



**R.F.Specification**  
for  
**VertexRSI 9.00 Meter Cassegrain Antenna**  
**With Two Port Transmit/Receive Linearly Polarized Feed**

	Receive	Transmit
Frequency in GHz-----	10.700-12.750	13.750-14.500
Port Type-----	Rx1	Tx1
Polarization-----	Linear	Linear
Feed Port Polarizations-----	VLP or HLP	HLP or VLP
Antenna Gain (+/- 0.2 dB)		
10.700 / 13.750 GHz-----	58.00 dBi	60.00 dBi
11.725 / 14.125 GHz-----	58.80 dBi	60.20 dBi
12.750 / 14.500 GHz-----	59.40 dBi	60.30 dBi
Antenna Noise Temperature		
5 degree Elevation-----	76 K	
10 degree Elevation-----	61 K	
20 degree Elevation-----	51 K	
40 degree Elevation-----	48 K	
Typical G/T at 20 deg Elevation 11.725 GHz , clear horizon		
70 degree K LNA -----	37.6 dB/K	
90 degree K LNA -----	37.0 dB/K	
Pattern Beamwidth in degrees at 11.725 / 14.125 GHz		
-3 dB Beamwidth-----	0.18	0.16
-15 dB Beamwidth-----	0.38	0.34
Sidelobes		
For Angle A from 1 to 48 Degrees-----	Meets FCC 25.209,Eutelsat,	
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 -----	35.0 dB	35.0 dB
VSWR (Return Loss)-----	1.30:1(17.7dB)	1.30:1(17.7dB)
Feed Insertion or Ohmic Loss-----	0.45 dB	0.40 dB
Port to Port Isolation-----	0.0 dB (Input)	-30.0 dB
Port to Port Isolation-----	-30.0 dB	0.0 dB (Input)
Output Waveguide Flange Interface-----	WR-75Flat	WR-75Flat
Total Power Handling Capability-----		2.00 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.