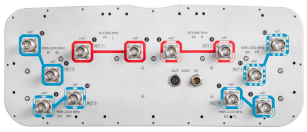
NNH4-65B-R6-V2



12-port sector antenna, 4x 703–894 and 8x 1695–2200 MHz, 65° HPBW, 6x RET.

- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for Band 14, AWS, PCS and WCS applications
- Independent tilt for all arrays
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics

OBSOLETE

This product was discontinued on: March 31, 2022

Replaced By:

NNH4-65B-R6H4-V1	12-port sector antenna, 4x 698–896 and 8x 1695–2360 MHz, 65° HPBW, 6x RET.

General Specifications

Antenna Type	Sector
Band	Multiband
Grounding Type	RF connector inner conductor and 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	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2

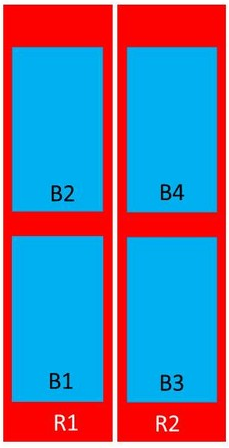
NNH4-65B-R6-V2

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 (4) | Low band (2)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1828 mm | 71.969 in
Net Weight, without mounting kit	37.7 kg | 83.114 lb

Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	703-894	1-2	1	CPxxxxxxxxxxxxxxxR1
R2	703-894	3-4	2	CPxxxxxxxxxxxxxxxR2
B1	1695-2200	5-6	3	CPxxxxxxxxxxxxxxxB1
B2	1695-2200	7-8	4	CPxxxxxxxxxxxxxxxB2
B3	1695-2200	9-10	5	CPxxxxxxxxxxxxxxxB3
B4	1695-2200	11-12	6	CPxxxxxxxxxxxxxxxB4

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

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2200 MHz | 703 – 894 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

NNH4-65B-R6-V2

Electrical Specifications

Frequency Band, MHz	703–803	824–894	1695–1880	1850–1990	1920–2200
Gain, dBi	14.4	15	15.7	16.3	16.5
Beamwidth, Horizontal, degrees	69	65	58	60	60
Beamwidth, Vertical, degrees	12	10.6	11.2	10.4	9.8
Beam Tilt, degrees	2–14	2–14	2–14	2–14	2–14
USLS (First Lobe), dB	16	18	18	19	19
Front-to-Back Ratio at 180°, dB	28	32	33	38	35
Isolation, Cross Polarization, dB	25	25	25	25	25
Isolation, Inter-band, 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	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250

Electrical Specifications, BASTA

Frequency Band, MHz	703–803	824–894	1695–1880	1850–1990	1920–2200
Gain by all Beam Tilts, average, dBi	14	14.6	15.2	16	16.1
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.6	±0.8	±0.5	±0.4
Gain by Beam Tilt, average, dBi	2 ° | 14.1 8 ° | 14.2 14 ° | 13.7	2 ° | 14.7 8 ° | 14.8 14 ° | 14.2	2 ° | 15.2 8 ° | 15.2 14 ° | 15.0	2 ° | 16.0 8 ° | 16.0 14 ° | 15.9	2 ° | 16.1 8 ° | 16.2 14 ° | 16.0
Beamwidth, Horizontal Tolerance, degrees	±3.4	±4.1	±5.7	±1.8	±3.1
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.9	±0.8	±0.5	±0.7
USLS, beampeak to 20° above beampeak, dB	16	16	18	19	17
Front-to-Back Total Power at 180° ± 30°, dB	21	21	28	32	28
CPR at Boresight, dB	23	24	15	21	21
CPR at Sector, dB	10	5	9	8	7

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.64 m² | 6.889 ft²

NNH4-65B-R6-V2

Effective Projective Area (EPA), lateral	0.22 m² | 2.368 ft²
Mechanical Tilt Range	0°–17°
Wind Loading @ Velocity, frontal	685.0 N @ 150 km/h (154.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	232.0 N @ 150 km/h (52.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	889.0 N @ 150 km/h (199.9 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	564.0 N @ 150 km/h (126.8 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	608 mm | 23.937 in
Depth, packed	352 mm | 13.858 in
Length, packed	2010 mm | 79.134 in
Weight, gross	52.5 kg | 115.743 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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance