Antennas

Multi-Band Quasi-Omni Antenna

SCA360F-BU2A

- Two foot (0.6 m), multi-band, four port quasi-omni antenna with 360° of coverage, covering 698-896 MHz and 1710-2360 MHz frequencies
- Two wide high band ports covering 1710-2360 MHz and two wide low band ports covering 698-896 MHz in a low profile cylindrical antenna
- Full Spectrum Compliance for WCS and AWS-3 Frequencies and upcoming Band 14 Operations
- Low profile cylindrical antenna makes this an ideal solution for Small Cell densification deployments in urban and suburban environments
- Antenna is equipped with center mount post, which makes it ideal for mounting on utility, lighting and traffic poles
- Exceeds minimum PIM performance requirements
- Equipped with new 4.3-10 connector, which is 40% smaller than traditional 7/16 DIN connectors
- Ordering options for a GPS antenna integrated into the radome

Overview

The CCI multi-band quasi-omni array is a four port Small Cell antenna, with two wide high band ports covering 1710-2360 MHz and two wide low band ports covering 698-896 MHz. The CCI Quasi-Omni Small Cell antenna provides 2x2 Multiple-input-Multiple-output (MIMO) across the high band and low band ports. The CCI Quasi-Omni Small Cell antenna is an ideal choice for Microcells, Small Cell and oDAS densification deployments in urban and suburban environments where antenna size and count are restricted. The CCI Quasi-Omni Small Cell antenna provides a fixed 2° EDT, across both low and high band frequencies.

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

Applications

- Microcells and Small Cells in Urban, Suburban and other visually sensitive environments
- Outdoor Distributed Antenna Systems (ODAS), neutral host in venues, campuses and other outdoor coverage applications

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SPECIFICATIONS

Multi-Band Quasi-Omni Antenna

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Electrical

| Ports	2 × Ports which cover the full range from 698-896 MHz		2 × Ports which cover the full range from 1710-2360 MHz			
Frequency Range	698-806 MHz	824-896 MHz	1850-1990 MHz	1710-1780/2110-2180 MHz		2305-2360 MHz
Gain[1]	5.1 dBi	5.9 dBi	9.4 dBi	8.8 dBi	10.0 dBi	10.5 dBi
Gain (Average)[2]	4.6 dBi	5.4 dBi	8.8 dBi	8.4 dBi	9.6 dBi	10.4 dBi
Elevation Beamwidth (-3dB)	31°	32°	17°	18°	14°	13°
Electrical Downtilt	2°	2°	2°	2°	2°	2°
First upper sidelobes at peak gain	< -12 dB	< -11 dB	< -16 dB	< -16 dB	< -18 dB	< -18 dB
Cross-Polar Port-to-Port Isolation	> 20 dB	> 20 dB	> 25 dB	> 25 dB	> 23 dB	> 25 dB
Interband Port-to-Port Isolation	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2×20W)	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc
Input Power Continuous Wave (CW)	300 watts	300 watts	200 watts	200 watts	200 watts	200 watts
Polarization	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°
Input Impedance	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground

[1]Peak gain across sub-bands.
[2]Electrical specifications follow document "Recommendation on Base Station Antenna Standards" (BASTA) V9.6.

Mechanical

Dimensions (L×D)	24.0 x 11.5 in (609 x 292 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	34 lbs (153 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	1.3 ft² (0.1 m²)
Weight *	14.3 lbs (6.5 kg)
Connector (RF)	4 × 4.3-10 female
Connector (GPS)	Type "N"
Mounting Pole	2 to 2.5 in (25 to 63 mm)
Wall mount Hardware	0.5 in. (13 mm) diameter recommended

Weight excludes mounting

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Mechanical

Bottom View

Without GPS option SCA360F-BU2AA

With GPS option SCA360F-BU2AB

Connector Spacing

WIthout GPS option SCA360F-BU2AA

WIth GPS option SCA360F-BU2AB

70.0mm
[2.8in]

70.0mm
[2.8in]

70.0mm
[2.8in]

70.0mm
[2.8in]

14.5mm
[0.6in]

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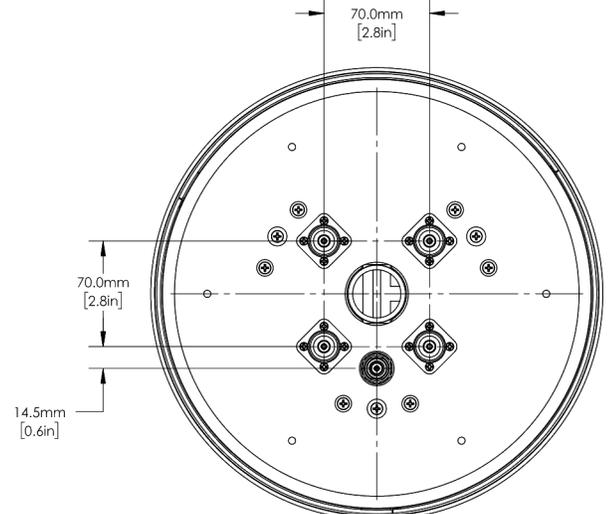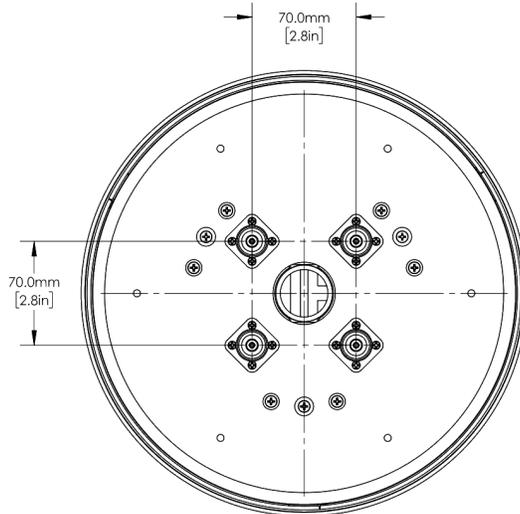
Multi-Band Quasi-Omni Antenna

SPECIFICATIONS

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Typical Antenna Patterns

For detailed information on additional antenna patterns, contact customer support at support@cciproducts.com
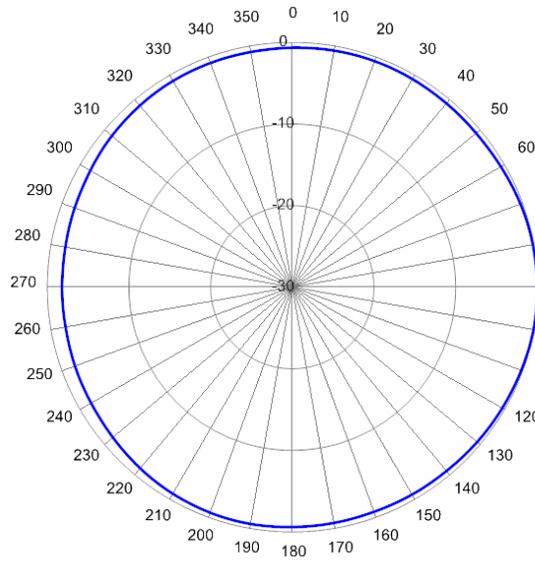
737 MHz Azimuth
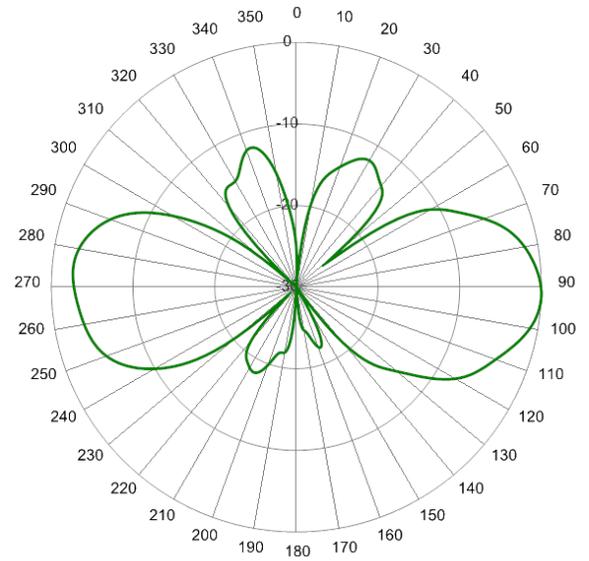
737 MHz Azimuth Elevation 2°
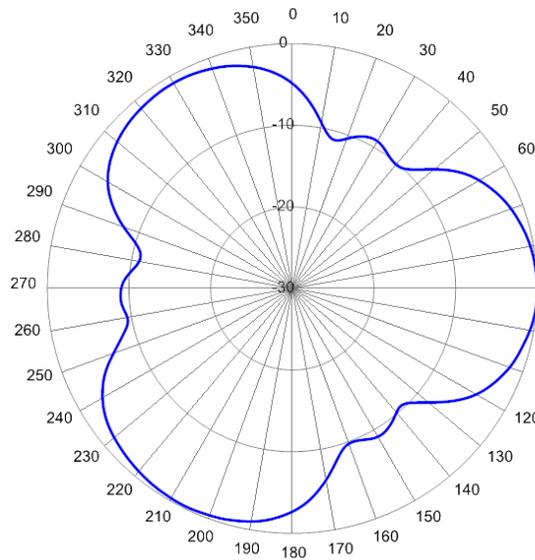
2110 MHz Azimuth
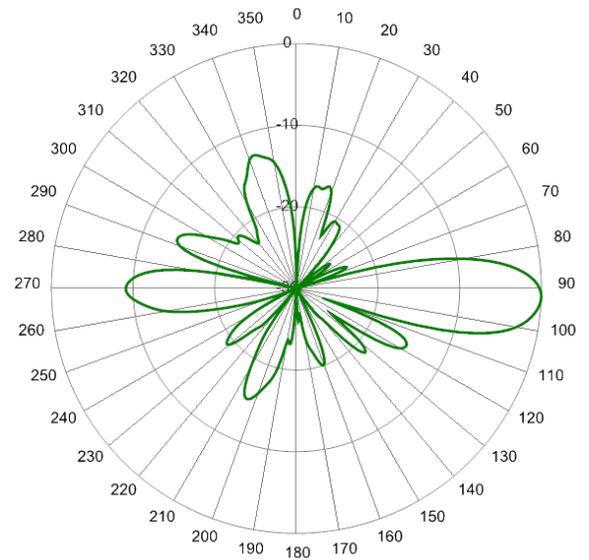
2110 MHz Azimuth Elevation 2°

Antennas

SPECIFICATIONS

Multi-Band Quasi-Omni Antenna

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3D Antenna Patterns
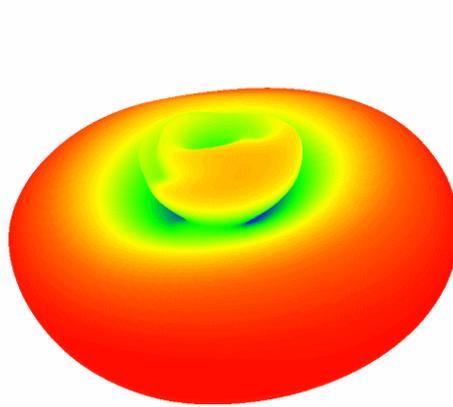
737 MHz

2110 MHz

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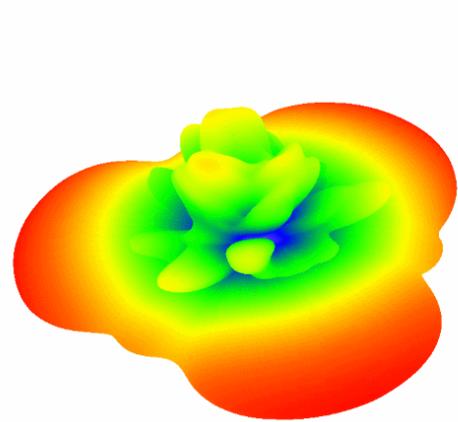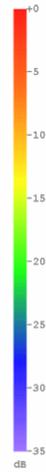
Parts & Accessories

SCA360F-BU2AA-K	Two foot (0.6 m) antenna Omni, Multiband with 4.3-10 female connectors and MBC-02 clamp kit (suitable for pole or wall mounting)
SCA360F-BU2AB-K	Two foot (0.6 m) antenna Omni, Multiband with 4.3-10 female connectors, an internal GPS and MBC-02 clamp kit (suitable for pole or wall mounting)
MBC-02	Clamp kit, Pipe range 1 - 2.5 in. or lag bolt to wooden pole or flat surface (lag bolts not supplied)

ACCESSORIES

Triple Mount Mast Bracket

MBC-02

Mechanical

Dimensions (L x W x D)	7.9×4.3×1.1 in. (200×108×28 mm)
Weight	2.4 lbs (1.1 kg)
Fastener Size	5/16 UNC
Installation Torque (ft-lbs)	10
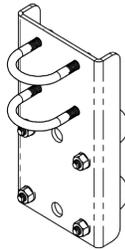
Bracket Vert. Mount View
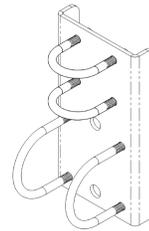
Bracket Hort. Mount View

Vertical Pole Mount
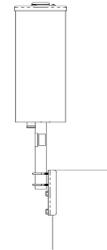
Wooden Pole Mount

Horizontal Pole Mount

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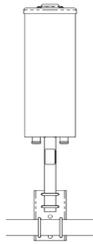
STANDARDS & CERTIFICATIONS

Multi-Band Quasi-Omni Antenna

SCA360F-BU2A

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 606529, IP 24

Certifications

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

Communication Components Inc.

EXTENDING WIRELESS PERFORMANCE

11/22/2016

Revision 1.0

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