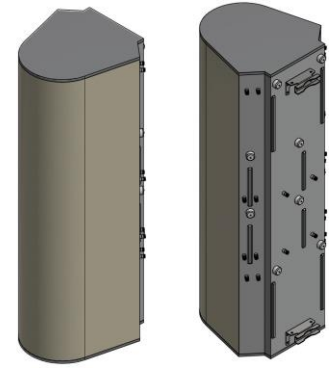


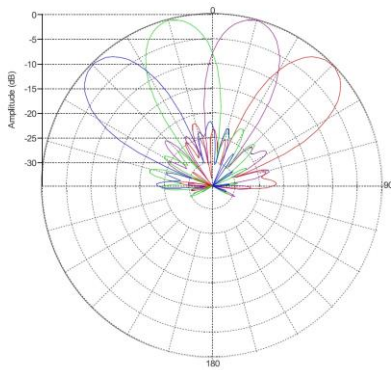
MS-MBA-4.4.2-C4-H2-L2

Lens Technology Enabled™ Multi-Beam Tri Band Base-Station Antenna utilizes a patented spherical lens design with 4 isolated C Band (3.7GHz – 4.2GHz) cross-polarized beams, 4 isolated High Band (1695MHz – 2690MHz) cross-polarized beams and 2 isolated Low Band (698MHz – 960MHz) beams. Each C-Band and H-Band beams have 4 ports per beam to support 4x4 MIMO. Each L-Band beam has 2 ports to support 2x2 MIMO. RET for C Band & High Band Beams 0°-20°. RET for Low Band Beams 0°-40°

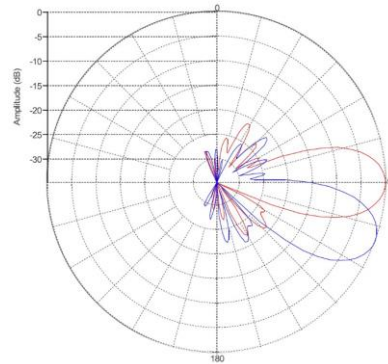


PATTERN RESULTS:

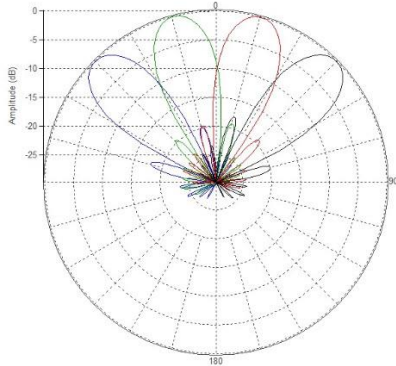
C-Band Horizontal Pattern (3.7GHz)



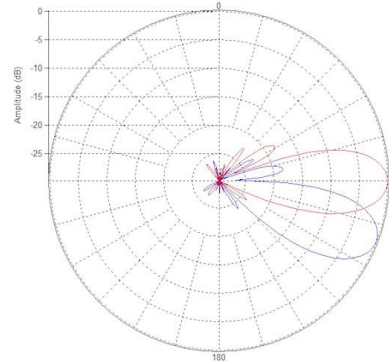
C-Band Vertical Pattern (3.7GHz) at tilt 0° and 20°



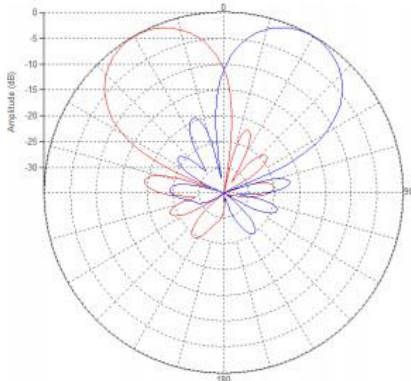
High-Band Horizontal Pattern (1.92GHz)



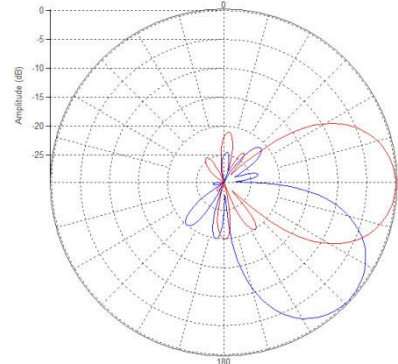
High-Band Vertical Pattern (1.92GHz) at tilt 0° and 20°



Low-Band Horizontal Pattern (0.8GHz)



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



TECHNICAL SPECIFICATIONS

Frequency	3.7 - 4.2GHz	1695 - 2690MHz	698 – 960MHz
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	8dB typical	10dB typical	10dB typical
Total Number of Beams	4	4	2
Number of Ports per Beam	4	2	2
Number of Ports Total	16	8	4
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	8 x 4.3-10 female	4 x 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	164 x 62 x 63.5 cm
	64 x 24 x 25 inch
Antenna Weight	50 kg
	110 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 @150km/hr	Frontal: 686N/154.2lbf
	Lateral: 930N/209.1lbf