RR3VV-6520B-R5

16-port sector/multibeam antenna, 4x 694–960 MHz 2x 65° HPBW and 12x 1695–2690 MHz 6x 20° HPBW, 5x RET

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector
- The three-beam array enables the configuration of up to nine sectors in mid bands in a regular three faces site
- The 65° HPBW pattern in low band keeps the traditional three sector coverage layers in the sub 1 GHz bands

General Specifications

Antenna Type	Multibeam
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	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, mid band	12
RF Connector Quantity, low band	4
RF Connector Quantity, total	16

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	Low band (2) | Mid band (3)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W

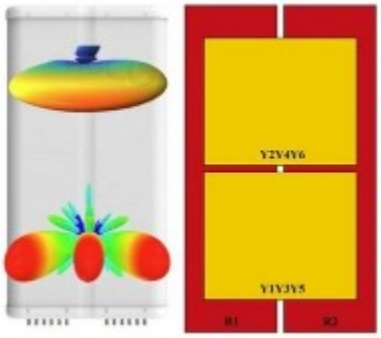
RR3VV-6520B-R5

Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2100 mm | 82.677 in
Net Weight, antenna only	49.3 kg | 108.688 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	RET UID
R1	694-960	1 - 2	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	CPxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8		
Y3	1695-2690	9 - 10	4	CPxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12		
Y5	1695-2690	13 - 14	5	CPxxxxxxxxxxxxxxY5
Y6	1695-2690	15 - 16		

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

Port Configuration

RR3VV-6520B-R5

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz | 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	1,400 W

Electrical Specifications

	R1-R2	R1-R2	R1-R2	Y1-Y6	Y1-Y6	Y1-Y6	Y1-Y6
Frequency Band, MHz	**698–790**	**790–890**	**890–960**	**1710–1990**	**1920–2180**	**2300–2500**	**2500–2690**
RF Port	1-4	1-4	1-4	5-16	5-16	5-16	5-16
Beam Centers, Horizontal, degrees				±0 ±35	±0 ±35	±0 ±35	±0 ±35
Beamwidth, Horizontal, degrees	69	66	67	23	22	19	16
Beamwidth, Vertical, degrees	10.6	9.5	8.6	9.5	8.8	7.5	7
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	15	16	16	17	18	16	15

RR3VV-6520B-R5

Front-to-Back Ratio at 180°, dB	30	27	28	31	31	27	26
CPR at Boresight, dB	23	23	24	14	16	14	13
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	250	250	250	200	200	200	200

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.68 m² | 7.319 ft²
Effective Projective Area (EPA), lateral	0.21 m² | 2.26 ft²
Wind Loading @ Velocity, frontal	728.0 N @ 150 km/h (163.7 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	223.0 N @ 150 km/h (50.1 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	873.0 N @ 150 km/h (196.3 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	501.0 N @ 150 km/h (112.6 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	309 mm | 12.165 in
Length, packed	2287 mm | 90.039 in
Weight, gross	63.8 kg | 140.655 lb

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
UK-ROHS	Compliant

Included Products

BSAMNT-4	–	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