

# RRZZHHTTS4-65B-R7



24-port sector antenna, 4x 694–960, 4x 1427–2690, 4x 1695–2180, 4x 2490–2690 MHz 65° HPBW and 8x 3300–3800 MHz, 90° HPBW, 7x RET

- Antenna includes 2x Single Column X-Pol Arrays for 694-960MHz and 2x Single Column X-Pol Arrays for 1427-2690MHz, suitable for 4x MIMO applications
- Includes 2x Single Column X-Pol Diplexed Arrays providing 4-Ports x 1695-2180MHz and 4 Ports x 2490-2690MHz, suitable for 4x MIMO applications
- Includes 1x 4-Column Array for 3300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- Includes seven Internal RET's. All 1695-2180MHz (B1,B2) ports share common RET. All 2490-2690MHz (Y1,Y4) ports share common RET

## General Specifications

<b>Antenna Type</b>	Sector
<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   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Low loss circuit board
<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>	20
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	24

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v1   CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male

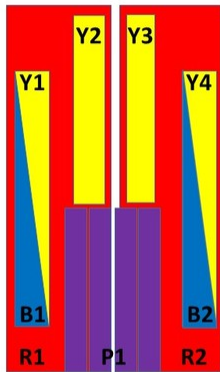
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<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal Bias Tee</b>	Cal Port
<b>Internal RET</b>	High band (5)   Low band (2)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	9 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2100 mm   82.677 in
<b>Net Weight, without mounting kit</b>	47 kg   103.617 lb
<b>TDD Column Spacing</b>	42 mm   1.654 in

## Array Layout



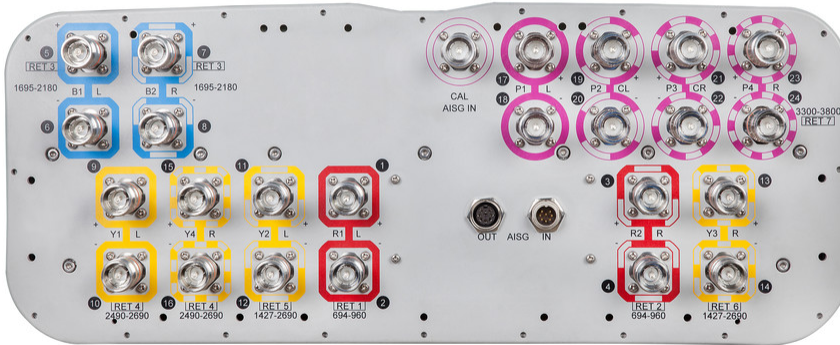
Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxxxR2
B1	1695-2180	5-6	3	CPxxxxxxxxxxxxxxxxB1
B2	1695-2180	7-8		
Y1	2490-2690	9-10	4	CPxxxxxxxxxxxxxxxxY1
Y4	2490-2690	15-16		
Y2	1427-2690	11-12		
Y3	1427-2690	13-14		
P1	3300-3800	17-24	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>	1427 – 2690 MHz   3300 – 3800 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

	R1-R2	R1-R2	B1-B2	Y1&Y4	Y2-Y3	Y2-Y3	Y2-Y3	P1
<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–960</b>	<b>1695–2180</b>	<b>2490–2690</b>	<b>1427–1518</b>	<b>1695–2180</b>	<b>2300–2690</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	14.7	15.3	17.9	18.7	15	17	17.7	16
<b>Beamwidth, Horizontal, degrees</b>	71	63	66	59	66	62	58	89
<b>Beamwidth, Vertical, degrees</b>	10.5	8.8	5.2	4.1	9.3	7.3	5.6	6.5
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	15	16	18	25	18	18	20	15
<b>Front-to-Back Ratio at 180°, dB</b>	32	30	33	30	33	35	31	31
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>								26
<b>Coupling level, max Amp Δ,</b>								±2

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## Antenna port to Cal port, dB

Coupler, max Amp  $\Delta$ , Antenna port to Cal port, dB 0.9

Coupler, max Phase  $\Delta$ , Antenna port to Cal port, degrees 7

Isolation, Cross Polarization, dB 28 28 28 28 26 27 26 25

Isolation, Inter-band, dB 28 28 28 28 27 27 27 20

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

PIM, 3rd Order, 2 x 20 W, dBc -150 -150 -150 -150 -150 -150 -150 -145

Input Power per Port at 50°C, maximum, watts 300 300 250 150 250 250 200 50

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–960	1695–2180	2490–2690	1427–1518	1695–2180	2300–2690	3300–3800
Gain by all Beam Tilts, average, dBi	14.4	15	17.3	18.3	14.7	16.3	17.2	15.3
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.9	±0.5	±0.4	±0.9	±0.8	±0.8
Gain by Beam Tilt, average, dBi	2° 14.4 7° 14.5 12° 14.3	2° 15.0 7° 15.1 12° 14.8	2° 17.2 7° 17.4 12° 17.3	2° 18.1 7° 18.4 12° 18.1	2° 14.5 7° 14.7 12° 14.6	2° 16.0 7° 16.4 12° 16.3	2° 16.6 7° 17.4 12° 17.3	2° 15.0 7° 15.4 12° 15.3
Beamwidth, Horizontal Tolerance, degrees	±6.5	±4.7	±6.7	±4.7	±4.8	±6.4	±5.6	±20
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.8	±0.5	±0.2	±0.7	±0.8	±0.5	±0.6
USLS, beampeak to 20° above beampeak, dB	15	16	16	16	15	17	16	15
Front-to-Back Total Power at 180° ± 30°, dB	21	21	26	23	22	28	26	23
CPR at Boresight, dB	21	19	20	19	19	19	17	17
CPR at Sector, dB	15	10	7	6	8	8	3	9

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300–3800
Gain, dBi	16.7
Beamwidth, Horizontal, degrees	58
Beamwidth, Vertical, degrees	6.6
Front-to-Back Total Power at	26

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180° ± 30°, dB

USLS (First Lobe), dB

16

## Electrical Specifications, Service Beam

Frequency Band, MHz

**3300–3800**

Steered 0° Gain, dBi

20.8

Steered 0° Beamwidth,  
Horizontal, degrees

24

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

30

Steered 0° Horizontal  
Sidelobe, dB

13

Steered 30° Gain, dBi

19.6

Steered 30° Beamwidth,  
Horizontal, degrees

29

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

28

Steered 30° Horizontal  
Sidelobe, dB

9

## Electrical Specifications, Soft Split

Frequency Band, MHz

**3300–3800**

Gain, dBi

19.8

Beamwidth, Horizontal,  
degrees

31

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

29

## Mechanical Specifications

Mechanical Tilt Range

0°–12°

Wind Loading @ Velocity, frontal

803.0 N @ 150 km/h (180.5 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral

275.0 N @ 150 km/h (61.8 lbf @ 150 km/h)

Wind Loading @ Velocity, maximum

1,040.0 N @ 150 km/h (233.8 lbf @ 150 km/h)

Wind Loading @ Velocity, rear

661.0 N @ 150 km/h (148.6 lbf @ 150 km/h)

Wind Speed, maximum

288 km/h (179 mph)

## Packaging and Weights

Width, packed

565 mm | 22.244 in

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<b>Depth, packed</b>	368 mm   14.488 in
<b>Length, packed</b>	2279 mm   89.724 in
<b>Weight, gross</b>	60.8 kg   134.041 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.
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## \* Footnotes

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

