

24-port sector antenna, 4x 694–960 and 4x 1427-2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 6x RET with MQ4 /MQ5 cluster connectors.

- Antenna includes 2x Single Column X-Pol Arrays for 694-960MHz and 2x Single Column X-Pol Arrays for 1427-2690MHz, suitable for 4x MIMO applications
- Also includes 1x 4-Column Array for 2300-2690 MHz and a separate 1x 4-Column Array for 3300-3800MHz. Column spacing optimized to support Soft Split Beamforming
- A calibration port is provided for each 4-Column Array. Six Internal RET's provide independent electrical tilt control for each array
- Antenna shape optimized for wind load reduction
- 2x MQ4 and 2x MQ5 cluster connectors (comprising 16 RF ports + 2 calibration ports in total) are provided for the beam-forming arrays

#### General Specifications

Antenna Type Sector and beamforming

**Band** Multiband

Calibration Connector Interface MQ5
Calibration Connector Quantity 2

Color Light Gray (RAL 7035)

**Grounding Type**RF connector inner conductor and body grounded to reflector and mounting

bracket

Performance Note Outdoor usage | Wind loading figures are validated by wind tunnel

measurements described in white paper WP-112534-EN

**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 12
RF Connector Quantity, low band 4

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** 1 female | 1 male

Input Voltage 10-30 Vdc

Internal RET High band (1) | Low band (2) | Mid band (3)

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

**Dimensions** 

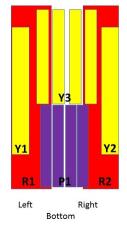
 Width
 498 mm | 19.606 in

 Depth
 197 mm | 7.756 in

 Length
 2100 mm | 82.677 in

 Net Weight, antenna only
 46.5 kg | 102.515 lb

# Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxxXY1
Y2	1427-2690	7-8	4	CPxxxxxxxxxxxxxY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxxXY3
P1	3300-3800	17-24	6	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 | 2300 – 2690 MHz | 3300 – 3800 MHz | 694 – 960

 $\mathsf{MHz}$ 

Polarization ±45°

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

# **Electrical Specifications**

Frequency Band, MHz	694-790	790-890	890-960	1427-151	8 1695-218	0 2300-269	0 2300-269	0 3300-3800
Gain, dBi	15.1	15.4	15.6	16	17.8	18.3	15.3	15.9
Beamwidth, Horizontal, degrees	71	65	63	77	70	59	94	90
Beamwidth, Vertical, degrees	10.4	9.4	8.4	7	5.5	4.4	6.3	6.6
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	15	17	17	19	16	17	15	15
Front-to-Back Ratio at 180°, dB	32	33	31	31	30	29	31	28
Coupling level, Amp, Antenna port to Cal port, dB							26	26
Coupling level, max Amp Δ, 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 Δ, Antenna port to Cal port, degrees							9	9



CPR at Boresight, dB	20	20	18	16	17	17	15	16
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25
Isolation, Inter-band, dB	28	28	28	25	25	25	25	25
Isolation, Co-polarization, dB							20	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
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-130	-130
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200	150	75

# Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2300-2690 3300-3800			
Gain, dBi	17.3	17.1		
Beamwidth, Horizontal, degrees	57	56		
Beamwidth, Vertical, degrees	6.2	6.5		
USLS (First Lobe), dB	14	16		

# Electrical Specifications, Service Beam

Frequency Band, MHz	2300-269	90 3300-3800	
Steered 0° Gain, dBi	20.6	20.9	
Steered 0° Beamwidth, Horizontal, degrees	26	24	
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	33	30	
Steered 0° Horizontal Sidelobe, dB	11	13	
Steered 0° USLS (First Lobe), dB	16	17	
Steered 30° Gain, dBi	19.8	19.7	
Steered 30° Beamwidth, Horizontal, degrees	28	28	
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	30	28	

# Electrical Specifications, Soft Split

Frequency Band, MHz	2300-269	0 3300-3800
Gain, dBi	19.5	19.6
Beamwidth, Horizontal,	32	32

Page 4 of 6



degrees		
Front-to-Back Total Power at 180° ± 30°, dB	33	28
Horizontal Sidelobe, dB	18	16
USLS (First Lobe), dB	17	17

# Mechanical Specifications

Effective Projective Area (EPA), frontal	0.68 m <sup>2</sup>	7.319 ft <sup>2</sup>
Effective Projective Area (EPA), lateral	0.21 m <sup>2</sup>	2.26 ft <sup>2</sup>

 Wind Loading @ Velocity, frontal
 728.0 N @ 150 km/h (163.7 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 223.0 N @ 150 km/h (50.1 lbf @ 150 km/h)

 Wind Loading @ Velocity, maximum
 873.0 N @ 150 km/h (196.3 lbf @ 150 km/h)

 Wind Loading @ Velocity, rear
 501.0 N @ 150 km/h (112.6 lbf @ 150 km/h)

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

### Packaging and Weights

Width, packed	565 mm   22.244 in
Depth, packed	309 mm   12.165 in
Length, packed	2287 mm   90.039 in
Weight, gross	60.8 kg   134.041 lb

## Regulatory Compliance/Certifications

#### Agency Classification

ISO 9001:2015 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



# 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 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.andrew.com/ProductCompliance ROHS Compliant UK-ROHS Compliant



Page 6 of 6