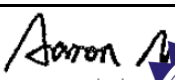


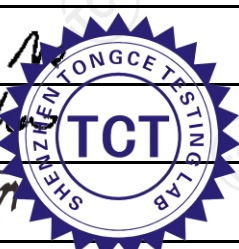


# TEST REPORT

FCC ID..... :	Z2G-PERIMICE-608R	
Test Report No..... :	TCT220510E021	
Date of issue..... :	Jun. 14, 2022	
Testing laboratory .....	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name..... :	Perixx Computer GmbH	
Address..... :	Heerdter Landstrasse 189e 40549, Dusseldorf, Germany	
Manufacturer's name ... :	Perixx Technology(shenzhen)co., LTD	
Address..... :	#A509-510 JuChuangJinGu Building, XinGuang Rd., XiLi, NanShan, Shenzhen, China	
Standard(s) .....	FCC CFR Title 47 Part 15 Subpart C Section 15.249 ANSI C63.10:2013	
Product Name..... :	Receiver	
Trade Mark .....	N/A	
Model/Type reference..... :	PERIMICE-713, PERIMICE-608, PERIMICE-719	
Rating(s)..... :	DC 5V	
Date of receipt of test item .....	May 10, 2022	
Date (s) of performance of test..... :	May 10, 2022 - Jun. 14, 2022	
Tested by (+signature) ... :	Aaron MO	
Check by (+signature)..... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	



**General disclaimer:**

This report shall not be reproduced except in full, without the written approval of SHENZHEN TONGCE TESTING LAB. This document may be altered or revised by SHENZHEN TONGCE TESTING LAB personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.

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## 1. General Product Information

### 1.1. EUT description

Product Name.....:	Receiver
Model/Type reference.....:	PERIMICE-713
Sample Number.....:	TCT220510E021-0101
Operation Frequency .....	2408MHz - 2474MHz
Number of Channel .....	34
Modulation Technology .....	GFSK
Antenna Type.....:	PCB Antenna
Antenna Gain.....:	-5.37dBi
Rating(s).....:	DC 5V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

### 1.2. Model(s) list

No.	Model No.	Tested with
1	PERIMICE-713	<input checked="" type="checkbox"/>
Other models	PERIMICE-608, PERIMICE-719	<input type="checkbox"/>

Note: PERIMICE-713 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of PERIMICE-713 can represent the remaining models.

### 1.3. Operation Frequency

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2408MHz	10	2426MHz	19	2444MHz	28	2462MHz
2	2410MHz	11	2428MHz	20	2446MHz	29	2464MHz
3	2412MHz	12	2430MHz	21	2448MHz	30	2466MHz
4	2414MHz	13	2432MHz	22	2450MHz	31	2468MHz
5	2416MHz	14	2434MHz	23	2452MHz	32	2470MHz
6	2418MHz	15	2436MHz	24	2454MHz	33	2472MHz
7	2420MHz	16	2438MHz	25	2456MHz	34	2474MHz
8	2422MHz	17	2440MHz	26	2458MHz		
9	2424MHz	18	2442MHz	27	2460MHz		

**Note:**

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The Lowest channel	2408MHz
The Middle channel	2440MHz
The Highest channel	2474MHz

## 2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna Requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Field Strength of Fundamental	§15.249 (a)	PASS
Spurious Emissions	§15.249 (a) (d)/ §15.209	PASS
Band Edge	§15.249 (d)/ §15.205	PASS
20dB Occupied Bandwidth	§15.215 (c)	PASS

**Note:**

1. Pass: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

### 3. General Information

#### 3.1. Test Environment and Mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	25.3 °C	23.8 °C
Humidity:	56 % RH	53 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations	
<p>The sample was placed 0.8m &amp; 1.5m for the measurement below &amp; above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y &amp; Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case( Z axis) are shown in Test Results of the following pages.</p>		

#### 3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Notebook Computer	G3 3500	00342-36088-9983 2-AAOEM	/	DELL
Adapter	HA130PM190	CN-0CY0JM-CH20 0-0B6-7405-A01	/	DELL

**Note:**

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

## 4. Facilities and Accreditations

### 4.1. Facilities

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

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

### 4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

### 4.3. Measurement Uncertainty

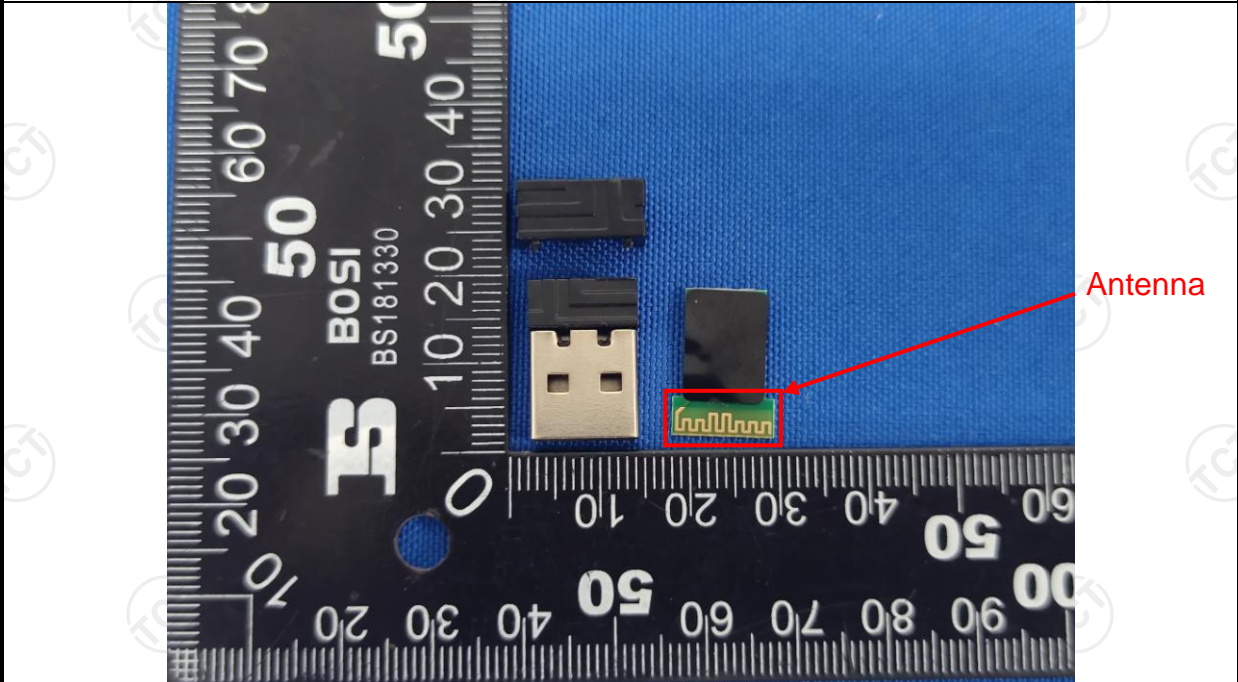
The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	$\pm 3.10$ dB
2	RF power, conducted	$\pm 0.12$ dB
3	Spurious emissions, conducted	$\pm 0.11$ dB
4	All emissions, radiated(<1 GHz)	$\pm 4.56$ dB
5	All emissions, radiated(1 GHz - 18 GHz)	$\pm 4.22$ dB
6	All emissions, radiated(18 GHz- 40 GHz)	$\pm 4.36$ dB

## 5. Test Results and Measurement Data

### 5.1. Antenna Requirement

<b>Standard requirement:</b>	FCC Part15 C Section 15.203
<p>15.203 requirement: 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</p>	
<b>E.U.T Antenna:</b>	
<p>The EUT antenna is PCB antenna which permanently attached, and the best case gain of the antenna is -5.37dBi.</p>	





## 5.2. Conducted Emission

### 5.2.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.207														
<b>Test Method:</b>	ANSI C63.10:2013														
<b>Frequency Range:</b>	150 kHz to 30 MHz														
<b>Receiver setup:</b>	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
<b>Limits:</b>	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
<b>Test Setup:</b>	<p><i>Remark:</i> E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>														
<b>Test Mode:</b>	Transmitting mode with modulation														
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li> <li>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.</li> </ol>														
<b>Test Result:</b>	PASS														

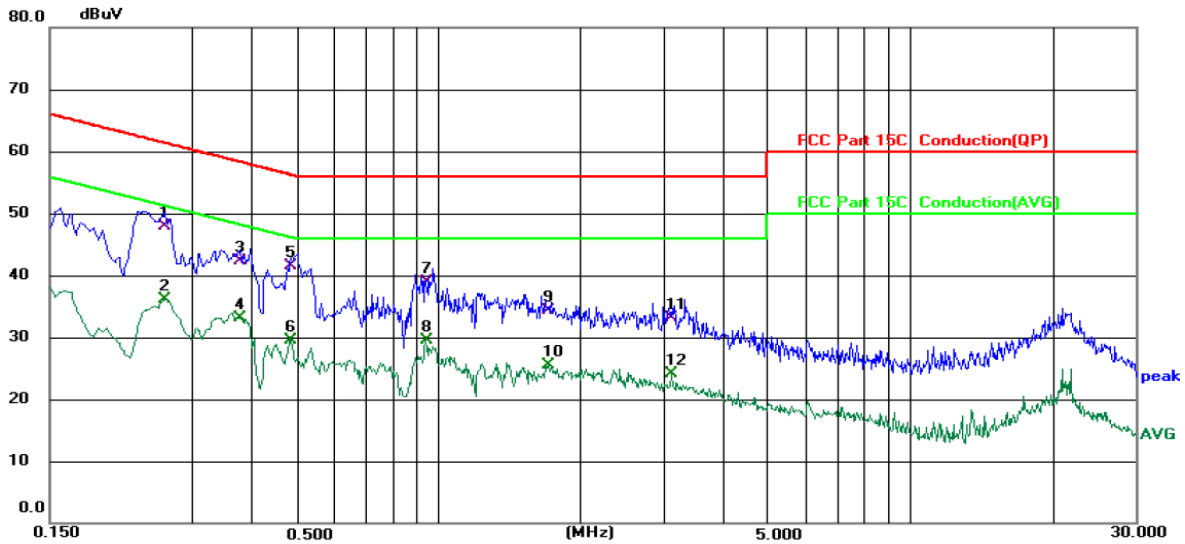
**5.2.2. Test Instruments**

Conducted Emission Shielding Room Test Site (843)				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI3	100898	Jul. 07, 2022
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	Feb. 24, 2023
Line-5	TCT	CE-05	N/A	Jul. 07, 2022
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

5.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



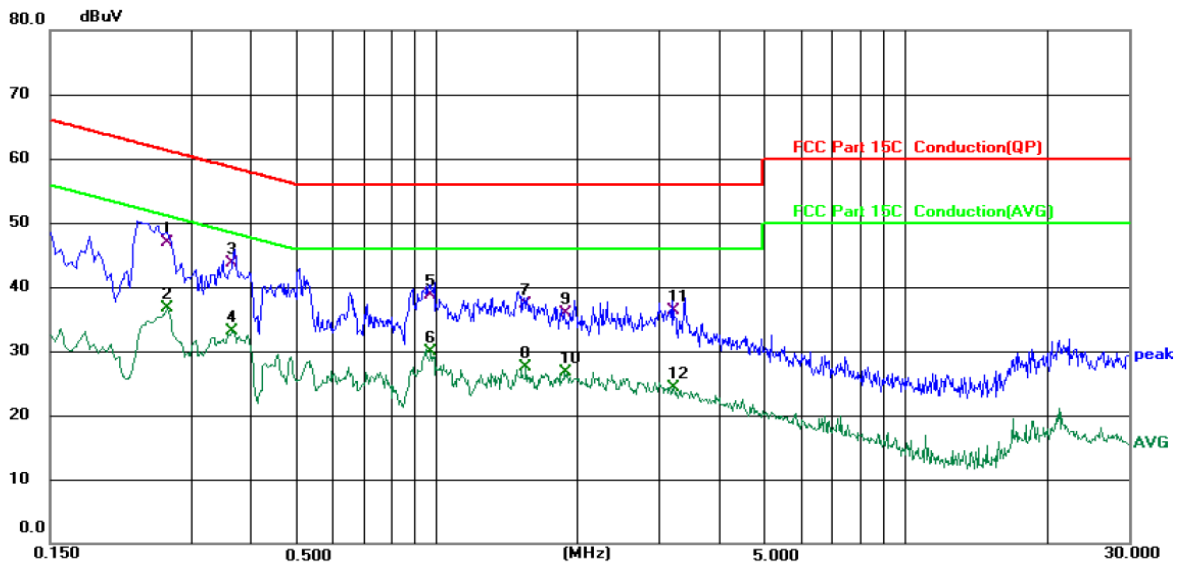
Site 844 Shielding Room Phase: L1 Temperature: 25.3 (°C) Humidity: 56 %  
Limit: FCC Part 15C Conduction(QP) Power: DC 5 V(Notebook Computer Input AC 120 V/60 Hz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.2620	37.62	10.31	47.93	61.37	-13.44	QP	
2		0.2620	25.77	10.31	36.08	51.37	-15.29	AVG	
3		0.3780	32.09	10.25	42.34	58.32	-15.98	QP	
4		0.3780	22.92	10.25	33.17	48.32	-15.15	AVG	
5		0.4858	31.33	10.20	41.53	56.24	-14.71	QP	
6		0.4858	19.35	10.20	29.55	46.24	-16.69	AVG	
7		0.9417	28.85	10.14	38.99	56.00	-17.01	QP	
8		0.9417	19.45	10.14	29.59	46.00	-16.41	AVG	
9		1.7137	24.17	10.09	34.26	56.00	-21.74	QP	
10		1.7137	15.48	10.09	25.57	46.00	-20.43	AVG	
11		3.1300	23.07	10.08	33.15	56.00	-22.85	QP	
12		3.1300	14.03	10.08	24.11	46.00	-21.89	AVG	

**Note:**

- Freq. = Emission frequency in MHz
- Reading level (dBuV) = Receiver reading
- Corr. Factor (dB) = LISN factor + Cable loss
- Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)
- Limit (dBuV) = Limit stated in standard
- Margin (dB) = Measurement (dBuV) – Limits (dBuV)
- Q.P. =Quasi-Peak
- AVG =average
- \* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

## Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: *N*

Temperature: 25.3 (°C)

Humidity: 56 %

Limit: FCC Part 15C Conduction(QP)

Power: DC 5 V(Notebook Computer Input AC 120 V/60 Hz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.2660	36.51	10.31	46.82	61.24	-14.42	QP	
2		0.2660	26.31	10.31	36.62	51.24	-14.62	AVG	
3		0.3659	33.51	10.26	43.77	58.59	-14.82	QP	
4		0.3659	22.76	10.26	33.02	48.59	-15.57	AVG	
5		0.9778	28.62	10.14	38.76	56.00	-17.24	QP	
6		0.9778	19.78	10.14	29.92	46.00	-16.08	AVG	
7		1.5540	27.21	10.16	37.37	56.00	-18.63	QP	
8		1.5540	17.36	10.16	27.52	46.00	-18.48	AVG	
9		1.8818	25.70	10.17	35.87	56.00	-20.13	QP	
10		1.8818	16.45	10.17	26.62	46.00	-19.38	AVG	
11		3.2139	26.06	10.18	36.24	56.00	-19.76	QP	
12		3.2139	14.04	10.18	24.22	46.00	-21.78	AVG	

### Note:

Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

Margin (dB) = Measurement (dBuV) – Limits (dBuV)

Q.P. =Quasi-Peak AVG =average

\* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

### 5.3. Radiated Emission Measurement

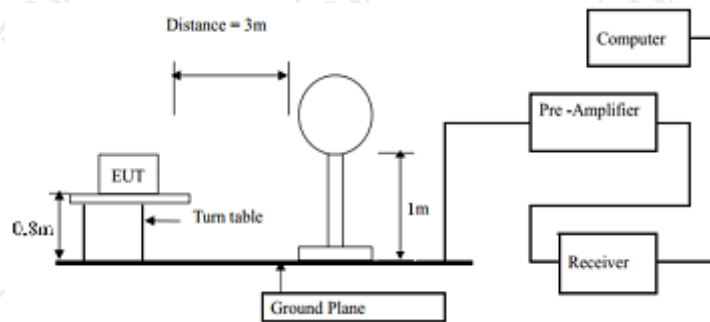
#### 5.3.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.209				
<b>Test Method:</b>	ANSI C63.10:2013				
<b>Frequency Range:</b>	9 kHz to 25 GHz				
<b>Measurement Distance:</b>	3 m				
<b>Antenna Polarization:</b>	Horizontal & Vertical				
<b>Receiver Setup:</b>	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
<b>Limit(Field strength of the fundamental signal):</b>	Frequency	Limit (dBuV/m @3m)		Remark	
	2400MHz-2483.5MHz	94.00		Average Value	
		114.00		Peak Value	
<b>Limit(Spurious Emissions):</b>	Frequency	Limit (dBuV/m @3m)		Remark	
	0.009-0.490	2400/F(KHz)		Quasi-peak Value	
	0.490-1.705	24000/F(KHz)		Quasi-peak Value	
	1.705-30	30		Quasi-peak Value	
	30MHz-88MHz	40.0		Quasi-peak Value	
	88MHz-216MHz	43.5		Quasi-peak Value	
	216MHz-960MHz	46.0		Quasi-peak Value	
	960MHz-1GHz	54.0		Quasi-peak Value	
	Above 1GHz	54.0		Average Value	
	74.0		Peak Value		
<b>Limit (band edge) :</b>	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.				
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber in below 1GHz, 1.5m above the ground in above 1GHz. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> </ol>				

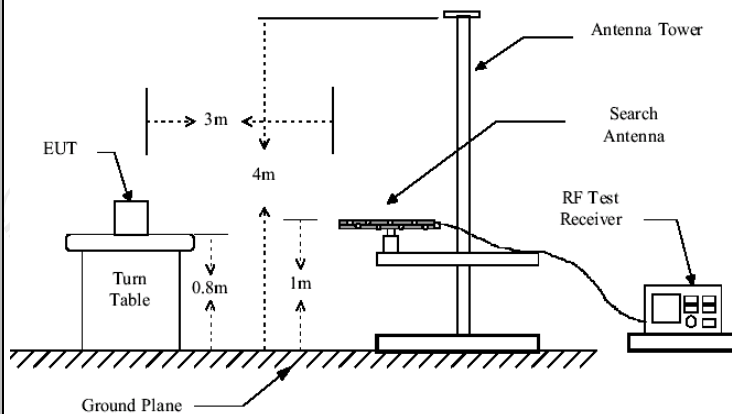
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**Test setup:**

For radiated emissions below 30MHz

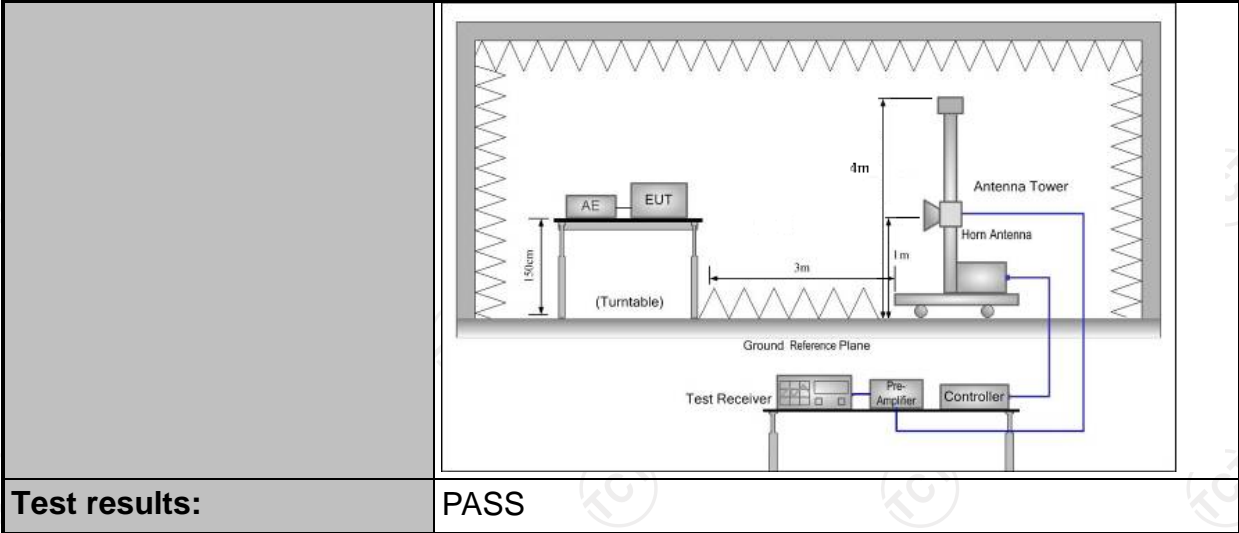


30MHz to 1GHz



Above 1GHz

(The diagram below shows the test setup that is utilized to make the measurements for emission from 1GHz to the tenth harmonic of the highest fundamental frequency or to 40GHz emissions, whichever is lower.)



**Test results:**

**PASS**

**5.3.2. Test Instruments**

Radiated Emission Test Site (966)				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESIB7	100197	Jul. 07, 2022
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 07, 2022
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Feb. 24, 2023
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Feb. 24, 2023
Pre-amplifier	HP	8447D	2727A05017	Jul. 07, 2022
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 05, 2022
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Apr. 10, 2023
Antenna Mast	Keleto	RE-AM	N/A	N/A
Coaxial cable	SKET	RC_DC18G-N	N/A	Feb. 24, 2023
Coaxial cable	SKET	RC-DC18G-N	N/A	Feb. 24, 2023
Coaxial cable	SKET	RC-DC40G-N	N/A	Jul. 07, 2022
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A



### 5.3.3. Test Data

#### Field Strength of Fundamental

Frequency (MHz)	Emission PK (dBuV/m)	Horizontal /Vertical	Limits PK (dBuV/m)	Margin (dB)
2408	91.74	H	114	-22.26
2408	84.28	V	114	-29.72
2440	90.52	H	114	-23.48
2440	82.51	V	114	-31.49
2474	93.33	H	114	-20.67
2474	86.74	V	114	-27.26

Frequency (MHz)	Emission AV (dBuV/m)	Horizontal /Vertical	Limits AV (dBuV/m)	Margin (dB)
2408	90.18	H	94	-3.82
2408	83.67	V	94	-10.33
2440	89.47	H	94	-4.53
2440	81.39	V	94	-12.61
2474	92.26	H	94	-1.74
2474	85.21	V	94	-8.79

#### Spurious Emissions

##### Frequency Range (9 kHz-30MHz)

Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Limit@3m (dB $\mu$ V/m)
--	--	--
--	--	--
--	--	--
--	--	--

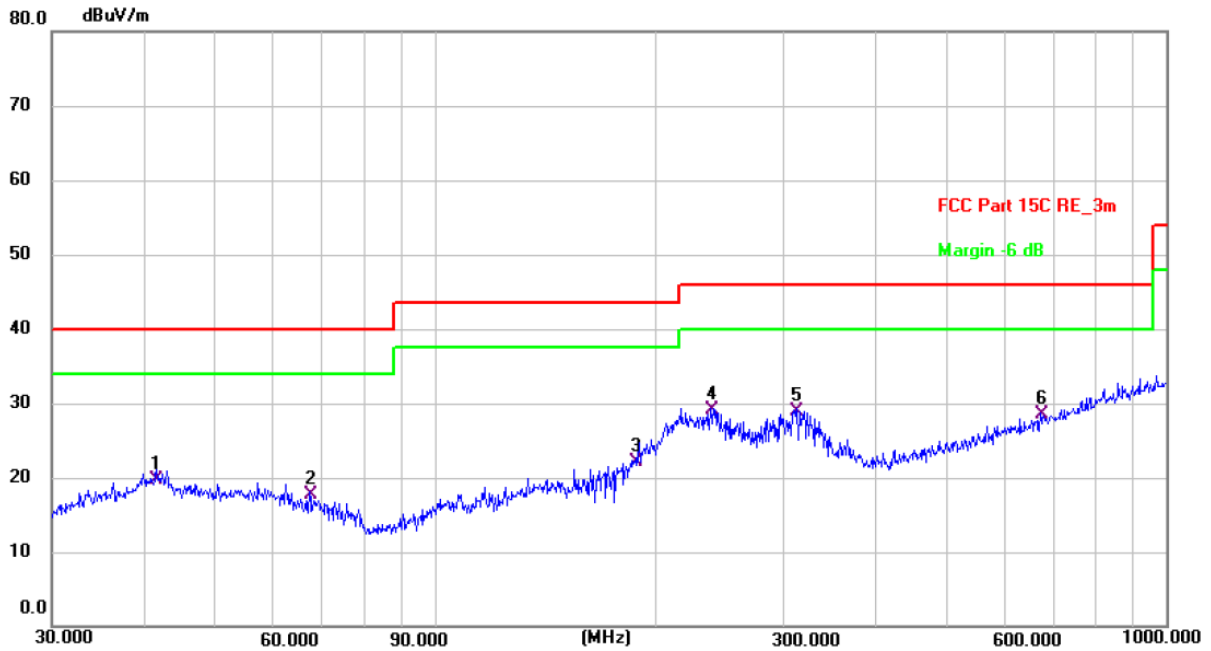
**Note:** 1. Emission Level=Reading+ Cable loss-Antenna factor-Amp factor.

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement.

3. For fundamental frequency, RBW >20dB BW , VBW>=RBW, PK detector is for PK value, RMS detector is for AV value.

## Frequency Range (30MHz-1GHz)

Horizontal:



Site #2 3m Anechoic Chamber

Polarization: **Horizontal**

Temperature: 23.8(C)

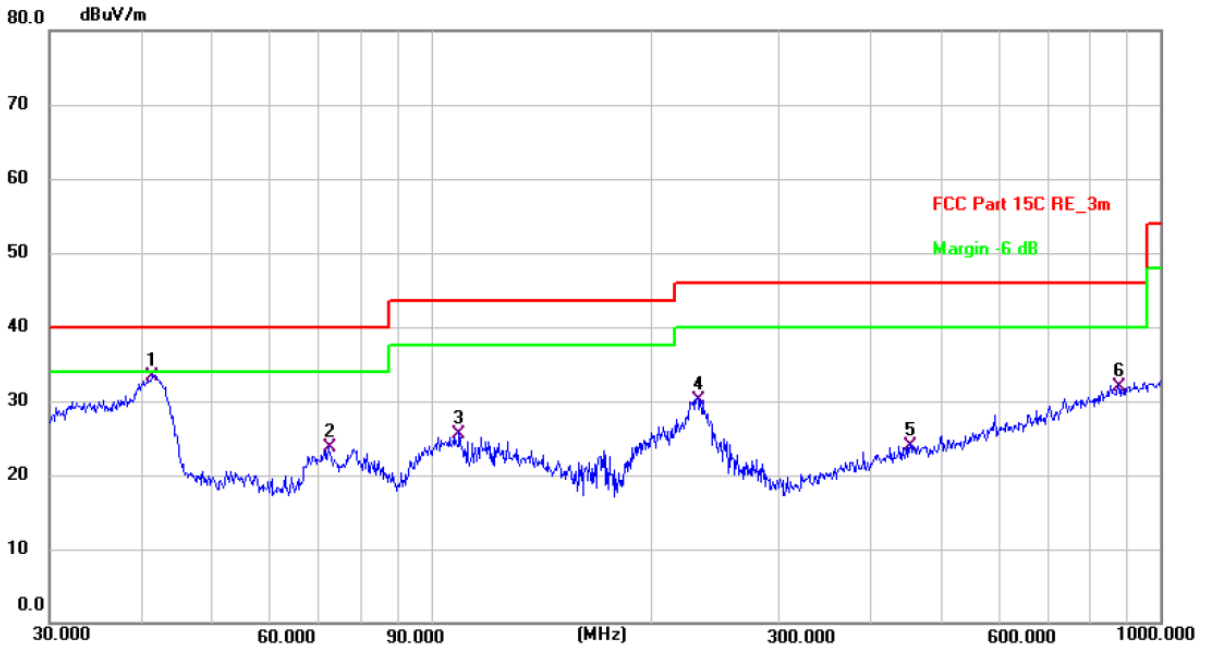
Humidity: 53 %

Limit: FCC Part 15C RE\_3m

Power: DC 5 V(Notebook Computer Input AC 120 V/60 Hz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	41.7129	5.70	13.98	19.68	40.00	-20.32	QP	P	
2	67.4382	6.16	11.60	17.76	40.00	-22.24	QP	P	
3	188.4125	11.23	10.85	22.08	43.50	-21.42	QP	P	
4 *	238.3102	16.51	12.63	29.14	46.00	-16.86	QP	P	
5	313.2760	14.80	14.17	28.97	46.00	-17.03	QP	P	
6	672.8444	5.98	22.45	28.43	46.00	-17.57	QP	P	

Vertical:



Site #2 3m Anechoic Chamber

Polarization: **Vertical**

Temperature: 23.8(C) Humidity: 53 %

Limit: FCC Part 15C RE\_3m

Power: DC 5 V(Notebook Computer Input AC 120 V/60 Hz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	41.5670	19.28	13.98	33.26	40.00	-6.74	QP	P	
2	72.3376	13.08	10.66	23.74	40.00	-16.26	QP	P	
3	109.4116	14.26	11.15	25.41	43.50	-18.09	QP	P	
4	231.7179	18.00	12.19	30.19	46.00	-15.81	QP	P	
5	454.3100	5.58	18.41	23.99	46.00	-22.01	QP	P	
6	875.2470	5.75	26.12	31.87	46.00	-14.13	QP	P	

**Note:** Measurements were conducted in all channels (high, middle, low), and the worst case (Highest channel) was submitted only.

## Above 1GHz

Low channel: 2408MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dB $\mu$ V)	AV reading (dB $\mu$ V)	Correction Factor (dB/m)	Emission Level		Peak limit (dB $\mu$ V/m)	AV limit (dB $\mu$ V/m)	Margin (dB)
					Peak (dB $\mu$ V/m)	AV (dB $\mu$ V/m)			
4816	H	52.35	---	-3.94	48.41	---	74	54	-5.59
7224	H	46.76	---	0.52	47.28	---	74	54	-6.72
---	---	---	---	---	---	---	---	---	---
4816	V	49.95	---	-3.94	46.01	---	74	54	-7.99
7224	V	43.58	---	0.52	44.10	---	74	54	-9.90
---	---	---	---	---	---	---	---	---	---

Middle channel: 2440MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dB $\mu$ V)	AV reading (dB $\mu$ V)	Correction Factor (dB/m)	Emission Level		Peak limit (dB $\mu$ V/m)	AV limit (dB $\mu$ V/m)	Margin (dB)
					Peak (dB $\mu$ V/m)	AV (dB $\mu$ V/m)			
4880	H	51.73	---	-3.98	47.75	---	74	54	-6.25
7320	H	45.92	---	0.57	46.49	---	74	54	-7.51
---	---	---	---	---	---	---	---	---	---
4880	V	51.55	---	-3.98	47.57	---	74	54	-6.43
7320	V	44.97	---	0.57	45.54	---	74	54	-8.46
---	---	---	---	---	---	---	---	---	---

High channel: 2474MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dB $\mu$ V)	AV reading (dB $\mu$ V)	Correction Factor (dB/m)	Emission Level		Peak limit (dB $\mu$ V/m)	AV limit (dB $\mu$ V/m)	Margin (dB)
					Peak (dB $\mu$ V/m)	AV (dB $\mu$ V/m)			
4948	H	52.98	---	-3.98	49.00	---	74	54	-5.00
7422	H	48.12	---	0.57	48.69	---	74	54	-5.31
---	---	---	---	---	---	---	---	---	---
4948	V	51.73	---	-3.98	47.75	---	74	54	-6.25
7422	V	46.07	---	0.57	46.64	---	74	54	-7.36
---	---	---	---	---	---	---	---	---	---

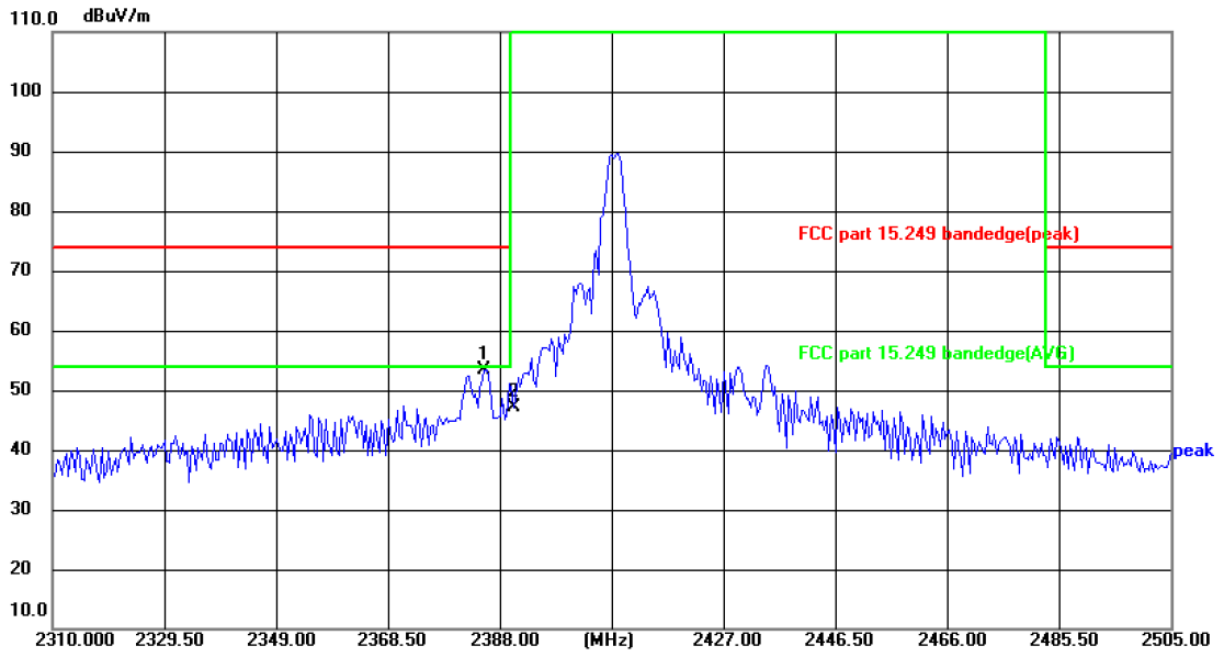
**Note:**

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dB $\mu$ V/m)-Average limit (dB $\mu$ V/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.
5. Data of measurement shown “---“in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.
6. All the restriction bands are compliance with the limit of 15.209.

## Band Edge Requirement

Lowest channel 2408:

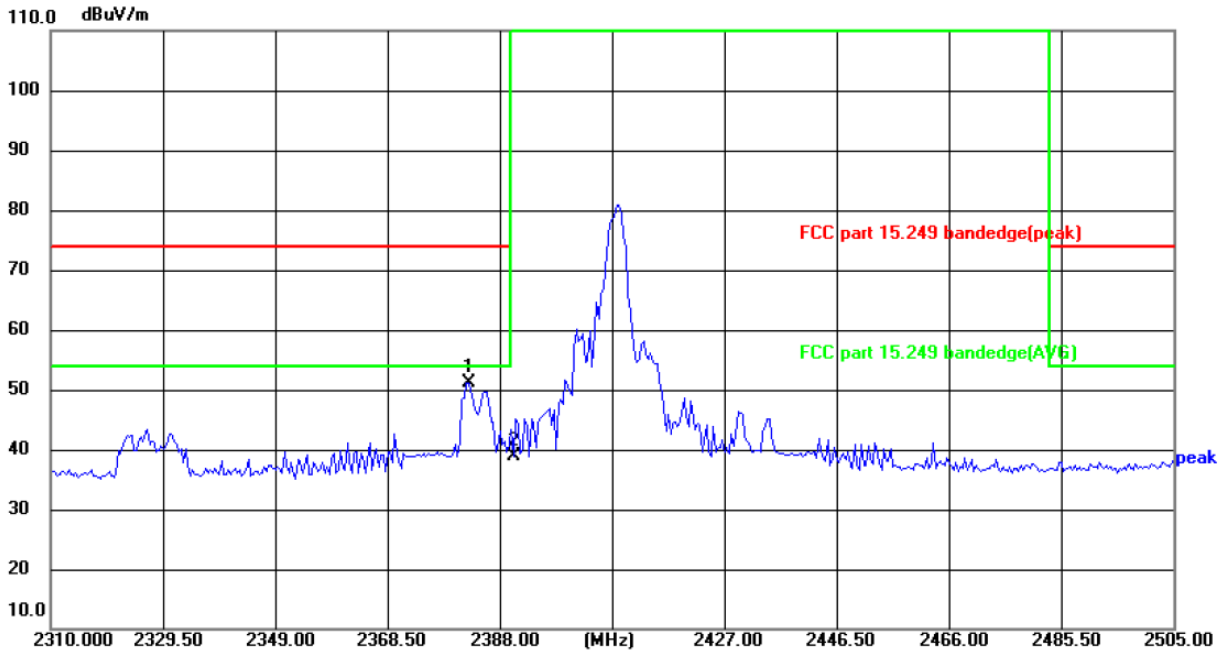
Horizontal:



Site: Polarization: **Horizontal** Temperature: 24(°C)  
 Limit: FCC part 15.249 bandedge(peak) Power: Humidity: 52 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2385.270	69.26	-15.77	53.49	74.00	-20.51	peak	P	
2	2390.000	63.00	-15.76	47.24	74.00	-26.76	peak	P	

Vertical:



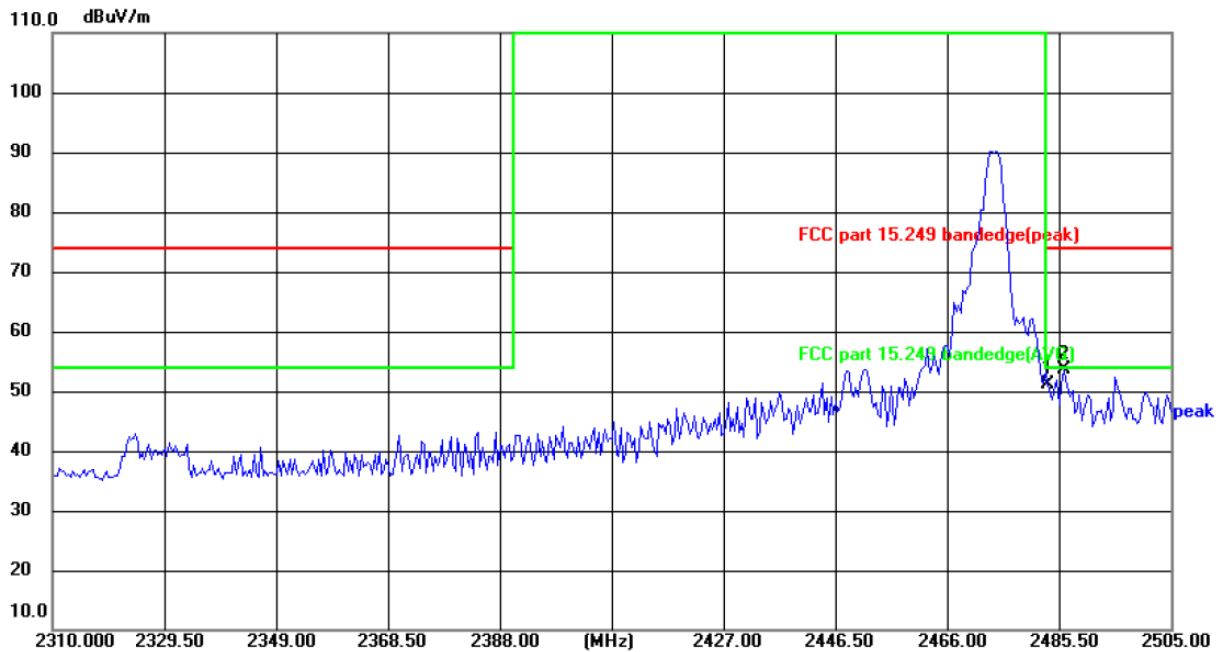
Site: Polarization: **Vertical** Temperature: 24(°C)  
 Limit: FCC part 15.249 bandedge(peak) Power: Humidity: 52 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2382.540	66.97	-15.79	51.18	74.00	-22.82	peak	P	
2	2390.000	54.52	-15.76	38.76	74.00	-35.24	peak	P	



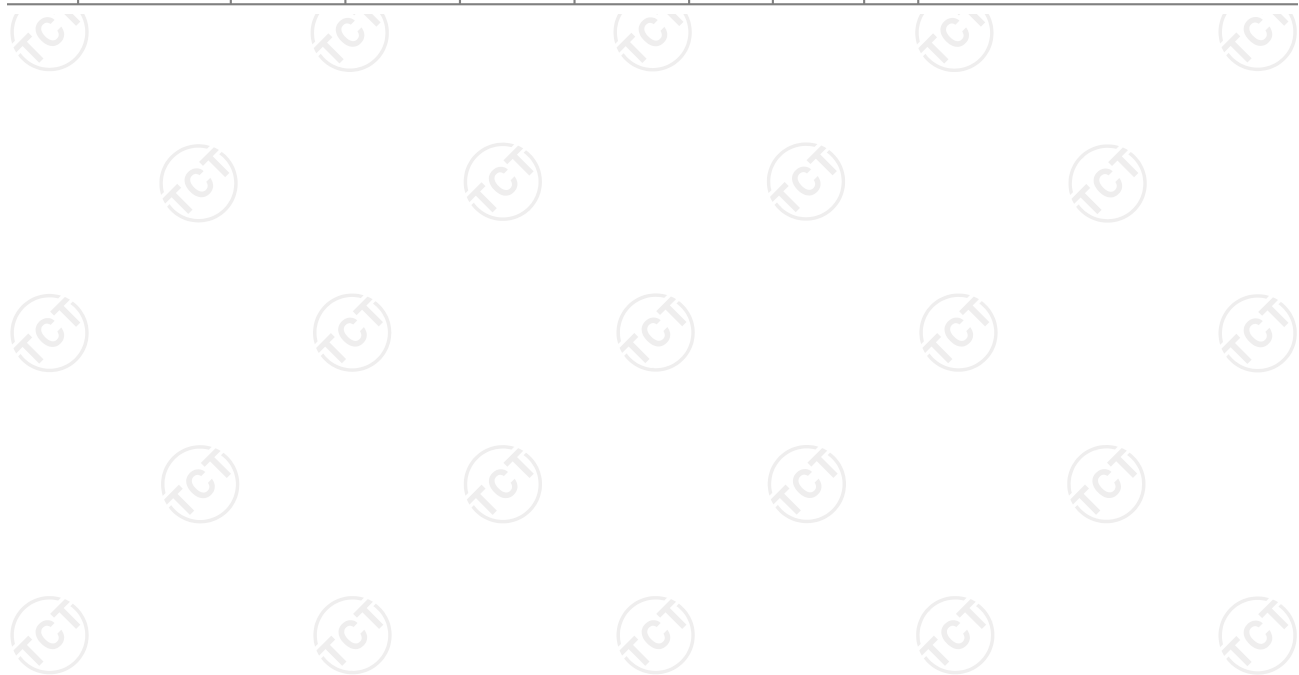
Highest channel 2474:

Horizontal:

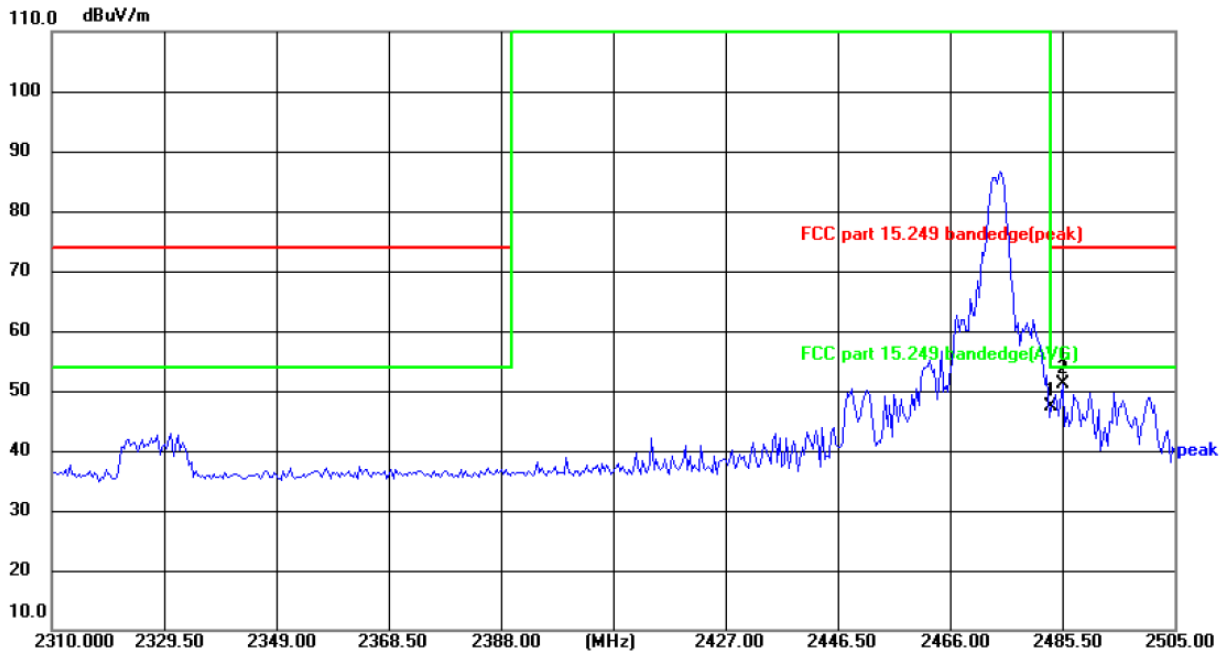


Site: Polarization: **Horizontal** Temperature: 24(°C)  
 Limit: FCC part 15.249 bandedge(peak) Power: Humidity: 52 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2483.500	66.63	-15.41	51.22	74.00	-22.78	peak	P	
2 *	2486.280	68.97	-15.40	53.57	74.00	-20.43	peak	P	



Vertical:



Site: Polarization: **Vertical** Temperature: 24(°C)  
 Limit: FCC part 15.249 bandedge(peak) Power: Humidity: 52 %

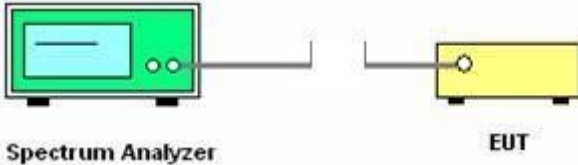
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2483.500	62.90	-15.41	47.49	74.00	-26.51	peak	P	
2 *	2485.500	66.50	-15.40	51.10	74.00	-22.90	peak	P	

**Note:** Measurements were conducted in all channels (high, middle, low), and the worst case (Highest channel) was submitted only.



## 5.4. 20dB Occupied Bandwidth

### 5.4.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.215(c)
<b>Test Method:</b>	ANSI C63.10: 2013
<b>Limit:</b>	N/A
	<ol style="list-style-type: none"> <li>1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.</li> <li>2. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW<math>\geq</math>1% of the 20 dB bandwidth; VBW<math>\geq</math>RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> <li>4. Measure and record the results in the test report.</li> </ol>
<b>Test setup:</b>	 <p>The diagram illustrates the test setup. On the left is a Spectrum Analyzer, represented by a green rectangular box with a screen and two knobs. On the right is the EUT (Equipment Under Test), represented by a yellow rectangular box. A horizontal line with a small circle in the middle connects the two boxes, representing a cable or antenna connection.</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test results:</b>	PASS

### 5.4.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022

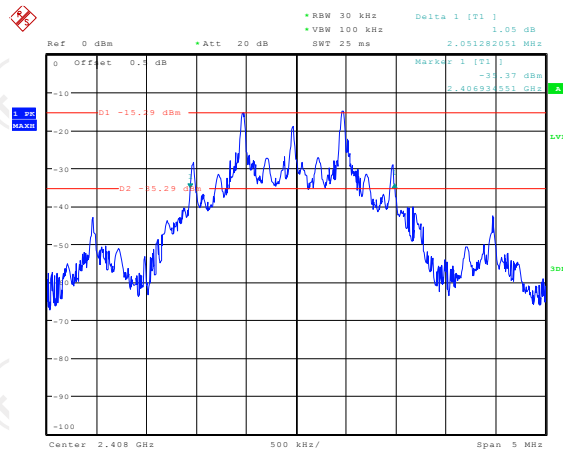
**5.4.3. Test data**

Test Channel	20dB Occupy Bandwidth (kHz)	Limit	Conclusion
Lowest	2051.28	---	PASS
Middle	2056.28	---	PASS
Highest	2059.29	---	PASS

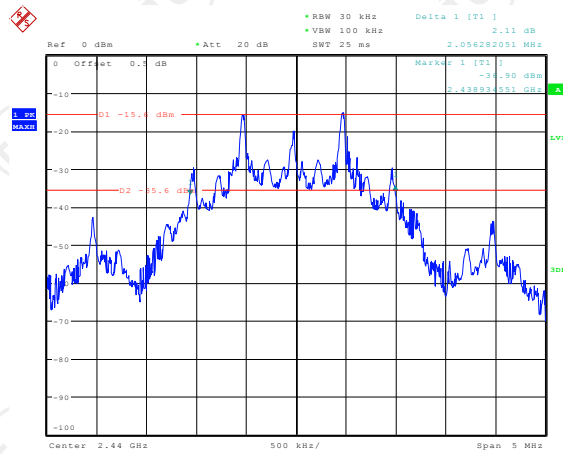
Test plots as follows:



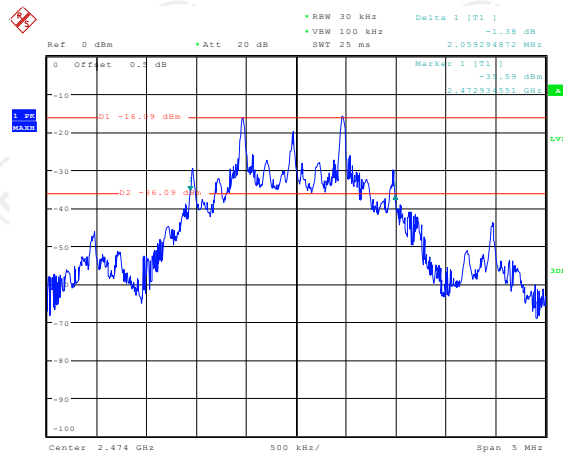
### Lowest channel



### Middle channel

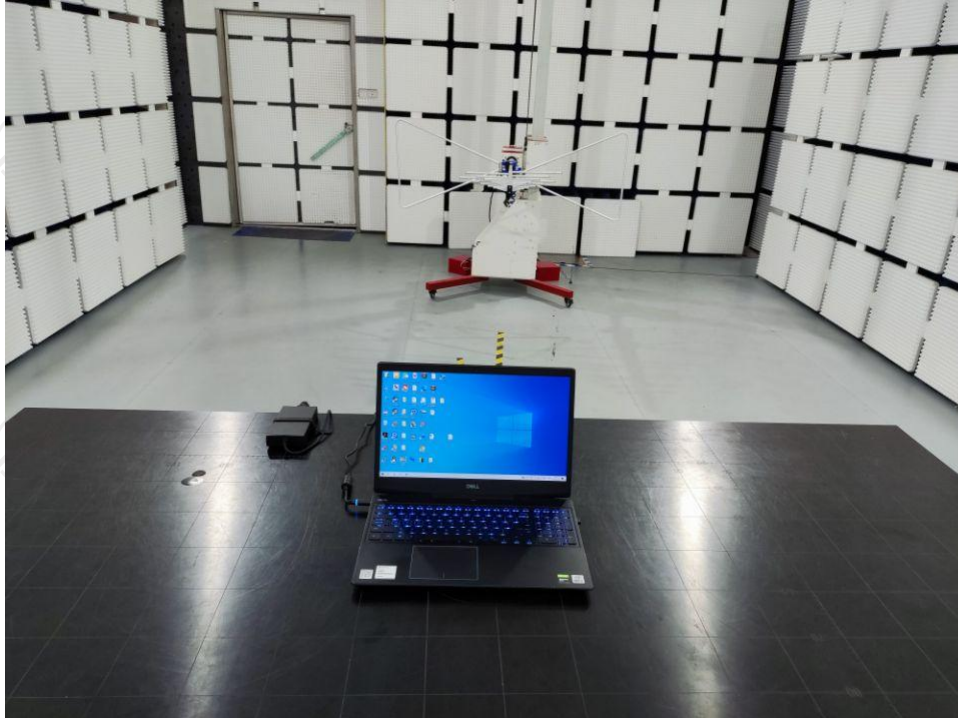


### Highest channel



## Appendix A: Photographs of Test Setup

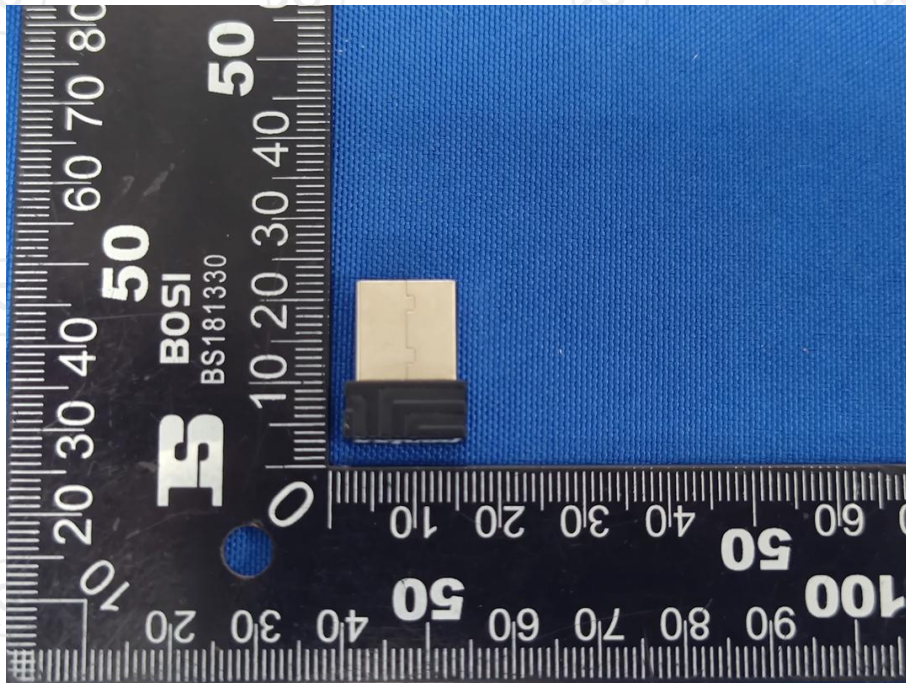
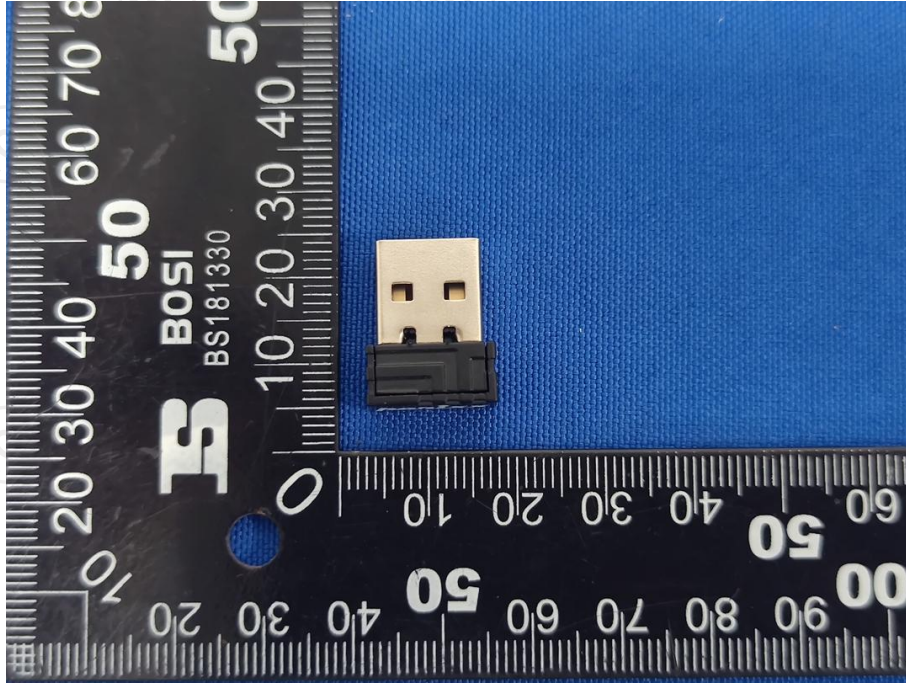
Product: Receiver  
Model: PERIMICE-713  
Radiated Emission

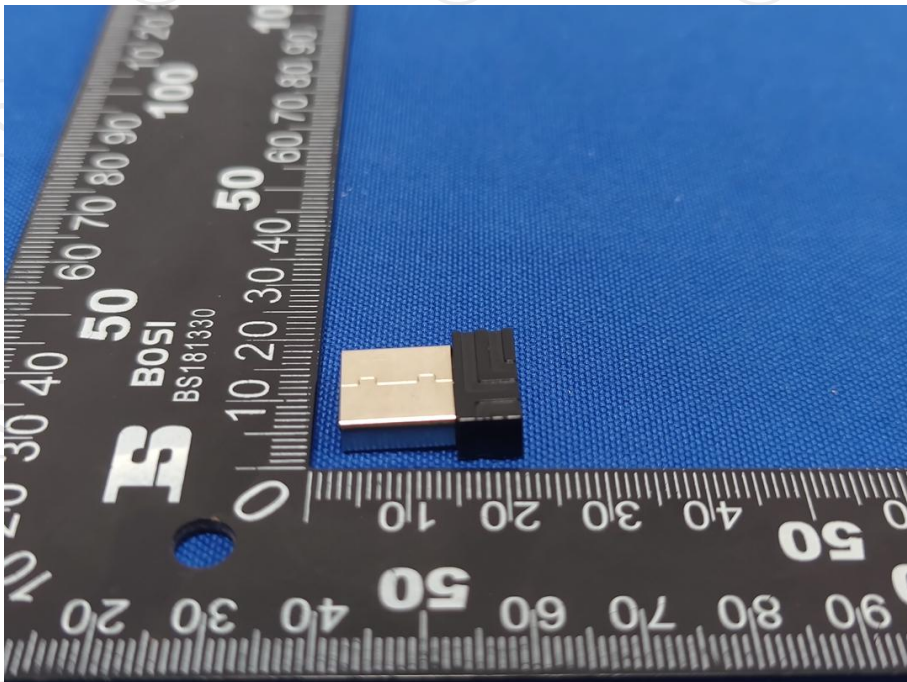
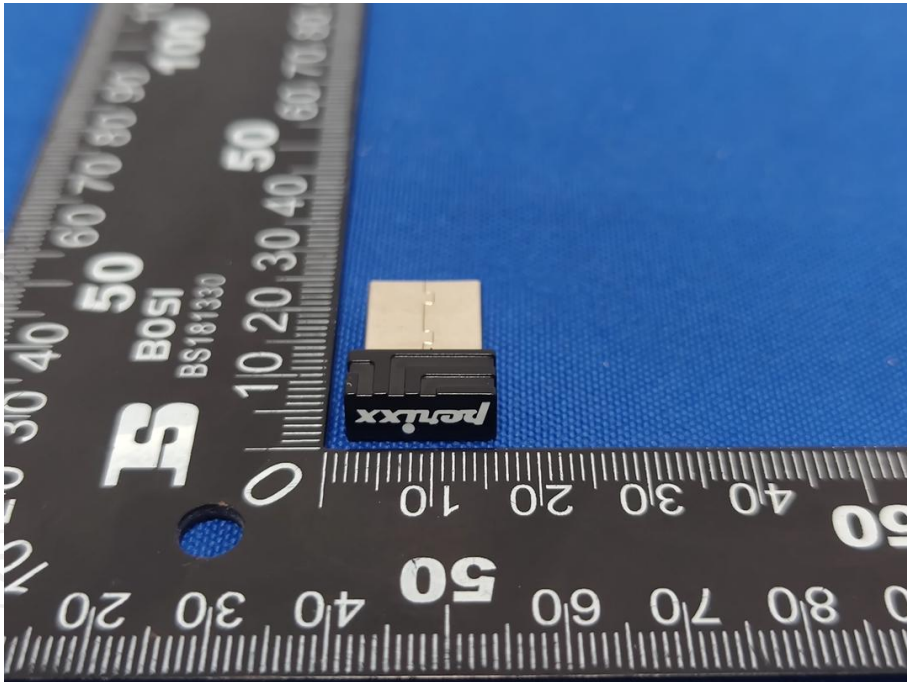


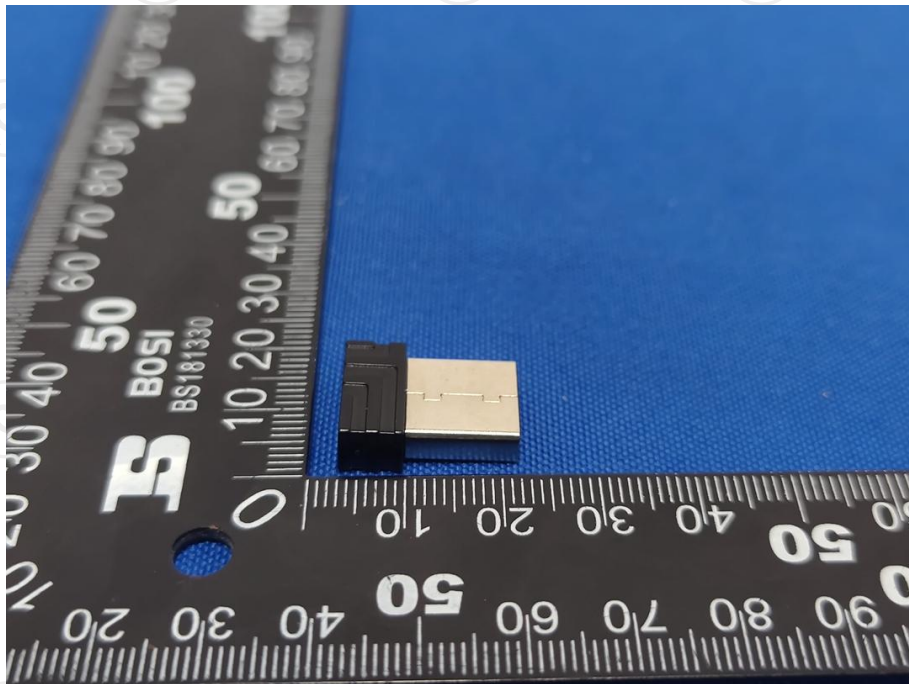
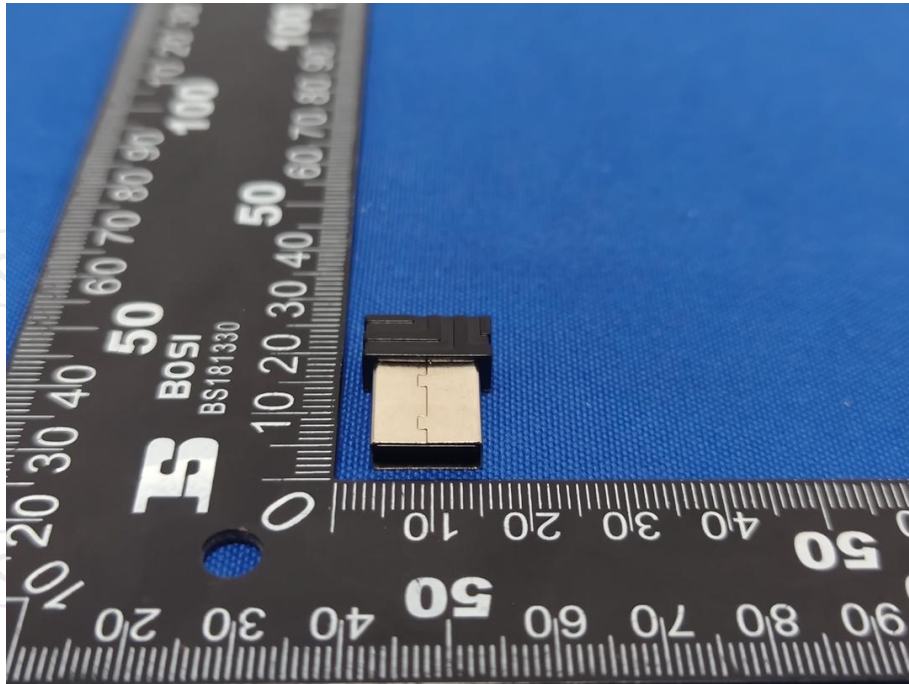
CE



**Appendix B: Photographs of EUT**  
Product: Receiver  
Model: PERIMICE-713  
External Photos

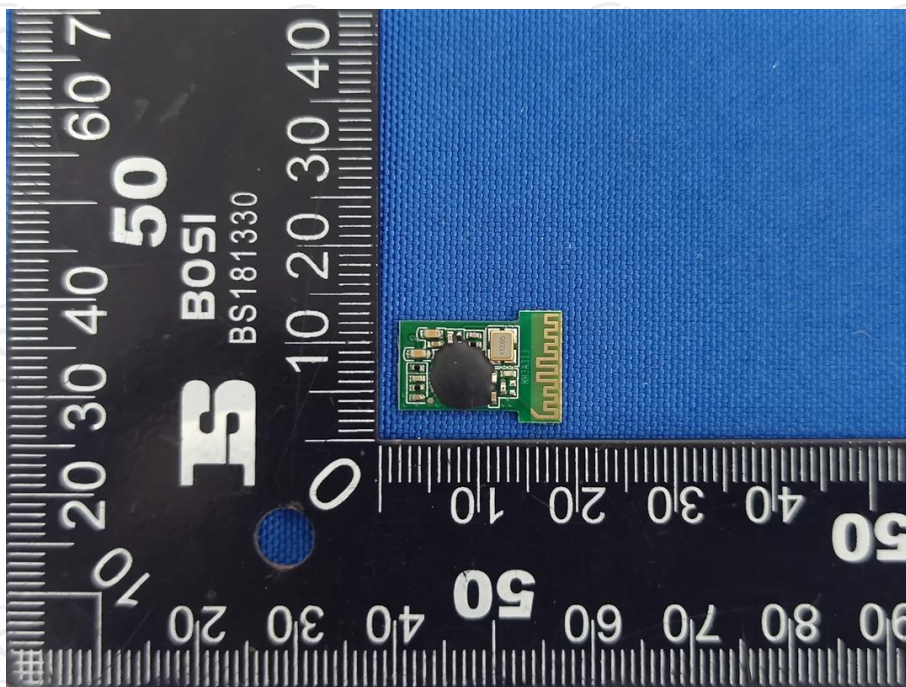
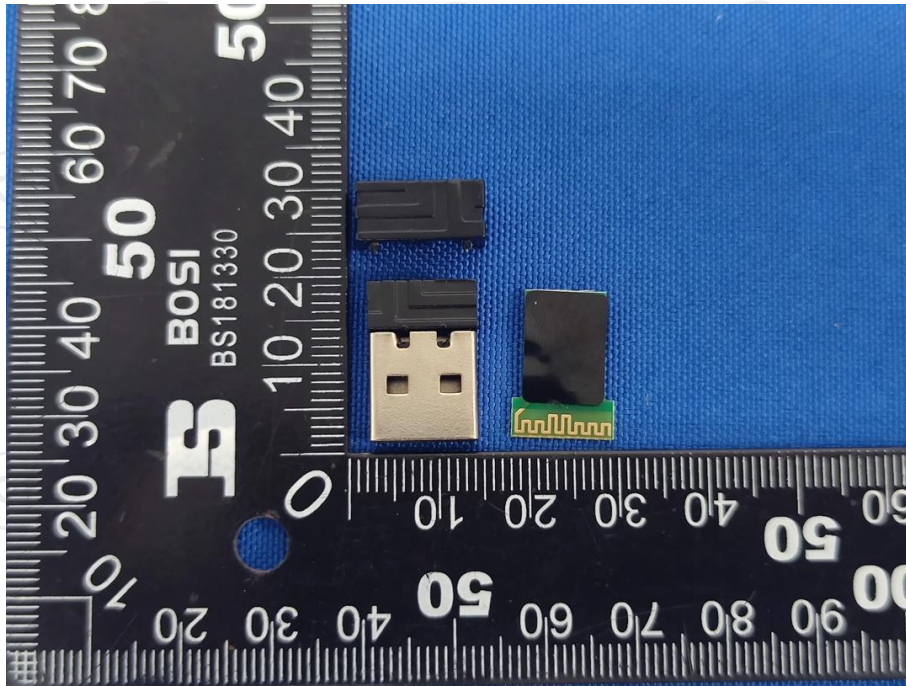


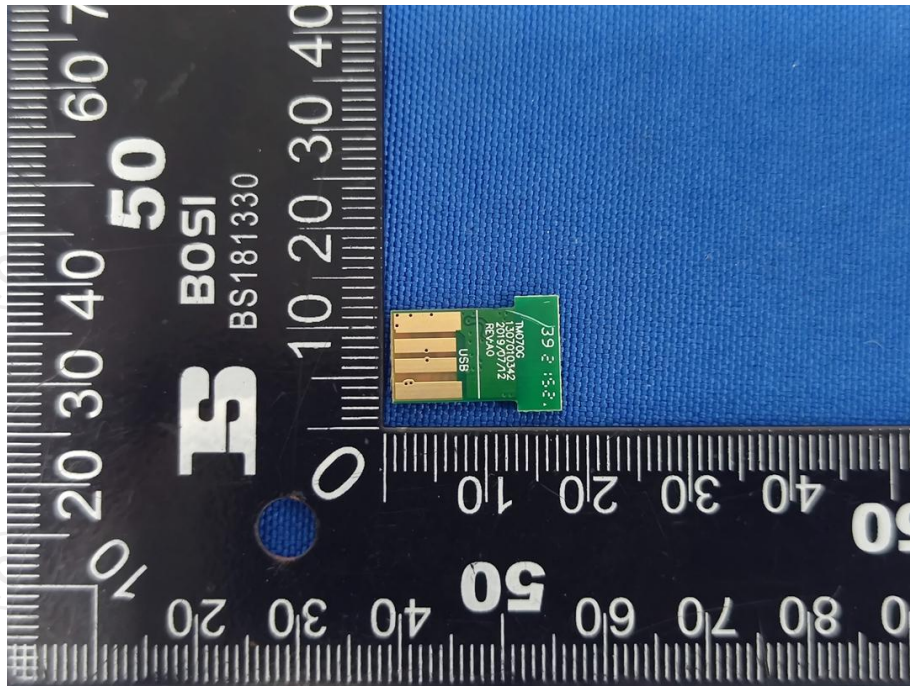






**Product: Receiver**  
**Model: PERIMICE-713**  
**Internal Photos**





\*\*\*\*\*END OF REPORT\*\*\*\*\*