

Ku-Band Antenna Controller Swap Qualify

Description	
Sensor	121f03 500 sa/sec (200 Hz)
Location	LAB1O1, ER2, Lower Z Panel
Plot Type	Spectrogram (Σ); $f < 10$ Hz

Notes:

Analysis to support the Neutron star Interior Composition ExploreR (NICER) Mission revealed a notable upward trend in vibrations below 10 Hz. This portion of the ISS acceleration spectrum is the domain of vibrations from vehicle structural modes along with the Ku-band antenna.

The spectrogram here shows an 8-hour span **BEFORE** the swap of a failed Ku-band antenna controller.

The yellowish horizontal streaks concentrated below about 2 Hz are vehicle structural modes.

The broader band disturbance seen near 7 Hz is attributable to motion of the Ku-band antenna. This antenna must move to track communications satellites.

Regime:	Vibratory
Category:	Vehicle
Source:	Ku Antenna Controller



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