FCC DFS TEST REPORT

Applicant	:	Shenzhen Holatek Co., Ltd.
Address	:	#12,Building 1,Chongwen Park, Nanshan Zhiyuan,3370 Liuxian Ave, Nanshan District, Shenzhen, China.
Equipment	:	Smart projector
Model No.	:	J61-7K5, J61-7K6, J61-7K7, J61-7K8, J61-7KR, J61-7KS, J61-7KT, J61-7KU, J61-7KV, J61-7KW, J61-7KX, J61-7KY, J61-7KZ
Trade Name	:	JMGO
FCC ID	:	SMC-7K5

I HEREBY CERTIFY THAT:

The test result refers exclusively to the test presented test model / sample.

Without written approval of Cerpass Technology Corp., the test report shall not

be reproduced except in full.

Approved by:

Leevin Li /Supervisor

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History of this test report

Version No.	Report No	Date	Description
Rev.01	24060213-DRFCC06	Jul. 19, 2024	Initial Issue
Rev.02	24080464-DRFCC02	Sept. 20, 2024	1. The FPC shape, area size and antenna layout of BT antenna and WiFi antenna B was changed.

1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart E §15.407

KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

KDB 905462 D03 Client Without DFS New Rules v01r02

FCC Rule	Description of Test	Result
15.407	Dynamic Frequency Selection	PASS
*The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement.		
This is an amended report application based on Cerpass Report No.: 24060213-DRFCC06. The details as below: 1. The FPC shape, area size and antenna layout of BT antenna and WiFi antenna B was changed. After engineering evaluation, the test items don't not need to be retested.		

2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Equipment	Smart projector
Model Name	J61-7K5, J61-7K6, J61-7K7, J61-7K8, J61-7KR, J61-7KS, J61-7KT, J61-7KU, J61-7KV, J61-7KW, J61-7KX, J61-7KY, J61-7KZ
Model Discrepancy	All models are identical to each other except for appearance color. Model J61-7K5 is the representative for final test.
Frequency Range	BT/BLE/ WIFI 2.4G: 2400MHz-2483.5MHz WIFI 5G: 5150MHz-5250MHz, 5250MHz-5350MHz, 5470MHz -5725MHz, 5725MHz -5850MHz
Modulation Type	BT: GFSK, π/4-DQPSK, 8DPSK BLE: GFSK 2.4GHz 802.11b: CCK, DQPSK, DBPSK 802.11g/n: BPSK, QPSK, 16QAM, 64QAM 5GHz 802.11a/n: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM
Data Rate	BT: GFSK:1Mbps, π/4-DQPSK: 2Mbps, 8DPSK:3Mbps BLE: GFSK: 1Mbps, 2Mbps, 125kbps, 500kbps WIFI 2.4GHz: 802.11b: 1, 2 ,5.5,11Mbps 802.11g: 6,9,12,18,24,36,48,54Mbps 802.11n: MCS0-MCS15, HT20/HT40 WIFI 5GHz: 802.11a: 6,9,12,18,24,36,48,54Mbps 802.11n: MCS0-MCS15, HT20/HT40 802.11ac: MCS0-MCS9, VHT20/40/80
Working Temperature	0°C to 35°C
EUT Power Rating:	DC 20V supplied by adapter DC 7.3V from Battery
Adapter Spec.	Mode: XY-PD065U75 Input: 100-240V~ 50/60Hz 1.5A Max Output: 5V ⎓3A, 9V ⎓3A, 12V ⎓3A, 15V ⎓3A, 20V ⎓3.25A 65.0W

Note:
1. The EUT not support TPC Function.
2. EUT support Client mode without radar detection.
3. For more details, please refer to the User's manual of the EUT.

2.2. Description of Test System

Equipment	Brand	Model	Length/Type	Power cord/Length/Type	Serial No.	FCC ID
Notebook	Lenovo	V310-14IKB	NA	Adapter / 1.8m / NS	LRO7RS14	-
AP	NETGEAR	R7800	NA	Adapter / 1.5m / NS	3V01485A02A61	PY314300288
RJ45 Cable	TE CONNECTIVITY	CAT5E	1.2m / NS	N/A	RJ45-001	-
Adapter	XuYuan	XY-PD065U75	1.0m NonShielding with one Core	N/A	-	-

2.3. General Information of Test

Test Site	**Cerpass Technology Corporation(Cerpass Laboratory)** Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province Tel: +86-769-8547-1212 Fax: +86-769-8547-1912
FCC Designation No.:	CN1288
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 9kHz to 40,000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

2.4. Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Item	Uncertainty
Channel Move Time	±4.0%
Channel Closing Transmission Time	±2.8%
Threshold	±2.2dB

3. Antenna Requirements

3.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

3.2. Antenna Construction and Directional Gain

WIFI 5G:

Antenna Type	FPC Antenna
Antenna Gain	5150MHz - 5250MHz: ANT A:3.0dBi; ANT B:2.9dBi 5250MHz - 5350MHz: ANT A: 3.2dBi; ANT B:2.93dBi 5450MHz - 5700MHz: ANT A: 3.17dBi; ANT B:3.0dBi 5750MHz - 5850MHz: ANT A:3.5dBi; ANT B:3.1dBi

(Non-Beamforming)

For 2TX

5150MHz - 5250MHz
For Power/PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 5.96 (dBi)
5250MHz-5350MHz
For Power/PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 6.08(dBi)
5470MHz -5725MHz
For Power/PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 6.10 (dBi)
5725MHz -5850MHz
For Power/PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ = 6.31 (dBi)

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