

RF performance

	Ku-Band GV-90 Series	Ka-Band GV-90 Series
F/D	0.8	0.8
Operating frequency	TX : 13.75 – 14.50 GHz RX : 10.70 – 12.75 GHz	TX : 27.00 – 31.00 GHz RX : 17.00 – 21.00 GHz
Gain (± 0.3 dBi)	TX : 41.4 dBi @ 14.50 GHz RX : 40.1 dBi @ 12.75 GHz	TX : 47.5 dBi @ 30.00 GHz RX : 44.1 dBi @ 20.20 GHz
3 dB beamwidth	TX : 1.50° @ 14.50 GHz RX : 1.75° @ 12.75 GHz	TX : 0.81° @ 30.00 GHz RX : 1.15° @ 20.20 GHz
Sidelobe Envelope, TX Co-Pol dBi		
29-25log θ dBi	$100\lambda/D \leq \theta \leq 7^\circ$	$100\lambda/D \leq \theta \leq 7^\circ$
8 dBi	$7^\circ < \theta \leq 9.2^\circ$	$7^\circ < \theta \leq 9.2^\circ$
32-25log θ dBi	$9.2^\circ < \theta \leq 48^\circ$	$9.2^\circ < \theta \leq 48^\circ$
-10 dBi	$48^\circ < \theta \leq 180^\circ$	$48^\circ < \theta \leq 180^\circ$
Antenna Cross-Polarization within 1dB b/w	TX : > 25 dB RX : > 23 dB	TX : > 25 dB RX : > 23 dB
VSWR	1.3 : 1 Max.	1.3 : 1 Max.
Certification	Eutelsat	Eutelsat

Mechanical performance

Material	Steel
Antenna Optics	One-piece offset feed prime focus
Mount Type	Elevation over azimuth
Elevation Adjustment Range	0°- 90°continuous fine adjustment; fine adjustment accuracy ≤ 0.1 degree
Azimuth Adjustment Range	360° Continuous; $\pm 3^\circ$ fine adjustment; fine adjustment accuracy ≤ 0.1 degree
Mast Pipe Size	76mm OD (3 inch)
Wind Loading (Operational)	80 km/h
(Survival)	180 km/h
Temperature (Operational)	-40°C to 60°C
Rain (Operational)	10 mm/h
Atmospheric Conditions	Salt, Pollutants and Contaminants as encountered in coastal and industrial areas: 720 hours ASTM B117 salt spray
Humidity	0 to 100% with condensation

