

iSat 2.4mtr Ku-band antenna



This 4 (four) piece Prodeline reflector is adjustable on 2-axis; Azimuth and Elevation.

- The antenna is made of Glass Fiber reinforced polyester (SMC).
- With the iSat Ku-band feed and diplexers, the assembled reflector provides outstanding 4-port Ku performance and reliability.
- The antenna comes with stabilising bar from the bottom of the boom arm to the king post giving support to the weight of the TWTA on the boom arm which can be mounted on the boom arm.

The 4 (four) piece antenna has a robust steel galvanised backing structure.

- The four segments are held in place by a galvanised steel cross, which ensures the polyester panels remain in shape.
- The panels are bolted to a square 'back spine', which is set in the factory again to ensure correct shape
- Both these features ensure compliance to ITU sidelobe performance.

	2 port Ku-band Linear Feed			
	Vertical		Horizontal	
Frequency (GHz)	13.4-14.8		13.4-14.8	
Port-to-Port Isolation (dB)	>40			
	Transmit	Receive	Transmit	Receive
Diplexer frequency filtering	14.5-14.8GHz	13.4-13.7GHz	14.5-14.8GHz	13.4-13.7GHz
Antenna Gain at Midband, dBi (+/- 0.2dB)	49.6	48.8	49.6	48.8
Diplexer passband Insertion loss	0.7dB Typical, 1.0dB Max			
Tx/Rx isolation (dB)	>120	>120	>120	>120
Antenna Noise Temperature				
10° Elevation	51 k			
20° Elevation	48 k			
40° Elevation	41 k			
Sidelobe Envelope, Co-Pol (dBi)				
100λ / D < θ ≤ 20°	29 - 25 Logθ dBi			
20° < θ ≤ 26.3°	-3.5 dBi			
26.3° < θ ≤ 48°	32 - 25 Logθλ dBi			
θ > 48°	-10 dBi (averaged)			
VSWR Performance	1.2:1	1.2:1	1.2:1	1.2:1
Cross polarisation				
On-axis	>30dB			
Within 1.0dB Beamwidth	>25dB			
Waveguide Interface Flange	WG17 Tx WG17 Rx			
Total Power Handling Capability	500 W CW			