

# VV-65B-R1



4-port sector antenna, 4x 1695–2690 MHz, 65° HPBW, 1x RET . The two high band arrays utilize a common tilt.

- The RET interface comprises one pair of AISG input/output ports
- Meets -153dBc 3rd order PIM, using 2x40W carriers

## General Specifications

<b>Antenna Type</b>	Sector
<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>	PVC
<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>	4
<b>RF Connector Quantity, total</b>	4

## 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 (1)
<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

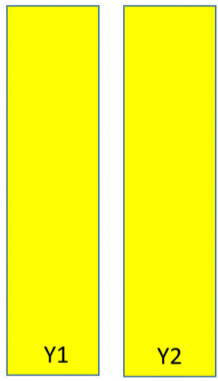
## Dimensions

<b>Width</b>	305 mm   12.008 in
<b>Depth</b>	118 mm   4.646 in

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**Length** 1787 mm | 70.354 in  
**Net Weight, antenna only** 12.7 kg | 27.999 lb

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
Y1	1695-2690	1-2	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	3-4		

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

## Port Configuration



## Electrical Specifications

**Impedance** 50 ohm  
**Operating Frequency Band** 1695 – 2690 MHz  
**Polarization** ±45°  
**Total Input Power, maximum** 400 W @ 50 °C

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## Electrical Specifications

Frequency Band, MHz	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
Gain, dBi	18.3	18.7	19	19.2	19.3
Beamwidth, Horizontal, degrees	66	65	65	61	58
Beamwidth, Vertical, degrees	5.6	5.2	4.9	4.3	4.1
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	21	21	18	17	16
Front-to-Back Ratio at 180°, dB	32	34	36	35	36
Isolation, Cross Polarization, dB	30	30	30	30	30
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 40 W, dBc	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	300	300	250

## Electrical Specifications, BASTA

Frequency Band, MHz	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
Gain by all Beam Tilts, average, dBi	17.9	18.4	18.7	18.9	18.9
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.4	±0.4	±0.5
Beamwidth, Horizontal Tolerance, degrees	±2.9	±1.7	±1.5	±2.6	±4.3
Beamwidth, Vertical Tolerance, degrees	±0.3	±0.3	±0.4	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	16	16	16	15	13
Front-to-Back Total Power at 180° ± 30°, dB	25	25	26	27	26
CPR at Boresight, dB	16	18	18	21	19
CPR at Sector, dB	10	10	10	8	9

## Mechanical Specifications

Wind Loading @ Velocity, frontal	663.0 N @ 150 km/h (149.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	140.0 N @ 150 km/h (31.5 lbf @ 150 km/h)

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<b>Wind Loading @ Velocity, rear</b>	803.0 N @ 150 km/h (180.5 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	404 mm   15.906 in
<b>Depth, packed</b>	278 mm   10.945 in
<b>Length, packed</b>	1923 mm   75.709 in
<b>Weight, gross</b>	23.3 kg   51.368 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



## 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

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