NNHH-45B-R4

8-port sector antenna, 4x 698–896 and 4x 1695–2360 MHz, 45° HPBW, 4x RET

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- The antenna is supplied with mounting kits that provide 0 degree of mechanical downtilt; optional downtilt mounting kits are available

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 | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
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	4
RF Connector Quantity, low band	4
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

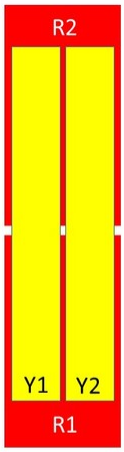
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (2) | Low band (2)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

NNHH-45B-R4

Dimensions

Width	457 mm | 17.992 in
Depth	178 mm | 7.008 in
Length	1828 mm | 71.969 in
Net Weight, without mounting kit	34.5 kg | 76.059 lb

Array Layout



Left Right
Bottom

Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	698-896	1-2	1	CPxxxxxxxxxxxxxxxxmm.1
R2	698-896	3-4	2	CPxxxxxxxxxxxxxxxxmm.2
Y1	1695-2360	5-6	3	CPxxxxxxxxxxxxxxxxmm.3
Y2	1695-2360	7-8	4	CPxxxxxxxxxxxxxxxxmm.4

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

Port Configuration

NNHH-45B-R4

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

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain, dBi	14	14.9	19.4	20	20.5	21
Beamwidth, Horizontal, degrees	49	42	45	43	41	38
Beamwidth, Vertical, degrees	24.4	21.6	5.9	5.5	5.1	4.6
Beam Tilt, degrees	2–18	2–18	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	19	14	15	15	17
Front-to-Back Ratio at 180°, dB	32	34	35	37	39	38
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	300	300	300	300	300	250

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain by all Beam Tilts, average, dBi	13.7	14.7	18.9	19.7	20.1	20.7
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.6	±0.4	±0.4	±0.3
Gain by Beam Tilt, average, dBi	2 ° | 13.7 10 ° | 13.7 18 ° | 13.6	2 ° | 14.8 10 ° | 14.7 18 ° | 14.4	2 ° | 18.8 7 ° | 19.0 12 ° | 18.8	2 ° | 19.5 7 ° | 19.8 12 ° | 19.7	2 ° | 20.0 7 ° | 20.2 12 ° | 20.0	2 ° | 20.7 7 ° | 20.8 12 ° | 20.5
Beamwidth, Horizontal Tolerance, degrees	±1.9	±2.9	±2.7	±1.3	±2.1	±1.6
Beamwidth, Vertical Tolerance, degrees	±1.5	±1.6	±0.4	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB			14	15	15	16
Front-to-Back Total Power at 180° ± 30°, dB	24	24	27	31	32	30
CPR at Boresight, dB	23	23	19	20	20	21

Mechanical Specifications

Effective Projective Area (EPA), frontal	1.01 m² | 10.872 ft²
Effective Projective Area (EPA), lateral	0.21 m² | 2.26 ft²
Mechanical Tilt Range	0°–15°
Wind Loading @ Velocity, frontal	1,077.0 N @ 150 km/h (242.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	222.0 N @ 150 km/h (49.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,077.0 N @ 150 km/h (242.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	946.0 N @ 150 km/h (212.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	563 mm | 22.165 in
Depth, packed	355 mm | 13.976 in
Length, packed	2021 mm | 79.567 in
Weight, gross	47.4 kg | 104.499 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

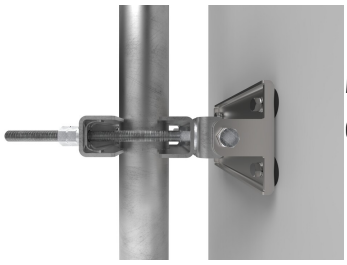
Included Products

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

BSAMNT-3F



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

Product Classification

Product Type	Fixed tilt mounting kit

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	115 mm | 4.528 in
Compatible Diameter, minimum	60 mm | 2.362 in
Weight, net	5.6 kg | 12.346 lb

Material Specifications

Material Type	Galvanized steel

Packaging and Weights

Included	Brackets | Hardware
Packaging quantity	1
Weight, gross	5.8 kg | 12.787 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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

BSAMNT-3F