

<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>CN22FP4Z 002</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	<b>168393917</b>	<b>Seite 1 von 12</b> <i>Page 1 of 12</i>
<b>Kunden-Referenz-Nr.:</b> <i>Client reference no.:</i>	<b>N/A</b>	<b>Auftragsdatum:</b> <i>Order date:</i>	<b>2022-10-12</b>	
<b>Auftraggeber:</b> <i>Client:</i>	<b>IRay Technology Co., Ltd.</b> 11GUIYANG STREET, YANTAI ECONOMY AND TECHNOLOGY DEVELOPMENT DISTRICT, YANTAI SHANDONG, P.R.CHINA			
<b>Prüfgegenstand:</b> <i>Test item:</i>	Thermal Camera			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type no.:</i>	M6T25, M6T19, M6D25, M6D19, M6S25, M6S19			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Test Report			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	FCC CFR Title 47, Part 15, Subpart B			
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2022-10-13	Please refer to Photo Document		
<b>Prüfmuster-Nr.:</b> <i>Test sample no.:</i>	A003341515-001			
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2022-11-04			
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass			
<b>geprüft von:</b> <i>tested by:</i>	 <b>Lin Lin</b>	<b>genehmigt von:</b> <i>authorized by:</i>	 <b>Hardy Suo</b>	
<b>Datum:</b> <i>Date:</i>	2022-11-08	<b>Ausstellungsdatum:</b> <i>Issue date:</i>	2022-11-08	
<b>Stellung / Position:</b>	Senior Project Manager	<b>Stellung / Position:</b>	Reviewer	
<b>Sonstiges / Other:</b>	FCC ID: 2AYGT-9000			
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b> <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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## ***Test Summary***

### **5.1.1 CONDUCTED EMISSION ON AC MAINS**

*RESULT: Pass*

### **5.1.2 RADIATED EMISSIONS**

*RESULT: Pass*

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# 1 General Remarks

## 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of FCC 15B

Appendix B: Photographs of the Test Set-up

## 2 Test Sites

### 2.1 Test Facilities

**TÜV Rheinland (Shenzhen) Co., Ltd.**

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Accreditation Designation No.: CN1260

### 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

<b>Conducted Emission</b>				
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Until</b>
EMI Test Receiver	R&S	ESR3	102680	2023-02-27
Artificial Mains Network	R&S	ENV216	101445	2023-02-27
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A
<b>Radiated Emission (3m chamber)</b>				
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Until</b>
3m SAC	ETS-Lindgren	SAC3	CT001632-Q1362	2024-04-26
EMI Test Receiver	R&S	ESR7	102111	2022-12-01
Horn Antenna	R&S	HF907	102706	2023-08-08
Preamplifier(1-18GHz)	FIT	SCU-18F	180077	2023-08-01
Trilog-Broadband antenna	SCHWARZBECK	VULB9168	0945	2023-08-03
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

### 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

### 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty
Radiated Emission (3m SAC), 30MHz to 1000MHz	± 4.52 dB
Radiated Emission (3m SAC), above 1000MHz	± 4.37 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3 General Product Information

#### 3.1 Product Function and Intended Use

The EUT is a Thermal Camera, which supports Wi-Fi 802.11 b/g/n wireless technology.

For details refer to the User Manual, Technical Description and Circuit Diagram.

#### 3.2 Ratings and System Details

**Table 2: Technical Specification of EUT**

General Information of EUT	Value
Kind of Equipment:	Thermal Camera
Type Designation:	M6T25 Additional model: M6T19, M6D25, M6D19, M6S25, M6S19 Note1: The above models only difference at the laser unit, detail refer to difference description. Note2: The M6T25 selected to test as master device with fully function.
Type of EUT:	Class A digital device
FCC ID:	2AYGT-9000
Operating Voltage:	DC 12V
Operating Temperature Range:	-20 °C ~ +60 °C

#### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Normal operation + LAN + BNC Terminal + Wi-Fi attached
- B. On, Normal operation + Wi-Fi + BNC Terminal
- C. Off

#### 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

#### 3.5 Submitted Documents

- Application Form
- ID Label and Location Info
- Schematics
- Operation Description
- Block Diagram
- PCB Layout

## 4 Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.4: 2014.

According to clause 3.1, all tests were performed on model M6T25 in this report.

### 4.3 Special Accessories and Auxiliary Equipment

Table 3: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N
Portable Laptop	Lenovo	ThinkPad L470	SPP0M92508
Mobile phone	HUAWEI	STK-AL00	7PRNW20721000279

### 4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.



### 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

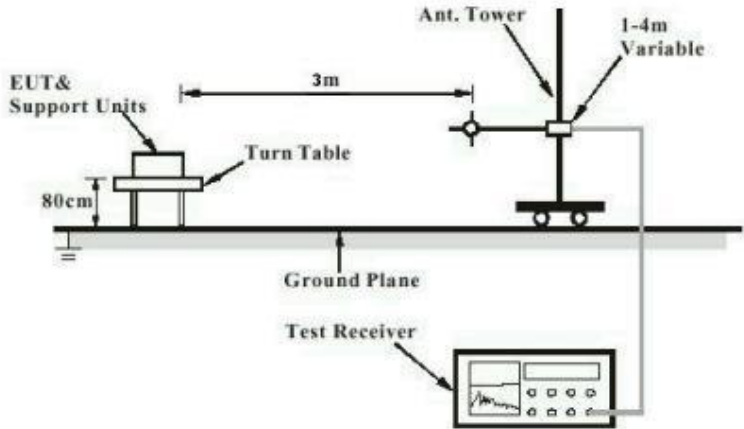


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

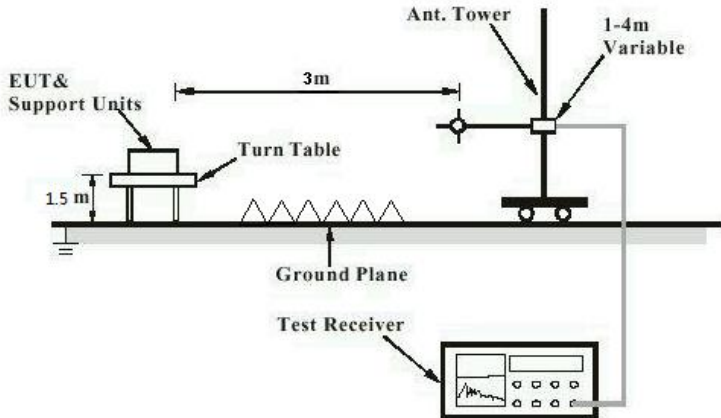
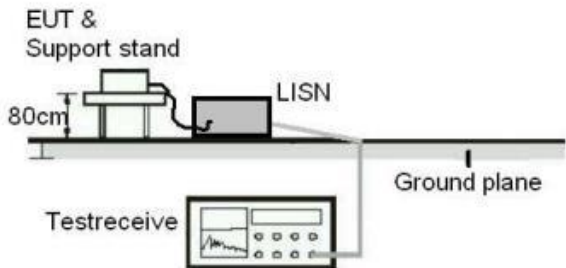


Diagram of Measurement Configuration for Mains Conduction Measurement



## 5 Test Results

### 5.1.1 Conducted Emission on AC Mains

RESULT:

Pass

**Test Specification**

Test standard	: FCC Part 15.107(b)
Basic standard	: ANSI C63.4:2014
Frequency range	: 0.15 – 30MHz
Classification	: Class A
Limits	: FCC Part 15.107(b)
Kind of test site	: Shielded Room

**Test Setup**

Date of testing	: 2022-11-04
Input voltage	: DC 12V
Operation mode	: A, B
Ambient temperature	: 24.6 °C
Relative humidity	: 49.6 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

## 5.1.2 Radiated Emissions

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.109(b)
Basic standard	: ANSI C63.4:2014
Frequency range	: 30MHz to 5 <sup>th</sup> harmonic of the highest frequency
Classification	: Class A
Limits	: FCC Part 15.109(b)
Kind of test site	: 3m Semi-anechoic Chamber

**Test Setup**

Date of testing	: 2022-11-04
Input voltage	: DC 12V
Operation mode	: A, B
Ambient temperature	: 24.3 °C
Relative humidity	: 51.6 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

## 6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix B.

## 7 List of Tables

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