



Portable Shaker System

PT520 Digital Shaker

PT520 shaker is a portable calibration device. It is capable of calibrating the adynamic calibration of accelerometers, velocity sensors, vibration transmitters, and proximity probes in laboratory or in the field. PT520 has a built-in electro-magnetic shaking head that will generate vibration. The vibration can be digitally turned in acceleration, velocity or displacement with RMS, peak, or peak-peak. It can display in English or Metric unit. In addition, PT520 can supply sensor power, receive the output from the sensor and compare the sensor output vs. the standard output to obtain the standard calibration curve. PT520 is fully digitally controlled. Software is available to remotely control or display the calibration status. It can also work as an automatic vibration test device by third party program that interfaces with its standard RS232 port.

Unique Features

- ✓ **High resolution, 4 line LCD display**
- ✓ **Rechargeable battery, ready for field calibration**
- ✓ **Wide power input**
- ✓ **Digital RS232 port**
- ✓ **Phase lock vibration amplitude for long term stability**
- ✓ **Seismic Sensor calibration without external power, signal conditioner etc.**
- ✓ **Buffered output for further analysis**
- ✓ **English, Metric and RMS, peak, peak-peak available**
- ✓ **Digitally controlled high accurate frequency, amplitude, waveform**
- ✓ **Market leader with digital shaker**



Specifications

Electrical

Display:

Four lines, 12 characters
Back light LED

System calibration:

3.0 g +/- 0.3dB @ 80 Hz. NIST traceable

Acceleration amplitude accuracy:

2 - 30Hz	(un-calibrated)
30 - 1000Hz	(+/- 0.3dB)
1000-5000Hz	(un-calibrated)

Maximum Amplitude:

Maximum acceleration: 8g (78 m/s²) peak
Maximum velocity: 156 mm/s (6.1 in/s) peak
Maximum displacement: 2mm (78mil) peak-peak
(Refer to the graphics below for details).

Frequency range:

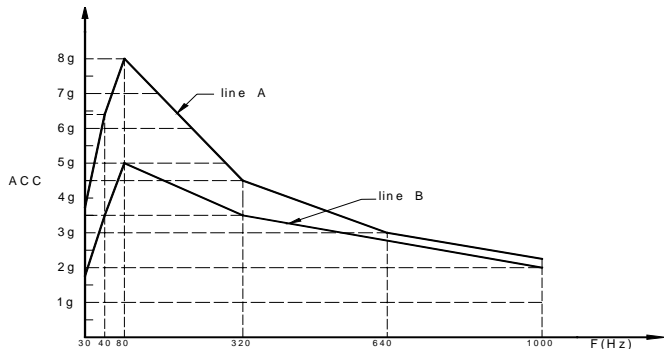
Acceleration: 2 - 5,000 Hz
Velocity: 2 - 5,000 Hz
Displacement: 2 - 5,000 Hz
(Refer to the graphics below for details).

Reference accelerometer:

100mV/g ± 0.15dB @ 80 Hz
Output impedance nominal 100 ohms



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Line A: Maximum acceleration with a 125 gram load vs. frequency.

Line B: Accuracy within 0.3dB with a 125 gram load vs. frequency. The reference is 3.0g .

Electrical Continued

Power adaptor:

Input: 100 - 240VAC @1.5A

Output: 16.8VDC @ 2A

Sensor power:

Nominal 2.5mA constant current is provided only when the seismic sensor is calibrated

Rechargeable battery:

LiH rechargeable

Capacity: 4Ah

Physical

Dimensions:

280mm X 255mm X 175mm (11.0"x10.0"x6.9")

Weight:

8.0kg (16.0lbs)

Environmental

Operation temperature: 0°– 50°C

Storage temperature: -20°– 75°C

Humidity: 80% non-condensing

Order Information

PT520-AXX-BXX-CXX-DXX

AXX: Frequency

A00: Variable frequency

A01: Fixed 80 Hz

BXX: Sensor

B00: Seismic and proximity probes(dynamic)

B01: Seismic (accelerometer, velocity sensor and transmitter)

CXX: Automatic calibration

C00: With Seismic Sensor calibration (supply sensor power, and signal conditioning)

C01: No calibration

DXX: Software

D00: With software kit (include PT2060-009102 USB to RS-232 Converter with RS232 communication cable.)

D01: No software

