

NNHH-45C-R4



8-port sector antenna, 4x 698–896 and 4x 1695–2360 MHz, 45° HPBW, 4x RET

- Independent tilt for all arrays
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics

General Specifications

Antenna Type	Sector with internal RET
Band	Multiband
Color	Light gray
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, low band	4
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

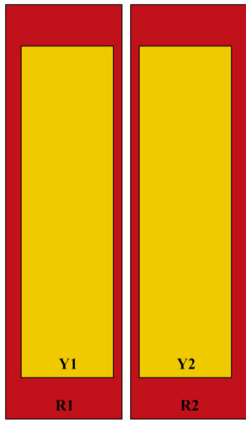
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (2) Low band (2)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

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Dimensions

Width	640 mm 25.197 in
Depth	235 mm 9.252 in
Length	2437 mm 95.945 in
Net Weight, without mounting kit	61 kg 134.482 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R2	698-896	3 - 4	2	AISG1	CPxxxxxxxxxxxxMM.2
Y1	1695-2360	5 - 6	3	AISG1	CPxxxxxxxxxxxxMM.3
Y2	1695-2360	7 - 8	4	AISG1	CPxxxxxxxxxxxxMM.4

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

Port Configuration



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

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Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360
Gain, dBi	16.4	17.1	18.8	19.2	20	20.5
Beamwidth, Horizontal, degrees	51	45	46	49	47	38
Beamwidth, Vertical, degrees	9.6	8.4	5.7	5.3	5	4.5
Beam Tilt, degrees	2–14	2–14	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	14	15	15	16	16	18
Front-to-Back Ratio, Copolarization 180° ± 30°, dB	28	30	26	26	27	26
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	-25	-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	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	350	350	300	300	300	250

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360
Gain by all Beam Tilts, average, dBi	15.9	16.9	18.3	18.9	19.4	20.2
Gain by all Beam Tilts Tolerance, dB	±0.7	±0.5	±0.7	±0.4	±0.7	±0.7
Gain by Beam Tilt, average, dBi	2° 16.0 8° 16.0 14° 15.7	2° 16.9 8° 17.0 14° 16.7	2° 18.3 7° 18.4 12° 18.1	2° 18.9 7° 19.1 12° 18.8	2° 19.4 7° 19.6 12° 19.3	2° 20.5 7° 20.5 12° 19.4
Beamwidth, Horizontal Tolerance, degrees	±7.6	±3.9	±4	±2.3	±3.3	±3
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.4	±0.4	±0.3	±0.3	±0.1
Front-to-Back Total Power at 180° ± 30°, dB	23	21	24	26	26	24
CPR at Boresight, dB	20	20	16	17	18	20

Mechanical Specifications

Wind Loading @ Velocity, frontal	954.0 N @ 150 km/h (214.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	355.0 N @ 150 km/h (79.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,434.0 N @ 150 km/h (322.4 lbf @ 150 km/h)

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Wind Loading @ Velocity, rear	1,086.0 N @ 150 km/h (244.1 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	744 mm 29.291 in
Depth, packed	384 mm 15.118 in
Length, packed	2590 mm 101.969 in
Weight, gross	85 kg 187.393 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant



Included Products

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| 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. |
| BSAMNT-M4 | - | 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
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