



DATA SHEET

Quad Port High-Band Antenna

QPA65F-H2A



- Two foot (0.75 m), WideBand, four port antenna with a 65° azimuth beamwidth covering 3100-4200 MHz frequencies
- Four wide high band ports covering 3100-4200 MHz, with full spectrum compliance
- Narrow enclosure with 10.1" (257 mm) width, reducing tower loading issues
- The Low weight and Low profile of this 65° panel antenna, makes this an ideal solution for Fixed Wireless Access (FWA) and Small Cell/C-RAN Densification deployments
- LTE Optimized FBR and SPR performance, providing for an efficient use of valuable radio capacity
- LTE Optimized Boresight and Sector XPD and USL performance, essential for LTE Performance
- Equipped with 4.3-10 connector

Overview

The CCI WideBand Antenna is a four port antenna, with four wide High Band ports covering 3100-4200 MHz. The CCI WideBand Antenna provides the capability to deploy 4x4 Multiple-Input Multiple-Output (MIMO).

CCI antennas are designed and produced to ISO 9001:2008 certification standards for reliability and quality in our state-of-the-art manufacturing facilities.

Applications

- Ideal for FWA deployments or other deployments where 4x4 MIMO is required in 3.5 GHz spectrum
- Ready for Network Standardization on 4.3-10 connectors
- With CCI's WideBand Antennas, wireless providers can connect platforms to a single antenna, reducing tower load, lease expense, deployment time and installation costs



SPECIFICATIONS

Quad Port High-Band Antenna

QPA65F-H2A

Electrical

Specifications	4 x High Band Ports for 3100-4200 MHz		
Frequency Range	3100-3300 MHz	3300-3800 MHz	3700-4200 MHz
Gain	17.6 dBi	18.3 dBi	18.4 dBi
Azimuth Beamwidth (-3dB)	62°	59°	55°
Elevation Beamwidth (-3dB)	7.6°	6.5°	6.1°
Electrical Downtilt	4°	4°	4°
Elevation Sidelobes (1st Upper)	< -16 dB	< -18 dB	< -17 dB
Front-to-Back Ratio @180°	> 40 dB	> 45 dB	> 45 dB
Cross-Polar Discrimination (at Peak)	> 21 dB	> 21 dB	> 19 dB
Cross-Polar Port-to-Port Isolation	> 27 dB	> 27 dB	> 27 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -140 dBc	≤ -140 dBc	≤ -140 dBc
Input Power Continuous Wave (CW)	100 watts	100 watts	100 watts
Polarization	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°
Input Impedance	50 ohms	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground	DC Ground

BASTA Electrical Specifications*			
Frequency Range	3100-3300 MHz	3300-3800 MHz	3700-4200 MHz
Gain over Sub Band (dBi)	16.9	17.8	17.8
Gain over Sub Band Tolerance (dB)	1.1	0.4	0.4
Azimuth Beamwidth Tolerance (°)	2.2	2.1	6.6
Elevation Beamwidth Tolerance (°)	0.8	0.4	0.5
Electrical Downtilt Deviation (°)	0.5	0.4	0.5
First Upper Sidelobes Suppression (dB)	7.7	13.1	13.8
Front-to-Back Ratio over ±20° (dB)	30.8	33.6	29.2
Cross-polar Discrimination at ±60° (dB)	3.6	4.2	4.2

* Electrical specifications follow document "Recommendation on Base Station Antenna Standards" (BASTA) V11.1. All specifications are subject to change without notice.

Mechanical

Dimensions (LxWxD)	29.5x10.1x3.7 in (750x257x94 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	65 lbs (288 N) @ 100 mph (161 kph)
Side Wind Load	28 lbs (124 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	2.5 ft ² (0.2 m ²)
Weight *	13.2 lbs (6.0 kg)
Connector	4 x 4.3-10 female
Mounting Pole	2 to 5 in (5 to 12 cm)

* Weight excludes mounting



SPECIFICATIONS

Quad Port High-Band Antenna

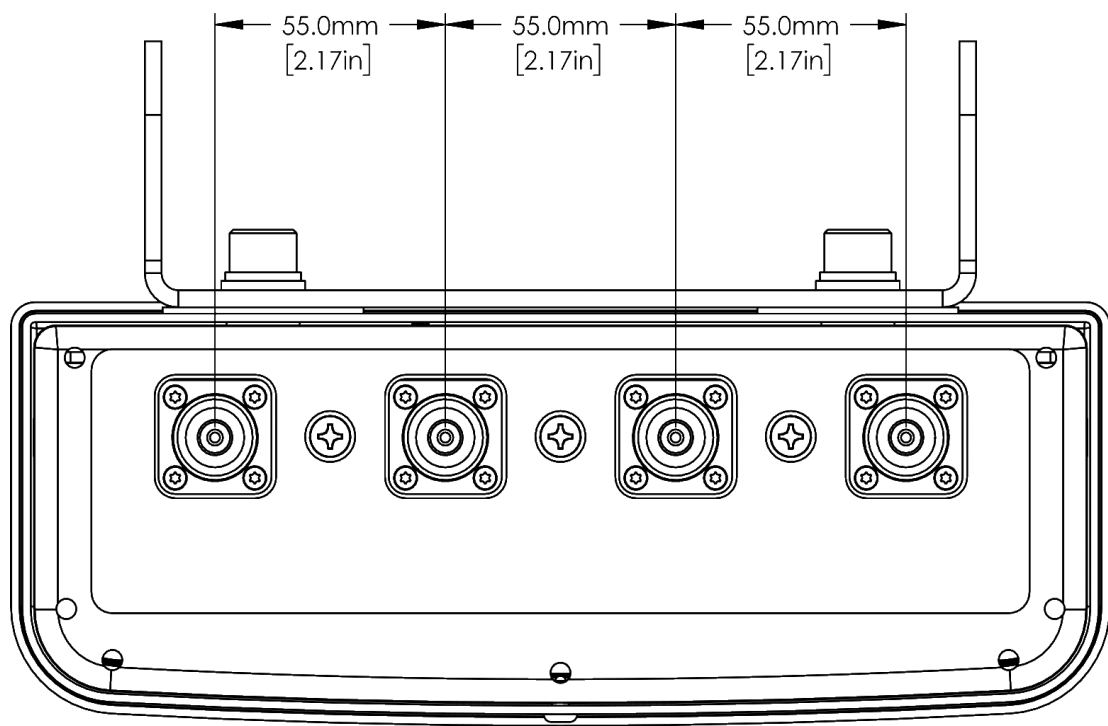
QPA65F-H2A

Mechanical

Bottom View



Connector Spacing





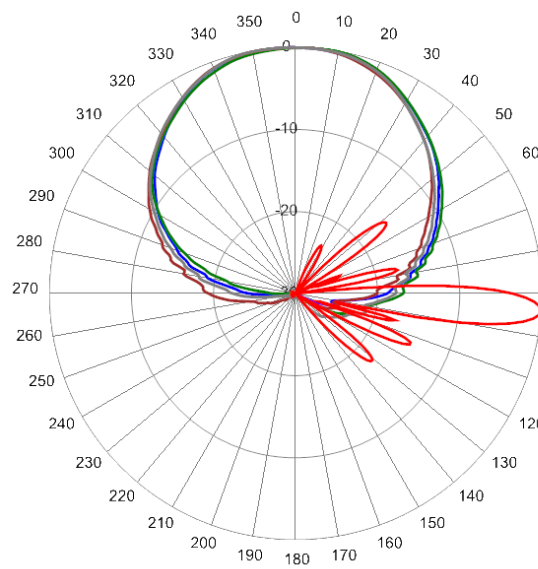
SPECIFICATIONS

Quad Port High-Band Antenna

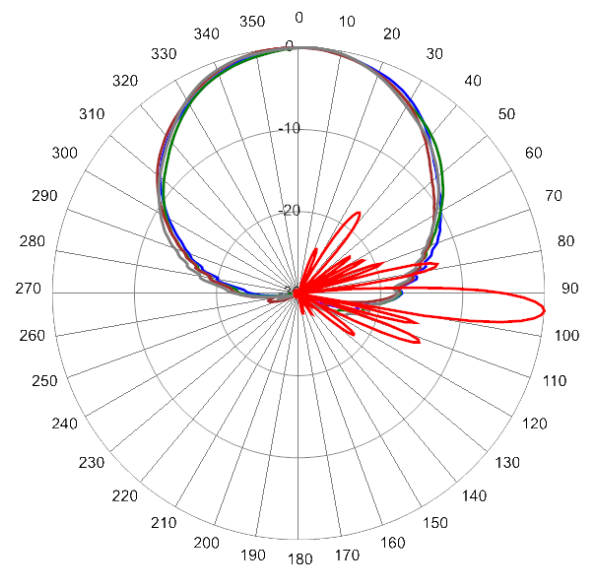
QPA65F-H2A

Typical Antenna Patterns

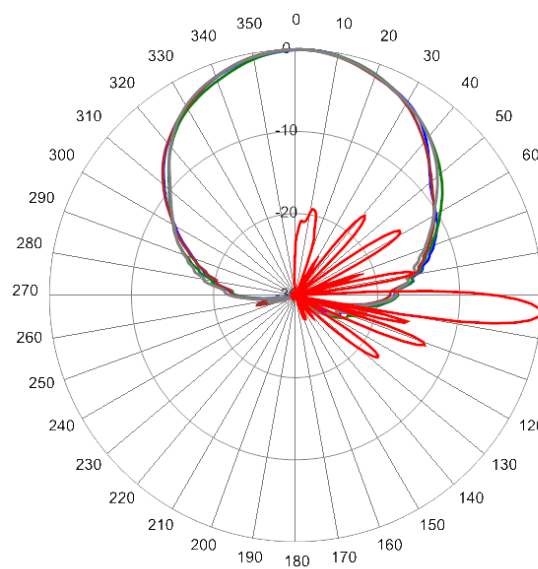
For detailed information on additional antenna patterns, contact customer support at support@cciprducts.com



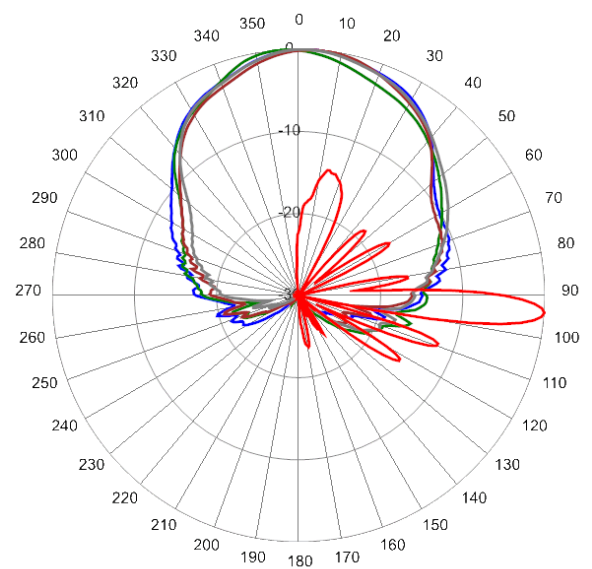
3300 MHz Azimuth & Elevation 4°



3600 MHz Azimuth & Elevation 4°



3800 MHz Azimuth & Elevation 4°



4100 MHz Azimuth & Elevation 4°



ORDERING

Quad Port High-Band Antenna

QPA65F-H2A

Parts & Accessories

- | | |
|----------------------|--|
| QPA65F-H2AA-K | Two foot (0.75 m) QuadPort antenna with 65° azimuth beamwidth, 4.3-10 female connectors and MBK-03 mounting brackets |
| MBK-03 | Mounting bracket kit (top and bottom) with 0° to 10° mechanical tilt adjustment |



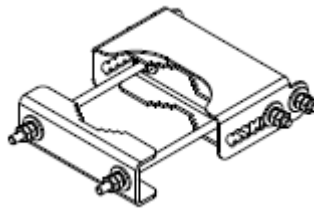
ACCESSORIES

Mounting Bracket Kit

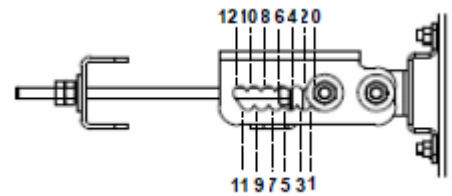
MBK-03

Mechanical

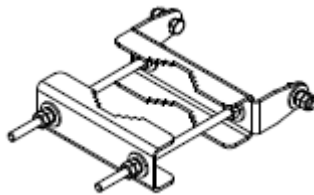
Weight	9.8 lbs (4.4 kg)
Hinge Pitch	13 in (330 mm)
Mounting Pole Dimension	2 to 5 in (5 to 12 cm)
Fastener Size	M10
Installation Torque	15 ft-lbs (20 N·m)
Mechanical Tilt Adjustment	0° - 12°



MBK-03 Top Adjustable Bracket



MBK-03 Top Adjustable Bracket Side View



MBK-03 Bottom Fixed Bracket



STANDARDS & CERTIFICATIONS

Quad Port High-Band Antenna

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Standards & Compliance

Environmental IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5,
IEC 60068-2-6, IEC-60068-2-11, IEC 60068-2-14,
IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29,
IEC 60068-02-30, IEC 60068-2-52, IEC 60068-2-64,
GR-63-CORE 4.3.1, EN 60529, IP 24

Certifications

Federal Communication Commission (FCC) Part 15 Class B, CE, CSA US, ISO 9001

