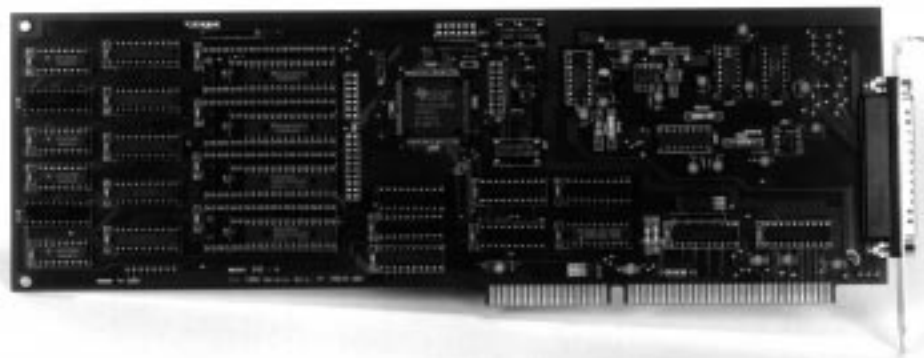


# ***DALANCO* *SPRY***

## **MODEL 310 FLOATING POINT DSP**

### **APPLICATIONS**

- Signal Processing
- Data Acquisition
- Instrumentation
- Control
- Telecommunications
- Image Processing
- Numeric Processing
- Digital Audio



### **OVERVIEW**

The Model 310 combines high performance floating point processing and powerful data acquisition capabilities on a single, low cost board.

The Model 310 is based upon the 33 MHz or 40 MHz Texas Instruments TMS320C31 DSP, delivering up to 33 MFLOPS (or 40 MFLOPS) performance.

High speed, low noise data acquisition for 4 channels at 14 bit resolution is provided, as well as analog output capability.

The Model 310 features high throughput to the host PC's memory and disk, and multiple boards may be installed in a single system. The Model 310 architecture simplifies the task of creating applications which require concurrent math processing, disk, and analog I/O. The maximum continuous throughput to disk is a function of the host PC's disk system. Rates ranging from 100 KSamples/sec to 200 KSamples/sec are typical.

### **APPLICATIONS SOFTWARE**

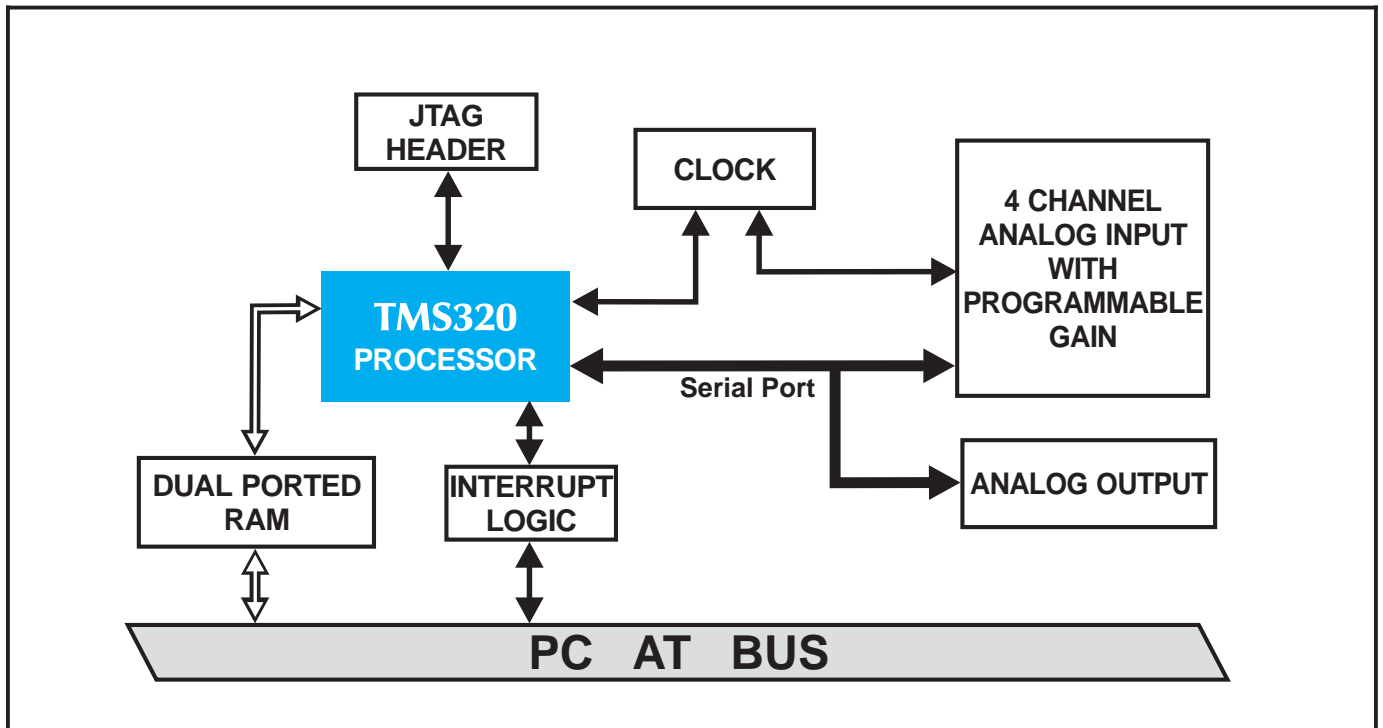
The following applications software is provided. In most cases source code is included which the user can use as an example in creating his own applications.

- **DISPLAY** - Real time display of the four analog input channels, together with their spectra. Sample rates are user selectable.
- **RECORD & PLAYBACK** - Direct recording to and playback from disk.
- **DATA ACQUISITION MANAGER** - A full featured data acquisition package! Multi-channel record and playback for stimulus/response applications, and advanced triggering options.
- **FFT and Digital Filter Code Generator** examples and utilities.

### **DEVELOPMENT SOFTWARE**

All required development tools are included, as is an object file loader for use with the Assembler and C compiler from TI.

- **A300 Assembler** - After successful assembly, loads the executable code directly into the Model 310. Optionally produces an ASCII list file of the executable for inclusion in the user's host based programs.
- **D300 Debugger** - Includes inline assembler and disassembler, breakpoint, trace, single step, modification and viewing of memory and registers.
- **Link Package** - Board management functions in source code, linkable to most high level languages.



## SPECIFICATIONS

### Processor

- TI TMS320C31 with 33 MHz or 40 MHz clock

### Memory

- Up to 512K words of 0 or 1 wait state RAM, with provisions for additional expansion

### Host Interface

- 16 bit IBM PC AT (ISA) bus
- I/O mappable on 8 Byte boundaries
- JTAG header
- Model 310 may interrupt host at one of 6 PC interrupt locations, if desired

### Analog I/O

- 14 bit A/D converter with sample/hold and 4 channel differential multiplexer
- 150 KHz or optional 300 KHz maximum sample rate. Sample rate is programmed from the TMS320C31 DSP
- Programmable Gain Amplifier: (1,2,4,8) or (1,10,100,1000)
- 12 bit D/A converter
- Voltage range is +/- 5V

### Warranty

- 1 year warranty

**DALANCO SPRY**

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