FTDI Chip Unveils New Hardware to Support its High Performance Microcontroller Offering

Addressing development, programming & debugging activities

14th October 2015 - FTDI Chip has introduced a series of easy-to-utilize modules to facilitate the evaluation, development and subsequent implementation of its 32-bit FT90X Super-Bridge MCUs. This will mean that engineers in the embedded space are better positioned to benefit from the industry-leading performance levels and extensive connectivity that these highly advanced ICs are able to deliver.

Optimized for use in home security, industrial control, home/building automation systems, data logging and embedded multimedia applications, the MM900EVxA series of FT90X-centered modules is made up of 4 different units. The MM900EV2A and MM900EV3A incorporate 1.3M pixel camera modules, capable of capturing images from VGA (up to 30fps) to SXGA (up to 15fps) resolution in front-facing and rear-facing configurations respectively. Each module also has a built-in audio codec with microphone input pins, a 3.5mm stereo headphone jack, a stereo speaker output header, DC power socket, 2 RGB LEDs, reset switch and a real time clock with coin cell battery support. An RJ45 connector allows 10/100Mbps Ethernet data transfer and extra

memory capacity can be made available via the Micro SD card socket. The standard USB-A port (which provides the USB hosting) is complemented by a Micro-B USB port (which serves as a USB device port and a power source connection). A 40-way expansion connector enables access to the IC's complete complement of IO, while a Micro-MaTch 2x5 female socket facilitates the debugging/downloading process. An additional 2 x 8-pin 2.54mm pitch connector and 16-pin 0.5mm pitch FFC/FPC connector permit interfacing with FT800/FT810 EVE display modules.

Presenting engineers with more streamlined versions of the MM900EVxA platform are the MM900EV1A and MM900EV-LITE. The MM900EV1A offers the exactly the same functionality as the MM900EV2A and MM900EV3A, excluding the camera unit and is aimed primarily bridging functions. The MM900EV-LITE is optimized for HMI and embedded display applications. It dispenses with the need for Ethernet connectivity, audio codec and the USB Host, but instead has a supplementary IO connector (so that these functions can be added on if required). This IO connector provides connection to UART, PWM, ADC, DAC, SPI, I^2C, CAN bus and camera interface. All 4 of the MM900EVxA and MM900EV-LITE modules are backed up by a comprehensive tool chain which allows engineers to get through the development phases without complications. The device firmware upgrade (DFU) interface on each module provisions for direct loading of code without the need for any programming hardware.

The UMFTPD2A is designed to accompany FTDI Chip's MM900EVxA and MM900EV-LITE modules. Through this, in addition to programming and firmware upload tasks, engineers can embark upon comprehensive debugging of their FT90X-based systems. It features an FT4232HL Hi-Speed USB 2.0 to

multipurpose UART/MPSSE converter IC. As well as MPSSE and UART options, Bit-Bang connectivity is also included.

Based on the combination of proprietary processor topology and an ingenuous shadow RAM element, FT90X Super-Bridge MCU devices can differentiate themselves from conventional generic microcontrollers. They can achieve zero wait state operation at speeds of 100MHz. This makes them highly suited to data intense applications, such as data bridging between a camera and an Ethernet connection or sensors and SD storage (for machine vision, building access and surveillance purposes).

For more information visit: http://www.ftdichip.com/ft90x

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

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