

## STS-2 successor: The STS-2.5

The STS-2.5 casts a long shadow.....



***World-standard, Field-proven - 145 dB dynamic range - Mutually-aligned 3-components  
Robust locking - Low power - Wide temperature range without adjustment***

### **Features:**

- Sensor performance equal to the world-standard STS-2 broadband sensor
- *Improved* high magnitude signal behavior compared to STS-2
- *Improved* ruggedness of cabling and hermetically sealed hostbox includes push button, visual status and robust one-press centering
- RS232 remote monitoring (serial number, inside temperature and humidity, power supply levels, tilt)
- Auxiliary signals (POS/RAW) and control of centering and locking either available by RS232 or direct access via remote command
- *Improved* tilt range compared to STS-2
- *Significantly improved* operating temperature range *without* centering; key requirements in many installations due to daily temperature variation

## Technical data:

### Electrical

Power input:	10 - 30VDC, galvanically isolated
Power consumption:	Average: 0.45W, deteriorated state: up to 2.0W (saturated outputs)
Seismic signal output:	max ±20V differential, 220Ω serial resistance per line
Auxiliary signal output:	max ±10V single-ended, 1kΩ serial resistance per line
Control inputs:	Mass re-centering, lock & unlock compatible with Q330 family (3 - 30VDC, 0.5mA, galvanically isolated)
Communication	Push buttons or RS232, 9600Bd, galvanically isolated
Calibration inputs:	± 10VDC

### Electro-mechanical

Generator constant:	$2 \times 750 \frac{\text{Vsec}}{\text{m}}$
Response:	Flat to ground velocity from 8.33mHz (120s) to >50Hz
Displacement resolution:	$6.4 \times 10^{-13} \frac{\text{m}}{\sqrt{\text{Hz}}} @ 10\text{Hz} (= -172\text{dB})$
Clip level:	$\pm 13 \frac{\text{mm}}{\text{sec}}$ ground velocity up to 20Hz  Linear derating down to $\pm 5.3 \frac{\text{mm}}{\text{sec}}$ from 20 - 50Hz

Clip level normalized to gravity:

Frequency [Hz]	Fraction of g (peak to peak)
20 - 50	0.34
10	0.17
1	0.017
0.1	0.0017
0.03	0.00055

Parasitic resonances:	>140Hz vertical, >80Hz horizontal
No centering Tilt range:	± 0.03°, (centering range limit ±0.48°)
No centering Temperature range:	± 25°C

### Environment

Operating temperature:	-20°C to 70°C, functional -40°C to 70°C
Humidity:	0-100% RH

### Physical

Enclosure Rating:	IP67 Equivalent
Various:	RoHS Compliant Unit
Size:	Cylindrical package, ø 235mm, height 260mm (same package as STS-2)
Weight:	12kg

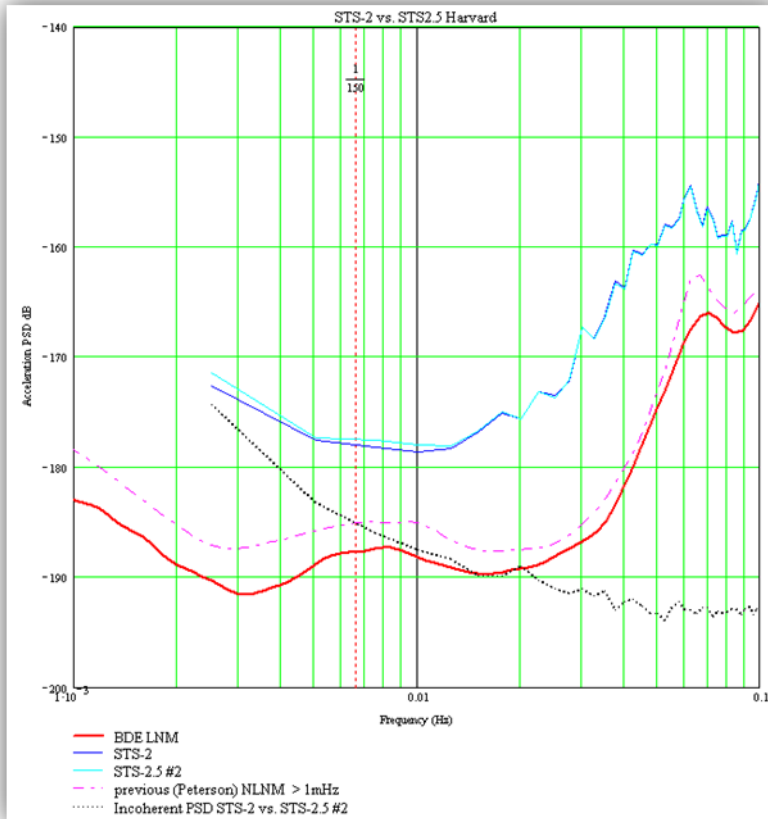
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## TYPICAL ACTUAL MEASURED NOISE PERFORMANCE



Incoherent noise measured between STS-2 and STS-2.5. The incoherent noise is a measure of the **actual** self-noise. The figure on the left shows that the STS-2.5 incoherent noise is at or below the low-noise models. **Low**-frequency data is shown.