

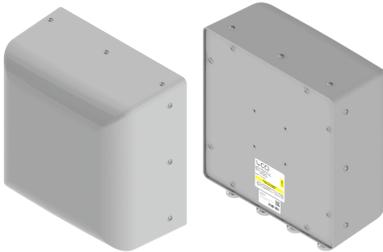


# Antennas

DATA SHEET

## Small Cell ODA 65°x65° Antenna

ODA65F-KE1A



- One foot (0.3 m), multiband, four port antenna with a 65° azimuth beamwidth, covering 694-960 MHz and 1695-2690 MHz frequencies
- Two wide high band ports covering 1695-2960 MHz and two wide low band ports covering 694-960 MHz in an extremely low profile and low weight antenna
- Full Spectrum Compliance 694-960 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 deployments in urban and suburban environments
- Ordering options for multiple mounting brackets, including simple wall mounting or Dual-Axis adjustment bracket (up to 45° of 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 65° x 65° array is a four port antenna Small Cell antenna, with two wide high band ports covering 1695-2690 MHz and two wide low band ports covering 694-960 MHz. The CCI 65° x 65° antenna provides 2x2 Multiple-input-Multiple-output (MIMO) across the low band and high band ports. The CCI 65° x 65° 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 65° x 65° Small Cell 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



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### SPECIFICATIONS

#### Electrical

Ports	2 x Low Band Ports for 694-960 MHz		
Frequency Range	694-806 MHz	824-896 MHz	880-960 MHz
Gain <sup>1</sup>	8.2 dBi	8.2 dBi	8.6 dBi
Gain (Average) <sup>2</sup>	7.9 dBi	8.0 dBi	8.4 dBi
Azimuth Beamwidth (-3dB)	70°	65°	59°
Elevation Beamwidth (-3dB)	79°	74°	68°
Electrical Downtilt	0°	0°	0°
Front-to-Back Ratio @180°	> 25 dB	> 22 dB	> 22 dB
Cross-Polar Discrimination (at Peak)	> 24 dB	> 20 dB	> 18 dB
Cross-Polar Port-to-Port Isolation	> 22 dB	> 22 dB	> 18 dB
Voltage Standing Wave Ratio(VSWR)	< 1.6:1	< 1.6:1	< 1.6:1
Passive Intermodulation (2x20W)	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc
Input Power Continuous Wave (CW)	80 watts	80 watts	80 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

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

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

Ports	2 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>	8.6 dBi	8.6 dBi	8.5 dBi	8.6 dBi	9.3 dBi
Gain (Average) <sup>2</sup>	8.5 dBi	8.4 dBi	8.4 dBi	8.4 dBi	9.0 dBi
Azimuth Beamwidth (-3dB)	57°	61°	64°	70°	61°
Elevation Beamwidth (-3dB)	62°	64°	68°	73°	60°
Electrical Downtilt	0°	0°	0°	0°	0°
Front-to-Back Ratio @180°	> 32 dB	> 32 dB	> 32 dB	> 32 dB	> 35 dB
Cross-Polar Discrimination (at Peak)	> 28 dB	> 28 dB	> 28 dB	> 26 dB	> 26 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
Voltage Standing Wave Ratio(VSWR)	< 1.75:1	< 1.75:1	< 1.75:1	< 1.75:1	< 1.75:1
Passive Intermodulation (2x20W)	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc
Input Power Continuous Wave (CW)	80 watts	80 watts	80 watts	80 watts	80 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.



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## SPECIFICATIONS

### Small Cell ODA 65°x65° Antenna

ODA65F-KE1A

#### Mechanical

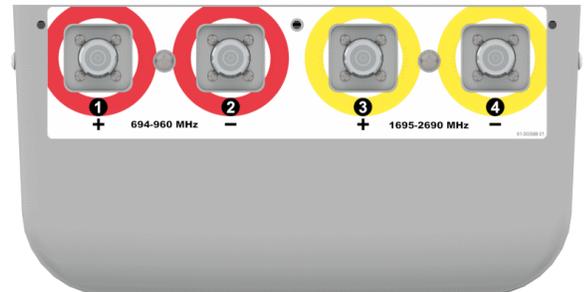
<b>Dimensions (LxWxD)</b>	11.8x11.8x6.1 in (300x300x156 mm)
<b>Survival Wind Speed</b>	> 125 mph (> 201 kph)
<b>Front Wind Load</b>	30 lbs (132 N) @ 100 mph (161 kph)
<b>Side Wind Load</b>	15 lbs (69 N) @ 100 mph (161 kph)
<b>Equivalent Flat Plate Area</b>	1.2 ft <sup>2</sup> (0.1 m <sup>2</sup> )
<b>Weight*</b>	4.6 lbs (2.1 kg)
<b>Connector</b>	4 x 7-16 DIN female long neck or 4.3-10 Female
<b>Wall Mount (fixed)</b>	0.375 in (10 mm) diameter hardware recommended
<b>Wall Mount Tilt</b>	0.375 in (10 mm) diameter hardware recommended
<b>Mounting Pole</b>	2 to 4.5 in (5 to 11 cm)

\* Weight excludes mounting

Bottom View

ODA65F-KE1AA

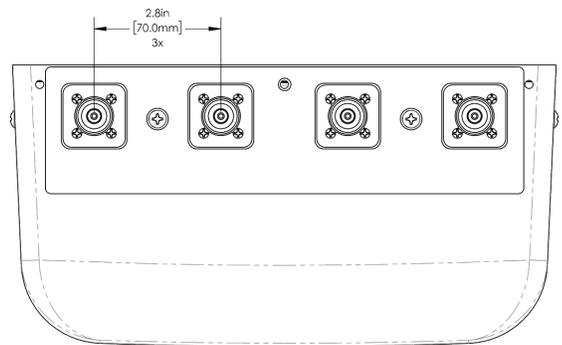
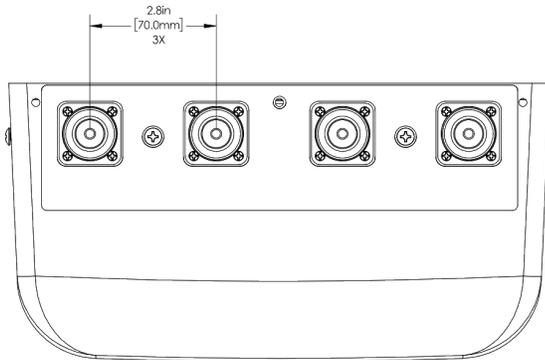
ODA65F-KE1AB



Connector Spacing

ODA65F-KE1AA

ODA65F-KE1AB





# Antennas

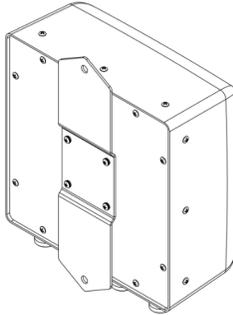
## Small Cell ODA 65°x65° Antenna

ODA65F-KE1A

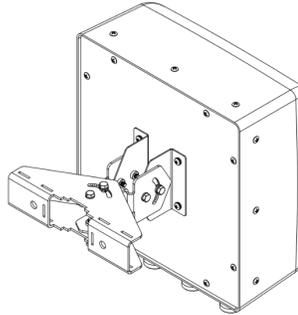
### SPECIFICATIONS

#### Mechanical

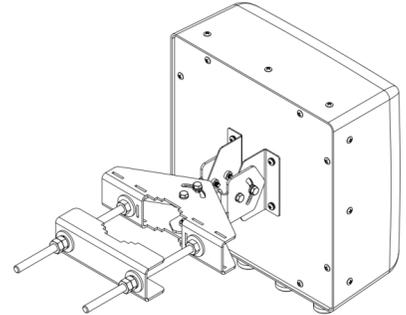
##### Mounting Kit Views



MBK-09



MBK-08



MBK-08 with optional MBC-07



# Antennas

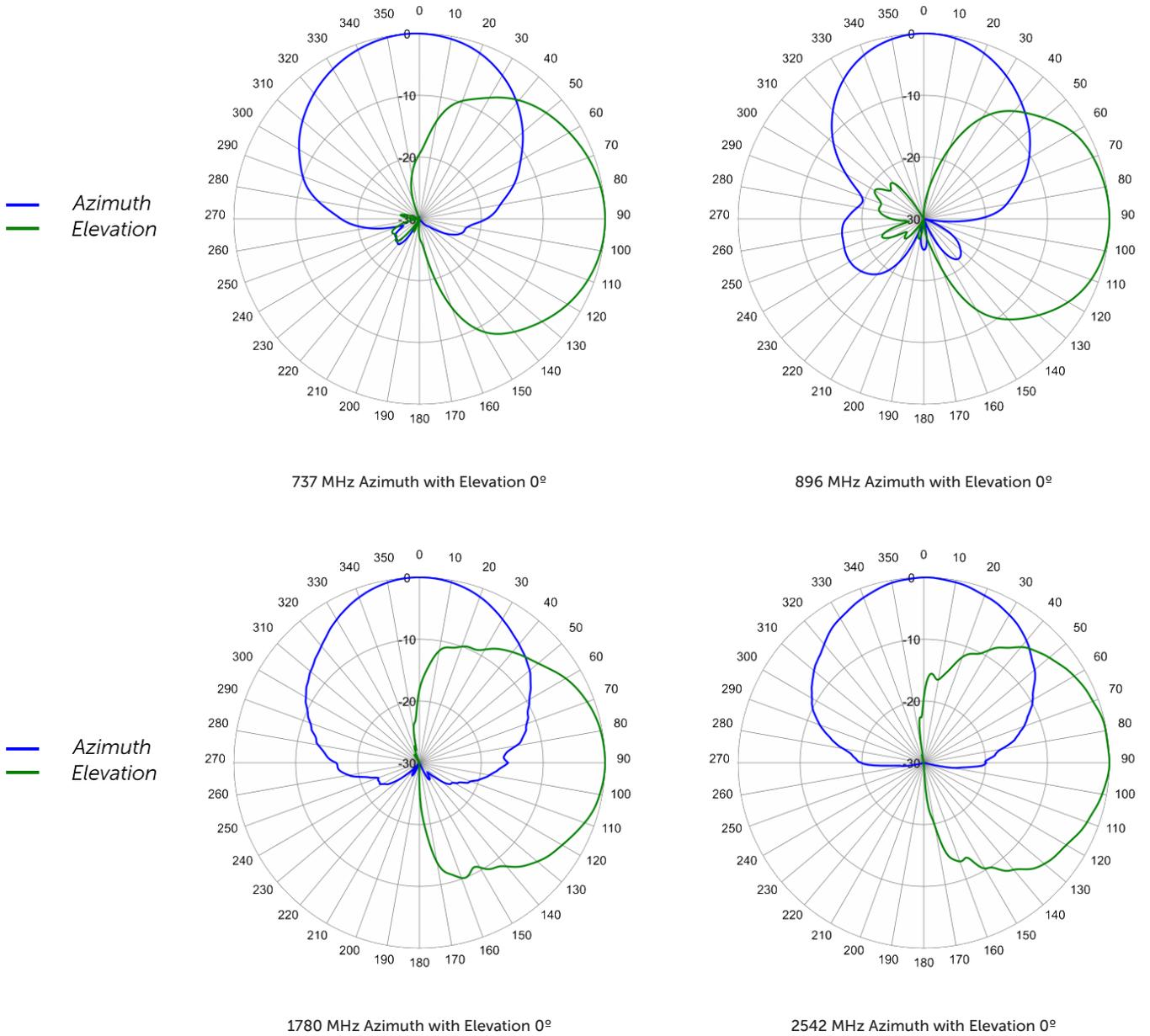
## SPECIFICATIONS

### Small Cell ODA 65°x65° Antenna

ODA65F-KE1A

#### 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 65°x65° Antenna

ODA65F-KE1A

Parts & Accessories

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<b>ODA65F-KE1AA-K</b>	Antenna with 7-16 DIN connectors and MBK-09 non tilting wall mount
<b>ODA65F-KE1AB-K</b>	Antenna with 4.3-10 connectors and MBK-09 non tilting wall mount
<b>ODA65F-KE1AA-K1</b>	Antenna with 7-16 DIN connectors and MBK-08 wall mount (adjustable tilt in both directions up to 45°)
<b>ODA65F-KE1AB-K1</b>	Antenna with 4.3-10 connectors and MBK-08 wall mount (adjustable tilt in both directions up to 45°)
<b>ODA65F-KE1AA-K2</b>	Antenna with 7-16 DIN connectors with MBK-08 and MBC-07 for pole mount (adjustable tilt in both directions up to 45°)
<b>ODA65F-KE1AB-K2</b>	Antenna with 4.3-10 connectors with MBK-08 and MBC-07 for pole mount (adjustable tilt in both directions up to 45°)
<b>MBK-09</b>	Fixed wall mount kit
<b>MBK-08</b>	Adjustable wall mount kit
<b>MBC-07</b>	Pole mount clamp for use with MBK-08

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# Antennas

## STANDARDS & CERTIFICATIONS

### Small Cell ODA 65°x65° Antenna

ODA65F-KE1A

#### 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

