



For strong motion class B seismic measurements

Thanks to its extremely low noise, low power and wide frequency response the LTME family guarantees accurate and stable seismic measurements without the need for recalibration or maintenance during the lifecycle of the system. LTME is available in two dynamic ranges 90dB and 110dB and different full-scale ranges depending on the model ($\pm 2g$, $\pm 3g$, $\pm 5g$). The broadband linear response is from DC to some hundreds of Hz (different for each version). LTME sensitive elements are mounted orthogonally and housed in hard coating aluminum case IP67, IP68 is available optionally. The resolution of the entry level model 90dB, meets all the requirements for strong motion event monitoring, already in presence of light tremors, the data output is completely overlappable with mechanical force balance.

LTME

MEMS ACCELEROMETER

KEY FEATURES

MEMS TECHNOLOGY

DYNAMIC RANGE 90 AND 110dB

FREQUENCY RANGE DC ÷ 550 Hz
(DEPENDING ON THE MODEL)

FULL SCALE RANGES AVAILABLE $\pm 2g$, $\pm 3g$, $\pm 5g$

HIGH ACCURACY

LOW SELF-NOISE

GOOD THERMAL STABILITY

POWER SUPPLY FROM 7V UP TO 15V



TPOLOGY Traxial, Biaxial and Monoaxial

TECHNOLOGY MEMS

FULL-SCALE RANGE $\pm 2g$ (90dB), $\pm 3g$ (110dB), $\pm 5g$ (90dB and 110dB)

SCALE FACTOR 1350 mV/g ($\pm 2g$), 900 mV/g ($\pm 3g$), 540 mV/g ($\pm 5g$)

CALIBRATION 1.5% (scale factor deviation)

NOISE IN BAND

7 $\mu g/\sqrt{Hz}$ (90dB $\pm 2g$) | 17 $\mu g/\sqrt{Hz}$ (90dB $\pm 5g$)

0.2 $\mu g/\sqrt{Hz}$ (110dB $\pm 3g$) | 1.2 $\mu g/\sqrt{Hz}$ (110dB $\pm 5g$)

DYNAMIC RANGE 90dB model and 110dB model

NON-LINEARITY % FS 0.1% (90dB) 0.3% (110dB)

BIAS TEMPERATURE COEFFICIENT $\pm 0.2 mg/^\circ C$ ($\pm 2g$), $\pm 0.3 mg/^\circ C$ ($\pm 3g$), $\pm 0.5 mg/^\circ C$ ($\pm 5g$)

BIAS CALIBRATION

-7 to +7 mg (90dB $\pm 2g$) | -17 to +17 mg (90dB $\pm 5g$)

-10 to +10 mg (110dB $\pm 3g$) | -17 to +17 mg (110dB $\pm 5g$)

PERFORMANCE

POWER SUPPLY 7 to 15V

POWER CONSUMPTION 100mW (90dB), 350mW (110dB)

PROTECTION Reverse-voltage, overvoltage and surge protected

GROUNDING Predrilled hole for M4 x 5 grounding lug screw

STORAGE TEMPERATURE RANGE $-20 \div +80^\circ C$

HUMIDITY 0 to 100%

OPERATING TEMPERATURE RANGE $-40 \div +80^\circ C$

WEATHER RESISTANCE Rated to IP67, IP68 opt

HOUSING Aluminum, anodized hard coating

LEVELING Integrated bubble level Adjustable locking leveling screws

OD 64mm

HEIGHT 48 mm

WEIGHT 230 g

POWER SUPPLY

OP. CONDITIONS

PHYSICAL

CONNECTORS 62GB-12E12-10SN, 10-pin

ACCELERATION OUTPUT $\pm 2.7V$ differential

OUTPUT IMPEDANCE $2 \times 50 \Omega$

INTERFACE

