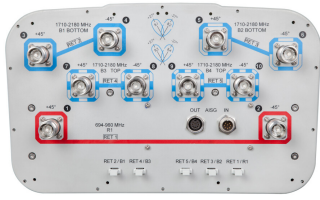


R2HH-6533A-R5



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

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

Remote Electrical Tilt (RET) Information

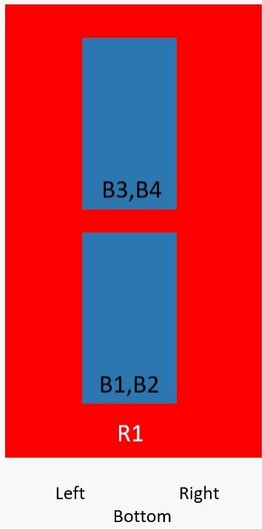
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (4) Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

R2HH-6533A-R5

Width	350 mm 13.78 in
Depth	208 mm 8.189 in
Length	1580 mm 62.205 in
Net Weight, with installed actuator	25 kg 55.115 lb

Array Layout

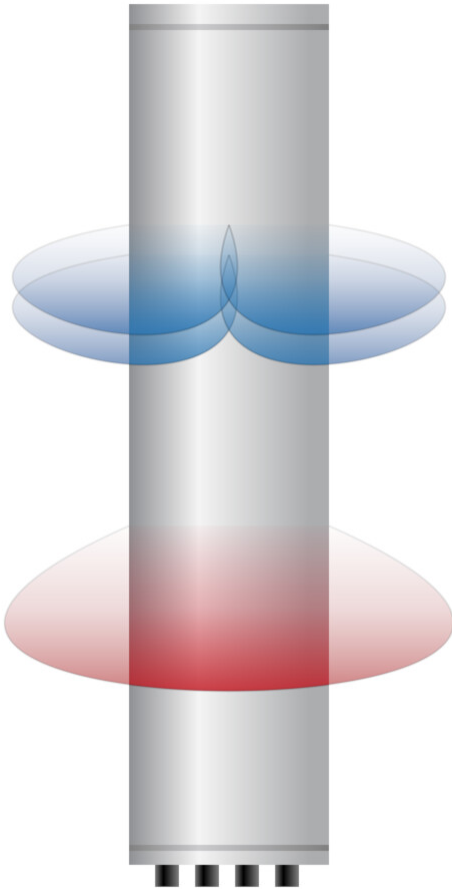


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPXXXXXXXXXXXXXXXXXR1
B1	1710-2180	3-4	2	CPXXXXXXXXXXXXXXXXXB1
B2	1710-2180	5-6	3	CPXXXXXXXXXXXXXXXXXB2
B3	1710-2180	7-8	4	CPXXXXXXXXXXXXXXXXXB3
B4	1710-2180	9-10	5	CPXXXXXXXXXXXXXXXXXB4

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

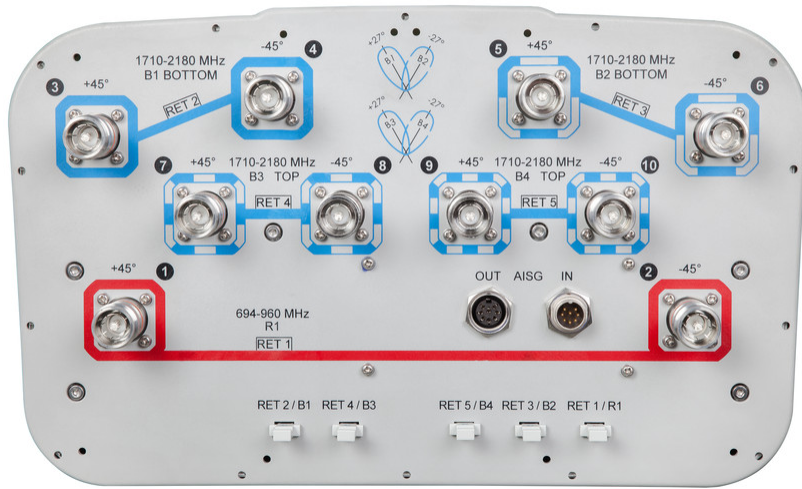
Beams Configuration

R2HH-6533A-R5



Port Configuration

R2HH-6533A-R5



Electrical Specifications

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

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

R2HH-6533A-R5

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

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	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

Mechanical Specifications

Mechanical Tilt Range	0°–22°
Wind Loading @ Velocity, frontal	254.0 N @ 150 km/h (57.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	214.0 N @ 150 km/h (48.1 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	539.0 N @ 150 km/h (121.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	269.0 N @ 150 km/h (60.5 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	460 mm 18.11 in
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R2HH-6533A-R5

Depth, packed	372 mm 14.646 in
Length, packed	1867 mm 73.504 in
Weight, gross	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
UK-ROHS	Compliant/Exempted



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