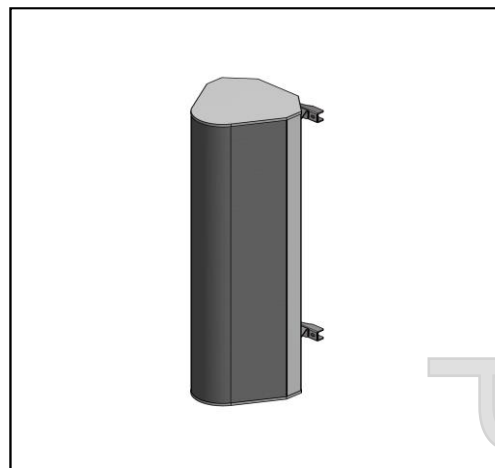


MS-MBA-3.3-F4A3-H4

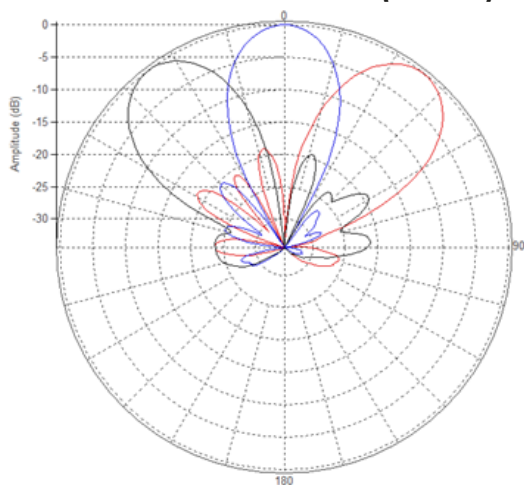
Lens Technology Enabled™ Multi-Beam Base-Station Antenna perfect for six to nine sector LTE cell site deployments , utilizes a patented spherical lens design with 3 isolated F-Band (3300 - 4200 MHz) cross-polarized beams and 3 isolated H-Band (1695 -2690 MHz) cross - polarized beams. Each beam has 4 ports, or 4X4 MIMO.

Each F-Band beam has 0° to 15° RET and each H-Band beam has 0° to 30° RET.

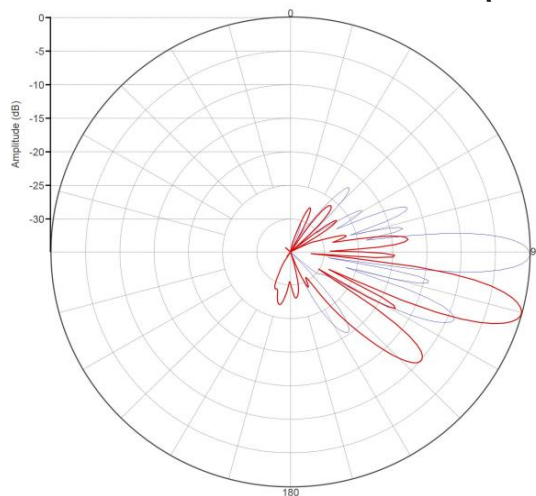


PATTERN RESULTS:

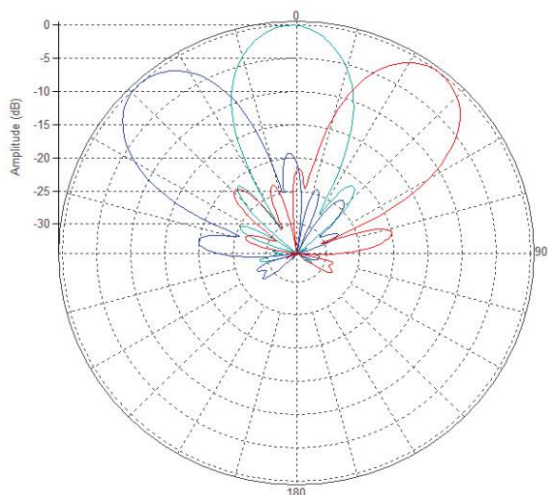
F-Band Horizontal Pattern (3.6GHz)



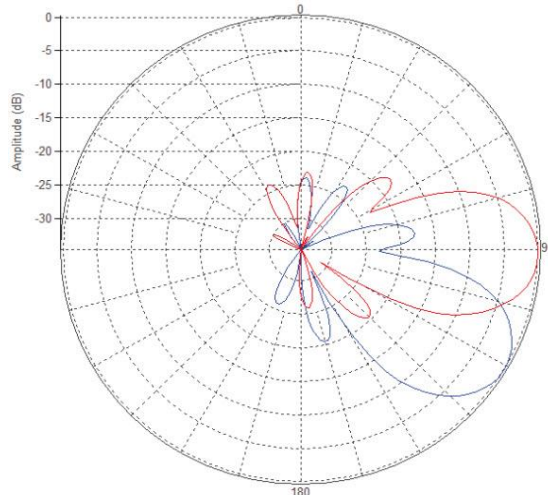
F-Band Vertical Pattern at 0° and 15° Tilt (3.6GHz)



High-Band Horizontal Pattern (1.8GHz)



High-Band Vertical Pattern at 0° and 30° Tilt (1.8GHz)



TECHNICAL SPECIFICATIONS PER BEAM

Frequency	3300-4200 MHz	1695-2690 MHz
Gain	20dBi	17.8dBi
VSWR	<1.5:1	<1.5:1
Polarization	Dual Slant ±45°	Dual Slant ±45°
Horizontal Coverage	120°	120°
Horizontal Beamwidth (10dB)	45°	40°
Horizontal Beamwidth (3dB)	25°	23°
Vertical Beamwidth (10dB)	14°	40°
Vertical Beamwidth (3dB)	8°	23°
Beam Cross-over	8dB typical	10dB typical
Total Number of Beams	3	3
Number of Ports per Beam	4	4
Number of Ports Total	12	12
Tilt Per Cross-Pol	0° to 15°	0° to 30°
USLS (Upper Sidelobe Suppression)	<-16dB	<-16dB
Azimuth Sidelobe Level	<-18dB	<-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	12 x 4.3-10 female	12 x 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	151 x 61 x 60 cm 59.5 x 24 x 23.5 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/h	TBD