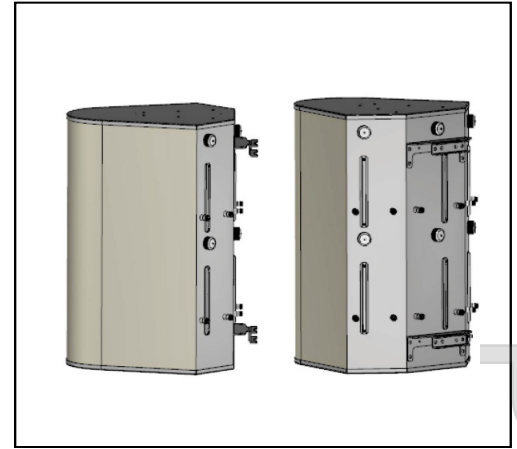


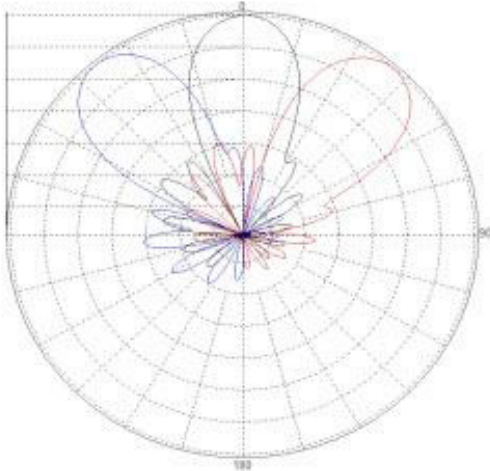
MS-MBA-5.3-C4-H4

Lens Technology Enabled™ Multi-Beam Base-Station Antenna perfect for nine to fifteen sector LTE cell site deployment, utilizes a patented spherical lens design with 3 isolated high-frequency (1695-2690MHz) cross-polarized beams, each beam has 4 ports for two independent antennas, or 4X4 MIMO. This antenna is also capable of 5 isolated C-Band Frequency (3700 - 4200 MHz) cross polarized beams, each beam has 4 ports for two independent antennas, or 4X4MIMO. There are independent tilt settings per beam.

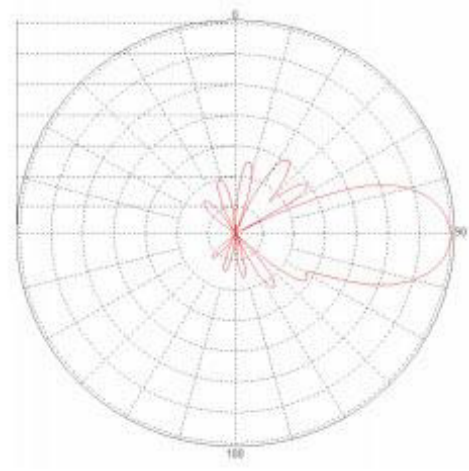


PATTERN RESULTS:

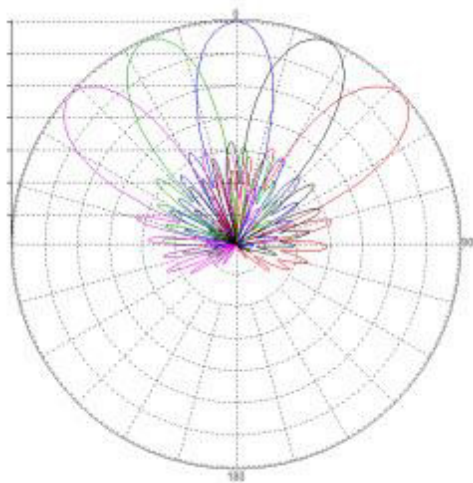
High-Band Horizontal Pattern (1.80GHz)



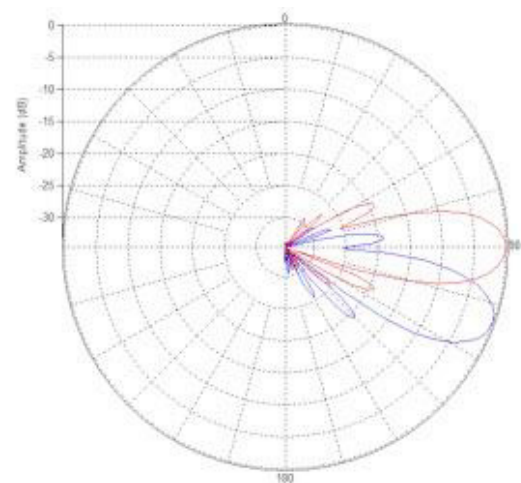
High-Band Vertical Pattern (1.80GHz)



C-Band Horizontal Pattern (3.7GHz)



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



PRELIMINARY

TECHNICAL SPECIFICATIONS PER BEAM

Frequency	3700-4200 GHz	1695-2690 MHz
Gain	21dBi	17.5dBi
VSWR	<1.5:1	<1.5:1
Return Loss	>15dB	>15dB
Polarization	Dual Slant ±45°	Dual Slant ±45°
Horizontal Coverage	120°	120°
Horizontal Beamwidth (10dB)	26°	40°
Vertical Beamwidth (3dB)	15°	23°
Beam Cross-over	8dB typical	10dB typical
Total Number of Beams	5	3
Number of Ports per Beam	4	4
Number of Ports Total	20	12
Tilt Per Cross-Pol; (Two adjustments per beam)	0° to 20°	0° to 30°
First Sidelobe Level	<-16dB	<-16dB
Front to Back Ratio	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB
Isolation Port to Port - Beam	>28dB	>26dB
Power Rating	150W per port	200W per port
Intermodulation	<-153dBc	<-153dBc
Impedance	50 ohm	50 ohm
Connector Quantity and Type	20 x 4.3-10 female	12 x 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	171 x 61 x 61 cm 67 x 24 x 24 inch
Antenna Weight	55 kg 121 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/h	Frontal: 701 N/157 lbf Lateral: 1007 N/226 lbf

CONNECTOR LAYOUT: