

# VVSSP-65S-R1BV2

10-port small cell antenna, 4x 1695–2690, 4x 3400–3800 and 2x 5150–5925 MHz. 65° HPBW, Internal RET and SBT



## Electrical Specifications

Frequency Band, MHz	1695–1920	1920–2180	2300–2690	3400–3800	5150–5925
Gain, dBi	12.6	13.0	13.5	10.4	4.6
Beamwidth, Horizontal, degrees	70	70	65	69	60
Beamwidth, Vertical, degrees	20.7	17.8	15.6	34.1	26.1
Beam Tilt, degrees	2–10	2–10	2–10	7	4
USLS (First Lobe), dB	14	17	16	15	11
Front-to-Back Ratio at 180°, dB	26	25	29	27	30
Isolation, Cross Polarization, dB	25	25	25	25	25
Isolation, Inter-band, 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	-150		
Input Power per Port at 50°C, maximum, watts	75	75	75		
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

## Electrical Specifications, BASTA\*

Frequency Band, MHz	1695–1920	1920–2180	2300–2690	3400–3800	5150–5925
Gain by all Beam Tilts, average, dBi	12.3	12.6	12.9	9.8	3.3
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.7	±0.6	±1.9
Gain by Beam Tilt, average, dBi	2 °   12.1 6 °   12.3 10 °   12.4	2 °   12.3 6 °   12.6 10 °   12.7	2 °   12.5 6 °   13.0 10 °   13.3		
Beamwidth, Horizontal Tolerance, degrees	±6.8	±6.3	±4.5	±11	±16
Beamwidth, Vertical Tolerance, degrees	±2	±2.1	±1.6	±4.3	±2
USLS, beampeak to 20° above beampeak, dB	10	13	16	4	5
Front-to-Back Total Power at 180° ± 30°, dB	24	21	24	18	23
CPR at Boresight, dB	22	20	15	14	10
CPR at Sector, dB	12	9	8	5	0

\* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

## 5 GHz Port Power Table

5 GHz FCC Power Requirements				
U-NII Band	U-NII 1	U-NII 2A	U-NII 2C	U-NII 3
Frequency (MHz)	5150 - 5250	5250 - 5350	5470 - 5725	5725 - 5850
Max Input power per port to align with FCC Title 47 Part 15 (Watts)	0.5	0.125	0.125	0.5

## Port Configuration



## General Specifications

### Operating Frequency Band

1695 – 2690 MHz | 3400 – 3800 MHz | 5150 – 5925 MHz

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<b>Antenna Type</b>	Small Cell
<b>Band</b>	Multiband
<b>Performance Note</b>	Outdoor usage
<b>Total Input Power, maximum</b>	300 W @ 50 °C

## Mechanical Specifications

<b>RF Connector Quantity, total</b>	10
<b>RF Connector Quantity, high band</b>	10
<b>RF Connector Interface</b>	4.3-10 Female
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Radiator Material</b>	Low loss circuit board
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Reflector Material</b>	Aluminum
<b>RF Connector Location</b>	Bottom
<b>Wind Loading, frontal</b>	198.0 N @ 150 km/h 44.5 lbf @ 150 km/h
<b>Wind Loading, lateral</b>	37.0 N @ 150 km/h 8.3 lbf @ 150 km/h
<b>Wind Speed, maximum</b>	241 km/h   150 mph

## Dimensions

<b>Length</b>	600.0 mm   23.6 in
<b>Width</b>	305.0 mm   12.0 in
<b>Depth</b>	118.0 mm   4.6 in
<b>Net Weight, without mounting kit</b>	6.9 kg   15.2 lb

## Remote Electrical Tilt (RET) Information

<b>Input Voltage</b>	10–30 Vdc
<b>Internal Bias Tee</b>	Port 2
<b>Internal RET</b>	High band (1)
<b>Power Consumption, active state, maximum</b>	1 W
<b>Power Consumption, idle state, maximum</b>	10 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)
<b>RET Interface</b>	8-pin DIN Male
<b>RET Interface, quantity</b>	1 male

## Packed Dimensions

<b>Length</b>	772.0 mm   30.4 in
<b>Width</b>	404.0 mm   15.9 in

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**Depth** 276.0 mm | 10.9 in

**Shipping Weight** 9.4 kg | 20.7 lb

## Regulatory Compliance/Certifications

### Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

### Classification

Compliant by Exemption

Designed, manufactured and/or distributed under this quality management system

Above Maximum Concentration Value (MCV)



## 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