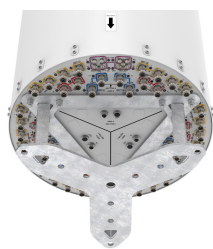


3X-RRZZHHTTS4-BR24



72-port sector antenna, 12x 694-960, 12x 1427-2690, 12x 1695-2180, 12x 2490-2690MHz 65° HPBW and 24x 3300-3800 MHz, 90° HPBW, 24x RET

- Separated Extension KIT available for this antenna, check Optional Mounting Kits section
- No pole mounting kit for this antenna

General Specifications

Antenna Type	DualPol® tri-sector
Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	3
Color	Light Gray (RAL 7035)
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
RF Connector Interface	4.3-10 Female M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	24
RF Connector Quantity, mid band	36
RF Connector Quantity, low band	12
RF Connector Quantity, total	72

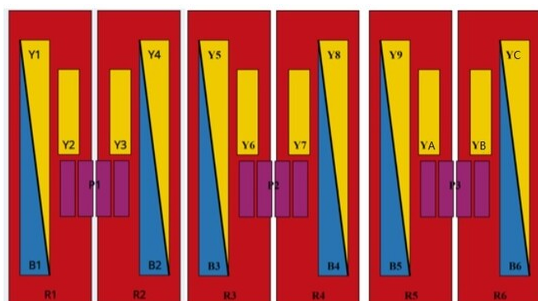
Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface, quantity	3 female 3 male
Internal RET	High band (3) Low band (6) Mid band (15)
Protocol	3GPP/AISG 2.0

Dimensions

Length	2100 mm 82.677 in
Net Weight, antenna only	110 kg 242.508 lb
Outer Diameter	580 mm 22.835 in

Array Layout



Sector1

Sector2

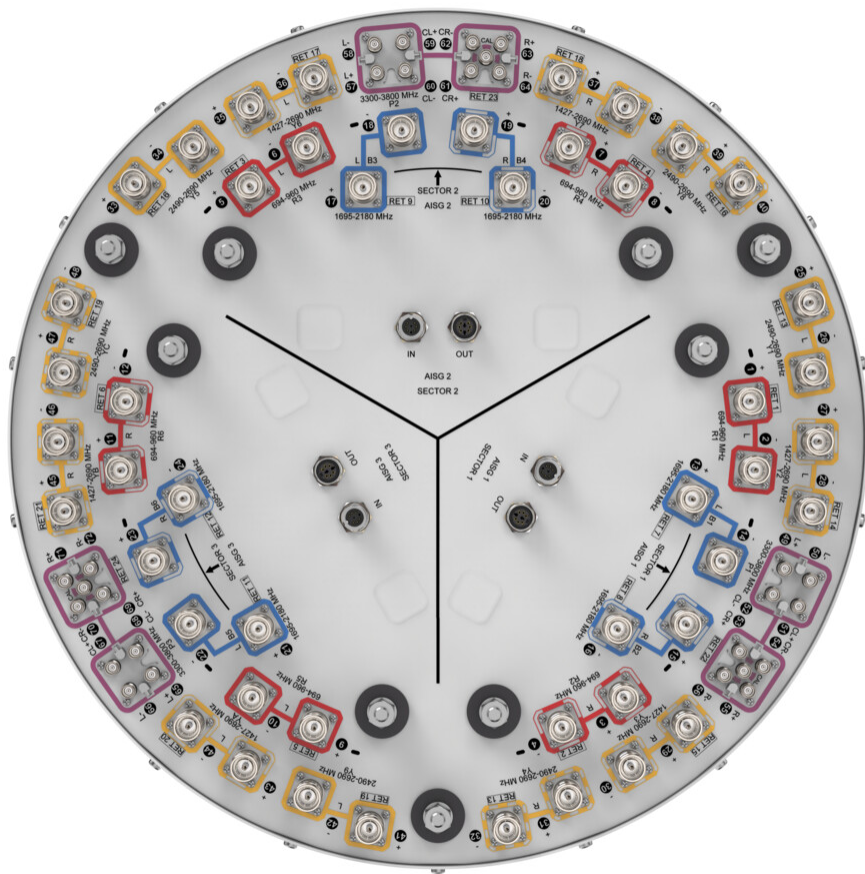
Sector3

Array ID	Frequency (MHz)	RF Connector	RET (dB)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2		CPxxxxxxxxxxxxxxxxR2
B1	1695-2180	13 - 14	3		CPxxxxxxxxxxxxxxxxB1
B2	1695-2180	15 - 16	4		CPxxxxxxxxxxxxxxxxB2
Y1	2490-2690	25 - 26	5		CPxxxxxxxxxxxxxxxxY1
Y4	2490-2690	31 - 32			
Y2	1427-2690	27 - 28	6		CPxxxxxxxxxxxxxxxxY2
Y3	1427-2690	29 - 30	7		CPxxxxxxxxxxxxxxxxY3
P1	3300-3800	49 - 56	8		CPxxxxxxxxxxxxxxxxP1
R3	694-960	5 - 6	9		CPxxxxxxxxxxxxxxxxR3
R4	694-960	7 - 8	10	AISG2	CPxxxxxxxxxxxxxxxxR4
B3	1695-2180	17 - 18	11		CPxxxxxxxxxxxxxxxxB3
B4	1695-2180	19 - 20	12		CPxxxxxxxxxxxxxxxxB4
Y5	2490-2690	33 - 34	13		CPxxxxxxxxxxxxxxxxY5
Y8	2490-2690	39 - 40			
Y6	1427-2690	35 - 36	14		CPxxxxxxxxxxxxxxxxY6
Y7	1427-2690	37 - 38	15		CPxxxxxxxxxxxxxxxxY7
P2	3300-3800	57 - 64	16		CPxxxxxxxxxxxxxxxxP2
R5	694-960	9 - 10	17		CPxxxxxxxxxxxxxxxxR5
R6	694-960	11 - 12	18		CPxxxxxxxxxxxxxxxxR6
B5	1695-2180	21 - 22	19	AISG3	CPxxxxxxxxxxxxxxxxB5
B6	1695-2180	23 - 24	20		CPxxxxxxxxxxxxxxxxB6
Y9	2490-2690	41 - 42	21		CPxxxxxxxxxxxxxxxxY9
YC	2490-2690	47 - 48			
YA	1427-2690	43 - 44	22		CPxxxxxxxxxxxxxxxxYA
YB	1427-2690	45 - 46	23		CPxxxxxxxxxxxxxxxxYB
P3	3300-3800	65 - 72	24		CPxxxxxxxxxxxxxxxxP3

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

Port Configuration

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Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz 1695 – 2180 MHz 2490 – 2690 MHz 3300 – 3800 MHz 694 – 960 MHz
Polarization	±45°

Electrical Specifications

	R1-R6	R1-R6	R1-R6	Y2,Y3,Y6,Y7,YA,YBY2,Y3,Y6,Y7,YA,YBY2,Y3,Y6,Y7,YA,YBY2,Y3,Y				
Frequency Band, MHz	694-806	790-896	890-960	1427-1518	1695-1990	1920-2300	2300-2500	2490-2690
RF Port	1-12	1-12	1-12	27-30,35-38,43-46	27-30,35-38,43-46	27-30,35-38,43-46	27-30,35-38,43-46	27-30,35-38,43-46
Gain at Mid	13.9	14.6	14.7	13.1	15.1	16.3	16.8	17

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Tilt, dBi								
Beamwidth, Horizontal, degrees	67	59	57	61	67	59	60	57
Beamwidth, Vertical, degrees	10.4	9.5	9.1	10	8.1	7.2	6.4	5.9
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	18	17	15	16	18	19	20	18
Isolation, Cross Polarization, dB	27	27	27	25	25	25	25	25
Isolation, Inter-band, dB	27	27	27	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, typical, 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

	Y1,Y4,Y5,Y8,Y9,YCP1,P2,P3 P1,P2,P3		
Frequency Band, MHz	2490-2690	3300-3600	3600-3800
RF Port	25-26,31-34,39-42,47-48	49-72	49-72
Gain at Mid Tilt, dBi	17.8	15.1	15.4
Beamwidth, Horizontal, degrees	63	84	81
Beamwidth, Vertical,	4	6.5	6

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degrees			
Beam Tilt, degrees	2-12	2-12	2-12
USLS (First Lobe), dB	17	14	15
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
Isolation, Cross Polarization, dB	27	25	25
Isolation, Inter-band, dB	27	25	25
Isolation, Co-polarization, dB		19	19
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, typical, 2 x 20 W, dBc	-153	-140	-140

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Input Power per Port at 50°C, maximum, watts	150	75	75
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Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300–36003600–3800	
Gain, dBi	16.4	16.4
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Horizontal at 10 dB, degrees	117	112
Beamwidth, Vertical, degrees	6.5	6.1
Front-to-Back Total Power at 180° ± 30°, dB	33	33
USLS (First Lobe), dB	18	18

Electrical Specifications, Service Beam

Frequency Band, MHz	3300–36003600–3800	
Steered 0° Gain, dBi	19.8	20.7
Steered 0° Beamwidth, Horizontal, degrees	28	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	36	
Steered 0° Horizontal	14	14

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Sidelobe, dB		
Steered 30° Gain, dBi	19.3	19.3
Steered 30° Beamwidth, Horizontal, degrees	29	29
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	36	35
Steered 30° Horizontal Sidelobe, dB	9	10

Electrical Specifications, Soft Split

Frequency Band, MHz	3300–3600	3600–3800
Gain, dBi	19.3	19.2
Beamwidth, Horizontal, degrees	31	33
Front-to-Back Total Power at 180° ± 30°, dB	35	35
Horizontal Sidelobe, dB	16	19

Mechanical Specifications

Wind Loading @ Velocity, frontal	745.0 N @ 150 km/h (167.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	745.0 N @ 150 km/h (167.5 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	745.0 N @ 150 km/h (167.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	745.0 N @ 150 km/h (167.5 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	750 mm 29.528 in
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Depth, packed	690 mm 27.165 in
Length, packed	2510 mm 98.819 in
Weight, gross	131.5 kg 289.908 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted



* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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