

# TTTT90AP-1XR



## 8-port sector Planar Array Antenna, 2496–2690 MHz, 90° HPBW, 1x RET

- Excellent solution for site sharing and maximizing capacity
- Employs state-of-the-art ultra wideband technology providing excellent RF performance in all bands
- MIMO ready

### OBSOLETE

This product was discontinued on: **March 27, 2020**

#### Replaced By:

T4-90A-R1

Planar Array Antenna, 2300–2690 MHz, 90° HPBW, 1xIntRET

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Single band
<b>Calibration Connector Interface</b>	N 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>	PVC, UV resistant
<b>Radiator Material</b>	Low loss circuit board
<b>RF Connector Interface</b>	4.1-9.5 DIN Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, total</b>	8

## Remote Electrical Tilt (RET) Information

<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male

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<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	10 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

<b>Width</b>	307 mm   12.087 in
<b>Depth</b>	118 mm   4.646 in
<b>Length</b>	1610 mm   63.386 in
<b>Net Weight, without mounting kit</b>	15.5 kg   34.172 lb
<b>TDD Column Spacing</b>	58 mm   2.283 in

## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	2496 – 2690 MHz
<b>Polarization</b>	±45°

## Electrical Specifications, Broadcast 65°

<b>Beamwidth, Horizontal</b>	68 °
<b>Beamwidth, Vertical</b>	5 °
<b>Beamwidth, Vertical Tolerance</b>	±0.5°
<b>CPR at Boresight</b>	17 dB
<b>Front-to-Back Total Power at 180° ± 30°</b>	32 dB
<b>Gain</b>	18 dBi
<b>Null Fill</b>	-21 dB

## Electrical Specifications, Single Column

<b>Beamwidth, Horizontal</b>	96 °
<b>Beamwidth, Vertical</b>	4.7 °
<b>Beamwidth, Vertical Tolerance</b>	±0.25°
<b>CPR at Boresight</b>	15 dB
<b>CPR at Sector</b>	13 dB
<b>Front-to-Back Total Power at 180° ± 30°</b>	30 dB

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<b>Gain</b>	17.2 dBi
<b>Input per Port, maximum</b>	250 W
<b>USLS at Main Beam up to +10°</b>	18 dB

## Beam Forming Weights

			Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7	Port 8
P0	Tapered_Broadcast_65° for tilt 0-8	Amp(voltage)	0.33	0	1	0	1	0	0.33	0
		PHz	0	0	110	0	110	0	0	0
P1	Tapered_Broadcast_65° for tilt 0-8	Amp(voltage)	0	0.33	0	1	0	1	0	0.33
		PHz	0	0	0	110	0	110	0	0
P0	FullPower_Broadcast_65° for tilt 0-8	Amp(voltage)	1	1	1	1	1	0	0	0
		PHz	60	57	0	117	0	0	0	0
P1	FullPowerBroadcast_65° for tilt 0-8	Amp(voltage)	0	0	0	0	1	1	1	1
		PHz	0	0	0	0	55	-123	0	-68
P0	Tapered_Power_Broadcast_90° for tilt 0-3	Amp(voltage)	0.52	0	1	0	0.68	0	0.43	0
		PHz	0	0	114	0	105	0	-9	0
P1	Tapered_PowerBroadcast_90° for tilt 0-3	Amp(voltage)	0	0.52	0	1	0	0.68	0	0.43
		PHz	0	0	0	114	0	105	0	-9
P0	Tapered_Power_Broadcast_90° for tilt 4-8	Amp(voltage)	0.52	0	1	0	0.68	0	0.43	0
		PHz	0	0	124	0	108	0	4	0
P1	Tapered_PowerBroadcast_90° for tilt 4-8	Amp(voltage)	0	0.52	0	1	0	0.68	0	0.43
		PHz	0	0	0	124	0	108	0	4
+45	Service Beam_0° for tilt 0-8	Amp(voltage)	1	0	1	0	1	0	1	0
		PHz	0	0	0	0	0	0	0	0
-45	Service Beam_0° for tilt 0-8	Amp(voltage)	0	1	0	1	0	1	0	1
		PHz	0	0	0	0	0	0	0	0
+45	Service Beam_30° for tilt 0-8	Amp(voltage)	1	0	1	0	1	0	1	0
		PHz	0	0	100	0	200	0	300	0
-45	Service Beam_30° for tilt 0-8	Amp(voltage)	0	1	0	1	0	1	0	1
		PHz	0	0	0	100	0	200	0	300
+45	Service Beam_-30° for tilt 0-8	Amp(voltage)	1	0	1	0	1	0	1	0
		PHz	0	0	-100	0	-200	0	-300	0
-45	Service Beam_-30° for tilt 0-8	Amp(voltage)	0	1	0	1	0	1	0	1
		PHz	0	0	0	-100	0	-200	0	-300

## Electrical Specifications

<b>Frequency Band, MHz</b>	<b>2496–2690</b>
<b>Gain, dBi</b>	17.8
<b>Beamwidth, Horizontal, degrees</b>	96
<b>Beamwidth, Vertical, degrees</b>	4.7
<b>Beam Tilt, degrees</b>	0–8
<b>USLS, typical, dB</b>	18
<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
<b>Coupler, max Amp Δ, Antenna port to Cal port, dB</b>	0.9
<b>Coupler, max Phase Δ, Antenna port to Cal port, degrees</b>	7
<b>CPR at 3 dB Horizontal Beamwidth, dB</b>	14

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<b>Isolation, Cross Polarization, dB</b>	25
<b>VSWR   Return loss, dB</b>	1.45   14.7
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-143
<b>Input Power per Port, maximum, watts</b>	250

## Mechanical Specifications

<b>Mechanical Tilt Range</b>	0°–17°
<b>Wind Loading @ Velocity, frontal</b>	559.0 N @ 150 km/h (125.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	114.0 N @ 150 km/h (25.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	677.0 N @ 150 km/h (152.2 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	413 mm   16.26 in
<b>Depth, packed</b>	257 mm   10.118 in
<b>Length, packed</b>	1740 mm   68.504 in
<b>Weight, gross</b>	23.3 kg   51.368 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Above 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/Exempted
UK-ROHS	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.
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## \* Footnotes

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**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

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