ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Sonitech SPIRIT-30* at our website: *Click HERE*



Sonitech International

14 Mica Lane
Wellesley, MA 02181 USA
(617) 235-6824
Fax: (617) 235-2531
e-mail: infoti3@sonitech.com
www: http://www.sonitech.com

Company Background

Sonitech offers superior DSP boards, an extensive range of I/O, and the highest quality development tools for PC AT/ISA, PCI, SBus, VME, standalone, and embedded applications. We also provide custom development and integration services.

Development Hardware/Plug-In Board

Product Name: **SPIRIT™-30 AT/ISA**
Platforms Supported: PC
Devices Supported: TMS320C30, TMS320C32

Features and Benefits

- Integrated with several I/O options
- Software drivers include support for Labview, Hypersignal, and DSPWorks
- Supports block I/O type transfers
- Memory expansion up to 2 MBytes SRAM or 16 MBytes DRAM

Product Description

The SPIRIT-30, using a TMS320C30 DSP, provides a robust platform for real-time signal processing. The board has a high-speed peripheral port and two serial interfaces, and is expandable to 2 MBytes of SRAM. For larger storage capacity, 16 MBytes of DRAM can be added.

A wide range of tools is available for rapid prototyping and implementation of applications on the SPIRIT-30. This includes a run-time library, a board support package (BSP) for SPOX, Virtuoso ADSP libraries, a debugger, optimized signal processing design software, and optimized DSP libraries.

Unlike systems based on a dual-port host interface, the SPIRIT-30 allows full 16-bit access to its entire SRAM memory via a set of registers in the I/O address space of the PC host. The host has the capability to reset, interrupt, enable/disable, read status, and control SPIRIT-30 operations via a control register. Similarly, the SPIRIT-30 can interrupt the host.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Standalone/SBus

Product Name: **SPIRIT-30 SBus**
Platforms Supported: Sun SBus, Standalone
Devices Supported: TMS320C30

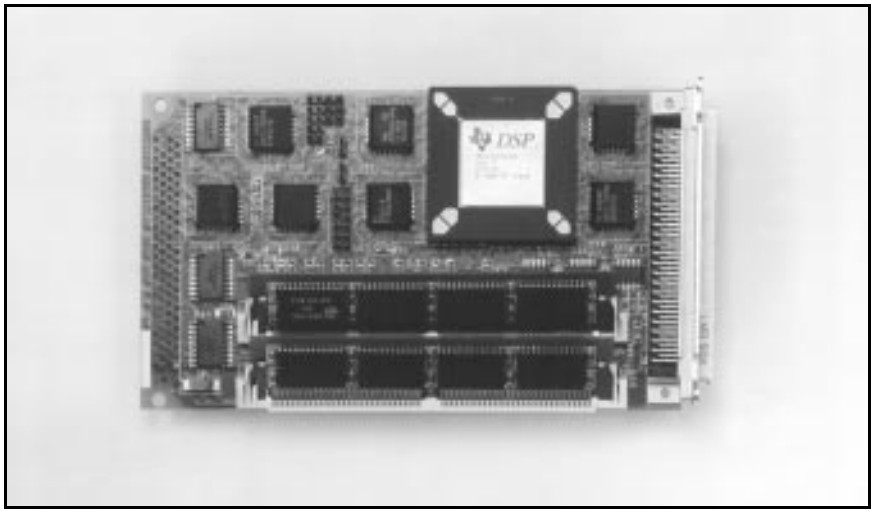
Features and Benefits

- Up to 25 MBytes/sec SBus transfer rates
- Memory expansion to 2 MBytes SRAM
- TMS320C30 and host interrupt support
- Supports standalone operation
- Optional high-performance 16-bit, dual-channel 200-kHz A/D, D/A module

Product Description

The SPIRIT-30 SBus card transforms your SPARCstation into a 40-MFLOP DSP engine using a single TMS320C30 DSP and application development software. The unique SPIRIT-30 architecture offers up to 25 MBytes/sec data transfer over the SBus (12–18 MBytes/sec measured performance on a SPARCstation 2), and is expandable from its base memory configuration of 256 kBytes up to 2 MBytes of zero-wait-state SRAM. A high-speed peripheral interface (40 MBytes/sec) and two serial interfaces (10 Mbits/sec each) are available for connection to external I/O devices. Its small size and standalone capability can be used to make powerful benchtop and handheld instrumentation.

A wide range of tools is available for rapid prototyping and implementation of applications on the SPIRIT-30. The entire SPIRIT-30 memory is mapped into the SBus address space, allowing simpler host/'C30 interaction than dual-port RAM-based host interfaces.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Plug-In VMEbus Board

Product Name: **SPIRIT-30 VME**
Platforms Supported: VME device
Devices Supported: TMS320C30

Features and Benefits

- TMS320C30 6U VME
- A32/D32,16 VME bus interface
- Optional high-quality instrument grade, dual-channel 200-kHz A/D, D/A
- Memory expansion to 4 MBytes zero-wait-state SRAM, 16 MBytes DRAM
- Wide range of drivers available, including VxWorks

Product Description

The SPIRIT-30 VME provides a TMS320C30 DSP engine for VME applications. Its memory is expandable from a base configuration of 256 kBytes up to 4 MBytes of zero-wait-state SRAM, and up to 16 MBytes of DRAM. The SPIRIT-30 VME has three interfaces on the front panel: a high-speed parallel port (33 MBytes/sec), and two serial interfaces (6.4–8 Mbits/sec each).

The VME host has full 32-bit (A32/D32) and A32/D16 access to the SPIRIT-30 SRAM and DRAM memory. The control space is accessed as an A16/D16 slave. The local SRAM is also directly accessible from the VME bus for D32 and D16 transfers. The host has the capability to reset, interrupt, enable/disable, and read SPIRIT-30 status via a control register. Similarly, the SPIRIT-30 can interrupt the host via any of the VME bus interrupts.

A variety of development tools and environments are available for development on the SPIRIT-30 VME.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

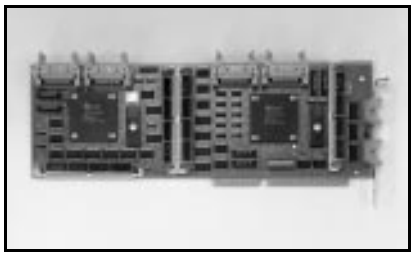
Development Hardware/Plug-In ISA Board

Product Name: **SPIRIT-40 AT/ISA**
Platforms Supported: PC AT/ISA
Devices Supported: TMS320C40

Features and Benefits

- 80- and 100-MFLOP peak performance
- Integrated with wide range of Sonitech-compatible I/O boards
- Up to 8 MBytes zero-wait-state SRAM per DSP, up to 16 MBytes zero-wait-state SRAM per board
- Labview and Windows NT drivers

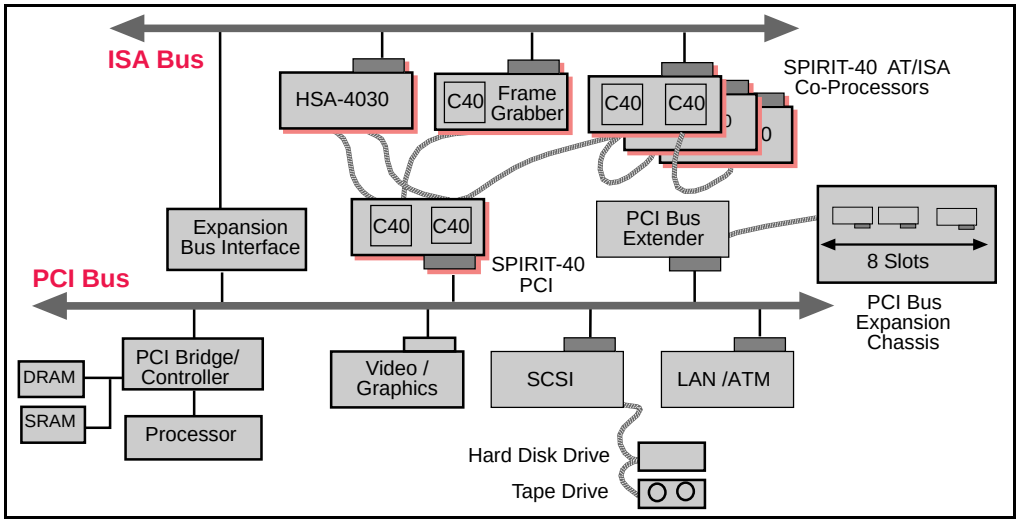
Product Description



The SPIRIT-40 is designed for advanced parallel-processing topologies such as rings, lattices, trees, or hypercubes. Six bidirectional 20 MByte/sec comm ports with individual DMA controllers, provide high I/O bandwidth capability. The board is expandable from a base memory configuration of 1024 kBytes of zero-wait-state SRAM up to 16 MBytes.

The SPIRIT-40 is reliable platform for real-time signal processing. Integrated solutions include a 10-MHz A/D and a frame grabber. A variety of tools are available for application development on the SPIRIT-40. Comprehensive software support includes the highly-optimized SPIRIT run-time library, several operating systems for parallel processing, a high-level language debugger, and general-purpose and optimized DSP libraries.

The host has the capability to reset, interrupt, enable/disable, and read SPIRIT-40 status. SPIRIT-40 operations can be controlled from the host system via a control register. Similarly, the SPIRIT-40 can interrupt the host via one of four interrupt levels.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

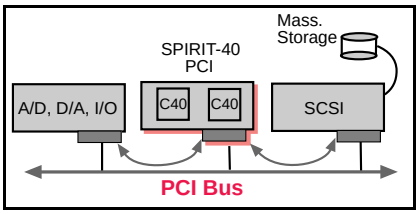
Development Hardware/Plug-In PCI Board

Product Name: **SPIRIT-40 PCI**
Platforms Supported: PCI
Devices Supported: TMS320C40

Features and Benefits

- Up to 16 MBytes of zero-wait-state SRAM
- RS-232 serial interface
- PCI bus Initiator, access to PCI controller device
- Labview and Windows NT drivers
- Integrated with a wide range of I/O front ends and a frame grabber

Product Description

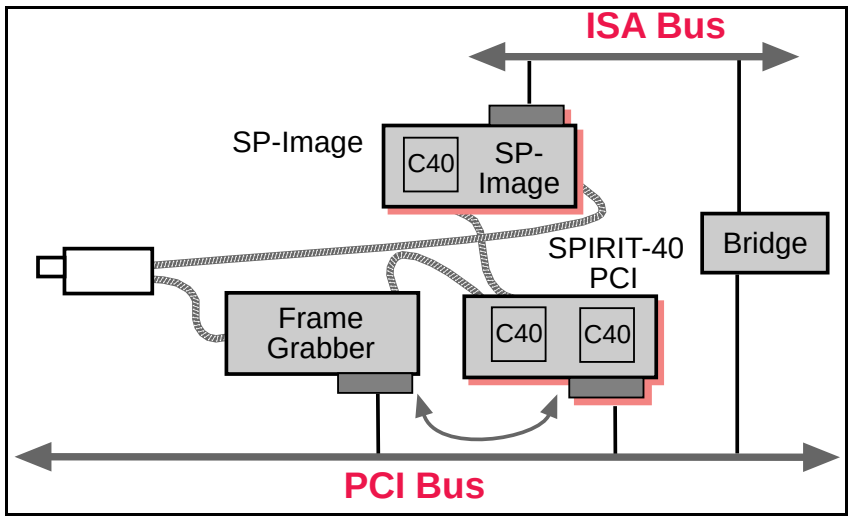




Plugging into a single PCI slot, the SPIRIT-40 is compatible with PCI 2.1-compliant systems. The board uses two Texas Instruments TMS320C40 Digital Signal Processors and provides six bidirectional 20 MByte/sec comm ports, each with their own DMA engine. The board is expandable to 16 MBytes from a base memory configuration of 768 kBytes of SRAM.

A comprehensive suite of development tools is available for application development on the SPIRIT-40 PCI. Development support includes the highly-optimized SPIRIT run-time library driver, several operating systems for parallel processing, a high-level language debugger, and general-purpose and optimized DSP libraries.

The PCI host has full 32-bit access to the SPIRIT-40 PCI via memory-mapped address space. Either 'C40 processor may operate as a PCI master performing transfers at 50 MBytes/sec. The supplied run-time library provides a convenient software interface which eliminates the need to program the card at the register level.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

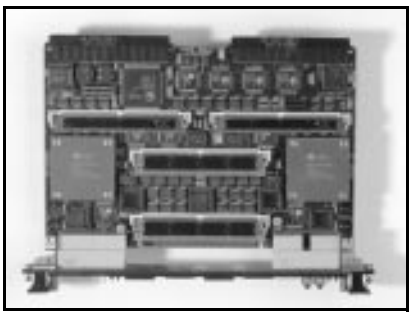
Development Hardware/Plug-In VMEbus Board

Product Name: **SPIRIT-40 VME**
Platforms Supported: VME
Devices Supported: TMS320C40

Features and Benefits

- Up to 16 MBytes zero-wait-state SRAM
- VME bus slot 01 mastership
- Standalone (VME slot 1) operation
- VME bus block transfers >20 Mbps
- A/D up to 150 MSamples/second

Product Description



The SPIRIT-40 VME is ideal for applications that require parallel processing. This board is based upon two Texas Instruments TMS320C40 DSPs and features 512 kBytes of zero-wait-state memory per 'C40, upgradable to 8 MBytes of zero-wait-state SRAM memory per 'C40 or 16 MBytes per board.

The global bus SRAM memory operates on a shared-access basis, allowing VME host and 'C40 access to the entire memory space on a cycle-by-cycle basis. This simplifies software development and accelerates movement of large data arrays when compared to systems using a dual-port RAM.

An extensive set of development tools including a complete library for host-to-board communications, a debugger, and optimized 'C40 libraries are available for application development. An (E)EPROM holds board configuration information along with boot code. Moreover, the SPIRIT-40 VME provides an RS-232 port for interfacing with external devices.

I/O
Multi-channel A/D, up to 10-MHz sampling
Single-channel A/D sample rate up to 150 MHz
Serial data input up to 250 MByte/sec
Digital data stream up to 65 MW/sec

Development Tools
C Compiler/assembler/linker
Brahma debugger, TI's XDS510
Optimized 'C40 DSP and application libraries

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Data Acquisition

Product Name: **ACOMM**
Platforms Supported: PCI, PC AT/ISA
Devices Supported: TMS320C40

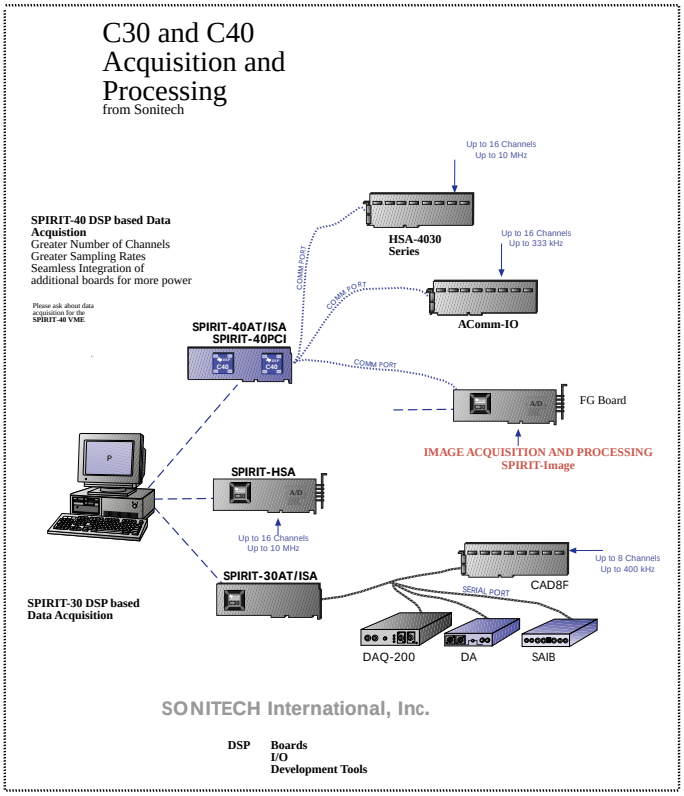
Features and Benefits

- 333 kHz maximum A/D; optional D/A
- Up to 16-bit resolution
- 8DI/16SE multiplexed analog input channels
- 'C40 comm port interface
- 40 digital I/O lines

Product Description

The ACOMM series is a family of PC-based multi-function data acquisition boards with a direct interface to the SPIRIT-40 AT/ISA and SPIRIT-40 PCI DSP boards. Designed with on-board 'C40 communication ports, the ACOMM series provides the user with an integrated solution for data acquisition, processing, and control without the data transfer bottleneck of the host bus.

The ACOMM system provides a 'C40-based platform for building a programmable control system for users requiring both D/A and digital I/O circuitry. An array of development tools are supported by the ACOMM series boards. Sonitech provides software to acquire, process, and output data.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Emulator

Product Name: **BRAHMA MPSD/JTAG**
Platforms Supported: PC, Sun workstation
Devices Supported: TMS320C3x, TMS320C4x

Features and Benefits

- MPSD emulator interface for TMS320C3x systems
- JTAG interface for TMS320C4x systems
- Parallel Global Debugger for TMS320C40 systems
- Windows/DOS or OS/2-based debugging on PCs
- X-Windows/OPEN LOOK debugger allows remote development

Product Description

The BRAHMA system provides JTAG (TMS320C4x) or MPSD (TMS320C3x) debugging on PCs or Sun workstations. The serial interface allows complete control of the target system DSP device. The target DSP hardware executes at normal speed and is only slowed or stopped when control is required by the emulator.

The PC Brahma provides software for Windows, DOS, or OS/2 debugging. The Sun-based Brahma runs as an X-Window System application under OpenWindows version 3.

For 'C40 debugging, over 20 devices may be connected in a JTAG serial chain. Each 'C40 can be controlled individually or from one command shell to simplify the debugging of multiprocessor systems. Unlike JTAG, multiple MPSD interfaces can not be daisy chained. Simultaneous debugging of multiple 'C3x devices requires a BRAHMA system for each device.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Plug-In Board/SBus/VME/Other

Product Name: **DAQ-200™**
Platforms Supported: PC, Sun workstation, VME, Standalone
Devices Supported: TMS320C3x

Features and Benefits

- Optically-isolated dual 200-kHz A/D D/A sections provide true 16-bit performance
- SAR A/D for fast, accurate transient response
- Optional 1:8 interpolator
- Instrument grade input ranges
- Standalone capability or connection to 'C3x serial port

Product Description

A complete system
The DAQ-200 is designed to serve as a front end to DSP boards, and is also capable of standalone operation. Its on-board 'C31 floating-point DSP performs functions such as FFT, digital decimation, and filtering.

This complete system features a six-pole Butterworth 50-kHz LPF, an anti-aliasing filter which may be bypassed by software control. A second filter may be installed to provide different input filter cutoff frequencies and characteristics. Likewise, the output anti-imaging filter is a six-pole Butterworth 50-kHz LPF. All filters are plug-in and can be customized by the user.

A clock input and output at the sample rate allow multi-channel systems to be configured, with one unit serving as master and the others as slaves. To ensure quality, every system is tested with an Audio Precision System 1 and shipped with its test data.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Development Hardware/Data Acquisition

Product Name: **HSA4030 Series**
Platforms Supported: PCI, PC AT/ISA, VME
Devices Supported: TMS320C30, TMS320C40

Features and Benefits

- Configurable acquisition and processing with choice of single 'C30 (SPIRIT-HSA) or multiple 'C40 DSPs (HSA4030)
- Choice of PCI, AT/ISA, and 6U VME boards
- More than 10 A/D options (varying number of channels, sample rates)
- Single-channel acquisition to 10 MHz

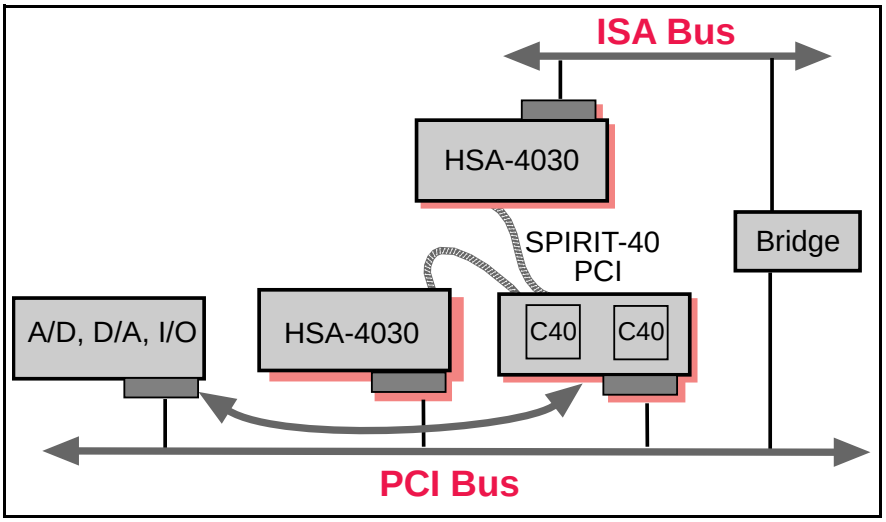
Product Description

The HSA4030 series combines a DSP engine along with high-speed A/D. The boards provide an ideal platform for high-speed A/D and non-stop continuous FFT processing. The end user can configure any number of DSPs for processing.

The SPIRIT-HSA boards (PC ISA, VME) provide a single slot, multi-channel high-speed A/D along with a 'C30 DSP. The SPIRIT-HSA has the ability to acquire and store data while simultaneously processing the data.

The HSA4030 A/D boards (without an on-board DSP) feature a direct link to a SPIRIT-40 DSP board (dual-'C40 board on PCI, PC ISA, VME) comm port, providing a powerful and expandable data acquisition and processing system. System processing power can be increased by installing additional SPIRIT-40 boards and connecting comm ports.

Standard TMS320 development tools are used for acquiring and processing data. In addition, Sonitech provides example application software with source code.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

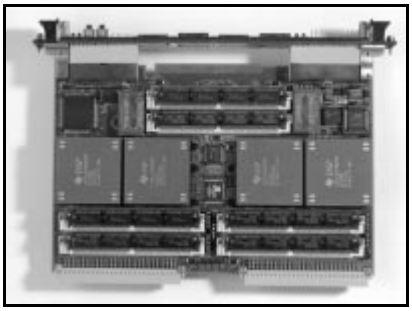
Development Hardware/Multiprocessor Board

Product Name: **QUAD-40 VME**
Platforms Supported: VME
Devices Supported: TMS320C40

Features and Benefits

- Low-cost 160- and 200-MFLOP configurations
- Up to 24-MBytes zero-wait-state SRAM
- RS-232 port for serial connections
- Standalone capability
- Low-power “busless” interface

Product Description



The QUAD-40 VME is ideal for array-DSP-processing applications. This board utilizes four Texas Instruments TMS320C40 DSPs and provides 12 bidirectional comm ports on the front panel, the other 12 are interconnected. The QUAD-40 board may operate as an independent node in an array-processor application or as a slave to the SPIRIT-40 VME board. Programs may be loaded from the boot EPROM, via JTAG, or through one of comm ports. Inter-card communication is done through the comm ports.

The configuration, status, and control registers of the QUAD-40 board have the same ’C40 locations and usage as Sonitech’s SPIRIT-40 VME, thus increasing software transportability between the two cards. For advanced array processing, a kernel which supports up to 100 ’C40 nodes is available for use with multiple QUAD-40 VME boards.

I/O
Multi-channel A/D, up to 10-MHz sampling
Single-channel A/D sample rate up to 150 MHz
Serial data input up to 250 MByte/sec
Digital data stream up to 65 MW/sec

Development Tools
C Compiler/assembler/linker
Brahma debugger, TI’s XDS510
Optimized ’C40 DSP and application libraries

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Standalone

Product Name: **SPIRIT-lite™**
Platforms Supported: Standalone
Devices Supported: TMS320C32

Features and Benefits

- Low-cost, low-power 'C32 DSP board for standalone or embedded applications
- 32-bit TMS320C32 floating-point DSP
- Dual RS-232 interface, 24-bit bidirectional digital I/O
- Choice of A/D front ends
- Robust development environment

Product Description

The SPIRIT-lite is a miniature size, high-performance DSP board for a wide range of control, audio, telecommunication, and instrumentation applications. Sophisticated DSP applications can be brought to market in a matter of months with the extensive development tools and DSP application support provided with this product.

Various memory configurations are available. In applications where the DSP program is held in the internal RAM, the external SRAM memory may be removed to save power and reduce cost. A Flash PROM embeds the program and data, allowing "burns-in" of data or results acquired in the field, and transmission of data at a later time. The program and data on the Flash PROM may be upgraded without physically removing the PROM.

The SPIRIT-lite does not require a host in an embedded environment. The RS-232 link is available for program downloading during development and manufacturing and is not required for standalone operations.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Plug-In Board/PCI/ISA

Product Name: **SPIRIT-Image**
Platforms Supported: PCI, PC AT/ISA
Devices Supported: TMS320C40

Features and Benefits

- Real-time image acquisition and processing
- Programmable 'C40 for image processing algorithm design and development
- Open development tools for DOS/Windows; parallel image-processing source code is included
- Modular system allows easy addition of processing nodes
- Fast PCI-based transfers while utilizing ISA slots

Product Description

Sonitech's SPIRIT-Image system provides a powerful and flexible platform to meet the computational demands of image processing. Because of its parallel-processing architecture, the SPIRIT-Image is a superior system for algorithm design, development, implementation, and testing. The SPIRIT-Image combines a high-quality frame grabber and single 'C40 processor on one board, with a second board, which provides a high-performance dual-'C40 architecture on either the AT/ISA or PCI bus. Interboard communication is via multiple 20-MBps 'C40 comm ports. The frame grabber board also has three dedicated processing units for logical operations, additions, and subtractions.

The scaleable architecture of the SPIRIT-Image allows real-time processing for most applications without the high costs associated with many real-time systems. Standard functions and several example software routines are included for fast out-of-the-box installation and processing.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sonitech International

Development Hardware/Standalone

Product Name: **SPIRIT-Jr ™**
Platforms Supported: Standalone
Devices Supported: TMS320C31

Features and Benefits

- 33-, 40-, or 50-MFLOP TMS320C31 board
- One 6.4 to 8 Mbps serial ('C3x type) interface; two TMS320C40 parallel comm port interfaces
- Designed for standalone operation in four different form factors:
  - Chassis-mountable card
  - Half-size XT card
  - 3U VME card
  - Rack-mountable box
- Sun and PC-based development tools available
- Free source code license for dual channel FFT

Product Description

This versatile 'C31-based product is designed as a low-cost, standalone DSP board. Since only power is drawn from the backplane, it may be used in any type of PC, VME, and standalone system. Three LEDs provide diagnostic and operational status information. Its standard 8 kBytes of memory may be expanded to 128 kBytes of zero-wait-state (20-ns) SRAM for embedded applications.

Users can build standalone systems for speech processing, real-time programmable filtering, high-quality sound effects, time-to-frequency domain converters, and programmable phone line simulators. Moreover, the 'C31 floating-point DSP greatly simplifies software development compared with integer-based DSP products. Large dynamic ranges typically found in instrumentation and test applications are easily handled by the floating-point format. This eliminates the need for overflow handling and truncating of calculations often required by integer-based systems.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP