



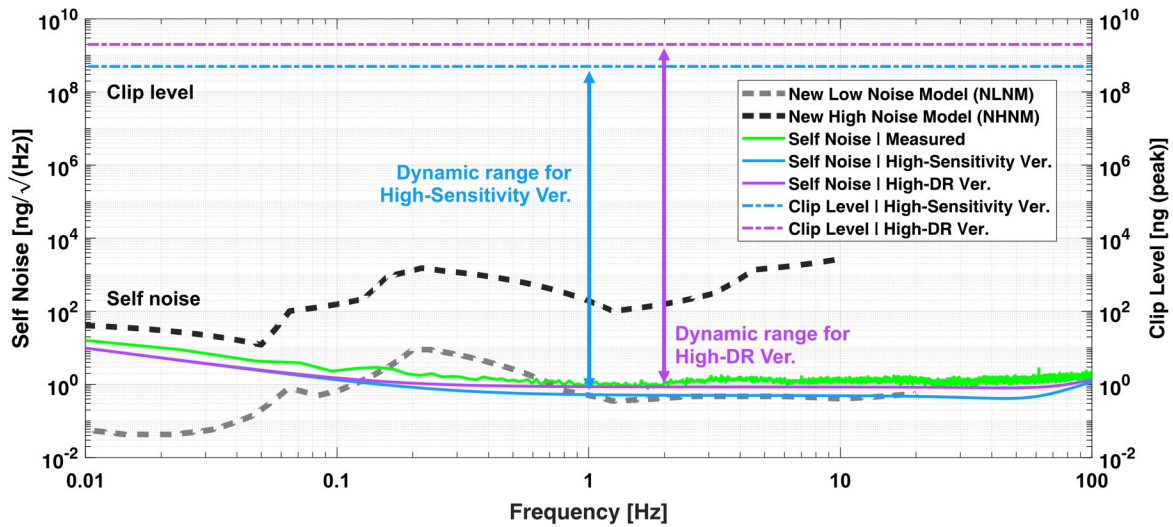
Silicon Audio integrated the mechanics of conventional geophones with innovative optical technologies to create a scientific-grade seismic sensor with unparalleled characteristics and performance for resource exploration and scientific discovery. The sensor delivers superior signal-to-noise ratio and broadband response in a rugged, easy-to-deploy form factor. Developed originally for ocean-bottom exploration, the sensor has been deployed around the world in a wide variety of seismic applications and is available in various packaging configurations.

### Performance Attributes:

- Ultra-low noise and low frequency.
- High shock tolerance.
- Wide bandwidth and dynamic range.
- Bridges weak- and strong-motion applications.
- Low cross-axis sensitivity.
- Low power design.
- Very large tilt tolerance.
- High clip levels and low distortion levels.
- High linearity across full bandwidth.
- High vector fidelity.
- Small, lightweight, rugged form factor.
- Customizable packaging/configuration.
- **Now available as Convertible:**  
**Switchable between 2g Accelerometer and 40-sec Seismometer.**



With the largest dynamic range available among seismic sensors, the Silicon Audio sensor eliminates the need for multiple sensors to maximize the signal capture in terms of seismic amplitude and bandwidth. For example, applications which once required a broad-band seismometer paired with a strong-motion accelerometer can be addressed with a single Silicon Audio sensor.



SENSOR PERFORMANCE	203-60 High Sensitivity	2X3 Convertible Switchable between 203-15 and 213-40	
		203-15 High Dynamic Range	213-40 Velocity
Passband	0.005 – 1500Hz	0.004 – 800Hz	0.025 – 90Hz
Noise	0.5ng/VHz at 10Hz	0.8ng/VHz at 10Hz	0.5ng/VHz at 10Hz
	0.8ng/VHz at 1Hz	1ng/VHz at 1Hz	0.8ng/VHz at 1Hz
	3ng/VHz at 0.1Hz	3ng/VHz at 0.1Hz	3ng/VHz at 0.1Hz
	10ng/VHz at 0.01Hz	10ng/VHz at 0.01Hz	10ng/VHz at 0.01Hz
Clip Level	±0.5g peak	±2.0g peak	±35mm/s
Dynamic Range (@1Hz over 1Hz BW)	172dB	183dB	154dB
Sensitivity (custom settings available)	60V/g	15V/g	830V/m/s
Max $V_{out}$	60V pk-pk		
Spurious Resonance	> 600Hz		
Tilt Tolerance	±15° (higher tilts available up to 180°)		
Distortion	< 0.03% at 12Hz and 0.7in/s pk-pk		
<b>POWER</b>			
Power	150mW for 3-axis sensor (as low as 80mW with reduced clip level)		
Supply Voltage	6-25V DC		
<b>HANDLING</b>			
Transport	No mass lock required for transport		
Shock Tolerance	> 1500g (0.5ms ½ sine)		
Operating Temperature	-35°C to +75°C (polar-rated sensors available)		
<b>GENERAL</b>			
Dimensions	Posthole package: 3.25" Diameter × 4.7" Length (83mm D × 120mm L) – Mass: 1 kg Borehole package: 2.0" Diameter × 14.5" Length (51mm D × 368mm L) – Mass: 1 kg Vault package: 4.5" L × 4.5" W × 2.7" H (115mm L × 115mm W × 68mm H) – Mass: 1.4 kg		
Configuration	3-axis (single axis available)		
Sensing Method	Force balance with interferometric transducer		
Mass Centering	Automatic		