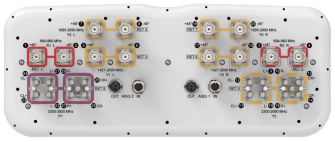
RRZZVVT4S4-65DR8EC



28-port sector antenna, 4x 694–960, 4x 1427-2690 and 4x 1695-2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 8x RET

- Includes two planar arrays with separate calibration ports for each array for use in beamforming systems covering all TDD bands
- Optimized for software defined split six sector applications
- Eight internal RETs control the antenna arrays
- 4 M-LOC cluster connectors for the two planar beamforming arrays
- New aerodynamic endcaps for wind load optimization

General Specifications

Antenna Type	Sector
Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	2
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in EN1991-1-4 standard
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	16
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

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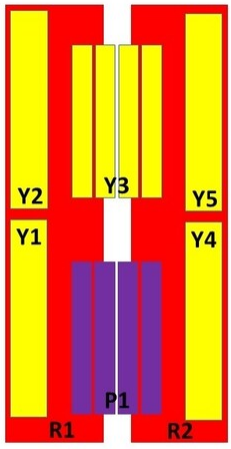
Input Voltage	10–30 Vdc
Internal RET	High band (1) | Low band (2) | Mid band (5)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2688 mm | 105.827 in
Net Weight, antenna only	59.4 kg | 130.954 lb

Array Layout

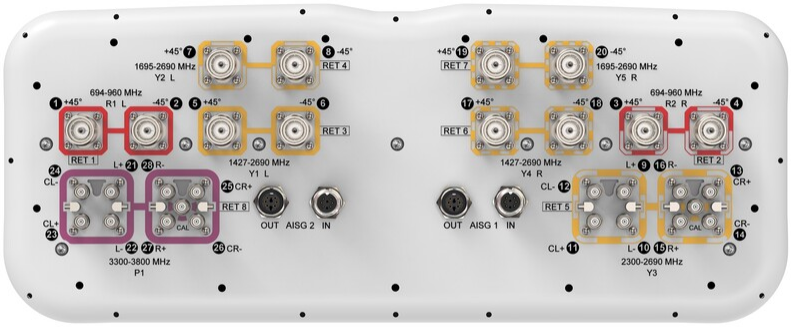


Array	Freq (MHz)	Conns	RET(SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxxxY3
Y4	1427-2690	17-18	6	CPxxxxxxxxxxxxxxY4
Y5	1695-2690	19-20	7	CPxxxxxxxxxxxxxxY5
P1	3300-3800	21-28	8	CPxxxxxxxxxxxxxxP1

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

Port Configuration

RRZZVVT4S4-65DR8EC



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz | 1695 – 2690 MHz | 2300 – 2690 MHz | 3300 – 3800 MHz | 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	1,900 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y2,Y4,Y5	Y1,Y2,Y4,Y5	Y1,Y4	Y3	P1
Frequency Band, MHz	**694–790**	**790–890**	**890–960**	**1695–2180**	**2300–2690**	**1427–1518**	**2300–2690**	**3300–3800**
RF Port	1-4	1-4	1-4	5-8,17-20	5-8,17-20	5,6,17,18	9-16	21-28
Gain, dBi	15.7	16	16.1	16.8	17.8	14.9	16.3	15.9
Beamwidth, Horizontal, degrees	72	66	63	70	60	79	90	89
Beamwidth, Vertical, degrees	8.8	7.8	7.2	7.1	5.5	9.2	4.8	6.5
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	17	19	23	21	23	25	19	16
Front-to-Back Ratio at 180°, dB	34	30	29	32	31	35	31	29
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	9
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25
Isolation, Inter-band, dB	28	28	28	25	25	25	28	28
Isolation, Co-polarization, dB							20	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
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-145
Input Power per Port at 50°C, maximum, watts	300	300	300	250	200	250	150	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**2300–2690**	**3300–3800**
Gain, dBi	17.4	16.4
Beamwidth, Horizontal, degrees	59	60
Beamwidth, Vertical, degrees	4.8	6.5
Front-to-Back Total Power at 180° ± 30°, dB	28	24
USLS (First Lobe), dB	18	16

Electrical Specifications, Service Beam

Frequency Band, MHz	**2300–2690**	**3300–3800**
Steered 0° Gain, dBi	21.2	20.3
Steered 0° Beamwidth, Horizontal, degrees	25	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	32	28
Steered 0° Horizontal Sidelobe, dB	13	12
Steered 30° Gain, dBi	20.4	19.7
Steered 30° Beamwidth, Horizontal, degrees	29	27
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	31	27

Electrical Specifications, Soft Split

Frequency Band, MHz	**2300–2690**	**3300–3800**
Gain, dBi	20.2	19.5

Beamwidth, Horizontal, degrees	32	30
Front-to-Back Total Power at 180° ± 30°, dB	33	29
Horizontal Sidelobe, dB	21	16

Mechanical Specifications

Wind Loading @ Velocity, frontal	944.0 N @ 150 km/h (212.2 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	292.0 N @ 150 km/h (65.6 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,130.0 N @ 150 km/h (254.0 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	650.0 N @ 150 km/h (146.1 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	309 mm | 12.165 in
Length, packed	2935 mm | 115.551 in
Weight, gross	80.4 kg | 177.251 lb

Regulatory Compliance/Certifications

Agency	Classification
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.andrew.com/ProductCompliance
ROHS	Compliant
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.
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