

700/800 Bi-SECTOR™ ARRAY

Model BSA-L65-17V010-62



700/800 Bi-Sector Array

Benefits

- ◆ Wide low frequency band applications – 700 MHz, SMR 800 MHz, Cellular 850 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-

The CCI VET Series 700/800 Bi-Sector™ Array is an industry first LTE ready advanced phased array that supports two traditional sectors from a single antenna and provides capability for 700 MHz , SMR 800 MHz, and Cellular 850 MHz coverage in a 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 variable electrical tilt (VET) capability allows independent adjustment of sub-beams for easier optimization.

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°) deployments
- ◆ Continuous operation over a wide low frequency band – (698-894 MHz)
- ◆ 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
- ◆ 4 RF ports per panel—two ports per LH and RH beams
- ◆ Rugged, weather resistant and highly reliable internal design

Applications

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



700/800 BI-SECTOR™ ARRAY

Model BSA-L65-17V010-62

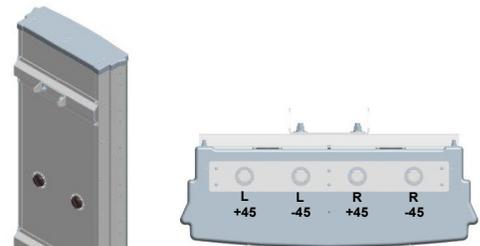
BSA-L65 Bi-Sector™ Array

Electrical Specifications

Frequency Range	698-824 MHz	824-894 MHz
Azimuth Beamwidth (-3dB)	34° Asymmetric	30° Asymmetric
Elevation Beamwidth (-3dB)	11.6° ± 1°	11.0° ± 1°
Elevation Sidelobes (1st Upper) (Typ.)	< -17dB	< -17dB
Gain	15.5 ± 1.0 dBi	16.0 ± 1.0 dBi
Polarization	Dual Linear 45°	Dual Linear 45°
VSWR	< 1.5:1	< 1.5:1
Front-to-Back Ratio @180° (Typ.)	> 30dB	> 30dB
Cross-Polar Port-to-Port Isolation	> 25dB	> 25dB
Electrical Downtilt	0° to 10°	0° to 10°
Input Impedance	50 Ohms	50 Ohms
Input Power	500 Watts CW	500 Watts CW
Passive Intermodulation (2x20W)	≤ -150dBc	≤ -150dBc
Lightning Protection	DC Ground	DC Ground

Mechanical Specifications

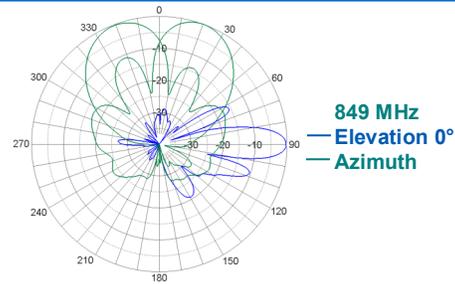
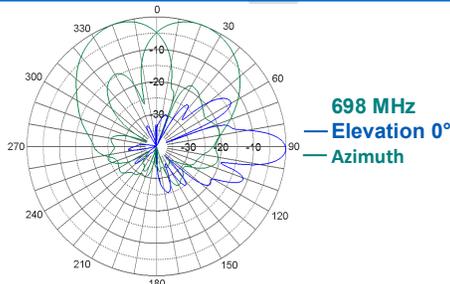
Dimensions (LxWxD)	72.0 x 28.5 x 9.4 inches (1828 x 723 x 240 mm)
Survival Wind Speed	> 120 mph (> 193 km/hr)
Front Wind Load	438 lbs (1946 N) @ 100 mph (161 kph)
Side Wind Load	172 lbs (764 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	17.0 ft ² (1.6 m ²)
Weight (without Mounting)	86 lbs (39 kg)
Connector	4; 7-16 DIN female
Mounting Pole	2-5 inches (5-12 cm)



Bottom View

Antenna Patterns*

Rear View



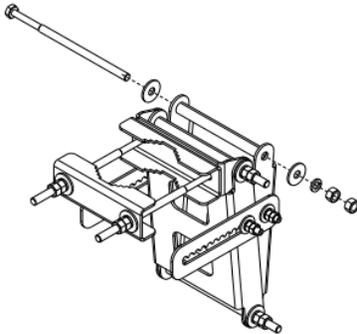
*Typical antenna patterns. For detail information on antenna pattern, please contact us at info@cciproducts.com. All specifications are subject to change without notice.

700/800 BI-SECTOR™ ARRAY

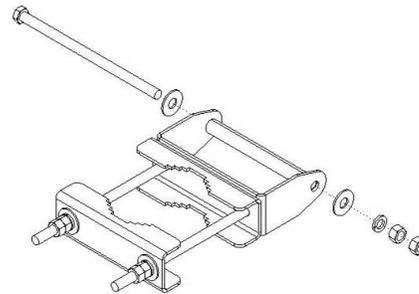
Model BSA-L65-17V010-62

Ordering Information:

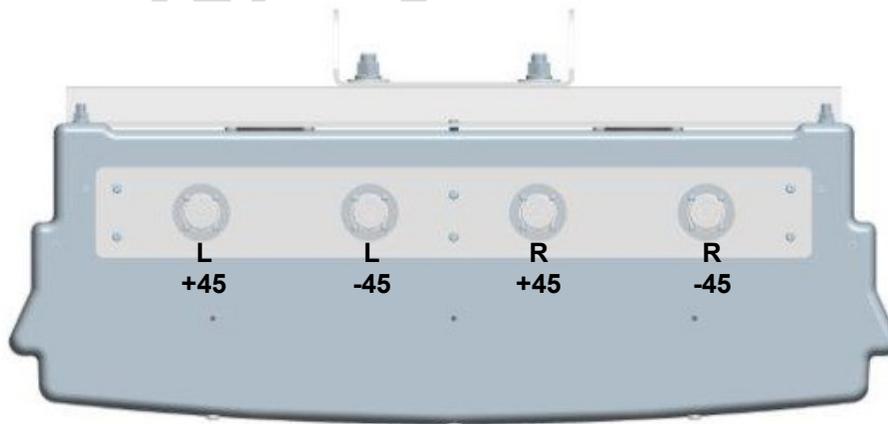
BSA-L65-17V010-62	Antenna (6'), Bi-Sector Array, 700/800/850 MHz, Variable Electrical Tilt
BSA-L65-17V010-62-K	Complete Kit with Antenna (6'), and M03 Mounting Bracket
BSA-M03	Mounting Bracket (Top & Bottom with 0° through 10° Mechanical tilt Adjustment)



M03 Top Mounting Bracket



M03 Bottom Mounting Bracket



BSA-L65-17V010-62 Antenna Port Marking and Port Identification