

DALANCO SPRY

MODEL C32-104 DSP PC/104 MODULE

APPLICATIONS

- Signal Processing
- Control
- Instrumentation
- Data Acquisition
- Numeric Processing

OVERVIEW

The Model C32-104 is a high performance DSP Board for the PC/104 bus and for standalone operation. It is designed for embedded and desktop applications requiring the computational and I/O capabilities of a floating point DSP.

The Model C32-104 is based upon the Texas Instruments TMS320C32 floating point DSP operating at 50 MHz, for up to 50 MFLOPS performance. The TMS320C32 DSP may boot up from the code contained in Flash memory.

The Model C32-104 may be operated as a PC/104 bus expansion board, as a standalone unit, or it may be used to control other boards via the PC/104 bus in a system without a host CPU board. This last mode, known as Limited Master Mode, permits the creation of a low cost



embedded DSP computer with the Model C32-104 performing functions normally done by the 80386 (or higher) CPU board. These functions include the controlling of PC/104 disk controller, RS-232 serial port, and analog I/O boards.

SOFTWARE

The following software is provided with each board:

- A300 Assembler - TMS320C32 assembler for the Model C32-104
- D300 Debugger - Includes inline assembler and disassembler, breakpoint, trace, single step, modification and viewing of memory and registers.
- Loader for use with the TI assembler and C compiler.
- FFT example programs.
- Flash Memory Utilities - Program, read, and erase Flash memory from the host PC.
- Link Package - Host PC based board management functions in source code, linkable to most high level languages.
- Programming Examples covering each feature of the Model C32-104 in each of its modes of operation.

SPECIFICATIONS

Processor

- 50 MHz TI TMS320C32

Memory

- 256 Kbytes of 0 wait state SRAM standard
- 512 Kbytes of Flash memory

Digital I/O

- Expansion bus for 16 bit digital data transfers.
- Expansion bus also features clock/timer and interrupt pins.

Serial I/O

- TMS320C32 full duplex serial port

Host Interface

- 16 bit PC/104 bus
- May be used in a standard ISA bus with an adapter
- I/O mapped, requiring 8 consecutive bytes
- Model C32-104 may interrupt the host PC at one of 5 interrupt locations
- JTAG header

LIMITED MASTER MODE SPECIFICATIONS

Model C32-104 may become a bus master when there is no CPU card present, with the following specifications:

- I/O Address Range: 0 - FFFh
- Memory Address Range: 0 - 1 Mbyte
- PC DMA not supported
- PC Interrupts may be received by Model C32-104

WARRANTY

- 1 year warranty



DALANCO SPRY

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