RF Exposure evaluation

Report Reference No.....:	**HTT2025071249F02**
FCC ID..... :	**2BQTR-MOOD1PRO**
Compiled by (position+printed name+signature) .:	File administrators Heber He
Supervised by (position+printed name+signature) .:	Project Engineer Bruce Zhu
Approved by (position+printed name+signature) .:	RF Manager Kevin Yu
Date of issue .....:	Aug. 06, 2025
Testing Laboratory Name.....:	**Shenzhen HTT Technology Co.,Ltd.**
Address.....:	1F, Building B, Huafeng International Robotics Industrial Park, Hangcheng Road,Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China
Applicant's name.....:	**SHENZHEN DISCOVER TECHNOLOGY CO., LTD**
Address.....:	4F, 4B, Haomai High-tech Park #387 Huating Rd. Dalang St. Longhua District,Shenzhen 518109, China.
Standard.....:	**47CFR §1.1310** **47CFR §2.1093** **KDB447498 D01 General RF Exposure Guidance v06**

Shenzhen HTT Technology Co.,Ltd. All rights reserved.
This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen HTT Technology Co.,Ltd. is acknowledged as copyright owner and source of the material. Shenzhen HTT Technology Co.,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 .....:	**RGB Mood Light**
Manufacturer .....:	SHENZHEN YOUYANG TECHNOLOGY CO., LTD.
Trade Mark	luxceo 乐士欧
Model/Type reference .....:	Mood1 Pro
Rating .....:	DC 3.6V/5000mAh From Battery and DC 5V From External Circuit
Result .....:	**PASS**

T E S T R E P O R T

Equipment under Test	:	RGB Mood Light
Model /Type	:	Mood1 Pro
Applicant	:	**SHENZHEN DISCOVER TECHNOLOGY CO., LTD**
Address	:	4F, 4B, Haomai High-tech Park #387 Huating Rd. Dalang St. Longhua District,Shenzhen 518109, China.
Manufacturer	:	**SHENZHEN YOUYANG TECHNOLOGY CO., LTD.**
Address	:	4F, 4B, Haomai High-tech Park #387 Huating Rd. Dalang St. Longhua District,Shenzhen 518109, China.

Test Result:	**PASS**

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.

Contents

1 TEST STANDARDS 4

2 SUMMARY 5

2.1 General Remarks 5
2.2 Product Description 5
2.3 Special Accessories 5
2.4 Modifications 5

3 TEST ENVIRONMENT 6

3.1 Address of the test laboratory 6
3.2 Test Facility 6
3.3 Statement of the measurement uncertainty 6

4 TEST LIMIT 7

4.1 Requirement 7
4.2 Conducted Power Results 7
4.3 Manufacturing tolerance 7
4.4 Evaluation Result 8
4.5 Simultaneous Transmission for SAR Exclusion 8

5 CONCLUSION 8

1 TEST STANDARDS

The tests were performed according to following standards:

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
FCC KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.
FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.
FCC CFR 47 part2 2.1093: Radiofrequency radiation exposure evaluation: portable devices

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Jul. 30, 2025
Testing commenced on	:	Jul. 30, 2025
Testing concluded on	:	Aug. 06, 2025

2.2 Product Description

Product Name:	RGB Mood Light
Model No.:	Mood1 Pro
Series model:	Mood1, Mood1A, Mood1A Pro, Mood1S
Test sample(s) ID:	HTT2025071249-1(Engineer sample) HTT2025071249-2(Normal sample)
Operation frequency	2402~2480 MHz
Number of Channels	40
Modulation Type	GFSK
Channel separation	2MHz
Antenna Type:	PCB Antenna
Antenna Gain:	1.50 dBi
Power Supply:	DC 3.6V/5000mAh From Battery and DC 5V From External Circuit
Adapter Information (Auxiliary test provided by the lab):	Mode: GS-0500200 Input: AC100-240V, 50/60Hz, 0.3A max Output: DC 5V, 2A

2.3 Special Accessories

The following is the EUT test of the auxiliary equipment provided by the laboratory:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
/	/	/	/	/	/

2.4 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen HTT Technology Co.,Ltd.
1F, Building B, Huafeng International Robotics Industrial Park, Hangcheng Road,Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

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

FCC-Registration No.: 779513 Designation Number: CN1319
Shenzhen HTT Technology Co.,Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6435.01
Shenzhen HTT Technology Co.,Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 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 TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen HTT Technology Co.,Ltd. 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.
Hereafter the best measurement capability for Shenzhen HTT Technology Co.,Ltd. :

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.12 dB	(1)
Radiated Emission	30~1000MHz	4.37 dB	(1)
Radiated Emission	1~18GHz	5.40 dB	(1)
Radiated Emission	18-40GHz	5.45 dB	(1)
Conducted Disturbance	0.15~30MHz	2.68 dB	(1)
Spectrum bandwidth	/	1.2%	(1)
Output Peak power	30MHz~18GHz	0.57dB	(1)
Time	/	±10%	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

4 Test limit

4.1 Requirement

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 Standalone SAR test exclusion considerations: “Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.22 The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc.23 “

[(max. power of channel, including tune-up tolerance, mW)/ (min. test separation distance, mm)] · [√ f (GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

- f (GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

4.2 Conducted Power Results

Type	Channel	Output power (dBm)
GFSK 1Mbps	00	-3.4
	19	-2.21
	39	-1.59

4.3 Manufacturing tolerance

GFSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-3.0	-2.0	-1.0
Tolerance ±(dB)	1.0	1.0	1.0

4.4 Evaluation Result

Evaluation Results

Band/Mode	f (GHz)	Antenna Distance (mm)	RF output power (including tune-up tolerance)		SAR Test Exclusion Threshold	SAR Test Exclusion
			dBm	mW		
BLE	2.480	5	0.0	1.0000	0.3150<3.0	Yes

4.5 Simultaneous Transmission for SAR Exclusion

N/A

5 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 D01v06

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