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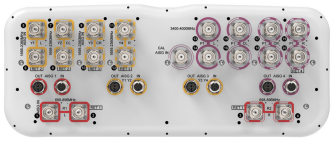

20 Port Sector Antenna & Beamforming , 4x698-896 MHz, 8x1695-2360 MHz, 65° HPBW and 8x3400-3550/3700-4000 MHz Beamformer, 4XRET

- Multi-band FDD antenna featuring C-Band 8T8R functionality
- Includes a separate RET for C-band array
- Feature the same dimensions as existing 8 and 12-port FDD capable antennas
- New endcap designs provide improved wind loading performance

General Specifications

Antenna Type	Sector- and beamforming
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
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	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	4 female | 4 male
Input Voltage	10–30 Vdc

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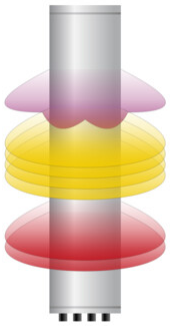
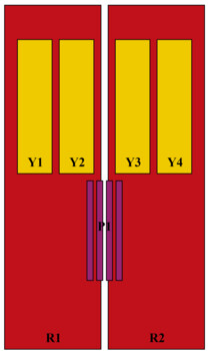
Internal Bias Tee	Cal Port | Port 1 | Port 5 | Port 9
Internal RET	High band (1) | Low band (1) | Mid band (2)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2438 mm | 95.984 in
Net Weight, antenna only	53 kg | 116.845 lb

Array Layout





Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG2	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	7 - 8			
Y3	1695-2360	9 - 10	3	AISG3	CPxxxxxxxxxxxxxxY3
Y4	1695-2360	11 - 12			
P1	3400-4000	13 - 20	4	AISG4	CPxxxxxxxxxxxxxxP1

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

Port Configuration

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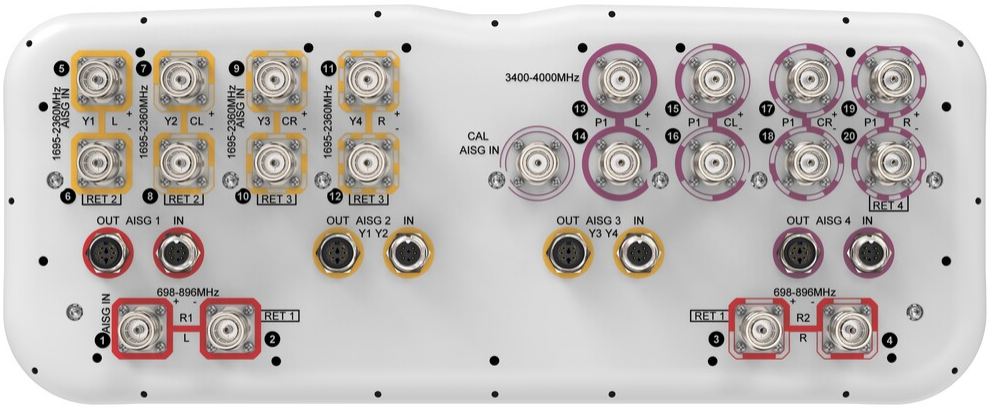

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 3400 – 4000 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,500 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**	**3400–3550**	**3700–4000**
Gain, dBi	15.6	16	17	17.5	18.1	18.6	15.6	17.1
Beamwidth, Horizontal, degrees	71	64	71	69	63	56	102	79
Beamwidth, Vertical, degrees	9.5	8.3	5.9	5.5	5.2	4.6	6.3	5.7
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	15	15	17	17	17	17	16	16
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 Δ, Antenna port to Cal port, dB							0.6	0.6
Coupler, max Phase Δ, Antenna port to Cal port, degrees							5	5
Isolation, Cross Polarization,	25	25	25	25	25	25	25	25

dB								
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25
Isolation, Co-polarization, dB							19	19
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	-145	-145
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200	75	75

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**	**3400–3550**	**3700–4000**
Gain by all Beam Tilts, average, dBi	15.2	15.8	16.5	17.1	17.7	18.3	15.1	16.4
Gain by all Beam Tilts Tolerance, dB	±1.6	±1.6	±1.6	±1.6	±1.6	±1.6	±1.6	±1.6
Front-to-Back Total Power at 180° ± 30°, dB	23	23	27	27	28	27	23	24
CPR at Boresight, dB	21	23	20	22	23	22	16	15
CPR at Sector, dB	14	9	12	12	9	7	5	7

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**3400–3550**	**3700–4000**
Gain, dBi	17.8	18.9
Beamwidth, Horizontal, degrees	47.9	42
Beamwidth, Vertical, degrees	6.3	5.7
Beamwidth, Vertical Tolerance, degrees	±0.2	±0.3
Front-to-Back Total Power at 180° ± 30°, dB	26.4	26.5
USLS (First Lobe), dB	18	17

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	**3400–3550**	**3700–4000**
Gain, dBi	20.6	21.7

Electrical Specifications, Service Beam

Frequency Band, MHz	**3400–3550**	**3700–4000**
Steered 0° Gain, dBi	20.5	21.7
Steered 0° Beamwidth,	26	24

Horizontal, degrees		
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	29	30
Steered 30° Gain, dBi	19.2	20.3
Steered 30° Beamwidth, Horizontal, degrees	34	29
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	29	28

Electrical Specifications, Soft Split

Frequency Band, MHz	**3400–3550**	**3700–4000**
Gain, dBi	19.2	20.3
Beamwidth, Horizontal, degrees	38	30
Horizontal Sidelobe, dB	16	15
USLS (First Lobe), dB	19	18

Mechanical Specifications

Wind Loading @ Velocity, frontal	865.0 N @ 150 km/h (194.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	268.0 N @ 150 km/h (60.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,037.0 N @ 150 km/h (233.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	595.0 N @ 150 km/h (133.8 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	2685 mm | 105.709 in
Weight, gross	72.9 kg | 160.717 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

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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.
BSAMNT-M	–	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