RRVV-65D-R4

8-port sector antenna, 4x 694–960 and 4x 1695–2690 MHz, 65° HPBW, 4x RET

- 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

General Specifications

Antenna Type	Sector
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
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	4
RF Connector Quantity, total	8

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 (2) | Low band (2)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

RRVV-65D-R4

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2688 mm | 105.827 in
Net Weight, without mounting kit	43.6 kg | 96.121 lb

Array Layout

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxxR2
Y1	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxY2

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

Port Configuration

RRVV-65D-R4

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**	**890–960**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2500**	**2500–2690**
Gain, dBi	15.7	16.4	16.9	18.5	18.9	19.1	19.2	18.8
Beamwidth, Horizontal, degrees	70	67	62	59	59	61	64	70
Beamwidth, Vertical, degrees	8.2	7.4	6.9	5.4	5.1	4.8	4.2	4
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	12	16	19	22	23	22	21	19
Front-to-Back Ratio at 180°, dB	32	32	32	36	37	37	35	31
Isolation, Cross Polarization, dB	28	28	28	28	28	28	28	28
Isolation, Inter-band, dB	28	28	28	28	28	28	28	28
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

PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	300	300	300	250	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	**694–790**	**790–890**	**890–960**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2500**	**2500–2690**
Gain by all Beam Tilts, average, dBi	15.6	16.1	16.7	18	18.7	18.8	18.9	18.5
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.5	±0.4	±0.8	±0.4	±0.4	±0.5	±0.5
Gain by Beam Tilt, average, dBi	2 ° | 15.5 7 ° | 15.7 12 ° | 15.5	2 ° | 16.1 7 ° | 16.2 12 ° | 15.9	2 ° | 16.7 7 ° | 16.8 12 ° | 16.4	2 ° | 17.9 7 ° | 18.2 12 ° | 17.9	2 ° | 18.5 7 ° | 18.8 12 ° | 18.5	2 ° | 18.6 7 ° | 19.0 12 ° | 18.7	2 ° | 18.7 7 ° | 19.0 12 ° | 18.7	2 ° | 18.1 7 ° | 18.6 12 ° | 18.4
Beamwidth, Horizontal Tolerance, degrees	±4.9	±2.5	±4.1	±4.3	±2.3	±3	±6.5	±4.8
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.6	±0.4	±0.3	±0.2	±0.3	±0.2	±0.1
USLS, beampeak to 20° above beampeak, dB	12	15	17	15	18	18	17	15
Front-to-Back Total Power at 180° ± 30°, dB	21	21	23	29	32	29	27	26
CPR at Boresight, dB	24	24	25	20	21	21	17	15
CPR at Sector, dB	9	7	8	9	9	8	7	6

Mechanical Specifications

Wind Loading @ Velocity, frontal	1,070.0 N @ 150 km/h (240.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	375.0 N @ 150 km/h (84.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,385.0 N @ 150 km/h (311.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	880.0 N @ 150 km/h (197.8 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	608 mm | 23.937 in
Depth, packed	352 mm | 13.858 in
Length, packed	2880 mm | 113.386 in
Weight, gross	67.1 kg | 147.93 lb

Regulatory Compliance/Certifications

Agency	**Classification**

RRVV-65D-R4

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-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.
BSAMNT-M4	–	Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance