



Antenna Specification



Product Number:

Product Name:

TP-LINK®

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Product Number:

Product Name:

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Specification For Approval

Product Number:

Product Name:

TP-LINK®

Date: _____

File No. : _____

Version: 1.0

Customer: _____

Customer P/N : _____ / _____

TP-LINK P/N: _____

Description: Antenna For EAP650V1

TP-LINK Checked By:
Customer Approved By:

TP-LINK®

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Specification

Sample Photo

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A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz&5150MHz~5850MHz
Impedance	50 Ohm
S.W.R.	<= 2.0
Antenna Gain	3.8dBi@2400~2500MHz&5dBi@5150~5850MHz
Max Input Power	<= 2 W
Polarization	Linear
Radiation pattern	Omni-Directional
B. Material & Mechanical Characteristics	
Material of Radiator	(Cu)
Material of Plastic	/
Cable Type	/
Connector Type	/
Connector Pull Test	/
C. Environmental	
Operation Temperature	/
Storage Temperature	/

I. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201 A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions;	1. No Visual Damage 2.FrequencyTol.<=5%

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		2 hours for each direction	
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<=5%
M3	Drop Test	Combine DUT with router; Height: 0.6 Meter; 1 direction; 3 times for the direction	1. No parts separated 2. Frequency Tol.<=5%
M4	Terminal- Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<=5%
M5	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	SE-GS-90T Temp: 35℃; RH: 93%±3%; NaCl solution proportion: 1.026 ~ 1.041; Time:12 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<=5%
E2	Thermal Shock	1Cycle: -20℃ (30 minutes) to +70℃ (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<=5%
E3	Life (HighTemp.)	MIL-STD-202G,108A, cond. A Temp: 70℃; Time: 8 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<=5%

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II. Antenna – S Parameter Test Data

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III. Antenna – Radiation Pattern Test Data

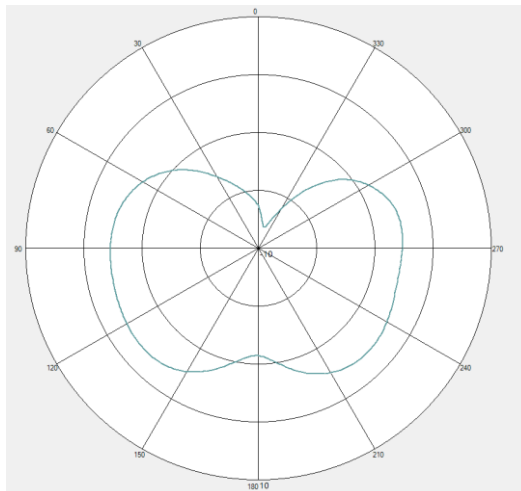
Testing Equipment Specification	
Microwave Chamber	ETS AMS-8923
Testing Equipment	Agilent E5071C

III.1 Ant

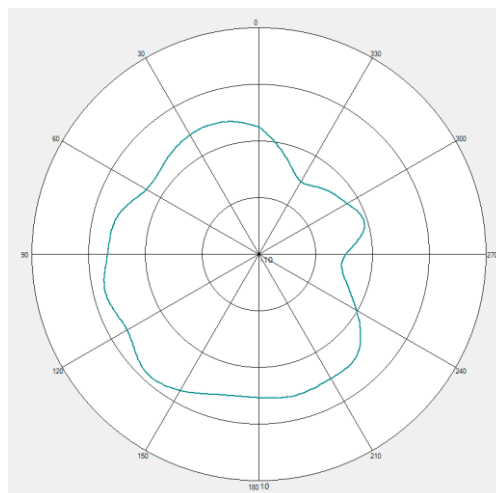
Ant											
Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	3.8	3.6	3.4	3.2	3.1	3.1	3.2	3.3	3.4	3.4	3.4
Effi. (%)	69.75	68.67	68.39	68.54	69.10	69.20	69.47	70.26	70.65	70.39	70.19
Freq. (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650
Gain (dBi)	5.0	4.8	4.7	4.6	4.6	4.5	4.4	4.6	4.6	4.6	3.9
Effi. (%)	68.80	70.64	71.45	69.57	68.44	64.87	63.35	61.12	60.16	61.99	58.58
Freq. (MHz)	5700	5750	5800	5850							
Gain (dBi)	3.7	3.3	2.5	1.6							
Effi. (%)	55.68	50.01	43.96	39.40							

Theta=45

2450MHz



5250MHz

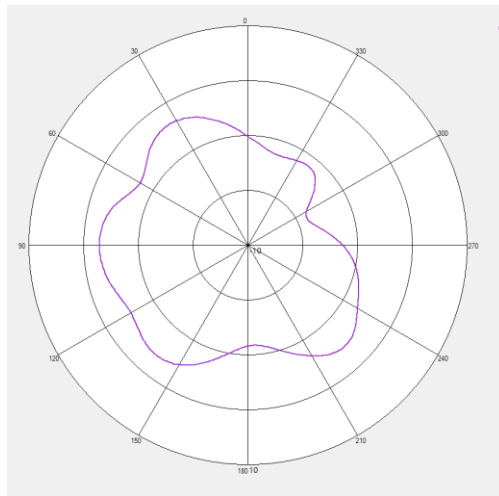


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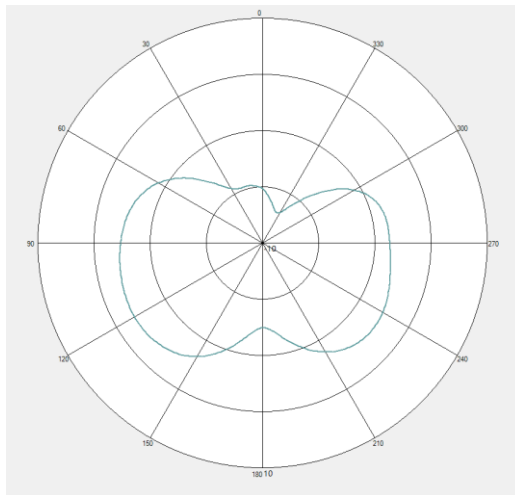
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5650MHz

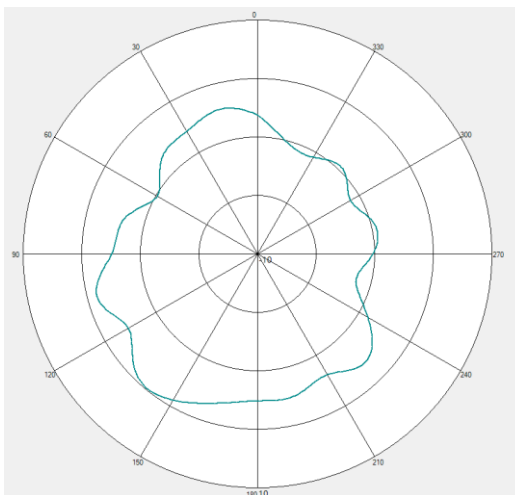


Theat=60

2450MHz



5250MHz



5650MHz

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