



R.F.Specification
 for
VertexRSI 3.80 Meter DPC Antenna
With Two Port Transmit/Receive Linearly Polarized Feed
Type Approval Configuration
 Receive Transmit

Frequency in GHz-----	3.625-4.200	5.850-6.425
Port Type-----	Rx1	Tx1
Polarization-----	Linear	Linear
Feed Port Polarizations-----	VLP or HLP	HLP or VLP
Antenna Gain (+/- 0.2 dB)		
3.625 / 5.850 GHz-----	42.00 dBi	46.00 dBi
3.913 / 6.138 GHz-----	42.60 dBi	46.20 dBi
4.200 / 6.425 GHz-----	43.40 dBi	46.50 dBi

Antenna Noise Temperture		
5 degree Elevation-----	45 K	
10 degree Elevation-----	36 K	
20 degree Elevation-----	30 K	
40 degree Elevation-----	29 K	

Typical G/T at 20 deg Elevation 3.913 GHz	, clear horizon	
35 degree K LNA -----	24.5 dB/K	
50 degree K LNA -----	23.6 dB/K	

Pattern Beamwidth in degrees at 3.913 / 6.138 GHz		
-3 dB Beamwidth-----	1.28	0.85
-15 dB Beamwidth-----	2.69	1.79

Sidelobes

For Angle A beyond main beam to 48 Degrees----- Meets FCC regulation 25.209,
 For Angles from 48 to 180 Degrees----- IESS(Intelsat) or ITU-RS-580

Cross Polarization Isolation		
On Axis -----	35.0 dB	35.0 dB



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Within 1.0 dB Beamwidth -----	30.0 dB	30.0 dB
VSWR (Return Loss)-----	1.30:1(17.7dB)	1.25:1(19.0dB)
Feed Insertion or Ohmic Loss-----	0.15 dB	0.15 dB
Port to Port Isolation-----	0.0 dB (Input)	-30.0 dB
Port to Port Isolation-----	-70.0 dB	0.0 dB (Input)
Output Waveguide Flange Interface-----	CPR-229G	CPR-137G
Total Power Handling Capability-----		5.00 kW CW

- Notes - Other operational frequencies available
- 10% of sidelobes may exceed the sidelobe specifications where applicable.
 - Power handling capability is based on and limited by the physical characteristics in the feed components. Microwave power at these levels may contribute to the radiation hazard or exceed certain offaxis EIRP specifications.

All values are at the rear feed output flange.