NNH4-65B-R6H4-V3

12-Port sector antenna, 4x 698-896 and 8x 1695-2360 MHz, 65° HPBW, 6x RET.

- Optimized design providing high gain performance for Low and Mid bands
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Mid band
- Optimized SPR performance across all operating bands
- Superior wind loading characteristics

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
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	Aluminum | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	0
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	AISG1 8-pin DIN Female | AISG1 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	Low band (2) | Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W

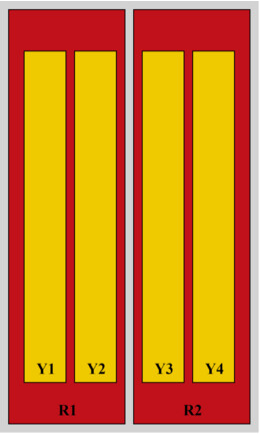
NNH4-65B-R6H4-V3

Protocol	3GPP/AISG 2.0

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1848 mm | 72.756 in
Net Weight, antenna only	35.7 kg | 78.705 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxMM.1
R2	698-896	3 - 4	2	CPxxxxxxxxxxxxMM.2
Y1	1695-2360	5 - 6	3	CPxxxxxxxxxxxxMM.3
Y2	1695-2360	7 - 8	4	CPxxxxxxxxxxxxMM.4
Y3	1695-2360	9 - 10	5	CPxxxxxxxxxxxxMM.5
Y4	1695-2360	11 - 12	6	CPxxxxxxxxxxxxMM.6

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

Port Configuration

NNH4-65B-R6H4-V3

Electrical Specifications

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

Electrical Specifications

	R1,R2	R1,R2	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
RF Port	1-4	1-4	5-12	5-12	5-12	5-12
Gain, dBi	14.6	15.2	18	18.6	19.1	19.4
Beamwidth, Horizontal, degrees	70	66	72	66	63	58
Beamwidth, Vertical, degrees	11.5	10.2	5.5	5.1	4.9	4.4
Beam Tilt, degrees	2–12	2–12	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	16	15	18	18	20	20
Front-to-Back Ratio at 180°, dB	30	30	30	30	32	32
Isolation, Cross Polarization, dB	25	25	25	25	25	25

NNH4-65B-R6H4-V3

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	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200

Mechanical Specifications

Wind Loading @ Velocity, frontal	629.0 N @ 150 km/h (141.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	191.0 N @ 150 km/h (42.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	755.0 N @ 150 km/h (169.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	433.0 N @ 150 km/h (97.3 lbf @ 150 km/h)
Wind Speed, maximum	241.4 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	309 mm | 12.165 in
Length, packed	2035 mm | 80.118 in
Weight, gross	48.5 kg | 106.924 lb

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

Included Products

BSAMNT-2F	–	Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance