

## Mid-Band 6-Beam 2x2 Antenna [1695-2690 MHz]

### GP2812-07880

#### Description:

- 2x2 MIMO 6-beam antenna for high-capacity stadium/venue or special events applications
- 6-beams (12-ports) 1695-2690 MHz; each beam with 2x2 MIMO capability
- 6° Fixed Electrical Downtilt
- Patent pending technology allows for stable azimuth beam directions over the entire operating frequency band
- Excellent alternative to large lens-based multibeam antennas
- External ruggedized features of the antenna enclosure provide added protection during the installation process
- Optional heavy-duty transport case to prevent damage for multiple deployment scenarios



2x2 MIMO 1695-2690 MHz 6-Beam Antenna

#### Electrical Specifications

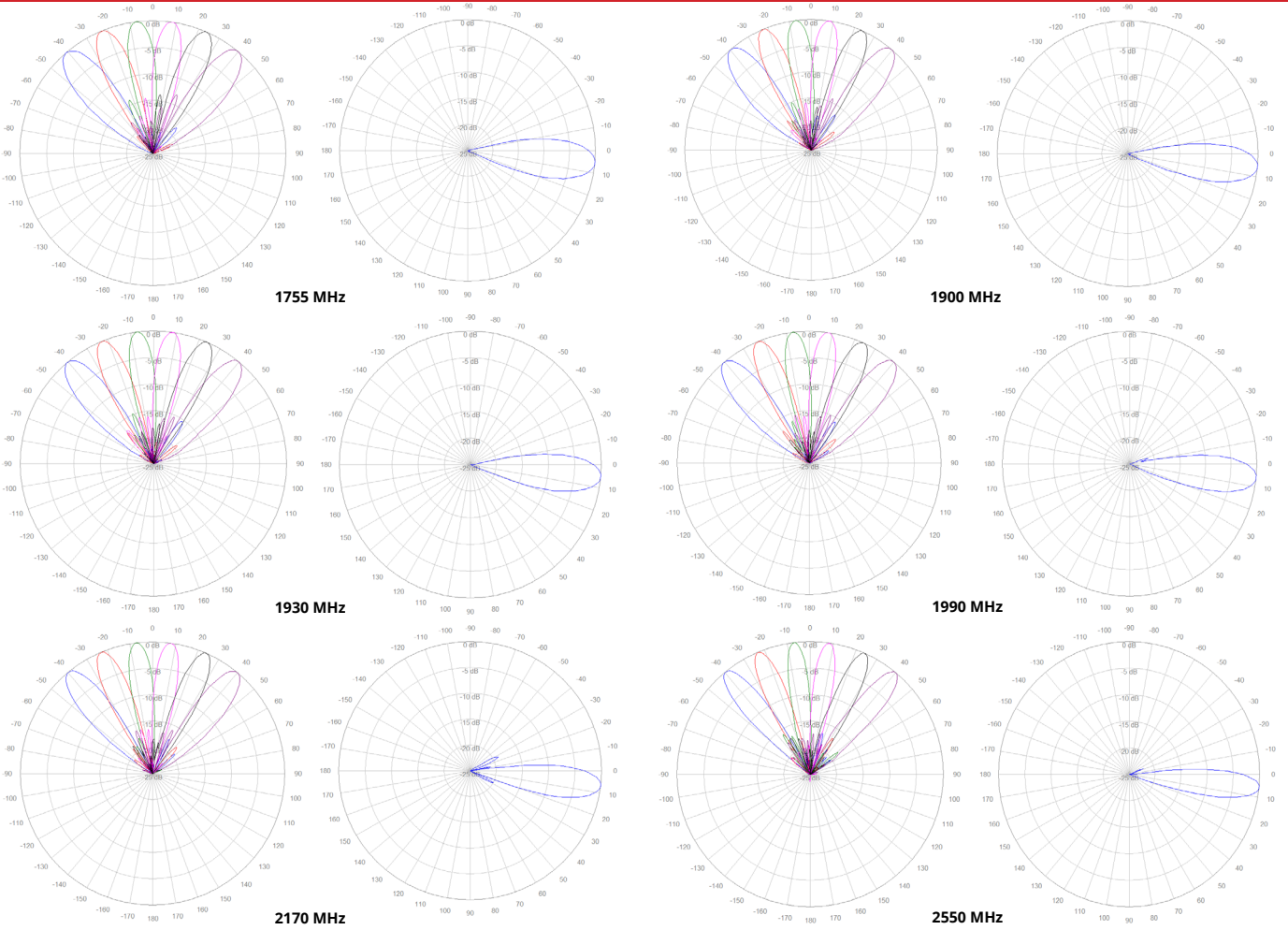
Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690
Gain, max. (dBi)	20.3	20.7	21.1	21.3	21.8
Gain, avg. (dBi)	19.0	19.7	20.3	19.8	20.7
Azimuth Beam Width, 3dB (°)	11.5	10.5	10.0	9.2	8.5
Azimuth Beam Width, 10dB (°)	20.2	18.4	17.6	16.3	15.0
Azimuth Beam Spacing (°)	16				
Azimuth Beam Crossover (dB)	7.3	8.5	9.7	11.2	11.9
Elevation Beam Width, 3dB (°)	15.5	14.5	12.8	12.1	10.6
Elevation Beam Width, 10dB (°)	27.5	25.8	22.2	21.4	18.6
Electrical Downtilt (°)	6 FET (per each 2x2 beam cluster)				
First Upper Sidelobe Suppression (dB)	23	21	19	22	22
Front-to-Back Ratio, 180° (dB)	38	41	38	36	36
Cross-Polar Discrimination @ Boresight (dB)	24	25	24	20	23
VSWR / RL (dB)	1.31:1 / 17.5	1.33:1 / 17.0		1.27:1 / 18.5	1.40:1 / 15.5
Port-to-Port Isolation, Intrabeam* (dB)	29		28		27
Port-to-Port Isolation, Interbeam** (dB)	17.5	18.0	22.0	14.5	16.5
PIM @ 2x43 dBm (dBc)	-153				
Max Power per Port (W)	100				
Polarization (°)	Dual slant 45 (±45)				
Impedance (Ω)	50				

\* Port-port isolation between each cluster of two ports in the same 2x2 MIMO beam

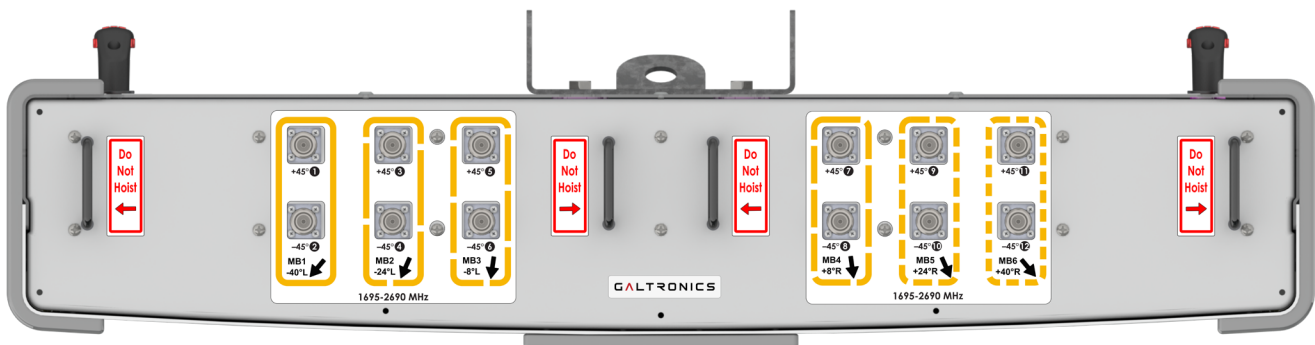
\*\* Port-port isolation between any combination of ports between different beams

RFD#: 7880 ; Revision: R3 ; Release Date: August 11, 2023;

## 2D Antenna Patterns



## Bottom Plate & Port Designation Details

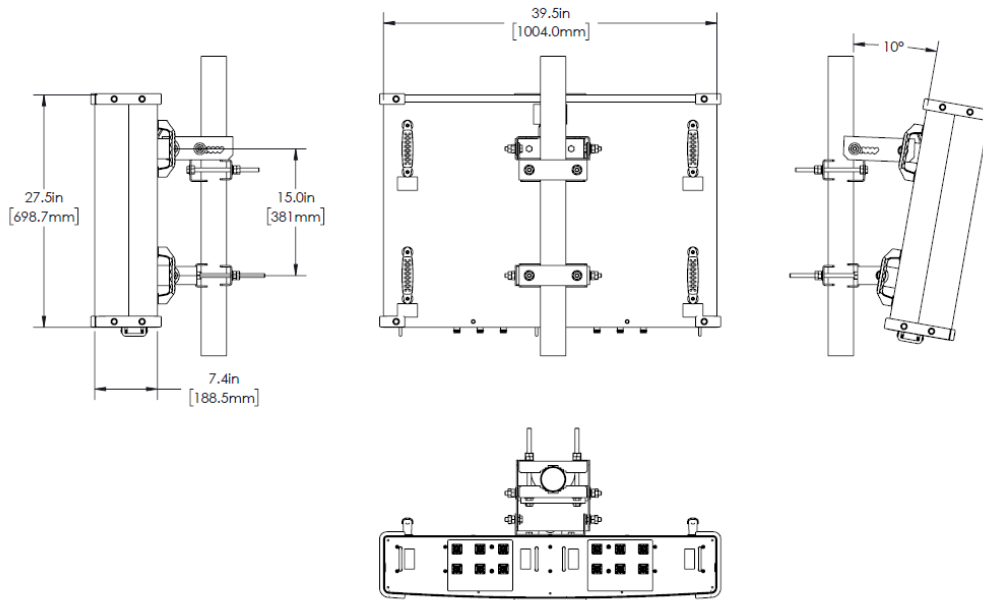


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## Port/Beam Designator Table

Frequency Range	Ports	Beam Assignment	AZ Beam Direction	Downtilt
1695-2690 MHz	1 - 2	MB1	-40° L	6° Fixed
1695-2690 MHz	3 - 4	MB2	-24° L	6° Fixed
1695-2690 MHz	5 - 6	MB3	-8° L	6° Fixed
1695-2690 MHz	7 - 8	MB4	+8° R	6° Fixed
1695-2690 MHz	9 - 10	MB5	+24° R	6° Fixed
1695-2690 MHz	11 - 12	MB6	+40° R	6° Fixed

## Antenna Outline



## Mechanical Specifications


Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	44.0 lbs (20.0 kg)
Antenna Bracket Weight	15.3 lbs (6.9 kg), 2x Brackets Per Antenna
Antenna Dimension (Height x Width x Depth)	27.5" (698.7 mm) x 39.5" (1004.0 mm) x 7.4" (188.5 mm)
Input Connector Type	12x 4.3/10 (F)
Radome Material	ASA w/Heavy Duty Top/Bottom Caps
Radome Color	Gray
Wind Load, Front (@ 150 km/h)*	859.8 N / 193 lbf
Wind Load, Side (@ 150 km/h)*	171.4 N / 39 lbf
Wind Load, Maximum (@ 150 km/h)*	911.9 N / 205 lbf
Wind Survival Rating	150 mph (241 km/h)

\* Wind load based on calculations according to TIA-222-H

## Part Numbers & Ordering Options

Description	Color	Mounting Kit	Part Number
2x2 MIMO 1695-2690 MHz 6-Beam Antenna with 12x 4.3-10 (F) Connectors	Gray	Includes 1x MK-07915 mounting kit assemblies	GP2812-07880-112
2x2 MIMO 1695-2690 MHz 6-Beam Antenna with 12x 4.3-10 (F) Connectors and Heavy Duty Transport Case	Gray	Includes 1x MK-07915 mounting kit assemblies	GP2812-07880-212

## Mounting Brackets & Optional Accessories

Description:	Part Number:
<p><b>Heavy Duty Mounting Bracket (wind speed of 150 mph) [1x Included]</b></p> <p>The MK-07915 standard mounting bracket allows for easy installation of this Galtronics Multibeam Antenna. It provides 0°-10° of mechanical downtilt adjustability, and fits pole diameters ranging from 2" to 5".</p> <p><b>Note:</b> The MK-07915 mounting bracket can also be ordered separately.</p>	 <p>MK-07915</p>

### Mating Connector Torque:

4.3-10: 3.7 ft-lb (5 Nm)