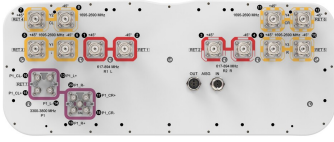


# FFV4S4-65B-R7



20-port sector antenna, 4x 617-894, 8x 1695-2690 MHz 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x RET

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port

## General Specifications

<b>Antenna Type</b>	Sector- and beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	M-LOC
<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>	Fiberglass, UV resistant
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female   M-LOC
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	20

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Low band (2)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W

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**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

**Width** 498 mm | 19.606 in

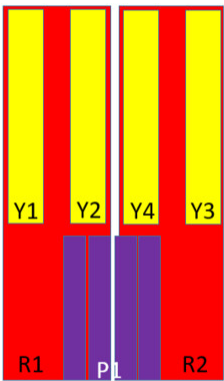
**Depth** 197 mm | 7.756 in

**Length** 2000 mm | 78.74 in

**Net Weight, antenna only** 43 kg | 94.799 lb

**TDD Column Spacing** 42 mm | 1.654 in

## Array Layout



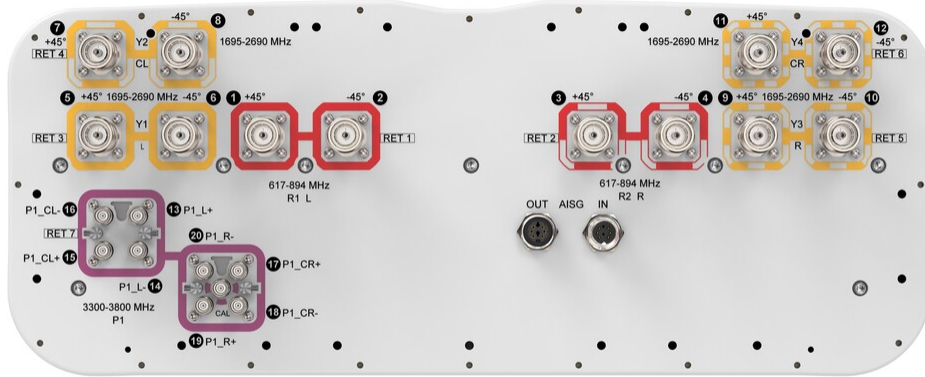
Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-894	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	617-894	3-4	2	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	9-10	5	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	11-12	6	CPxxxxxxxxxxxxxxxxY4
P1	3300-3800	13-20	7	CPxxxxxxxxxxxxxxxxP1

Left  
Bottom  
Right

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

## Port Configuration

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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   3300 – 3800 MHz   617 – 894 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,400 W @ 50 °C

## Electrical Specifications

	R1,R2	R1,R2	Y1,Y3	Y1,Y3	Y1,Y3	Y1,Y3	Y2,Y4
<b>Frequency Band, MHz</b>	<b>617–698</b>	<b>698–894</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2490–2690</b>	<b>1695–1880</b>
<b>RF Port</b>	1,2,3,4	1,2,3,4	5,6,9,10	5,6,9,10	5,6,9,10	5,6,9,10	7,8,11,12
<b>Gain, dBi</b>	13.7	14.7	16	16.4	16.5	17	15.8
<b>Beamwidth, Horizontal, degrees</b>	69	60	70	71	69	55	62
<b>Beamwidth, Vertical, degrees</b>	13.8	11.8	7.6	7.2	6.9	5.7	8.1
<b>Beam Tilt, degrees</b>	2–14	2–14	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	16	15	17	19	19	20	17
<b>Front-to-Back Ratio at 180°, dB</b>	28	29	34	33	32	25	36
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25

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<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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50° C, maximum, watts</b>	250	250	200	200	200	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	617–698	698–894	1695–1880	1850–1990	1920–2200	2490–2690	1695–1880
<b>Gain by all Beam Tilts, average, dBi</b>	13.4	14.2	15.4	16.1	16.2	16.6	15.2
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.7	±1	±0.4	±0.4	±0.7	±0.9
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±6.5	±6.1	±5.8	±4.7	±3.8	±4.6	±6.1
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.9	±1.4	±0.7	±0.4	±0.6	±0.4	±0.7
<b>USLS, beampeak to 20° above beampeak, dB</b>		15	12	14	14	13	12
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	21	21	24	26	25	19	25
<b>CPR at Boresight, dB</b>	16	16	17	19	18	19	18
<b>CPR at Sector, dB</b>	9	7	9	8	7	3	7

## Electrical Specifications

	Y2,Y4	Y2,Y4	Y2,Y4	P1
<b>Frequency Band, MHz</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2490–2690</b>	<b>3300–3800</b>
<b>RF Port</b>	7,8,11,12	7,8,11,12	7,8,11,12	13,14,15,16,17,18,19,20
<b>Gain, dBi</b>	16	16.2	16.5	15.7
<b>Beamwidth, Horizontal, degrees</b>	64	62	59	86
<b>Beamwidth, Vertical, degrees</b>	7.8	7.4	6.1	6.1
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	18	17	15
<b>Front-to-Back Ratio at 180°, dB</b>	37	36	31	28
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>				26
<b>Coupling level, max Amp Δ, Antenna port to Cal port, dB</b>				±2

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<b>Coupler, max Amp <math>\Delta</math>, Antenna port to Cal port, dB</b>				0.9
<b>Coupler, max Phase <math>\Delta</math>, Antenna port to Cal port, degrees</b>				7
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25
<b>Isolation, Co-polarization, dB</b>				20
<b>VSWR   Return loss, dB</b>	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>	-150	-150	-150	-140
<b>Input Power per Port at 50° C, maximum, watts</b>	200	200	200	75

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2490–2690</b>	<b>3300–3800</b>
<b>Gain by all Beam Tilts, average, dBi</b>	15.7	15.9	16.1	15.1
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.4	±0.5	±0.7
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±4.9	±5.3	±5.9	±16.6
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.4	±0.6	±0.4	±0.6
<b>USLS, beampeak to 20° above beampeak, dB</b>	14	15	13	13
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	28	28	25	22
<b>CPR at Boresight, dB</b>	21	20	17	15
<b>CPR at Sector, dB</b>	8	8	5	6

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	17.3
<b>Beamwidth, Horizontal, degrees</b>	65
<b>Beamwidth, Vertical, degrees</b>	6.2
<b>Front-to-Back Total Power</b>	25

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at 180° ± 30°, dB

**USLS (First Lobe), dB** 20

## Electrical Specifications, Service Beam

**Frequency Band, MHz** 3300–3800

**Steered 0° Gain, dBi** 20.3

**Steered 0° Beamwidth, Horizontal, degrees** 25

**Steered 0° Front-to-Back Total Power at 180° ± 30°, dB** 29

**Steered 0° Horizontal Sidelobe, dB** 14

**Steered 30° Gain, dBi** 19.7

**Steered 30° Beamwidth, Horizontal, degrees** 27

**Steered 30° Front-to-Back Total Power at 180° ± 30°, dB** 28

## Electrical Specifications, Soft Split

**Frequency Band, MHz** 3300–3800

**Gain, dBi** 19.1

**Beamwidth, Horizontal, degrees** 32

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

**Horizontal Sidelobe, dB** 18

## Mechanical Specifications

**Wind Loading @ Velocity, frontal** 759.0 N @ 150 km/h (170.6 lbf @ 150 km/h)

**Wind Loading @ Velocity, lateral** 259.0 N @ 150 km/h (58.2 lbf @ 150 km/h)

**Wind Loading @ Velocity, maximum** 984.0 N @ 150 km/h (221.2 lbf @ 150 km/h)

**Wind Loading @ Velocity, rear** 625.0 N @ 150 km/h (140.5 lbf @ 150 km/h)

**Wind Speed, maximum** 241 km/h (150 mph)

## Packaging and Weights

**Width, packed** 565 mm | 22.244 in

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<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2187 mm   86.102 in
<b>Weight, gross</b>	56.8 kg   125.222 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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



## Included Products

- BSAMNT-4 – Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## \* Footnotes

**Performance Note** Severe environmental conditions may degrade optimum performance

# BSAMNT-4



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## Product Classification

**Product Type** Downtilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 6.5 kg | 14.33 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

