

NHH-4565C-R2B



6-port sector antenna, 2x 698–896 MHz 45° HPBW and 4x 1695–2360 MHz 65° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x Rx or 4x MIMO
- Hybrid antenna with narrow beamwidth on the low band for superior interference mitigation on the LB and 65° beamwidth on the high band which allows maintaining the good signal coverage at the cell edge for the high band

OBSOLETE

This product was discontinued on: March 27, 2020

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
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, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female 8-pin DIN Male
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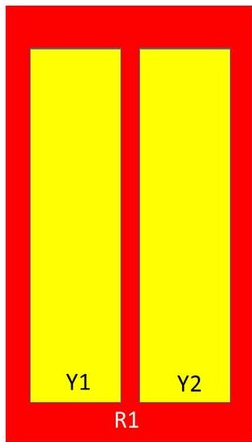
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RET Interface, quantity	2 female 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 Port 3
Internal RET	High band (1) Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	10 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	457 mm 17.992 in
Depth	178 mm 7.008 in
Length	2437 mm 95.945 in
Net Weight, without mounting kit	40 kg 88.185 lb

Array Layout



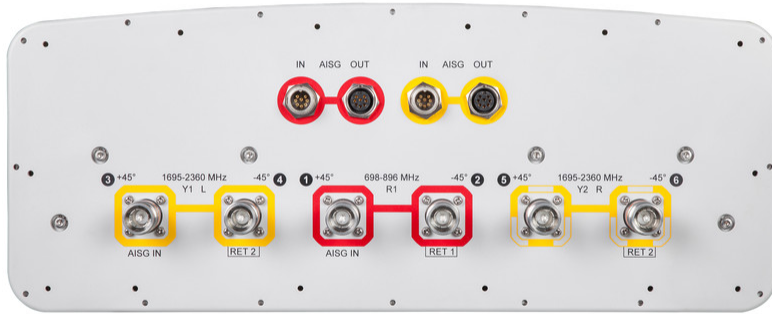
Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

Left Right
Bottom

(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 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	800 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	17.9	18.2	17.6	18	18.3	18.7
Beamwidth, Horizontal, degrees	47	42	62	62	66	66
Beamwidth, Vertical, degrees	9	8.1	5.7	5.3	5	4.5
Beam Tilt, degrees	0–10	0–10	0–8	0–8	0–8	0–8
USLS (First Lobe), dB	18	21	17	19	20	20
Front-to-Back Ratio at 180°, dB	33	39	33	35	35	35
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	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

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PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	17.6	18.1	17.1	17.7	18	18.4
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.3	±0.6	±0.6	±0.4	±0.3
Gain by Beam Tilt, average, dBi	0° 17.5 5° 17.6 10° 17.5	0° 17.9 5° 18.1 10° 18.0	0° 17.0 4° 17.1 8° 17.1	0° 17.6 4° 17.8 8° 17.7	0° 17.8 4° 18.0 8° 18.0	0° 18.3 4° 18.5 8° 18.2
Beamwidth, Horizontal Tolerance, degrees	±1.1	±2.1	±5.2	±4.2	±5	±2.5
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.3	±0.2	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	18	15	15	15	16	16
Front-to-Back Total Power at 180° ± 30°, dB	24	25	24	28	27	27
CPR at Boresight, dB	25	20	15	17	18	17

Mechanical Specifications

Effective Projective Area (EPA), frontal	1.4 m ² 15.069 ft ²
Effective Projective Area (EPA), lateral	0.3 m ² 3.229 ft ²
Mechanical Tilt Range	0°–10°
Wind Loading @ Velocity, frontal	1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	315.0 N @ 150 km/h (70.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,304.0 N @ 150 km/h (293.2 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	2604 mm 102.52 in
Weight, gross	59 kg 130.073 lb

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Regulatory Compliance/Certifications

Agency

ISO 9001:2015

Classification

Designed, manufactured and/or distributed under this quality management system

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