NNH4SS-65C-R4

16- Port sector antenna, 4x 698-896, 8x 1695-2360 and 4x 3400-4000MHz, 65° HPBW, 4x RETs

- Features broadband Low Band (698-896 MHz), Mid Band(1695-2360 MHz) and High Band (3400-4000 MHz) arrays for 4T4R (4X MIMO) capability for bands 5, 13, 25, 66 and 48. Also covers bands 12, 14, 29, and 30
- Perfect for adding 3.5 GHz bands like CBRS, C-band or DOD to macro sites
- Non-stacked high band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs
- Array configuration provides capability for 4T4R (4X MIMO) on Low Band, dual 4T4R (4X MIMO) on Mid Band and 4T4R (4X MIMO) on High Band
- Excellent 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	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, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	16

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

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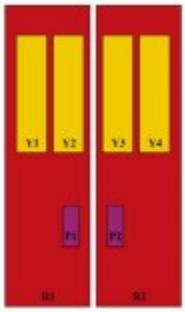
Internal RET	High band (1) | Low band (1) | Mid band (2)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2438 mm | 95.984 in
Net Weight, without mounting kit	46 kg | 101.413 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (HRET)	AISG No.	RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG1	CPxxxxxxxxxxxxMM.2
Y2	1695-2360	7 - 8			
Y3	1695-2360	9 - 10	3	AISG1	CPxxxxxxxxxxxxMM.3
Y4	1695-2360	11 - 12			
P1	3400-4000	13 - 14	4	AISG1	CPxxxxxxxxxxxxMM.4
P2	3400-4000	15 - 16			

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

Port Configuration

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Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 3400 – 4000 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,600 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**	**3400–3550**	**3550–3700**	**3700–4000**
RF Port	1-4	1-4	5-12	5-12	5-12	5-12	13-16	13-16	13-16
Gain, dBi	15.4	15.9	17.3	17.9	18.5	18.8	16.9	17.4	17.6
Beamwidth, Horizontal, degrees	73	66	69	68	61	58	77	70	67
Beamwidth, Vertical, degrees	9.8	8.4	5.8	5.4	5.1	4.7	7.3	7.1	6.7
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	16	16	16	18	18	18	17	17	17

Front-to-Back Ratio at 180°, dB	29	31	32	32	32	36	30	30	31
CPR at Boresight, dB	24	26	19	20	21	21	15	15	16
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	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	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	-145	-145	-145
Input Power per Port at 50° C, maximum, watts	300	300	300	250	250	200	100	100	100

Mechanical Specifications

Wind Loading @ Velocity, frontal	865.0 N @ 150 km/h (194.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	268.0 N @ 150 km/h (60.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,037.0 N @ 150 km/h (233.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	595.0 N @ 150 km/h (133.8 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	2685 mm | 105.709 in
Weight, gross	61 kg | 134.482 lb

Regulatory Compliance/Certifications

Agency	**Classification**
UK-ROHS	Compliant

Included Products

BSAMNT-3F	–	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