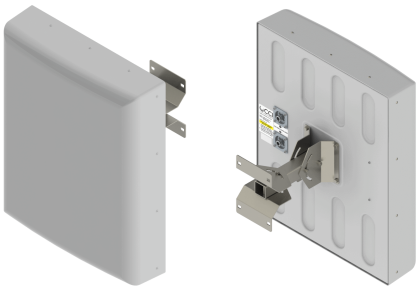
DATA SHEET

Small Cell ODA Antenna

ODA30F-Z2A



- Two foot (0.6 m), multiband, two port antenna with a true 30°x30° beamwidth, covering 698-960 MHz / 1695-2690 MHz frequencies
- Two ultra-wide ports covering 698-960 MHz / 1695-2960 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 ±35° of H plane tilt and ±55° 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 two port Small Cell/Stadium antenna, with two ultra-wide ports covering 698-960 MHz / 1695-2690 MHz. The CCI 30° x 30° antenna provides 2x2 Multiple-input-Multiple-output (MIMO) across the 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

SPECIFICATIONS

Small Cell ODA Antenna

ODA30F-Z2A

Electrical

Ports	2x Ports for 698-2690 MHz		
Frequency Range	698-806 MHz	824-896 MHz	880-960 MHz
Gain	12.7 dBi	13.6 dBi	13.9 dBi
Azimuth Beamwidth (-3dB)	37°	33°	30°
Elevation Beamwidth (-3dB)	37°	33°	31°
Electrical Downtilt	0°	0°	0°
Elevation Sidelobes (1st Upper)	< -25 dB	< -25 dB	< -23 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	> 22 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 (2x20W)	≤ -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	2x Ports for 698-2690 MHz (con't)				
Frequency Range	1850-1995 MHz	1695-1780/2110-2180 MHz		2300-2400 MHz	2496-2690 MHz
Gain	12.6 dBi	11.4 dBi	13.3 dBi	14.0 dBi	14.3 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	< -24 dB	< -17 dB	< -20 dB	< -17 dB
Front-to-Back Ratio @180°	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Front-to-Back Ratio over ± 20°	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB
Cross-Polar Discrimination (at Peak)	> 25 dB	> 20 dB	> 25 dB	> 25 dB	> 20 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 23 dB	> 25 dB	> 23 dB	> 25 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1	< 1.55:1	< 1.55:1
Passive Intermodulation (2x20W)	≤ -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

SPECIFICATIONS

Small Cell ODA Antenna

ODA30F-Z2A

Mechanical

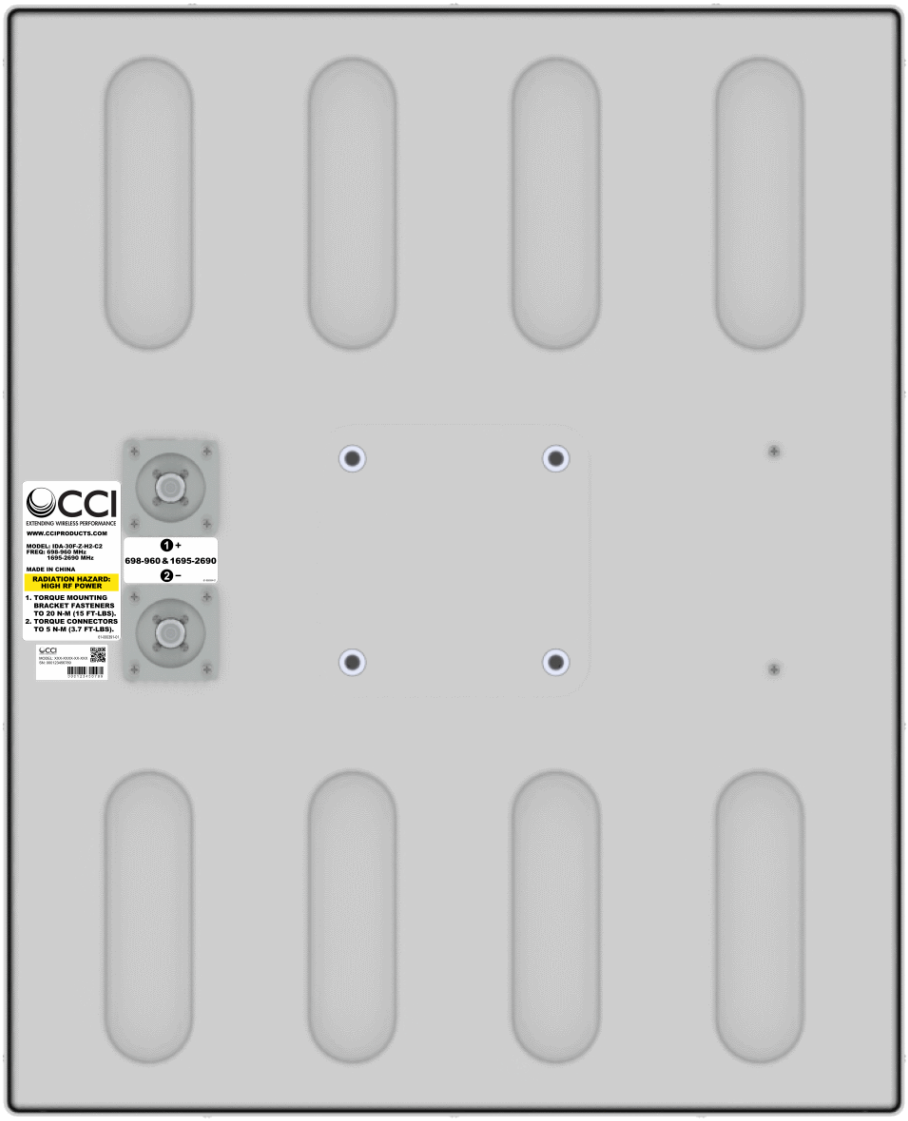
Dimensions (LxWxD)	30.1x24.4x6.9 in (764x620x176 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	157 lbs (697 N) @ 100 mph (161 kph)
Side Wind Load	47 lbs (211 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	6.1 ft^2 (0.6 m^2)
Weight *	19.8 lbs (9.0 kg)
Connector	2x 7-16 DIN female long neck or 2x 4.3-10 female
Mounting Pole	2 to 5 in (5 to 12 cm)

** Weight excludes mounting*

SPECIFICATIONS

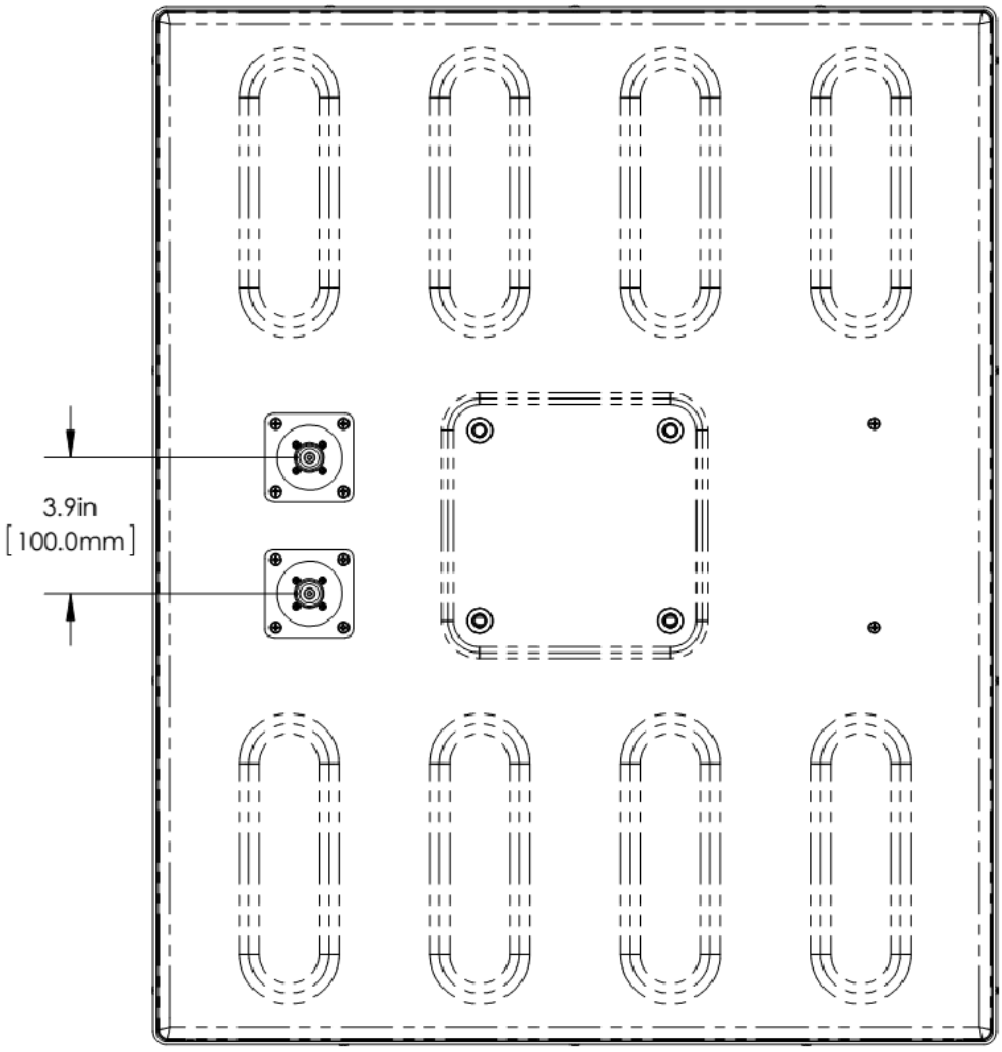
Mechanical

Rear View



Mechanical

Connector Spacing



SPECIFICATIONS

Small Cell ODA Antenna

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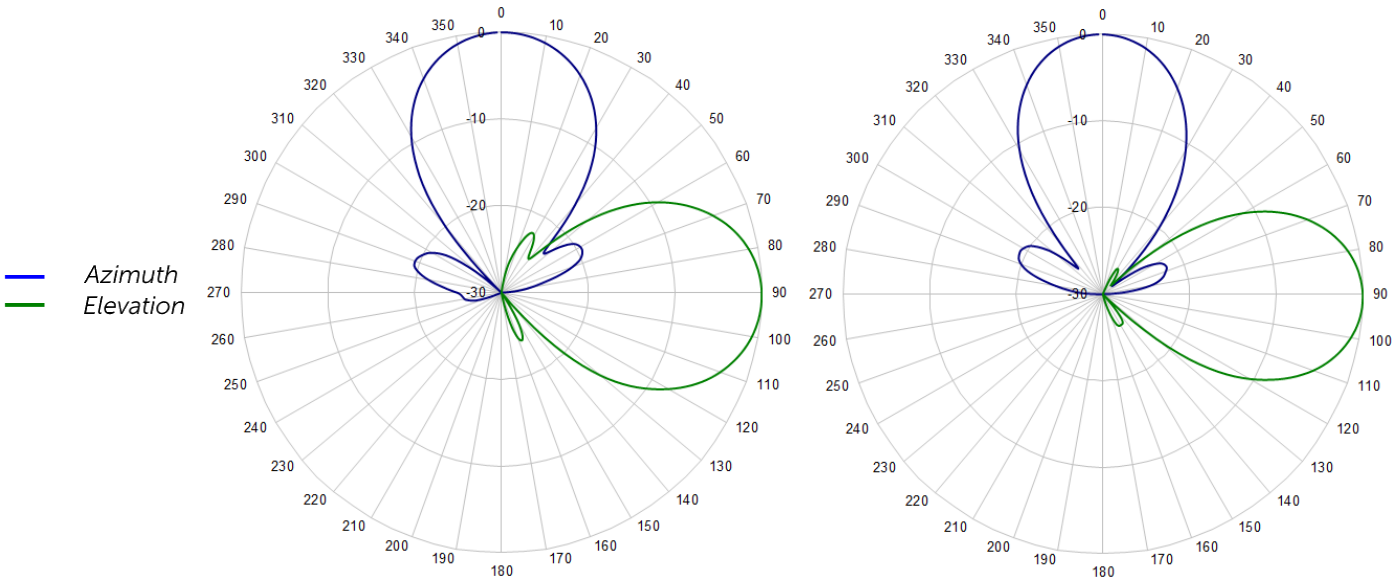
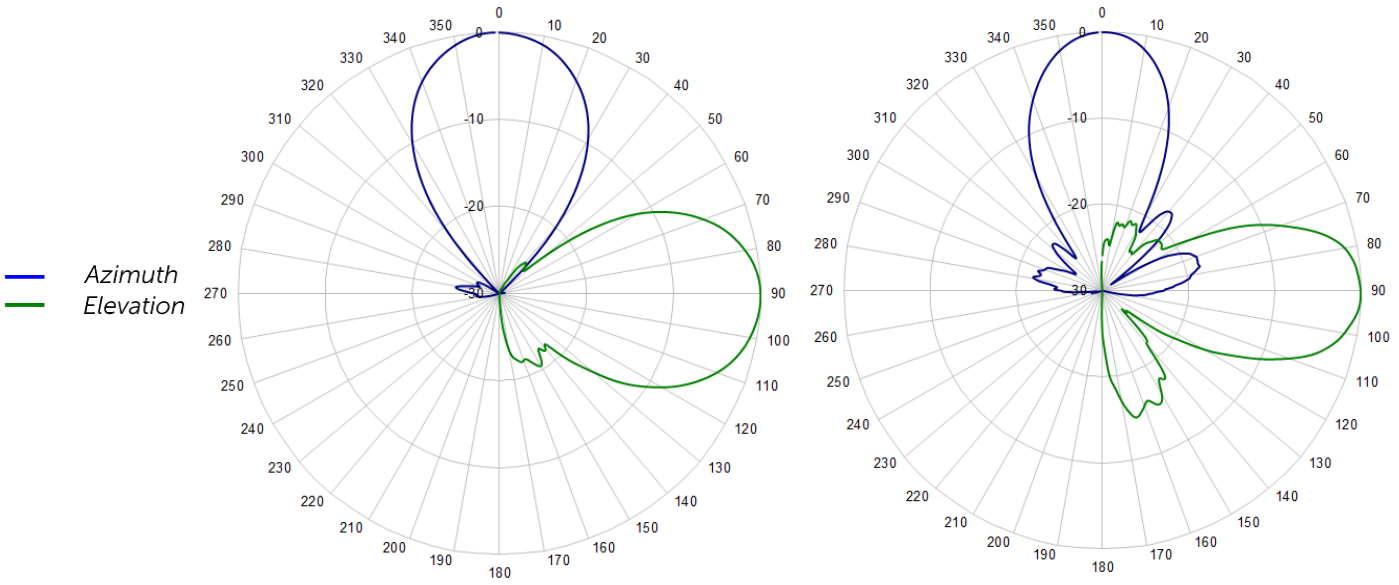
Typical Antenna Patterns

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



761 MHz Azimuth with Elevation 0º

855 MHz Azimuth with Elevation 0º



1958 MHz Azimuth with Elevation 0º

2500 MHz Azimuth with Elevation 0º

ORDERING

Small Cell ODA Antenna

ODA30F-Z2A

Parts & Accessories

ODA30F-Z2AA-K	Antenna with 7/16 DIN connectors, BSA-M05 mounting bracket and MBC-01 mast bracket
ODA30F-Z2AB-K	Antenna with 4.3-10 connectors, BSA-M05 mounting bracket and MBC-01 mast bracket
BSA-M05	Adjustable mast bracket kit with ±35° horizontal adjustment and ±55° vertical adjustment mechanical tilt
MBC-01	Mast bracket clamp for mast mounting of BSA-M05

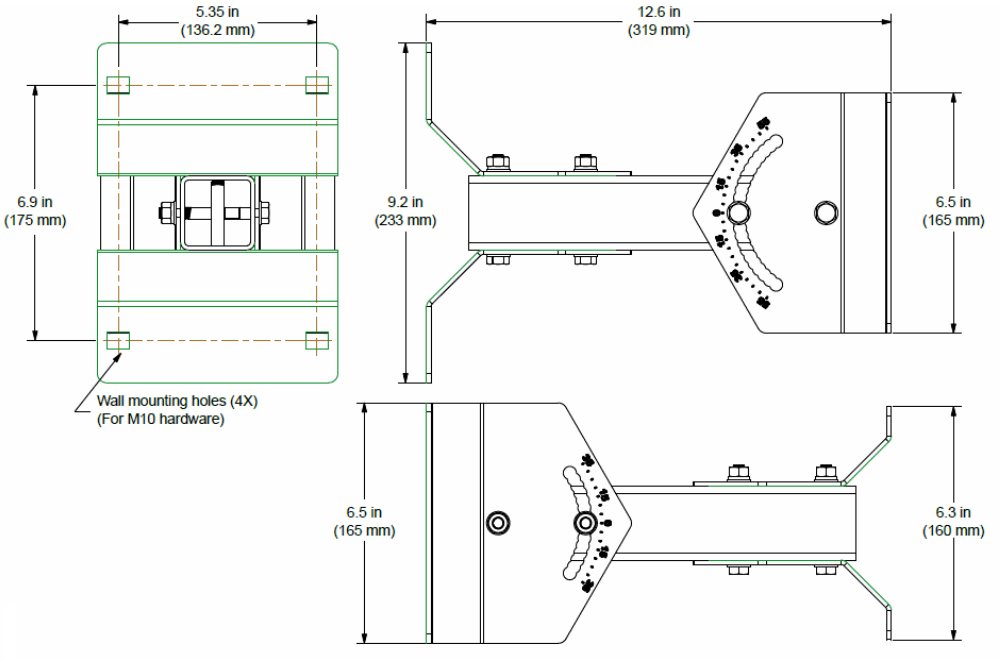
ACCESSORIES

Adjustable Mast Bracket

BSA-M05

Mechanical

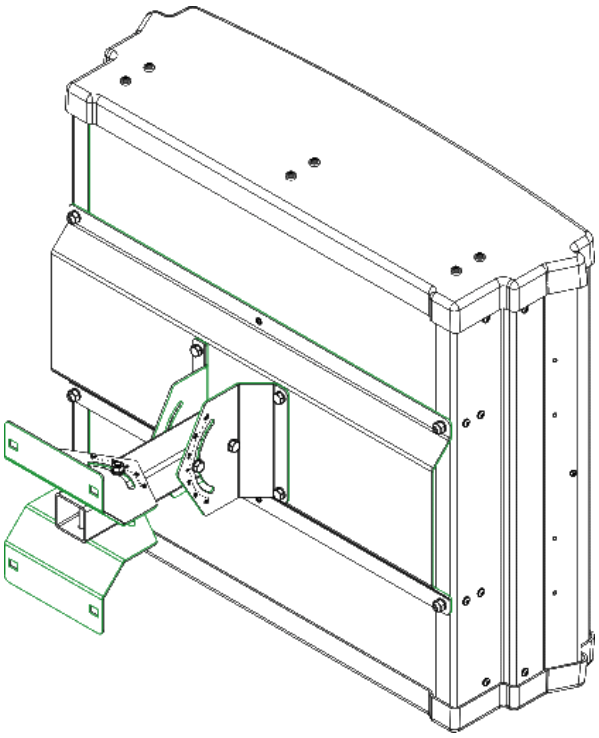
Weight	7.7 lbs (3.5 kg)
Hinge Pitch	Horizontal(± 35°), Vertical(± 55°)
Fastener Size	M10
Installation Torque	15 ft-lbs (20 Nm)
Mechanical Tilt Adjustment	Horizontal(± 35°), Vertical(± 55°)
Mounting Pole(when used with MBC-01)	2 to 5 in (5 to 12 cm)



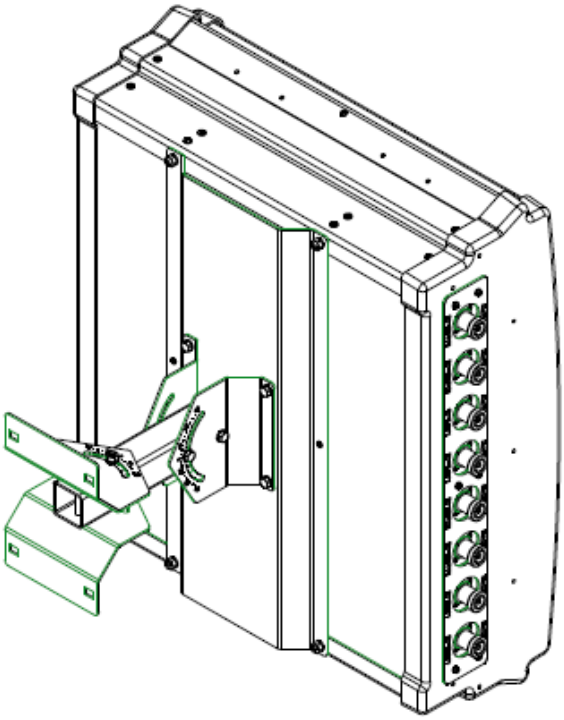
BSA-M05
Dimensions

Adjustable Mast Bracket

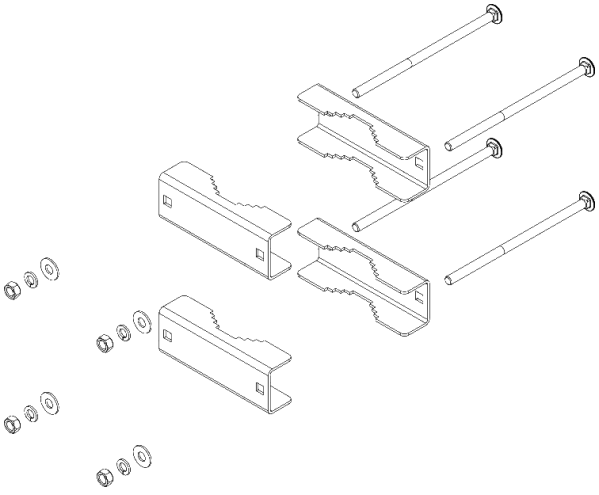
BSA-M05



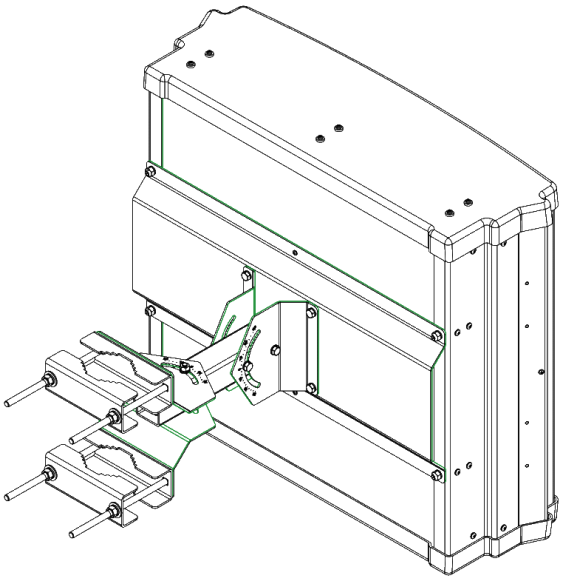
BSA-M05 horizontal mount on "Stadium Antenna"



BSA-M05 vertical mount on "Stadium Antenna"



MBC-01 Mast Bracket Clamp



BSA-M05 and MBC-01 mounting application

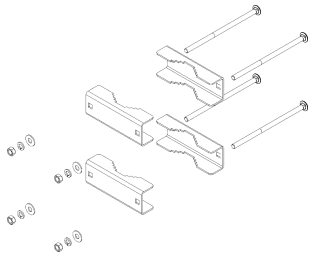
ACCESSORIES

Mounting Bracket Clamp

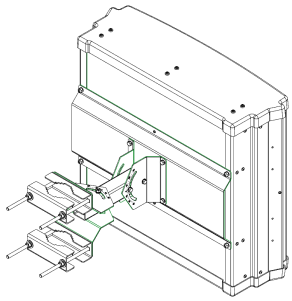
MBC-01

Mechanical

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



MBC-01



MBC-01 with BSA-M05

STANDARDS & CERTIFICATIONS

Small Cell ODA Antenna

ODA30F-Z2A

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