

▼ Electrical

Ports	4 x Low Band Ports for 698-896 MHz	
Frequency Range	698-806 MHz	824-896 MHz
Gain ¹	15.6 dBi	16.6 dBi
Gain (Average) ²	14.6 dBi	15.6 dBi
Azimuth Beamwidth (-3dB)	74°	63°
Elevation Beamwidth (-3dB)	9.9°	8.0°
Electrical Downlink	2° to 12°	2° to 12°
Elevation Sidelobe (1st Upper)	<-19 dB	<-18 dB
Front-to-Back Ratio @180°	> 35 dB	> 35 dB
Front-to-Back Ratio @20°	> 32 dB	> 32 dB
Cross-Polar Discrimination at Peak	> 25 dB	> 25 dB
Cross-Polar Discrimination at Sector ³	11.5 dB	10.9 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB
Voltage Standing Wave Ratio (VSWR)	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -153 dBc	≤ -153 dBc
Input Power Continuous Wave (CW)	500 watts	500 watts
Polarization	Dual Linear 45°	Dual Linear 45°
Input Impedance	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground

¹Real gain across sub-bands.

²Electrical specifications follow document: "Recommendation on Base Station Antenna Standards" (BSA/TN V9.6)

Ports	8 x High Band Ports for 1695-2400 MHz			
Frequency Range	1695-1860 MHz	1850-1990 MHz	1920-2180 MHz	2300-2400 MHz
Gain ¹	16.0 dBi	16.1 dBi	15.3 dBi	16.0 dBi
Gain (Average) ²	16.7 dBi	17.1 dBi	17.3 dBi	16.8 dBi
Azimuth Beamwidth (-3dB)	71°	67°	67°	62°
Elevation Beamwidth (-3dB)	5.7°	5.1°	4.7°	4.1°
Electrical Downlink	0° to 8°	0° to 8°	0° to 8°	0° to 8°
Elevation Sidelobe (1st Upper)	<-18 dB	<-18 dB	<-17 dB	<-16 dB
Front-to-Back Ratio @180°	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Front-to-Back Ratio @20°	> 32 dB	> 32 dB	> 32 dB	> 32 dB
Cross-Polar Discrimination at Peak	> 19 dB	> 18 dB	> 20 dB	> 21 dB
Cross-Polar Discrimination at Sector ³	11.0 dB	9.1 dB	9.9 dB	8.0 dB
Cross-Polar Port-to-Port Isolation	> 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
Passive Intermodulation (2x20W)	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc	≤ -153 dBc
Input Power Continuous Wave (CW)	300 watts	300 watts	300 watts	300 watts
Polarization	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°
Input Impedance	50 ohms	50 ohms	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground

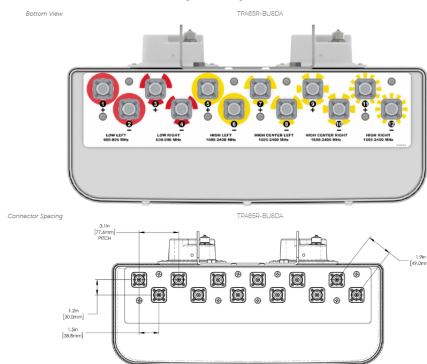
¹Real gain across sub-bands.

²Electrical specifications follow document: "Recommendation on Base Station Antenna Standards" (BSA/TN V9.6)

▼ Mechanical

Dimensions (LxWxD)	96.0 x 20.7 x 7.7 in (2438 x 525 x 197 mm)
Survival Wind Speed	> 120 mph (194 kph)
Front Wind Load	457 lbs (2033 N) @ 100 mph (161 kph)
Side Wind Load	209 lbs (929 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	17.9 sq ft (1.7 m ²)
Weight *	67.1 lbs (30.5 kg)
Package Dimensions (LxWxD)	104.3 x 28.7 x 6.9 in (2650 x 730 x 175 mm)
Package Weight	145 lbs (65.8 kg)
Connector	32 x 4.3-10 Female
Mounting Pole	2 to 5 in (5 to 12 cm)

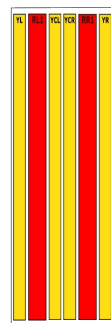
* Weight excludes mounting on



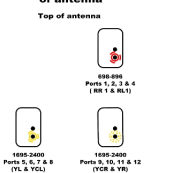
RET to Element Configuration

TR455R-BL-8EA Element and RET Configuration (Type 1 External RET)

Top of antenna Viewed from rear



RET placement as viewed from rear of antenna



Array	Ports	Freq (MHz)	Ports controlled by common RET
RL1	1, 2	698-896	1, 2, 3, 4
RR1	3, 4	698-896	1, 2, 3, 4
YL	5, 6	1695-2400	5, 6, 7, 8
YCL	7, 8	1695-2400	5, 6, 7, 8
YCR	9, 10	1695-2400	9, 10, 11, 12
YR	11, 12	1695-2400	9, 10, 11, 12

▼ Typical Antenna Patterns

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

