Evaluation Boards for SuperSpeed USB-to-FIFO Bridge ICs

HSMC & FMC connectivity options facilitating deployment into FPGA-based designs

9th September 2015 - To encourage the widespread utilisation of its highly cost-effective and easy-to-implement next generation USB interfacing technology, FTDI Chip has unveiled a new family of evaluation/development modules. The company's FT600/1Q USB 3.0 SuperSpeed ICs, which are already in full volume production, are forthwith backed up by the UMFT60XX offering. This module family is made of 4 models, which provide different FIFO bus interfaces and data bit widths. Through these modules operational parameters of FT600/1Q devices can be fully assessed and interfacing with external hardware undertaken, such as FPGA platforms from the industry's leading suppliers.

Measuring 78.7mm x 60mm, the UMFT600A and UMFT601A each have a high speed mezzanine card (HSMC) interface with 16-bit and 32-bit wide FIFO buses respectively. The UMFT600X and UMFT601X have dimensions of 70mm x 60mm and incorporate field-programmable mezzanine card (FMC) connectors, again with 16-bit and 32-bit wide FIFO buses respectively. The HSMC interface is compatible with most Altera FPGA reference design boards,

while the FMC connector delivers the same functionality in relation to Xilinx boards.

Fully compatible with USB 3.0 SuperSpeed (5Gbits/s), USB 2.0 High Speed (480Mbits/s) and USB 2.0 Full Speed (12Mbits/s) data transfer, the UMFT60xx modules support 2 parallel slave FIFO bus protocols with an achievable data burst rate of around 400MBytes/s. The multi-channel FIFO mode can handle up to 4 logic channels. It is complemented by the 245 synchronous FIFO mode, which is optimised for more straightforward operation.

“We recognized early on that USB 3.0 system designs that are reliant on programmable logic, rather than MCU technology, are going to have a multitude of important benefits to the embedded engineering fraternity. They will allow bill-of-materials costs to be kept under control and the writing/compiling of masses of C code to be avoided,” states Fred Dart, CEO and founder of FTDI Chip. “As a result we have worked closely with the most prominent companies in the programmable sector to promote this more technologically and financial efficient method of implementing USB 3.0. The new modules we have introduced are designed such that they can plug into most FPGA development platforms supplied by vendors such as Xilinx or Altera.”

About FTDI Chip

FTDI Chip develops innovative silicon solutions that enhance interaction with the latest in global technology. The major objective from the company is to ‘bridge technologies’ in order to support engineeers with highly sophisticated, feature-rich, robust and simple-to-use product platforms. These platforms enable creation of electronic designs with high performance, low peripheral component requirements, low power budgets and minimal board real estate.

FTDI Chip’s long-established, continuously expanding Universal Serial Bus (USB) product line boasts such universally recognized product brands as the ubiquitous R-Chip, X-Chip, Hi-Speed and SuperSpeed USB 3.0 series. In addition to both host and bridge chips, it includes highly-integrated system solutions with built-in microcontroller functionality. The company’s Embedded Video Engine

(EVE) graphic controllers each pack display, audio and touch functionality onto a single chip. The unique, streamlined approach utilised by these ICs allow dramatic reductions in the development time and bill-of-materials costs involved in next generation Human Machine Interface (HMI) implementation. FTDI Chip also provides families of highly-differentiated, speed-optimised microcontroller units (MCUs) with augmented connectivity features, specifically designed with compatibility to its USB and Display product lines in mind. These MCUs are targeted for key applications where they can add value with their superior processing performance and high levels of operational efficiency.

FTDI Chip is a fab-less semiconductor company, partnered with the world's leading foundries. The headquarter is located in Glasgow, UK and is supported with research and development facilities in Glasgow, Singapore and Taipei (Taiwan) plus regional sales and techical support sites in Glasgow, Taipei, Tigard (Oregon, USA) and Shanghai (China).

For more information go to http://www.ftdichip.com

For further information and reader enquiries:

Steven van der Wolf - FTDI Chip
Unit 1, 2 Seaward Place, Centurion Business Park, Glasgow, G41 1HH, UK
Tel: +44 (0) 141 429 2777 Fax: +44 (0) 141 429 2758
E-mail: marketing@ftdichip.com

Issued by:
Mike Green - Pinnacle Marketing Communications Ltd
Tel: +44 (0)20 84296543
E-mail: m.green@pinnaclemarcom.com
Web: www.pinnacle-marketing.com

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