

**TENPORT 65° MULTI-BAND ANTENNA**

**Model DPA-65V-KUUVV-H8-K**



**Ten-port Multi-Band Antenna Array**

The CCI Ten-port 65° Multi-Band Antenna Array is a 10-port antenna with full high band capability. With eight high band ports and two low band ports, our ten-port antenna is ready for 4X4 high band MIMO in PCS / AWS / WCS bands as well as additional 4x4 MIMO in WCS / 2.6 GHz bands.

Modern networks demand high performance, consequently CCI has incorporated several new and innovative design techniques to provide an antenna with excellent side-lobe performance, sharp elevation beams, and high front to back ratio.

Multiple networks can now be connected to a single antenna, reducing tower loading and leasing expense, while decreasing deployment time and installation cost.

Full band capability for 700 MHz , Cellular 850 MHz, 900 MHz, PCS 1900 MHz, AWS 1695/2180 MHz and WCS 2300 & 2600 MHz coverage in a single enclosure; available in variable electrical tilt (VET) and remote electrical tilt (RET) models.

All CCI antennas are manufactured under ISO 9001.

**Benefits**

- ◆ Reduces tower loading
- ◆ Frees up space for tower mounted Remote Radio Heads
- ◆ Single radome with ten ports
- ◆ All Band design simplifies radio assignments
- ◆ Sharp elevation beam eases network planning

**Features**

- ◆ Eight High Band ports with two Low Band ports in one antenna
- ◆ Sharp elevation beam
- ◆ Excellent elevation side-lobe performance
- ◆ Excellent MIMO performance due to array spacing
- ◆ Excellent PIM Performance
- ◆ 3GPP/AISG 2.0 compliant RET system with daisy chaining capability available
- ◆ A multi-network solution in one radome

**Applications**

- ◆ 4x4 MIMO (x2) on High Band and 2x2 MIMO on Low Band
- ◆ Adding additional capacity without adding additional antennas
- ◆ Adding WCS & 2600 MHz Bands without increasing antenna count



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## Model DPA-65V-KUUVV-H8-K

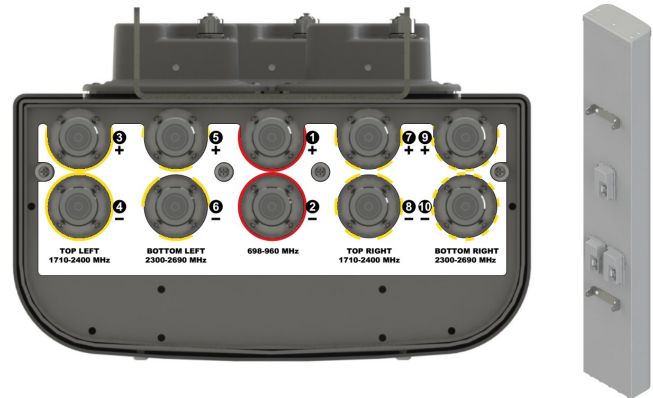
### DPA-65R Multi-Band Antenna

#### Electrical Specifications

	2 X Ports (698-960 MHz)			4 X Ports (1710-2400 MHz)			4 X Ports (2300-2690 MHz)	
	698-806 MHz	790-862 MHz	880-960 MHz	1710-1880 MHz	1850-1990 MHz	1920-2170 MHz	2300-2400 MHz	2496-2690 MHz
Frequency								
Gain	15.4 dBi	15.5 dBi	15.8 dBi	15.6 dBi	15.9 dBi	16.2 dBi	16.7 dBi	16.7 dBi
Azimuth Beamwidth (-3dB)	65°	68°	61°	70°	70°	67°	61°	59°
Elevation Beamwidth (-3dB)	9.1°	8.3°	7.5°	7.5°	7.0°	6.6°	6.1°	6.0°
Electrical Downtilt	2° to 10°	2° to 10°	2° to 10°	0° to 10°	0° to 10°	0° to 10°	0° to 10°	0° to 8°
EL Sidelobes (1st upper)	< -17 dB	< -18 dB	< -18 dB	< -17 dB	< -17 dB	< -17 dB	< -17 dB	< -15 dB
Front-to-Back Ratio @180°	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB	> 30 dB
Front-to-Back Ratio over ± 20°	> 30 dB	> 30 dB	> 30 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
X-Polar Discrimination (at Peak)	> 23 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 24 dB	> 25 dB	> 25 dB
X-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
VSWR	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
PIM	-153 dBc	-153 dBc	-153 dBc	-153 dBc	-153 dBc	-153 dBc	-153 dBc	-153 dBc
Input Power	500 W	500 W	500 W	300 W	300 W	300 W	300 W	300 W
Polarization	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°
Input Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground

#### Mechanical Specifications

Dimensions (LxWxD)	96.0 x 14.4 x 8.6 inches (2437 x 366 x 217.6 mm)
Survival Wind Speed	> 150 mph (241 kph)
Front Wind Load	340 lbs (1514 N) @ 100 mph (161 kph)
Side Wind Load	225 lbs (1001 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	13.3 ft <sup>2</sup> (1.2 m <sup>2</sup> )
Weight (without RET/Mounting)	61.1 lbs (27.7 kg)
RET System Weight	5.1 lbs (2.3 kg)
Connector	10; 7-16 DIN female long neck
Mounting Pole	2-5 inches (5-12 cm)

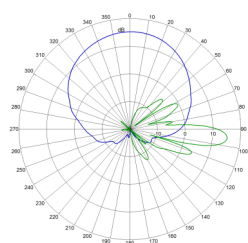


(Views of the RET model)

Bottom View

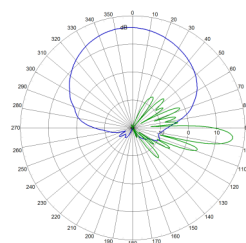
Rear View

#### Antenna Patterns\*

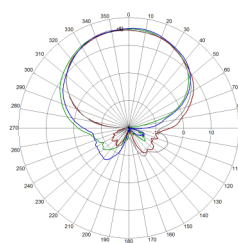


737 MHz Azimuth

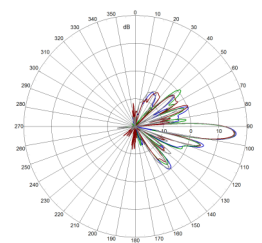
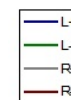
Elevation 6°



862 MHz Azimuth



1920 MHz Azimuth



Elevation 5°

\*Typical antenna patterns. For detailed information on antenna patterns, please contact us at [info@cciproducts.com](mailto:info@cciproducts.com). All specifications are subject to change without notice.

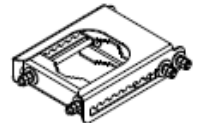
# TENPORT 65° MULTI-BAND ANTENNA

## Model DPA-65V-KUUVV-H8-K

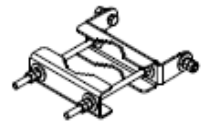
### Ordering Information:

DPA-65V-KUUVV-H8	8 Foot Ten port Antenna with Factory Installed VET Knobs (3)
DPA-65V-KUUVV-H8-K	Complete Kit with Antenna, Factory Installed VET Knobs (3) and MBK-01 Mounting Bracket
DPA-65R-KUUVV-H8	8 Foot Ten port Antenna with 65° Azimuth Beamwidth and factory installed RET Actuators (3)
DPA-65R-KUUVV-H8-K	Complete Kit with Antenna, Factory Installed Actuators (3) and MBK-01 Mounting Bracket
BSA-RET200	RET Actuator
MBK-01	Mounting Bracket (Top & Bottom) with 0° through 10° Mechanical tilt Adjustment: See Installation Guide 50-000036-01 for Details: Weight 13.6 Lbs. (6.2 kg)

**MBK-01  
Top  
Mounting  
Bracket**



**MBK-01  
Bottom  
Mounting  
Bracket**



### RET [Remote Electrical Tilt] System

#### General Specification

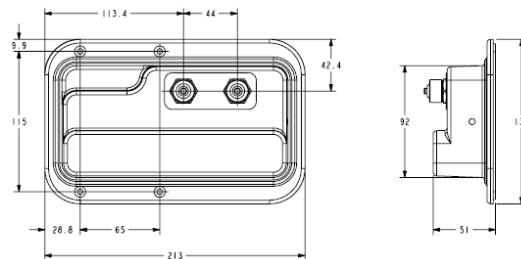
Part Number	BSA-RET200
Protocols	AISG 2.0
RET Type (Reference AISG 1.1)	Type 1
Adjustment Cycles	>10,000 cycles
Tilt Accuracy	±0.1°
Temperature Range	-40°C to +70°C

#### Electrical Specification

Interface Signal	Data   dc
Input Voltage Range	10-30 Vdc
Current consumption during tilting	120mA at Vin = 24V
Current consumption idle	55mA at Vin=24V
Hardware Interface	AISG - RS 485 A/B
Input Connector	1x8-pin Daisy Chain In Male
Output Connector	1x8-pin Daisy Chain Out Female

#### Mechanical Specification and Dimensions

Housing Material	ASA / ABS / Aluminum
Dimensions (H x W x D)	8 x 5 x 2 inches (213 x 135 x 51 mm)
Weight	1.5 lbs (0.68 kg)



#### Standards Compliance

Safety	EN 60950-1, UL 60950-1
Emission	EN 55022
Immunity	EN 55024
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 60068-2-30, IEC 60068-2-52, IEC 60068-2-64, GR-63-CORE 4.3.1, EN60529 IP24

#### Regulatory Certification

AISG, FCC Part 15 Class B, CE, CSA US