DSP SYSTEMS WORLDWIDE
SPECTRUM

Indy
`C32-Based ISA Processor Board

NEW

- 40 or 60 MHz TMS320C32 floating-point DSP

- Up to 1 MBytes of 0ws SRAM

- 16-bit ISA Bus interface

- Embedded stand-alone operation using flash EPROM

- On-board I/O Module site for single slot solutions

- DSP~LINK3 parallel interface for IndustryPack™ I/O expansion

- 16 inputs / 16 outputs or 32 inputs discrete digital TTL I/O

- Win95 and NT device drivers

- Comprehensive software support

The Indy is a two-thirds length ISA-compatible card based on the Texas Instruments TMS320C32 floating-point processor. Due to its flexible memory, DSP and I/O configurability, the Indy can be tailored for differing applications and cost requirements.

Memory
Main memory on the `C32 board is arranged in two continuous areas, Bank 0 and Bank 1. Bank 0 can hold 128k x 32 zero wait-state SRAM. Bank 1 can hold 32k x 32 or 128k x 32 SRAM.

Stand-Alone Mode
A special version of the Indy board is also available with a 128k x 8 flash EPROM and power on reset for use in embedded stand-alone real-time applications.

Input/Output
The Indy board has numerous methods for connecting to input/output signals. This includes a single slot I/O module, on-board discrete digital inputs/outputs, DSP~LINK3 IndustryPack™ cards, and the `C32's own synchronous serial port which is routed to a header on the board.

I/O Module Site
The I/O module site on the `C32 board provides configurable high quality analog and digital I/O capabilities within single slot PC requirements.

DSP~LINK3 System Expansion Interface
The Indy offers Spectrum's open standard DSP~LINK3. This is a 32-bit, 40 MBytes/s I/O interface with low interrupt latency. Spectrum offers a complete line of multi-channel analog and digital I/O boards and a complete line of IndustryPack I/O products optimized for the DSP~LINK3 interface.) Further, the customer may interface DSP~LINK3 to custom I/O.
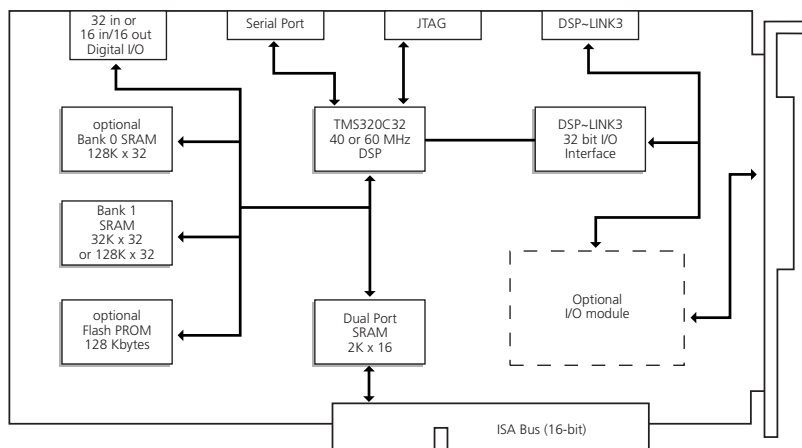
Serial Port
The `C32 synchronous serial port is accessed via a 20-pin (0.1" pitch) header. The serial port supports transfers of 8-,16-,24-, or 32-bit words at maximum rates of 12.5 Mbits/s.

PC Host Interface
A fast IBM PC/AT interface is provided for the `C32 using 2k x 16 dual-port SRAM which is mapped into both the `C32 and the PC host memory space. Control, status, and registers are also mapped into the PC's I/O space. Bi-directional interrupts between the `C32 and the PC are supported.

Software Development Environment
Spectrum offers extensive example codes as well as host interface libraries. Debugging can be performed using Go DSP's Code Composer software or via the JTAG (MPSD) header using an XDS51M. Compilers include TI's Assembler/Linker and C compiler. Drivers include Win`95 and WinNT.

Does Not include I/O Module

ISA

DSP Solutions
Texas Instruments

Indy-98-02-1.00