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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	1
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
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, mid band	0
RF Connector Quantity, low band	4
RF Connector Quantity, total	24

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v1 | CommRET v2

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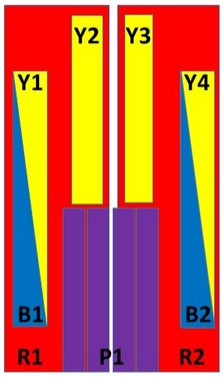
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Cal Port
Internal RET	High band (5) | Low band (2)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	9 W
Protocol	3GPP/AISG 2.0 (Single 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	CPxxxxxxxxxxxxxxR2
B1	1695-2180	5-6	3	CPxxxxxxxxxxxxxxB1
B2	1695-2180	7-8		
Y1	2490-2690	9-10	4	CPxxxxxxxxxxxxxxY1
Y4	2490-2690	15-16		
Y2	1427-2690	11-12	5	CPxxxxxxxxxxxxxxY2
Y3	1427-2690	13-14	6	CPxxxxxxxxxxxxxxY3
P1	3300-3800	17-24	7	CPxxxxxxxxxxxxxxP1

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

Port Configuration

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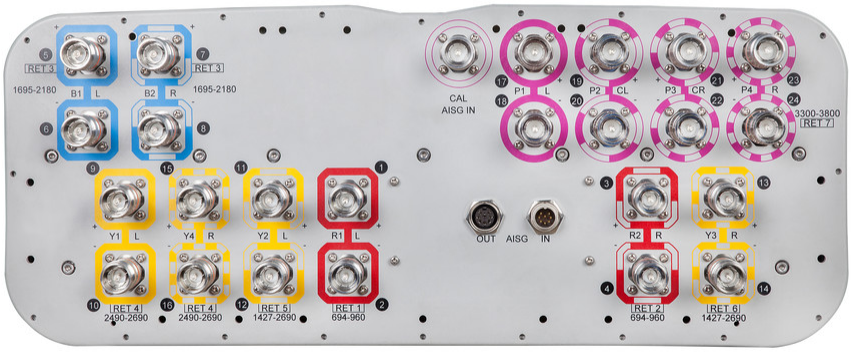

Electrical Specifications

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
Frequency Band, MHz	**694–790**	**790–960**	**1695–2180**	**2490–2690**	**1427–1518**	**1695–2180**	**2300–2690**	**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

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 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 180° ± 30°, dB	26
USLS (First Lobe), dB	16

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	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

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Electrical Specifications, Soft Split

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
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