R-33D-R1VB

2-port sector antenna, 2x 694–960, 33° HPBW, 1x RET

- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector

General Specifications

Antenna Type	Sector
Band	Single band
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
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, low band	2
RF Connector Quantity, total	2

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 (1)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	579 mm | 22.795 in
Depth	212 mm | 8.346 in

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Length	2658 mm | 104.646 in
Net Weight, antenna only	35.3 kg | 77.823 lb

Array Layout

Array ID	Frequency (MHz)	RF Connector	HPBW	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	33°	1	AISG1	CPxxxxxxxxxxxxxxR1

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

Port Configuration

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	500 W

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Electrical Specifications

	R1	R1	R1
Frequency Band, MHz	**698–806**	**790–894**	**890–960**
RF Port	1,2	1,2	1,2
Gain, dBi	19.1	19.5	20
Beamwidth, Horizontal, degrees	37	33	32
Beamwidth, Vertical, degrees	8.8	7.8	7.4
Beam Tilt, degrees	2–12	2–12	2–12
USLS (First Lobe), dB	22	21	22
Front-to-Back Ratio, Copolarization 180° ± 30°, dB	36	33	33
Isolation, Cross Polarization, dB	28	28	28
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150
Input Power per Port, maximum, watts	300	300	300

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**790–894**	**890–960**
Gain by all Beam Tilts, average, dBi	18.8	19.3	19.7
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.2	±0.4
Beamwidth, Horizontal Tolerance, degrees	±2	±2	±1
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.5	±0.4
CPR at Boresight, dB	22	25	23

Mechanical Specifications

Wind Loading @ Velocity, frontal	754.0 N @ 150 km/h (169.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	282.0 N @ 150 km/h (63.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	764.0 N @ 150 km/h (171.8 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	678 mm | 26.693 in
Depth, packed	315 mm | 12.402 in
Length, packed	2900 mm | 114.173 in
Weight, gross	54.9 kg | 121.034 lb

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Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance