

Protect Your Investment in Software

Spectrum's software-based model promotes faster time-to-market and easy, extensible product development. These tools create an easy-to-use environment that optimizes C6x performance and minimizes technical barriers to software and hardware design. For designers, the direct result is faster time-to-market with highly integrated and differentiated products.

Spectrum's C6000 solutions come with an advanced development environment featuring:

- Support for hosts Windows NT®, Solaris®, VxWorks®

- Software Development Kit
 - Host Interface Libraries
 - DSP Function Libraries
 - Example Source Code

- Complete Documentation
 - Technical Reference Manual
 - Installation Guide
 - Programmer's Guide

- Texas Instrument's Code Composer Studio™, a fully integrated suite of DSP software development tools.
 - Code Composer IDE including debugger, editor, profiler, project manager, and C-based scripting language
 - DSP/BIOS with RTDX
 - VLW C Compiler, Assembly Optimizer and linker tools
 - Instruction set architecture simulator

Spectrum's Diamond RTOS

- A multi-tasking, multi-threading real-time microkernel that takes the headaches out of efficiently handling networks of processors
- "Virtual communication channels provide a standardized inter-processor communication facility to any node.
- Configuration software that makes it easy to optimize system performance by moving tasks around a multi-processor network
- Full <stdio.h> support via a host server for debugging, monitoring and rapid prototyping
- Immediate application portability across DSP architectures and generations



www.spectrumsignal.com/c6x/



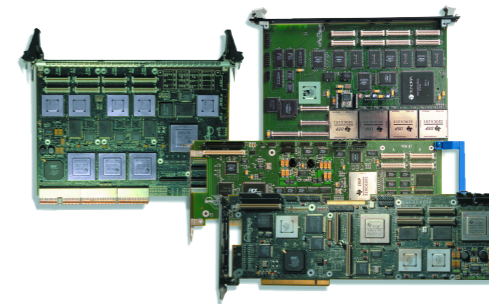
FULL SPEED AHEAD WITH SPECTRUM'S TMS320C6000 DSP SYSTEMS.

Highest Performance C62x and C67x DSP Solutions

Base your design on products that deliver the full processing power of Texas Instruments' TMS320C6000 family of DSPs. Spectrum's DSP platforms combine the best of all worlds with DSP solutions that raise the bar in performance, set new levels in cost efficiency and offer the highest bandwidth. Spectrum's uniquely architected combination of standard board platforms, cross-platform I/O solutions, and easy-to-use software tools allow you to rapidly develop and deploy new products.

Spectrum's solutions are fully configurable through I/O expansion module sites. Spectrum's C6x products support industry standard I/O including IndustryPack® and PMC modules, as well as high performance Processor Expansion Modules (PEMs) which provide direct access to the C6000 bus.

Don't rewrite task schedulers, I/O routines, and algorithms from one project to the next. Spectrum ensures reuse of standard software components with Diamond, an advanced multi-processor RTOS that enables applications to migrate from different platforms, and even new generations of DSPs, with minimal changes.



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Worldwide Distribution and Support



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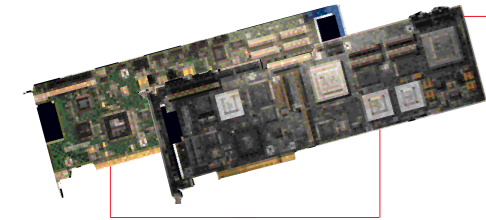
Free On-Line C6000 Technical Training Workshop (\$1100 Value)
Visit: www.spectrumsignal.com/training/

www.spectrumsignal.com/c6x/

www.spectrumsignal.com/c6x/

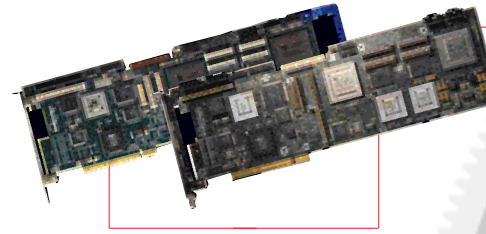
'C6000 Carrier Boards

Spectrum's revolutionary, high-performance 'C6x DSP board architectures have been designed to ensure maximum DSP performance. Features including a high-performance distributed shared memory; large FIFOs; and Spectrum's exclusive Hurricane ASIC technology, result in substantially higher throughput and system densities over competing technologies.



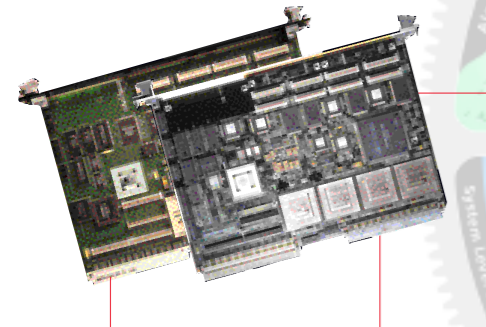
Detroit / Detroit67

- Single slot PCI card
- One 200 MHz TMS320C6201 DSP or One 167 MHz TMS320C6701 DSP
- 512K of SBSRAM; 16 MB SDRAM; 2 MB of Asynchronous SRAM
- 1 Processor Expansion Module (PEM) site
- DSP-LINK3™ interface to IndustryPack® (IP) and Analog I/O mezzanine site



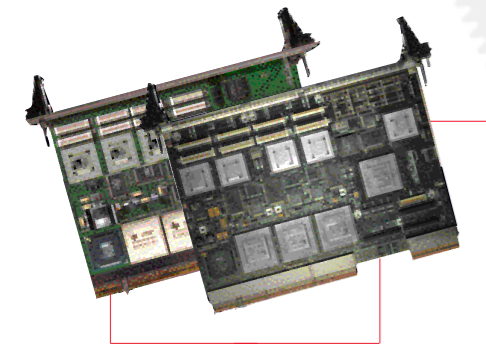
Daytona / Daytona67

- Single slot PCI card
- Two 200 MHz TMS320C6201 DSPs or Two 167 MHz TMS320C6701 DSPs
- 1 MB of SBSRAM; 32 MB of SDRAM; 8Kx32 dual-ported memory
- Spectrum's Hurricane PCI - DSP bridge
- 1 Processor Expansion Module (PEM) site
- 1 PMC site
- DSP-LINK3™ interface to IndustryPack® (IP) and Analog I/O mezzanine site



Monaco / Monaco67

- 6U VME board with master/slave interface
- Four 200 MHz TMS320C6201 DSPs or Four 167 MHz TMS320C6701 DSPs
- Spectrum's Hurricane PCI - DSP bridge
- 2 MB of SBSRAM; 64 MB of SDRAM; 2 MB of Asynchronous SRAM
- 2 Processor Expansion Module (PEM) sites
- 1 PMC site
- DSP-LINK3™ interface to IndustryPack® (IP)

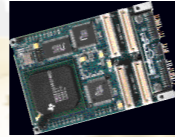


Barcelona / Barcelona67

- 6U CompactPCI card
- Four 200 MHz TMS320C6201 DSPs or Four 167 MHz TMS320C6701 DSPs
- Spectrum's Hurricane PCI - DSP bridge
- 2 MB of SBSRAM; 64 MB of SDRAM; 2Kx32 quad port memory
- 2 Processor Expansion Module (PEM) sites
- 1 PMC site
- DSP-LINK3™ interface to IndustryPack® (IP)

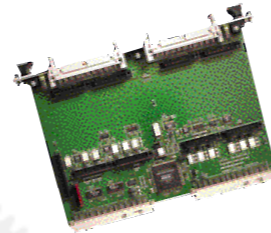
'C6000 I/O Products

Tap the full processing power of the 'C6x with Spectrum's I/O modules optimized for high-speed data transfer. All of Spectrum's 'C6000 products feature I/O expansion module sites allowing peripheral I/O for virtually any application to be easily configured and integrated. Spectrum offers IndustryPack® I/O, Processor Expansion Modules (PEMs), PMC modules, analog I/O modules, as well as custom I/O if required.



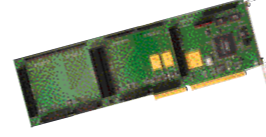
PEM-COMM-C4x 'C4x Communication Ports for 'C6x Products

- Four TMS320C44 Communication Ports
- Transparent interface between 'C4x and 'C6x systems
- Provide inter-processor communications for 'C6x-based systems
- Direct access to the 'C6x high-speed memory interface
- Fully compatible with Diamond multi-DSP RTOS
- Software examples to demonstrate data transfers via Communication Ports



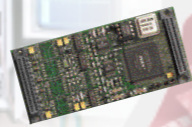
Monza Quad IndustryPack® VME Carrier Board

- Carries up to 4 IndustryPack® modules on a 6U VME board
- Meets single height specification for VME systems
- Supports access to IndustryPack® I/O, ID, memory and interrupt spaces
- Individually configurable 8 MHz or 32 MHz IP module support
- DSP-LINK3™ parallel interface to Spectrum's DSP products
- Four front panel I/O connectors
- Front panel power and activity LEDs



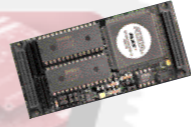
Imola Quad IndustryPack® ISA Carrier Board

- Carries up to 4 IndustryPack® modules on a full length ISA board
- Meets single height specification for PC systems
- Supports access to IndustryPack® I/O, ID, memory and interrupt spaces
- Individually configurable 8 MHz or 32 MHz IP module support
- DSP-LINK3™ parallel interface to Spectrum's DSP products
- I/O cables can be routed through the end plate



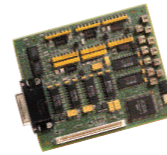
IP-Audio 16-bit 50kHz A/D/A IndustryPack® Module

- Type II single-width IndustryPack®
- 8 MHz IP bus operation
- 2 or 4 A/D channels, and 2 or 4 D/A channels (factory option)
- 16-bit Sigma Delta converters
- Software programmable conversion rate up to 50 kHz
- Differential analog inputs
- Software programmable input range: +/-20V, +/-10V, +/-5V, +/-2.5V
- Output range of +/-2.5V or +/-10V
- Linear phase anti-aliasing filters (factory option)



IP-Control 16-bit 200kHz A/D/A IndustryPack® Module

- Type II single-width IndustryPack®
- 8 MHz IP bus operation
- 2 A/D channels, and 2 D/A channels
- 16-bit successive approximation converters
- Software programmable conversion rate up to 200 kHz on inputs and 300 kHz on outputs
- Differential analog inputs
- Input range of +/-2.75V or +/-10V (factory option)
- Output range of +/-3V or +/-10V (factory option)
- Sample-and-hold amplifiers and 4th order active anti-alias filters

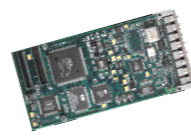


DL-AI Analog I/O Module 16-bit, 100kHz

- Deterministic I/O mezzanine module with 4 input and 2 output channels
- 16-bit A/D and D/A 100 kHz sampling
- Gain and offset adjustments
- 16-bit loadable timer for sample rate and conversion timing for synchronized A/D and D/A conversion
- Trigger I/O signals are provided to support multiple analog I/O module synchronization
- AC or DC coupled

'C6000 Digital Radio Products.

Spectrum's digital radio receiver solutions are based on Spectrum's Processor Expansion Module (PEM) open specification and IEEE's PMC standard. This suite of mezzanine modules is extremely flexible - allowing customers to scale their system - and operate with Spectrum's high-performance 'C6000 carrier boards. Spectrum's digital radio solutions include Analog Input modules, Down Converter modules, and A/D Converter modules.



PMC-MAI 65 MS/s Analog Input PMC Module

- 12-bit 65 MHz A/D converter
- 10 ENOBs @ maximum 65 MSPS
- 62 dB Spurious-Free Dynamic Range
- Signal level monitor and digital attenuator for software AGC
- On-board or external synchronized sampling clock source
- Six 1.3 Gbit/s GLink serial outputs
- Front panel SMB connectors for PMC bus interface for module control
- Compatible with the PEM-2PDC, PEM-4PDC and other GLink receivers



PEM-2PDC Dual Programmable Down Converter PEM Module

- Two 65 MHz Harris HSP50214 Programmable Down Converters
- 50 MHz PDC back-end clock
- Built-in AM, FM, FSK, and DPSK demodulation
- Two 2K x 32 FIFO DSP interfaces
- Two GLink serial bus (ECL) inputs for A/D data
- Front panel access



PEM-4PDC Quad Programmable Down Converter PEM Module

- Four 65 MHz Harris HSP50214 Programmable Down Converters
- 50 MHz PDC back-end clock
- Built-in AM, FM, FSK, and DPSK demodulation
- Four 2Kx32 FIFO DSP interfaces
- Two GLink serial bus (ECL) inputs for A/D data
- On-the-fly GLink input selection for each PDC
- Front panel access

NEW!

NEW!

PEM-16DDC 16 Channel Down Converter Module

- 16 Down Converters on a double-width PEM module
- Four Graychip GC4014 quad digital down converters
- 30 to 62.5 MSPS input sample rate per receiver channel
- FIFOs store 512 complex channels
- Individual on-the-fly input selection for each down converter
- Compatible with the Monaco/C6201 VME board and PMC-2MAI A/D module

PMC-2MAI Dual A/D Converter PMC Module

- Two 12-bit 65 MSPS A/D converters
- Digital step attenuator allowing input levels from -9 to +6 dBm
- Digital signal level monitor
- External or internal input/output clock source
- Single-width PMC module
- High-speed LVDS output