

FTDI Introduce the X-Chip Series of Next Generation USB Interface ICs

*Low power, low pin count product has extensive feature set that includes
integrated USB battery charger detection capability*

USB solutions specialist Future Technology Devices International Limited (FTDI) has supplemented its portfolio of USB to serial interface products with the release of its new X-Chip series. Made up of devices in 13 different package options, the X-Chip series complements the company's existing FT-R and FT-H offerings. The series supports a broad selection of interface types, such as basic UART, full UART, FIFO and I²C, as well as FTDI's proprietary FT1248 I/O (including provision for enhanced SPI).

Through X-Chip, engineers are provided with a feature-rich USB 2.0 interface solution that will enhance system performance while simultaneously addressing major board level concerns, such as better space utilisation and reduced power consumption. Devices in the series are capable of data rates of up to 3.4 Mbits/s, while maintaining low power consumption, <8mA (typical) when fully active and <125 µA (typical) while in suspend mode.

With recent amendments being made to the USB specification regarding more rapid charging of portable electronics devices, the X-Chip has built-in functionality to detect a charging port and cause logic to switch from data transfer to charging mode. This feature means that detection does not have to be carried out by the system's microcontroller/microprocessor, thereby allowing it to focus fully on its core activities. The end result is a simpler detection process and the capability to charge at a higher current level which shortens the time required for battery charging.

Windows 7, Windows Vista, Windows XP, Windows XP Embedded, Windows CE, Mac OS-X, Linux 3.2 (and above), plus Android operating systems are all supported, furnishing engineers with maximum design flexibility. Furthermore, the required USB drivers are free to download from the FTDI website. Since the entire USB protocol is handled by the device, the

need for the programming of USB specific firmware can be negated. An internal 2048 byte, multi-time programmable (MTP) memory enables storage and configuration of the necessary device descriptors.

“By specifying the X-Chip into their designs, engineers will reduce their overall bill of materials and optimise PCB real estate,” states Fred Dart, CEO and founder of FTDI. “With its comprehensive feature set, the benefits of lower power, smaller device footprint and enhanced battery charging can all be realised, as well as the robust USB functionality that FTDI has always provided in its connectivity solutions.”

The devices in the X-Chip series are offered in compact SSOP, QFN and DFN packages. Each has an operational temperature range of -40 °C to +85 °C. As all the necessary USB support and bridging intelligence has been integrated into these devices and pre-validated, the expense, time and engineering resource needed to bring Full Speed USB connectivity into system designs is markedly reduced. In addition to the ICs, FTDI has released a wide-selection of development modules, enabling the different functions for each chip type, and thus allowing for easy device evaluation and prototyping development.

Pricing for the X-Chip series starts at US \$1.93 (for 10-49 pcs). Complete information including datasheets, application notes, and product support material can be found at:

<http://www.ftdichip.com/FT-X.htm>

About FTDI

Future Technology Devices International (FTDI) specialises in the design and supply of silicon and software solutions for the Universal Serial Bus (USB). FTDI offers a simple route to USB migration by combining easy-to-implement IC devices with proven, ready-to-use, royalty-free USB firmware and driver software. The company's single and multi-channel USB peripheral devices come with an easy-to-use UART or FIFO interface. These popular devices can be used in legacy USB-to-RS232/RS422 converter applications or to quickly interface an MCU, PLD, or FPGA to USB. A wide range of evaluation kits and modules are available to evaluate FTDI's silicon prior to design-in. Vinculum is FTDI's brand name for a range of USB Host/Slave controller ICs that provide easy implementation of USB Host controller functionality within products and use FTDI's tried and tested firmware to significantly reduce development costs and time to market. FTDI is a fab-less semiconductor company headquartered in Glasgow, UK with R&D centres in Glasgow and Singapore and has regional sales offices in Oregon, USA, Shanghai, China and Taipei, Taiwan.

More information is available at <http://www.ftdichip.com>

Regional sales offices and distributor lists are available
<http://www.ftdichip.com/FTSalesNetwork.htm>

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