

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

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Protocol 3GPP/AISG 2.0

Dimensions

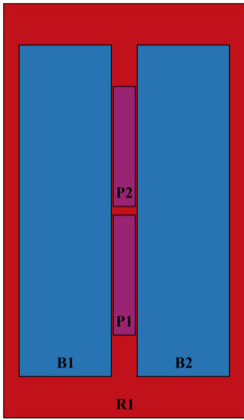
Width 457 mm | 17.992 in

Depth 178 mm | 7.008 in

Length 1828 mm | 71.969 in

Net Weight, without mounting kit 34.9 kg | 76.941 lb

Array Layout

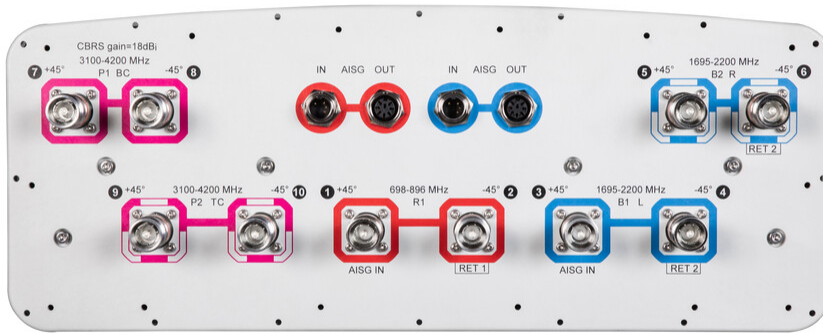


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	CPxxxxxxxxxxxxB1
B2	1695-2200	5 - 6		
P1	3100-4200	7 - 8	N/A	N/A
P2	3100-4200	9 - 10		

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

Port Configuration

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Electrical Specifications

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

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	3100–3550	3550–3700	3700–4200
Gain, dBi	17	17.9	19.1	19.7	20.4	16.9	17.5	17.2
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
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	28	28	28	28	28	28

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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

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	3100–3550	3550–3700	3700–4200
Gain by all Beam Tilts, average, dBi	16.6	17.6	18.8	19.4	19.9	16.4	17.1	16.7
Gain by all Beam Tilts Tolerance, dB	±0.8	±0.4	±0.6	±0.4	±0.6	±0.7	±0.5	±0.7
Gain by Beam Tilt, average, dBi	2° 16.7 8° 16.7 14° 16.5	2° 17.7 8° 17.7 14° 17.5	0° 18.8 4° 18.9 8° 18.8	0° 19.3 4° 19.5 8° 19.4	0° 19.8 4° 20.0 8° 20.0			
Beamwidth, Horizontal Tolerance, degrees	±2	±1.5	±2.6	±1.7	±1.6	±7	±3.4	±3.8
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.6	±0.3	±0.2	±0.4	±0.9	±0.8	±0.8
USLS, beampeak to 20° above beampeak, dB	19	20	16	16	16	17	17	14
Front-to-Back Total Power at 180° ± 30°, dB	22	23	25	25	25	25	25	20
CPR at Boresight, dB	23	23	17	16	16	15	16	18

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	241.4 km/h (150 mph)

Packaging and Weights

Width, packed	563 mm 22.165 in
Depth, packed	355 mm 13.976 in
Length, packed	2002 mm 78.819 in
Weight, gross	52.9 kg 116.624 lb

Regulatory Compliance/Certifications

Agency	Classification
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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

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|----------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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