

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

Antenna Type	Sector
Band	Single band
Calibration Connector Interface	N Female
Calibration Connector Quantity	1
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	PVC, UV resistant
Radiator Material	Low loss circuit board
RF Connector Interface	4.1-9.5 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male

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

Dimensions

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

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	2496 – 2690 MHz
Polarization	±45°

Electrical Specifications, Broadcast 65°

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

Electrical Specifications, Single Column

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

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Gain	17.2 dBi
Input per Port, maximum	250 W
USLS at Main Beam up to +10°	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

Frequency Band, MHz	2496–2690
Gain, dBi	17.8
Beamwidth, Horizontal, degrees	96
Beamwidth, Vertical, degrees	4.7
Beam Tilt, degrees	0–8
USLS, typical, dB	18
Coupling level, Amp, Antenna port to Cal port, dB	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7
CPR at 3 dB Horizontal Beamwidth, dB	14

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

Mechanical Specifications

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

Packaging and Weights

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

Regulatory Compliance/Certifications

Agency	Classification
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 www.commscope.com/ProductCompliance
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