



# Antennas

DATA SHEET

## Wideband Quasi-Omni Antenna

SCA360F-E2A



- Two foot (0.5 m), singleband, two port quasi-omni antenna with 360° of coverage, covering 1710-2690 MHz frequencies
- Two wide band high band ports covering 1710-2960 MHz in a low weight and low profile cylindrical antenna
- Full Spectrum Compliance for WCS and AWS-3 Frequencies
- The Low weight and Low profile of this 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 singleband quasi-omni array is a two port Small Cell antenna, with two wide band high band ports covering 1710-2690 MHz. The CCI Quasi-Omni Small Cell antenna provides 2x2 Multiple-input-Multiple-output (MIMO). 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 all 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



# Antennas

## Wideband Quasi-Omni Antenna

SCA360F-E2A

### SPECIFICATIONS

#### Electrical

| Ports                              | 2 x Ports which cover the full range from 1710-2690 MHz |                 |                 |                 |                 |
|------------------------------------|---|-----------------|-----------------|-----------------|-----------------|
| Frequency Range                    | 1710-1880 MHz   | 1850-1990 MHz   | 1920-2180 MHz   | 2300-2400 MHz   | 2496-2690 MHz   |
| Gain <sup>1</sup>                  | 8.2 dBi   | 8.8 dBi         | 8.8 dBi         | 8.9 dBi         | 8.7 dBi         |
| Gain (Average) <sup>2</sup>        | 7.9 dBi   | 8.3 dBi         | 8.5 dBi         | 8.7 dBi         | 8.6 dBi         |
| Elevation Beamwidth (-3dB)         | 19.6°   | 17.7°           | 17.0°           | 14.3°           | 13.5°           |
| Electrical Downtilt                | 2°  | 2°              | 2°              | 2°              | 2°              |
| First upper sidelobes at peak gain | < -18 dB  | < -16 dB        | < -16 dB        | < -17 dB        | < -16 dB        |
| Cross-Polar Port-to-Port Isolation | > 26 dB   | > 26 dB         | > 26 dB         | > 26 dB         | > 26 dB         |
| Voltage Standing Wave Ratio(VSWR)  | < 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      |
| Input Power Continuous Wave (CW)   | 300 watts   | 300 watts       | 300 watts       | 300 watts       | 300 watts       |
| Polarization                       | 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         |
| Lightning Protection               | DC Ground   | DC Ground       | DC Ground       | DC Ground       | DC Ground       |

<sup>1</sup>Peak gain across sub-bands.

<sup>2</sup>Electrical specifications follow document "Recommendation on Base Station Antenna Standards" (BASTA) V9.6.

#### Mechanical

|                            |   |
|----------------------------|---|
| Dimensions (LxD)           | 20.5 x 6.6 in (520 x 168 mm)              |
| Survival Wind Speed        | > 150 mph (> 241 kph)                     |
| Front Wind Load            | 17 lbs (76 N) @ 100 mph (161 kph)         |
| Equivalent Flat Plate Area | 0.7 ft <sup>2</sup> (0.1 m <sup>2</sup> ) |
| Weight *                   | 5.5 lbs (2.5 kg)                          |
| Connector (RF)             | 2 x 4.3-10 DIN female                     |
| Connector (GPS)            | 1 x Type "N" female                       |
| Mounting Pole (MBC-02)     | 2 to 2.5 in (50 to 63 mm)                 |
| Mounting Pole (MBC-05)     | 4 in and larger (100 mm and larger)       |

\* Weight excludes mounting



# Antennas

## SPECIFICATIONS

### Wideband Quasi-Omni Antenna

SCA360F-E2A

Bottom View

Without GPS option SCA360F-E2AA

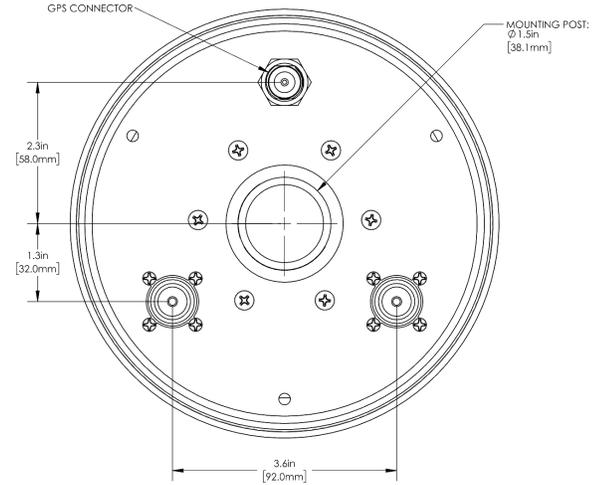
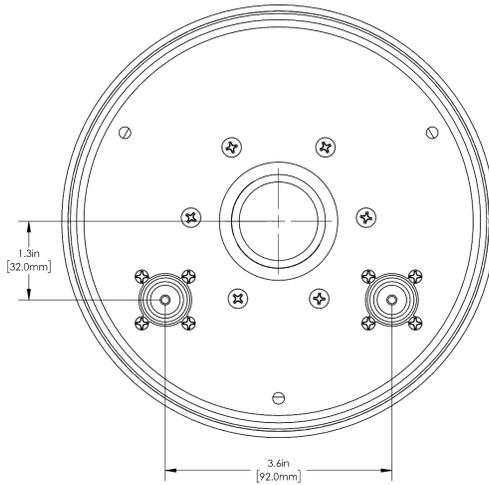
With GPS option SCA360F-E2AB



Connector Spacing

Without GPS option SCA360F-E2AA

With GPS option SCA360F-E2AB



Mechanical



# Antennas

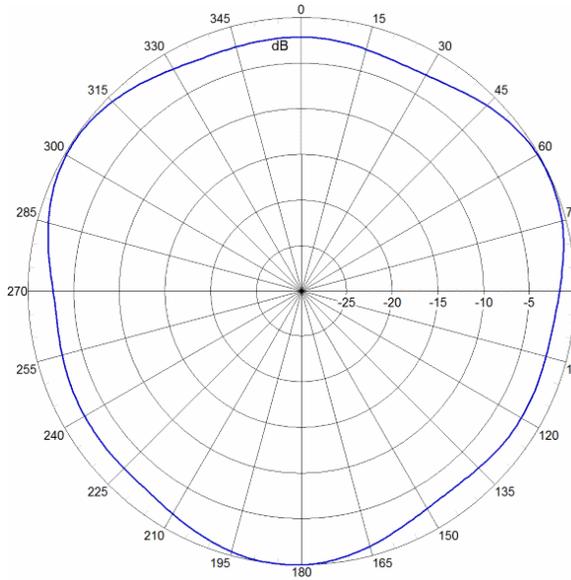
## SPECIFICATIONS

### Wideband Quasi-Omni Antenna

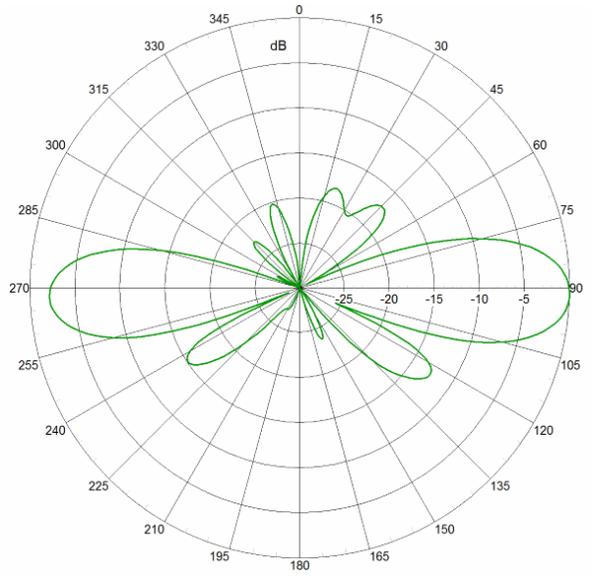
SCA360F-E2A

#### Typical Antenna Patterns

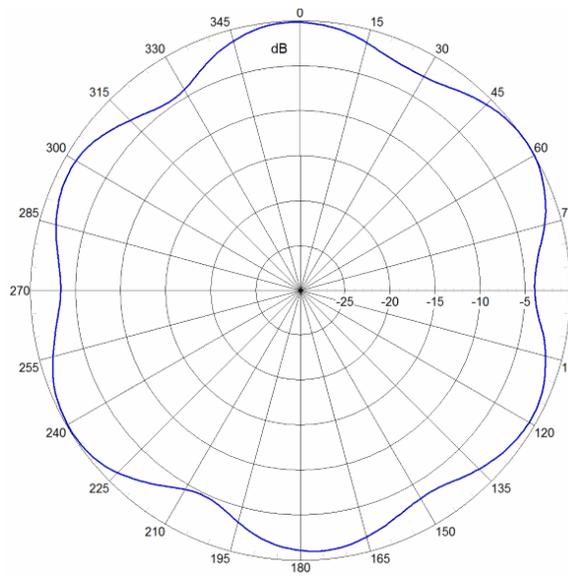
For detailed information on additional antenna patterns, contact customer support at [support@cciproducts.com](mailto:support@cciproducts.com)



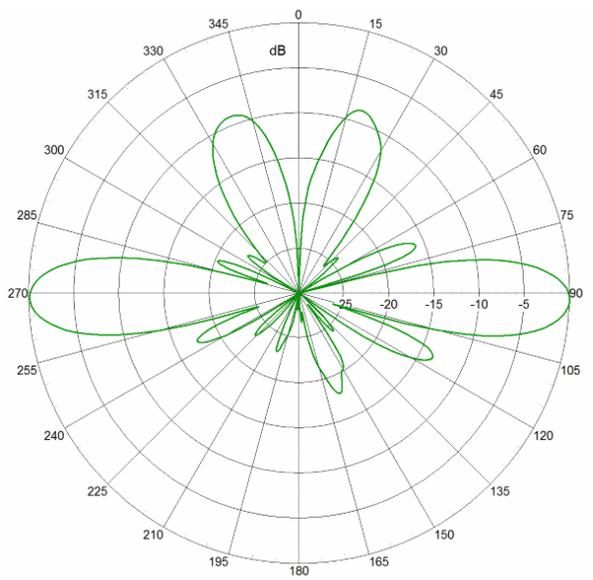
1755 MHz Azimuth



1755 MHz Elevation 2°



2360 MHz Azimuth



2360 MHz Elevation 2°



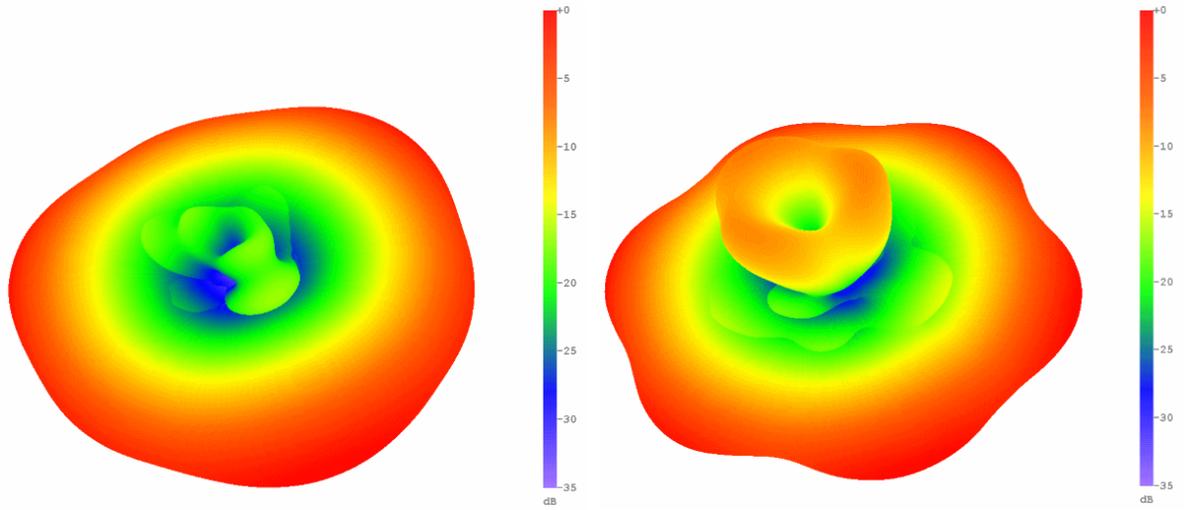
# Antennas

SPECIFICATIONS

Wideband Quasi-Omni Antenna

SCA360F-E2A

3D Antenna Patterns



1755 MHz

2360 MHz



# Antennas

ORDERING

## Wideband Quasi-Omni Antenna

SCA360F-E2A

### Parts & Accessories

|                        |   |
|------------------------|---|
| <b>SCA360F-E2AA-K</b>  | Two foot (0.5 m) antenna Quasi Omni, Wideband, 4.3-10 connectors and MBC-02 clamp kit (suitable for pole mounting)                                      |
| <b>SCA360F-E2AB-K</b>  | Two foot (0.5 m) antenna Quasi Omni, Wideband, 4.3-10 connectors, internal GPS and MBC-02 clamp kit (suitable for pole mounting)                        |
| <b>SCA360F-E2AA-K1</b> | Two foot (0.5 m) antenna Quasi Omni, Wideband, 4.3-10 connectors and MBC-05 clamp kit (suitable for larger diameter street pole mounting)               |
| <b>SCA360F-E2AB-K1</b> | Two foot (0.5 m) antenna Quasi Omni, Wideband, 4.3-10 connectors, internal GPS and MBC-05 clamp kit (suitable for larger diameter street pole mounting) |
| <b>MBC-02</b>          | Clamp kit, Pipe range 2 - 2.5 in. or lag bolt to wooden pole (lag bolts not supplied)   |
| <b>MBC-05</b>          | Pole top mounting kit suitable for 4" (10 cm) and larger wood, steel or concrete utility or lighting poles.   |



# Antennas

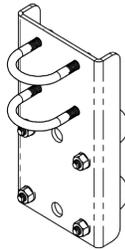
ACCESSORIES

## Triple Mount Mast Bracket

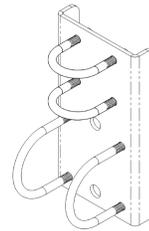
MBC-02

Mechanical

|                                     |                                 |
|-------------------------------------|---------------------------------|
| <b>Dimensions (L x W x D)</b>       | 7.9x4.3x1.1 in. (200x108x28 mm) |
| <b>Weight</b>                       | 2.4 lbs (1.1 kg)                |
| <b>Fastener Size</b>                | 5/16 UNC                        |
| <b>Installation Torque (ft-lbs)</b> | 10                              |



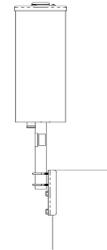
Bracket Vert. Mount View



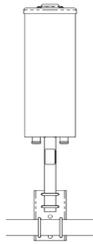
Bracket Hort. Mount View



Vertical Pole Mount



Wooden Pole Mount



Horizontal Pole Mount



# Antennas

ACCESSORIES

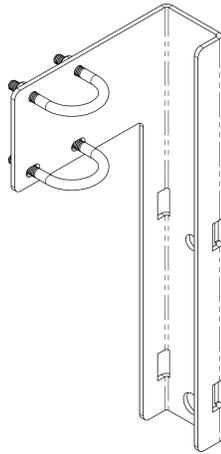
## Mounting Bracket Kit

MBC-05

Mechanical

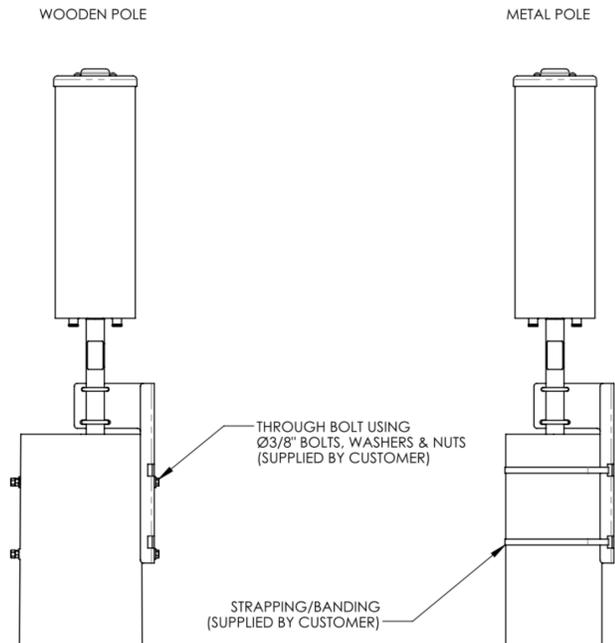
**Weight** 4.1 lbs (1.8 kg)

**Mounting Pole Dimension** 4 in (10 cm) and greater



MBC-05

### Suggested Mounting Options



MBC-05 Typical mount



# Antennas

## STANDARDS & CERTIFICATIONS

### Wideband Quasi-Omni Antenna

SCA360F-E2A

#### 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



# CCI

## Communication Components Inc.

EXTENDING WIRELESS PERFORMANCE