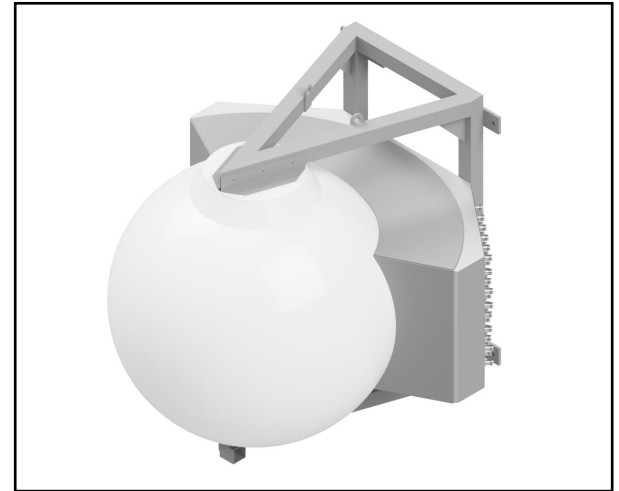
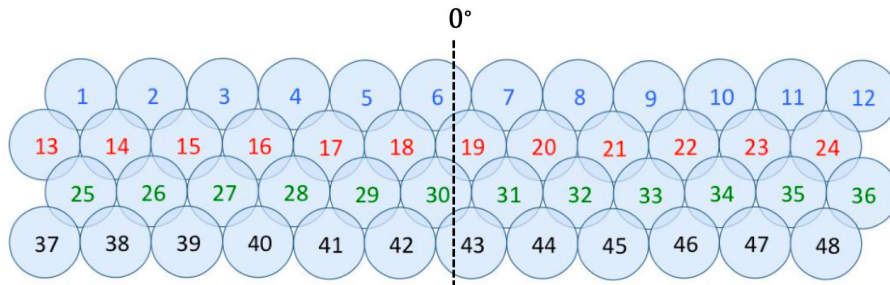


## MS-48F90

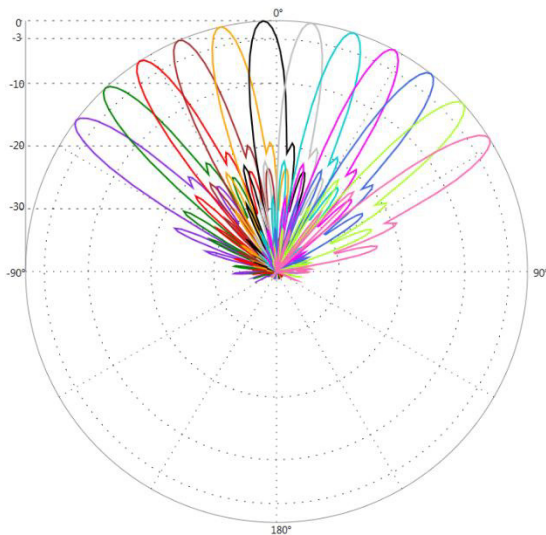
**Multi-Beam Wide Band Spherical Lens Antenna: 4 rows of 12 independent high frequency (3300- 4200MHz) full-band cross-polarized beams.**

### BEAM LAYOUT:

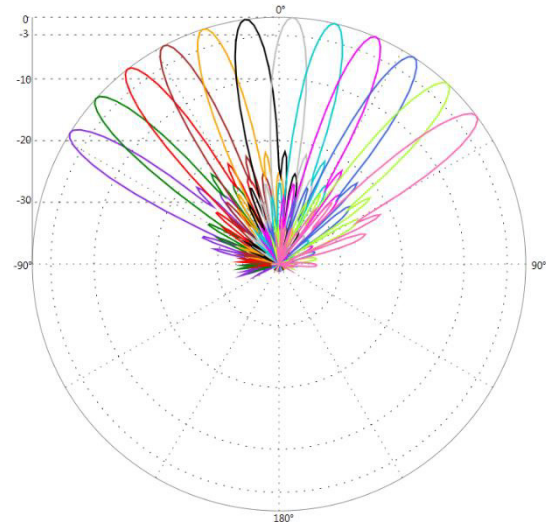


### PATTERN DIAGRAMS @ 3.6GHz :

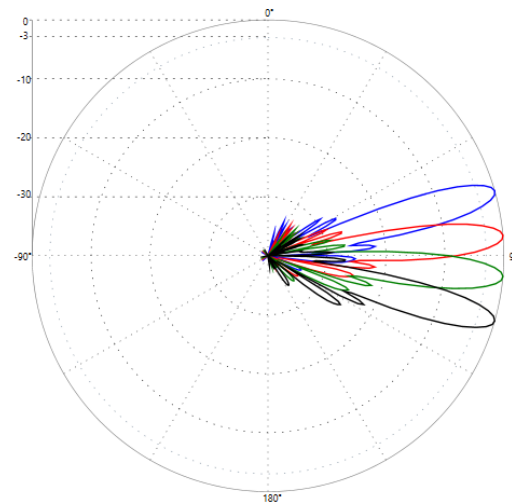
**Horizontal pattern top/third**



**Horizontal pattern second/bottom**



**Vertical pattern**



**Top Row +12.9°**  
**Second Row +4.3°**  
**Third Row -4.3°**  
**Fourth Row -12.9°**

### TECHNICAL SPECIFICATIONS PER BEAM

|                                                                       |                           |
|-----------------------------------------------------------------------|---------------------------|
| Frequency                                                             | 3300 - 4200 MHz           |
| Gain                                                                  | 26dBi                     |
| VSWR                                                                  | <1.5:1                    |
| Polarization                                                          | Dual Slant $\pm 45^\circ$ |
| Horizontal Coverage                                                   | 120°                      |
| Horizontal Beamwidth (10dB level)<br>Horizontal Beamwidth (3dB level) | 10°<br>6°                 |
| Vertical Beamwidth (10dB level)<br>Vertical Beamwidth (3dB level)     | 10°<br>6°                 |
| Beam Cross-over                                                       | 10dB typical              |
| Total Number of Beams                                                 | 48                        |
| Tilt (Factory Set)                                                    | Fixed                     |
| First Sidelobe level                                                  | <-16dB                    |
| Front to Back Ratio                                                   | >28dB                     |
| Isolation Port to Port - Polarization                                 | >28dB                     |
| Isolation Port to Port - Beam                                         | >28dB                     |
| Power Rating                                                          | 50W per port              |
| Intermodulation                                                       | <-153dBc                  |
| Impedance                                                             | 50 ohm                    |
| Connector Quantity and Type                                           | 96 X 4.3-10 female        |

### MECHANICAL DATA

|                        |                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Dimensions (H x W x D) | Spherical Lens diameter:<br>90cm/35inch<br><br>Antenna dimensions:<br>105.4 X 108.4 X 109.9 cm<br>41.5 X 42.7 X 43.3 inch |
| Antenna Weight         | 58.18 kg<br>128.2 lbs                                                                                                     |
| Radome Material        | Fiber Glass                                                                                                               |
| Mounting               | Standard Pipe Mount<br><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/h | N/lbf<br>Frontal: 574/129<br>Lateal: 753/169 |

### SAMPLE CONNECTOR LAYOUT:

