Texas Instruments & 4DSP Collaborate on FPGA Mezzanine Card

Texas Instruments Incorporated

Dallas, TX – Texas Instruments Incorporated (TI) [1] [NASDAQ: TXN [2]] and 4DSP [3], an innovative company specializing in low power, low weight and compact FPGA-based signal and image processing systems, has announced their collaboration on a new mezzanine card, the FMC667, for mission critical applications.

4DSP's FMC667 mezzanine card, based on the emerging FMC form factor, includes TI's KeyStone-based TMS320C6678 multicore digital signal processor (DSP), DRAM memory and peripherals.

With TI's high-performance C6678 multicore DSP, the FMC667 is able to more effectively and rapidly meet the essential requirements of Commercial Off-The-Shelf (COTS)-based systems, as well as increase processing power, accuracy and finer resolution in mission critical and industrial applications.

"TI's multicore software development kit made it easy for us to develop support libraries for our FMC667 card" says Arnaud Maye, Embedded Software Manager at 4DSP. "With eight 1.25 GHz cores in parallel and the built-in capability to be a PCIe root complex, TI's C6678 DSP affirms itself as a control and high-end processing node for the most demanding applications."

4DSP's FMC667 card is primarily intended to be used in applications where an FPGA and DSP act as a co-processor of one another, such as video, telecom infrastructure, imaging, medical and wireless infrastructure markets.

Mechanically and electrically compliant to the FMC standard (ANSI/VITA 57.1), the FMC667 module has a high-pin count connector and can be used in a conduction-cooled environment. Additionally, the card is also equipped with power supply and temperature monitoring, offering several power-down modes to switch off unused functions and peripheral interfaces.

Functionality, reliability and precision are vital factors mission critical developers must take into consideration when designing quality system applications. TI's C6678 multicore DSPs deliver the industry's first 10 GHz DSP with fixed- and floating-point performance on a single device for increased precision, a key requirement for mission critical systems.

Additionally, the C6678 multicore DSPs increase system capabilities by consolidating the functionality of multiple DSPs onto a single device, saving board space and cost and alleviating the challenge of size, weight and power (SwaP), as well as reducing overall clock rates and power consumptions.

For more information visit www.4dsp.com [3] and www.ti.com/multicore [1].

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