



MODEL 9155D-525

SHOCK ACCELEROMETER CALIBRATION

- Provides calibration and linearity check from 20 g to 10 000 g
- Uses state-of-the-art pneumatically actuated exciter (requires 80 to 150 psi) providing controlled and consistent impacts
- Includes variety of impact anvils and projectiles to tailor the impulse shape for frequency content and shock level
- Compatible with standard back-to-back shock reference accelerometers
- Provides graphical indication of sensor amplitude linearity
- Electronic control unit provides user control of projectile drive pressure and pulse width
- Digital pressure indication aids in control and repeatability

CONTROLLED & CONSISTENT IMPACT

The Accelerometer Calibration Workstation with Model 9155D-525 Shock Calibration option allows the user to measure the sensor sensitivity at high acceleration levels up to 10 000 g in accordance with ISO 16063-22. This system seamlessly integrates with the Model 9155 Accelerometer Calibration Workstation, making the shock test quick and easy. The state-of-the-art shock exciter makes use of a pneumatically operated projectile to strike an anvil and excite the sensor. By controlling both the air pressure and the duration of which the pressure is applied, the user gains greater control and consistency of the impacts.

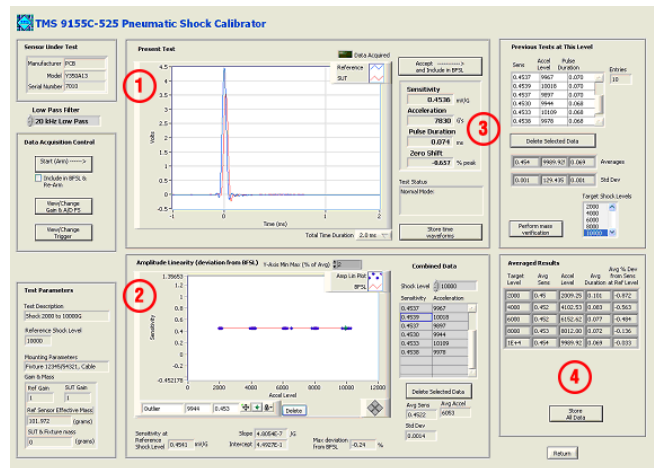
The 9155 Accelerometer Calibration Workstation features back-to-back comparison calibration of piezoelectric (PE), capacitive (VC), and piezoresistive (PR/MEMS) mode accelerometers for both sensitivity and phase according to ISO 16063-21. Printed certificates fulfill the requirements set forth by ISO 17025 for calibration certificates.

SPECIFICATIONS		
Acceleration Range	20 g – 10 000 g	196 – 98 000 m/s ²
Reference	PCB Model 301A12	
Type	ICP® Piezoelectric	
Sensitivity	0.5 mV/g	
Uncertainty	2.2% typical	
Sensor Mounting	1/4-28 UNF Thread Size	
Air Supply Pressure	80 psi [5.5 bar]	
ISO 8573.1 Quality Class	4	
Air Filter Requirements		
Dirt (Particle Size)	15 microns	
Water Pressure Dewpoint (100 psi gauge) 128 ppm vol.	37 °F	3 °C
Oil (Including Vapor)	5 mg/m ³	

Other System Options	
9155D-100	19" Rack Integration. Approx. 36.5"H x 21.75"W x 26"D [93 cm x 55 cm x 66 cm]. Integrates components in 19" rack.
9155D-120	Shaker Mount. Provides wood pedestal to support calibration shaker. Requires user to fill with sand (not included).
9155D-160	Tool Kit. Includes torque wrench, screwdrivers, crescent wrenches, toolbox, etc.
9155D-350	Calibration Label Printing. Provides automatic calibration label printing using a Zebra thermal transfer label printer.
9155D-400	TEDS Sensor Support. Provides for automatic update of TEDS sensors. Requires 9155D-443 option.
9155D-442	Basic ICP Signal Conditioning. Adds signal conditioner for ICP and charge mode sensors.
9155D-443	Dual-mode Charge Amplifier. Computer control and automated switching between ICP and charge mode sensors.
9155D-445	Capacitive Sensor Signal Conditioning. Adds signal conditioner for capacitive sensors.
9155D-478	Piezoresistive Signal Conditioning. Adds support for piezoresistive sensors. Includes PCB 478A30 signal conditioner.
9155D-501	Linearity. Provides for multipoint sensor linearity checks via sinusoidal vibration up to 40 g.
9155D-550	Resonance Check. Provides for resonance check of accelerometers up to 50 kHz.
9155D-575	Laser Primary Calibration. Adds primary calibration capability as specified in ISO 16063-11.
9155D-600	Velocity Sensor Calibration. Allows calibration of velocity sensors. Reports data in velocity units.
9155D-771	Low Frequency (0.5 Hz–500 Hz). Long stroke shaker with SmartStroke™ technology and accelerometer reference sensor.
9155D-779	Low Frequency (0.1 Hz–500 Hz). Long stroke shaker with SmartStroke™ technology, accelerometer and optical reference sensors.

Other System Options (Continued)	
9155D-830	K394B30 Air Bearing Shaker. Adds precision air-bearing shaker 5 Hz - 15 kHz.
9155D-831	K394B31 Air Bearing Shaker. Adds precision high-frequency air-bearing shaker 5 Hz - 20 kHz.
9155D-913	Impulse Calibration. Allows dynamic impulse calibration of pressure transducers from 200 to 15 000 psi
9155D-961	Hammer Calibration. Allows calibration of instrumented impact hammers, includes 9961C cal fixture.

9155-525 Software



1. Displayed time data allows technician to view waveform and check for anomalies in the shock pulse
2. Linearity plot provides a good overview of results during the test
3. Software automatically computes values such as sensitivity, acceleration, pulse duration, and zero shift
4. Results table provides a quick look at the average results for all test levels

THE MODAL SHOP

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The Modal Shop, Inc. offers structural vibration and acoustic sensing systems and services for various applications in design and test laboratories as well as manufacturing plants. An extensive sound and vibration rental program, precision calibration systems, and both modal and vibration shakers are designed to simplify test phases. Non Destructive Testing Systems help manufacturers provide 100% quality inspection of metal components. The Modal Shop, Inc. is a subsidiary of PCB Piezotronics, Inc., and PCB® is a wholly owned subsidiary of MTS Systems Corporation.

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