

28-port sector antenna, 4x 694–960, 4x 1427-2690 and 4x 1695-2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 8x RET

- Includes two planar arrays with separate calibration ports for each array for use in beamforming systems covering all TDD bands
- Optimized for software defined split six sector applications
- Eight internal RETs control the antenna arrays
- 4 M-LOC cluster connectors for the two planar beamforming arrays

General Specifications

Antenna Type Sector

Band Multiband

Calibration Connector Interface M-LOC

Calibration Connector Quantity

Color Light Gray (RAL 7035)

Grounding TypeRF connector inner conductor and body grounded to reflector and

mounting bracket

Performance Note Outdoor usage

Radome MaterialFiberglass, UV resistantRadiator MaterialLow loss circuit board

Reflector Material Aluminum

RF Connector Interface 4.3-10 Female | M-LOC

RF Connector Location

RF Connector Quantity, high band

24

RF Connector Quantity, low band

4

RF Connector Quantity, total

28

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 (6) | Low band (2)

Page 1 of 6

Power Consumption, idle state, maximum 1 W

Power Consumption, normal conditions, maximum 8 W

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

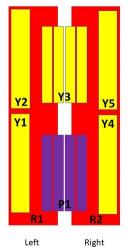
 Width
 498 mm | 19.606 in

 Depth
 197 mm | 7.756 in

 Length
 2688 mm | 105.827 in

Net Weight, antenna only 59.4 kg | 130.954 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	CPxxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxXY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxXY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxXY3
Y4	1427-2690	17-18	6	CPxxxxxxxxxxxxxY4
Y5	1695-2690	19-20	7	CPxxxxxxxxxxxxxY5
P1	3300-3800	21-28	8	CPxxxxxxxxxxxxxP1

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

Port Configuration

Bottom





Electrical Specifications

Impedance 50 ohm

Operating Frequency Band 1427 – 2690 MHz | 1695 – 2690 MHz | 2300 – 2690 MHz | 3300

– 3800 MHz | 694 – 960 MHz

Polarization ±45°

Total Input Power, maximum 1,900 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y2,Y4,Y	5Y1,Y2,Y4,Y	5Y1,Y4	Y3	P1
Frequency Band, MHz	694-790	790-890	890-960	1695-2180	0 2300-2690	1427-1518	3 2300-269	0 3300-3800
RF Port	1-4	1-4	1-4	5-8,17-20	5-8,17-20	5,6,17,18	9-16	21-28
Gain, dBi	15.7	16	16.1	16.8	17.8	14.9	16.3	15.9
Beamwidth, Horizontal, degrees	72	66	63	70	60	79	90	89
Beamwidth, Vertical, degrees	8.8	7.8	7.2	7.1	5.5	9.2	4.8	6.5
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	17	19	23	21	23	25	19	16
Front-to-Back Ratio at 180°, dB	34	30	29	32	31	35	31	29
Coupling level, Amp, Antenna							26	26

Page 3 of 6



degrees

Beamwidth, Vertical, degrees

port to Cal port, dB								
Coupling level, max Amp Δ, Antenna port to Cal port, dB							±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB							0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees							7	9
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25
Isolation, Inter-band, dB	28	28	28	25	25	25	28	28
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	-150	-145
Input Power per Port at 50°C, maximum, watts	300	300	300	250	200	250	150	75
Electrical Specificati	ons, BA	STA						
Frequency Band, MHz	694-790	790-890	890-960	1695-218	0 2300-269	0 1427-15	18 2300-26	90 3300-3800
Gain by all Beam Tilts, average, dBi	15.4	15.7	15.9	16.1	17.3	14.6	15.7	15.2
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.3	±0.9	±0.5	±0.5	±0.7	±1
Beamwidth, Horizontal Tolerance, degrees	±6	±3	±4	±8	±6	±7	±12	±22
Beamwidth, Vertical Tolerance, degrees	±5.7	±0.6	±0.3	±0.9	±0.5	±0.4	±0.3	±0.6
USLS, beampeak to 20° above beampeak, dB	15	14	15	16	15	15	16	13
Front-to-Back Total Power at 180° ± 30°, dB	22	21	21	25	25	26	23	21
CPR at Boresight, dB	18	19	19	19	19	18	15	16
CPR at Sector, dB	11	7	10	5	3	6	9	7
Electrical Specificati	ons, Bro	padcast	65°					
Frequency Band, MHz							2300-26	90 3300-3800
Gain, dBi							17.4	16.4
Beamwidth, Horizontal,							59	60
d								

Page 4 of 6

6.5

4.8

Front-to-Back Total Power at 180° ± 30°, dB	28	24
USLS (First Lobe), dB	18	16

Electrical Specifications, Service Beam

Frequency Band, MHz	2300-26	90 3300–3800
Steered 0° Gain, dBi	21.2	20.3
Steered 0° Beamwidth, Horizontal, degrees	25	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	32	28
Steered 0° Horizontal Sidelobe, dB	13	12
Steered 30° Gain, dBi	20.4	19.7
Steered 30° Beamwidth, Horizontal, degrees	29	27
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	31	27

Electrical Specifications, Soft Split

Frequency Band, MHz	2300-269	90 3300-3800
Gain, dBi	20.2	19.5
Beamwidth, Horizontal, degrees	32	30
Front-to-Back Total Power at 180° ± 30°, dB	33	29
Horizontal Sidelobe, dB	21	16

Mechanical Specifications

Effective Projective Area (EPA), frontal	1 m ² 10.764 ft ²
Effective Projective Area (EPA), lateral	0.35 m ² 3.767 ft ²
Wind Loading @ Velocity, frontal	1,070.0 N @ 150 km/h (240.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	375.0 N @ 150 km/h (84.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,385.0 N @ 150 km/h (311.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	880.0 N @ 150 km/h (197.8 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
 2935 mm | 115.551 in

 Weight, gross
 80.4 kg | 177.251 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/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.

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

