RR2VVT4-6533D-R7V4

20-port sector/multibeam antenna, 4x 694–960 MHz 65° HPBW and 8x 1710-2690MHz 4x33° HPBW, 8x 2300-2690MHz, 90° HPBW 7x RET

- Enhances network capacity through six sectors on high band while maintaining low band coverage layer through three sectors with only three antenna faces
- Also includes 1x 4-Column Array for 2300-2690 MHz with calibration port. Column spacing optimized to support Soft Split Beamforming
- A calibration port is provided for the 4-Column Array. Seven Internal RET's provide independent electrical tilt control for each array
- T4 array uses MQ4/5 cluster connectors

General Specifications

Antenna Type	Sector and beamforming
Band	Multiband
Calibration Connector Interface	MQ5 Male
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
RF Connector Interface	4.3-10 Female | MQ4 Male | MQ5 Male
RF Connector Location	Bottom
RF Connector Quantity, high band	0
RF Connector Quantity, mid band	16
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	Low band (2) | Mid band (5)

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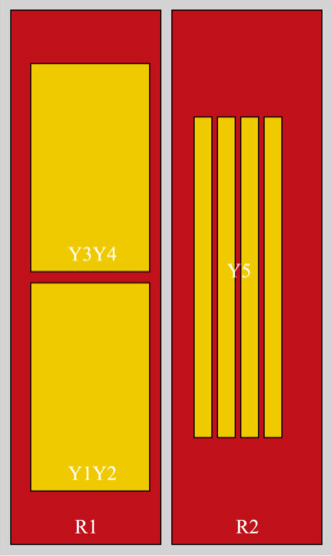
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	579 mm | 22.795 in
Depth	212 mm | 8.346 in
Length	2688 mm | 105.827 in
Net Weight, antenna only	63.5 kg | 139.993 lb

Array Layout



RF Connector	Array ID	Frequency (MHz)	RET	AISG RET UID
1 - 2	R1	694-960	1	CPxxxxxxxxxxxxxxR1
3 - 4	R2	694-960	2	CPxxxxxxxxxxxxxxR2
5 - 6	Y1	1710-2690	3	CPxxxxxxxxxxxxxxY1
7 - 8	Y2	1710-2690	4	CPxxxxxxxxxxxxxxY2
9 - 10	Y3	1710-2690	5	CPxxxxxxxxxxxxxxY3
11 - 12	Y4	1710-2690	6	CPxxxxxxxxxxxxxxY4
13 - 20	Y5	2300-2690	7	CPxxxxxxxxxxxxxxY5

Port Configuration

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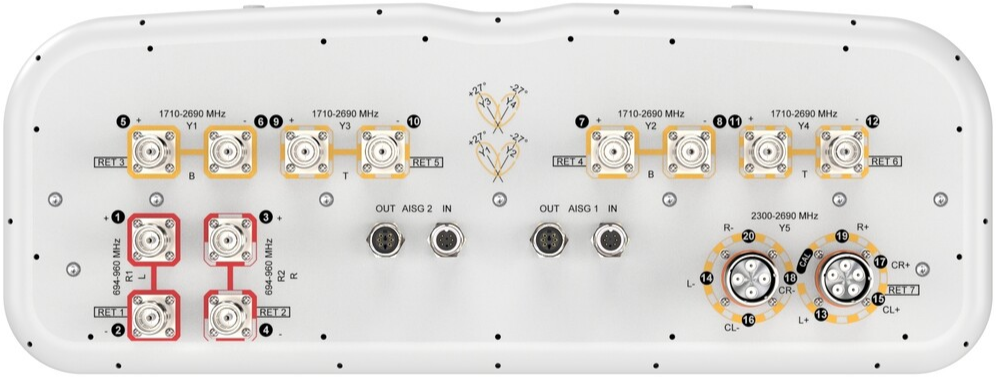

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1710 – 2690 MHz | 2300 – 2690 MHz | 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	1,800 W @ 50 °C
BASTA Version, electrical	BASTA v12

Electrical Specifications

	R1,R2	**R1,R2**	**R1,R2**	**Y1,Y2,Y3,Y4**	**Y1,Y2,Y3,Y4**	**Y1,Y2,Y3,Y4**	**Y1,Y2,Y3,Y4**	**Y5**
Frequency Band, MHz	**694–790**	**790–890**	**890–960**	**1710–1880**	**1850–1990**	**1920–2180**	**2300–2690**	**2300–2690**
RF Port	1-4	1-4	1-4	5-12	5-12	5-12	5-12	13-20
Beam Centers, Horizontal,				±27	±27	±27	±27	

degrees								
Beamwidth, Horizontal, degrees	69	62	60	33	32	31	27	99
Beamwidth, Vertical, degrees	8.7	8	7.2	7.4	7	6.6	5.4	5.2
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	17	20	18	18	18	18	19	18
Front-to-Back Ratio at 180°, dB	32	32	33	36	35	36	33	29
Coupling level, Amp, Antenna port to Cal port, dB								26
Coupling level, max Amp Δ, Antenna port to Cal port, dB								±2
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	28	28	28	25	25	25	25	25
Isolation, Inter-band, dB	28	28	28	25	25	25	25	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
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-140
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	250	200	150

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**2300–2690**
Gain, dBi	17.6
Beamwidth, Horizontal, degrees	64
Beamwidth, Vertical, degrees	5.1
Front-to-Back Total Power at 180° ± 30°, dB	25
USLS (First Lobe), dB	18

Electrical Specifications, Service Beam

Frequency Band, MHz	**2300–2690**
Steered 0° Gain, dBi	21.5

Steered 0° Beamwidth, Horizontal, degrees	26
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	31
Steered 0° USLS (First Lobe), dB	21
Steered 30° Gain, dBi	20.8
Steered 30° Beamwidth, Horizontal, degrees	28
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	28

Electrical Specifications, Soft Split

Frequency Band, MHz	**2300–2690**
Gain, dBi	20.5
Beamwidth, Horizontal, degrees	33
Front-to-Back Total Power at 180° ± 30°, dB	30
Horizontal Sidelobe, dB	20
USLS (First Lobe), dB	20

Mechanical Specifications

BASTA Version, mechanical	BASTA v12
Wind Loading @ Velocity, frontal	764.0 N @ 150 km/h (171.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	328.0 N @ 150 km/h (73.7 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,220.0 N @ 150 km/h (274.3 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	774.0 N @ 150 km/h (174.0 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	681 mm | 26.811 in
Depth, packed	368 mm | 14.488 in
Length, packed	2827 mm | 111.299 in
Weight, gross	82 kg | 180.779 lb

Regulatory Compliance/Certifications

RR2VVT4-6533D-R7V4

Agency	Classification
CHINA-ROHS	Above 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/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