



Antennas

DATA SHEET

Quad-Band Omni Antenna

SCA360F-KEHJ2G



- 24.6" (0.6 m) tall x 14.5" (0.36 m) wide, Quad-band, 20 port quasi-omni canister antenna with 360° of coverage, providing Full Spectrum Compliance covering 698-960 MHz, 1695-2690 MHz, 3400-3800 MHz and 5150-5925 MHz frequencies
- Four wide band ports covering 698-960 MHz, eight wide band ports covering 1695-2690 MHz, four wide band ports covering 3400-3800 MHz and four wide band ports covering 5150-5925 MHz all within in a low weight and low-profile canister antenna
- Antenna meets U-NII pattern and gain requirements set forth by FCC and CRTC
- This canister antenna is designed for multiple operators/platforms, with each pair of ports residing on separate and independent antenna arrays, minimizing potential interference between multiple operators. Pairs of the same frequency band ports can be combined for 4x4 MIMO where applicable
- The antenna is equipped with standardized 6-Bolt "Starburst" attachment
- Exceeds minimum PIM performance requirements
- Equipped with 4.3-10 connectors, which are 40% smaller than 7/16 DIN connectors
- Can be ordered with Brown or Black radomes in addition to default grey color
- This canister antenna is also equipped with various EDT configurations, to allow maximum coverage/performance flexibility. Each set of four ports in 1695-2690 MHz, can be configured with a different EDT setting. Refer to the ordering option section for further details
- Equipped with an internal GPS antenna with Type N connector

Overview

The CCI Quad-Band Quasi-Omni Small Cell antenna provides one independent set of 4x4 MIMO Multiple-Input-Multiple-Output (MIMO) functionality across the 698-960 MHz ports, three independent sets of 4x4 Multiple-Input-Multiple-Output (MIMO) functionality across the 1695-2690 MHz ports, one set of 4x4 Multiple-Input-Multiple-Output (MIMO) functionality across the 3400-3800 MHz ports and provides two independent sets of 2x2 Multiple-Input-Multiple-Output (MIMO) functionality across the U-NII 5150-5925 MHz ports.

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

Applications

- With a 24" height and 14.5" diameter, this low-profile canister antenna is an ideal solution for Small Cell Densification deployments in difficult jurisdictional urban, suburban and rural 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

Quad-Band Omni Antenna

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Electrical

Ports	4 x Low Band Ports for 698-960 MHz			
Frequency Range	698-806 MHz	790-862 MHz	824-896 MHz	880-960 MHz
Gain Peak ¹	3.1 dBi	3.3 dBi	3.3 dBi	3.6 dBi
Gain BASTA ²	2.3±0.6 dBi	2.7±0.6 dBi	2.7±0.6 dBi	2.7±0.6 dBi
Elevation Beamwidth (-3dB)	65°	67°	69°	66°
Electrical Downtilt	0°	0°	0°	0°
First Upper Sidelobes (at Peak Gain)	NA	NA	NA	NA
Cross-Polar Port-to-Port Isolation (all tilts)	> 20 dB	> 20 dB	> 20 dB	> 20 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc
Input Power Continuous Wave (CW)	100 watts	100 watts	100 watts	100 watts
Polarization	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°
Input Impedance	50 ohms	50 ohms	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground

¹Peak gain across sub-bands.

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

Ports	8 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 Peak ¹ (6° EDT)	7.0 dBi	7.2 dBi	8.3 dBi	8.6 dBi	8.0 dBi
Gain BASTA ¹ (6° EDT)	6.5±0.3 dBi	6.7±0.5 dBi	7.5±1.1 dBi	8.4±0.2 dBi	7.4±0.6 dBi
Elevation Beamwidth (-3dB) (6° EDT)	26.7°	24.4°	22.7°	20.7°	19.2°
Electrical Downtilt	2° or 4° or 6°	2° or 4° or 6°	2° or 4° or 6°	2° or 4° or 6°	2° or 4° or 6°
First Upper Sidelobes (at Peak Gain) (6° EDT)	< -19 dB	< -19 dB	< -19 dB	< -17 dB	< -18 dB
Cross-Polar Port-to-Port Isolation (all tilts)	> 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	< 1.5:1
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) V9.6.

Ports	4 x High Band Ports for 3400-3800 MHz	4 x High Band Ports for 5150-5925 MHz
Frequency Range	3400-3800 MHz	5150-5925 MHz
Gain Peak ¹	7.7 dBi	5.8 dBi
Gain BASTA ²	7.1±0.5 dBi	4.5±0.7 dBi
Elevation Beamwidth (-3dB)	25.1°	26.9°
Electrical Downtilt	4°	6°
First Upper Sidelobes (at Peak Gain)	< -18 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.



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SPECIFICATIONS

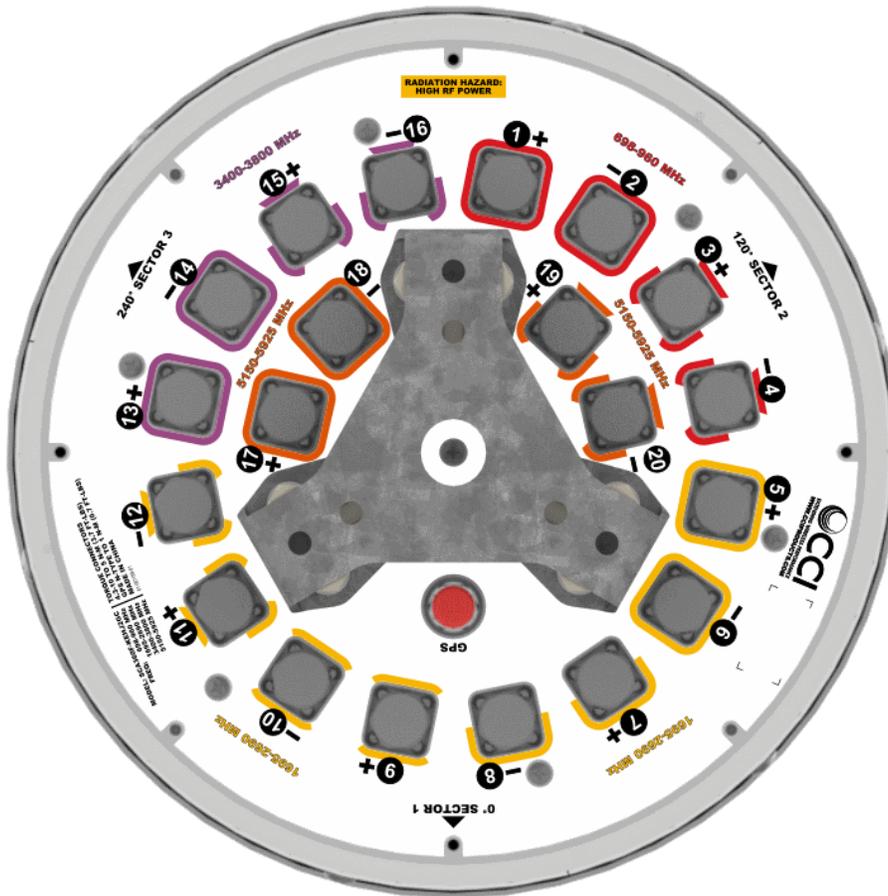
Quad-Band Omni Antenna

SCA360F-KEHJ2G

Mechanical

Dimensions (L x D)	24.5x14.5 in (622x368 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	44 lbs (197 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	1.7 ft ² (0.2 m ²)
Weight	37.5 lbs (17.0 kg)
Connector (RF)	20 x 4.3-10 female
Connector (GPS)	1 x Type "N"

Bottom View





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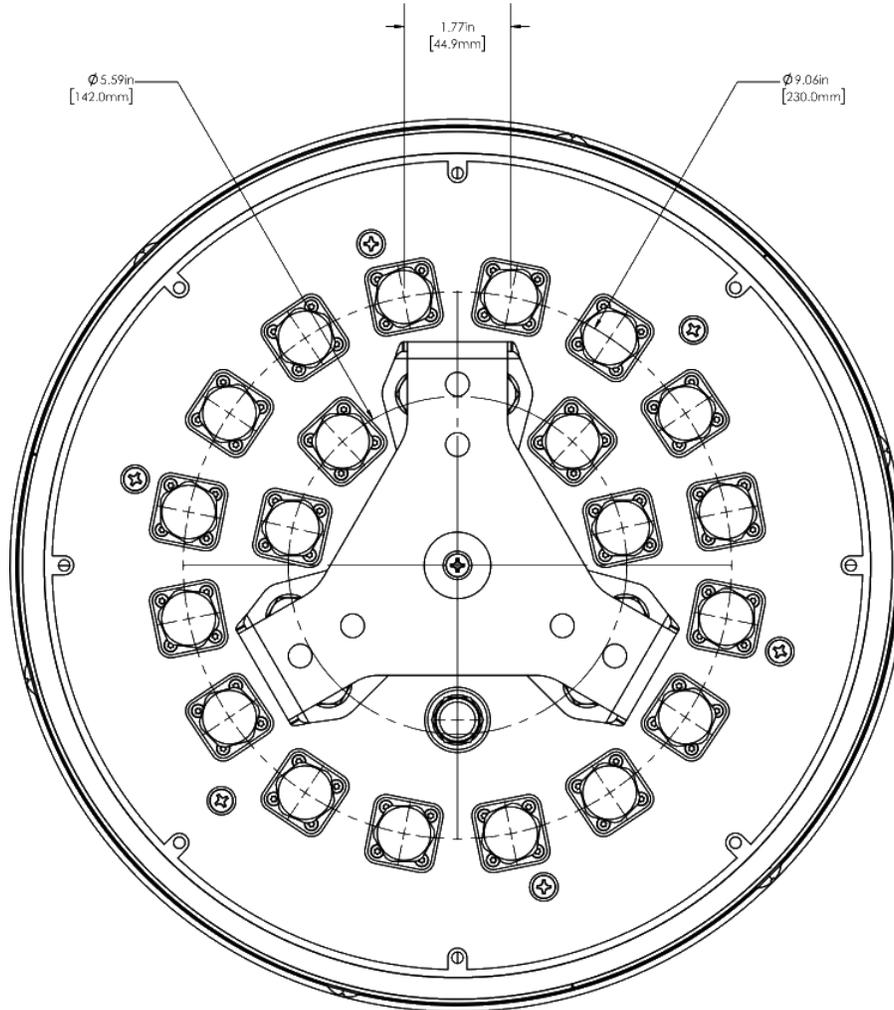
Quad-Band Omni Antenna

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SPECIFICATIONS

Mechanical

Connector Spacing





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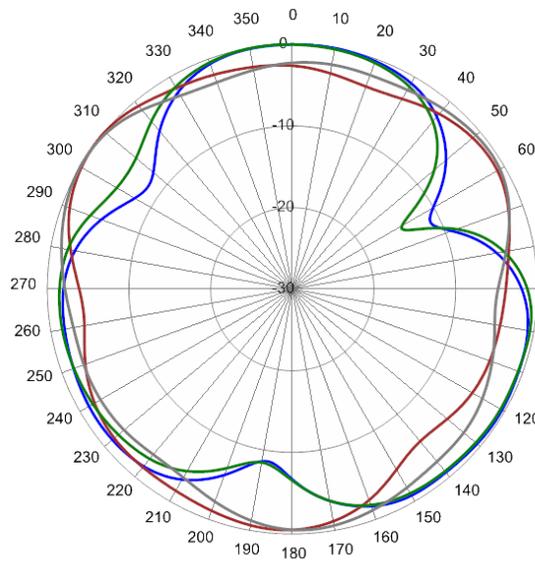
SPECIFICATIONS

Quad-Band Omni Antenna

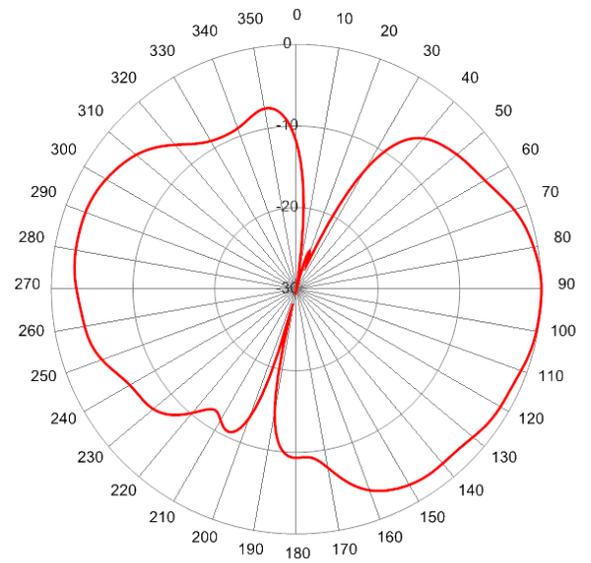
SCA360F-KEHJ2G

Typical Antenna Patterns

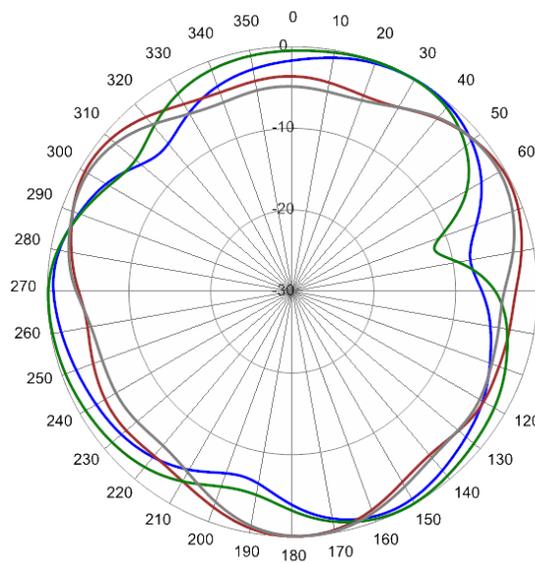
For detailed information on additional antenna patterns, contact customer support at support@cciproducts.com



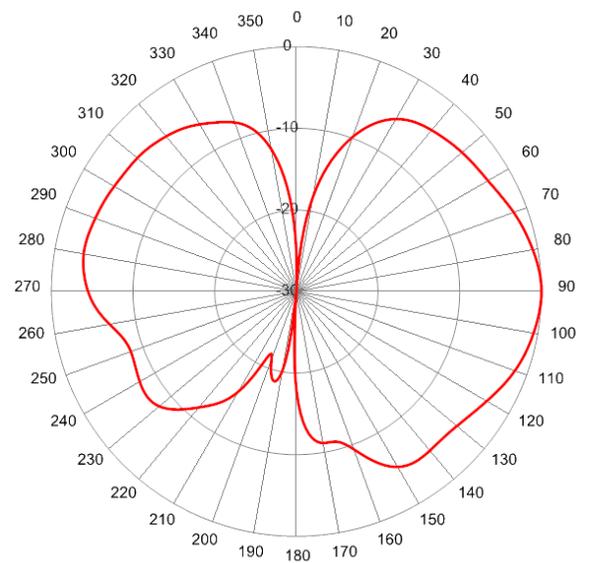
710 MHz Azimuth



710 MHz Elevation 0°



824 MHz Azimuth



824 MHz Elevation 0°



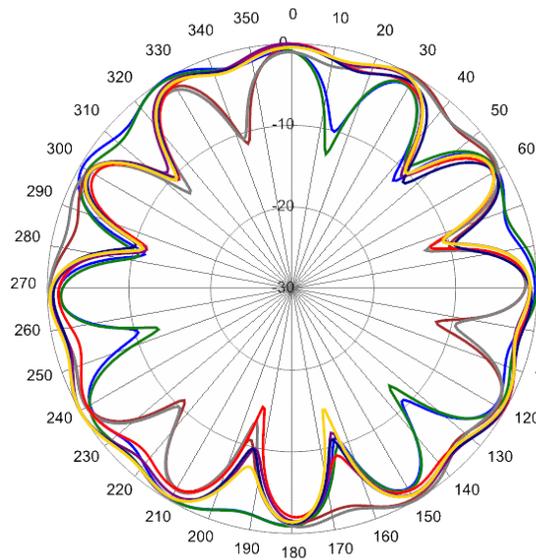
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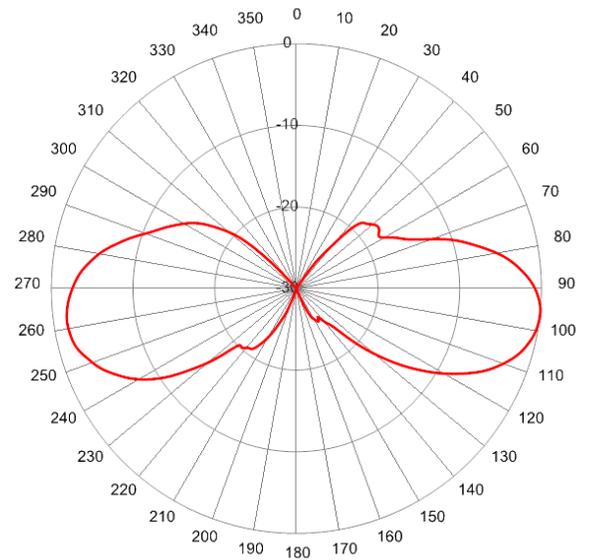
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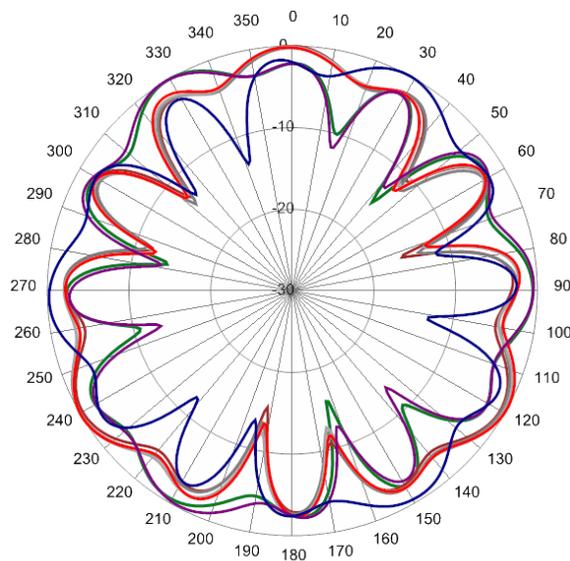
Typical Antenna Patterns



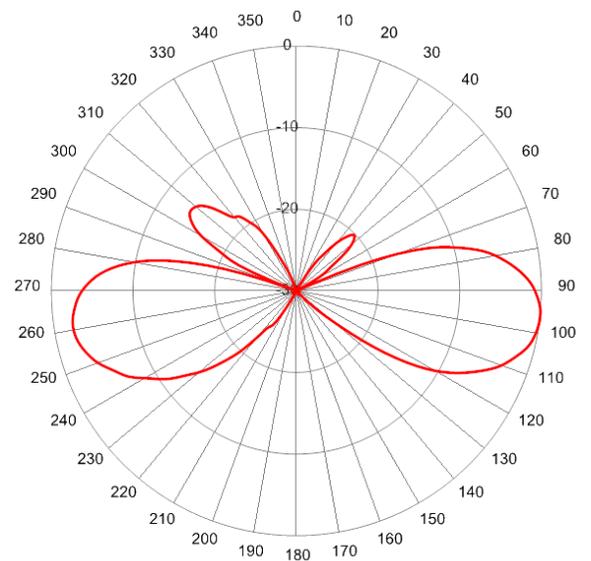
1910 MHz Azimuth



1910 MHz Elevation 6°



2110 MHz Azimuth



2110 MHz Elevation 6°



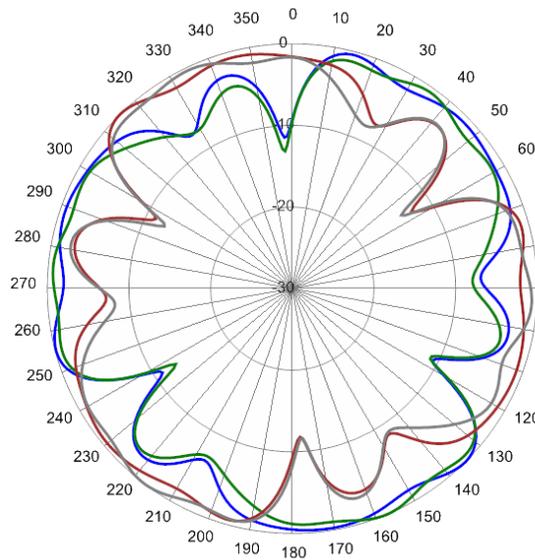
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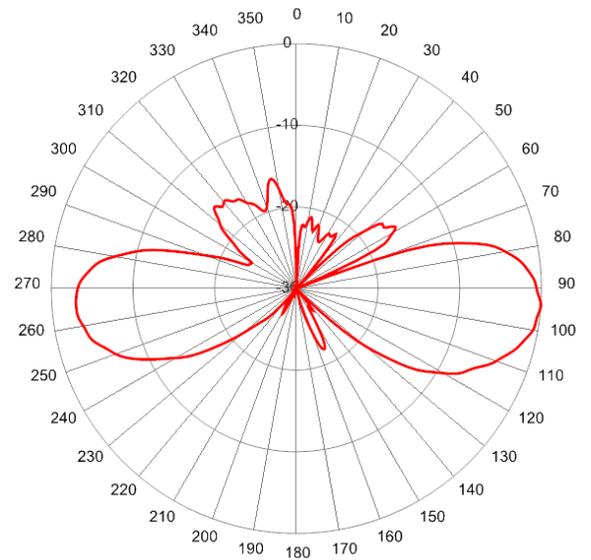
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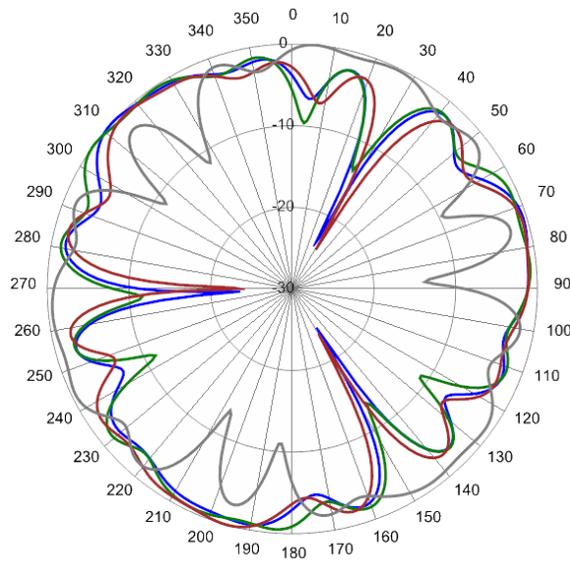
Typical Antenna Patterns



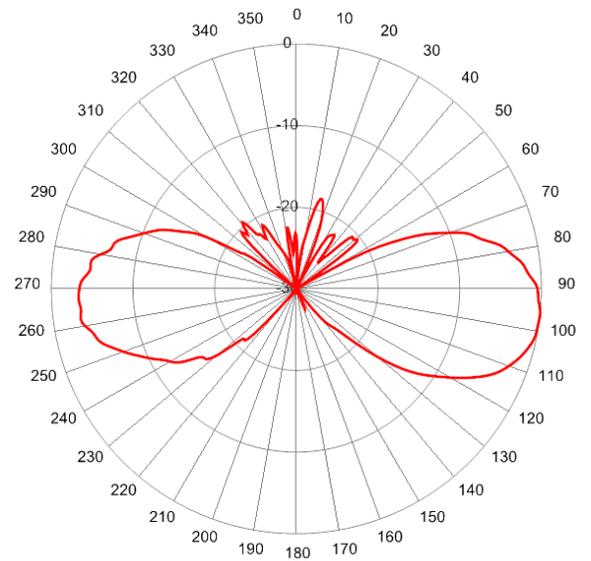
3500 MHz Azimuth



3500 MHz Elevation 4°



5150 MHz Azimuth



5150 MHz Elevation 6°



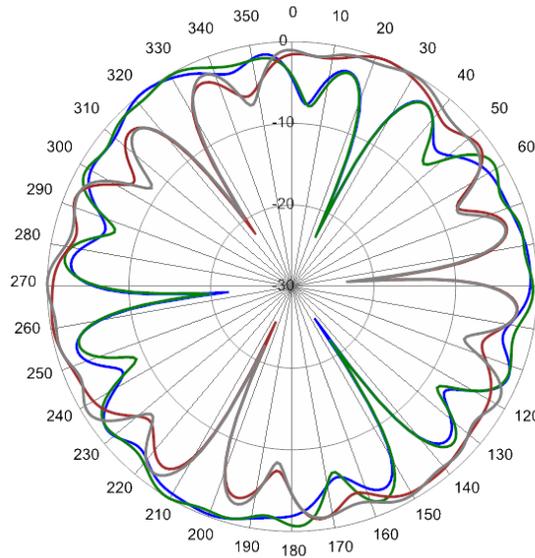
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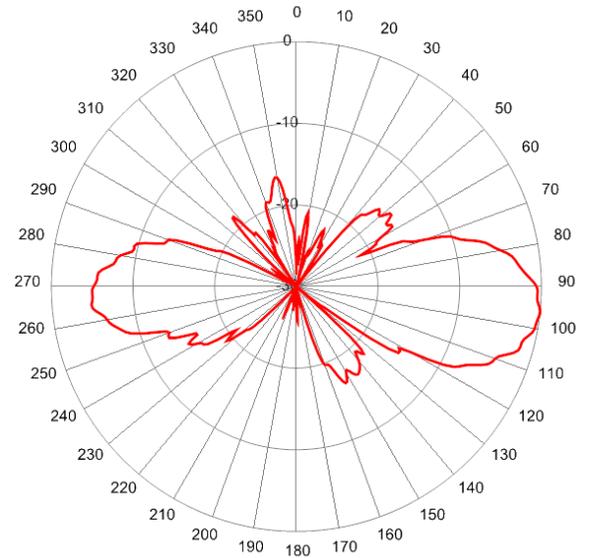
Quad-Band Omni Antenna

SCA360F-KEHJ2G

Typical Antenna Patterns



5850 MHz Azimuth



5850 MHz Elevation 6°



Antennas

ORDERING

Quad-Band Omni Antenna

SCA360F-KEHJ2G

Parts & Accessories

	Description	Antenna Color
SCA360F-KEHJ2GA	Two foot (0.6 m) Quad-Band Quasi-Omni antenna with 0° EDT across all 698-960 MHz ports, 2° EDT across all 1695-2690 MHz ports, 4° across all 3400-3800 MHz ports and 6° across all 5150-5925 MHz ports, 4.3-10 connectors with protective endcaps, GPS with Type N connector with protective endcap and standardized 6 bolt "Starburst" pattern	Standard Grey
SCA360F-KEHJ2GB	Two foot (0.6 m) Quad-Band Quasi-Omni antenna with 0° EDT across all 698-960 MHz ports, 4° EDT across all 1695-2690 MHz ports, 4° across all 3400-3800 MHz ports and 6° across all 5150-5925 MHz ports, 4.3-10 connectors with protective endcaps, GPS with Type N connector with protective endcap and standardized 6 bolt "Starburst" pattern	Standard Grey
SCA360F-KEHJ2GC	Two foot (0.6 m) Quad-Band Quasi-Omni antenna with 0° EDT across all 698-960 MHz ports, 6° EDT across all 1695-2690 MHz ports, 4° across all 3400-3800 MHz ports and 6° across all 5150-5925 MHz ports, 4.3-10 connectors with protective endcaps, GPS with Type N connector with protective endcap and standardized 6 bolt "Starburst" pattern	Standard Grey
SCA360F-KEHJ2GD	Two foot (0.6 m) Quad-Band Quasi-Omni antenna with 0° EDT across all 698-960 MHz ports, 2° EDT on 4 ports and 4° EDT on 4 ports of the 1695-2690 MHz ports, 4° across all 3400-3800 MHz ports and 6° across all 5150-5925 MHz ports, 4.3-10 connectors with protective endcaps, GPS with Type N connector with protective endcap and standardized 6 bolt "Starburst" pattern	Standard Grey
SCA360F-KEHJ2GE	Two foot (0.6 m) Quad-Band Quasi-Omni antenna with 0° EDT across all 698-960 MHz ports, 2° EDT on 4 ports and 6° EDT on 4 ports of the 1695-2690 MHz ports, 4° across all 3400-3800 MHz ports and 6° across all 5150-5925 MHz ports, 4.3-10 connectors with protective endcaps, GPS with Type N connector with protective endcap and standardized 6 bolt "Starburst" pattern	Standard Grey
SCA360F-KEHJ2GF	Two foot (0.6 m) Quad-Band Quasi-Omni antenna with 0° EDT across all 698-960 MHz ports, 4° EDT on 4 ports and 6° EDT on 4 ports of the 1695-2690 MHz ports, 4° across all 3400-3800 MHz ports and 6° across all 5150-5925 MHz ports, 4.3-10 connectors with protective endcaps, GPS with Type N connector with protective endcap and standardized 6 bolt "Starburst" pattern	Standard Grey
Color Options	For Brown (Pantone 476C) add "2" to end of model name (ie SCA360F-KEHJ4GA2)	Brown
	For Black (RAL 9011) add "3" to end of model name (ie SCA360F-KEHJ4GA3)	Black



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STANDARDS & CERTIFICATIONS

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



CCI Communication Components Inc.
EXTENDING WIRELESS PERFORMANCE