

J3AH4-65A-R6



16-port, low band diplexed antenna, 2x 698-728 MHz, 2x758-798 MHz, 2 x 698-798 MHz, 2 x 824-894 MHz and 8 x 1695-2360 MHz, 65° HPBW, 6 x RET

- Features broadband Low Band (698-894 MHz) and Mid Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for 700 and 850 MHz, AWS, PCS and WCS applications
- Both Low Band arrays are diplexed for independent tilt, with one array providing two ports of B29 and two ports of B14 and the other array providing two ports of B14 and two ports of B5
- Excellent wind loading characteristics
- Optimized SPR performance across all operating bands

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, mid band	8
RF Connector Quantity, low band	8
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	2 female 2 male
Input Voltage	10–30 Vdc
Internal RET	Low band (4) Mid band (2)
Power Consumption, active state, maximum	8 W

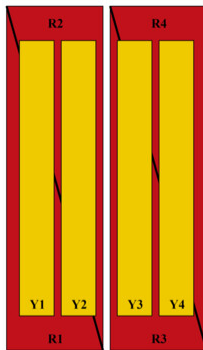
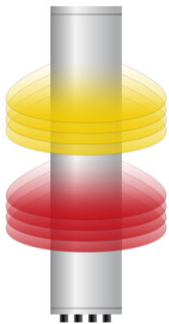
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Power Consumption, idle state, maximum 1 W
Protocol 3GPP/AISG 2.0 (Multi-RET)

Dimensions

Width 498 mm | 19.606 in
Depth 197 mm | 7.756 in
Length 1499 mm | 59.016 in
Net Weight, antenna only 37.4 kg | 82.453 lb

Array Layout

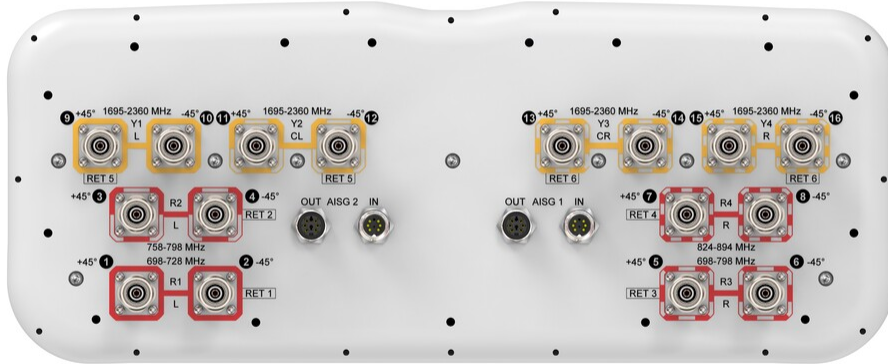


Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID
R1	698-728	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R2	758-798	3 - 4	2	AISG1	CPxxxxxxxxxxxxMM.2
R3	698-798	5 - 6	3	AISG1	CPxxxxxxxxxxxxMM.3
R4	824-894	7 - 8	4	AISG1	CPxxxxxxxxxxxxMM.4
Y1	1695-2360	9 - 10	5	AISG1	CPxxxxxxxxxxxxMM.5
Y2	1695-2360	11 - 12			
Y3	1695-2360	13 - 14			
Y4	1695-2360	15 - 16	6	AISG1	CPxxxxxxxxxxxxMM.6

(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 698 – 798 MHz 824 – 894 MHz
Polarization	±45°
Total Input Power, maximum	1,280 W @ 50 °C

Electrical Specifications

	R1-R3	R4	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4
Frequency Band, MHz	698–798	824–894	1695–1880	1850–1990	1920–2180	2300–2360
RF Port	1-6	7,8	9-16	9-16	9-16	9-16
Gain, dBi	12.5	13.2	15.9	16.7	17.4	18.1
Beamwidth, Horizontal, degrees	75	68	70	68	62	59
Beamwidth, Vertical, degrees	16.9	14.2	7.5	7	6.6	5.9
Beam Tilt, degrees	2–16	2–16	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	19	14	18	19	23
Front-to-Back Ratio at 180°, dB	29	29	32	34	35	35
Front-to-Back Total Power at	29	29	28	29	30	32

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180° ± 30°, dB

CPR at Boresight, dB	20	23	21	23	24	24
CPR at Sector, dB	11	12	8	7	6	6
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	150	150	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	698–798	824–894	1695–1880	1850–1990	1920–2180	2300–2360
Gain by all Beam Tilts, average, dBi	12.3	12.9	15.8	16.6	17.3	17.9
Gain by all Beam Tilts Tolerance, dB	±0.7	±0.6	±0.8	±0.6	±0.7	±0.6
Beamwidth, Horizontal Tolerance, degrees	±9	±4.5	±7	±8.5	±5.9	±2.8
Beamwidth, Vertical Tolerance, degrees	±1.3	±1.1	±0.5	±0.3	±0.4	±0.1
USLS, beampeak to 20° above beampeak, dB	18	20	12	15	15	14

Mechanical Specifications

Wind Loading @ Velocity, frontal	498.0 N @ 150 km/h (112.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	148.0 N @ 150 km/h (33.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	597.0 N @ 150 km/h (134.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	342.0 N @ 150 km/h (76.9 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	1686 mm 66.378 in
Weight, gross	50.4 kg 111.113 lb

Regulatory Compliance/Certifications

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Agency

ISO 9001:2015

Classification

Designed, manufactured and/or distributed under this quality management system

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