

Applicant: Eastern Times Technology Co.,Ltd

Product: REDRAGON 3 MODES CONNECTIONS BACKLIGHTING

GAMING KEYBOARD

Model No.: K707SP-RGB-PRO, ET-7227

Trademark: REDRAGON

Test Standards: FCC Part 15.249

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10 & FCC Part 15 Subpart C,

Paragraph 15.249 regulations for the evaluation of

electromagnetic compatibility

Approved By

Terry Tang

Manager

Dated: June 16, 2025

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

Report No.: TW2503056-02E Page 2 of 35

Date: 2025-06-16



Special Statement:

FCC-Registration No.: 744189

The EMC Laboratory 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. Registration No.: 744189.

Industry Canada (IC) — Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

CAB identifier: CN0033

Date: 2025-06-16



Test Report Conclusion

Content

1.0	General Details	4
1.1	Test Lab Details	4
1.2	Applicant Details	4
1.3	Description of EUT	4
1.4	Submitted Sample	4
1.5	Test Duration.	5
1.6	Test Uncertainty	5
1.7	Test By	5
2.0	List of Measurement Equipment	6
3.0	Technical Details	7
3.1	Summary of Test Results	7
3.2	Test Standards	7
4.0	EUT Modification	7
5.0	Power Line Conducted Emission Test	8
5.1	Schematics of the Test	8
5.2	Test Method and Test Procedure	8
5.3	Configuration of the EUT	8
5.4	EUT Operating Condition.	9
5.5	Conducted Emission Limit.	9
5.6	Test Result.	9
6.0	Radiated Emission test.	12
6.1	Test Method and Test Procedure.	12
6.2	Configuration of the EUT	13
6.3	EUT Operation Condition.	13
6.4	Radiated Emission Limit	13
6.5	Test Result.	15
7.0	Band Edge	23
7.1	Test Method and Test Procedure.	23
7.2	Radiated Test Setup.	23
7.3	Configuration of the EUT	23
7.4	EUT Operating Condition.	23
7.5	Band Edge Limit.	23
7.6	Band Edge Test Result.	24
8.0	Antenna Requirement.	28
9.0	20dB bandwidth measurement	29
10.0	FCC ID Label	33
11.0	Photo of Test Setup and EUT View	34

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Date: 2025-06-16



1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

Site on File with the Federal Communications Commission – United States

Registration Number: 744189 For 3m Anechoic Chamber

1.2 Applicant Details

Applicant: Eastern Times Technology Co.,Ltd

Address: Building D, Nan An Industrial Area, Youganpu Village, Fenggang Town, Dongguan City,

Guangdong, China.

1.3 Description of EUT

Product: REDRAGON 3 MODES CONNECTIONS BACKLIGHTING GAMING

KEYBOARD

Manufacturer: Eastern Times Technology Co.,Ltd

Address: Building D, Nan An Industrial Area, Youganpu Village, Fenggang Town,

Dongguan City, Guangdong, China.

Trademark: REDRAGON

Model Number: K707SP-RGB-PRO

Additional Model Name ET-7227

Rating: Input: DC5V, 800mA or DC3.7V, 250mA

Battery: DC3.7V, 4000mAh Li-ion battery

Hardware Version: 7227-A TX V1

Software Version: 2018

Serial No.: RDK707SP-RGB-PRO24093000758

Operation Frequency: 2402-2480MHz

Modulation Type: GFSK
Number of Channels: 79
Channel Separation: 1MHz

Antenna Designation PCB antenna with gain 2.34dBi maximum (Declared by the Manufacturer)

1.4 Submitted Sample: 2 Samples

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2503056-02E Page 5 of 35

Date: 2025-06-16



1.5 Test Duration

2025-03-04 to 2025-06-16

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Conducted Emissions Uncertainty = 3.6dB

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

Page 6 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



2.0 Test Equipment							
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date		
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11		
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11		
LISN	R&S	EZH3-Z5	100253	2024-07-12	2025-07-11		
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2024-07-12	2025-07-11		
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17		
Spectrum	R&S	FSIQ26	100292	2024-07-12	2025-07-11		
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17		
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2025-07-17		
Power meter	Anritsu	ML2487A	6K00003613	2024-07-12	2025-07-11		
Power sensor	Anritsu	MA2491A	32263	2024-07-12	2025-07-11		
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17		
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25		
EMI Test Receiver	RS	ESVB	826156/011	2024-07-12	2025-07-11		
EMI Test Receiver	RS	ESCS 30	834115/006	2024-07-12	2025-07-11		
Spectrum	HP/Agilent	E4407B	MY50441392	2024-07-12	2025-07-11		
Spectrum	RS	FSP	1164.4391.38	2024-07-12	2025-07-11		
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA	-	2024-07-12	2025-07-11		
RF Cable	Zhengdi	7m	-	2024-07-12	2025-07-11		
Pre-Amplifier	Schwarebeck	BBV9743	#218	2024-07-12	2025-07-11		
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2024-07-12	2025-07-11		
LISN	SCHAFFNER	NNB42	00012	2024-07-12	2025-07-11		
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11		
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11		

2.2 Automation Test Software

For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 7 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



3.0 Technical Details

3.1 Summary of test results

The EUT has been	ı tested accordin	g to the following	specifications:
		A	, 50000

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	Pass	Complies
FCC Part 15, Paragraph 15.209	Radiated Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	Pass	Complies
FCC Part 15.215(c)	20dB bandwidth	Pass	Complies

3.2 Test Standards

FCC Part 15 Subpart C, Paragraph 15.249, ANSI C63.4:2014 and ANSI C63.10:2013

4.0 EUT Modification

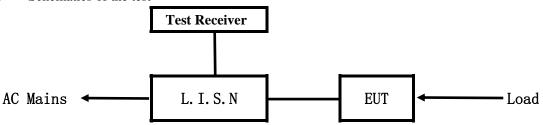
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

Date: 2025-06-16



5.0 Power Line Conducted Emission Test

5.1 Schematics of the test

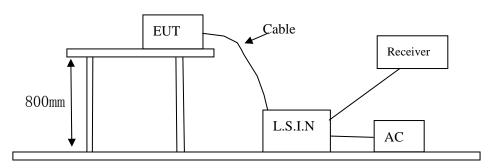


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID
REDRAGON 3 MODES			
CONNECTIONS	Eastern Times Technology	K707SP-RGB-PRO,	TUVET-7227B
BACKLIGHTING	Co.,Ltd	ET-7227	1UVE1-/22/B
GAMING KEYBOARD			

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

Page 9 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	Rating
Power Supply	Xiaomi	CDQ02ZM	Input: 100-240V~, 50/60Hz, 1.2A;
			Output: DC5V, 3A; DC9V, 3A; DC12V,
			3A; DC15V, 3A; DC20V, 2.25A;

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB μ V)			
(MHz)	Quasi-peak Level	Average Level		
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*		
$0.50 \sim 5.00$	56.0	46.0		
5.00 ~ 30.00	60.0	50.0		

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results:

Date: 2025-06-16



A: Conducted Emission on Live Terminal (150kHz to 30MHz)

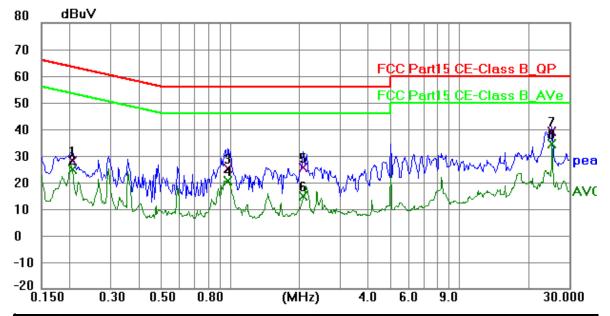
EUT Operating Environment

Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Charging + Communication by BT

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2046	17.79	10.32	28.11	63.42	-35.31	QP	Р
2	0.2046	14.40	10.32	24.72	53.42	-28.70	AVG	Р
3	0.9768	14.72	10.50	25.22	56.00	-30.78	QP	Р
4	0.9768	10.03	10.50	20.53	46.00	-25.47	AVG	Р
5	2.0805	14.06	11.35	25.41	56.00	-30.59	QP	Р
6	2.0805	3.37	11.35	14.72	46.00	-31.28	AVG	Р
7	25.2300	23.68	15.29	38.97	60.00	-21.03	QP	Р
8	25.2300	19.18	15.29	34.47	50.00	-15.53	AVG	Р

Date: 2025-06-16



B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

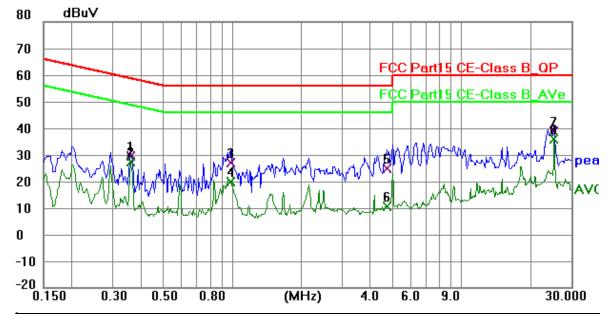
EUT Operating Environment

Temperature: 25°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Charging + Communication by BT

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.3605	19.10	10.36	29.46	58.72	-29.26	QP	Р
2	0.3605	16.85	10.36	27.21	48.72	-21.51	AVG	Р
3	0.9807	16.32	10.50	26.82	56.00	-29.18	QP	П
4	0.9807	9.50	10.50	20.00	46.00	-26.00	AVG	Р
5	4.7082	12.50	12.22	24.72	56.00	-31.28	QP	Р
6	4.7082	-1.77	12.22	10.45	46.00	-35.55	AVG	П
7	25.2300	23.62	15.29	38.91	60.00	-21.09	QP	Р
8	25.2300	20.62	15.29	35.91	50.00	-14.09	AVG	Р

Date: 2025-06-16



6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 9kHz to 25 GHz was investigated. The frequency spectrum is set as follows:

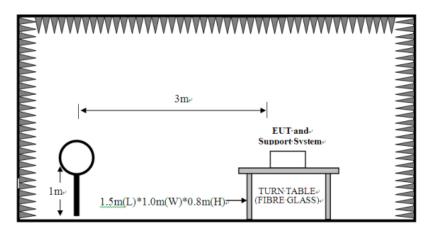
Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
ADOVE IGHZ	Peak	1MHz	10Hz	Average

(Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.

- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup

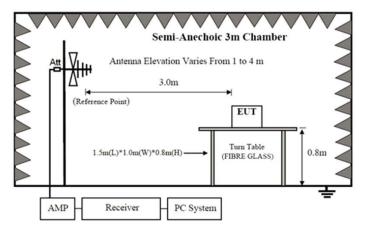
For radiated emissions from 9kHz to 30MHz



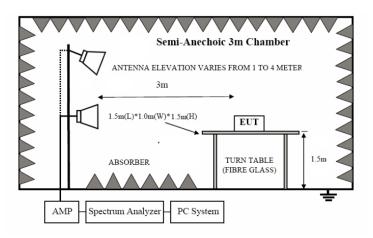
Date: 2025-06-16



For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of the EUT
 Same as section 5.3 of this report
- 6.3 EUT Operating Condition
 Same as section 5.4 of this report.

6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

A FCC Part 15 Subpart C Paragraph 15.249(a) Limit

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2503056-02E Page 14 of 35

Date: 2025-06-16



Fundamental Frequency	Field Stre	Field Strength of Fundamental (3m) Field Strength of Harmonics (3m)						
(MHz)	mV/m	dBu	V/m	uV/m	dBuV/m			
2400-2483.5	50	94 (Average) 114 (Peak		500	54 (Average)	74 (Peak)		

Note: 1. RF Field Strength (dBuV) = 20 log RF Voltage (uV)

- 2.Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- 3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
0.009-0.490	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-80	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. Battery fully charged was used during the test.

Report No.: TW2503056-02E Page 15 of 35

Date: 2025-06-16

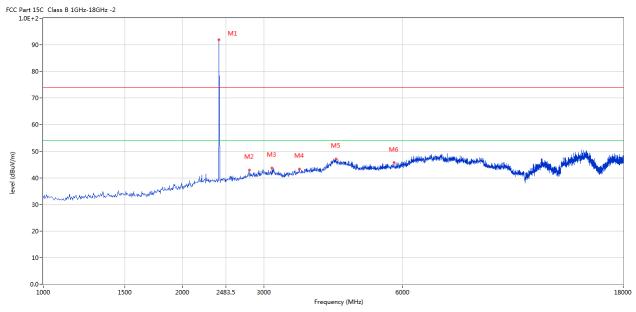


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2402MHz

Horizontal



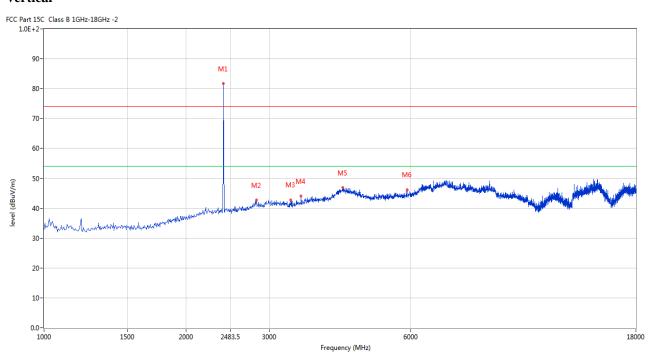
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	91.94	-3.57	114.0	-22.06	Peak	207.00	100	Horizontal	Pass
2	2797.301	42.97	-2.70	74.0	-31.03	Peak	1.00	100	Horizontal	Pass
3	3128.718	43.77	-2.13	74.0	-30.23	Peak	222.00	100	Horizontal	Pass
4	3583.354	43.33	-0.68	74.0	-30.67	Peak	38.00	100	Horizontal	Pass
5	4297.176	47.14	1.83	74.0	-26.86	Peak	65.00	100	Horizontal	Pass
6	5746.063	45.72	3.83	74.0	-28.28	Peak	54.00	100	Horizontal	Pass

Report No.: TW2503056-02E Page 16 of 35

Date: 2025-06-16



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402	81.67	-3.57	114.0	-32.33	Peak	162.00	100	Vertical	Pass
2	2818.545	42.67	-2.69	74.0	-31.33	Peak	62.00	100	Vertical	Pass
3	3336.916	42.83	-2.00	74.0	-31.17	Peak	31.00	100	Vertical	Pass
4	3506.873	44.04	-1.05	74.0	-29.96	Peak	343.00	100	Vertical	Pass
5	4297.176	46.80	1.83	74.0	-27.20	Peak	322.00	100	Vertical	Pass
6	5886.278	46.08	3.82	74.0	-27.92	Peak	312.00	100	Vertical	Pass

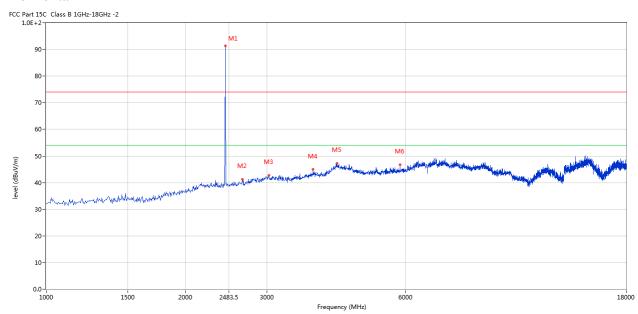
Report No.: TW2503056-02E Page 17 of 35

Date: 2025-06-16



Please refer to the following test plots for details: Middle Channel-2441MHz

Horizontal



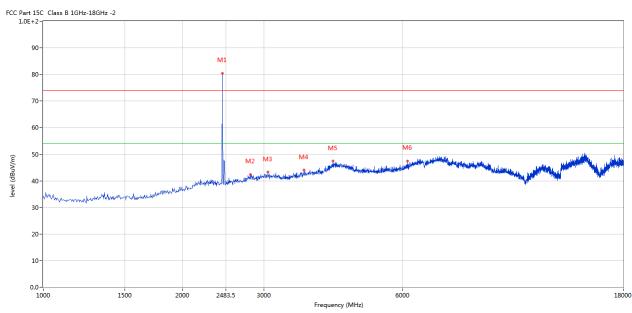
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	91.35	-3.57	114.0	-22.65	Peak	196.00	100	Horizontal	Pass
2	2661.335	41.27	-3.10	74.0	-32.73	Peak	101.00	100	Horizontal	Pass
3	3030.992	42.73	-2.50	74.0	-31.27	Peak	33.00	100	Horizontal	Pass
4	3778.805	44.93	0.20	74.0	-29.07	Peak	175.00	100	Horizontal	Pass
5	4258.935	47.29	1.74	74.0	-26.71	Peak	106.00	100	Horizontal	Pass
6	5831.042	46.68	3.83	74.0	-27.32	Peak	316.00	100	Horizontal	Pass

Report No.: TW2503056-02E Page 18 of 35

Date: 2025-06-16



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	80.42	-3.57	114.0	-33.58	Peak	196.00	100	Vertical	Pass
2	2805.799	42.33	-2.69	74.0	-31.67	Peak	273.00	100	Vertical	Pass
3	3064.984	43.30	-2.35	74.0	-30.70	Peak	0.00	100	Vertical	Pass
4	3664.084	44.14	-0.36	74.0	-29.86	Peak	138.00	100	Vertical	Pass
5	4241.940	47.43	1.70	74.0	-26.57	Peak	90.00	100	Vertical	Pass
6	6149.713	47.44	4.36	74.0	-26.56	Peak	206.00	100	Vertical	Pass

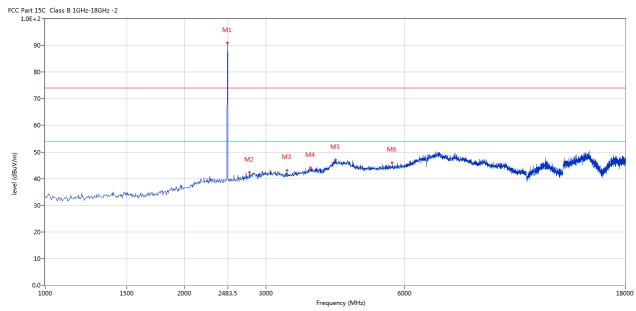
Report No.: TW2503056-02E Page 19 of 35

Date: 2025-06-16



Please refer to the following test plots for details: High Channel-2480MHz

Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	90.89	-3.57	114.0	-23.11	Peak	21.00	100	Horizontal	Pass
2	2767.558	42.35	-2.78	74.0	-31.65	Peak	145.00	100	Horizontal	Pass
3	3336.916	43.18	-2.00	74.0	-30.82	Peak	274.00	100	Horizontal	Pass
4	3749.063	44.09	0.04	74.0	-29.91	Peak	306.00	100	Horizontal	Pass
5	4250.437	47.02	1.72	74.0	-26.98	Peak	280.00	100	Horizontal	Pass
6	5635.591	45.90	3.89	74.0	-28.10	Peak	328.00	100	Horizontal	Pass

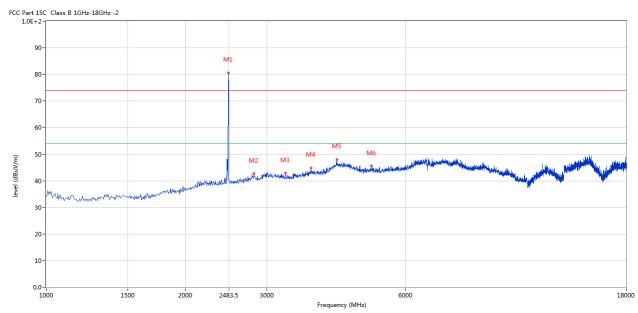
Page 20 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	80.67	-3.57	114.0	-33.33	Peak	79.00	100	Vertical	Pass
2	2814.296	42.81	-2.69	74.0	-31.19	Peak	339.00	100	Vertical	Pass
3	3294.426	42.90	-2.11	74.0	-31.10	Peak	293.00	100	Vertical	Pass
4	3744.814	44.88	0.01	74.0	-29.12	Peak	147.00	100	Vertical	Pass
5	4254.686	48.06	1.73	74.0	-25.94	Peak	38.00	100	Vertical	Pass
6	5057.736	45.53	3.66	74.0	-28.47	Peak	6.00	100	Vertical	Pass

Note: (1) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier

- (2) Margin=Emission-Limits
- (3) According to section 15.35(b), the peak limit is 20dB higher than the average limit
- (4) For test purpose, keep EUT continuous transmitting
- (5) For emission above 18GHz and Below 30MHz, It is only the floor noise and less than the limit for more than 20dB. No necessary to take down.
- (6) the measured PK value less than the AV limit.

Report No.: TW2503056-02E Page 21 of 35

Date: 2025-06-16

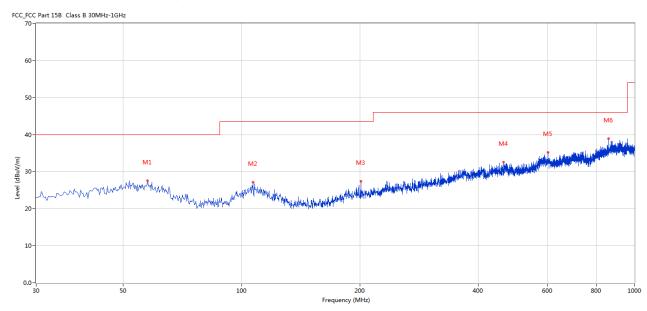


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	57.638	27.50	-4.91	40.0	12.50	Peak	72.00	100	Horizontal	Pass
2	106.853	27.14	-6.12	43.5	16.36	Peak	17.00	100	Horizontal	Pass
3	201.162	27.40	-7.28	43.5	16.10	Peak	278.00	100	Horizontal	Pass
4	464.936	32.54	-0.56	46.0	13.46	Peak	279.00	100	Horizontal	Pass
5	601.915	35.19	1.45	46.0	10.81	Peak	98.00	100	Horizontal	Pass
6	859.385	38.90	4.84	46.0	7.10	Peak	237.00	100	Horizontal	Pass

Report No.: TW2503056-02E Page 22 of 35

Date: 2025-06-16

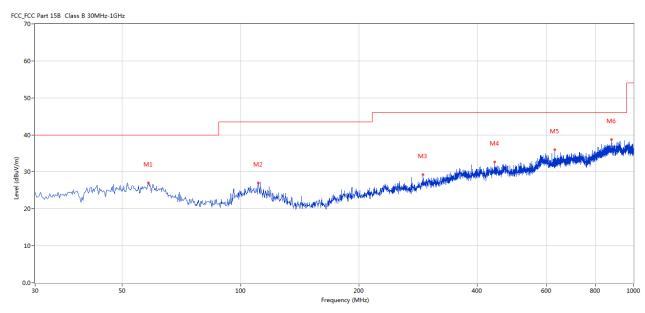


Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	58.365	26.98	-5.02	40.0	13.02	Peak	156.00	100	Vertical	Pass
2	110.975	27.06	-5.97	43.5	16.44	Peak	338.00	100	Vertical	Pass
3	291.592	29.27	-4.32	46.0	16.73	Peak	225.00	100	Vertical	Pass
4	443.359	32.71	-0.85	46.0	13.29	Peak	0.00	100	Vertical	Pass
5	630.522	35.93	1.30	46.0	10.07	Peak	297.00	100	Vertical	Pass
6	878.538	38.79	5.13	46.0	7.21	Peak	40.00	100	Vertical	Pass

Date: 2025-06-16

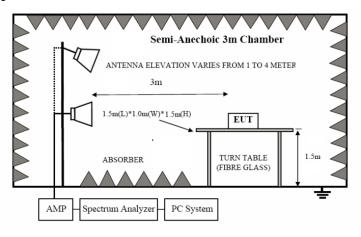


7. Band Edge

7.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz, VBW=3MHz and Peak detector used for PK value. RBW=1MHz, VBW=10Hz and Peak detector used for AV value.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

7. 2 Radiated Test Setup



For the actual test configuration, please refer to the related items – Photos of Testing

7.3 Configuration of the EUT

Same as section 5.3 of this report

7.4 EUT Operating Condition

Same as section 5.4 of this report.

7.5 Band Edge Limit

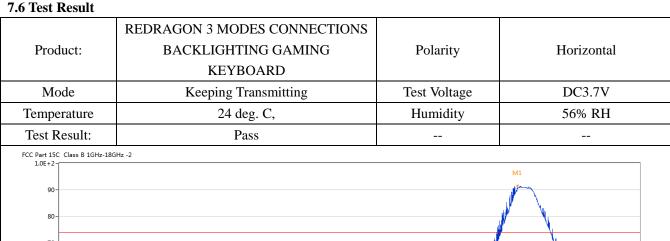
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

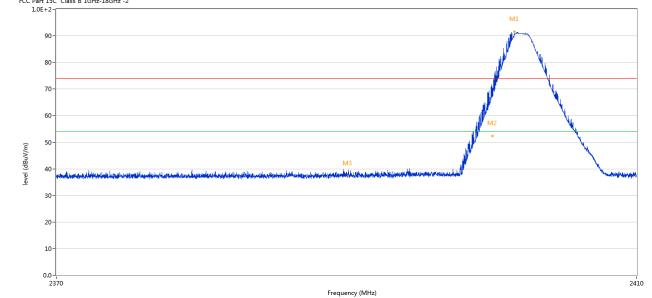
The report refers only to the sample tested and does not apply to the bulk.

Report No.: TW2503056-02E Page 24 of 35

Date: 2025-06-16







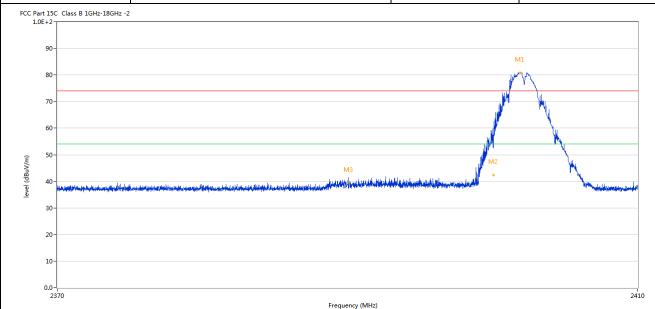
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2401.512	91.60	-3.57	74.0	17.60	Peak	182.00	100	Horizontal	N/A
2	2400.000	68.07	-3.57	74.0	-5.93	Peak	318.22	100	Horizontal	Pass
2**	2400.000	52.32	-3.57	54.0	-1.68	AV	318.22	100	Horizontal	Pass
3	2390.000	37.09	-3.53	74.0	-36.91	Peak	157.50	100	Horizontal	Pass

Report No.: TW2503056-02E Page 25 of 35

Date: 2025-06-16



	REDRAGON 3 MODES CONNECTIONS		
Product:	BACKLIGHTING GAMING	Detector	Vertical
	KEYBOARD		
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Mode Temperature	Keeping Transmitting 24 deg. C,	Test Voltage Humidity	DC3.7V 56% RH



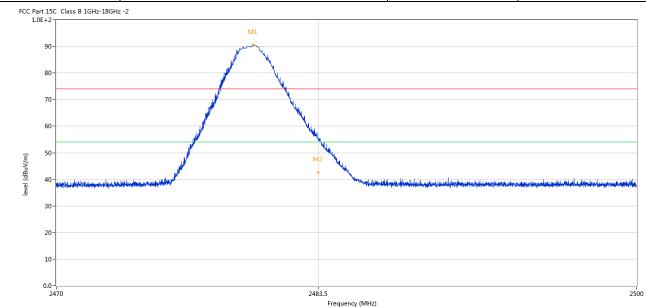
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2401.832	80.88	-3.57	74.0	6.88	Peak	168.00	100	Vertical	N/A
2	2400.000	56.83	-3.57	74.0	-17.17	Peak	69.44	100	Vertical	Pass
2**	2400.000	42.29	-3.57	54.0	-11.71	AV	69.44	100	Vertical	Pass
3	2390.000	39.38	-3.53	74.0	-34.62	Peak	221.50	100	Vertical	Pass

Report No.: TW2503056-02E Page 26 of 35

Date: 2025-06-16



Product:	REDRAGON 3 MODES CONNECTIONS BACKLIGHTING GAMING KEYBOARD	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



1	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
	1	2480.122	90.51	-3.57	74.0	16.51	Peak	15.00	100	Horizontal	N/A
2	2	2483.500	55.95	-3.57	74.0	-18.05	Peak	17.14	100	Horizontal	Pass
2	2**	2483.500	42.51	-3.57	54.0	-11.49	AV	17.14	100	Horizontal	Pass

Page 27 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



]	Product:							tor		Vertical	
	Mode Keeping Transmitting					Test Vo	Itage		DC3.7V		
Те	mperature	24 deg. C,				Humio		<u> </u>			
	est Result:		Pas								
	nt 15C Class B 1GHz-18GH E+2 - 90 - 80 - 70 -	lz -2	N. Carrier Control	11							
level (dBuV/m)	40 Jame Market May 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	والدين أورية المراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة		2483.	M _M Market and the second of	the state of the second st	naprinariza, historraga da baya	madaminesidas phisothem	المعارض المعار		
	30 - 20 - 2470			1	5 Frequency (MHz)					2500	
(m/\mu/\mu) level (Bu\mu/\mu).	30- 20- 10- 2470	Results	Factor	Limit	5 Frequency (MHz)	Detector	Table	Height	ANT		
	30 - 20 - 2470		Factor (dB)	1	5 Frequency (MHz)					2500	

Note: The PK emission level less than the AV limit. No necessary to record the AV emission level.

Report No.: TW2503056-02E Page 28 of 35

Date: 2025-06-16



8.0 Antenna Requirement

Applicable Standard

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a PCB antenna with gain 2.34dBi maximum. It fulfills the requirement of this section.

Test Result: Pass

Date: 2025-06-16



Page 29 of 35

9.0 20dB Bandwidth Measurement

Test Configuration



Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW.

The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Limit

N/A

Page 30 of 35

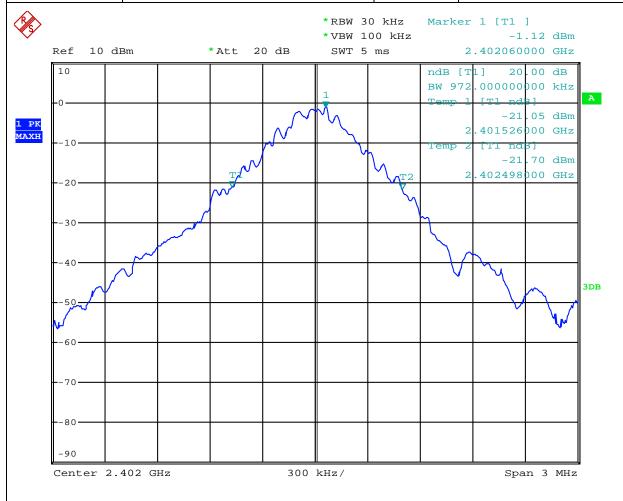
Report No.: TW2503056-02E

Date: 2025-06-16



Test Result

Product:	REDRAGON 3 MODES CONNECTIONS BACKLIGHTING	Test Mode:	Keep transmitting
	GAMING KEYBOARD		
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	972kHz		



Date: 16.JUN.2025 12:44:45

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

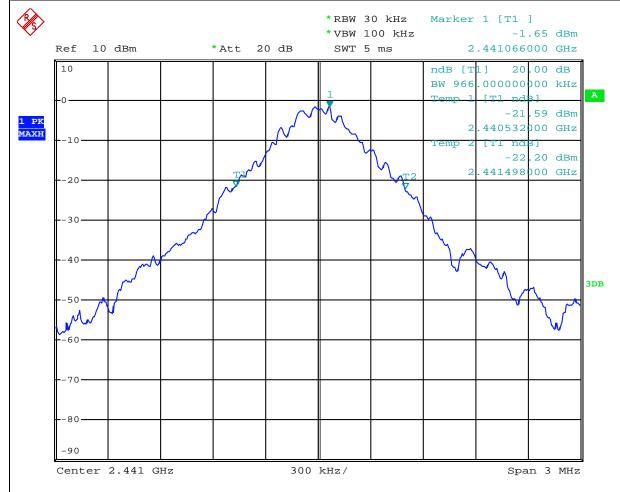
Page 31 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



	REDRAGON 3 MODES		
Product:	CONNECTIONS BACKLIGHTING	Test Mode:	Keep transmitting
	GAMING KEYBOARD		
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	966kHz		



Date: 16.JUN.2025 12:42:26

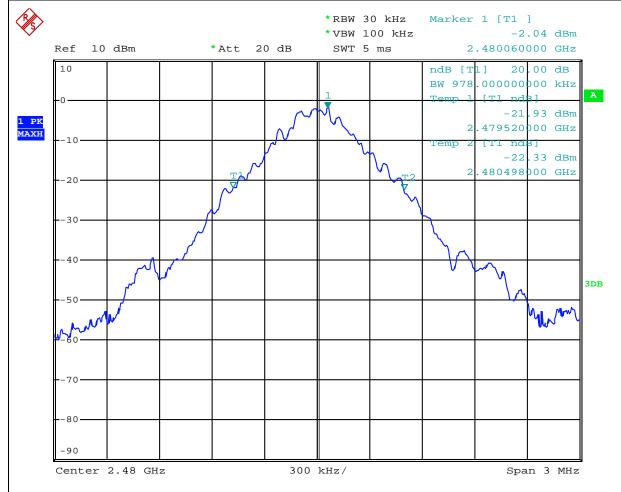
Page 32 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



	REDRAGON 3 MODES		
Product:	CONNECTIONS BACKLIGHTING	Test Mode:	Keep transmitting
	GAMING KEYBOARD		
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	978kHz		



Date: 16.JUN.2025 12:47:58

Report No.: TW2503056-02E Page 33 of 35

Date: 2025-06-16



10.0 FCC ID Label

FCC ID: TUVET-7227B

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



Page 34 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



11.0 Photo of testing

11.1 Conducted test View



Page 35 of 35

Report No.: TW2503056-02E

Date: 2025-06-16



Radiated emission test view





11.2 Photographs - EUT

Please refer test report TW2503056-01E

-- End of the report--

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.