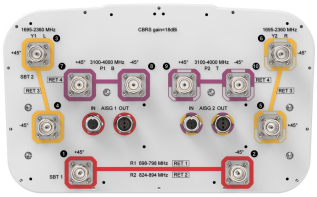
NHHSS-65C-R4BD



10-port sector antenna, 2x 698-894, 4x 1695–2360 and 4x 3100-4000 MHz, 65° HPBW, 4x RETs and 2x SBTs.

- Perfect antenna to add 3.5GHz CBRS to macro sites
- 18dBi max CBRS gain to align with FCC max EIRP limitations
- Internal SBT on low and mid band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and mid band
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Two LB RET and one MB RET. Both mid bands are controlled by one RET to ensure same tilt level for 4x MIMO
- The low band array is internally diplexed for an independent tilt at 700 MHz and 850 MHz

General Specifications

Antenna Type	Sector with internal RET and bias tee
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	4
RF Connector Quantity, mid band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	10

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc

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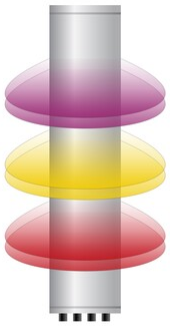
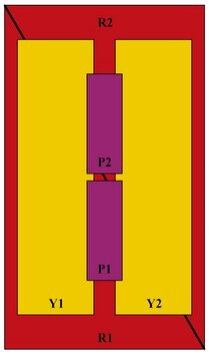
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (2) | Mid band (1)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	350 mm | 13.78 in
Depth	208 mm | 8.189 in
Length	2438 mm | 95.984 in
Net Weight, antenna only	39.2 kg | 86.421 lb

Array Layout





Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-798	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxR1
R2	824-894	1 - 2	2	AISG1	1	1	CPxxxxxxxxxxxxxxR2
Y1	1695-2360	3 - 4	3	AISG2	3	2	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	5 - 6					
P1	3100-4000	7 - 8	4	AISG2	3	2	CPxxxxxxxxxxxxxxP1
P2	3100-4000	9 - 10					

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

Port Configuration

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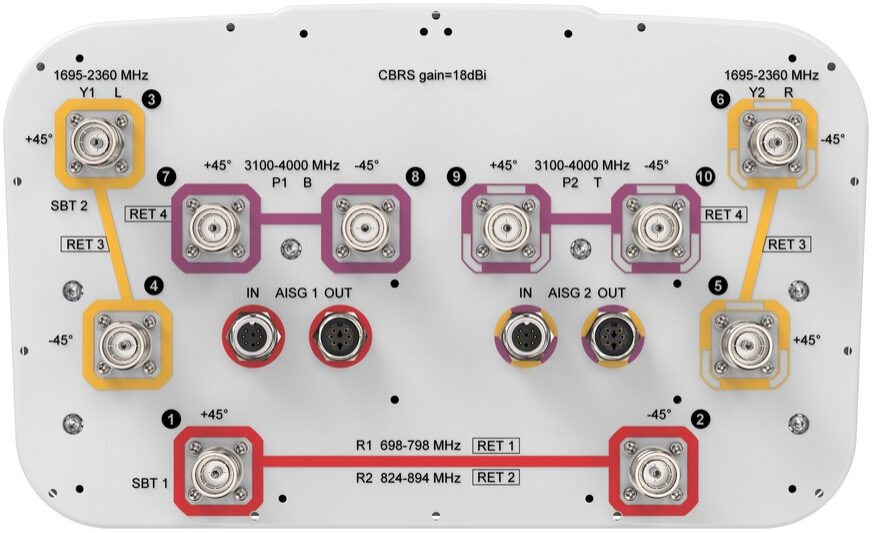

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 3100 – 4000 MHz | 698 – 798 MHz | 824 – 894 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1	R2	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	**698–798**	**824–894**	**1695–1880**	**1850–1990**	**1920–2200**	**2200–2360**	**3100–3550**	**3550–3700**	**3700–4000**
RF Port	1,2	1,2	3,4,5,6	3,4,5,6	3,4,5,6	3,4,5,6	7,8,9,10	7,8,9,10	7,8,9,10
Gain, dBi	15.5	15.7	18.1	18.6	18.6	18.7	17.5	17.9	17.9
Beamwidth, Horizontal, degrees	64	61	62	58	61	69	57	54	56
Beamwidth, Vertical, degrees	9.1	7.8	5.5	5.1	4.8	4.5	5.7	5.3	5.1
Beam Tilt, degrees	0–11	0–11	0–10	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	20	15	17	19	20	20	17	19	20
Front-to-Back Ratio at 180°, dB	34	37	32	36	36	35	35	33	32

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Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	28	28	25	25	25	25	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	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-145	-145	-145
Input Power per Port at 50° C, maximum, watts	150	150	250	250	250	200	100	100	100

Mechanical Specifications

Wind Loading @ Velocity, frontal	425.0 N @ 150 km/h (95.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	361.0 N @ 150 km/h (81.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	900.0 N @ 150 km/h (202.3 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	451.0 N @ 150 km/h (101.4 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	456 mm | 17.953 in
Depth, packed	357 mm | 14.055 in
Length, packed	2585 mm | 101.772 in
Weight, gross	53.4 kg | 117.727 lb

Regulatory Compliance/Certifications

Agency	**Classification**
UK-ROHS	Compliant

Included Products

BSAMNT-4	–	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