NHHSS-45B-R2BT4

10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100-4200 MHz, 45° HPBW, 2x RETs and 2x SBTs

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable

General Specifications

Antenna Type	Sector
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
Internal Bias Tee	Port 1 | Port 3
Internal RET	Low band (1) | Mid band (1)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W

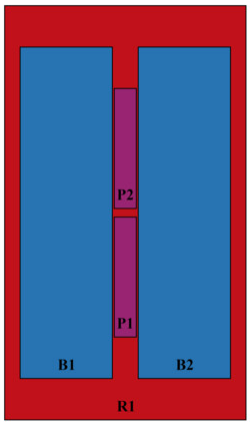
NHHSS-45B-R2BT4

Protocol	3GPP/AISG 2.0

Dimensions

Width	457 mm | 17.992 in
Depth	178 mm | 7.008 in
Length	1828 mm | 71.969 in
Net Weight, antenna only	34.9 kg | 76.941 lb

Array Layout

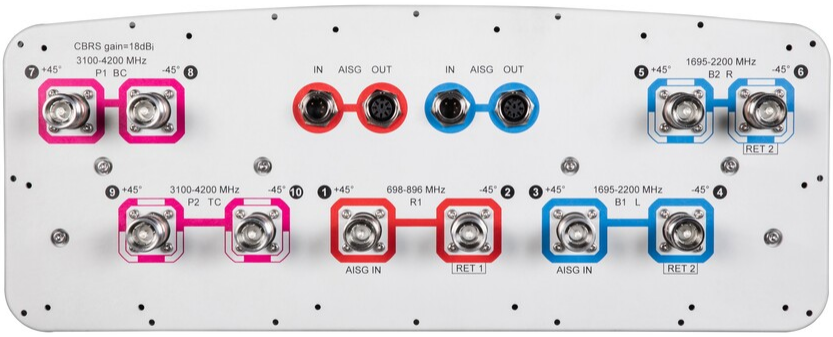


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	CPxxxxxxxxxxxxxxB1
B2	1695-2200	5 - 6		
P1	3100-4200	7 - 8	N/A	N/A
P2	3100-4200	9 - 10		

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

Port Configuration

NHHSS-45B-R2BT4



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2200 MHz | 3100 – 4200 MHz | 698 – 896 MHz
Polarization	±45°

Electrical Specifications

	R1	R1	B1,B2	B1,B2	B1,B2	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**3100–3550**	**3550–3700**	**3700–4200**
RF Port	1,2	1,2	3-6	3-6	3-6	7-10	7-10	7-10
Gain, dBi	17	17.9	19.1	19.7	20.4	16.9	17.5	17.2
Gain at Mid Tilt, dBi	16.7	17.7	18.9	19.5	20	16.5	17.2	16.5
Beamwidth, Horizontal, degrees	45	40	44	42	41	49	43	40
Beamwidth, Vertical, degrees	12.2	10.8	5.8	5.4	5.1	9.7	9.1	8.5
Beam Tilt, degrees	2–14	2–14	0–8	0–8	0–8	4	4	4
USLS (First Lobe), dB	19	20	17	17	18	18	18	14
Front-to-Back Ratio at 180°, dB	31	35	34	33	33	31	32	26
Front-to-Back Ratio, Copolarization 180° ± 30°, dB	31	32	31	28	28	28	29	23

NHHSS-45B-R2BT4

Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	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	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-145	-145	-145
Input Power per Port at 50°C, maximum, watts	250	250	250	250	250	100	100	100

Mechanical Specifications

Wind Loading @ Velocity, frontal	1,065.0 N @ 150 km/h (239.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	220.0 N @ 150 km/h (49.5 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,065.0 N @ 150 km/h (239.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	935.0 N @ 150 km/h (210.2 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	526 mm | 20.709 in
Depth, packed	283 mm | 11.142 in
Length, packed	1996 mm | 78.583 in
Weight, gross	52.8 kg | 116.404 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
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.
BSAMNT-M	–	Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance