EXPRESS-8 | An Eight-Channel Acoustic Emission Board & System

PCI-EXPRESS BUS BASED, AE Board

EXPRESS-8 represents an advanced update of our well-known DISP and PCI-8 boards. The addition of the PCI-Express bus results in an increase in maximum sustained processing speed over its predecessors and ensures the maintaining of performance levels with potential system expansion. That adds up to better system performance and reliability.

KEY FEATURES
- High-performance PCI-Express bus allows for greater data streaming speed
- Half the size of previous models, allowing for greater channel density in chassis
- High channel density (8 channels)
- Waveforms and Waveform Streaming included
- More than 500 selectable digital filters for sharp cutoffs and lower noise
- Compatible with all MISTRAS preamplifiers
- EXPRESS-8 chassis - Micro-II-Express (32 channels) and Benchtop (96 channels)
- Optional chassis expansion interface
- Improved digital filers, larger hit buffer, larger waveform FIFO buffer
- Sensor input: PK sensor, low power phantom power +5V, or RXXI and preamplifier, traditional phantom power (+28V) or 24v ICP Sensor

THE SYSTEM CHASSIS

The use of the PCI-Express bus with the EXPRESS-8 card can use one of two PCI-Express AE system chassis. The board also works in a standard PC with PCIe slots.

The EXPRESS-8 system and its corresponding chassis (Micro-II-Express and Benchtop) represent the pinnacle in MISTRAS’ high-speed, high-channel density multichannel AE systems, while also offering the best value. The EXPRESS-8 is ideal for large-structure monitoring and field testing where portability, high-channel density, and fast performance are required.

SPECIFICATIONS:

Physical/Environmental
Size ............... 6.5" x 4.2 x 0.70 (16.5 cm x 10.7 x 1.8)
Weight ........................................ 0.2 lbs. (0.1 kg)
Operating temp. ............... 32°- 120° F (0°- 50° C)

Electrical operation
Voltage Required ............... 3.3V, 3.3V aux, 12V from connector
Current consumption ............... <1A
Total consumption ............... <10W without sensors

Analog signal processing
AE Input Connector ............... 8 SMB connectors
Bandwidth ............... 1 kHz to 1.2 MHz

Digital signal processing
A/D conversion rate ............... 16 bit, 10 MSPS
Digital processing .... 18 bit 256 tap digital FIR filter
Waveform storage ......15,000 samples each channel
Data streaming ...... Continuous waveform to disk

Parametrics
Analog inputs ............... 8 channels
Input range ............... ±10V channels on all channels
Resolution ............... 16 bits
Maximum sample rate ......10 kSps (all 8 channels)
Digital IO ............... 8 digital inputs, 8 digital outputs
Analog output ............... Four 0-10v outputs

Visit our website for an office near you
www.mistrasgroup.com