

# RRYYHHTTT4S4-65BR8



32-port sector antenna, 4x 694–960, 4x 1427-1518, 4x 1695-2180 & 4x 2490-2690 MHz 65° HPBW; 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 8x RET

- Includes 2x Single Column X-Pol Arrays for 694-960MHz, suitable for 4x MIMO applications
- Includes 2x Single Column X-Pol Tri-plexed Arrays providing 4-Ports x 1427-1518MHz, 4-Ports x 1695-2180MHz and 4-Ports x 2490-2690MHz, suitable for 4x MIMO applications
- Includes 1x 4-Column X-Pol Array for 2300–2690 MHz and a separate 1x 4-Column X-Pol Array for 3300-3800MHz including a calibration port for each Array. Column spacing optimized to support Soft Split Beam-forming
- 8 Internal RET's are provided. All 1427-1518MHz (G1, G2) ports share a common RET. All 2490-2690MHz (Y1, Y2) ports share a common RET
- 4x M-LOC cluster connectors (comprising 16 RF ports + 2 calibration ports in total) are provided for the beam-forming arrays

## General Specifications

Antenna Type	Sector
Band	Multiband
Calibration Connector Interface	M-LOC
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
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female   M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	28
RF Connector Quantity, mid band	0
RF Connector Quantity, low band	4
RF Connector Quantity, total	32

## Remote Electrical Tilt (RET) Information

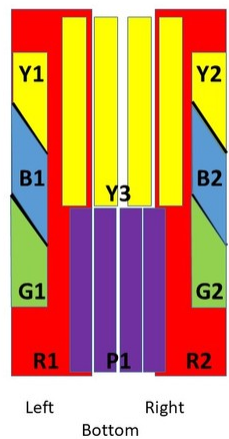
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RET Hardware	CommRET v2
RET Interface	8-pin DIN Female   8-pin DIN Male
RET Interface, quantity	2 female   2 male
Input Voltage	10–30 Vdc
Internal RET	High band (6)   Low band (2)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal 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	2100 mm   82.677 in
Net Weight, without mounting kit	52 kg   114.64 lb

## Array Layout

	Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
	R1	694-960	1-2	1	CPxxxxxxxxxxxxR1
	R2	694-960	3-4	2	CPxxxxxxxxxxxxR2
	G1	1427–1518	5-6	3	CPxxxxxxxxxxxxG1
	G2	1427–1518	7-8		CPxxxxxxxxxxxxG2
	B1	1695–2180	9-10	4	CPxxxxxxxxxxxxB1
	B2	1695–2180	11-12	5	CPxxxxxxxxxxxxB2
	Y1	2490-2690	13-14	6	CPxxxxxxxxxxxxY1
	Y2	2490-2690	15-16		CPxxxxxxxxxxxxY2
	Y3	2300-2690	17-24	7	CPxxxxxxxxxxxxY3
	P1	3300-3800	25-32	8	CPxxxxxxxxxxxxP1

(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 – 1518 MHz   1695 – 2180 MHz   2300 – 2690 MHz   2490 – 2690 MHz   3300 – 3800 MHz   694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

## Electrical Specifications

	R1-R2	R1-R2	R1-R2	G1-G2	B1-B2	Y1-Y2	Y3	P1
Frequency Band, MHz	694–790	790–890	890–960	1427–1518	1695–2180	2490–2690	2300–2690	3300–3800
Gain, dBi	15	15.2	15.5	15.4	16.9	17.7	14.9	16.1
Beamwidth, Horizontal, degrees	73	66	65	78	70	56	92	91
Beamwidth, Vertical, degrees	10.4	9.3	8.4	6.9	5.2	4.2	6.4	6.4
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	15	17	18	15	17	24	16	17
Front-to-Back Ratio at 180°, dB	33	33	31	29	31	32	32	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							9	9
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25
Isolation, Inter-band, dB	28	28	28	25	25	25	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	-145	-145
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200	150	75

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	<b>2300–2690 3300–3800</b>	
Gain, dBi	16.4	16.9
Beamwidth, Horizontal, degrees	60	61
Beamwidth, Vertical, degrees	6.4	6.5
USLS (First Lobe), dB	17	19

## Electrical Specifications, Service Beam

Frequency Band, MHz	<b>2300–2690 3300–3800</b>	
Steered 0° Gain, dBi	20	20.9
Steered 0° Beamwidth, Horizontal, degrees	26	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	33	32
Steered 0° Horizontal Sidelobe, dB	12	13
Steered 30° Gain, dBi	19.1	19.9
Steered 30° Beamwidth, Horizontal, degrees	28	27

## Electrical Specifications, Soft Split

Frequency Band, MHz	<b>2300–2690 3300–3800</b>	
Gain, dBi	19.5	19.6
Beamwidth, Horizontal,	32	32

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degrees		
Front-to-Back Total Power at 180° ± 30°, dB	33	29
Horizontal Sidelobe, dB	19	15

## 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	241 km/h (150 mph)

## Packaging and Weights

Width, packed	565 mm   22.244 in
Depth, packed	309 mm   12.165 in
Length, packed	2287 mm   90.039 in
Weight, gross	66.5 kg   146.607 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 <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
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.
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## \* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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