

3X-KKV4S4-65B-R15



60-port sector antenna, 12x 617-960MHz, 24x 1695-2690MHz 65° HPBW and 24x 3300-4000 MHz, 90° HPBW, 15x 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)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	24
RF Connector Quantity, mid band	24
RF Connector Quantity, low band	12
RF Connector Quantity, total	60

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 (6)
Protocol	3GPP/AISG 2.0

Dimensions

Length	2100 mm 82.677 in
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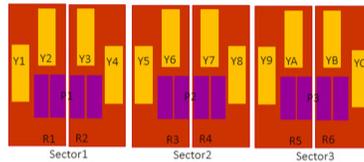
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Net Weight, antenna only 98.5 kg | 217.155 lb

Outer Diameter 580 mm | 22.835 in

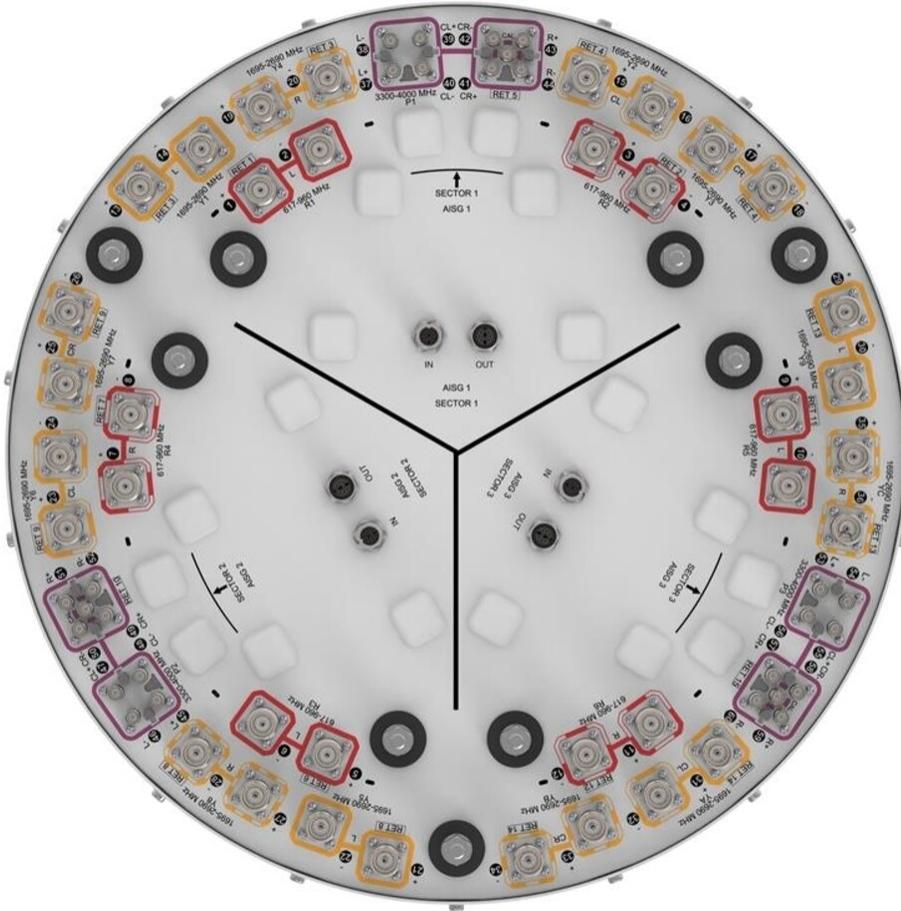
Array Layout

Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	617-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	617-960	3 - 4	2		CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	13 - 14	3		CPxxxxxxxxxxxxxxxxY1
Y4	1695-2690	19 - 20			CPxxxxxxxxxxxxxxxxY2
Y2	1695-2690	15 - 16	4	CPxxxxxxxxxxxxxxxxY3	
Y3	1695-2690	17 - 18		CPxxxxxxxxxxxxxxxxY4	
P1	3300-4000	37 - 44	5	AISG2	CPxxxxxxxxxxxxxxxxP1
R3	617-960	5 - 6	6		CPxxxxxxxxxxxxxxxxR3
R4	617-960	7 - 8	7		CPxxxxxxxxxxxxxxxxR4
Y5	1695-2690	21 - 22	8		CPxxxxxxxxxxxxxxxxY5
Y8	1695-2690	27 - 28		9	CPxxxxxxxxxxxxxxxxY6
Y6	1695-2690	23 - 24	CPxxxxxxxxxxxxxxxxY7		
Y7	1695-2690	25 - 26	CPxxxxxxxxxxxxxxxxY8		
P2	3300-4000	45 - 52	10	AISG3	CPxxxxxxxxxxxxxxxxP2
R5	617-960	9 - 10	11		CPxxxxxxxxxxxxxxxxR5
R6	617-960	11 - 12	12		CPxxxxxxxxxxxxxxxxR6
Y9	1695-2690	29 - 30	13		CPxxxxxxxxxxxxxxxxY9
YC	1695-2690	35 - 36		14	CPxxxxxxxxxxxxxxxxYA
YA	1695-2690	31 - 32	CPxxxxxxxxxxxxxxxxYB		
YB	1695-2690	33 - 34	CPxxxxxxxxxxxxxxxxYC		
P3	3300-4000	53 - 60	15	CPxxxxxxxxxxxxxxxxP3	



Port Configuration

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Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz 3300 – 4000 MHz 617 – 960 MHz
Polarization	±45°
Total Input Power, maximum	2,400 W

Electrical Specifications

	R1-R6	R1-R6	R1-R6	R1-R6
Frequency Band, MHz	617-694	694-790	790-890	890-960
RF Port	1-12	1-12	1-12	1-12
Beamwidth, Horizontal,	72	63	56	52

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degrees

Beamwidth, Vertical, degrees	12	11	9.8	9.2
Beam Tilt, degrees	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	15	17	18	17
Front-to-Back Total Power at 180° ± 30°, dB	20	21	22	22
Isolation, Cross Polarization, dB	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25
VSWR Return loss, dB	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
Input Power per Port at 50°C, maximum, watts	250	250	250	250

Electrical Specifications

	Y1,Y2,Y5,Y6,Y9,YA	Y1,Y2,Y5,Y6,Y9,YA	Y1,Y2,Y5,Y6,Y9,YA
Frequency Band, MHz	1695-1920	1920-2180	2490-2690
RF Port	13,14,19,20,21,22,27,28,29,30,35,36	13,14,19,20,21,22,27,28,29,30,35,36	13,14,19,20,21,22,27,28,29,30,35,36
Beamwidth, Horizontal, degrees	76	67	56
Beamwidth, Vertical, degrees	8	7.2	5.8

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Beam Tilt, degrees	2-12	2-12	2-12
USLS (First Lobe), dB	17	18	19
Front-to-Back Total Power at 180° ± 30°, dB	24	23	22
Isolation, Cross Polarization, dB	25	25	25
Isolation, Inter-band, dB	25	25	25
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	-153	-153
Input Power per Port at 50°C, maximum, watts	200	200	150

Electrical Specifications

	Y3,Y4,Y7,Y8,YB,YC	Y3,Y4,Y7,Y8,YB,YC	Y3,Y4,Y7,Y8,YB,YC	P1-P3	P1-P3
Frequency Band, MHz	1695-1920	1920-2180	2490-2690	3300-3600	3600-4000
RF Port	15-18,23-26,31-34	15-18,23-26,31-34	15-18,23-26,31-34	37-60	37-60
Beamwidth, Horizontal, degrees	64	60	55	76	65
Beamwidth, Vertical, degrees	7.9	7	5.8	6.4	5.9
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	15	19	19	14	15

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Front-to-Back Total Power at 180° ± 30°, dB	26	27	26	24	23
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	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25
Isolation, Co-polarization, dB				19	19
VSWR Return loss, dB	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	-145	-145
Input Power	200	200	150	75	75

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per Port at
50°C,
maximum,
watts

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300-3600	3600-4000
Gain, dBi	16.8	16.4
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Horizontal at 10 dB, degrees	114	106
Beamwidth, Vertical, degrees	6.2	6
Front-to-Back Total Power at 180° ± 30°, dB	26	25
USLS (First Lobe), dB	18	20

Electrical Specifications, Service Beam

Frequency Band, MHz	3300-3600	3600-4000
Steered 0° Gain, dBi	19.7	20.4
Steered 0° Beamwidth, Horizontal, degrees	26	25
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	30	29
Steered 30° Gain, dBi	19.1	19.4

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Steered 30° Beamwidth, Horizontal, degrees	29	27
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Steered 30° Front-to- Back Total Power at 180° ± 30°, dB	28	27
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Electrical Specifications, Soft Split

Frequency Band, MHz	3300-3600	3600-4000
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Gain, dBi	19.1	19.4
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Beamwidth, Horizontal, degrees	32	29
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Front-to- Back Total Power at 180° ± 30°, dB	29	28
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Horizontal Sidelobe, dB	16	19
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Mechanical Specifications

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

Width, packed	750 mm 29.528 in
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Depth, packed	690 mm 27.165 in
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Length, packed	2510 mm 98.819 in
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Weight, gross	120 kg 264.554 lb
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Regulatory Compliance/Certifications

3X-KKV4S4-65B-R15

Agency

CHINA-ROHS

ISO 9001:2015

REACH-SVHC

ROHS

UK-ROHS



Classification

Below maximum concentration value

Designed, manufactured and/or distributed under this quality management system

Compliant as per SVHC revision on www.commscope.com/ProductCompliance

Compliant

Compliant

* Footnotes

Performance Note

Severe environmental conditions may degrade optimum performance