



# Antennas

DATA SHEET

## Wide Band Quasi-Omni Antenna

SCA360V-E2A



- Two foot (0.6 m), Singleband, four port 4T4R (4x4 MIMO) quasi-omni antenna with 360° of coverage, covering 1695-2690 MHz frequencies, with Dual VET control
- Four wide band ports covering 1695-2690 MHz, all within in a low weight and low profile cylindrical antenna
- Full Spectrum Compliance for 1695-2690 MHz
- With a 24" height and 8.5" diameter, this low profile cylindrical antenna is an ideal solution for Small Cell/C-RAN Densification deployments in difficult jurisdictional urban, suburban and rural environments
- The antenna is equipped with Dual VET control, with a tilt range of 2°-12°. The Dual VET control can provide independent tilt for each paired ports
- The antenna is equipped with removable center mount plate, which can be used for third party concealment applications or utilize a removable 1.375 in (35 mm) OD center post, which makes it ideal for mounting on utility, lighting and traffic poles
- Ordering options for internal GPS antenna with type N female connector
- Exceeds minimum PIM performance requirements
- Equipped with 4.3-10 connectors, which is 40% smaller than 7/16 DIN connectors

### Overview

The CCI Singleband Quasi-Omni array is a four port Small Cell antenna, with four wide band ports covering 1695-2690 MHz. The CCI Singleband Quasi-Omni Small Cell antenna provides 4x4 Multiple-input-Multiple-output (MIMO) functionality across the 1695-2690 ports. The CCI Singleband Quasi-Omni Small Cell antenna is equipped with Dual VET control, with a tilt range of 2°-12°, capable of providing independent tilt per pair ports, providing flexibility for network coverage needs.

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, Small Cells and C-RAN 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

#### Electrical

Ports	4 x High Band Ports for 1695-2690 MHz				
Frequency Range	1695-1880 MHz	1850-1990 MHz	1920-2180 MHz	2300-2400 MHz	2496-2690 MHz
Gain <sup>1</sup>	9.8 dBi	10.2 dBi	10.5 dBi	10.3 dBi	10.4 dBi
Gain (Average) <sup>2</sup>	9.3 dBi	9.6 dBi	9.8 dBi	9.8 dBi	9.4 dBi
Elevation Beamwidth (-3dB)	15.0°	13.9°	13.1°	11.8°	10.9°
Electrical Downtilt	2° to 12°	2° to 12°	2° to 12°	2° to 12°	2° to 12°
Elevation Sidelobes (1st Upper)	< -16 dB	< -16 dB	< -16 dB	< -17 dB	< -18 dB
Cross-Polar Port-to-Port Isolation	> 25 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)	200 watts	200 watts	200 watts	200 watts	200 watts
Polarization	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 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)	24x8.5 in (617x216 mm)
Diameter max at top cap	8.8 in (224 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Wind Load	26 lbs (116 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	1.0 ft <sup>2</sup> (0.1 m <sup>2</sup> )
Weight *	13.2 lbs (6.0 kg)
Connector	4 x 4.3-10 female
GPS Connector (if equipped)	1 X Type N female
Mounting Pole	1.0 to 2.5 in (2.5 to 6.3 cm)

\* Weight excludes mounting kit



# Antennas

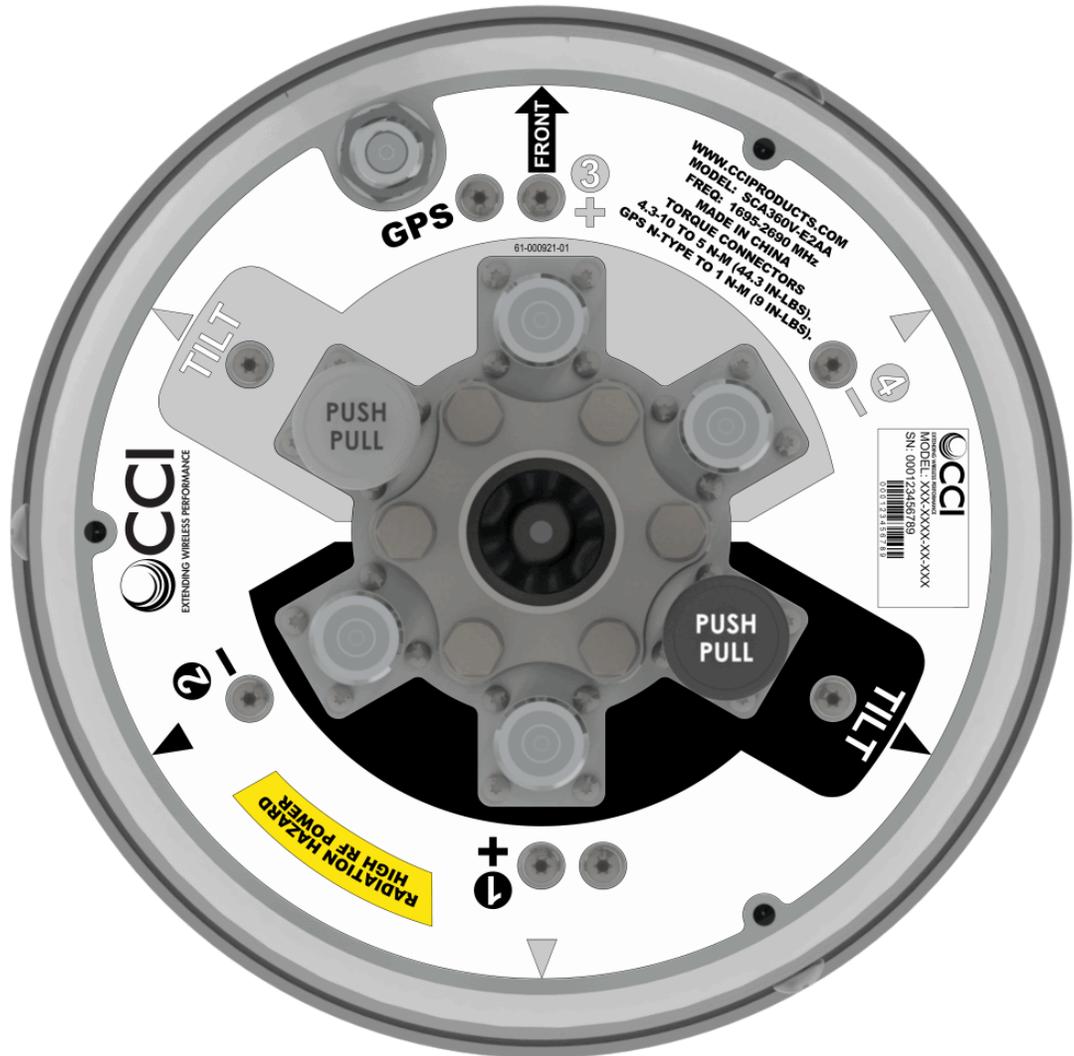
## Wide Band Quasi-Omni Antenna

SCA360V-E2A

### SPECIFICATIONS

Mechanical

Bottom View





# Antennas

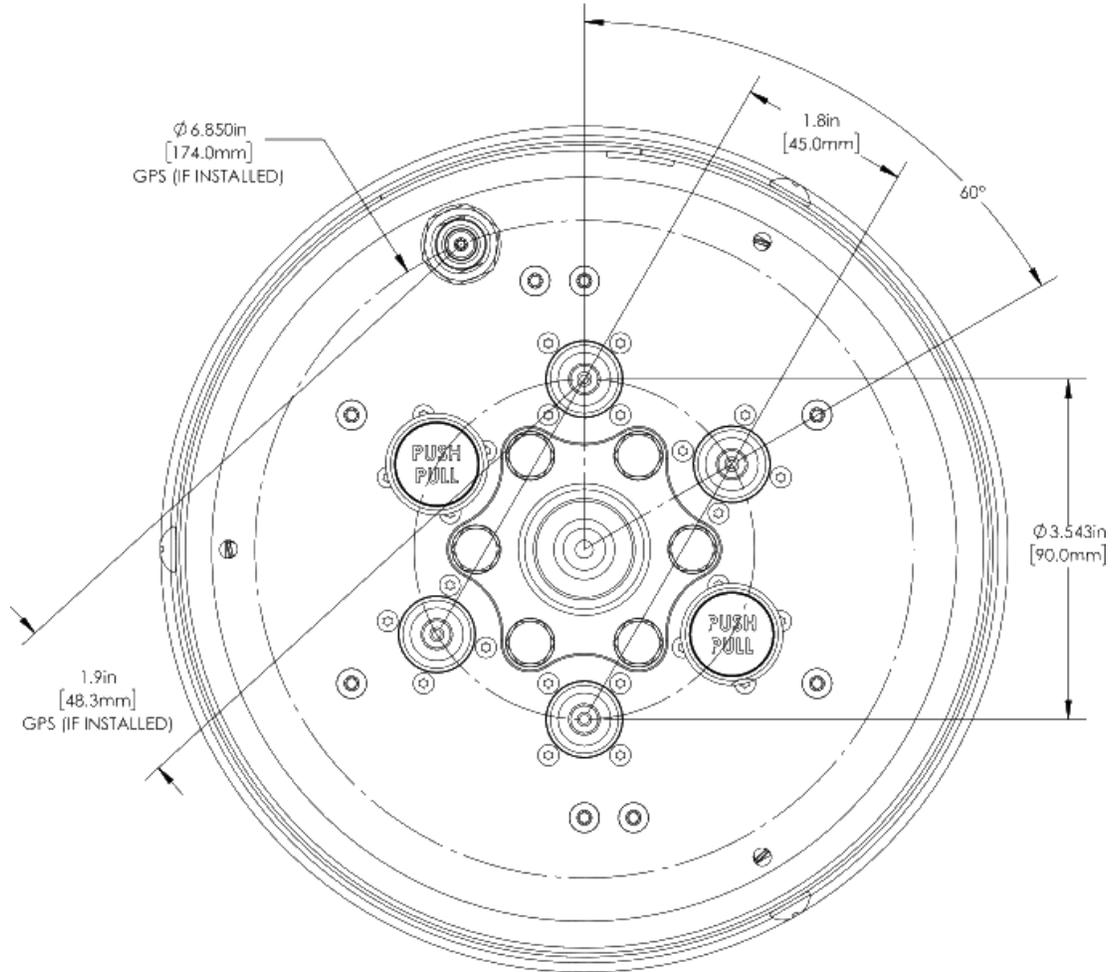
## Wide Band Quasi-Omni Antenna

SCA360V-E2A

### SPECIFICATIONS

#### Mechanical

##### Connector Spacing





# Antennas

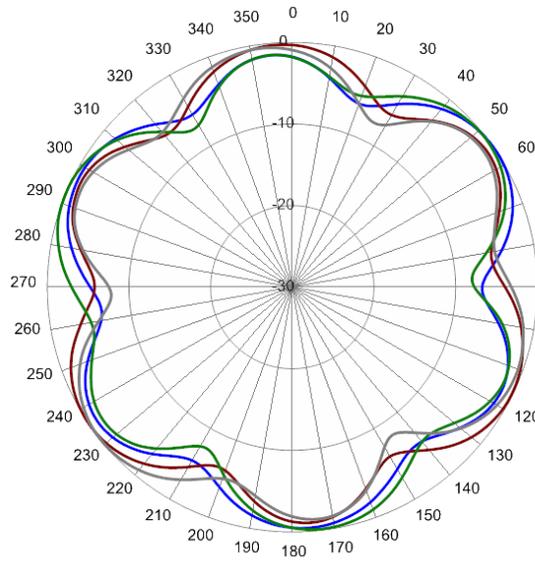
## SPECIFICATIONS

### Wide Band Quasi-Omni Antenna

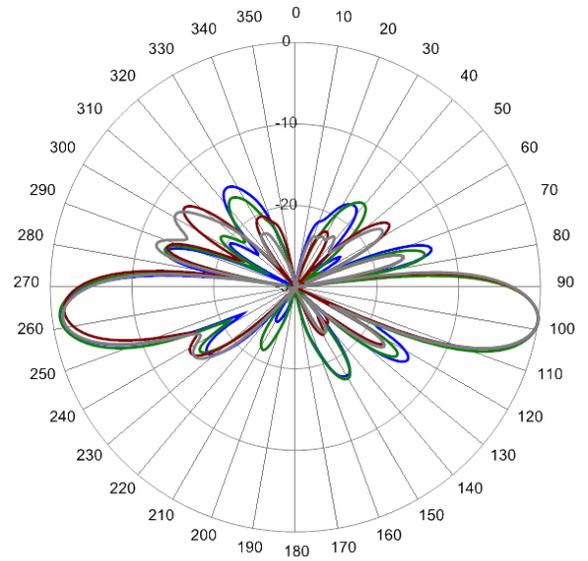
SCA360V-E2A

#### Typical Antenna Patterns

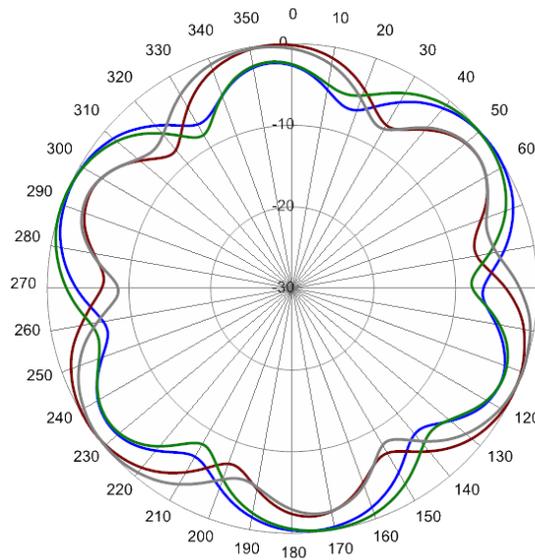
For detailed information on additional antenna patterns, contact customer support at [support@cciproducts.com](mailto:support@cciproducts.com)



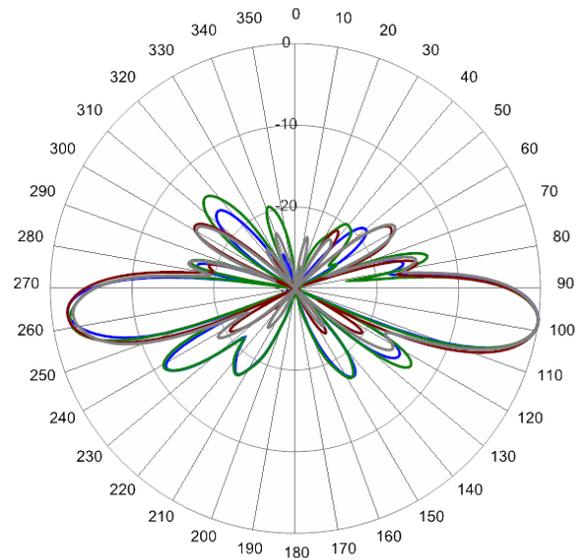
1720 MHz Azimuth



1720 MHz Elevation 8°



1880 MHz Azimuth



1880 MHz Elevation 8°

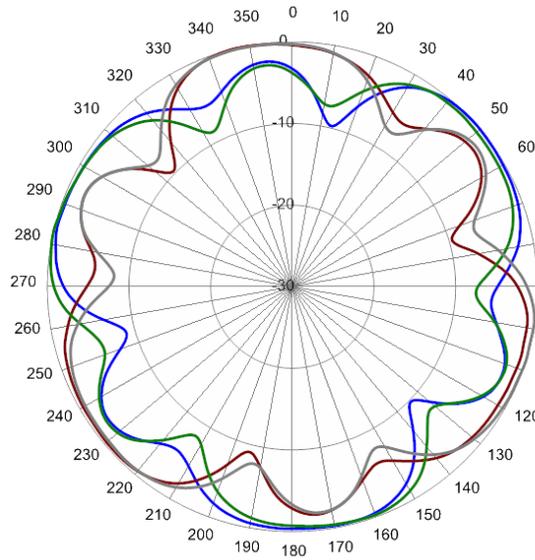


# Antennas

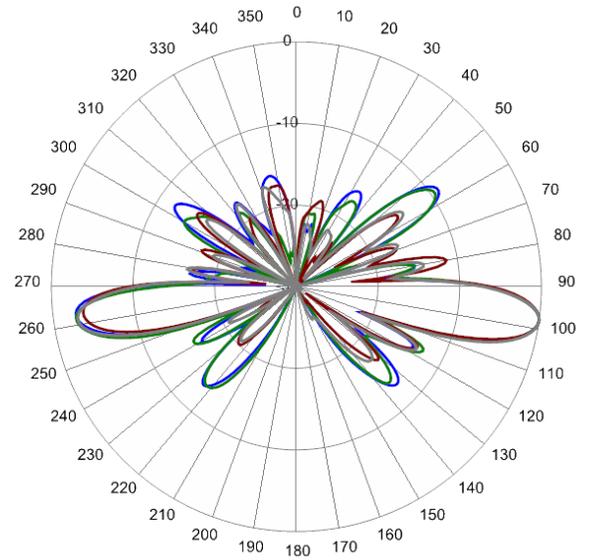
SPECIFICATIONS

Wide Band Quasi-Omni Antenna

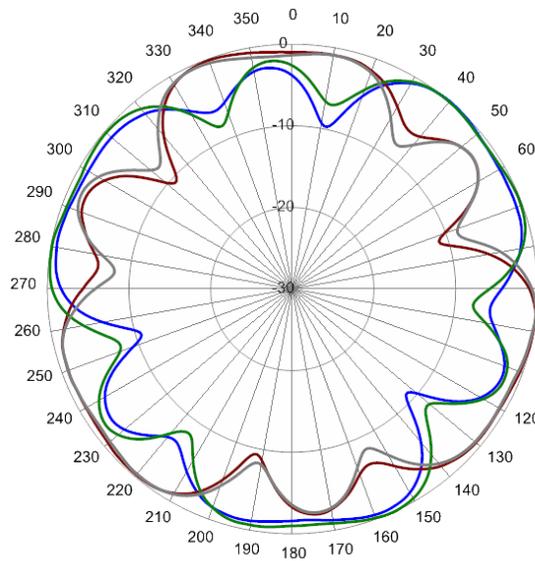
SCA360V-E2A



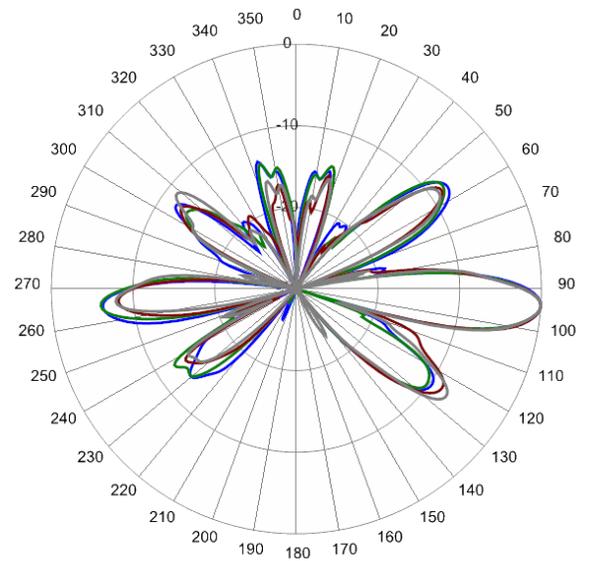
2350 MHz Azimuth



2350 MHz Elevation 8°



2350 MHz Azimuth



2350 MHz Elevation 8°



# Antennas

ORDERING

Wide Band Quasi-Omni Antenna

SCA360V-E2A

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Parts & Accessories

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- |                        |   |
|------------------------|---|
| <b>SCA360V-E2AA-K</b>  | Two foot (0.6 m) Wideband Omni antenna with 4.3-10 connectors, two factory install manual VET actuators, integrated GPS antenna and MBC-02 mounting kit                               |
| <b>SCA360V-E2AA-K1</b> | Two foot (0.6 m) Wideband Omni antenna with 4.3-10 connectors, two factory install manual VET actuators, integrated GPS antenna and MBC-05 clamp kit (suitable for pole top mounting) |
| <b>SCA360V-E2AB-K</b>  | Two foot (0.6 m) Wideband Omni antenna with 4.3-10 connectors, two factory install manual VET actuators and MBC-02 mounting kit   |
| <b>SCA360V-E2AB-K1</b> | Two foot (0.6 m) Wideband Omni antenna with 4.3-10 connectors, two factory install manual VET actuators and MBC-05 clamp kit (suitable for pole top mounting)                         |
| <b>MBC-02</b>          | Clamp kit, Pipe range 1-2.5 in (2.5-6.3 cm) or lag bolt to wooden pole or flat surface. (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.   |
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# Antennas

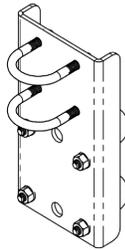
ACCESSORIES

## Triple Mount Mast Bracket

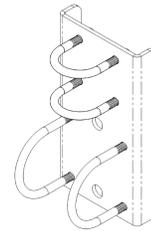
MBC-02

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



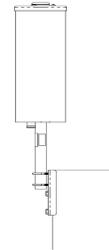
Bracket Vert. Mount View



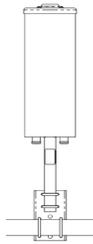
Bracket Hort. Mount View



Vertical Pole Mount



Wooden Pole Mount



Horizontal Pole Mount



# Antennas

ACCESSORIES

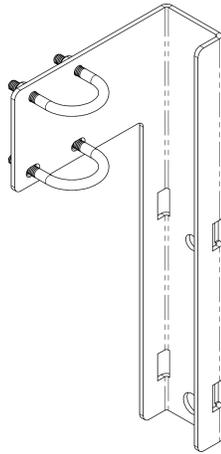
## Mounting Bracket Kit

MBC-05

Mechanical

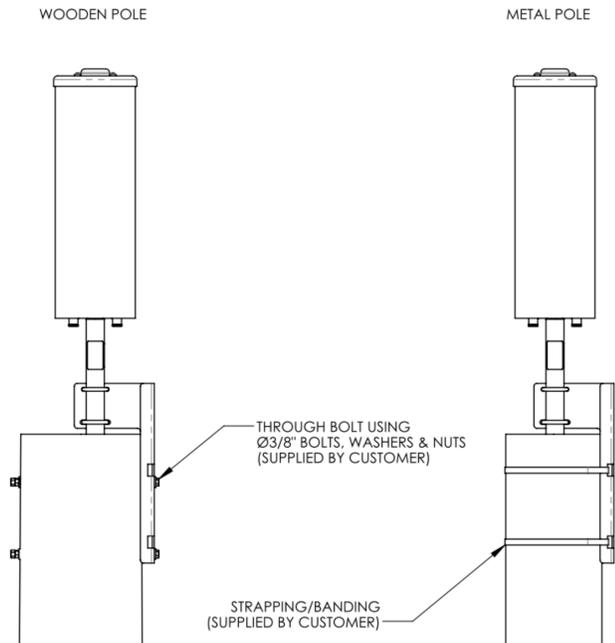
**Weight** 4.1 lbs (1.8 kg)

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



MBC-05

### Suggested Mounting Options



MBC-05 Typical mount



# Antennas

## STANDARDS & CERTIFICATIONS

### Wide Band Quasi-Omni 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, ISO 9001

