

3X-KKV4S4-65B-R15



60-port sector antenna, 12x 617-960MHz, 24x 1695-2690MHz 65° HPBW and 24x 3300-3800 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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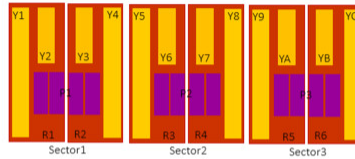
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Outer Diameter

580 mm | 22.835 in

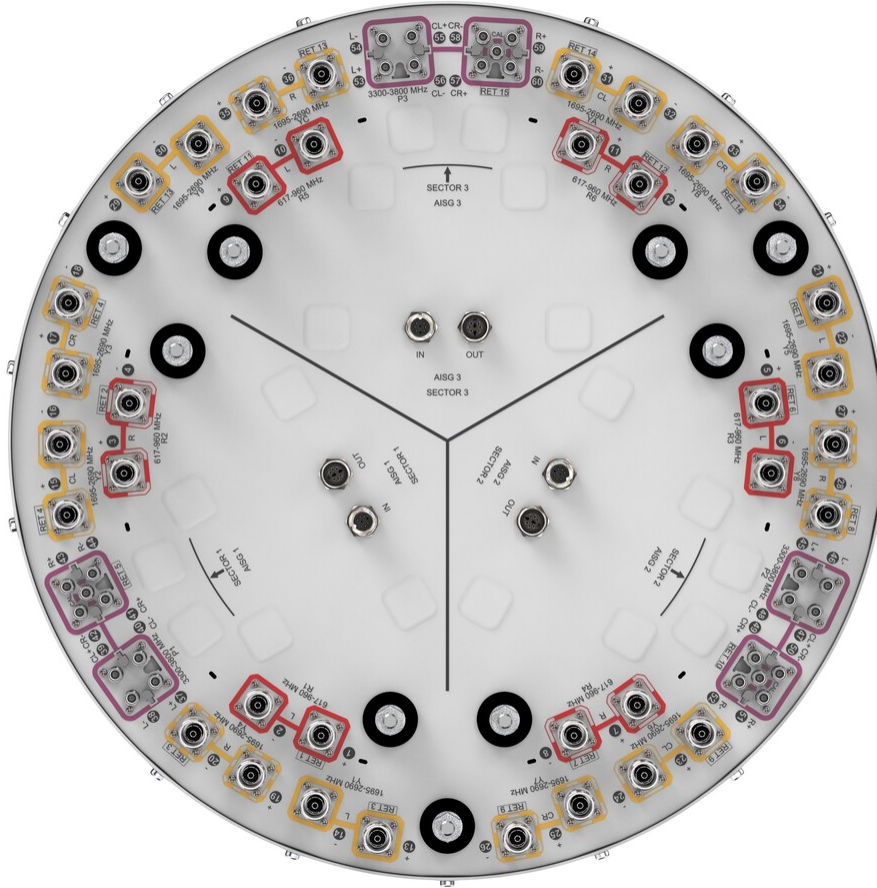
Array Layout

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			CPxxxxxxxxxxxxxxxxP1
Y3	1695-2690	17 - 18	4		CPxxxxxxxxxxxxxxxxR3
P1	3300-3800	37 - 44	5	CPxxxxxxxxxxxxxxxxR4	
R3	617-960	5 - 6	6	AISG2	CPxxxxxxxxxxxxxxxxY5
R4	617-960	7 - 8	7		CPxxxxxxxxxxxxxxxxP2
Y5	1695-2690	21 - 22	8		CPxxxxxxxxxxxxxxxxR5
Y8	1695-2690	27 - 28	9		CPxxxxxxxxxxxxxxxxR6
Y6	1695-2690	23 - 24			CPxxxxxxxxxxxxxxxxY9
Y7	1695-2690	25 - 26			CPxxxxxxxxxxxxxxxxYA
P2	3300-3800	45 - 52	10	CPxxxxxxxxxxxxxxxxYB	
R5	617-960	9 - 10	11	AISG3	CPxxxxxxxxxxxxxxxxP3
R6	617-960	11 - 12	12		CPxxxxxxxxxxxxxxxxY9
Y9	1695-2690	29 - 30	13		CPxxxxxxxxxxxxxxxxYA
YC	1695-2690	35 - 36			CPxxxxxxxxxxxxxxxxYB
YA	1695-2690	31 - 32			CPxxxxxxxxxxxxxxxxP3
YB	1695-2690	33 - 34	14		
P3	3300-3800	53 - 60	15		



Port Configuration

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Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz 3300 – 3800 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,	71	62	56	52

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degrees

Beamwidth, Vertical, degrees	11.9	10.9	9.8	9.1
Beam Tilt, degrees	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	15	16	16	15
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, BASTA

Frequency Band, MHz	617-694	694-790	790-890	890-960
Gain by all Beam Tilts, average, dBi	13	13.6	14.3	14.8

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	73	63	56
Beamwidth, Vertical, degrees	7.9	7.1	5.7

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Beam Tilt, degrees	2-12	2-12	2-12
USLS (First Lobe), dB	17	18	17
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, BASTA

Frequency Band, MHz	1695-1920	1920-2180	2490-2690
Gain by all Beam Tilts, average, dBi	15.6	16.5	17.1

Electrical Specifications

	Y3,Y4,Y7,Y8,YB,YC	Y3,Y4,Y7,Y8,YB,YC	Y3,Y4,Y7,Y8,YB,YC
Frequency Band, MHz	1695-1920	1920-2180	2490-2690
RF Port	15-18,23-26,31-34	15-18,23-26,31-34	15-18,23-26,31-34
Beamwidth, Horizontal, degrees	65	60	55
Beamwidth, Vertical, degrees	7.9	7	5.7
Beam Tilt, degrees	2-12	2-12	2-12
USLS (First Lobe), dB	15	19	19

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Front-to-Back Total Power at 180° ± 30°, dB	24	27	24
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, BASTA

Frequency Band, MHz	1695–1920	1920–2180	2490–2690
Gain by all Beam Tilts, average, dBi	15.2	16.3	17

Electrical Specifications

	P1-P3	P1-P3
Frequency Band, MHz	3300–3600	3600–3800
RF Port	37-60	37-60
Beamwidth, Horizontal, degrees	84	82
Beamwidth, Vertical, degrees	6.4	6
Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	14	15
Front-to-Back Total Power at 180° ± 30°, dB	22	23
Coupling level, Amp, Antenna	26	26

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port to Cal port,
dB

Coupling level, ± 2 ± 2

max Amp Δ ,
Antenna port to
Cal port, dB

Coupler, max
Amp Δ , 0.9 0.9
Antenna port to
Cal port, dB

Coupler, max
Phase Δ , 7 7
Antenna port to
Cal port,
degrees

Isolation, Cross
Polarization, dB 25 25

Isolation, Inter-
band, dB 25 25

Isolation, Co-
polarization, dB 19 19

VSWR | Return
loss, dB 1.5 | 14.0 1.5 | 14.0

PIM, 3rd Order,
typical, 2 x 20
W, dBc -145 -145

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

Electrical Specifications, BASTA

Frequency Band, MHz **3300–3600** **3600–3800**

Gain by all
Beam Tilts,
average, dBi 14.8 15.2

Electrical Specifications, Broadcast 65°

Frequency Band, MHz **3300–3600** **3600–3800**

Gain, dBi 16.6 16.4

Beamwidth,
Horizontal,
degrees 65 65

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Beamwidth, Horizontal at 10 dB, degrees	115	110
Beamwidth, Vertical, degrees	6.2	6.1
Front-to-Back Total Power at 180° ± 30°, dB	25	25
USLS (First Lobe), dB	18	21

Electrical Specifications, Service Beam

Frequency Band, MHz	3300–3600	3600–3800
Steered 0° Gain, dBi	19.9	20.6
Steered 0° Beamwidth, Horizontal, degrees	26	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	28	31
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

Electrical Specifications, Soft Split

Frequency Band, MHz	3300–3600	3600–3800
Gain, dBi	19.1	19.3
Beamwidth, Horizontal, degrees	32	31

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Front-to-Back Total Power at 180° ± 30°, dB	27	28
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	714 mm 28.11 in
Depth, packed	692 mm 27.244 in
Length, packed	2537 mm 99.882 in
Weight, gross	120 kg 264.554 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
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