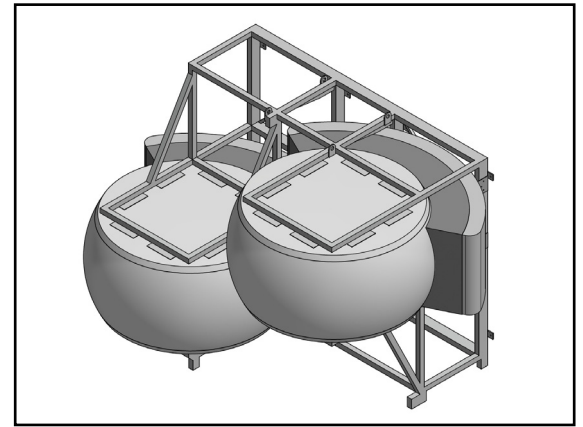


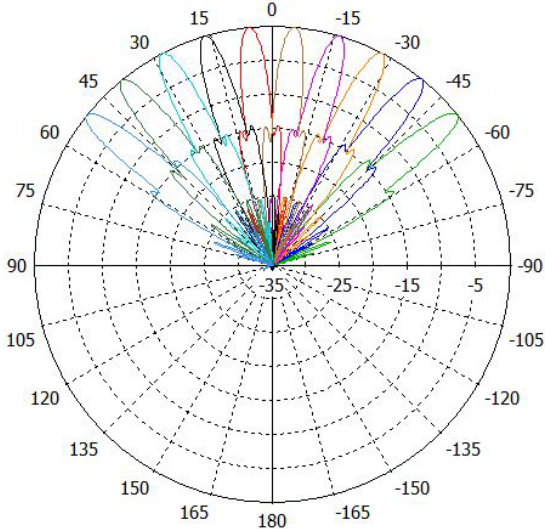
## MS-10.10.10DBA180-T

**Multi-Beam Dual Band Spherical Lens Antenna: 10 independent low frequency (617-896MHz) cross-polarized beams and 10 independent high-frequency (1695-2690MHz) cross-polarized beams (each lens has independent high frequency beams providing 4 ports for 4X4 MIMO or multiple base stations). Low Band (617-896MHz) has 2 ports per beam to support 2x2 MIMO.**

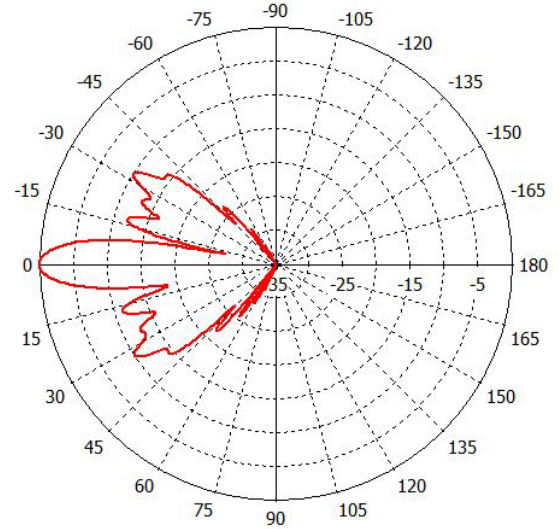


### PATTERN RESULTS:

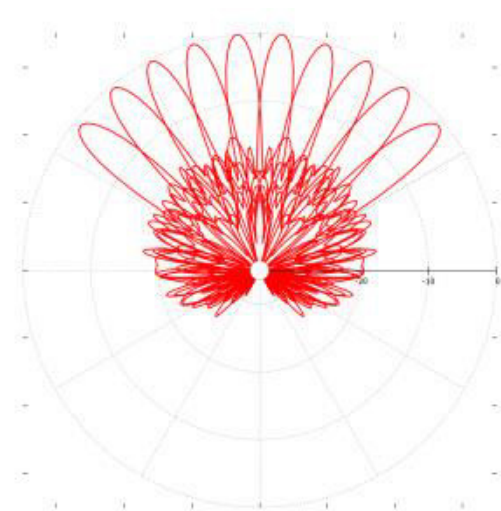
**High-Band Horizontal Pattern (1950MHz)**



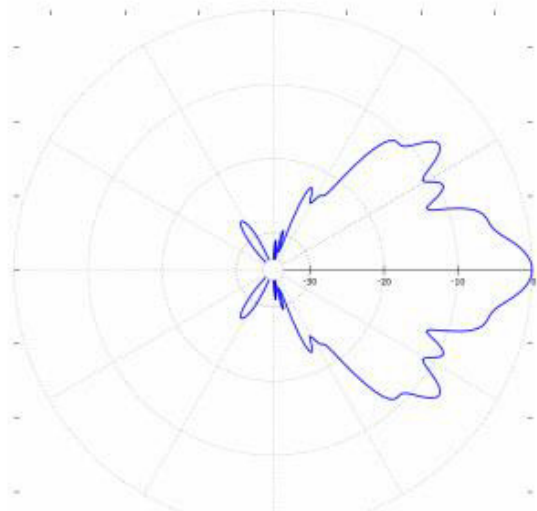
**High-Band Vertical pattern (1950MHz)**



**Low-Band Horizontal Pattern (850MHz)**



**Low-Band Vertical Pattern (850MHz)**



### TECHNICAL SPECIFICATIONS PER BEAM

|   |                      |                      |
|---|----------------------|----------------------|
| Frequency   | 617-896MHz           | 1695-2690 MHz        |
| Gain  | 19dBi                | 26dBi                |
| VSWR  | <1.5:1               | <1.5:1               |
| Polarization  | Dual Slant ±45°      | Dual Slant ±45°      |
| Horizontal Coverage   | 100°                 | 100°                 |
| Horizontal Beamwidth (10dB level):<br>Central Beams<br>Side Beams | 10°±1.5°<br>15°±1.5° | 10°±1.5°<br>14°±1.5° |
| Vertical Beamwidth (10dB level)                                   | 40°                  | 25°                  |
| Beam Cross-over   | 10dB typical         | 10dB typical         |
| Total Number of Beams   | 10                   | 10 (4 ports/beam)    |
| Tilt  | 0°                   | 0°                   |
| 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  | 250W per port        | 250W per port        |
| Intermodulation   | <-153dBc             | <-153dBc             |
| Impedance   | 50 ohm               | 50 ohm               |
| Connector Quantity and Type                                       | 20 X 4.3-10 female   | 40 X 4.3-10 female   |

### MECHANICAL DATA

|                        |   |
|------------------------|---|
| Dimensions (H x W x D) | Two Truncated Lenses:<br>Spherical Lens Diameter:<br>180cm/70inch                     |
|                        | Spherical Lens Height:<br>80cm/31inch   |
|                        | Antenna dimensions:<br>219.7 x 391.6 x 220.9 cm<br>86.5 x 154.2 x 87 inch             |
| Antenna Weight         | 476 kg<br>1049.4 lbs  |
| Radome Material        | Fiber Glass   |
| Mounting               | 4 position pipe mount<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:  | @ 160km/hr     |
| Front       | 5868N/1319lbf  |
| Side        | 4760N/1070lbf  |
| Back        | 6547N/1471lbf  |

### SAMPLE CONNECTOR LAYOUT:

