2VV-33C-R4-V4

8-port multibeam antenna, 8x 1695–2690 MHz, 4x 33° HPBW, 4xRET

- Enhances network capacity and spectrum utilization when used in six sector applications
- Reduces antenna count to minimize Cap-Ex and Op-Ex costs – 3 antennas required for 6 sector configurations
- Utilizes RET-PMOD-A20-4A24

General Specifications

Antenna Type	Multibeam
Band	Single band
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	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	2x 8 pin connector as per IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female Pin3: RS485A(AISG_B), Pin5: RS485B(AISG_A), Pin6: DC 10~30V, Pin7: DC_ Return
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (4)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

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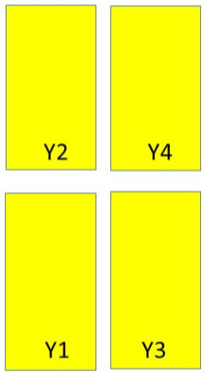
Dimensions

Width	395 mm | 15.551 in
Depth	228 mm | 8.976 in
Length	2499 mm | 98.386 in
Net Weight, without mounting kit	30.4 kg | 67.02 lb

Array Layout



Bottom

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
Y1	1695-2690	1-2	1	CPxxxxxxxxxxxxxxxY1
Y2	1695-2690	3-4	2	CPxxxxxxxxxxxxxxxY2
Y3	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxY3
Y4	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxY4

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

Port Configuration

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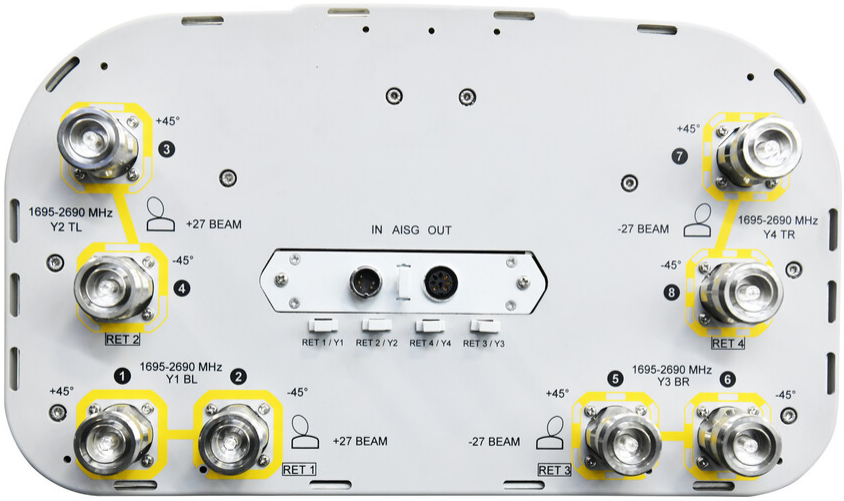

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz
Polarization	±45°
Total Input Power, maximum	1,200 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2400**	**2490–2690**
Gain, dBi	19	19.4	19.6	20	20.1
Beam Centers, Horizontal, degrees	±27	±27	±27	±27	±27
Beamwidth, Horizontal, degrees	40	39	37	36	31
Beamwidth, Vertical, degrees	7.9	7.4	7	6.2	5.7
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12
Horizontal Sidelobe, dB	18	18	18	18	17
USLS (First Lobe), dB	16	16	16	17	20
Front-to-Back Ratio at 180°, dB	31	36	38	36	35
Isolation, Cross Polarization,	30	30	30	30	30

dB					
Isolation, Inter-band, dB	30	30	30	30	30
Isolation, Beam to Beam, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	200	200	200	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2400**	**2490–2690**
Gain by all Beam Tilts, average, dBi	18.6	19	19.3	19.5	19.7
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.4	±0.5	±0.4
Gain by Beam Tilt, average, dBi	2 ° | 17.7 7 ° | 17.9 12 ° | 17.7	2 ° | 18.3 7 ° | 18.7 12 ° | 18.5	2 ° | 18.6 7 ° | 19.0 12 ° | 18.7	2 ° | 19.1 7 ° | 19.5 12 ° | 19.3	2 ° | 19.4 7 ° | 19.9 12 ° | 19.4
Beamwidth, Horizontal Tolerance, degrees	±2.6	±1.8	±2.3	±1.5	±1.8
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.3	±0.5	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	16	16	16	17	20
Front-to-Back Total Power at 180° ± 30°, dB	24	26	27	29	28
CPR at Boresight, dB	21	24	19	21	19
CPR at 10 dB Horizontal Beamwidth, dB	11	16	16	14	10

Mechanical Specifications

Wind Loading @ Velocity, frontal	525.0 N @ 150 km/h (118.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	386.0 N @ 150 km/h (86.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	898.0 N @ 150 km/h (201.9 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	540.0 N @ 150 km/h (121.4 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	505 mm | 19.882 in
Depth, packed	386 mm | 15.197 in

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Length, packed	2631 mm | 103.583 in
Weight, gross	44.4 kg | 97.885 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