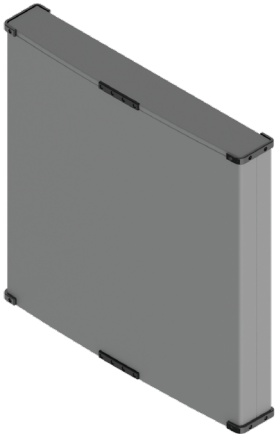


Mid-Band 9-Beam 90° Sector 4x4 MIMO Panel Antenna [1695-2690 MHz]

GP5136-08020

Description:

- 9-beam antenna for high-capacity stadium/venue or special events applications
- 9-beam (36-port) 1695-2690 MHz; each beam with 4x4 MIMO capability
- 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



4x4 MIMO 1695-2690 MHz 9-beam Panel Antenna

Electrical Specifications					
Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690
Gain, max. (dBi)	21.9	22.4	22.6	22.8	23.7
Gain, avg. (dBi)	20.7	21.1	21.6	21.2	21.4
Azimuth Beamwidth (°)	6.6	6.1	5.8	5.6	5.5
Azimuth Beamwidth, 10dB (°)	11.3	10.4	9.8	9.5	9.3
Azimuth Beam Spacing (°)	10				
Azimuth Beam Crossover (dB)	8.2	10.0	11.4	12.5	13.3
Elevation Beamwidth (°)	15.9	15.0	12.9	12.4	11.1
Elevation Beamwidth, 10dB (°)	27	26	22	22	19
Electrical Downtilt (°)	6 FET (per each 4x4 beam cluster)				
First Upper Sidelobe Suppression (dB)	22	21	18	20	22
Front-to-Back Ratio, 180° (dB)	45				
Cross-Pol Discrimination @ Boresight (dB)	21				
VSWR / RL (dB)	1.5:1 / 14				
Port-to-Port Isolation, Intrabeam (dB)*	25				
Port-to-Port Isolation, Interbeam (dB)**	17.0	15.5	19.0	18.0	15.5
PIM @ 2x43 dBm (dBc)	-153				
Max Power per Port (W)	100				
Polarization (°)	Dual slant 45 (±45)				
Impedance (Ω)	50				

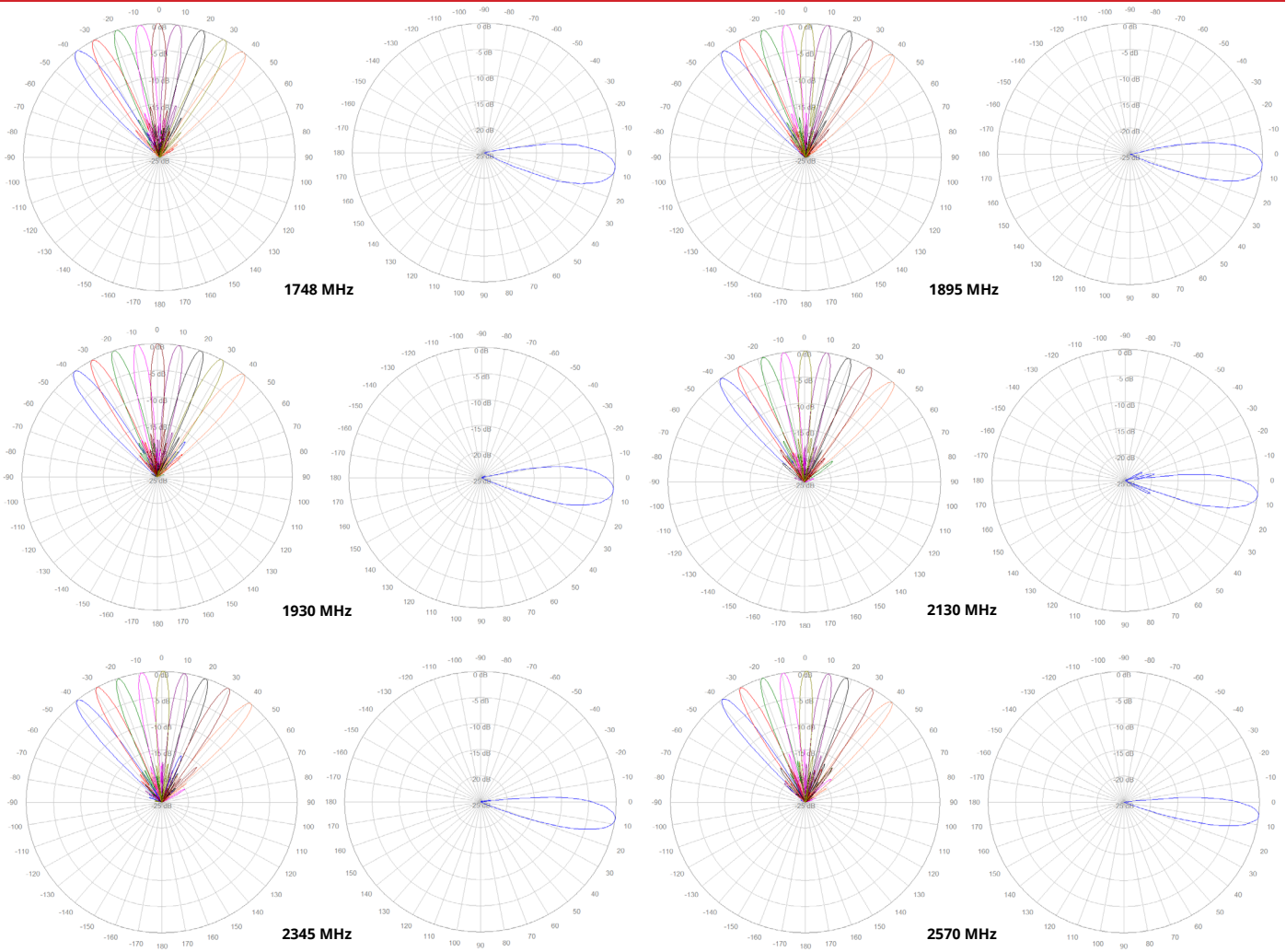
* Port-port isolation between each cluster of four ports in the same 4x4 MIMO beam
** Port-port isolation between any combination of ports between different beams

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Electrical Specifications - BASTA

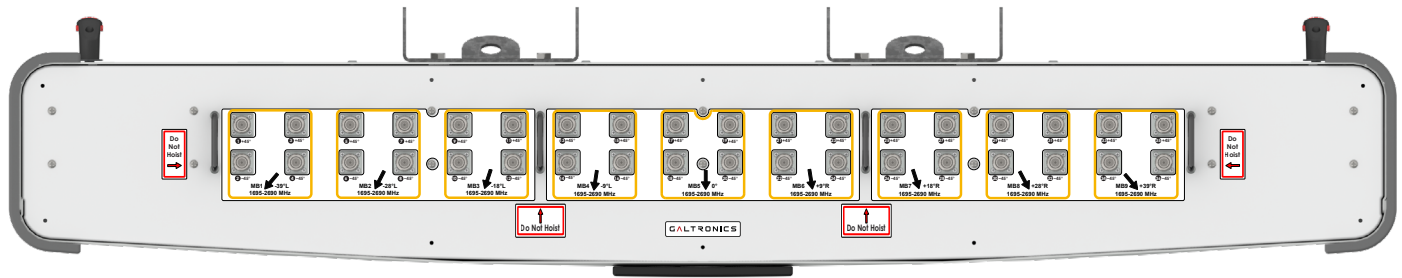
Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690
Gain Over All Tilts, avg. (dBi)	20.7	21.1	21.6	21.2	21.4
Gain Over All Tilts Tolerance (dB)	0.8	0.9	0.9	1.6	1.7
AZ Beamwidth Tolerance (°)	1.1	0.9	0.8	0.5	0.4
EL Beamwidth Tolerance (°)	0.9	0.8	0.5	1.0	0.7
Upper Sidelobe Suppression, Peak to +20° (dB)	21.0	15.3	14.8	14.4	18.9
Front-to-Back Ratio, Total Power, +/-30° (dB)	37	37	37	34	32
Cross-Polar Discrimination at Boresight (dB)	15.9	19.7	19.2	13.3	19.2
Azimuth Beam Peak Tolerance (°)	1.2	1.1	1.0	1.0	1.0
Azimuth Beam Crossover Tolerance (dB)	3.1	3.7	4.5	5.8	6.2

2D Antenna Patterns



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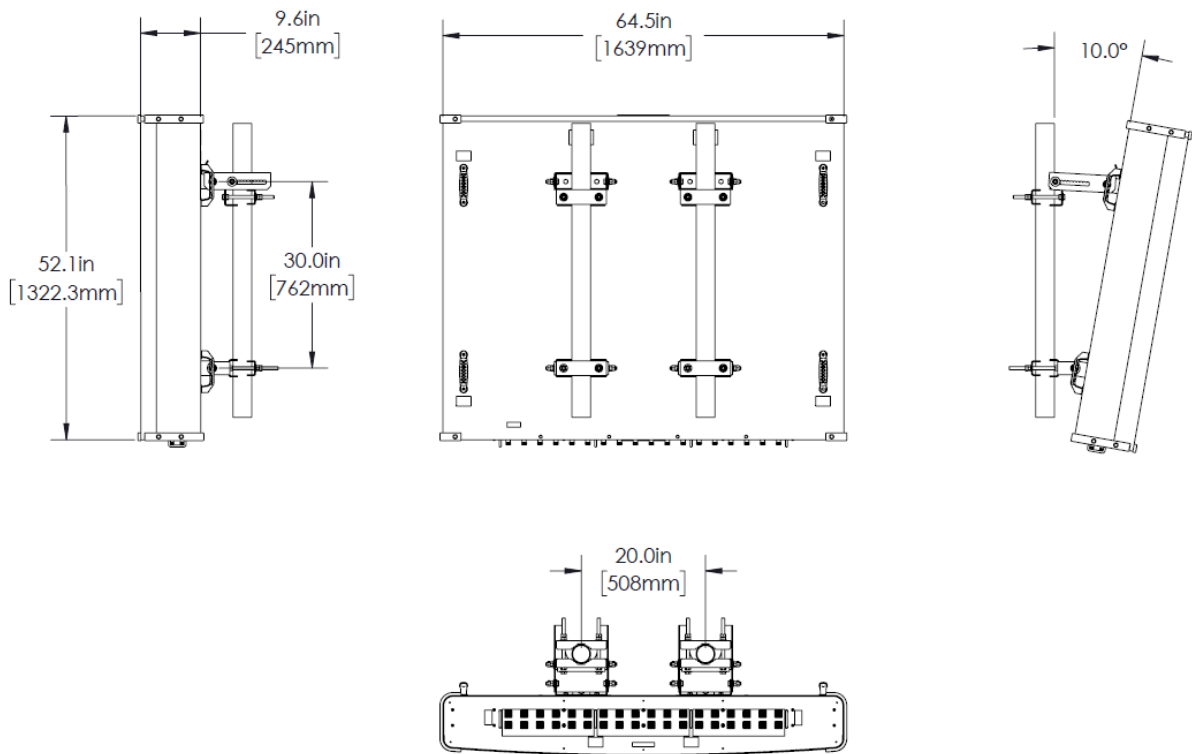
Bottom Plate & Port Designation Details



Port/Beam Designator Table

Frequency Range	Ports	Beam Assignment	AZ Beam Direction	Downtilt
1695-2690 MHz	1 - 4	MB1	-39° L	6° Fixed
1695-2690 MHz	5 - 8	MB2	-28° L	6° Fixed
1695-2690 MHz	9 - 12	MB3	-18° L	6° Fixed
1695-2690 MHz	13 - 16	MB4	-9° L	6° Fixed
1695-2690 MHz	17 - 20	MB5	0°	6° Fixed
1695-2690 MHz	21 - 24	MB6	+9° R	6° Fixed
1695-2690 MHz	25 - 28	MB7	+18° R	6° Fixed
1695-2690 MHz	29 - 32	MB8	+28° R	6° Fixed
1695-2690 MHz	33 - 36	MB9	+39° R	6° Fixed

Antenna Outline



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Mechanical Specifications

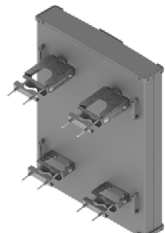
Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	162.0 lbs (73.5 kg)
Antenna Bracket Weight (2 Brackets)	26.8 lbs (12.2 kg), 2x Brackets Per Antenna
Antenna Dimension (Height x Width x Depth)	52.1" (1322.3 mm) x 64.5" (1639.0 mm) x 9.6" (245.0 mm)
Input Connector Type	36x 4.3/10 (F)
Radome Material	ASA w/ Heavy Duty Top/Bottom Caps
Radome Color	Gray
Wind Load, Front (@ 150 km/h)*	587 lbf / 2611 N
Wind Load, Back (@ 150 km/h)*	587 lbf / 2611 N
Wind Load, Side (@ 150 km/h)*	96 lbf / 428 N
Wind Load, Maximum (@ 150 km/h)*	629 lbf / 2800 N
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
4x4 MIMO 1695-2690 MHz 9-Beam Antenna, 6° FET with 36x 4.3-10 (F) Connectors	Gray	Includes 2x MK-06989 mounting kit assemblies	GP5136-08020-112
4x4 MIMO 1695-2690 MHz 9-Beam Antenna, 6° FET with 36x 4.3-10 (F) Connectors and Heavy Duty Transport Case	Gray	Includes 2x MK-06989 mounting kit assemblies	GP5136-08020-212

Mounting Brackets & Optional Accessories

Description:	Part Number:
Heavy Duty Mounting Bracket (wind speed of 150 mph) [2x Included] The MK-06989 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". Note: The MK-06989 mounting bracket can also be ordered separately.	 MK-06989

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