

## Colt Broadband Seismometer Data Sheet

The Colt is a simple compact seismometer which bridges the gap between traditional portable sensors, and those used for local and regional projects. The Colt keeps life simple and makes system deployment easy allowing the operator to focus on the job in hand and not have to worry about the instrumentation.

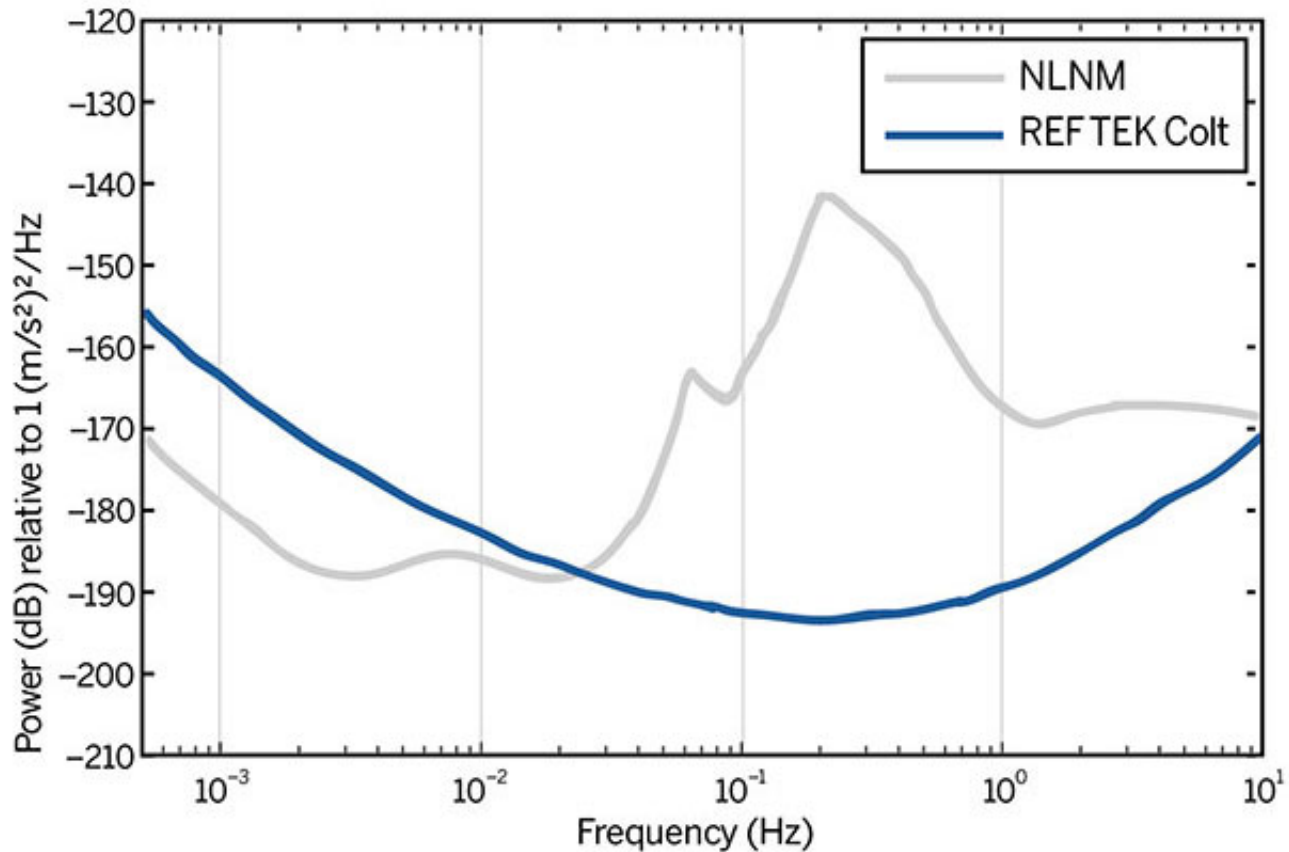


Sensor alignment is a doddle due to the addition of two removable north south points at the base of the sensor to ensure orientation with the scribe line is spot-on. The adage keep-it-simple continues with the three screw levelling legs and circular bubble level on the top of the sensor. The mass within the sensor is unlocked automatically when the sensor is turned on and locked back in position when the sensor is shutdown, no more need for a screwdriver and that nagging thought in the back of your mind that you have forgotten something important.

When paired with the Wrangler seismic recorder the Colts performance can really be seen. By using a force-balanced electronic feedback circuit design, the REF TEK Colt has exceptionally low self-noise allowing it to better measure ground motion even at the quietest of sites and the wide >155dB dynamic range permits the sensor to be utilised for aftershock analyses.

### Features

- High dynamic range for portable and vault style installations
- Exceptionally low self-noise
- Small and lightweight
- Shock resistant housing
- Robust automatic mass unlock system -Available in two frequency ranges for varying scientific budgets.



Noise Model Plot for the REF TEK Colt Broadband Seismometer, image courtesy of RefTek, a Trimble Brand.

## Product Dimensions

| Physical          | Dimensions (L x W x H) | Weight |
|-------------------|------------------------|--------|
| (instrument only) | 150mm x 150mm x 258mm  | 5.5kg  |

## Technical Specifications

|                     |   |
|---------------------|---|
| <b>Sensor Type:</b> | Symmetrical (3 Component)                                   |
| <b>Bandwidth:</b>   | 0.0083 (120 seconds) – 80 Hz<br>0.0167 (60 seconds) – 80 Hz |

|                                   |   |
|-----------------------------------|---|
| <b>Dynamic Range:</b>             | >155 dB (1–10 Hz)                         |
| <b>Self-Noise:</b>                | Below NLNM from 35 seconds to 10 Hz       |
| <b>Clip Level:</b>                | >10 mm/s (@1 Hz)                          |
| <b>Sensitivity:</b>               | 2000 V/m/s                                |
| <b>Full Scale Output:</b>         | ±20 Volts Peak-Peak (Differential Output) |
| <b>Output Impedance:</b>          | 160 Hz                                    |
| <b>Total Harmonic Distortion:</b> |   |