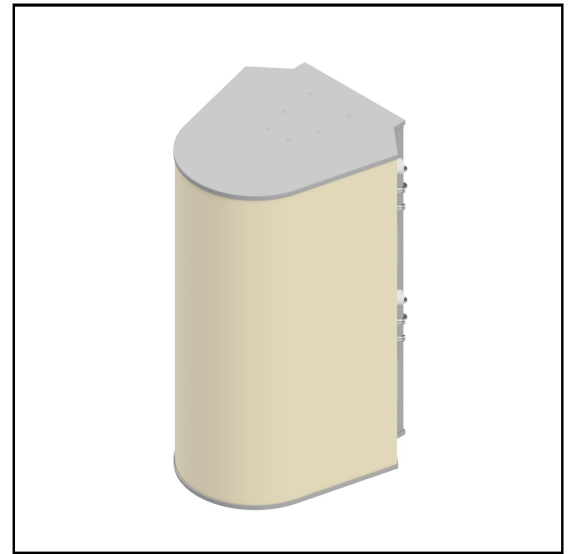


## MS-MBA-4.4-SH2-SH2-45M

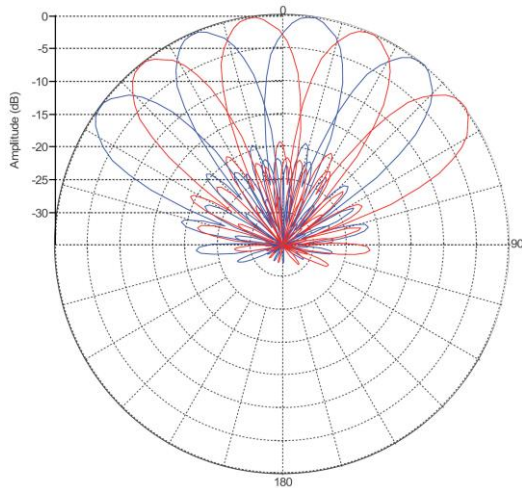
**Multi-Beam Dual Band Spherical Lens Antenna: 8 independent high-frequency (2.3 – 2.4GHz / 3.4 – 3.6GHz) cross-polarized beams with 2X2 MIMO support.**

**Each beam has independent tilt 0° to 15°.**

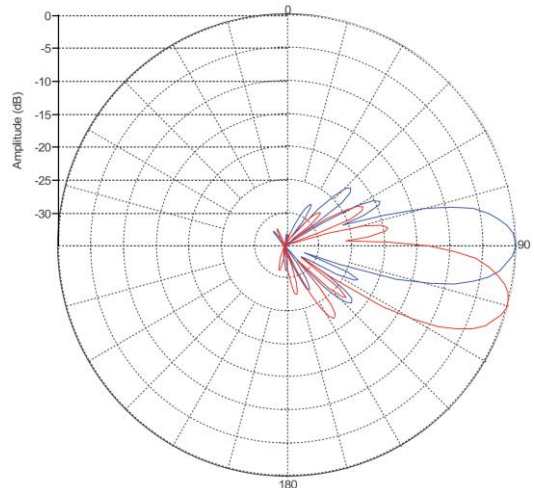


### PATTERN RESULTS:

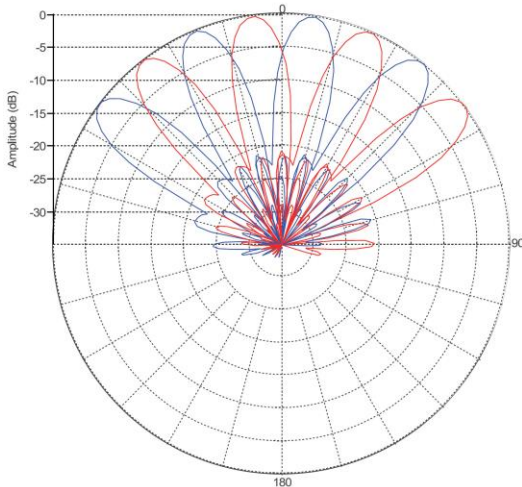
**Horizontal Pattern (2.35GHz)**



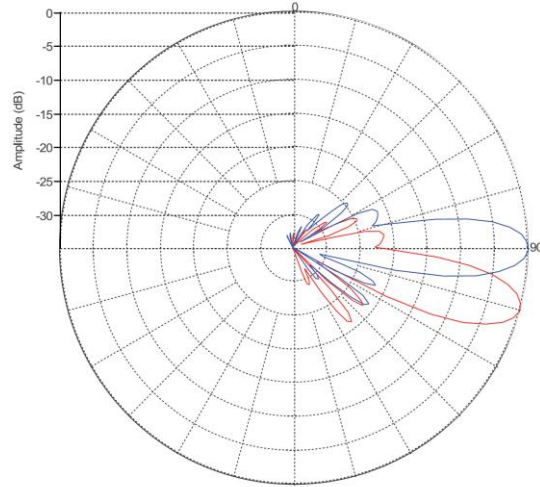
**Vertical Pattern (2.35GHz) at tilt 0° and 15°**



**Horizontal Pattern (3.5GHz)**



**Vertical Pattern (3.5GHz) at tilt 0° and 15°**



### TECHNICAL SPECIFICATIONS PER BEAM

|                                       |                 |                 |
|---------------------------------------|-----------------|-----------------|
| Frequency                             | 2.3 - 2.4GHz    | 3.4 - 3.6GHz    |
| Gain                                  | 19.5dBi         | 22.0dBi         |
| VSWR                                  | <1.5:1          | <1.5:1          |
| Polarization                          | Dual Slant ±45° | Dual Slant ±45° |
| Horizontal Coverage                   | 120°            | 120°            |
| Horizontal Beamwidth (10dB level)     | 28°             | 19°             |
| Horizontal Beamwidth (3dB level)      | 16°             | 11°             |
| Vertical Beamwidth (10dB level)       | 28°             | 19°             |
| Vertical Beamwidth (3dB level)        | 16°             | 11°             |
| Beam Cross-over                       | 3dB             | 5.5dB           |
| Total Number of Beams                 | 8               |                 |
| Total Number of Ports                 | 16              |                 |
| Tilt Per Cross-Pol                    | 0° to 15°       |                 |
| Sidelobe Level                        | -20dB Typical   | -20dB typical   |
| Front to Back Ratio                   | >28dB           | >28dB           |
| Isolation Port to Port - Polarization | >28dB           | >28dB           |
| Isolation Port to Port - Beam         | >28dB           | >28dB           |
| Power Rating                          | 150W per port   | 150W per port   |
| Intermodulation                       | <-153dBc        | <-153dBc        |
| Impedance                             | 50 ohm          | 50 ohm          |
| Connector Quantity and Type           | 4 x MQ4         |                 |

### MECHANICAL DATA

|                        |   |
|------------------------|---|
| Dimensions (H x W x D) | 110.2 x 61.7 x 72 cm<br>43.4 x 24.3 x 28.4 inch                                   |
| Antenna Weight         | 36.2kg/79.8lbs [w/o Bracket]<br>38.3kg/84.4lbs [w/Bracket]                        |
| Radome Material        | Fiber Glass   |
| Mounting               | Adjustable Clamps<br>Compatible pipe diameter:<br>6.1 – 11.4 cm<br>2.4 – 4.5 inch |

### ENVIRONMENTAL RATINGS

|                        |   |
|------------------------|---|
| Humidity               | 95% RH @ +30°C  |
| Temperature            | -40°C to +70°C  |
| Wind load @ 150km / hr | Units (N / lbf)<br>Frontal: 473 / 106.3<br>Lateral: 638 / 143.4<br>Rear: 555 / 124.81 |

### CONNECTOR LAYOUT:

