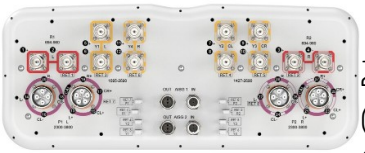
RRZZVVQ4Q4-65BR8V4



28-port sector antenna,4 x 694-960 MHz (R1,R2), 4 x 1695-2690 MHz (Y1,Y4) and 4 x 1427-2690 MHz (Y2,Y3) , 65° HPBW, 16 x 2300-3800 MHz (P1,P2), 90° HPBW, 8 x RET

- Q4 array uses MQ4/5 cluster connectors
- New aerodynamic endcaps for wind load optimization
- Eight internal RETs control the antenna arrays
- Two broadband beamforming arrays for 2300-3800 MHz, each with a calibration port

General Specifications

Antenna Type	Sector and beamforming
Band	Multiband
Calibration Connector Interface	MQ5
Calibration Connector Quantity	2
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
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

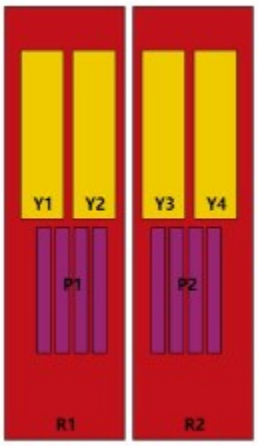
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal RET	High band (2) | Low band (2) | Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

RRZZVVQ4Q4-65BR8V4

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2198 mm | 86.535 in
Net Weight, without mounting kit	44.4 kg | 97.885 lb

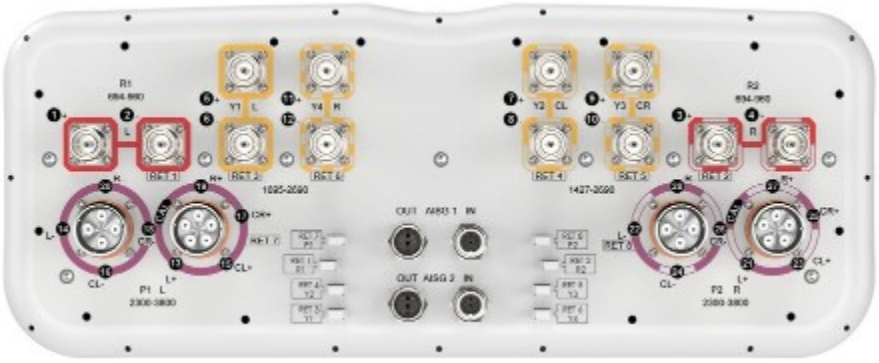
Array Layout



Array ID	Frequency (MHz)	RF Connector	HPBW	RET (SRET)	AISG RET UID
R1	694-960	1 - 2	65°	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	65°	2	CPxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	65°	3	CPxxxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	65°	4	CPxxxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	65°	5	CPxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12	65°	6	CPxxxxxxxxxxxxxxY4
P1	2300-3800	13 - 20	90°	7	CPxxxxxxxxxxxxxxP1
P2	2300-3800	21 - 28	90°	8	CPxxxxxxxxxxxxxxP2

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

Port Configuration



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz | 1695 – 2690 MHz | 2300 – 3800 MHz | 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	1,600 W @ 50 °C

RRZZVVQ4Q4-65BR8V4

Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y4	Y1,Y4	Y1,Y4	Y1,Y4
Frequency Band, MHz	**698–806**	**790–894**	**890–960**	**1695–1995**	**1920–2300**	**2300–2500**	**2490–2690**
RF Port	1,2,3,4	1,2,3,4	1,2,3,4	5,6,11,12	5,6,11,12	5,6,11,12	5,6,11,12
Gain at Mid Tilt, dBi	15.3	15.5	15.5	16	16.8	17.4	17.8
Beamwidth, Horizontal, degrees	62	60	64	71	65	60	59
Beamwidth, Vertical, degrees	10.2	9.1	8.6	8.7	7.8	6.7	6.2
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	16	18	19	19	18	18
Front-to-Back Ratio at 180°, dB	29	29	28	32	28	27	31
CPR at Boresight, dB	18	18	19	22	22	22	21
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25
Isolation, Inter-band, dB	28	28	28	25	25	25	25
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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200	200

Electrical Specifications

	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	P1,P2	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	**1427–1518**	**1695–1995**	**1920–2300**	**2300–2500**	**2490–2690**	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
RF Port	7,8,9,10	7,8,9,10	7,8,9,10	7,8,9,10	7,8,9,10	13-28	13-28	13-28	13-28
Gain at Mid Tilt, dBi	14.6	16.1	16.8	17.7	18	15	15.5	17	17.1
Beamwidth, Horizontal, degrees	80	66	61	59	55	91	92	73	63
Beamwidth, Vertical, degrees	10.6	8.7	7.7	6.7	6.2	6.5	6.2	5	4.7
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	15	16	15	17	16	13	15	16	19
Front-to-Back Ratio at 180°, dB	35	34	33	33	34	28	31	31	30
Coupling level, Amp,						-26	-26	-26	-26

Antenna port to Cal port, dB									
Coupling level, max Amp Δ, Antenna port to Cal port, dB						±2	±2	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB						0.9	0.9	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees						7	7	7	7
CPR at Boresight, dB	19	21	21	23	22	15	17	20	16
Isolation, Cross Polarization, dB	25	25	25	25	25	23	23	23	23
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25	25
Isolation, Co-polarization, dB						18	18	18	18
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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-140	-140	-140	-140
Input Power per Port at 50°C, maximum, watts	250	250	250	200	200	75	75	75	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Gain, dBi	18.1	18.3	18.2	18.4
Beamwidth, Horizontal at 3 dB, degrees	65	65	65	65
Beamwidth, Horizontal at 10 dB, degrees	115	109	114	112
Beamwidth, Vertical, degrees	6.6	6.2	5	4.7
Front-to-Back Total Power at 180° ± 30°, dB	24	25	25	23
USLS (First Lobe), dB	16	17	17	18

Electrical Specifications, Service Beam

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Steered 0° Gain, dBi	20.7	21	22.6	22.7
Steered 0° Beamwidth, Horizontal, degrees	27	25	19	18

Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	29	29	31	30
Steered 0° Horizontal Sidelobe, dB	14	12	11	11
Steered 30° Gain, dBi	19.8	20.4	20.9	20.8
Steered 30° Beamwidth, Horizontal, degrees	29	27	21	19
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	26	28	26	24

Electrical Specifications, Soft Split

Frequency Band, MHz	**2300–2500**	**2490–2690**
Gain, dBi	19.7	20.2
Beamwidth, Horizontal, degrees	33	31
Front-to-Back Total Power at 180° ± 30°, dB	28	30
Horizontal Sidelobe, dB	19	17

Mechanical Specifications

BASTA Version, mechanical	BASTA v12
Wind Loading @ Velocity, frontal	747.0 N @ 150 km/h (167.9 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	195.0 N @ 150 km/h (43.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	993.0 N @ 150 km/h (223.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	514.0 N @ 150 km/h (115.6 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	318 mm | 12.52 in
Length, packed	2319 mm | 91.299 in
Weight, gross	58.6 kg | 129.191 lb

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

UK-ROHS	Compliant

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