# MATSING®
LENS TECHNOLOGY ENABLED

MS-MBA-6.3-H4-T4
### Multi-beam Base-Station Antenna (MBA)

Lens Technology Enabled™ Multi-Beam Base-Station Antenna perfect for 6 high-band sectors and 3 low-band LTE cell site deployment for best CINR results. Utilizes a patented spherical lens design with 6 isolated high-frequency (1695-2690MHz) cross-polarized beams and 3 isolated low-frequency (617- 896MHz) cross-polarized beams.

Each high frequency beam and low-frequency beam is made of two independent antennas and has 4 ports. There are two independent tilt settings per beam (0-15° for HB and 0-20° for LB) for each pair of cross-polarized elements.

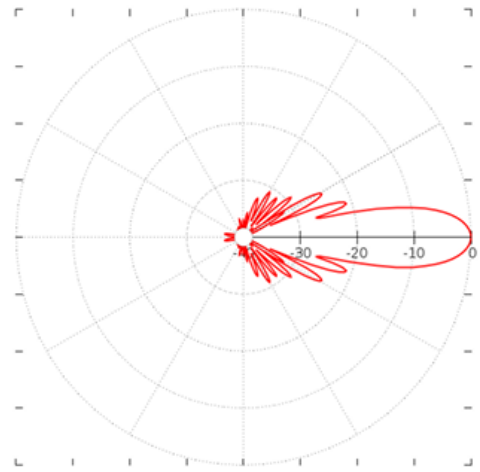LTE®
LENS TECHNOLOGY ENABLED
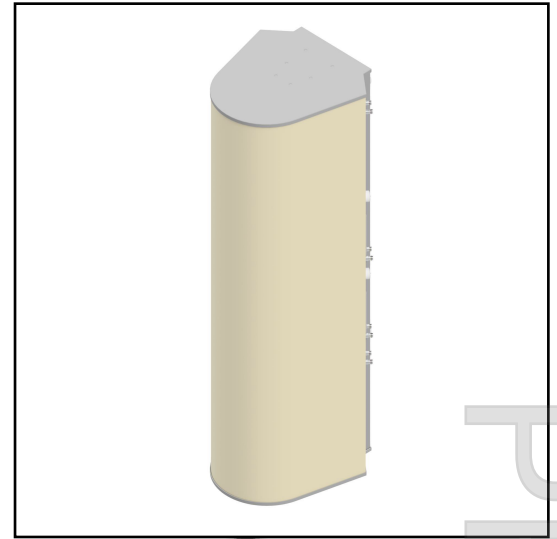
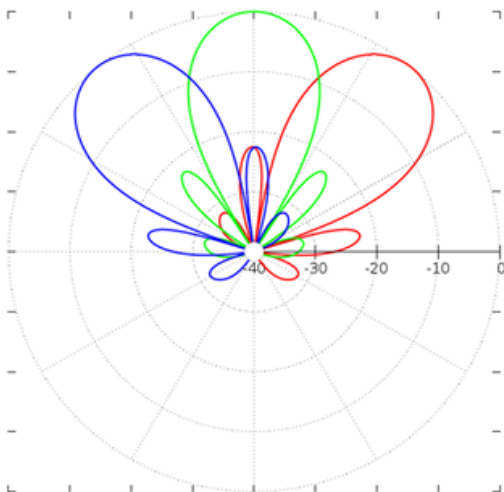PRELIMINARY

PATTERN RESULTS:

High-Band Horizontal Pattern (1.80GHz)
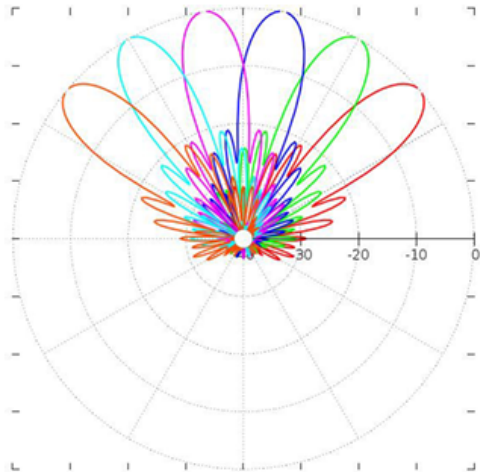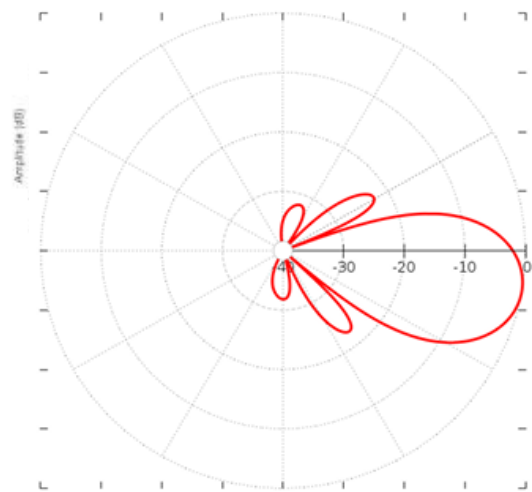

High-Band Vertical pattern 0° tilt and 15° tilt (1.80GHz)

Low-Band Horizontal Pattern (750MHz)

Low-Band Vertical Pattern 0° tilt and 20° tilt (750MHz)

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TECHNICAL SPECIFICATIONS PER BEAM

Frequency	1695-2690 MHz	617-896 MHz
Gain	21dBi	16dBi
VSWR	<1.5:1	<1.5:1
Polarization	Dual Slant ±45˚	Dual Slant ±45˚
Horizontal Coverage	120˚	120˚
Horizontal Beamwidth (10dB level) Horizontal Beamwidth (3dB level)	22˚ 13˚	43˚ 25˚
Vertical Beamwidth (10dB level) Vertical Beamwidth (3dB level)	22˚ 13˚	43˚ 25˚
Beam Cross-over	10dB typical	10dB typical
Total Number of Beams	6	3
Number of Ports per Beam	4	4
Number of Ports Total	24	12
Tilt Per Cross-Pol	0˚ to 15˚	0˚ to 20˚
First Sidelobe Level	<-16dB	<-15dB
Front to Back Ratio	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB
Isolation Port to Port - Beam	>28dB	>26dB
Power Rating	200W per port	250W per port
Intermodulation	<-153dBc	<-153dBc
Impedance	50 ohm	50 ohm
Connector Quantity and Type	24 x 4.3-10 female	12 x 4.3-10 female

MECHANICAL DATA

Dimensions (H x W x D)	241.8 x 93.4 x 108.4cm 95.2 x 36.8 x 42.7inch
Antenna Weight	130 kg 287 lbs
Radome Material	Fiber Glass
Mounting	2 position 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: TBD Lateral: TBD Rear: TBD

CONNECTOR LAYOUT:

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REAR VIEW CONNECTOR LAYOUT

Port 31 (+45°)
Port 35 (+45°)
Port 36 (-45°)
Port 32 (-45°)

Port 27 (+45°)
Port 28 (-45°)

BEAM 3 | BEAM 2 | BEAM 1

Port 29 (+45°)
Port 33 (+45°)
Port 34 (-45°)
Port 30 (-45°)

Port 25 (+45°)
Port 26 (-45°)

Port 15 (+45°)
Port 19 (+45°)
Port 23 (+45°)
Port 24 (-45°)
Port 20 (-45°)
Port 16 (-45°)

Port 11 (+45°)
Port 7 (+45°)
Port 3 (+45°)
Port 4 (-45°)
Port 8 (-45°)
Port 12 (-45°)

BEAM 6 | BEAM 5 | BEAM 4 | BEAM 3 | BEAM 2 | BEAM 1

Port 13 (+45°)
Port 17 (+45°)
Port 21 (+45°)
Port 22 (-45°)
Port 18 (-45°)
Port 14 (-45°)

Port 9 (+45°)
Port 5 (+45°)
Port 1 (+45°)
Port 2 (-45°)
Port 6 (-45°)
Port 10 (-45°)

AISG IN-1
HB Beams: 1,2,3,4,5,6
HB Ports: 1 to 24

AISG IN-2
TB Beams: 1,2,3
TB Ports: 25 to 36