

# VibRunner

## Vibration Control System for 8+ Channel Applications

Equipped with m+p international's proven VibControl shaker control software and highly precise VXI instrumentation, VibRunner offers an excellent alternative in the product range up to 64 input channels. The VibRunner control system supports all test modes used in today's vibration testing: everything from simple ESS random to mixed mode gunfire, drop table capture and unlimited time data replication.

The outstanding VibRunner measurement hardware comprises a mainframe, a digitizer, a PC to VXI interface (1 Gigabit Ethernet or IEEE-1394 FireWire) and, optionally, an arbitrary source for sine-on-random testing. The 24-bit digitizer and the Ethernet or FireWire interface allowing for extremely fast data transfer between the VXI hardware and the host PC support all VibControl functions which are configured exactly to your needs. The digitizer includes DSP, transducer signal conditioning, alias protection, digitization and high-speed measurement computation. The VibRunner can be equipped with different VXI digitizers:

The VT1432B is an 8/16 channel digitizer with breakout-box, the VT1435 has eight front panel high-density SMB connectors for signal input and the VT1436 has sixteen. The VT1435/1436 modules offer optional TEDS (Transducer Electronic Data Sheets) support.

Digital inputs/outputs, both in the host PC or in the VXI mainframe, can also be added to enable automatic operation under climatic chamber control for combined environment test programs. The VibRunner VXI measurement hardware is located outside of the PC so analog performance is not compromised by the electrically noisy PC environment.

Powerful VXI Hardware



Testing of a pressure tank at Bayern-Chemie Protac, Aschau/Germany



Vibration control at Lucent Technologies in Whippany/New Jersey

The multi-tasking software architecture allows you to run tests while also analyzing and reporting on past and present results as well as setting up new tests without disrupting test control performance. This controller is therefore ideal for a networked system.

The Gigabit Ethernet card provides significantly reduced cabling costs and greater flexibility for installations requiring a remote

shaker location. There is no reduction in control or acquisition speed with this architecture and the added benefit of PC data security in the safe environment of the control room.

VibRunner is an economical vibration control system for all applications from 8 to 64 input channels in the aerospace, automotive, defense and other industrial sectors.

### VibRunner Hardware Specifications

- 8/16 input channels, breakout-box (VT1432B digitizer), 8 input channels, front panel SMB connectors (VT1435 digitizer), 16 input channels, front panel SMB connectors (VT1436 digitizer)
- Onboard DSP for powerful control
- 24-bit analog-to-digital converter
- Frequency range: 20 kHz (sine), 12.8 kHz (random), higher frequencies on demand
- 3200 lines resolution
- - 112 dBfs (typical) spurious free dynamic range
- Optional IEEE1451.4 TEDS (Transducer Electronic Data Sheet) support (VT1435/1436)
- Signal inputs: voltage/ICP®, optional charge (VT1432B)
- Max. +/- 10 V drive
- COLA-stroboscope output
- Shutdown port
- IEEE-1394 FireWire or 1 Gigabit Ethernet PC link to VXI
- Optional arbitrary source, single-slot, 2/4 channels, for sine-on-random testing
- 4/6/13-slot VXI mainframe
- Use stand alone or networked

### VibRunner Software Specifications\*

- Test modes: random incl. notching/force limiting, random data reduction, sine incl. notching/force limiting, sine resonance search & dwell, sine data reduction, sine force/displacement/velocity control, shock classical, shock response spectrum (SRS), external pulse, transient capture, sine-on-random (SoR), random-on-random (RoR), sine-on-random-on-random (SoRoR), time domain replication, time history recording to throughput disc
- Fully compliant with ISO, DIN, MIL-STD 810, IEC and many other standards
- All input channels selectable as control, watchdog and/or measurement channels (sine and random testing)
- Analysis functions: transfer function, mathematical functions, automatic peak search, graphical and numerical measurement and reference data analysis, different types of printout
- Online reporting in user-specific style, copy & paste to Microsoft Windows applications (Word, Excel), export to Universal File Format and m+p international's e-Reporter
- True multi-tasking real-time control
- Automatic test sequencing, test status reports via e-mail and SMS
- Automated, combined climatic testing
- Multi-monitor support of 64 online charts per monitor
- Remote client
- Interface to any desktop PC or laptop

Please refer to the VibControl product information sheets for detailed information on test modes and options.

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\* Software functions according to the selected configuration.

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