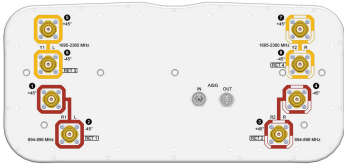


# NNHH-65B-R4N17



8-port sector antenna, 4x 694–896 and 4x 1695–2360 MHz, 65° HPBW, 4x RETs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	4
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	8

## Remote Electrical Tilt (RET) Information

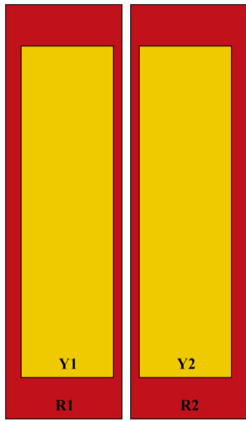
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (2)   Low band (2)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state,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

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## Dimensions

<b>Width</b>	430 mm   16.929 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	1848 mm   72.756 in
<b>Net Weight, without mounting kit</b>	28.4 kg   62.611 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG RET UID
R1	694-896	1 - 2	1	CPxxxxxxxxxxxxMM.1
R2	694-896	3 - 4	2	CPxxxxxxxxxxxxMM.2
Y1	1695-2360	5 - 6	3	CPxxxxxxxxxxxxMM.3
Y2	1695-2360	7 - 8	4	CPxxxxxxxxxxxxMM.4

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

## Port Configuration



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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2360 MHz   694 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360
<b>Gain, dBi</b>	13.9	14.6	16.6	17.2	17.6	18.2
<b>Beamwidth, Horizontal, degrees</b>	61	57	65	65	63	59
<b>Beamwidth, Vertical, degrees</b>	12.5	10.9	7	6.6	6.2	5.6
<b>Beam Tilt, degrees</b>	2–14	2–14	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	21	18	15	14	14	14
<b>Front-to-Back Ratio at 180°, dB</b>	30	31	32	35	33	31
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	250	250	250	200

## Electrical Specifications, BASTA

Frequency Band, MHz	694–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360
<b>Gain by all Beam Tilts, average, dBi</b>	13.4	14.3	16	16.7	17	17.7
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.7	±0.5	±0.8	±0.7	±0.8	±0.6
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±10.7	±6.5	±6.7	±5.6	±6.9	±7.5
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.1	±0.9	±0.5	±0.3	±0.5	±0.2
<b>USLS, beampeak to 20° above beampeak, dB</b>	21	17	11	13	13	13
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	23	23	25	28	26	25

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<b>CPR at Boresight, dB</b>	24	24	17	21	21	20
<b>CPR at Sector, dB</b>	9	9	8	9	8	6

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	471.0 N @ 150 km/h (105.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	241.0 N @ 150 km/h (54.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	762.0 N @ 150 km/h (171.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	444.0 N @ 150 km/h (99.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	530 mm   20.866 in
<b>Depth, packed</b>	349 mm   13.74 in
<b>Length, packed</b>	2020 mm   79.528 in
<b>Weight, gross</b>	41.1 kg   90.61 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant/Exempted



## Included Products

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.
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## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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