

DIALOG SEMICONDUCTOR PLC  
Form 6-K  
July 02, 2004

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE  
SECURITIES EXCHANGE ACT OF 1934**

**For the month of June 2004**

**DIALOG SEMICONDUCTOR PLC**  
(Translation of registrant's name into English)

Neue Strasse 95, D-73230 Kirchheim/Teck-Nabern, Germany  
(Address of principal executive offices)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form-20-F or Form 40-F.)

Form 20-F ☒ Form 40-F ☐

(Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

Yes ☐ No ☒

(If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):

82-\_\_\_\_\_.)

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

	<i>DIALOG SEMICONDUCTOR PLC</i>
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Date July 1, 2004	By <u>/s/ ROLAND PUDELKO</u>
	Roland Pudelko
	Executive Director, CEO and President

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**Part 1 Press Release of Dialog Semiconductor Plc dated June 23, 2004:**  
**New color LCD display drivers offer fast response for high speed moving images**

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*Integrated graphic display RAM, high speed interfaces and power management enable single, low power chip for latest mobile phone displays*

**Kirchheim/Teck, Germany, June 23, 2004** Dialog Semiconductor Plc (NASDAQ: DLGS, FWB: DLG), has today launched the first two products in its new color liquid crystal display (LCD) driver family. Using multi-line addressing (MLA) LCD technology, the new DA8912A and DA8913A incorporate fully integrated graphic display RAM with high speed interfaces and various power management functions to enable a single, low power chip for managing the display in next generation mobile phone handsets and portable electronic products. Delivery of the devices is announced today in a separate joint release from Dialog Semiconductor, eMemory Technology and Chartered Semiconductor Manufacturing (Nasdaq: CHRT and SGX-ST: Chartered).

The fast display graphic transfer rate of the DA8912A/8913A, with support for moving images at speeds faster than 15 frames per second, makes the new drivers ideal for next generation mobile phone handsets with advanced multimedia, multiple display and video and gaming capabilities. This is a result of the advantages of MLA technology which facilitate lower LCD drive voltage requirements, reduced power needs, fast frame response time, improved display contrast and quality (with very little flicker), and reduced noise on the display.

The new color LCD drivers are manufactured using Chartered's 0.35-micron process, and OTP (one-time programmable) non-volatile memory technology from eMemory Technology, Inc., one of Asia's most innovative embedded memory suppliers. The OTP memory is delivered as an IP (intellectual property) block to replace the traditional fuses required to adjust LCD driver color contrast. The OTP block, customized for Dialog's specific requirements, removes the need to run a set-up trim at chip testing, saving assembly time and cost. The electrical programmable memory enables the flexibility of adjusting display parameters at module assembly stage.

Our new DA8912A/8913A ICs provide real innovation for the mobile phone display market, delivering superior color performance and low power consumption, while providing mobile phone handset makers the flexibility to customize display parameters for creating differentiation. At the same time, the color LCD driver comes as standard part that is ready for production, said Roland Pudelko, chief executive officer and president of Dialog Semiconductor. We are pleased with the seamless collaboration made possible via Chartered's ecosystem, making available eMemory's pre-qualified OTP memory blocks and efficient design services. This has helped Dialog to adopt a faster, more cost-effective and flexible approach for implementing our sophisticated mixed-signal system solutions.

The new devices from Dialog Semiconductor are designed to drive color super-twisted nematic (STN) displays with a maximum size of 132 columns by 132 rows (DA8912A) or 96 columns by 96 rows (DA8913A), and support resolutions of either 4,096 or 65,536 colors. The DA8912A also features programmable on-chip temperature compensation to enable optimum display quality.

With a 278,784 bit low power display RAM to store color data, the DA8912A/8913A support both display scrolling and partial display capability with data written into the RAM by a user-configurable microprocessor unit interface. A high-speed serial or 8/16 bit parallel interface enables fast graphic data transfers as well as rewriting of data to the graphic display RAM. Other key features of the display capability of the DA8912A/8913A include a pointer management system which automatically increments or decrements the RAM pointer after each access, allowing data to be streamed into RAM without having to manipulate any address pointers; and a programmable color enhancement function for individual optimization of the RGB palettes.

#### Power management functions

The new drivers utilize Dialog Semiconductor's established expertise in power management and mixed signal circuit design to reduce the overall power consumption of the LCD system. The devices feature low voltage operation down to 2.4V, while programmable voltage booster circuits support a maximum LCD drive voltage of 21V; all LCD voltage reference and generation circuits plus output drivers are also included on-chip.

The result is a typical power consumption of just 0.5mA (including display load) for the DA8913A 96 x 96 graphic CSTN LCD display driver, while the DA8912A 132 x 132 driver has a typical power consumption of 0.9mA. Both devices feature standby consumption of only 10µA.

The devices are shipping now.

Ends

#### Information about Dialog Semiconductor

Dialog Semiconductor develops and supplies power management, audio and imaging technology, delivering innovative mixed signal standard products as well as application specific IC solutions for wireless, automotive and industrial applications. The company's expertise in mixed signal design, with products manufactured entirely in CMOS technology, enhances the performance and features of wireless, hand-held and portable electronic products. Its technology is also used in intelligent control circuits in automotive and industrial applications. Dialog Semiconductor Plc is headquartered near Stuttgart, Germany with additional design facilities in the UK, the USA, Austria and Japan. The company is listed on the Frankfurt (FWB: DLG) and on the NASDAQ (DLGS) exchanges.

#### Contact

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## Part 2 Press Release of Dialog Semiconductor Plc dated June 23, 2004:

### Dialog Semiconductor delivers its first color LCD drivers for

## mobile phones in collaboration with Chartered and eMemory Technology

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*Enhanced performance, full-color display capability leverages innovative embedded memory technology accessible from foundry design ecosystem*

SINGAPORE June 23, 2004 Dialog Semiconductor Plc. (NASDAQ: DLGS, FWB: DLG), a developer of innovative mixed-signal silicon solutions for wireless products, today announced the delivery of a new line of color liquid crystal display (LCD) drivers for the mobile phone market, utilizing value-added process solutions from Chartered Semiconductor Manufacturing (Nasdaq: CHRT and SGX-ST: Chartered), one of the world's top three dedicated semiconductor foundries, and design solutions from eMemory Technology, Inc., one of Asia's most innovative embedded memory suppliers.

This latest product innovation builds upon an existing relationship between the companies starting in 1998, which has resulted in Chartered's manufacturing of a variety of other LCD and power management products for the mixed-signal standard product provider. The Chartered design solution, comprising a comprehensive portfolio of proven solutions from electronic design automation (EDA) and intellectual property (IP) innovators, also provides Dialog Semiconductor with access to eMemory's one-time programmable (OTP) non-volatile memory (NVM) solution. Proven on Chartered's 0.35-micron manufacturing process, the eMemory solution helped enhance the performance of Dialog Semiconductor's new DA8912A and DA8913A LCD drivers announced today. The enhanced color LCD drivers are manufactured using Chartered's 0.35-micron process, thus streamlining the path for Dialog Semiconductor to achieve first-time success from design-through-manufacturing.

Dialog Semiconductor's family of color display drivers provides a single-chip solution for color STN (super-twisted nematic) LCDs, aimed at the growing number of wireless handsets with high-resolution color and dual displays with advanced multimedia, video and gaming capabilities and requiring fast-moving images. The color STN LCD drivers provide excellent resolution of up to 65,000 colors, and a video rate of over 15 frames per second, addressing a growing trend for mobile phone users to demand more information from their display.

Our new DA8912A/8913A ICs provide real innovation for the mobile phone display market, delivering superior color performance and low power consumption, while providing mobile phone handset makers the flexibility to customize display parameters for creating differentiation. At the same time, the color LCD driver comes as standard part that is ready for production, said Roland Pudelko, chief executive officer and president of Dialog Semiconductor. We are pleased with the seamless collaboration made possible via Chartered's ecosystem, making available eMemory's pre-qualified OTP memory blocks and efficient design services. This has helped Dialog Semiconductor to adopt a faster, more cost-effective and flexible approach for implementing our sophisticated mixed-signal system solutions.

Dialog Semiconductor chose eMemory's OTP technology, delivered as an IP block, to replace traditional fuses required to adjust the contrast of its color LCD driver. The OTP block, which was customized for Dialog Semiconductor's specific requirements, removes the need to run a set-up trim at chip testing, thus saving assembly time and cost. The electrical programmable memory enables the flexibility of adjusting display parameters at module assembly stage.

The successful collaboration among Dialog Semiconductor, eMemory and Chartered is further validation of Chartered's solutions approach of leveraging expertise through meaningful partnerships and delivering value and innovations to customers, said Mike Rekuc, senior vice president of worldwide sales and marketing at Chartered. We will continue to work closely with our strategic partners, such as eMemory, to support mutual customers like Dialog Semiconductor with integrated solutions across their product value chain as well as the full life-cycle of their

products.

The advantages of our OTP technology for a growing number of consumer applications that integrates communications and computing functions are significant process portability, programmability, and most importantly in this case, the ability for precision trimming of analog components that tunes the performance of LCD displays. These benefits are made even more accessible through our collaboration with Chartered to ensure that our mutual customers can quickly and cost-effectively realize their designs on silicon, said Charles Hsu, president at eMemory.

eMemory's OTP blocks pre-qualified on Chartered's 0.35-micron process operate with a 3.3V operating voltage and 6.5V programming voltage, and feature a read access time of 50 nanoseconds and data retention capability of 10 years. The OTP blocks can also be used in conjunction with the broad range of third-party mixed-signal and analog components that are silicon-validated by Chartered for system-on-chip implementations. The standard OTP memory offering is compatible with existing Chartered 0.35-micron standard cell libraries and memory compilers available from its various library partners, and is supported by industry-leading design automation tools. Silicon characterization reports are available from both companies upon request, and an OTP design kit can be obtained from eMemory.

### **About Dialog Semiconductor**

Dialog Semiconductor develops and supplies power management, audio and imaging technology, delivering innovative mixed signal standard products as well as application specific IC solutions for wireless, automotive and industrial applications. The company's expertise in mixed signal design, with products manufactured entirely in CMOS technology, enhances the performance and features of wireless, hand-held and portable electronic products. Its technology is also used in intelligent control circuits in automotive and industrial applications. Dialog Semiconductor Plc is headquartered near Stuttgart, Germany with additional design facilities in the UK, the USA, Austria and Japan. The Company is listed on the Frankfurt (FWB: DLG) and on the NASDAQ (DLGS) exchanges. Information about Dialog Semiconductor can be found at <http://www.Dialog-Semiconductor.com>.

### **About Chartered**

Chartered Semiconductor Manufacturing, one of the world's top three dedicated semiconductor foundries, is forging a customized approach to outsourced semiconductor manufacturing by building lasting and collaborative partnerships with its customers. The company provides flexible and cost-effective manufacturing solutions for customers, enabling the convergence of communications, computing and consumer markets. In Singapore, Chartered operates four fabrication facilities and has a fifth fab, the company's first 300mm facility, which is expected to begin pilot production by the end of 2004.

A company with both global presence and perspective, Chartered is traded on both the Nasdaq Stock Market (Nasdaq: CHRT) and on the Singapore Exchange (SGX-ST: CHARTERED). Information about Chartered can be found at <http://www.charteredsemi.com>.

### **About eMemory**

eMemory Technology Incorporation is a leading programmable logic device (OTP/MTP) provider. eMemory's Neobit® (OTP/MTP) provides its customer the most cost-effective and easy-to-use embedded NVM solution. In addition to Neobit®, eMemory also develops stand-alone NVM products using its own IP. eMemory is located at the Hsinchu Science-Based Industrial Park in Taiwan. Information about eMemory can be found at <http://www.ememory.com.tw>.