

NN-45B-HG-R1B



4-port Next Generation PerforMax™ sector antenna, 4x 698–896, 45° HPBW, 1x RET

- Designed to reduce SUB 1 alarm triggers with pattern consistency between low band and mid band
- Superior patterns for enhanced interference mitigation resulting in improved SINR, higher throughput, and more capacity
- Best in class PIM immunity
- Interleaved dipole technology results into an attractive, low wind load mechanical package
- Antenna optimized for higher gain with superior radiation efficiency
- Powered by Andrew’s SEED® technology (Sustainable Energy Efficient Design)
- Internal SBTs allow remote RET control from the radio over the RF jumper cable

General Specifications

Antenna Type	Sector with internal RET and bias tee
Band	Single band
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	Aluminum Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, low band	4
RF Connector Quantity, total	4

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1
Internal RET	Low band (1)

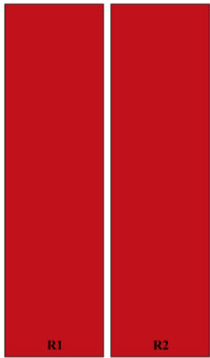
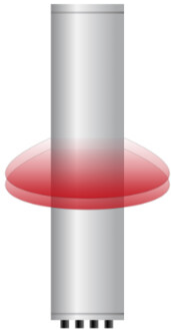
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Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	749 mm 29.488 in
Depth	197 mm 7.756 in
Length	1848 mm 72.756 in
Net Weight, antenna only	49.5 kg 109.129 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	ANxxxxxxxxxxxxxxR1
R2	698-896	3 - 4					

(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	698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	600 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2
Frequency Band, MHz	698–806	806–896
RF Port	1-4	1-4
Gain, dBi	16.5	17.1
Beamwidth, Horizontal, degrees	48	44
Beamwidth, Vertical, degrees	11.4	9.8
Beam Tilt, degrees	2–12	2–12

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USLS (First Lobe), dB	16	15
Front-to-Back Ratio at 180°, dB	25	30
CPR at Boresight, dB	17	19
Isolation, Cross Polarization, dB	25	25
Isolation, Inter-band, dB	25	25
VSWR Return loss, dB	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300

Mechanical Specifications

Wind Loading @ Velocity, frontal	1,768.0 N @ 150 km/h (397.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	191.0 N @ 150 km/h (42.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,768.0 N @ 150 km/h (397.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,768.0 N @ 150 km/h (397.5 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	910 mm 35.827 in
Depth, packed	368 mm 14.488 in
Length, packed	2346 mm 92.362 in
Weight, gross	74.5 kg 164.244 lb

Regulatory Compliance/Certifications

Agency	Classification
UK-ROHS	Compliant

Included Products

BSAMNT-9	–	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

Performance Note	Severe environmental conditions may degrade optimum performance
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