MBB-2 Miniature Broadband Seismometer

Certificate of Test, Calibration, and Conformance

MBB-2 Serial Number: 194121
MBB-2 Manufacturing Date: September, 2019

Sensor Test Checklist

Electronic Board Functional Test	PASS
Sensor Module Calibration, Trimming, and Noise Test	PASS
Verification of Sensor Response Values within Specified Ranges	PASS
Integration of Electronics and Sensor Modules into Triaxial Package	PASS
Noise Test of Triaxial Sensor	PASS
Final Functional Test of Sensor	PASS
Final Functional Test of Cable	PASS
Final Visual Inspection of Sensor	PASS
(Extra) Leveling Feet Included in Shipping Box	PASS
Verify Shipping Box Integrity	PASS
Verify Serial Number on Sensor and on Shipping Box	PASS

Specified Sensor Response

The MBB-2 frequency response can be described well by a simple set of conjugate pole pairs:

$$P_1 = -0.037 \pm i \cdot 0.037 \ \frac{rad}{s}$$

$$P_2 = -190 \pm i \cdot 620 \ \frac{rad}{s}$$

$$P_3 = -2000 \pm i \cdot 3000 \ \frac{rad}{s}$$

The frequency response is defined as

$$TF(s) = \frac{G \cdot s^2 |P_2|^2 |P_3|^2}{(s-P_1)(s-\overline{P_1})(s-P_2)(s-\overline{P_2})(s-P_3)(s-\overline{P_3})}$$

where G is the scalar responsivity:

$$G = 750 \ \frac{Vs}{m} \pm 0.5\%$$