

# 2VV-33C-R4-V6



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

- 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
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Low loss circuit board
<b>Reflector Material</b>	Aluminum
<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>Internal RET</b>	High band (4)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	10 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

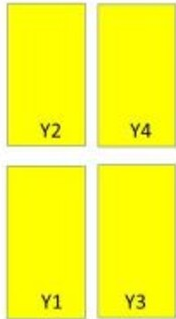
<b>Width</b>	395 mm   15.551 in
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# 2VV-33C-R4-V6

<b>Depth</b>	228 mm   8.976 in
<b>Length</b>	2499 mm   98.386 in
<b>Net Weight, without mounting kit</b>	29.8 kg   65.698 lb

## Array Layout

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
Y1	1695-2690	1-2	1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	3-4	2	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxxY4



Bottom

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

## Port Configuration



# 2VV-33C-R4-V6

## Electrical Specifications

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

## Electrical Specifications

<b>Frequency Band, MHz</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2180</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>Gain, dBi</b>	19.1	19.3	19.2	19.6	19.6
<b>Beam Centers, Horizontal, degrees</b>	±27	±27	±27	±27	±27
<b>Beamwidth, Horizontal, degrees</b>	39	38	37	34	31
<b>Beamwidth, Vertical, degrees</b>	7.8	7.3	7	6.2	5.8
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12
<b>Horizontal Sidelobe, dB</b>	19	20	20	18	17
<b>USLS (First Lobe), dB</b>	15	15	15	18	18
<b>Front-to-Back Ratio at 180°, dB</b>	33	39	39	36	32
<b>Isolation, Cross Polarization, dB</b>	30	30	30	30	30
<b>VSWR   Return loss, dB</b>	1.4 15.6	1.4 15.6	1.4 15.6	1.4 15.6	1.4 15.6
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153
<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>2300–2500</b>	<b>2500–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	18.6	18.9	19.1	19.2	19.3
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.7	±0.5	±0.6	±0.4	±0.5
<b>Gain by Beam Tilt, average, dBi</b>	2° 18.7 7° 18.6 12° 18.4	2° 19.1 7° 19.0 12° 18.6	2° 19.3 7° 19.2 12° 18.8	2° 19.2 7° 19.3 12° 19.0	2° 19.3 7° 19.4 12° 19.1
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.4	±1.7	±2.5	±2.4	±1.8
<b>Beamwidth, Vertical</b>	±0.4	±0.3	±0.4	±0.3	±0.2

# 2VV-33C-R4-V6

## Tolerance, degrees

<b>USLS, beampeak to 20° above beampeak, dB</b>	15	15	15	18	18
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	24	27	28	29	28
<b>CPR at Boresight, dB</b>	23	26	25	23	20
<b>CPR at 10 dB Horizontal Beamwidth, dB</b>	13	13	12	9	9

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.49 m <sup>2</sup>   5.274 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.36 m <sup>2</sup>   3.875 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	525.0 N @ 150 km/h (118.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	386.0 N @ 150 km/h (86.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	898.0 N @ 150 km/h (201.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	540.0 N @ 150 km/h (121.4 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>	2631 mm   103.583 in
<b>Weight, gross</b>	43.8 kg   96.562 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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



## 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.

# 2VV-33C-R4-V6

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## \* Footnotes

### **Performance Note**

Severe environmental conditions may degrade optimum performance