

18-port sector antenna, 2x 694–862, 2x 880-960, 2x 694–960, 4x 1427–2690, 4x 1695-2180 and 4x 2490-2690 MHz, 65° HPBW, 8x RET

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- Antenna shape optimized for wind load reduction

### 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

Reflector Material Aluminum

**RF Connector Interface** 4.3-10 Female

**RF Connector Location** Bottom

RF Connector Quantity, mid band 12

**RF Connector Quantity, low band** 6

RF Connector Quantity, total 18

### 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 (3) | Mid band (5)

Power Consumption, active state, maximum  $8~\mathrm{W}$  Power Consumption, idle state, maximum  $1~\mathrm{W}$ 

**Protocol** 3GPP/AISG 2.0 (Single RET)

**Dimensions** 

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**Width** 498 mm | 19.606 in

**Depth** 197 mm | 7.756 in

**Length** 1600 mm | 62.992 in

Net Weight, antenna only 40.4 kg | 89.067 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-862	1 - 2	1	AISG1	CPxxxxxxxxxxxxxR1
R2	880-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxR2
R3	694-960	5 - 6	3	AISG1	CPxxxxxxxxxxxxxR3
B1	1695-2180	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxB1
B2	1695-2180	9 - 10	5	AISG1	CPxxxxxxxxxxxxxB2
Y1	2490-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxY1
Y4	2490-2690	17 - 18	6	AISGT	CPXXXXXXXXXXXXXX
Y2	1427-2690	13 - 14	7	AISG1	CPxxxxxxxxxxxxxY2
Y3	1427-2690	15 - 16	8	AISG1	CPxxxxxxxxxxxxxXY3

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

## Port Configuration



## **Electrical Specifications**



**Impedance** 50 ohm

**Operating Frequency Band** 1427 – 2690 MHz | 1695 – 2180 MHz | 2490 – 2690 MHz | 694 – 862

MHz | 694 - 960 MHz | 880 - 960 MHz

Polarization ±45°

**Total Input Power, maximum** 900 W @ 50 °C

## **Electrical Specifications**

	R1	R1	R2	R3	R3	R3
Frequency Band, MHz	698-806	790-862	880-960	698-806	790-894	890-960
RF Port	1,2	1,2	3,4	5,6	5,6	5,6
Gain at Mid Tilt, dBi	13.4	13.6	13.8	13.9	14.3	14.4
Beamwidth, Horizontal, degrees	71	67	65	71	67	65
Beamwidth, Vertical, degrees	13.5	12.7	11.7	13.8	12.7	11.6
Beam Tilt, degrees	3-16	3-16	3-16	3-16	3-16	3-16
USLS (First Lobe), dB	16	15	13	16	17	16
Front-to-Back Ratio at 180°, dB	30	30	28	30	27	28
Front-to-Back Total Power at 180° ± 30°, dB	20	20	20	19	20	21
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	300

### Electrical Specifications, BASTA

Frequency Band, MHz	698-806	790-862	880-960	698-806	790-894	890-960
Gain by all Beam Tilts, average, dBi	13.3	13.5	13.6	13.8	14.2	14.3
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.4	±0.3	±0.5	±0.4
Beamwidth, Horizontal Tolerance, degrees	±10	±5	±3	±7	±4	±5
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.6	±1	±1	±0.9	±0.9

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USLS, beampeak to 20° above beampeak, dB	16	15	13		16	15
CPR at Boresight, dB	20	19	18	20	20	18
CPR at Sector, dB	12	9	11	12	10	12

## **Electrical Specifications**

	B1,B2	B1,B2	Y1,Y4	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3
Frequency Band, MHz	1695-199	5 1920-218	0 2490-2690	1427-151	8 1695–199	5 1920-230	0 2300–250	0 2490-2690
RF Port	7-10	7-10	11,12,17,18	3 13-16	13-16	13-16	13-16	13-16
Gain at Mid Tilt, dBi	16.7	17.5	17.8	15.4	16.9	17.7	18.2	18.1
Beamwidth, Horizontal, degrees	69	63	56	73	64	60	58	57
Beamwidth, Vertical, degrees	6.1	5.6	4.6	8	6.4	5.7	4.9	4.6
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	16	16	17	17	16	16	16	16
Front-to-Back Ratio at 180°, dB	32	31	31	31	32	32	31	30
Front-to-Back Total Power at 180° ± 30°, dB	26	25	26	24	26	26	26	26
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	-150	-150	-150	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	250	250	150	250	250	250	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	1695-199	5 1920-2180	2490-2690	1427-1518	3 1695–1995	1920-2300	2300-2500	2490-2690
Gain by all Beam Tilts, average, dBi	16.6	17.3	17.6	15.4	16.8	17.5	17.9	17.8
Gain by all Beam Tilts Tolerance, dB	±0.9	±0.5	±0.5	±0.3	±0.6	±0.5	±0.5	±0.9
Beamwidth, Horizontal Tolerance, degrees	±7	±7	±4	±8	±5	±3	±6	±8
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.2	±0.3	±0.5	±0.5	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	14	14	12	13	15	15	16	16

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CPR at Boresight, dB	22	22	17	15	21	19	19	19
CPR at Sector, dB	4	4	1	8	6	4	4	2

### Mechanical Specifications

 Wind Loading @ Velocity, frontal
 544.0 N @ 150 km/h (122.3 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 142.0 N @ 150 km/h (31.9 lbf @ 150 km/h)

 Wind Loading @ Velocity, maximum
 723.0 N @ 150 km/h (162.5 lbf @ 150 km/h)

 Wind Loading @ Velocity, rear
 374.0 N @ 150 km/h (84.1 lbf @ 150 km/h)

Wind Speed, maximum 241 km/h (150 mph)

### Packaging and Weights

 Width, packed
 565 mm | 22.244 in

 Depth, packed
 368 mm | 14.488 in

 Length, packed
 1775 mm | 69.882 in

 Weight, gross
 54.2 kg | 119.49 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-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

