

24-port sector antenna, 2x 694-862 (R1), 2x 880-960 (R2), 2x 694-960 (R3), 8x 1695-2690 (Y1-Y2/Y4-Y5) & 2x 1427-2690 (Y3) MHz, 65° HPBW and 8x 3300-3800 (P1) MHz, 90° HPBW, 9x RET.

- Includes 1x 4-Column Array for 3300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- Retractable tilt indicator rods
- S4 array uses MQ cluster connectors
- Includes nine internal RET's
- 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- and beamforming

**Band** Multiband

**Calibration Connector Interface** MQ5

Calibration Connector Quantity 1

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 | MQ4 | MQ5

**RF Connector Location**Bottom

RF Connector Quantity, high band 8
RF Connector Quantity, mid band 10

RF Connector Quantity, low band 6

RF Connector Quantity, total 24

### 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

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Input Voltage 10-30 Vdc

Internal RET High band (1) | Low band (3) | Mid band (5)

Power Consumption, active state, maximum 8 W
Power Consumption, idle state, maximum 1 W

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

**Dimensions** 

 Width
 430 mm | 16.929 in

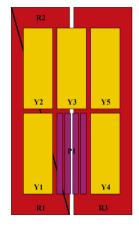
 Depth
 197 mm | 7.756 in

 Length
 2769 mm | 109.016 in

 Net Weight, antenna only
 59 kg | 130.073 lb

 TDD Column Spacing
 42 mm | 1.654 in

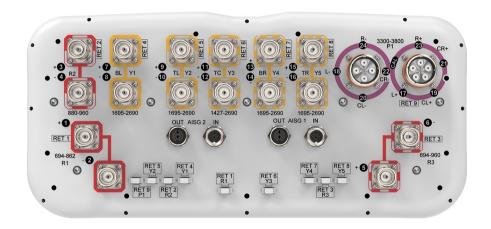
### Array Layout



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	CPxxxxxxxxxxxxxxR2
R3	694-960	5 - 6	3	AISG1	CPxxxxxxxxxxxxxR3
Y1	1695-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxY1
Y2	1695-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxY2
Y3	1427-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxY3
Y4	1695-2690	13 - 14	7	AISG1	CPxxxxxxxxxxxxx4
Y5	1695-2690	15 - 16	8	AISG1	CPxxxxxxxxxxxxxY5
P1	3300-3800	17 - 24	9	AISG1	CPxxxxxxxxxxxxxxP1

(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 – 2690 MHz | 3300 – 3800 MHz | 694 – 862

MHz | 694 - 960 MHz | 880 - 960 MHz

Polarization ±45°

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

### **Electrical Specifications**

	R1	R2	R3	Y1-Y2/Y4-Y	5Y1-Y2/Y4-Y	5 Y 3	Y3	Y3	P1
Frequency Band, MHz	694-862	880-960	694-960	1695-2200	2300-2690	1427-151	81695-218	02300-269	03300-3800
RF Port	1,2	3,4	5,6	7-10,13-16	7-10,13-16	11,12	11,12	11,12	17-24
Gain, dBi	15.8	16.3	16.4	17.4	18	16.4	17.7	18.2	16
Beamwidth, Horizontal, degrees	60	54	58	60	59	58	56	63	83
Beamwidth, Vertical, degrees	7.4	6.4	7	6.2	5	7.2	5.6	4.3	6.2
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	16	17	15	15	16	23	20	20	16
Front-to-Back Ratio at 180°, dB	34	31	31	32	32	33	31	32	29
Coupling level, Amp,									26

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Antenna port to Cal port, dB									
Coupling level, max Amp Δ, Antenna port to Cal port, dB									±2
Coupler, max Amp Δ, Antenna port to Cal port, dB									0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees									7
Isolation, Cross Polarization, dB	27	27	27	27	27	26	26	26	25
Isolation, Inter-band, dB	27	27	27	27	27	27	27	27	25
Isolation, Co-polarization, dB									20
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	-153	-153	-153	-153	-153	-153	-153	-153	-130
Input Power per Port at 50°C, maximum, watts	300	300	300	250	200	250	250	200	75
Electrical Specifications, BASTA									
Electrical Specific	ations,	BASTA	4						
Electrical Specific Frequency Band, MHz				1695-2200	2300-2690	1427-1518	31695-2180	)2300-2690	3300-3800
·				<b>1695–2200</b> 16.8	<b>2300–2690</b> 17.7	<b>1427-1518</b> 16.1	<b>31695-2180</b> 17.3	<b>)2300-2690</b> 17.8	<b>13300–3800</b> 15.2
Frequency Band, MHz Gain by all Beam Tilts,	694-862	880-960	694-960						
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts	<b>694–862</b> 15.4	<b>880-960</b> 16	<b>694–960</b> 15.9	16.8	17.7	16.1	17.3	17.8	15.2
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal	<b>694-862</b> 15.4 ±0.7	<b>880-960</b> 16 ±0.6	<b>694–960</b> 15.9 ±0.7	16.8 ±1	17.7 ±0.4	16.1 ±0.3	17.3 ±0.4	17.8 ±0.4	15.2 ±0.8
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal Tolerance, degrees Beamwidth, Vertical	694-862 15.4 ±0.7	<b>880-960</b> 16 ±0.6 ±4	<b>694-960</b> 15.9 ±0.7 ±7	16.8 ±1 ±7	17.7 ±0.4 ±6	16.1 ±0.3 ±12	17.3 ±0.4 ±8	17.8 ±0.4 ±5	15.2 ±0.8 ±22
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal Tolerance, degrees Beamwidth, Vertical Tolerance, degrees USLS, beampeak to 20°	694-862 15.4 ±0.7 ±8 ±0.7	<b>880-960</b> 16 ±0.6 ±4 ±0.4	<b>694-960</b> 15.9 ±0.7 ±7 ±1	16.8 ±1 ±7 ±0.7	17.7 ±0.4 ±6 ±0.4	16.1 ±0.3 ±12 ±0.3	17.3 ±0.4 ±8 ±0.6	17.8 ±0.4 ±5 ±0.3	15.2 ±0.8 ±22 ±0.6
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal Tolerance, degrees Beamwidth, Vertical Tolerance, degrees USLS, beampeak to 20° above beampeak, dB Front-to-Back Total	694-862 15.4 ±0.7 ±8 ±0.7	<b>880-960</b> 16 ±0.6 ±4 ±0.4 15	<b>694-960</b> 15.9 ±0.7 ±7 ±1 13	16.8 ±1 ±7 ±0.7	17.7 ±0.4 ±6 ±0.4	16.1 ±0.3 ±12 ±0.3	17.3 ±0.4 ±8 ±0.6	17.8 ±0.4 ±5 ±0.3	±0.8 ±22 ±0.6
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal Tolerance, degrees Beamwidth, Vertical Tolerance, degrees USLS, beampeak to 20° above beampeak, dB Front-to-Back Total Power at 180° ± 30°, dB	694-862 15.4 ±0.7 ±8 ±0.7 14 23	<b>880-960</b> 16 ±0.6 ±4 ±0.4 15 24 27	694-960 15.9 ±0.7 ±7 ±1 13 24	16.8 ±1 ±7 ±0.7 14 25	17.7 ±0.4 ±6 ±0.4 16	16.1 ±0.3 ±12 ±0.3 15	17.3 ±0.4 ±8 ±0.6 18	17.8 ±0.4 ±5 ±0.3 18	15.2 ±0.8 ±22 ±0.6 13
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal Tolerance, degrees Beamwidth, Vertical Tolerance, degrees USLS, beampeak to 20° above beampeak, dB Front-to-Back Total Power at 180° ± 30°, dB CPR at Boresight, dB	694-862 15.4 ±0.7 ±8 ±0.7 14 23	<b>880-960</b> 16 ±0.6 ±4 ±0.4 15 24 27	694-960 15.9 ±0.7 ±7 ±1 13 24	16.8 ±1 ±7 ±0.7 14 25	17.7 ±0.4 ±6 ±0.4 16	16.1 ±0.3 ±12 ±0.3 15	17.3 ±0.4 ±8 ±0.6 18	17.8 ±0.4 ±5 ±0.3 18	15.2 ±0.8 ±22 ±0.6 13
Frequency Band, MHz Gain by all Beam Tilts, average, dBi Gain by all Beam Tilts Tolerance, dB Beamwidth, Horizontal Tolerance, degrees Beamwidth, Vertical Tolerance, degrees USLS, beampeak to 20° above beampeak, dB Front-to-Back Total Power at 180° ± 30°, dB CPR at Boresight, dB	694-862 15.4 ±0.7 ±8 ±0.7 14 23	<b>880-960</b> 16 ±0.6 ±4 ±0.4 15 24 27	694-960 15.9 ±0.7 ±7 ±1 13 24	16.8 ±1 ±7 ±0.7 14 25	17.7 ±0.4 ±6 ±0.4 16	16.1 ±0.3 ±12 ±0.3 15	17.3 ±0.4 ±8 ±0.6 18	17.8 ±0.4 ±5 ±0.3 18	±0.8 ±22 ±0.6 13 22

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Beamwidth, Horizontal, degrees		65
Beamwidth, Vertical, degrees		6.2
Front-to-Back Total Power at 180° ± 30°, dB		25
USLS (First Lobe), dB		20
Electrical Specifications, Service	Beam	
Frequency Band, MHz		3300-3800
Steered 0° Gain, dBi		20.8
Steered 0° Beamwidth, Horizontal, degrees		24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB		30
Steered 0° Horizontal Sidelobe, dB		15
Steered 30° Gain, dBi		19.5
Steered 30° Beamwidth, Horizontal, degrees		28
Steered 30° Front-to- Back Total Power at 180° ± 30°, dB		27
Electrical Specifications, Soft Spl	it	
Frequency Band, MHz		3300-3800
Gain, dBi		19.5
Beamwidth, Horizontal, degrees		31
Front-to-Back Total Power at 180° ± 30°, dB		29
Horizontal Sidelobe, dB		17
Mechanical Specifications		
Wind Loading @ Velocity, frontal	651.0 N @ 150 km/h (146.4 lbf @ 150 km/h)	
Wind Loading @ Velocity, lateral	351.0 N @ 150 km/h (78.9 lbf @ 150 km/h)	
Wind Loading @ Velocity, maximum	1,028.0 N @ 150 km/h (231.1 lbf @ 150 km/h)	
Wind Loading @ Velocity, rear	421.0 N @ 150 km/h (94.6 lbf @ 150 km/h)	
Wind Speed, maximum	241 km/h (150 mph)	
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### Packaging and Weights

 Width, packed
 530 mm | 20.866 in

 Depth, packed
 356 mm | 14.016 in

 Length, packed
 2897 mm | 114.055 in

**Weight, gross** 80 kg | 176.37 lb

#### Regulatory Compliance/Certifications

Agency Classification

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



#### 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.

BSAMNT-M4 – Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round

members. Kit contains one scissor bracket set.

#### \* Footnotes

**Performance Note** Severe environmental conditions may degrade optimum performance



### 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.

Product Classification

**Product Type** Downtilt mounting kit

General Specifications

ApplicationOutdoorColorSilver

**Dimensions** 

Compatible Diameter, maximum115 mm | 4.528 inCompatible Diameter, minimum60 mm | 2.362 inWeight, net6.5 kg | 14.33 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

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ROHS Compliant UK-ROHS Compliant



CHINA-ROHS



### BSAMNT-M4



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

**Product Classification** 

**Product Type** Downtilt mounting kit

General Specifications

ApplicationOutdoorColorSilver

**Dimensions** 

Compatible Diameter, maximum115 mm | 4.528 inCompatible Diameter, minimum60 mm | 2.362 inWeight, net4.6 kg | 10.141 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Regulatory Compliance/Certifications

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