

09M LEAX-RAY Antennas

SINGLE POLARIZED – High Performance

General data

Antenna size	0.9 m/3 ft
Antenna type	Single polarized, Integrated
Polarization	Vertical/Horizontal
Antenna colour	NCS S 2502 R Grey
Radome type	UV Stabilized PC (6 - 23 GHz) UV Stabilized ABS/PMMA (24 - 38 GHz)
Radome colour	NCS S 2502 R Grey
Packing type	Standard Cardboard box
Quantity on one pallet	4 antennas/EUR pallet
Shipping size	1035 mm x 395 mm x 1065 mm



Mechanical data

Temperature, operational	-45 to +55 °C
Relative humidity	15 to 100 %
Wind load, operational	50 m/s (180 km/h)
Wind load, survival	70 m/s (250 km/h)
Mounting kit, tube diameter	90 - 120 mm
Panning Performance, in azimuth	±15°
Panning performance, in elevation	±15°
Ice load (713 kg/m³)	25 mm
Side strut, Included	0
Side strut, Optional	1 extra

Electrical data			
Article number	HAE110961	HAE180961	HAE260961
Frequency range (GHz)	10.0 - 11.7	17.1 - 19.7	24.00 - 26.50
Gain (Low-band) (dBi)	37.5	42.4	45.4
Gain (Mid-band) (dBi)	38.5	43.5	45.7
Gain (High-band) (dBi)	38.3	44.1	45.8
Half power bw (deg)	2.0	1.3	0.9
XPD (dB)	30	30	30
F/B Ratio (dB)	64	71	71
VSWR/Return Loss (dB)	1.30:1/17.7	1.30:1/17.7***	1.30:1/17.7
ETSI Compliance	Class 3	Class 3**	Class 3
FCC Compliance	Cat A	Cat A	Cat A
NSMA file	906-HAE1109-B	906-HAE1809-D	906-HAE2609-B
RPE file	226-HAE1109-A	226-HAE1809-A	226-HAE2609-A
Output flange	Racom Specific *	Racom Specific *	Racom Specific *
Radome type	Flat	Flat	Spherical
Weight			
Net weight (kg)	15.6	15.5	17.3
Shipping weight (kg)	24.3	24.0	25.8

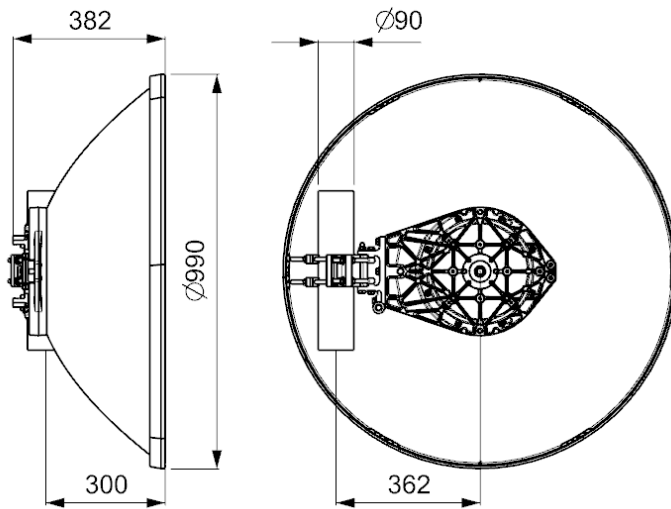
* Each antenna unit is fully equipped to be mounted directly to RACOM RAY unit by Single Polarization mounting kit.

** Per ETSI EN 302 217 - 2

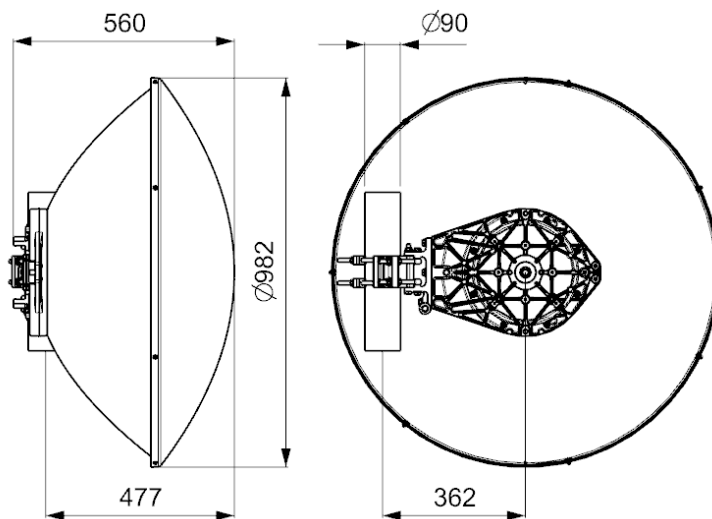
*** Below 17.7 GHz return loss performance is reduced

Drawings

10/11 and 18 GHz Single Polarized Antenna 09M:



24/26 GHz Single Polarized Antenna 09M:



Wind forces

6 - 23 GHz Single Polarized Antenna 09M

Loading to mounting pole @Survival Wind Speed:

Fa: Max Axial Force	2554 N
Fs: Max Side Force (without radio equipment)	314 N
M: Max Torque (at pole $\varnothing 90$ mm)	925 Nm

24-38 GHz Single Polarized Antenna 09M

Loading to mounting pole @Survival Wind Speed:

Fa: Max Axial Force	2044 N
Fs: Max Side Force (without radio equipment)	353 N
M: Max Torque (at pole $\varnothing 90$ mm)	740 Nm

