TP-LINK®

Antenna Specification

Product Number: 3101505327

Product Name: Antenna

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Product Number: 3101505327

Product Name: Antenna

Specification For Approval

Date: _____

File No. : _____

Version: 1.0

Customer: /

Customer P/N : /

TP-LINK P/N: 3101505327

Description:

Antenna|2.4-2.5GHz&5.15-5.85GHz/5.925~7.125GHz|3.0dBi&3.0dBi/3.0dBi|LP|Omni|2W|I-PEX|200mm/85mm|D1.15mm| 机 甲-280|TP-LINK|2X4030-RI200REV1.0|黑色/ABS-HB/上盖喷漆|否|[红色套管为双频/机械转动天线/自制件][LZ]

TP-LINK Checked By:
Customer Approved By:

TP-LINK TECHNOLOGIES CO., LTD.

South Buiding, No.5 Keyuan Road,

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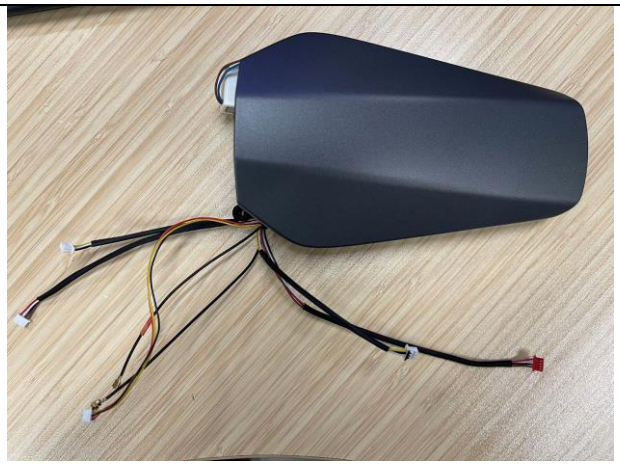
Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2.4~2.5GHz&5.15~5.85GHz&5.925~7.125GHz
Impedance	50 Ohm
S.W.R.	<= 2.0@2.4~2.5GHz&5.15~5.85GHz&5.925~7.125GHz
Antenna Gain	3.0 dBi@2.4~2.5GHz; 3.0dBi@5.15~5.85GHz; 3.0dBi@5.925~7.125GHz
Max Input Power	<= 2 W
Polarization	Linear
Radiation pattern	Omni-Directional
B. Material & Mechanical Characteristics	
Material of Radiator	PCB(PTFE+Cu)
Material of Plastic	Body: PC+ABS-V1
Cable Type	O.D. 1.15mm (black)
Connector Type	RP-SMA-F
Connector Pull Test	0.8Kg
C. Environmental	
Operation Temperature	- 10℃ ~ + 60℃
Storage Temperature	- 40℃ ~ + 60℃

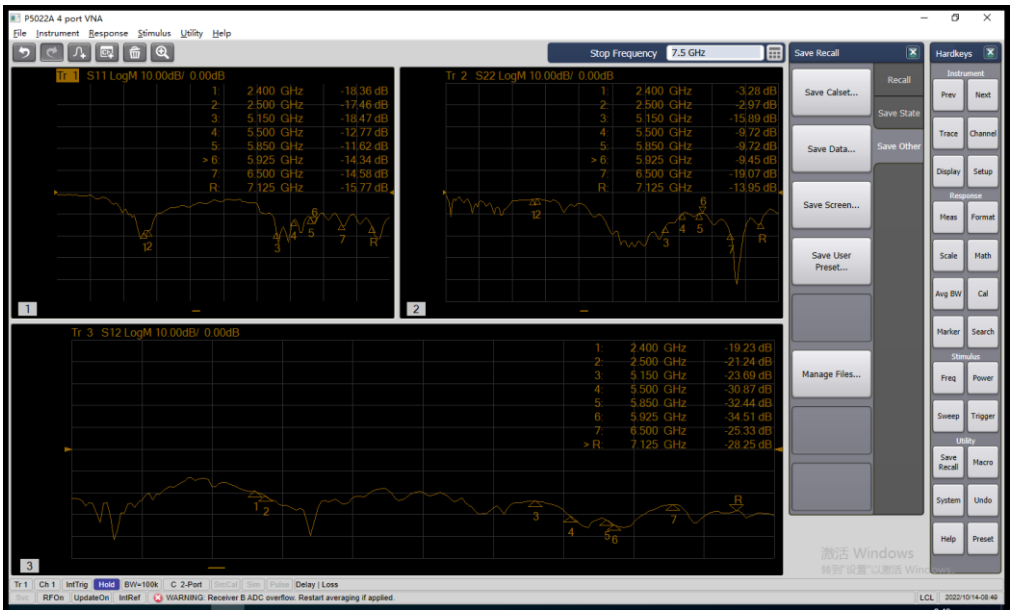
I. Characteristics and Reliability Test

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 +60℃ (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: 60℃; Time: 8 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<=5%

II. Measuring Instrument

Instrument Name	Manufacturer	Model No.	Cal.Interval	Cal.Due Date
Microwave Chamber	General Test	RayZon-2800	1 year	2023/08/08
VNA	Keysight	P5022A	1 year	2023/05/27

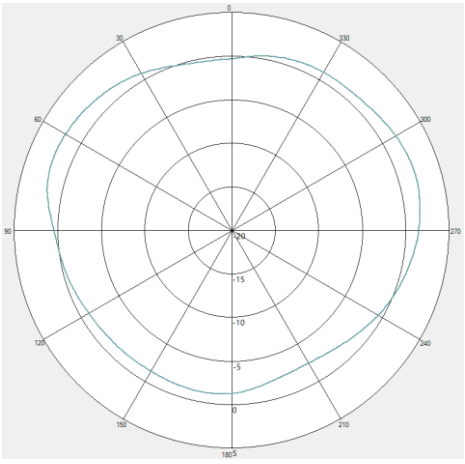
III. Antenna – S Parameter Test Data



III.1 2400~2500MHz

Peak Gain (dBi)											
Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
dBi	2.03	2.08	2.27	2.46	2.58	2.74	2.93	3.00	2.93	2.73	2.53

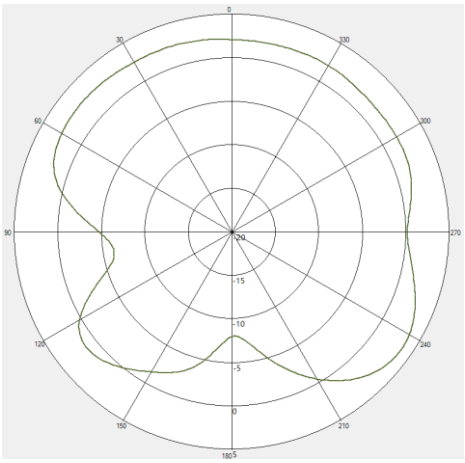
Theta=90°



III.2 5150~5850MHz

Peak Gain (dBi)															
Freq. (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
dBi	0.90	1.62	2.00	2.46	2.95	2.39	2.51	2.19	1.95	2.22	1.90	1.97	2.47	2.84	3.00

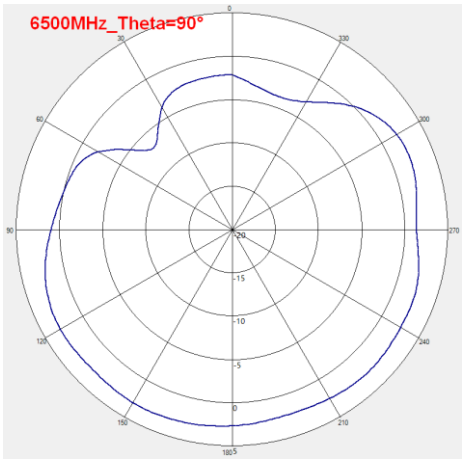
Theta=90°



III.3 5925~7125MHz

Peak-Gain															
Freq. (MHz)	5925	5975	6025	6075	6125	6175	6225	6275	6325	6375	6425	6475	6525	6575	6625
dBi	2.24	2.81	2.85	3.00	2.54	2.08	1.84	1.69	2.26	2.32	2.74	2.74	2.28	2.40	2.20
Freq. (MHz)	6675	6725	6775	6825	6875	6925	6975	7025	7075	7125					
dBi	2.63	2.68	2.63	2.58	2.40	2.01	2.09	2.34	2.36	2.16					

Theta=90°



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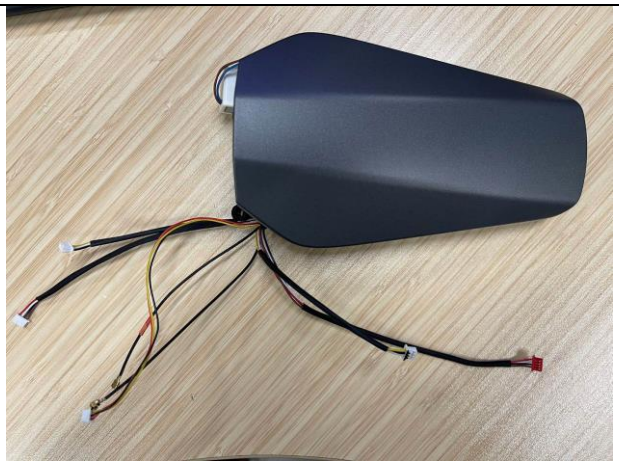	
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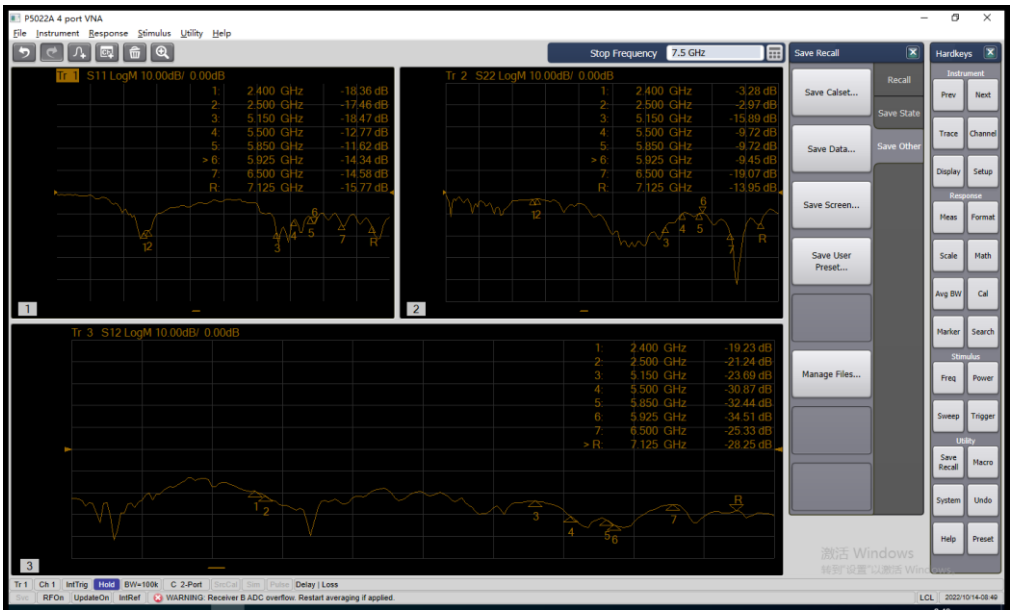

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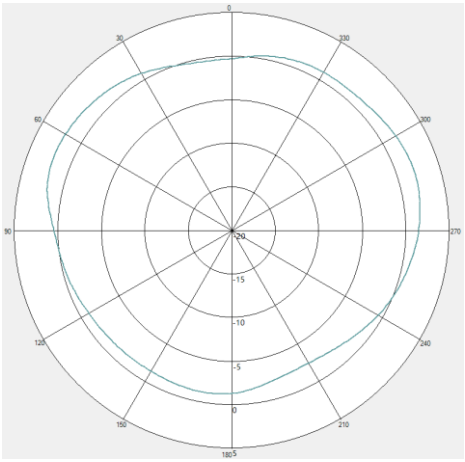
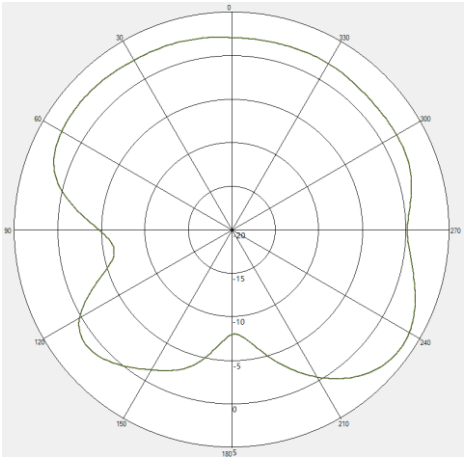


III.2 5150~5850MHz

Peak Gain (dBi)

Freq. (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
dBi	0.90	1.62	2.00	2.46	2.95	2.39	2.51	2.19	1.95	2.22	1.90	1.97	2.47	2.84	3.00

Theta=90°



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Peak-Gain															
Freq. (MHz)	5925	5975	6025	6075	6125	6175	6225	6275	6325	6375	6425	6475	6525	6575	6625
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Freq. (MHz)	6675	6725	6775	6825	6875	6925	6975	7025	7075	7125					
dBi	2.63	2.68	2.63	2.58	2.40	2.01	2.09	2.34	2.36	2.16					

Theta=90°