TP-LINK®

Antenna Specification

COPYRIGHT & TRADEMARKS

Specifications are subject to change without notice. TP-LINK® is a registered trademark of TP-LINK TECHNOLOGIES CO., LTD. Other brands and product names are trademarks or registered trademarks of their respective holders.

No part of the specifications may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from TP-LINK TECHNOLOGIES CO., LTD. Copyright © 2011 TP-LINK TECHNOLOGIES CO., LTD. All rights reserved.

http://www.tp-link.com

Product Number:

Product Name: Antenna

Specification For Approval

Date: _____
File No. : _____
Version: 1.0

Customer: _____/_____

Customer P/N : _____/_____

TP-LINK P/N: _____

Description: KP400(US)3.0 Antenna

TP-LINK Checked By:
Customer Approved By:

TP-LINK TECHNOLOGIES CO., LTD.
South Buiding, No.5 Keyuan Road,
Central Zone, Science&Technology Park,
Nanshan, Shenzhen, P.R.China
TEL: + 86 755 26612350
+ 86 755 26504400
http:// www.tp-link.com

Index

Specification

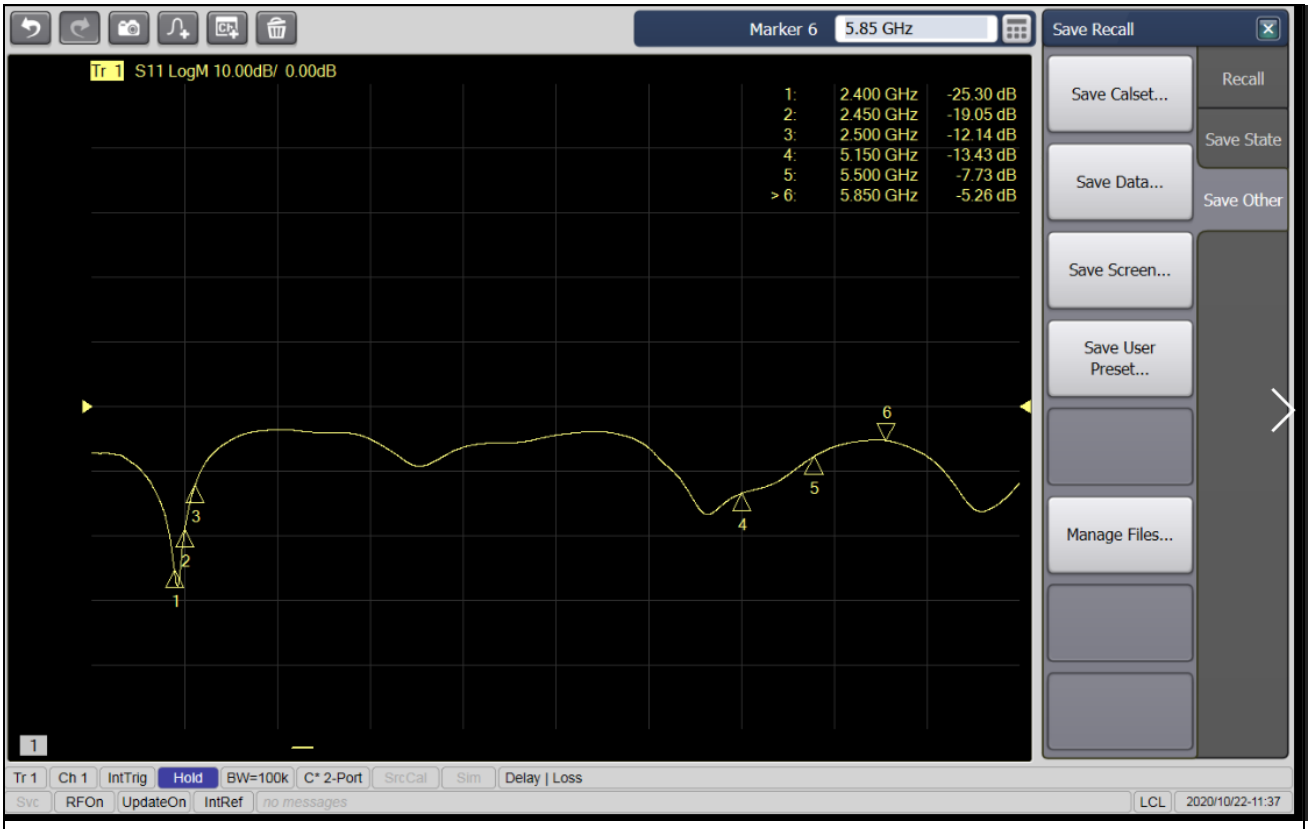
Sample Photo	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz
Impedance	50 Ohm
S.W.R.	<= 2.0
Antenna Gain	1.32dBi@2400~2500MHz
Max Input Power	<= 2 W
Polarization	Linear
Radiation pattern	Omni-Directional
B. Material & Mechanical Characteristics	
Material of Radiator	PCB(FR-4+Cu)
Material of Plastic	/
Cable Type	/
Connector Type	/
Connector Pull Test	/
C. Environmental	
Operation Temperature	In accordance with PCB
Storage Temperature	In accordance with PCB

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; 2 hours for each direction	1. No Visual Damage 2.FrequencyTol.<=5%
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%

II. Antenna – S Parameter Test Data



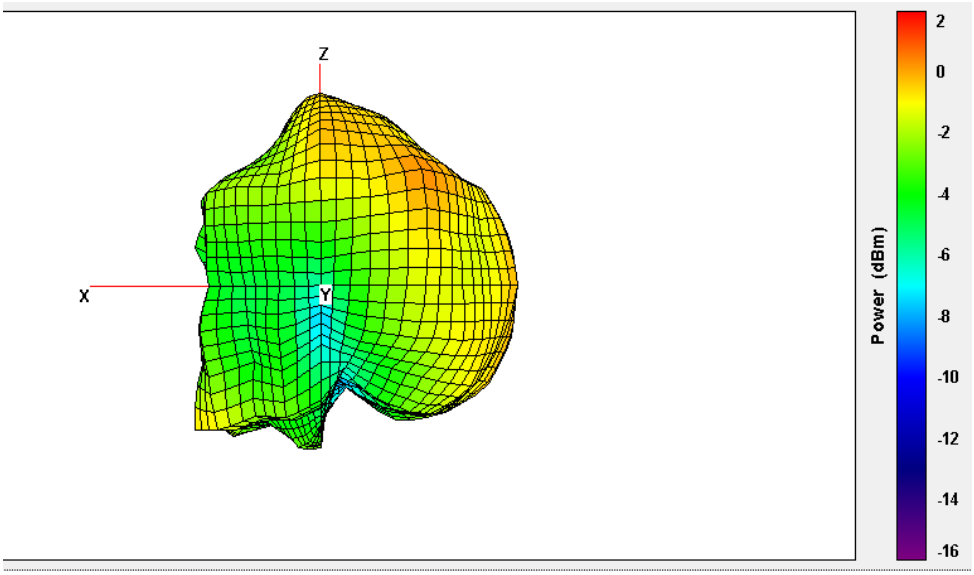
III. Antenna – Radiation Pattern Test Data

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

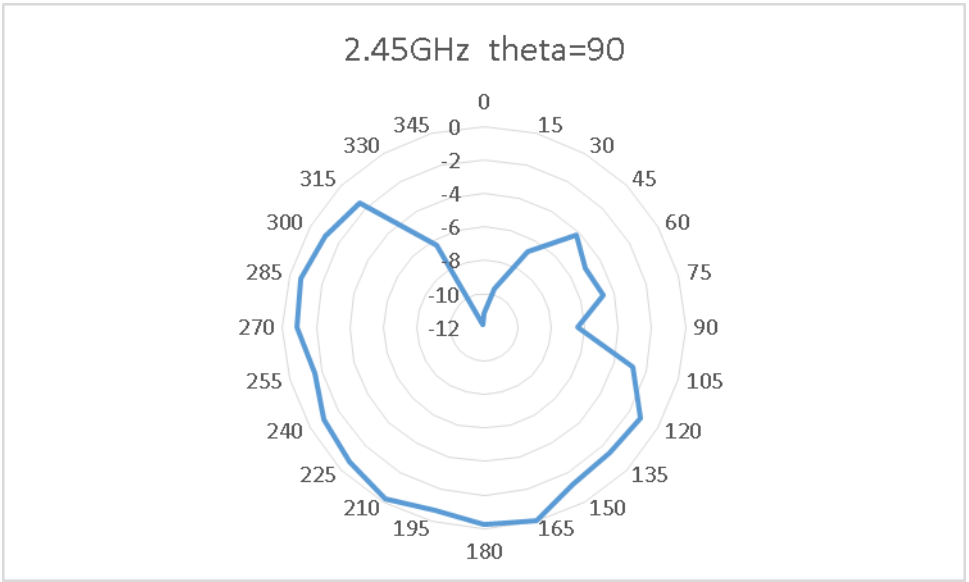
III.1 Ant 1

Ant 1											
Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.00	1.00	1.16	1.32	1.04	0.74	0.43	0.10	0	0	0
Effi. (%)	57.6	56.5	56.1	54.6	53.1	53.3	52.0	49.5	47.7	46.4	44.5

3-D Radiation Pattern



Theta=90°



Packing Drawing