

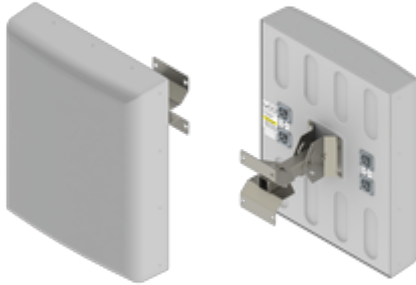


# Antennas

DATA SHEET

## Small Cell ODA Antenna

ODA30F-KE2A



- Two foot (0.6 m), multiband, four port antenna with a true 30°x30° beamwidth, covering 698-960 MHz and 1695-2690 MHz frequencies
- Two wide high band ports covering 1695-2960 MHz and two wide low band ports covering 698-960 MHz in an extremely low profile and low weight antenna
- Full Spectrum Compliance 698-960 MHz / 1695-2690 MHz, including WCS and AWS-3 Frequencies and upcoming Band 14 Operations
- The Low weight and Low profile of this panel antenna, makes this an ideal solution for Small Cell Densification and Stadium/Arena deployments
- Unique Dual-Axis mounting bracket, allows for adjustment in both axis (up to  $\pm 35^\circ$  of H plane tilt and  $\pm 55^\circ$  of E plane tilt). Which makes it ideal for mounting on utility, lighting and traffic poles
- Exceeds minimum PIM performance requirements
- Ordering options for 7/16 DIN connector or the new 4.3-10 connector, which is 40% smaller than traditional 7/16 DIN connectors

### Overview

The CCI multiband 30° x 30° array is a four port Small Cell/Stadium antenna, with two wide high band ports covering 1695-2690 MHz and two wide low band ports covering 698-960 MHz. The CCI 30° x 30° antenna provides 2x2 Multiple-input-Multiple-output (MIMO) across the low band and high band ports. The CCI 30° x 30° Small Cell/Stadium 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 30° x 30° Small Cell/Stadium antenna provides a fixed 0° EDT, across all 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
- Ideal for Macro to Small Cell Coverage Transition Zones
- Outdoor Distributed Antenna Systems (oDAS), neutral host in venues, campuses and other outdoor coverage applications



# Antennas

## Small Cell ODA Antenna

ODA30F-KE2A

### SPECIFICATIONS

#### Electrical

Ports	2 × Low Band Ports for 698-960 MHz		
Frequency Range	698-806 MHz	824-896 MHz	880-960 MHz
Gain	13.0 dBi	13.9 dBi	14.3 dBi
Azimuth Beamwidth (-3dB)	37°	33°	30°
Elevation Beamwidth (-3dB)	36°	33°	30°
Electrical Downtilt	0°	0°	0°
Elevation Sidelobes (1st Upper)	< -22 dB	< -25 dB	< -22 dB
Front-to-Back Ratio @180°	> 35 dB	> 35 dB	> 35 dB
Front-to-Back Ratio over ± 20°	> 35 dB	> 35 dB	> 35 dB
Cross-Polar Discrimination (at Peak)	> 25 dB	> 25 dB	> 23 dB
Cross-Polar Port-to-Port Isolation	> 28 dB	> 28 dB	> 28 dB
Voltage Standing Wave Ratio(VSWR)	< 1.55:1	< 1.55:1	< 1.55:1
Passive Intermodulation (2×20W)	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc
Input Power Continuous Wave (CW)	250 watts	250 watts	250 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

Ports	2 × High Band Ports for 1695-2690				
Frequency Range	1850-1995 MHz	1695-1780/2110-2180 MHz		2300-2400 MHz	2496-2690 MHz
Gain	13.2 dBi	12.0 dBi	14.0 dBi	14.5 dBi	15.0 dBi
Azimuth Beamwidth (-3dB)	34°	37°	33°	29°	25°
Elevation Beamwidth (-3dB)	34°	40°	30°	26°	27°
Electrical Downtilt	0°	0°	0°	0°	0°
Elevation Sidelobes (1st Upper)	< -25 dB	< -25 dB	< -17 dB	< -20 dB	< -18 dB
Front-to-Back Ratio @180°	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Front-to-Back Ratio over ± 20°	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Cross-Polar Discrimination (at Peak)	> 25 dB	> 20 dB	> 25 dB	> 25 dB	> 20 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 25 dB	> 23 dB	> 25 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.55:1
Passive Intermodulation (2×20W)	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc
Input Power Continuous Wave (CW)	250 watts	250 watts	250 watts	250 watts	250 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



# Antennas

## SPECIFICATIONS

### Small Cell ODA Antenna

ODA30F-KE2A

#### Mechanical

<b>Dimensions (LxWxD)</b>	30.1x24.4x6.9 in (764x620x176 mm)
<b>Survival Wind Speed</b>	> 150 mph (> 241 kph)
<b>Front Wind Load</b>	157 lbs (697 N) @ 100 mph (161 kph)
<b>Side Wind Load</b>	47 lbs (211 N) @ 100 mph (161 kph)
<b>Equivalent Flat Plate Area</b>	6.1 ft <sup>2</sup> (0.6 m <sup>2</sup> )
<b>Weight *</b>	20.0 lbs (9.1 kg)
<b>Connector</b>	4x 7-16 DIN female long neck or 4x 4.3-10 female
<b>Mounting Pole</b>	2 to 5 in (5 to 12 cm)

*\* Weight excludes mounting*



# Antennas

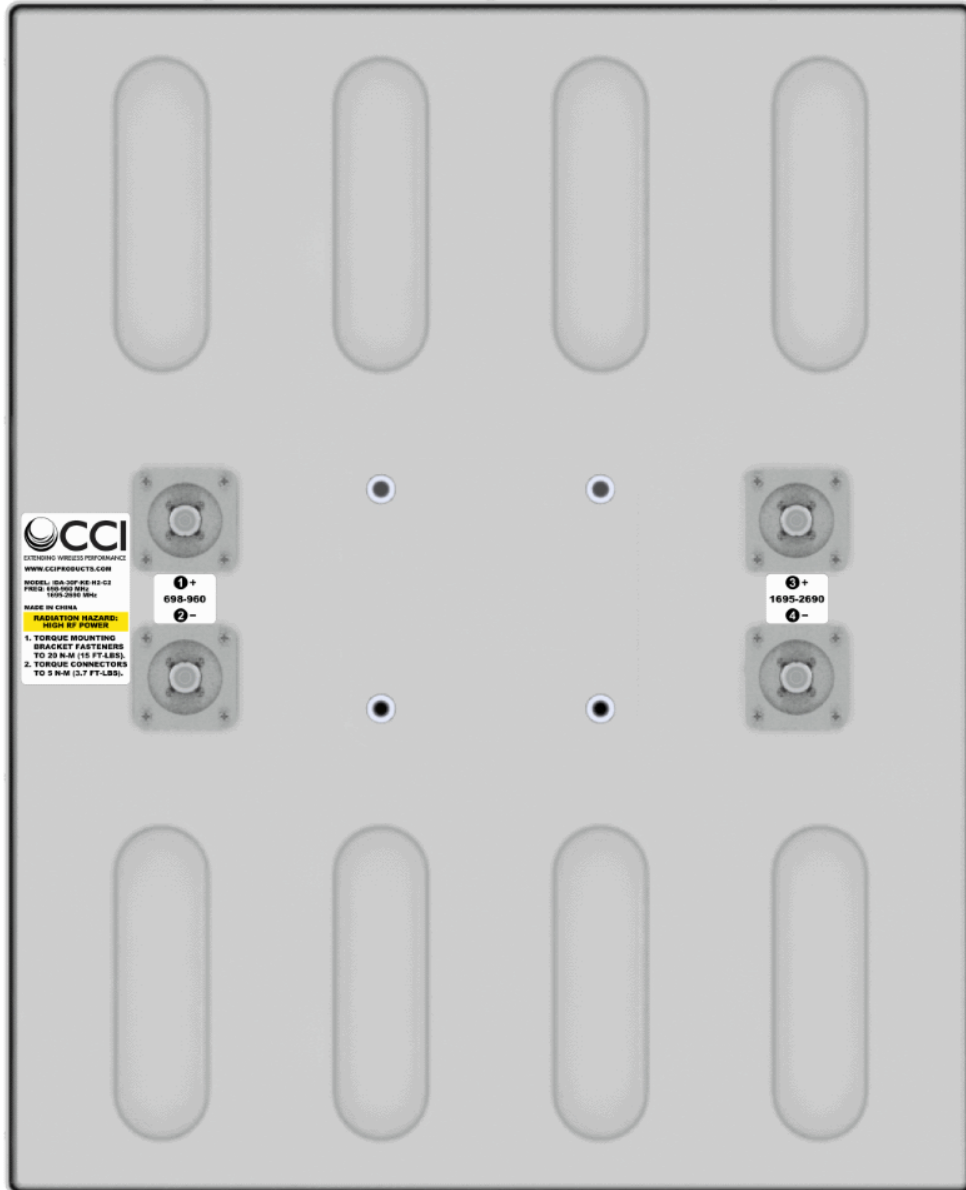
## SPECIFICATIONS

### Small Cell ODA Antenna

ODA30F-KE2A

#### Mechanical

Rear View





# Antennas

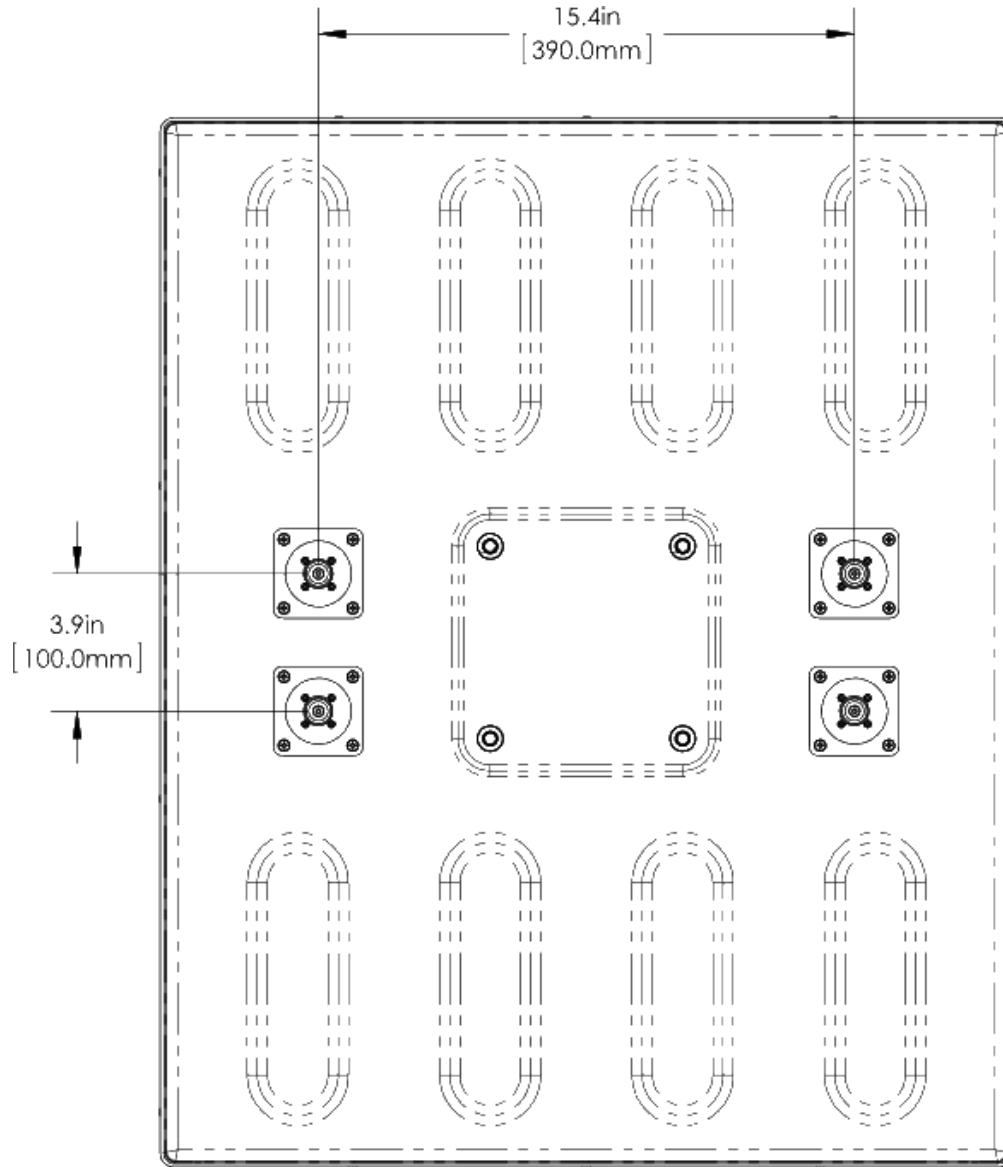
## SPECIFICATIONS

### Small Cell ODA Antenna

ODA30F-KE2A

#### Mechanical

##### Connector Spacing





# Antennas

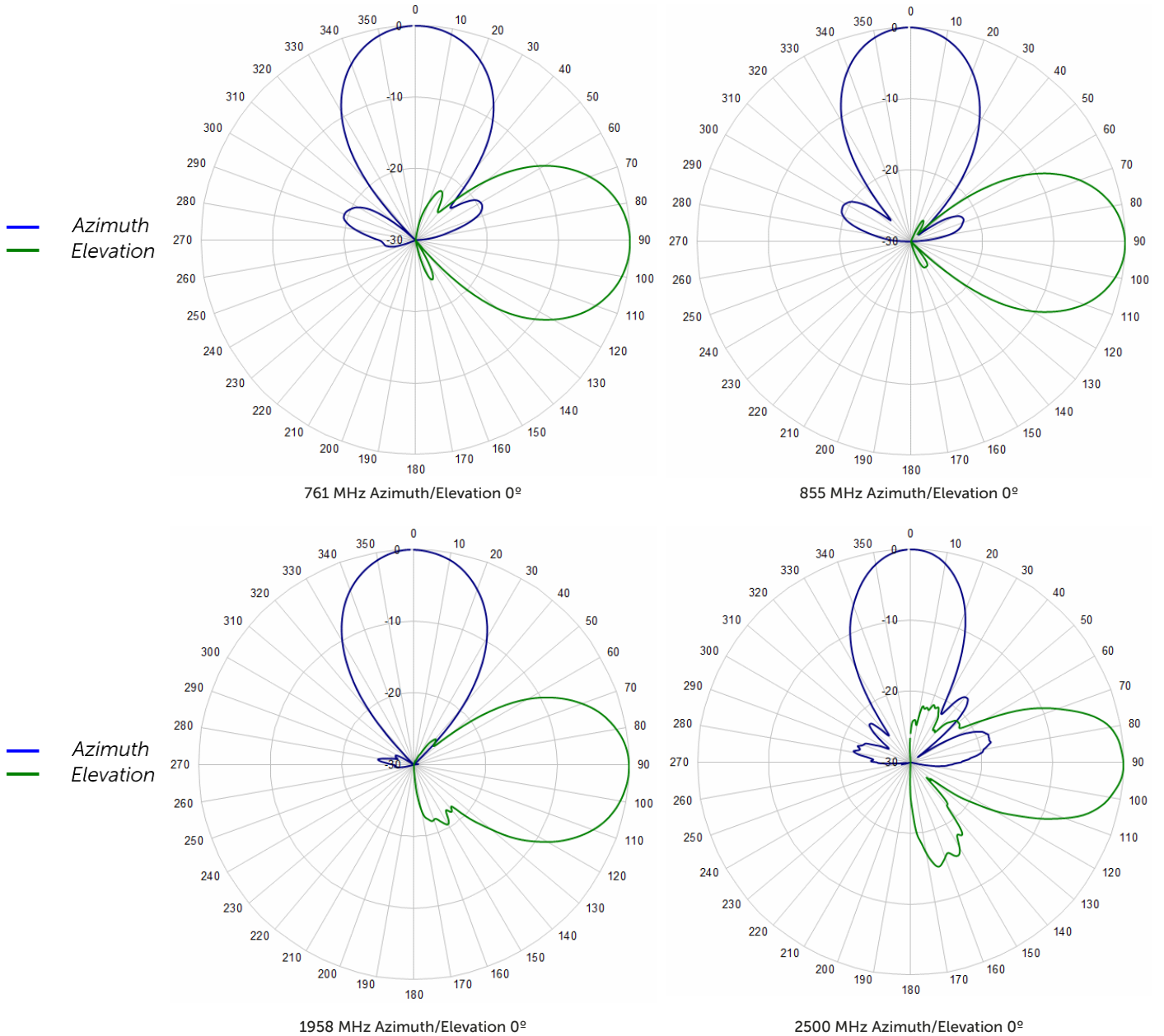
## SPECIFICATIONS

### Small Cell ODA Antenna

ODA30F-KE2A

#### Typical Antenna Patterns

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





# Antennas

ORDERING

Small Cell ODA Antenna

ODA30F-KE2A

Parts & Accessories

**ODA30F-KE2AA-K** Antenna with 7-16 DIN connectors, BSA-M05 mounting bracket and MBC-01 mast bracket

**ODA30F-KE2AB-K** Antenna with 4.3-10 connectors, BSA-M05 mounting bracket and MBC-01 mast bracket

**BSA-M05** Adjustable mast bracket kit with  $\pm 35^\circ$  horizontal adjustment and  $\pm 55^\circ$  vertical adjustment mechanical tilt

**MBC-01** Mast bracket clamp for mast mounting of BSA-M05



# Antennas

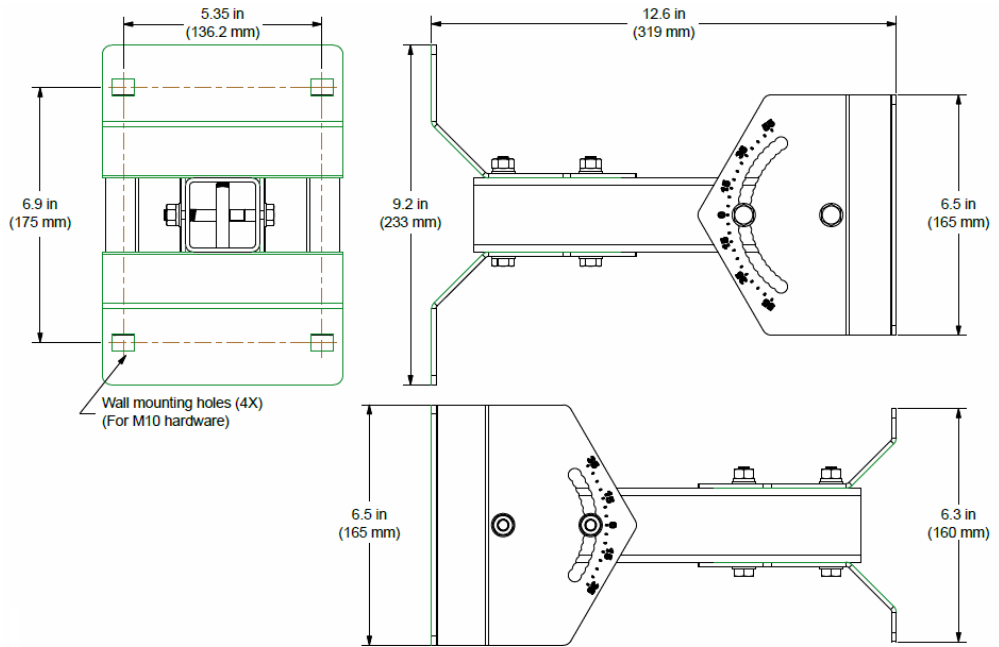
ACCESSORIES

## Adjustable Mast Bracket

BSA-M05

Mechanical

<b>Weight</b>	7.7 lbs (3.5 kg)
<b>Hinge Pitch</b>	Horizontal( $\pm 35^\circ$ ), Vertical( $\pm 55^\circ$ )
<b>Fastener Size</b>	M10
<b>Installation Torque</b>	15 ft-lbs (20 Nm)
<b>Mechanical Tilt Adjustment</b>	Horizontal( $\pm 35^\circ$ ), Vertical( $\pm 55^\circ$ )
<b>Mounting Pole(when used with MBC-01)</b>	2 to 5 in (5 to 12 cm)



BSA-M05  
Dimensions



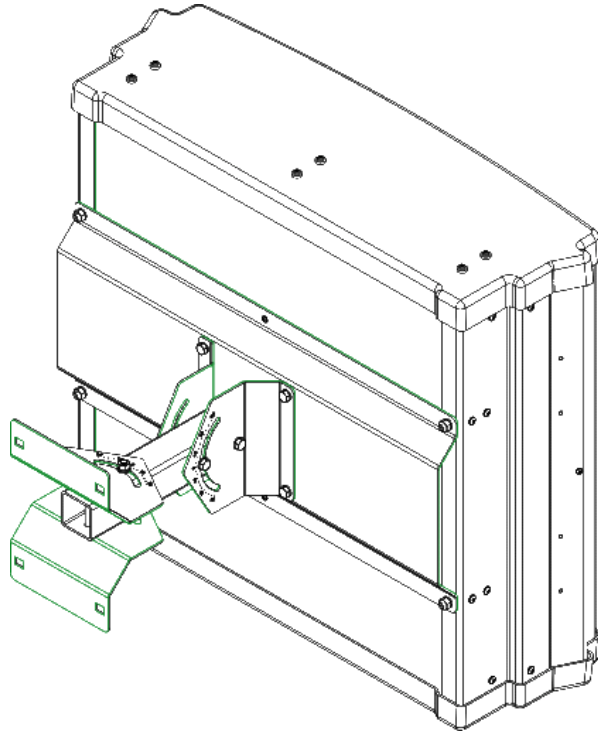


# Antennas

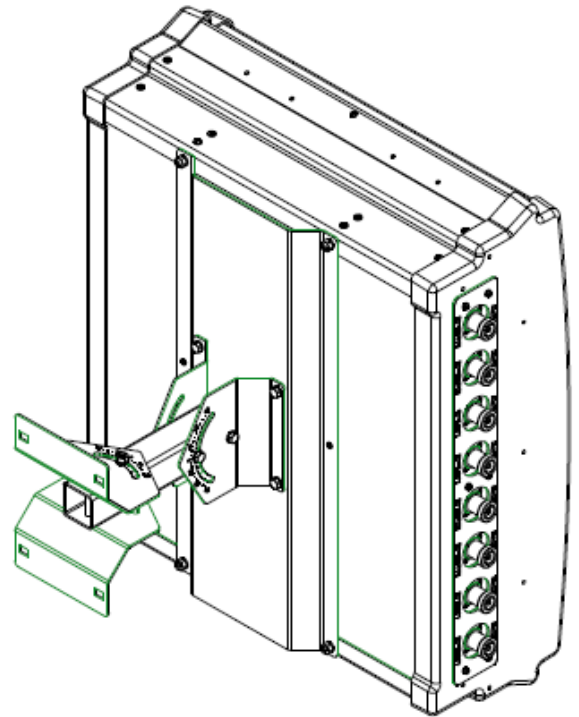
ACCESSORIES

## Adjustable Mast Bracket

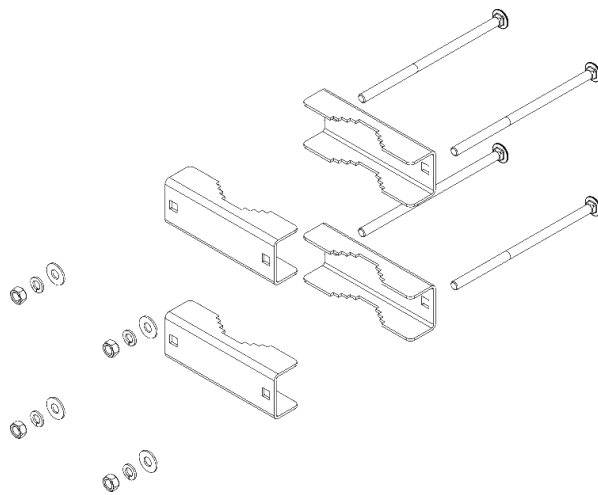
BSA-M05



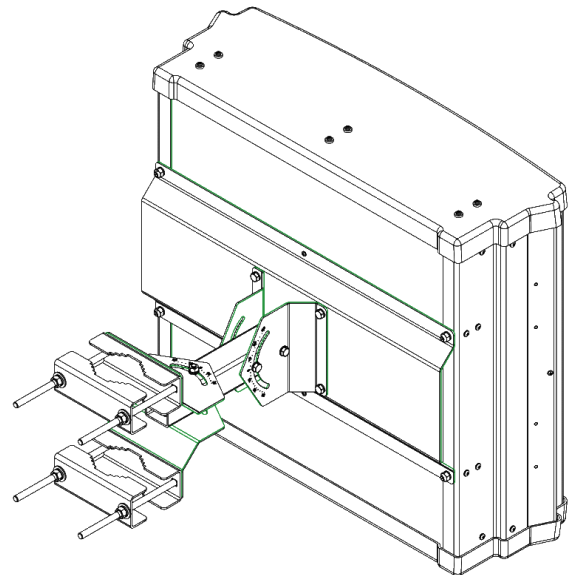
BSA-M05 horizontal mount on "Stadium Antenna"



BSA-M05 vertical mount on "Stadium Antenna"



MBC-01 Mast Bracket Clamp



BSA-M05 and MBC-01 mounting application



# Antennas

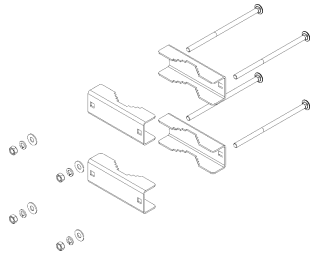
ACCESSORIES

## Mounting Bracket Clamp

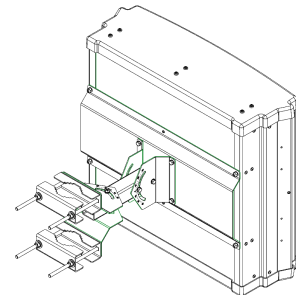
MBC-01

Mechanical

<b>Weight</b>	5.4 lbs (2.4 kg)
<b>Mounting Pole Dimension</b>	2 to 5 in (5 to 12 cm)
<b>Fastener Size</b>	M10
<b>Installation Torque</b>	15 ft-lb (20 Nm)



MBC-01



MBC-01 with BSA-M05



# Antennas

## STANDARDS & CERTIFICATIONS

### Small Cell ODA Antenna

ODA30F-KE2A

#### 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

