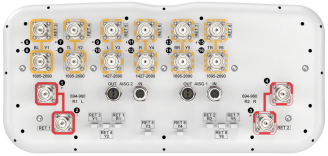
RRZZV4-65D-R8NV1



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

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Retractable tilt indicator rods
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Antenna shape optimized for wind load reduction

General Specifications

Antenna Type	Sector
Band	Multiband
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
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

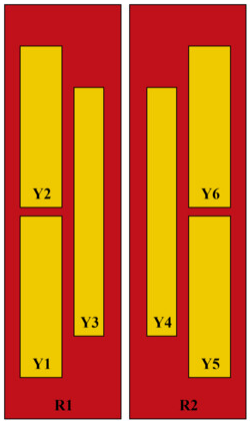
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal RET	Low band (2) | Mid band (6)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0

RRZZV4-65D-R8NV1

Dimensions

Width	430 mm | 16.929 in
Depth	197 mm | 7.756 in
Length	2769 mm | 109.016 in
Net Weight, antenna only	47.9 kg | 105.601 lb

Array Layout

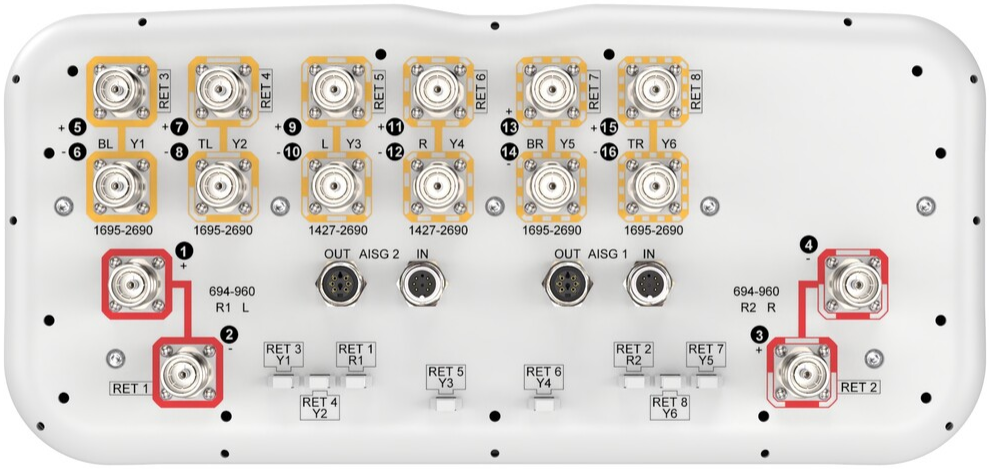


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	694-960	1 - 2	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	CPxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8	4	CPxxxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	5	CPxxxxxxxxxxxxxxY3
Y4	1427-2690	11 - 12	6	CPxxxxxxxxxxxxxxY4
Y5	1695-2690	13 - 14	7	CPxxxxxxxxxxxxxxY5
Y6	1695-2690	15 - 16	8	CPxxxxxxxxxxxxxxY6

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

Port Configuration

RRZZV4-65D-R8NV1



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

Frequency Band, MHz	**698–806**	**790–896**	**890–960**	**1427–1518**	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**
Beamwidth, Horizontal, degrees	70	63	61	61	68	67	62	59
Beamwidth, Vertical, degrees	7.6	6.8	6.4	6.9	5.7	5.1	4.6	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	17	18	16	15	18	19	20	19
Front-to-Back Ratio at 180°, dB	32	30	30	30	31	31	31	31
Front-to-Back Total Power at 180° ± 30°, dB	24	23	22	24	26	27	27	27
Isolation, Cross Polarization, dB	27	27	27	26	26	26	26	26
Isolation, Inter-band, dB	27	27	27	26	26	26	26	26
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	250	250	250	200	200	200	150	150

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**790–896**	**890–960**	**1427–1518**	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**
Gain by all Beam Tilts, average, dBi	15.5	16.1	16.1	15.2	16.2	17.2	17.9	17.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.4	±0.8	±0.8	±0.8	±0.4	±0.7
Beamwidth, Horizontal Tolerance, degrees	±8.5	±4.1	±4.7	±11.4	±7.8	±10.1	±3.5	±3.3
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.3	±0.4	±0.5	±0.4	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	16	16	15	14	17	17	18	17
CPR at Boresight, dB	24	24	23	16	19	18	18	16
CPR at Sector, dB	13	10	10	6	6	4	8	2

Electrical Specifications

Frequency Band, MHz	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**
Beamwidth, Horizontal, degrees	69	64	62	62
Beamwidth, Vertical, degrees	6.3	5.6	5	4.8
Beam Tilt, degrees	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	15	17	18
Front-to-Back Ratio at 180°, dB	32	31	32	32
Front-to-Back Total Power at 180° ± 30°, dB	26	25	26	26
Isolation, Cross Polarization,	27	27	27	27

dB				
Isolation, Inter-band, dB	27	27	27	27
VSWR | Return loss, dB	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
Input Power per Port at 50°C, maximum, watts	200	200	150	150

Electrical Specifications, BASTA

Frequency Band, MHz	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**
Gain by all Beam Tilts, average, dBi	16.1	17.1	17.7	17.6
Gain by all Beam Tilts Tolerance, dB	±1	±0.8	±0.4	±0.4
Beamwidth, Horizontal Tolerance, degrees	±8.3	±7.8	±4.3	±5.2
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.5	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	14	15	16	17
CPR at Boresight, dB	21	20	18	18
CPR at Sector, dB	8	7	10	6

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
Length, packed	2897 mm | 114.055 in
Weight, gross	68.9 kg | 151.898 lb

Regulatory Compliance/Certifications

Agency	**Classification**

RRZZV4-65D-R8NV1

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 www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Included Products

BSAMNT-3	–	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