



APPLICATIONS

- High Speed Waveform Capture, Processing, Recording & Playback
- RADAR / LIDAR
- SIGINT
- OCT Tomography/Medical Imaging
- Non-Destructive Testing
- Communications
- Mass Spectroscopy
- Mass Spectrometry-Time of Flight
- Laser Doppler Velocimetry
- Software Defined Radio
- High-Speed Encryption/Decryption Transmitter/Receiver
- Net-centric Intelligence Systems
- Image Analysis
- HD Video
- Data Compression
- All High Data-Throughput & Demanding Real Time Processing Applications

WHO WE ARE

Celebrating its 20th year of operation, Signatec is a leading designer and manufacturer of high-speed, PC-based data acquisition, parallel signal processing, waveform generation and signal recording systems. Signatec differentiates itself by being one of the only single-source suppliers that works with its customers to build affordable, real-time signal technology systems for advanced radar, SIGINT, ultrasound, imaging and other high-speed communications systems.

Signatec systems offer users the ability to acquire and transfer data simultaneously with no breaks in the analog record for data rates up to 1 GB/s per second when recording to the PC and disc storage. Signatec's recording solutions lead the industry in both performance as well as cost.

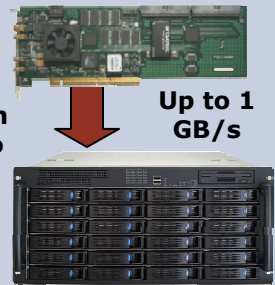
Signatec board-level solutions provide the flexibility to perform real-time FPGA processing right on the acquisition modules, as well as DSP solutions with 72 GIPS of real-time parallel processing, using nine of TI's C6414 DSPs, which deliver over 2,000 MB/s of concurrent onboard I/O. Scale the boards appropriately to match the per unit processing capability with total system I/O load to create 640 MB/s real-time signal processing systems.

Signatec's waveform generation board provides four 16-bit digital to analog conversion channels to accurately produce output signal frequencies up to 400 MHz, with each 16-bit converter capable of outputting up to 1,000 MSPS per second. Its deep memory and easy interface to DSP functionality makes for a powerful waveform playback device.

When you factor in all of Signatec's performance capabilities, and note the comparable low cost of its advanced solutions, Signatec delivers exceptional value for developers in the high-speed signal technology community.

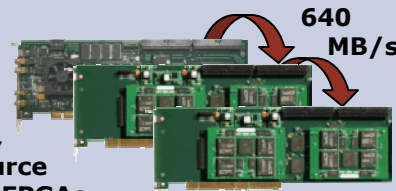
250 MB/s, 350 MB/s, 700 MB/s & 1 GB/s Signal Recording Systems

Acquire multiple channels and transfer data simultaneously in real-time with no loss in data, all within a single integrated unit.



640 MB/s Wideband Real-Time Signal Processing Systems

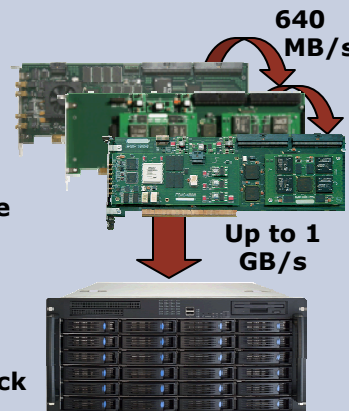
A/D boards with onboard, open source Virtex-4 FPGAs



connect to DSP boards via the SAB for up to 640 MB/s of continuous I/O. PMP1000 processing modules can scale to match the per unit processing capability with the total system I/O load. Each PMP1000 has 72 GIPS of processing performance and 2 GB/s concurrent onboard I/O.

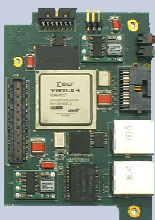
Real-Time Acquisition, DSP & FPGA Processing, Recording & Playback

Combine high-speed acquisition with onboard, open-source FPGA processing, 72 GIPS DSP power and 4 GSPS DAC playback



Combine Channels For Real-Time Processing

- Definable Multi-pin Digital I/O Header
- Open Source Virtex-4 FX12/20/60 FPGA with Power PC
- Gigabit Ethernet
- RS-232



HIGH-SPEED DIGITIZERS



NEW! - PDA16

- 2 Channels, 160 MHz Sample Rate Each
- 16-bit A/D Resolution
- Link 4 Boards for 8 Channels
- Bandwidth from DC-700 MHz
- 512 MB Onboard Memory
- 500 MB/sec SAB (640 MB/s Pending)
- 500 MB/sec 64-bit PCI-X
- Onboard Clock Synthesizer Accurately Tunes all Frequencies from ~0 to 125 MHz and Most Other Frequencies up to 160 MHz
- Onboard Gigabit Ethernet Port
- Open Source Xilinx Virtex-4 FX20/60 FPGA
- Full Length PCI 64-bit Board



PDA14 / PDA14-200

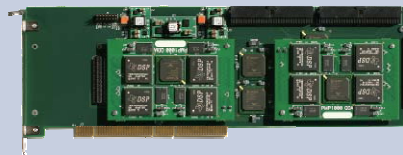
- 2 Channels, 100 MHz Sample Rate Each or 1 Channel, 200 MHz Sample Rate
- 14-bit or 8-bit A/D Resolution
- Link 6 boards for 12 Channels or Link 6 boards for 6 Channels
- Bandwidth from DC-50 MHz
- 512 MB Onboard Memory
- 500 MB/sec SAB
- 266 MB/sec 64-bit PCI
- Full Length PCI 32/64-bit Board



PDA1000

- 1 Channel, 1 GHz Sample Rate
- 8-bit A/D Resolution
- Link 6 Boards for 6 Channels
- Bandwidth from DC-500 MHz
- 256 MB Onboard Memory
- 500 MB/sec SAB
- 266 MB/sec 64-bit PCI
- Full Length PCI 32/64-bit Board

DIGITAL SIGNAL PROCESSING

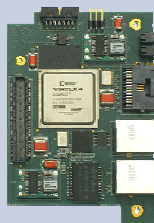


PMP1000



- Up to 72 GIPS Peak Processing Power
- Continuous Input Data Processing up to 640 MB/s (Depending on Application)
- Parallel Processing with up to 9 TI C6414 DSPs
- 64MB of memory mapped into each of the 8 main processing DSPs (>512 MB of total DSP memory)
- Unique Program Execution Processor for Dynamic Thread Allocation
- Advanced Parallel DSP OS Simplifies User Programming
- Customizable External Interface for Accommodating any Type of User Data Channels
- Designed to create true high-speed, real-time systems in otherwise non real-time environments
- 2.5 GB/s of Total External I/O via 3 Interfaces
- 2,000 MB/s Internal I/O via Switching Network
- 500 MB/sec 64-bit PCI-X
- Full Length PCI 64-bit Board

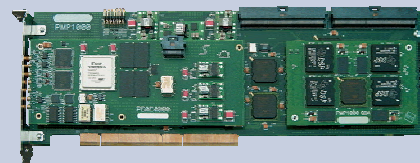
XPORT



PMP1000 Plug-in Module with Customizable FPGA Gives Customer Applications All Around Flexibility for General Purpose Communications with:

- High Speed Direct Data I/O for PMP1000
- RJ45 Connectors for Gigabit Ethernet and RS232
- Definable Multi-pin Digital I/O Header with Direct Pin Connections to Onboard FPGA
- Open Source Virtex-4 FX12/20/60 FPGA with Power PC
- Logic Files Provided for Interfacing to PMP1000 Board

SIGNAL GENERATION / WAVEFORM PLAYBACK



PDAC4000

- 4 16-bit DAC Outputs at 1000 MSPS
- 512 Megabytes DDR RAM
- Modular Plug-in for PMP1000 Base Board
- Easy Interface to DSP Functionality
- Wide Selection of Output Filters
- Based on Analog Devices AD9779
- Interpolation at 2, 4, or 8x Data Rate
- Digital Quadrature Modulator
- >User Specified Analog Output
- 1 GB/sec SAB and 532 MB/sec PCI

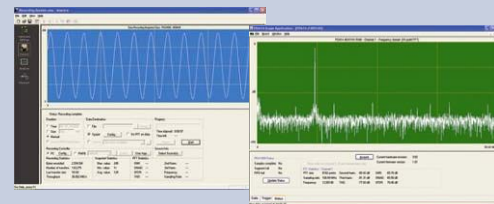
WAVEFORM RECORDING

DR250 DR350 DR700 DR1000

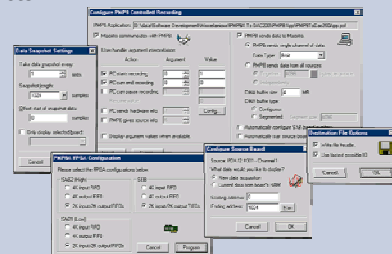


- 250 MB/s, 350 MB/s, 700 MB/s & 1 GB/s Recording Rate Options
- Up to 32TB of Integrated Storage
- Rates and Capacity are Scalable
- Multiple Digitizing Channels
- 8-bit, 14-bit & 16-bit Resolution Options

SOFTWARE



Use our powerful Maestro System and Scope Software to operate Signatec products at the board or at the system level right out of the box. Signatec software can be used to set up all hardware settings, record data from arbitrary data acquisition boards, recreate analog signals, view large amounts of signal data, run DSP applications, and much more. LabVIEW drivers available for certain products.



We encourage you to contact us and discuss your application in more detail with our engineering team. We welcome your comments on our existing products or possible future products. On behalf of the entire Signatec team, we look forward to the opportunity to serve you. Thank you.