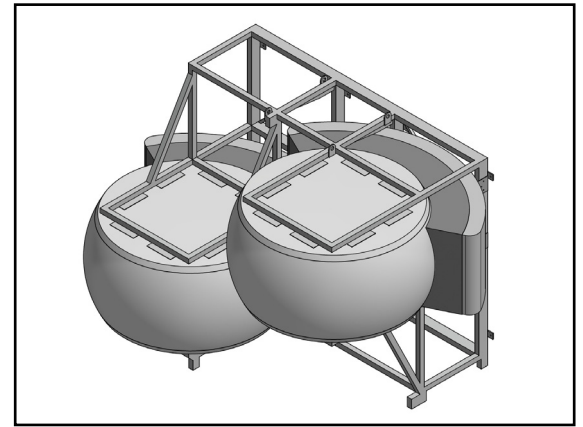


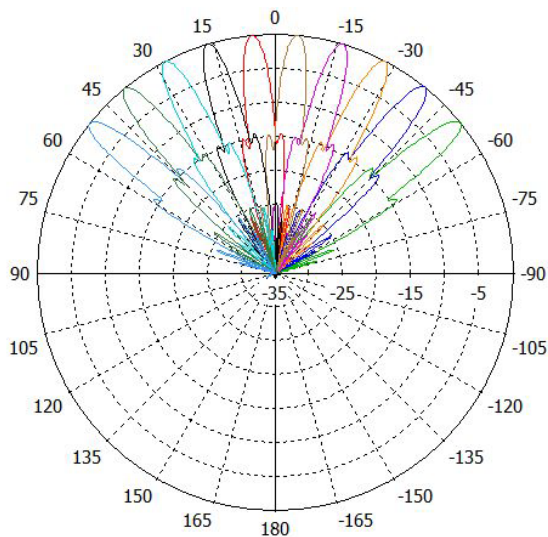
MS-10.10.10DBA180

Multi-Beam Dual Band Spherical Lens Antenna: 10 independent low frequency (698-960MHz) cross-polarized beams and 10 independent high-frequency (1695-2690MHz) cross-polarized beams (each lens has independent high frequency beams providing 4 ports for 4X4 MIMO or multiple base stations).

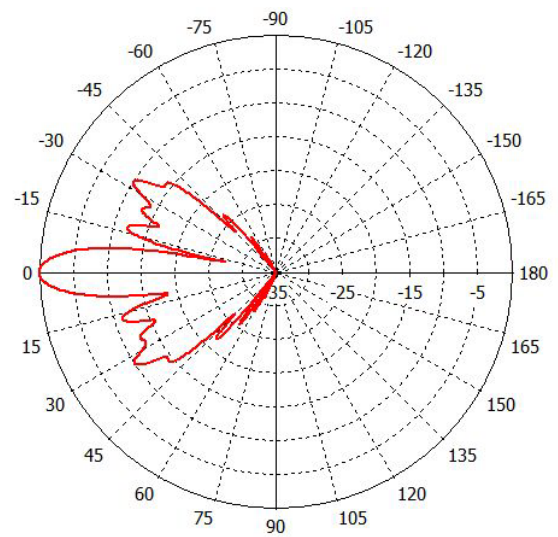


PATTERN RESULTS:

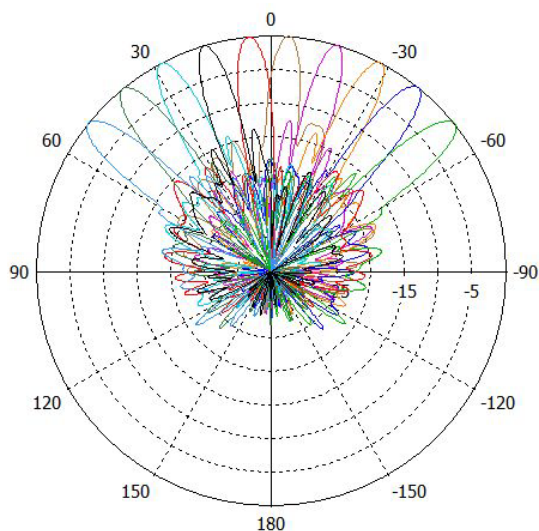
High-Band Horizontal Pattern (1950MHz)



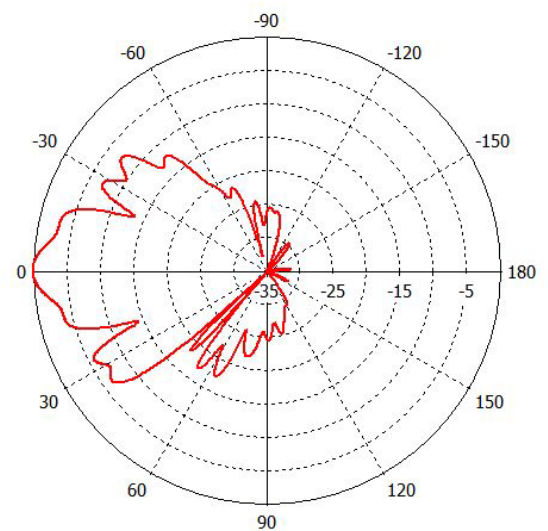
High-Band Vertical pattern (1950MHz)



Low-Band Horizontal Pattern (850MHz)



Low-Band Vertical Pattern (850MHz)



TECHNICAL SPECIFICATIONS PER BEAM

Frequency	698-960 MHz	1695-2690 MHz
Gain	19dBi	26dBi
VSWR	<1.5:1	<1.5:1
Polarization	Dual Slant $\pm 45^\circ$	Dual Slant $\pm 45^\circ$
Horizontal Coverage	100°	100°
Horizontal Beamwidth (10dB level): Central Beams Side Beams	10° $\pm$ 1.5° 15° $\pm$ 1.5°	10° $\pm$ 1.5° 14° $\pm$ 1.5°
Vertical Beamwidth (10dB level)	40°	25°
Beam Cross-over	10dB typical	10dB typical
Total Number of Beams	10	10 (4 ports/beam)
Tilt	0°	0°
First Sidelobe Level	<-16dB	<-16dB
Front to Back Ratio	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB
Isolation Port to Port - Beam	>28dB	>26dB
Power Rating	250W per port	250W per port
Intermodulation	<-153dBc	<-153dBc
Impedance	50 ohm	50 ohm
Connector Quantity and Type	20 X 4.3-10 female	40 X 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	Two Truncated Lenses: Spherical Lens Diameter: 180cm/70inch
	Spherical Lens Height: 80cm/31inch
	Antenna dimensions: 219.7 x 391.6 x 220.9 cm 86.5 x 154.2 x 87 inch
Antenna Weight	476 kg 1049.4 lbs
Radome Material	Fiber Glass
Mounting	4 position pipe mount Compatible pipe diameter: 6.1 – 11.4 cm 2.4 – 4.5 inch

ENVIRONMENTAL RATINGS

Humidity	95% RH @ +30°C
Temperature	-40°C to +70°C
Wind load:	@ 160km/hr
Front	5868N/1319lbf
Side	4760N/1070lbf
Back	6547N/1471lbf

SAMPLE CONNECTOR LAYOUT:

