



# OTA TEST REPORT

**Applicant**     PETKIT Network Technology  
                              (Shanghai) Co., Ltd.

**Product**         PETKIT AIRSALON MAX

**Model**            P4115

**Report No.**      Y2210A1061-T1

**Issue Date**     November 2, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **ANSI/IEEE Std 149-2008**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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*Approved by: Xu Kai*

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## 1. Test Laboratory

### 1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

### 1.2. Test facility

#### A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

### 1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.  
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City: Shanghai  
Post code: 201201  
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### 1.4. Laboratory Environment

Temperature	Min. =19°C, Max. = 25°C	
Relative humidity	Min. =40%, Max. =72%	
Shield effect	0.7-6GHz	> 100dB
Ground resistance	<0.5Ω	

## 2. General Description of Equipment under Test

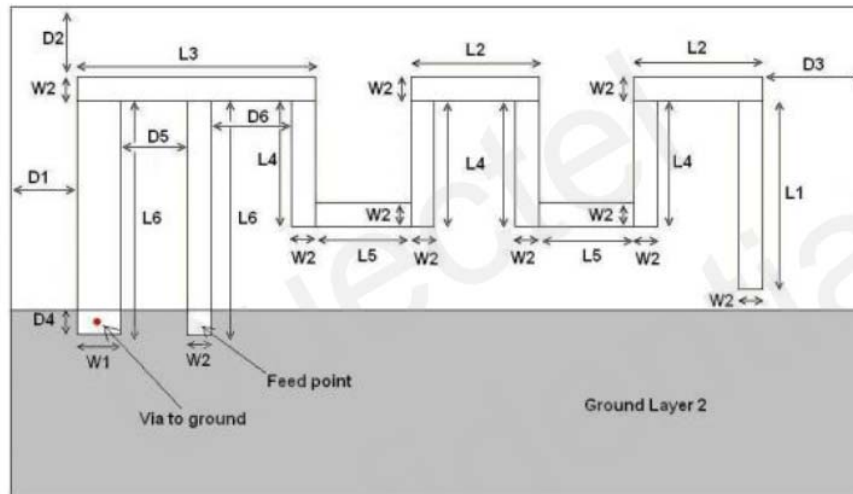
### 2.1. Applicant and Manufacturer Information

<b>Applicant Name</b>	PETKIT Network Technology (Shanghai) Co., Ltd.
<b>Applicant address</b>	Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai
<b>Manufacturer Name</b>	PETKIT Network Technology (Shanghai) Co., Ltd.
<b>Manufacturer address</b>	Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai

### 2.2. General information

EUT Description	
Product Name	PETKIT AIRSALON MAX
Model	P4115
HW Version	/
SW Version	/
Antenna Type	PCB Antenna
Antenna Manufacturer	PETKIT Network Technology (Shanghai) Co., Ltd.
Test Frequency	2400MHz ~ 2530MHz
<p>Note: The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.</p>	

### 2.3. Antenna Size



L1	3.94 mm
L2	2.70 mm
L3	5.00 mm
L4	2.64 mm
L5	2.00 mm
L6	4.90 mm
W1	0.90 mm
W2	0.50 mm
D1	0.50 mm
D2	0.30 mm
D3	0.30 mm
D4	0.50 mm
D5	1.40mm
D6	1.70 mm

### 2.4. Test Date

The test is performed from November 28, 2022.

### 2.5. Received Date

The sample was received on November 28, 2022.



## 2.6. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test Method: **ANSI/IEEE Std 149-2008**



### 3. Test Conditions

#### 3.1. Test Configuration

Great-Circle-Cut method is used to measure the antenna 3D GAIN of EUT in OTA qualified anechoic chamber. Equipment Under Test (EUT) geometry centre vertical projection at the centre of platform, the distance from EUT to measurement antenna is 5m.

#### 3.2. Test Measurement

##### Spherical coordinate system

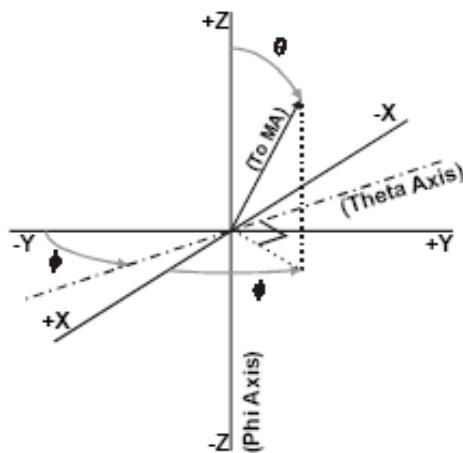
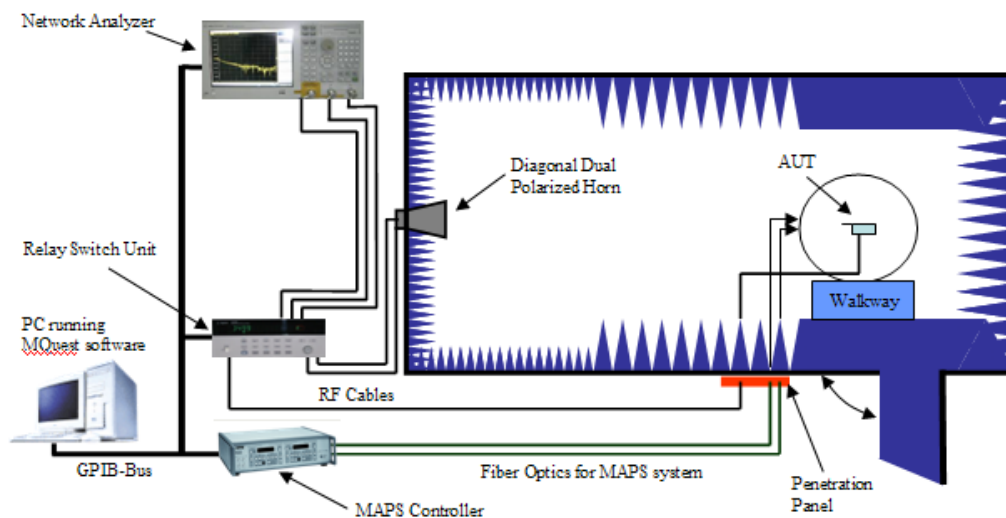


Figure 1 Test coordinate system

Note: Theta is from 0~180 degree. Phi is from 0~360. Rotate the EUT and record the Data, the step of rotation is 15 degree.

##### Test Setup







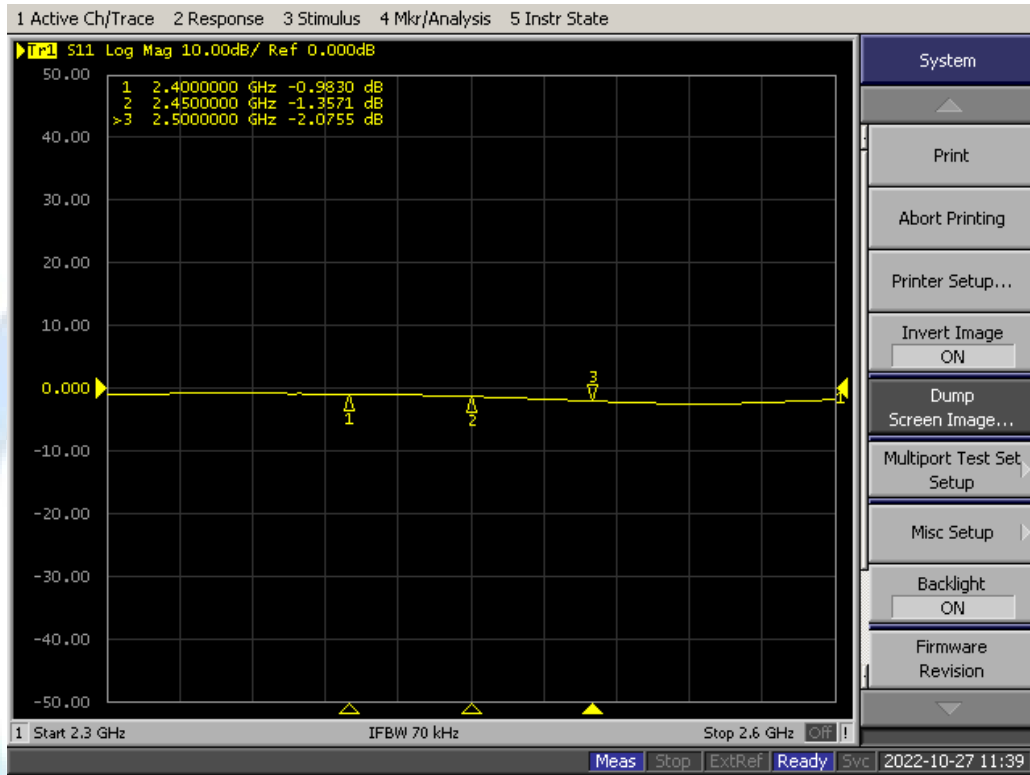
## 4. Test Results

### 4.1. Gain and Efficiency

Test State	Frequency (MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)	Note
Free Space	2400	-10.78	8.35	-6.65	15°
	2410	-10.77	8.37	-6.83	
	2420	-10.48	8.96	-6.57	
	2430	-10.35	9.22	-6.17	
	2440	-10.30	9.34	-6.42	
	2450	-10.24	9.47	-5.82	
	2460	-10.24	9.46	-6.15	
	2470	-10.10	9.77	-6.06	
	2480	-10.09	9.80	-5.45	
	2490	-10.02	9.95	-5.60	
	2500	-10.09	9.80	-5.64	
	2510	-10.30	9.33	-6.02	
	2520	-10.44	9.04	-6.26	
	2530	-10.52	8.86	-6.07	



### 4.2. Antenna S11



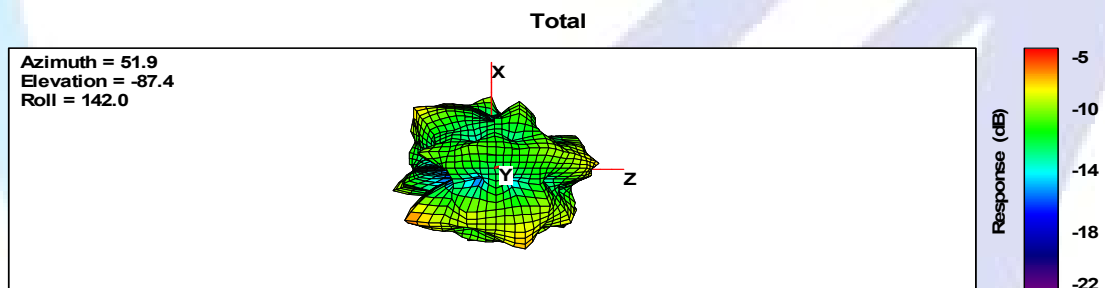
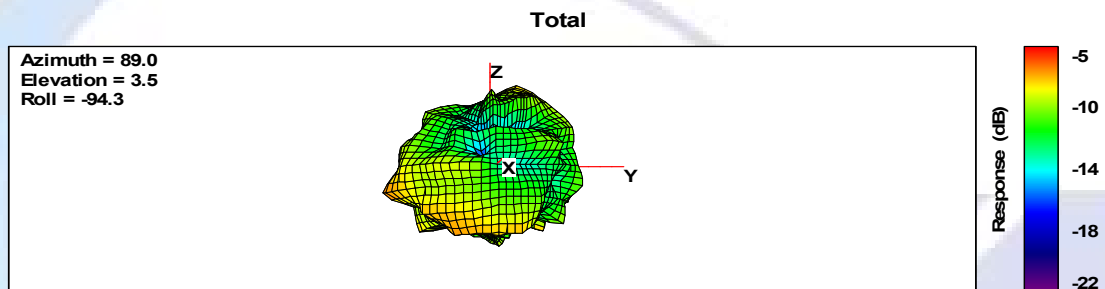
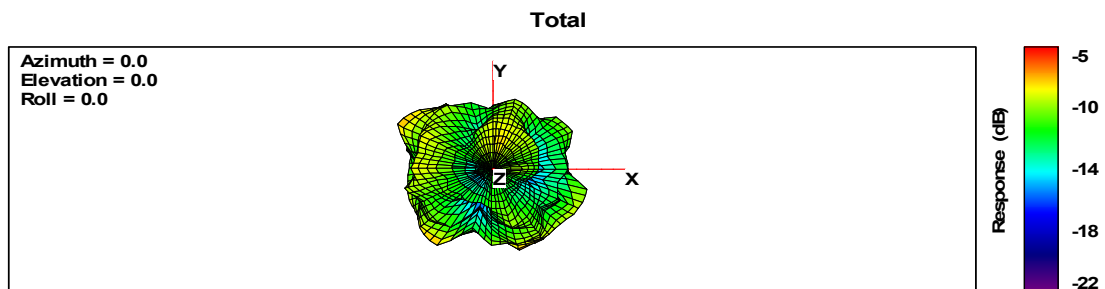
Frequency (MHz)	2400	2450	2500
S11(dB)	-0.98	-1.36	-2.08



## 5. Equipment List

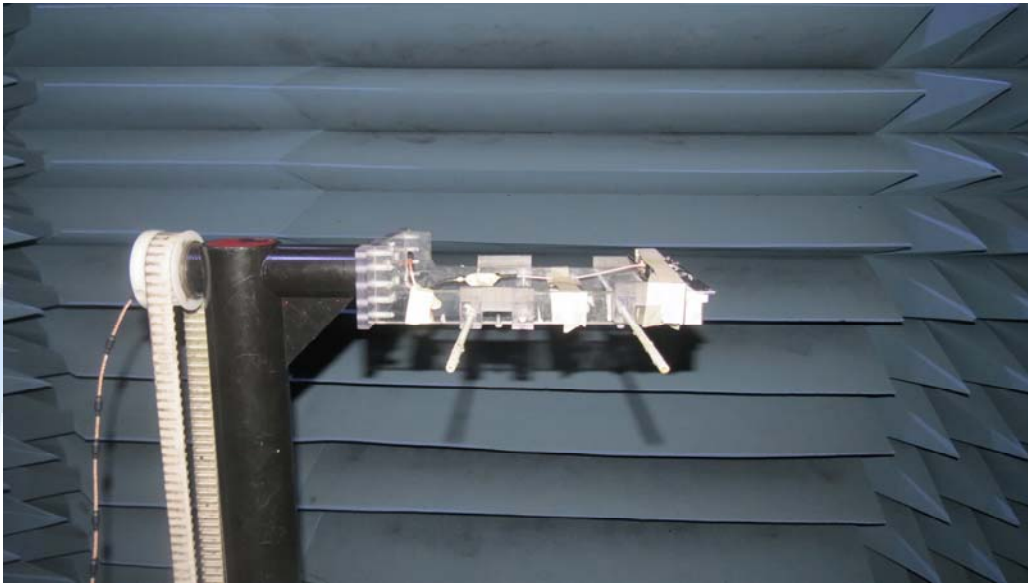
Type of Equipment	Manufacture	Model Number	S/N	Calibration Date	Expiration Time
Anechoic Chamber	ETS	AMS-8500	CT-001157-1219	2020-05-17	2025-05-16
EMCenter_Switch Control System	ETS	7006/7001	00059957/M Y42001152	-	-
Diagonal Dual Polarized Horn	ETS	ETS 3164-04	00062743	2020-04-14	2025-04-13
Network Analyzer	Keysight	E5071B	MY42404014	2022-05-14	2023-05-13
Test Software	ETS	EMQuest™	REV 1.0.9	-	-

## ANNEX A: 3-D Pattern Plots



2400M-2530M 3D GAIN

## ANNEX B: The Test Configuration



Picture 1 Test Setup

\*\*\*\*\*END OF REPORT \*\*\*\*\*