

Multi-Band 3/3/3 Multibeam 4x4 Antenna [617-960, 1695-2690, 3300-4000 MHz]

GP6536-08157

Description:

- 4x4 MIMO 3/3/3 beam antenna for high-capacity stadium/venue or special events applications
- 3-beams (12-ports) 617-960 MHz; each beam with 4x4 MIMO capability
- 3-beams (12-ports) 1695-2690 MHz; each beam with 4x4 MIMO capability
- 3-beams (12-ports) 3300-4000 MHz; each beam with 4x4 MIMO capability
- 9° Fixed Electrical Downtilt for low band and 6° Fixed Electrical Downtilt in Mid-band and C-band
- 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 617-960, 1695-2690 & 3300-4000 MHz
3/3/3 Beam Antenna

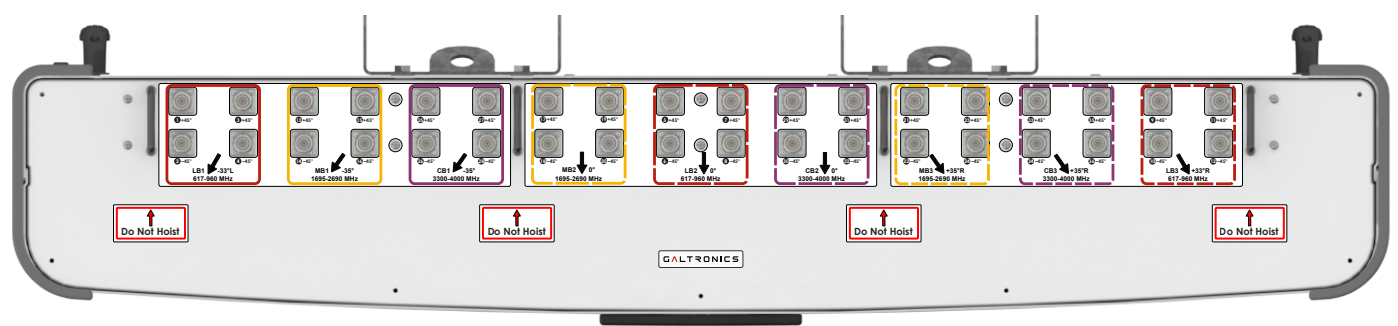
Electrical Specifications												
Frequency Band [MHz]	617-698	698-806	806-896	896-960	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690	3300-3550	3550-3700	3700-4000
Gain, max. (dBi)	16.0	16.9	16.9	17.3	18.3	18.6	19.0	18.9	19.4	18.6	18.9	19.0
Gain, avg. (dBi)	14.7	15.4	15.2	15.1	16.5	17.4	18.3	17.5	17.9	17.4	17.5	17.5
Azimuth Beamwidth (°)	21.4	19.7	17.5	16.3	24.4	22.9	21.2	19.7	19.3	22.9	22.9	22.2
Azimuth Beam Spacing (°)	33				35							
Azimuth Beam Crossover (dB)	9.0	12.1	14.9	17.2	6.8	8.4	9.6	10.5	13.0	8.2	8.9	9.5
Elevation Beamwidth (°)	32.0	28.7	24.7	22.6	16.1	14.2	13.3	12.7	11.0	14.0	13.6	12.9
Electrical Downtilt (°)	9 FET (per each 4x4 beam cluster)				6 FET (per each 4x4 beam cluster)							
First Upper Sidelobe Suppression (dB)	21.6	18.7	15.0	14.6	17.8	16.5	18.0	17.4	13.3	17.6	19.0	21.8
Front-to-Back Ratio, 180° (dB)	38				40				39			
Cross-Pol Discrimination @ Boresight (dB)	20				22				25			
VSWR / RL (dB)	1.5:1 / 14.0											
Port-to-Port Isolation, Intrabeam (dB)*	25				25				25			
Port-to-Port Isolation, Interbeam (dB)**	14.0				16.0				14.0			
PIM @ 2x43 dBm (dBc)	-153									-145		
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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Gain Over All Tilts, avg. (dBi)	14.7	15.4	15.2	15.1	16.5	17.4	18.3	17.5	17.9	17.4	17.5	17.5
Gain Over All Tilts Tolerance (dB)	1.2	1.2	1.8	2.1	1.2	1.0	0.6	1.5	1.2	1.0	1.1	1.3
AZ Beamwidth Tolerance (°)	2.7	2.8	1.9	1.7	2.4	2.9	1.6	2.2	2.8	4.0	4.7	4.5
EL Beamwidth Tolerance (°)	3.2	3.2	2.4	2.3	1.2	0.7	0.5	1.1	1.0	0.8	0.7	0.7
Upper Sidelobe Suppression, Peak to +20° (dB)	4.2	5.1	7.1	8.0	17.5	14.6	15.1	15.8	11.2	15.4	15.0	18.3
Front-to-Back Ratio, Total Power, +/-30° (dB)	25	28	27	27	28	29	30	28	28	27	26	26
Cross-Polar Discrimination at Boresight (dB)	19.8	19.5	13.2	8.8	15.2	21.5	22.1	14.1	17.6	18.9	21.4	18.8
Azimuth Beam Peak Tolerance (°)	1.8	1.8	1.6	1.4	1.3	0.7	0.7	0.7	0.7	1.1	1.1	1.2
Azimuth Beam Crossover Tolerance (dB)	2.0	2.9	4.0	4.9	0.9	0.9	0.6	1.3	1.7	1.0	1.1	1.4

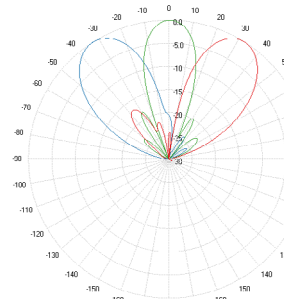
Bottom Plate & Port Designation Details



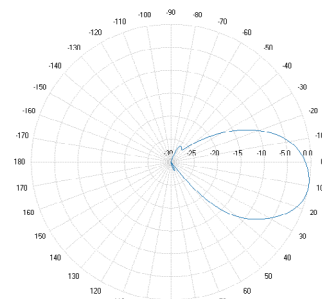
Port/Beam Designator Table				
Frequency Range	Ports	Beam Assignment	AZ Beam Direction	Downtilt
617-960 MHz	1 - 4	LB1	-33° L	9° Fixed
617-960 MHz	5 - 8	LB2	0°	9° Fixed
617-960 MHz	9 - 12	LB3	+33° R	9° Fixed
1695-2690 MHz	13 - 16	MB1	-35° L	6° Fixed
1695-2690 MHz	17 - 20	MB2	0°	6° Fixed
1695-2690 MHz	21 - 24	MB3	+35° R	6° Fixed
3300-4000 MHz	25 - 28	CB1	-35° L	6° Fixed
3300-4000 MHz	29 - 32	CB2	0°	6° Fixed
3300-4000 MHz	33 - 36	CB3	+35° R	6° Fixed

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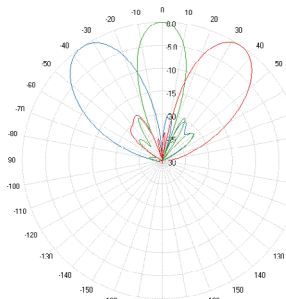
2D Antenna Patterns



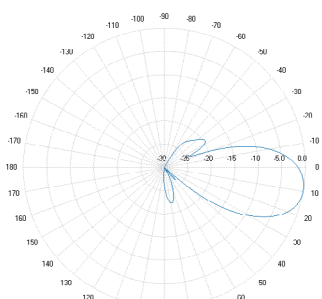
660 MHz



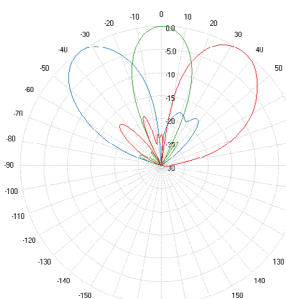
722 MHz



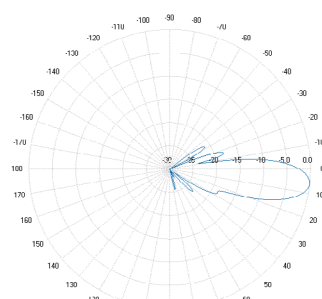
824 MHz



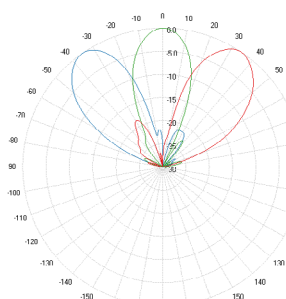
1865 MHz



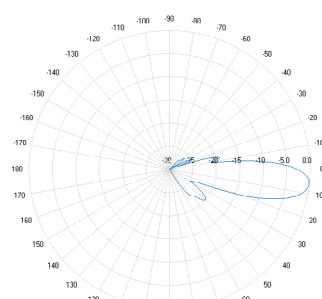
1990 MHz



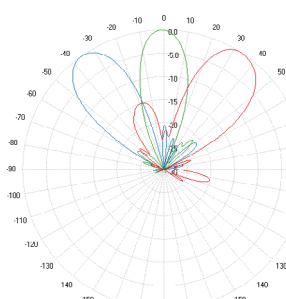
2133 MHz



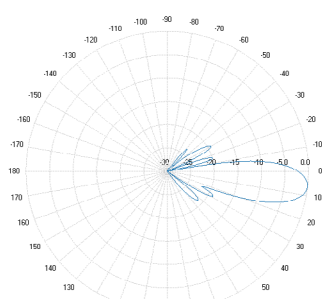
2345 MHz



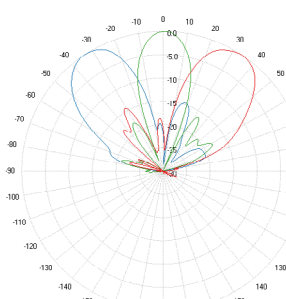
2620 MHz



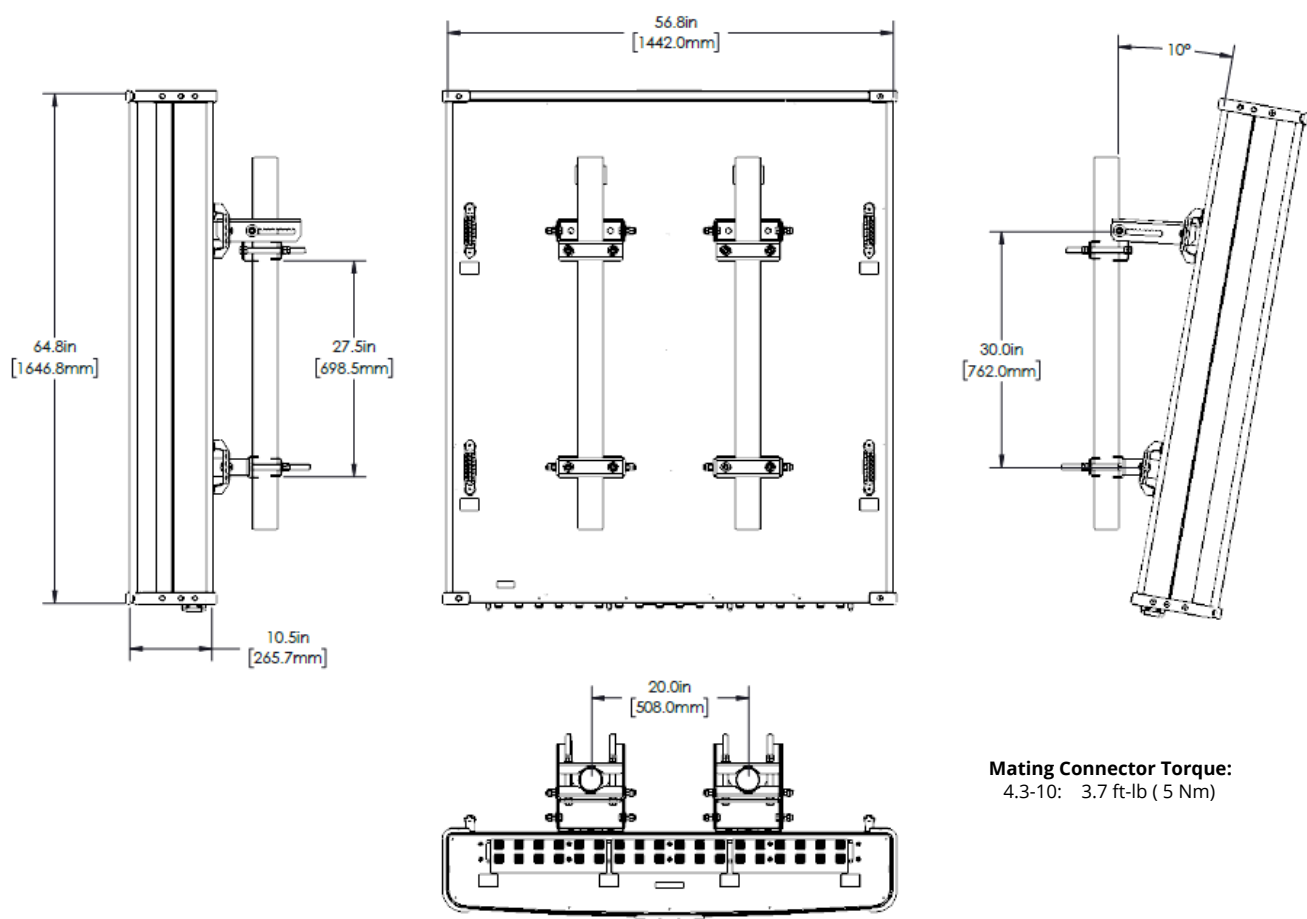
3450 MHz



3650 MHz



Antenna Outline

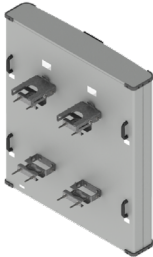


Mechanical Specifications	
Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	156.5 lbs (71.0 kg)
Antenna Bracket Weight	13.4 lbs (6.1 kg), 2x Brackets Per Antenna
Antenna Dimension (Height x Width x Depth)	64.8" (1646.8 mm) x 56.8" (1442.0 mm) x 10.5" (265.7 mm)
Input Connector Type	36 x 4.3/10 (F)
Radome Material	ASA w/Heavy Duty Top/Bottom Caps
Radome Color	Gray
Environment Rating	Outdoor
Wind Load, Front (@ 150 km/h)*	2738.4 N / 616.0 lbf
Wind Load, Side (@ 150 km/h)*	611.0 N / 137.0 lbf
Wind Load, Maximum (@ 150 km/h)*	3085.1 N / 694.0 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
4x4 MIMO 617-960, 1695-2690 & 3300-4000 MHz 3/3/3 Beam Antenna with 36x 4.3-10 (F) Connectors	Gray	Includes 2x MK-06989 mounting kit assemblies	GP6536-08157-112
4x4 MIMO 617-960, 1695-2690 & 3300-4000 MHz 3/3/3 Beam Antenna with 36x 4.3-10 (F) Connectors and Heavy Duty Transport Case	Gray	Includes 2x MK-06989 mounting kit assemblies	GP6536-08157-212

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 with height between 2.5' and 4'. 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