

# 2VV-33B-R4



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

- 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

## General Specifications

<b>Antenna Type</b>	Multibeam
<b>Band</b>	Single band
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Low loss circuit board
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, total</b>	8

## Remote Electrical Tilt (RET) Information

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

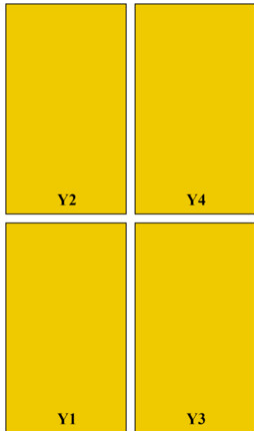
## Dimensions

<b>Width</b>	395 mm   15.551 in
<b>Depth</b>	228 mm   8.976 in

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**Length** 1999 mm | 78.701 in  
**Net Weight, without mounting kit** 27.1 kg | 59.745 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	HPBW	RET (SRET)	AISG No.	AISG RET UID
Y1	1695-2690	1 - 2	33°	1	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	3 - 4	33°	2	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	5 - 6	33°	3	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	7 - 8	33°	4	AISG1	CPxxxxxxxxxxxxxxxxY4

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

## Port Configuration



## Electrical Specifications

**Impedance** 50 ohm  
**Operating Frequency Band** 1695 – 2690 MHz

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<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,200 W

## Electrical Specifications

<b>Frequency Band, MHz</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2180</b>	<b>2300–2400</b>	<b>2490–2690</b>
<b>Beam Centers, Horizontal, degrees</b>	±27	±27	±27	±27	±27
<b>Beamwidth, Horizontal, degrees</b>	39	38	36	35	31
<b>Beamwidth, Vertical, degrees</b>	9.9	9.3	8.8	7.8	7.1
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	16	16	19	18
<b>Front-to-Back Ratio at 180°, dB</b>	32	34	35	33	32
<b>Isolation, Cross Polarization, dB</b>	27	27	27	27	27
<b>Isolation, Inter-band, dB</b>	28	28	28	28	28
<b>VSWR   Return loss, dB</b>	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	200	200	200	200	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2180</b>	<b>2300–2400</b>	<b>2490–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	17.2	17.7	17.9	18.1	18.3
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.7	±0.5	±0.5	±0.4	±0.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.9	±2	±2.2	±1.6	±1.8
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.6	±0.5	±0.7	±0.4	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	17	15	15	17	16
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	23	26	27	28	27
<b>CPR at Boresight, dB</b>	22	26	25	25	19
<b>CPR at 10 dB Horizontal Beamwidth, dB</b>	12	12	12	9	9

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## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	403.0 N @ 150 km/h (90.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	294.0 N @ 150 km/h (66.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	689.0 N @ 150 km/h (154.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	414.0 N @ 150 km/h (93.1 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	505 mm   19.882 in
<b>Depth, packed</b>	386 mm   15.197 in
<b>Length, packed</b>	2124 mm   83.622 in
<b>Weight, gross</b>	40.5 kg   89.287 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## 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.
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## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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