RRZZV4-6590D-R5V4

16-port sector antenna, 4x 694-960, 4x 1427-2690 MHz, 65° HPBW and 8x 1695-2690 MHz, 90° HPBW, 5x RET

- Antenna FDD Beamforming in 1695-2690 MHz
- Soft Spit Feature available
- Antenna support 4T4R configuration by using external power divider
- V4 array uses MQ4/5 cluster connectors

General Specifications

Antenna Type	Sector- and beamforming
Band	Multiband
Calibration Connector Interface	MQ5
Calibration Connector Quantity	1
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, mid band	12
RF Connector Quantity, low band	4
RF Connector Quantity, total	16

Remote Electrical Tilt (RET) Information

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

Dimensions

Width	498 mm | 19.606 in

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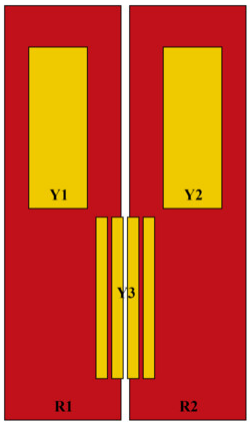
Depth	197 mm | 7.756 in
Length	2688 mm | 105.827 in
Net Weight, antenna only	45.2 kg | 99.649 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	HPBW	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	65°	1	AISG1	CPxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	65°	2	AISG1	CPxxxxxxxxxxxxxxR2
Y1	1427-2690	5 - 6	65°	3	AISG1	CPxxxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	65°	4	AISG1	CPxxxxxxxxxxxxxxY2
Y3	1695-2690	9 - 16	BF°	5	AISG1	CPxxxxxxxxxxxxxxY3

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

Port Configuration

RRZZV4-6590D-R5V4

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz | 1695 – 2690 MHz | 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2
Frequency Band, MHz	**698–806**	**790–894**	**890–960**	**1427–1518**	**1695–1995**	**1920–2300**	**2300–2500**	**2490–2690**
RF Port	1-4	1-4	1-4	5-8	5-8	5-8	5-8	5-8
Gain at Mid Tilt, dBi	15.7	16	16.1	14.7	16.9	17.4	18.2	18.2
Beamwidth, Horizontal,	65	59	61	71	68	66	60	62

degrees								
Beamwidth, Vertical, degrees	8.7	7.9	7.1	7.5	5.7	5.3	4.7	4.3
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	20	19	17	15	16	17	18	20
Front-to-Back Ratio at 180°, dB	29	31	29	30	29	28	29	33
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	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	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	250	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**790–894**	**890–960**	**1427–1518**	**1695–1995**	**1920–2300**	**2300–2500**	**2490–2690**
Gain by all Beam Tilts, average, dBi	15.6	15.9	15.9	14.6	16.8	17.2	18	18
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.4	±0.7	±0.8	±0.7	±0.5	±0.6	±0.5
Beamwidth, Horizontal Tolerance, degrees	±6	±7	±6	±8	±8	±7	±5	±4
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.7	±0.3	±0.6	±0.4	±0.4	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	13	14	16	13	15	16	18	19
Front-to-Back Total Power at 180° ± 30°, dB	21	21	19	22	23	22	24	28
CPR at Boresight, dB	26	23	18	17	22	19	20	17
CPR at Sector, dB	10	11	8	3	7	1	5	3

Electrical Specifications

	Y3	**Y3**
Frequency Band, MHz	**1695–2200**	**2490–2690**
RF Port	9-16	9-16
Gain at Mid Tilt, dBi	15.7	16.8
Beamwidth, Horizontal, degrees	101	77
Beamwidth, Vertical, degrees	5.3	4

Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	18	22
Front-to-Back Ratio at 180°, dB	32	31
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	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7	7
Isolation, Cross Polarization, dB	25	25
Isolation, Inter-band, dB	22	22
Isolation, Co-polarization, dB	20	20
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140
Input Power per Port at 50°C, maximum, watts	150	150

Electrical Specifications, BASTA

Frequency Band, MHz	**1695–2200**	**2490–2690**
Gain by all Beam Tilts, average, dBi	15.5	16.6
Gain by all Beam Tilts Tolerance, dB	±0.9	±0.6
Beamwidth, Horizontal Tolerance, degrees	±25	±13
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.5
USLS, beampeak to 20° above beampeak, dB	15	16
Front-to-Back Total Power at 180° ± 30°, dB	22	25
CPR at Boresight, dB	16	17
CPR at Sector, dB	10	5

Electrical Specifications, Service Beam

Frequency Band, MHz	1695–2200	2490–2690
Steered 30° Gain, dBi	20.4	21
Steered 30° Beamwidth, Horizontal, degrees	31	22
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	30	28
Steered 30° Horizontal Sidelobe, dB	11	9

Electrical Specifications, Soft Split

Frequency Band, MHz	1695–2200
Gain, dBi	20
Beamwidth, Horizontal, degrees	37
Front-to-Back Total Power at 180° ± 30°, dB	30
Horizontal Sidelobe, dB	20

Electrical Specifications

	Y3	Y3
Frequency Band, MHz	1695–2200	2490–2690
RF Port	9&11, 10&12, 13&15, 14&16	9&11, 10&12, 13&15, 14&16
Gain at Mid Tilt, dBi	17.3	18.4
Beamwidth, Horizontal, degrees	65	57
Beamwidth, Vertical, degrees	5.2	3.9
Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	20	22
Front-to-Back Ratio at 180°, dB	35	36

Electrical Specifications, BASTA

Frequency Band, MHz	1695–2200	2490–2690
Gain by all Beam Tilts, average, dBi	17.2	18.1
Gain by all Beam Tilts Tolerance, dB	±0.8	±0.5

Beamwidth, Horizontal Tolerance, degrees	±4	±6
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4
USLS, beampeak to 20° above beampeak, dB	16	17
Front-to-Back Total Power at 180° ± 30°, dB	25	28
CPR at Boresight, dB	22	20

Mechanical Specifications

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	2809 mm | 110.591 in
Weight, gross	65 kg | 143.3 lb

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
UK-ROHS	Compliant/Exempted

ISO 9001:2015

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.
BSAMNT-M4	–	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