

# T4S4-90A-R2-V4



16-port Planar Array Antenna, 8x 2300–2690 and 8x 3300–3800MHz, 90° HPBW, 2x RET

- For use in beamforming systems includes one calibration port per band
- 2x MQ4 and 2x MQ5 cluster connectors (comprising 16 RF ports + 2 calibration ports in total) are provided for the beam-forming arrays

## General Specifications

<b>Antenna Type</b>	Sector- and beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	MQ5
<b>Calibration Connector Quantity</b>	2
<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>	MQ4   MQ5
<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, total</b>	16

## Remote Electrical Tilt (RET) Information

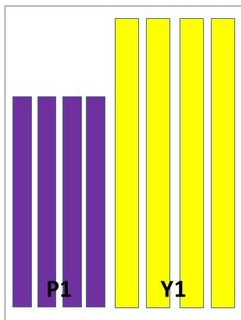
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Mid band (1)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

# T4S4-90A-R2-V4

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	1499 mm   59.016 in
<b>Net Weight, antenna only</b>	33 kg   72.752 lb

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
Y1	2300-2690	1-8	1	CPxxxxxxxxxxxxxxxxY1
P1	3300-3800	9-16	2	CPxxxxxxxxxxxxxxxxP1

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

Left Right  
Bottom

## Port Configuration



# T4S4-90A-R2-V4

## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	2300 – 2690 MHz   3300 – 3800 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

	<b>Y1</b>	<b>Y1</b>	<b>P1</b>	<b>P1</b>
<b>Frequency Band, MHz</b>	<b>2300–2500</b>	<b>2500–2690</b>	<b>3300–3600</b>	<b>3600–3800</b>
<b>RF Port</b>	1-8	1-8	9-16	9-16
<b>Gain at Mid Tilt, dBi</b>	16.5	16.5	15.7	16.1
<b>Beamwidth, Horizontal, degrees</b>	103	97	99	92
<b>Beamwidth, Vertical, degrees</b>	5.2	5	6.7	6.3
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	20	15	14
<b>Front-to-Back Ratio at 180°, dB</b>	35	35	30	29
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>	26	26	26	26
<b>Coupling level, max Amp Δ, Antenna port to Cal port, dB</b>	±2	±2	±2	±2
<b>Coupler, max Amp Δ, Antenna port to Cal port, dB</b>	0.9	0.9	0.9	0.9
<b>Coupler, max Phase Δ, Antenna port to Cal port, degrees</b>	7	7	7	7
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25
<b>Isolation, Inter-band, dB</b>	30	30	30	30
<b>Isolation, Co-polarization, dB</b>	18	18	19	19
<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>	-130	-130	-130	-130
<b>Input Power per Port at 50°C, maximum, watts</b>	150	150	75	75

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>2300–2500</b>	<b>2500–2690</b>	<b>3300–3600</b>	<b>3600–3800</b>
<b>Gain by all Beam Tilts, average, dBi</b>	16	16.1	15	15.3
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.6	±0.6	±0.8

# T4S4-90A-R2-V4

Beamwidth, Horizontal Tolerance, degrees	±13	±6	±15	±18
Beamwidth, Vertical Tolerance, degrees	±0.3	±0.2	±0.4	±0.5
USLS, beampeak to 20° above beampeak, dB	17	17	14	13
Front-to-Back Total Power at 180° ± 30°, dB	26	26	20	21
CPR at Boresight, dB	15	15	17	14
CPR at Sector, dB	11	8	9	8

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2300–2500	2500–2690	3300–3600	3600–3800
Gain, dBi	17.9	17.9	16.2	16.3
Beamwidth, Horizontal, degrees	63	62	67	65
Beamwidth, Vertical, degrees	5.2	4.9	6.7	6.3
Front-to-Back Total Power at 180° ± 30°, dB	27	26	23	22
USLS (First Lobe), dB	18	20	16	16

## Electrical Specifications, Service Beam

Frequency Band, MHz	2300–2500	2500–2690	3300–3600	3600–3800
Steered 0° Gain, dBi	21.6	21.8	20.6	20.8
Steered 0° Beamwidth, Horizontal, degrees	27	25	25	23
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	31	31	28	28
Steered 0° Horizontal Sidelobe, dB	12	11	12	12
Steered 0° USLS (First Lobe), dB	20	22	16	15
Steered 30° Gain, dBi	21.2	21.2	19.8	19.9
Steered 30° Beamwidth, Horizontal, degrees	29	27	29	27
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	30	30	24	25

## Electrical Specifications, Soft Split

Frequency Band, MHz	2300–2500	2500–2690	3300–3600	3600–3800
Gain, dBi	21.1	21.1	19.7	19.9
Beamwidth, Horizontal, degrees	32	31	32	30

# T4S4-90A-R2-V4

<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	30	29	26	27
<b>Horizontal Sidelobe, dB</b>	18	17	18	17
<b>USLS (First Lobe), dB</b>	16	17	16	16

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	498.0 N @ 150 km/h (112.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	148.0 N @ 150 km/h (33.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	597.0 N @ 150 km/h (134.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	342.0 N @ 150 km/h (76.9 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	1686 mm   66.378 in
<b>Weight, gross</b>	45.7 kg   100.751 lb

## Regulatory Compliance/Certifications

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



## 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

<b>Performance Note</b>	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

---

