

TP-LINK®

Antenna Specification



Product Number: 3101504695

Product Name: Antenna

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<http://www.tp-link.com>

Product Number: 3101504695

Product Name: Antenna

TP-LINK®

Specification For Approval

Date: _____

File No. : _____

Version: 1.0

Customer: _____ / _____

Customer P/N : _____ / _____

TP-LINK P/N: 3101504926

Description: Antenna|5.15-5.85GHz|3.0dBi|LP|Omni|2W|weld|90mm|D1.37mm|小
叉(改)天线|无|X2050-RI090REV3.1|黑色/PC-HB+ABS-HB/光面+纹面
|不防水||黑色线/自制件/3101503464 改 CEM-1/焊线]

TP-LINK Checked By:
Customer Approved By:

TP-LINK®

TP-LINK TECHNOLOGIES CO., LTD.

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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	5150 ~ 5850 MHz
Impedance	50 Ohm
S.W.R.	≤ 2.0
Antenna Gain	3.0dBi
Max Input Power	$\leq 2\text{ W}$
Polarization	Linear
Radiation pattern	Omni-Directional
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	Body: ABS-HB Holder: PC、ABS
Cable Type	O.D. 1.37mm (black)
Connector Type	Weld
Connector Pull Test	3.0Kg
C. Environmental	
Operation Temperature	- 10℃ ~ + 60℃
Storage Temperature	- 40℃ ~ + 70℃

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

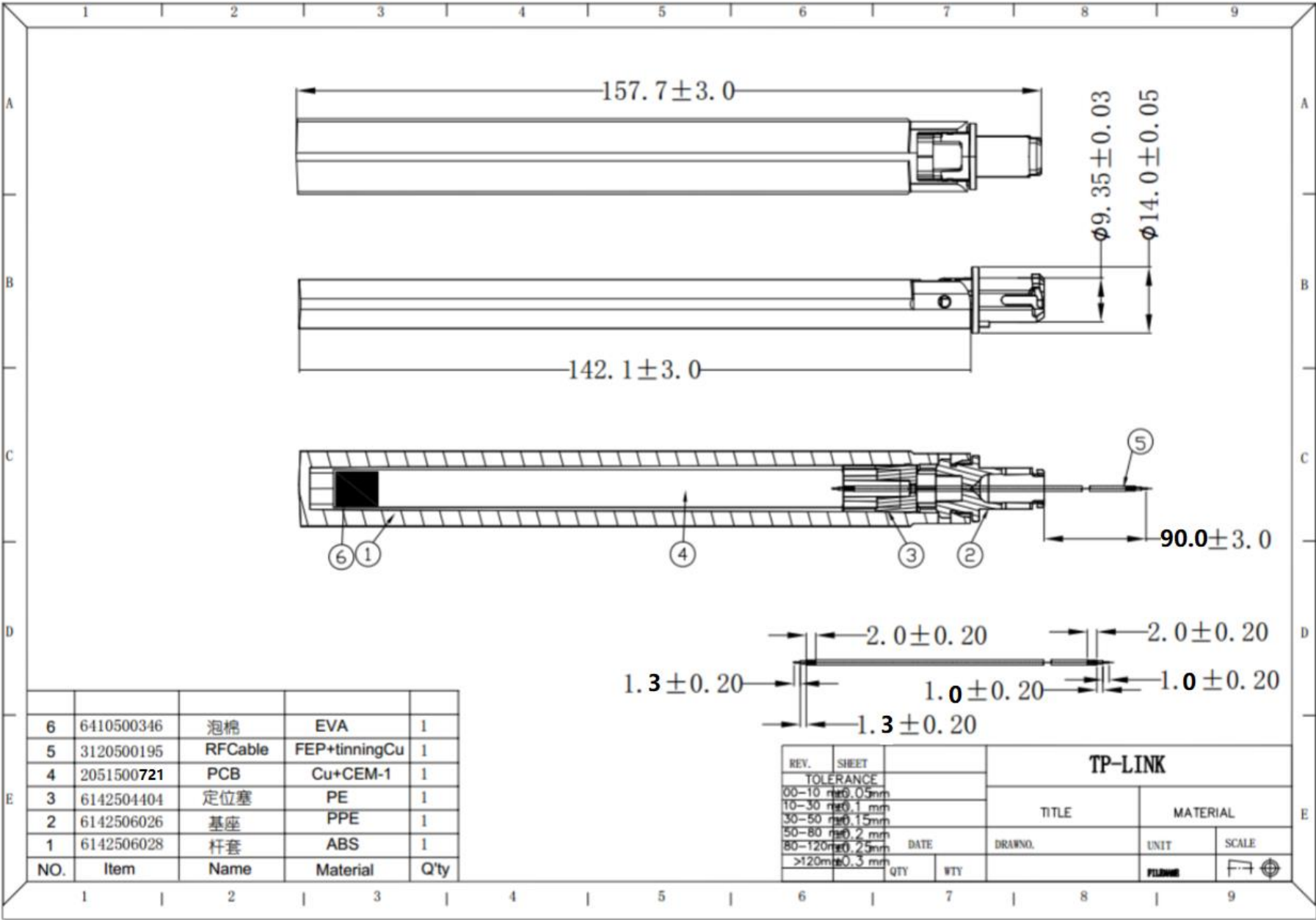
Product Number: 3101504695

Product Name: Antenna

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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	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°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	1 Cycle: -20°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



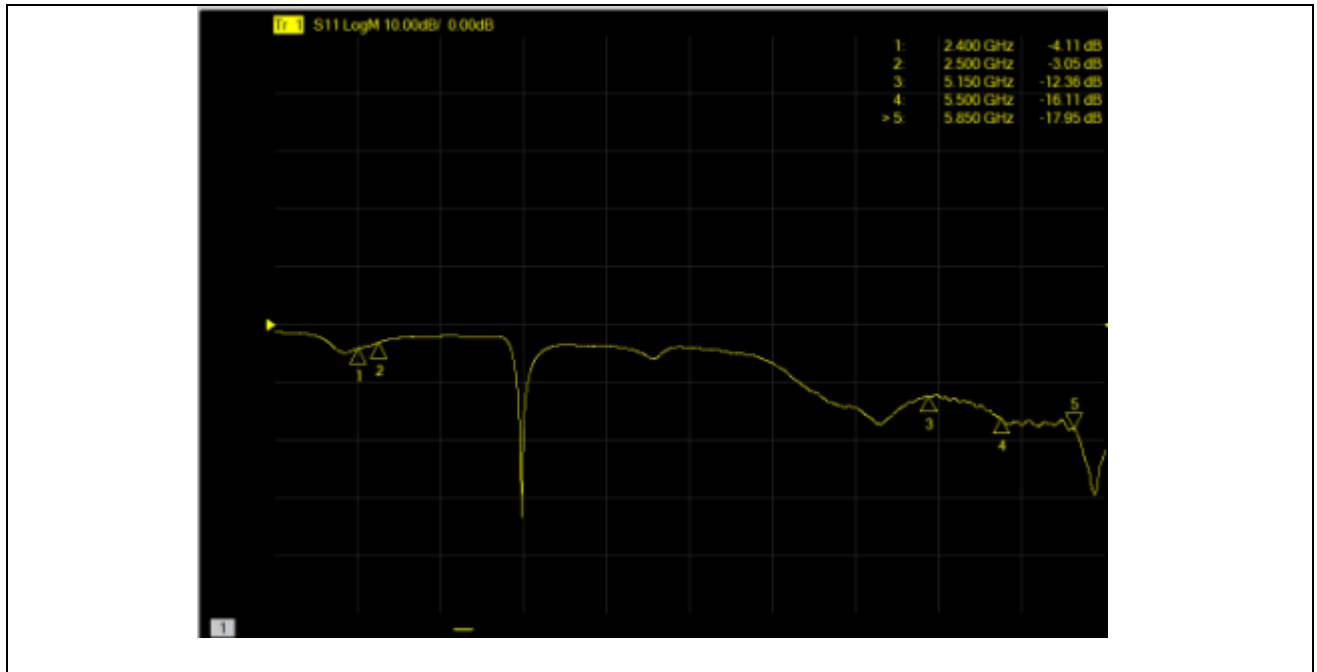
Product Number: 3101504695

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IV. RoHS Test Report

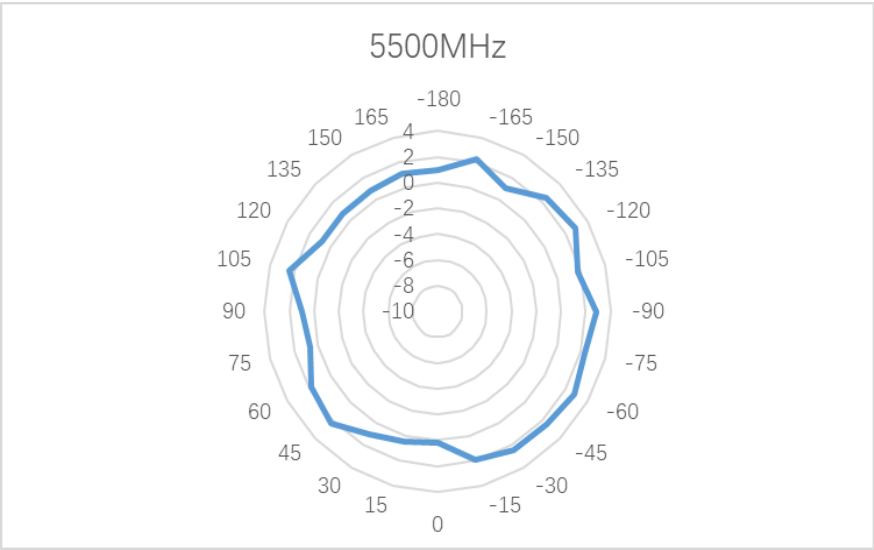
N O .	Product Model	Constitu ents	Materi al	Test Result for RoHS-corresponding Substance						PFOS	Halogen				Series No.	Date	Title	Test Agent
				Cd	Pb	Hg	Cr(VI)	PBB s	PBD Es	PFOS	F	Cl	Br	I				
1	2051500200	PCB	CEM-1	2	2	2	2				50mg/kg	50mg/kg	50mg/kg	50mg/kg	NO.CANEC1601019327	2016/02/01	Sub	广州 SGS
2	6142501780	Body 1	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.			N.D.	N.D.		SCL01G055729002	2014/11/26	GP-1006FMR	上海 SGS
			PC		N.D.		N.D.											广州 SGS
3	6142501780	Body 2	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.			N.D.	N.D.		SCL01G055729002	2014/11/26	GP-1006FMR	上海 SGS
			PC		N.D.		N.D.											广州 SGS
4	3110500018	Connector	PBT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.						CE/2012/13508	2012.01.18	-	台湾 SGS
			Copper	N.D.	17	N.D.	Negative								CE/2012/23265	2012.02.21	-	台湾 SGS
			Copper	N.D.	19	N.D.	Negative								CE/2012/25023	2012.03.02	-	台湾 SGS
5	3120500035	Cable	Cu+Sn	7	N.D.	N.D.	Negative	N.D.	N.D.		N.D	N.D	N.D	N.D	ECL03G00367502E	2014/12/08	Cable	CTI
			FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		>100000	N.D	N.D	N.D	SHAEC1500664109	2015/01/13	Cable	SGS
			PET4CU8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		N.D	N.D	N.D	N.D	CANEC1420243205	2014/12/11	Cable	SGS
			Cu+Ag.	N.D.	N.D.	N.D.	Negative	N.D.	N.D.						SHAEC1507036516	2015/04/28	Cable	CTI

V. Antenna – S Parameter Test Data**VI. Antenna – Radiation Pattern Test Data**

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

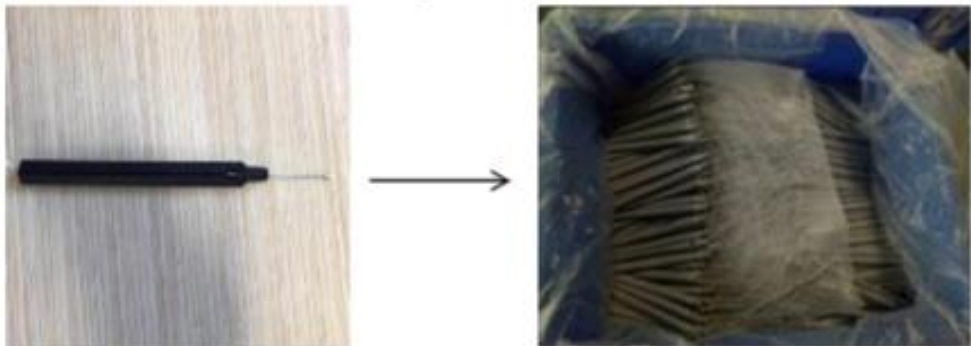
PeakGain:

Freq	5150	5200	5250	5300	5350	5400	5450	5500
Gain	1.43	1.21	0.94	1.11	1.71	1.94	2.08	2.49
Freq	5550	5600	5650	5700	5750	5800	5850	
Gain	2.21	2.86	2.57	3	2.5	2.86	2.51	

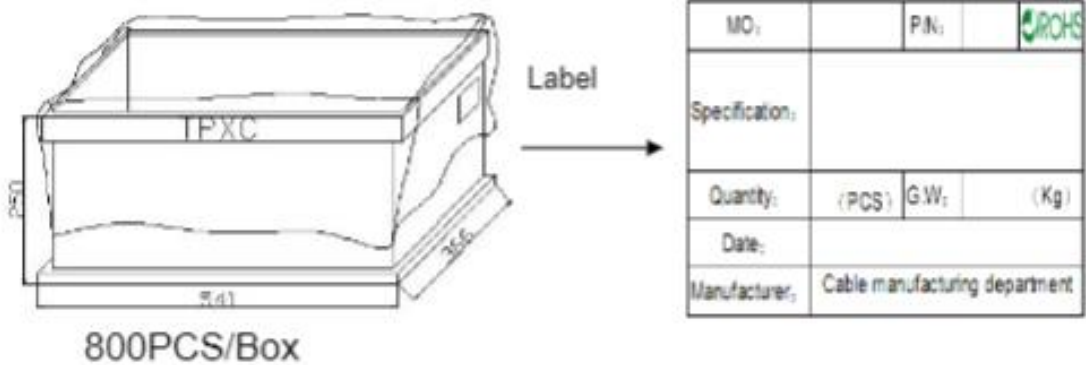


VII. Packing Drawing

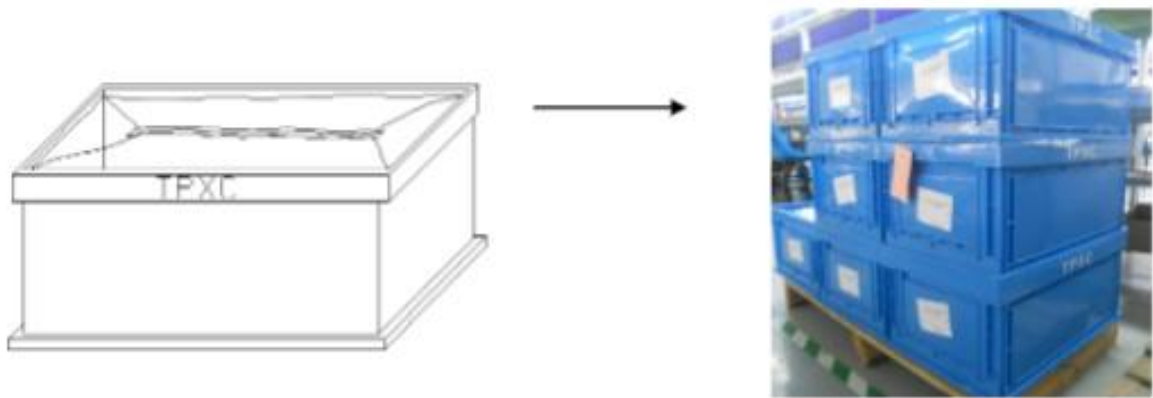
i . Put ANT into Plastic Tray (800PCS/BOX) (仅作装箱说明)



ii. Packing



iii. Sealing



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Version: 1.0

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TP-LINK P/N: 3101504927

Description: Antenna|5.15-5.85GHz|3.0dBi|LP|Omni|2W|weld|165mm|D1.37mm|

小叉(改)天线|无|X2050-RI165REV3.1|黑色/PC-HB+ABS-HB/光面+纹
面|不防水|黑色线/自制件/3101503465 改 CEM-1/焊线]

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Antenna Gain	3.0dBi
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Polarization	Linear
Radiation pattern	Omni-Directional
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	Body: ABS-HB Holder: PC、ABS
Cable Type	O.D. 1.37mm (black)
Connector Type	Weld
Connector Pull Test	3.0Kg
C. Environmental	
Operation Temperature	- 10℃ ~ + 60℃
Storage Temperature	- 40℃ ~ + 70℃

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Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification

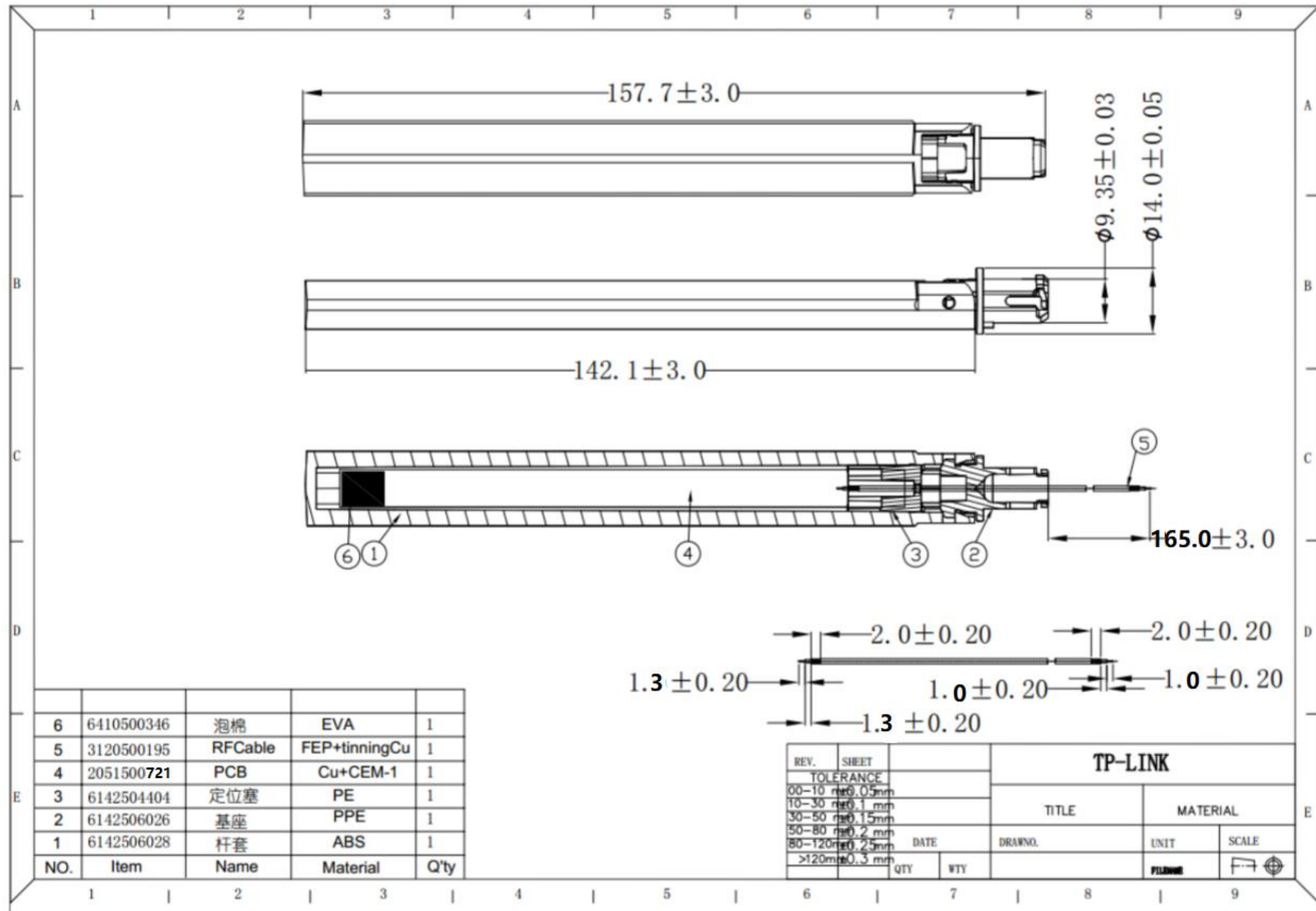
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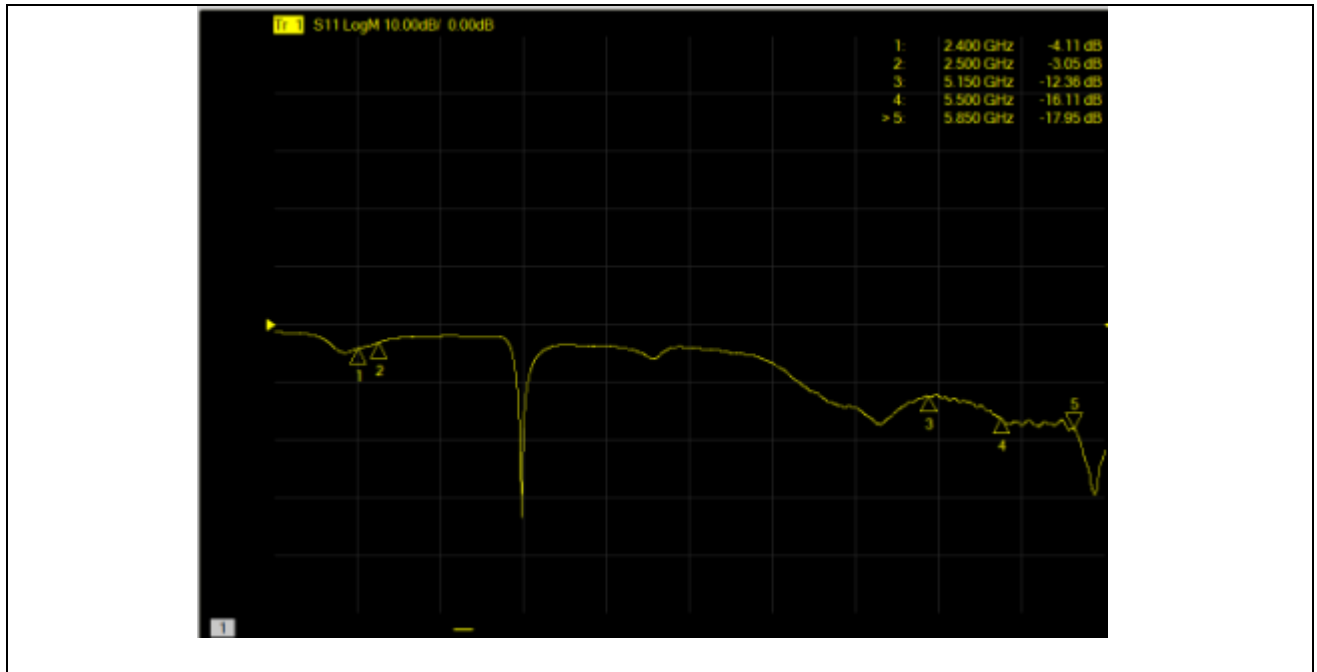
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IV. RoHS Test Report

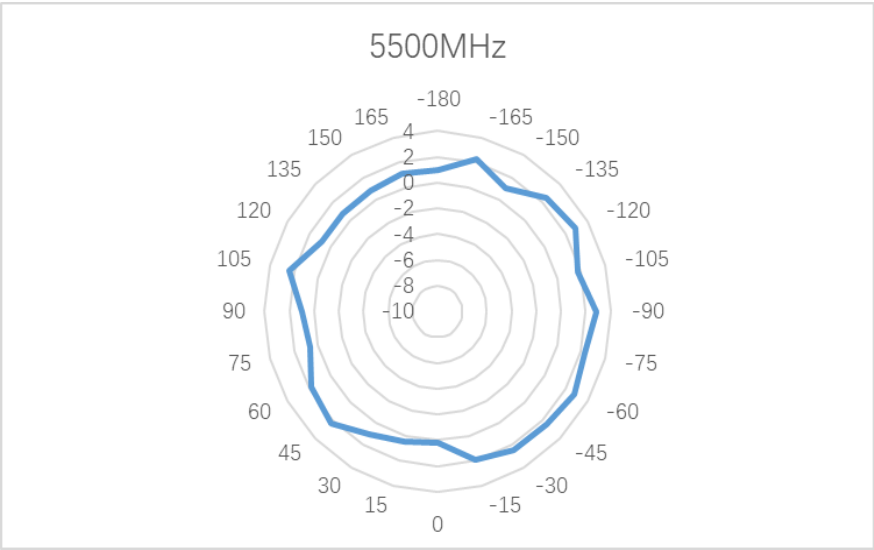
N O .	Product Model	Constitu ents	Materi al	Test Result for RoHS-corresponding Substance						PFOS	Halogen				Series No.	Date	Title	Test Agent
				Cd	Pb	Hg	Cr(VI)	PBB s	PBD Es	PFOS	F	Cl	Br	I				
1	2051500200	PCB	CEM-1	2	2	2	2				50mg/kg	50mg/kg	50mg/kg	50mg/kg	NO.CANEC1601019327	2016/02/01	Sub	广州 SGS
2	6142501780	Body 1	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.			N.D.	N.D.		SCL01G055729002	2014/11/26	GP-1006FMR	上海 SGS
			PC		N.D.		N.D.											广州 SGS
3	6142501780	Body 2	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.			N.D.	N.D.		SCL01G055729002	2014/11/26	GP-1006FMR	上海 SGS
			PC		N.D.		N.D.											广州 SGS
4	3110500018	Connector	PBT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.						CE/2012/13508	2012.01.18	-	台湾 SGS
			Copper	N.D.	17	N.D.	Negative								CE/2012/23265	2012.02.21	-	台湾 SGS
			Copper	N.D.	19	N.D.	Negative								CE/2012/25023	2012.03.02	-	台湾 SGS
5	3120500035	Cable	Cu+Sn	7	N.D.	N.D.	Negative	N.D.	N.D.		N.D	N.D	N.D	N.D	ECL03G00367502E	2014/12/08	Cable	CTI
			FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		>100000	N.D	N.D	N.D	SHAEC1500664109	2015/01/13	Cable	SGS
			PET4CU8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		N.D	N.D	N.D	N.D	CANEC1420243205	2014/12/11	Cable	SGS
			Cu+Ag.	N.D.	N.D.	N.D.	Negative	N.D.	N.D.						SHAEC1507036516	2015/04/28	Cable	CTI

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Freq	5550	5600	5650	5700	5750	5800	5850	
Gain	2.21	2.86	2.57	3	2.5	2.86	2.51	

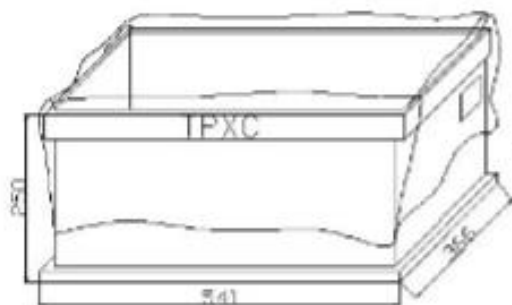


VII. Packing Drawing

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



ii. Packing



Label



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

800PCS/Box

iii. Sealing

