

TP-LINK®

Antenna Specification



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Product Number: 3101504342

Product Name: Antenna

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Specification For Approval

Product Number: 3101504342

Product Name: Antenna

TP-LINK®

Date: _____

File No. : _____

Version: 1.0

Customer: _____ / _____

Customer P/N : _____ / _____

TP-LINK P/N: 3101504342

Description: Antenna|2.4-2.5GHz|2.0dBi|LP|Omni|2W|I-PEX|160mm|D1.13mm|HX-223|

无|1045-J1160REV1.0|绿色|不防水|白色线|自制件|扣于 J22|

TP-LINK Checked By:

Customer Approved By:

TP-LINK®

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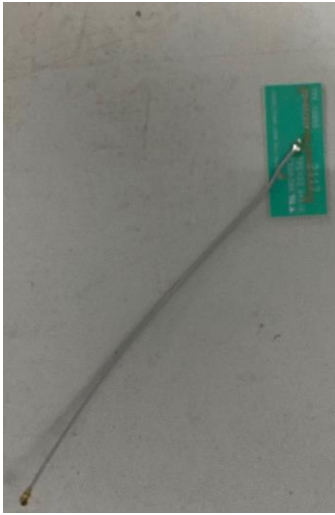
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I. Specification

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
Cable Type	O.D. 1.13mm (Gray)
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;	Directive DUT specification

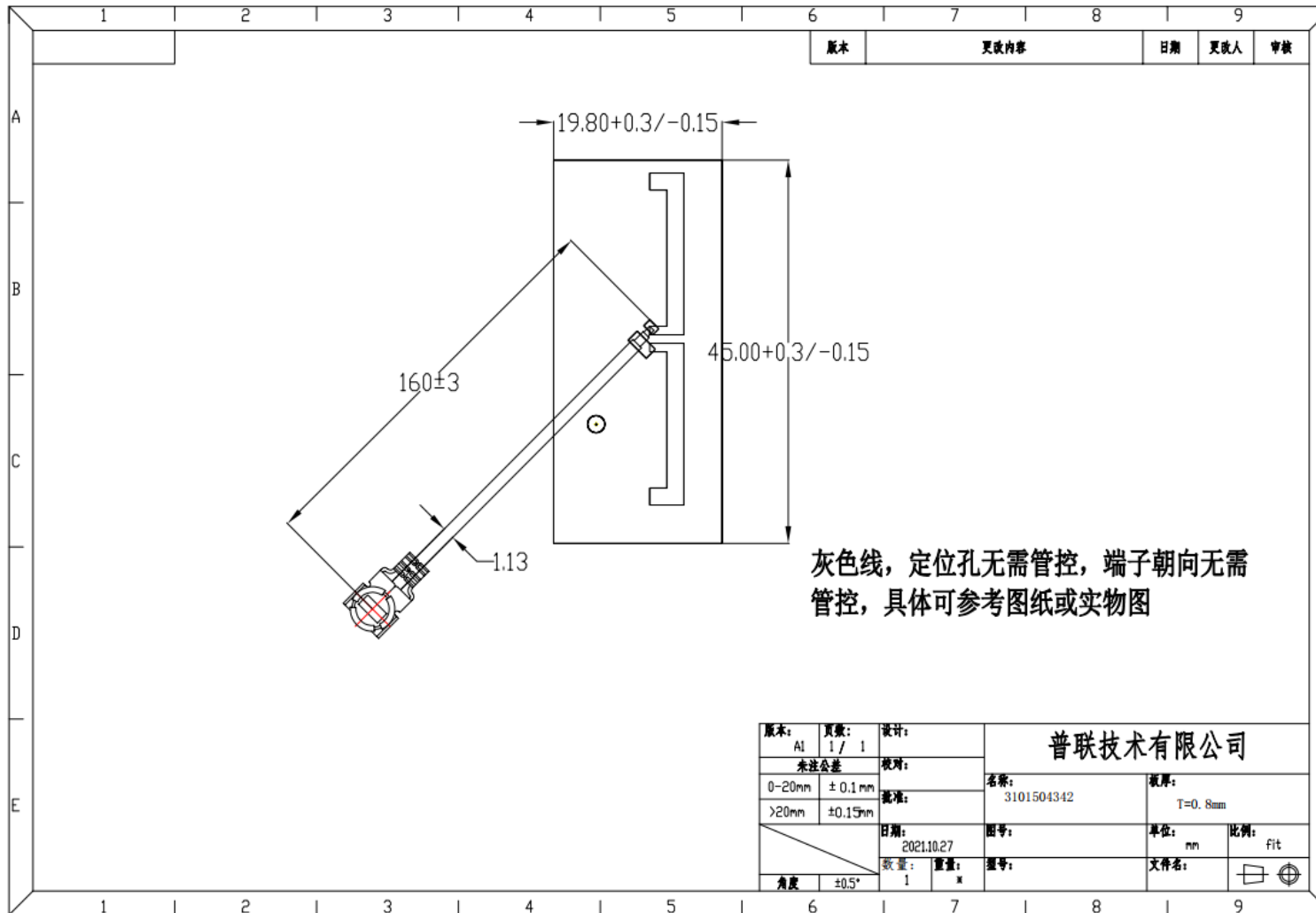
Product Number: 3101504342

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		make individual calibration to test	
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



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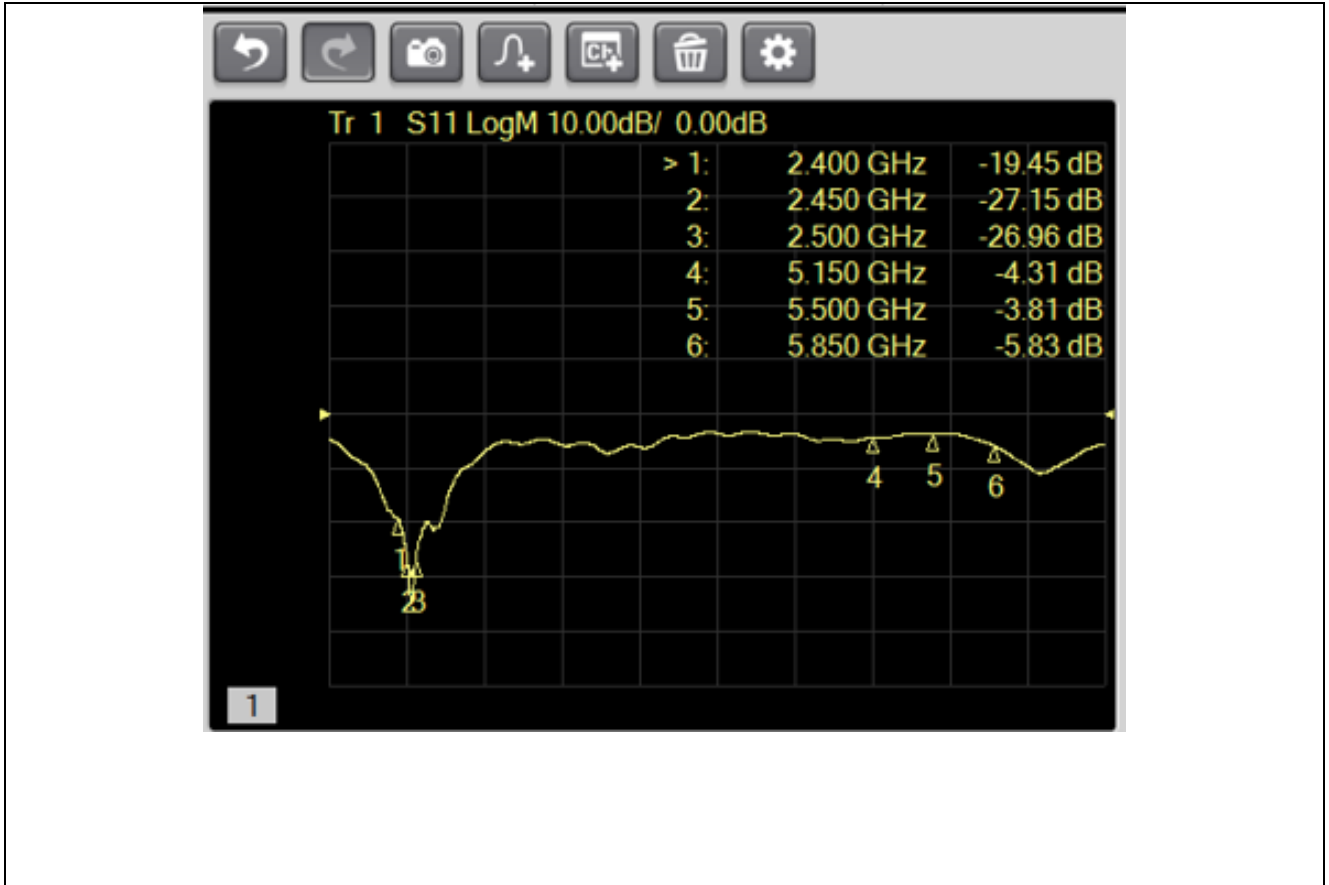
Product Name: Antenna



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	3120500194	Cable	FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	[REDACTED]	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.	N.D.			Insulation	上海 SGS			
			Wire-TC	N.D.	N.D.	N.D.	N.D.	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]			Outner conductor	CTI			
			Wire-TC	N.D.	N.D.	N.D.	N.D.										Inner conductor	CTI			
2	6142504116	杆套	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	SHAEC1200148411	2012/01/09	上海 ABS	上海 SGS		
3	6142504290	基座	PC	[REDACTED]	N.D.	[REDACTED]	N.D.	[REDACTED]	[REDACTED]							N.D.	N.D.	GZ1106084755	2011/07/05	PC S-2000VR	广州 SGS
4	6142504118	定位塞	HDPE	[REDACTED]	N.D.	[REDACTED]	N.D.	[REDACTED]	[REDACTED]							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.							[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	CANEC1103057901	2011/08/11
6	3110500039	RFConnector	Gold plating	N.D.	N.D.	N.D.	Negative	[REDACTED]	[REDACTED]	Negative	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	CE/2015/32675	2015/03/10	Plug Housing	SGS	
			PBT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	Negative	1110	N.D.	N.D.	N.D.	CE/2014/B2826	2014/11/18	Plug Housing	SGS			
			Phosphor Bronze	N.D.	N.D.	N.D.	Negative	[REDACTED]	[REDACTED]	Negative	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	CE/2015/30055	2015/03/02	Plug Housing	SGS			
7	2051500322	PCB	PTFE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	SHAEC1200879510	2014/02/12	板材	SGS	
			RS-2000 BGL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	[REDACTED]	[REDACTED]	135	256	N.D.	N.D.	RSH03G002208001C	2014/04/24	防焊油墨	CTI		
			2M-400W F	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	[REDACTED]	[REDACTED]	148	124	N.D.	N.D.	CE/2014/80454	2014/08/12	文字油墨	SGS		
			OSP F-005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	CANEC1404310001	2014/04/08	OSP 药水	CTI		

V. Antenna – S Parameter Test Data



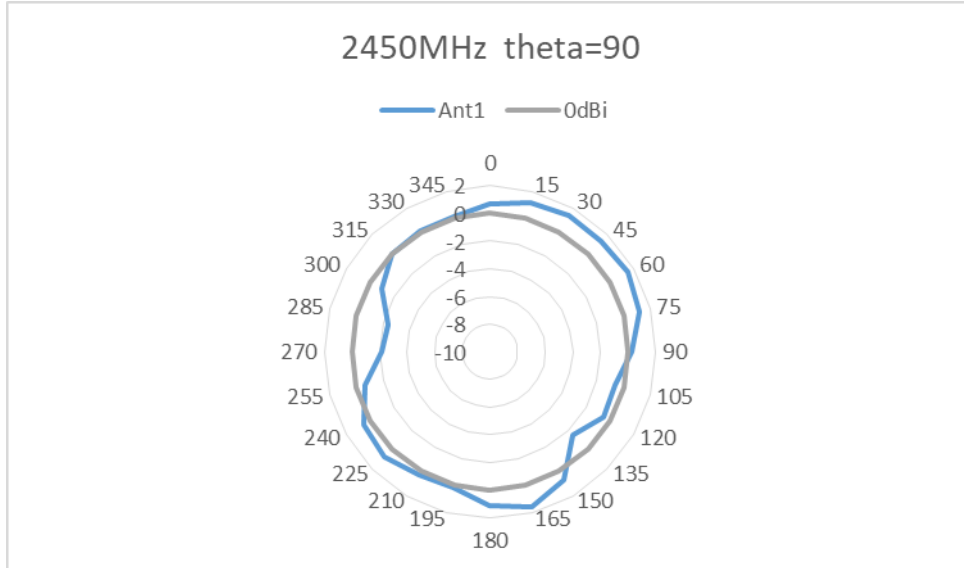
VI. Antenna – Radiation Pattern Test Data

Testing Equipment Specification	
Microwave Chamber	ETS
Testing Equipment	Agilent 5071B

PeakGain:

Freq	2400	2410	2420	2430	2440	2450	2460	2470
Gain	1.9	1.9	2.0	1.4	1.4	2.0	2.0	2.0
Freq	2480	2490	2500					
Gain	1.9	1.9	2.0					

Theta=90°



VII. Packing Drawing

i . Put ANT into Plastic Tray (200PCS/ Bag)



ii.Packing



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

10Bags, 2000PCS/Box

iii.Sealing

