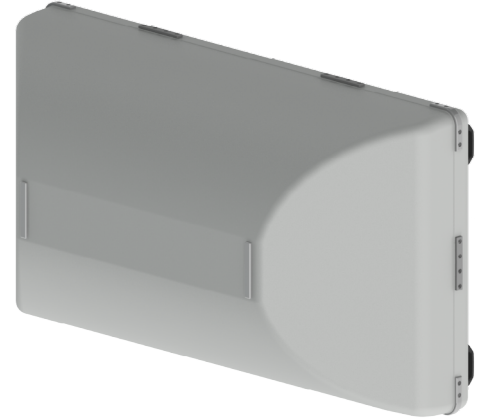


## 6-beams 120° Sector Low Band 2x2 Antenna [617-960 MHz]

# GP4812-08038

### Description:

- 2x2 MIMO 6-beams 120° sector antenna for high-capacity stadium/venue or special events applications
- 6-beams (12 ports) 617-960 MHz; each beam with 2x2 MIMO capability
- 16° Fixed Electrical Downtilt
- Patent pending technology allows for stable azimuth beam directions over the entire operating frequency band
- External ruggedized features of the antenna enclosure provide added protection during the installation process
- Optional heavy-duty transport case is provided to prevent damage for multiple deployment scenarios



2x2 MIMO 617-960 MHz 6-Beams Antenna

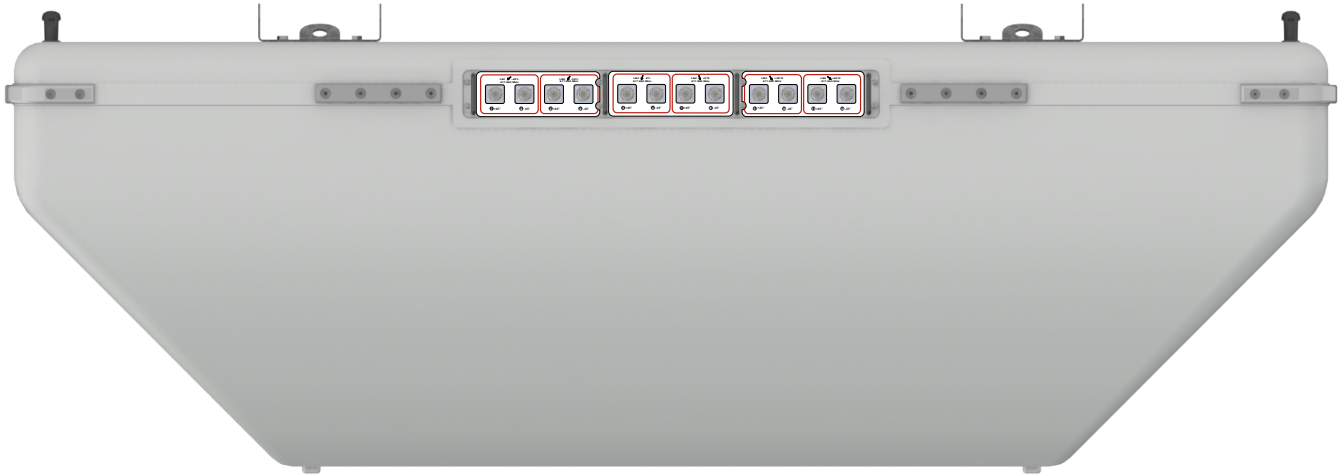
### Electrical Specifications

| Frequency Band [MHz]                     | 617-698                            | 698-806 | 806-896 | 896-960 |
|------------------------------------------|------------------------------------|---------|---------|---------|
| Port Designator                          | P1-P12                             |         |         |         |
| Gain, max. (dBi)                         | 19.0                               | 19.8    | 20.5    | 20.6    |
| Gain, avg. (dBi)                         | 17.5                               | 18.4    | 19.2    | 19.3    |
| Azimuth Beamwidth (°)                    | 14.0                               | 13.0    | 12.0    | 11.3    |
| Azimuth Beamwidth, 10dB (°)              | 25                                 | 23      | 21      | 20      |
| Azimuth Beam Spacing (°)                 | 18                                 |         |         |         |
| Azimuth Beam Crossover (dB)              | 7                                  | 8       | 10      | 11      |
| Elevation Beamwidth (°)                  | 21.4                               | 18.7    | 16.7    | 15.5    |
| Elevation Beamwidth, 10dB (°)            | 38                                 | 33      | 29      | 27      |
| Electrical Downtilt (°)                  | 16 FET (per each 2x2 beam cluster) |         |         |         |
| First Upper Sidelobe Suppression (dB)    | 15.6                               | 16.3    | 17.1    | 17.2    |
| Cross-Polar Discr. @ Boresight (dB)      | 16                                 | 17      | 17      | 17      |
| Front-to-Back Ratio, 180° (dB)           | 35                                 |         |         |         |
| VSWR / RL (dB)                           | 1.5:1 / 14.0                       |         |         |         |
| Port-to-Port Isolation, Intrabeam (dB)*  | 25                                 |         |         |         |
| Port-to-Port Isolation, Interbeam (dB)** | 16                                 |         |         |         |
| PIM @ 2x43 dBm (dBc)                     | -153                               |         |         |         |
| Max Power / Port (W)                     | 200                                |         |         |         |
| Max Total Power (W)                      | 2400                               |         |         |         |
| 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

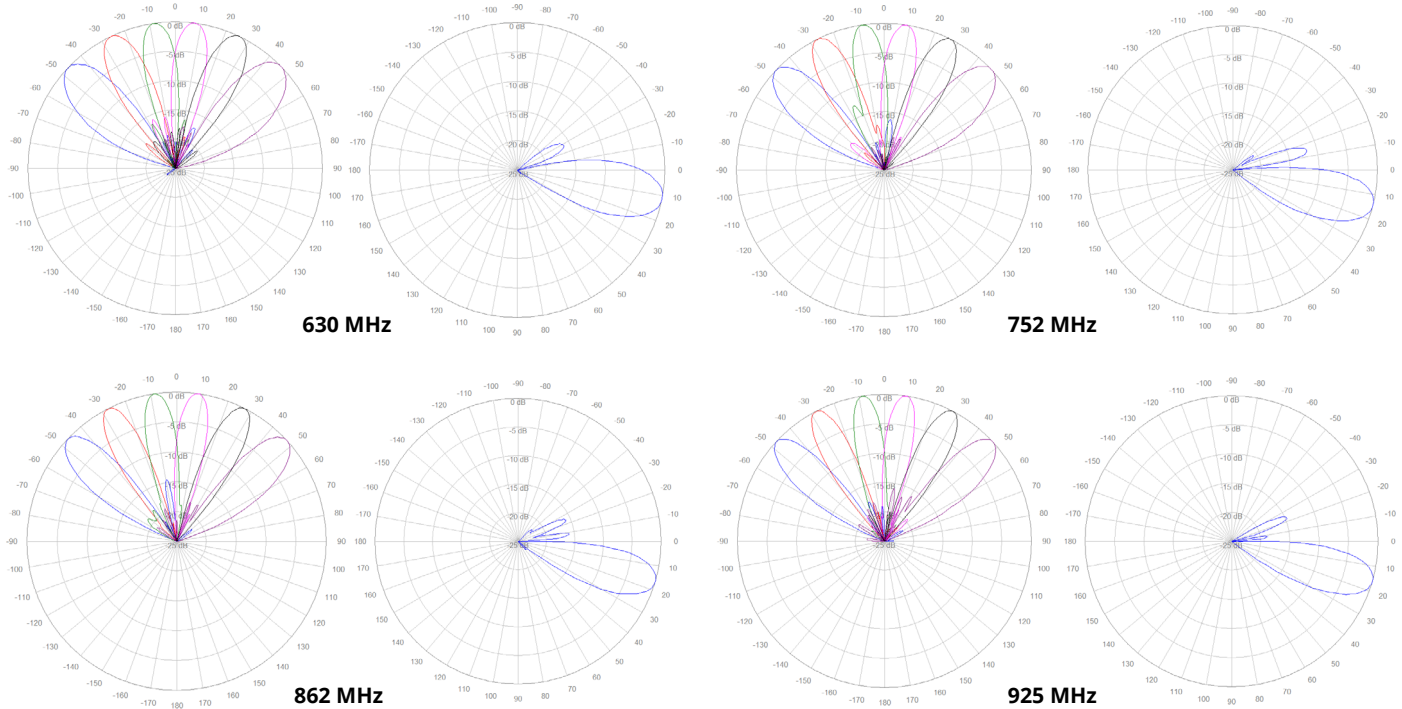
## Bottom Plate & Port Designation Details



### Port/Beam Designator Table

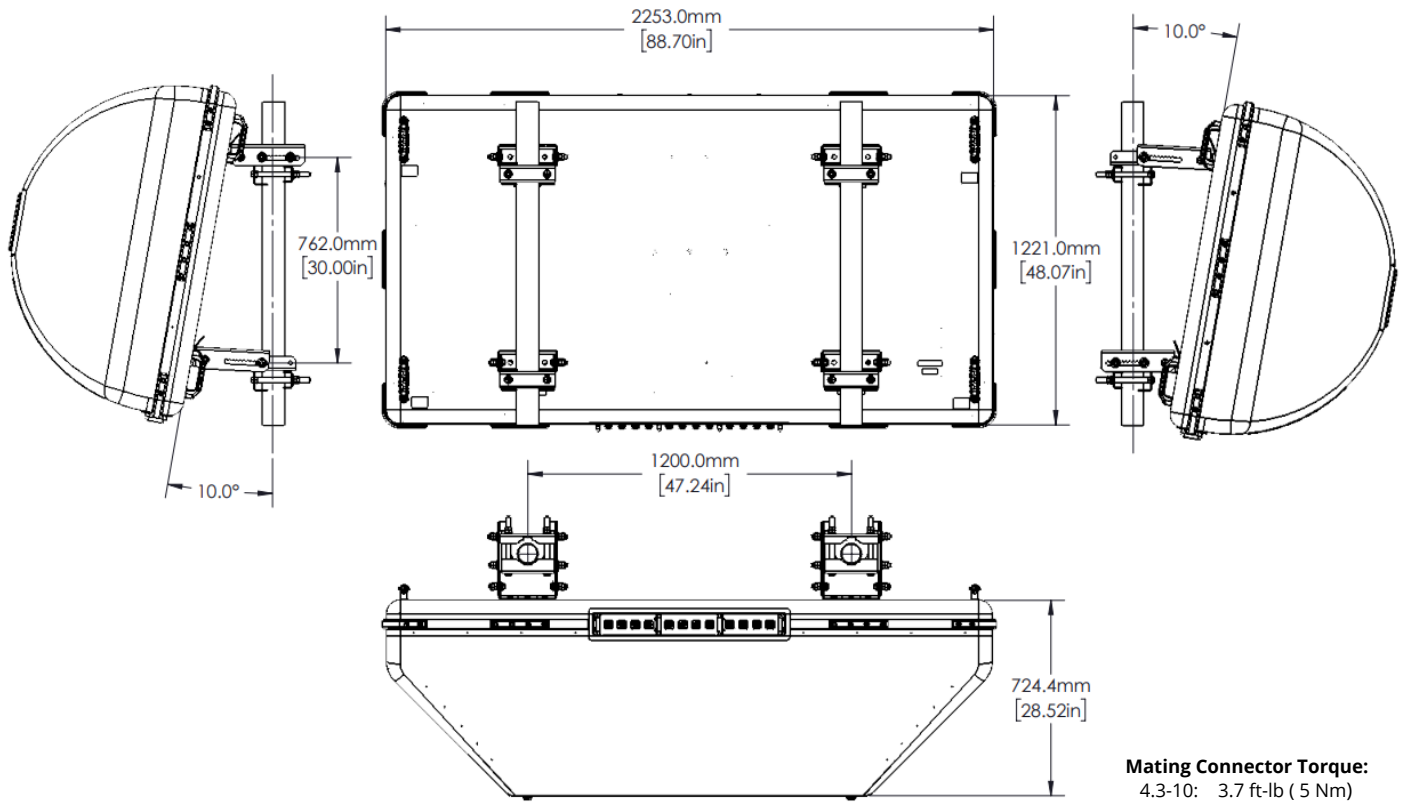
| Frequency Range | Ports   | Beam Assignment | AZ Beam Direction | Downtilt  |
|-----------------|---------|-----------------|-------------------|-----------|
| 617-960 MHz     | 1 - 2   | LB1             | -46° L            | 16° Fixed |
| 617-960 MHz     | 3 - 4   | LB2             | -26° L            | 16° Fixed |
| 617-960 MHz     | 5 - 6   | LB3             | -8° L             | 16° Fixed |
| 617-960 MHz     | 7 - 8   | LB4             | +8° R             | 16° Fixed |
| 617-960 MHz     | 9 - 10  | LB5             | +26° R            | 16° Fixed |
| 617-960 MHz     | 11 - 12 | LB6             | +46° R            | 16° Fixed |

### 2D Antenna Patterns



RFD#: 8038 ; Revision: R2 ; Release Date: October 16, 2024;

## Mechanical Outline



## Mechanical Specifications

|                                            |                                                          |
|--------------------------------------------|----------------------------------------------------------|
| Operating Temperature                      | -40° to 158°F (-40° to +70°C)                            |
| Antenna Weight                             | 198.4 lbs (90.0 kg)                                      |
| Antenna Bracket Weight                     | 13.4 lbs (6.1 kg), 2x Brackets Per Antenna               |
| Antenna Dimension (Height x Width x Depth) | 48.1" (1221.0 mm) x 88.7" (2253.0 mm) x 28.5" (724.4 mm) |
| Input Connector Type                       | 12 x 4.3/10 (F)                                          |
| Radome Material                            | ASA w/Heavy Duty Top/Bottom Caps                         |
| Radome Color                               | Gray                                                     |
| Environment Rating Outdoor                 | Outdoor                                                  |
| Wind Load, Front (@ 150 km/h)*             | 2042 N / 459 lbf                                         |
| Wind Load, Back (@ 150 km/h)*              | 3358 N / 755 lbf                                         |
| Wind Load, Side (@ 150 km/h)*              | 747 N / 168 lbf                                          |
| Wind Survival Rating                       | 150 mph (241 km/h)                                       |


\* Wind load based on calculation according to TIA-222-H, using flat panel for rear and side and using full cylinder for front

RFD#: 8038 ; Revision: R2 ; Release Date: October 16, 2024;

## Part Numbers & Ordering Options

| Description                                                            | Color | Mounting Kit                                 | Part Number      |
|------------------------------------------------------------------------|-------|----------------------------------------------|------------------|
| 6-Beam 120° Sector Low Band 2x2 Antenna                                | Gray  | Includes 2x MK-08143 mounting kit assemblies | GP4812-08038-112 |
| 6-Beam 120° Sector Low Band 2x2 Antenna with Heavy Duty Transport Case | Gray  | Includes 2x MK-08143 mounting kit assemblies | GP4812-08038-212 |

## Mounting Brackets & Optional Accessories

| Description:                                                                                                                                                                                                                                                                                                                                                                                           | Part Number:                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <p><b>Heavy Duty Mounting Bracket (wind speed of 150 mph) [2x Included]</b></p> <p>The MK-08143 standard mounting bracket allows for easy installation of this Galtronics Multibeam Antenna. It provides <math>\pm 10^\circ</math> mechanical tilt adjustability, and fits pole diameters ranging from 2" to 5".</p> <p><b>Note:</b> The MK-08143 mounting bracket can also be ordered separately.</p> |  <p>MK-08143</p> |