

# MityDSP™ : The industry-leading CPU platform for high-performance applications



**Speed. Quality. Price.** We're always told that, when it comes to electronic product development, you get to pick two out of three. With the MityDSP family, Critical Link has once again proven that when it comes to embedded solutions, you *can* really have all three.

**Critical Link's MityDSP** is a high-performance, customizable CPU platform, with configurable I/O. The MityDSP couples best-in-class off-the-shelf-technology with Critical Link's last mile customization.

The MityDSP breaks the speed-price-quality rule once and for all. You get the features and benefits of custom design *plus* the cost and schedule benefits of a ready-made solution. All with robust technology that's proven where it matters: in the field, in a wide range of applications that depend on the MityDSP for their processing needs, 24/7.

An all-in-one instrumentation and data collection solution deployed in a wide range of instrumentation and scientific applications, the MityDSP is available in three versions:

- **MityDSP** meets the power and memory requirements of standard applications
- **MityDSP-XM** expands the memory capacity and on-board logic of the MityDSP
- **MityDSP-Pro**, with 5 to 6 times the processing power of the MityDSP, the Pro is ideal for applications like image and signal processing, radar, and high-throughput testing.

All versions feature a TI DSP tightly integrated with a Xilinx FPGA, FLASH and SDRAM memory subsystems.

The **MityDSP Developer's Kit**, with its available on-board I/O and wide selection of plug-on modules, enables customers to do rapid prototyping on their own. Once the concept has been proven, Critical Link can convert the board to a more fully customized production run version.

The **CCDsp** is a family of high-performance scientific cameras, with support for multiple sensors, and with embedded DSP capabilities provided by the on-board MityDSP



## **Speed. Quality. Price.** **You really can have all three.**

- Concept-to-prototype in just 6 weeks, product ship in just 6 months
- Save up to 80% over the cost of completely in-house, ground-up development
- Proven, best-of-breed technology – with a platform that fits your performance needs
- Beat-your-competition customization with Critical Link's expert engineers who work as a seamless extension of your engineering team

## **MityDSP – wherever DSP is required**

Whether you're bringing new products to market, or breathing new power and life into legacy applications, the MityDSP is the proven, effective solution for a broad range of applications, including:

- Spectral Analysis
- Audio Processing
- Image Processing
- Data Collection
- Motor Control
- Vibration Measurement
- Surface Measurement
- Optical Measurement
- Medical Instrumentation
- Manufacturing Test Equipment





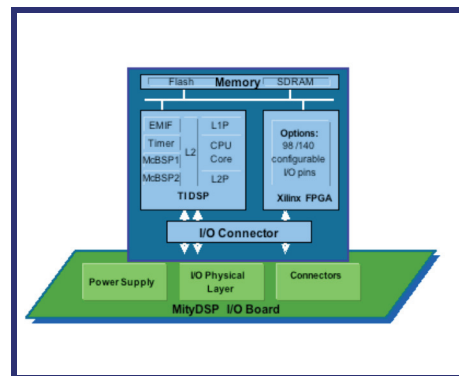
# The MityDSP:

## A range of platforms covering all your processing needs

	MityDSP	MityDSP-XM	MityDSP-Pro
CPU	Texas Instruments TMS320C6711 DSP	Texas Instruments TMS320C6711 DSP	Texas Instrument TMS320C6455 Digital Signal Processor
FPGA	Xilinx Spartan III XC3S400	Xilinx Spartan III XC3S1000	XC3S2000 (XC3S4000 option)
Flash	2MB	16 MB	16 MB
SDRAM	8MB	32 MB	128 MB CPU DDR-2 SDRAM 64 MB FPGA DDR SDRAM
Configurable I/O	98 pins	98 pins	140 pins

### Additional Technical Details

- Field-proven I/O interfaces readily available and quickly customized to provide a fully custom solution. Including:
  - Analog to Digital
  - Digital to Analog
  - Ethernet, including a TCP/IP stack
  - LCD Display with Touch Screen
  - USB, RS-232, RS-485
  - Stepper Motor Control
  - GPIO, RTC, SD Card
  - General purpose counters, PWM, AWG
  - Pulse Integrator, IIR
- Full-featured bootloader
- Standalone, redistributable downloader application allows immediate support for field upgrades to your product



**MityDSP Architecture**

*Form factor and mounting can be tailored to fit any shape and size requirements*

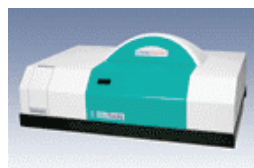
### Here are just a few of the growing roster of products using Critical Link's MityDSP:



**Anasys Instruments: nano-TA2™**



**Mecco: Bumpy Bar Code Reader**



**BioTools: ChiralRaman ROA Spectrometer**



**Critical Link: CCDsp Scientific Camera**

Our clients choose the MityDSP to speed time to market; add exciting new features to their products; decrease development costs - when compared to in-house *or* outsourced from-the-ground-up development efforts, and allow their engineers and scientists to focus on advanced product features – not on the underlying platform.

Since 1997, Critical Link has been helping our customers in a broad range of industries bring award winning products to market faster and more cost-effectively than possible through in-house efforts alone. Critical Link is an embedded systems engineering firm providing end-to-end product engineering and custom off-the-shelf platforms – the CCDsp and the MityDSP - used as product building blocks. When it comes to embedded systems, **Think Critical.**

