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.
The MityDSP:
A range of platforms covering all your processing needs

<table>
<thead>
<tr>
<th>MityDSP</th>
<th>MityDSP-XM</th>
<th>MityDSP-Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Texas Instruments TMS320C6711 DSP</td>
<td>Texas Instruments TMS320C6711 DSP</td>
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<tr>
<td>FPGA</td>
<td>Xilinx Spartan III XC3S400</td>
<td>Xilinx Spartan III XC3S1000</td>
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<tr>
<td>Flash</td>
<td>2MB</td>
<td>16 MB</td>
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<tr>
<td>SDRAM</td>
<td>8MB</td>
<td>32 MB</td>
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<tr>
<td>Configurable I/O</td>
<td>98 pins</td>
<td>98 pins</td>
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</tbody>
</table>

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

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.