Antennas

DATA SHEET

Multi-Band Quasi-Omni Antenna

SCA-OM-360F-BU-H2

- Two foot (0.6 m), four port, multi-band quasi-omni antenna with uniform horizontal beamwidths covering 698-894 MHz and 1710-2360 MHz
- 360° of coverage area across all bands of operation in a single compact radome
- Two pair of cross-polarized ports for 2x2 MIMO covering the full operating frequency range
- Small size and center mount post make it ideal for mounting on utility, lighting and traffic poles
- Optional GPS antenna integrated into the radome
- Sharp elevation beamwidth aides in network planning
- Simple single housing blends easily into urban environments
- Simplified radio assignments due to all band design
- Only one antenna is needed due to multi-band operation
- Exceeds minimum PIM performance requirements

Overview

CCI's multi-band quasi-omni Small Cell antenna provides full 700 MHz, SMR 800, Cellular, AWS, PCS and WCS band coverage. With two high band ports covering 1710-2360 MHz and two low band ports covering 698-894 MHz, this two foot (0.6 m) compact antenna provides 360° of multi-band coverage area in a single canister radome. The unique design of the CCI antenna elements provides for extremely stable azimuth patterns over the full operating frequency range insuring consistent coverage area for all bands of operation. The multi-band quasi-omni antenna is an ideal choice for Microcells and Small Cell applications in urban and suburban environments where antenna size and count are restricted. The antenna is also well suited for ODAS neutral host applications since it provides coverage in all bands from 700 MHz low band to WCS high band. The antenna includes a center mount post which is well suited for mounting to utility, lighting and traffic poles.

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

SPECIFICATIONS

Multi-Band Quasi-Omni Antenna

SCA-OM-360F-BU-H2

Electrical

Ports	2 x Ports which cover the full range from 698-894 MHz		2 x Ports which cover the full range from 1710-2360 MHz			
Frequency Range	698-746 MHz	824-894 MHz	1850-1990 MHz	1710-1755/2110-2170 MHz		2305-2360 MHz
Gain	4.7 dBi	5.4 dBi	8.8 dBi	8.4 dBi	9.5 dBi	10.4 dBi
Elevation Beamwidth (-3dB)	33°	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 (2x20W)	≤ -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 Linearl 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

Mechanical

Dimensions (LxD)	24.0 x 11.5 in (609 x 292 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	59 lbs (262 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	2.3 ft^2 (0.2 m^2)
Weight *	14.3 lbs (6.5 kg)
Connector (RF)	4 x 7-16 DIN female
Connector (GPS)(if equipped)	1 x N-female
Mounting Pole	2 to 2.5 in (25 to 63 mm)
Wall mount Hardware	0.5 in. (13 mm) diameter recommended

** Weight excludes mounting*

SPECIFICATIONS

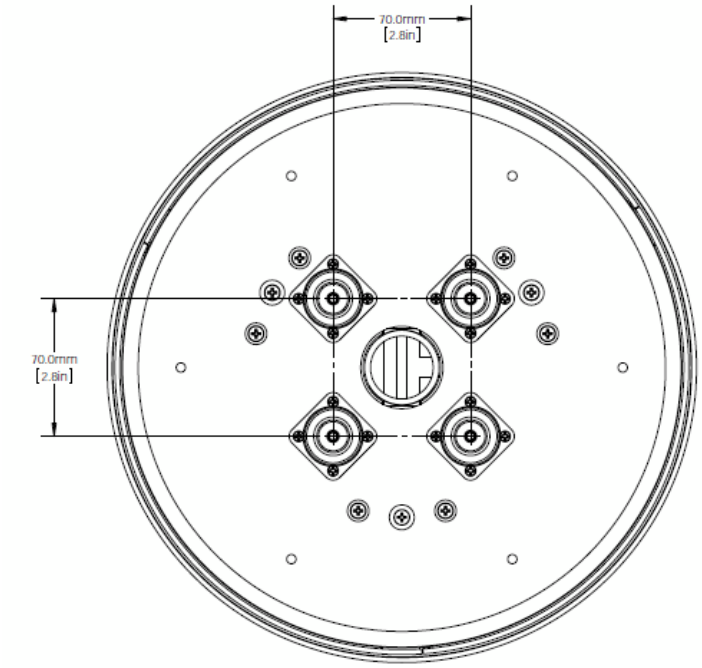
Multi-Band Quasi-Omni Antenna

SCA-OM-360F-BU-H2

Mechanical

Bottom View (Without GPS Option)

Connector Spacing (Without GPS Option)



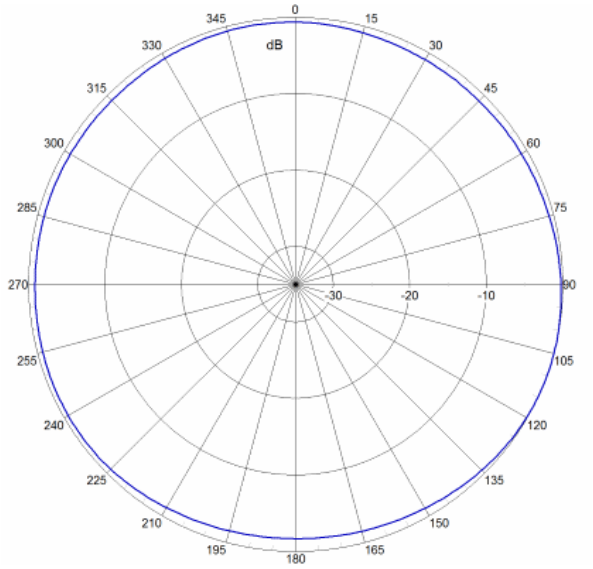
SPECIFICATIONS

Multi-Band Quasi-Omni Antenna

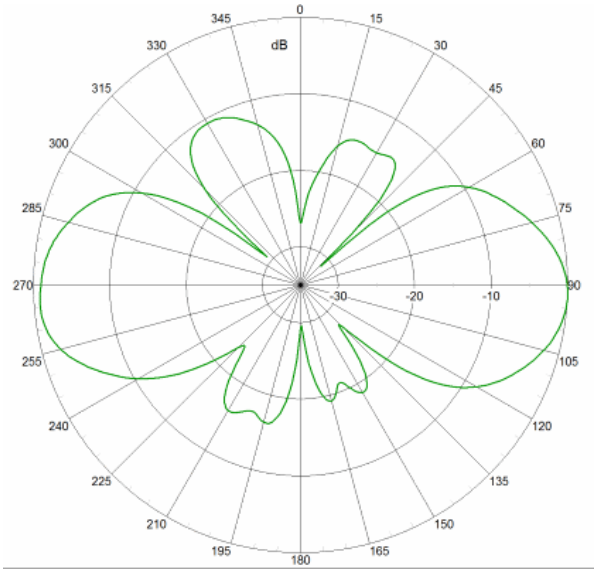
SCA-OM-360F-BU-H2

Typical Antenna Patterns

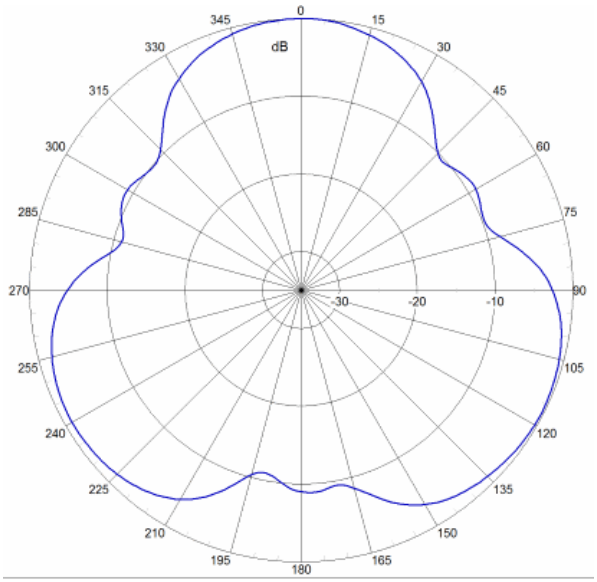
For detailed information on additional antenna patterns, contact customer support at support@cciproducts.com



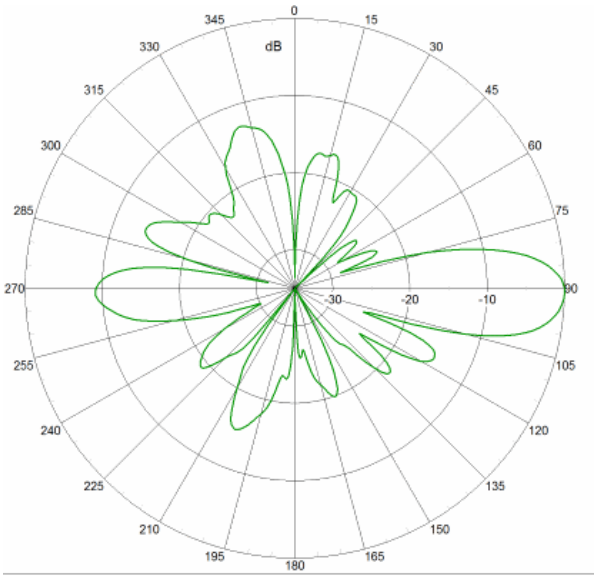
737 MHz Azimuth



737 MHz Azimuth Elevation 2°

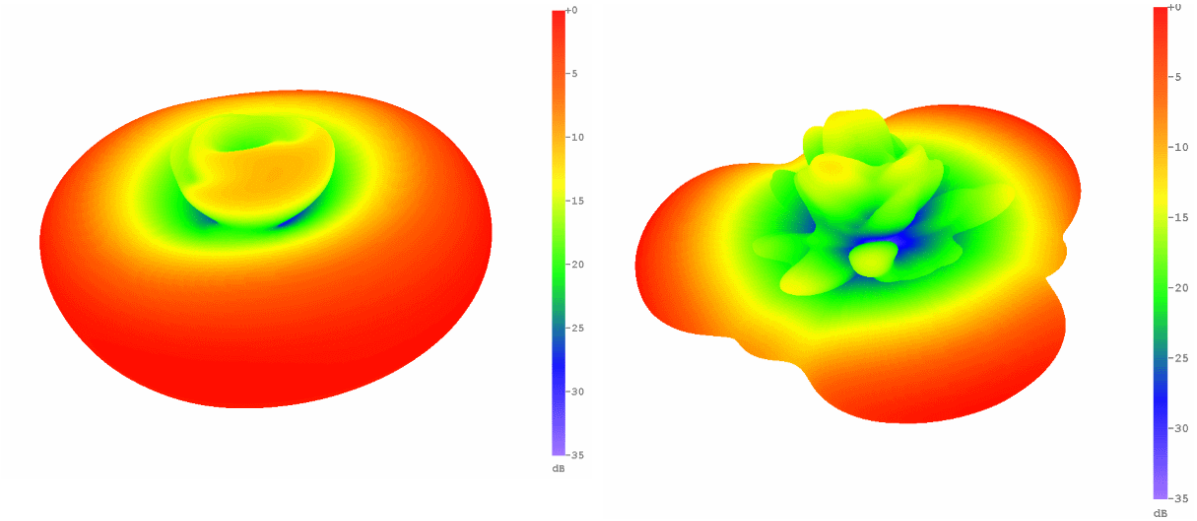


2110 MHz Azimuth



2110 MHz Azimuth Elevation 2°

3D Antenna Patterns



737 MHz

2110 MHz

ORDERING

Multi-Band Quasi-Omni Antenna

SCA-OM-360F-BU-H2

Parts & Accessories

SCA-OM-360F-BU-H2	Two foot (0.6 m) antenna Omni, Multiband
SCA-OM-360F-BU-H2-K	Two foot (0.6 m) antenna Omni, Multiband and MBC-02 clamp kit (suitable for pole or wall mounting)
SCA-OM-360F-BU-H2G-K	Two foot (0.6 m) antenna Omni, Multiband with internal GPS receiver 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)

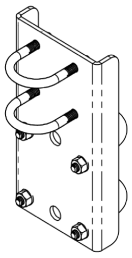
ACCESSORIES

Triple Mount Mast Bracket

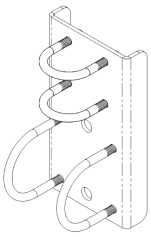
MBC-02

Mechanical

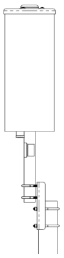
Dimensions (L x W x D)	7.9×4.3×1.1 in. (200×108×28 mm)
Weight	2.4 lbs (1.1 kg)
Fastener Size	5/16 UNC
Installation Torque (ft-lbs)	10



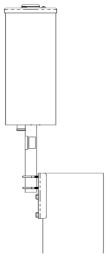
Bracket Vert. Mount View



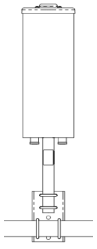
Bracket Hort. Mount View



Vertical Pole Mount



Wooden Pole Mount



Horizontal Pole Mount

STANDARDS & CERTIFICATIONS

Multi-Band Quasi-Omni Antenna

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, CE, CSA US, ISO 9001