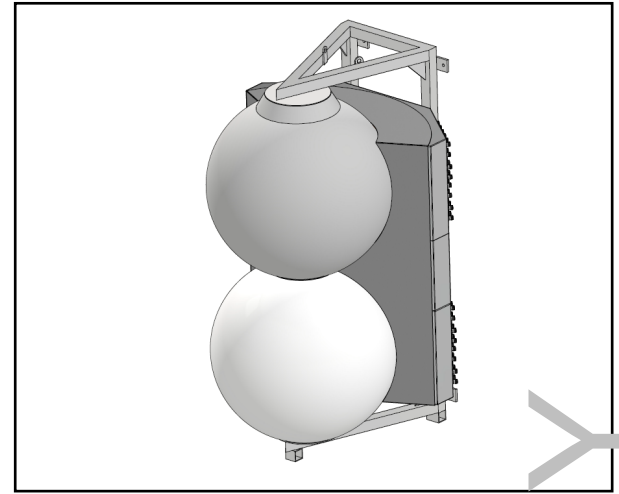
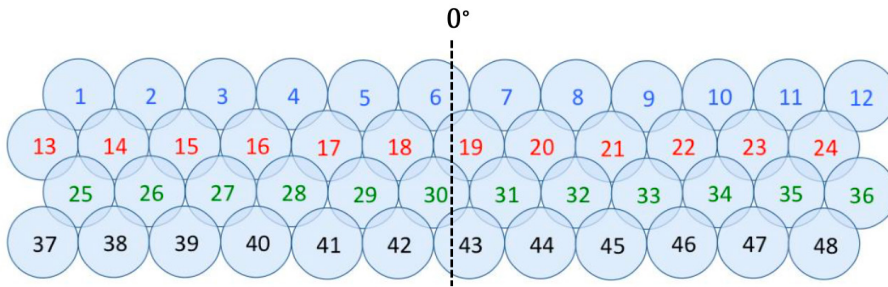


## MS-48.48C90

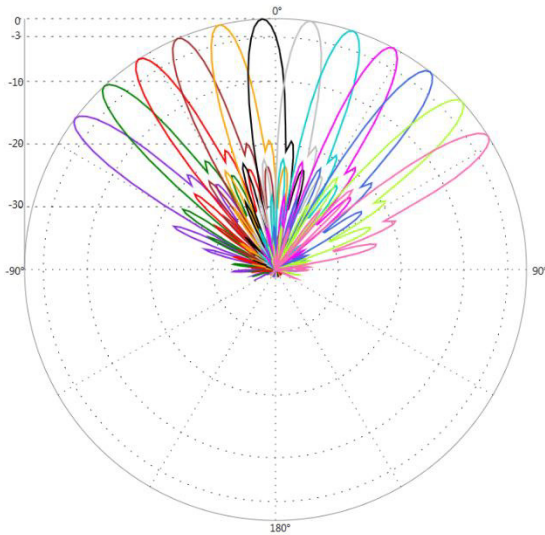
**Multi-Beam Wide Band Spherical Lens Antenna:**  
4 rows of 12 independent high frequency (3700-4200MHz) cross-polarized beams. Each beam has 4 ports to provide 4x4 MIMO.

### BEAM LAYOUT:

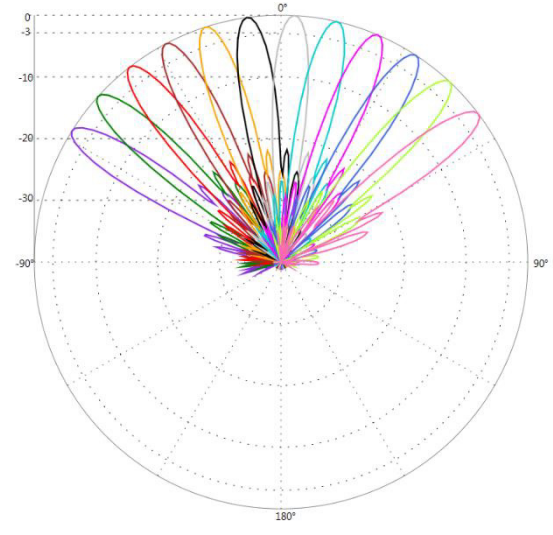


### PATTERN DIAGRAMS @ 3.95GHz :

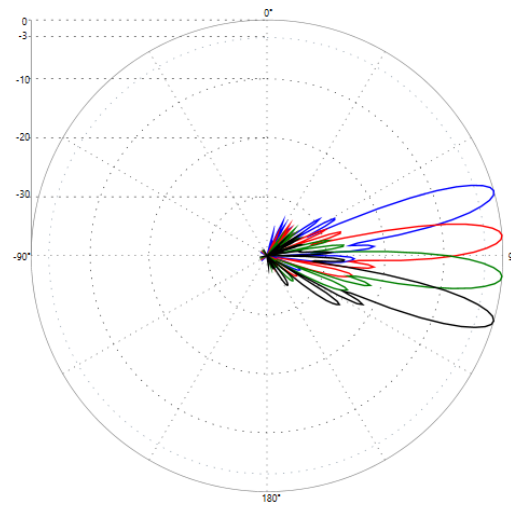
Horizontal pattern top/third



Horizontal pattern second/bottom



Vertical pattern



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

PRELIMINARY

### TECHNICAL SPECIFICATIONS PER BEAM

Frequency	3700-4200 MHz
Gain	27dBi
VSWR	<1.5:1
Polarization	Dual Slant ±45°
Horizontal Coverage	120°
Horizontal Beamwidth (10dB level) Horizontal Beamwidth (3dB level)	10° 6°
Vertical Beamwidth (10dB level) Vertical Beamwidth (3dB level)	10° 6°
Beam Cross-over	10dB typical
Total Number of Beams Number of Ports total	48 192
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 Total power ≤ 3000W
Intermodulation	<-153dBc
Impedance	50 ohm
Connector Quantity and Type	48 X MQ4

### MECHANICAL DATA

Dimensions (H x W x D)	Spherical Lens diameter: 90cm/35inch  Antenna dimensions: 190 X 108.4 X 110 cm 75 X 42.7 X 43.3 inch
Antenna Weight	110 kg 242 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 @ 150 km/h	TBD

### CONNECTOR LAYOUT:

PRELIMINARY