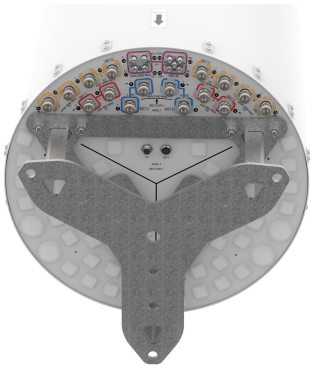
1X-RRZZHHTTS4-BR8



24-port sector antenna, 4x 694-960, 4x 1427-2690, 4x 1695-2180, 4x 2490-2690MHz 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 24x RET

- Separated Extension KIT available for this antenna, check Optional Mounting Kits section

General Specifications

Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	1
Performance Note	Outdoor usage
RF Connector Interface	4.3-10 Female | M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, mid band	12
RF Connector Quantity, low band	4
RF Connector Quantity, total	24

Remote Electrical Tilt (RET) Information

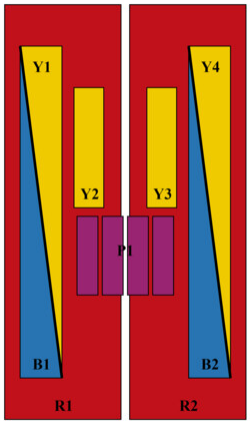
RET Hardware	CommRET v2
RET Interface, quantity	1 female | 1 male
Internal RET	High band (1) | Low band (2) | Mid band (5)
Protocol	3GPP/AISG 2.0

Dimensions

Length	2100 mm | 82.677 in
Net Weight, antenna only	77.6 kg | 171.079 lb
Outer Diameter	580 mm | 22.835 in

Array Layout

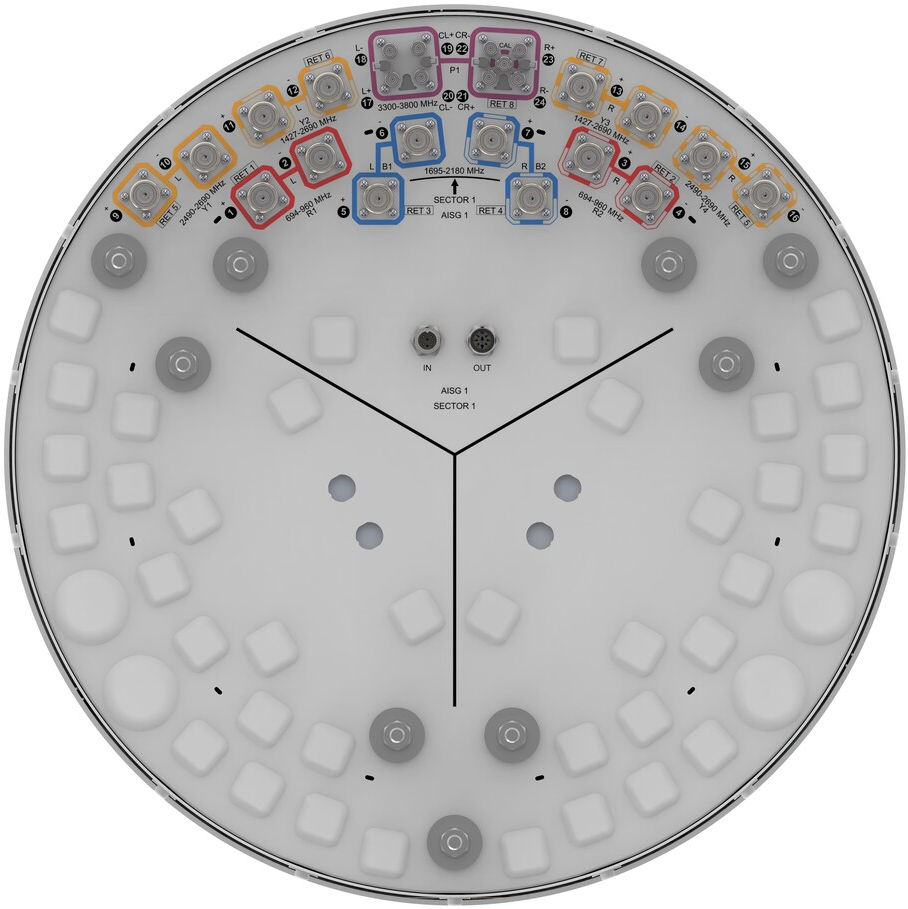
1X-RRZZHHTTS4-BR8



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxxR2
B1	1695-2180	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxB1
B2	1695-2180	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxB2
Y1	2490-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxY1
Y4	2490-2690	15 - 16			
Y2	1427-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxxY2
Y3	1427-2690	13 - 14	7	AISG1	CPxxxxxxxxxxxxxxxY3
P1	3300-3800	17 - 24	8	AISG1	CPxxxxxxxxxxxxxxxP1

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

Port Configuration



1X-RRZZHHTTS4-BR8

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,R2	R1,R2	R1,R2	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	B1,B2	B1,B2
Frequency Band, MHz	**694–806**	**790–896**	**890–960**	**1427–1518**	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**	**1695–1990**	**1920–2180**
RF Port	1-4	1-4	1-4	11-14	11-14	11-14	11-14	11-14	5-8	5-8
Gain at Mid Tilt, dBi	13.9	14.6	14.7	13.1	15.1	16.3	16.8	17	16.7	17
Beamwidth, Horizontal, degrees	67	59	57	61	67	59	60	57	72	69
Beamwidth, Vertical, degrees	10.4	9.5	9.1	10	8.1	7.2	6.4	5.9	5.5	5
Beam Tilt, degrees	2–12	2–12	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	17	17
Isolation, Cross Polarization, dB	27	27	27	25	25	25	25	25	27	27
Isolation, Inter-band, dB	27	27	27	25	25	25	25	25	26	26
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	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	-153	-153
Input Power per Port at	250	250	250	200	200	200	150	150	200	200

50°C, maximum, watts	

Electrical Specifications

	Y1,Y4	P1	P1
Frequency Band, MHz	**2490–2690**	**3300–3600**	**3600–3800**
RF Port	9-10,15-16	17-24	17-24
Gain at Mid Tilt, dBi	17.8	15.1	15.4
Beamwidth, Horizontal, degrees	63	84	81
Beamwidth, Vertical, degrees	4	6.5	6
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	27	25	25

Polarization, dB			
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
Input Power per Port at 50°C, maximum, watts	150	75	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**3300–3600**	**3600–3800**
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	3300–3600	3600–3800
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 Sidelobe, dB	14	14
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
Depth, packed	690 mm | 27.165 in
Length, packed	2510 mm | 98.819 in
Weight, gross	99.3 kg | 218.919 lb

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