

EnduroSat S/X-Band Ground Station Tracking Antenna System Parameters

Antenna Type	Prime-focus Parabolic Reflector		
Antenna	Gaia – 100		
Reflector Diameter	4.5m		
	S-band RX	S-band TX	X-band RX
Frequency Ranges	2,200-2,290 MHz	2,025-2,110 MHz	8,025-8,400 MHz
G/T @ 5° Elevation	14.5 dB/K	X	27.5 dB/K
EIRP	X	55.8 dBW	Х
Polarisation	Selectable RHCP & LHCP		
Antenna View Angles			
Global Azimuth	360°		
Global Elevation	0° to +90°		
Keyhole	None		
Axes Travel Range			
Azimuth	360° unlimited		
Elevation	0° to 110°		
Tilt	± 25°		
Modems			
Newtec MDM6000	DVB-S2, DVB-S2X (QPSK up to 256APSK)		
	Baudrates up to 133 Mbaud to handle all common transponder sizes		
	Standard GSE encapsulation for minimal overhead		
	Support for MPE, ULE, and XPE for working with legacy equipment		
	Data rates up to 425Mbps		
Teledyne QubeFlex	Support for CCSD, CubeSat Space Protocol (CSP), and AX.25 packet processing		
	CCSDS telemetry and Intelsat standards including Viterbi/Reed-Solomon error correction, interleaving, and scrambling		
	Data rates up to 60Mbps		
Tracking			
S-band	Based on pre-defined TLE		
X-band	Based on pre-defined TLE and corrected via RSSI scan		
Connectivity			
Guaranteed 100Mbps (upgradable) Internet connection			