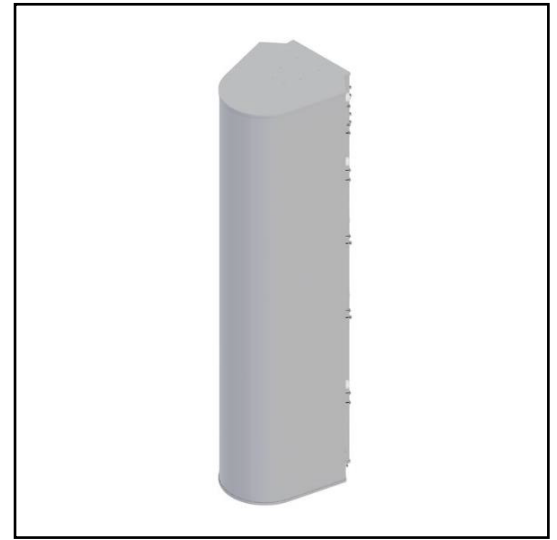


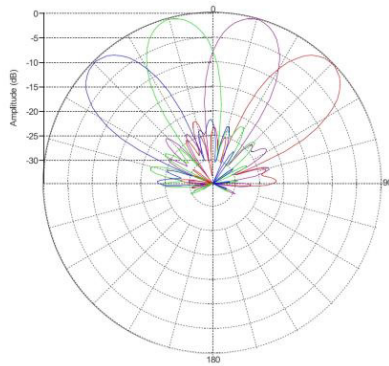
MS-MBA-4.4.2-B4-H4-L4

Lens Technology Enabled™ Multi-Beam Tri Band Base-Station Antenna utilizes a patented spherical lens design with 4 isolated CBRS Band (3500 MHz - 3700 MHz) cross-polarized beams, 4 isolated High Band (1695 MHz - 2690 MHz) cross-polarized beams and 2 isolated Low Band (698MHz - 960MHz) beams, each beam has 4 ports to support 4X4 MIMO. RET for all bands is 0-20 deg.

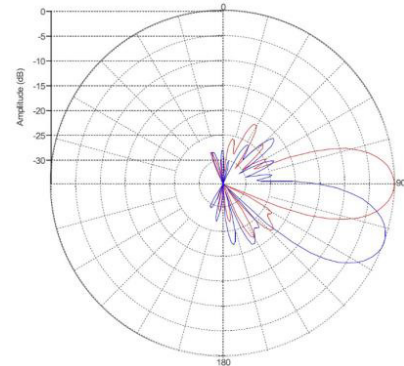


PATTERN RESULTS:

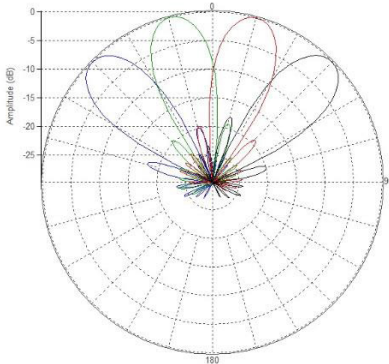
B-Band Horizontal Pattern (3.6GHz)



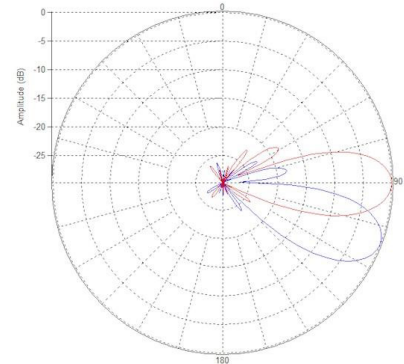
B-Band Vertical pattern (3.6 GHz) at tilt 0° and 20°



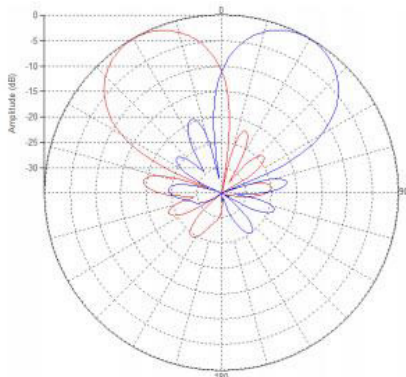
High-Band Horizontal Pattern (1.92GHz)



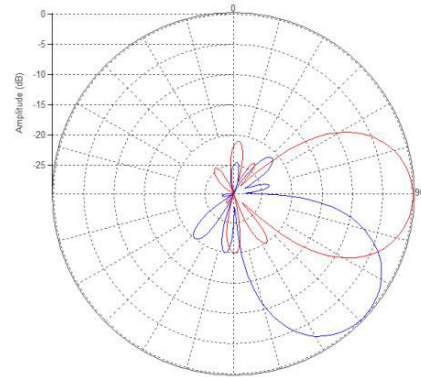
High-band Vertical Pattern (1.92GHz) at tilt 0° and 20°



Low-Band Horizontal Pattern (0.8GHz)



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



PRELIMINARY

TECHNICAL SPECIFICATIONS PER BEAM

Frequency	3500-3700 MHz	1695-2690 MHz	698-960 MHz
Gain	18dBi	19dBi	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
RET	0° - 20°	0° - 20°	0° - 20°
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	92 kg 202.8 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: 1050N/263lbf Lateral: 1406/316lbf