

Dual-Band 3/3 Multibeam 2x2 Antenna [1695-2690/3300-4000 MHz]

GP4212-07913

Description:

- 2x2 MIMO 3/3 beam antenna for high-capacity stadium/venue or special events applications
- 3-beams (6-ports) 1695-2690 MHz; each beam with 2x2 MIMO capability
- 3-beams (6-ports) 3300-4000 MHz; each beam with 2x2 MIMO capability
- 6° Fixed Electrical Downtilt in all bands
- Patent pending technology allows for stable azimuth beam directions over the entire operating frequency band
- Excellent alternative to large lens-based multibeam antennas
- Optional heavy-duty transport case is provided to prevent damage for multiple deployment scenarios



2x2 MIMO 1695-2690 & 3300-4000 MHz 3/3 Beam Antenna

Electrical Specifications								
Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690	3300-3550	3550-3700	3700-4000
Gain, max. (dBi)	17.3	17.9	18.2	18.6	19.4	18.4	18.6	18.7
Gain, avg. (dBi)	16.4	16.9	17.5	17.3	18.5	17.4	17.7	17.7
Azimuth Beamwidth (°)	25	25	23	22	21	23	22	21
Azimuth Beamwidth, 10dB (°)	45	43	41	39	36	42	39	38
Azimuth Beam Spacing (°)	33							
Azimuth Beam Crossover (dB)	6	7	8	8	9	8	9	10
Elevation Beamwidth (°)	16	15	13	12	11	14	13	12
Elevation Beamwidth, 10dB (°)	27	26	22	21	19	23	22	21
Electrical Downtilt (°)	6 FET (per each 2x2 beam cluster)							
First Upper Sidelobe Suppression (dB)	22	19	19	19	21	18	21	21
Front-to-Back Ratio, 180° (dB)	38					35		
Cross-Pol Discrimination @ Boresight (dB)	24					25		
VSWR / RL (dB)	1.5:1 / 14.0							
Port-to-Port Isolation, Intrabeam (dB)*	25							
Port-to-Port Isolation, Interbeam (dB)**	16	16	19	20	19	15		
PIM @ 2x43 dBm, max. (dBc)	-153					-145		
Max Power per Port (Watt)	100							
Polarization (°)	Dual slant 45 (±45)							
Impedance (Ω)	50							

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

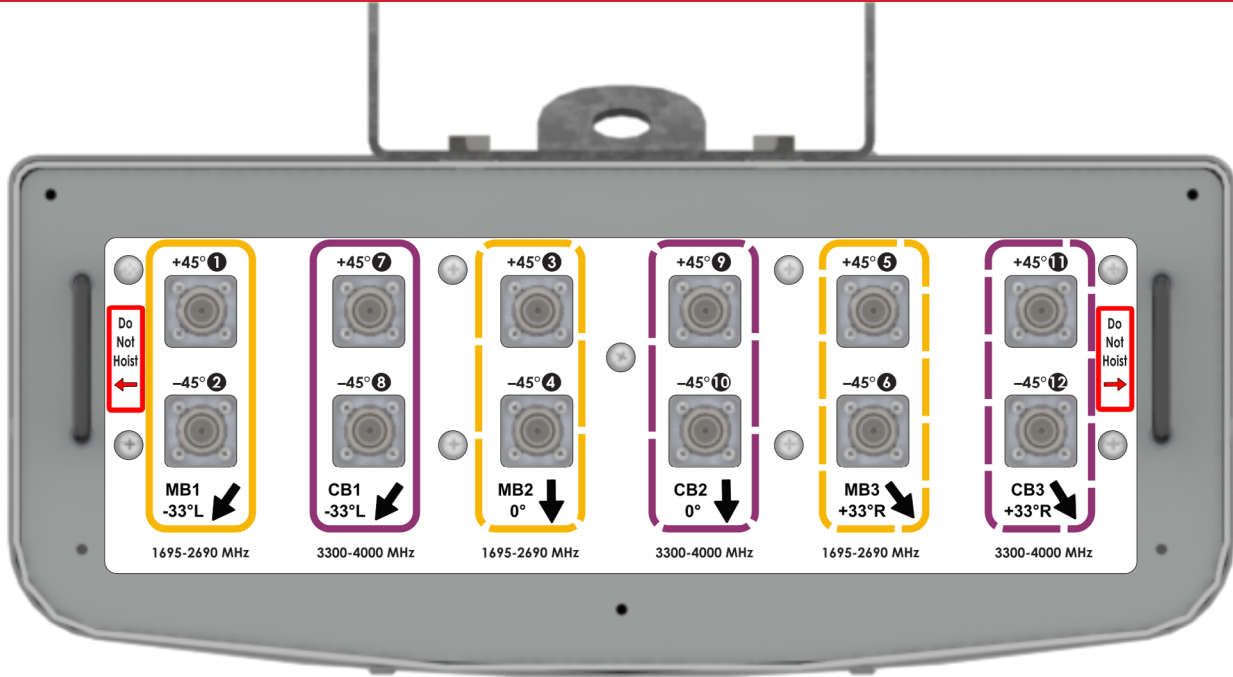
** Port-port isolation between any combination of ports between different beams

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Electrical Specifications - BASTA

Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690	3300-3550	3550-3700	3700-4000
Gain Over All Tilts, avg. (dBi)	16.4	16.9	17.5	17.3	18.5	17.4	17.7	17.7
Gain Over All Tilts Tolerance (dB)	0.7	0.7	0.6	1.5	0.8	1.0	1.0	0.9
AZ Beamwidth Tolerance (°)	1.6	1.8	2.1	3.7	2.5	3.7	3.5	3.5
EL Beamwidth Tolerance (°)	0.8	1.0	0.4	0.5	0.8	0.7	0.5	0.6
Upper Sidelobe Suppression, Peak to +20° (dB)	19.9	16.3	16.7	14.9	20.7	17.3	18.0	19.1
Front-to-Back Ratio, Total Power, +/-30° (dB)	27.5	31.7	31.0	28.7	29.2	27.8	25.9	26.2
Cross-Polar Discrimination at Boresight (dB)	17.1	21.0	21.9	14.2	19.2	21.6	21.7	18.8
Azimuth Beam Peak Tolerance	0.9	0.5	0.5	1.1	0.8	0.7	0.9	0.7
Azimuth Beam Crossover Tolerance	0.4	0.3	0.5	1.1	0.9	0.7	0.7	0.7

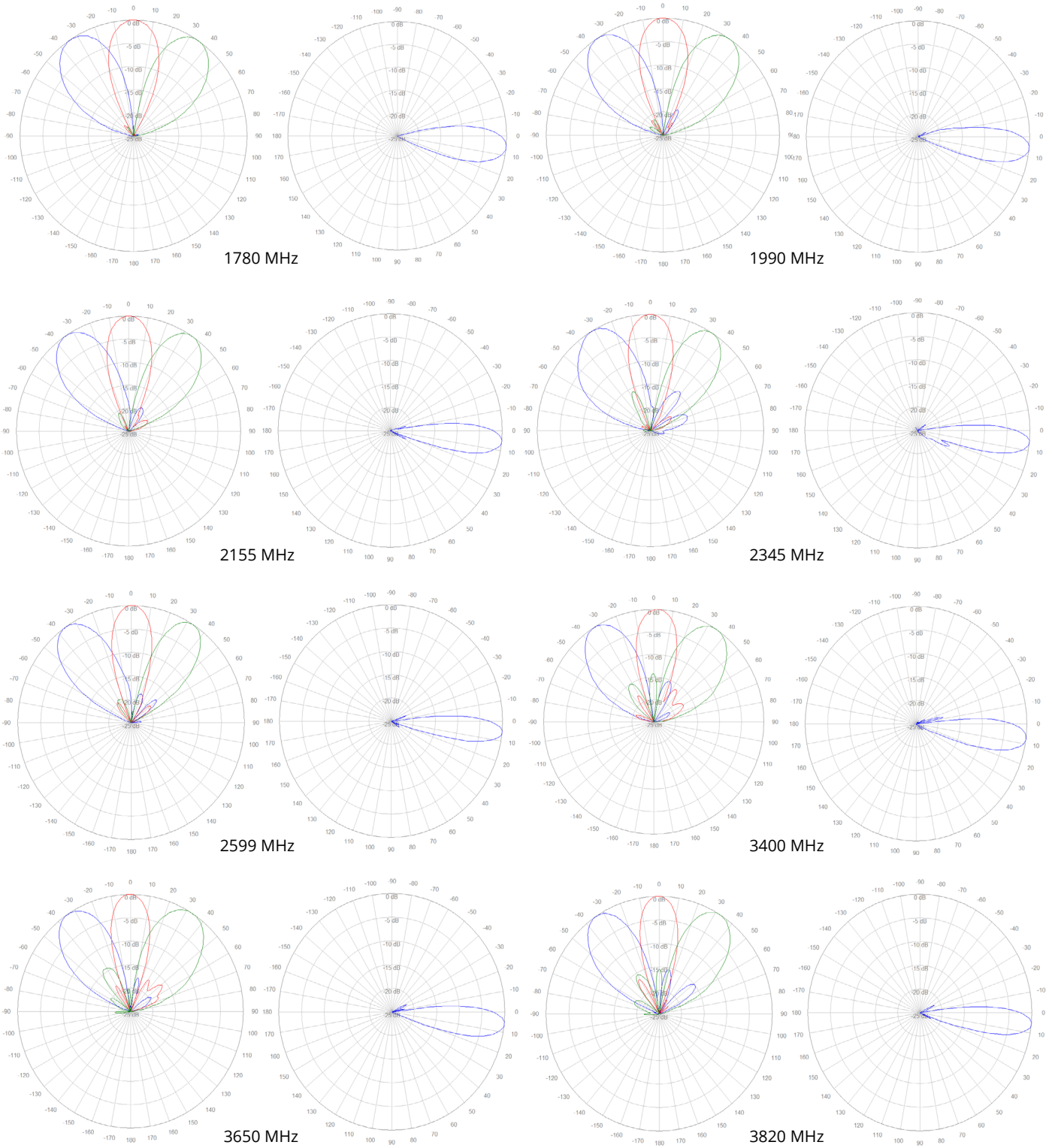
Bottom Plate & Port Designation Details



Port/Beam Designator Table

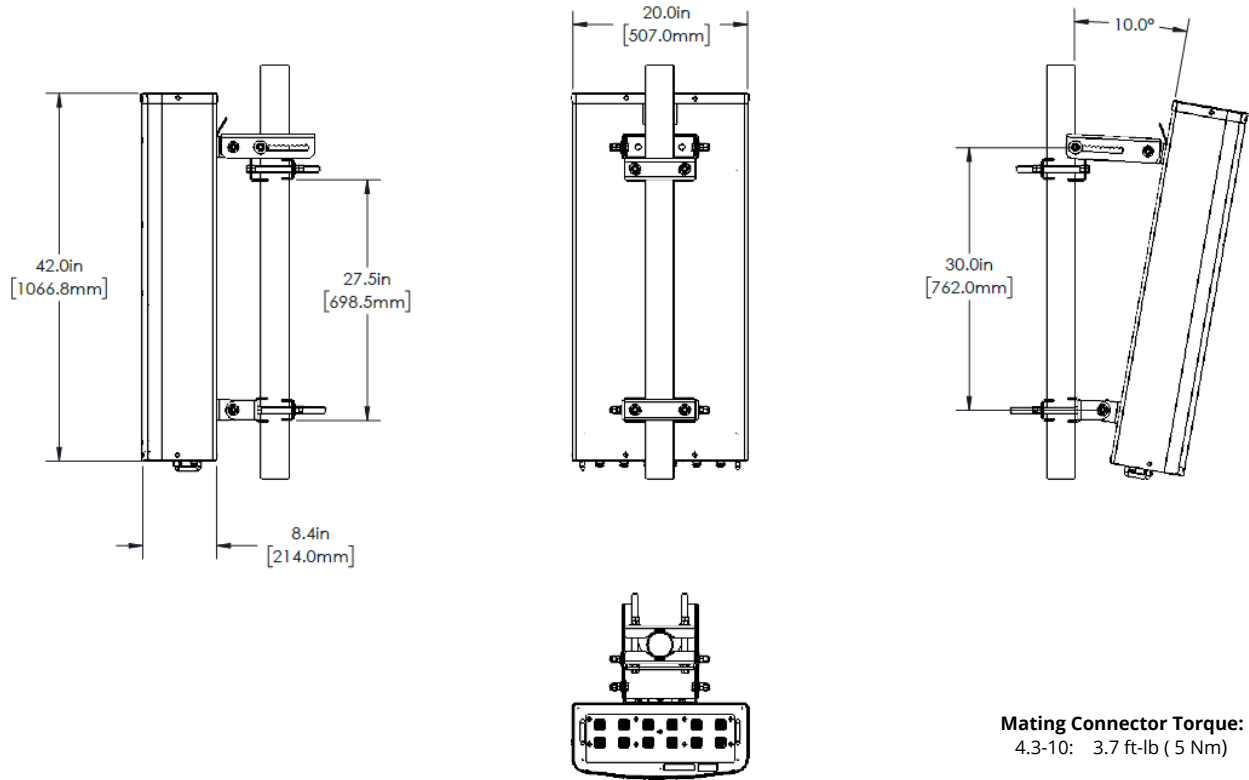
Frequency Range	Ports	Beam Assignment	AZ Beam Direction	Downtilt
1695-2690 MHz	1 - 2	MB1	-33° L	6° Fixed
1695-2690 MHz	3 - 4	MB2	0°	6° Fixed
1695-2690 MHz	5 - 6	MB3	+33° R	6° Fixed
3300-4000 MHz	7 - 8	CB1	-33° L	6° Fixed
3300-4000 MHz	9 - 10	CB2	0°	6° Fixed
3300-4000 MHz	11 - 12	CB3	+33° R	6° Fixed

2D Antenna Patterns



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Antenna Outline



Mechanical Specifications

Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	40.6 lbs (18.4 kg)
Antenna Bracket Weight	13.4 lbs (6.1 kg)
Antenna Dimension (Height x Width x Depth)	42.0" (1067.0 mm) x 20.0" (507.0 mm) x 8.4" (214.0 mm)
Input Connector Type	12x 4.3/10 (F)
Radome Material	ASA
Radome Color	Gray
Environment Rating	Outdoor
Wind Load, Front (@ 150 km/h)*	563.8 N / 127.0 Lbf
Wind Load, Back (@ 150 km/h)*	302.0 N / 68.0 Lbf
Wind Load, Side (@ 150 km/h)*	750.1 N / 169.0 Lbf
Wind Survival Rating	150 mph (241 km/h)


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

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Part Numbers & Ordering Options

Description	Color	Mounting Kit	Part Number
2x2 MIMO 1695-2690 & 3300-4000 MHz 3/3 Beam Antenna with 12x 4.3-10 (F) Connectors	Gray	Includes MK-06989 mounting kit assemblies	GP4212-07913-112
2x2 MIMO 1695-2690 & 3300-4000 MHz 3/3 Beam Antenna with 12x 4.3-10 (F) Connectors and Heavy Duty Transport Case	Gray	Includes MK-06989 mounting kit assemblies	GP4212-07913-212

Mounting Brackets & Optional Accessories

Description:	Part Number:
<p>Heavy Duty Mounting Bracket (wind speed of 150 mph) [Included]</p> <p>The MK-06989 standard mounting bracket allows for easy installation of all Galtronics outdoor Base Station Panel Antennas with height between 2.5' and 4'. It provides 0°-10° of mechanical downtilt adjustability, and fits pole diameters ranging from 2" to 5".</p> <p>Note: The MK-06989 mounting bracket can also be ordered separately.</p>	 <p>MK-06989 (Included)</p>