

RVV-33B-R3



6-port sector antenna, 2x 694–960 and 4x 1695–2690 MHz, 33° HPBW, 3x RET

- 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	Aluminum 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	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information, General

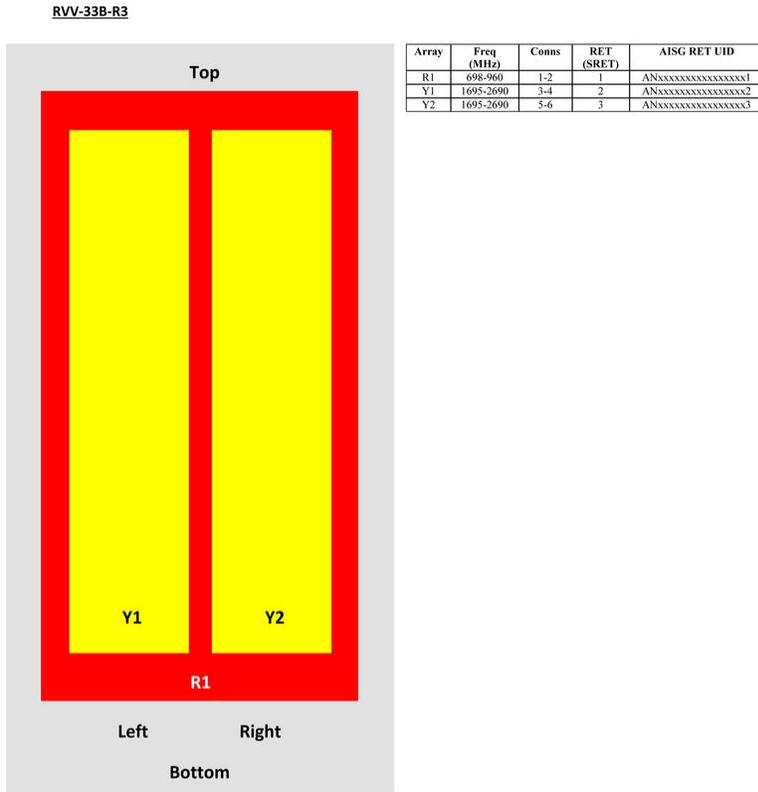
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

Dimensions

Width	640 mm 25.197 in
Length	1830 mm 72.047 in
Depth	235 mm 9.252 in

Array Layout

RVV-33B-R3



View from the front of the antenna
(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

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

Remote Electrical Tilt (RET) Information, Electrical

Protocol	3GPP/AISG 2.0 (Single RET)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Input Voltage	10–30 Vdc
Internal RET	High band (2) Low band (1)

RVV-33B-R3

Electrical Specifications

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2200	2300–2500	2500–2690
Gain, dBi	17.7	18.3	18.7	20	20.8	21.6	21.5
Beamwidth, Horizontal, degrees	37	32	30	35	33	28	26
Beamwidth, Vertical, degrees	12.5	11.3	10.5	5.7	5.1	4.5	4.2
Beam Tilt, degrees	2–13	2–13	2–13	2–12	2–12	2–12	2–12
Horizontal Sidelobe, dB	21	20	21	19	18	17	16
USLS (First Lobe), dB	20	20	20	19	20	17	18
Front-to-Back Ratio at 180°, dB	33	35	35	35	36	34	35
Isolation, Cross Polarization, dB	28	26	26	28	28	28	28
Isolation, Inter-band, dB	30	30	30	30	30	30	30
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 at 50°C, maximum, watts	300	300	300	200	200	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2200	2300–2500	2500–2690
Gain by all Beam Tilts, average, dBi	17.2	18.1	18.5	19.6	20.3	21.2	21.1
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.3	±0.4	±0.7	±0.6	±0.5	±0.6
Gain by Beam Tilt, average, dBi	2° 17.2 8° 17.3 13° 17.2	2° 18.0 8° 18.2 13° 18.0	2° 18.4 8° 18.6 13° 18.4	2° 19.1 7° 19.6 12° 19.7	2° 19.8 7° 20.4 12° 20.5	2° 20.6 7° 21.3 12° 21.3	2° 20.3 7° 21.3 12° 21.3
Beamwidth, Horizontal Tolerance, degrees	±2.6	±1.9	±1.2	±1.4	±2.1	±2.3	±0.8
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.6	±0.3	±0.4	±0.3	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	20	20	19	17	19	17	17
Front-to-Back Total Power at 180° ± 30°, dB	27	28	27	28	28	29	29
CPR at Boresight, dB	20	20	18	19	21	20	22
CPR at 10 dB Horizontal Beamwidth, dB	11	9	17	14	14	12	11

Mechanical Specifications

RVV-33B-R3

Wind Loading at Velocity, frontal	172.7 lbf @ 150 km/h 765.0 N @ 150 km/h
Wind Loading at Velocity, lateral	251.0 N @ 150 km/h 56.4 lbf @ 150 km/h
Wind Loading at Velocity, maximum	1,041.0 N @ 150 km/h 234.0 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	797 mm 31.378 in
Depth, packed	402 mm 15.827 in
Length, packed	1982 mm 78.032 in
Net Weight, without mounting kit	44 kg 97.003 lb
Weight, gross	70.7 kg 155.867 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
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.
- BSAMNT-M — 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