

MityDSP™ Pro: The new high-performance CPU platform for the most demanding applications



The Mity Just Got Mightier.

Critical Link's MityDSP-Pro is the newest member of the MityDSP family, a suite of high-performance, customizable CPU platforms, with configurable I/O. A high-speed, high-end processing CPU that collects, processes, and delivers data at high speed, the MityDSP-Pro couples best-in-class off-the-shelf-technology with Critical Link's last mile customization.

The Mity just got mightier:

- The MityDSP-Pro provides 5 to 6 times the processing power of the original MityDSP.
- The MityDSP-Pro utilizes the Texas Instrument 720MHz (with a 1.2 GHz option) TMS320C6455 DSP.
- The MityDSP-Pro also utilizes a high capacity (4.5 million logic gates) Xilinx FPGA that provides 4 to 11 times the capacity of the MityDSP, as well as DDR SDRAM, Gigabit Ethernet, and rapid I/O.

The MityDSP-Pro joins a family that includes:

- **MityDSP** meets the power and memory requirements of standard applications
- **MityDSP-XM** expands the memory capacity of the MityDSP
- **MityDSP Developer's Kit** enables customers to do rapid prototyping on their own
- **CCDsp** is a scientific camera, available with multiple sensor options — and with the MityDSP onboard

Whichever member of the MityDSP family you select, 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.

Time and again, we've proven that, with the MityDSP, our customers bring new products to

market faster, extend the life of legacy products, and save time, money, and engineering headaches.

- 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 multi-version 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-Pro: For the most demanding applications

With 5 to 6 times the processing power, and 4 to 11 times the logic capacity, of the MityDSP, the Pro is ideal for applications like:

- Image and signal processing
- Radar
- High-throughput testing
- Fine-tolerance manufacturing test & control

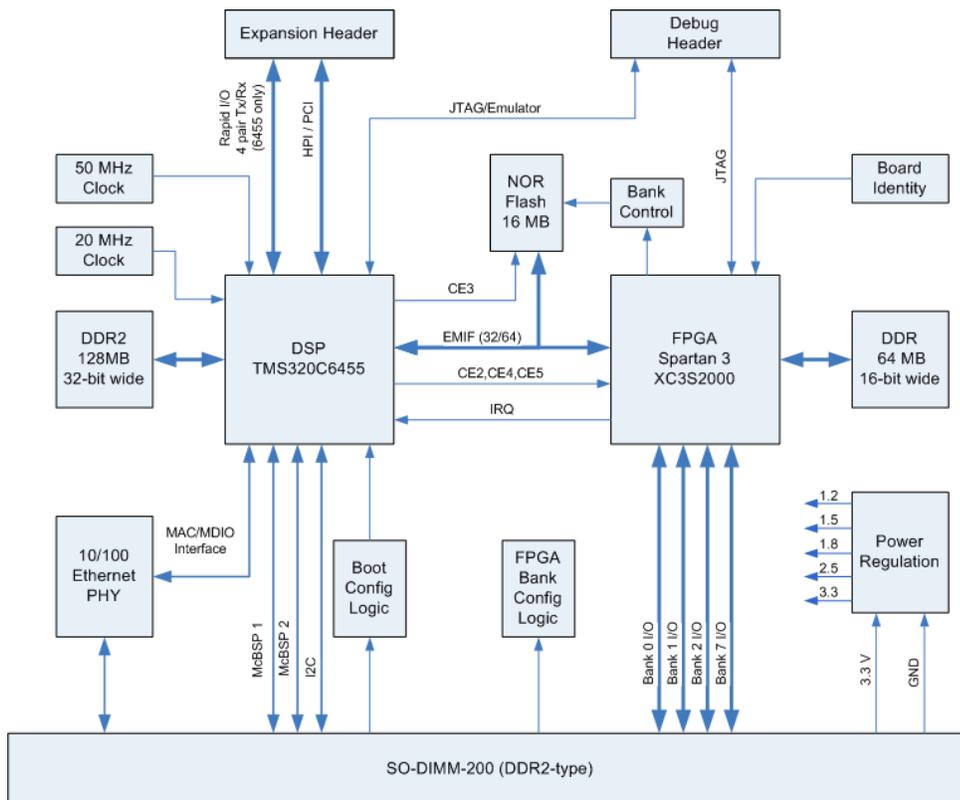
One MityDSP-Pro customer says:

"We chose Critical Link for this strategic technology development because of their vast DSP experience. We found their development abilities to be a perfect match for our needs. They were the best qualified – and the most reasonably priced. And with our new product, we believe we'll be able to leapfrog our competition."

*Director of Engineering
Mfg. Test Equipment Provider*



MityDSP-PRO BLOCK DIAGRAM



Technical Specifications

TI DSP Processor

- Max CPU Speed [MHz] 720 to 1200
- Integer MMACs 5760 to 9600
- Integrated Ethernet MAC / PHY 1
- Serial RapidIO Xcvrs 1

Interface

- Required Voltages 3.3
- Available FPGA I/O 140
- Number of Differential Pairs 70
- Max I/O Data Rate (SSTL) 250 Mbps
- Max I/O Data Rate (LVDS) 320 Mbps
- DSP Direct McBSP Ports 2
- DSP Direct I2C Ports 1
- FPGA JTAG Yes
- DSP JTAG Yes

6455

FPGA

- Slices
- Logic Cells
- Block RAM

X3CS2000

- 20,480
- 46,080
- 720 Kb

DDR2 SO-DIMM

Memory

- CPU Cache / Internal RAM 1024 K/2048 K
- CPU RAM 128 M
- CPU RAM Max ThroughPut 2000 MB/sec
- FLASH 16 M
- FPGA RAM 64 M
- FPGA RAM Max ThroughPut 400 MB/sec

Since 1997, Critical Link has been helping our customers in a broad range of industries bring 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.**

