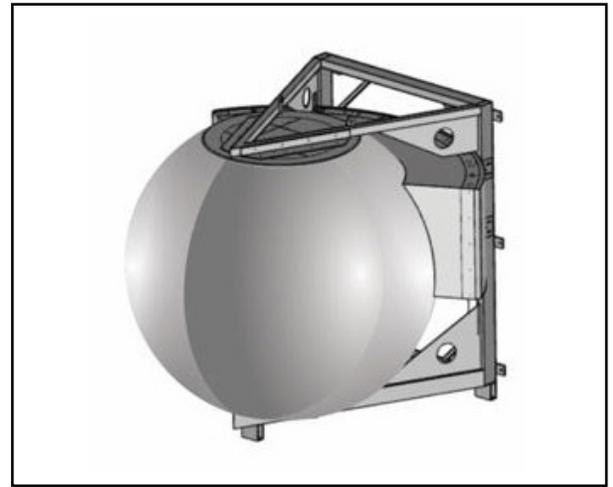


MS-8.4DB120

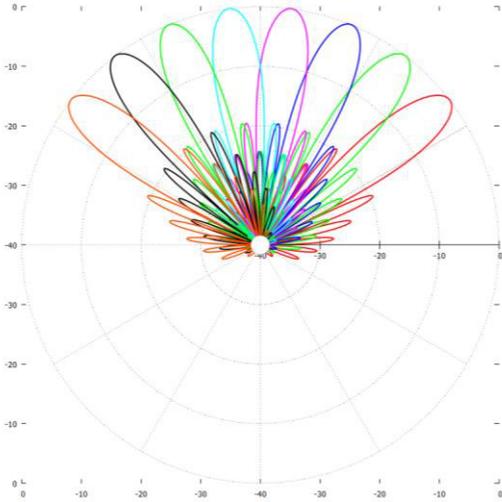
Multi-Beam Dual Band Spherical Lens Antenna: 4 independent low frequency (698 - 960MHz) cross-polarized beams and 8 independent high-frequency (1695-2690MHz) cross-polarized beams. High-band tilt range = 0-15° & Low-band tilt range = 7.5-22.5° for each sector. The sector consists of 1 low-band beam and 2 high band beams.

External RET Controller Part # MS-EXT-RET-8.4

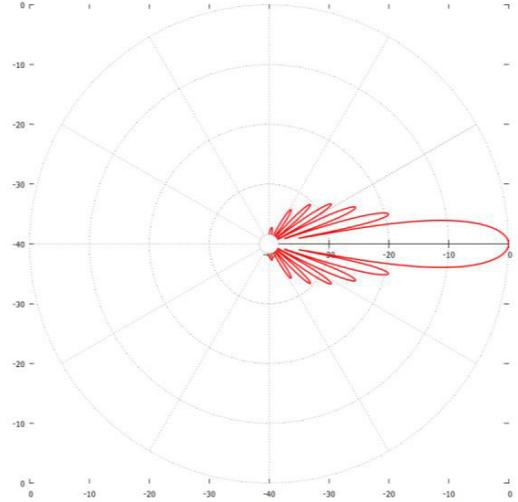


PATTERN RESULTS:

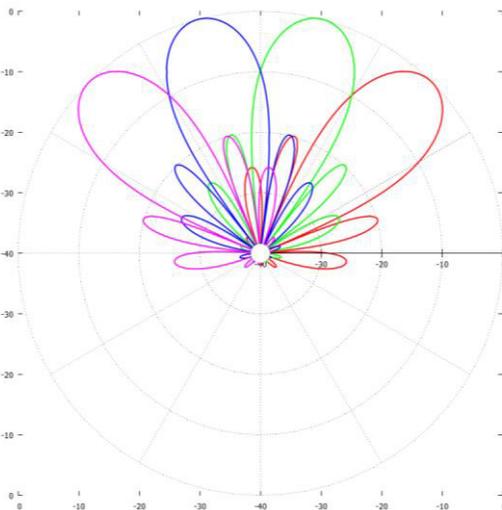
High-Band Horizontal Pattern (1.80GHz)



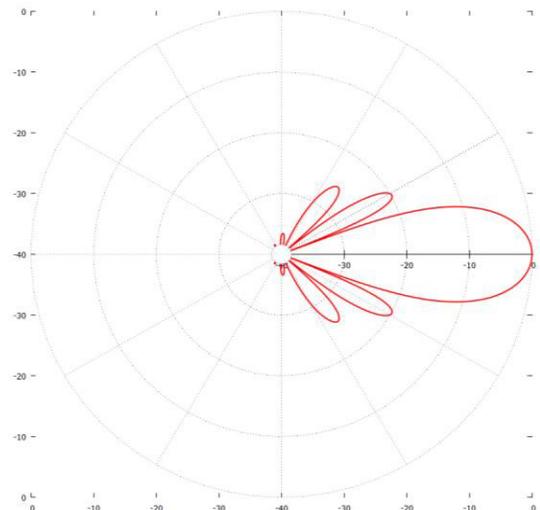
High-Band Vertical pattern (1.80GHz)



Low-Band Horizontal Pattern (0.85GHz)



Low-Band Vertical Pattern (0.85GHz)



TECHNICAL SPECIFICATIONS PER BEAM

Frequency	698-960 MHz	1695-2690 MHz
Gain	19dBi	24dBi
VSWR	<1.5:1	<1.5:1
Polarization	Dual Slant ±45°	Dual Slant ±45°
Horizontal Coverage	120°	120°
Horizontal Beamwidth (10dB level)	30°	15°
Horizontal Beamwidth (3dB level)	17°	8.5°
Vertical Beamwidth (10dB level)	30°	15°
Vertical Beamwidth (3dB level)	17°	8.5°
Beam Cross-over	10dB typical	10dB typical
Total Number of Beams	4	8
Manual Adjustable Tilt per 30° sector (each sector having 2 high-band beams and 1 low-band beam)	7.5° to 22.5°	0° to 15°
Sidelobe level	<-15dB	<-16dB
Front to Back Ratio	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB
Isolation Port to Port - Beam	>26dB	>28dB
Power Rating	250W per port	250W per port
Intermodulation	<-153dBc	<-153dBc
Impedance	50 ohm	50 ohm
Connector Quantity and Type	8 x 4.3-10 female	16 x 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	Spherical Lens diameter: 120cm/47inch Antenna dimensions: 128 X 145.6 X 143 cm 50.46 X 57.35 X 56.36 inch
Antenna Weight	87.1 kg 192 lbs
Radome Material	Fiber Glass
Mounting	Standard 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 (Front)	959 N @ 151 km/hr 216 lbf @ 151 km/hr

CONNECTOR LAYOUT:

