RRZZVVQ4-65B-R7G

20-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, 8 x 2300-3800 MHz (P1), 90° HPBW, 7 x RET

- Includes 1x 4-Column Array for 2300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- SEED® antenna providing high gain and improved efficiency
- High radiation and pattern efficiency for improved coverage area, capacity or reduced power consumption for a given area
- Reduces the amount of aluminum used to minimize CO2 release
- Innovative aerodynamic shape optimized for reduced wind loading in every direction
- Retractable tilt indicator rods

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, 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	2 female | 2 male
Input Voltage	10–30 Vdc
Internal RET	High band (1) | Low band (2) | Mid band (4)
Power Consumption, active state, maximum	8 W

RRZZVVQ4-65B-R7G

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	2198 mm | 86.535 in
Net Weight, without mounting kit	39.4 kg | 86.862 lb

Array Layout

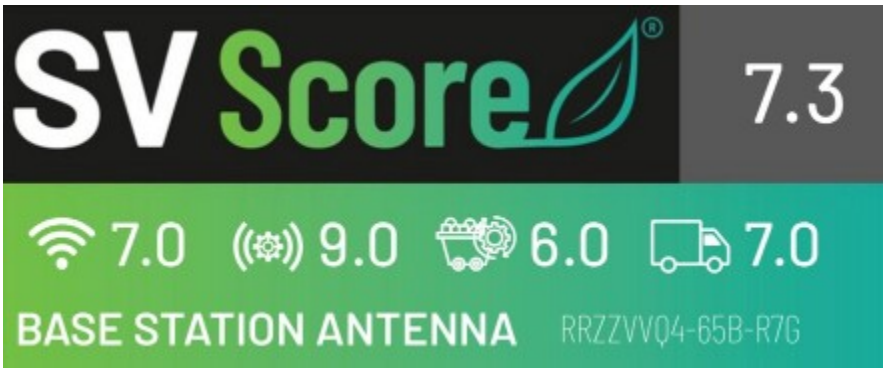
Array ID	Frequency (MHz)	RF Connector	RET	AISG No.	RET UID
R1	694-960	1 - 2	1	AISG1or2	CPxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1or2	CPxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1or2	CPxxxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	4	AISG1or2	CPxxxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	5	AISG1or2	CPxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12	6	AISG1or2	CPxxxxxxxxxxxxxxY4
P1	2300-3800	13 - 20	7	AISG1or2	CPxxxxxxxxxxxxxxP1

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

Port Configuration

Logo Image

RRZZVVQ4-65B-R7G



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	1,200 W @ 50 °C

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	15.7	15.8	15.7	17.6	18.2	19.3	19.5
Beamwidth, Horizontal, degrees	60	61	71	72	72	60	60
Beamwidth, Vertical, degrees	10.2	9.3	8.7	6.1	5.5	4.9	4.5
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	15	18	17	21	20	21	21
Front-to-Back Ratio at 180°, dB	27	28	29	30	31	34	33
CPR at Boresight, dB	25	27	25	25	22	18	20
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153
Input Power per Port at	300	300	300	250	250	200	200

50°C, maximum, watts

Electrical Specifications

	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	P1	P1	P1	P1
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	13-20	13-20	13-20	13-20
Gain at Mid Tilt, dBi	15.3	16.7	17.6	17.7	18	15.2	15.6	17.5	17.7
Beamwidth, Horizontal, degrees	73	66	58	62	61	91	93	65	57
Beamwidth, Vertical, degrees	10.7	8.5	7.7	6.9	6.2	6.7	6.3	4.9	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	20	16	15	18	17	14	15	18	21
Front-to-Back Ratio at 180°, dB	37	35	35	38	37	35	36	33	31
Coupling level, Amp, Antenna port to Cal port, dB						-26	-26	-26	-26
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	21	22	19	19	24	15	17	18	18
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	17.6	18.2	18.8	19.1
Beamwidth, Horizontal at 3 dB, degrees	65	65	65	65
Beamwidth, Horizontal at 10 dB, degrees	117	110	110	108
Beamwidth, Vertical, degrees	6.7	6.4	5	4.8
Front-to-Back Total Power at 180° ± 30°, dB	31	34	28	27
USLS (First Lobe), dB	13	15	19	20

Electrical Specifications, Service Beam

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Steered 0° Gain, dBi	20.8	21.3	23.2	23.4
Steered 0° Beamwidth, Horizontal, degrees	27	25	18	17
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	36	37	33	32
Steered 0° Horizontal Sidelobe, dB	14	12	12	12
Steered 30° Gain, dBi	20.4	20.9	20.8	21
Steered 30° Beamwidth, Horizontal, degrees	27	26	23	21
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	33	35	29	28

Electrical Specifications, Soft Split

Frequency Band, MHz	**2300–2500**	**2490–2690**
Gain, dBi	20.1	20.7
Beamwidth, Horizontal, degrees	31	30
Front-to-Back Total Power at 180° ± 30°, dB	34	36
Horizontal Sidelobe, dB	20	20

Mechanical Specifications

Wind Loading @ Velocity, frontal	767.0 N @ 150 km/h (172.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	236.0 N @ 150 km/h (53.1 lbf @ 150 km/h)

Wind Loading @ Velocity, maximum	920.0 N @ 150 km/h (206.8 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	528.0 N @ 150 km/h (118.7 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	50.9 kg | 112.215 lb

Regulatory Compliance/Certifications

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

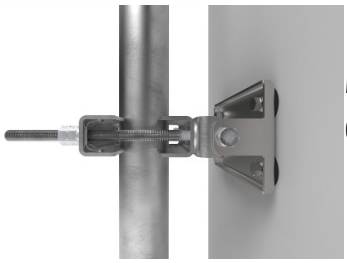
Included Products

BSAMNT-2F	–	Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

BSAMNT-2F



Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

Product Classification

Product Type	Fixed tilt mounting kit

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	115 mm | 4.528 in
Compatible Diameter, minimum	60 mm | 2.362 in
Weight, net	3.8 kg | 8.378 lb

Material Specifications

Material Type	Galvanized steel

Packaging and Weights

Included	Brackets | Hardware
Packaging quantity	1
Weight, gross	4 kg | 8.818 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant
UK-ROHS	Compliant

BSAMNT-2F