1.2m (4ft) Low Profile Antennas Microwave Antenna Specifications

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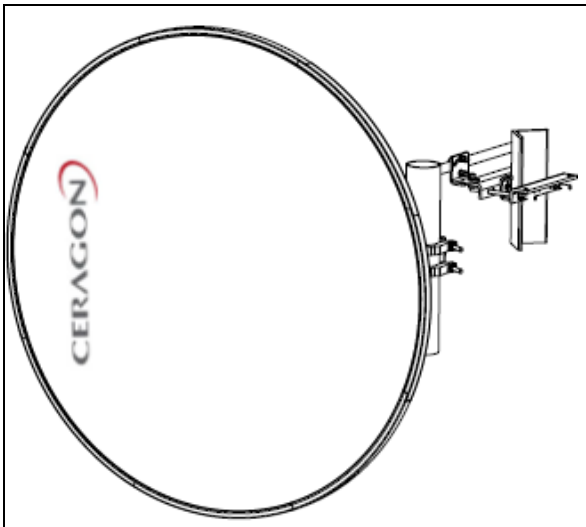
General Specifications



Nominal diameter	1.2m (4ft)
Polarization	Dual, Vertical or Horizontal
Radio interface	Direct Mount for RFU-C type ODU
Antenna color	NCS S 2502 R Grey
Radome color	NCS S 2502 R Grey
Radome type	6 – 23 GHz: UV Stabilized PC 24 – 26 GHz: ABS/PMMA
Packing type	Carton
Gross weight, kg	49,8 - 53,0
Packed dimensions, mm	L x W x H 1325 x 1475 x 500
Packing Volume, m³	0.977

Electrical Specifications

Antenna Marketing Model	**Am-4-6-CIRC-CR1**	**Am-4-7_8-CIRC-CR1**	**Am-4-11W-CIRC-CR1**	**Am-4-13-CIRC-CR1**	**Am-4-15-CIRC-CR1**
PN	**AN-2576-0**	**AN-2577-0**	**AN-2578-0**	**AN-2579-0**	**AN-2580-0**
Frequency Band (GHz)	5.925 – 7.125	7.100 – 8.500	10.000 - 11.700	12.750 - 13.250	14.400 - 15.350
Waveguide Interface	Ø31.8	Ø26	Ø18	Ø15	Ø13.5
Gain (dBi) Low	35.3	36.7	40.3	42.6	42.9
Gain (dBi) Mid	35.8	37.5	41.0	42.6	43.1
Gain (dBi) High	37.1	38.2	41.7	42.7	43.3
3 dB Beam Width (°)	2.7	2.0	1.5	1.3	1.2
VSWR	1.33	1.33	1.33	1.30	1.30
F/B Ratio (dB)	61	63	67	68	71
XPD (dB)	30	30	30	30	30
ETSI Compliance	R1, C3	R1, C3	R1, C3	R1, C3	R2, C3
FCC Compliance	Cat B2	N/A	Cat A	Cat B	N/A
RPE Number	906-HAE0612	906-HAE0812	906-HAE1112	906-HAE1312	906-HAE1512

Antenna Marketing Model	**Am-4-18-CIRC-CR1**	**Am-4-23-CIRC-CR1**	**Am-4-26-CIRC-CR1**
PN	**AN-2581-0**	**AN-2582-0**	**AN-2583-0**
Frequency Band (GHz)	17.700 - 19.700	21.200 - 23.600	24.000 - 26.500
Waveguide Interface	Ø10.5	Ø9	Ø8
Gain (dBi) Low	44.7	46.0	47.9
Gain (dBi) Mid	45.2	46.3	48.4
Gain (dBi) High	45.7	46.9	47.8
3 dB Beam Width (°)	0.9	0.7	0.7
VSWR	1.30	1.30	1.30
F/B Ratio (dB)	73	70	75
XPD (dB)	30	30	30
ETSI Compliance	R2, C3	R3, C3	R4, C3
FCC Compliance	Cat A	Cat A	Cat A
RPE Number	906-HAE1812	906-HAE2312	906-HAE2612

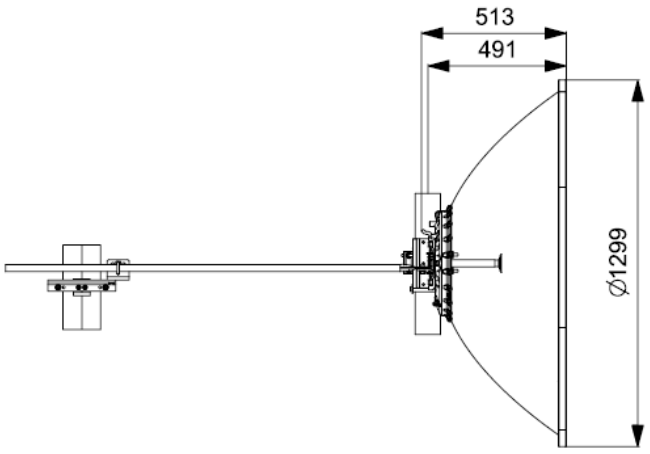
Mechanical Specifications

Wind Velocity Operational, km/h	180
Wind Velocity Survival Rating, km/h	250
Ice Load, mm	25
Azimuth, Adjustment, Degrees	±15
Elevation, Adjustment, Degree	±15
Mounting Pipe Diameter, mm	50 to 120
Net weight, kg	6 GHz: 22,1kg 7/8 GHz: 22,1kg 10/11GHz 22,0kg 13 GHz 21,4kg 15 GHz 21,4kg 18 GHz 21,4kg 23 GHz 21,4kg 24/26 GHz 24,6kg
Feed horn, Operational Pressure, KPa	40
Operational Temperature, °C	-45 to +55
Storage Temperature, °C	-55 to +85
Adjustment Struts	None
Fixed Support Struts	One (1)
Humidity	100%
Rain Intensity, mm/min	15
Solar Radiation, W/m2	1120
Electrical properties	ETSI EN 302 217-4-2
Vibration	ETSI 300 019-2-4 V2.2.2 (2003-04) T4.1E: 4M5
RoHS 2002/95/EC	Compliant

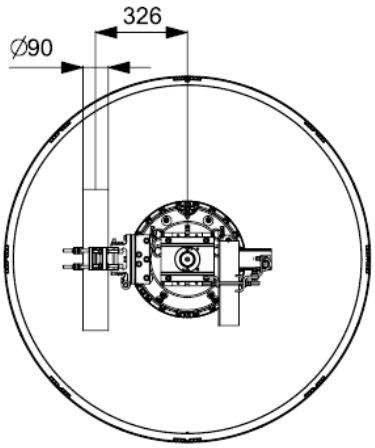
Outline Dimensions (mm)

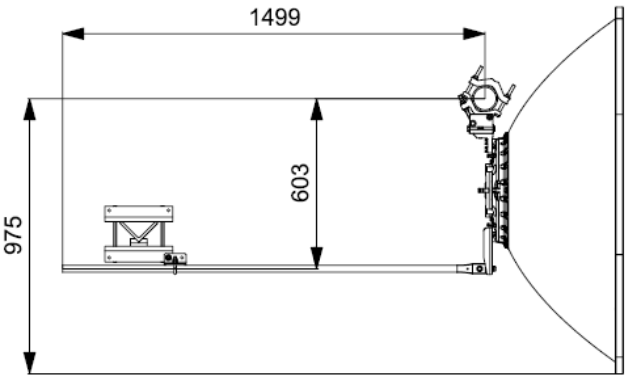
	6-11 GHz	13-26 GHz
A	90 to 120	90 to 120
B	1499	1499
C	513	533
D	326	326
E	491	491

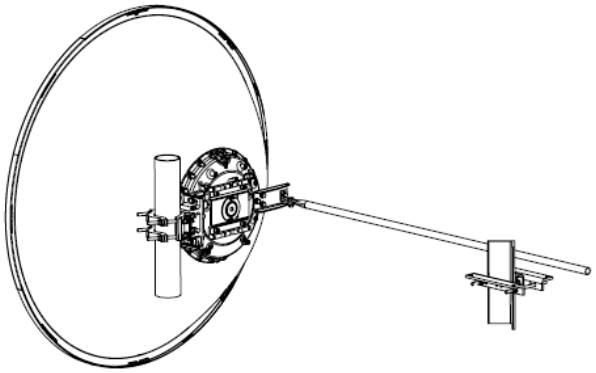
C



D



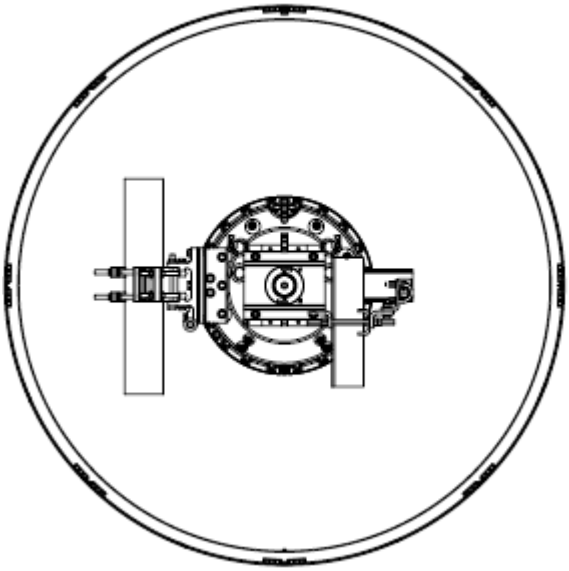


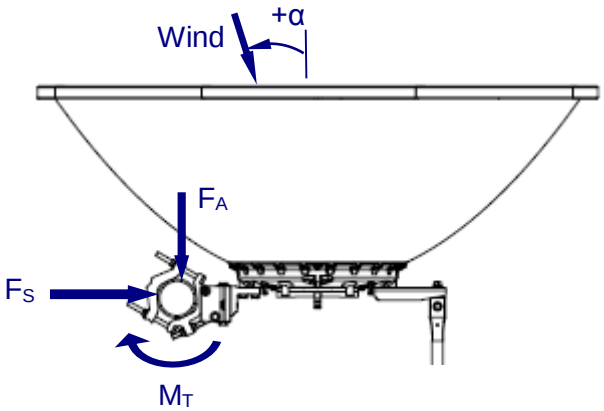


Wind Forces

The axial, side and twisting moment forces stated are maximum loads applied to the tower by the antenna at a survival wind speed of 250 km/h (70 m/s). They are, in every case, the result of wind from the most critical direction for each parameter. The individual maximums may not occur simultaneously. All forces are referenced to the antenna mounting pipe.

Axial Force (F_A), N	4309
Side Force (F_S), N	1206
Twisting Moment (M_T), N•m	N/A (One strut always mounted)





Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

HH – Response of horizontally polarized port to a horizontally polarized signal.

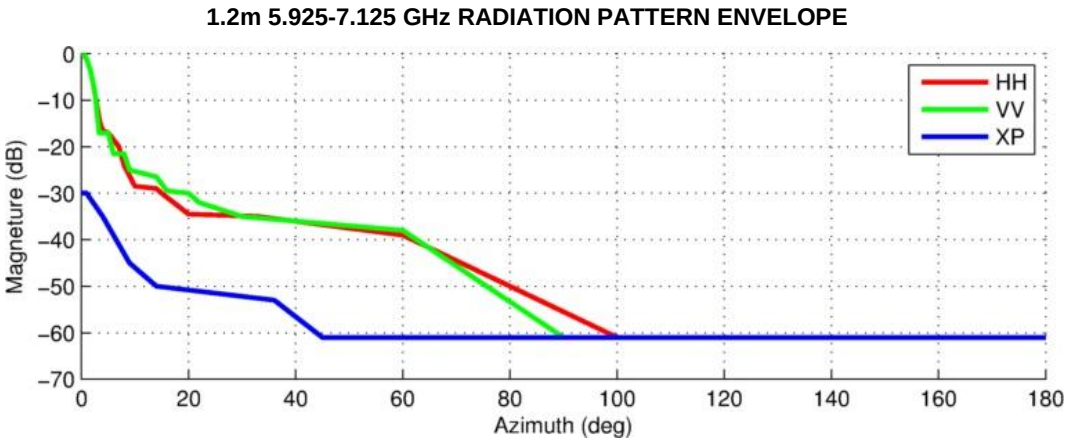
VV – Response of vertically polarized port to a vertically polarized signal.

XP – HV/VH

HV – Response of horizontally polarized port to a vertically polarized signal.

VH – Response of vertically polarized port to a horizontally polarized signal.

Am-4-06W-CR



Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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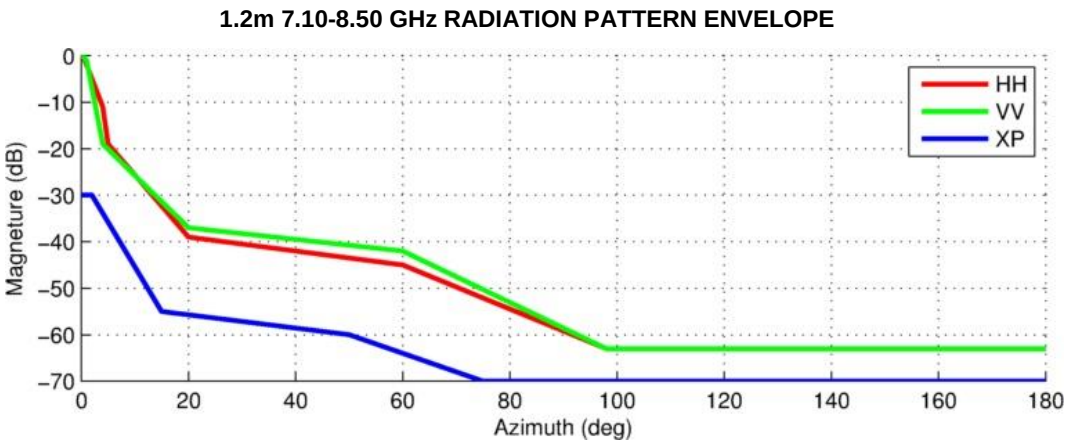
Am-4-08W-CR



Radiation Pattern Envelope

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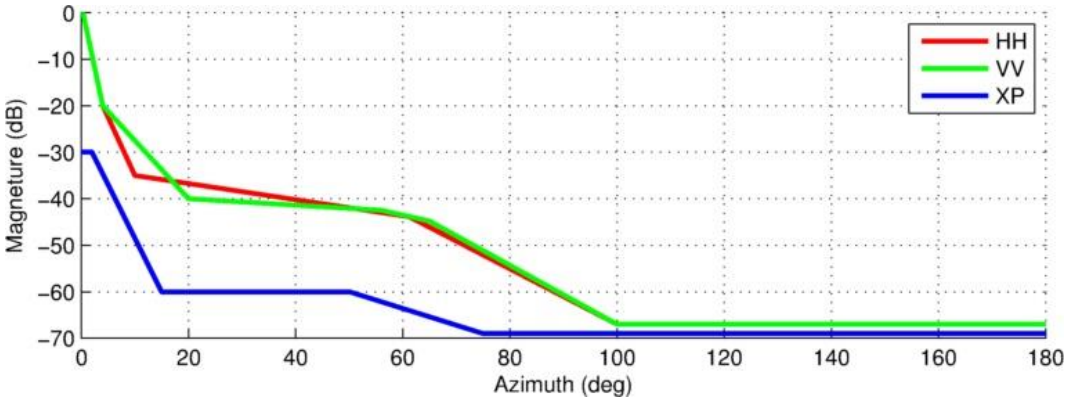
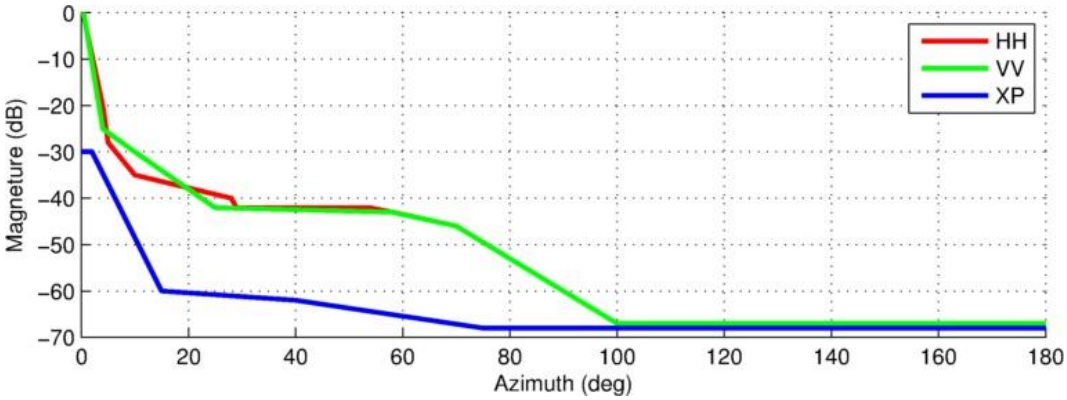
Am-4-11W-CR

1.2m 10.00-11.70 GHz RADIATION PATTERN ENVELOPE



For the sub-band 10.7 GHz – 11.7 GHz, the antenna fulfill the following RPE:



Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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VV – Response of vertically polarized port to a vertically polarized signal.

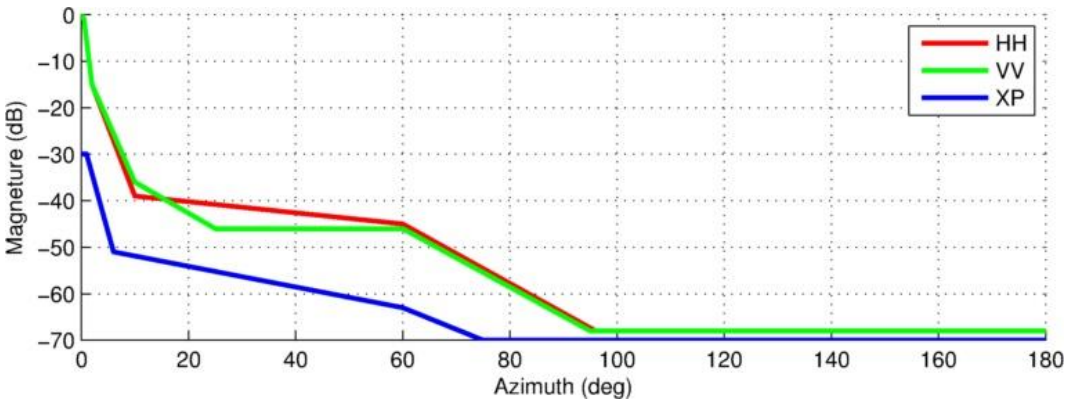
XP – HV/VH

HV – Response of horizontally polarized port to a vertically polarized signal.

VH – Response of vertically polarized port to a horizontally polarized signal.

Am-4-13-CR

1.2m 12.75-13.25 GHz RADIATION PATTERN ENVELOPE



Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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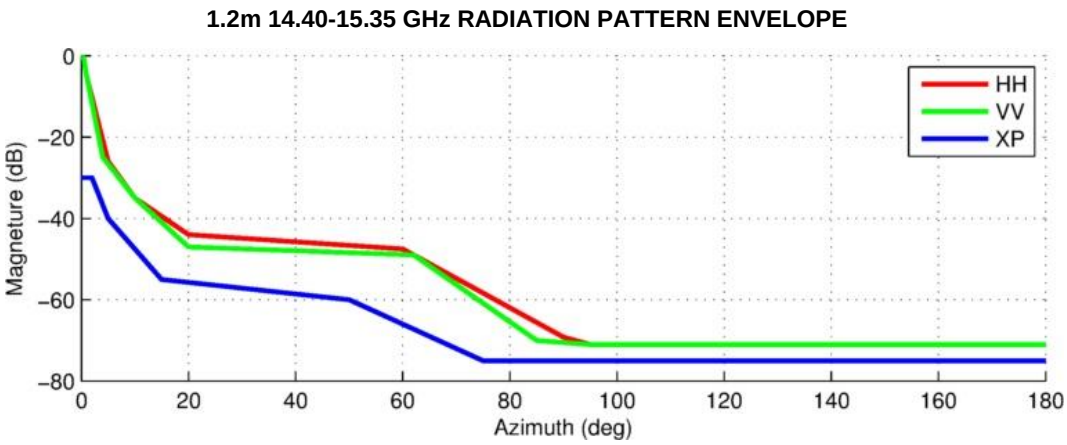
HV – Response of horizontally polarized port to a vertically polarized signal.

VH – Response of vertically polarized port to a horizontally polarized signal.

Am-4-15-CR



Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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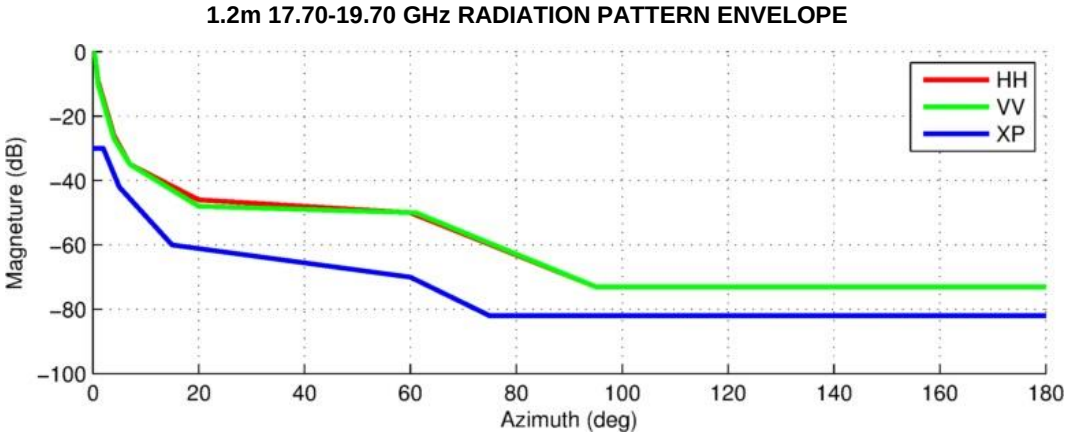
XP – HV/VH

HV – Response of horizontally polarized port to a vertically polarized signal.

VH – Response of vertically polarized port to a horizontally polarized signal.

Am-4-18-CR



Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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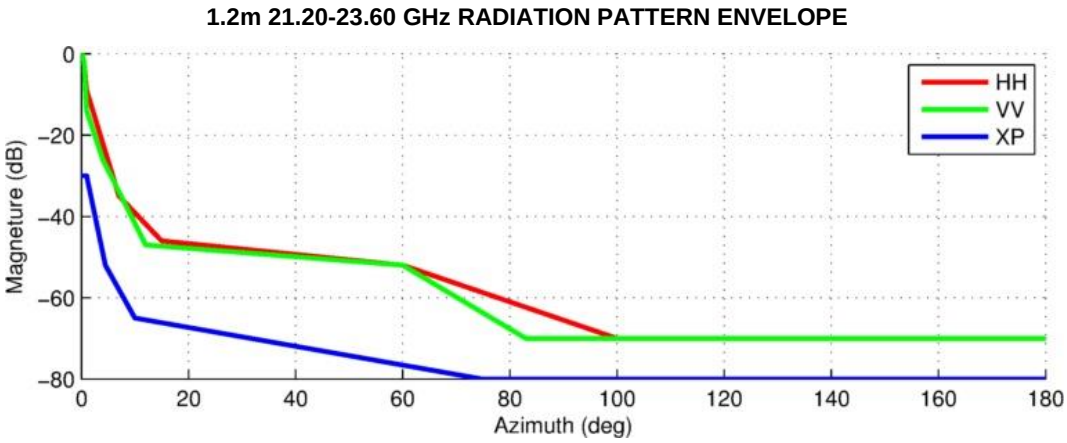
VV – Response of vertically polarized port to a vertically polarized signal.

XP – HV/VH

HV – Response of horizontally polarized port to a vertically polarized signal.

VH – Response of vertically polarized port to a horizontally polarized signal.

Am-4-23-CR



Radiation Pattern Envelope

Co-polar and Xp-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

HH – Response of horizontally polarized port to a horizontally polarized signal.

VV – Response of vertically polarized port to a vertically polarized signal.

XP – HV/VH

HV – Response of horizontally polarized port to a vertically polarized signal.

VH – Response of vertically polarized port to a horizontally polarized signal.

Am-4-26-CR