

# 0.6m(2ft) Low Profile Antennas Microwave Antenna Specifications

### **General Specifications**

CERVICION	Nominal diameter	0.6m (2ft )
	Polarization	Single, Vertical or Horizontal
	Radio interface	Direct Mount for RFU-C type ODU
	Antenna color	Gray (Pantone 1C)
	Radome color	Gray (Pantone 1C)
	Radome type	Hard cover
	Packing type	Carton
	Gross weight, kg	18 ±2
	Packed dimensions, mm	L x W x H : 750 x 750 x 440
	Packing Volume, m <sup>3</sup>	0.248

### **Electrical Specifications**

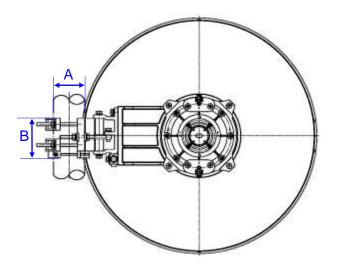
Antenna Marketing Model	Am-2-7_8-CR	Am-2-11W-CR	Am-2-13-CR	Am-2-15-CR	Am-2-18-CR
PN	AN-3320-1	AN-3310-1	AN-3311-1	AN-3312-1	AN-3313-1
Frequency Band (GHz)	7.125-8.500	10.000 - 11.700	12.750 - 13.250	14.400 - 15.350	17.700 - 19.700
Waveguide Interface	UBR84	UBR100	UBR120	UBR140	UBR220
Gain (dBi) Low	30.4	33.4	35.5	36.5	38.3
Gain (dBi) Mid	31.2	34.1	35.6	36.8	38.8
Gain (dBi) High	32.0	34.7	35.8	37.1	39.3
3 dB BW ( $^{\circ}$ )	4.5	3.2	2.7	2.4	1.9
VSWR	1.30	1.30	1.30	1.30	1.30
F/B Ratio (dB)	57	60	61	64	67
XPD (dB)	30	30	30	30	30
ETSI Compliance	R1, C3	R1, C3	R1, C3	R2, C3	R2, C3
RPE Number	BL10573	BL10578	BL10591	BL10614	BL10592

Antenna Marketing Model	Am-2-23-CR	Am-2-26-CR	Am-2-28-CR	Am-2-32-CR	Am-2-38-CR	Am-2-42-CR
PN	AN-3314-1	AN-3315-1	AN-3316-1	AN-3317-1	AN-3318-1	AN-3319-0
Frequency Band (GHz)	21.200 -23.600	24.000 - 26.500	27.500 - 29.500	31.800 - 33.400	37.000 -40.000	40.500 - 43.500
Waveguide	UBR220	UBR220	UBR320	UBR320	UBR320	UG383/U
Gain (dBi) Low	39.9	41.1	42.2	43.4	44.7	45.7
Gain (dBi) Mid	40.4	41.5	42.5	43.6	45.1	46.0
Gain (dBi) High	40.8	41.8	42.8	43.8	45.4	46.3
3 dB BW (°)	1.6	1.4	1.2	1.1	0.9	0.8
VSWR	1.30	1.30	1.30	1.30	1.30	1.30
F/B Ratio (dB)	64	67	68	61	63	65
XPD (dB)	30	30	30	30	30	30
ETSI Compliance	R3, C3	R4, C3	R4, C3	R5, C3B	R5, C3B	R5, C3B
RPE Number	BL10593	BL10594	BL10595	BL10596	BL10597	BL10612

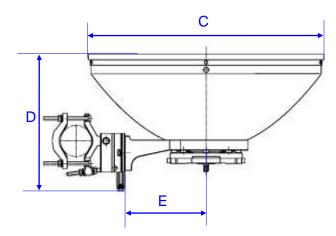
# **Mechanical Specifications**

Wind Velocity Operational, km/h	200
Wind Velocity Survival Rating, km/h	250
Ice Load, mm	25
Coarse Azimuth, Adjustment, Degrees	360
Fine Azimuth Adjustment, Degrees	±15
Coarse Elevation, Degree	±10
Fine Elevation Adjustment, Degrees	±15
Mounting Pipe Diameter, mm	51 to 114
Net weight, kg	11±1
Feed horn, OperationalPressure, KPa	50
Operational Temperature, °C	-45 to +60
Storage Temperature, °C	-55 to +70
Adjustment Struts	None
Fixed Support Struts	None
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.
RoHS 2002/95/EC	Compliant

## **Outline Dimensions**



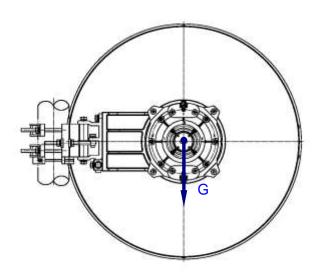
Antenna Dimensions, mm		
А	51 to 114	
В	154	
С	680	
D	396	
E	235	

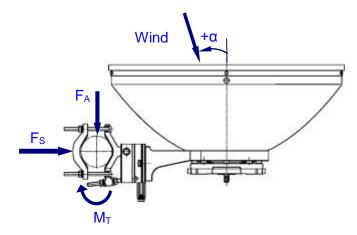


### Wind Forces

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 <sub>A</sub> ), N	1370
Side Force (Fs), N	670
Twisting Moment (M <sub>T</sub> ), N•m	530
Angle $\alpha$ for $M_T$ Max, Degree	-10





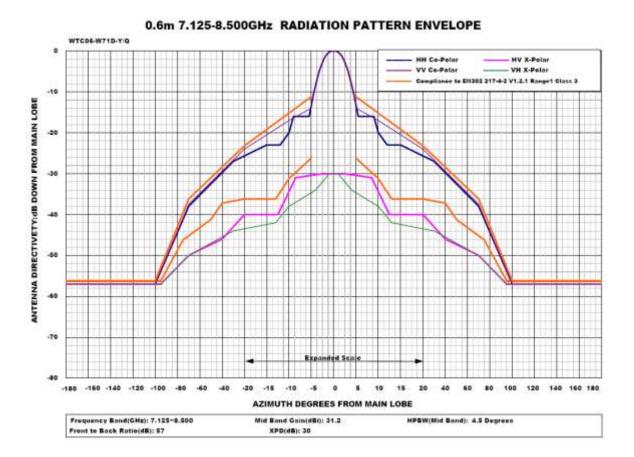
Co-polar and X-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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

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

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

Am-2-7\_8-CR



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

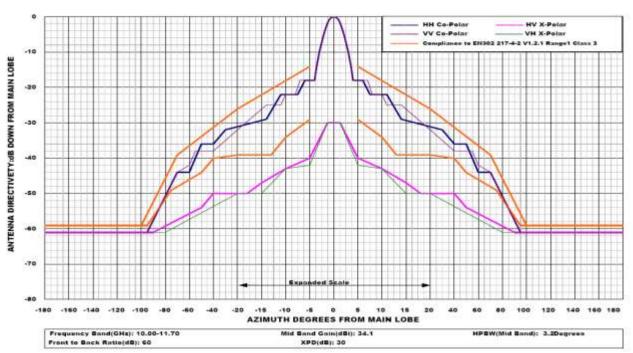
HH – Response of horizontally polarized port to a horizontally polarized signal.

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

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

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

#### Am-2-11W-CR



#### 0.6m 10.00-11.70GHz RADIATION PATTERN ENVELOPE

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

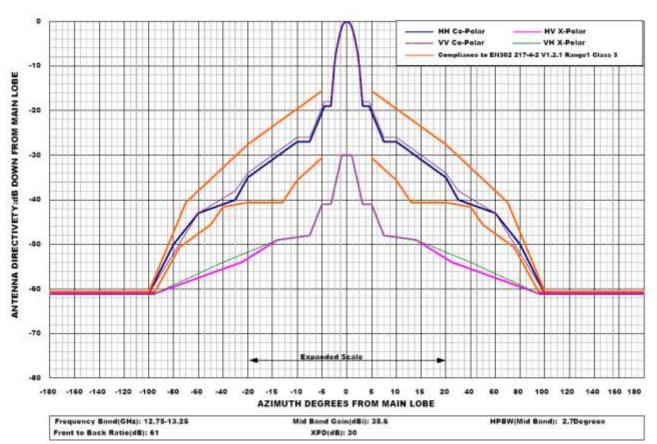
HH – Response of horizontally polarized port to a horizontally polarized signal.

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

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

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

#### Am-2-13-CR



0.6m 12.75-13.25GHz RADIATION PATTERN ENVELOPE

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

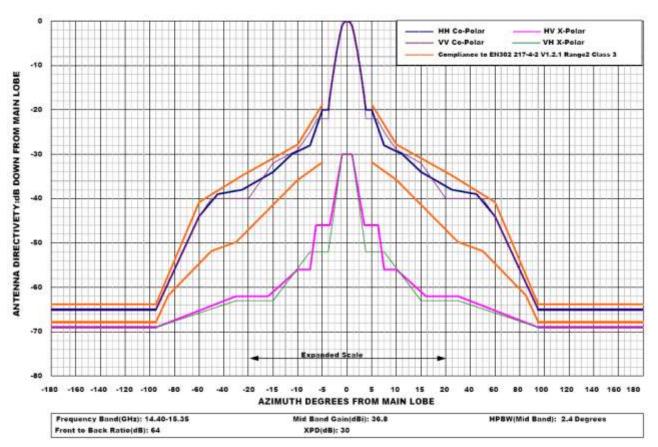
HH – Response of horizontally polarized port to a horizontally polarized signal.

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

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

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

Am-2-15-CR



0.6m 14.40-15.35GHz RADIATION PATTERN ENVELOPE

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

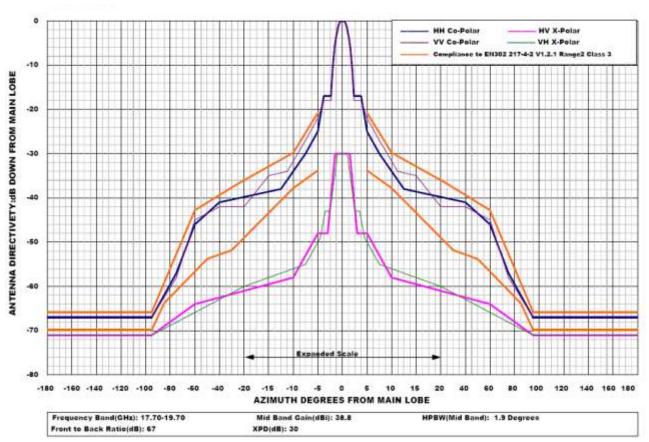
HH – Response of horizontally polarized port to a horizontally polarized signal.

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

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

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

Am-2-18-CR



0.6m 17.70-19.70GHz RADIATION PATTERN ENVELOPE

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

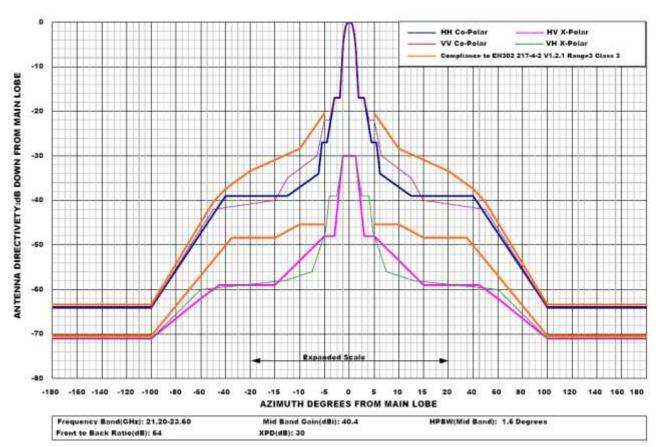
HH – Response of horizontally polarized port to a horizontally polarized signal.

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

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

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

#### Am-2-23-CR



0.6m 21.20-23.60GHz RADIATION PATTERN ENVELOPE

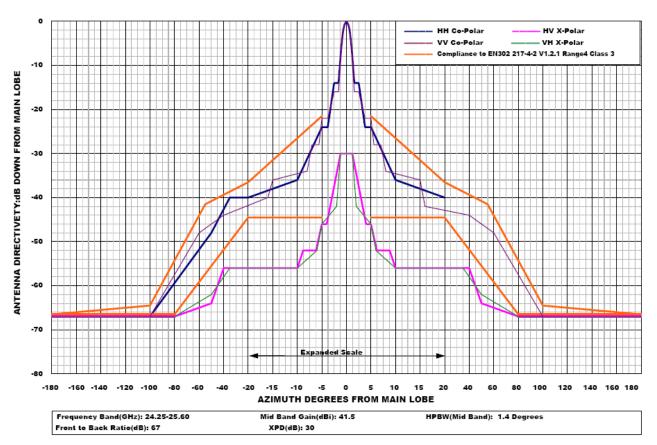
Co-polar and X-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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

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

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

Am-2-26-CR



0.6m 24.25-26.50GHz RADIATION PATTERN ENVELOPE

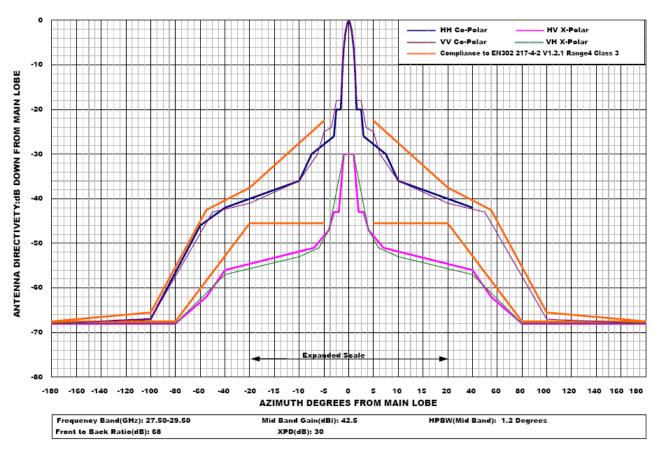
Co-polar and X-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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

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

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

Am-2-28-CR



0.6m 27.50-29.50GHz RADIATION PATTERN ENVELOPE

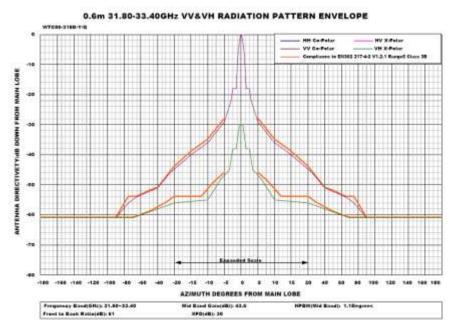
Co-polar and X-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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

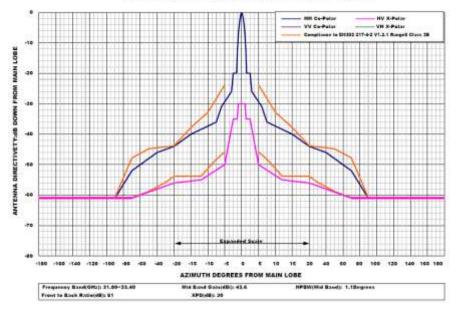
HV – Response of horizontally polarized port to a vertically polarized signal.

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

Am-2-32-CR







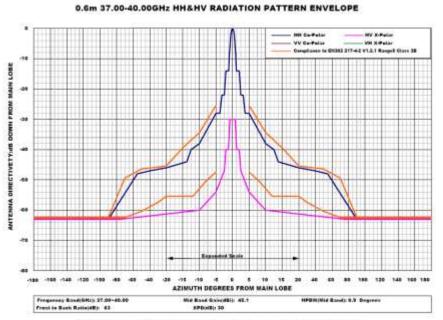
Co-polar and X-polar response are represented for both horizontal and vertical polarizations. The curves are identified as follows:

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

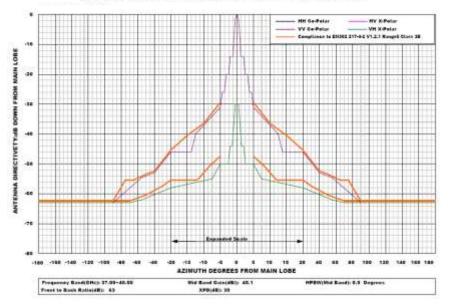
HV – Response of horizontally polarized port to a vertically polarized signal.

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

Am-2-38-CR







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

- HV Response of horizontally polarized port to a vertically polarized signal.
- VV Response of vertically polarized port to a vertically polarized signal.
- VH Response of vertically polarized port to a horizontally polarized signal.

