

Results from an Ultra Broad Band Borehole seismometer with flat response over 5 decades of frequency is presented

Detecting small underground nuclear explosions depends on the ability of a seismometer to record high frequencies, as well as on its sensitivity. ALPHA broad band borehole sensor fills this need and improves detection thresholds by spanning 5 decades of seismic frequencies.

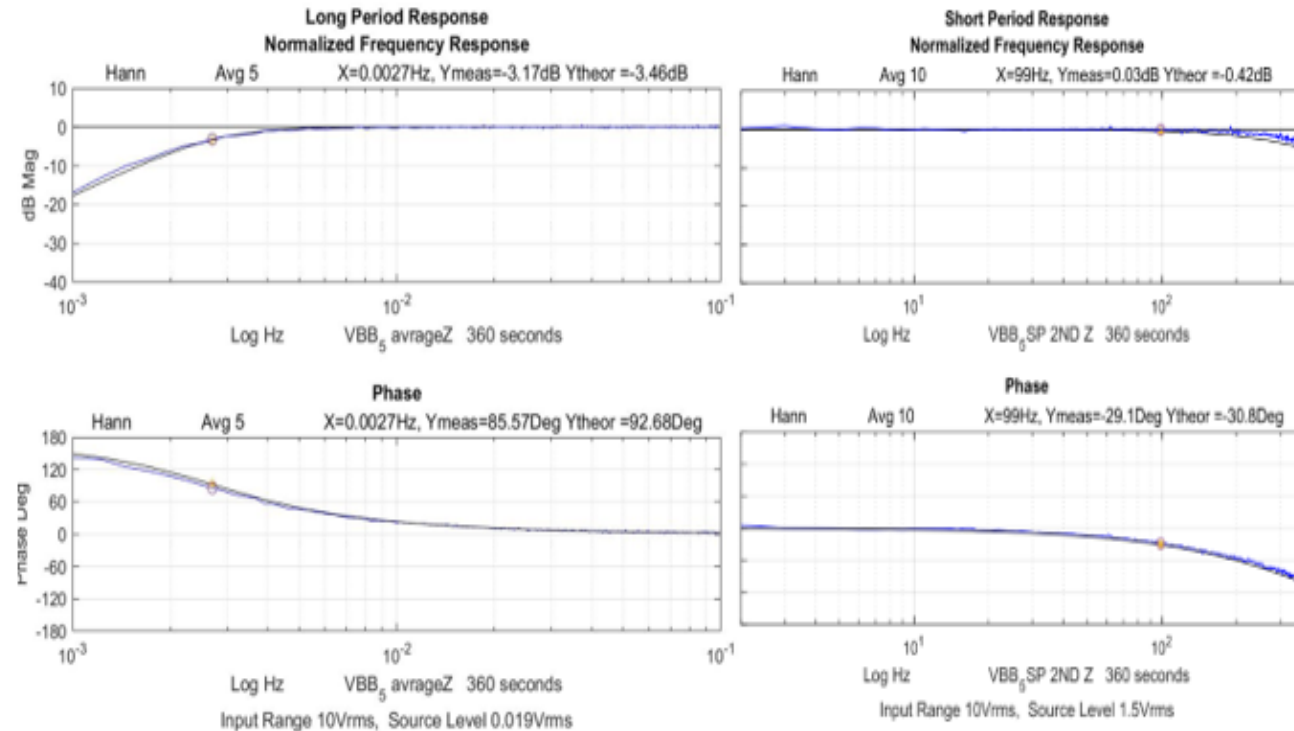


Figure 3: Response of the new sensor to the signal input into the feedback transducer in both amplitude (top panel) and phase (bottom panel). The x-axes are in "log Hz". The 3dB-points are at 2.7 mHz and 270 Hz. The response of the sensor is flat over 5 decades in between.

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