

RRZZVVS4-65D-R7N43



20-port sector antenna, 4x 694-960, 4x 1427-2690, 4x 1695-2690 MHz, 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x RET.

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port
- Antenna shape optimized for wind load reduction
- Retractable tilt indicator rods
- Includes seven Internal RET's
- S4 array uses MLOC cluster connectors

General Specifications

Antenna Type	Sector- and beamforming
Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	1
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 M-LOC
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)

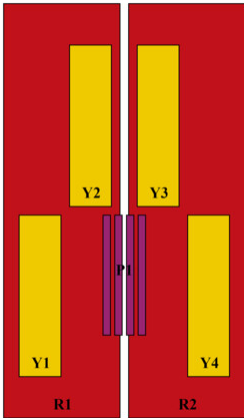
RRZZVVS4-65D-R7N43

Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	430 mm 16.929 in
Depth	197 mm 7.756 in
Length	2769 mm 109.016 in
TDD Column Spacing	42 mm 1.654 in

Array Layout

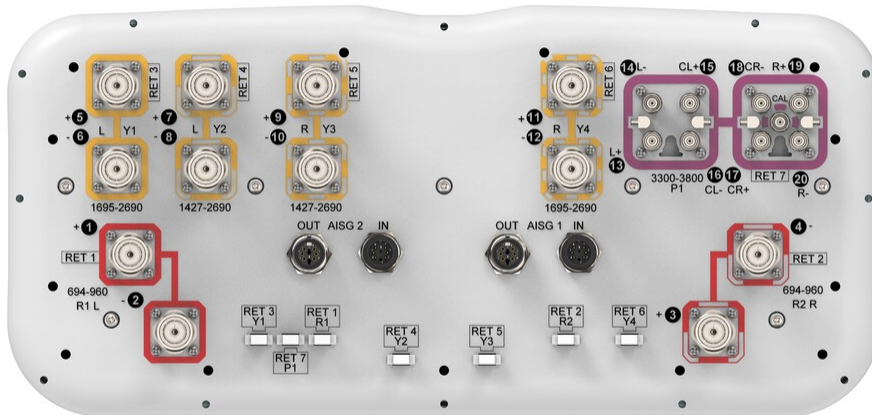


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxxxY4
P1	3300-3800	13 - 20	7	AISG1	CPxxxxxxxxxxxxxxxxP1

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

Port Configuration

RRZZVVS4-65D-R7N43



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz 1695 – 2690 MHz 3300 – 3800 MHz 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	694–790	790–890	880–960	1427–1518	1695–2200	2300–2690	1695–2200	2300–2690	3300–3800
Gain, dBi	15.6	16.1	16.4	15.4	17.5	18.3	17.3	18.1	15.8
Beamwidth, Horizontal, degrees	63	55	52	66	61	61	64	62	84
Beamwidth, Vertical, degrees	7.7	6.8	6.3	7.1	5.5	4.4	6	4.9	6.3
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	16	19	17	18	15	17	16	21	16
Front-to-Back Ratio at 180°, dB	32	32	32	32	31	31	30	31	27
Coupling level, Amp, Antenna port to Cal port, dB									26
Coupling level, max Amp Δ									±2

RRZZVVS4-65D-R7N43

Antenna port to Cal port, dB									
Coupler, max Amp Δ , Antenna port to Cal port, dB									0.9
Coupler, max Phase Δ , Antenna port to Cal port, degrees									7
Isolation, Cross Polarization, dB	27	27	27	26	26	26	27	27	25
Isolation, Inter-band, dB	27	27	27	26	26	26	26	26	25
Isolation, Co-polarization, dB									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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153	-153	-140
Input Power per Port at 50° C, maximum, watts	250	250	250	200	200	150	200	150	75

Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	880–960	1427–1518	1695–2200	2300–2690	1695–2200	2300–2690	3300–3800
Gain by all Beam Tilts, average, dBi	15.2	15.9	16.1	15.1	16.9	17.9	16.7	17.7	15.1
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.3	±0.4	±0.4	±1	±0.5	±1	±0.4	±0.7
Beamwidth, Horizontal Tolerance, degrees	±8.1	±4.8	±4.8	±4.7	±8.8	±3.8	±4.7	±3.6	±18.6
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4	±0.3	±0.3	±0.7	±0.3	±0.7	±0.3	±0.6
USLS, beampeak to 20° above beampeak, dB	14	13	14	14	15	17	16	17	13
Front-to-Back Total Power at 180° ± 30°, dB	23	23	23	24	26	27	25	25	22
CPR at Boresight, dB	23	24	23	15	19	16	19	22	16

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300–3800
Gain, dBi	18.4
Beamwidth, Horizontal, degrees	65
Beamwidth, Vertical, degrees	6.3
Front-to-Back Total Power at 180° ± 30°, dB	25

RRZZVVS4-65D-R7N43

USLS (First Lobe), dB 19

Electrical Specifications, Service Beam

Frequency Band, MHz **3300–3800**

Steered 0° Gain, dBi 20.9

Steered 0° Beamwidth, Horizontal, degrees 24

Steered 0° Front-to-Back Total Power at 180° ± 30°, dB 28

Steered 0° Horizontal Sidelobe, dB 15

Steered 30° Gain, dBi 19.7

Steered 30° Beamwidth, Horizontal, degrees 29

Steered 30° Front-to-Back Total Power at 180° ± 30°, dB 27

Electrical Specifications, Soft Split

Frequency Band, MHz **3300–3800**

Gain, dBi 19.8

Beamwidth, Horizontal, degrees 31

Front-to-Back Total Power at 180° ± 30°, dB 27

Horizontal Sidelobe, dB 18

Mechanical Specifications

Wind Loading @ Velocity, frontal 680.0 N @ 150 km/h (152.9 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral 347.0 N @ 150 km/h (78.0 lbf @ 150 km/h)

Wind Loading @ Velocity, maximum 1,020.0 N @ 150 km/h (229.3 lbf @ 150 km/h)

Wind Loading @ Velocity, rear 434.0 N @ 150 km/h (97.6 lbf @ 150 km/h)

Wind Speed, maximum 241 km/h (150 mph)

Packaging and Weights

Width, packed 530 mm | 20.866 in

Depth, packed 356 mm | 14.016 in

RRZZVVS4-65D-R7N43

Length, packed	2897 mm 114.055 in
Weight, gross	70.6 kg 155.646 lb
Weight, net	49.6 kg 109.349 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted
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.
- 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