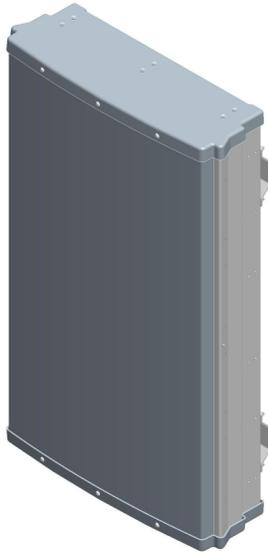


MULTI BAND BI-SECTOR™ ARRAY

Model BSA-M65-17V010-42



**Multi Band
Bi-Sector Array**

Benefits

Multi band applications – 700 MHz, SMR 800 MHz, Cellular 850 MHz, PCS 1900 MHz, AWS 1710/2170 MHz

Enables efficient evolution of wireless networks

Increase site capacity through higher order sectorization

Avoid carrier-adds and building of new capacity sites

Boosts data throughput by lowering interference

Patented asymmetrical beam shape maximizes coverage in a standard tri-sector cell plan

Provides remote control of electrical downtilt of antenna for easier optimization

The CCI BSA-M65-17R010-42 Multi Band Bi-Sector™ Array is an industry first LTE ready advanced phased array that supports multiple sectors (two low bands, two high bands) from a single antenna and provides capability for 700 MHz , SMR 800 MHz, Cellular 850 MHz, PCS 1900 MHz, and AWS 1710/2170 MHz coverage in a compact, 4 ft high single enclosure. Our unique patented bi-sector technology provides optimized overlap between pairs of asymmetric beams, lowers soft handover losses in UMTS/HSPA+ and CDMA/EVDO systems, and minimizes interference between sectors. Fast-roll off of each of the outer beams and high front-to-back ratios ensure reduced interference. Such an approach enhances data transfer rates within UMTS/LTE and EVDO network sectors and addresses “hotspots” in mobile wireless operator networks for SMR, GSM, CDMA, UMTS and LTE technologies.

The single panel design of the Bi-Sector Array offers the opportunity to reduce antenna count and directly replaces an existing 65° antenna. The new coverage that matches the existing footprint minimizes the need for optimization and adjacent site changes, and allows for Bi-Sector Array sites to have significant CAPEX and OPEX cost savings.

All CCI antennas are manufactured under ISO 9001.

Features

- ◆ Asymmetrical dual beams optimized to match existing cloverleaf (65°) patterns over a wide range of frequency bands – (698-824 MHz); (824-894 MHz); (1710 -1920 MHz); and (1920-2170 MHz)
- ◆ 4 ft tall, single panel design supporting four beams without mount changes
- ◆ Dual +45° and -45° cross-polarization for Left and Right beams
- ◆ Independent adjustable sub-beams provide unmatched optimization flexibility
- ◆ Separate Low-band and High-band ports, Left and Right beams, support 4 sub-sectors
- ◆

Applications

- ◆ Upgrade of data-throughput or capacity constrained sites
- ◆ Spectrum limited markets
- ◆ Deferral of CDMA/EVDO or UMTS//HSPA+ carrier adds



MULTI BAND BI-SECTOR™ ARRAY

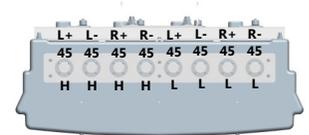
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**BSA-M65 Bi-Sector™ Array
Electrical Specifications**

Frequency Range	698-824 MHz	824-894 MHz	1710-1920 MHz	1920-2170 MHz
Azimuth Beamwidth (-3dB)	33° Asymmetric	30° Asymmetric	32° Asymmetric	29° Asymmetric
Elevation Beamwidth (-3dB)	17.3° ± 1°	16.0° ± 1°	9.3° ± 1°	8.0° ± 1°
Elevation Sidelobes (1st Upper) (Typ.)	< -17 dB	< -17 dB	< -18 dB	< -18 dB
Gain	14.5 ± 1.0 dBi	15.3 ± 1.0 dBi	15.9 ± 1.0 dBi	16.8 ± 1.0 dBi
Polarization	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°
VSWR	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Front-to-Back Ratio @180° (Typ.)	> 30 dB	> 30 dB	> 35 dB	> 35 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 30 dB	> 30 dB
Electrical Downtilt	0° to 10°	0° to 10°	0° to 8°	0° to 8°
Input Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Input Power	500 Watts CW	500 Watts CW	300 Watts CW	300 Watts CW
Passive Intermodulation (2x20W)	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground

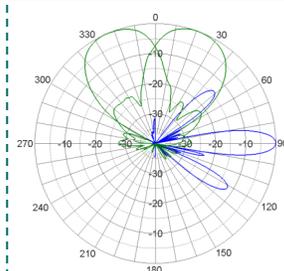
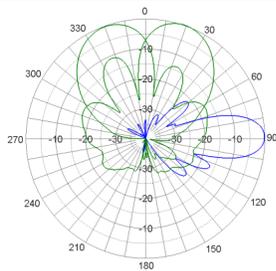
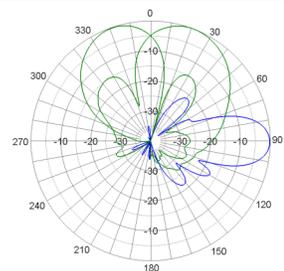
Mechanical Specifications

Dimensions (LxWxD)	48.0 x 28.5 x 9.4 inches (1219 x 723 x 240 mm)
Survival Wind Speed	> 120 mph (> 193 km/hr)
Front Wind Load	283 lbs (1257 N) @ 100 mph (161 kph)
Side Wind Load	106 lbs (471 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	11.0 ft ² (1.0 m ²)
Weight (without Mounting)	70 lbs (32 kg)
Connector	8; 7-16 DIN female
Mounting Pole	2-5 inches (5-12 cm)



Bottom View
H - High Band
L - Low Band

Antenna Patterns*



*Typical antenna patterns. For detail information on antenna pattern, please contact us at info@cciproducs.com. All specifications are subject to change without notice.