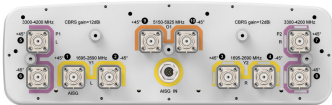# VVSSP-45S-R1BV2

10-port small cell antenna, 4x 1695–2690, 4x 3300-4200 and 2x 5150-5925 MHz. 45° HPBW, Internal RET and SBT

- Includes everything needed for a low to mid power 4G/5G outdoor small cell site

General Specifications

Antenna Type	Small Cell
Band	Multiband
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	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	6
RF Connector Quantity, mid band	4
RF Connector Quantity, low band	0
RF Connector Quantity, total	10

Remote Electrical Tilt (RET) Information

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

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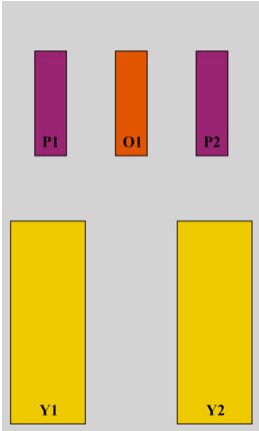
Dimensions

Width	407 mm | 16.024 in
Depth	120 mm | 4.724 in
Length	610 mm | 24.016 in
Net Weight, without mounting kit	8.7 kg | 19.18 lb

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

Array Layout

Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
Y1	1695-2690	1 - 2	1	ARxxxxxxxxxxxxxxx1
Y2	1695-2690	3 - 4		
P1	3300-4200	5 - 6	N/A	N/A
P2	3300-4200	7 - 8		
O1	5150-5925	9 - 10		

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

Port Configuration

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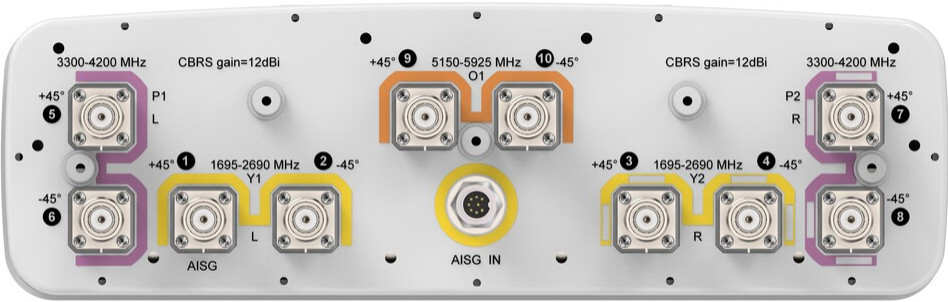
Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz | 3300 – 4200 MHz | 5150 – 5925 MHz
Polarization	±45°
Total Input Power, maximum	300 W @ 50 °C | 500 W

Electrical Specifications

Frequency Band, MHz	1695−1920	1920−2180	2300−2690	3300−3550	3550−3700	3700−4200	5150−5925
Gain, dBi	14.3	15.1	15.3	10.3	10.3	10.9	3.9
Beamwidth, Horizontal, degrees	46	41	32	49	48	41	58
Beamwidth, Vertical, degrees	21	19	15.8	35.9	31.9	29.2	26.8
Beam Tilt, degrees	2−10	2−10	2−10	7	7	7	4
USLS (First Lobe), dB	24	26	24	13	12	19	21
Front-to-Back Ratio at 180°, dB	32	32	25	26	22	24	27
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25
Isolation, Inter-band, dB	28	28	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	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-150	-145	-145	-145	
Input Power per Port, maximum, watts	125	125	125	50	50	50	5

Mechanical Specifications

Wind Loading @ Velocity, frontal	317.0 N @ 150 km/h (71.3 lbf @ 150 km/h)

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VVSSP-45S-R1BV2

Wind Loading @ Velocity, lateral	102.0 N @ 150 km/h (22.9 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	317.0 N @ 150 km/h (71.3 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	552 mm | 21.732 in
Depth, packed	292 mm | 11.496 in
Length, packed	789 mm | 31.063 in
Weight, gross	19.7 kg | 43.431 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

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