

Mid-Band 6-Beam 4x4 Antenna [1695-2690 MHz]

GP5124-07276

Description:

- 4x4 MIMO 6-beam antenna for high-capacity stadium/venue or special events applications
- 6-beams (24-ports) 1695-2690 MHz; each beam with 4x4 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



4x4 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)	18.8	19.5	20.1	19.6	20.4
Azimuth Beam Width, 3dB (°)	11.6	10.5	10.0	9.2	8.4
Azimuth Beam Width, 10dB (°)	20.3	18.4	17.5	16.2	14.8
Azimuth Beam Spacing (°)	16				
Azimuth Beam Crossover (dB)	7.1	8.4	9.4	11.6	12.9
Elevation Beam Width, 3dB (°)	15.6	14.5	12.8	12.2	10.8
Elevation Beam Width, 10dB (°)	27.6	25.8	22.1	21.6	18.9
Electrical Downtilt (°)	6 FET (per each 4x4 beam cluster)				
First Upper Sidelobe Suppression (dB, avg.)	23	21	18	20	22
Front-to-Back Ratio, 180° (dB, avg.)	38	40	39	36	37
Cross-Polar Discrimination @ Boresight (dB, avg.)	22	23	24	20	30
VSWR (max.) / RL (dB, min.)	1.31:1 / 17.5		1.33:1 / 17.0		1.27:1 / 18.5
Port-to-Port Isolation, Intrabeam* (dB, min.)	29		28		27
Port-to-Port Isolation, Interbeam** (dB, min.)	17.5	18.0	22.0	14.5	16.5
PIM @ 2x43 dBm, dBc (max.)	-153				
Max Power per Port (W)	100				
Polarization (°)	Dual slant 45 (±45)				
Impedance (Ω)	50				

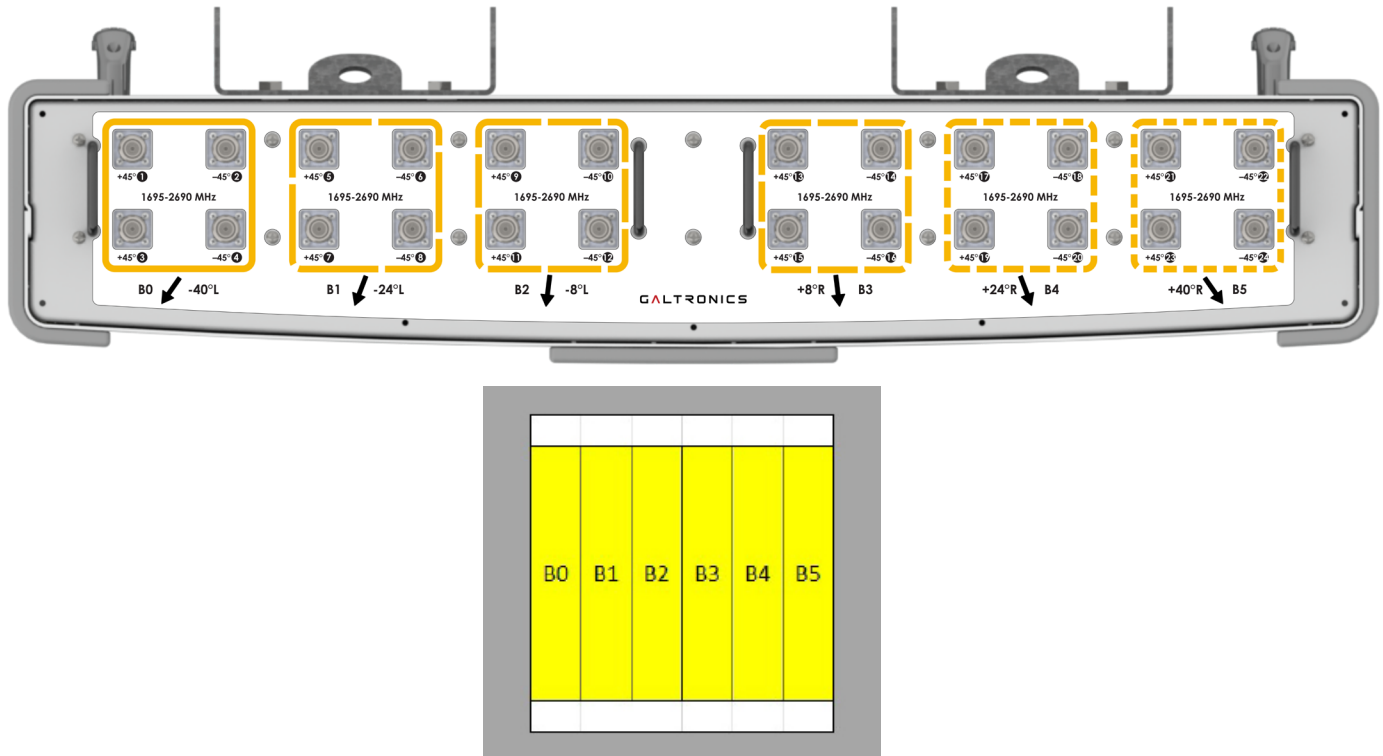
* Port-to-port isolation between each cluster of four ports in the same 4x4 MIMO beam

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

Electrical Specifications - BASTA

Frequency Band [MHz]	1695-1910	1930-2020	2110-2200	2305-2360	2496-2690
Gain Over All Tilts, avg. (dBi)	18.8	19.5	20.1	19.6	20.4
Gain Over All Tilts Tolerance (dB)	1.2	0.9	1.0	1.9	1.2
AZ Beamwidth Tolerance (°)	1.9	1.5	1.4	1.6	1.0
EL Beamwidth Tolerance (°)	0.9	0.5	0.5	0.7	0.8
Upper Sidelobe Suppression, Peak to +20° (dB)	19.8	18.2	15.5	15.8	20.5
Front-to-Back Ratio, Total Power, +/-30° (dB)	26.1	26.8	26.2	22.9	22.6
Cross-Polar Discrimination at Boresight (dB)	16.7	19.8	18.8	12.5	20.7
Azimuth Beam Peak Tolerance	1.0	0.8	0.9	1.1	1.0
Azimuth Beam Crossover Tolerance	1.3	1.1	1.4	2.3	2.3

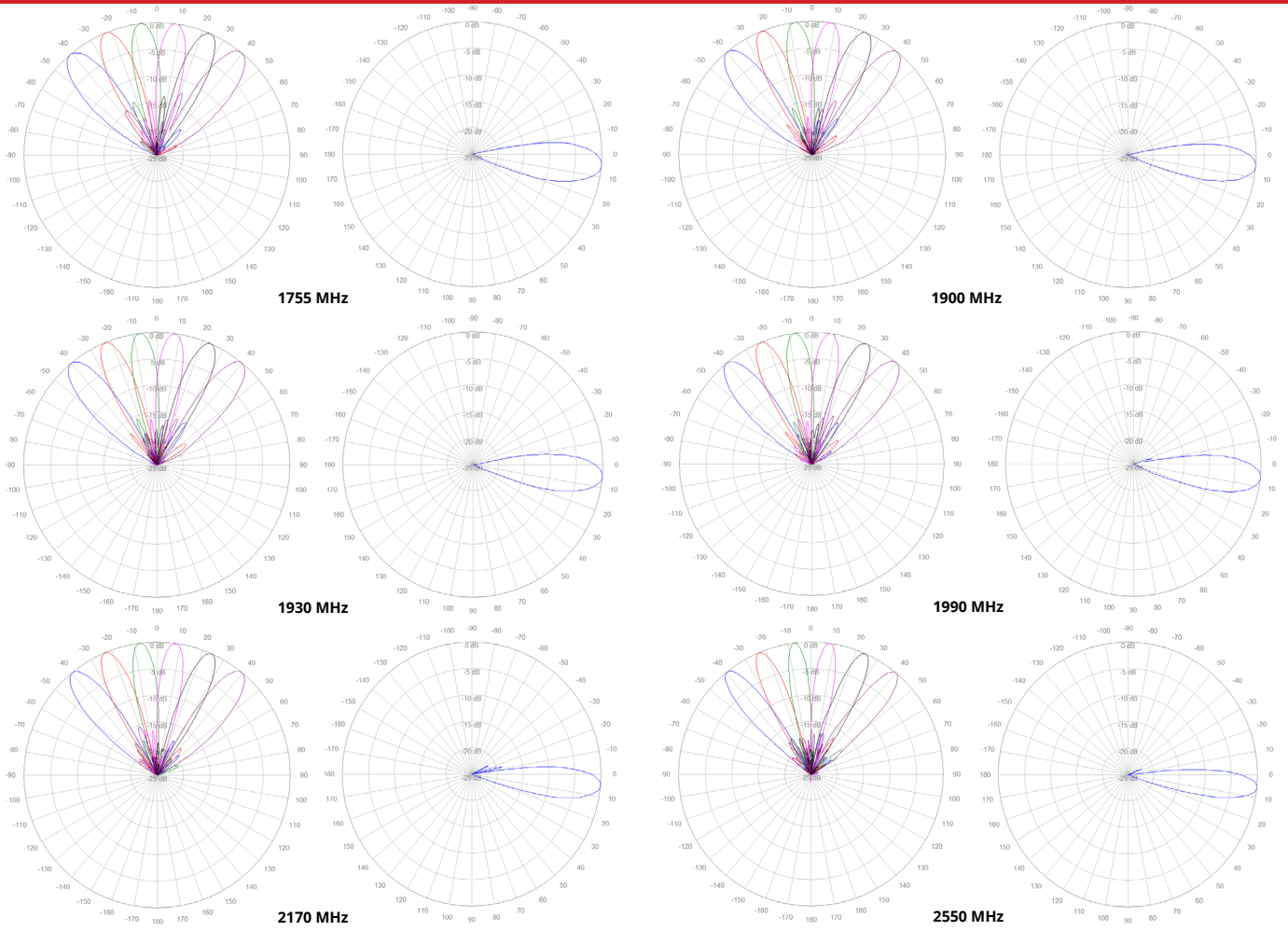
Bottom Plate & Port Designation Details



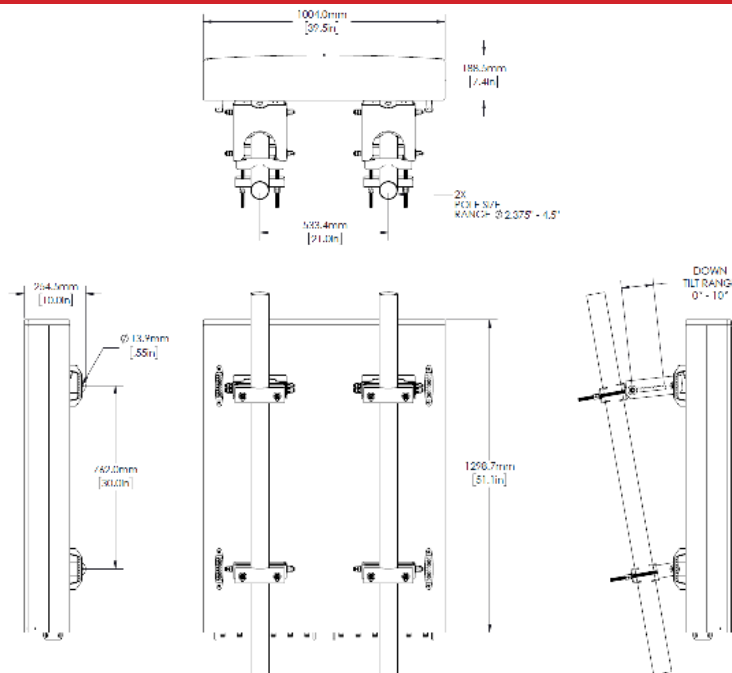
Port/Beam Designator Table

Frequency Range	Ports	Beam Assignment	AZ Beam Direction	Downtilt
1695-2690 MHz	1 - 4	B0	-40° L	6° Fixed
1695-2690 MHz	5 - 8	B1	-24° L	6° Fixed
1695-2690 MHz	9 - 12	B2	-8° L	6° Fixed
1695-2690 MHz	13 - 16	B3	+8° R	6° Fixed
1695-2690 MHz	17 - 20	B4	+24° R	6° Fixed
1695-2690 MHz	21 - 24	B5	+40° R	6° Fixed

2D Antenna Patterns



Antenna Outline



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Mechanical Specifications

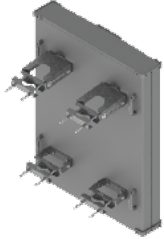
Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	73 lbs (33.2 kg)
Antenna Bracket Weight	13.4 lbs (6.1 kg), 2x Brackets Per Antenna
Antenna Dimension (Height x Width x Depth)	51.1" (1298.7 mm) x 39.5" (1004.0 mm) x 7.4" (188.5 mm)
Input Connector Type	24x 4.3/10 (F)
Radome Material	ASA w/Heavy Duty Top/Bottom Caps
Radome Color	Gray
Wind Load, Front (@ 150 km/h)*	1666 N / 375 lbf
Wind Load, Side (@ 150 km/h)*	364 N / 82 lbf
Wind Load, Maximum (@ 150 km/h)*	1695 N / 381 lbf
Wind Survival Rating	150 mph (241 km/h)

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

Part Numbers & Ordering Options

Description	Color	Mounting Kit	Part Number
4x4 MIMO 1695-2690 MHz 6-Beam Antenna with 24x 4.3-10 (F) Connectors	Gray	Includes 2x MK-06989 mounting kit assemblies	GP5124-07276-012
4x4 MIMO 1695-2690 MHz 6-Beam Antenna with 24x 4.3-10 (F) Connectors and Heavy Duty Transport Case	Gray	Includes 2x MK-06989 mounting kit assemblies	GP5124-07276-112

Mounting Brackets & Optional Accessories

Description:	Part Number:
<p>Heavy Duty Mounting Bracket (wind speed of 150 mph) [2x Included]</p> <p>The MK-6989 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 2.375" to 4.5".</p> <p>Note: The MK-06989 mounting bracket can also be ordered separately.</p>	 <p>MK-06989</p>

RFD#: 7276 ; Revision: R4 ; Release Date: September 05, 2023;