NNH4-45A-HG-R3B

12-port Next Generation PerforMax™ sector antenna, 4x 698-896 MHz and 8x 1695-2200 MHz, 45° HPBW, 3X RETs and 3x SBTs

- Antenna optimized for higher gain with improved radiation efficiency
- Powered by Andrew's SEED® technology (Sustainable Energy Efficient Design)
- Narrow beamwidth capacity antenna for higher level of densification and enhanced data throughput
- 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
- Best in class PIM immunity

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, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	3 female | 3 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 5 | Port 9

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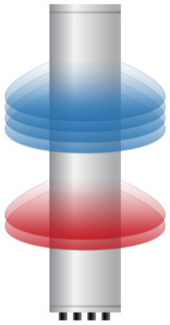
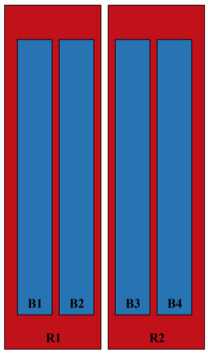
Internal RET	Low band (1) | Mid band (2)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	749 mm | 29.488 in
Depth	197 mm | 7.756 in
Length	1030 mm | 40.551 in
Net Weight, antenna only	34 kg | 74.957 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	CPxxxxxxxxxxxxxxR1
R2	698-896	3 - 4					
B1	1695-2200	5 - 6	2	AISG2	5	2	CPxxxxxxxxxxxxxxB1
B2	1695-2200	7 - 8					
B3	1695-2200	9 - 10	3	AISG3	9	3	CPxxxxxxxxxxxxxxB3
B4	1695-2200	11 - 12					

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

Port Configuration

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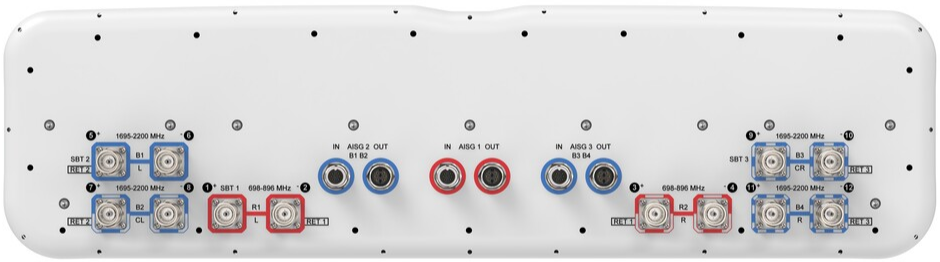

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2200 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1-R2	R1-R2	B1-B4	B1-B4	B1-B4
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**
RF Port	1-4	1-4	5-12	5-12	5-12
Gain, dBi	13.9	14.3	17.4	18	18.6
Beamwidth, Horizontal, degrees	48	42	50	48	45
Beamwidth, Vertical, degrees	22.1	20.1	8.9	8.3	8
Beam Tilt, degrees	2–18	2–18	2–12	2–12	2–12

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USLS (First Lobe), dB	15	15	15	15	15
Front-to-Back Ratio at 180°, dB	31	30	33	33	33
CPR at Boresight, dB	18	19	16	18	17
Isolation, Cross Polarization, dB	25	25	25	25	25
VSWR | Return loss, dB	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
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250

Mechanical Specifications

Wind Loading @ Velocity, frontal	1,000.0 N @ 150 km/h (224.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	95.0 N @ 150 km/h (21.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,000.0 N @ 150 km/h (224.8 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	1266 mm | 49.843 in
Weight, gross	49.2 kg | 108.467 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