FCC – RF Exposure Report

Report Number	:	**60.790.24.078.01S01**	Date of Issue:	**November 25, 2024**
Model/HVIN	:	**Bluetooth Padlock**		
Product Type	:	Click Padlock		
Applicant	:	Mobile Technologies Inc.		
Address	:	2345 NE Overlook Drive, Hillsboro OR 97006 United States of America.		
Production Facility (1)	:	Shenzhen Maxway Technology CO., LTD		
Address	:	3F, Building 4, Section A, 3rd Industrial Zone of Tangtou, Shiyan Town, Bao'an District, Shenzhen, China.		
Production Facility (2)	:	Well Star Precision Technology Limited		
Address	:	24 Bao Ta Road, Bao Tang Community, Hou Jie Town, Dongguan City, Guangdong Province, China		
Production Facility (3)	:	VIETNAM IBE LASER TECHNOLOGY COMPANY LIMITED		
Address	:	lot CN-34 and Lot CN-39, Thuan Thanh II industrial zone, An Binh & Mao Dien commune, Thuan Thanh district, Bac Ninh province, Vietnam		
Test Result	:	■ **Positive** ☐ Negative		
Total pages including Appendices	:	**12**		

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1 Table of Contents

2 Description of the Equipment Under Test

Description of the Equipment Under Test

Product:	Click Padlock
Model no.:	Bluetooth Padlock
Hardware Version Identification No. (HVIN)	Bluetooth Padlock
Product Marketing Name (PMN)	Click Padlock
Brand name:	N/A
FCC ID:	2AA2X-15000345V2
IC:	24439-15000345V2
Rating:	3.0 VDC (2 x 1.5 VDC “AAA” size battery)
RF Transmission Frequency:	RFID: 125 kHz
Antenna Type:	RFID: Coil Antenna
Antenna Gain:	RFID: 0 dBi
Description of the EUT:	The Equipment Under Test (EUT) is a Click Padlock which support Bluetooth (BLE) function, Zigbee function and 125 kHz near field card access function.

3 Summary of Test Standards

Test Standards / Requirements	
ANSI Std C95.1-2019	**Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 kHz – 300 GHz. (IEEE Std C95.1-2019)**
47 CFR 1.1310	**Radiofrequency radiation exposure limits.**
KDB 447498 D01	**General RF Exposure Guidance v06**
KDB 680106 D01	**Wireless Power Transfer v04**

4 Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13 Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2,
Shenzhen 518052, P.R.China
FCC Registration Number: 514049

FCC Registration No.: 514049

FCC Designation Number: CN5009

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

4.1 Test Equipment Site List

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Electric and magnetic field probe Analyzer	NARDA	EHP-200A	180ZX10218	2025-2-20
Test software	NARDA	EHP200-TS	02.05	N/A
Shielding Room #2	TDK	BTC	----	2025-10-15

4.2 Measurement System Uncertainty

Measurement System Uncertainty

System Measurement Uncertainty	
Items	**Extended Uncertainty**
Uncertainty Evaluation for RF Exposure	1.45dB (Magnetic field) 1.45dB (Electric)

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.3.4.

5 General Remarks

Remarks

NIL

SUMMARY:

- All tests according to the regulations cited on page 4 were

  ■ - Performed

  ☐ - **Not** Performed

- The Equipment Under Test

  ■ - **Fulfills** the general approval requirements.

  ☐ - **Does not** fulfill the general approval requirements.

Sample Received Date:	October 10, 2024
Testing Start Date:	October 10, 2024
Testing End Date:	November 18, 2024

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:	Prepared by:	Tested by:
Eric LI	Kevin DU	Carry CAI
Section Manager	EMC Project Engineer	EMC Test Engineer

6 Limit and Guidelines on Exposure to Electromagnetic Fields

According to §1.1310 system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

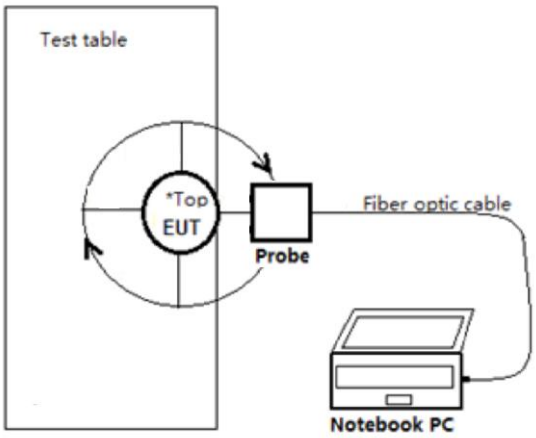
TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

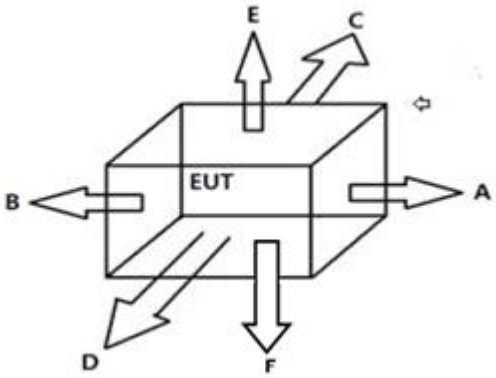
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	<6
3.0-30	1842/f	4.89/f	$*900/f^2$	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	<30
1.34-30	824/f	2.19/f	$*180/f^2$	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz * = Plane-wave equivalent power density

Per the guidance of KDB 680106, the E-field and H-field limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310 shown in the table above, any device (both portable and mobile) operating at frequencies below 100 kHz is considered compliant for the purpose of equipment authorization when the external (unperturbed) temporal peak field strengths do not exceed the 83 V/m for the electric field strength (E) and 90 A/m for the magnetic field strength (H).

7 Test Setup





The test distance between the edge of the EUT and the probe center is 20cm

8 Measurement Procedure

a) The RF exposure test was performed on the table in anechoic chamber.
b) The measurement was investigated between the edge of the EUT and center of the field
c) probe in the closest state.
d) Maximum E-field and H-field measurements were made on each of six sides of the EUT that could come in contact with a user. Six sides are defined as follows: Front (A), Rear (B), Left (C), Right (D), Top (E), Bottom (F) and Bottom and Refer to the test position diagram above.
e) According to the guidance of KDB 680106 D01 v04, test distance 20cm was the distance between the edge of the EUT and the probe center.

9 Test Result

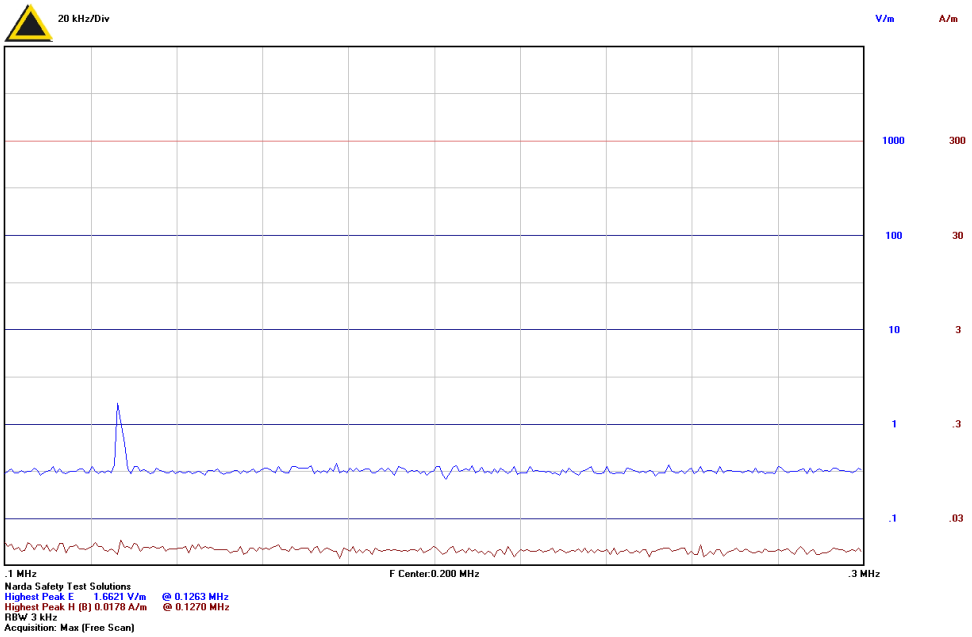
Operating Mode:

Electric Field Emissions				
Test Position	Test Distance (cm)	Measure Value (V/m)	Limit (V/m)	Result
Front	20	**1.6621**	614	PASS
Rear	20	0.3546	614	PASS
Left	20	0.3624	614	PASS
Right	20	0.3727	614	PASS
Top	20	0.3651	614	PASS
Bottom	20	0.3546	614	PASS
Magnetic Field Emissions				
Test Position	Test Distance (cm)	Measure Value (A/m)	Limit (A/m)	Result
Front	20	**0.0178**	1.63	PASS
Rear	20	0.0163	1.63	PASS
Left	20	0.0163	1.63	PASS
Right	20	0.0168	1.63	PASS
Top	20	0.0168	1.63	PASS
Bottom	20	0.0163	1.63	PASS

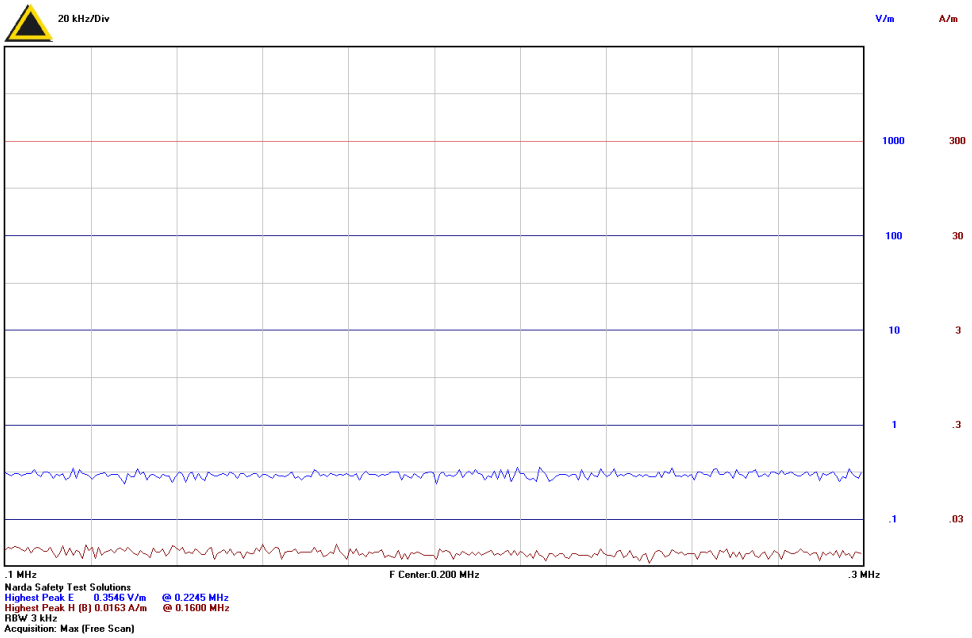
- **The test result compliance with requirement**

Test Result

Front

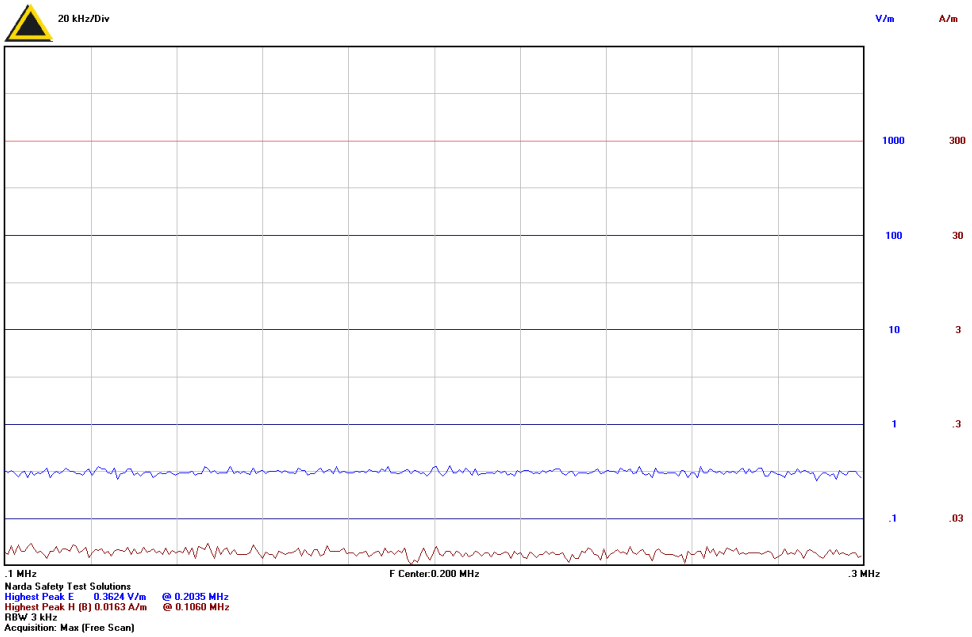


Rear



Test Result

Left



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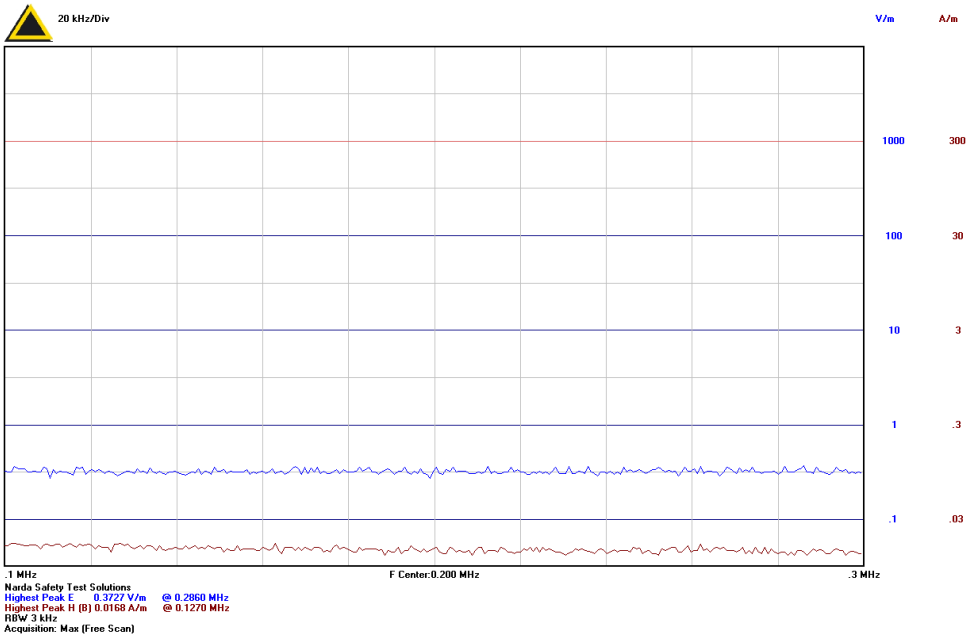
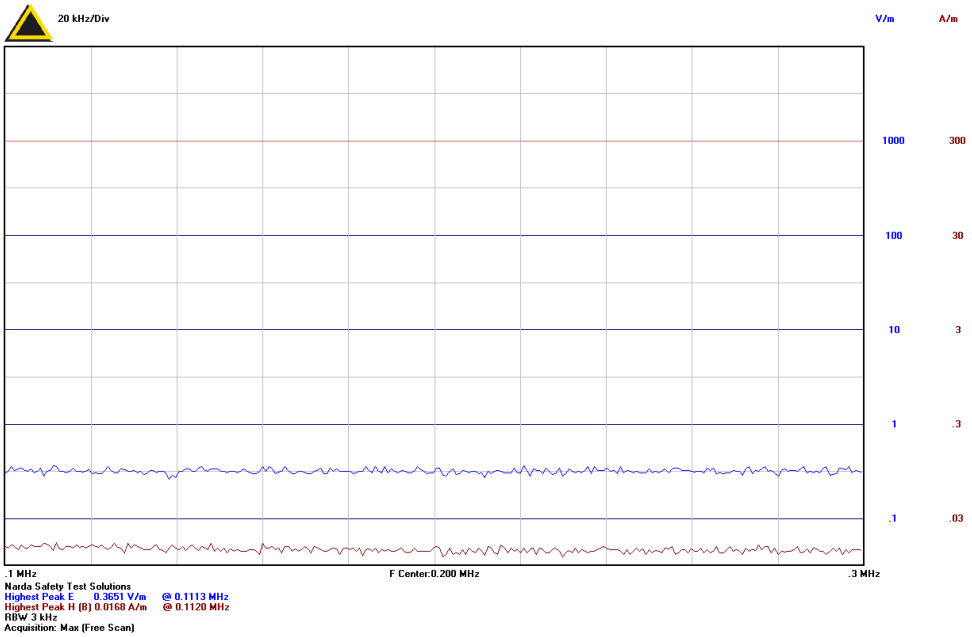


Test Result

Top



Bottom