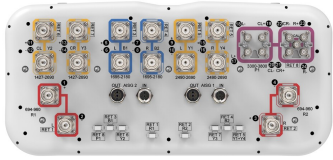


# RRZZHHTTS4-65B-R8N



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, 8x 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
- Retractable tilt indicator rods
- Includes eight Internal RET's. All 2490-2690MHz (Y1&Y4) ports share common RET
- M-LOC cluster connector for 3.3-3.8GHz, equipped with calibration port
- Antenna shape optimized for wind load reduction

## 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>	12
<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 v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	2 female   2 male

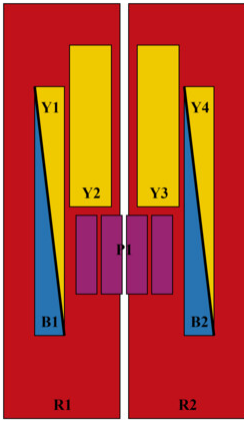
# RRZZHHTTS4-65B-R8N

<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Low band (2)   Mid band (5)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

<b>Width</b>	430 mm   16.929 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2100 mm   82.677 in
<b>Net Weight, antenna only</b>	41.2 kg   90.83 lb
<b>TDD Column Spacing</b>	42 mm   1.654 in

## Array Layout

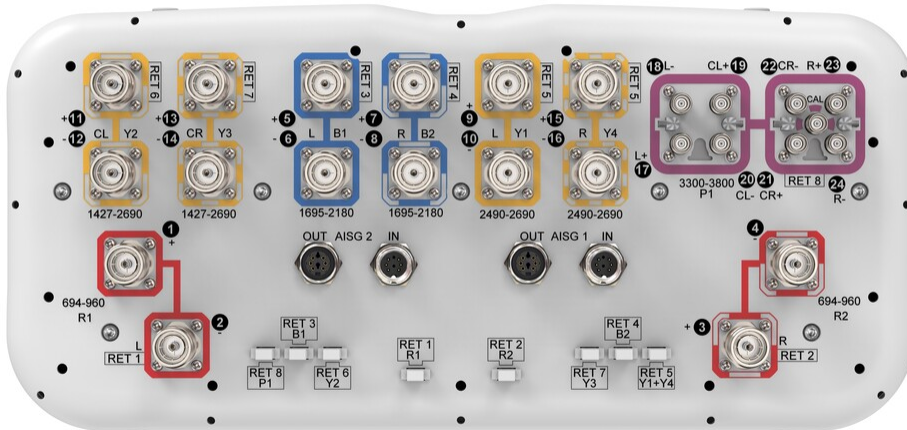


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxxxR2
B1	1695-2180	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxxB1
B2	1695-2180	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxxB2
Y1	2490-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxxY1
Y4	2490-2690	15 - 16			
Y2	1427-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1427-2690	13 - 14	7	AISG1	CPxxxxxxxxxxxxxxxxY3
P1	3300-3800	17 - 24	8	AISG1	CPxxxxxxxxxxxxxxxxP1

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

## Port Configuration

# RRZZHHTTS4-65B-R8N



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1427 – 2690 MHz   1695 – 2180 MHz   2490 – 2690 MHz   3300 – 3800 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694–790	790–890	890–960	1427–1518	1695–2200	2300–2690	1695–2180	2490–2690	3300–3800
<b>Gain, dBi</b>	14.1	15	15	14.1	15.9	16.6	17.1	17.7	16
<b>Beamwidth, Horizontal, degrees</b>	70	60	59	69	63	61	69	64	82
<b>Beamwidth, Vertical, degrees</b>	10.6	9.5	8.7	9.9	7.6	6.2	5.2	4.2	6.1
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	20	19	18	13	18	20	19	21	16
<b>Front-to-Back Ratio at 180°, dB</b>	31	31	30	34	34	31	32	32	29
<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>	27	27	27	26	26	26	27	27	25
<b>Isolation, Inter-band, dB</b>	27	27	27	26	26	26	26	27	25
<b>Isolation, Co-polarization, dB</b>	19								
<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	-140
<b>Input Power per Port at 50° C, maximum, watts</b>	250	250	250	200	200	150	200	150	75

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	1427–1518	1695–2200	2300–2690	1695–2180	2490–2690	3300–3800
<b>Gain by all Beam Tilts, average, dBi</b>	13.6	14.6	14.6	13.7	15.3	16.2	16.6	17.4	15.3
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.6	±0.5	±0.4	±0.5	±1	±0.5	±0.7	±0.3	±0.8
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±8.3	±4.6	±4.7	±7.3	±8.4	±4.1	±6.4	±2.5	±22.1
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.7	±0.7	±0.4	±0.7	±0.9	±0.5	±0.4	±0.2	±0.6
<b>USLS, beampeak to 20° above beampeak, dB</b>	19.4	17.4	17.6	13.2	14.9	13.5	15.9	15	13.2
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	22	24	21	22	28	26	26	24	22
<b>CPR at Boresight, dB</b>	22	23	23	16	18	17	18	23	18

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	16.5
<b>Beamwidth, Horizontal, degrees</b>	57
<b>Beamwidth, Vertical, degrees</b>	6.1
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	24

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USLS (First Lobe), dB 17

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Steered 0° Gain, dBi</b>	20.8
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	23
<b>Steered 0° Front-to-Back Total Power at 180° ± 30°, dB</b>	30
<b>Steered 0° Horizontal Sidelobe, dB</b>	15
<b>Steered 30° Gain, dBi</b>	19.6
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	28
<b>Steered 30° Front-to-Back Total Power at 180° ± 30°, dB</b>	28

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	19.7
<b>Beamwidth, Horizontal, degrees</b>	31
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	28
<b>Horizontal Sidelobe, dB</b>	16

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	495.0 N @ 150 km/h (111.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	253.0 N @ 150 km/h (56.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	745.0 N @ 150 km/h (167.5 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	316.0 N @ 150 km/h (71.0 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	530 mm   20.866 in
<b>Depth, packed</b>	349 mm   13.74 in

# RRZZHHTTS4-65B-R8N

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**Length, packed** 2272 mm | 89.449 in

**Weight, gross** 53.5 kg | 117.947 lb

## Regulatory Compliance/Certifications

### 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](http://www.commscope.com/ProductCompliance)

Compliant

Compliant/Exempted



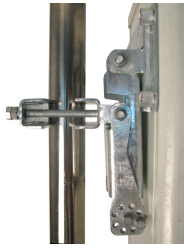
## Included Products

- BSAMNT-3 – 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-3



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** 6.2 kg | 13.669 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 6.4 kg | 14.11 lb

## Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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

# BSAMNT-3

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