

RF Exposure evaluation

Client Information:

Applicant: **Shenzhen Canzone Technology Co.,Ltd.**
Applicant add.: East of 5th Floor,7 Bld ,Lijincheng Industry Park,
Yousong Community,Longhua Street, Longhua district,Shenzhen
Manufacturer: **Shenzhen Canzone Technology Co.,Ltd.**
Manufacturer add.: East of 5th Floor,7 Bld ,Lijincheng Industry Park,
Yousong Community,Longhua Street, Longhua district,Shenzhen

Product Information:

Product Name: Projector
Model No.: P21, P21 Pro, P21 Plus, P21 ultra, CZ100, CZ100 Pro, CZ100 Plus,
CZ200, CZ200 Pro, CZ200 Plus
Brand Name: N/A
FCC ID: 2BD2F-P21

Applicable standards: 47CFR §1.1310, 47CFR §2.1091
KDB447498 D01 General RF Exposure Guidance v06

Prepared By:

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Date of Receipt: Sep 17, 2025

Date of Test: Sep 17, 2025~ Sep 28, 2025

Date of Issue: Sep 28, 2025

Test Result: Pass

This device described above has been tested by Dongguan Yaxu (AiT) Technology Limited and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Reviewed by: Emiya Lin
Emiya Lin

Approved by: Simba Huang
Simba Huang





Report Revise Record

Report Version	Issued Date	Notes
M0	Sep 28, 2025	Initial Release

Contents

1	GENERAL INFORMATION	4
1.1	ENVIRONMENTAL CONDITIONS	4
1.2	GENERAL DESCRIPTION OF EUT	4
1.3	TEST FACILITY	6
1.4	MEASUREMENT UNCERTAINTY	6
2	METHOD OF MEASUREMENT	7
2.1	APPLICABLE STANDARD.....	7
2.2	LIMIT	7
2.3	MPE CALCULATION METHOD.....	8
2.4	ANTENNA INFORMATION	8
2.5	MANUFACTURING TOLERANCE.....	8
2.6	STANDALONE MPE RESULT	9
2.7	CONCLUSION.....	9

1 GENERAL INFORMATION

1.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

1.2 General Description of EUT

Product Name:	Projector
Model/Type reference:	P21
Serial Model:	P21 Pro, P21 Plus, P21 ultra, CZ100, CZ100 Pro, CZ100 Plus, CZ200, CZ200 Pro, CZ200 Plus
Model difference:	All models are same as the samples except model name and appearance color, they have the same structure and circuit.
Power Supply:	Input: AC 110-220V 42.35W~84.7W 385MA 50~60Hz Output: DC 12V 65W 2A 0Hz
Hardware Version:	N/A
Software Version:	N/A
Sample(s) Status:	AiTDG-251222014-1(Normal sample) AiTDG-251222014-2(Engineer sample)
Bluetooth :	
Supported type:	Bluetooth BR/EDR
Modulation:	GFSK, $\pi/4$ DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79
Channel separation:	1MHz
Antenna type:	FPC antenna
Antenna gain:	3.63dBi
2.4G WIFI:	
Supported type:	802.11b/802.11g /802.11n(HT20)/802.11n(HT40)
Modulation:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM
Operation frequency:	802.11b/802.11g/802.11n(H20): 2412MHz~2462MHz 802.11n(H40): 2422MHz~2452MHz
Channel number:	802.11b/802.11g/802.11n(H20): 11 802.11n(H40): 7
Channel separation:	5MHz
Antenna type:	FPC antenna
Antenna gain:	3.63dBi
Remark: The above DUT's information was declared by manufacturer. For more detailed features	



description, please refer to the manufacturer's specifications or the User's Manual.

1.3 Test Facility

The test facility is recognized, certified or accredited by the following organizations:

CNAS-Registration No: L6177

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2017 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on April 18, 2022

FCC-Registration No.: 703111 Designation Number: CN1313

Dongguan Yaxu (AiT) technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC-Registration No.: 6819A CAB identifier: CN0122

The 3m Semi-anechoic chamber of Dongguan Yaxu (AiT) technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6819A

A2LA-Lab Cert. No.: 6317.01

Dongguan Yaxu (AiT) technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.4 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 AiT 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.

Test	Measurement Uncertainty	Notes
Power Line Conducted Emission	9KHz~30MHz ± 1.20 dB	(1)
Radiated Emission	9KHz~30MHz ± 3.10 dB	(1)
Radiated Emission	30MHz~1GHz ± 3.75 dB	(1)
Radiated Emission	1GHz~18GHz ± 3.88 dB	(1)
Radiated Emission	18GHz~40GHz ± 3.88 dB	(1)
RF power, conducted	30MHz~6GHz ± 0.16 dB	(1)
RF power density, conducted	± 0.24 dB	(1)
Spurious emissions, conducted	± 0.21 dB	(1)
Temperature	$\pm 1^{\circ}\text{C}$	(1)
Humidity	$\pm 3\%$	(1)
DC and low frequency voltages	$\pm 1.5\%$	(1)
Time	$\pm 2\%$	(1)
Duty cycle	$\pm 2\%$	(1)

The report uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

2 Method of measurement

2.1 Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated.

FCC KDB447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures

2.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

2.3 MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

2.4 Antenna Information

EUT can only use antennas certificated as follows provided by manufacturer;

Antenna	Model No. of antenna:	Type of antenna:	Gain of the antenna (Max.)	Frequency range:
WIFI/BT	/	FPC Antenna	3.63dBi@2.4G	2400-2500MHz

2.5 Manufacturing Tolerance

Bluetooth

GFSK (Peak)

Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	4.5	4.5	4.5
Tolerance ±(dB)	1.0	1.0	1.0

$\pi/4$ DQPSK (Peak)

Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	5.5	5.5	6.0
Tolerance ±(dB)	1.0	1.0	1.0

8-DPSK (Peak)

Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	5.0	5.5	6.0
Tolerance ±(dB)	1.0	1.0	1.0

2.4GHz WLAN

IEEE 802.11b (Peak)

Frequency (MHz)	2412	2437	2462
Target (dBm)	15.0	15.0	14.0
Tolerance ± (dB)	1.0	1.0	1.0

IEEE 802.11g (Peak)

Frequency (MHz)	2412	2437	2462
Target (dBm)	14.0	15.0	13.0
Tolerance ± (dB)	1.0	1.0	1.0

IEEE 802.11n HT20 (Peak)

Frequency (MHz)	2412	2437	2462
Target (dBm)	14.0	14.0	12.0
Tolerance ± (dB)	1.0	1.0	1.0

IEEE 802.11n HT40 (Peak)

Frequency (MHz)	2422	2437	2452
Target (dBm)	14.0	13.0	11.0
Tolerance ± (dB)	1.0	1.0	1.0

2.6 Standalone MPE Result

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna is refer to section 2.4, the RF power density can be obtained.

Modulation Type	Output power with tune_up		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
BT	7	5.0119	3.63	2.3067	0.0023	1.0000
2.4G WLAN	16	39.8107	3.63	2.3067	0.0183	1.0000

Remark:

1. Output power including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.
3. WIFI/BT do not support simultaneous transmission.

2.7 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

***** End of Report *****