

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 Split 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, high band	0
RF Connector Quantity, mid band	12
RF Connector Quantity, low band	4
RF Connector Quantity, total	16

Remote Electrical Tilt (RET) Information

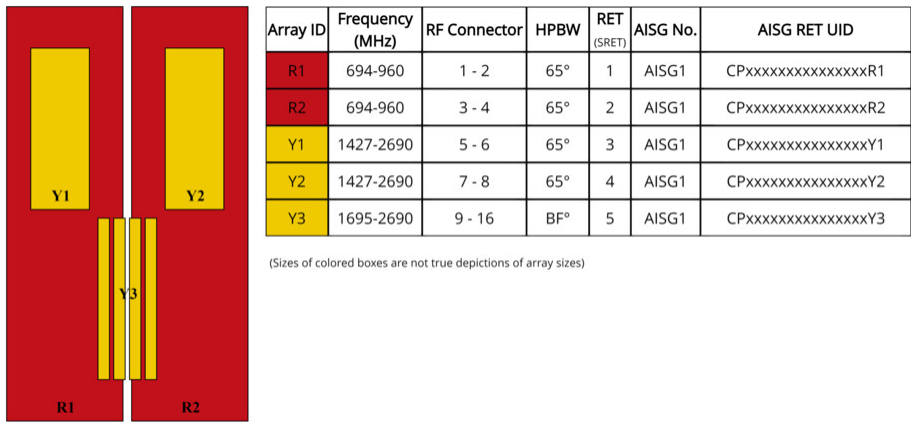
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male
Input Voltage	10–30 Vdc
Internal RET	Low band (2) Mid band (3)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0

Dimensions

RRZZV4-6590D-R5V4

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	2688 mm 105.827 in
Net Weight, antenna only	45.2 kg 99.649 lb

Array Layout



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

RRZZV4-6590D-R5V4

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
CPR at Boresight, dB	26	23	18	17	22	19	20	17
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

	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
CPR at Boresight, dB	16	17
Isolation, Cross Polarization, dB	25	25

RRZZV4-6590D-R5V4

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, 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

RRZZV4-6590D-R5V4

Front-to-Back Ratio at 180°, dB	35	36
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
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-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
------------------	---