

**VCCI-CISPR 32:2016**

**TEST REPORT**

*For*

**USB Flash Drives**

**MODEL NUMBER: Neon (NEN)**

**REPORT NUMBER: 4790938461.1-2.1-EMC-1**

**ISSUE DATE: August 1, 2023**

*Prepared for*

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*Prepared by*

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## Revision History

Rev.	Issue Date	Revisions	Revised By
V0	8/1/2023	Initial Issue	

### Summary of Test Results

Emission			
Standard	Test Item	Limit	Result
VCCI-CISPR 32:2016	Conducted emissions (AC mains power ports)	Clause 5	N/A (NOTE 1, 2)
	Radiated emissions below 1GHz	Clause 5	Pass
	Radiated emissions above 1GHz	Clause 5	N/A (NOTE 1, 3)

**Note:**

1. N/A: In this whole report not applicable.
2. This test is only applicable for devices which can be charged or powered by AC power cable.
3. If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 6 GHz, whichever is less.

\*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

\*The measurement result for the sample received is <Pass> according to <VCCI-CISPR 32:2016> when <Accuracy Method> decision rule is applied.

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## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: Flashbay Electronics  
Address: Building2 ,Jixun Industrial Park ,Xinjiao ,Dong'ao Village ,Shatian Town ,Huiyang District ,Huizhou City , Guangdong Province,P.R.China

### Manufacturer Information

Company Name: Flashbay Electronics  
Address: Building2 ,Jixun Industrial Park ,Xinjiao ,Dong'ao Village ,Shatian Town ,Huiyang District ,Huizhou City , Guangdong Province,P.R.China

### EUT Information

EUT Name: USB Flash Drives  
Model: Neon (NEN)  
Sample Received Date: July 19, 2023  
Sample Status: Normal  
Sample ID: 6297186  
Date of Tested: July 25, 2023 to August 1, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
VCCI-CISPR 32:2016	Pass

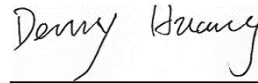
Prepared By:



Wite Chen

Engineer Project Associate

Checked By:



Denny Huang

Senior Project Engineer

Approved By:



Stephen Guo

Operations Manager

## 2. TEST METHODOLOGY

All tests were performed in accordance with the standard VCCI-CISPR 32:2016

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4102.01)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p><b>ISED (Company No.: 21320)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.</p> <p><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
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**Note:**

All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

### 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Measurement Frequency Range	K	U(dB)
Conducted emissions (AC mains power ports)	0.15MHz - 30MHz	2	3.63
Radiated emissions below 1GHz	30MHz -1GHz	2	4.13

Note1: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.

Note 2: According to the standard CISPR 16-4-2, the MU for the Conducted emissions from the AC mains power ports using AMN should not exceed 3.8 in range of 9kHz to 150kHz and 3.4 in range of 150kHz to 30MHz. We have considered the test results containing the value of U<sub>lab</sub> (in dB) for the measurement instrumentation actually used for the measurements.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

EUT Name	USB Flash Drives	
Model	Neon (NEN)	
EUT Classification	Class B	
Highest Internal Frequency	Below 108MHz	
Power Supply	DC	5V

### 5.2. TEST MODE

Test Mode	Description
M01	USB data transfer
M02	TYPE-C data transfer

### 5.3. SUPPORT UNITS FOR SYSTEM TEST

The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr./Brand	Model/Type No.	Series No.	Note
E-1	PC	LENOVO	ThinkCentre E73	PC0K90L4	UL Support



## 6. MEASURING EQUIPMENT AND SOFTWARE USED

Test Equipment of Radiated emissions below 1GHz					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Aug. 2, 2021	Aug. 1, 2024
MXE EMI Receiver	KEYSIGHT	N9038A	MY56400036	Oct. 17, 2022	Oct. 16, 2023
Amplifier	HP	8447D	2944A09099	Oct. 17, 2022	Oct. 16, 2023
Test Software for Radiated Emission	Farad	EZ-EMC	Ver.UL-3A1	N/A	N/A

Other Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Temperature humidity probe	OMEGA	ITHX-SD-5	18470007	Oct.22, 2022	Oct.21, 2023
Barometer	Yiyi	Baro	N/A	Oct.24, 2022	Oct.23, 2023
Attenuator	Agilent	8495B	2814a12853	Oct.18, 2022	Oct.17, 2023

## 7. EMISSION TEST

### 7.1. RADIATED EMISSIONS BELOW 1GHZ

#### LIMITS

##### (a). Limits up to 1 GHz

FREQUENCY (MHz)	Class A		Class B	
	At 10 m	At 3 m	At 10 m	At 3 m
	dB $\mu$ V/m	dB $\mu$ V/m	dB $\mu$ V/m	dB $\mu$ V/m
30 – 230	40	50	30	40
230 – 1000	47	57	37	47

Note:

- (1) The limit for radiated test was performed according to CISPR 32.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dB $\mu$ V/m)=20log Emission level (uV/m).
- (4) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 6 GHz, whichever is less.

#### TEST PROCEDURE

Below 1 GHz and above 30 MHz

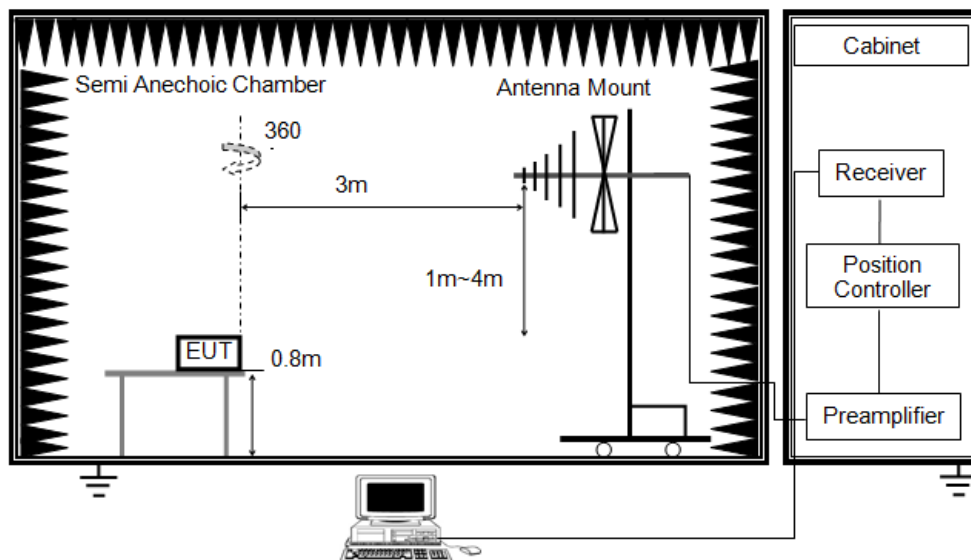
The setting of the spectrum analyzer

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak and QP
Trace	Max hold

1. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp was used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
2. The EUT was placed on a turntable with 80 cm above ground.
3. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

4. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
5. Cables of hand-operated devices, such as keyboards and mice, shall be placed as for normal used.
6. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
7. For measurement below 1 GHz, the initial step in collecting Radiated emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

### TEST SETUP



Below 1 GHz and above 30 MHz

### TEST ENVIRONMENT

Temperature	22.5°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

### TEST DATE / ENGINEER

Test Date	July 25, 2023	Test By	Deacon Tan
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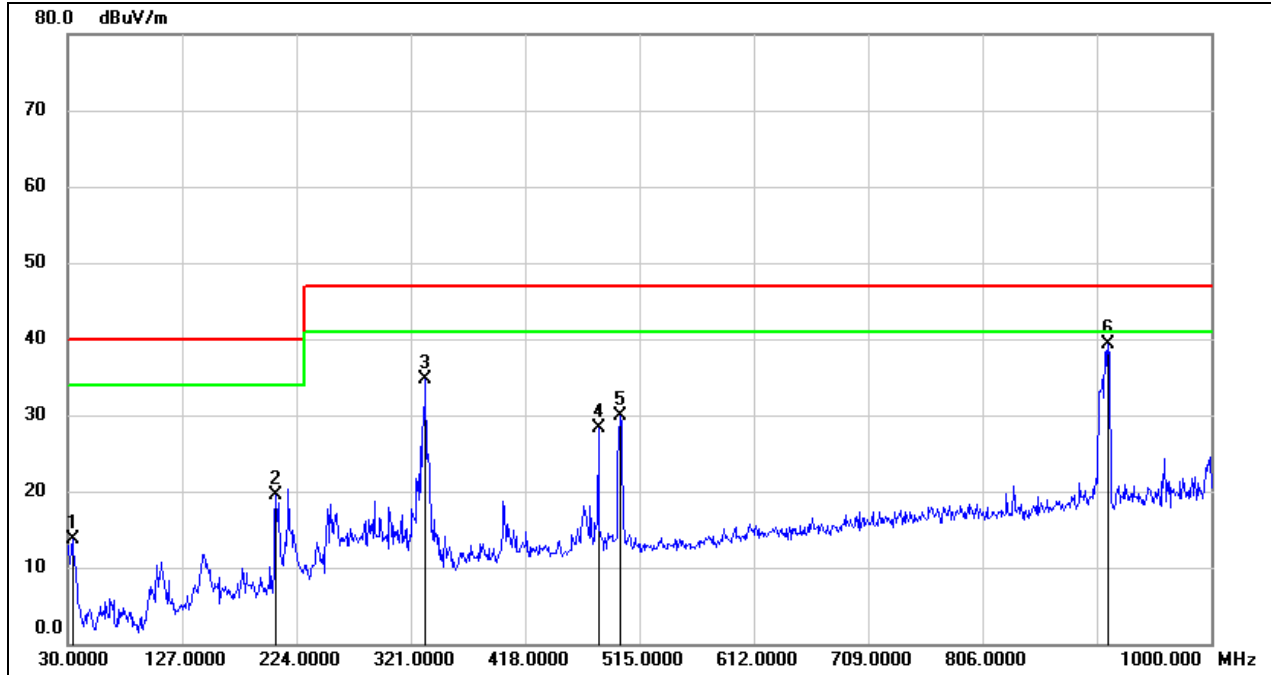
### TEST MODE

Pre-test Mode:	M01 ~ M02
Final Test Mode:	M01

Note: All test modes had been tested, but only the worst data recorded in the report.

**TEST RESULTS**

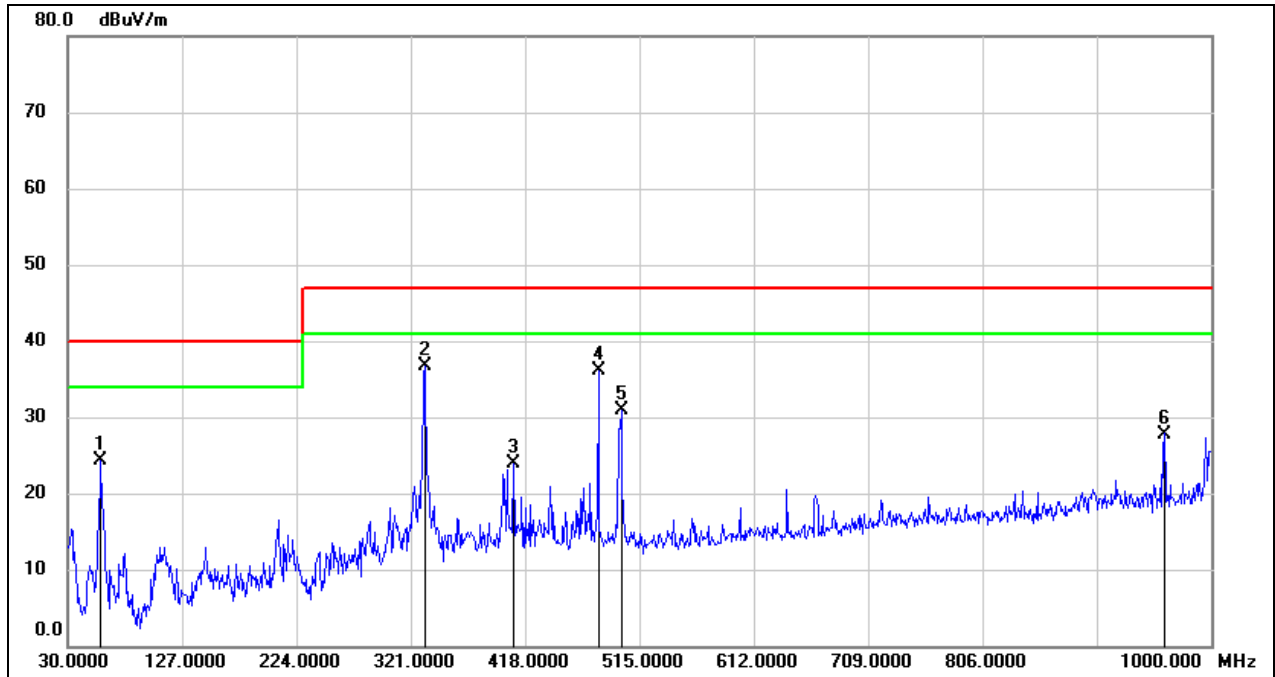
Test Mode:	M01	Channel:	Horizontal
Test Voltage:	AC 100V_60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.8800	32.54	-18.84	13.70	40.00	-26.30	QP
2	206.5399	36.31	-16.89	19.42	40.00	-20.58	QP
3	333.6099	48.39	-13.68	34.71	47.00	-12.29	QP
4	480.0800	39.44	-11.05	28.39	47.00	-18.61	QP
5	498.5100	40.58	-10.71	29.87	47.00	-17.13	QP
6	912.7000	44.08	-4.68	39.40	47.00	-7.60	QP

Note: 1. Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)  
 2. Margin = Result - Limit

Test Mode:	M01	Channel:	Vertical
Test Voltage:	AC 100V_60Hz		

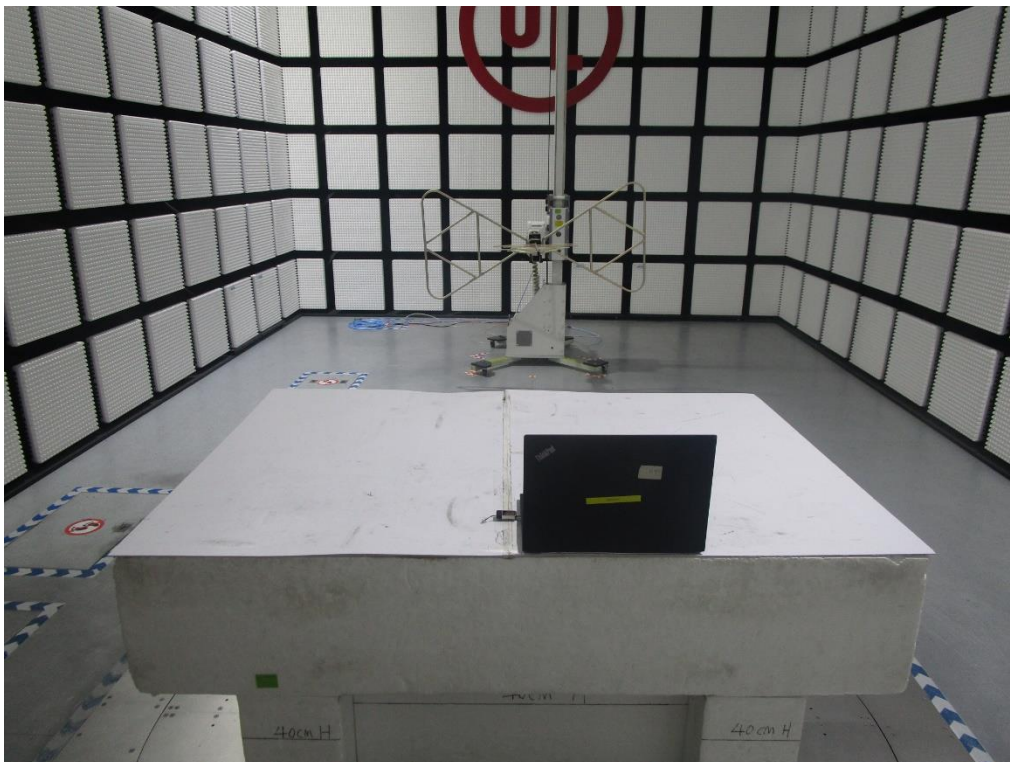


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	58.1300	44.66	-20.35	24.31	40.00	-15.69	QP
2	332.6400	50.36	-13.74	36.62	47.00	-10.38	QP
3	408.3000	36.60	-12.72	23.88	47.00	-23.12	QP
4	480.0800	47.21	-11.05	36.16	47.00	-10.84	QP
5	499.4800	41.59	-10.68	30.91	47.00	-16.09	QP
6	960.2300	32.50	-4.70	27.80	47.00	-19.20	QP

Note: 1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)  
 2. Margin = Result - Limit

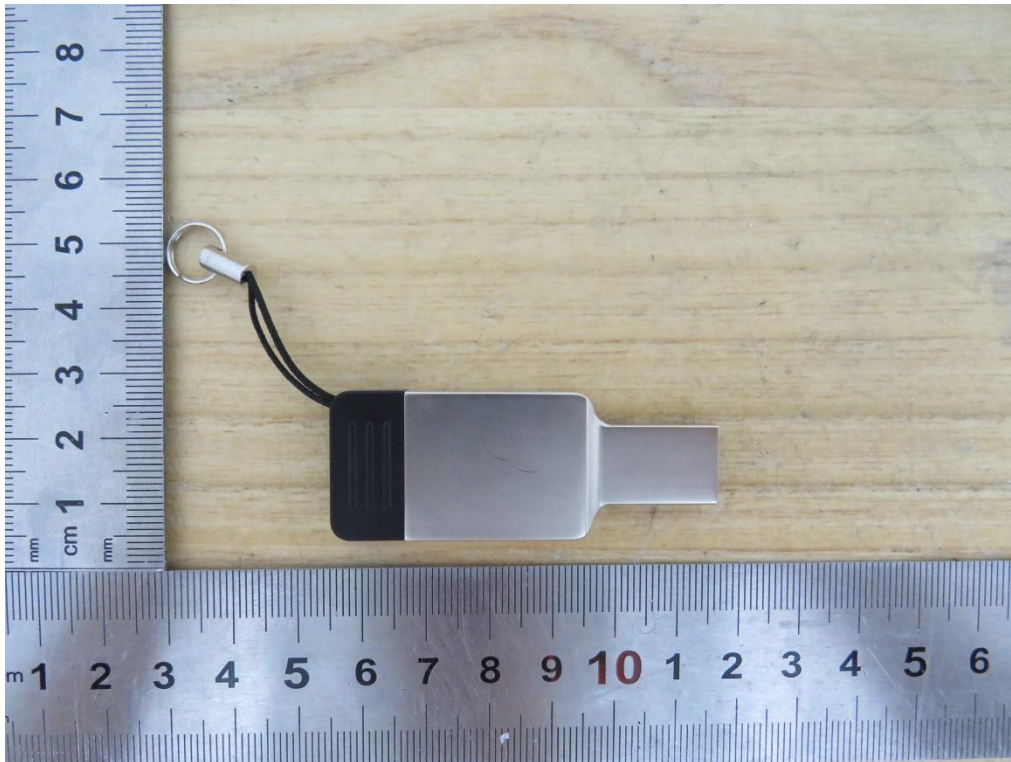
## APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

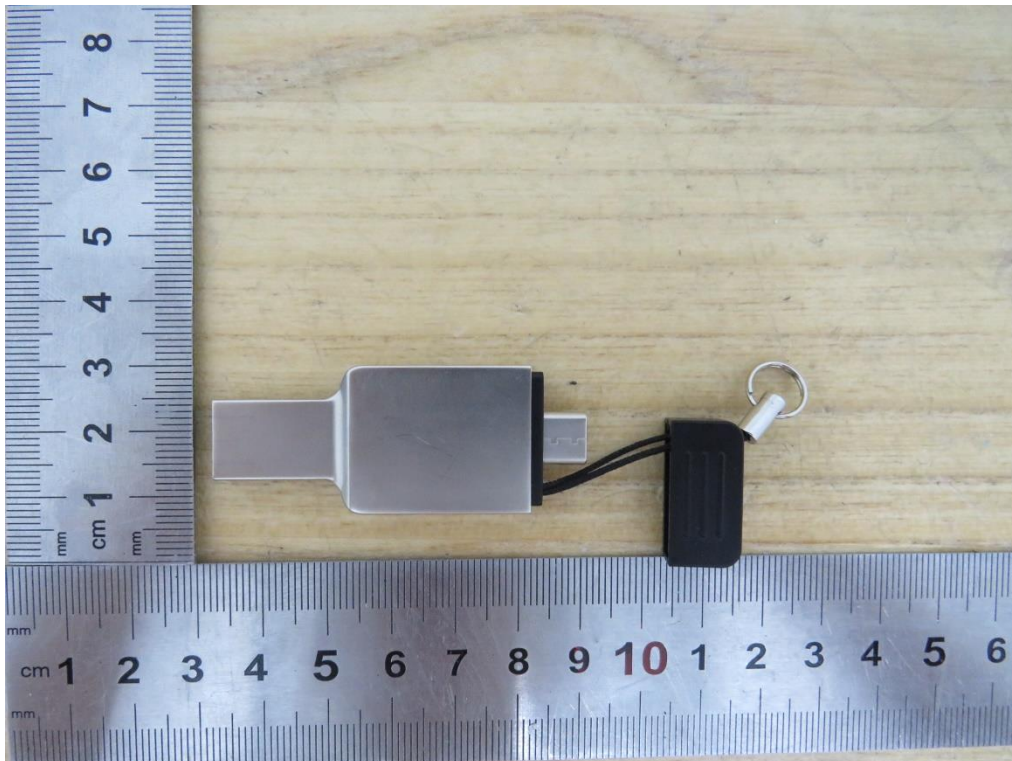
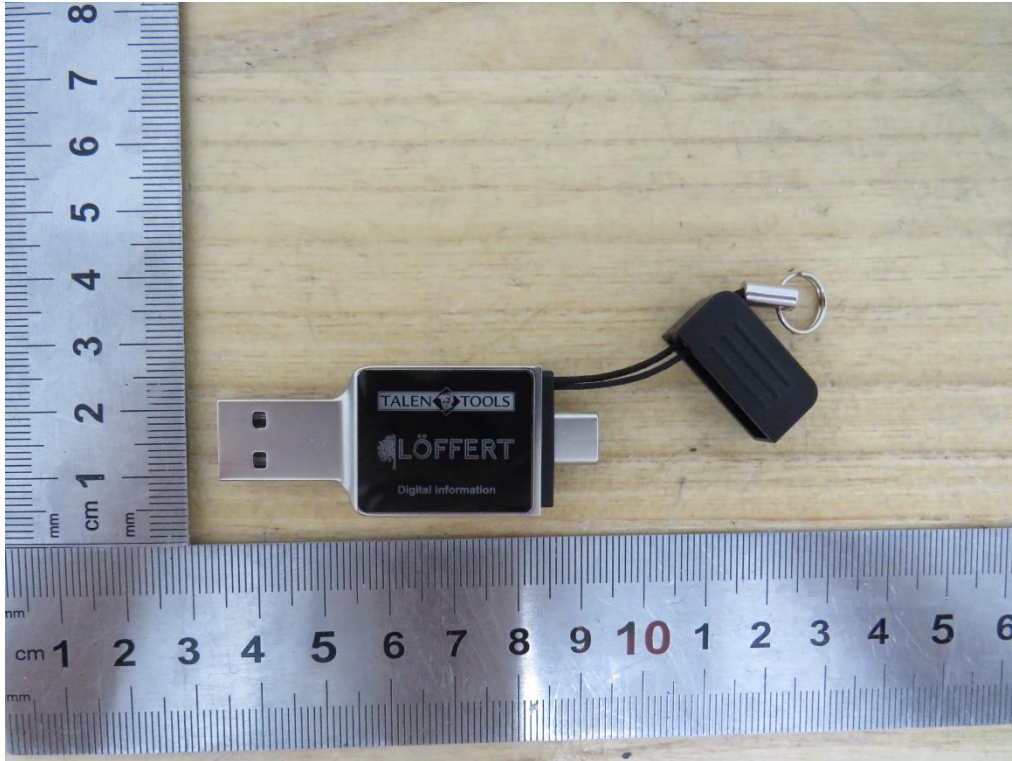
Radiated emissions below 1GHz



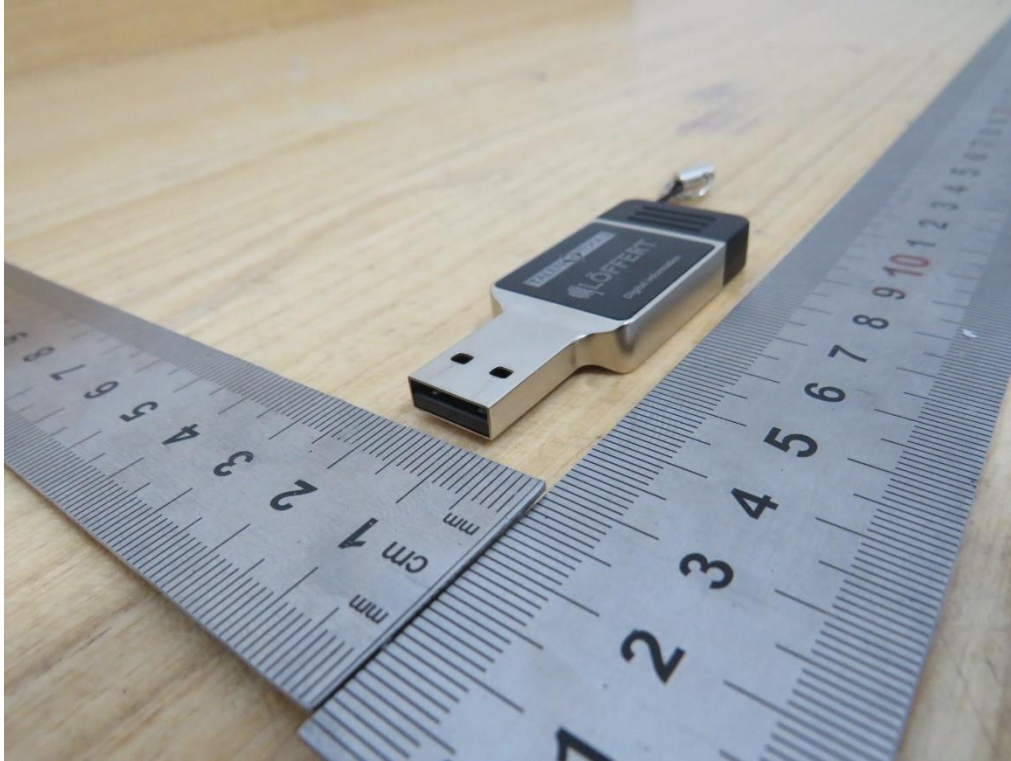
## APPENDIX: PHOTOGRAPHS OF THE EUT

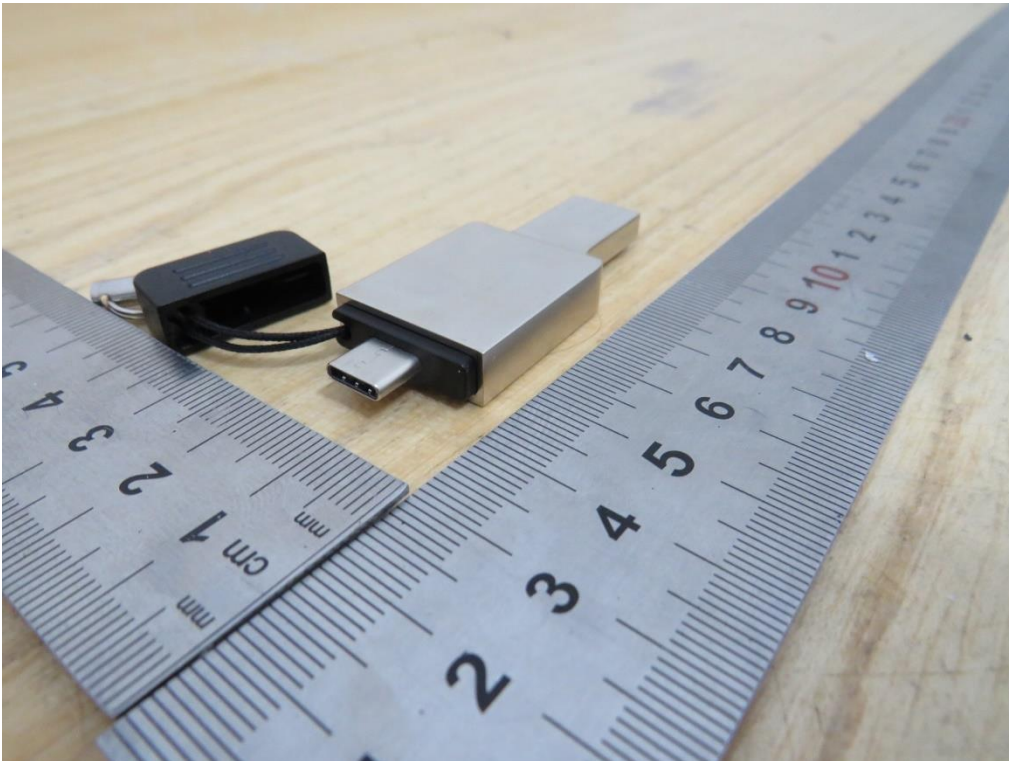
External

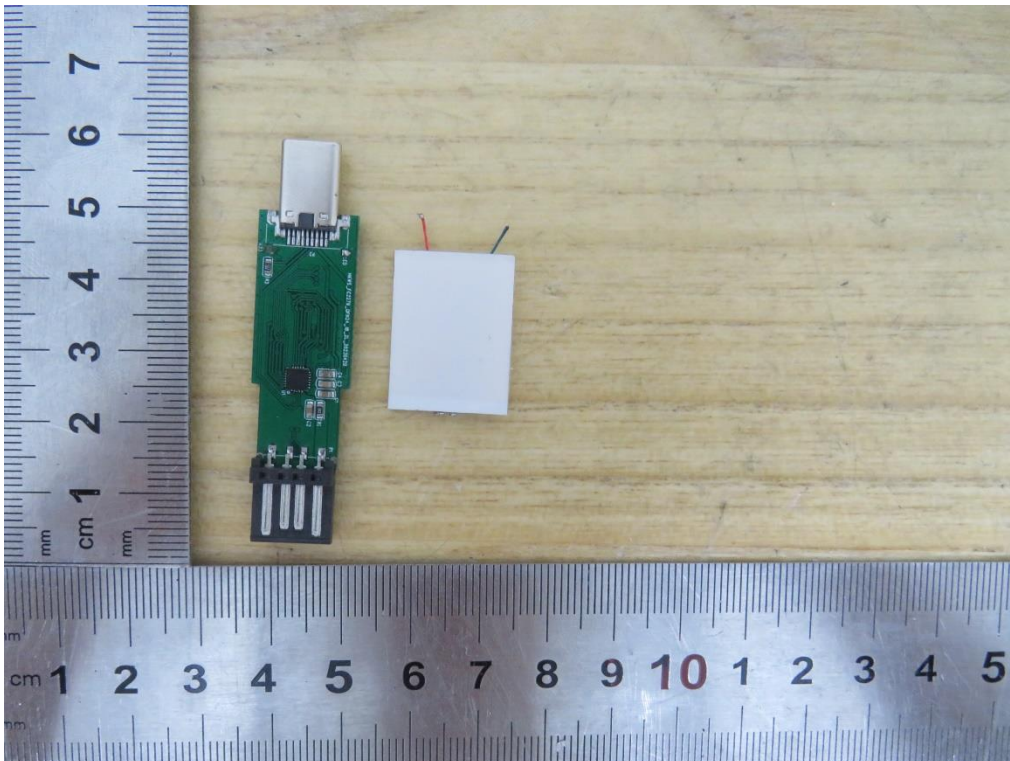
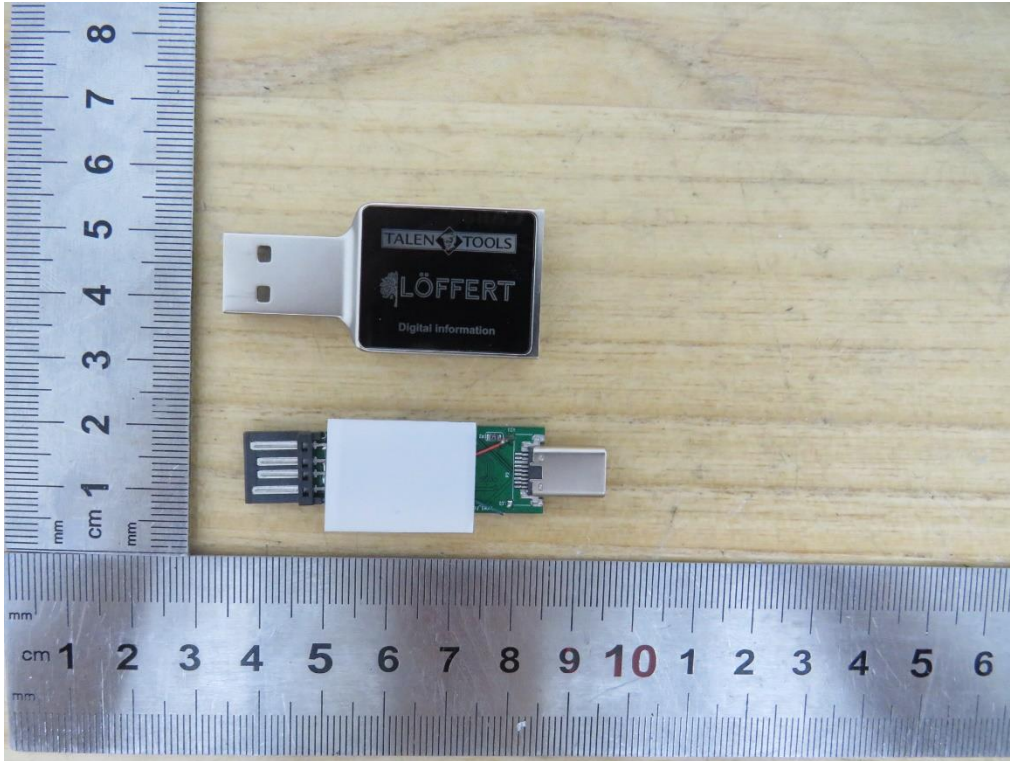


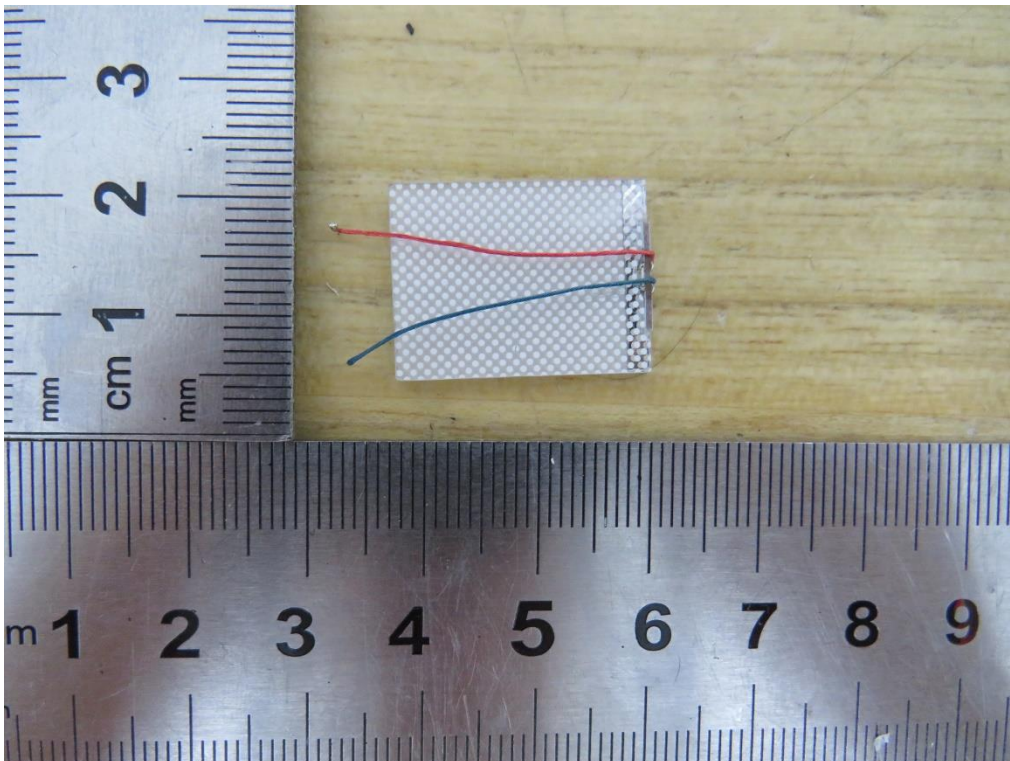
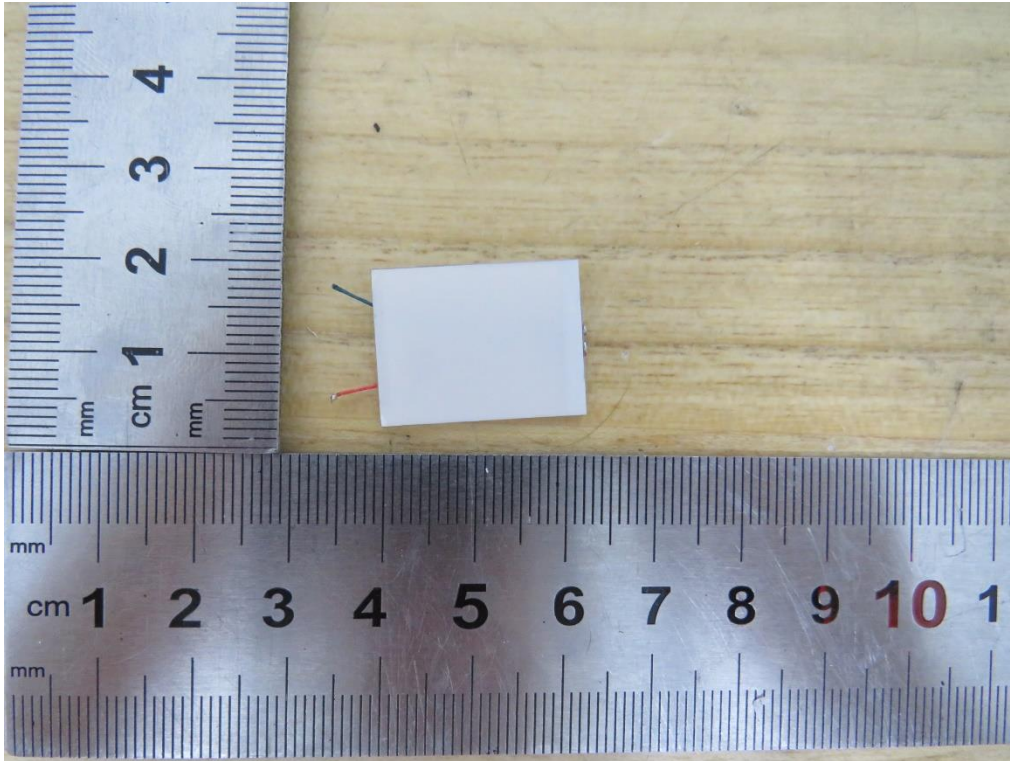


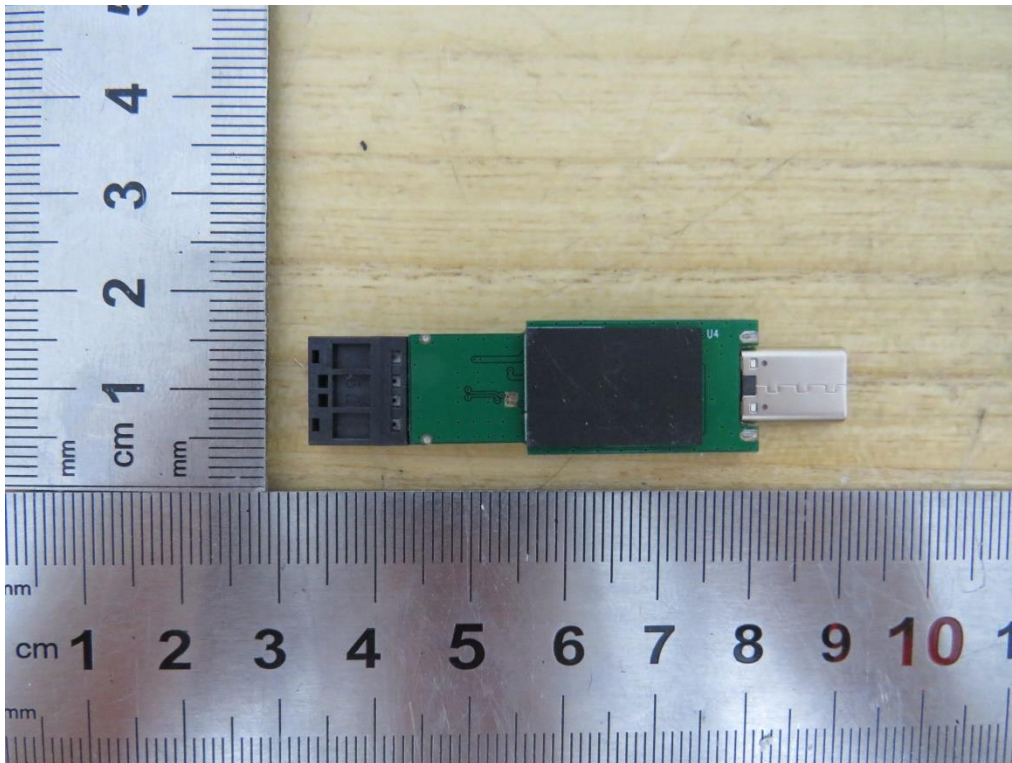
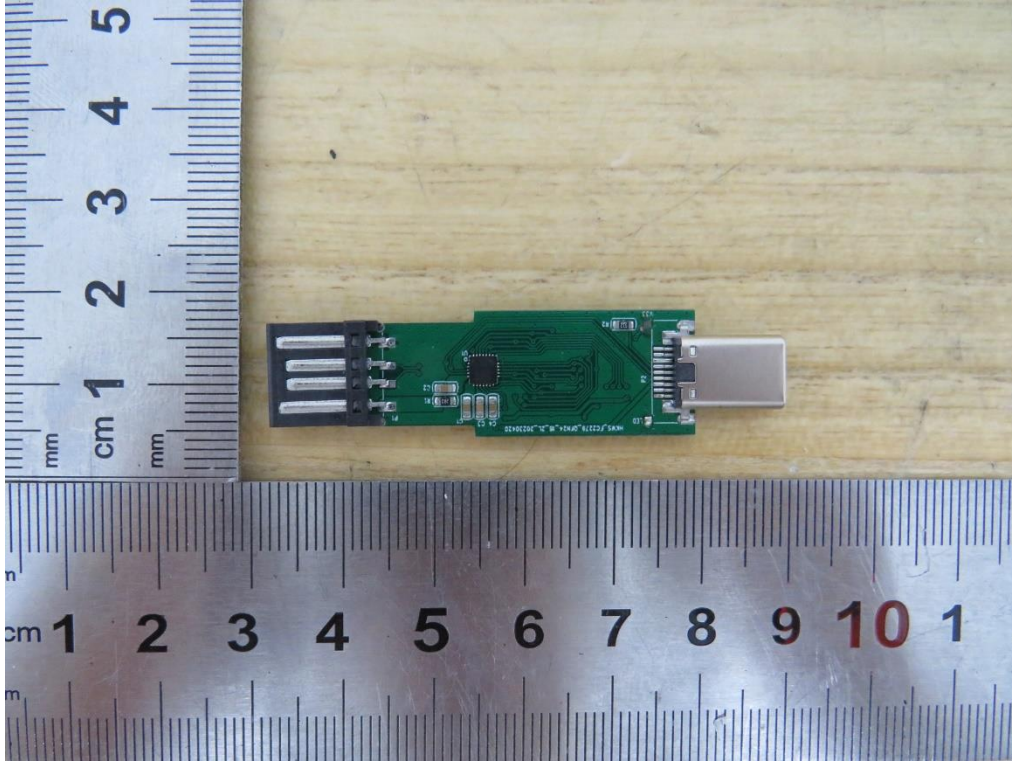












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**END OF REPORT**