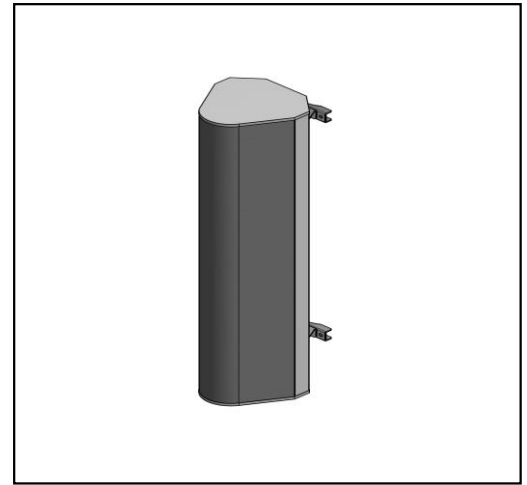


MS-MBA-3.3-C4A2-H4A2

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 C-Band (3700 - 4000 MHz) cross-polarized beams and 3 isolated H-Band (1695 - 2690 MHz) cross-polarized beams. Each beam has 4 ports, or 4x4 MIMO.

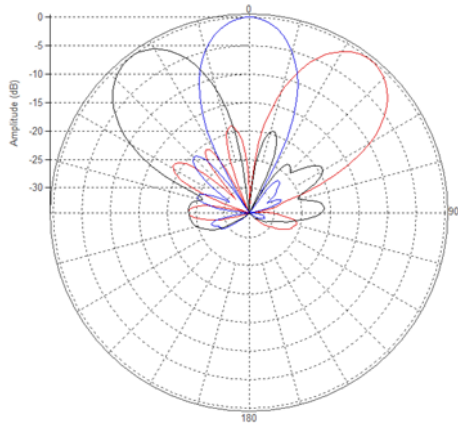
Each C-Band beam has 0° to 15° RET, and each H-Band beam has 0° to 15° RET.



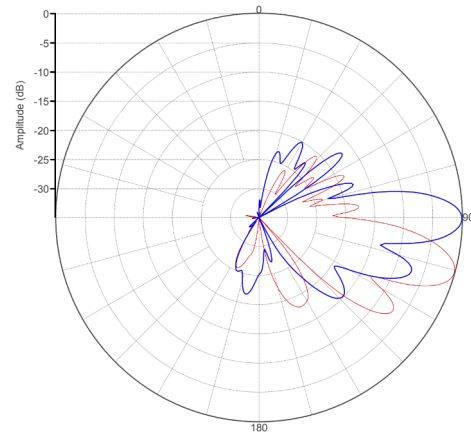
PATTERN RESULTS:



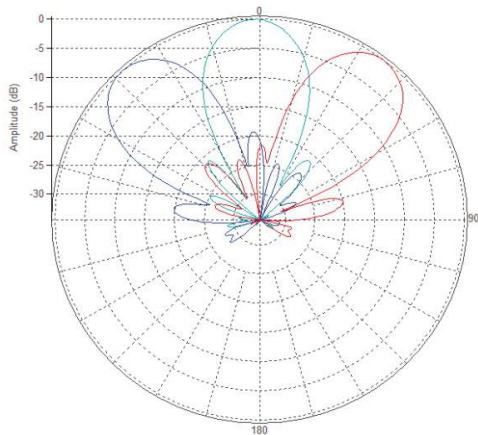
C-Band Horizontal Pattern (3.7GHz)



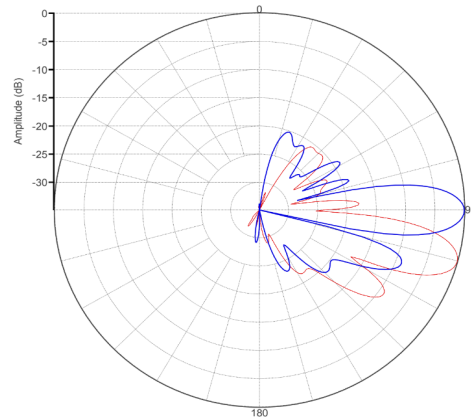
C-Band Vertical Pattern at 0° and 15° Tilt (3.7GHz)



High-Band Horizontal Pattern (1.8GHz)



High-Band Vertical Pattern at 0° and 15° Tilt (1.8GHz)



PRELIMINARY

TECHNICAL SPECIFICATIONS PER BEAM

Frequency	3700-4000MHz	1695-2690MHz
Gain	19.5dBi	20dBi
VSWR	<1.5:1	<1.5:1
Polarization	Dual Slant ±45°	Dual Slant ±45°
Horizontal Coverage	120°	120°
Horizontal Beamwidth (10dB level)	40°	40°
Horizontal Beamwidth (3dB level)	23°	23°
Vertical Beamwidth (3dB level)	13°	12°
Beam Cross-over	10dB typical	10dB typical
Total Number of Beams	3	3
Number of Ports Per Beam	4	4
Total Number of Ports	12	12
Tilt Per Cross-Pol	0° to 15°	0° to 15°
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)	180 x 61 x 60 cm 71 x 24 x 23.5 inch
Antenna Weight	60 kg 132 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	TBD

PRELIMINARY