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.

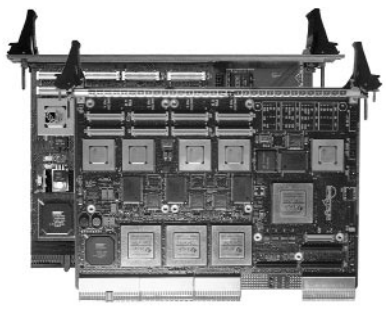
Custom engineering
so your equipment works exactly as you specify.

- 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 *Vecima / Spectrum Signal Processing SRM* at our website: *Click HERE*



- **Processor Choice:**
  - **Dual or Quad 1600 MIPS, 200 MHz, TMS320C6201B DSPs**
  - **Dual or Quad 1 GFLOPS, 167 MHz TMS320C6701 DSPs**
- **Innovative board architecture eliminates data double handling**
- **Comprehensive software support:**
  - **Host Interface Library and Drivers**
  - **Barcelona board support DSP Library**
  - **Code Composer Studio™**
  - **Diamond, a multi-DSP RTOS**
- **2 MB of SBSRAM (max) and 64 MB of SDRAM (max)**
- **2K x 32 quad port memory for low latency and deterministic inter-processor communication**
- **SBSRAM distributed shared memory**
- **Hurricane, a single chip PCI bridge optimized for DSP systems**
- **Flexible I/O interfaces:**
  - **Two PEM sites which provide 400 MB/s per DSP**
  - **One PMC provides 132 MB/s throughput**
  - **DSP~LINK3™ provides up to 30 MB/s for interfacing to Spectrum I/O and other open I/O solutions**
- **IndustryPack® (IP) support for over 150 different industry standard I/O modules**
- **'C6000 technical training workshops available**

Barcelona / Barcelona67

Dual or Quad 'C6201 or 'C6701 CompactPCI Board

Architecture

Barcelona is based on Spectrum's innovative architecture which makes use of Spectrum's revolutionary "Hurricane", a single chip PCI bridge optimized for DSP. This PCI local bus architecture provides:

- data transfer directly in and out of each 'C6x SBSRAM bank from the PMC and host
- data transfer between each processing node's SBSRAM via its Hurricane DMA
- access to each 'C6x DSP's external memory via the host port
- quad ported memory for low latency message passing

Hurricane's internal 64 word FIFO decouples the PCI and DSP busses. This FIFO, combined with Hurricane's DMA engine, allows the host computer read/write access to each node's SBSRAM with minimal interference on the DSP's processing performance.

I/O Methods

Processor Expansion Module (PEM) Sites

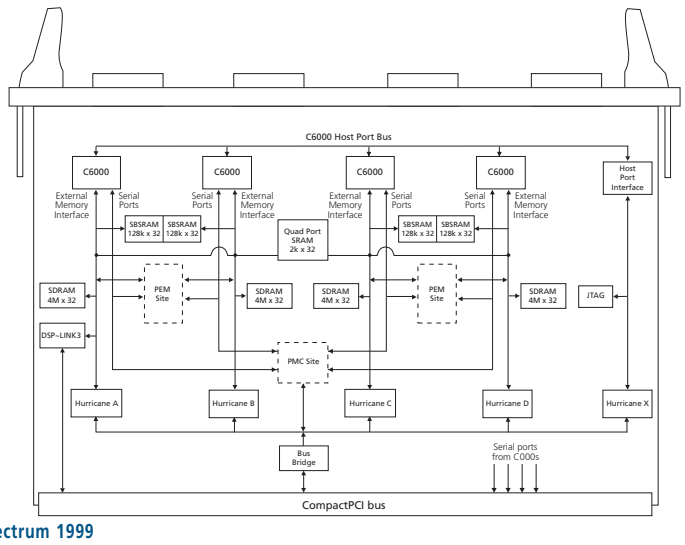
PEMs are open specification mezzanine modules that provide 400 MB/s of I/O bandwidth directly into each 'C6x DSP's external bus. A range of Spectrum PEMs are available for I/O, memory, 'C4x Communication Ports and network interfaces.

PMC Sites

Hurricane allows the PMC to provide a sustained data rate of 132 MB/s directly into the 'C6x DSP's SBSRAM. Specific industry standard PMCs are available to support interfaces for telecommunications (T1/E1), networking, bus interface, mass storage, and intelligent I/O processing.

DSP~LINK3™

DSP~LINK3™ is a deterministic memory-mapped interface that provides up to 30 MB/s of I/O bandwidth. DSP~LINK3™ is an open specification which interfaces to Spectrum IndustryPack™ I/O and to custom I/O. Barcelona can interface to over 150 different IndustryPack™ I/O modules available from a variety of vendors.



Software

Host OS - Solaris™, VxWorks® and WindowsNT®.

Host Compilers - Microsoft's Visual C++® and Visual Basic® for WindowsNT®, Sun's SparcWorks™ C for Solaris™, and Tornado™ for VxWorks®.

Host Interface Library and Driver - provides a standard product and OS independent set of C functions for Host-DSP communications including DSP code download, data transfer and interrupts.

DSP Application Tools - MathWorks' Matlab® and Hyperception's Hypersignal® Software Products.

Barcelona Board Support DSP Library - provides a standard product independent set of C functions that encapsulate complex board level tasks like CompactPCI bus mastering and CompactPCI interrupt generation.

Texas Instruments' Code Generation Tools - 'C6201 or 'C6701 C/Assembler/Optimizer.

DSP Debugging - Texas Instruments' Code Composer Studio™ operates across the CompactPCI bus, therefore external emulation hardware is not required.

DSP RTOS - Diamond is an advanced, yet simple to use, DSP RTOS that schedules multiple tasks across multi-DSP systems. Diamond allows for easy hardware reconfiguration and migration.

Signal Processing Libraries - various general purpose (FFT, filtering) and application-specific libraries are available. Source code for DSP software libraries is provided.

©Spectrum 1999
Spectrum reserves the right to change specifications without notice. All trademarks are property of their respective owners.
North America and Asia: 1•604•421•5422 Europe: +44•1753•841•988 www.spectrumsignal.com Email: sales@spectrumsignal.com

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