TEST REPORT

Applicant:	Nebra Ltd
Address of Applicant:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells TN3 9BJ

Equipment Under Test (EUT)

Product Name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner
Model No.:	HNTIN-470-G, HNTIN-868-G, HNTIN-915-G,HNTIN-433-G, HNTIN-470,HNTIN-868, HNTIN-915,HNTIN-433
Applicable standards:	AS / NZS CISPR 32: 2015
Date of sample receipt:	12 Mar., 2021
Date of Test:	13 Mar., to 19 Apr., 2021
Date of report issue:	08 May., 2021
Test Result:	PASS*

* In the configuration tested, the EUT complied with the standards specified above.

The RCM mark as shown below can be used, under the responsibility of the manufacturer, after completion of an RCM Declaration of Conformity and compliance with all relevant RCM Directives.

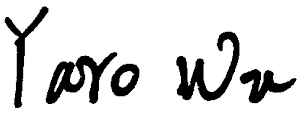
Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

2 Version

Version No.	Date	Description
00	*08 May., 2021*	*Original*

Tested by:  ***Date:*** *08 May., 2021*

Test Engineer

Reviewed by:  ***Date:*** *08 May., 2021*

Project Engineer

3 Contents

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4 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission	AS/NZS CISPR 32	AS/NZS CISPR 32	Class B	PASS
Conducted Emission	AS/NZS CISPR 32	AS/NZS CISPR 32	Class B	PASS

Remark:
** UT is the nominal supply voltage.*
Pass: Meet the requirements, N/A: not applicable.

5 General Information

5.1 Client Information

Applicant:	Nebra Ltd
Address:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells TN3 9BJ
Manufacturer:	Nebra Ltd
Address:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells TN3 9BJ
Factory:	SUNSOAR TECH CO., LIMITED
Address:	4/F, Block E, Fengze Building, Huafeng No.2 Industrial Park, Hangkong Road, XiXiang Town, BaoAn District, Shenzhen, China

5.2 General Description of E.U.T.

Product Name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner
Model No.:	HNTIN-470-G, HNTIN-868-G, HNTIN-915-G,HNTIN-433-G, HNTIN-470,HNTIN-868, HNTIN-915,HNTIN-433
Hardware version:	V12-15-2020-1614
Software version:	a98bfc8
Power supply:	DC 12V
AC adapter:	Model: TM-K018VP-01201500PE-Z Input: 100-240V~50/60Hz 0.45A Output: 12.0V , 1.5A
Remarks:	Model No.: HNTIN-470-G, HNTIN-868-G, HNTIN-915-G,HNTIN-433-G, HNTIN-470,HNTIN-868, HNTIN-915,HNTIN-433 has the same internal circuit design, layout, components and internal wiring. The difference is that the ones with the -G suffix have GPS function, while those without the suffix do not. Each model has two appearances, except for the appearance, the interior is exactly the same. In addition, the corresponding frequency of each model of LoRa module is different, as follows: The Nebra HNT Indoor Hotspot is available in 4 variants to support multiple regions. It is available in the following frequency variants: • 433 MHz (HNTIN-433) • 470 Mhz (HNTIN-470) • 868 Mhz (HNTIN-868) • 915 Mhz (HNTIN-915)

5.3 Test mode and voltage

Woking :	Keep the EUT in Woking mode
Test voltage:	AC 230V/50Hz
Remark:	1. During the test, pre-scan 120Vac/60Hz and 230Vac/50Hz of the Power supply, found 230Vac/50Hz was worse case mode. 2. The report only reflects the worst mode.

5.4 Description of Support Units

Manufacturer	Description	Model	S/N	FCC ID/DoC
DELL	PC	OPTIPLEX7070	2J8XSZ2	DoC
DELL	MONITOR	SE2018HR	3M7QPY2	DoC
DELL	KEYBOARD	KB216d	N/A	DoC

DELL	MOUSE	MS116t1	N/A	DoC
HP	Printer	HP LaserJet P1007	VNFP409729	DoC

5.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%)
Conducted Emission (9kHz ~ 30MHz)	±1.60 dB
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB
Radiated Emission (1GHz ~ 18GHz)	±5.38 dB
Radiated Emission (18GHz ~ 26.5GHz)	±3.36 dB

5.6 Description of Cable Used

N/A

5.7 Laboratory Facility

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

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax:+86-755-23116366
Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

5.9 Monitoring of EUT for the Immunity Test

Other:	Monitored the data link of EUT

5.10 Test Instruments list

Radiated Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
3m SAC	ETS	9m*6m*6m	966	01-19-2021	01-18-2024
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-03-2021	03-02-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-03-2021	03-02-2022
EMI Test Software	AUDIX	E3	Version: 6.110919b		
Pre-amplifier	HP	8447D	2944A09358	03-03-2021	03-02-2022
Pre-amplifier	CD	TRLA-010180G50B	20120401	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-03-2021	03-02-2022
Cable	MICRO-COAX	MFR64639	K10742-5	03-03-2021	03-02-2022
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-03-2021	03-02-2022

Conducted Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
EMI Test Receiver	Rohde & Schwarz	ESCI 3	101189	03-03-2021	03-02-2022
RF Switch	TOP PRECISION	RSU0301	N/A	03-03-2021	03-02-2022
LISN	CHASE	MN2050D	1447	03-03-2021	03-02-2022
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	06-18-2020	06-17-2021
ISN	Schwarzbeck	CAT3 8158	#96	03-03-2021	03-02-2022
ISN	Schwarzbeck	CAT5 8158	#166	03-03-2021	03-02-2022
ISN	Schwarzbeck	NTFM 8158	#126	03-03-2021	03-02-2022
Cable	HP	10503A	N/A	03-03-2021	03-02-2022
EMI Test Software	AUDIX	E3	Version: 6.110919b		

6 Test Results

6.1 EMI (Emission)

6.1.1 Radiated Emission

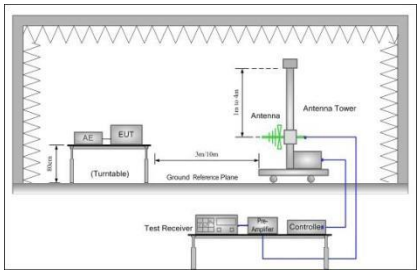
Test Requirement:	EN 55032				
Test Method:	EN 55032				
Test Frequency Range:	30MHz to 6GHz				
Test Distance:	3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	100kHz	300kHz	QP Value
	Above 1GHz	Peak	1MHz	3MHz	PK Value
		Average	1MHz	3MHz	AV Value

ITE Limit:	Frequency	Limit (dBuV/m @3m)	Remark
	30MHz-230MHz	40.0	QP Value
	230MHz-1GHz	47.0	QP Value
	1GHz-3GHz	50.0	AV Value
		70.0	PK Value
	3GHz-6GHz	54.0	AV Value
		74.0	PK Value

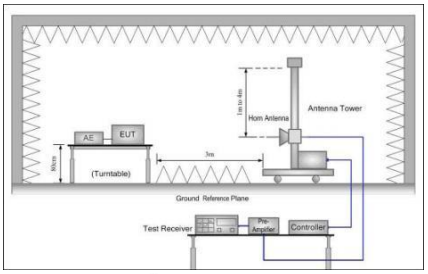
FM Receiver limit:	Frequency	Limit (dBuV/m @3m)		Remark
		Fundamental	Harmonics	
	30MHz-230MHz	60	52	QP Value
	230MHz-300MHz		52	QP Value
	300MHz-1000MHz		56	QP Value

Test setup:

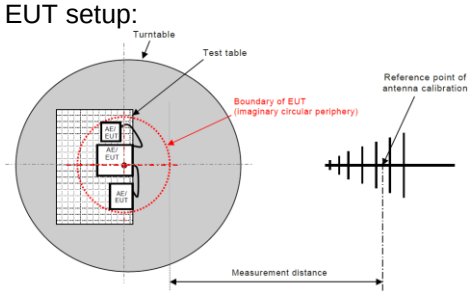
Below 1GHz:

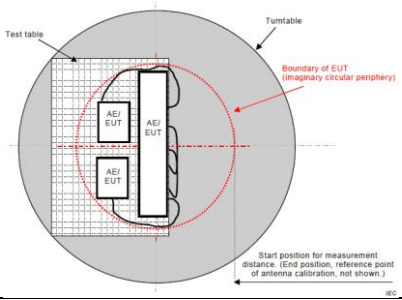


Above 1GHz:



EUT setup:





Test Procedure:

30MHz to 1GHz:

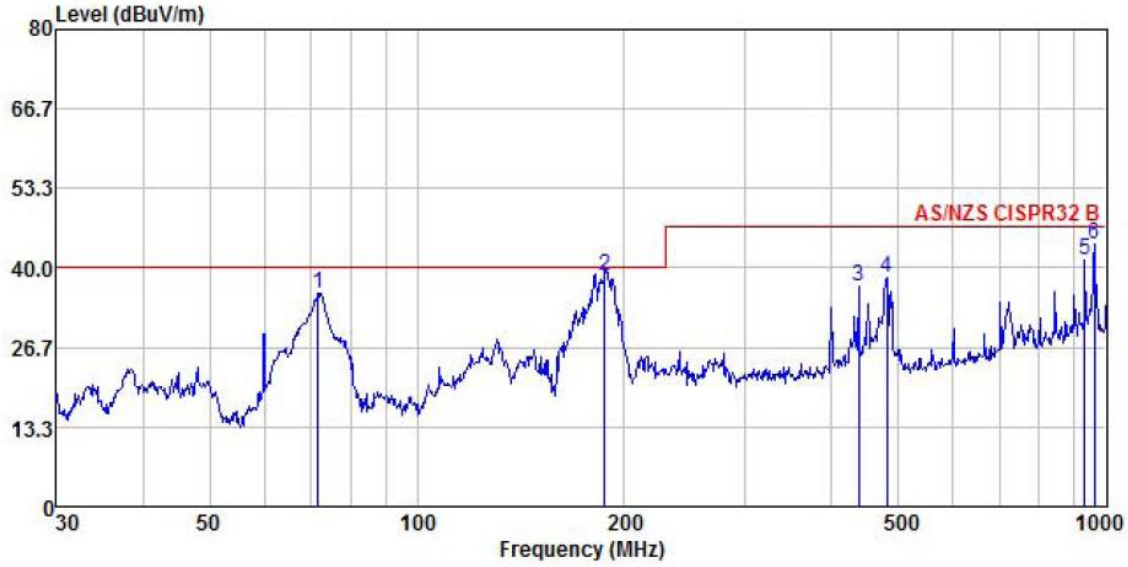
1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. The table top EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
3. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
4. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters

	in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization. **Above 1GHz:** 1. The radiated emissions test was conducted in a fully-anechoic chamber. 2. The table top EUT was placed upon anon-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation. 3. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emission spectrum plots of the EUT. 4. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

Below 1GHz:

Product Name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	**Product Model:**	HNTIN-868-G
Test By:	Yaro	**Test mode:**	Working mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Vertical
Test Voltage:	AC 230/50Hz	**Environment:**	Temp: 24℃ Huni: 57%



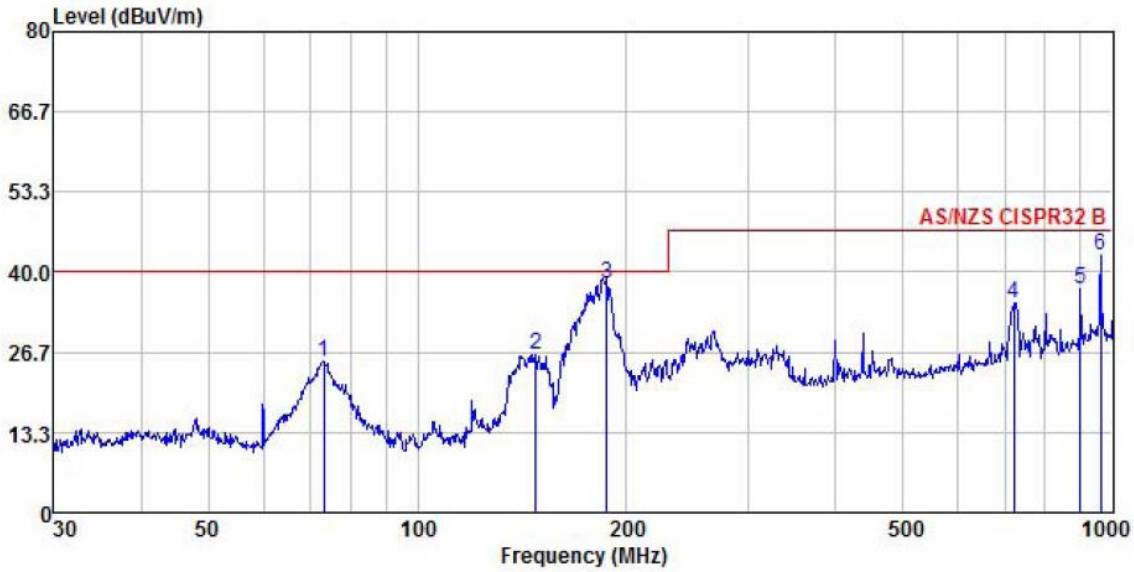
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	71.832	54.27	10.62	0.66	29.71	35.84	40.00	-4.16	QP
2	187.096	48.85	17.29	1.34	28.92	38.56	40.00	-1.44	QP
3	437.120	44.44	19.18	2.14	28.85	36.91	47.00	-10.09	QP
4	480.528	45.53	19.33	2.31	28.92	38.25	47.00	-8.75	QP
5	932.272	42.86	22.73	3.43	27.78	41.24	47.00	-5.76	QP
6	962.162	45.34	22.88	3.53	27.65	44.10	47.00	-2.90	QP

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.

2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	Product Model:	HNTIN-868-G
Test By:	Yaro	Test mode:	Working mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 230/50Hz	Environment:	Temp: 24℃ Huni: 57%



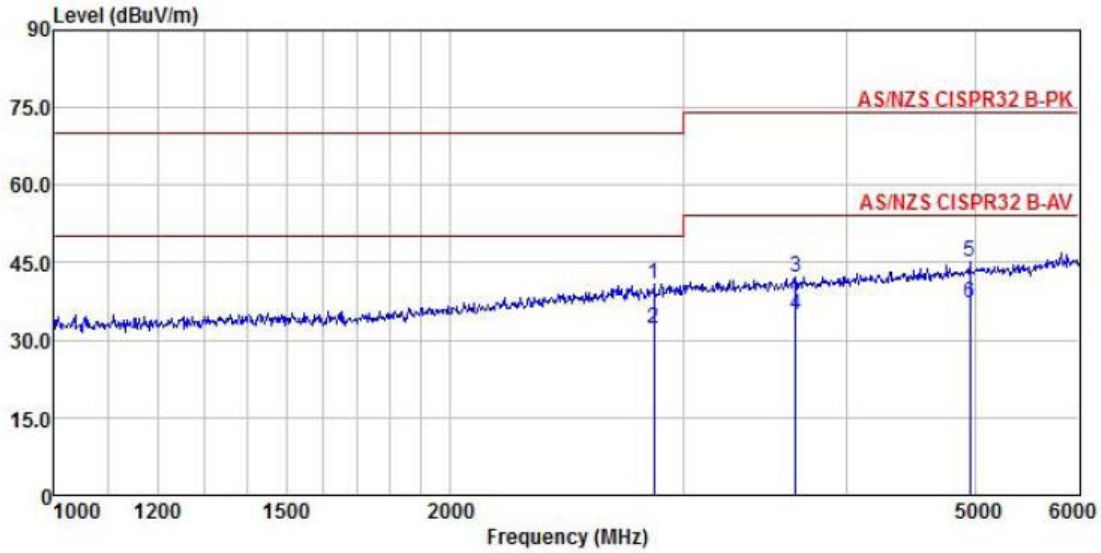
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	73.359	43.10	11.06	0.66	29.69	25.13	40.00	-14.87	QP
2	147.921	40.47	14.14	1.02	29.23	26.40	40.00	-13.60	QP
3	187.096	48.27	17.29	1.34	28.92	37.98	40.00	-2.02	QP
4	721.726	40.04	20.55	2.90	28.58	34.91	47.00	-12.09	QP
5	900.147	39.09	22.60	3.36	27.88	37.17	47.00	-9.83	QP
6	962.162	43.93	22.88	3.53	27.65	42.69	47.00	-4.31	QP

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Above 1GHz:

Product Name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	**Product Model:**	HNTIN-868-G
Test By:	Yaro	**Test mode:**	Working mode
Test Frequency:	1 GHz ~ 6 GHz	**Polarization:**	Vertical
Test Voltage:	AC 230/50Hz	**Environment:**	Temp: 24℃ Huni: 57%

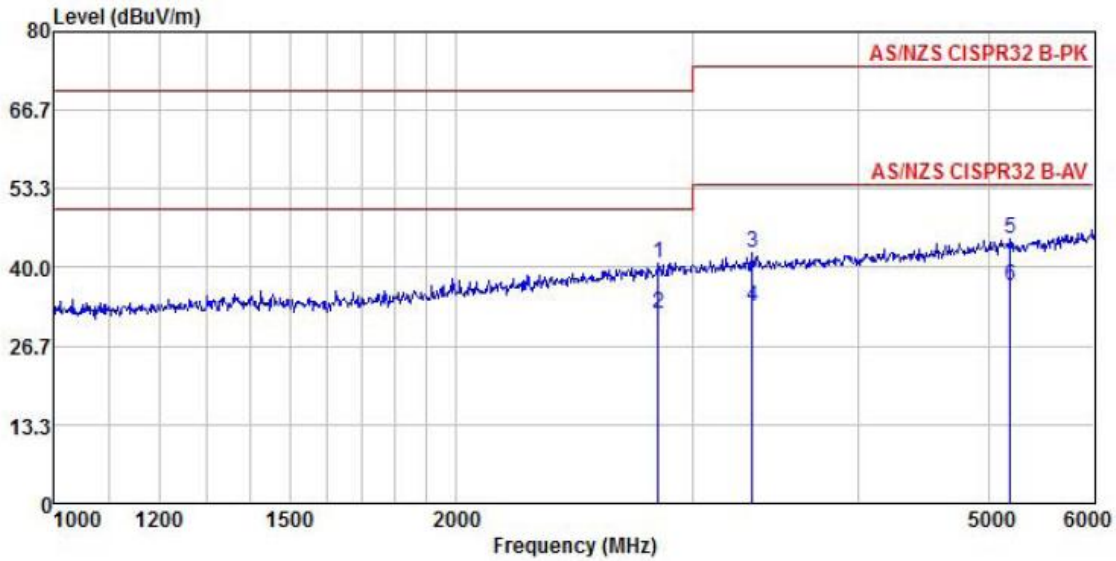


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2852.453	58.99	28.10	8.37	54.57	40.89	70.00	-29.11	Peak
2	2852.453	50.16	28.10	8.37	54.57	32.06	50.00	-17.94	Average
3	3652.610	58.40	28.89	9.39	54.47	42.21	74.00	-31.79	Peak
4	3652.610	50.98	28.89	9.39	54.47	34.79	54.00	-19.21	Average
5	4953.236	57.54	31.11	10.91	54.29	45.27	74.00	-28.73	Peak
6	4953.236	49.51	31.11	10.91	54.29	37.24	54.00	-16.76	Average

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Product Name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	Product Model:	HNTIN-868-G
Test By:	Yaro	Test mode:	Working mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Horizontal
Test Voltage:	AC 230/50Hz	Environment:	Temp: 24℃ Huni: 57%

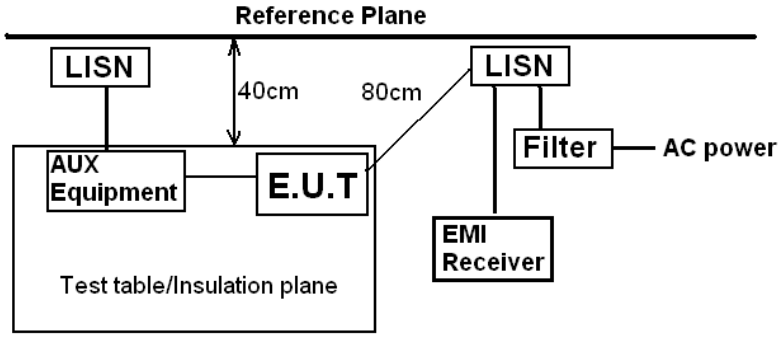


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2832.082	59.05	28.05	8.35	54.58	40.87	70.00	-29.13	Peak
2	2832.082	50.34	28.05	8.35	54.58	32.16	50.00	-17.84	Average
3	3327.664	59.30	28.60	9.00	54.51	42.39	74.00	-31.61	Peak
4	3327.664	50.22	28.60	9.00	54.51	33.31	54.00	-20.69	Average
5	5189.446	56.63	31.63	10.83	54.30	44.79	74.00	-29.21	Peak
6	5189.446	48.71	31.63	10.83	54.30	36.87	54.00	-17.13	Average

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

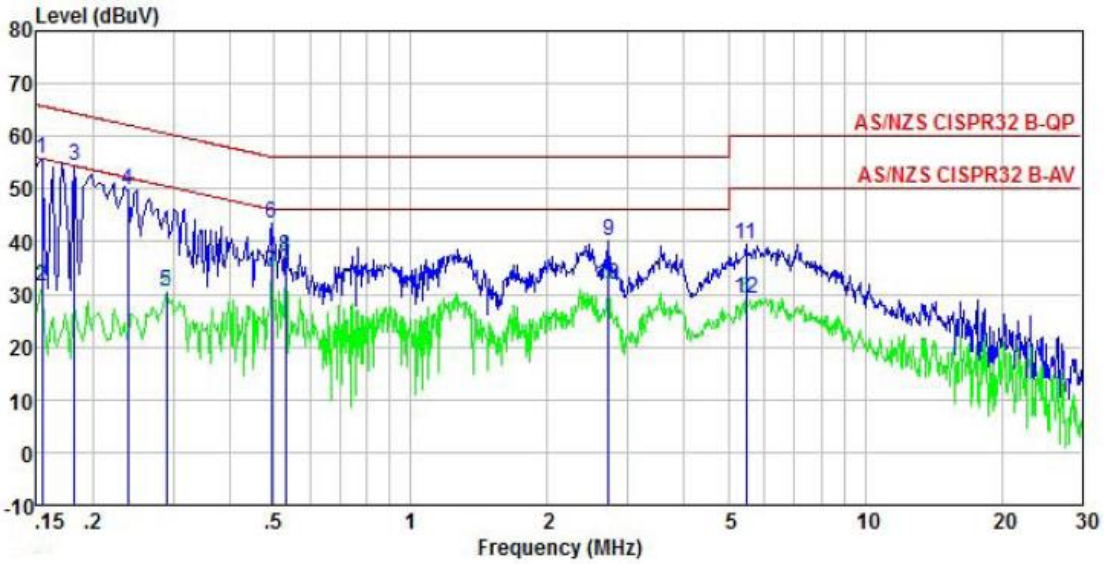
6.1.2 Conducted Emission

<table>
<tr><td>Test Requirement:</td><td colspan="3">EN 55032</td></tr>
<tr><td>Test Method:</td><td colspan="3">EN 55032</td></tr>
<tr><td>Test Frequency Range:</td><td colspan="3">150kHz to 30MHz</td></tr>
<tr><td>Class / Severity:</td><td colspan="3">Class B</td></tr>
<tr><td>Receiver setup:</td><td colspan="3">RBW = 9kHz, VBW = 30kHz</td></tr>
<tr><td>Limit:</td><td rowspan="2">Frequency range (MHz)</td><td colspan="2">Limit (dBuV)</td></tr>
<tr><td></td><td>Quasi-peak</td><td>Average</td></tr>
<tr><td></td><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td></td><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td></td><td>5-30</td><td>60</td><td>50</td></tr>
<tr><td></td><td colspan="3">* Decreases with the logarithm of the frequency.</td></tr>
<tr><td>Test setup:</td><td colspan="3"> 

Remark:
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m</td></tr>
<tr><td>Test procedure</td><td colspan="3">The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). Which provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 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 EN55032 Class B on conducted measurement.</td></tr>
<tr><td>Test Instruments:</td><td colspan="3">Refer to section 5.10 for details</td></tr>
<tr><td>Test mode:</td><td colspan="3">Refer to section 5.3 for details</td></tr>
<tr><td>Test results:</td><td colspan="3">Passed</td></tr>
</table>

Measurement Data:

Product name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	**Product model:**	HNTIN-868-G
Test by:	Yaro	**Test mode:**	Working mode
Test frequency:	150 kHz ~ 30 MHz	**Phase:**	Line
Test voltage:	AC 230 V/50 Hz	**Environment:**	Temp: 22.5℃ Huni: 55%

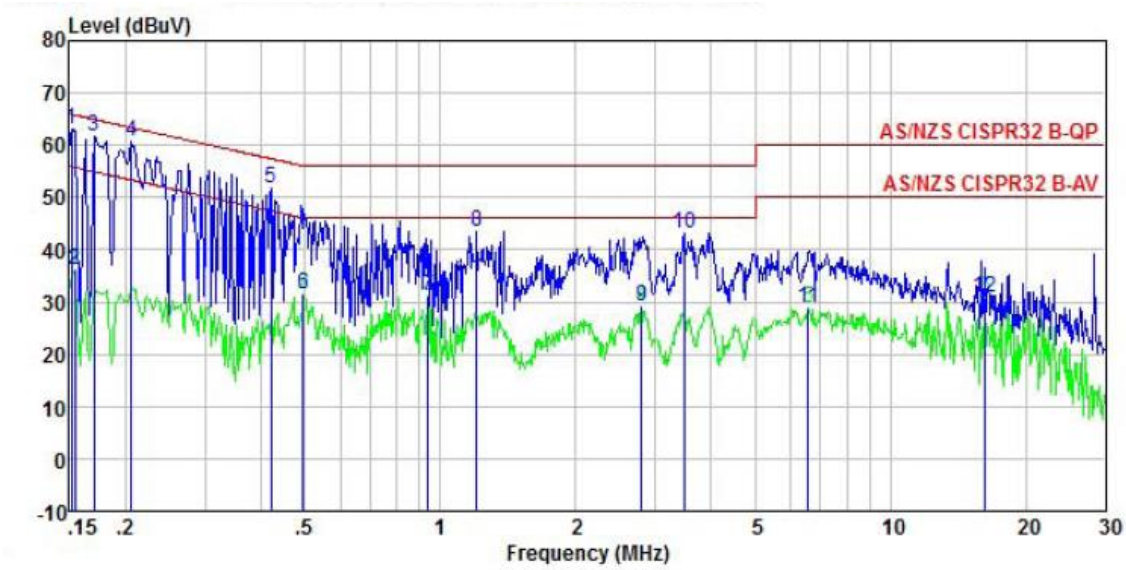


	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.154	45.66	10.12	0.01	0.01	55.80	65.78	-9.98	QP
2	0.154	21.30	10.12	0.01	0.01	31.44	55.78	-24.34	Average
3	0.182	44.39	10.13	0.00	0.01	54.53	64.42	-9.89	QP
4	0.238	39.50	10.17	0.00	0.02	49.69	62.17	-12.48	QP
5	0.289	20.22	10.20	0.01	0.03	30.46	50.54	-20.08	Average
6	0.494	33.11	10.34	0.03	0.03	43.51	56.10	-12.59	QP
7	0.494	23.84	10.34	0.03	0.03	34.24	46.10	-11.86	Average
8	0.529	26.77	10.35	0.03	0.03	37.18	46.00	-8.82	Average
9	2.721	29.33	10.57	0.28	0.10	40.28	56.00	-15.72	QP
10	2.721	20.76	10.57	0.28	0.10	31.71	46.00	-14.29	Average
11	5.476	28.01	10.68	0.71	0.09	39.49	60.00	-20.51	QP
12	5.476	17.86	10.68	0.71	0.09	29.34	50.00	-20.66	Average

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

Product name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	Product model:	HNTIN-868-G
Test by:	Yaro	Test mode:	Working mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 230 V/50 Hz	Environment:	Temp: 22.5℃ Huni: 55%

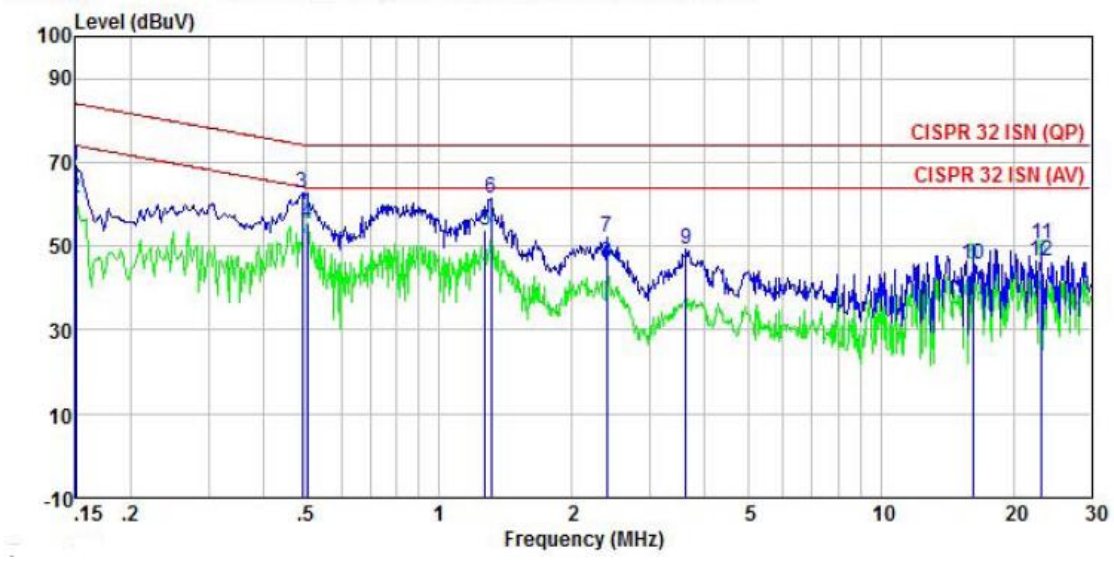


	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.152	53.10	9.89	0.01	0.01	63.01	65.91	-2.90	QP
2	0.154	26.11	9.89	0.01	0.01	36.02	55.78	-19.76	Average
3	0.170	51.94	9.90	0.01	0.01	61.86	64.94	-3.08	QP
4	0.206	50.86	9.93	0.00	0.04	60.83	63.36	-2.53	QP
5	0.421	41.69	10.14	-0.04	0.04	51.83	57.42	-5.59	QP
6	0.497	21.38	10.20	0.03	0.03	31.64	46.05	-14.41	Average
7	0.938	20.57	10.53	0.07	0.04	31.21	46.00	-14.79	Average
8	1.203	32.81	10.62	0.10	0.09	43.62	56.00	-12.38	QP
9	2.794	17.82	10.88	0.28	0.10	29.08	46.00	-16.92	Average
10	3.472	31.69	10.93	0.41	0.08	43.11	56.00	-12.89	QP
11	6.557	16.74	11.08	0.81	0.10	28.73	50.00	-21.27	Average
12	16.226	16.72	11.45	2.38	0.16	30.71	50.00	-19.29	Average

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

Product name:	Nebra Smart Indoor LoRa Gateway / Nebra HNT Indoor Hotspot Miner	Product model:	HNTIN-868-G
Test by:	Yaro	Test mode:	LAN mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	/
Test voltage:	AC 230 V/50 Hz	Environment:	Temp: 22.5℃ Huni: 55%



	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	0.150	58.99	9.95	0.00	0.01	68.95	84.00	-15.05	QP
2	0.150	51.58	9.95	0.00	0.01	61.54	74.00	-12.46	Average
3	0.489	53.04	9.69	0.00	0.03	62.76	74.19	-11.43	QP
4	0.502	45.46	9.69	0.00	0.03	55.18	64.00	-8.82	Average
5	1.269	44.19	9.58	0.00	0.10	53.87	64.00	-10.13	Average
6	1.310	51.83	9.59	0.00	0.11	61.53	74.00	-12.47	QP
7	2.396	42.25	9.65	0.00	0.15	52.05	74.00	-21.95	QP
8	2.396	36.07	9.65	0.00	0.15	45.87	64.00	-18.13	Average
9	3.623	39.50	9.66	0.00	0.08	49.24	74.00	-24.76	QP
10	16.226	35.82	9.81	0.00	0.16	45.79	64.00	-18.21	Average
11	23.140	40.60	9.76	0.00	0.17	50.53	74.00	-23.47	QP
12	23.140	36.63	9.76	0.00	0.17	46.56	64.00	-17.44	Average

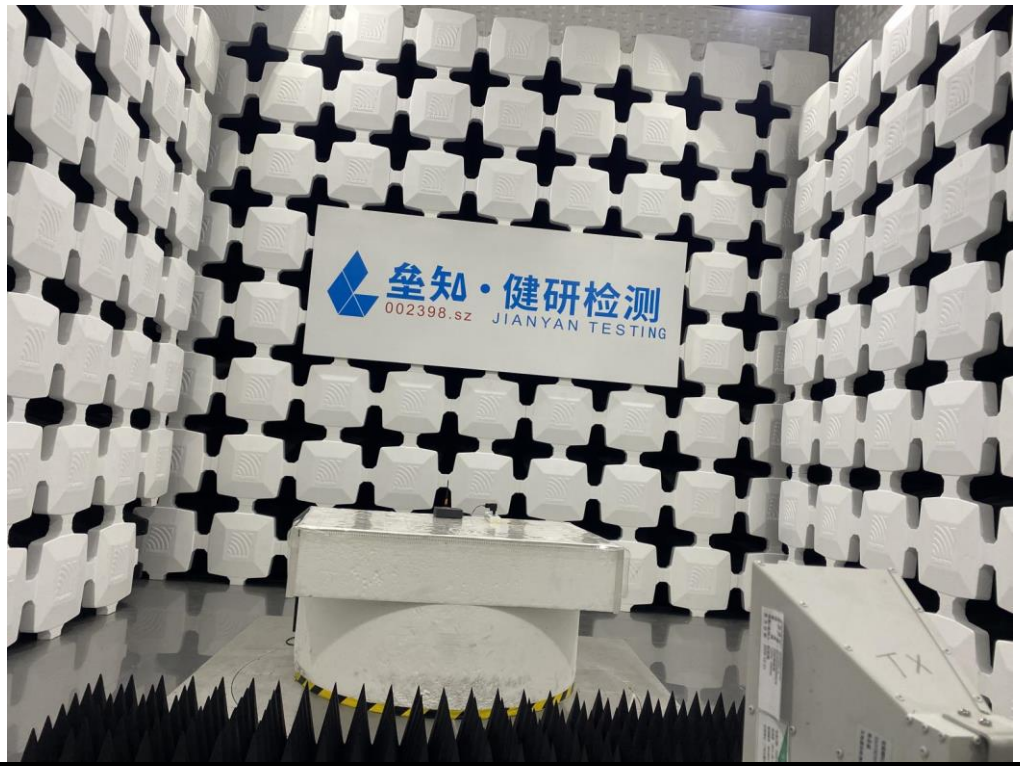
Notes:

4. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
5. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
6. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

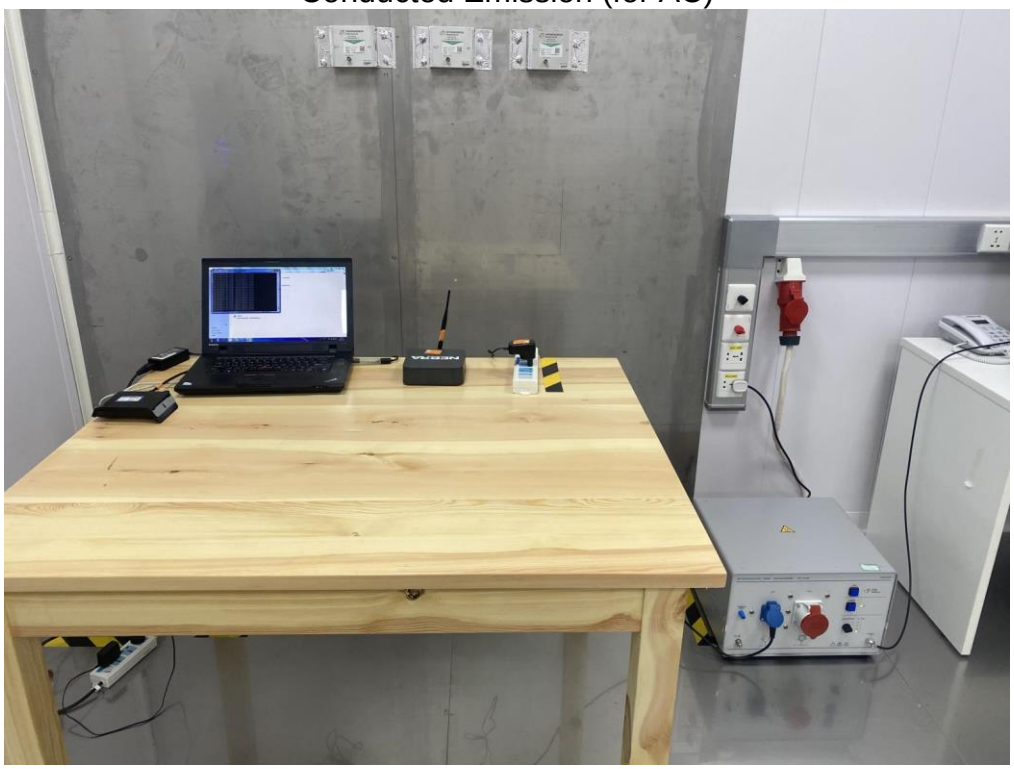
7 Test Setup Photo

Radiated Emission Below 1GHz

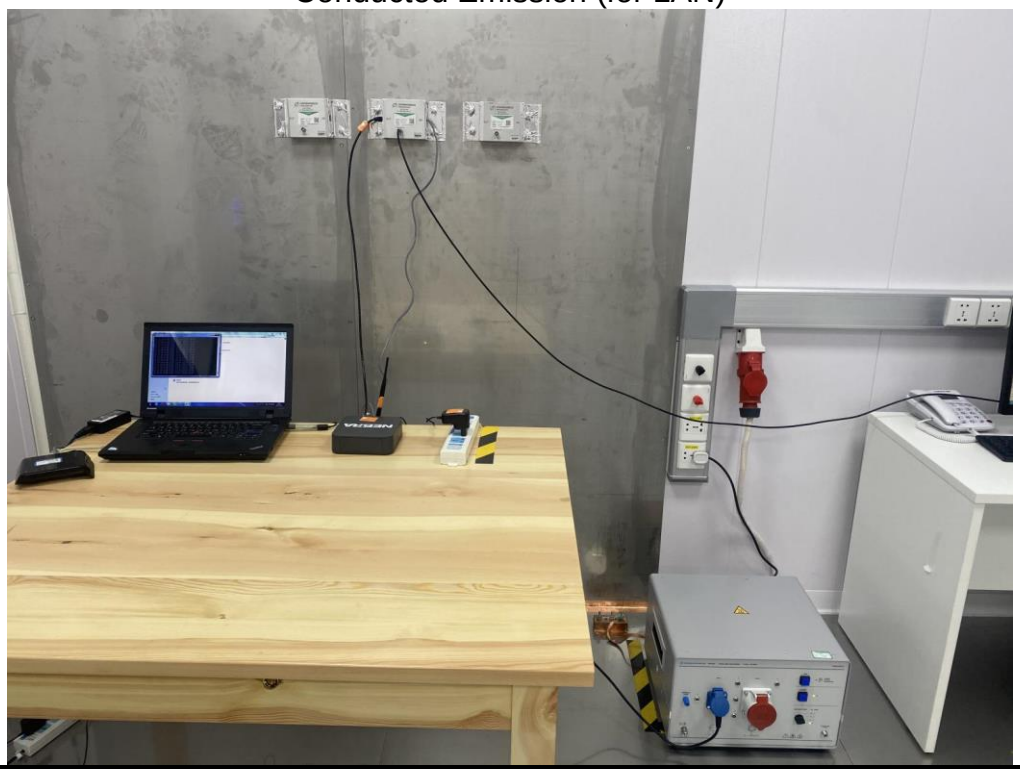
Radiated Emission Above 1GHz



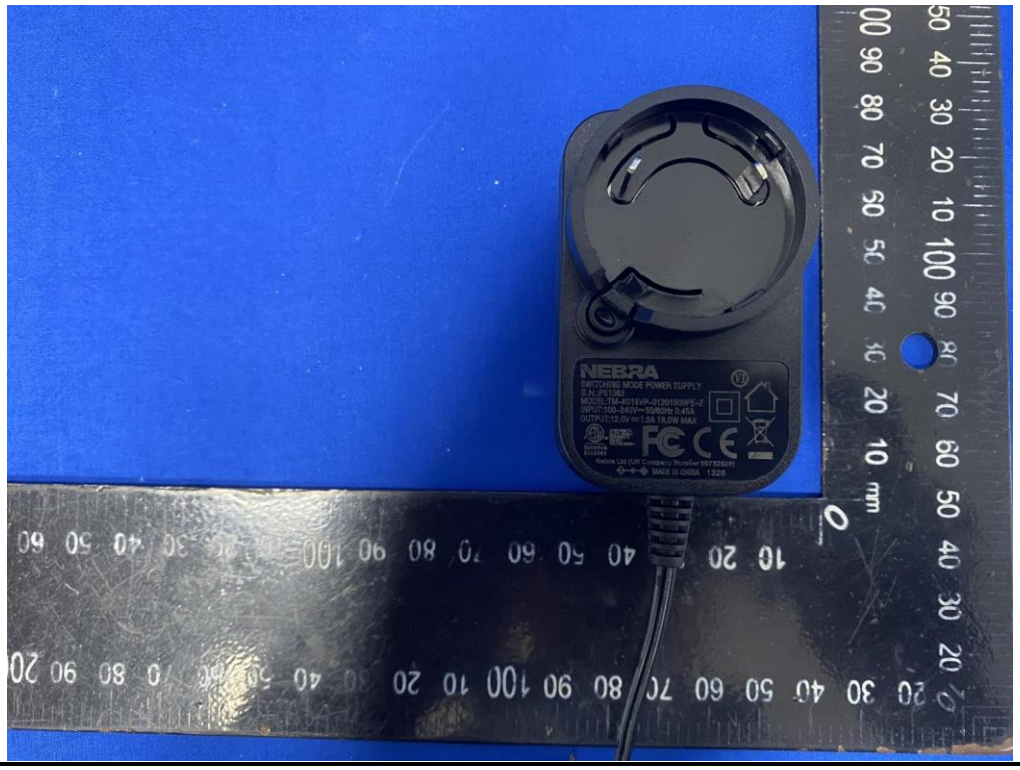
Conducted Emission (for AC)

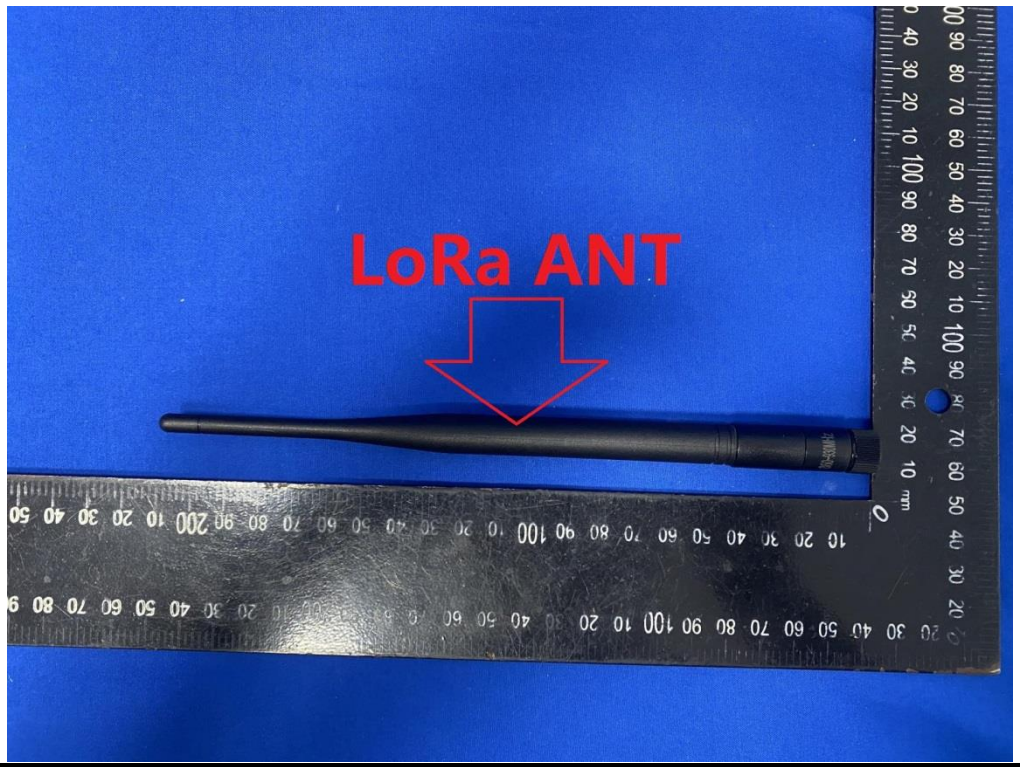


Conducted Emission (for LAN)



8 EUT Constructional Details

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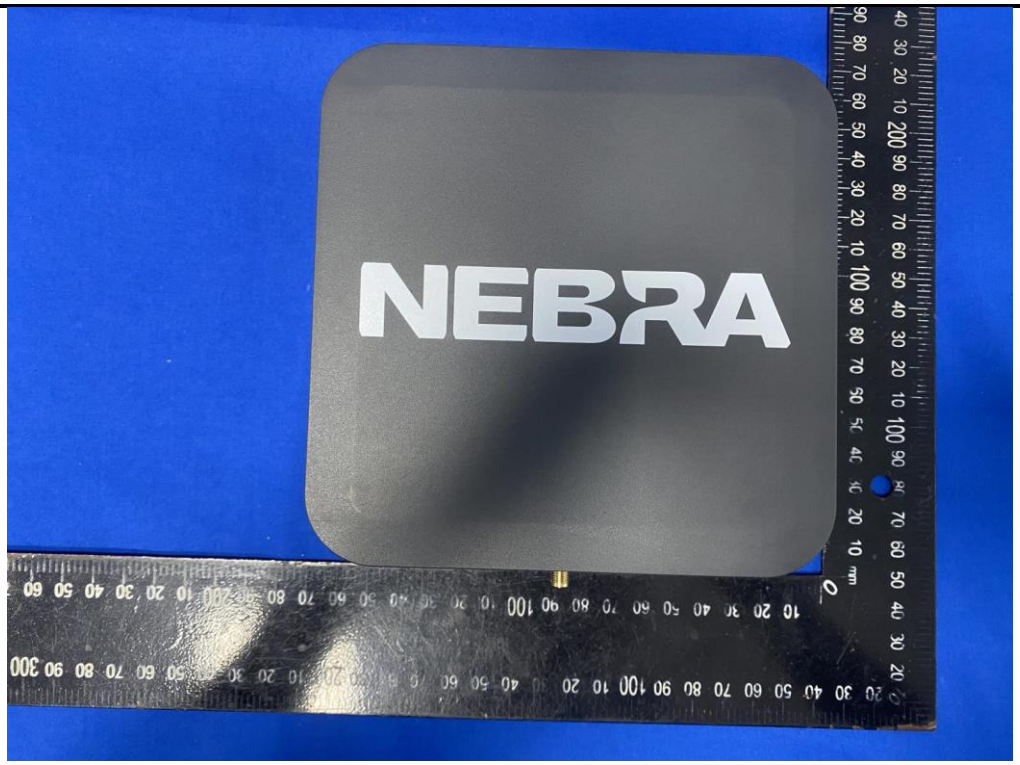
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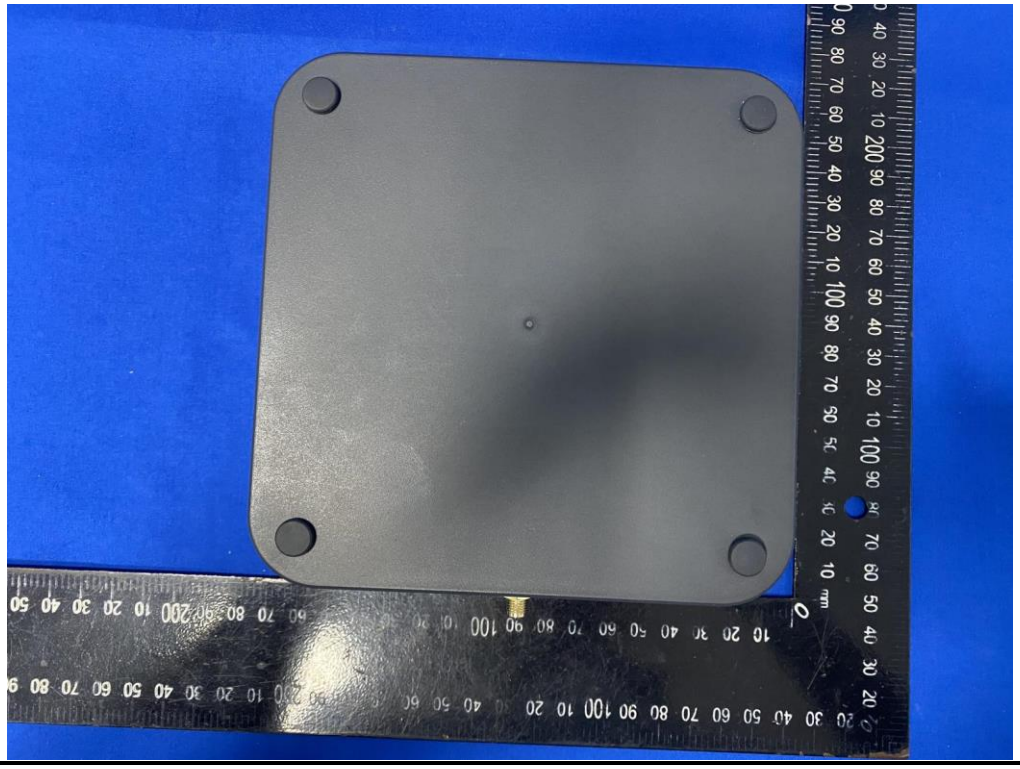


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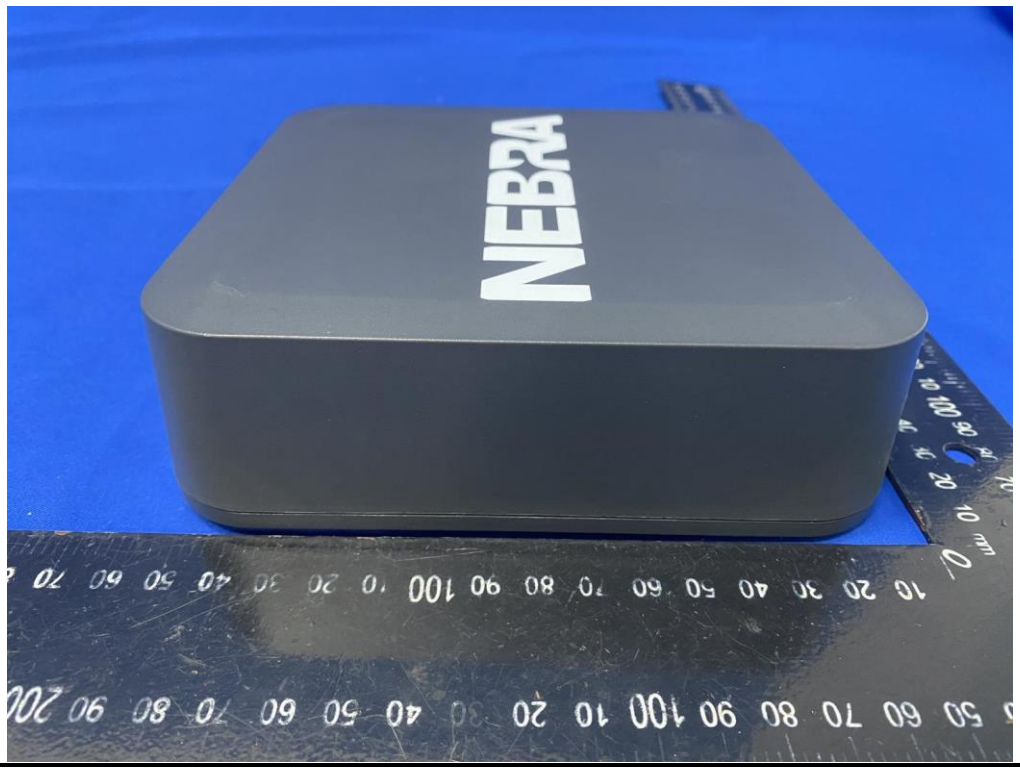
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NEBRA


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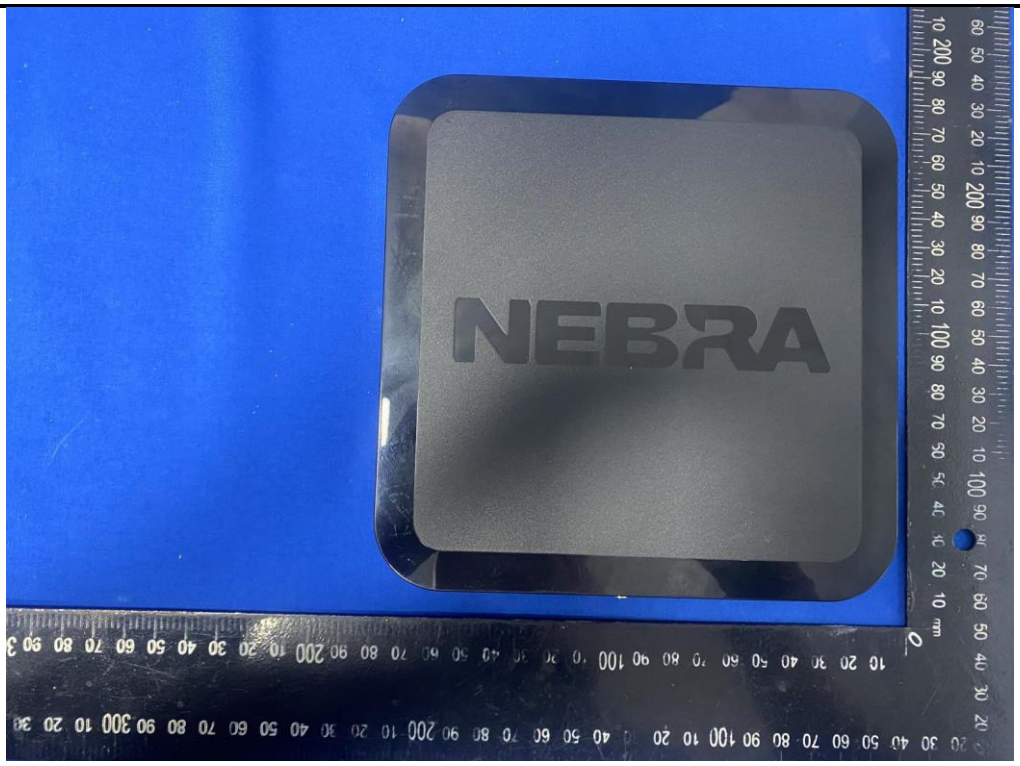
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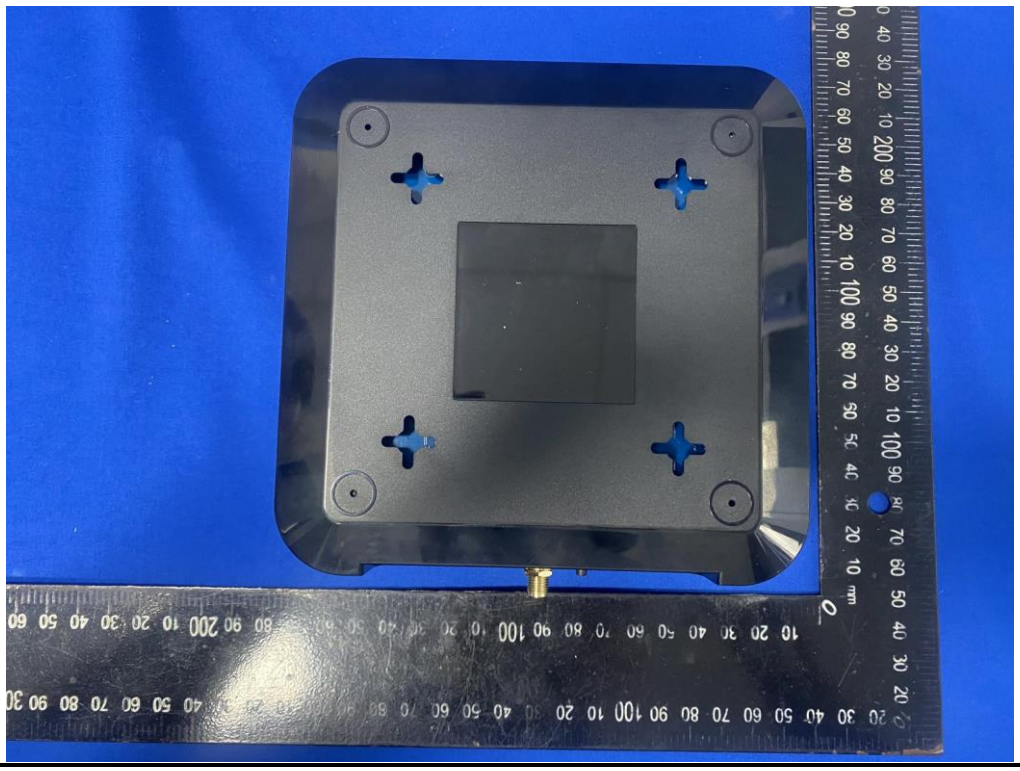


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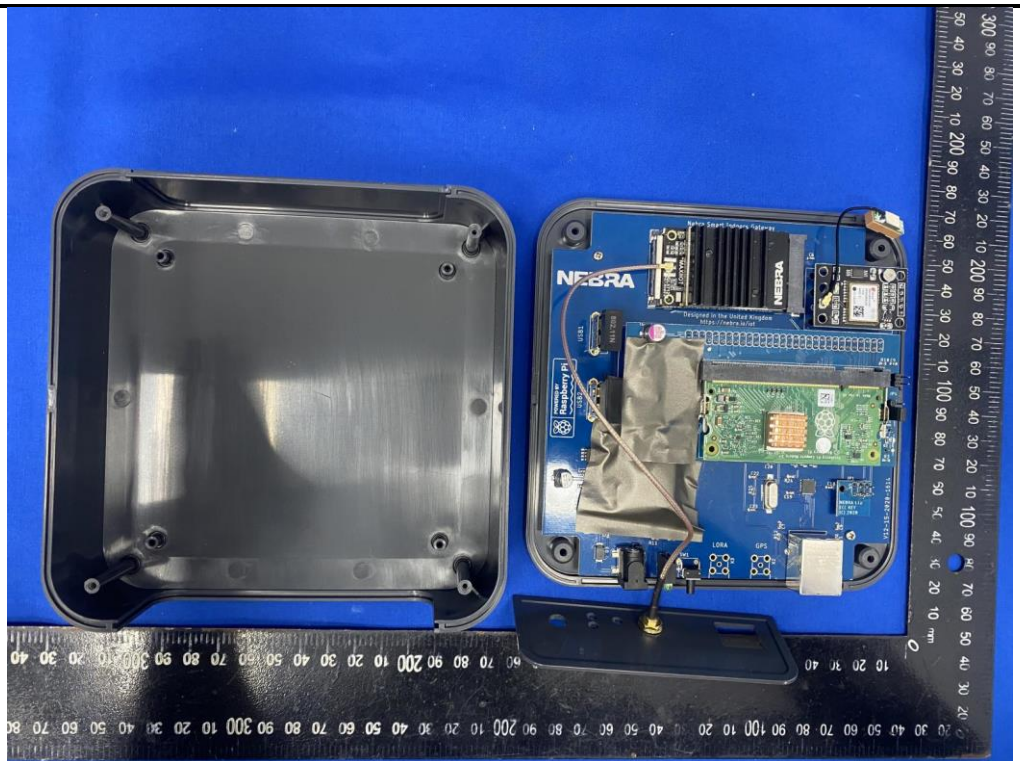
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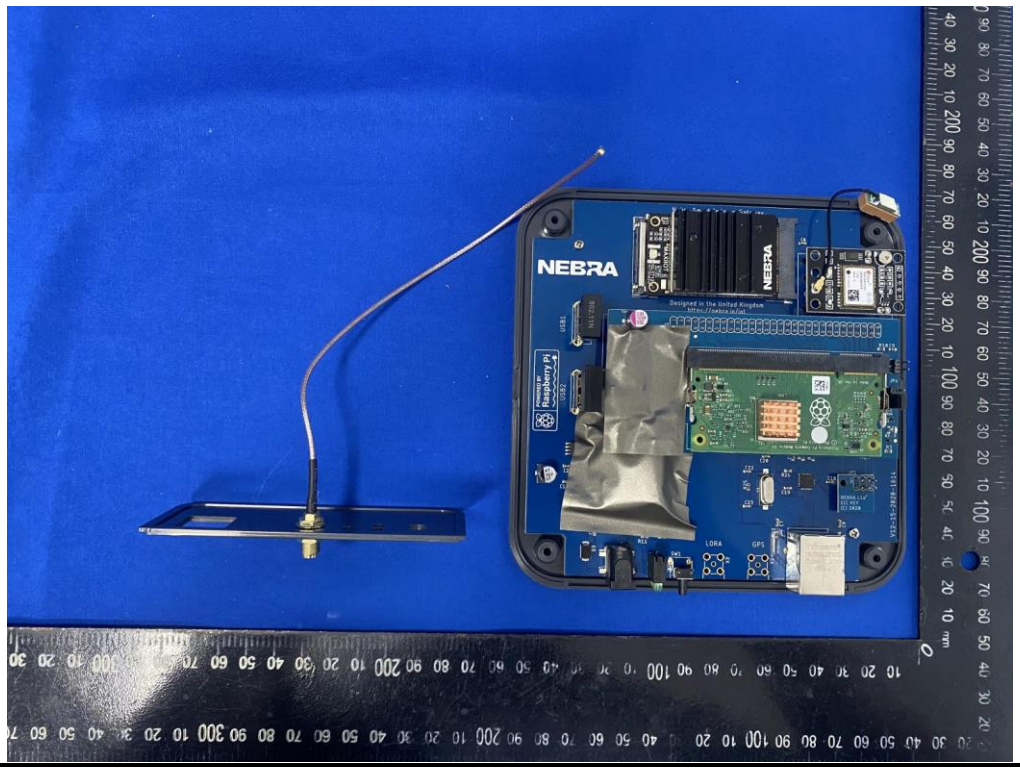
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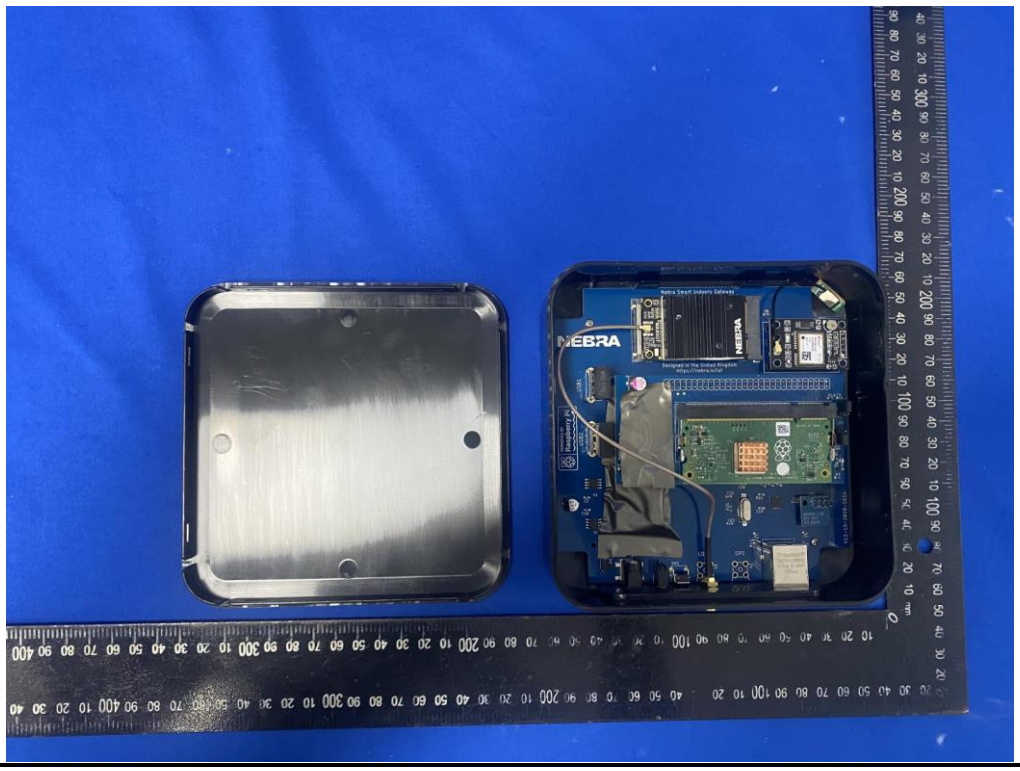
GPS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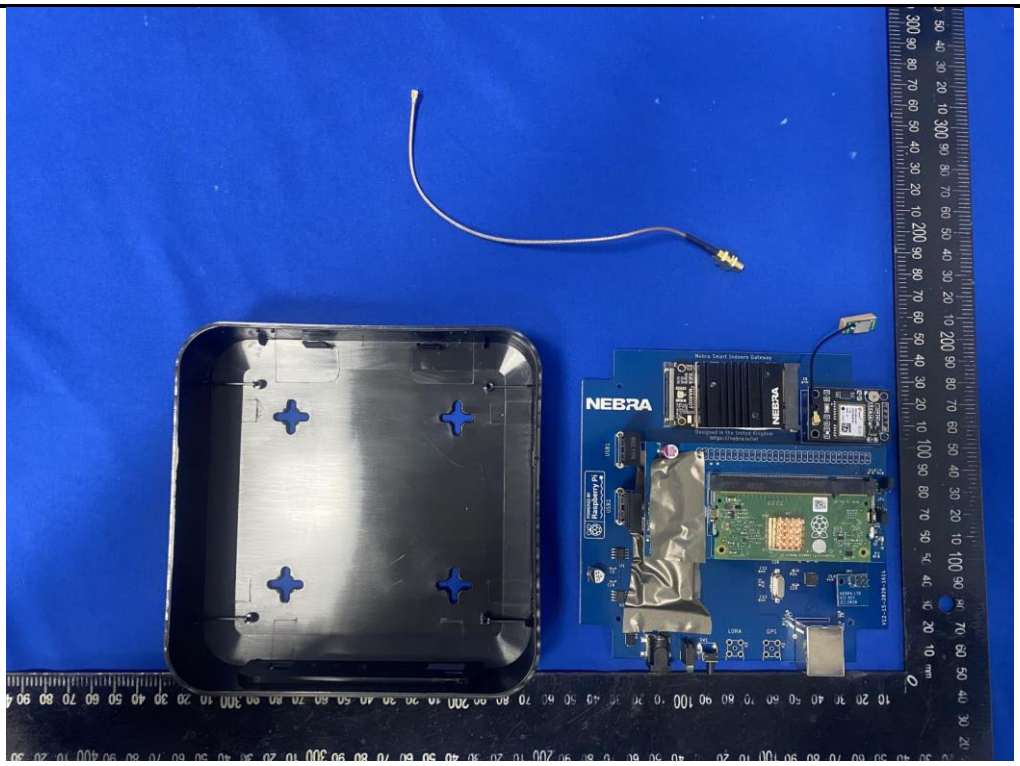
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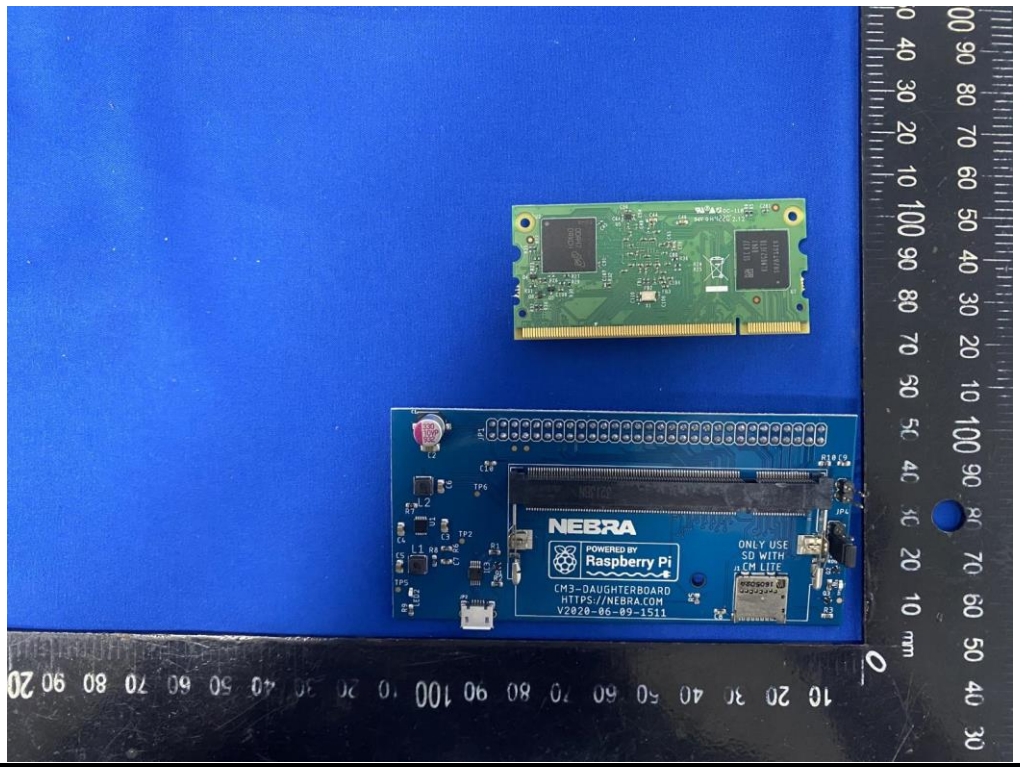
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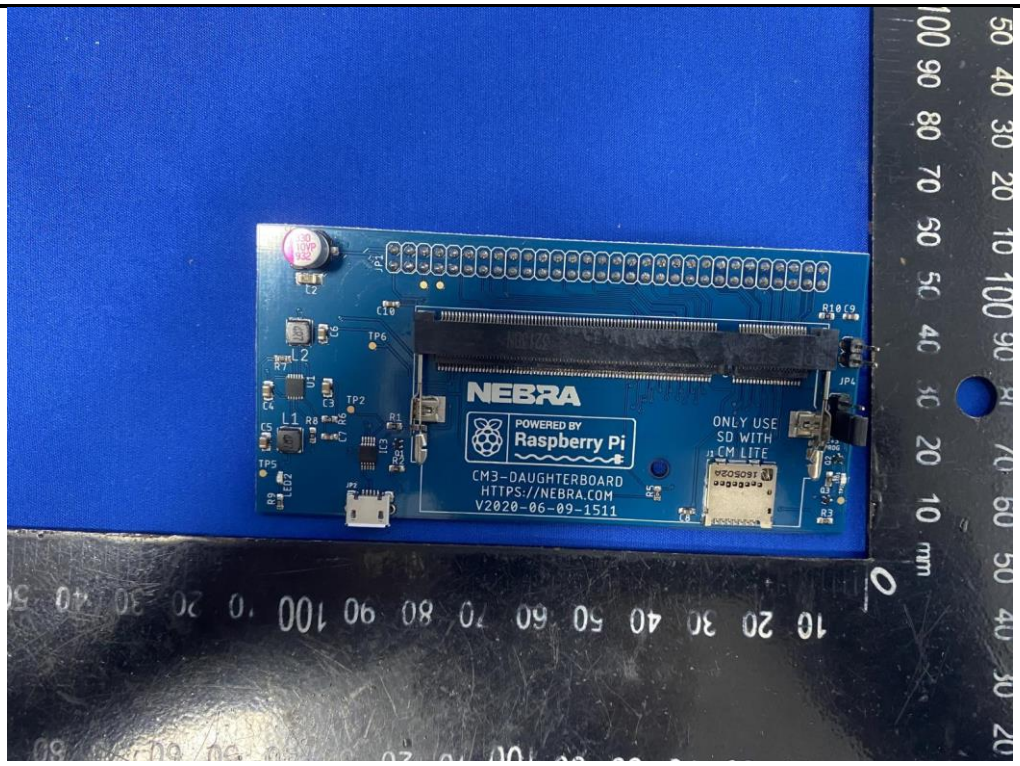
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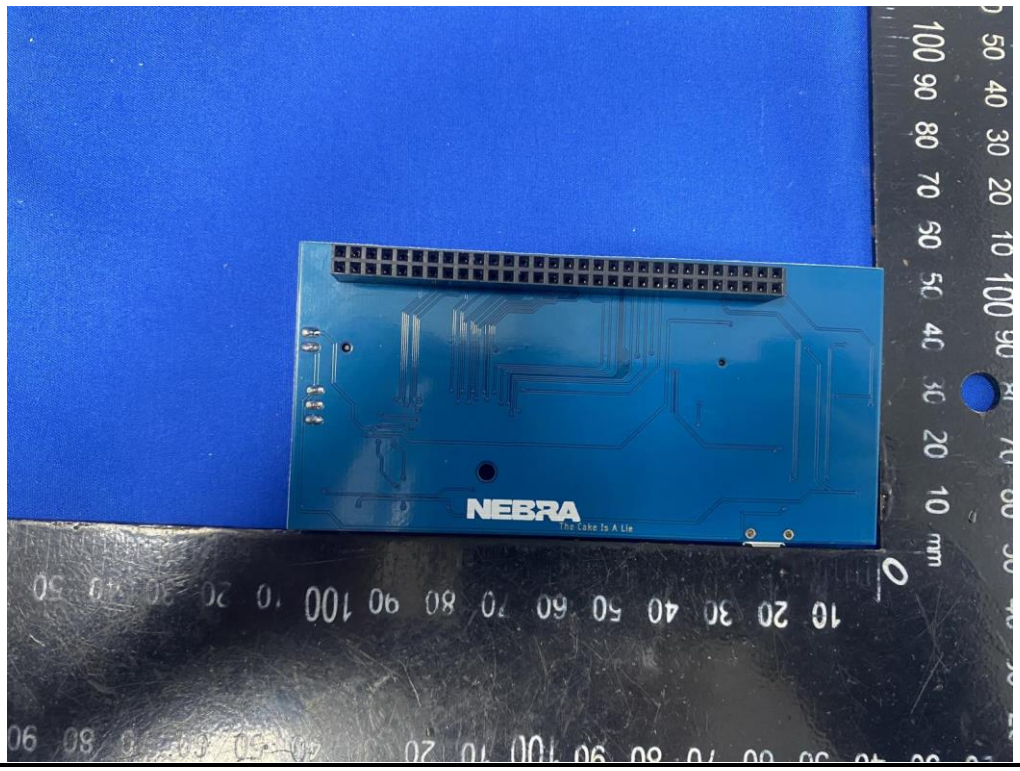
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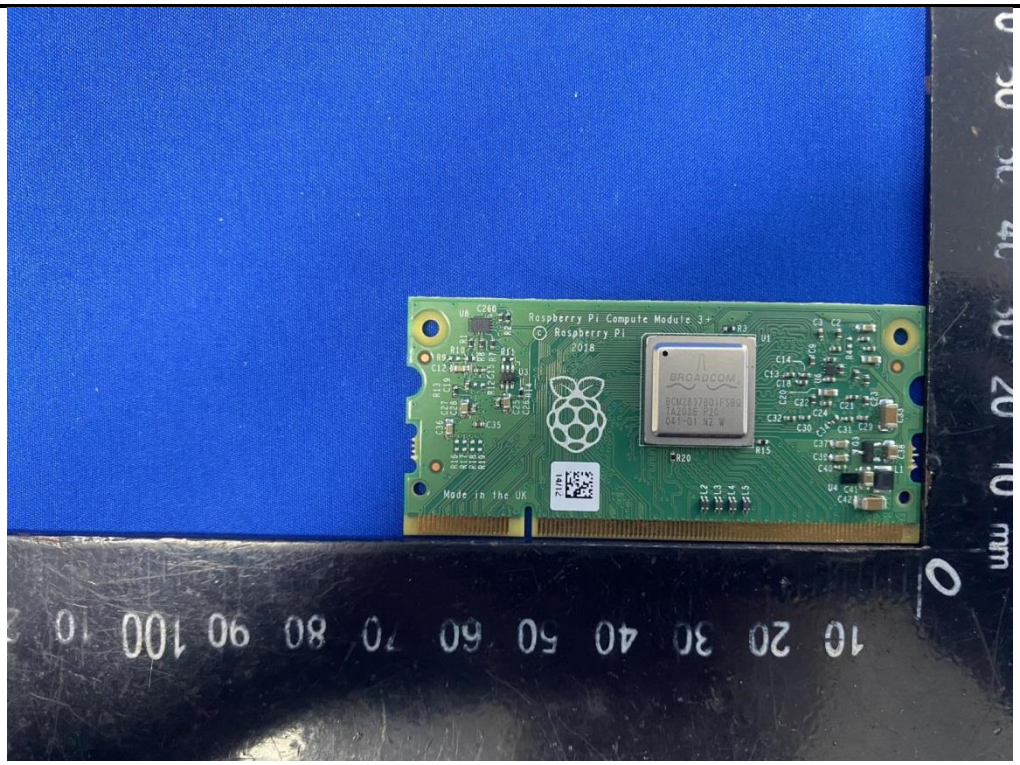
Raspberry Pi Compute Module 3+
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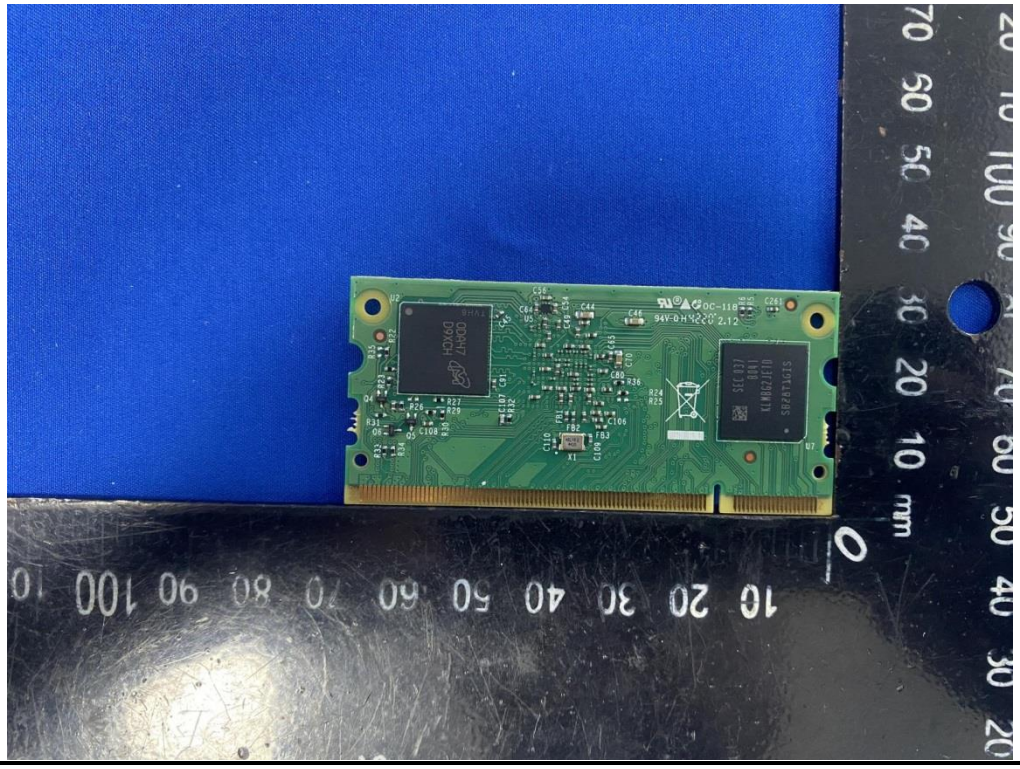

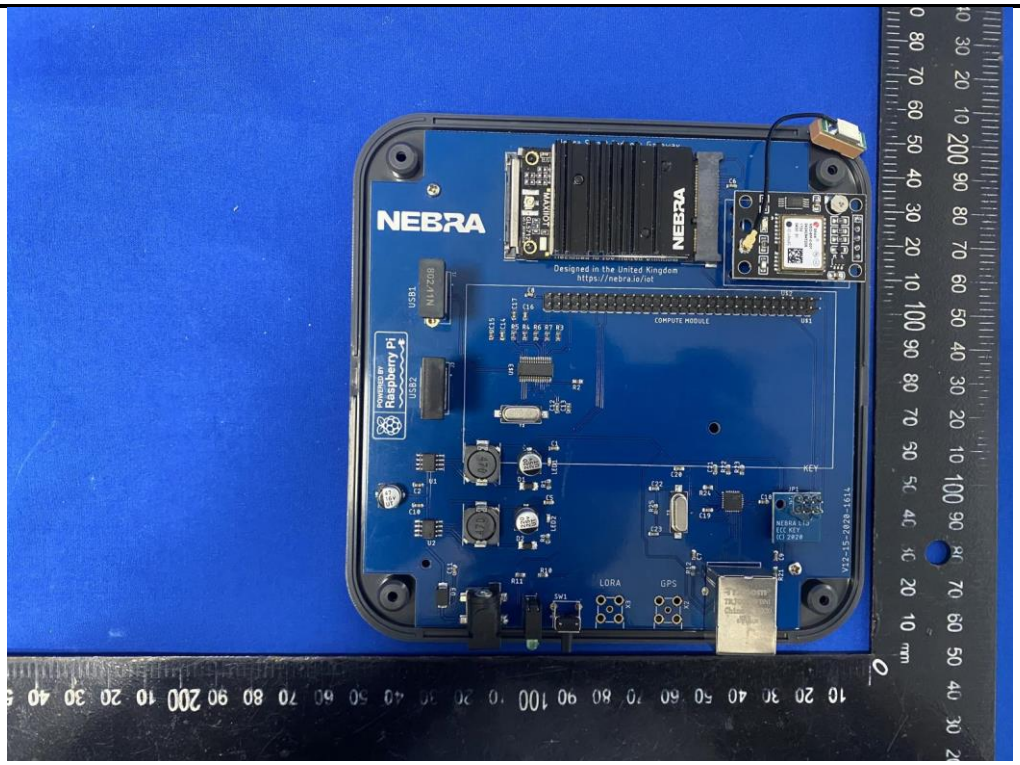
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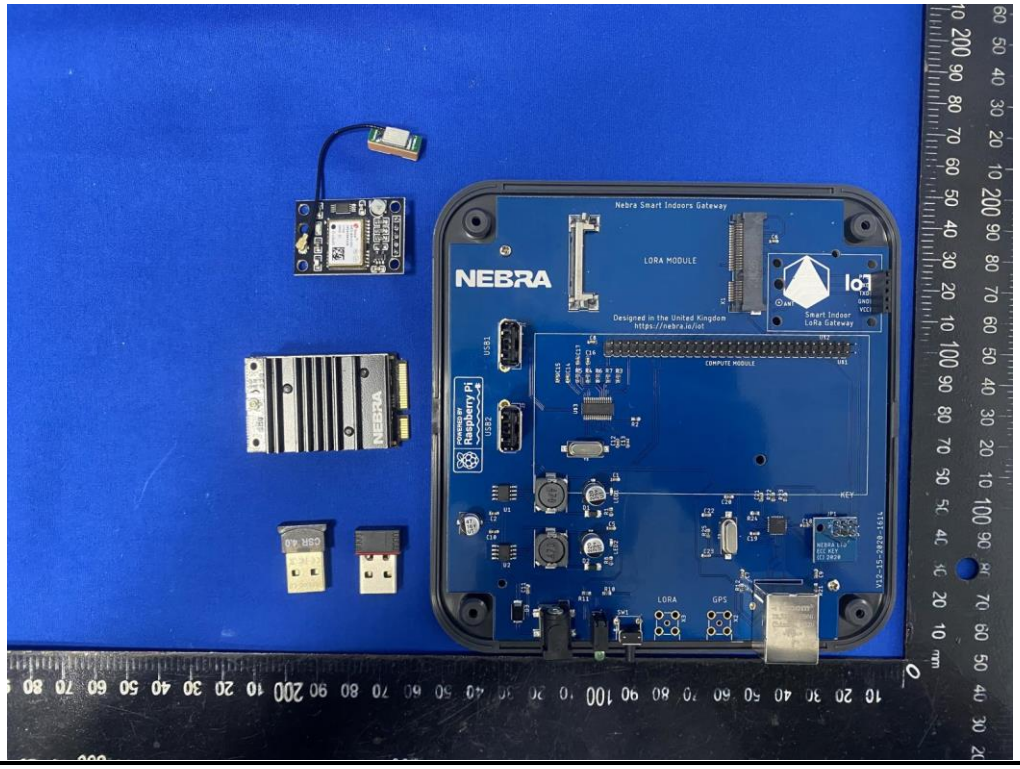
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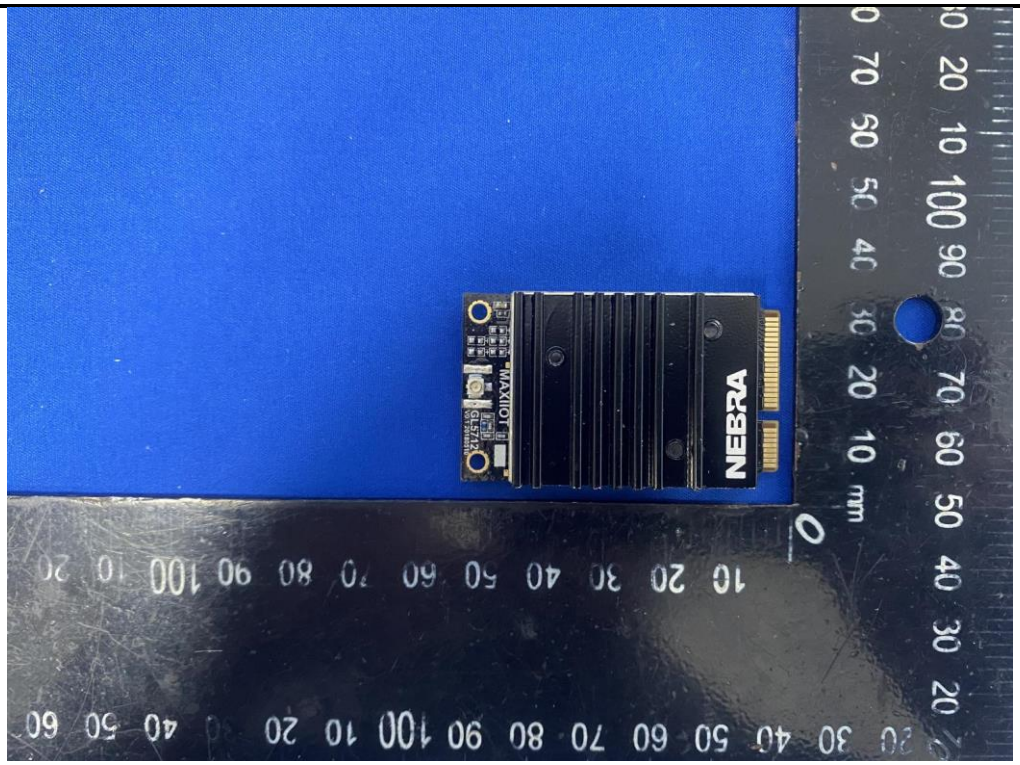
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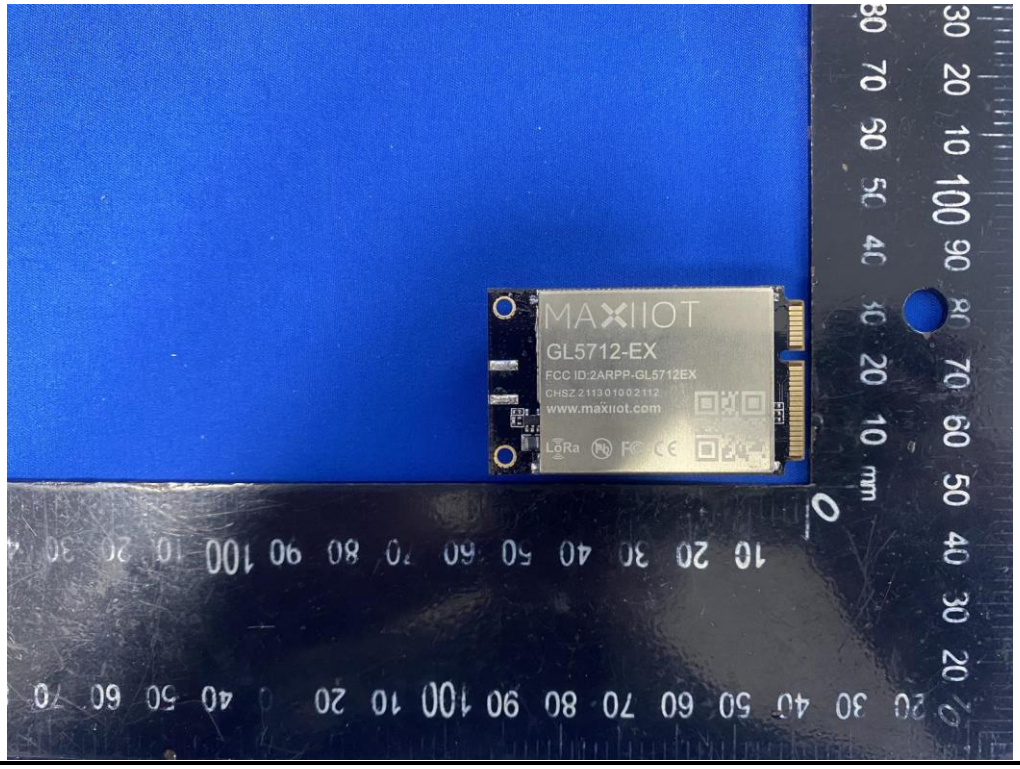
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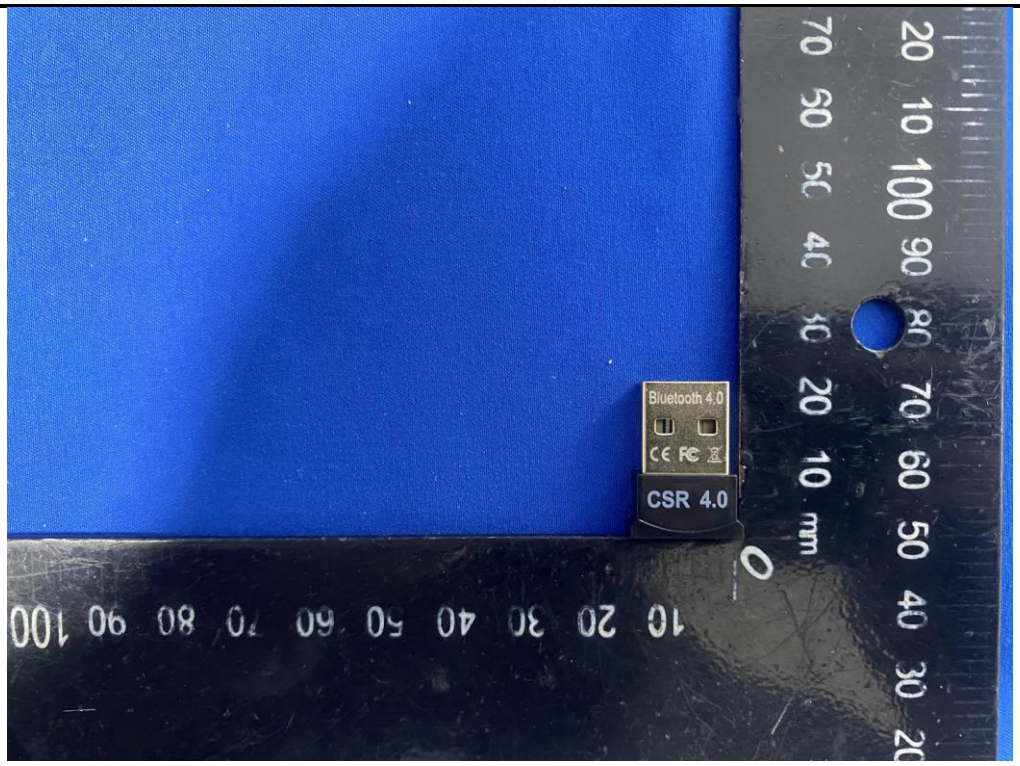
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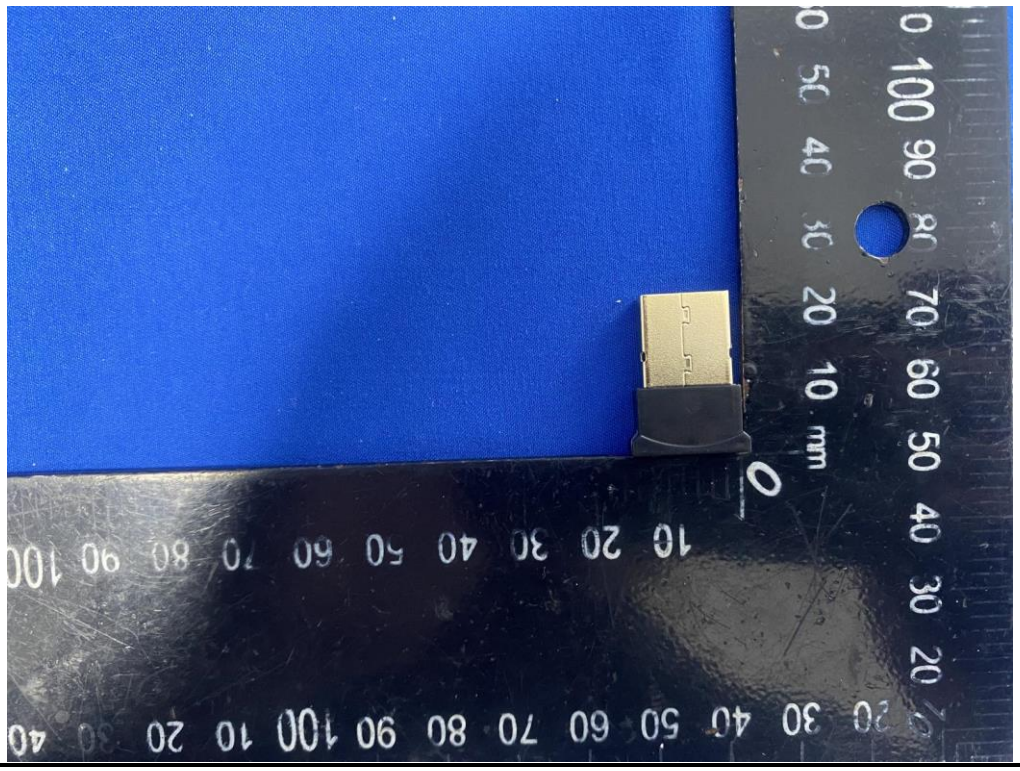

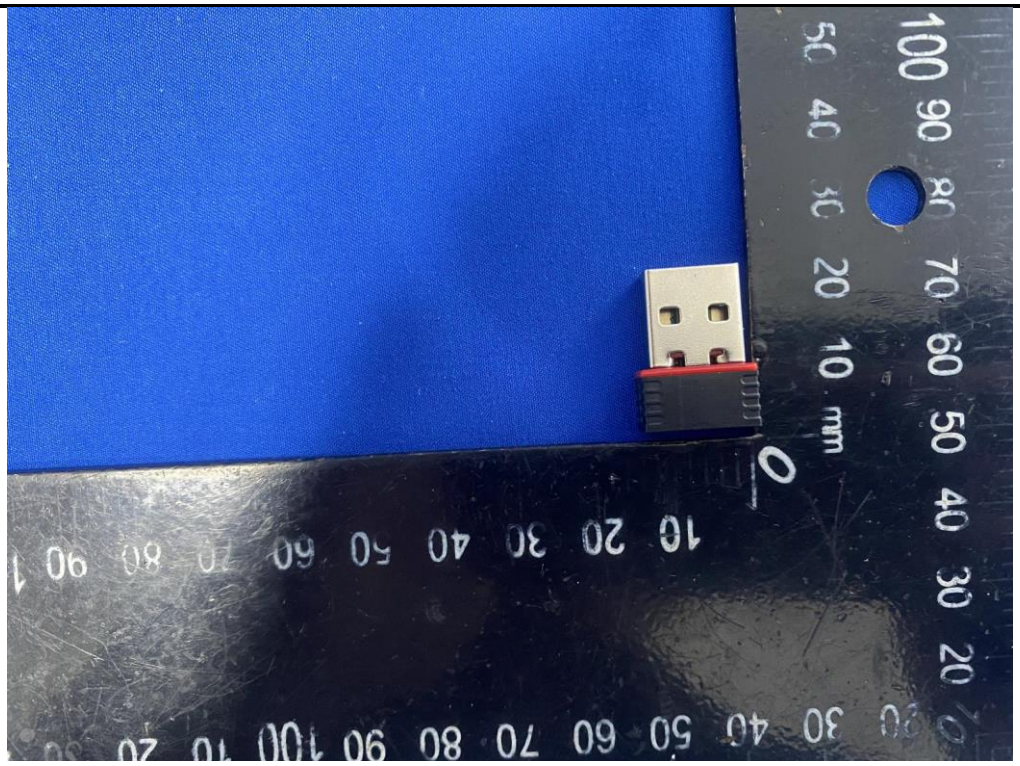

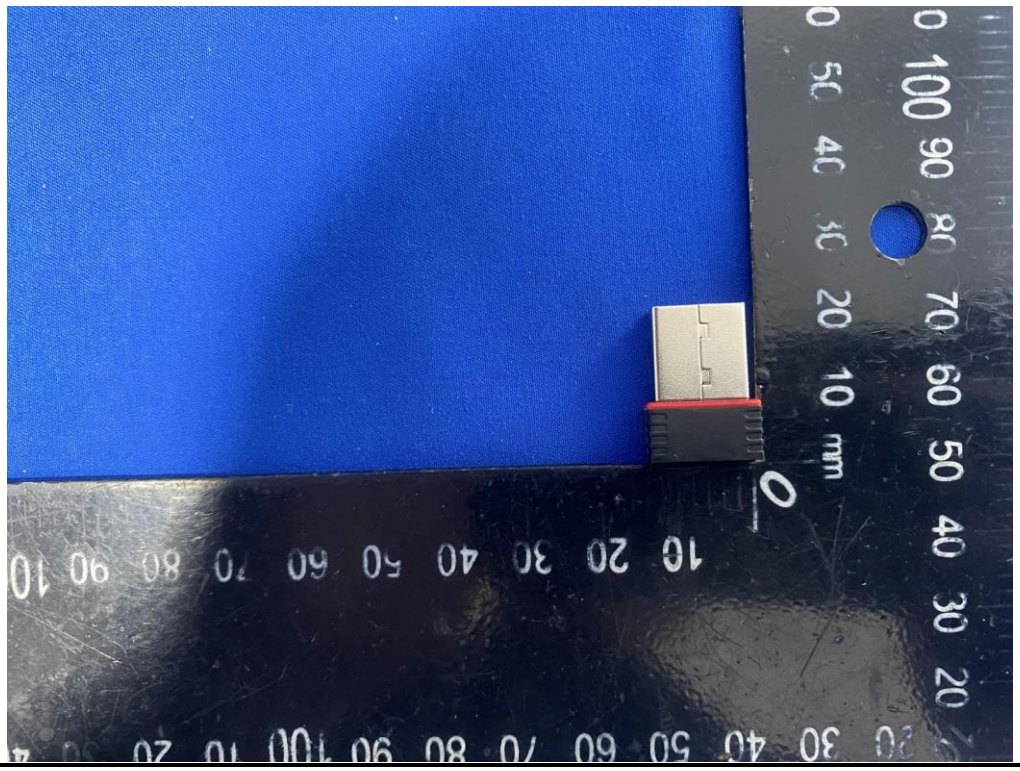

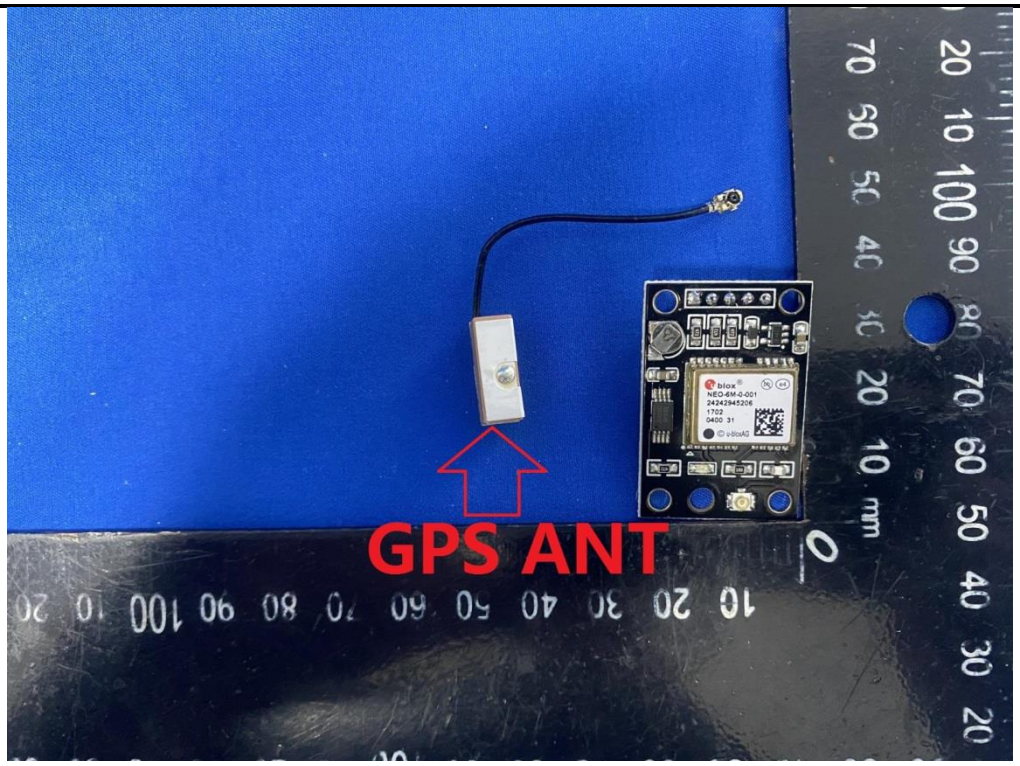
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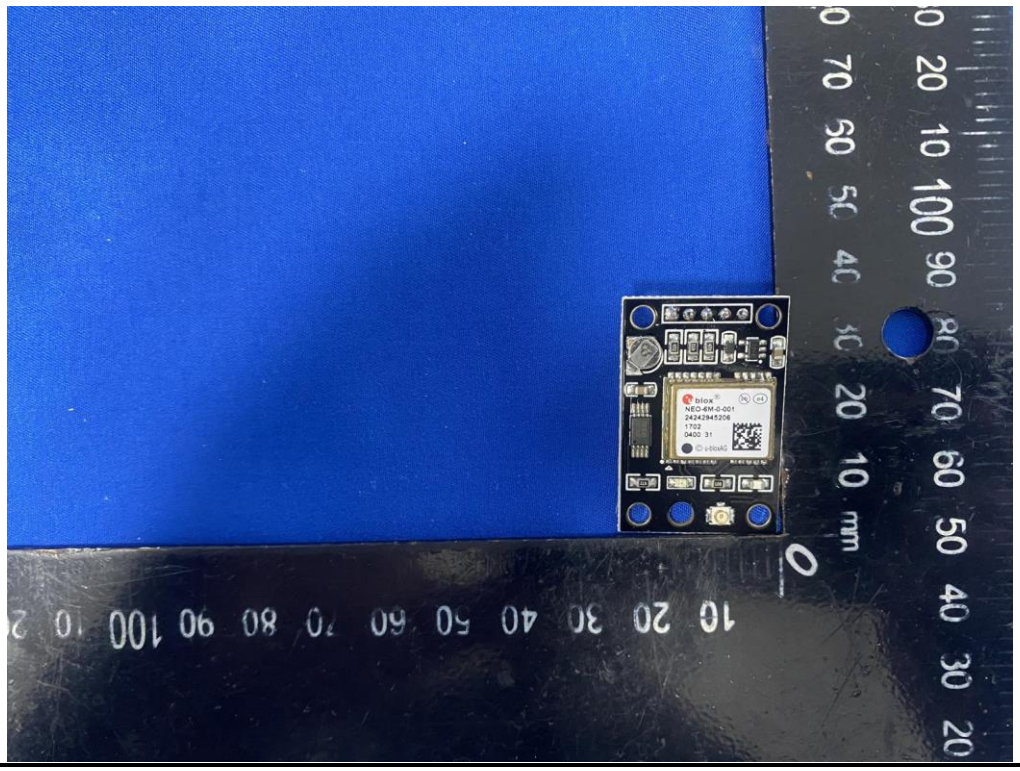

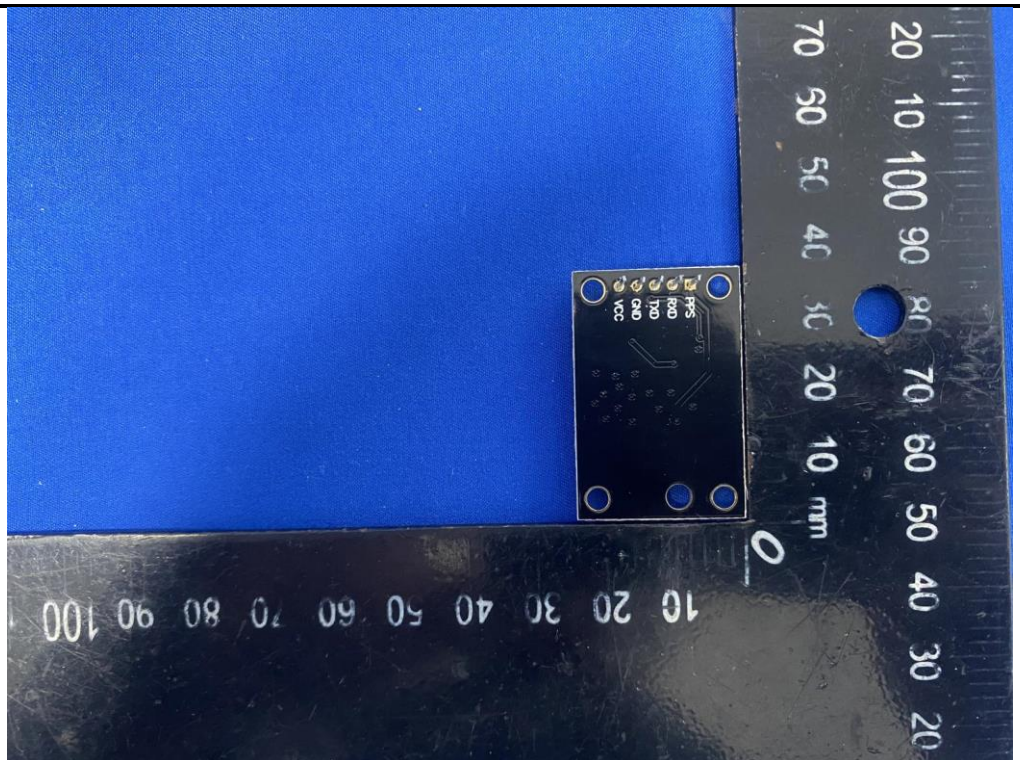
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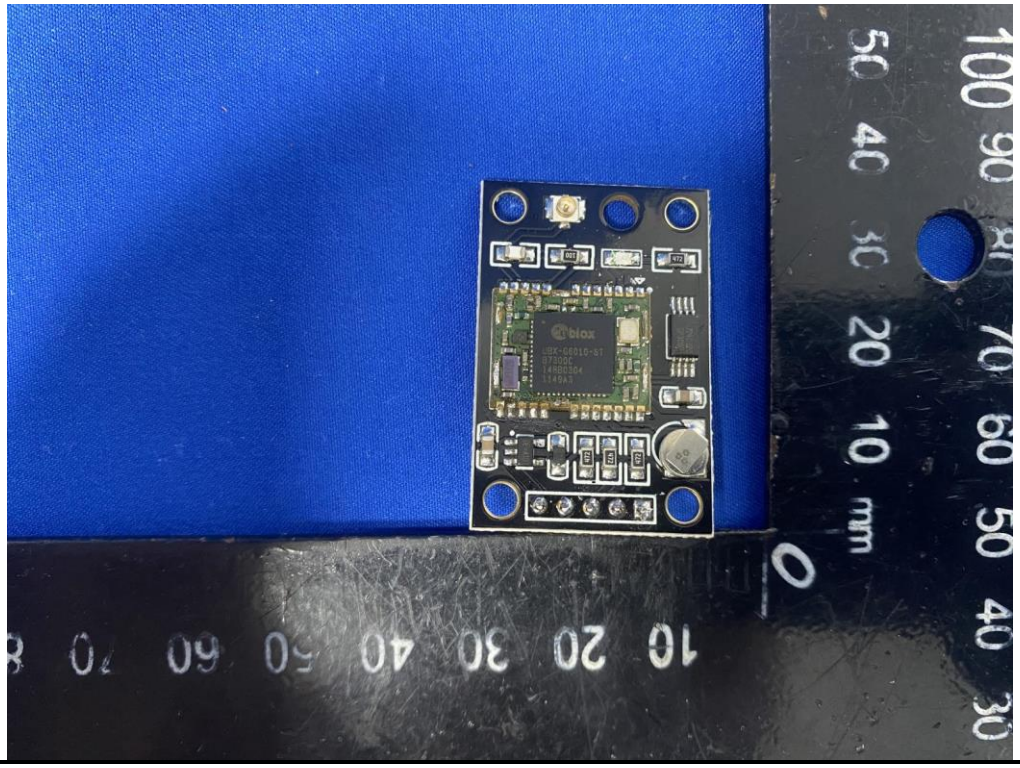
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USB2
KEY
LORA
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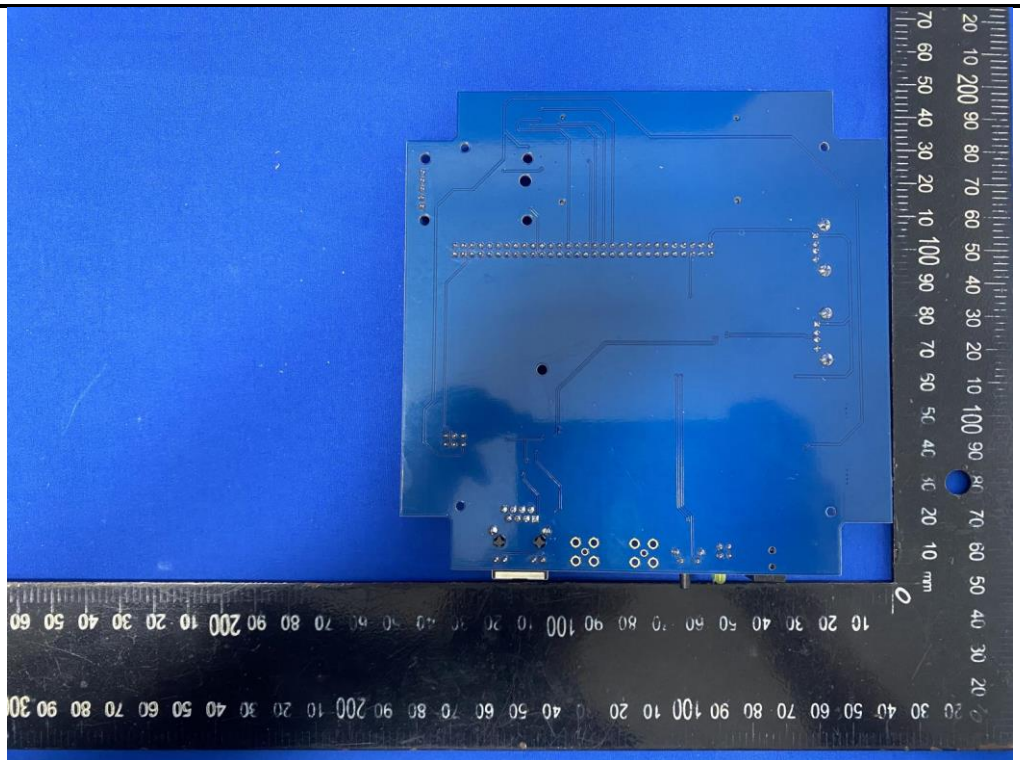

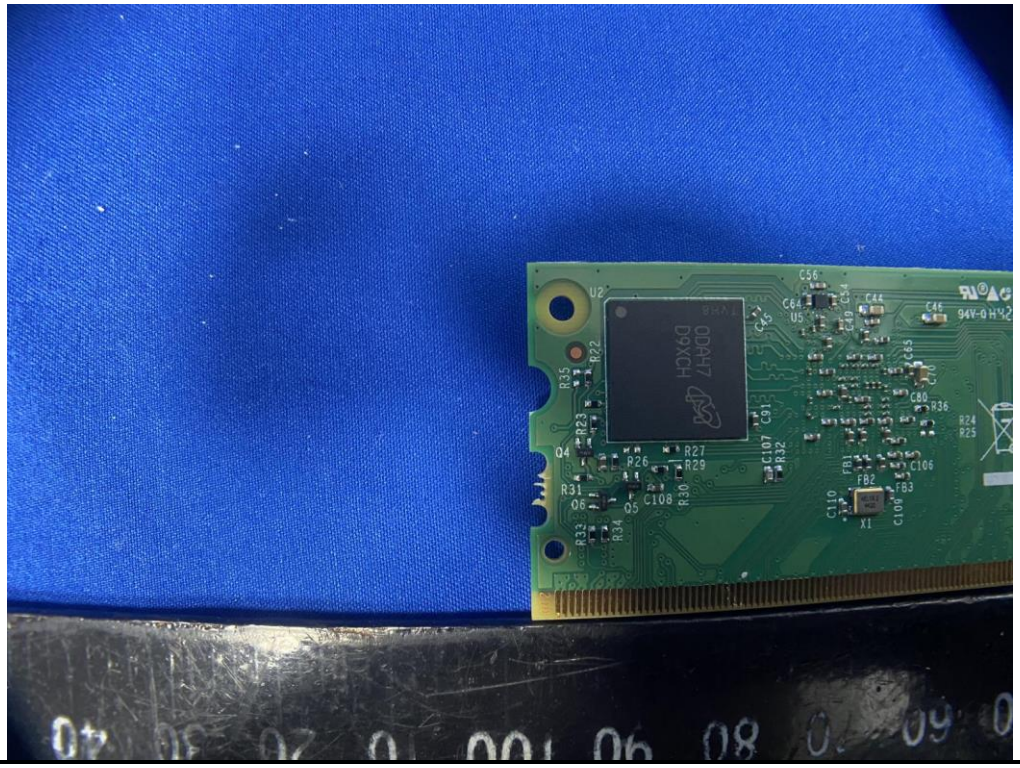

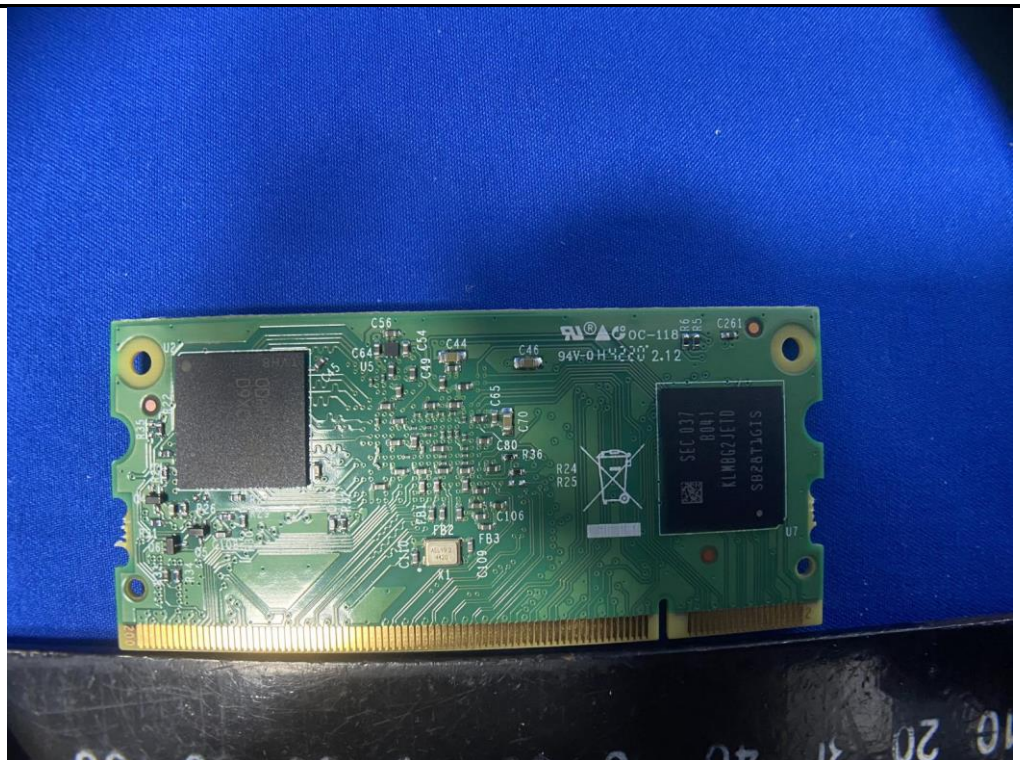

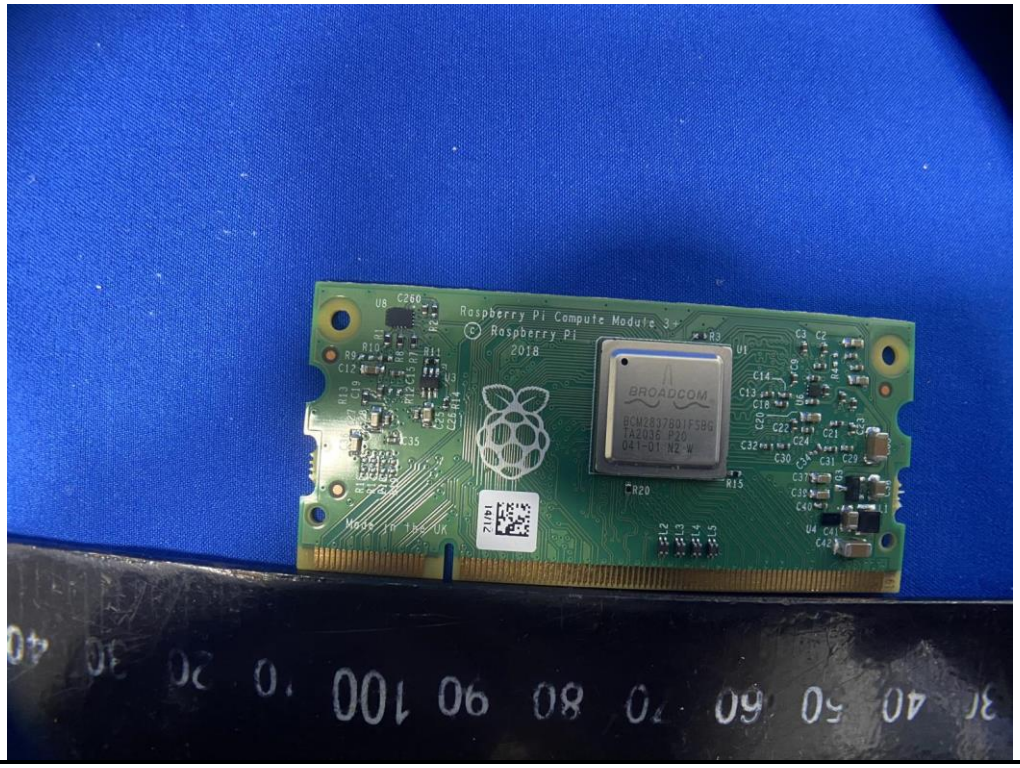
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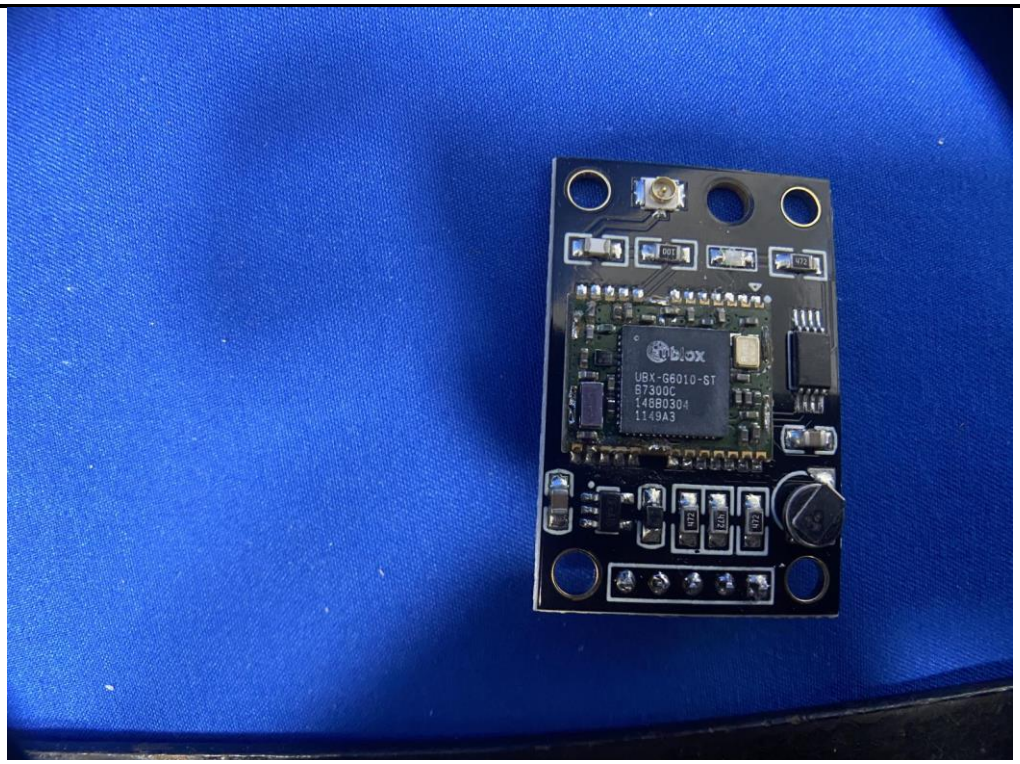

------End of report------