TCT 通测检测 TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID. ..... :	2BAHU2023001
Test Report No..... :	TCT230524E027
Date of issue..... :	May 30, 2023
Testing laboratory ..... :	SHENZHEN TONGCE TESTING LAB
Testing location/ address:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China
Applicant's name..... :	DIALN PRODUCTS INC.
Address..... :	8312 Page Ave, Saint Louis, Missouri 63130, United States
Manufacturer's name ... :	SHENZHEN JREN TECHNOLOGY CO., LTD
Address..... :	B Area, 9/F, A4 Building, Tianrui Industrial Park, No. 35, Fuyuan 1st Road, Zhancheng, Fuhai, Baoan District, Shenzhen, China.
Standard(s) ..... :	FCC CFR Title 47 Part 15 Subpart C Section 15.247 FCC KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10:2013
Product Name..... :	LTE Tablet
Trade Mark ..... :	DIALN
Model/Type reference..... :	X8G, X8M, X8L
Rating(s)..... :	Adapter Information: Model: BOS050200-01A Input: AC 100-240V, 50/60Hz, 0.45A Output: DC 5V, 2000mA Rechargeable Li-ion Battery DC 3.7V
Date of receipt of test item ..... :	May 24, 2023
Date (s) of performance of test..... :	May 24, 2023 - May 30, 2023
Tested by (+signature) ... :	Aaron MO
Check by (+signature).... :	Beryl ZHAO
Approved by (+signature):	Tomsin

General disclaimer:

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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

1. General Product Information

1.1. EUT description

Product Name.....:	LTE Tablet
Model/Type reference.....:	X8G
Sample Number.....:	TCT230524E027-0101
Bluetooth Version .....:	V4.2 (This report is for BDR+EDR)
Operation Frequency.....:	2402MHz~2480MHz
Transfer Rate .....:	1/2/3 Mbits/s
Number of Channel.....:	79
Modulation Type.....:	GFSK, π/4-DQPSK, 8DPSK
Modulation Technology .....:	FHSS
Antenna Type.....:	Internal Antenna
Antenna Gain.....:	2.37dBi
Rating(s).....:	Adapter Information: Model: BOS050200-01A Input: AC 100-240V, 50/60Hz, 0.45A Output: DC 5V, 2000mA Rechargeable Li-ion Battery DC 3.7V

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	X8G	☒
Other models	X8M, X8L	☐
Note: X8G 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 X8G can represent the remaining models.		

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1.3. Operation Frequency

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
…	…	…	…	…	…	…	…
10	2412MHz	30	2432MHz	50	2452MHz	70	2472MHz
11	2413MHz	31	2433MHz	51	2453MHz	71	2473MHz
…	…	…	…	…	…	…	…
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	2421MHz	39	2441MHz	59	2461MHz	-	

Remark: Channel 0, 39 & 78 have been tested for GFSK, π/4-DQPSK, 8DPSK modulation mode.

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2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna Requirement	§15.203/§15.247 (c)	PASS
AC Power Line Conducted Emission	§15.207	PASS
Conducted Output Power	§15.247 (b)(1)	PASS
20dB Occupied Bandwidth	§15.247 (a)(1)	PASS
Carrier Frequencies Separation	§15.247 (a)(1)	PASS
Hopping Channel Number	§15.247 (a)(1)	PASS
Dwell Time	§15.247 (a)(1)	PASS
Radiated Emission	§15.205/§15.209	PASS
Band Edge	§15.247(d)	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.

5. Those test results (Conducted Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Band Edge) was based on FCC ID: 2BAHU2023001; Change product model No. and shell material of EUT.

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3. General Information

3.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	23.5 °C	24.9 °C
Humidity:	52 % RH	53 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
Engineer mode:	Keep the EUT in continuous transmitting by select channel and modulations with Fully-charged battery.	
The sample was placed 0.8m & 1.5m for the measurement below & 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 & 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. DH1 DH3 DH5 all have been tested , only worse case DH1 is reported.		

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
/	/	/	/	/

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.

3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

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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: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, 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 ± U, where expended 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	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

5. Test Results and Measurement Data

5.1. Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
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. 15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
E.U.T Antenna:	
The Bluetooth antenna is internal antenna which use a unique couple, and the best case gain of the antenna is 2.37dBi.	

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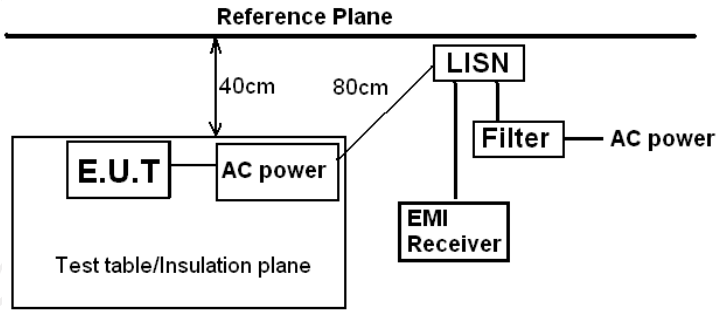
5.2. Conducted Emission

5.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Frequency Range:	150 kHz to 30 MHz
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto
Limits:	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
Test Setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test Mode:	Charging + Transmitting Mode
Test Procedure:	1. The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 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). 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.
Test Result:	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. 03, 2023
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	Feb. 20, 2024
Line-5	TCT	CE-05	/	Jul. 03, 2024
EMI Test Software	Shurple Technology	EZ-EMC	/	/

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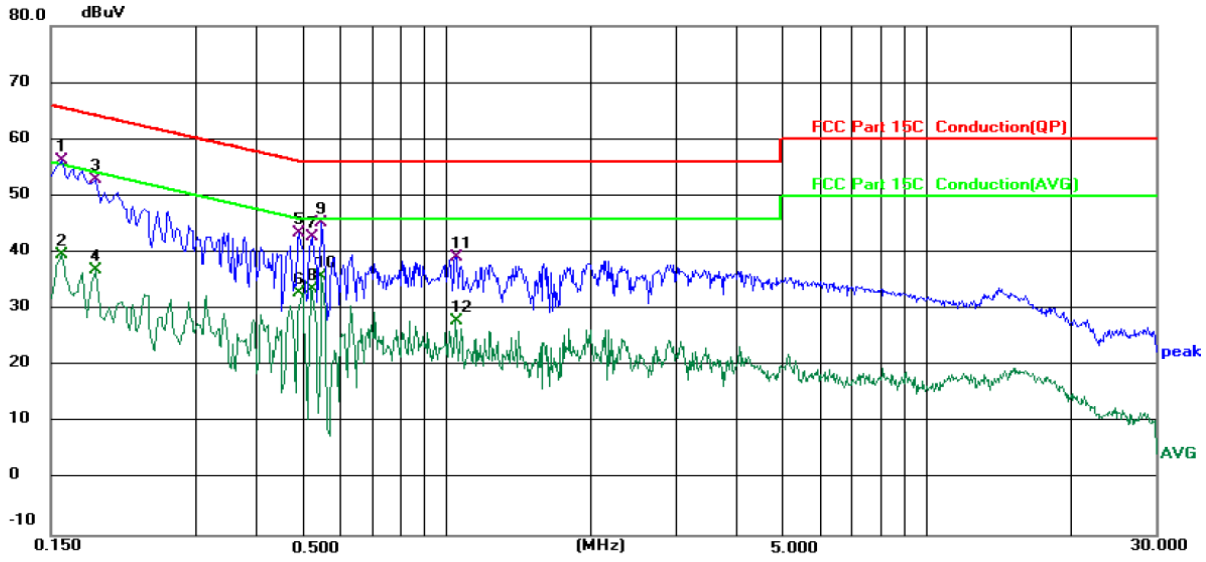
5.2.3. Test data

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: 23.5 (℃) | Humidity: 52 %

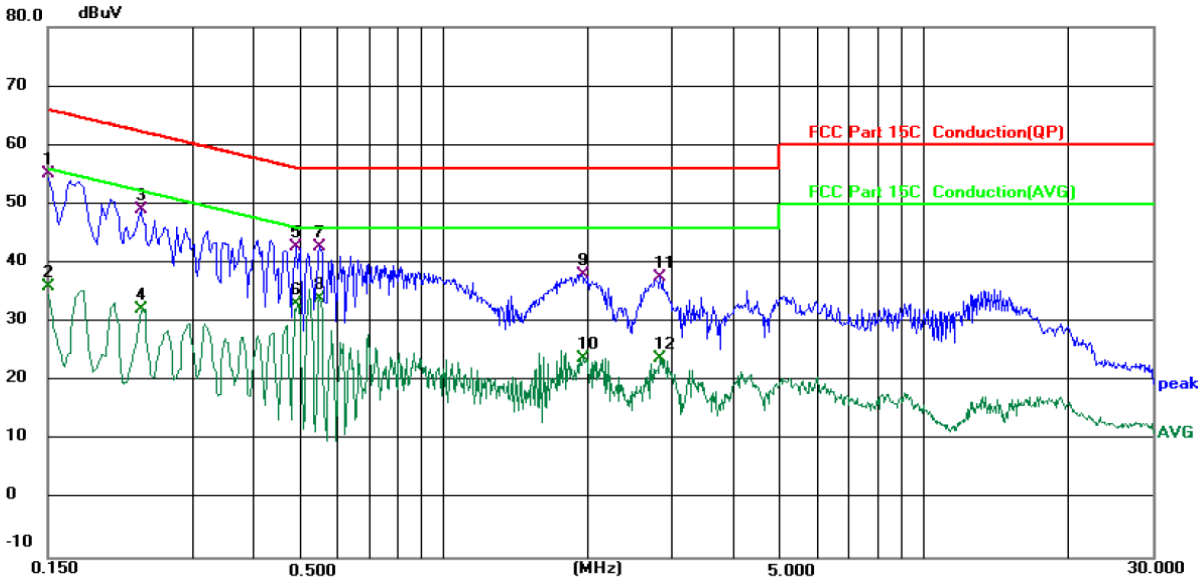
Limit: FCC Part 15C Conduction(QP) | Power:AC 120 V/ 60 Hz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1580	46.04	10.12	56.16	65.57	-9.41	QP	
2		0.1580	29.41	10.12	39.53	55.57	-16.04	AVG	
3		0.1859	42.81	10.14	52.95	64.22	-11.27	QP	
4		0.1859	26.70	10.14	36.84	54.22	-17.38	AVG	
5		0.4939	33.98	9.47	43.45	56.10	-12.65	QP	
6		0.4939	23.34	9.47	32.81	46.10	-13.29	AVG	
7		0.5260	33.40	9.43	42.83	56.00	-13.17	QP	
8		0.5260	24.21	9.43	33.64	46.00	-12.36	AVG	
9		0.5500	35.91	9.41	45.32	56.00	-10.68	QP	
10		0.5500	26.37	9.41	35.78	46.00	-10.22	AVG	
11		1.0500	30.17	8.93	39.10	56.00	-16.90	QP	
12		1.0500	18.95	8.93	27.88	46.00	-18.12	AVG	

Note:

Freq. = Emission frequency in MHz
Reading level (dBμV) = Receiver reading
Corr. Factor (dB) = LISN factor + Cable loss
Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)
Limit (dBμV) = Limit stated in standard
Margin (dB) = Measurement (dBμV) – Limits (dBμV)
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: 23.5 (℃) Humidity: 52 %

Limit: FCC Part 15C Conduction(QP) Power:AC 120 V/ 60 Hz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	45.15	10.09	55.24	66.00	-10.76	QP	
2		0.1500	25.93	10.09	36.02	56.00	-19.98	AVG	
3		0.2340	39.09	9.95	49.04	62.31	-13.27	QP	
4		0.2340	22.17	9.95	32.12	52.31	-20.19	AVG	
5		0.4939	33.36	9.47	42.83	56.10	-13.27	QP	
6		0.4939	23.69	9.47	33.16	46.10	-12.94	AVG	
7		0.5540	33.35	9.41	42.76	56.00	-13.24	QP	
8		0.5540	24.50	9.41	33.91	46.00	-12.09	AVG	
9		1.9459	28.05	10.02	38.07	56.00	-17.93	QP	
10		1.9459	13.94	10.02	23.96	46.00	-22.04	AVG	
11		2.8260	27.43	10.05	37.48	56.00	-18.52	QP	
12		2.8260	13.73	10.05	23.78	46.00	-22.22	AVG	

Note1:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

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

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

Limit (dBμV) = Limit stated in standard

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

Q.P. =Quasi-Peak AVG =average

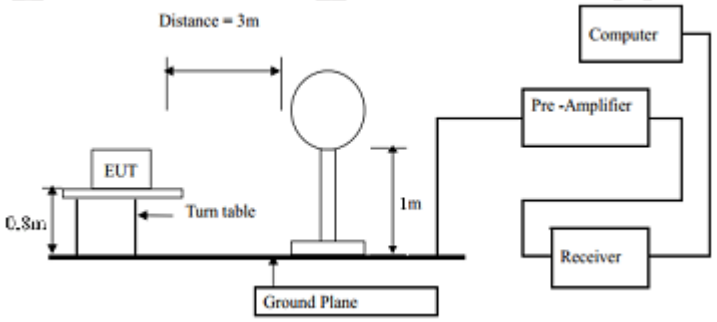
** is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.*

Note2:

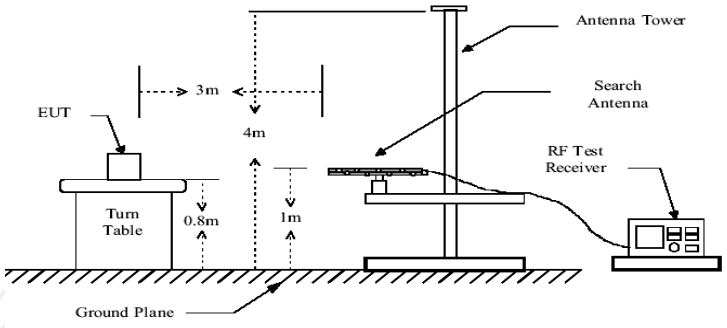
Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (Middle channel and 8DPSK) was submitted only.

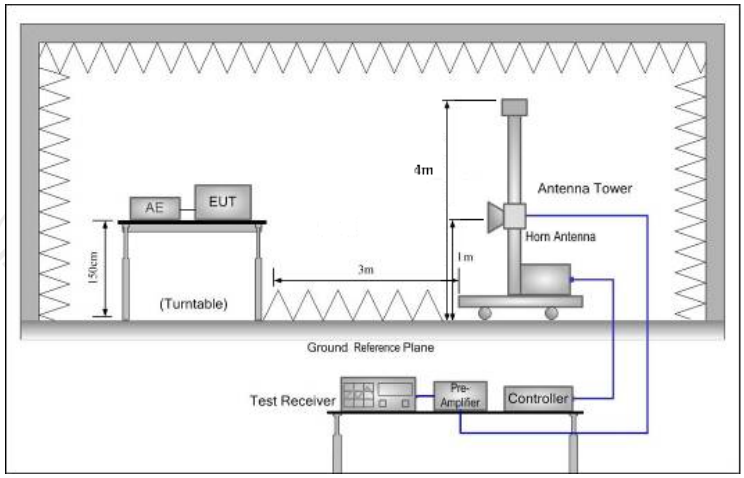
5.3. Radiated Spurious Emission Measurement

5.3.1. Test Specification

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Frequency Range:</td><td>9 kHz to 25 GHz</td></tr>
<tr><td>Measurement Distance:</td><td>3 m</td></tr>
<tr><td>Antenna Polarization:</td><td>Horizontal & Vertical</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>9kHz- 150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><td>Frequency</td><td>Field Strength (microvolts/meter)</td><td>Measurement Distance (meters)</td></tr>
<tr><td>0.009-0.490</td><td>2400/F(KHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(KHz)</td><td>30</td></tr>
<tr><td>1.705-30</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100</td><td>3</td></tr>
<tr><td>88-216</td><td>150</td><td>3</td></tr>
<tr><td>216-960</td><td>200</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
<table>
<tr><td>Frequency</td><td>Field Strength (microvolts/meter)</td><td>Measurement Distance (meters)</td><td>Detector</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>500</td><td>3</td><td>Average</td></tr>
<tr><td>5000</td><td>3</td><td>Peak</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions below 30MHz
 

30MHz to 1GHz</td></tr>
</table>

<table>
<tr><td></td><td> 

Above 1GHz

</td></tr>
<tr><td>Test Mode:</td><td>Transmitting mode with modulation</td></tr>
<tr><td>Test Procedure:</td><td>1. The testing follows the guidelines in Spurious Radiated Emissions of ANSI C63.10:2013 Measurement Guidelines.
2. For the radiated emission test below 1GHz:
The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. 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 and a high PASS filter are used for the test in order to get better signal level.
For the radiated emission test above 1GHz:
Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission</td></tr>
</table>

	and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=120 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak (3) For average measurement: use duty cycle correction factor method per 15.35(c). Duty cycle = On time/100 milliseconds On time =N1*L1+N2*L2+...+Nn-1*LNn-1+Nn*Ln Where N1 is number of type 1 pulses, L1 is length of type 1 pulses, etc. Average Emission Level = Peak Emission Level + 20*log(Duty cycle) Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
Test results:	PASS

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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. 03, 2023
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 03, 2023
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Feb. 20, 2024
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Feb. 20, 2024
Pre-amplifier	HP	8447D	2727A05017	Jul. 03, 2023
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 11, 2023
Broadband Antenna	Schwarzbeck	VULB9163	340	Jul. 05, 2023
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jul. 05, 2023
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Feb. 24, 2024
Antenna Mast	Keleto	RE-AM	/	/
Coaxial cable	SKET	RC-18G-N-M	/	Feb. 24, 2024
Coaxial cable	SKET	RC_40G-K-M	/	Feb. 24, 2024
EMI Test Software	Shurple Technology	EZ-EMC	/	/

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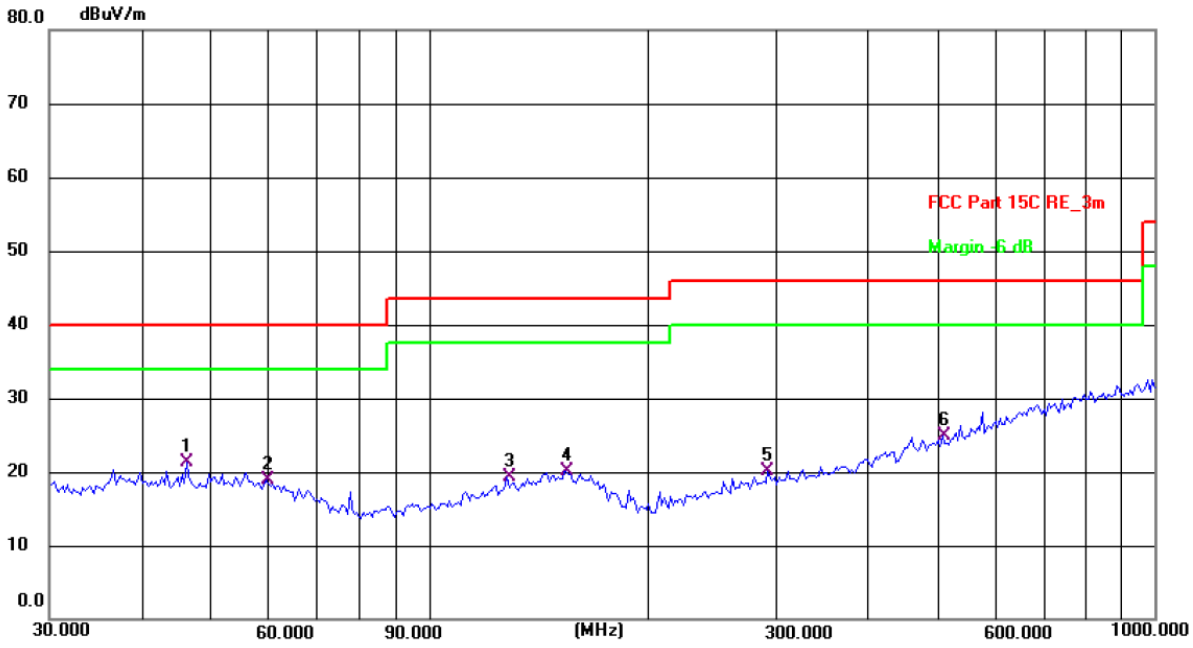
5.3.3. Test Data

Please refer to following diagram for individual

Below 1GHz

Horizontal:

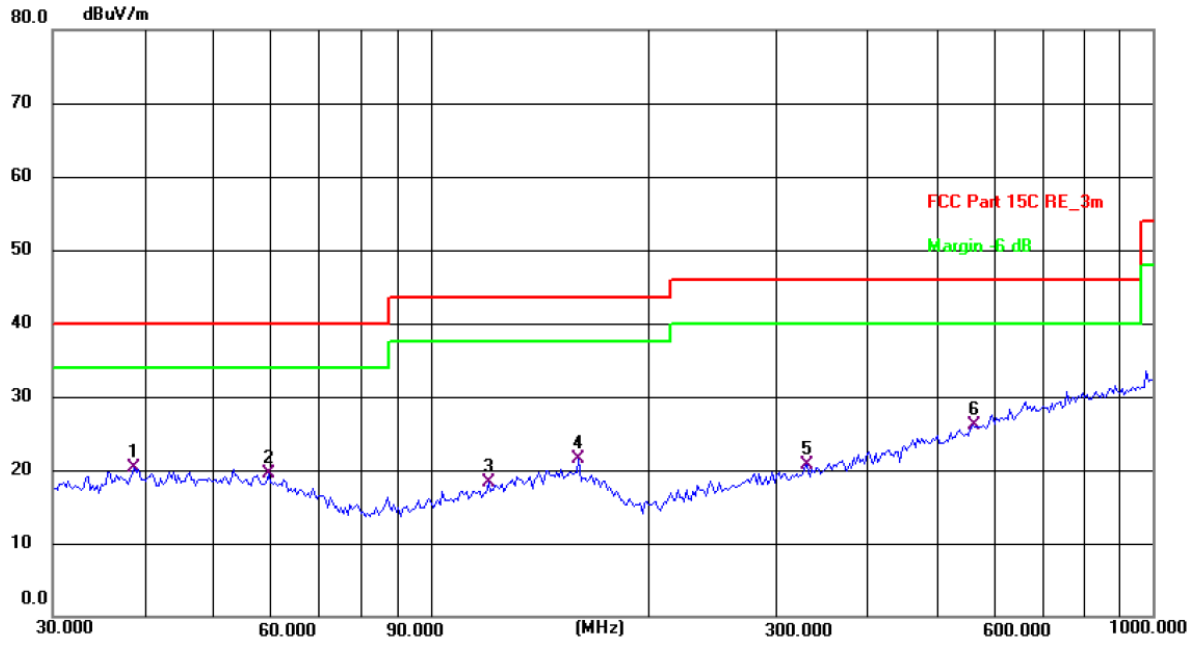


Site: #1 3m Anechoic Chamber Polarization: ***Horizontal*** Temperature: 24.9(C) Humidity: 53 %

Limit: FCC Part 15C RE_3m Power: DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	46.3402	7.52	13.82	21.34	40.00	-18.66	QP	P	
2	59.6493	5.94	12.98	18.92	40.00	-21.08	QP	P	
3	128.1130	6.13	13.12	19.25	43.50	-24.25	QP	P	
4	153.7385	5.35	14.72	20.07	43.50	-23.43	QP	P	
5	293.0842	6.30	13.76	20.06	46.00	-25.94	QP	P	
6	510.0436	6.35	18.51	24.86	46.00	-21.14	QP	P	

Vertical:



Site: #1 3m Anechoic Chamber Polarization: *Vertical* Temperature: 24.9(C) Humidity: 53 %

Limit: FCC Part 15C RE_3m Power: DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	38.8878	6.20	14.11	20.31	40.00	-19.69	QP	P	
2	59.6493	6.58	12.98	19.56	40.00	-20.44	QP	P	
3	120.2766	5.78	12.44	18.22	43.50	-25.28	QP	P	
4	160.3456	6.94	14.55	21.49	43.50	-22.01	QP	P	
5	330.1949	6.04	14.75	20.79	46.00	-25.21	QP	P	
6	562.6624	6.44	19.67	26.11	46.00	-19.89	QP	P	

Note: *1. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.*

2. Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK) and the worst case Mode (Middle channel and 8DPSK) was submitted only.

3. Freq. = Emission frequency in MHz

Measurement (dBμV/m) = Reading level (dBμV) + Corr. Factor (dB)

Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

Limit (dBμV/m) = Limit stated in standard

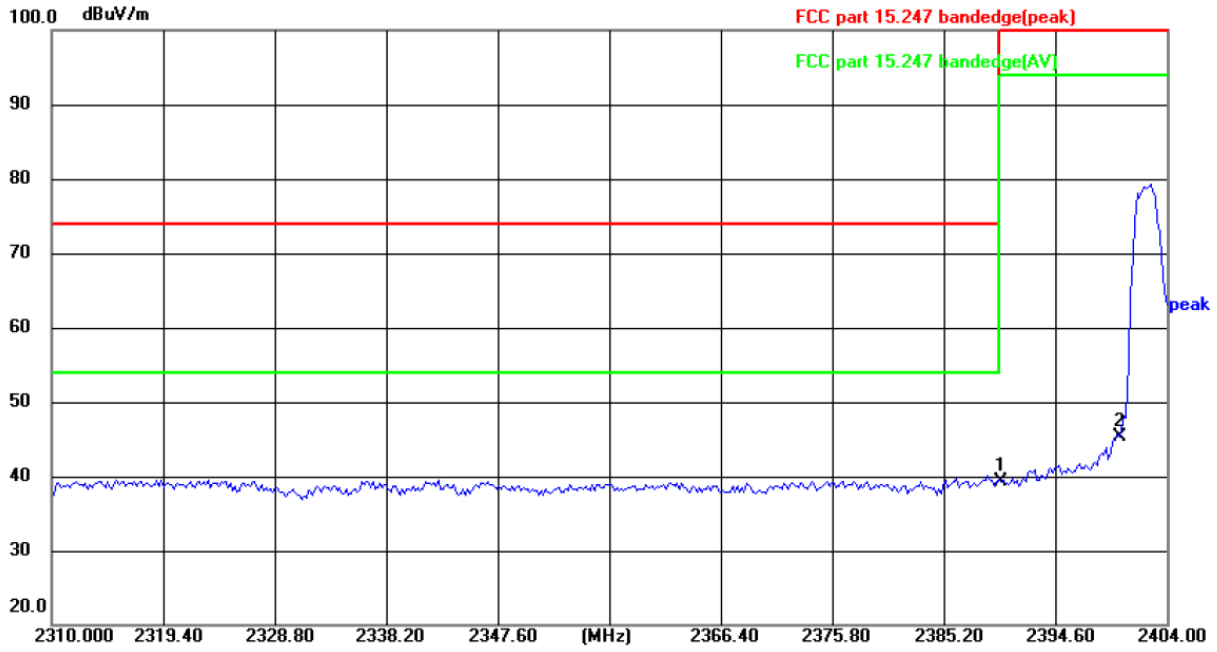
Over (dB) = Measurement (dBμV/m) – Limits (dBμV/m)

** is meaning the worst frequency has been tested in the test frequency range.*

Test Result of Radiated Spurious at Band edges

Lowest channel 2402:

Horizontal:

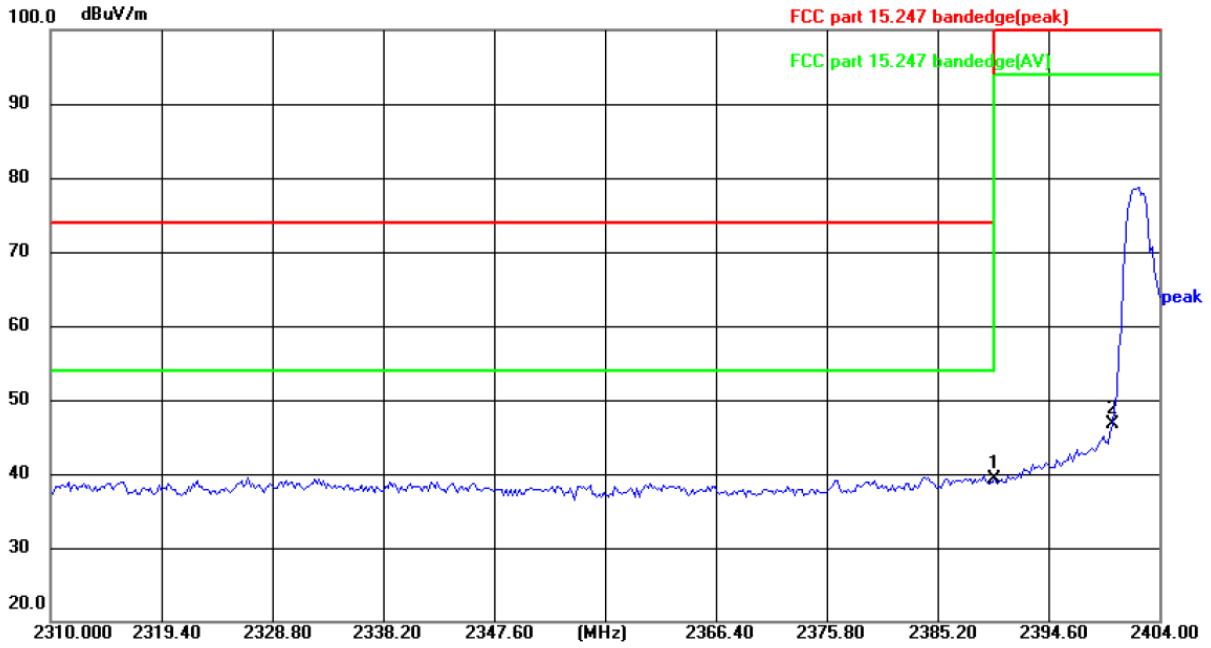


Site: #3 3m Anechoic Chamber Polarization: ***Horizontal*** Temperature: 25(℃) Humidity: 55 %

Limit: FCC part 15.247 bandedge(peak) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2390.000	52.42	-13.15	39.27	74.00	-34.73	peak	P	
2	2400.000	58.42	-13.12	45.30	114.00	-68.70	peak	P	

Vertical:



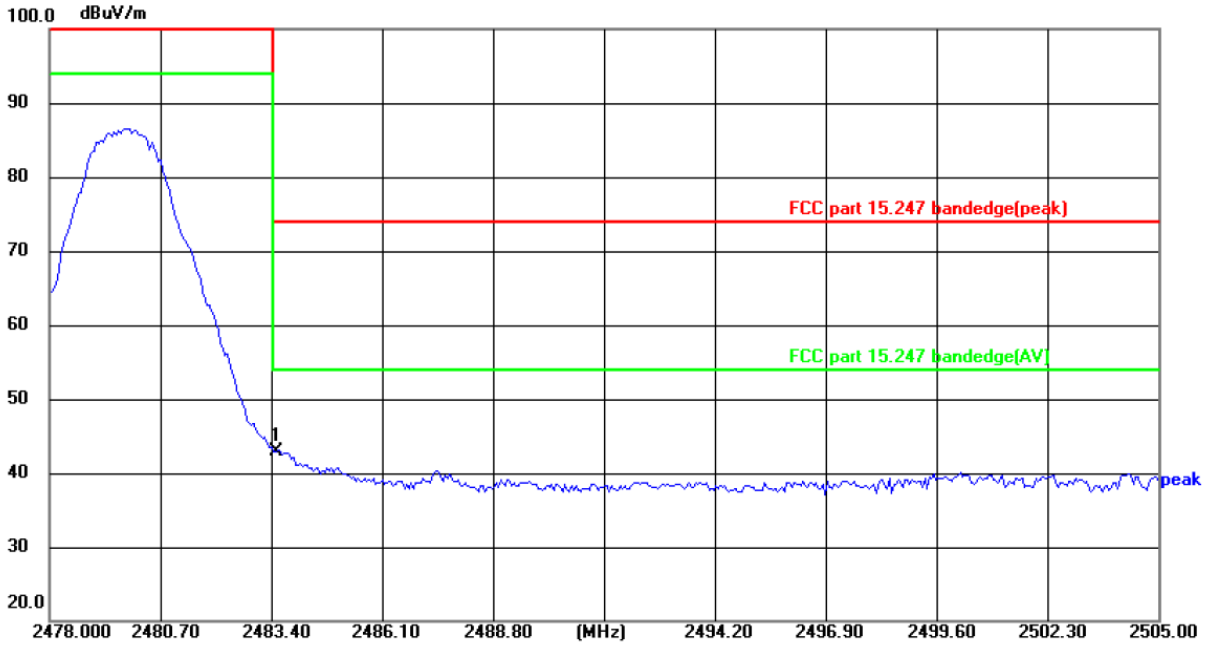
Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 25(℃) Humidity: 55 %

Limit: FCC part 15.247 bandedge(peak) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2390.000	52.54	-13.15	39.39	74.00	-34.61	peak	P	
2	2400.000	59.81	-13.12	46.69	114.00	-67.31	peak	P	

Highest channel 2480:

Horizontal:

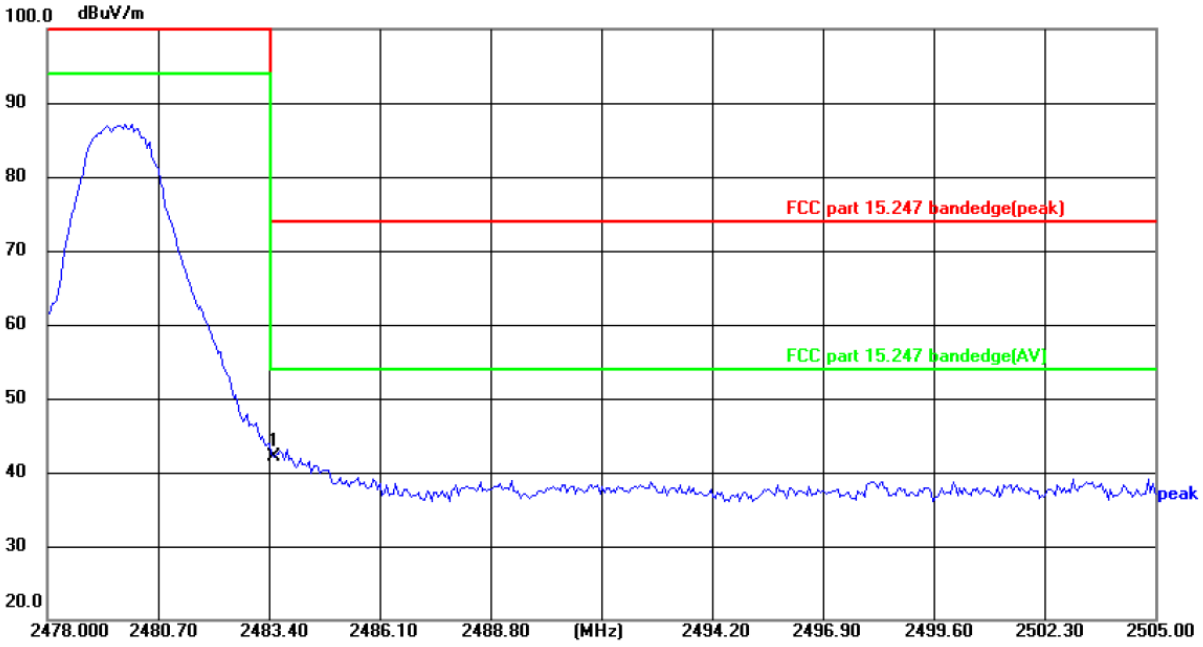


Site: #3 3m Anechoic Chamber Polarization: *Horizontal* Temperature: 25(℃) Humidity: 55 %

Limit: FCC part 15.247 bandedge(peak) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2483.500	55.69	-12.84	42.85	74.00	-31.15	peak	P	

Vertical:



Site: #3 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 25(℃) Humidity: 55 %

Limit: FCC part 15.247 bandedge(peak) Power:DC 3.7 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2483.500	55.03	-12.84	42.19	74.00	-31.81	peak	P	

Note: *Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.*

Above 1GHz

Modulation Type: 8DPSK									
Low channel: 2402 MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
4804	H	47.09	---	0.66	47.75	---	74	54	-6.25
7206	H	35.66	---	9.50	45.16	---	74	54	-8.84
---	H	---	---	---	---	---	---	---	---
4804	V	46.19	---	0.66	46.85	---	74	54	-7.15
7206	V	36.87	---	9.50	46.37	---	74	54	-7.63
---	V	---	---	---	---	---	---	---	---

Middle channel: 2441 MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
4882	H	45.47	---	0.99	46.46	---	74	54	-7.54
7323	H	35.29	---	9.87	45.16	---	74	54	-8.84
---	H	---	---	---	---	---	---	---	---
4882	V	45.62	---	0.99	46.61	---	74	54	-7.39
7323	V	36.57	---	9.87	46.44	---	74	54	-7.56
---	V	---	---	---	---	----	---	---	---

High channel: 2480 MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
4960	H	46.05	---	1.33	47.38	---	74	54	-6.62
7440	H	35.22	---	10.22	45.44	---	74	54	-8.56
---	H	---	---	---	---	---	---	---	---
4960	V	45.88	---	1.33	47.21	---	74	54	-6.79
7440	V	36.43	---	10.22	46.65	---	74	54	-7.35
---	V	---	---	---	---	---	---	---	---

Note:

1. *Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier*
2. *Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/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. *Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.*
7. *All the restriction bands are compliance with the limit of 15.209.*

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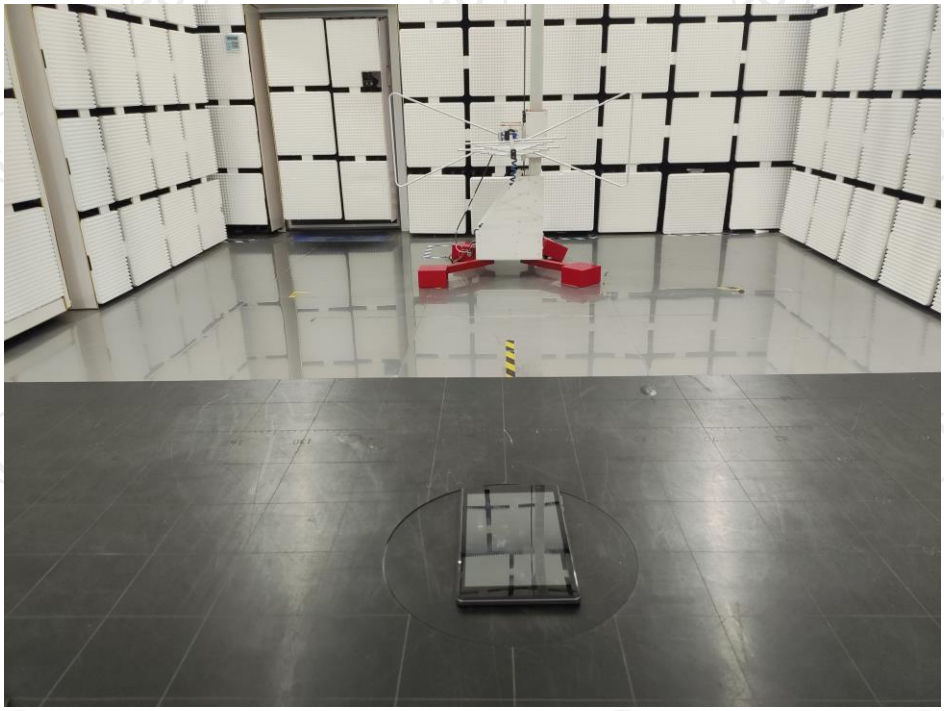
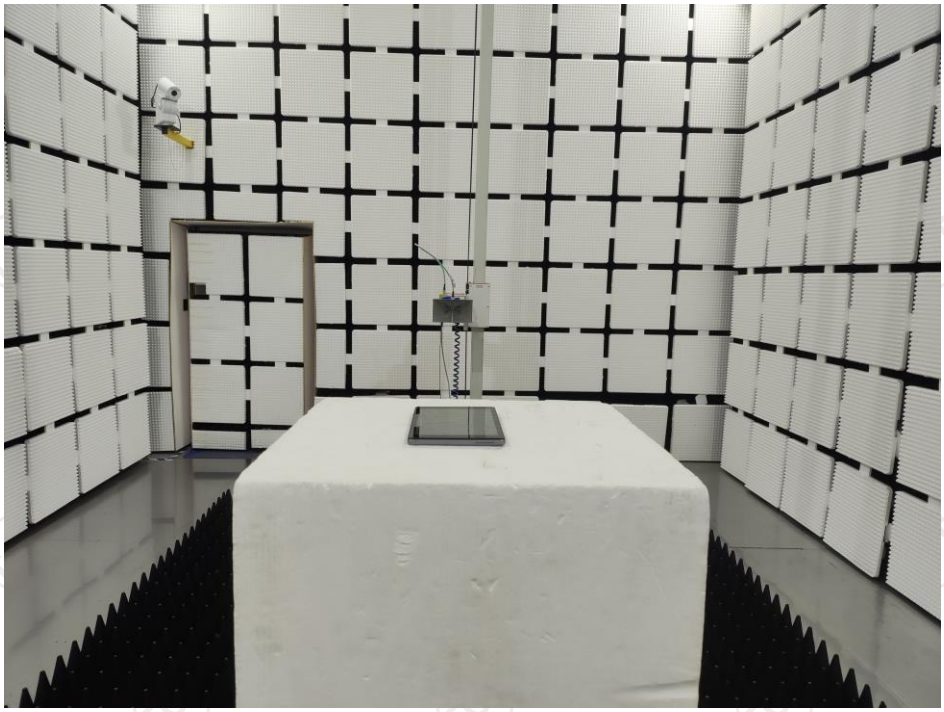
Appendix B: Photographs of Test Setup

Product: LTE Tablet
Model: X8G
Radiated Emission





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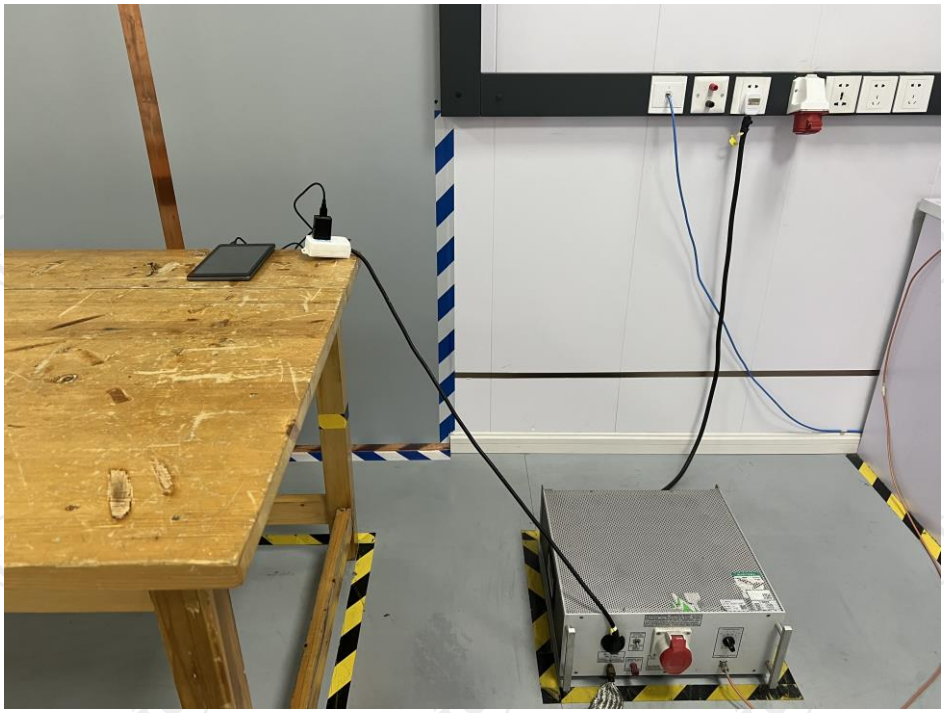
Conducted Emission

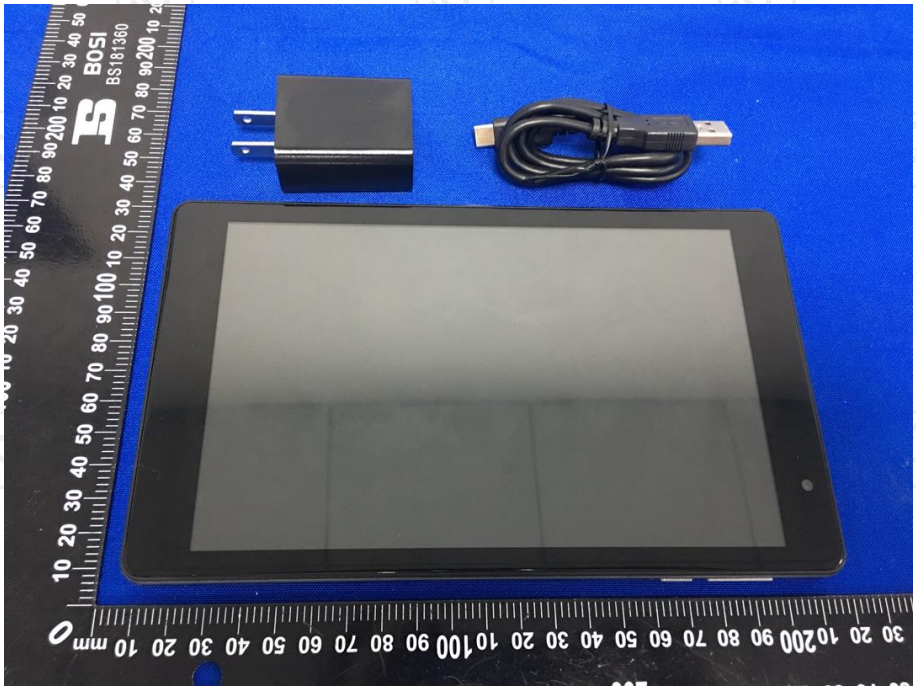


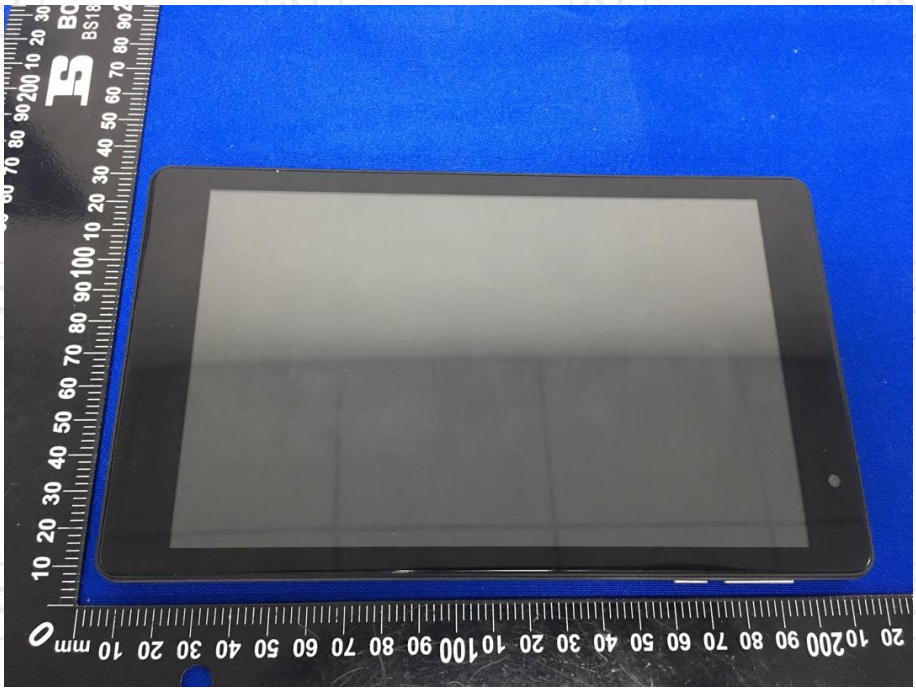
Appendix C: Photographs of EUT

Product: LTE Tablet

Model: X8G

External Photos





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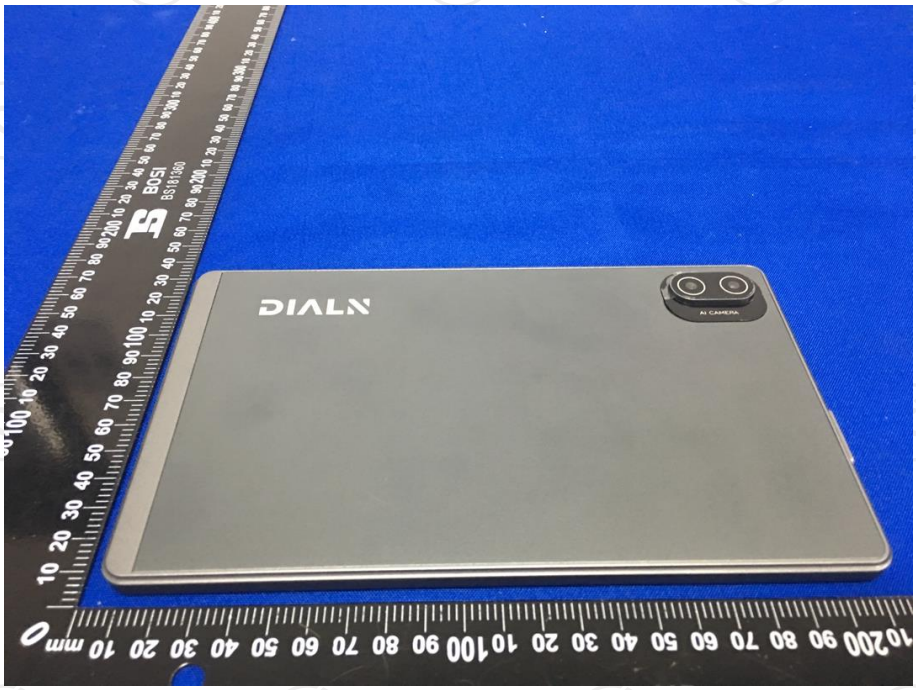

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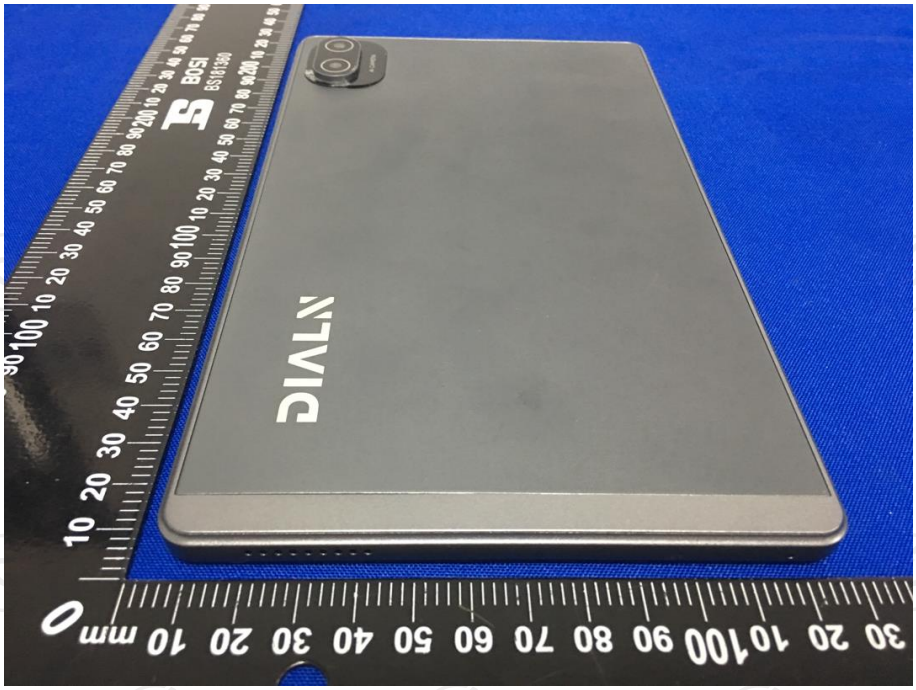

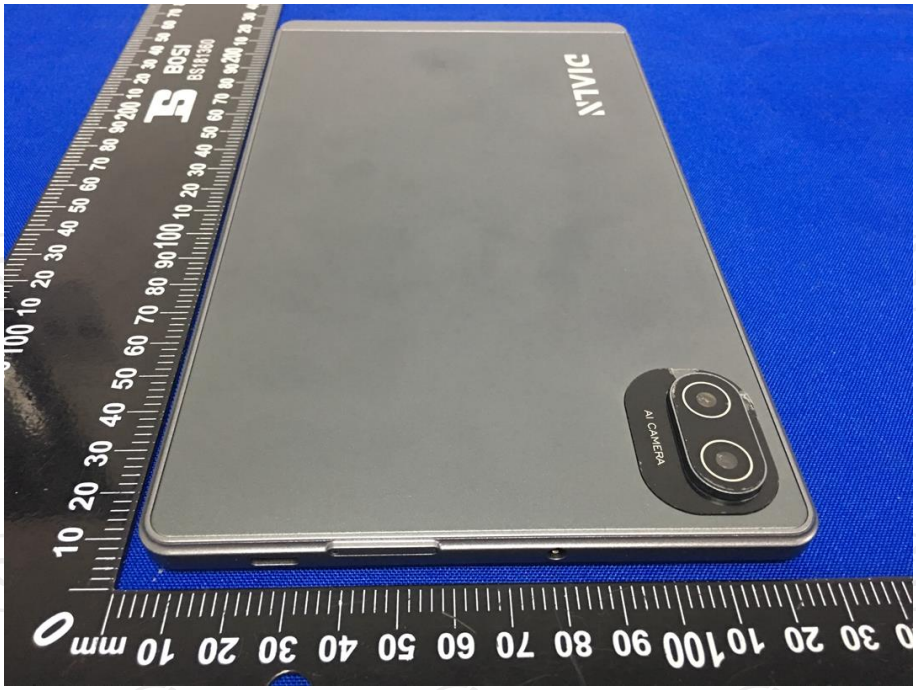

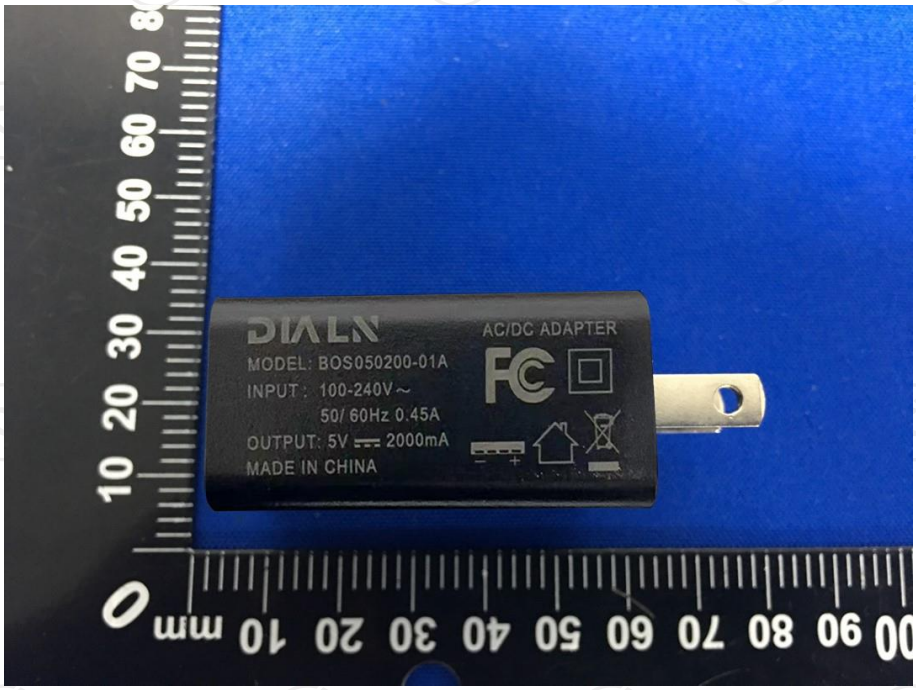

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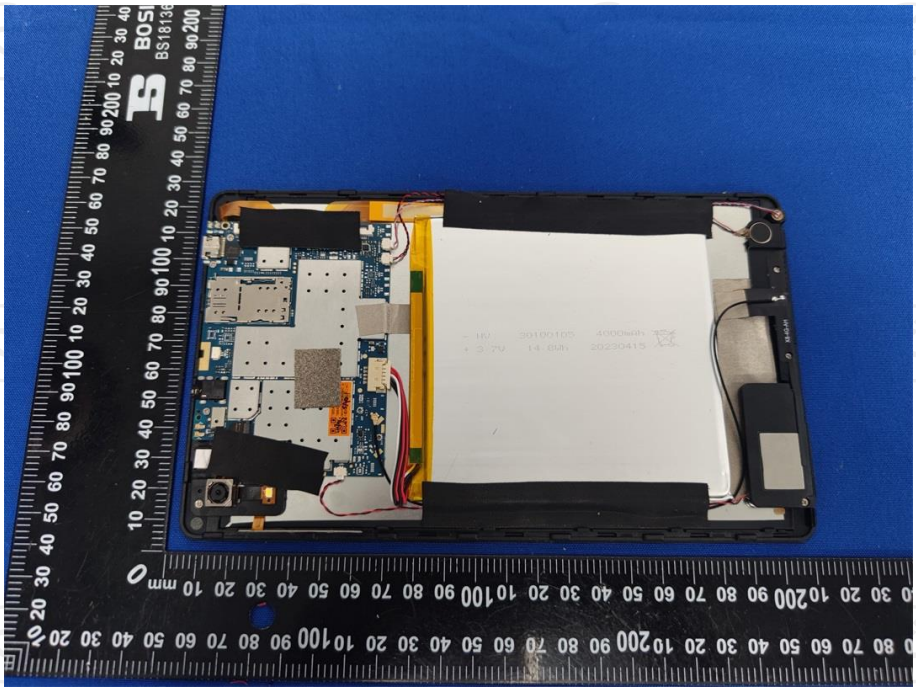
Product: LTE Tablet
Model: X8G
Internal Photos



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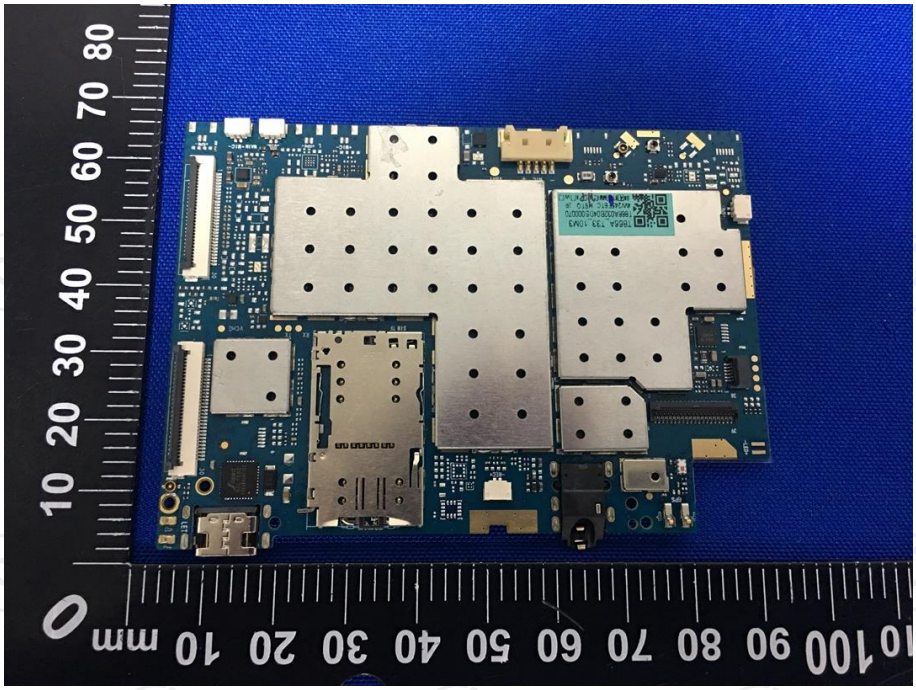

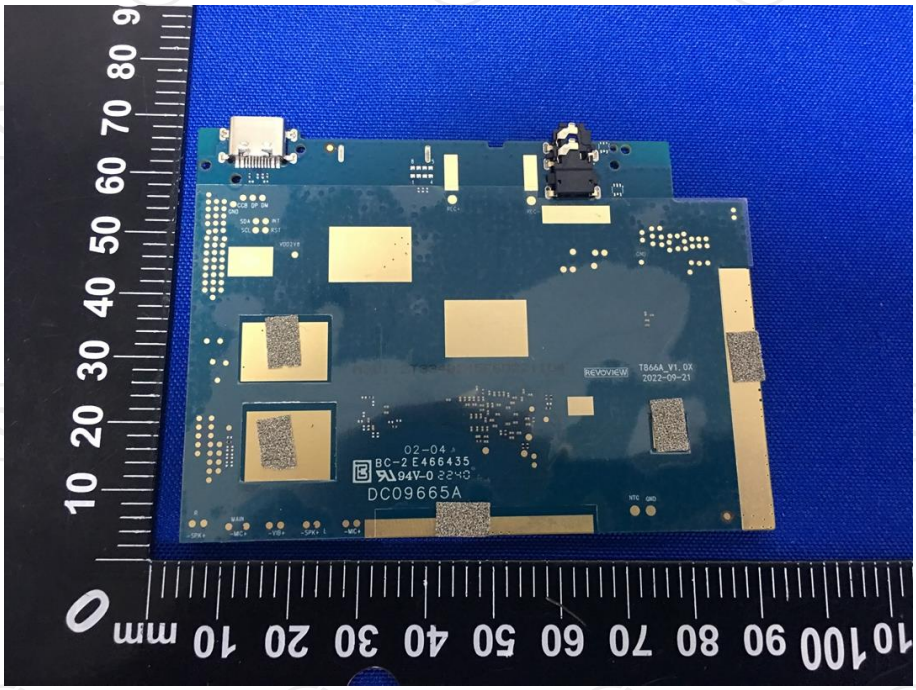
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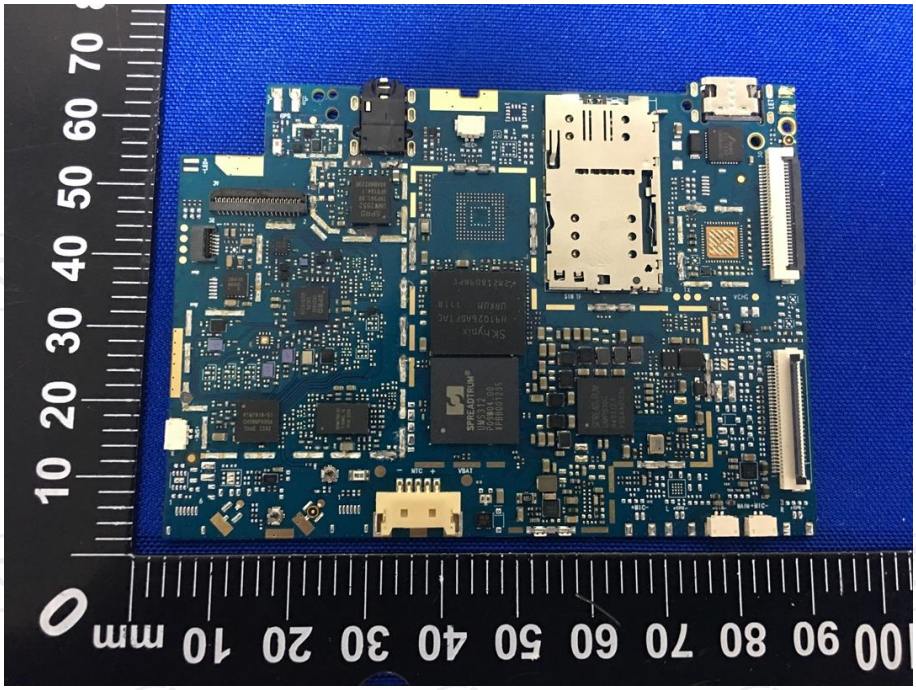
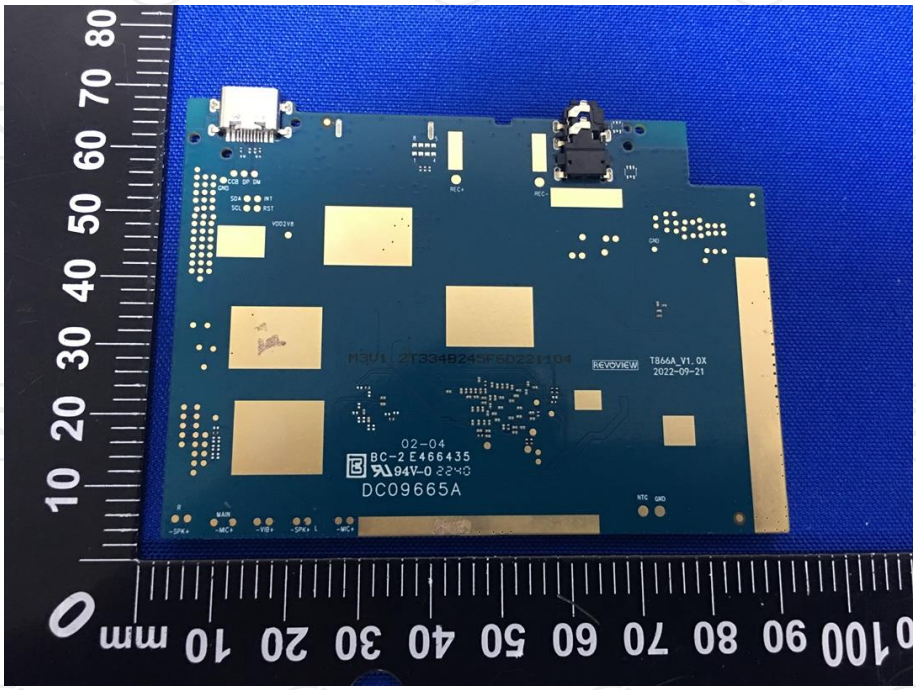
2022-09-21
02-04
BC-2 E466435
94V-0 2240
DC09665A

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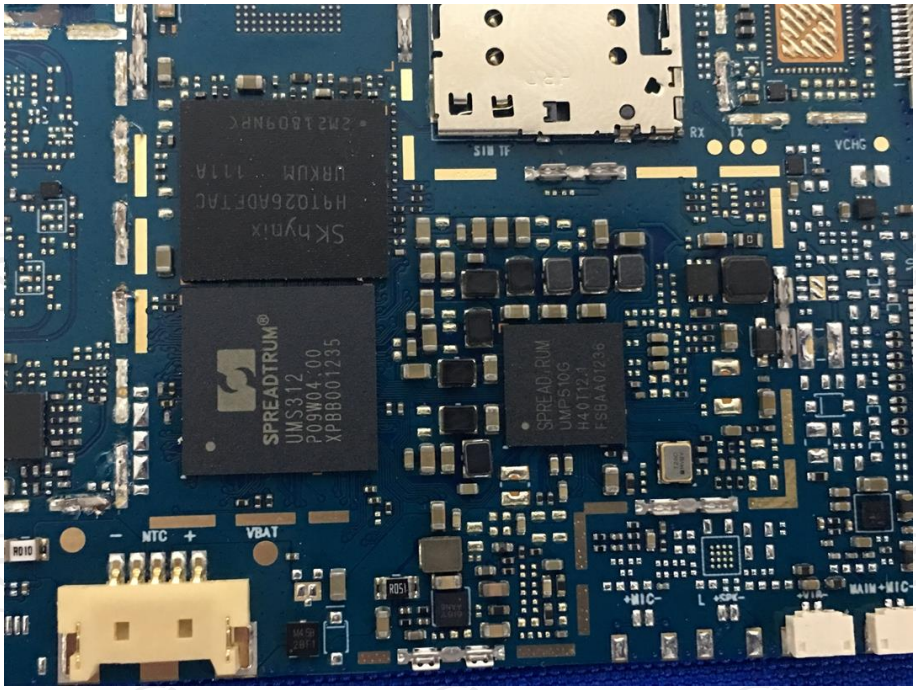
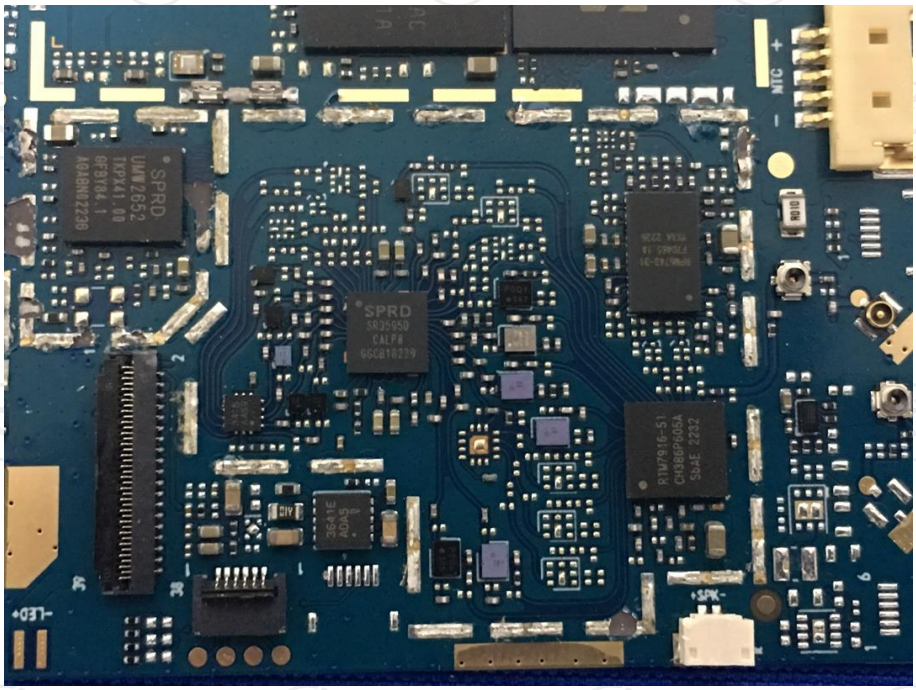
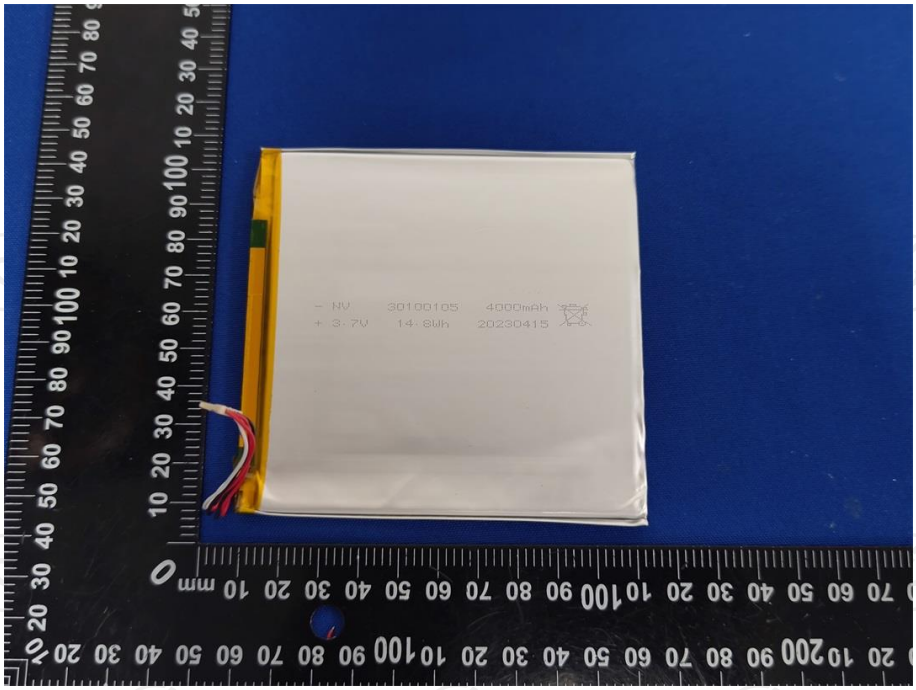
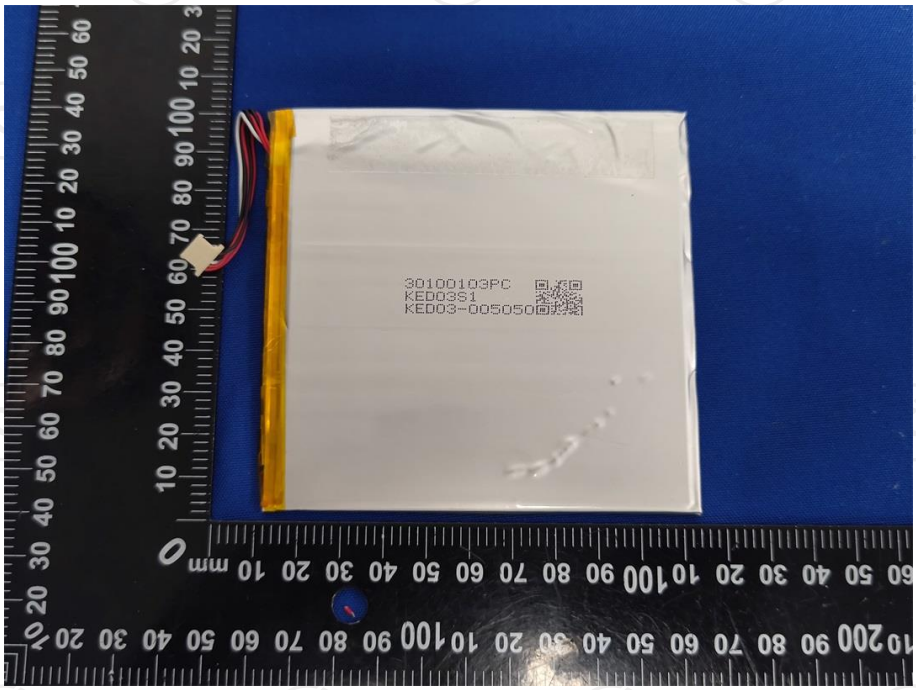
2022-09-21
02-04
DC09665A


SPREADTRUM
UMS312
SPREAD_RUM
UMP510G
NTC
VBAT
MAIN+MIC


SPRD
UMW2652
SPRD
SR3595D
NTC
+SPK-





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

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