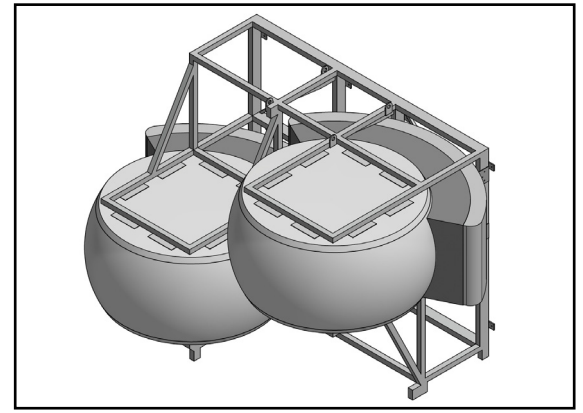


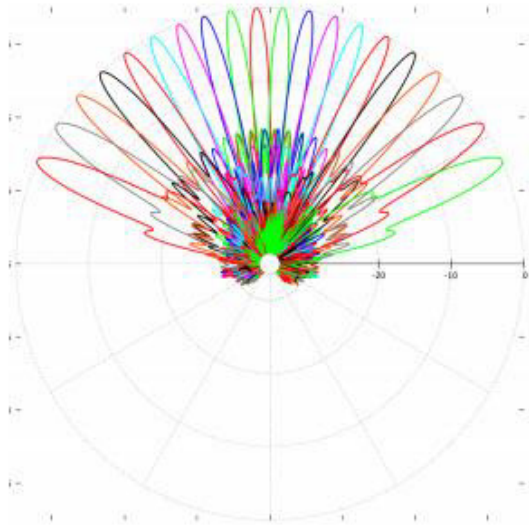
MS-20.10DBA 180-T

Multi-Beam Dual Band Spherical Lens Antenna: 10 independent low frequency (617-896MHz) cross-polarized beams and 20 independent high-frequency (1695-2690MHz) cross-polarized beams.

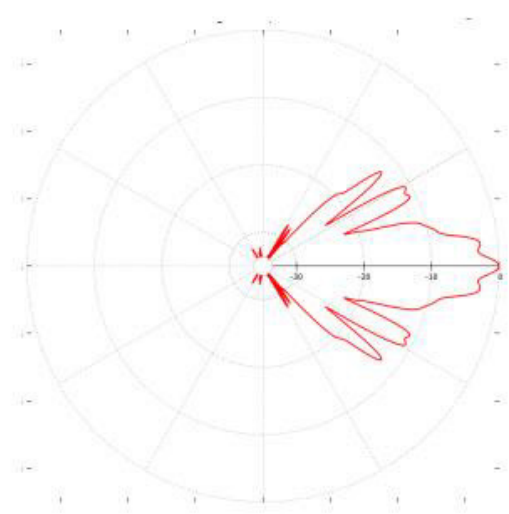


PATTERN RESULTS:

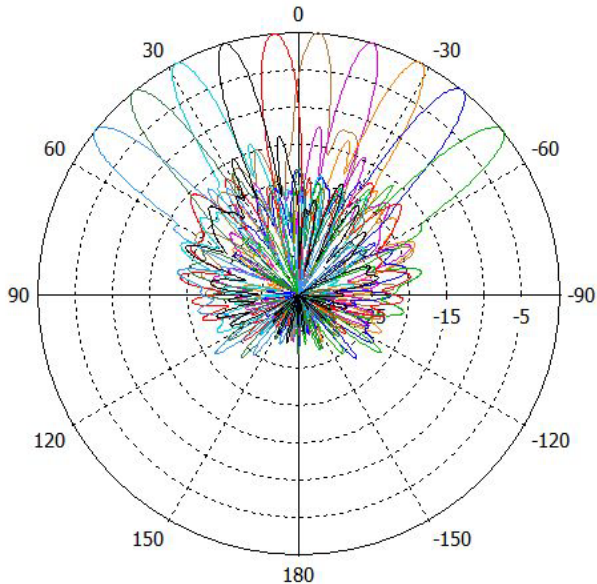
High-Band Horizontal Pattern (1950MHz)



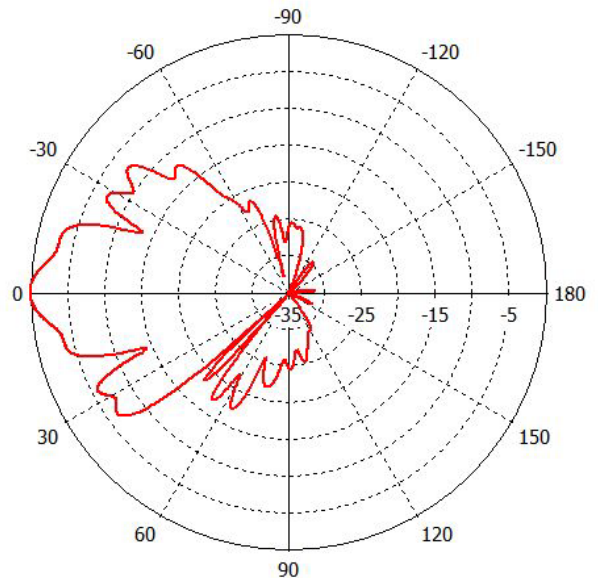
High-Band Vertical pattern (1950MHz)



Low-Band Horizontal Pattern (700MHz)



Low-Band Vertical Pattern (700MHz)



TECHNICAL SPECIFICATIONS PER BEAM

Frequency	617-896 MHz	1695-2690 MHz
Gain	18dBi	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)	10°	5°
Horizontal Beamwidth (3dB level)	6°	3°
Vertical Beamwidth (10dB level)	40°	16°
Vertical Beamwidth (3dB level)	25°	9°
Beam Cross-over	10dB typical	10dB typical
Total Number of Beams	10	20
Tilt	0°	0°
First Sidelobe Level	<-15dB	<-15dB
Front to Back Ratio	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB
Isolation Port to Port - Beam	>28dB	>26dB
Power Rating	200W per port	200W per port
Total Applied Power	$\leq 2.5\text{KWatts}$	
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
	Antenna dimensions: 219.7 x 391.6 x 220.9 cm 86.5 x 154.2 x 87 inch
Antenna Weight	522 kg 1150.8 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:

