

20-port sector antenna, 4x 694-960, 4x 1427-2690, 4x 1695-2690 MHz, 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x RET.

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port
- Antenna shape optimized for wind load reduction
- M-LOC cluster connector for 3.3-3.8GHz, equipped with calibration port
- Includes seven Internal RET's
- Retractable tilt indicator rods

#### General Specifications

Antenna Type Sector- and beamforming

BandMultibandCalibration Connector InterfaceM-LOCCalibration Connector Quantity1

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 | M-LOC

**RF Connector Location** Bottom

RF Connector Quantity, high band 8
RF Connector Quantity, mid band 8
RF Connector Quantity, low band 4
RF Connector Quantity, total 20

#### 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 High band (1) | Low band (2) | Mid band (4)

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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

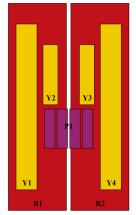
 Depth
 197 mm | 7.756 in

 Length
 2100 mm | 82.677 in

 Net Weight, antenna only
 38.2 kg | 84.216 lb

 TDD Column Spacing
 42 mm | 1.654 in

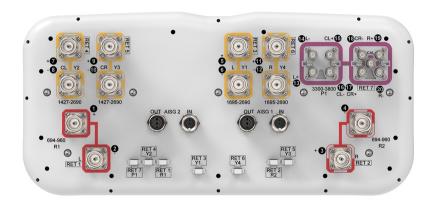
### Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxXY3
Y4	1695-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxY4
P1	3300-3800	13 - 20	7	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 – 960

 $\mathsf{MHz}$ 

Polarization ±45°

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

### **Electrical Specifications**

	R1,R2	R1,R2	R1,R2	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3
Frequency Band, MHz	698-806	790-896	890-960	1427-151	8 1695–199	0 1920-230	0 2300-250	0 2490-2690
RF Port	1,2,3,4	1,2,3,4	1,2,3,4	7,8,9,10	7,8,9,10	7,8,9,10	7,8,9,10	7,8,9,10
Gain at Mid Tilt, dBi	14	14.7	14.9	13.6	15	15.8	16.6	16.5
Beamwidth, Horizontal, degrees	71	62	58	67	62	62	59	59
Beamwidth, Vertical, degrees	10.5	9.3	8.5	9.8	7.9	7.1	6.4	6
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	17	18	15	12	16	19	22	22
Front-to-Back Ratio at 180°, dB	32	31	30	34	34	33	31	33
Isolation, Cross Polarization, dB	27	27	27	26	26	26	26	26

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Isolation, Inter-band, dB	27	27	27	26	26	26	26	26
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	-153	-153	-153
Input Power per Port at 50°C,	250	250	250	200	200	200	150	150

# Electrical Specifications, BASTA

Frequency Band, MHz	698-806	790-896	890-960	1427-151	8 1695-199	0 1920-230	0 2300-250	0 2490-2690
Gain by all Beam Tilts, average, dBi	13.9	14.7	14.8	13.5	14.9	15.7	16.4	16.3
Gain by all Beam Tilts Tolerance, dB	±0.8	±0.3	±0.5	±0.6	±1.1	±0.8	±0.4	±0.5
Beamwidth, Horizontal Tolerance, degrees	<u>±</u> 9	±5	±6	±8	±8	±7	±4	±4
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.7	±0.6	±0.8	±0.7	±0.6	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	16	15	13	12	15	16	15	14
Front-to-Back Total Power at 180° ± 30°, dB	21	22	21	23	28	28	26	26
CPR at Boresight, dB	22	22	23	13	18	18	23	17
CPR at Sector, dB	11	7	7	4	3	5	5	0

# **Electrical Specifications**

	Y1,Y4	Y1,Y4	Y1,Y4	Y1,Y4
Frequency Band, MHz	1695-199	0 1920–230	0 2300–250	0 2490-2690
RF Port	5,6,11,12	5,6,11,12	5,6,11,12	5,6,11,12
Gain at Mid Tilt, dBi	16.7	17.6	18.3	18.4
Beamwidth, Horizontal, degrees	70	67	64	64
Beamwidth, Vertical, degrees	5.3	4.9	4.4	4.2
Beam Tilt, degrees	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	18	18	18	18
Front-to-Back Ratio at 180°, dB	34	34	35	32
Isolation, Cross Polarization, dB	27	27	27	27
Isolation, Inter-band, dB	26	26	26	26
VSWR   Return loss, dB	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0

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PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153
Input Power per Port at 50°C,	200	200	150	150
maximum, watts				

# Electrical Specifications, BASTA

Frequency Band, MHz	1695-199	0 1920–230	0 2300-250	0 2490-2690
Gain by all Beam Tilts, average, dBi	16.6	17.5	18.2	18.2
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.7	±0.4	±0.4
Beamwidth, Horizontal Tolerance, degrees	±5	±6	±4	±3
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.4	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	16	17	17	16
Front-to-Back Total Power at 180° ± 30°, dB	27	26	27	26
CPR at Boresight, dB	18	20	22	20
CPR at Sector, dB	8	8	9	6

# **Electrical Specifications**

	P1	P1
Frequency Band, MHz	3300-3600	3600-3800
RF Port	13-20	13-20
Gain at Mid Tilt, dBi	15.1	15.6
Beamwidth, Horizontal, degrees	85	81
Beamwidth, Vertical, degrees	6.4	6
Beam Tilt, degrees	2-12	2-12
USLS (First Lobe), dB	17	15
Front-to-Back Ratio at 180°, dB	29	29
Coupling level, Amp, Antenna port to Cal port, dB	26	26
Coupling level, max Amp $\Delta$ , Antenna port to Cal port, dB	±2	±2
Coupler, max Amp $\Delta$ , Antenna port to Cal port, dB	0.9	0.9
Coupler, max Phase $\Delta$ ,	7	7

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Antenna	port to	Cal	port,
degrees			

acgrees		
Isolation, Cross Polarization, dB	25	25
Isolation, Inter-band, dB	25	25
Isolation, Co-polarization, dB	19	19
VSWR   Return loss, dB	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140
Input Power per Port at 50°C,	75	75

# Electrical Specifications, BASTA

Frequency Band, MHz	3300-3600	3600-3800
Gain by all Beam Tilts, average, dBi	15	15.3
Gain by all Beam Tilts Tolerance, dB	±0.7	±0.8
Beamwidth, Horizontal Tolerance, degrees	±21	±20
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4
USLS, beampeak to 20° above beampeak, dB	14	13
Front-to-Back Total Power at 180° ± 30°, dB	22	22
CPR at Boresight, dB	17	16
CPR at Sector, dB	9	7

# Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300-3600	3600-3800
Gain, dBi	18.2	18.5
Beamwidth, Horizontal at 3 dB, degrees	65	65
Beamwidth, Horizontal at 10 dB, degrees	111	102
Beamwidth, Vertical, degrees	6	6
Front-to-Back Total Power at 180° ± 30°, dB	25	26
USLS (First Lobe), dB	21	20

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### Electrical Specifications, Service Beam

Frequency Band, MHz	3300-3600	3600-3800
Steered 0° Gain, dBi	20.6	20.8
Steered 0° Beamwidth, Horizontal, degrees	25	22
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	28	29
Steered 0° Horizontal Sidelobe, dB	13	13
Steered 30° Gain, dBi	19.3	19.4
Steered 30° Beamwidth, Horizontal, degrees	30	28
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	26	28

# Electrical Specifications, Soft Split

Frequency Band, MHz	3300-360	0 3600-3800
Gain, dBi	19.4	19.7
Beamwidth, Horizontal, degrees	32	29
Front-to-Back Total Power at 180° ± 30°, dB	26	27
Horizontal Sidelobe, dB	14	15

# Mechanical Specifications

Wind Loading @ Velocity, frontal	494.0 N @ 150 km/h (111.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	266.0 N @ 150 km/h (59.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	780.0 N @ 150 km/h (175.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	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	530 mm   20.866 in
Depth, packed	349 mm   13.74 in
Length, packed	2272 mm   89.449 in
Weight, gross	53.2 kg   117.286 lb

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### 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-3 – 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



# BSAMNT-3



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, net6.2 kg | 13.669 lb

Material Specifications

Material Type Galvanized steel

### Packaging and Weights

Included Brackets | Hardware

Packaging quantity

**Weight, gross** 6.4 kg | 14.11 lb

### Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	$\label{thm:constraint} \mbox{Designed, manufactured and/or distributed under this quality management system}$
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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