

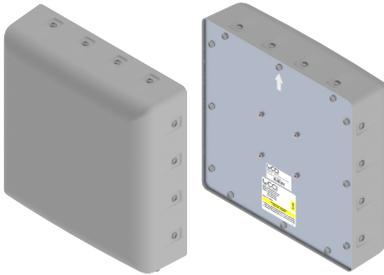


Antennas

DATA SHEET

TriBand Small Cell Panel Antenna

SCA65F-EHJ1A



- One foot (0.3 m), Triband, ten port antenna with a 65° azimuth beamwidth, covering 1695-2690 MHz, 3400-3800 MHz and 5150-5925 MHz frequencies
- Four wide band ports covering 1695-2690 MHz, four CBRS band ports covering 3400-3800 MHz and two U-NII band ports covering 5150-5925 MHz, all within in a low weight and low profile 1'x1' panel antenna
- Full Spectrum Compliance for 1695-2690 MHz, CBRS and U-NII frequencies
- The Low weight and Low profile of this panel antenna, makes this an ideal solution for Small Cell/C-RAN Densification deployments in difficult jurisdictional urban, suburban and rural environments
- Ordering options for multiple mounting brackets, including simple wall mounting or Dual-Axis adjustment bracket. Which makes it ideal for mounting on utility, lighting and traffic poles
- Ordering options include Fixed EDT of 0° for the 1695-2690 MHz ports and 0° EDT for CBRS 3400-3800 MHz and 5° for EDT U-NII 5150-5925 MHz ports
- Equipped with new NEX10 connectors, which is 52% smaller than 4.3-10 connectors

Overview

The CCI Triband 65° x 65° array is a ten port antenna Small Cell antenna, with four wide band ports covering 1695-2690 MHz, four CBRS band ports covering 3400-3800 MHz and two U-NII band ports covering 5150-5925 MHz. The CCI 65° x 65° Small Cell antenna provides two independent sets of 4x4 Multiple-input-Multiple-output (MIMO) functionality across the 1695-2690 MHz and CBRS 3400-3800 MHz ports and provides 2x2 Multiple-input-Multiple-output (MIMO) functionality across the U-NII 5150-5925 MHz ports.

The CCI 65° x 65° Small Cell antenna is an ideal solution for Small Cell/C-RAN/o-DAS Densification deployments in difficult jurisdictional urban, suburban and rural where antenna size and count are restricted.

CCI antennas are designed and produced to ISO 9001 certification standards for reliability and quality in our state-of-the-art manufacturing facilities.

Applications

- Small Cell/C-RAN/o-DAS 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

TriBand Small Cell Panel Antenna

SCA65F-EHJ1A

SPECIFICATIONS

Electrical

Ports	4 × High Band Ports for 1695-2690 MHz				
Frequency Range	1695-1880 MHz	1850-1990 MHz	1920-2180 MHz	2305-2360 MHz	2496-2690 MHz
Gain ¹	8.7 dBi	8.6 dBi	8.6 dBi	8.3 dBi	8.2 dBi
Gain (Average) ²	8.4 dBi	8.4 dBi	8.3 dBi	8.1 dBi	7.9 dBi
Azimuth Beamwidth (-3dB)	68°	67°	67°	68°	70°
Elevation Beamwidth (-3dB)	68°	70°	70°	70°	73°
Electrical Downtilt	0°	0°	0°	0°	0°
Front-to-Back Ratio @180°	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Cross-Polar Discrimination (at Peak)	> 20 dB	> 22 dB	> 25 dB	> 24 dB	> 22 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.92:1
Passive Intermodulation (2x20W)	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc
Input Power Continuous Wave (CW)	100 watts	100 watts	100 watts	100 watts	100 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

¹Peak gain across sub-bands.

²Electrical specifications follow document "Recommendation on Base Station Antenna Standards" (BASTA) V11.1.

Ports	4 × High Band Ports for 3400-3800 MHz	2 × High Band Ports for 5150-5925 MHz
Frequency Range	3400-3800 MHz	5150-5925 MHz
Gain ¹	8.3 dBi	5.8 dBi
Gain (Average) ²	7.9 dBi	5.1 dBi
Azimuth Beamwidth (-3dB)	69°	77°
Elevation Beamwidth (-3dB)	73°	28°
Electrical Downtilt	0°	5°
Elevation Sidelobes (1st Upper)	NA	< -20 dB
Front-to-Back Ratio @180°	> 35 dB	> 35 dB
Cross-Polar Discrimination (at Peak)	> 20 dB	> 18 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1
Input Power Continuous Wave (CW)	50 watts	10 watts
Polarization	Dual Pol 45°	Dual Pol 45°
Input Impedance	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground

¹Peak gain across sub-bands.

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



Antennas

SPECIFICATIONS

TriBand Small Cell Panel Antenna

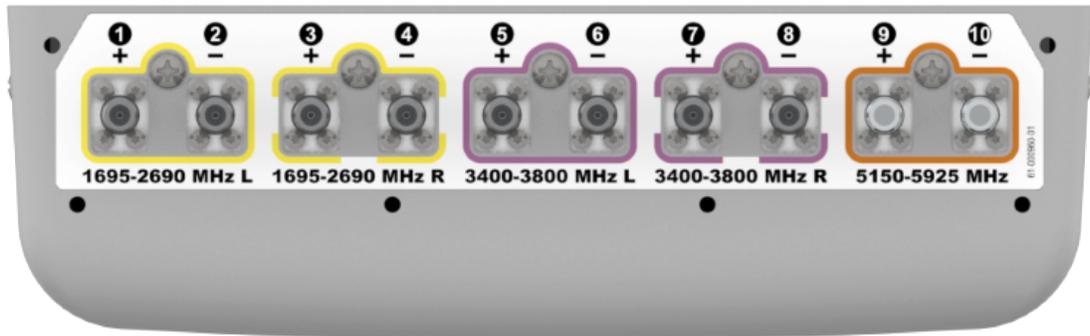
SCA65F-EHJ1A

Mechanical

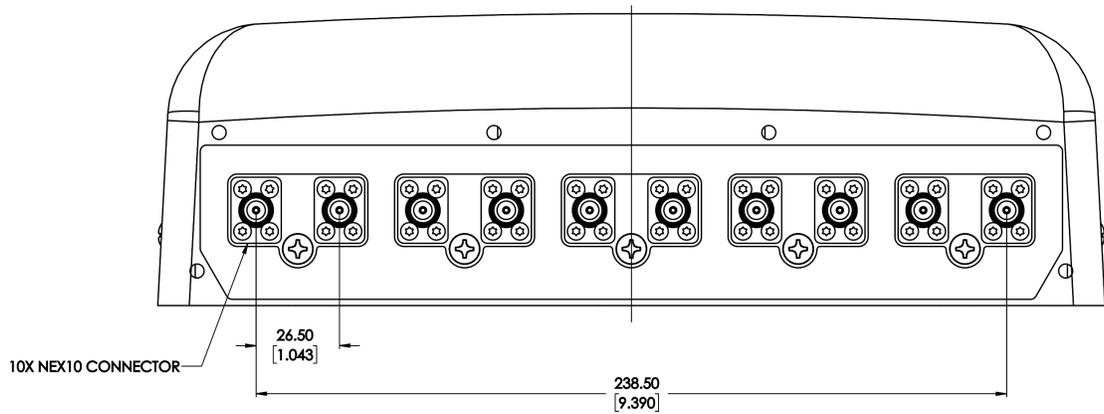
Dimensions (LxWxD)	11.7x11.9x3.7 in (297x301x93 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	30 lbs (132 N) @ 100 mph (161 kph)
Side Wind Load	9 lbs (42 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	1.2 ft ² (0.1 m ²)
Weight *	4.4 lbs (2.0 kg)
Connector	10 x NEX10 female
Mounting Pole	2 to 5 in (5 to 12 cm)

* Weight excludes mounting

Bottom View



Connector Spacing





Antennas

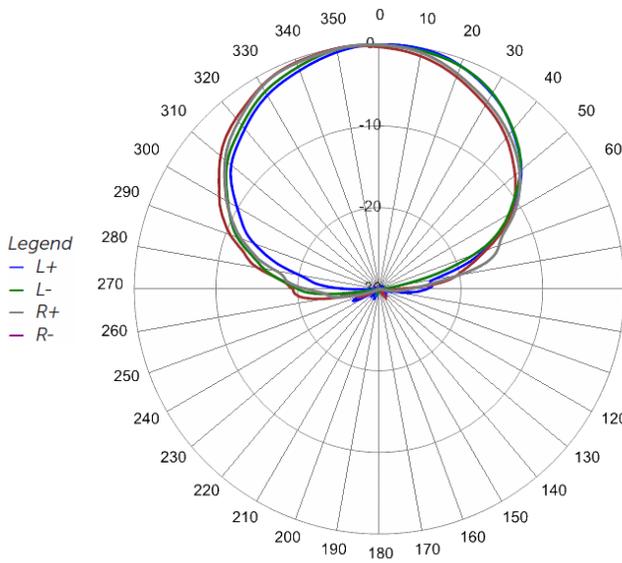
SPECIFICATIONS

TriBand Small Cell Panel Antenna

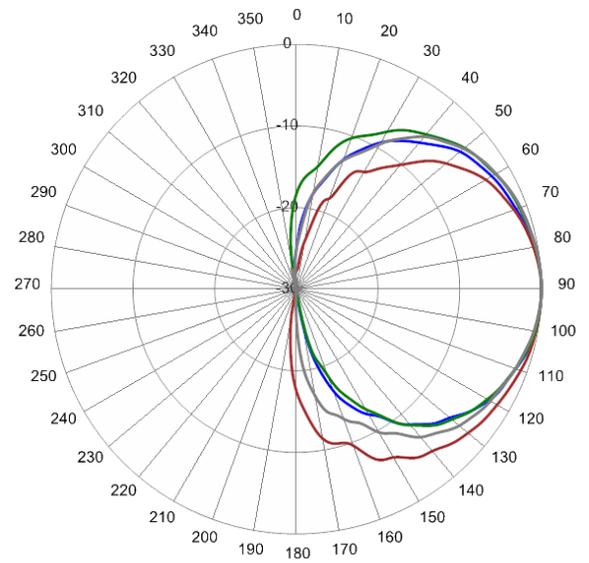
SCA65F-EHJ1A

Typical Antenna Patterns

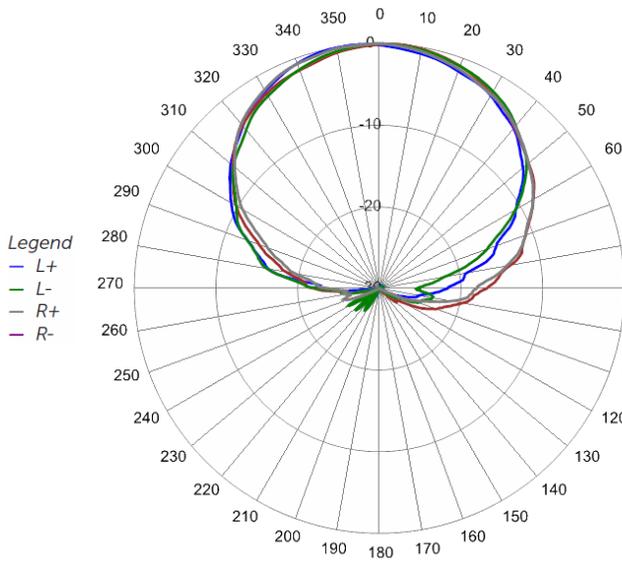
For detailed information on additional antenna patterns, contact customer support at support@cciproducts.com



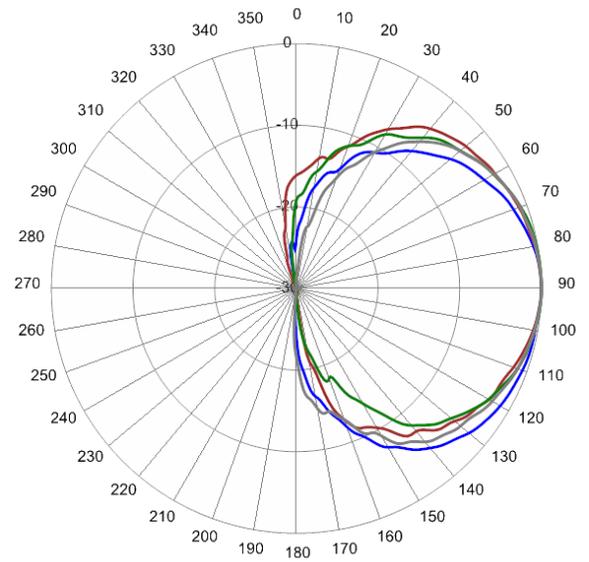
1910 MHz Azimuth



1910 MHz Elevation 0°



2300 MHz Azimuth



2300 MHz Elevation 0°



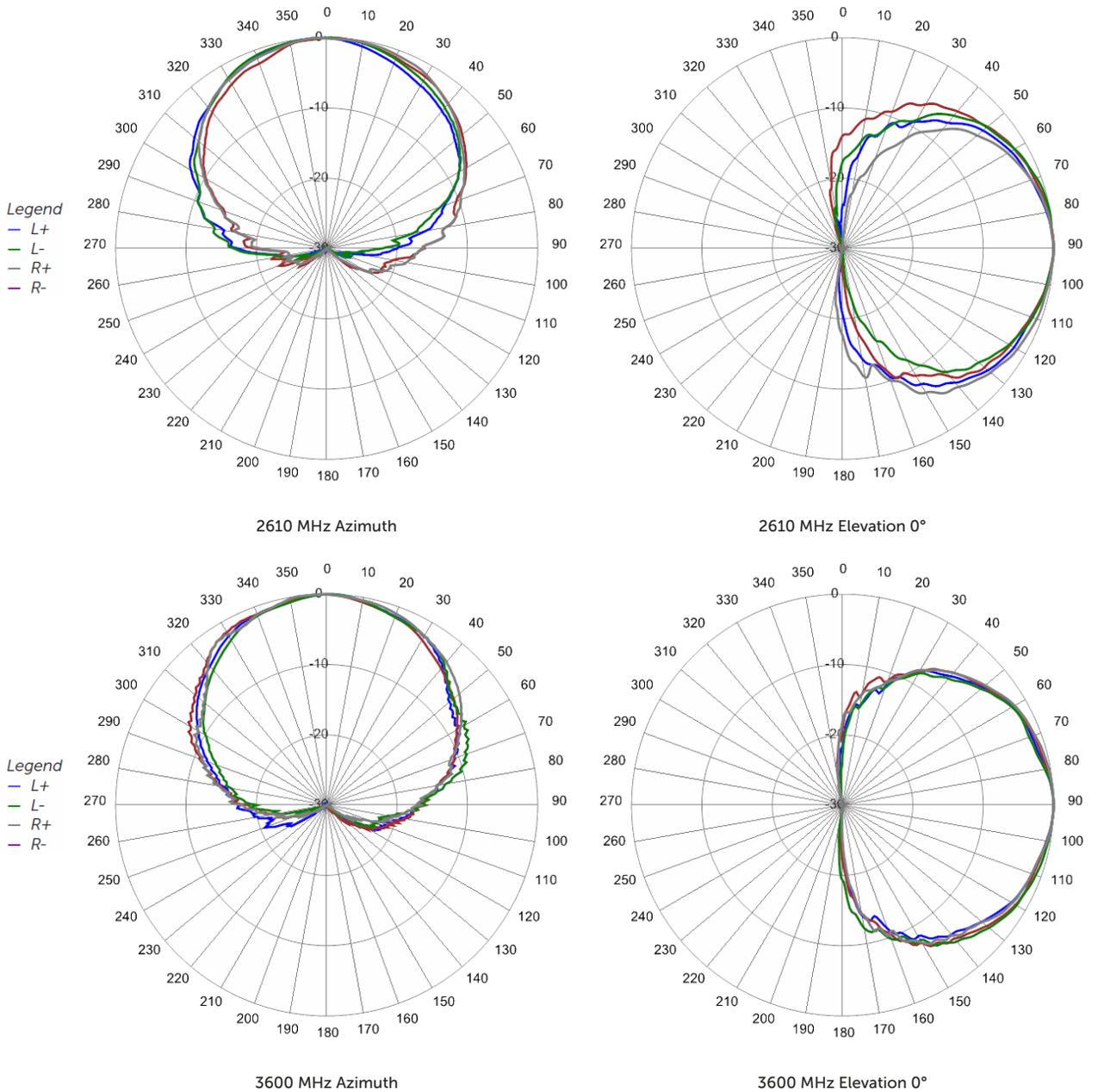
Antennas

SPECIFICATIONS

TriBand Small Cell Panel Antenna

SCA65F-EHJ1A

Typical Antenna Patterns





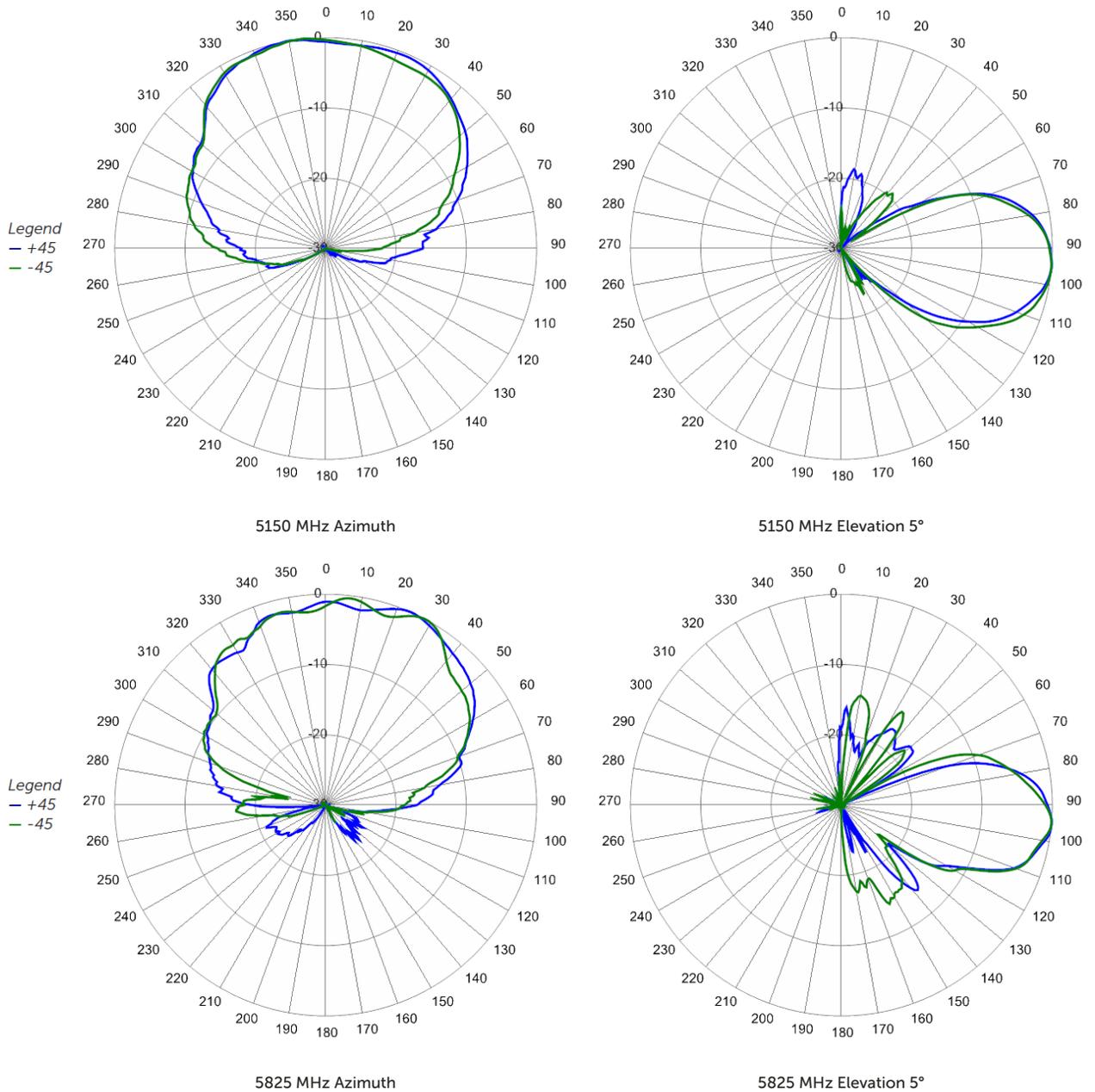
Antennas

SPECIFICATIONS

TriBand Small Cell Panel Antenna

SCA65F-EHJ1A

Typical Antenna Patterns





Antennas

ORDERING

TriBand Small Cell Panel Antenna

SCA65F-EHJ1A

Parts & Accessories

SCA65F-EHJ1AA-K	1 foot (0.3 m) TriBand Panel antenna with 65° azimuth beamwidth, NEX10 connectors and MBK-08 mounting bracket
SCA65F-EHJ1AA-K1	1 foot (0.3 m) TriBand Panel antenna with 65° azimuth beamwidth, NEX10 connectors and MBK-08 mounting bracket and MBC-07 pole mount clamp
SCA65F-EHJ1AA-K2	1 foot (0.3 m) TriBand Panel antenna with 65° azimuth beamwidth, NEX10 connectors and MBK-09 non tilt fixed wall mount
MBK-08	Adjustable wall mount kit or pole mount using steel banding (not supplied)
MBC-07	2-4.5 inch OD (5-11 cm) Pole mount clamp for use with MBK-08
MBK-09	Fixed wall mount kit



Antennas

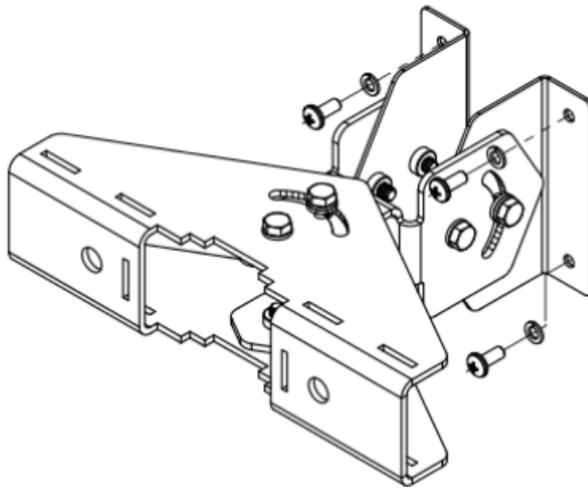
ACCESSORIES

Mounting Bracket Kit

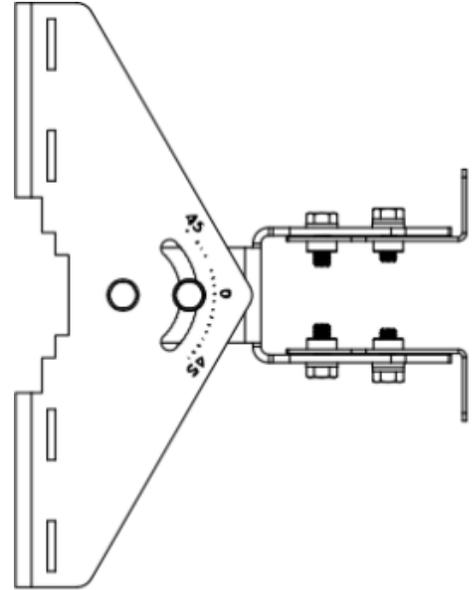
MBK-08

Mechanical

Weight 3.0 lbs (1.4 kg)



MBK-08 Adjustable Brackets



MBK-08 Adjustable Brackets Top View



Antennas

ACCESSORIES

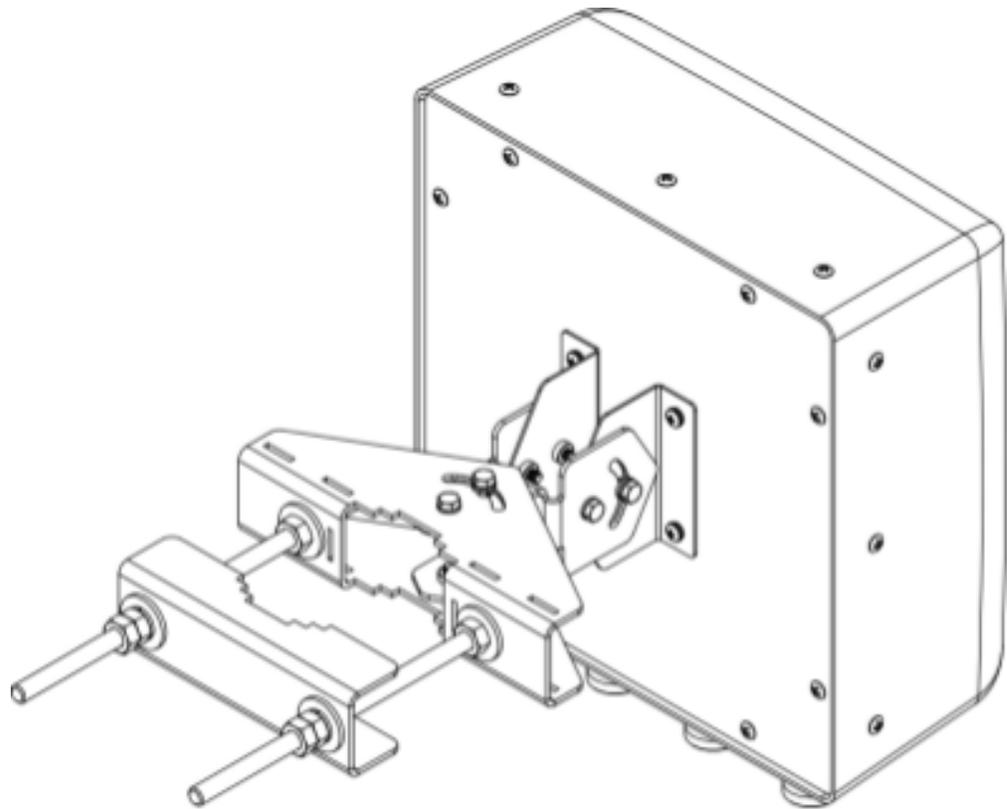
Mounting Bracket Clamp

MBC-07

Mechanical

Weight 1.8 lbs (0.8 kg)

Mounting Pole Dimension 2 - 4.5" (5 - 11 cm).



MBC-07 mounted to MBK-08



Antennas

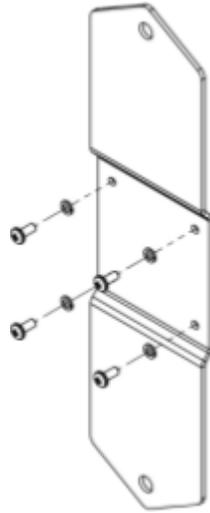
ACCESSORIES

Mounting Bracket Kit

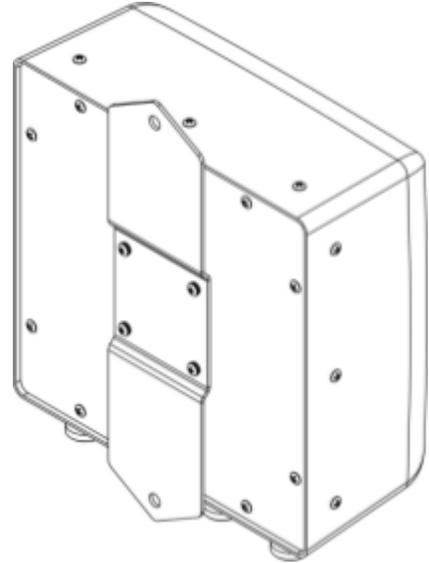
MBK-09

Mechanical

Weight 1.7 lbs (0.75 kg)



MBK-09



MBK-09 Installed to IDA-65F-KE-H1



Antennas

STANDARDS & CERTIFICATIONS

TriBand Small Cell Panel Antenna

SCA65F-EHJ1A

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

