

24-port sector antenna, 4x 694–960, 4x 1427–2690, 4x 1695-2180, 4x 2490-2690 MHz 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x RET

- 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
- Includes 2x Single Column X-Pol Diplexed Arrays providing 4-Ports x 1695-2180MHz and 4 Ports x 2490-2690MHz, suitable for 4x MIMO applications
- Includes 1x 4-Column Array for 3300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- Includes seven Internal RET's. All 1695-2180MHz (B1,B2) ports share common RET. All 2490-2690MHz (Y1,Y4) ports share common RET

General Specifications

Antenna Type Sector

Band Multiband

Calibration Connector Interface 4.3-10 Female

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 | Wind loading figures are validated by wind tunnel

measurements described in white paper WP-112534-EN

Radome Material Fiberglass, UV resistant

Radiator Material Low loss circuit board

Reflector Material Aluminum

RF Connector Interface 4.3-10 Female

RF Connector Location Bottom

RF Connector Quantity, high band 20

RF Connector Quantity, low band 4

RF Connector Quantity, total 24

Remote Electrical Tilt (RET) Information

RET Hardware CommRET v1 | CommRET v2

RET Interface 8-pin DIN Female | 8-pin DIN Male

COMMSCOPE®

RET Interface, quantity 1 female | 1 male

Input Voltage 10-30 Vdc

Internal Bias Tee Cal Port

Internal RET High band (5) | Low band (2)

Power Consumption, idle state, maximum 2 W Power Consumption, normal conditions, maximum 9 W

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

 Width
 498 mm | 19.606 in

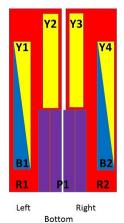
 Depth
 197 mm | 7.756 in

 Length
 2100 mm | 82.677 in

 Net Weight, without mounting kit
 47 kg | 103.617 lb

 TDD Column Spacing
 42 mm | 1.654 in

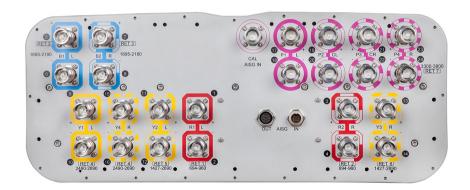
Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxxR2
B1	1695-2180	5-6	2	CD::::::::::::::::::::::::::::::::::::
B2	1695-2180	7-8	3	CPxxxxxxxxxxxxxxB1
Y1	2490-2690	9-10	4	CPxxxxxxxxxxxxxY1
Y4	2490-2690	15-16	4	CPXXXXXXXXXXXXXX
Y2	1427-2690	11-12	5	CPxxxxxxxxxxxxxxY2
Y3	1427-2690	13-14	6	CPxxxxxxxxxxxxxxXY3
P1	3300-3800	17-24	7	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 | 3300 – 3800 MHz | 694 – 960 MHz

Polarization ±45°

Total Input Power, maximum 900 W @ 50 °C

Electrical Specifications

·	R1-R2	R1-R2	B1-B2	Y1&Y4	Y2-Y3	Y2-Y3	Y2-Y3	P1
	KI-KZ	KI-KZ	DI-DZ	11014	12-13	12-13	12-13	PI
Frequency Band, MHz	694-790	790-960	1695-218	0 2490-269	0 1427-151	8 1695–218	0 2300-269	0 3300-3800
Gain, dBi	14.7	15.3	17.9	18.7	15	17	17.7	16
Beamwidth, Horizontal, degrees	71	63	66	59	66	62	58	89
Beamwidth, Vertical, degrees	10.5	8.8	5.2	4.1	9.3	7.3	5.6	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	15	16	18	25	18	18	20	15
Front-to-Back Ratio at 180°, dB	32	30	33	30	33	35	31	31
Coupling level, Amp, Antenna port to Cal port, dB								26
Coupling level, max Amp Δ ,								±2

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Antenna port to Cal port, dB								
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	28	28	28	28	26	27	26	25
Isolation, Inter-band, dB	28	28	28	28	27	27	27	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	250	150	250	250	200	50
Electrical Specificati	ons, BA	ASTA						

	404 700		4405 040					
Frequency Band, MHz	694-790	790-960	1695-218	0 2490-269	0 142/-151	8 1695-218	0 2300-269	0 3300-3800
Gain by all Beam Tilts, average, dBi	14.4	15	17.3	18.3	14.7	16.3	17.2	15.3
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.9	±0.5	±0.4	±0.9	±0.8	±0.8
Gain by Beam Tilt, average, dBi	2° 14.4 7° 14.5 12° 14.3	2° 15.0 7° 15.1 12° 14.8	2° 17.2 7° 17.4 12° 17.3	2° 18.1 7° 18.4 12° 18.1	2° 14.5 7° 14.7 12° 14.6	2° 16.0 7° 16.4 12° 16.3	2° 16.6 7° 17.4 12° 17.3	2° 15.0 7° 15.4 12° 15.3
Beamwidth, Horizontal Tolerance, degrees	±6.5	±4.7	±6.7	±4.7	±4.8	±6.4	±5.6	±20
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.8	±0.5	±0.2	±0.7	±0.8	±0.5	±0.6
USLS, beampeak to 20° above beampeak, dB	15	16	16	16	15	17	16	15
Front-to-Back Total Power at 180° ± 30°, dB	21	21	26	23	22	28	26	23
CPR at Boresight, dB	21	19	20	19	19	19	17	17
CPR at Sector, dB	15	10	7	6	8	8	3	9

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300-3800
Gain, dBi	16.7
Beamwidth, Horizontal, degrees	58
Beamwidth, Vertical, degrees	6.6
Front-to-Back Total Power at	26

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180° ± 30°, dB		
USLS (First Lobe), dB		16
Electrical Specifications, Service	e 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		13
Steered 30° Gain, dBi		19.6
Steered 30° Beamwidth, Horizontal, degrees		29
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB		28
Steered 30° Horizontal Sidelobe, dB		9
Electrical Specifications, Soft Sp	olit	
Frequency Band, MHz		3300-3800
Gain, dBi		19.8
Beamwidth, Horizontal, degrees		31
Front-to-Back Total Power at 180° ± 30°, dB		29
Mechanical Specifications		
Mechanical Tilt Range	0°-12°	
Wind Loading @ Velocity, frontal	803.0 N @ 150 km/h (180.5 lbf @ 150 km/h)	
Wind Loading @ Velocity, lateral	275.0 N @ 150 km/h (61.8 lbf @ 150 km/h)	
Wind Loading @ Velocity, maximum	1,040.0 N @ 150 km/h (233.8 lbf @ 150 km/h)	
Wind Loading @ Velocity, rear	661.0 N @ 150 km/h (148.6 lbf @ 150 km/h)	
Wind Speed, maximum	288 km/h (179 mph)	
Packaging and Weights		
Width, packed	565 mm 22.244 in	

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 Depth, packed
 368 mm | 14.488 in

 Length, packed
 2279 mm | 89.724 in

 Weight, gross
 60.8 kg | 134.041 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

