

RRZZVVT4S4-65BR8V4



- 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
- 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
 - Includes eight Internal RET's
 - Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
 - New end cap shape for additional 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
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	16
RF Connector Quantity, mid band	8
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

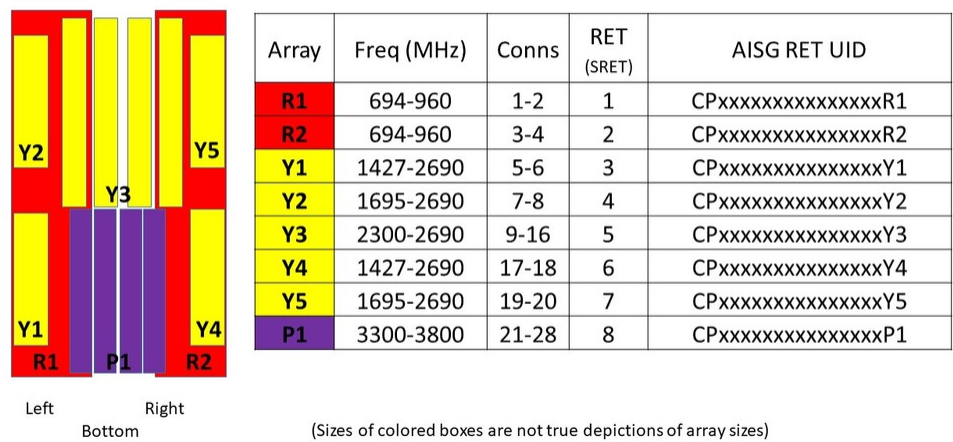
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Input Voltage	10–30 Vdc
Internal RET	High band (2) Low band (2) Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	2180 mm 85.827 in
Net Weight, without mounting kit	48 kg 105.822 lb

Array Layout



Port Configuration

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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

Frequency Band, MHz	694–790	790–890	890–960	1427–1518	1695–2180	2300–2690	1695–2180	2300–2690	2300–2690	3300–3800
Gain, dBi	15.1	15.5	15.7	14.7	16.3	17.2	15.7	16.8	15.2	16
Beamwidth, Horizontal, degrees	70	63	61	82	68	63	73	58	91	90
Beamwidth, Vertical, degrees	10.3	9.4	8.6	10.1	7.9	5.9	8.9	7	5.6	6.1
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	17	18	20	15	16	17	16	18	17	17
Front-to-Back Ratio at 180°, dB	31	29	29	31	29	33	31	30	31	30
Coupling level, Amp, Antenna port to Cal port, dB								26		26

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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	7
CPR at Boresight, dB	20	20	21	18	18	14	17	19	16	17
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25	25	25
Isolation, Inter- band, dB	28	28	28	25	25	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	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-150	-130	-130
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200	250	200	150	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2300–26903300–3800									
Gain, dBi									17.6	18
Beamwidth, Horizontal, degrees									65	65
Beamwidth, Vertical, degrees									5.7	6.3
Front-to-Back Total Power at 180° ± 30°, dB									27	27
USLS (First Lobe), dB									18	21

Electrical Specifications, Service Beam

Frequency Band, MHz	2300–26903300–3800									
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Steered 0° Gain, dBi	20.3	20.8
Steered 0° Beamwidth, Horizontal, degrees	25	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	31	30
Steered 0° Horizontal Sidelobe, dB	14	13
Steered 30° Gain, dBi	19.3	20.1
Steered 30° Beamwidth, Horizontal, degrees	29	27
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	28	28

Electrical Specifications, Soft Split

Frequency Band, MHz	2300–2690 3300–3800	
Gain, dBi	19.2	20
Beamwidth, Horizontal, degrees	33	31
Front-to-Back Total Power at 180° ± 30°, dB	30	28
Horizontal Sidelobe, dB	17	17

Mechanical Specifications

Wind Loading @ Velocity, frontal	760.0 N @ 150 km/h (170.9 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	233.0 N @ 150 km/h (52.4 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	911.0 N @ 150 km/h (204.8 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	523.0 N @ 150 km/h (117.6 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm 22.244 in
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Depth, packed	368 mm 14.488 in
Length, packed	2359 mm 92.874 in
Weight, gross	61.9 kg 136.466 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.
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* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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