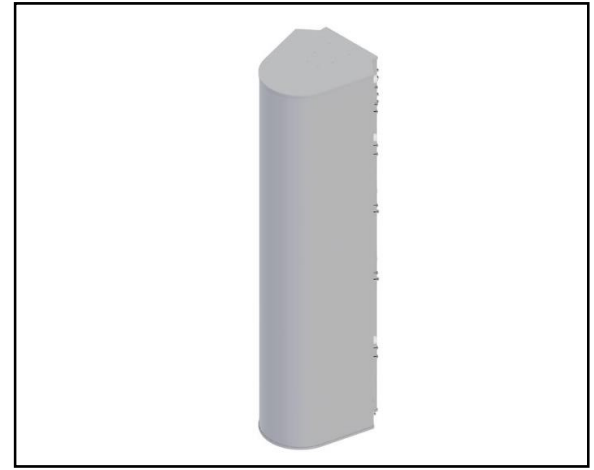


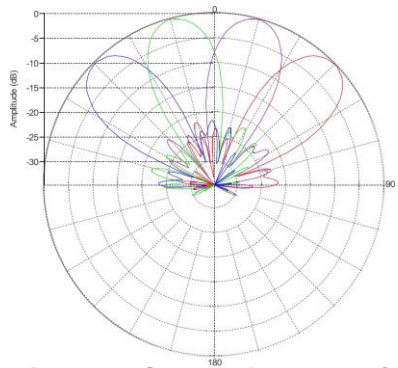
MS-MBA-4.4.2-F4-H4-L4

Lens Technology Enabled™ Multi-Beam Tri Band Base-Station Antenna utilizes a patented spherical lens design with 4 isolated F Band (3300MHz - 4200MHz) cross-polarized beams, 4 isolated High Band (1695MHz – 2690MHz) cross-polarized beams and 2 isolated Low Band (698MHz – 960MHz) beams, each beam has 4 ports to support 4X4 MIMO. RET for F Band & High Band Beams 0°-20°. RET for Low Band Beams 0°-40°.

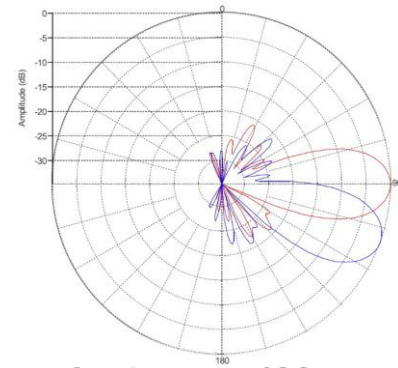


PATTERN RESULTS:

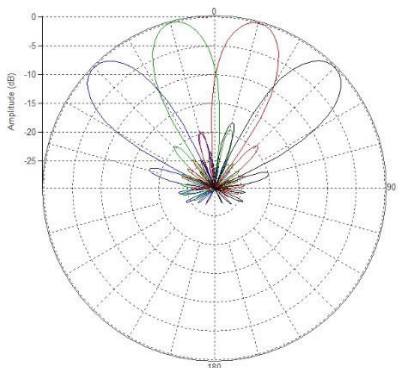
F-Band Horizontal Pattern (3.6GHz)



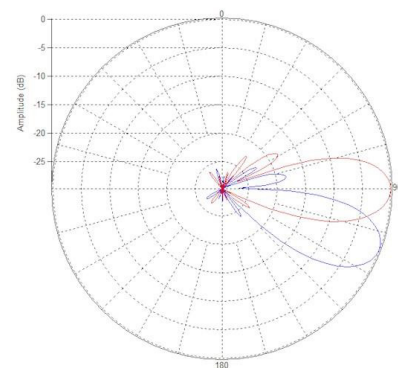
F-Band Vertical pattern (3.6GHz) at tilt 0° and 20°



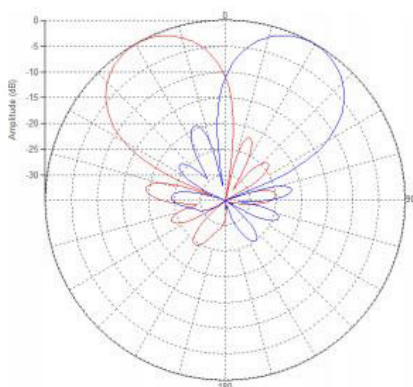
High-Band Horizontal Pattern (1.92GHz)



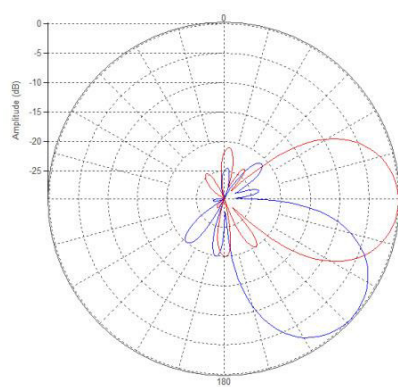
High-band Vertical Pattern (1.92GHz) at tilt 0° and 20°



Low-Band Horizontal Pattern (0.8GHz)



Low-band Vertical Pattern (0.8GHz) at tilt 0° and 40°



PRELIMINARY

TECHNICAL SPECIFICATIONS PER BEAM

Frequency	3300-4200 MHz	1695-2690 MHz	698-960 MHz
Gain	19dBi	19.5dBi	13.5dBi
VSWR	<1.5:1	<1.5:1	<1.5:1
Polarization	Dual Slant ±45°	Dual Slant ±45°	Dual Slant ±45°
Horizontal Coverage	120°	120°	120°
Horizontal Beamwidth (10dB)	34°	30°	60°
Horizontal Beamwidth (3dB)	19°	17°	34°
Vertical Beamwidth (10dB)	34°	30°	60°
Vertical Beamwidth (3dB)	19°	17°	34°
Beam Cross-over	7dB typical	10dB typical	10dB typical
Total Number of Beams	4	4	2
Number of Ports per Beam	4	4	4
Number of Ports Total	16	16	8
Tilt Per Cross-Pol; Remote Electrical Tilt (AISG 2.0)	0° - 20°	0° - 20°	0° - 40°
First Sidelobe Level	<-16dB	<-16dB	<-16dB
Front to Back Ratio	>28dB	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB	>28dB
Isolation Port to Port - Beam	>28dB	>28dB	>28dB
Power Rating	150W per port	150W per port	150W per port
Intermodulation	<-153dBc	<-153dBc	<-153dBc
Impedance	50 ohm	50 ohm	50 ohm
Connector Quantity and Type	16 x 4.3-10 female	16 x 4.3-10 female	8 x 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	241.8 x 61.7 x 72 cm 95.2 x 24.3 x 28.4 inch
Antenna Weight	71.2kg/157lbs [w/o Bracket] 72.8kg/160.5lbs [w/Bracket]
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 @150km/hr	N/lbf Frontal: 1050/236.1 Lateral: 1631/366.7 Rear: 1232/277