

RRV4-85B-R6



12-port sector antenna, 4x 694–960 and 8x 1695–2690 MHz, 85° HPBW, 6x RETs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- All Internal RET actuators are connected in “Cascaded SRET” configuration

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
Radiator Material	Aluminum Low loss circuit board
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	4
RF Connector Quantity, total	12

Remote Electrical Tilt (RET) Information

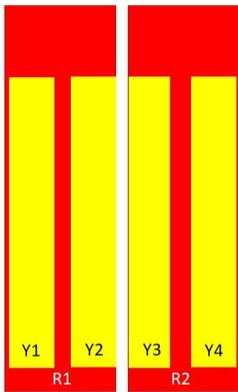
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male
Input Voltage	10–30 Vdc
Internal RET	High band (4) Low band (2)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

RRV4-85B-R6

Dimensions

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	1828 mm 71.969 in
Net Weight, without mounting kit	37.3 kg 82.232 lb

Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxR2
Y1	1695-2690	5-6	3	CPxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxY2
Y3	1695-2690	9-10	5	CPxxxxxxxxxxxxY3
Y4	1695-2690	11-12	6	CPxxxxxxxxxxxxY4

Left Right
Bottom

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

Port Configuration

RRV4-85B-R6



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	694–790	790–890	880–960	1695–1880	1850–1990	1920–2180	2300–2500	2500–2690
Gain, dBi	14.3	14.8	14.6	15.9	16.8	17.4	17.8	17.9
Beamwidth, Horizontal, degrees	84	75	80	84	82	78	73	73
Beamwidth, Vertical, degrees	12.6	11.4	10.4	5.5	5.2	5	4.6	4.3
Beam Tilt, degrees	2–14	2–14	2–14	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	20	19	17	15	18	18	18	16
Front-to-Back Ratio at 180°, dB	33	28	24	28	30	30	29	29
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0

RRV4-85B-R6

PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	250	250	200	200	200	200	200	150

Electrical Specifications, BASTA

Frequency Band, MHz	694-790	790-890	880-960	1695-1880	1850-1990	1920-2180	2300-2500	2500-2690
Gain by all Beam Tilts, average, dBi	13.9	14.5	14.2	15	16.1	16.7	17.4	17.2
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.5	±0.7	±1.4	±0.8	±0.9	±0.7	±0.9
Gain by Beam Tilt, average, dBi	2° 13.8 8° 13.9 14° 13.8	2° 14.4 8° 14.5 14° 14.3	2° 14.3 8° 14.3 14° 13.9	2° 15.0 7° 15.2 12° 14.8	2° 16.0 7° 16.2 12° 15.9	2° 16.6 7° 16.8 12° 16.5	2° 17.5 7° 17.6 12° 16.7	2° 17.2 7° 17.4 12° 16.8
Beamwidth, Horizontal Tolerance, degrees	±8.2	±5.7	±7.2	±8.9	±10.7	±10.2	±11	±5.9
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.8	±0.9	±0.2	±0.3	±0.3	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	20	19	18	13	15	15	15	14
Front-to-Back Total Power at 180° ± 30°, dB	20	20	19	22	25	24	24	23
CPR at Boresight, dB	20	21	17	15	16	15	17	19
CPR at Sector, dB	11	8	11	10	11	11	8	6

Mechanical Specifications

Mechanical Tilt Range	0°-17°
Wind Loading @ Velocity, frontal	685.0 N @ 150 km/h (154.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	232.0 N @ 150 km/h (52.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	889.0 N @ 150 km/h (199.9 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	564.0 N @ 150 km/h (126.8 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm 22.244 in
Depth, packed	368 mm 14.488 in
Length, packed	2014 mm 79.291 in
Weight, gross	51.4 kg 113.317 lb

Regulatory Compliance/Certifications

RRV4-85B-R6

Agency

CHINA-ROHS

ISO 9001:2015

ROHS

UK-ROHS



Classification

Above maximum concentration value

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

Compliant/Exempted

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