

Compact Kernel for C64x DSPs Meets Real-Time Needs

OSEck, a compact yet full-featured kernel for TMS320C64x DSP generation devices, is geared for applications demanding hard real-time response and as little overhead as possible. With a minimum memory footprint of less than 8 kB, OSEck allows interrupt processes to be scheduled in response to software events as well as hardware interrupts. In addition, a direct message passing capability performs inter-processor communications regardless of the underlying hardware topology and without compromising key design parameters. OSEck for TMS320C64x DSP generation devices and projects having up to 10 users sells for \$5,000. [OSE Systems Inc.](http://www.ose.com), San Jose, Calif.; (408) 392-9300, www.ose.com



Fast Emulator Debugs in Real Time

The XDS560 PCI-bus JTAG scan-based emulator features Real-Time Data Exchange, which transfers data bidirectionally between the target



processor and the host development platform at more than 2 MB/s and downloads code at 0.5 MB/s. Also, Advanced Event Triggering allows for real-time, nonintrusive debugging and maximum user control over DSPs and ARM processors. An autosensing voltage capability operates from 5V to 0.5V. Data from the emulator is available on the Code Composer Studio Integrated Development Environment through the industry standard Microsoft Component Object Model interface. The XDS560 emulator, which comes with a flexible 1.5-m cable and credit-card sized cable pod,

sells for \$4,995, but is being offered for a limited time at an introductory price of \$3,995. [Texas Instruments Incorporated](http://www.dspvillage.ti.com/emulator13), Houston, Texas; (800) 477-8924, www.dspvillage.ti.com/emulator13

UART Daughter Card Serves C6711/6211 DSP Start Kits

A UART daughter card for TMS320C6711 and TMS320C6211 DSP Start Kits carries two independent RS-232-C serial interfaces that are based on the industry standard 16550 UART. The card, which plugs into a starter kit's expansion socket, provides a serial communications interface for DSP applications. On-board LEDs indicate the state of all RS-232-C signals. The UART daughter card, including driver software, sells for \$300. [Windmill Innovations BV](http://www.windmill-innovations.com), Nijkerk, The Netherlands; +31 33 2465314, www.windmill-innovations.com

Emulator Expands to Development System

The FlexXDS 560+ for TMS320 DSP family devices serves as both an emulator and, with the addition of DSP and I/O daughter cards, a hardware and software development system. The basic configuration has all the features of the XDS560 emulator, including Real-Time Data Exchange, fast code downloads, and advanced event triggering capabilities. It also works seamlessly with the Code Composer Studio Integrated Development Environment 2.1. DSP daughter modules are available for the C54x, C55x, C62x, and C67x DSP generations. Priced at \$3,495, the FlexXDS 560+ emulator occupies a PCI half card and includes a JTAG emulator pod, drivers, and installation instructions. [FlexXDS](http://www.flexds.com), Sunnyvale, Calif.; (408) 773-1042, www.flexds.com

JTAG Emulator Touts USB 2.0 Interface

The USB 560 JTAG, with its 480-MB/s USB 2.0 interface, is an XDS560-class emulator that keeps pace with Texas Instruments' fast emulation technology to offer real-time visibility and fast code downloads, as well as advanced event-triggering features. The emulator is fully compatible with TMS320 and TMS470 DSP family devices and the Code Composer Studio Integrated Development Environment 2.1. It is also backward compatible with USB V1.0/1.1 interfaces and can handle I/O voltages from 0.5 to 5.0V. The introductory price for the USB 560 JTAG emulator, which comes with drivers for Windows 98, 2000, and XP, is \$4,000. [Blackhawk](http://www.blackhawk.com), Mount Laurel, N.J.; (877) 983-4514, www.blackhawk-dsp.com

Small Stackable Board Harnesses TMS320C6712 DSP

The micro-line C6712CPU Embedded DSP board combines a 100-MHz, 600-MFLOPS TMS320C6712 DSP with up to 32 MB of external SDRAM and 512 K^B of flash memory, all on a 98-x-67-mm board. Users also have access to two TMS320C6000 DSF platform McBSP ports, a programmable digital I/O interface, and a flash file system for storing and handling flash application programs through an RS-232 interface. Up to seven peripheral boards can connect in a vertical stack to the C6712CPU board with the additional boards controlled and accessed by the DSP through 20-bit address and 32-bit data buses. The C6712CPU board sells for \$306 each in quantities of 500 or more. [Traquair Data Systems, Inc.](http://www.traquair.com), Ithaca, N.Y.; (607) 266-6000, www.traquair.com



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