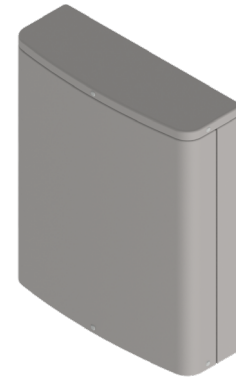


2' 22-Port 65° Small Cell Panel Antenna [1695-2690, 3300-3550/3700-4000, 3550-3700 & 5150-5925 MHz]

GP2422-07512

Description:

- Single-sector 22-Port Antenna for High Capacity Area Coverage
- 65° beamwidth Dual-Polarized Design Covering AWS, PCS, WCS, C-band, CBRS and LAA
- 8x ports for AWS/PCS/WCS/BRS Bands 1695-2690 MHz
- 8T8R M-MIMO Array for C-band 3300-3550/3700-4000 MHz
- 4x ports for CBRS 3550-3700 MHz
- 2x2 MIMO in LAA, 5150-5925 MHz UNII-1/-2/-3/-4 Bands*
- Calibration Port Included for C-band M-MIMO Array



2' 22-Port 65° Small Cell Panel Antenna
1695-2690, 3300-3550/3700-4000, 3550-3700 and 5150-5925 MHz

*Compliant to 789033 D02 General U-NII Test Procedures New Rules v01r04: The antenna meets current U-NII-1 requirements for gain and upper side-lobe performance. Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Sub-part E

Electrical Specifications:

Frequency Range (MHz)	1695-2200	2305-2360	2496-2690	3550-3700	5150-5925
Gain, Max. (dBi)	13.1	13.3	14.3	12.4	5.0
Gain, Avg. (dBi)	11.7	12.7	13.3	11.4	4.2
AZ Beamwidth (°)	78	73	70	66	68
Elevation Beamwidth (°)	22.7	18.7	16.6	25.6	22.0
Electrical Downtilt	0° Fixed				
First Upper Sidelobe Suppression (dB)	23	23	19	18	17
Front-to-Back Ratio, 180° (dB)	37	36	37	39	25
Cross-Polar Discr. at Mech. Boresight (dB)	24	25	24	22	19
PIM @ 2x43 dBm (dBc, max.)	-153			-145	N/A
Isolation (dB, min.)	25				
Power per Port (W)	100			100	1

Electrical Specifications: C-Band M-MIMO

Frequency Range (MHz)	3300-3550/3700-4000		
Single Column, Gain, Max./Avg. (dBi)	16.6/15.2		
Single Column, Azimuth Beamwidth (°)	74		
Single Column, Elevation Beamwidth (°)	7.5		
Broadcast Beam, Gain, Max./Avg. (dBi)	17.2/16.2		
Broadcast Beam, Azimuth Beamwidth (°)	60		
Broadcast Beam, First Upper Sidelobe (dB)	24		
Broadcast Beam, Front-to-Back Ratio, 180° (dB)	38		
Broadcast Beam, XPD at Mech. Boresight, (dB)	26		
Electrical Downtilt Range	0° Fixed		
Calibration Network Coupling Factor (dB)	26		
Calibration Network Amplitude Deviation (dB)	< 1.0 @3300-3550 MHz < 0.7 @3700-4000 MHz		
Calibration Network Phase Deviation (°)	< 7.0		
PIM @ 2x43 dBm (dBc, max.)	-145		
Service Beam Azimuth Scanning	0° AZ Scan	+/-15° AZ Scan	+/-30° AZ Scan
Service Beam, Gain, Max./Avg. (dBi)	20.8/20.0	20.6/19.7	18.8/18.3
Service Beam, Azimuth Beamwidth (°)	28.2		
Service Beam, AZ SLL (dB)	20		
Power per Port (W)	75		

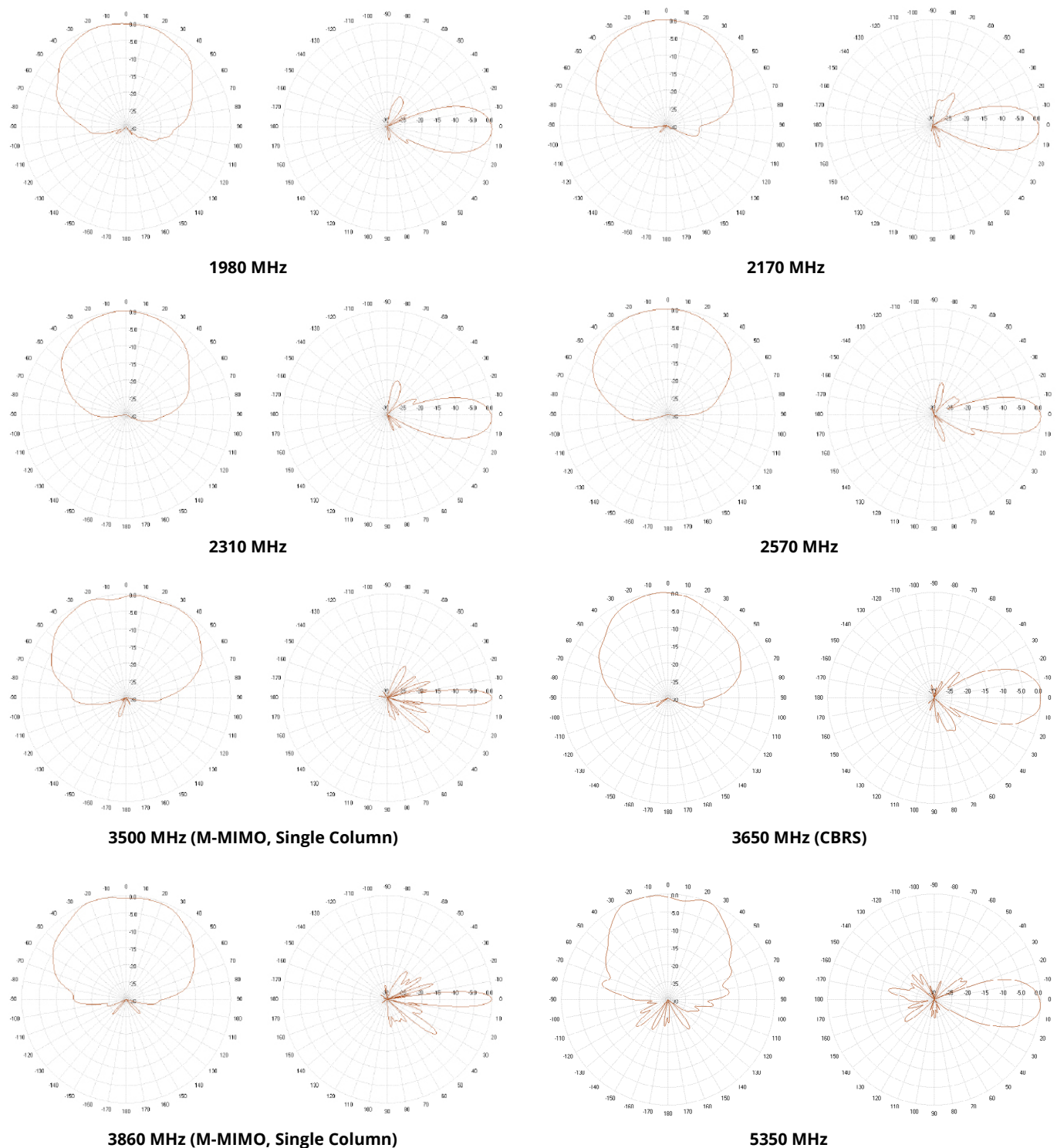
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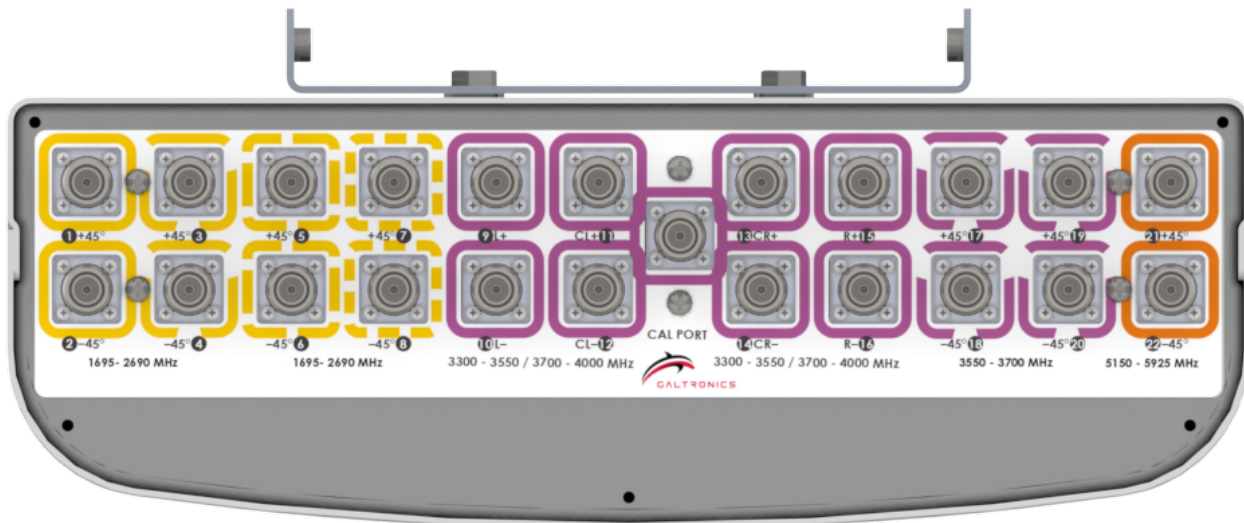
Common Electrical Specifications (All Ports)

VSWR (max.) / Return Loss (dB, min.)	1.5:1 / 14.0
Polarization	Dual slant 45° (±45°)
Isolation (dB, min.)	25
Impedance (Ohm, nominal)	50

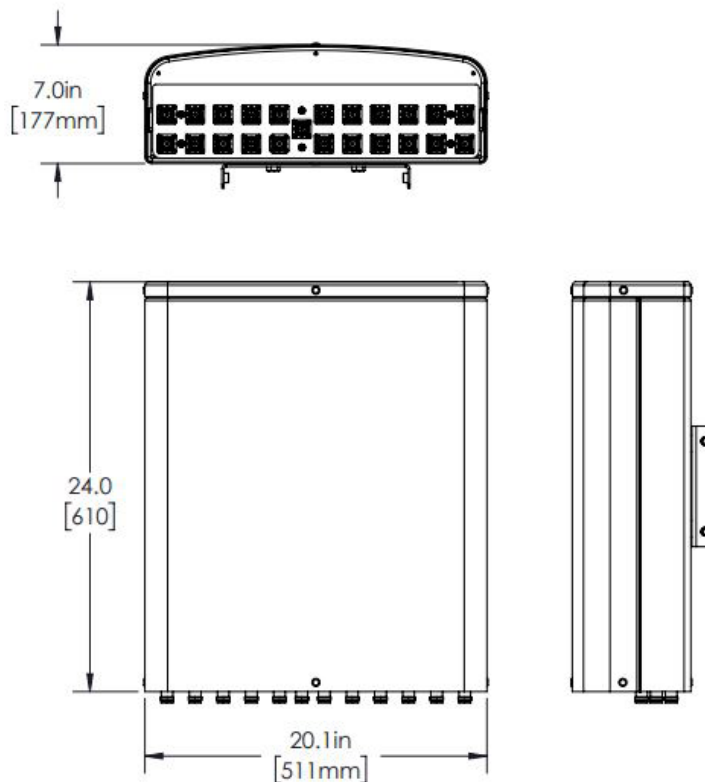
2D Antenna Patterns



Bottom Plate



Antenna Outline



Mating Connector Torque:
4.3-10: 3.7 ft-lb (5 Nm)

Mechanical Specifications

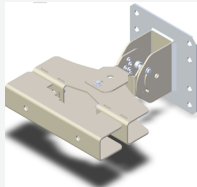
Operating Temperature	-40° to 158°F (-40° to +70°C)
Antenna Weight	22 lbs (10 kg)
Mounting Bracket Weight	5.1 lbs (2.3 kg)
Antenna Dimension (Length x Width x Depth)	24.0" (610 mm) x 20.1" (511 mm) x 7.0" (177 mm)
Connectors, RF, 1695-2690 MHz	8x 4.3-10 (F)
Connectors, RF, 3300-3550/3700-4000 MHz	8x 4.3-10 (F)
Connectors, RF, 3300-3550/3700-4000 MHz, Calibration (M-MIMO)	1x 4.3-10 (F)
Connectors, RF, 3550-3700 MHz	4x 4.3-10 (F)
Connector, RF, 5150-5925 MHz	2x 4.3-10 (F)
Radome Material	ASA
Radome Color	Gray
Environment Rating	Outdoor
Wind Load, Front (@ 150 km/h)	326 N / 73 lbf
Wind Load, Side (@ 150 km/h)	136 N / 31 lbf
Wind Load, Maximum (@ 150 km/h)	422 N / 95 lbf
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
22-Port 65° Samll Cell Panel Antenna with 22x 4.3-10 (F) Connectors	Gray	Includes MK-06853 mounting kit	GP2422-07512-1xx

Mounting Kit and Accessories Part Numbers

Description:	Part Number:
Heavy Duty Mounting Bracket (150 mph) [INCLUDED] This standard mounting bracket offers an easy installation solution to mount the antenna to either a horizontal or a vertical pole.	 MK-06853 (Included)
Heavy Duty Mounting Bracket (150 mph) [OPTIONAL] The mounting bracket allows wall and pole mounting with flexible and continuous antenna adjustment in the horizontal and vertical plane.	 62-45-09 (Optional)
2 Axis Pole/Wall Mounting Bracket (150 mph) [OPTIONAL] Galtronics' mounting bracket offers an easy installation solution to mount Galtronics' stadium antennas to either a pole or a wall. When attaching the antenna to a wall please make sure to select appropriate fasteners (not included).	 62-28-09 (Optional)

RFD# 7512 ; Revision: R4 ; Release Date: June 20, 2023