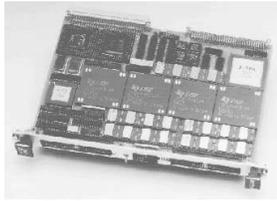


## Mizar Product Information

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### **MZ 7770 Quad TMS320C40 DSP Engine**

The MZ 7770 is a multiprocessor DSP module for the VMEbus. With as many as four 50-MHz 'C40's, the board is capable of achieving peak performance of 200 MFLOPS in a single 6U VME board slot.

The MZ 7770 is a high-performance, scalable DSP solution for the most demanding applications. Each DSP is linked to every other on-board processor through a dedicated communication port. Thus, three of the 'C40's six communication ports are dedicated to on-board interprocessor communication. This leaves each 'C40 with three uncommitted 20-MB/s communication ports for a total of 12 per MZ 7770. These communication ports are routed to the front panel so that 'C40s on multiple MZ 7770s can be interconnected to form a variety of multiprocessor architectures including 3-D mesh, ring, or hypercube.

With the scalable architecture of the MZ 7770, multiple MZ 7770s can be linked through the VMEbus or the VME subsystem bus (VSB). While each 'C40 is connected to every other processor, one 'C40 uses its fourth communication port to access the high-speed VSB bus through a programmable gate array.

Each 'C40 on the MZ 7770 has up to 4 MB of exclusive local zero-wait-state SRAM. The MZ 7770 also includes up to 4 MB of global SRAM that can be accessed by every 'C40 on board and the VMEbus, 1 MB of flash EEPROM, two serial ports, an IEEE Std 1149.1 controller, and a high-speed VMEbus interface.

The MZ 7770 comes with extensive software support that facilitates the development of applications, including the Sun-based Mizar Multiuser/Multiboard DSP debugger, that allows a design team over a network to develop and debug software running on one or more multichip boards simultaneously in one VME card cage. The Mizar debugger debugs C or Ada source code. The board also supports an ANSI compatible C compiler with a parallel-processing runtime library, a C source level debugger, TI pDSP XDS-510 in-circuit emulator with IEEE Std 1149.1 diagnostic support and the NOS operating system, Tartan's Ada compiler, SPOX, Helios, OS-9, and VxWorks operating systems.

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