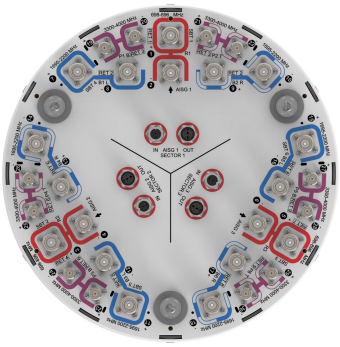
3X-NHHSS-65A-R9B



30-ports tri-sector antenna, 6x 698-896, 12x 1695-2200 and 12x 3300-4000 MHz, 65° HPBW, 9x RETs, 6x SBTs.

- Small size tri-sector macro cell canister antenna
- Ideal for deploying low band, mid band and CBRS/C-Band in flagpoles and concealment solutions
- Pole mounting kit not included. Separate pole mounting kit TS-MNT-TOP-370 available for pole diameter from 150mm (5.9 inch) to 273 mm (10.7 inch). Please check Optional Mounting Kits section for more details
- 4.3-10 connectors used for low band and mid band ports, 2.2-5 connectors used for high band ports

General Specifications

Antenna Type	DualPol® tri-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	ASA, UV stabilized
RF Connector Interface	2.2-5 Female | 4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	12
RF Connector Quantity, mid band	12
RF Connector Quantity, low band	6
RF Connector Quantity, total	30

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	3 female | 3 male
Internal RET	High band (3) | Low band (3) | Mid band (3)
Protocol	3GPP/AISG 2.0

Dimensions

Length	1446 mm | 56.929 in

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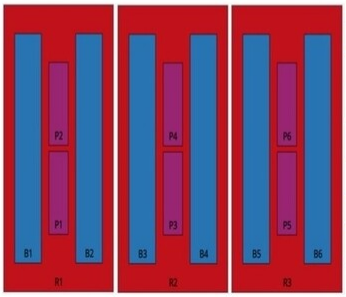
Net Weight, antenna only	41 kg | 90.389 lb
Outer Diameter	370 mm | 14.567 in

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxR1
B1	1695-2200	7 - 8	2	NA	7	4	CPxxxxxxxxxxxxxxB1
B2	1695-2200	9 - 10					
P1	3300-4000	19 - 20	3	NA	7	4	CPxxxxxxxxxxxxxxP1
P2	3300-4000	21 - 22					
R2	698-896	3 - 4	4	AISG2	3	2	CPxxxxxxxxxxxxxxR2
B3	1695-2200	11 - 12	5	NA	11	5	CPxxxxxxxxxxxxxxB3
B4	1695-2200	13 - 14					
P3	3300-4000	23 - 24	6	NA	11	5	CPxxxxxxxxxxxxxxP3
P4	3300-4000	25 - 26					
R3	698-896	5 - 6	7	AISG3	5	3	CPxxxxxxxxxxxxxxR3
B5	1695-2200	15 - 16	8	NA	15	6	CPxxxxxxxxxxxxxxB5
B6	1695-2200	17 - 18					
P5	3300-4000	27 - 28	9	NA	15	6	CPxxxxxxxxxxxxxxP5
P6	3300-4000	29 - 30					

Port Configuration

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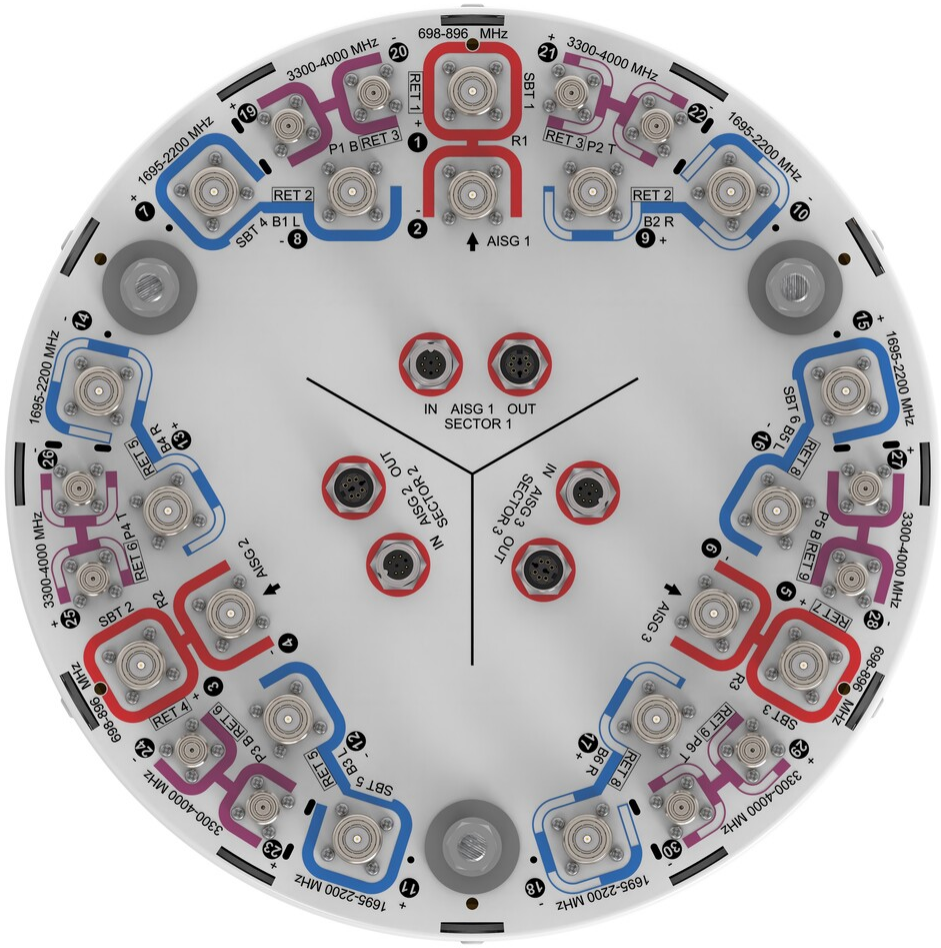

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2200 MHz | 3300 – 4000 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	2,640 W

Electrical Specifications

	R1-R3	R1-R3	Y1-Y6	Y1-Y6	Y1-Y6	P1-P6	P1-P6	P1-P6
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**3300–3550**	**3550–3700**	**3700–4000**
RF Port	1-6	1-6	7-18	7-18	7-18	19-30	19-30	19-30
Gain, dBi	13.4	13.6	16.7	17.1	17.4	15.8	15.6	14.8
Beamwidth, Horizontal,	75	74	65	62	61	50	48	62

degrees								
Beamwidth, Vertical, degrees	16.9	15	7.1	6.7	6.2	7.4	7	6.7
Beam Tilt, degrees	4–14	4–14	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	17	17	15	16	12	16	15	15
Front-to-Back Ratio at 180°, dB	29	30	30	30	30	30	30	30
Front-to-Back Total Power at 180° ± 30°, dB	23	23	24	26	26	30	30	30
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-145	-145	-145
Input Power per Port at 50°C, maximum, watts	250	250	200	200	200	100	100	100

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**3300–3550**	**3550–3700**	**3700–4000**
Gain by all Beam Tilts, average, dBi	13.1	13.3	16.3	16.8	16.9	15.4	15	14.4
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.4	±0.7	±0.3	±0.5	±0.8	±0.8	±1.2
Beamwidth, Horizontal Tolerance, degrees	±1	±2	±3	±2	±7	±9	±14	±17
Beamwidth, Vertical Tolerance, degrees	±1.1	±0.9	±0.4	±0.3	±0.6	±0.6	±0.5	±0.5
CPR at Boresight, dB	20	19	17	19	21	13	13	15
CPR at Sector, dB	8	7	2	2	3	4	6	5

Mechanical Specifications

Wind Loading @ Velocity, frontal	319.0 N @ 150 km/h (71.7 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	319.0 N @ 150 km/h (71.7 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	319.0 N @ 150 km/h (71.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	478 mm | 18.819 in
Depth, packed	464 mm | 18.268 in

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Length, packed	1784 mm | 70.236 in
Weight, gross	47.6 kg | 104.94 lb

Regulatory Compliance/Certifications

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

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance