

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

Product Number: 3101504051

Product Name: Antenna

TP-LINK®

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>

Specification For Approval

Product Number: 3101504051

Product Name: Antenna

TP-LINK®

Date: _____

File No. : _____

Version: 1.0

Customer: _____ / _____

Customer P/N : _____ / _____

TP-LINK P/N: 3101504051

Description: Antenna|2.4-2.5GHz|2.0dBi|LP|Omni|2W|Weld|120mm|D1.13mm|小叉改
(防水)|无|X1040-RW120REV1.0|茶黄色/PA66+25%GF-HB+PC-HB/光面+
纹面|X6 防水|[白色 PE 线/自制件]

TP-LINK Checked By:

Customer Approved By:

TP-LINK®

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](http://www.tp-link.com)

Index

I. Specification	1
II. Characteristics and Reliability Test.....	2
III. Mechanical Drawing and Material Description	3
IV. RoHS Test Report	4
V. Antenna – S Parameter Test Data.....	5
VI. Antenna – Radiation Pattern Test Data	5
VII. Packing Drawing	7

I. Specification

Sample Photo



A. Electrical Characteristics

Frequency	2400~2500MHz
Impedance	50 Ohm
S.W.R.	<= 2.0
Antenna Type	Dipole
Antenna Gain	2.0dBi
Max Input Power	2 W
Polarization	Linear
Radiation pattern	Omni-Directional

B. Material & Mechanical Characteristics

Material of Radiator	Cu
Material of Plastic	Body: PC-HB Holder: PA66、GF-HB
Cable Type	O.D. 1.13mm (white)
Connector Type	Weld
Connector Pull Test	3Kg

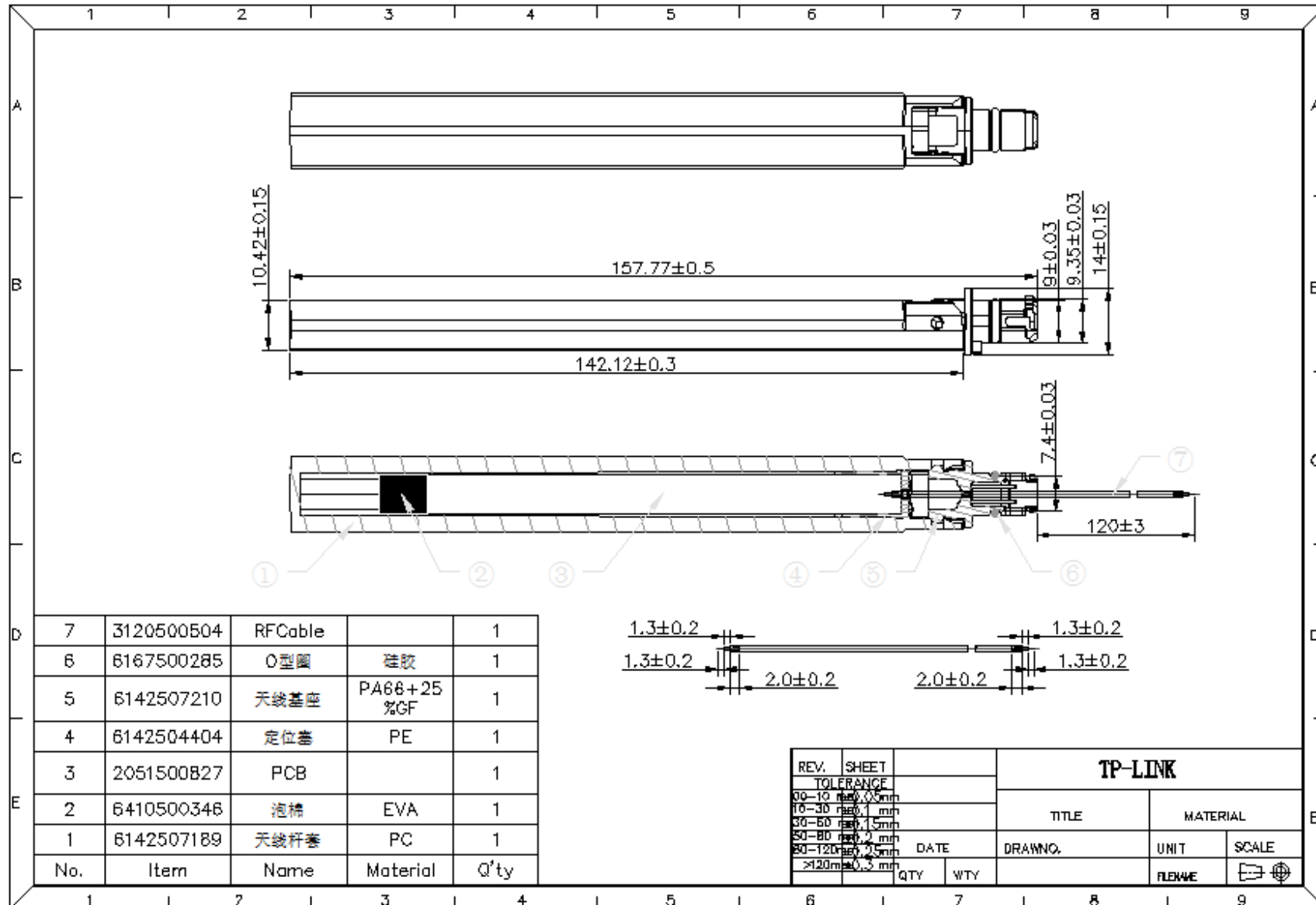
C. Environmental

Operation Temperature	- 40°C ~ + 65°C
Storage Temperature	- 40°C ~ + 70°C

II. 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. Frequency Tol.<=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	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350+- 10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M5	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%
M6	Bend Test	3 angles: 0° ,45° ,90° .100 times for each angle	1. No Visual Damage 2. No Obvious shake
M7	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	SE-GS-90T Temp: 35°C; 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: -40°C (30 minutes) to +70°C (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°C; Time: 8 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<=5%

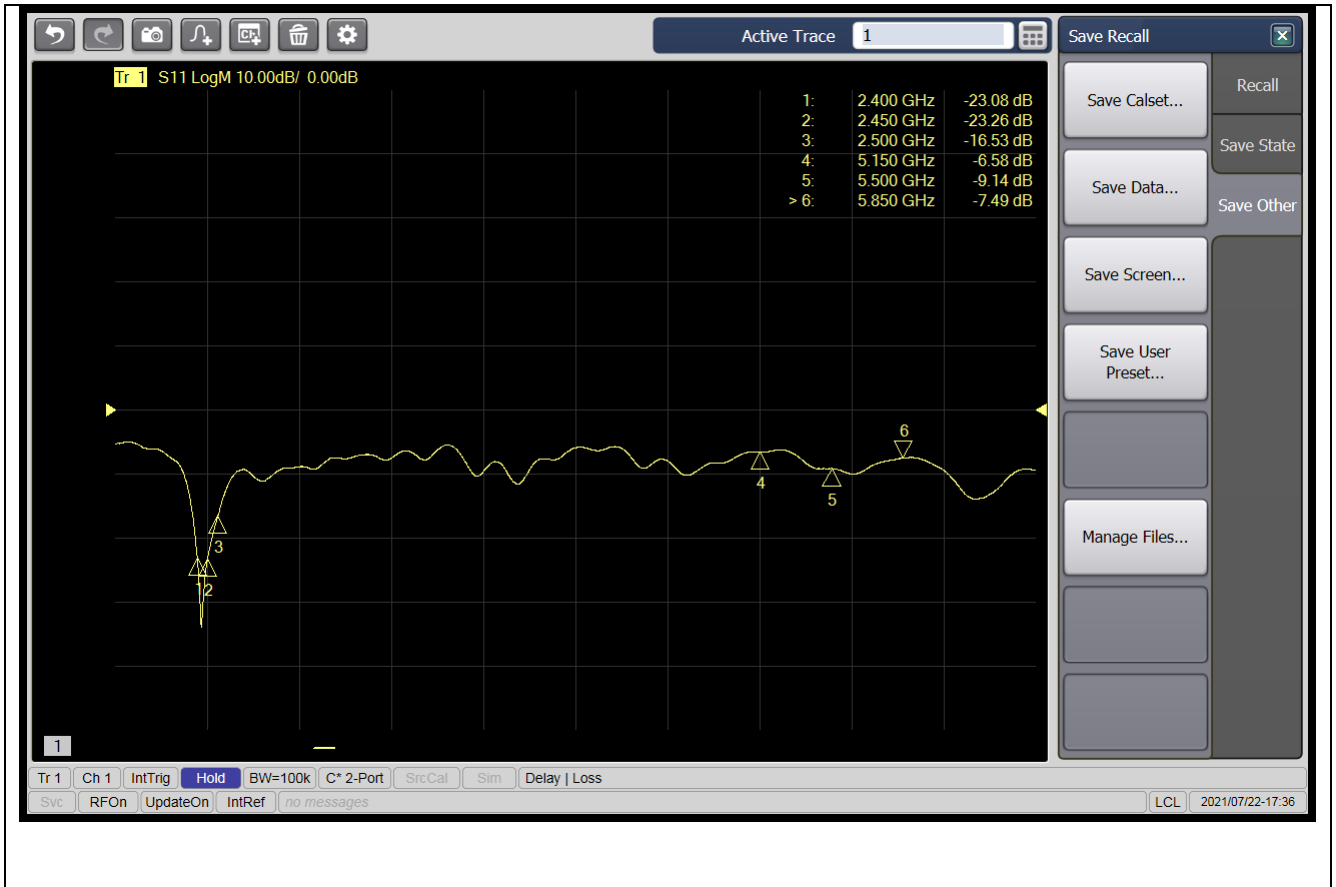
III. Mechanical Drawing and Material Description



IV. RoHS Test Report

NO.	Product Model	Constituents	Material	Test Result for RoHS-corresponding Substance						PFOS	Halogen				Series No.	Date	Title	Test Agent			
				Cd	Pb	Hg	Cr(VI)	PBBs	PBDEs	PFOS	F	Cl	Br	I							
1	3120500504	Cable	FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Negative	N.D.	N.D.	N.D.	N.D.	RLSHD000593720060	2011/04/25	Jacket	上海 SGS			
			FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		N.D.	N.D.	N.D.	Insulation			上海 SGS				
			Wire-TC	N.D.	N.D.	N.D.	N.D.	Negative	Negative		Negative	Negative	Negative	Outner conductor			CTI				
			Wire-TC	N.D.	N.D.	N.D.	N.D.							Inner conductor			CTI				
2	6142507189	杆套	PC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Negative	Negative	Negative	Negative	Negative	Negative	SHAEC1200148411	2012/01/09	上海 ABS	上海 SGS		
3	6142507210	基座	PA66+25%GF	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.							N.D.	N.D.	GZ1106084755	2011/07/05	PC S-2000VR	广州 SGS
4	6142504404	定位塞	PE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.							N.D.	N.D.	SHAEC1109428201	2011/06/27	HDPE	上海 SGS
5	6410500346	Foam	EVA	N.D.	17	N.D.	N.D.	N.D.	N.D.							N.D.	N.D.	CANEC1103057901	2011/08/11	EVA	广州 SGS
6	2051500827	PCB	CEM-1+CU	N.D.	5	N.D.	N.D.	N.D.	N.D.	Negative	Negative	Negative	Negative	Negative	Negative	CANEC1411243502	2014/07/18	KB-6160	SGS		
7	6167500285	O型圈	Silica	N.D.	N.D.	N.D.	Negative	Negative	Negative							Negative	Negative	CE/2015/32675	2015/03/10	Plug Housing	SGS
8	8023500059	电子硅胶																			

V. Antenna – S Parameter Test Data



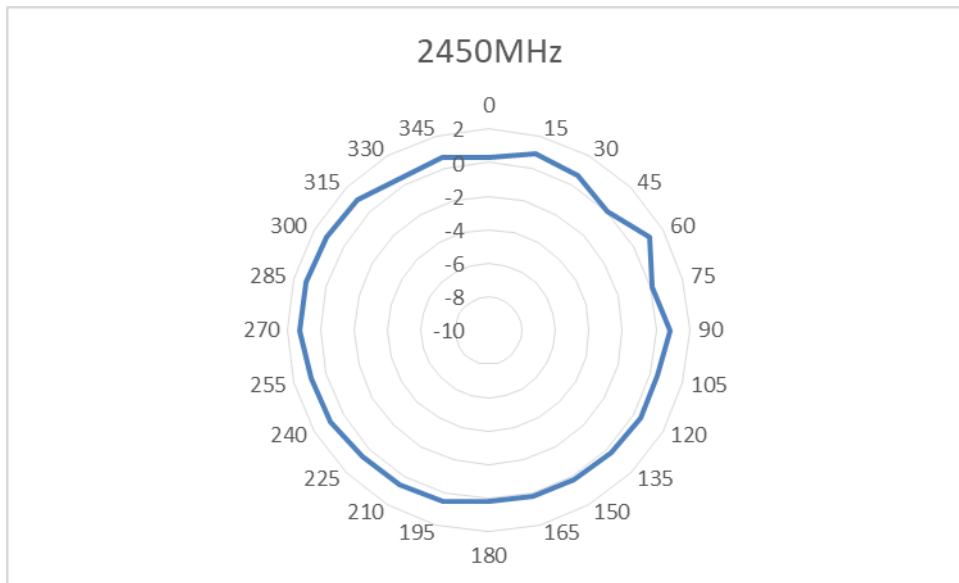
VI. Antenna – Radiation Pattern Test Data

Testing Equipment Specification	
Microwave Chamber	ETS
Testing Equipment	Agilent 5071B

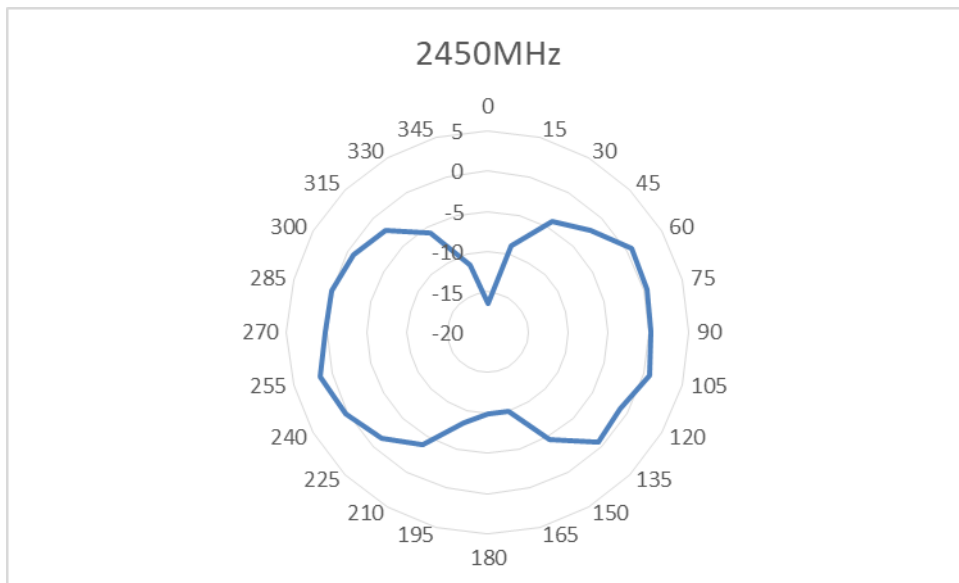
PeakGain:

Freq	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain	1.86	1.92	1.83	1.87	1.77	1.98	1.89	2.00	1.98	1.97	1.99

Theta=90°

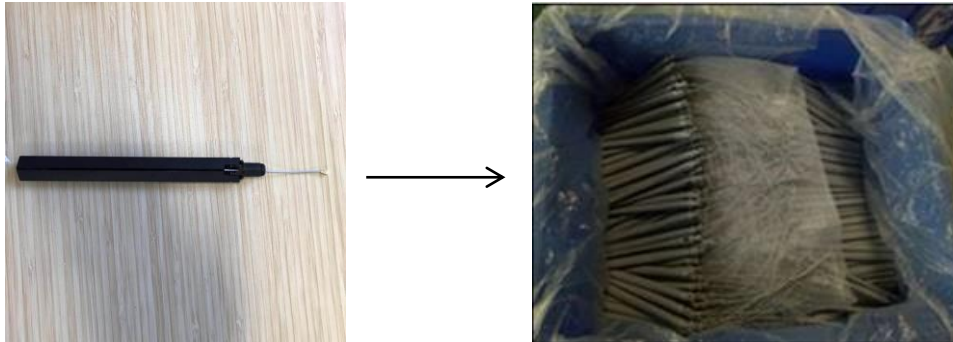


Phi=0°

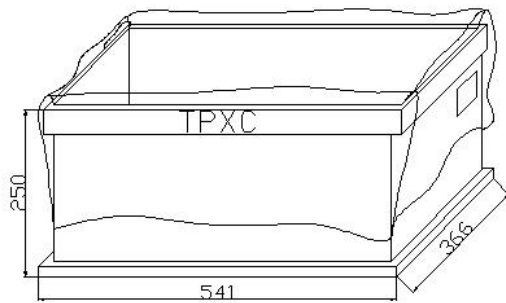


VII. Packing Drawing

i . Put ANT into Plastic Tray (800PCS/BOX) (仅作装箱说明)



ii. Packing



800PCS/Box

Label

MO:		P/N:		ROHS
Specification:				
Quantity:	(PCS)	G.W:	(Kg)	
Date:				
Manufacturer:	Cable manufacturing department			

iii. Sealing

