

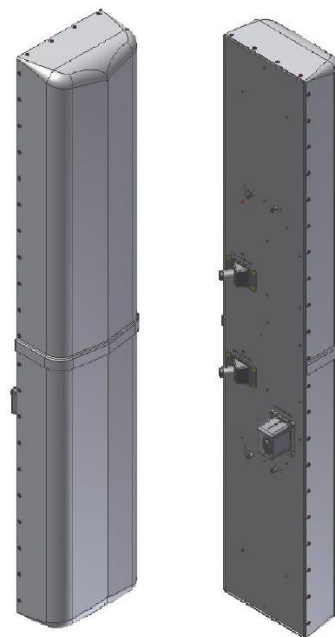
X-Pol antenna, 1700–2170 MHz

45° azimuth

Variable electrical tilt

RET/MET

- Broad band radiator
- Macro cell high gain antenna
- Suitable for LTE/CDMA/UMTS/GSM
- AISG v2.0 RET or manual (MET) tilt control



## ELECTRICAL SPECIFICATIONS

Frequency band, MHz	1710-1880	1850-1990	1920-2170
Horizontal beamwidth, 3 dB points	50°	44°	44°
Gain, dBi	18.3	18.5	18.9
Vertical beamwidth, 3 dB points	5.9°	5.7°	5.4°
Front-to-back at 180°, dB	29		
Upper sidelobe suppression, typical, dB	<-18		
Polarization	+/-45°		
Electrical down tilt	0-6° or 4-10°		
VSWR/return loss, dB, maximum	1.5:1/-14.0		
Isolation between ports, dB, minimum	-23		
Intermodulation (2 x 20 w), IM3, dBc, maximum	-150		
Impedance, ohms	50		
Maximum power per connector, CW @ 800 MHz	250		
Lightning protection	DC ground		

**MECHANICAL SPECIFICATIONS**

Dimensions, length/width/depth	72/12.5/7.3 in. (1829/318/180 mm)
Connector (quantity) type	(2) 7-16 DIN female
Connector torque	220-265 lbf·in (25-30 N·m)
Connector location	Back
Antenna weight	29 lbs estimated
Bracket weight	13.2 lbs (6.0 kg)
Standard bracket kit	Part #919011 (included)
Mechanical down tilt range	0-12°
Radome material	High strength Luran®, UV stabilized, ASTM D1925
Wind survival	150 mph (241 km/h)
Front wind load	181.3 lbf (806.7 N) @ 100 mph
Equivalent flat plate	3.61 sq ft (c=2) @ 100 mph

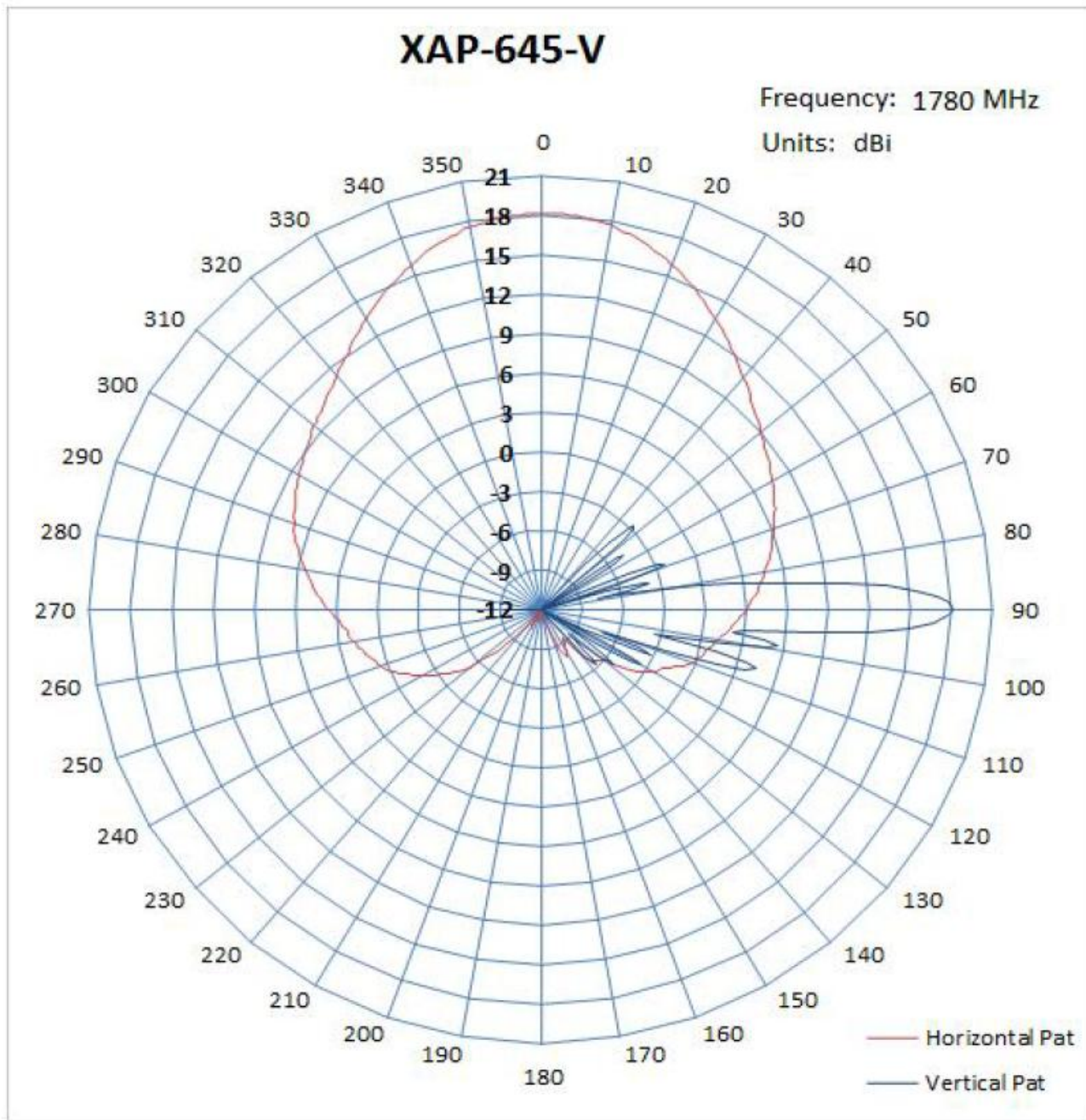
**RET INFORMATION**

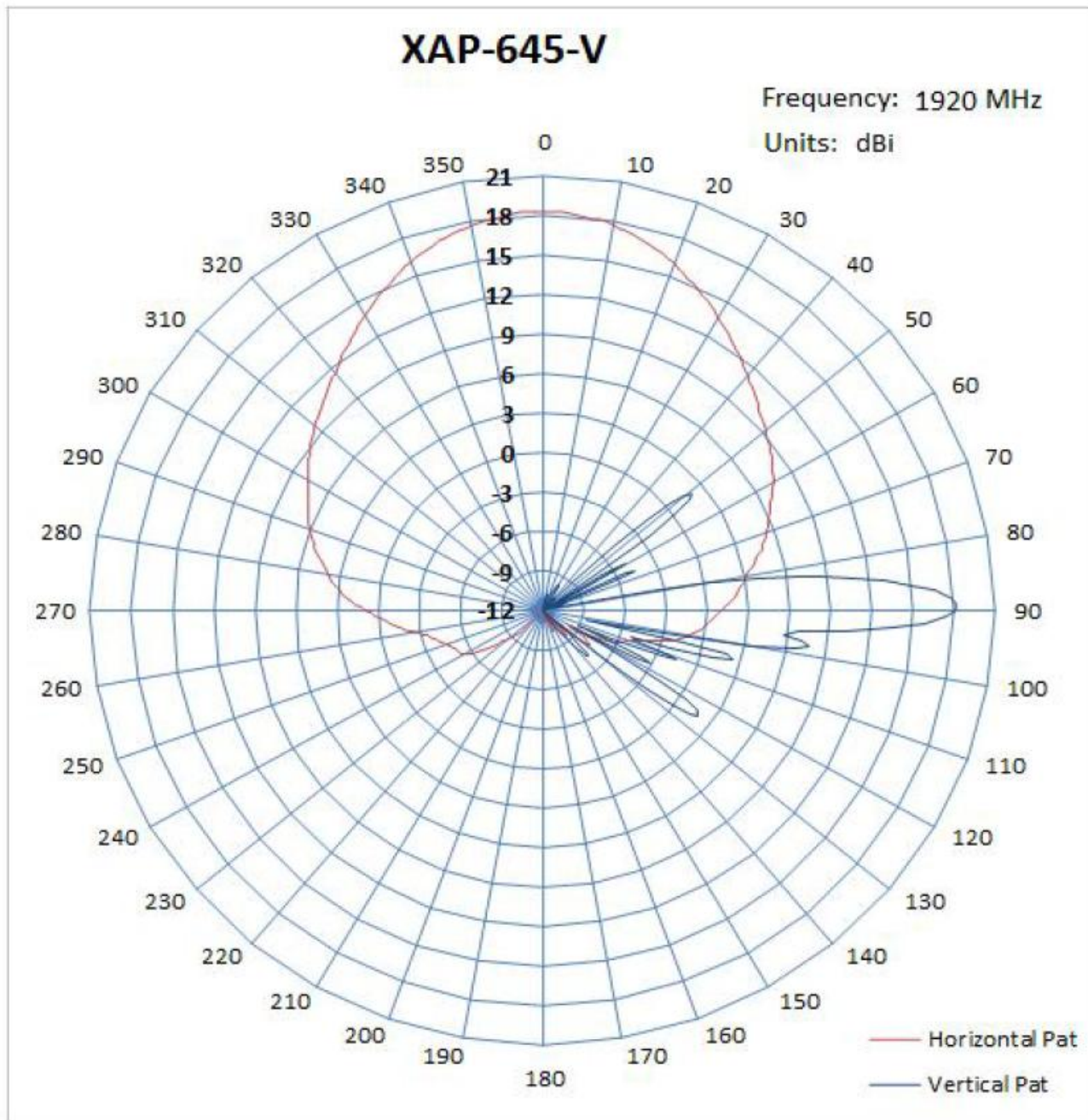
Model	RET-200
Mounting location	Rear of antenna
Weight	1.2 lbs (0.54 kg)
Communication standard	AISG 2.0
Control system	PCU-220

**ORDER INFORMATION**

MODEL	DESCRIPTION
XAP-645-VRO	X-Pol antenna with motor for remote electrical tilt (RET) range of 0-6°
XAP-645-VR4	X-Pol antenna with motor for remote electrical tilt (RET) range of 4-10°

### Patterns measured @ 1780 MHz

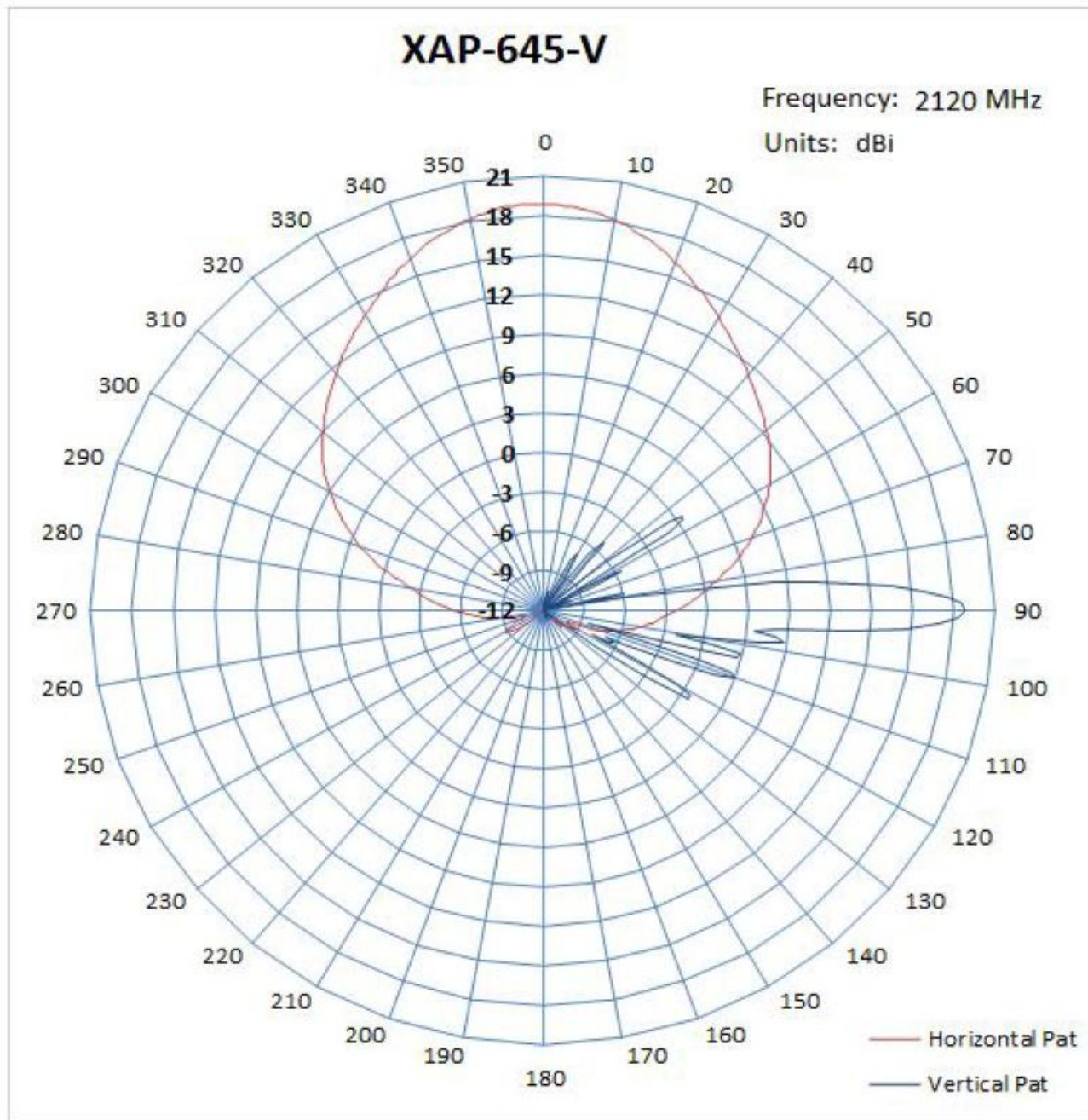


**Patterns measured @ 1920 MHz**

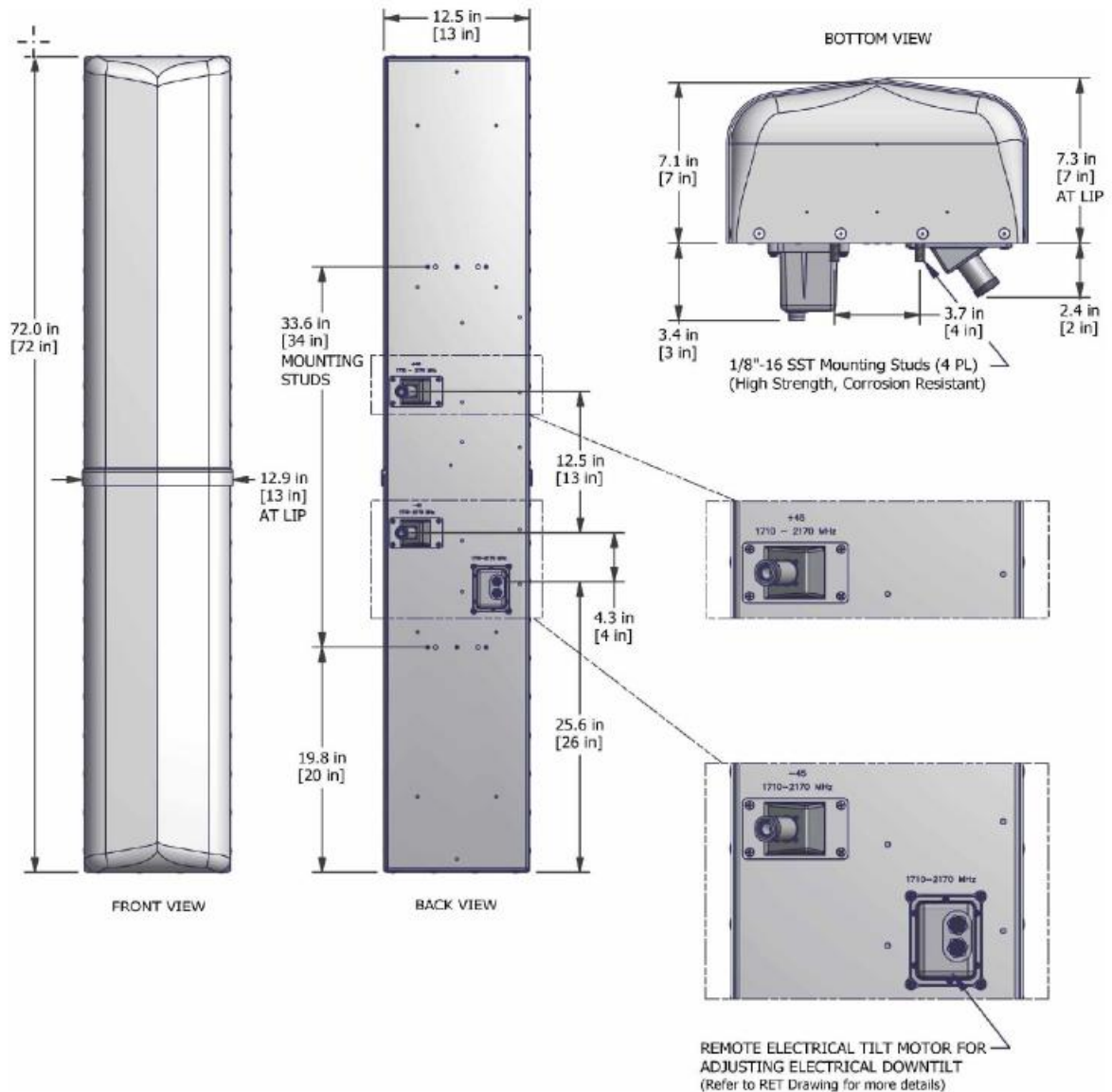
Center = -12 dB, with 3 dB/radial division and 10° angular division



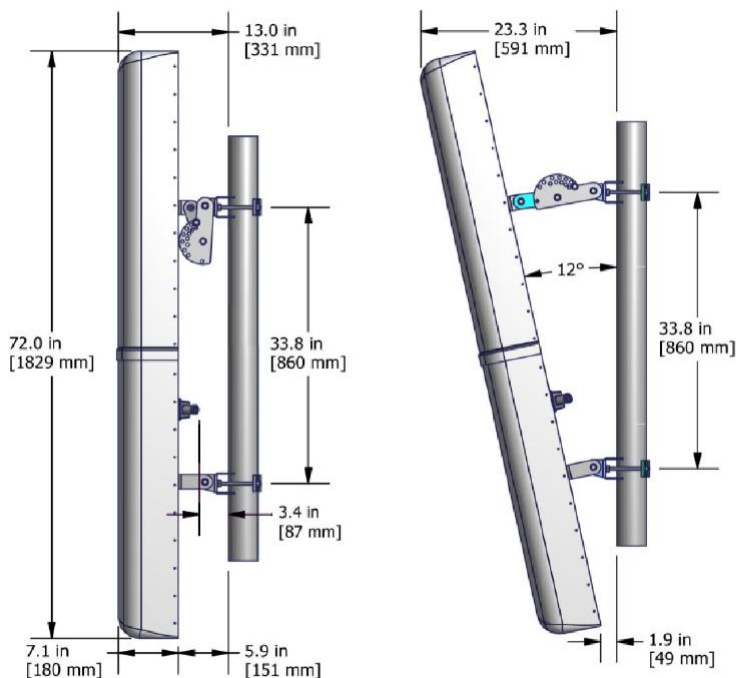
### Patterns measured @ 2120 MHz



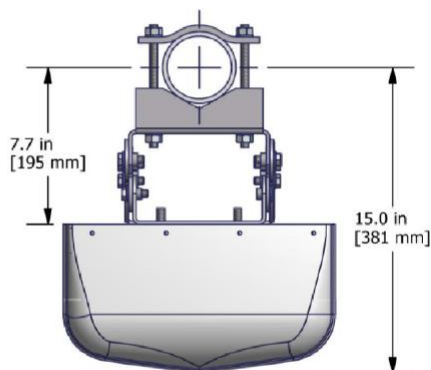
Center = -12 dB, with 3 dB/radial division and 10° angular division

**Mechanical outline drawing****XAP-645-VR**

## Standard bracket kit

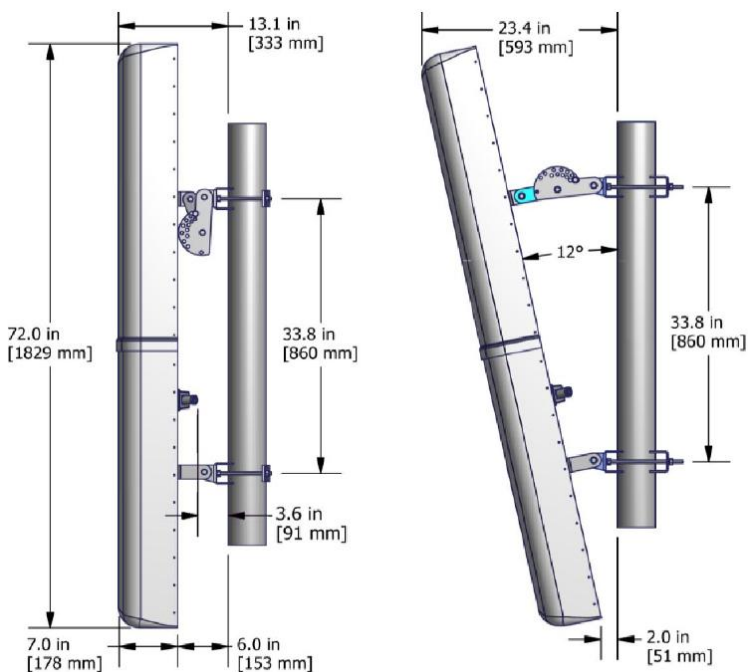


STANDARD (0-12 DEG MDT)  
CSS P/N: 919011  
(SHOWN MOUNTED ON 3.5" O.D. POLE 3.5" O.D. MAX)

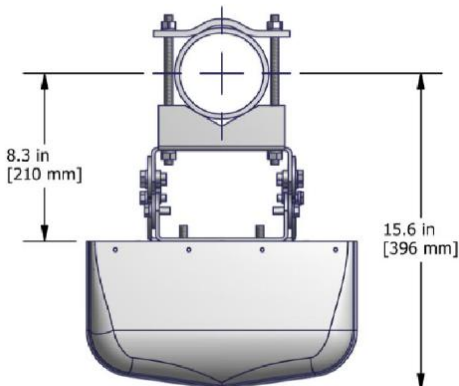


NOTE: DIMENSIONS ARE FOR REFERENCE ONLY.  
MAY VARY WITH POLE O.D.

## Optional bracket kit



OVERSIZED (0-12 DEG MDT)  
CSS P/N: 919036  
(SHOWN MOUNTED ON 4.5" O.D. POLE 4.5" O.D. MAX)



NOTE: DIMENSIONS ARE FOR REFERENCE ONLY.  
MAY VARY WITH POLE O.D.