ 429,397	\$ 371,743

## Accumulated Other Comprehensive Loss

The following table presents changes in accumulated other comprehensive income (AOCI), net of tax, and accumulated other comprehensive loss (AOCL), net of tax:

	Year Ended December 31,	
	2016	2015
<b>Foreign currency translation</b>		
Balance, beginning of period	\$(160,620)	\$(80,483 )
Other comprehensive loss	(93,840 )	(80,019 )
Amounts reclassified from AOCL	312	(118 )
Balance, end of period	\$(254,148)	\$(160,620)
<b>Defined benefit plan activity</b>		
Balance, beginning of period	\$(17,567 )	\$(14,957 )
Other comprehensive income (loss)	(13,048 )	3,814
Amounts reclassified from AOCL	(2,858 )	(6,424 )
Balance, end of period	\$(33,473 )	\$(17,567 )
<b>Available-for-sale securities</b>		
Balance, beginning of period	\$6,509	\$11,892
Other comprehensive loss	(3,262 )	(3,735 )
Amounts reclassified from AOCI	(739 )	(1,648 )
Balance, end of period	\$2,508	\$6,509
Net AOCL, end of period	\$(285,113)	\$(171,678)

Amounts reclassified from net AOCL related to foreign currency translation and available-for-sale securities are recorded in other expense, net in the Consolidated Statements of Operations and Comprehensive Income (Loss). Defined benefit plan amounts reclassified from net AOCL are included in the computation of net periodic benefit cost (income) and are primarily recorded in cost of sales and selling, general and administrative expenses in the Consolidated Statements of Operations and Comprehensive Income (Loss).



## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## Cash Flow Information

	Year Ended December 31,		
	2016	2015	2014
Cash paid during the period for:			
Income taxes, net of refunds	\$ 148,984	\$ 122,571	\$ 98,636
Interest	260,773	207,331	184,925

## 6. FINANCING

	December 31,	
	2016	2015
6.00% senior notes due June 2025	\$ 1,500,000	\$ 1,500,000
5.50% senior notes due June 2024	650,000	650,000
5.00% senior notes due June 2021	650,000	650,000
Senior PIK toggle notes due June 2020	—	536,630
4.375% senior secured notes due June 2020	500,000	500,000
Senior secured term loan due December 2022	1,234,375	1,246,875
Senior secured term loan due January 2018	111,875	261,875
Senior secured revolving credit facility expires May 2020	—	—
Other	—	19
Total face value of debt	\$ 4,646,250	\$ 5,345,399
Less: Original issue discount, net of amortization	(5,857 )	(4,234 )
Less: Debt issuance costs, net of amortization	(78,383 )	(97,514 )
Less: Current portion	(12,500 )	(12,520 )
Total long-term debt	\$ 4,549,510	\$ 5,231,131

## 6.00% Senior Notes Due 2025

CommScope Technologies LLC, a wholly owned subsidiary of the Company, is the borrower under the 6.00% Senior Notes due June 15, 2025 (the 2025 Notes). Interest is payable on the 2025 Notes semi-annually in arrears on June 15 and December 15 of each year. The Company used the proceeds from the June 2015 offering of the 2025 Notes, together with cash on hand and borrowings under the senior secured term loan facility due December 2022, to finance the acquisition of the BNS business.

Each of the Company's existing and future direct and indirect domestic subsidiaries that guarantees the senior secured credit facilities guarantees the 2025 Notes on a senior unsecured basis. The 2025 Notes and the guarantees are unsecured senior obligations ranking equal in right of payment to all of the Company's and the guarantors' existing and future senior indebtedness, including its senior secured credit facilities. However, the 2025 Notes and guarantees are effectively junior to all of the Company's and the guarantors' existing and future secured debt, including the 2020 Notes and its senior secured credit facilities, to the extent of the value of the assets securing such secured debt. In addition, the 2025 Notes are structurally subordinated to all existing and future liabilities (including trade payables) of the Company's subsidiaries that do not guarantee the 2025 Notes, including indebtedness incurred by certain of the

Company's non-U.S. subsidiaries under the revolving credit facility.

The 2025 Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the 2025 Notes may be redeemed at the option of the holders at 101% of their face amount, plus accrued and unpaid interest. Prior to June 15, 2020, the 2025 Notes may be redeemed at a redemption price equal to 100% of their principal amount, plus a make-whole premium (as defined in the indenture governing the 2025 Notes), plus accrued and unpaid interest. On or prior to June 15, 2018, under certain circumstances, the Company may also redeem up to 40% of the aggregate principal amount of the 2025 Notes at a redemption price of 106.0%, plus accrued and unpaid interest, using the proceeds of certain equity offerings.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

In connection with issuing the 2025 Notes, the Company incurred costs of \$35.9 million during the year ended December 31, 2015, which were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the notes.

5.00% Senior Notes Due 2021 and 5.50% Senior Notes Due 2024

In May 2014, CommScope, Inc., a wholly owned subsidiary of the Company, issued \$650.0 million of 5.00% Senior Notes due June 15, 2021 (the 2021 Notes) and \$650.0 million of 5.50% Senior Notes due June 15, 2024 (the 2024 Notes). Interest is payable on the 2021 Notes and the 2024 Notes semi-annually in arrears on June 15 and December 15 of each year.

Proceeds from the 2021 Notes and the 2024 Notes were used to redeem the entire outstanding amount of the 8.25% senior notes due January 2019 (the 2019 Notes) plus pay a redemption premium of \$93.9 million, which was included in other expense, net for the year ended December 31, 2014. The remainder of the net proceeds was available for general corporate purposes. In connection with the redemption of the 2019 Notes, the Company wrote off \$19.1 million of debt issuance costs to interest expense during the year ended December 31, 2014.

The 2021 Notes and the 2024 Notes are guaranteed on a senior unsecured basis by CommScope, Inc. and its domestic restricted subsidiaries, subject to certain exceptions, as described above for the 2025 Notes.

The 2021 Notes and the 2024 Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the 2021 Notes and the 2024 Notes may be redeemed at the option of the holders at 101% of their face amount, plus accrued and unpaid interest to the date of purchase. Prior to June 15, 2017 in the case of the 2021 Notes and June 15, 2019 in the case of the 2024 Notes, the 2021 Notes and the 2024 Notes may be redeemed at a redemption price equal to 100% of their principal amount, plus a make-whole premium (as defined in the indentures governing the 2021 Notes and the 2024 Notes), plus accrued and unpaid interest to the redemption date. On or prior to June 15, 2017, under certain circumstances, the Company may also redeem up to 40% of the aggregate principal amount of each series of the 2021 Notes and the 2024 Notes at a redemption price of 105.0% in the case of the 2021 Notes or 105.5% in the case of the 2024 Notes, plus accrued and unpaid interest to the redemption date using the proceeds of certain equity offerings.

In connection with issuing the 2021 Notes and the 2024 Notes, the Company incurred costs of \$23.3 million during the year ended December 31, 2014, which were treated as a reduction of long-term debt and are being amortized over the terms of the notes.

Senior PIK Toggle Notes

In May 2013, the Company issued \$550.0 million of 6.625%/7.375% Senior Payment-in-Kind Toggle Notes due 2020 (the senior PIK toggle notes) in a private offering.

In December 2015, the Company repurchased \$13.4 million of the senior PIK toggle notes. The repurchase resulted in a \$0.3 million charge which is reflected in other expense, net. In connection with the repurchase, \$0.2 million of debt issuance costs were written off and included in interest expense.

During 2016, the Company voluntarily redeemed the remaining \$536.6 million of the senior PIK toggle notes. The redemptions resulted in a \$17.7 million charge which is reflected in other expense, net. In connection with the redemptions, \$6.1 million of debt issuance costs were written off and included in interest expense.

#### 4.375% Senior Secured Notes Due 2020

In June 2015, CommScope, Inc., a wholly owned subsidiary of the Company, issued \$500.0 million of 4.375% Senior Secured Notes due June 15, 2020 (the 2020 Notes). Interest is payable on the 2020 Notes semi-annually in arrears on June 15 and December 15 of each year.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The Company used the net proceeds of the offering of the 2020 Notes, together with cash on hand, to repay the entire principal amount outstanding under the term loan due 2017 and a portion of the principal amount outstanding under the term loan due 2018.

The 2020 Notes are guaranteed on a senior secured basis by CommScope Holding Company, Inc. and its domestic restricted subsidiaries, subject to certain exceptions, and are secured by a first priority lien on certain of the Company's non-current assets in the U.S. and a second priority lien on current assets in the U.S.

The 2020 Notes may be redeemed prior to maturity under certain circumstances. Upon certain change of control events, the 2020 Notes may be redeemed at the option of the holders at 101% of their face amount, plus accrued and unpaid interest. Prior to June 15, 2017, the 2020 Notes may be redeemed at a redemption price equal to 100% of their principal amount, plus a make-whole premium (as defined in the indenture governing the 2020 Notes), plus accrued and unpaid interest. Prior to June 15, 2017, under certain circumstances, the Company may also redeem up to 40% of the aggregate principal amount of the 2020 Notes at a redemption price of 104.375%, plus accrued and unpaid interest, using the proceeds of certain equity offerings.

In connection with issuing the 2020 Notes, the Company incurred costs of approximately \$8.5 million during the year ended December 31, 2015, which were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the notes.

Senior Secured Credit Facilities

The Company's asset-based revolving credit facility provides borrowing capacity of up to \$550.0 million, subject to certain limitations. The revolving credit facility expires in May 2020, subject to acceleration under certain circumstances. As of December 31, 2016, the Company had no outstanding borrowings under its revolving credit facility and the Company did not borrow under its revolving credit facility during the year ended December 31, 2016. As of December 31, 2016, the Company had availability of \$441.1 million under its revolving credit facility, after giving effect to borrowing base limitations and outstanding letters of credit.

In June 2015, the Company borrowed \$1.25 billion, less \$3.1 million of original issue discount, in a term loan due December 2022 (the 2022 Term Loan) under its existing senior secured credit facilities. The Company used the proceeds from the 2022 Term Loan, together with cash on hand and proceeds from the issuance of the 2025 Notes, to finance the acquisition of the BNS business. The Company incurred costs of \$29.7 million during the year ended December 31, 2015 related to the additional borrowings under the term loan facility. These costs were recorded as a reduction of the carrying amount of the debt and are being amortized over the term of the 2022 Term Loan. The 2022 Term Loan has scheduled maturities of \$12.5 million per year due in equal quarterly installments with the balance due at maturity.

During the year ended December 31, 2016, the Company amended the 2022 Term Loan to reduce the margin on the interest rate. The interest rate is, at the Company's option, either (1) the base rate (as described in the credit agreement, as amended) plus a margin of 1.50% or (2) one-, two-, three- or six-month LIBOR or, if available from all lenders, twelve-month LIBOR (selected at the Company's option) plus a margin of 2.50%, subject to a LIBOR floor of 0.75%. Before the amendment, the margin on the interest rate in (1) above was 2.00% and in (2) above was 3.00%. The Company recorded an additional \$3.1 million of original issue discount in 2016 related to this amendment.

During the year ended December 31, 2016, the Company repaid \$150.0 million of its Term Loan due January 2018. In connection with this voluntary repayment, \$1.0 million of original issue discount and debt issuance costs were written off and included in interest expense.

During the year ended December 31, 2015, the Company repaid \$605.3 million of its senior secured term loans. In connection with early voluntary repayments of term loans, \$7.9 million of original issue discount and debt issuance costs were written off and included in interest expense.



CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The senior secured term loans are secured by a first priority lien on certain of the Company's non-current assets in the U.S. and a second priority lien on current assets in the U.S. The asset-based revolving credit facility is secured by a first priority lien on certain of the Company's current assets in the U.S. and several European countries, and a second priority lien on the Company's non-current assets in the U.S.

The current portion of long-term debt reflects the \$12.5 million of annual repayments under the 2022 Term Loan. No portion of the senior secured term loans was reflected as a current portion of long-term debt as of December 31, 2016 related to the potentially required excess cash flow payment because no such payment is expected to be required. There was no excess cash flow payment required in 2016 related to 2015.

#### Other Matters

The following table summarizes scheduled maturities of long-term debt as of December 31, 2016 (in millions):

	2017	2018	2019	2020	2021	Thereafter
Scheduled maturities of long-term debt	\$12.5	\$124.4	\$12.5	\$512.5	\$662.5	\$3,321.9

The Company's non-guarantor subsidiaries held \$2,211 million, or 31%, of total assets and \$615 million, or 11%, of total liabilities as of December 31, 2016 and accounted for \$2,101 million, or 43%, of net sales for the year ended December 31, 2016. As of December 31, 2015, the non-guarantor subsidiaries held \$2,848 million, or 38%, of total assets and \$468 million, or 8%, of total liabilities. For the year ended December 31, 2015, the non-guarantor subsidiaries accounted for \$1,723 million, or 45%, of net sales. All amounts presented exclude intercompany balances.

The Company is dependent upon the earnings and cash flow of its subsidiaries to make certain payments, including debt and interest payments. Certain subsidiaries may have limitations or restrictions on transferring funds to other subsidiaries that may be necessary to meet those requirements.

The weighted average effective interest rate on outstanding borrowings, including the amortization of debt issuance costs and original issue discount, was 5.24% at December 31, 2016 and 5.50% at December 31, 2015.

#### 7. DERIVATIVES AND HEDGING ACTIVITIES

The Company uses forward contracts to hedge a portion of its exposure to balances denominated in currencies other than the functional currency of various subsidiaries and to manage exposure to certain planned foreign currency transactions in order to mitigate the impact of changes in exchange rates. As of December 31, 2016, the Company had outstanding foreign exchange contracts with maturities of up to six months and aggregate notional values of \$328 million (based on exchange rates as of December 31, 2016). Gains and losses resulting from these contracts are recognized in other expense, net and partially offset corresponding foreign exchange gains and losses on the balances being hedged. These instruments are not held for speculative or trading purposes. These contracts are not designated

as hedges for hedge accounting and are marked to market each period through earnings.

The following table presents the balance sheet location and fair value of the Company's derivatives:

	Balance Sheet Location	Fair Value of Asset (Liability) December 31,	
		2016	2015
Foreign currency contracts	Prepaid expenses and other current assets	\$289	\$1,051
Foreign currency contracts	Other accrued liabilities	(8,349)	(5,945)
Total derivatives not designated as			
hedging instruments		\$(8,060)	\$(4,894)

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The pretax impact of the foreign currency forward contracts, both matured and outstanding, on the Consolidated Statements of Operations and Comprehensive Income (Loss) is as follows:

		Loss
Foreign Currency Forward Contracts	Location of Loss	Recognized
Year ended December 31, 2016	Other expense, net	\$ (21,470 )
Year ended December 31, 2015	Other expense, net	(14,309 )
Year ended December 31, 2014	Other expense, net	(10,273 )

## 8. FAIR VALUE MEASUREMENTS

The Company's financial instruments consist primarily of cash and cash equivalents, trade receivables, trade payables, available-for-sale securities, debt instruments and foreign currency contracts. For cash and cash equivalents, trade receivables and trade payables, the carrying amounts of these financial instruments as of December 31, 2016 and December 31, 2015 were considered representative of their fair values due to their short terms to maturity. The fair value of the Company's available-for-sale securities were based on quoted market prices. The fair values of the Company's debt instruments and foreign currency contracts were based on indicative quotes.

Fair value measurements using quoted prices in active markets for identical assets and liabilities fall within Level 1 of the fair value hierarchy, measurements using significant other observable inputs fall within Level 2, and measurements using significant unobservable inputs fall within Level 3.

The carrying amounts, estimated fair values and valuation input levels of the Company's available-for-sale securities, foreign currency contracts and debt instruments as of December 31, 2016 and December 31, 2015, are as follows:

	December 31, 2016 Carrying		December 31, 2015 Carrying		Valuation
	Amount	Fair Value	Amount	Fair Value	Inputs
Assets:					
Available-for-sale securities	\$5,212	\$5,212	\$11,683	\$11,683	Level 1
Foreign currency contracts	289	289	1,051	1,051	Level 2
Liabilities:					
6.00% senior notes due 2025	1,500,000	1,585,350	1,500,000	1,430,700	Level 2
5.50% senior notes due 2024	650,000	673,530	650,000	617,500	Level 2
5.00% senior notes due 2021	650,000	669,500	650,000	619,125	Level 2
Senior PIK toggle notes due 2020	—	—	536,630	544,679	Level 2
4.375% senior secured notes due 2020	500,000	513,100	500,000	500,000	Level 2
Senior secured term loan due 2022, at par	1,234,375	1,245,145	1,246,875	1,243,727	Level 2

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Senior secured term loan due 2018, at par	111,875	112,364	261,875	260,068	Level 2
Foreign currency contracts	8,349	8,349	5,945	5,945	Level 2

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

**Non-Recurring Fair Value Measurements**

During the year ended December 31, 2016, the Company recorded the following pretax impairment charges that resulted from fair value measurements based on Level 3 valuation inputs:

◆ Goodwill impairment charge of \$15.3 million related to one of the CCS reporting units in the first quarter of 2016 as a result of impairment testing requirements under the new segment reporting structure.

◆ Impairment charges of \$7.4 million and \$7.6 million in the third and fourth quarters of 2016, respectively, to reduce certain intangible assets in the CCS segment to their estimated fair value.

◆ Impairment charge of \$8.3 million in the fourth quarter of 2016 to reduce certain long-lived assets no longer expected to be utilized in operations in the CCS segment to its estimated fair value.

During the year ended December 31, 2015, the Company recorded the following pretax impairment charges that resulted from fair value measurements based on Level 3 valuation inputs:

◆ Goodwill impairment charge of \$74.4 million related to the CMS segment as a result of reduced expectations of future cash flows from one of its reporting units in the third quarter of 2015.

◆ Impairment charge of \$5.5 million related to certain intangible assets in the CCS segment that were no longer recoverable as of December 31, 2015.

These fair value estimates are based on pertinent information available to management as of the valuation date. Although management is not aware of any factors that would significantly affect these fair value estimates, such amounts have not been comprehensively revalued for purposes of these financial statements since those dates, and current estimates of fair value may differ significantly from the amounts presented.

**9. RESTRUCTURING COSTS**

Prior to the acquisition of the BNS business, the Company initiated restructuring actions to realign and lower its cost structure primarily through workforce reductions and other cost reduction initiatives, including the cessation of manufacturing operations at various facilities. Production capacity from these facilities has been shifted to other existing facilities or unaffiliated suppliers. These actions are referred to as cost alignment restructuring actions. Following the acquisition of BNS in 2015, the Company initiated a series of restructuring actions to integrate the BNS operations (BNS integration restructuring actions) to achieve cost synergies. All charges related to these restructuring actions are reported in restructuring costs, net.

The Company's net pretax restructuring charges, by segment, were as follows:

	Year Ended December 31,		
	2016	2015	2014
CCS	\$27,098	\$16,937	\$3,076
CMS	15,777	12,551	16,191
Total	\$42,875	\$29,488	\$19,267

Employee-related costs include the expected severance costs and related benefits as well as one-time severance benefits that are accrued over the remaining period employees are required to work in order to receive such benefits.

Lease termination costs relate to the discounted cost of unused leased facilities, net of anticipated sub-lease income.

Fixed asset related costs include non-cash impairments or disposals of fixed assets associated with restructuring actions in addition to the cash costs to uninstall, pack, ship and reinstall manufacturing equipment and the costs to prepare the receiving facility to accommodate relocated equipment. These costs are expensed as incurred. Cash paid is net of proceeds received from the sale of related assets.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

As a result of restructuring and consolidation actions, the Company owns unutilized real estate at various facilities in the U.S. and internationally. The Company is attempting to sell or lease this unutilized space. Additional impairment charges may be incurred related to these or other excess assets.

The activity within the liability established for the cost alignment restructuring actions was as follows:

	Employee- Related Costs	Lease Termination Costs	Fixed Asset Related Costs	Total
Balance as of December 31, 2013	\$ 17,173	\$ 1,399	\$ —	\$18,572
Additional charge recorded	6,625	8,048	4,594	19,267
Cash paid	(19,806 )	(1,205 )	(3,357 )	(24,368 )
Foreign exchange and other non-cash items	(170 )	1	(1,237 )	(1,406 )
Balance as of December 31, 2014	3,822	8,243	—	12,065
Additional charge recorded	3,024	865	1,828	5,717
Cash paid	(5,773 )	(1,738 )	(247 )	(7,758 )
Consideration received	—	—	2,986	2,986
Foreign exchange and other non-cash items	(68 )	—	(4,567 )	(4,635 )
Balance as of December 31, 2015	1,005	7,370	—	8,375
Additional charge recorded	71	298	(203 )	166
Cash paid	(769 )	(1,618 )	—	(2,387 )
Consideration received	—	—	3,656	3,656
Foreign exchange and other non-cash items	4	—	(3,453 )	(3,449 )
Balance as of December 31, 2016	\$ 311	\$ 6,050	\$ —	\$6,361

The Company has recognized restructuring charges of \$89.0 million since January 2011 for cost alignment restructuring actions. Additional pretax costs of \$0.5 million to \$1.0 million are expected to be incurred to complete these previously announced initiatives. Cash payments of \$2.0 million to \$2.5 million are expected in 2017 and \$5.0 million to \$5.5 million between 2018 and 2022.

The activity within the liability established for the BNS integration restructuring actions was as follows:

	Employee- Related Costs	Lease Termination Costs	Fixed Asset Related Costs	Total
Balance as of December 31, 2014	\$ —	\$ —	\$ —	\$—
Liabilities assumed in BNS acquisition	9,000	—	—	9,000
Additional charge recorded	23,771	—	—	23,771
Cash paid	(3,996 )	—	—	(3,996 )
Foreign exchange and other non-cash items	(61 )	—	—	(61 )
Balance as of December 31, 2015	28,714	—	—	28,714
Additional charge recorded	35,848	378	6,483	42,709

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Cash paid	(31,569 )	(256 )	(3,079 )	(34,904 )
Foreign exchange and other non-cash items	(253 )	249	(3,404 )	(3,408 )
Balance as of December 31, 2016	\$ 32,740	\$ 371	\$ —	\$33,111

In conjunction with the BNS acquisition, the Company assumed a liability of \$9.0 million for BNS employee-related restructuring initiated prior to the acquisition. The Company has recognized restructuring charges of \$66.5 million since the acquisition date for BNS integration actions. Additional pretax costs to complete previously announced initiatives are not expected to be significant. Cash payments of \$28.0 million to \$29.0 million are expected in 2017 with additional payments of \$4.5 million to \$5.0 million between 2018 and 2020. Additional restructuring charges related to BNS restructuring actions are expected and the resulting amounts may be material.



CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

Restructuring reserves related to all actions were included in the Company's Consolidated Balance Sheets as follows:

	December 31,	
	2016	2015
Other accrued liabilities	\$30,438	\$24,480
Other noncurrent liabilities	9,034	12,609
Total liability	\$39,472	\$37,089

## 10. EMPLOYEE BENEFIT PLANS

### Defined Contribution Plans

The Company and certain of its subsidiaries have defined contribution retirement savings plans, the most significant of which is a 401(k) plan in the U.S. These plans allow employees meeting certain requirements to contribute a portion of their compensation on a pretax and/or after-tax basis in accordance with guidelines established by the plans and the Internal Revenue Service or other tax authorities. The Company matches a percentage of the employee contributions up to certain limits. With the BNS acquisition in 2015, the Company assumed various international defined contribution retirement savings plans and BNS employees in the U.S. became eligible to participate in the U.S. 401(k) plan. During the years ended December 31, 2016, 2015 and 2014, the Company made contributions to defined contribution retirement savings plans of \$24.5 million, \$21.7 million and \$19.6 million, respectively.

The Company maintains noncontributory and contributory deferred compensation plans. During the years ended December 31, 2016, 2015 and 2014, the Company recognized pretax costs of \$2.6 million, \$1.4 million and \$2.0 million, respectively, related to these plans. The liability was \$32.5 million and \$27.4 million as of December 31, 2016 and 2015, respectively.

### Pension and Other Postretirement Benefit Plans

The Company sponsors defined benefit pension plans covering certain domestic former employees and certain foreign current and former employees. With the acquisition of the BNS business, the Company assumed various foreign defined benefit pension plans. Included in the defined benefit pension plans are both funded and unfunded plans. The Company also sponsors postretirement health care and life insurance benefit plans that provide benefits to certain domestic former employees and certain domestic full-time employees who retire from the Company. The health care plans contain various cost-sharing features such as participant contributions, deductibles, coinsurance and caps, with Medicare as the primary provider of health care benefits for eligible retirees. The accounting for the health care plans anticipates future cost-sharing changes that are consistent with the Company's expressed intent to maintain a consistent level of cost sharing or capped benefits with retirees.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The following table summarizes information for the defined benefit pension and other postretirement benefit plans based on a December 31 measurement date:

	Pension Benefits U.S. Plans		Non-U.S. Plans		Other Postretirement Benefits U.S. Plans	
	2016	2015	2016	2015	2016	2015
<b>Change in benefit obligation:</b>						
Benefit obligation, beginning	\$ 159,973	\$ 171,351	\$ 203,117	\$ 145,921	\$ 16,696	\$ 21,756
Service cost	—	—	5,352	2,271	3	29
Interest cost	6,452	6,498	6,096	5,988	538	643
Plan participants' contributions	—	—	115	—	1,016	1,332
BNS acquisition	—	—	(7,073 )	74,851	—	—
Actuarial loss (gain)	966	(6,986 )	39,296	(13,314 )	(876 )	(3,505 )
Plan amendments	—	—	—	—	(4,370 )	—
Benefits paid, including settlements	(10,869 )	(10,890 )	(6,861 )	(2,239 )	(3,461 )	(3,559 )
Foreign exchange and other	—	—	(23,408 )	(10,361 )	—	—
Benefit obligation, ending	\$ 156,522	\$ 159,973	\$ 216,634	\$ 203,117	\$ 9,546	\$ 16,696
<b>Change in plan assets:</b>						
Fair value of plan assets, beginning	152,661	160,325	199,915	147,324	592	1,543
Employer and plan participant contributions	261	9,103	6,119	8,596	2,869	2,608
BNS acquisition	—	—	38	56,328	—	—
Return on plan assets	13,585	(5,877 )	21,683	225	—	—
Benefits paid, including settlements	(10,869 )	(10,890 )	(6,861 )	(2,239 )	(3,461 )	(3,559 )
Foreign exchange and other	—	—	(24,076 )	(10,319 )	—	—
Fair value of plan assets, ending	\$ 155,638	\$ 152,661	\$ 196,818	\$ 199,915	\$ —	\$ 592
Funded status (benefit obligation in excess of fair value of plan assets)	\$ 884	\$ 7,312	\$ 19,816	\$ 3,202	\$ 9,546	\$ 16,104

The following table presents the balance sheet location of the Company's pension and postretirement liabilities and assets:

	December 31, U.S. Plans		Non-U.S. Plans	
	2016	2015	2016	2015
Other accrued liabilities	\$(1,980 )	\$(2,000 )	\$(1,145 )	\$—
Pension and other postretirement benefit liabilities	(10,068 )	(21,416 )	(21,603 )	(15,686 )
Other noncurrent assets	1,618	—	2,932	12,484

The accumulated benefit obligation for the Company's U.S. defined benefit pension plans was \$156,522 and \$159,973 as of December 31, 2016 and 2015, respectively and the accumulated benefit obligation for the Company's non-U.S. defined benefit pension plans was \$175,016 and \$160,087 as of December 31, 2016 and 2015, respectively.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The following table summarizes information for the Company's pension plans with an accumulated benefit obligation in excess of plan assets:

	December 31,			
	U.S. Plans		Non-U.S. Plans	
	2016	2015	2016	2015
Projected benefit obligation	\$2,502	\$159,973	\$14,467	\$15,913
Accumulated benefit obligation	2,502	159,973	12,518	11,364
Fair value of plan assets	—	152,661	3,640	17

The following table summarizes pretax amounts included in accumulated other comprehensive loss as of December 31, 2016 and 2015:

	Pension Benefits				Other Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans		U.S. Plans	
	2016	2015	2016	2015	2016	2015
Unrecognized net actuarial gain (loss)	\$(30,968)	\$(37,508)	\$(32,411)	\$(8,661)	\$3,518	\$4,023
Unrecognized prior service credit	—	—	—	—	18,137	17,987
Total	\$(30,968)	\$(37,508)	\$(32,411)	\$(8,661)	\$21,655	\$22,010

Pretax amounts for net periodic benefit cost and other amounts included in other comprehensive income (loss) for the defined benefit pension and other postretirement benefit plans consisted of the following components:

	Pension Benefits					
	Year Ended December 31,					
	U.S. Plans			Non-U.S. Plans		
	2016	2015	2014	2016	2015	2014
Service cost	\$—	\$—	\$—	\$5,352	\$2,271	\$453
Interest cost	6,452	6,498	7,270	6,096	5,988	6,043
Recognized actuarial loss	923	675	309	116	52	—
Expected return on plan assets	(7,002)	(7,516)	(7,883)	(8,632)	(7,357)	(7,366)
Net periodic benefit cost (income)	373	(343)	(304)	2,932	954	(870)

Changes in plan assets and benefit obligations

included in other comprehensive income (loss):

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Change in unrecognized net actuarial loss (gain)	(6,540)	5,735	8,479	23,750	(6,867)	10,039
Total recognized in net periodic benefit cost and						
included in other comprehensive income (loss)	\$(6,167)	\$5,392	\$8,175	\$26,682	\$(5,913)	\$9,169

89

---

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

	Other Postretirement Benefits Year Ended December 31, U.S. Plans		
	2016	2015	2014
Service cost	\$3	\$29	\$86
Interest cost	538	643	901
Recognized actuarial gain	(1,382)	(1,132 )	(343 )
Amortization of prior service credit	(4,220)	(9,829 )	(9,977)
Net periodic benefit income	(5,061)	(10,289)	(9,333)
Changes in plan assets and benefit obligations included in other comprehensive income (loss):			
Change in unrecognized net actuarial loss (gain)	505	(2,373 )	(2,734)
Change in unrecognized prior service credit	(150 )	9,829	9,977
Total included in other comprehensive income (loss)	355	7,456	7,243
Total recognized in net periodic benefit cost and included in other comprehensive income (loss)			
		\$(4,706)	\$(2,833 ) \$(2,090)

Amortization of amounts included in accumulated other comprehensive loss as of December 31, 2016 is expected to increase (decrease) net periodic benefit cost during 2017 as follows:

	Pension Benefits		Other Postretirement Benefits	Total	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	U.S. Plans	Non-U.S. Plans
Amortization of net actuarial loss (gain)	\$678	\$ 1,459	\$ (793 )	\$(115 )	\$ 1,459
Amortization of prior service credit	—	—	(4,138 )	(4,138 )	—
Total	\$678	\$ 1,459	\$ (4,931 )	\$(4,253 )	\$ 1,459

## Assumptions

Significant weighted average assumptions used in determining benefit obligations and net periodic benefit cost are as follows:

	Pension Benefits U.S. Plans			Non-U.S. Plans		
	2016	2015	2014	2016	2015	2014
Benefit obligations:						
Discount rate	3.94 %	4.19 %	3.89 %	2.38 %	3.52 %	3.75 %

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Rate of compensation increase	—	%	—	%	—	%	4.04	%	4.36	%	4.00	%
Net periodic benefit cost:												
Discount rate	4.19	%	3.89	%	4.69	%	3.52	%	3.75	%	4.70	%
Rate of return on plan assets	4.50	%	4.65	%	5.45	%	3.71	%	4.45	%	5.40	%
Rate of compensation increase	—	%	—	%	—	%	4.18	%	4.00	%	4.30	%

	Other Postretirement Benefits U.S. Plans		
	2016	2015	2014
Benefit obligations:			
Discount rate	3.06 %	3.46 %	3.15 %
Net periodic benefit cost:			
Discount rate	3.46 %	3.15 %	3.50 %

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The Company considered the available yields on high-quality fixed-income investments with maturities corresponding to the Company's expected benefit obligations to determine the discount rates at each measurement date.

## Plan Assets

In developing the expected rate of return on plan assets, the Company considered the expected long-term rate of return on individual asset classes. Expected return on plan assets is based on the market value of the assets. Substantially all of the U.S. pension assets and a portion of the non-U.S. pension assets are managed by independent investment advisors with an objective of transitioning to a portfolio of fixed income and absolute return investments that matches the durations of the obligations as the funded status of each plan improves. The absolute return investment fund is a diversified portfolio designed to achieve long-term total returns. The remainder of the non-U.S. pension assets is invested with the objective of maximizing return.

Mutual funds classified as Level 1 are valued at net asset value, which is based on the fair value of the funds' underlying securities. Certain mutual funds are classified as Level 2 because a portion of the funds' underlying assets are valued using significant other observable inputs. Other assets are primarily composed of fixed income investments (including insurance and real estate products) and are valued based on the investment's stated rate of return, which approximates market interest rates.

The estimated fair values and the valuation input levels of the Company's plan assets as of December 31, 2016 are as follows:

	Pension Benefits		Non-U.S. Plans		Other Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans		U.S. Plans	
	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2
	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value
Mutual funds:						
U.S. equity	\$2,693	\$ —	\$ —	\$ —	\$ —	\$ —
International equity	1,284	—	30,295	29,618	—	—
U.S. debt	142,121	—	—	—	—	—
International debt	6,847	—	27,004	81,242	—	—
Absolute return	—	—	—	18,727	—	—
Other	2,693	—	3,688	6,244	—	—
Total	\$155,638	\$ —	\$60,987	\$135,831	\$ —	\$ —



Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

The estimated fair values and the valuation input levels of the Company's plan assets as of December 31, 2015 are as follows:

	Pension Benefits				Other Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans		U.S. Plans	
	Level				Level	
	Level 1	2	Level 1	Level 2	Level 1	2
	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value
Mutual funds:						
U.S. equity	\$2,404	\$ —	\$—	\$—	\$ —	\$ —
International equity	1,692	—	28,309	50,240	—	—
U.S. debt	140,264	—	—	—	592	—
International debt	6,164	—	26,721	91,772	—	—
Other	2,137	—	1,223	1,650	—	—
Total	\$152,661	\$ —	\$56,253	\$143,662	\$ 592	\$ —

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## Expected Cash Flows

The Company expects to contribute \$0.3 million to U.S defined benefit pension plans and \$6.6 million to non-U.S. defined benefit pension plans during 2017. The Company expects to contribute \$1.7 million to U.S. other postretirement benefit plans during 2017.

The following table summarizes projected benefit payments from pension and other postretirement benefit plans through 2026, including benefits attributable to estimated future service (in millions):

	Pension Benefits		Other
	U.S.	Non-U.S.	Postretirement
	Plans	Plans	U.S Plans
2017	\$10.8	\$ 10.0	\$ 1.7
2018	10.7	7.7	1.7
2019	10.6	6.4	1.5
2020	10.5	6.7	1.0
2021	10.4	7.6	0.9
2022-2026	50.0	47.7	2.5

## 11. INCOME TAXES

Income (loss) before income taxes includes the results from domestic and international operations as follows:

	Year Ended December 31,		
	2016	2015	2014
U.S. companies	\$2,752	\$(243,796)	\$33,089
Non-U.S. companies	269,817	181,795	283,974
Income (loss) before income taxes	\$272,569	\$(62,001)	\$317,063

The components of income tax expense were as follows:

	Year Ended December 31,		
	2016	2015	2014
Current:			
Federal	\$37,495	\$23,940	\$15,182
Foreign	104,196	81,123	86,135
State	8,918	5,637	12,252
Current income tax expense	150,609	110,700	113,569
Deferred:			

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Federal	(76,843 )	(81,913 )	(26,609 )
Foreign	(24,023 )	(18,627 )	(2,187 )
State	(12 )	(1,286 )	(4,482 )
Deferred income tax benefit	(100,878)	(101,826)	(33,278 )
Total income tax expense	\$49,731	\$8,874	\$80,291

CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The reconciliation of income taxes calculated at the statutory U.S. federal income tax rate to the Company's provision for income taxes was as follows:

	Year Ended December 31,		
	2016	2015	2014
Provision for income taxes at federal statutory rate	\$95,399	\$(21,700)	\$110,972
State income taxes, net of federal tax effect (1)	6,211	(608 )	1,772
Other permanent items	1,327	1,086	(2,131 )
Goodwill related items	3,284	25,518	1,668
Federal tax credits	(1,772 )	(1,940 )	(2,538 )
Change in unrecognized tax benefits	(11,061)	(2,484 )	(22,206 )
Foreign dividends and Subpart F income	16,848	256	25,152
Foreign earnings taxed at other than federal rate	(31,527)	(21,210)	(33,965 )
Tax provision adjustments and revisions to prior years' returns	3,585	(4,796 )	(1,973 )
Change in valuation allowances	(34,012)	33,505	3,218
Other	1,449	1,247	322
Total provision for income taxes	\$49,731	\$8,874	\$80,291

(1) Presented net of federal tax effect and does not include tax expense related to valuation allowances.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The components of deferred income tax assets and liabilities and the classification of deferred tax balances on the balance sheet were as follows (1):

	December 31,	
	2016	2015
Deferred tax assets:		
Accounts receivable, inventory and warranty reserves	\$61,709	\$63,374
Employee benefits	19,542	10,173
Pension and postretirement benefits	18,461	10,039
Restructuring accruals	9,290	9,761
Foreign net operating loss and tax credit carryforwards	56,122	61,945
Federal net operating loss carryforwards	4,019	3,498
Federal tax credit carryforwards	85,987	95,623
State net operating loss and tax credit carryforwards	17,249	17,070
Transaction costs	14,905	13,958
Equity-based compensation	17,919	14,885
Unrecognized tax benefits	12,721	21,527
Other	30,931	26,855
Total deferred tax assets	348,855	348,708
Valuation allowances	(60,136 )	(101,549 )
Total deferred tax assets, net of valuation allowances	288,719	247,159
Deferred tax liabilities:		
Intangible assets	(388,179 )	(354,434 )
Property, plant and equipment	(38,825 )	(38,146 )
Undistributed foreign earnings	(9,848 )	(7,851 )
Other	(4,110 )	(10,360 )
Total deferred tax liabilities	(440,962 )	(410,791 )
Net deferred tax liability	\$(152,243 )	\$(163,632 )
Deferred taxes as recorded on the balance sheet:		
Noncurrent deferred tax asset (included with Other noncurrent assets)	46,878	38,855
Noncurrent deferred tax liability	(199,121 )	(202,487 )
Net deferred tax liability	\$(152,243 )	\$(163,632 )

(1) Amounts reflected in the 2015 column have been reclassified to conform with current year presentation.

The deferred tax asset for federal tax credit carryforwards as of December 31, 2016 relates to U.S. foreign tax credit carryforwards that expire between 2017 and 2025. During the year ended December 31, 2016, the Company released \$28.9 million of valuation allowance against these deferred tax assets based on changes in outlook regarding the level and mix of foreign and domestic earnings that improved the expected ability to realize these assets.

The deferred tax asset for state net operating loss and tax credit carryforwards as of December 31, 2016 includes state net operating loss carryforwards (net of federal tax impact) of \$15.8 million, which begin to expire in 2017, and state tax credit carryforwards (net of federal tax impact) of \$1.4 million which begin to expire in 2017. A valuation allowance of \$10.5 million has been established against these state income tax related deferred tax assets.

The deferred tax assets for foreign net operating losses and tax credit carryforwards as of December 31, 2016 include foreign net operating loss carryforwards (tax effected) of \$44.0 million, which will begin to expire in 2017, and foreign tax credit carryforwards of \$12.1 million, which begin to expire in 2023. Certain of these foreign net operating loss carryforwards are subject to local restrictions limiting their utilization. Valuation allowances of \$45.6 million have been established related to these foreign deferred tax assets.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

In addition to the valuation allowances detailed above, the Company has also established a valuation allowance of \$4.0 million against other deferred tax assets.

During the year ended December 31, 2016, the valuation allowance for deferred tax assets decreased by \$41.4 million, primarily due to the changes in outlook for foreign tax credit carryforwards described above. Of that decrease, \$34.0 million reduced tax expense and the balance was related to changes in the underlying deferred tax assets or was recorded as an adjustment to other comprehensive income.

As of December 31, 2016, a deferred tax liability of \$9.8 million has been established to reflect the U.S. federal and state tax cost associated with the planned repatriation of that portion of the Company's undistributed foreign earnings that are not considered to be permanently reinvested in foreign operations. The remaining amount of undistributed earnings from foreign subsidiaries for which no incremental U.S. income taxes have been provided was \$606.1 million as of December 31, 2016 as these earnings are considered to be permanently reinvested in foreign operations. Determination of the amount of unrecognized deferred income tax liability related to these earnings is not practicable.

The following table reflects a reconciliation of the beginning and end of period amounts of gross unrecognized tax benefits, excluding interest and penalties:

	Year Ended December 31,		
	2016	2015	2014
Balance at beginning of period	\$64,085	\$68,223	\$91,410
Increase related to prior periods	742	1,677	223
Decrease related to prior periods	(3,416 )	(2,094 )	(1,275 )
Increase related to current periods	—	914	—
Decrease related to settlement with taxing authorities	(22 )	—	—
Decrease related to lapse in statutes of limitations	(16,758 )	(4,635 )	(22,135 )
Increase related to acquisition	3,681	—	—
Balance at end of period	\$48,312	\$64,085	\$68,223

The Company's liability for unrecognized tax benefits that, if recognized, would favorably affect the effective tax rate in future periods was \$39.5 million as of December 31, 2016. The Company operates in numerous jurisdictions worldwide and is subject to routine tax audits on a regular basis. The determination of the Company's unrecognized tax benefits involves significant management judgment regarding interpretation of relevant facts and tax laws in each of these jurisdictions.

Unrecognized tax benefits are reviewed and evaluated on an ongoing basis and may be adjusted for changing facts and circumstances including the lapse of applicable statutes of limitation and closure of tax examinations. Although the timing and outcome of such events are difficult to predict, the Company reasonably estimates that the balance of unrecognized tax benefits, excluding the impact of accrued interest and penalties, may be reduced by up to \$10.0 million within the next twelve months.

The Company provides for interest and penalties related to unrecognized tax benefits as income tax expense. As of December 31, 2016 and 2015, the Company had accrued \$8.9 million and \$7.9 million, respectively, for interest and

penalties. During the years ended December 31, 2016, 2015 and 2014 the net expense (credit) for interest and penalties recognized through income tax expense was \$0.4 million, \$(0.5) million and \$(4.6) million, respectively.



## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The Company files state and local tax returns with statutes of limitation generally ranging from 3 to 4 years. The Company is generally no longer subject to federal tax examinations for years prior to 2013 or state and local tax examinations for years prior to 2012. Tax returns filed by the Company's significant foreign subsidiaries are generally subject to statutes of limitations of 3 to 7 years and are generally no longer subject to examination for years prior to 2011. In many jurisdictions, tax authorities retain the ability to review prior years' tax returns and to adjust any net operating loss or tax credit carryforwards from these years that are available to be utilized in subsequent periods. During 2016, the Company recognized \$16.8 million related to the lapse of applicable statutes of limitations and the conclusion of various domestic and foreign examinations.

The following table presents income tax expense (benefit) related to amounts presented in other comprehensive income (loss):

	Year Ended December 31,		
	2016	2015	2014
Foreign currency translation	\$(188 )	\$(5,438 )	\$(7,942)
Defined benefit plans	(1,659)	(3,714 )	(8,008)
Available-for-sale securities	(2,360)	(3,174 )	7,351
Total	\$(4,207)	\$(12,326)	\$(8,599)

## 12. STOCKHOLDERS' EQUITY

## Equity-Based Compensation Plans

On October 4, 2013, the Company's Board of Directors approved the 2013 Long Term Incentive Plan (the 2013 Plan), effective October 24, 2013, authorizing 18.6 million shares for issuance. Awards under the 2013 Plan may include stock, stock options, restricted stock, restricted stock units (RSUs), performance units, performance share units (PSUs), performance-based restricted stock, stock appreciation rights and dividend equivalent rights for employees and non-employee directors of the Company. Approval of the 2013 Plan canceled all shares authorized but not issued under the CommScope, Inc. 2011 Incentive Plan. Awards granted prior to October 24, 2013 remain subject to the provisions of the predecessor plans. As of December 31, 2016, 13.4 million shares were available for future grants under the 2013 Plan.

As of December 31, 2016, \$54.3 million of total unrecognized compensation expense related to non-vested stock options, RSUs and PSUs are expected to be recognized over a remaining weighted average period of 1.4 years. There were no significant capitalized equity-based compensation costs at December 31, 2016.

In March 2016, the Company modified certain stock option awards to extend the exercise period in the case of retirement, death or disability. This modification resulted in a change in the fair value of the affected awards. Incremental compensation cost of \$1.6 million resulted from the modification and was fully recognized at the time of the modification.

The following table shows a summary of the equity-based compensation expense included in the Consolidated Statements of Operations and Comprehensive Income (Loss):

	Year Ended December 31,		
	2016	2015	2014
Selling, general and administrative	\$26,709	\$21,829	\$15,592
Cost of sales	4,665	3,844	3,160
Research and development	3,632	2,992	2,340
Total equity-based compensation expense	\$35,006	\$28,665	\$21,092

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## Stock options

Stock options are awards that allow the recipient to purchase shares of the Company's common stock at a fixed price. Stock options are granted at an exercise price equal to the Company's stock price at the date of grant. These awards generally vest over one to three years following the grant date and have a contractual term of ten years.

The following table summarizes the stock option activity (in thousands, except per share amounts):

	Shares	Weighted Average Option Exercise Price Per Share	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Options outstanding as of December 31, 2015	7,458	\$ 8.81		
Granted	385	\$ 25.08		
Exercised	(2,116)	\$ 7.91		
Forfeited	(230 )	\$ 8.02		
Options outstanding as of December 31, 2016	5,497	\$ 10.33	4.7	\$ 147,706
Options exercisable at December 31, 2016	4,725	\$ 7.53	4.1	\$ 140,173
Options expected to vest at December 31, 2016	771	\$ 27.45	8.5	\$ 7,514

The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was \$50.6 million, \$77.0 million and \$35.7 million, respectively.

The exercise prices of outstanding options at December 31, 2016 were in the following ranges:

	Options Outstanding			Options Exercisable	
	Weighted Average				
	Remaining		Weighted	Weighted	
	Shares	Contractual Life	Average Exercise	Shares	Average Exercise
	(in thousands)	(in years)	Price Per Share	(in thousands)	Price Per Share
Range of Exercise Prices	379	2.2	\$ 2.96	379	\$ 2.96

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

\$5.36 to \$5.67	211	4.9	\$ 5.57	197	\$ 5.57
\$5.68 to \$8.54	2,806	4.1	\$ 5.74	2,806	\$ 5.74
\$8.55 to \$8.90	963	3.5	\$ 8.60	963	\$ 8.60
\$8.91 to \$23.00	329	7.1	\$ 22.73	329	\$ 22.73
\$23.01 to \$33.12	809	8.5	\$ 27.99	51	\$ 29.73
\$2.96 to \$33.12	5,497	4.7	\$ 10.33	4,725	\$ 7.53

The Company uses the Black-Scholes model to estimate the fair value of stock option awards at the date of grant. Key inputs and assumptions used in the model include the grant date fair value of common stock, exercise price of the award, the expected option term, stock price volatility, the risk-free interest rate and the Company's projected dividend yield. The risk-free interest rates reflect the yield on zero-coupon U.S. treasury securities with a term equal to the option's expected term. The expected life represents the period over which the Company's employees are expected to hold their options. Expected volatility is derived based on the historical Company volatility, as well as volatilities from publicly traded companies operating in the Company's industry. The Company's projected dividend yield is zero. The Company believes that the valuation technique and the approach utilized to develop the underlying assumptions are appropriate in estimating the fair values of its stock options. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards. Subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the Company.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The following table presents the weighted average assumptions used to estimate the fair value of stock option awards granted:

	Year Ended December 31,					
	2016		2015		2014	
Expected option term (in years)	6.0		5.6		5.0	
Risk-free interest rate	1.4	%	1.6	%	1.5	%
Expected volatility	50.0	%	43.0	%	45.0	%
Weighted average exercise price	\$25.08		\$29.38		\$23.02	
Weighted average fair value at grant date	\$12.09		\$13.74		\$9.41	

## Restricted Stock Units

RSUs entitle the holder to shares of common stock after a vesting period that generally ranges from one to three years. The fair value of the awards is determined on the grant date based on the Company's stock price. The RSUs granted to BNS transferred employees in 2015 followed the remaining vesting schedule of their forfeited TE Connectivity awards which was a four-year vesting period.

The following table summarizes the RSU activity (in thousands, except per share data):

	Weighted Average Grant	
	Restricted Stock	Date Fair Value
	Units	Per Share
Non-vested share units at December 31, 2015	1,567	\$ 29.37
Granted	1,635	\$ 24.93
Vested and shares issued	(496)	) \$ 30.90
Forfeited	(187)	) \$ 26.86
Non-vested share units at December 31, 2016	2,519	\$ 26.37

The weighted average grant date fair value per unit of these awards granted during 2016, 2015 and 2014 was \$24.93, \$31.06 and \$22.99, respectively. The total fair value of RSUs that vested during the years ended December 31, 2016 and 2015 was \$15.3 million and \$3.4 million, respectively.

## Performance Share Units

PSUs are stock awards in which the number of shares ultimately received by the employee depends on Company performance against specified targets. Such awards typically vest over three years and the number of shares issued can vary from 0% to 150% of the number of PSUs granted, depending on performance. The fair value of each PSU is determined on the date of grant based on the Company's stock price. Over the performance period, the number of shares that are expected to be issued is adjusted upward or downward based upon the probable achievement of performance targets. The ultimate number of shares issued and the related compensation cost recognized will be based on the final performance metrics compared to the targets specified in the grants. For PSUs granted in 2015, which had a combined 2015 and 2016 earnings-based performance measure, the minimum level of performance was achieved but

performance was below target resulting in a negative share performance adjustment. For PSUs granted in 2016, which had a 2016 earnings-based performance measure, a better than target performance level was achieved resulting in a positive share performance adjustment. These resulted in a net positive share performance adjustment in 2016.

CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The following table summarizes the PSU activity (in thousands, except per share data):

	Weighted Average Grant	
	Performance	Date Fair Value
	Share Units	Per Share
Non-vested share units at December 31, 2015	175	\$ 30.76
Granted	274	\$ 25.05
Forfeited	(11 )	\$ 30.76
Performance adjustment	7	\$ 27.65
Non-vested share units at December 31, 2016	445	\$ 27.20

The weighted average grant date fair value per unit of these awards granted during 2016 and 2015 was \$25.05 and \$30.76, respectively.

### 13. COMMITMENTS AND CONTINGENCIES

The Company leases certain equipment and facilities under operating leases expiring at various dates through 2026. Rent expense was \$41.1 million, \$30.7 million and \$27.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Future minimum rental payments required under operating leases having an initial term in excess of one year at December 31, 2016 are as follows (in millions):

	Operating Leases
2017	\$ 32.5
2018	20.9
2019	15.4
2020	12.5
2021	11.0
Thereafter	7.6
Total minimum lease payments	\$ 99.9

The following table summarizes the activity in the product warranty accrual, included in other accrued liabilities:

	Year Ended December 31,		
	2016	2015	2014
Product warranty accrual, beginning of period	\$17,964	\$17,054	\$24,838
Accrual assumed in BNS acquisition	—	1,900	—
Provision for warranty claims	10,745	9,298	9,253

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Warranty claims paid	(7,078 )	(10,288 )	(17,037 )
Product warranty accrual, end of period	\$21,631	\$17,964	\$17,054

In addition, the Company is subject to various federal, state, local and foreign laws and regulations governing the use, discharge, disposal and remediation of hazardous materials. Compliance with current laws and regulations has not had, and is not expected to have, a materially adverse effect on the Company's financial condition or results of operations.

#### Legal Proceedings

The Company is either a plaintiff or a defendant in certain pending legal matters in the normal course of business, including various matters assumed as part of the BNS acquisition. Management believes none of these legal matters will have a material adverse effect on the Company's business or financial condition upon final disposition.



CommScope Holding Company, Inc.

Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

**14. INDUSTRY SEGMENTS, MAJOR CUSTOMERS, RELATED PARTY TRANSACTIONS AND GEOGRAPHIC INFORMATION****Segment Information**

As of January 1, 2016, the Company reorganized its internal management and reporting structure as part of integrating the BNS acquisition. The reorganization changed the information regularly reviewed by the Company's chief operating decision maker to allocate resources and assess performance. The Company is reporting financial performance for the 2016 fiscal year based on these operating segments: CommScope Connectivity Solutions (CCS) and CommScope Mobility Solutions (CMS). Both CCS and CMS represent non-aggregated reportable operating segments. All prior period amounts below have been recast to reflect these operating segment changes.

The CCS segment provides connectivity and network intelligence for indoor and outdoor network applications. Indoor network solutions are found in commercial buildings and in the network core, which includes data centers, central offices and cable television headends. These solutions include optical fiber and twisted pair structured cabling solutions, intelligent infrastructure software, network rack and cabinet enclosures, patch cords and panels, complete cabling systems and cable assemblies. central office connectivity and equipment and headend solutions for the network core. Outdoor network solutions are found in both local-area and wide-area networks and "last-mile" fiber-to-the-home installations. These solutions support the multichannel video, voice and high-speed data services provided by telecommunications operators and multi-system operators. The Company's fiber optic connectivity solutions are primarily comprised of hardened connector systems, fiber distribution hubs and management systems, couplers and splitters, "plug and play" multiport service terminals, hardened optical terminating enclosures, high density cable assemblies, splices and splice closures.

The CMS segment provides merchant radio frequency (RF) wireless network connectivity solutions as well as metro cell, DAS and small cell solutions to enable carriers' 2G, 3G and 4G networks. These solutions enable wireless operators to increase spectral efficiency and enhance cellular coverage and capacity in challenging network conditions such as commercial buildings, urban areas, stadiums and transportation systems.

The CMS segment focuses on all aspects of the radio access network (RAN) from the macro through the metro, to the indoor layer. Macro cell solutions can be found at wireless tower sites and on rooftops and include base station antennas, microwave antennas, hybrid fiber-feeder and power cables, coaxial cables, connectors and filters. Metro cell solutions can be found on street poles and on other urban, outdoor structures and include RF delivery and connectivity solutions, equipment housing and concealment. These fully integrated outdoor systems comprise specialized antennas, filters/combiners, backhaul solutions, intra-system cabling and power distribution, all minimized to fit an urban environment.

The following table provides summary financial information by reportable segment (in millions):

	December 31,	
	2016	2015
Identifiable segment-related assets:		
CCS	\$4,507.5	\$4,642.0
CMS	2,159.4	2,258.8
Total identifiable segment-related assets	6,666.9	6,900.8

Reconciliation to total assets:		
Cash and cash equivalents	428.2	562.9
Deferred income tax assets	46.9	38.9
Total assets	\$7,142.0	\$7,502.6

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

The Company's measure of segment performance is adjusted operating income. The Company defines adjusted operating income as operating income, adjusted to exclude amortization, asset impairments, equity-based compensation and other items that the Company believes are useful to exclude in the evaluation of operating performance from period to period because these items are not representative of the Company's core business.

The following table provides net sales, adjusted operating income, depreciation and additions to property, plant and equipment by reportable segment (in millions):

	Year Ended December 31,		
	2016	2015	2014
Net sales:			
CCS	\$2,965.5	\$1,841.7	\$1,359.8
CMS	1,958.1	1,966.1	2,469.8
Consolidated net sales	\$4,923.6	\$3,807.8	\$3,829.6
Segment adjusted operating income:			
CCS	\$632.3	\$349.9	\$208.1
CMS	419.1	379.9	600.3
Total segment adjusted operating income	1,051.4	729.8	808.4
Amortization of intangible assets	297.2	220.6	178.3
Restructuring costs, net	42.9	29.5	19.3
Equity-based compensation	35.0	28.7	21.1
Asset impairments	38.6	90.8	12.1
Integration and transaction costs	62.3	96.9	12.1
Purchase accounting adjustments	0.6	81.7	(11.9 )
Consolidated operating income	\$574.8	\$181.6	\$577.4
Depreciation expense:			
CCS	\$54.2	\$30.4	\$19.7
CMS	26.3	30.2	29.1
Consolidated depreciation expense	\$80.5	\$60.6	\$48.8
Additions to property, plant and equipment:			
CCS	\$49.6	\$33.0	\$12.4
CMS	18.7	23.5	24.5
Consolidated additions to property, plant and equipment	\$68.3	\$56.5	\$36.9

## Customer Information

Net sales to Anixter International Inc. and its affiliates (Anixter) accounted for 11%, 12% and 11% of the Company's total net sales during the years ended December 31, 2016, 2015 and 2014, respectively. Sales to Anixter primarily originate within the CCS segment. Other than Anixter, no direct customer accounted for 10% or more of the Company's total net sales for any of the above periods.

Accounts receivable from Anixter represented approximately 12% and 10% of accounts receivable as of December 31, 2016 and 2015, respectively. Other than Anixter, no direct customer accounted for 10% or more of the Company's accounts receivable as of December 31, 2016 or 2015.

#### Related Party Transactions

There were no material related party transactions for the years ended December 31, 2016, 2015 or 2014.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## Geographic Information

Sales to customers located outside of the United States comprised 46%, 51% and 45% of total net sales during the years ended December 31, 2016, 2015 and 2014, respectively. Sales by geographic region, based on the destination of product shipments, were as follows:

	Year Ended December 31,		
	2016	2015	2014
United States	\$2,634.9	\$1,869.4	\$2,107.6
Europe, Middle East and Africa (EMEA)	933.5	781.7	739.3
Asia Pacific (APAC)	961.0	781.9	641.3
Central and Latin America (CALA)	280.3	275.7	252.8
Canada	113.9	99.1	88.6
Consolidated net sales	\$4,923.6	\$3,807.8	\$3,829.6

Long-lived assets, excluding intangible assets, consist substantially of property, plant and equipment. The Company's long-lived assets, excluding intangible assets, located in the U.S., EMEA, APAC and CALA regions represented the following percentages of such long-lived assets: 52%, 21%, 20% and 7%, respectively, as of December 31, 2016 and 50%, 22%, 20% and 8%, respectively, as of December 31, 2015.

## CommScope Holding Company, Inc.

## Notes to Consolidated Financial Statements-(Continued)

(In thousands, unless otherwise noted)

## 15. QUARTERLY FINANCIAL DATA (UNAUDITED)

	First	Second	Third	Fourth
	Quarter	Quarter	Quarter	Quarter
	2016	2016	2016	2016
Net sales	\$1,143,979	\$1,306,788	\$1,293,948	\$1,178,906
Gross profit	447,091	553,759	542,851	489,888
Operating income (1)(2)(3)	90,723	183,872	180,746	119,409
Net income (4)	12,580	61,961	93,831	54,466
Basic earnings per share	\$0.07	\$0.32	\$0.49	\$0.28
Diluted earnings per share	\$0.06	\$0.32	\$0.48	\$0.28

  

	First	Second	Third	Fourth
	Quarter	Quarter	Quarter	Quarter
	2015	2015	2015	2015
Net sales	\$825,400	\$867,290	\$972,597	\$1,142,541
Gross profit (5)	293,204	314,695	338,891	399,030
Operating income (loss) (1)(2)(3)(5)	93,140	109,398	(42,518 )	21,573
Net income (loss) (4)	39,476	45,592	(80,796 )	(75,147 )
Basic earnings (loss) per share	\$0.21	\$0.24	\$(0.42 )	\$(0.39 )
Diluted earnings (loss) per share	\$0.20	\$0.24	\$(0.42 )	\$(0.39 )

(1) Operating income for the first, third and fourth quarters in 2016 included charges related to asset impairments of \$15,293, \$7,375 and \$15,884, respectively. Operating income (loss) for the third and fourth quarters in 2015 included charges related to asset impairments of \$85,334 and \$5,450, respectively.

(2) Operating income for the first, second, third and fourth quarters in 2016 included charges related to restructuring costs of \$6,072, \$7,605, \$10,826 and \$18,372, respectively. Operating income (loss) for the first, second, third and fourth quarters in 2015 included charges related to restructuring costs of \$1,871, \$1,894, \$6,868 and \$18,855, respectively.

(3) Operating income for the first, second, third and fourth quarters in 2016 included charges related to integration and transaction costs of \$15,867, \$14,473, \$14,738 and \$17,232, respectively. Operating income (loss) for the first, second, third and fourth quarters in 2015 included charges related to integration and transaction costs of \$11,415, \$9,863, \$60,839 and \$14,797, respectively.

(4) Net income for the fourth quarter in 2016 included a reversal of a tax valuation allowance of \$24,543. Net income (loss) for the fourth quarter in 2015 included a provision for a tax valuation allowance of \$28,871.

(5) Gross profit and operating income (loss) for the third and fourth quarters in 2015 included purchase accounting adjustments related to the mark-up of BNS inventory to its estimated fair value of \$30,500 and \$51,135, respectively.



ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND  
FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)) as of the end of the period covered by this report.

Based on this evaluation, our CEO and CFO have concluded that, as of the end of the period covered by this report, these disclosure controls and procedures were effective and operating to provide reasonable assurance that information that we are required to disclose in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

The management of CommScope is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act, as a process designed by, or under the supervision of, the company's principal executive and principal financial officers and effected by the company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

• Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;

- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and

• Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the consolidated financial statements.

CommScope's management assessed the effectiveness of CommScope's internal control over financial reporting as of December 31, 2016. In making this assessment, CommScope's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013). Based on this assessment, management concluded that, as of December 31, 2016, CommScope's internal control over financial reporting is effective based on the COSO internal control criteria.

CommScope's independent registered public accounting firm, Ernst & Young LLP, has issued an attestation report on the effectiveness of CommScope's internal control over financial reporting, which is included herein.



## Changes in Internal Control over Financial Reporting

In conjunction with the integration of BNS, the Company continues to make changes to processes, policies and other components of its internal control over financial reporting, including the consolidation of such operations into the Company's financial statements. During the remainder of the integration period, the Company will continue to rely on TE Connectivity to provide various services under transition services agreements. During the quarter ended December 31, 2016 the Company migrated the systems supporting the U.S., Mexican and Canadian operations from TE Connectivity's systems to the Company's existing systems. Except for the activities described above, there have been no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## Inherent Limitations of Disclosure Controls and Internal Control over Financial Reporting

Because of their inherent limitations, our disclosure controls and procedures and our internal control over financial reporting may not prevent material errors or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. The effectiveness of our disclosure controls and procedures and our internal control over financial reporting is subject to risks, including that the controls may become inadequate because of changes in conditions or that the degree of compliance with our policies or procedures may deteriorate.

## ITEM 9B. OTHER INFORMATION

None.

## PART III

## ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

## Code of Ethics for Principal Executive and Senior Financial and Accounting Officers

We have adopted the CommScope Holding Company, Inc. Code of Ethics for Principal Executive and Senior Financial and Accounting Officers (the Senior Officer Code of Ethics), a code of ethics that applies to our Chief Executive Officer, Chief Financial Officer and Controller. The Senior Officer Code of Ethics is publicly available on our web site at [www.commscope.com](http://www.commscope.com). If we make an amendment to, or grant a waiver from, a provision of the Senior Officer Code of Ethics, we will disclose the nature of such waiver or amendment on our web site.

## ITEM 11. EXECUTIVE COMPENSATION

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

## ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.



**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2017 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) Documents Filed as Part of this Report:

**1. Audited Consolidated Financial Statements**

The following consolidated financial statements of CommScope Holding Company, Inc. are included under Part II, Item 8:

Reports of Independent Registered Public Accounting Firm

Consolidated Statements of Operations and Comprehensive Income (Loss) for the Years Ended December 31, 2016, 2015 and 2014

Consolidated Balance Sheets as of December 31, 2016 and 2015

Consolidated Statements of Cash Flows for the Years Ended December 31, 2016, 2015 and 2014

Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2016, 2015 and 2014

Notes to Consolidated Financial Statements

**2. Financial Statement Schedules**

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

**3. List of Exhibits. See Index of Exhibits included herein.**

## SIGNATURES

Pursuant to the requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

COMMSCOPE  
HOLDING  
COMPANY,  
INC

DATE: February 22, 2017

BY: /s/  
MARVIN  
S.  
EDWARDS,  
JR.  
Marvin  
S.  
Edwards,  
Jr.  
President and  
Chief Executive  
Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ MARVIN S. EDWARDS, JR. Marvin S. Edwards, Jr.	President, Chief Executive Officer and Director (Principal Executive Officer)	February 22, 2017
/s/ MARK A. OLSON Mark A. Olson	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 22, 2017
/s/ ROBERT W. GRANOW Robert W. Granow	Senior Vice President, Corporate Controller and Principal Accounting Officer	February 22, 2017
/s/ FRANK M. DRENDEL	Director and Chairman of the Board	February 22, 2017

Frank M. Drendel

/s/ AUSTIN A. ADAMS Austin A. Adams	Director	February 22, 2017
/s/ CAMPBELL R. DYER Campbell R. Dyer	Director	February 22, 2017
/s/ STEPHEN C. GRAY Stephen C. Gray	Director	February 22, 2017
/s/ L. WILLIAM KRAUSE L. William Krause	Director	February 22, 2017
/s/ JOANNE M. MAGUIRE Joanne M. Maguire	Director	February 22, 2017
/s/ THOMAS J. MANNING Thomas J. Manning	Director	February 22, 2017
/s/ CLAUDIUS E. WATTS IV Claudius E. Watts IV	Director	February 22, 2017
/s/ TIMOTHY T. YATES Timothy T. Yates	Director	February 22, 2017

Index of Exhibits

Exhibit No.	Description
* 2.1	Stock and Asset Purchase Agreement, dated January 27, 2015, by and among CommScope Holding Company, Inc., CommScope, Inc. and TE Connectivity Ltd. (Incorporated by reference to Exhibit 2.1 of the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on January 28, 2015).
* 3.1	Amended and Restated Certificate of Incorporation of CommScope Holding Company, Inc. (Incorporated by reference to Exhibit 3.1 of the Registrant's Form 10-Q (File No. 001-36146), filed with the SEC on November 7, 2013).
* 3.2	Fourth Amended and Restated By-Laws of CommScope Holding Company, Inc. (as adopted December 13, 2016) (Incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on December 14, 2016).
* 4.1	Indenture governing the 5.000% Senior Notes due 2021 by and among CommScope, Inc. as Issuer, the subsidiary guarantors named therein and Wilmington Trust, National Association, as trustee, dated as of May 30, 2014, (including form of 5.000% Senior Note due 2021) (Incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on June 2, 2014).
* 4.2	Indenture governing the 5.500% Senior Notes due 2024 by and among CommScope, Inc. as Issuer, the subsidiary guarantors named therein and Wilmington Trust, National Association, as trustee, dated as of May 30, 2014, (including form of 5.500% Senior Note due 2024) (Incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on June 2, 2014).
* 4.3	Indenture governing the 4.375% Senior Notes due 2020, by and among CommScope, Inc., the guarantors named therein and Wilmington Trust, National Association, as trustee and as collateral agent, dated as of June 11, 2015, (including form of 4.375% Senior Note due 2020) (Incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on June 12, 2015).
* 4.4	Indenture governing the 6.000% Senior Unsecured Notes due 2025 by and between the CommScope Technologies Finance LLC and Wilmington Trust, National Association, as trustee, dated as of June 11, 2015 (including form of 6.000% Senior Note due 2025) (Incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on June 12, 2015).
* 4.5	First Supplemental Indenture, dated August 28, 2015, by and among CommScope Technologies LLC, the Guarantors party thereto and Wilmington Trust, National Association, as trustee (Incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on August 28, 2015).
* 10.1	

Revolving Credit and Guaranty Agreement, dated as of January 14, 2011, by and among Cedar I Holding Company, Inc. (now CommScope Holding Company, Inc.), CommScope, Inc., as Parent Borrower, the U.S. Co-Borrowers and European Co-Borrowers named therein, the guarantors named therein, the Lenders from time to time party thereto, J.P. Morgan Securities LLC, as Lead Arranger and Bookrunner, JPMorgan Chase Bank, N.A., as US Administrative Agent, and J.P. Morgan Europe Limited, as European Administrative Agent and the Senior Managing Agents and Documentation Agents named therein (the Revolving Credit Facility) (Incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).

Exhibit No.	Description
* 10.2	Amendment No. 1 to the Revolving Credit Facility, dated as of March 9, 2012, among CommScope, Inc., as Parent Borrower, the U.S. Borrowers, European Co-Borrowers and Guarantors named therein, the Lenders party thereto, JPMorgan Chase Bank, N.A., as U.S. Administrative Agent, and J.P. Morgan Europe Limited, as European Administrative Agent (Incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.3	Amendment No. 2 to the Revolving Credit Facility, dated as of May 21, 2015, among CommScope, Inc., as Parent Borrower, CommScope Holding Company, Inc., as Holdings, the US Co-Borrowers and European Co-Borrowers named therein, the Lenders party thereto, JPMorgan Chase Bank, N.A., as U.S. Administrative Agent, and J.P. Morgan Europe Limited, as European Administrative Agent (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), originally filed with the SEC on May 22, 2015).
* 10.4	Revolving Credit Facility Pledge and Security Agreement, dated as of January 14, 2011, among CommScope, Inc. (as successor by merger to Cedar I Merger Sub, Inc.) and the additional Grantors party thereto, in favor of JPMorgan Chase Bank, N.A., as collateral agent and as administrative agent for the Secured Parties referred to therein (Incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.5	Patent Security Agreement, dated as of January 14, 2011, made by Allen Telecom LLC, Andrew LLC and CommScope, Inc. of North Carolina in favor of JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.6	Trademark Security Agreement, dated as of January 14, 2011, made by Allen Telecom LLC, Andrew LLC and CommScope, Inc. of North Carolina in favor of JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.7	Copyright Security Agreement, dated as of January 14, 2011, made by Allen Telecom LLC, Andrew LLC and CommScope, Inc. of North Carolina in favor of JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.8	Credit Agreement, dated as of January 14, 2011, among CommScope, Inc. (as successor by merger to Cedar I Merger Sub, Inc.), as Borrower, CommScope Holding Company, Inc.(as successor by merger to Cedar I Holding Company, Inc.), the Lenders from time to time party thereto, JPMorgan Chase Bank, N.A. as Administrative Agent and Collateral Agent and J.P. Morgan Securities LLC as Arranger and Sole Bookrunner (Incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.8.1	Amendment Agreement, dated as of March 7, 2012, among CommScope, Inc., as Borrower, CommScope Holding Company, Inc., the subsidiary guarantors party thereto, the Lenders from time to time party thereto, JPMorgan Chase Bank, N.A. as Administrative Agent and Collateral Agent and J.P. Morgan Securities LLC as Arranger and Sole Bookrunner (Incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the



SEC on August 2, 2013).

- \* 10.8.2 Amendment Agreement, dated as of March 8, 2013, among CommScope, Inc., as Borrower, CommScope Holding Company, Inc., the subsidiary guarantors party thereto, the Lenders from time to time party thereto, JPMorgan Chase Bank, N.A. as Administrative Agent and Collateral Agent, J.P. Morgan Securities LLC and Deutsche Bank Trust Company Americas, as syndication agent (Incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).

Exhibit No.	Description
* 10.8.3	Amendment No. 3, dated as of December 3, 2013, to the Credit Agreement, dated as of January 14, 2011, among CommScope, Inc., as Borrower, CommScope Holding Company, Inc., the subsidiary guarantors named therein, the several banks and other financial institutions or entities from time to time parties thereto as Lenders, JPMorgan Chase Bank, N.A., as administrative agent and collateral agent and the other agents and arrangers party thereto. (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on December 3, 2013).
* 10.8.4	Amendment Agreement, dated as of October 31, 2016, to the Credit Agreement, dated as of January 11, 2011, among CommScope, Inc., as Borrower, CommScope Holding Company, Inc., as Holdings, the several banks and other financial institutions or entities from time to time parties thereto as Lenders, JPMorgan Chase Bank, N.A., as Administrative Agent and the other agents and arrangers party thereto. (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on October 31, 2016).
* 10.9	Term Loan Credit Facility Pledge and Security Agreement, dated as of January 14, 2011, among CommScope, Inc. (as successor by merger to Cedar I Merger Sub, Inc.) and the additional Grantors party thereto, in favor of JPMorgan Chase Bank, N.A., as collateral agent and as administrative agent for the Secured Parties referred to therein (Incorporated by reference to Exhibit 10.10 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.10	Patent Security Agreement, dated as of January 14, 2011, made by Allen Telecom LLC, Andrew LLC and CommScope, Inc. of North Carolina in favor of JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 10.11 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.11	Trademark Security Agreement, dated as of January 14, 2011, made by Allen Telecom LLC, Andrew LLC and CommScope, Inc. of North Carolina in favor of JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 10.12 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.12	Copyright Security Agreement, dated as of January 14, 2011, made by Allen Telecom LLC, Andrew LLC and CommScope, Inc. of North Carolina in favor of JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.13	Holdings Guaranty, dated as of January 14, 2011, by CommScope Holding Company, Inc. in favor of the Secured Parties referred to therein (Incorporated by reference to Exhibit 10.14 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.14	Subsidiary Guaranty, dated as of January 14, 2011, from the Subsidiary Guarantors named therein in favor of the Secured Parties referred to therein (Incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).
* 10.15	

Intercreditor Agreement, dated as of January 14, 2011, by and among CommScope Inc., CommScope Holding Company, Inc., certain Subsidiaries party thereto as a Guarantor, JPMorgan Chase Bank, N.A., as administrative agent and collateral agent for the holders of Revolving Credit Obligations, and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent for the holders of Initial Fixed Asset Obligations (Incorporated by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), originally filed with the SEC on August 2, 2013).

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Exhibit No.	Description
* 10.16	Incremental Joinder Agreement, dated August 28, 2015, by and among CommScope, Inc., as Borrower, CommScope Holding Company, Inc., as Holdings, the Subsidiary Guarantors party thereto, the lenders party thereto, JPMorgan Chase Bank, N.A. as Administrative Agent and Collateral Agent, and JPMorgan Chase Bank, N.A., as Escrow Administrative Agent (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on August 28, 2015).
* 10.17	Notes Pledge and Security Agreement, dated as of June 11, 2015, among CommScope, Inc., as a Grantor and the additional Grantors party thereto, in favor of Wilmington Trust, National Association, as collateral agent under the Indenture referred to therein (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on June 12, 2015).
* 10.18	Amended and Restated Employment Agreement between Frank M. Drendel and CommScope, Inc., dated January 14, 2011, as amended on September 12, 2013 (Incorporated by reference to Exhibit 10.18 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
* 10.19	Employment Agreement between Randall W. Crenshaw and CommScope, Inc., dated January 14, 2011, as amended on September 12, 2013 (Incorporated by reference to Exhibit 10.19 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
* 10.20	Employment Agreement between Marvin S. Edwards, Jr. and CommScope, Inc., dated January 14, 2011, as amended on September 12, 2013 (Incorporated by reference to Exhibit 10.20 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
* 10.21	Employment Agreement between Mark A. Olson and CommScope, Inc., dated January 21, 2014 (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-36146), filed with the SEC on January 23, 2014).
* 10.22	Form of Amended and Restated Severance Protection Agreement between CommScope, Inc. and certain executive officers (Incorporated by reference to Exhibit 10.21 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
* 10.23	Form of Amendment to Severance Protection Agreement between CommScope, Inc. and certain executive officers, effective June 3, 2016 (Incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on July 28, 2016).
* 10.24	Form of Indemnification Agreement (Incorporated by reference to Exhibit 10.22 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
* 10.25	Amended and Restated CommScope, Inc. 2006 Long Term Incentive Plan (as amended and restated effective February 28, 2007) (Incorporated by reference to Exhibit 10.25 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on

September 12, 2013).

- \* 10.26 Amended and Restated CommScope Holding Company, Inc. 2011 Incentive Plan (as amended and restated effective February 19, 2013) (Incorporated by reference to Exhibit 10.26 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).

## Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Exhibit No.	Description
* 10.27	Forms of Nonqualified Stock Option Certificate under the Amended and Restated CommScope Holding Company, Inc. 2011 Incentive Plan (Incorporated by reference to Exhibit 10.31 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
** 10.28	CommScope Holding Company, Inc. Amended and Restated 2013 Long-Term Incentive Plan (as amended and restated effective February 21, 2017).
* 10.29	Form of Restricted Stock Unit Award Certificate under the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 30, 2015).
* 10.30	Form of Performance Share Unit Award Certificate under the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 30, 2015).
* 10.31	Form of Non-Qualified Stock Option Certificate under the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 30, 2015).
* 10.32	CommScope Holding Company, Inc. Amendment to Outstanding Options, effective March 7, 2016 (Incorporated by reference to Exhibit 10.5 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 28, 2016).
* 10.33	Form of Restricted Stock Unit Award Certificate under the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (for grants in 2016 and later) (Incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 28, 2016).
* 10.34	Form of Performance Share Unit Award Certificate under the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (for grants in 2016 and later) (Incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 28, 2016).
* 10.35	Form of Non-Qualified Stock Option Certificate under the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (for grants in 2016 and later) (Incorporated by reference to Exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 28, 2016).
* 10.36	CommScope Holding Company, Inc. Annual Incentive Plan, as amended February 17, 2016 (Incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on April 28, 2016).
* 10.37	Amended and Restated CommScope, Inc. Supplemental Executive Retirement Plan (as amended and restated effective April 9, 2009) (Incorporated by reference to Exhibit 10.30 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

- \* 10.38 First Amendment, dated January 12, 2011, to Amended and Restated CommScope, Inc. Supplemental Executive Retirement Plan (Incorporated by reference to Exhibit 10.32 of Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-190354), filed with the SEC on September 12, 2013).
- \* 10.39 CommScope Holding Company, Inc. Non-Employee Director Compensation Plan, as amended on September 9, 2015 (Incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36146), filed with the SEC on November 9, 2015).

Edgar Filing: CommScope Holding Company, Inc. - Form 10-K

Exhibit No.	Description
* 10.40	Form of Restricted Stock Unit Award Certificate under the CommScope Holding Company, Inc. Non-Employee Director Compensation Plan, which is operated as a subplan of the CommScope Holding Company, Inc. 2013 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.34 of the Registrant's Annual Report on Form 10-K (File No. 001-36146), filed with the SEC on February 20, 2014).
** 10.41	CommScope Holding Company, Inc. Deferred Compensation Plan (as amended and restated effective January 1, 2017).
** 21.1	List of Subsidiaries
** 23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
** 31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a).
** 31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a).
± 32.1	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished pursuant to Item 601(b)(32)(ii) of Regulation S-K).
† 101.INS	XBRL Instance Document, furnished herewith
† 101.SCH	XBRL Schema Document, furnished herewith
† 101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
† 101.INS	XBRL Taxonomy Extension Label Linkbase Document
† 101.INS	XBRL Taxonomy Extension Presentation Linkbase Document
† 101.INS	XBRL Taxonomy Extension Definition Linkbase Document

\*Previously filed

\*\*Filed herewith

†In accordance with Rule 406T of Regulation S-T, the information in these exhibits is furnished and deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of Section 18 of the Exchange Act of 1934, and otherwise is not subject to liability under these sections.

±In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the certification furnished in Exhibit 32.1 hereto is deemed to accompany this Form 10-K and will not be deemed "filed" for purposes of Section 18 of the Exchange Act. Such certification will not be deemed to be incorporated by reference into any filings under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.



