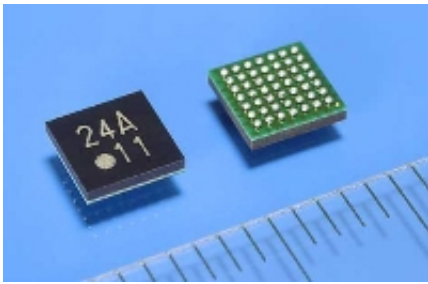


NEC Electronics Introduces 3G Mobile Phone Chip Enables High-Speed Serial Data Transmission

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[NEC Electronics Corporation](#) (TSE: 6723) and its subsidiary in Europe, NEC Electronics (Europe) GmbH, introduced the μ PD161451 bridge IC for 3G mobile handsets, a chip that facilitates development of handsets with rotating high-resolution [TFT displays](#), leveraging the advanced technology of NEC Electronics' Mobile CMADSTM high-speed serial interface.

Recent evolutions in mobile handsets have seen increasing popularity in handset designs with rotating or revolving high resolution [thin film](#) transistor (TFT) displays. Compared to previous clamshell designs, the part that connects the display to the main body in these new phones is much narrower, necessitating different design requirements such as a significant reduction in the number of data transmission lines that cross

this segment.

The μ PD161451 bridge IC has a number of features that help manufacturers implement high-speed serial interfaces in mobile handsets. Compared to standard parallel interfaces, the chip's serial interface can reduce the typical number of image data transmission lines from 18 lines to 4 lines, freeing up valuable real estate in the thin passageway that connects the display to the main body of the phone. The chip itself also has smallest-in-class dimensions of 4mm x 4mm, further contributing to board space. In addition, the Mobile CMADSTM technology enables 128Mbps high-speed data transmission while reducing electromagnetic (EMI) noise by 90% and maintaining low power consumption.

The μ PD161451 bridge IC is designed for use in the main body of the mobile handset. When paired with one of NEC Electronics' five LCD driver ICs (installed in the display portion), manufacturers can achieve high-speed serial transmission without modifying their existing baseband LSI or data processing unit. This serial-serial pairing is the first of its kind in the industry.

The bridge IC and driver IC convert parallel signals to serial and transmit the data to a compatible driver IC housed in the TFT LCD display panel.

"Over the past few years we have witnessed an explosion of advanced content for mobile phones such as full-motion graphics, games, and videoconferencing. At the same time there has been a proliferation in mobile handsets designs that require certain design considerations." stated Kazumichi Aoki, General Manager, Display Systems Division, NEC Electronics. "By providing high-speed data transmission while minimizing the power consumption and EMI noise challenges faced by parallel interfaces, we hope to promote Mobile CMADSTM interface as an industry standard."

Pricing and Availability

Samples of the μ PD161451 are priced at US\$8.00 per unit. Pricing subject to change. Volume production is scheduled to begin January 2005. Monthly production is expected to reach 1 million units.

For specifications of the new products [click here](#).

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