

# NNSS-65B-R1BT4



8- Port sector antenna, 4x 698-896 and 4x 3100-4200MHz, 65° HPBW, 1x RET and 1x SBT

- Excellent wind loading characteristics
- Features broadband Low Band (698-896 MHz) array for 4T4R (4X MIMO) capability for Band 14
- Perfect antenna to add 3.5GHz CBRS to macro sites

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<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>	Aluminum   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>	4
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	8

## Remote Electrical Tilt (RET) Information

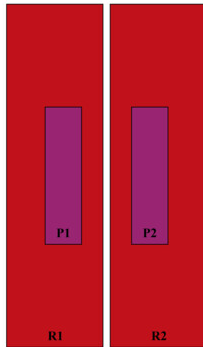
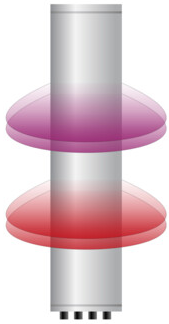
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10-30 Vdc
<b>Internal Bias Tee</b>	Port 1
<b>Internal RET</b>	Low band (1)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

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## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	1848 mm   72.756 in
<b>Net Weight, antenna only</b>	30.5 kg   67.241 lb

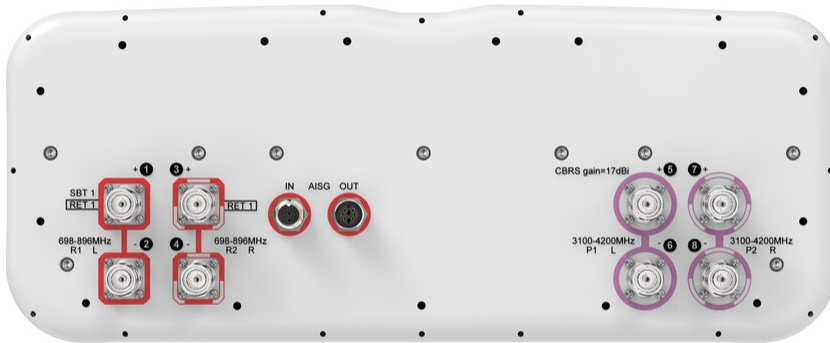
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxxxR1
R2	698-896	3 - 4					
P1	3100-4200	5 - 6	N/A	NA			N/A
P2	3100-4200	7 - 8					

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

## Port Configuration



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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	3100 – 4200 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

## Electrical Specifications

	<b>R1,R2</b>	<b>R1,R2</b>	<b>P1,P2</b>	<b>P1,P2</b>	<b>P1,P2</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>806–896</b>	<b>3100–3550</b>	<b>3550–3700</b>	<b>3700–4200</b>
<b>RF Port</b>	1-4	1-4	5-8	5-8	5-8
<b>Gain, dBi</b>	14.3	14.9	15.8	16.4	16.9
<b>Beamwidth, Horizontal, degrees</b>	74	63	77	69	63
<b>Beamwidth, Vertical, degrees</b>	11.4	10	7.6	7	6.6
<b>Beam Tilt, degrees</b>	2–14	2–14	4	4	4
<b>USLS (First Lobe), dB</b>	17	16	18	18	16
<b>Front-to-Back Ratio at 180°, dB</b>	31	32	30	30	29
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25
<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>	-153	-153	-145	-145	-145
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	100	100	100

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	629.0 N @ 150 km/h (141.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	191.0 N @ 150 km/h (42.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	755.0 N @ 150 km/h (169.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	433.0 N @ 150 km/h (97.3 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
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<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2035 mm   80.118 in
<b>Weight, gross</b>	45 kg   99.208 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.
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## \* Footnotes

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