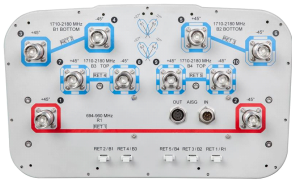


# R2HH-6533A-R5



10-port sector/multibeam antenna, 2x 694–960 MHz 65° HPBW and 8x 1710–2180 MHz 4x 33°HPBW, 5x RET with tilt indicators

- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector
- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Enhances network capacity through six sectors on high band while maintaining low band coverage layer through three sectors with only three antenna faces

## Electrical Specifications

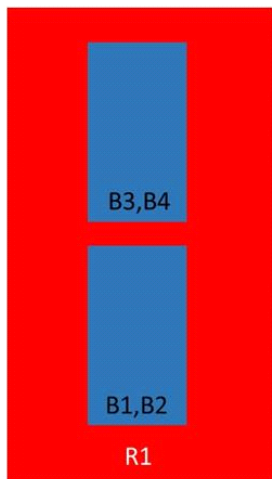
Frequency Band, MHz	694–790	790–890	880–960	1710–1880	1850–1990	1920–2180
Gain, dBi	14.4	14.8	14.9	15.9	16.5	17.1
Beam Centers, Horizontal, degrees				±27	±27	±27
Beamwidth, Horizontal, degrees	69	67	65	33	32	30
Beamwidth, Vertical, degrees	13.5	12.3	11.5	11.9	11.2	10.6
Beam Tilt, degrees	2–14	2–14	2–14	2–14	2–14	2–14
USLS (First Lobe), dB	14	16	17	17	18	19
Front-to-Back Ratio at 180°, dB	32	34	33	31	34	35
Isolation, Cross Polarization, dB	28	28	28	25	25	25
Isolation, Inter-band, dB	30	30	30	25	25	25
Isolation, Beam to Beam, dB				17	17	17
VSWR   Return Loss, dB	1.46   14.5	1.46   14.5	1.46   14.5	1.46   14.5	1.46   14.5	1.46   14.5
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	300	300	300	200	200	200
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

## Electrical Specifications, BASTA\*

Frequency Band, MHz	694–790	790–890	880–960	1710–1880	1850–1990	1920–2180
Gain by all Beam Tilts, average, dBi	14.2	14.6	14.7	15.2	16.0	16.5
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.4	±0.4	±1	±0.6	±0.8
Gain by Beam Tilt, average, dBi	2 °   14.3 8 °   14.2 14 °   13.9	2 °   14.6 8 °   14.7 14 °   14.3	2 °   14.9 8 °   14.8 14 °   14.4	2 °   15.2 8 °   15.3 14 °   14.8	2 °   16.0 8 °   16.2 14 °   15.7	2 °   16.5 8 °   16.7 14 °   16.1
Beamwidth, Horizontal Tolerance, degrees	±1.9	±2.3	±2.2	±1.7	±1.7	±1.7
Beamwidth, Vertical Tolerance, degrees	±1	±0.8	±0.7	±1	±0.9	±0.9
USLS, beampeak to 20° above beampeak, dB	14	16	16	17	18	18
Front-to-Back Total Power at 180° ± 30°, dB	24	24	22	24	26	27
CPR at Boresight, dB	16	16	17	14	15	16
CPR at Sector, dB	11	10	9			
CPR at 10 dB Horizontal Beamwidth, dB				8	11	11

\* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

## Array Layout

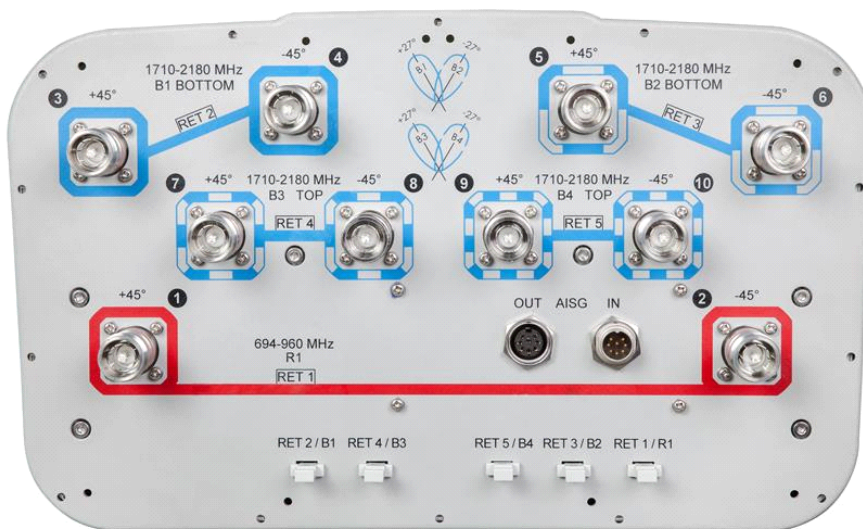


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
B1	1695-2180	3-4	2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2180	5-6	3	CPxxxxxxxxxxxxxxxxB2
B3	1695-2180	7-8	4	CPxxxxxxxxxxxxxxxxB3
B4	1695-2180	9-10	5	CPxxxxxxxxxxxxxxxxB4

Left Right  
Bottom

(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration



# R2HH-6533A-R5

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## General Specifications

<b>Operating Frequency Band</b>	1710 – 2180 MHz   694 – 960 MHz
<b>Antenna Type</b>	Multibeam
<b>Band</b>	Multiband
<b>Performance Note</b>	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

## Mechanical Specifications

<b>RF Connector Quantity, total</b>	10
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Interface</b>	4.3-10 Female
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Reflector Material</b>	Aluminum
<b>RF Connector Location</b>	Bottom
<b>Wind Loading, frontal</b>	254.0 N @ 150 km/h   57.8 lbf @ 150 km/h
<b>Wind Loading, lateral</b>	214.0 N @ 150 km/h   48.1 lbf @ 150 km/h
<b>Wind Loading, maximum</b>	121.2 lbf @ 150 km/h   539.0 N @ 150 km/h
<b>Wind Speed, maximum</b>	241 km/h   150 mph

## Dimensions

<b>Length</b>	1580.0 mm   62.2 in
<b>Width</b>	350.0 mm   13.8 in
<b>Depth</b>	208.0 mm   8.2 in
<b>Net Weight</b>	25.0 kg   55.1 lb

## Remote Electrical Tilt (RET) Information

<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (4)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male

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## Packed Dimensions

<b>Length</b>	1673.0 mm   65.9 in
<b>Width</b>	456.0 mm   18.0 in
<b>Depth</b>	357.0 mm   14.1 in
<b>Shipping Weight</b>	38.0 kg   83.8 lb

## Regulatory Compliance/Certifications

### Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

### Classification

Compliant by Exemption

Designed, manufactured and/or distributed under this quality management system

Above Maximum Concentration Value (MCV)



## Included Products

BSAMNT-3 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## \* Footnotes

### Performance Note

Severe environmental conditions may degrade optimum performance