



Product Introduction

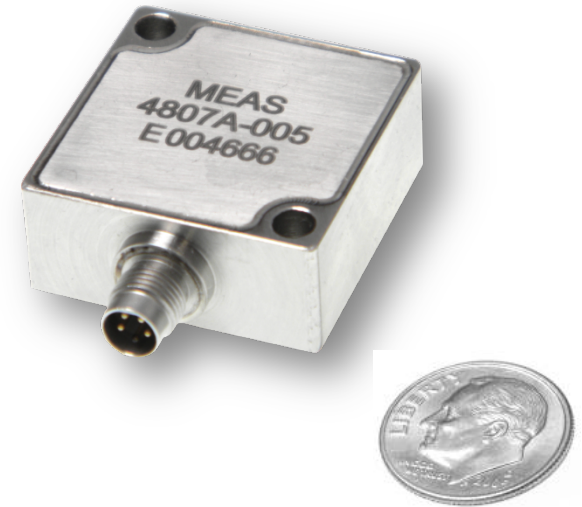
Model 4807A

Low Noise DC Accelerometer

Model 4807A DC Accelerometer

Product Description:

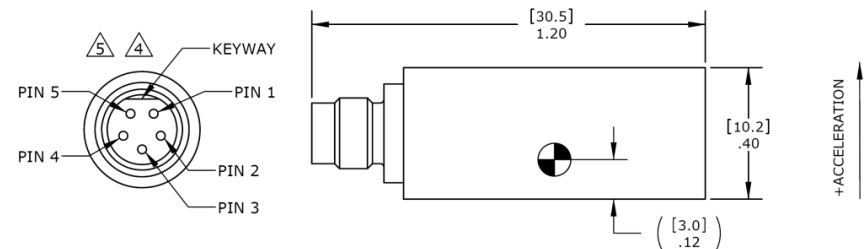
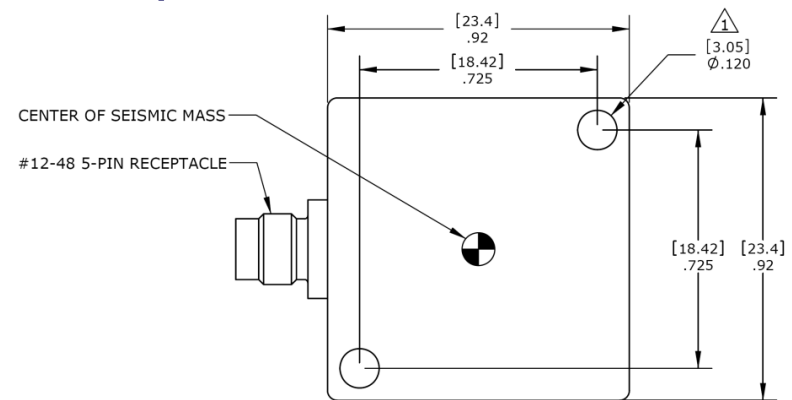
- DC (static) response accelerometer
- Extremely low noise floor
- Critically damped MEMS sensor
- Remote auto zero function
- Temperature compensated output
- Broad frequency bandwidth
- High shock survival limit
- Hermetically sealed, stainless steel housing
- Designed for plug-&-play



Model 4807A DC Accelerometer

Unique Specifications:

- $\pm 2g$ to $\pm 500g$ Full Scale Range
- High Resolution (as low as $2 \mu g/\sqrt{\text{Hz}}$ rms)
- 96 dB Dynamic Range
- Flat up to 1,500 Hz, $\pm 5\%$
- Compensated from -54° to 121°C
- Powered from +8 to +18 Vdc
- Shock rated to 10,000 g



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Model 4807A DC Accelerometer

Key Advantages:

- An order of magnitude lower in noise than the competition
 - Offer up to 20+ dB more in dynamic range
- Temperature compensated output
 - <2.5% thermal sensitivity shift and <2% FSO in thermal zero shift over the entire temperature range
- Auto-zero on demand (patent pending)
 - Eliminate integration error due to long-term zero offset drift



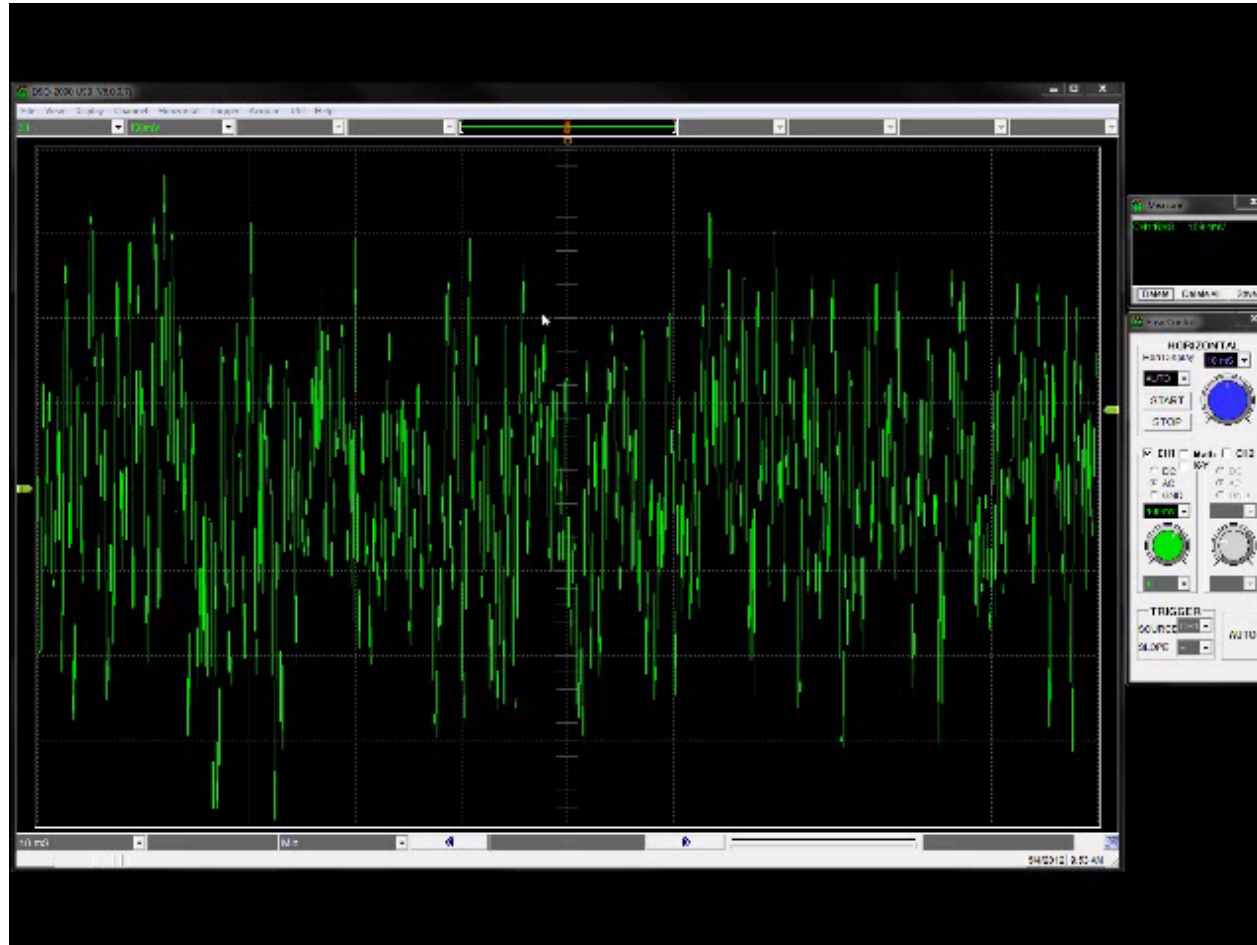
Model 4807A DC Accelerometer

Available Ranges:



PARAMETERS	VALUE										UNITS
DASH NO.	-002	-005	-010	-020	-030	-050	-100	-200	-500		
DYNAMIC RANGE	±2	±5	±10	±20	±30	±50	±100	±200	±500	g	
SENSITIVITY ±5%	1000	400	200	100	67	40	20	10	4	mV/g	
FREQUENCY RESPONSE ±5%	0-200	0-300	0-400	0-700	0-700	0-1000	0-1500	0-1500	0-1500	Hz	
NOISE (PASSBAND)	25	20	23	31	36	26	32	32	32	µVrms	
NOISE (SPECTRAL)	2	3	6	12	21	21	41	82	210	µg-rms/√Hz	

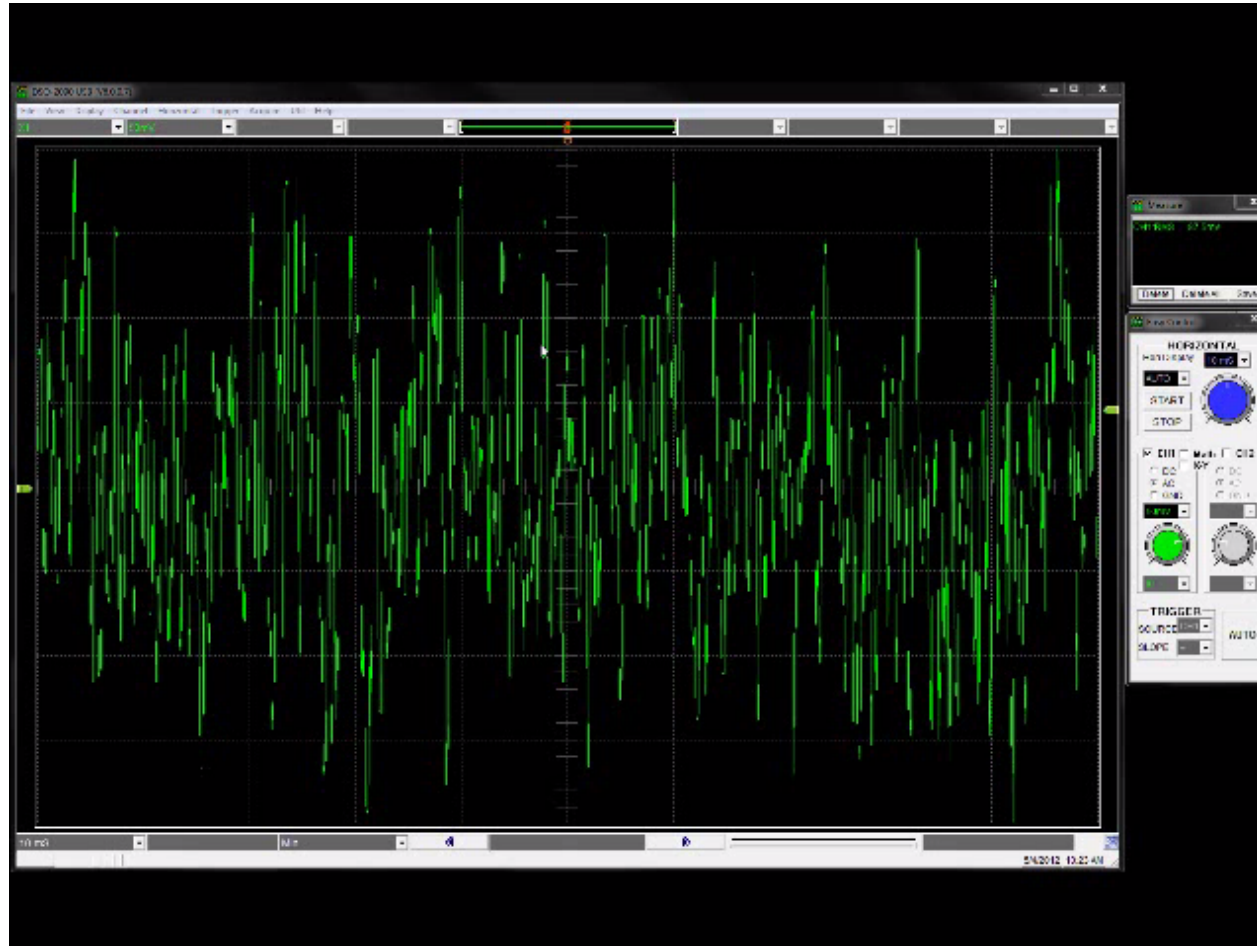
Noise Performance Comparison



Broadband residual noise of Silicon Design (Dytran), x100 gain

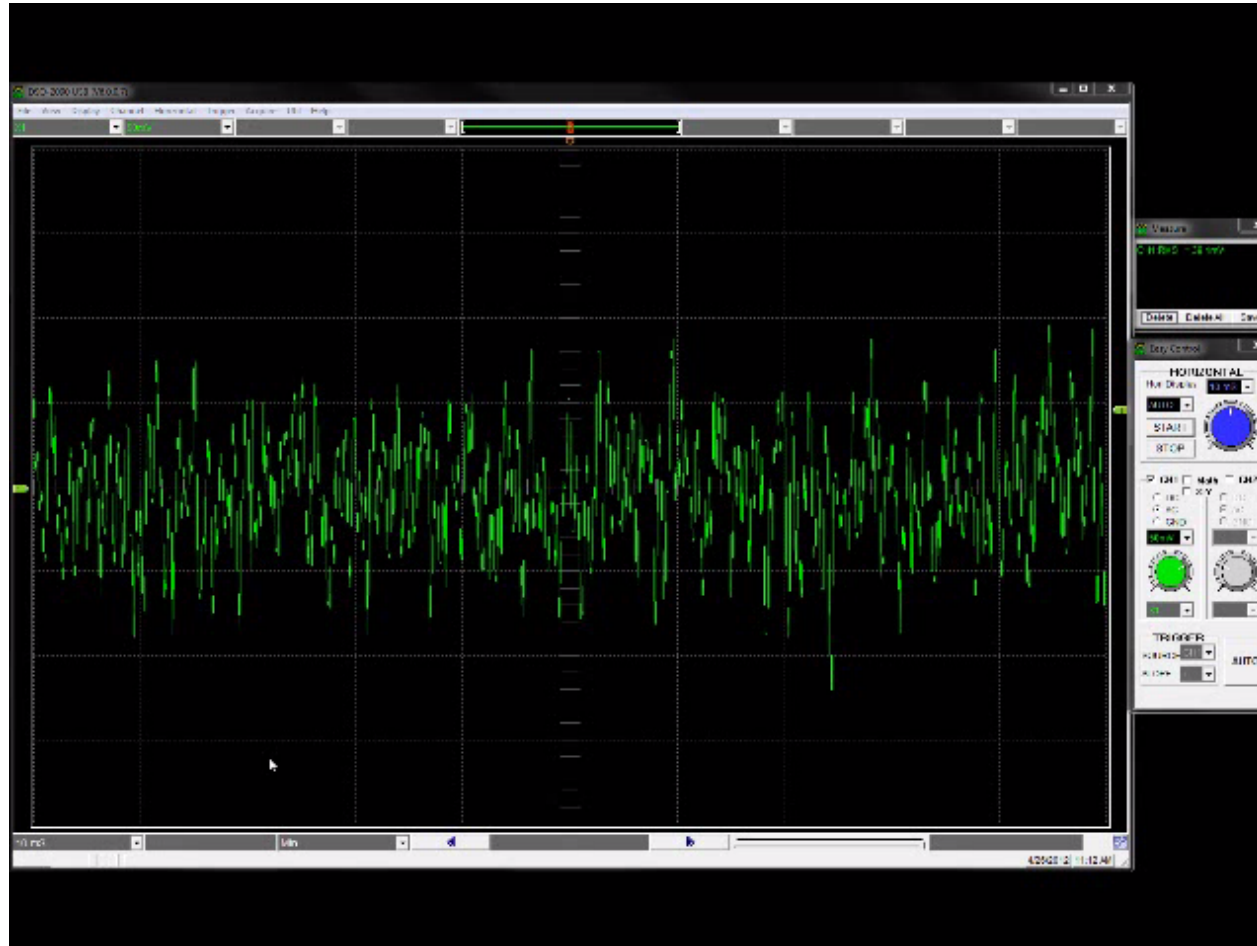
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Noise Performance Comparison



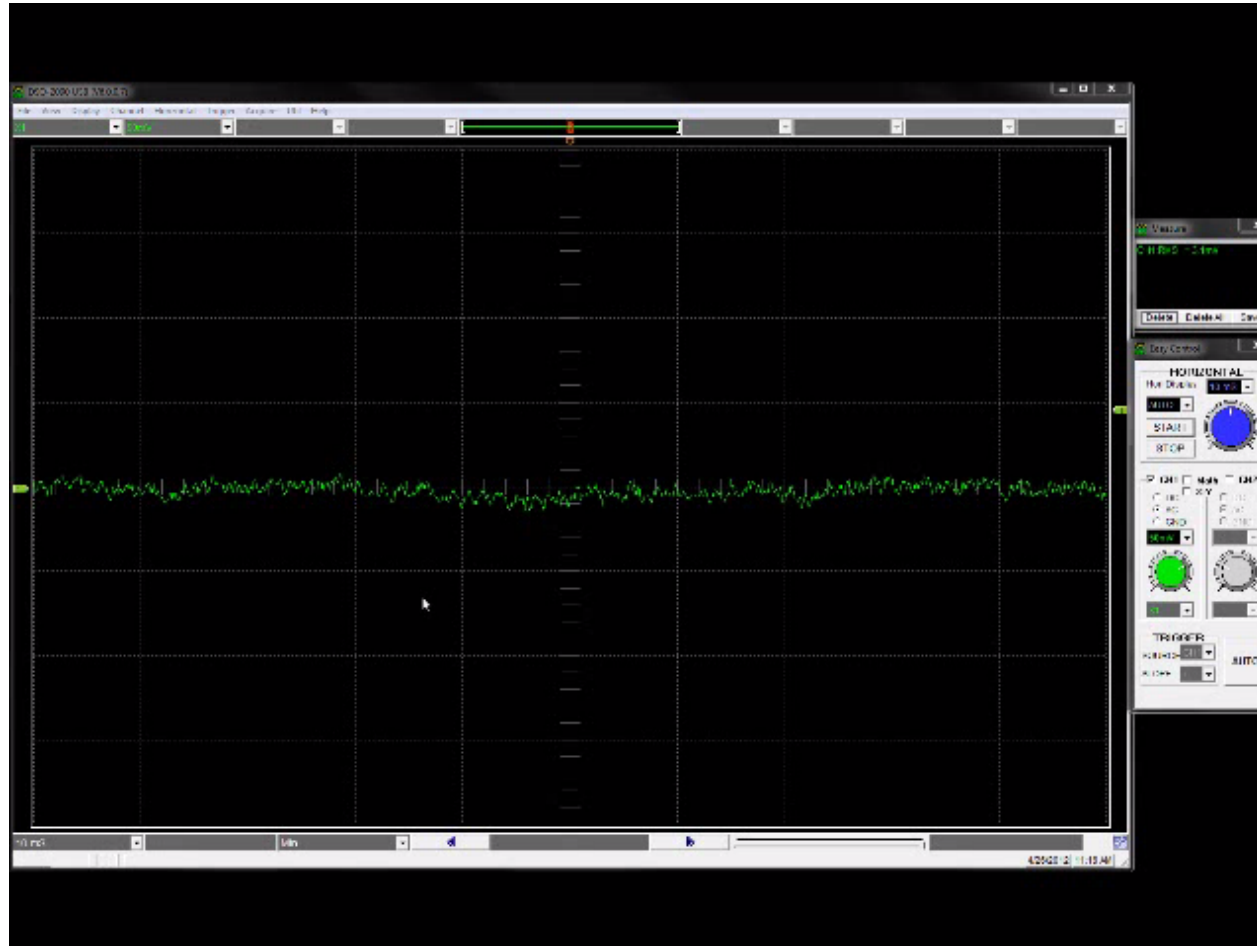
Broadband residual noise of Colibrus (PCB), x100 gain

Noise Performance Comparison



Broadband residual noise of existing MEAS 4610, x100 gain

Noise Performance Comparison

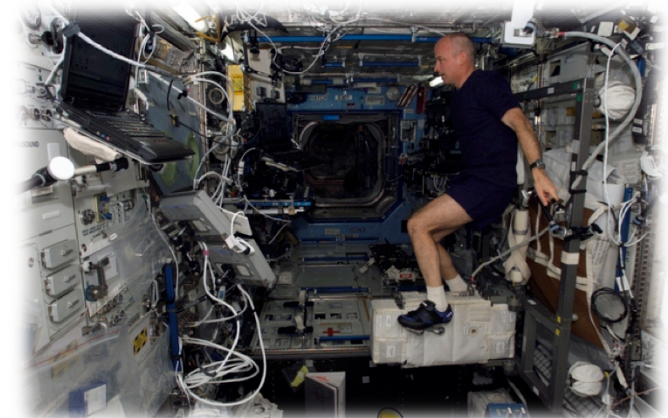


Broadband residual noise of the new 4807A, x100 gain

Model 4807A DC Accelerometer

Applications:

- Seismic Studies
- Vibration Cancellation
- Dynamic Motion Analysis
- Structural Monitoring

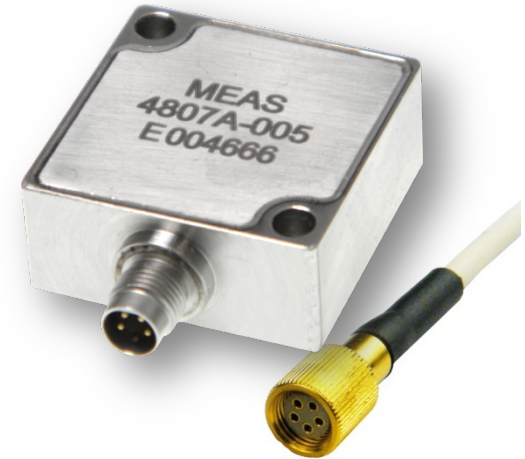


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Model 4807A DC Accelerometer

Commercial Details:

- Price:
- Call 01908 543038 or email sales@strainsense.co.uk
- MOQ: 1
- Lead Time: 6 weeks if not in stock
- Place of Manufacturing: SHZN
- Safety Stock: 10 pcs on popular ranges
- Working/Evaluation Sample: Upon request
- Export Classification: EAR99
- Calibration: Certificate supplied
- Optional Accessories: Model 341A cable,
Model 101 Amplifier



Model 4807A DC Accelerometer

Sales/Marketing Literature:

measurement SPECIALTIES

A Breakthrough in Resolution in Vibration Measurements

The MEAS Model 4807A accelerometer is a true breakthrough in vibration measurement. The accelerometer has a measurement threshold that is an order of magnitude lower than its competition - it practically blows them out of the water. In mission critical applications, such as sensing minute motion on a spacecraft or vibration monitoring in precision optical systems, Model 4807A allows you to detect the nuances that you might have missed with other lesser DC accelerometers. It also features a user-controlled auto zero function which minimizes offset voltage at its output. The accelerometer is housed in a hermetically sealed, welded stainless steel body which is designed to survive the most demanding environmental test conditions. A true breakthrough without making much noise.

www.meas-spec.com/vibration

Model 4807A Accelerometer

Ultra Low Noise, DC Response
Micro-g Resolution
Includes Auto-Zero Function
Hermetically Sealed
<2% Total Error Band

The Model 4807A is an ultra low noise DC response accelerometer offering better than the competition. The accelerometer is hermetically sealed and offers an amplified signal output covering ranges from ± 2 to $\pm 200g$. The model 4807A incorporates gas damped silicon MEMS sensing elements with wide bandwidth from DC up to 1500Hz, and built-in mechanical overload stops for shock protection to 5,000g. A patent pending Auto-Zero function allows the use to minimize zero offset at the output.

FEATURES

- 98dB Dynamic Range
- $\pm 2g$ to $\pm 200g$ Measurement Range
- 8-18Vdc Excitation Voltage
- Hermetically Sealed
- Gas Damped MEMS Element
- Detachable Cable
- Remote Auto-Zero Function

APPLICATIONS

- Vibration Isolation
- Flight Testing
- Trajectory Profiling
- Structural Monitoring
- Research & Development

dimensions

Diagram showing dimensions and pin connections for the Model 4807A Accelerometer. The diagram includes labels for 'CENTER OF 8000IC MASS', '412-MS S-PIN ACCEPTANCE', and 'ACCELEROMETER HOUSING'. Pin connections are labeled: PIN 3 - EXC, PIN 2 - +OUT (2.5V REF), PIN 1 - +EXC, PIN 4 - +OUT, PIN 5 - AUTO-ZERO.

Model 4807A Rev B
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<http://www.strainsense.co.uk/>

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Model 4807A DC Accelerometer

Operating Manual:



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