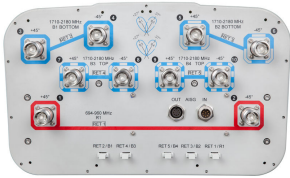


# R2HH-6533A-R5



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

## General Specifications

<b>Antenna Type</b>	Multibeam
<b>Band</b>	Multiband
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	10

## Remote Electrical Tilt (RET) Information, General

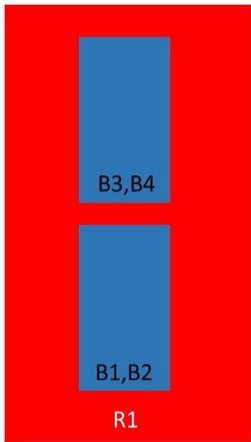
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male

## Dimensions

<b>Width</b>	350 mm   13.78 in
<b>Length</b>	1580 mm   62.205 in
<b>Depth</b>	208 mm   8.189 in

## Array Layout

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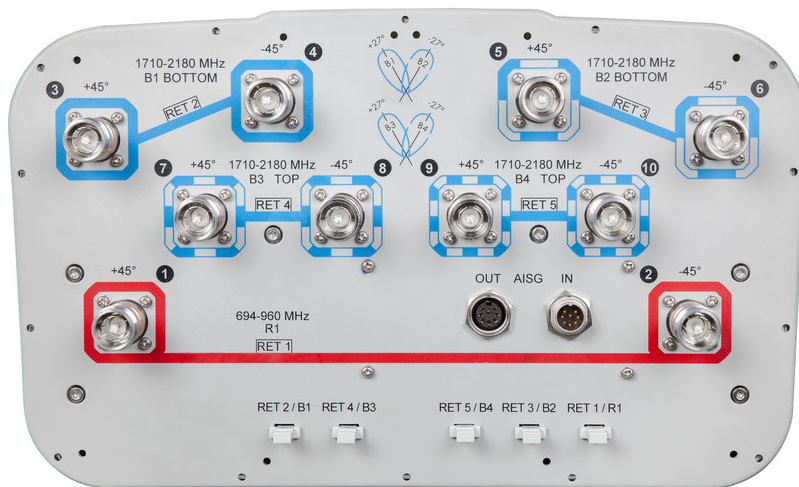


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
B1	1695-2180	3-4	2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2180	5-6	3	CPxxxxxxxxxxxxxxxxB2
B3	1695-2180	7-8	4	CPxxxxxxxxxxxxxxxxB3
B4	1695-2180	9-10	5	CPxxxxxxxxxxxxxxxxB4

Left      Right  
Bottom

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

## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1710 – 2180 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

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## Remote Electrical Tilt (RET) Information, Electrical

<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (4)   Low band (1)

## Electrical Specifications

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

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	880–960	1710–1880	1850–1990	1920–2180
<b>Gain by all Beam Tilts, average, dBi</b>	14.2	14.6	14.7	15.2	16	16.5
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.3	±0.4	±0.4	±1	±0.6	±0.8
<b>Gain by Beam Tilt, average, dBi</b>	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

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<b>Beamwidth, Horizontal Tolerance, degrees</b>	±1.9	±2.3	±2.2	±1.7	±1.7	±1.7
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1	±0.8	±0.7	±1	±0.9	±0.9
<b>USLS, beampeak to 20° above beampeak, dB</b>	14	16	16	17	18	18
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	24	24	22	24	26	27
<b>CPR at Boresight, dB</b>	16	16	17	14	15	16
<b>CPR at Sector, dB</b>	11	10	9			
<b>CPR at 10 dB Horizontal Beamwidth, dB</b>				8	11	11

## Mechanical Specifications

<b>Wind Loading at Velocity, frontal</b>	254.0 N @ 150 km/h   57.8 lbf @ 150 km/h
<b>Wind Loading at Velocity, lateral</b>	214.0 N @ 150 km/h   48.1 lbf @ 150 km/h
<b>Wind Loading at Velocity, maximum</b>	121.2 lbf @ 150 km/h   539.0 N @ 150 km/h
<b>Wind Loading at Velocity, rear</b>	269.0 N @ 150 km/h   60.5 lbf @ 150 km/h
<b>Wind Speed, maximum</b>	241 km/h   149.75 mph

## Packaging and Weights

<b>Width, packed</b>	460 mm   18.11 in
<b>Depth, packed</b>	372 mm   14.646 in
<b>Length, packed</b>	1867 mm   73.504 in
<b>Net Weight, with installed actuator</b>	25 kg   55.115 lb
<b>Weight, gross</b>	38 kg   83.776 lb

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted



## Included Products

# R2HH-6533A-R5

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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