FPGA Expansion Board for MCUs Targets Low-cost Security Apps

Texas Instruments launched the Stellaris FPGA Expansion Board for the DK-LM3S9B96 development kit. The new board enables developers to evaluate the high bandwidth machine-to-machine (M2M) parallel interface capability of Stellaris MCU's flexible External Peripheral Interface (EPI). With data widths of up to 32 bits and data rates of up to 150 MB per second, the M2M mode of EPI was specifically developed to enable developers of low-cost security access control applications to interface cameras or low-resolution video with a Stellaris MCU that can provide Ethernet communication of processed, encoded imagery. In such systems, dedicated video processing is handled by an FPGA or DSP, and the encoded images are communicated via the on-chip Ethernet MAC+PHY of a Stellaris MCU. Out of the box, the quickstart application on the expansion board allows developers to show the FPGA's camera-captured and FPGA-processed video on the large, 3.5-inch touchscreen display of the DK-LM3S9B96. Other features include EPI operation at 50 MHz; complete hardware including Xilinx Spartan 3E FPGA with 100k system gates, 1/13" CMOS VGA (640 x 480) Color Camera Module, 1 x 6 header for FPGA programming and Xilinx JTAG connector; 1 MB of asynchronous 10 nsec SRAM for graphics/video buffers and 1 KB of I2C memory for storing configuration data; and eight FPGA test pads with five inputs and three I/Os available for user prototyping of application-specific FPGA processing tasks.

Texas Instruments
800-477-8924, www.ti.com [1]

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