

NNH4-65B-R8D



6 ft, 12-port, low band diplexed antenna, 4x 698–894 and 8x 1695–2360 MHz, 65° HPBW, 8x RET

- Features broadband Low Band (698-894 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for 700 and 850 MHz, AWS, PCS and WCS applications
- The Low Band array is diplexed, providing independent tilt for the 700 and 850 MHz bands for 4T4R (4X MIMO) capability when used with Dual Band radios
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics
- Low Band RET assigned to AISG1, Mid Band RET assigned to AISG2

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
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

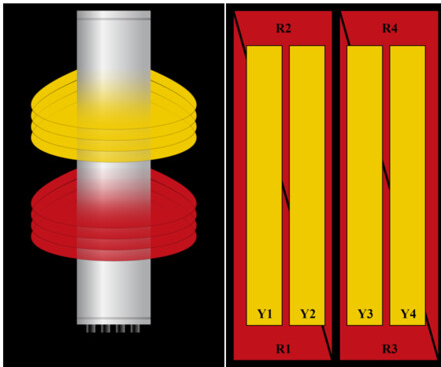
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male
Input Voltage	10–30 Vdc
Internal RET	Low band (4) Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

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Dimensions

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	1828 mm 71.969 in
Net Weight, without mounting kit	46 kg 101.413 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET	AISG No.	AISG RET UID
R1	698-798	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R2	824-894	1 - 2	2	AISG1	CPxxxxxxxxxxxxMM.2
R3	698-798	3 - 4	3	AISG1	CPxxxxxxxxxxxxMM.3
R4	824-894	3 - 4	4	AISG1	CPxxxxxxxxxxxxMM.4
Y1	1695-2360	5 - 6	5	AISG2	CPxxxxxxxxxxxxMM.5
Y2	1695-2360	7 - 8	6	AISG2	CPxxxxxxxxxxxxMM.6
Y3	1695-2360	9 - 10	7	AISG2	CPxxxxxxxxxxxxMM.7
Y4	1695-2360	11 - 12	8	AISG2	CPxxxxxxxxxxxxMM.8

Port Configuration



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz 698 – 798 MHz 824 – 894 MHz
Polarization	±45°

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Total Input Power, maximum

900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	698–798	824–894	1695–1880	1850–1990	1920–2180	2300–2360
Gain, dBi	13.8	14.2	16.7	17.2	17.8	18
Beamwidth, Horizontal, degrees	63	61	69	67	62	62
Beamwidth, Vertical, degrees	12	10.5	6.9	6.5	6.1	5.5
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	15	15	16	18	18	18
Front-to-Back Ratio at 180°, dB	30	28	32	33	33	33
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 at 50°C, maximum, watts	150	150	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	698–798	824–894	1695–1880	1850–1990	1920–2180	2300–2360
Gain by all Beam Tilts, average, dBi	13.5	13.9	16.1	16.8	17.3	17.7
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.5	±0.8	±0.7	±0.7	±0.5
Beamwidth, Horizontal Tolerance, degrees	±7.5	±6.2	±7.8	±9.6	±4.8	±4.8
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.5	±0.5	±0.3	±0.4	±0.3
USLS, beampeak to 20° above beampeak, dB	15	15	11	14	14	14
Front-to-Back Total Power at 180° ± 30°, dB	22	22	26	25	24	26
CPR at Boresight, dB	20	19	23	22	22	19
CPR at Sector, dB	11	9	6	5	5	6

Mechanical Specifications

Effective Projective Area (EPA), frontal

0.58 m² | 6.243 ft²

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Effective Projective Area (EPA), lateral	0.18 m ² 1.938 ft ²
Wind Loading @ Velocity, frontal	622.0 N @ 150 km/h (139.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	188.0 N @ 150 km/h (42.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	746.0 N @ 150 km/h (167.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	428.0 N @ 150 km/h (96.2 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm 22.244 in
Depth, packed	368 mm 14.488 in
Length, packed	2014 mm 79.291 in
Weight, gross	60.3 kg 132.939 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
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
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.
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* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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