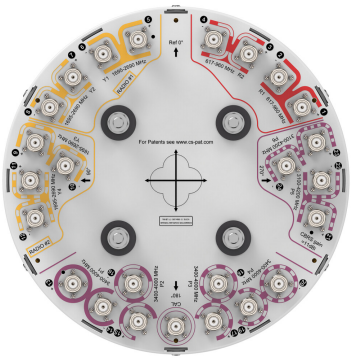


# KKV4S4SS-360A-BF



24-port small cell antenna, 4x 617-960, 8x 1695-2690, 8x 3400-4000 MHz beamformer, 4x 3100-4200 MHz, 360° Horizontal Beamwidth, fixed tilt.

- Array configuration provides capability for 4T4R (4X MIMO) on Low Band, dual 4T4R (4X MIMO) on Mid Band and 4T4R (4X MIMO) on High Band
- 8T8R omni beamforming array with calibration port for 3.5 GHz (Bands 48, 77, 78)

## General Specifications

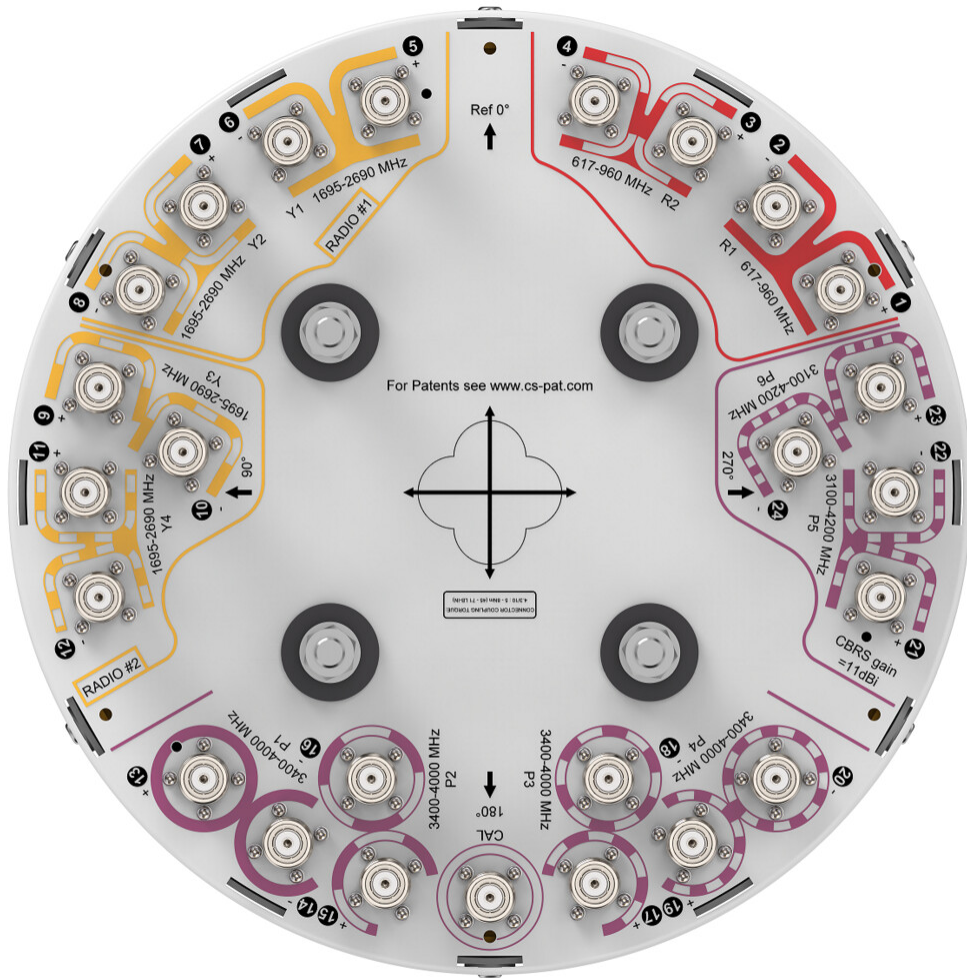
<b>Antenna Type</b>	Small Cell
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	4.3-10 Female
<b>Calibration Connector Quantity</b>	1
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	ASA, UV stabilized
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	12
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	24

## Dimensions

<b>Length</b>	1574 mm   61.969 in
<b>Net Weight, antenna only</b>	35.5 kg   78.264 lb
<b>Outer Diameter</b>	370 mm   14.567 in

## Port Configuration

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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   3100 – 4200 MHz   3400 – 4000 MHz   617 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,440 W

## Electrical Specifications

	R1,R2	R1,R2	R1,R2	R1,R2	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4
<b>Frequency Band, MHz</b>	<b>617-694</b>	<b>694-806</b>	<b>806-896</b>	<b>896-960</b>	<b>1695-1880</b>	<b>1850-1990</b>	<b>1920-2200</b>	<b>2300-2500</b>	<b>2496-2690</b>
<b>RF Port</b>	1-4	1-4	1-4	1-4	5-12	5-12	5-12	5-12	5-12
<b>Beamwidth, Horizontal, degrees</b>	360	360	360	360	360	360	360	360	360

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<b>Beamwidth, Vertical, degrees</b>	26.3	22.3	19.2	19.1	7.8	7.2	6.7	5.7	5.2
<b>Beam Tilt, degrees</b>	10	10	10	10	0	0	0	0	0
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	150	150	150	150	150	150	150	150	150

## Electrical Specifications, BASTA

Frequency Band, MHz	617-694	694-806	806-896	896-960	1695-1880	1850-1990	1920-2200	2300-2500	2496-2690
<b>Gain by all Beam Tilts, average, dBi</b>	6.7	6.6	6.2	6.3	11.1	11.6	12.1	12.5	11.5
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.7	±0.7	±0.6	±0.6	±0.6	±0.6	±0.8	±1	±0.6
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.4	±2.2	±1.1	±1.4	±0.6	±0.3	±0.4	±0.6	±0.3

## Electrical Specifications

	P1-P4	P1-P4	P1-P4	P5-P6	P5-P6	P5-P6
<b>Frequency Band, MHz</b>	<b>3400-3550</b>	<b>3550-3700</b>	<b>3700-4000</b>	<b>3100-3550</b>	<b>3550-3700</b>	<b>3700-4200</b>
<b>RF Port</b>	13-20	13-20	13-20	21-24	21-24	21-24
<b>Beamwidth, Horizontal, degrees</b>	360	360	360	360	360	360
<b>Beamwidth, Vertical, degrees</b>	7.7	7.3	6.8	12.8	11.8	10.8
<b>Beam Tilt, degrees</b>	0	0	0	0	0	0
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>	26	26	26			
<b>Coupling level, max Amp Δ, Antenna port to Cal port, dB</b>	±2	±2	±2			
<b>Coupler, max Amp Δ, Antenna port to Cal port, dB</b>	1	1	1			
<b>Coupler, max Phase Δ, Antenna port to Cal port,</b>	10	10	10			

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degrees

<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25
<b>Isolation, Co-polarization, dB</b>	15	15	15			
<b>VSWR   Return loss, dB</b>	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-145	-145	-145	-145	-145	-145
<b>Input Power per Port at 50°C, maximum, watts</b>	100	100	100	100	100	100

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>3400-3550</b>	<b>3550-3700</b>	<b>3700-4000</b>	<b>3100-3550</b>	<b>3550-3700</b>	<b>3700-4200</b>
<b>Gain by all Beam Tilts, average, dBi</b>	9.6	10.8	11.1	9.5	9.8	9.9
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.8	±0.5	±0.8	±0.8	±0.7	±0.7
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.6	±0.3	±0.5	±0.8	±0.8	±1.1

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>3400-3550</b>	<b>3550-3700</b>	<b>3700-4000</b>
<b>Steered 0° Gain, dBi</b>	14.6	15.8	16
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	64	52	48

## Electrical Specifications, Broadcast 360°

<b>Frequency Band, MHz</b>	<b>3400-3550</b>	<b>3550-3700</b>	<b>3700-4000</b>
<b>Gain, dBi</b>	9.6	10.6	11.2
<b>Beamwidth, Horizontal at 3 dB, degrees</b>	360	360	360
<b>Beamwidth, Vertical, degrees</b>	7.7	7.2	6.8

## Mechanical Specifications

<b>Wind Loading @ Velocity, maximum</b>	351.0 N @ 150 km/h (78.9 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

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## Packaging and Weights

<b>Width, packed</b>	478 mm   18.819 in
<b>Depth, packed</b>	464 mm   18.268 in
<b>Length, packed</b>	1935 mm   76.181 in
<b>Weight, gross</b>	43.5 kg   95.901 lb

## Regulatory Compliance/Certifications

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

## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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