#### FCC 47 CFR PART 15 SUBPART B

#### **TEST REPORT**

Pipo Technology Co. Ltd.

MID

Model No.: P9

Prepared for : Pipo Technology Co. Ltd.

Address : Area C, 3F Bao Yun Da Logistics Centre, Warehouse Building,

Xi Xiang Avenue, Bao' an District, Shenzhen, China.

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.

Address : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,

Bao'an District, Shenzhen, Guangdong, China

Tel : (+86)755-82591330 Fax : (+86)755-82591332 Web : www.LCS-cert.com

Mail : webmaster@LCS-cert.com

Date of receipt of test sample : February 16, 2017

Number of tested samples : 1

Serial number : Prototype

Date of Test : February 16, 2017 ~ March 28, 2017

Date of Report : March 28, 2017

#### FCC TEST REPORT FCC 47 CFR PART 15 SUBPART B

Report Reference No. .....: LCS1702161051E

Date Of Issue .....: : March 28, 2017

Testing Laboratory Name......: Shenzhen LCS Compliance Testing Laboratory Ltd.

Address ...... : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,

Bao'an District, Shenzhen, Guangdong, China

Testing Location/ Procedure ......: Full application of Harmonised standards ■

Partial application of Harmonised standards

Applicant's Name.....: Pipo Technology Co. Ltd.

Address .....: Area C, 3F Bao Yun Da Logistics Centre, Warehouse Building,

Xi Xiang Avenue, Bao' an District, Shenzhen, China.

**Test Specification** 

Standard ......: : FCC 47 CFR Part 15 Subpart B, ANSI C63.4 -2014

Test Report Form No.....: LCSEMC-1.0

TRF Originator .....: Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF.....: : Dated 2011-03

#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. is acknowledged as copyright owner and source of the material. SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test Item Description. ....: : MID

Model/ Type Reference..... : P9

Trade Mark .....: PIPO

Ratings ..... : DC 3.7V by lithium batteryCharging parameter: Input:

100~240V AC, 50/60Hz, 0.5A;

Output: DC 5V, 2.5A

Result .....: Positive

Compiled by:

kule Yin

**Supervised by:** 

Approved by:

Kyle Yin/ File administrator

Glin Lu/ Technique principal

Gavin Liang/ Manager

## FCC -- TEST REPORT

Test Report No.: LCS1702161051E 

March 28, 2017

Date of issue

Type / Model..... : P9 EUT.....: : MID Applicant.....: : Pipo Technology Co. Ltd. Address.....: : Area C, 3F Bao Yun Da Logistics Centre, Warehouse Building, Xi Xiang Avenue, Bao' an District, Shenzhen, China. Telephone.....: : / Fax.....:: : / Manufacturer.....: : Pipo Technology Co. Ltd. Address.....: : Area C, 3F Bao Yun Da Logistics Centre, Warehouse Building, Xi Xiang Avenue, Bao' an District, Shenzhen, China. Telephone.....: : / Fax.....: : / Factory.....: Pipo Technology Co. Ltd. Address.....: : Area C, 3F Bao Yun Da Logistics Centre, Warehouse Building, Xi Xiang Avenue, Bao' an District, Shenzhen, China. Telephone....:: / Fax.....: : /

#### **Test Result** according to the standards on page 5: **Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

# **Revision History**

Revision	Issue Date	Revisions	Revised By
00	March 28, 2017	Initial Issue	Gavin Liang

## **TABLE OF CONTENTS**

Test Report Description	Page
1. SUMMARY OF STANDARDS AND RESULTS	6
1.1. Description of Standards and Results	6
1.2. Description of Test Modes	
2. GENERAL INFORMATION	
2.1. Description of Device (EUT)	7
2.2. Description of Test Facility	
2.3. Statement of the measurement uncertainty	
2.4. Measurement Uncertainty	
3. POWER LINE CONDUCTED EMISSION MEASUREMENT	
3.1. Test Equipment	9
3.2.Block Diagram of Test Setup	
3.3.Test Standard	
3.4.EUT Configuration on Test	9
3.5.Operating Condition of EUT	10
3.6.Test Procedure	10
3.7.Test Results	10
4. RADIATED EMISSION MEASUREMENT	12
4.1. Test Equipment	12
4.1. Block Diagram of Test Setup	
4.2. Radiated Emission Limit (Class B)	
4.3. EUT Configuration on Measurement	
4.4. Operating Condition of EUT	13
4.5. Test Procedure	
4.6. Radiated Emission Noise Measurement Result	13
5. PHOTOGRAPH	16
6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT	16

#### 1. SUMMARY OF STANDARDS AND RESULTS

### 1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION						
Description of Test Item	Standard	Limits	Results			
Conducted disturbance at mains terminals	FCC 47 CFR Part 15 Subpart B	Class B	PASS			
Radiated disturbance	FCC 47 CFR Part 15 Subpart B	Class B	PASS			
Conducted disturbance at Antenna terminals	FCC 47 CFR Part 15 Subpart B		N/A			

N/A is an abbreviation for Not Applicable.

### 1.2. Description of Test Modes

The EUT has been tested under operating condition.

This test was performed with EUT in X, Y, Z position and the worst case was found when EUT in X position.

AC conducted emission pre-test at both at AC 120V/60Hz and AC 240V/50Hz modes, recorded worst case;

AC conducted emission pre-test at both at power adapter and power from PC modes, recorded worst case;

There was 6 test Modes. TM1 to TM6 were shown below:

TM1: Operate in WIFI mode.

TM2: Operate in Camera mode.

TM3: Exchange data with PC

TM4: Operate in Play music mode.

TM5: Operate in Play video mode.

TM6: Idle mode

#### 2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : MID

Trade Mark : PIPO

Model Number : P9

Power Supply : DC 3.7V by lithium batteryCharging parameter: Input:

100~240V AC, 50/60Hz, 0.5A;

Output: DC 5V, 2.5A

#### 2.2. Description of Test Facility

Site Description

EMC Lab. : CNAS Registration Number. is L4595.

FCC Registration Number. is 899208.

Industry Canada Registration Number. is 9642A-1.

ESMD Registration Number. is ARCB0108.

UL Registration Number. is 100571-492.

TUV SUD Registration Number. is SCN1081.

TUV RH Registration Number. is UA 50296516-001

#### 2.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

## 2.4. Measurement Uncertainty

SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.

Test Item	Frequency Range	Expanded uncertainty (Ulab)	Expanded uncertainty (Ucispr)	
Conducted Emission	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 2.63 dB ± 2.35 dB	± 4.0 dB ± 3.6 dB	
Radiated Emission	Level accuracy (9kHz to 30MHz)	± 3.68 dB	N/A	
Radiated Emission Level accuracy (30MHz to 1000MHz)		± 3.48 dB	± 5.2 dB	
Radiated Emission Level accuracy (above 1000MHz)		± 3.90 dB	N/A	

- (1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.
- (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

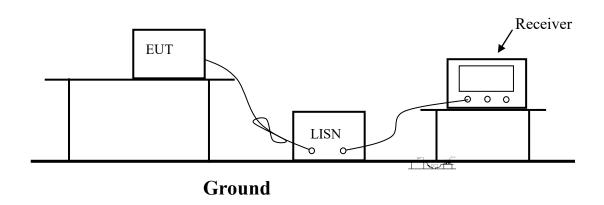
### 3. POWER LINE CONDUCTED EMISSION MEASUREMENT

### 3.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESR 7	101181	2016-06-18
2	10dB Attenuator	SCHWARZBECK	MTS-IMP136	261115-001-00 32	2016-06-18
3	Artificial Mains	ROHDE & SCHWARZ	ENV216	101288	2016-06-18
4	EMI Test Software	AUDIX	E3	N/A	N/A
5	ISN	SCHWARZBECK	NTFM 8158	NTFM 8158 0120	2016-06-18

#### 3.2.Block Diagram of Test Setup



#### 3.3.Test Standard

Power Line Conducted Emission Limits (Class B)

I	Frequency	equency Limit (dBµV)			
(MHz)			Quasi-peak Level Average Level		
0.15	7	0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *	
0.50	?	5.00	56.0	46.0	
5.00	~	30.00	60.0	50.0	

NOTE1-The lower limit shall apply at the transition frequencies.

NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

### 3.4.EUT Configuration on Test

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

### 3.5. Operating Condition of EUT

- 3.4.1. Setup the EUT as shown on Section 3.2
- 3.4.2. Turn on the power of all equipments.
- 3.4.3.Let the EUT work in measuring mode (ON) and measure it.

#### 3.6.Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC/ANSI C63.4-2014 on Conducted Emission Measurement.

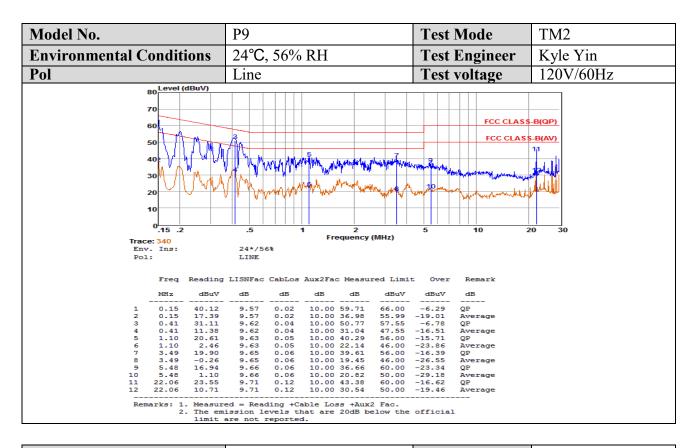
The bandwidth of the test receiver is set at 9kHz.

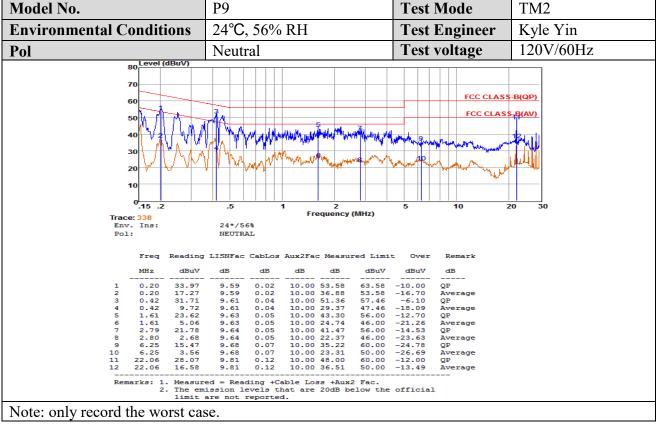
The frequency range from 150kHz to 30MHz is investigated

#### 3.7.Test Results

#### PASS.

The test result please refer to the next page.



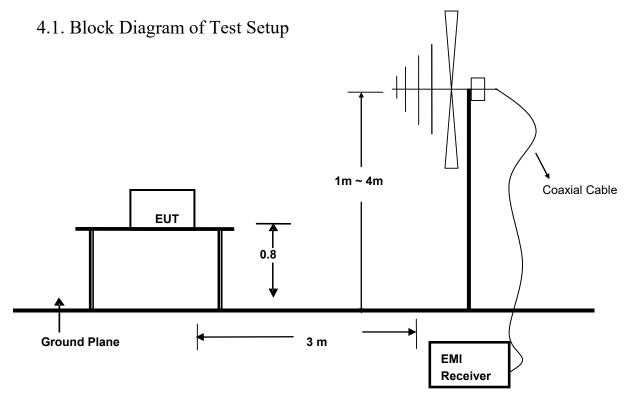


### 4. RADIATED EMISSION MEASUREMENT

## 4.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03СН03-НҮ	2016-06-18
2	EMI Test Receiver	ROHDE & SCHWARZ	ESR 7	101181	2016-06-18
3	Log per Antenna	SCHWARZBECK	VULB9163	9163-470	2016-04-18
4	EMI Test Software	AUDIX	E3	N/A	2016-06-18
5	Positioning Controller	MF	MF-7082	/	2016-06-18



#### 4.2. Radiated Emission Limit (Class B)

Limits for radiated disturbance Blow 1GHz

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMIT		
MHz	Meters	μV/m	dB(μV)/m	
30 ~ 88	3	100	40	
88 ~ 216	3	150	43.5	
216 ~ 960	3	200	46	
960 ~ 1000	3	500	54	

Remark: (1) Emission level (dB) $\mu$ V = 20 log Emission level  $\mu$ V/m

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

#### Report No.: LCS1702161051E

#### 4.3. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 4.4. Operating Condition of EUT

- 4.5.1. Setup the EUT as shown in Section 4.2.
- 4.5.2.Let the EUT work in test mode (on) and measure it.

#### 4.5. Test Procedure

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated by-log antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

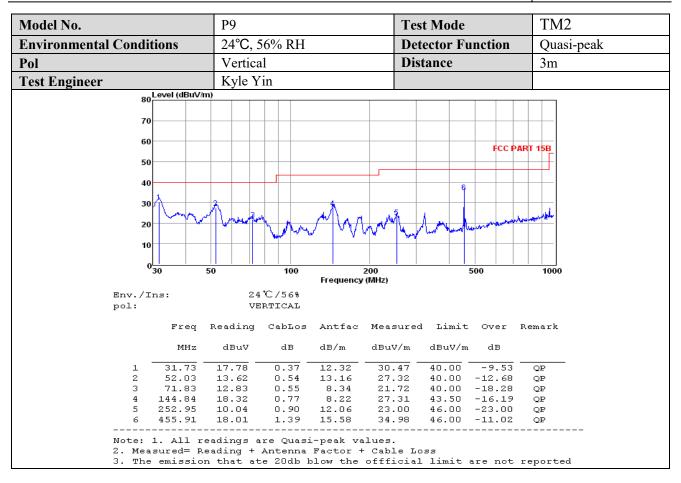
The bandwidth of the EMI test receiver is set at 120kHz, 1000kHz.

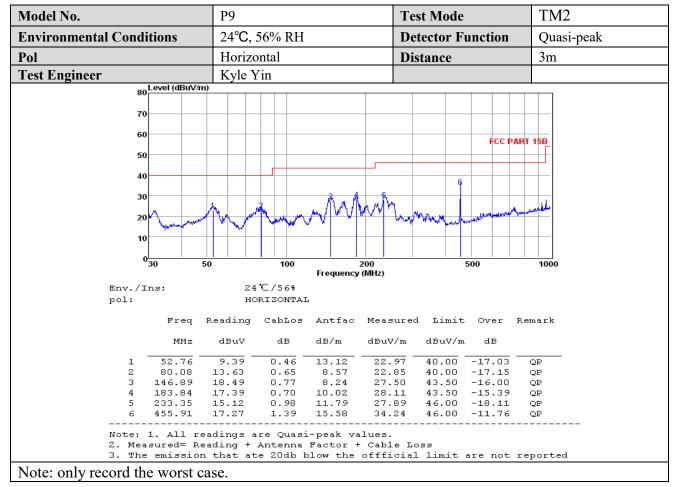
The frequency range from 30MHz to 1000MHz is checked.

### 4.6. Radiated Emission Noise Measurement Result

PASS.

The scanning waveforms please refer to the next page.





Model No.	P9	Test Mode	TM2
<b>Environmental Conditions</b>	24°C, 56% RH	Distance	3m
Test Engineer	Kyle Yin	Test date:	March 21, 2017

Frequency		Emission Level dBµV/m		Limits dBµV/m		rgin V/m	Polarization
MHz	Peak	AV	Peak	AV	Peak	AV	
1324.85	48.63	37.69	74.00	54.00	-25.37	-16.31	Н
1963.54	51.64	39.47	74.00	54.00	-22.36	-14.53	Н
2258.54	48.23	38.80	74.00	54.00	-25.77	-15.20	Н
3253.12	55.93	45.60	74.00	54.00	-18.07	-8.40	Н
4851.37	57.79	42.86	74.00	54.00	-16.21	-11.14	Н
5262.04	53.41	42.16	74.00	54.00	-20.59	-11.84	Н
1419.82	49.01	36.16	74.00	54.00	-24.99	-17.84	V
1829.51	51.23	40.17	74.00	54.00	-22.77	-13.83	V
2963.09	47.07	39.29	74.00	54.00	-26.93	-14.71	V
3562.07	55.96	45.69	74.00	54.00	-18.04	-8.31	V
4480.69	56.08	46.36	74.00	54.00	-17.92	-7.64	V
5944.95	55.38	42.96	74.00	54.00	-18.62	-11.04	V

5	PH	$[\mathbf{O}]$	$\Gamma$	CI	<b>2 A</b>	PH

Please refer to separated files for Test Setup Photos of the EUT.

## 6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Please refer to separated files for Test Setup Photos of the EUT.

-----THE END OF TEST REPORT-----