

# RHHTT-65A-R4-V2



10-port sector antenna, 2x 694–960, 4x 1695–2180 and 4x 2490–2690 MHz, 65° HPBW, 4x RET. High bands (H1/H2) arrays are diplexed at the element level.

- Independent tilt for 694-960 and 1695-2180 MHz arrays. Shared tilt for the two 2490-2690 MHz arrays

## General Specifications

<b>Antenna Type</b>	Sector
<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>Radiator Material</b>	Aluminum   Low loss circuit board
<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

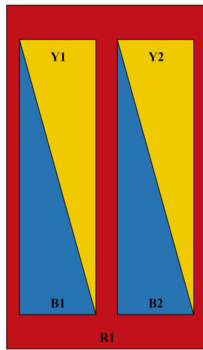
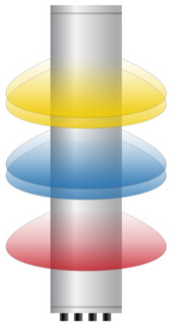
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (3)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	10 W
<b>Protocol</b>	3GPP/AISG 2.0

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## Dimensions

<b>Width</b>	350 mm   13.78 in
<b>Depth</b>	208 mm   8.189 in
<b>Length</b>	1400 mm   55.118 in
<b>Net Weight, without mounting kit</b>	20.3 kg   44.754 lb

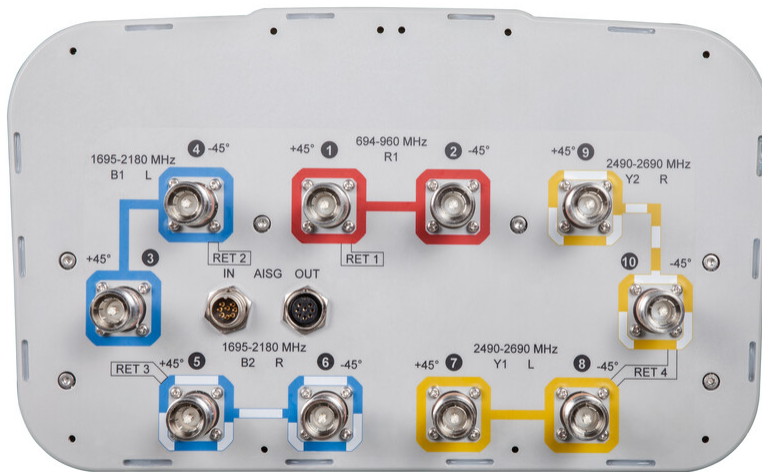
## Array Layout



Array ID	Frequency (MHz)	RF Connector	HPBW	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	65°	1	AISG1	CPxxxxxxxxxxxxR1
B1	1695-2180	3 - 4	65°	2	AISG1	CPxxxxxxxxxxxxB1
B2	1695-2180	5 - 6	65°	3	AISG1	CPxxxxxxxxxxxxB2
Y1	2490-2690	7 - 8	65°	4	AISG1	CPxxxxxxxxxxxxY1
Y2	2490-2690	9 - 10	65°			

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

## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
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<b>Operating Frequency Band</b>	1695 – 2180 MHz   2490 – 2690 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694–862	880–960	1695–1920	1920–2180	2490–2690
<b>Gain, dBi</b>	14.2	14.7	17.1	17.4	17.6
<b>Beamwidth, Horizontal, degrees</b>	68	63	61	61	65
<b>Beamwidth, Vertical, degrees</b>	16.2	14.1	7.4	6.8	5.6
<b>Beam Tilt, degrees</b>	3–18	3–18	3–13	3–13	3–13
<b>USLS (First Lobe), dB</b>	18	19	19	21	14
<b>Front-to-Back Ratio at 180°, dB</b>	32	32	31	36	38
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	30	30	30	30	30
<b>VSWR   Return loss, dB</b>	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	250	250	200

## Electrical Specifications, BASTA

Frequency Band, MHz	694–862	880–960	1695–1920	1920–2180	2490–2690
<b>Gain by all Beam Tilts, average, dBi</b>	13.9	14.4	16.8	17.1	16.9
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.5	±0.5	±0.3	±0.9
<b>Gain by Beam Tilt, average, dBi</b>	3°   14.0 10°   14.0 18°   13.7	3°   14.7 10°   14.5 18°   14.0	3°   16.8 8°   16.9 13°   16.5	3°   17.1 8°   17.3 13°   16.9	3°   16.8 8°   17.1 13°   16.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.4	±2.5	±3.8	±2.2	±2.2
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.4	±0.9	±0.4	±0.5	±0.4
<b>USLS, beampeak to 20° above beampeak, dB</b>	18	19	12	14	13
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	25	23	27	26	28

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<b>CPR at Boresight, dB</b>	20	21	20	20	19
<b>CPR at Sector, dB</b>	10	9	10	9	9

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	221.0 N @ 150 km/h (49.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	185.0 N @ 150 km/h (41.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	469.0 N @ 150 km/h (105.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	234.0 N @ 150 km/h (52.6 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	448 mm   17.638 in
<b>Depth, packed</b>	355 mm   13.976 in
<b>Length, packed</b>	1544 mm   60.787 in
<b>Weight, gross</b>	33.9 kg   74.737 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## 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.
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## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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