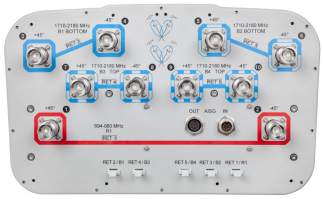
R2HH-6533A-R5



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, mid band	0
RF Connector Quantity, low band	2
RF Connector Quantity, total	10

Remote Electrical Tilt (RET) Information

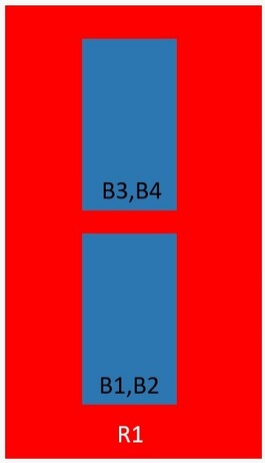
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (4) | Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single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

R2HH-6533A-R5

Dimensions

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

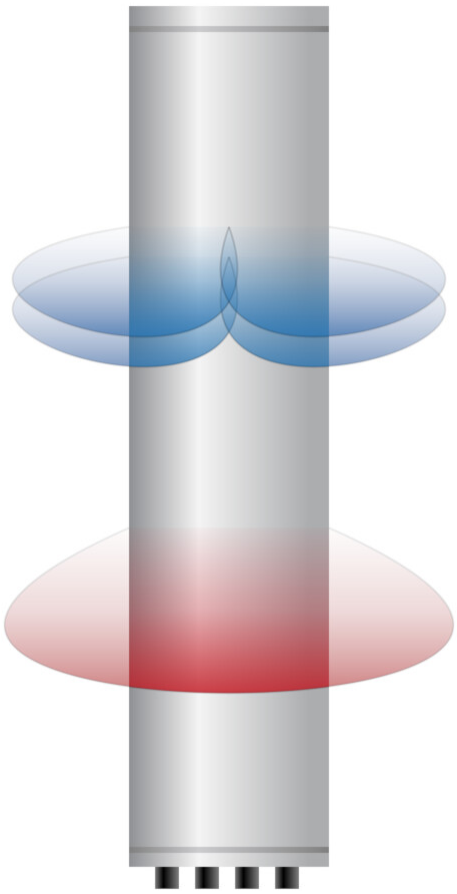


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxR1
B1	1710-2180	3-4	2	CPxxxxxxxxxxxxxxxB1
B2	1710-2180	5-6	3	CPxxxxxxxxxxxxxxxB2
B3	1710-2180	7-8	4	CPxxxxxxxxxxxxxxxB3
B4	1710-2180	9-10	5	CPxxxxxxxxxxxxxxxB4

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

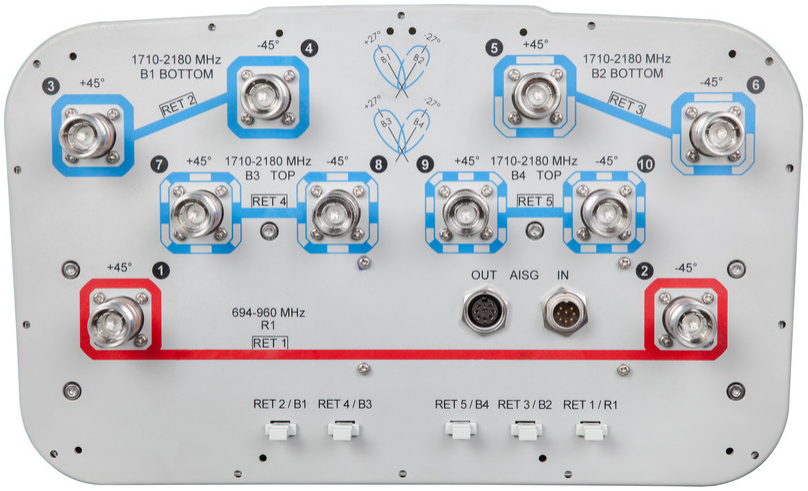
Beams Configuration

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

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
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