

FCC PART 15C TEST REPORT FOR CERTIFICATION

On Behalf of

ALCO Electronics Limited.

Tablet

CT9C08; CT9C18; CT9C0A; VCT9C0A; CT201; CT9C1A; VCT9C1A; CT211

FCC ID: A2HCT201

Prepared for : ALCO Electronics Limited.

11/F Metropole Square, 2 On Yiu Street, Sha Tin, New Territories, Hong Kong

Prepared By : Audix Technology (Shenzhen) Co., Ltd.

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Report Number : ACS-F21123

Date of Test : Apr.21~May.25, 2021

Date of Report : Jun.04, 2021

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Appendix A. Photograph of Test

Appendix B. Photo of the EUT

TEST REPORT

Applicant : ALCO Electronics Limited.
 Manufacturer : ALCO Electronics Limited.
 Product : Tablet
 FCC ID : A2HCT201
 (A) Model No. : CT9C08; CT9C18; CT9C0A; VCT9C0A;
 CT201; CT9C1A; VCT9C1A; CT211
 (B) Test Voltage : AC 120V/60Hz

Tested for comply with:

FCC CFR47 Part 15 Subpart C
 Test procedure used: ANSI C63.10: 2013;
 KDB 558074 D01v05r01

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements. This report contains data that are not covered by the NVLAP accreditation.

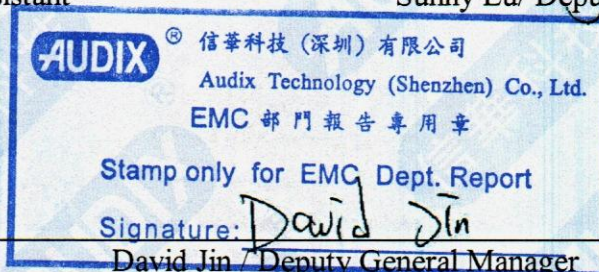
This Report is made under FCC Part 2.1074. No modifications were required during testing to bring this product into compliance.

This report applies to single evaluation of one sample of above mentioned product. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Apr.21~May.25, 2021 Report of date: Jun.04, 2021

Prepared by : Monica Liu Reviewed by : Sunny Lu
 Monica Liu / Assistant Sunny Lu / Deputy Manager



Approved & Authorized Signer :

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT has been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.10 :2013	PASS
Radiated Emission Test	FCC Part 15: 15.209 FCC Part 15: 15.205 FCC Part 15: 15.247(d) ANSI C63.10 : 2013	PASS
Conducted Spurious Emissions	FCC Part 15: 15.247(d) ANSI C63.10 : 2013	PASS
6dB & 99% Bandwidth Test	FCC Part 15: 15.247(b)(3) ANSI C63.10 : 2013	PASS
Maximum Peak Output Power Test	FCC Part 15: 15.247(d) ANSI C63.10 : 2013	PASS
Band Edge Compliance Test	FCC Part 15: 15.247(e) ANSI C63.10 : 2013	PASS
Power Spectral Density Test	FCC Part 15: 15.207 ANSI C63.10 :2013	PASS

2. GENERAL INFORMATION

2.1. Description of Equipment Under Test

Applicant	ALCO Electronics Limited.																																																
Applicant Address	11/F Metropole Square, 2 On Yiu Street, Sha Tin, New Territories, Hong Kong																																																
Manufacturer	ALCO Electronics Limited.																																																
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Product	Tablet																																																
Model No.	<p>CT9C08; CT9C18; CT9C0A; VCT9C0A; CT201; CT9C1A; VCT9C1A; CT211</p> <p>Model differences (Declared by the Applicant): The only differences between these models are the follows for marking purpose:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Color <input type="checkbox"/> Cosmetic details <input checked="" type="checkbox"/> Trade name <input checked="" type="checkbox"/> Model Number <input checked="" type="checkbox"/> (Others, please specify) <u>TFT Different screen sizes</u> <table border="1" data-bbox="533 981 1323 1312"> <thead> <tr> <th>Item No.</th> <th></th> <th>Model No.</th> <th>Trade Name</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Basic model</td> <td>CT9C08</td> <td>VENTURER</td> <td>10.1" display</td> </tr> <tr> <td>2</td> <td>alternative</td> <td>CT9C0A</td> <td>VENTURER</td> <td>10.1" display</td> </tr> <tr> <td>3</td> <td>alternative</td> <td>VCT9C0A</td> <td>VENTURER</td> <td>10.1" display</td> </tr> <tr> <td>4</td> <td>alternative</td> <td>CT201</td> <td>COMPAQ</td> <td>10.1" display</td> </tr> <tr> <td>5</td> <td>Basic model</td> <td>CT9C18</td> <td>VENTURER</td> <td>11.6" display</td> </tr> <tr> <td>6</td> <td>alternative</td> <td>CT9C1A</td> <td>VENTURER</td> <td>11.6" display</td> </tr> <tr> <td>7</td> <td>alternative</td> <td>VCT9C1A</td> <td>VENTURER</td> <td>11.6" display</td> </tr> <tr> <td>8</td> <td>alternative</td> <td>CT211</td> <td>COMPAQ</td> <td>11.6" display</td> </tr> </tbody> </table> <p>According to the above differences, the power line conducted emission, radiated emission and bandedge compliance were tested separately for two different display size.</p>				Item No.		Model No.	Trade Name	Remarks	1	Basic model	CT9C08	VENTURER	10.1" display	2	alternative	CT9C0A	VENTURER	10.1" display	3	alternative	VCT9C0A	VENTURER	10.1" display	4	alternative	CT201	COMPAQ	10.1" display	5	Basic model	CT9C18	VENTURER	11.6" display	6	alternative	CT9C1A	VENTURER	11.6" display	7	alternative	VCT9C1A	VENTURER	11.6" display	8	alternative	CT211	COMPAQ	11.6" display
Item No.		Model No.	Trade Name	Remarks																																													
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Test Model	CT9C08; CT9C18																																																
FCC ID	A2HCT201																																																
Power Adapter	<p>Manufacture: ATC; M/N: APS-W010050200W-G</p> <p>Input: 100-240V~, 50/60Hz, 0.35A Max</p> <p>Output: DC 5V, 2.0A</p> <p>Cable: Shielded, Detachable, 1.0m</p>																																																
Rechargeable Lithium-ion Polymer Battery	<p>Manufacturer: Guangdong Pow-Tech New Power Co., Ltd.</p> <p>M/N: PT3075110-2P;</p> <p>Power Rating Voltage: 3.7V, 6600mAh, 24.42Wh;</p> <p>Max Charge Voltage: 4.2V.</p>																																																
Sample Type	Prototype production																																																
Date of Receipt	Apr.13, 2021																																																
Date of Test	Apr.21~May.25, 2021																																																
Remark:	This report only for BLE.																																																

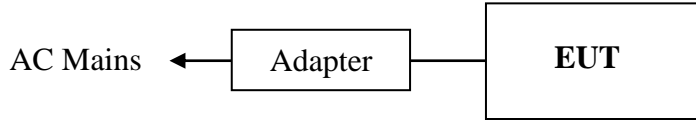
Product Feature & Specification	
Product	Tablet
Model No.	CT9C08; CT9C18; CT9C0A; VCT9C0A; CT201; CT9C1A; VCT9C1A; CT211
Power Source	<input checked="" type="checkbox"/> Commercial Power AC 100~240 V
	<input checked="" type="checkbox"/> External Power Source DC 5V
	<input checked="" type="checkbox"/> Li-ion Battery DC 3.7V
	<input type="checkbox"/> UM battery DC V
Bluetooth	
Radio	Bluetooth V3.0+EDR; Bluetooth V4.0
Frequency Range	2402-2480MHz
Type of Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Data Rate	1Mbps, 2Mbps, 3Mbps
Quantity of Channels	79/40
Channel Separation	1MHz/2MHz
2.4GHz Wi-Fi	
Support Modes	802.11b/g/n20/n40
Frequency Range	2412-2462MHz
Type of Modulation	802.11b(DSSS): CCK, QPSK, BPSK; 802.11g/n(OFDM): 64QAM,16QAM, QPSK, BPSK
Data Rate	802.11b: 1/2/5.5/11 Mbps; 802.11g: 6/9/12/18/24/36/48/54 Mbps; 802.11n: up to 150Mbps
Channel Separation	5MHz
5GHz Wi-Fi	
Support Modes	802.11a/n20/n40/ac20/ac40/ac80
Frequency Range	5180-5240MHz, 5745-5825MHz
Type of Modulation	802.11a/n (OFDM): QPSK, BPSK, 16QAM, 64QAM 802.11ac (OFDM): QPSK, BPSK, 16QAM, 64QAM,256QAM
Data Rate	802.11a: 6/9/12/18/24/36/48/54 Mbps; 802.11n/ac: up to 433Mbps
Channel Separation	5MHz

Antenna System	
Type of Antenna	FPCB Antenna
Antenna Peak Gain (for CT9C08)	Bluetooth Peak Gain: 1.5dBi DTS Band (2400-2483.5MHz) Peak Gain: 1.5dBi. U-NII-1 Band (5150-5250MHz) Peak Gain: 1.5dBi. U-NII-3 Band (5725-5850MHz) Peak Gain: 1.5dBi.
Antenna Peak Gain (for CT9C18)	Bluetooth Peak Gain: 1dBi DTS Band (2400-2483.5MHz) Peak Gain: 1dBi. U-NII-1 Band (5150-5250MHz) Peak Gain: 1dBi. U-NII-3 Band (5725-5850MHz) Peak Gain: 1dBi.

2.2. Tested Supporting System Details

[None]

2.3. Block Diagram of connection between EUT and simulators



(EUT: Tablet)

2.4. Test information

A Special Test Software (V1.25.100-A00) was used to control EUT work in Continuous TX mode (GFSK modulation), and select test channel.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)	Channel	Frequency (MHz)
Tx Mode GFSK modulation	1	Low :CH 0	2402
	1	Middle: CH19	2440
	1	High: CH39	2480

2.5. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
: No. 6, Kefeng Road, Science & Technology Park,
Nanshan District , Shenzhen, Guangdong, China

EMC Lab. : Accredited by Industry Canada
: Registration Number: IC 5183A-1
Valid Date: Mar.31, 2022

: Certificated by FCC, USA
: Designation No.: CN5022
Valid Date: Mar.31, 2022

: Accredited by NVLAP, USA
: NVLAP Code: 200372-0
Valid Date: Mar.31, 2022

2.6. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	2.6dB(150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.2dB(30~200MHz, Polarization: H)
	3.6dB(30~200MHz, Polarization: V)
	3.4dB(200M~1GHz, Polarization: H)
	3.4dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in 3m chamber(1GHz-25GHz)	4.6dB(1~6GHz, Distance: 3m)
	4.6dB(6~25GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test	3.7dB(30MHz~1000MHz)
	3.3dB(1~26.5GHz)
Uncertainty for Conduction Spurious emission test	2.0dB
Uncertainty for Output power test	0.8dB
Uncertainty for Bandwidth test	83kHz
Uncertainty for DC power test	1.9%
Uncertainty for test site temperature and humidity	0.6°C
	3%

Note: EMI uncertainty is evaluated by CISPR16-4-2.

The value of measurement uncertainty of EMI is less than U_{CISPR} .

The value is not calculated in the test results.

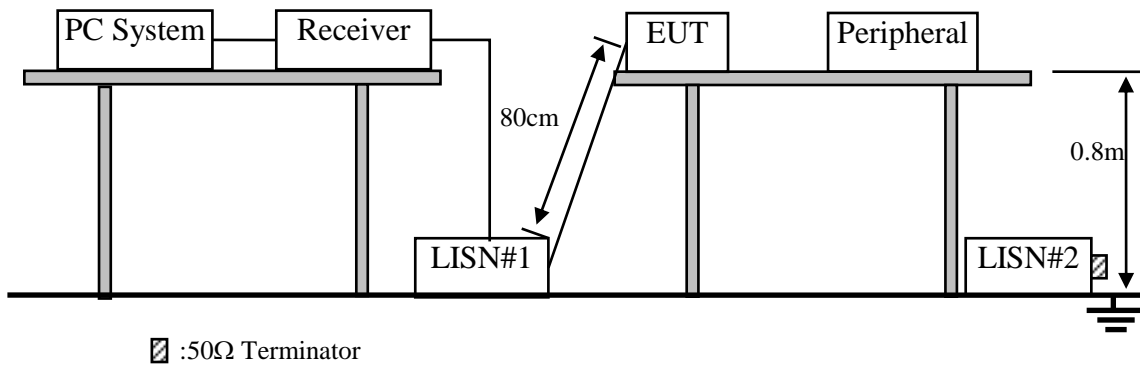
3. POWER LINE CONDUCTED EMISSION TEST

3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	May.17,18	3 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.07,21	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ENV216	102160	Oct.11,20	1 Year
4.	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	Apr.06,21	1 Year
5.	Terminator	Hubersuhner	50Ω	No.1	Apr.06,21	1 Year
6.	Terminator	Hubersuhner	50Ω	No.2	Apr.06,21	1 Year
7.	RF Cable	EMCI	EMCCFD300-B M-NM-2000	190422	Apr.08,21	1 Year
8.	Test Software	AUDIX	e3	6.100913a	N/A	N/A

Note: N/A means Not applicable.

3.2. Block Diagram of Test Setup



3.3. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3. Emission Level (dBμV) = Factor (L.I.S.N.) (dB) + Cable Loss (dB) + Reading (Receiver) (dBμV).

3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. Tablet (EUT)

Model Number : CT9C08; CT9C18

Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 3.2.

3.5.2. Turn on the power of all equipments.

3.5.3. PC run test software to control EUT work in Tx mode.

3.6. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via AC unit connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

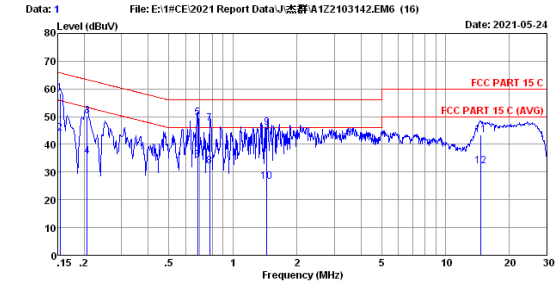
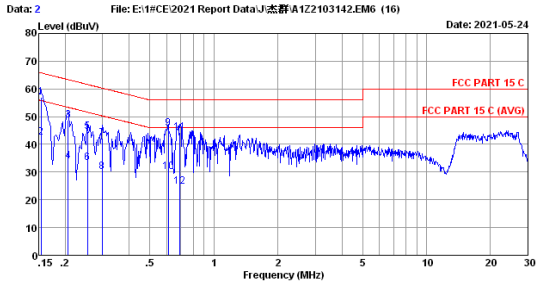
The bandwidth of test receiver (R & S ESCI) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.7. Power Line Conducted Emission Test Results

PASS. (All emissions not reported below are too low against the prescribed limits.)

M/N: CT9C08



Site no :1# Conduction Data No :2
 Dis./Lism :2020 ENV216-L LISM phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.8°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 4.0

Site no :1# Conduction Data No :1
 Dis./Lism :2020 ENV216-N LISM phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.8°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 4.0

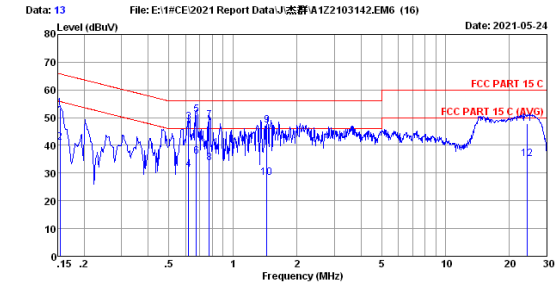
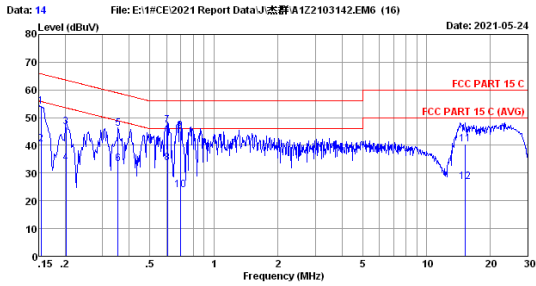
No	Freq (MHz)	LISM Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	9.70	0.01	47.30	57.01	65.78	8.77	QP
2	0.154	9.70	0.01	32.90	42.61	55.78	13.17	Average
3	0.206	9.70	0.01	38.90	48.61	63.37	14.76	QP
4	0.206	9.70	0.01	24.20	33.91	53.37	19.46	Average
5	0.254	9.70	0.01	35.00	44.71	61.63	16.92	QP
6	0.254	9.70	0.01	23.60	33.31	51.63	18.32	Average
7	0.298	9.70	0.01	32.40	42.11	60.30	18.19	QP
8	0.298	9.70	0.01	20.40	30.11	50.30	20.19	Average
9	0.610	9.70	0.01	35.90	45.61	56.00	10.39	QP
10	0.610	9.70	0.01	20.30	30.01	46.00	15.99	Average
11	0.690	9.70	0.01	34.50	44.21	56.00	11.79	QP
12	0.690	9.70	0.01	15.10	24.81	46.00	21.19	Average

No	Freq (MHz)	LISM Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	9.70	0.01	48.80	58.51	65.78	7.27	QP
2	0.154	9.70	0.01	34.30	44.01	55.78	11.77	Average
3	0.206	9.70	0.01	40.50	50.21	63.37	13.16	QP
4	0.206	9.70	0.01	26.00	35.71	53.37	17.66	Average
5	0.682	9.70	0.01	39.90	49.61	56.00	6.39	QP
6	0.682	9.70	0.01	24.40	34.11	46.00	11.89	Average
7	0.778	9.70	0.01	37.80	47.51	56.00	8.49	QP
8	0.778	9.70	0.01	22.40	32.11	46.00	13.89	Average
9	1.446	9.70	0.02	36.20	45.92	56.00	10.08	QP
10	1.446	9.70	0.02	16.90	26.62	46.00	19.38	Average
11	14.678	9.80	0.08	33.50	43.38	60.00	16.62	QP
12	14.678	9.80	0.08	22.40	32.28	50.00	17.72	Average

Remarks: 1.Emission Level=LISM Factor+Cable Loss+Reading.
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Remarks: 1.Emission Level=LISM Factor+Cable Loss+Reading.
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

M/N: CT9C18



Site no :1# Conduction Data No :14
 Dis./Lism :2020 ENV216-L LISM phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.8°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 4.0

Site no :1# Conduction Data No :13
 Dis./Lism :2020 ENV216-N LISM phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.8°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 4.0

No	Freq (MHz)	LISM Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	9.70	0.01	44.20	53.91	65.78	11.87	QP
2	0.154	9.70	0.01	30.80	40.51	55.78	15.27	Average
3	0.202	9.70	0.01	36.90	46.61	63.37	16.92	QP
4	0.202	9.70	0.01	23.80	33.51	53.37	20.02	Average
5	0.354	9.70	0.01	36.20	45.91	58.87	12.96	QP
6	0.354	9.70	0.01	23.70	33.41	48.87	15.46	Average
7	0.606	9.70	0.01	37.60	47.31	56.00	8.69	QP
8	0.606	9.70	0.01	23.80	33.51	46.00	12.49	Average
9	0.694	9.70	0.01	35.40	45.11	56.00	10.89	QP
10	0.694	9.70	0.01	14.20	23.91	46.00	22.09	Average
11	15.222	9.80	0.08	30.51	40.39	60.00	19.61	QP
12	15.222	9.80	0.08	16.91	26.79	50.00	23.21	Average

No	Freq (MHz)	LISM Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	9.70	0.01	43.60	53.31	65.78	12.47	QP
2	0.154	9.70	0.01	31.20	40.91	55.78	14.87	Average
3	0.618	9.70	0.01	38.60	48.31	56.00	7.69	QP
4	0.618	9.70	0.01	21.60	31.31	46.00	14.69	Average
5	0.674	9.70	0.01	41.50	51.21	56.00	4.79	QP
6	0.674	9.70	0.01	26.40	36.11	46.00	9.89	Average
7	0.774	9.70	0.01	39.20	48.91	56.00	7.09	QP
8	0.774	9.70	0.01	23.80	33.51	46.00	12.49	Average
9	1.446	9.70	0.02	37.40	47.12	56.00	8.88	QP
10	1.446	9.70	0.02	18.70	28.42	46.00	17.58	Average
11	24.230	9.90	0.11	37.70	47.71	60.00	12.29	QP
12	24.230	9.90	0.11	25.00	35.01	50.00	14.99	Average

Remarks: 1.Emission Level=LISM Factor+Cable Loss+Reading.
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Remarks: 1.Emission Level=LISM Factor+Cable Loss+Reading.
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED EMISSION MEASUREMENT

4.1. Test Equipment

Frequency range: 30~1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber(NSA)	AUDIX	N/A	N/A	May.03,20	1 Year
2.	3#Chamber(SE)	AUDIX	N/A	N/A	May.17,18	3 Year
3.	Signal Analyzer	Rohde & Schwarz	FSV30	104050	Apr.07,21	1 Year
4.	EMI Test Receiver	Rohde & Schwarz	ESR7	101547	Apr.07,21	1 Year
5.	Amplifier	HP	8447D	2648A04738	Apr.08,21	1 Year
6.	Tri-log-Broadband Antenna	SCHWARZBECK	VULB 9168	710	Oct.19,20	1 Year
7.	Loop Antenna	Chase	HLA6120	1062	Apr.29,20	1 Year
8.	NSA Cable	HUBER+SUHNER	CFD400NL-LW	No.3	Oct.11,20	1 Year
9.	Coaxial Switch	Anritsu	MP59B	6201397223	Apr.07,21	1 Year
10.	Test Software	AUDIX	e3	6.2009-5-21a(n)	N/A	N/A

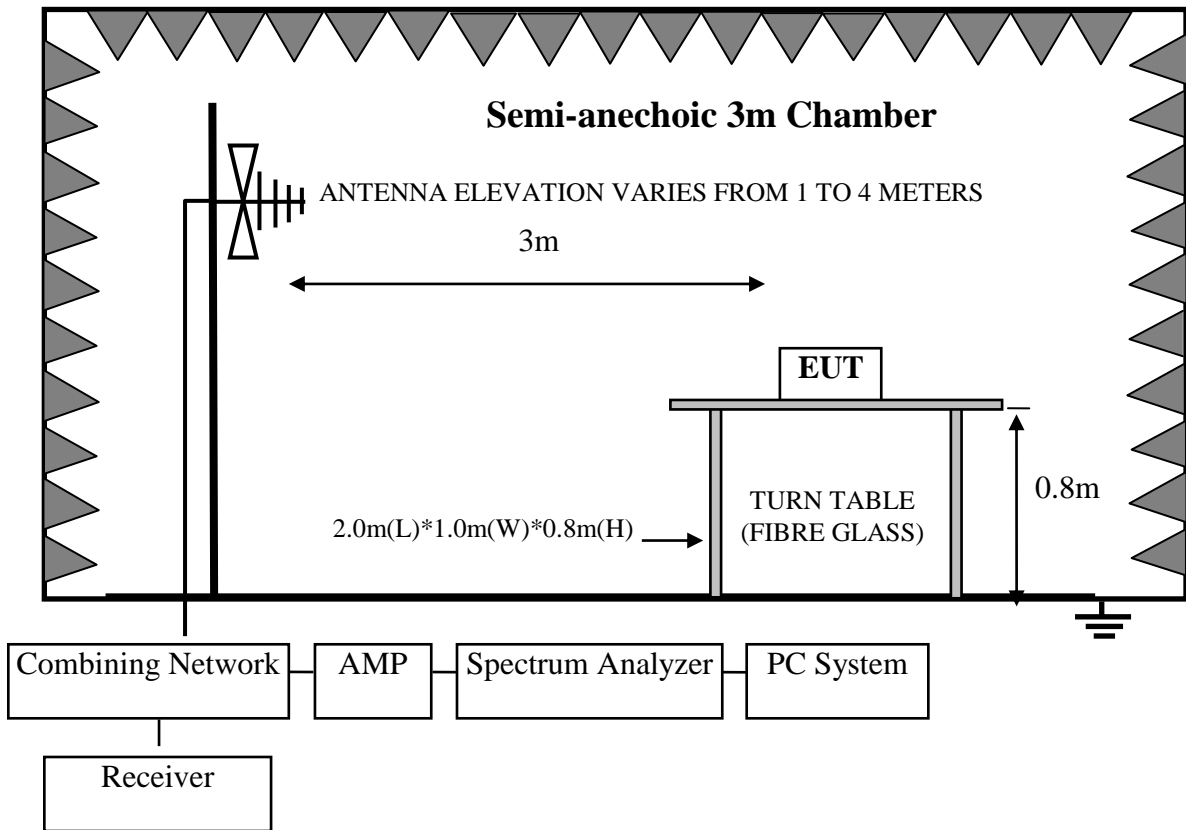
Note: N/A means Not applicable.

Frequency range: above 1000MHz

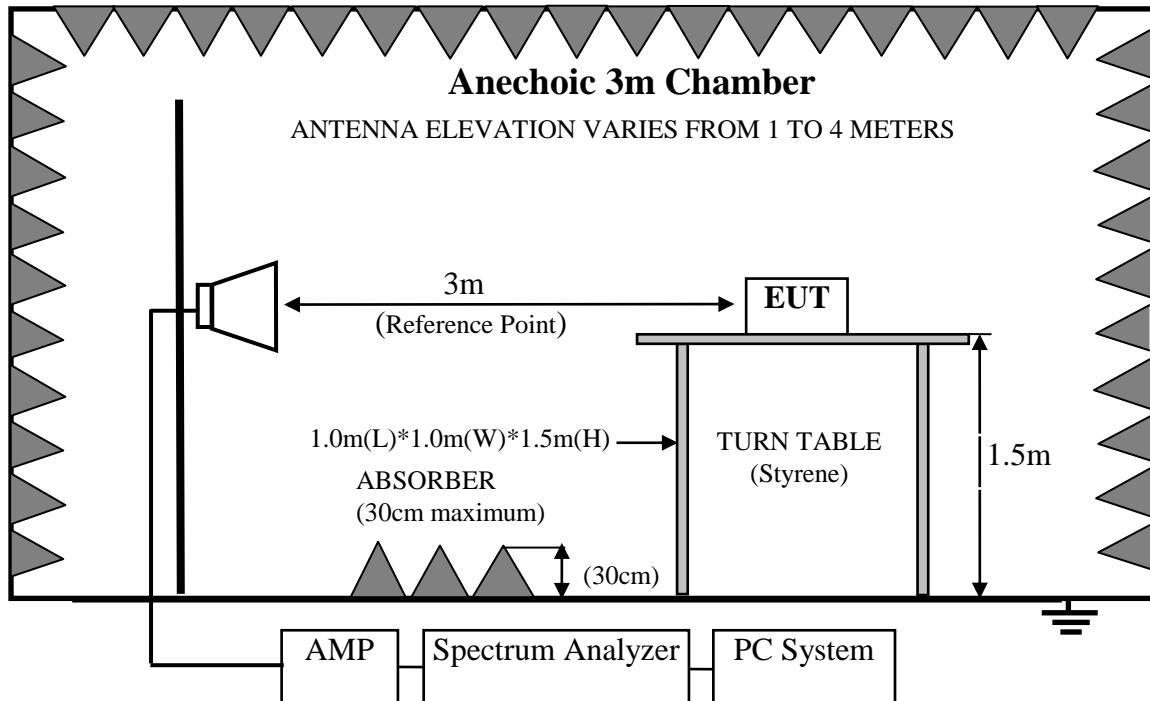
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber(Svswr)	AUDIX	N/A	N/A	Apr.15,21	1 Year
2.	3#Chamber(SE)	AUDIX	N/A	N/A	Apr.16,19	3 Year
3.	Signal Analyzer	Rohde & Schwarz	FSV30	104051	Apr.06,21	1 Year
4.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
5.	Horn Antenna	ETC	MCTD 1209	DRH15F03006	Jul.30,20	1 Year
6.	Horn Antenna	ETS	3116	00060089	Dec.09,20	1 Year
7.	Amplifier	HP	8449B	3008A02495	Apr.07,21	1 Year
8.	Amplifier	EMCI	EMC184040SE	980507	Apr.08,21	1 Year
9.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year
10.	Test Software	AUDIX	e3	6.100913a	N/A	N/A

Note: N/A means Not applicable.

4.2. Block Diagram of Test Setup
For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3. Radiated Emission Limit Standard:

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000MHz	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

- Remark :
- (1) Emission level dBμV = 20 log Emission level μV/m
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.
 - (4) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

4.4. EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.4.1. Tablet (EUT)

Model Number : CT9C08; CT9C18
 Serial Number : N/A

4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let EUT work in Tx mode.

4.6. Test Procedure

Frequency below 30MHz:

The EUT setup on the turn table which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the ground . The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it.EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horn antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2013 on radiated emission Test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as the test photo indicated.

The bandwidth of the EMI test receiver (R&S ESR7) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's RBW is set at 1MHz and VBW is set at 3MHz for peak emissions measurement above 1GHz.

This device is pulse Modulated, a duty cycle factor was used to calculated average level based measured peak level.

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

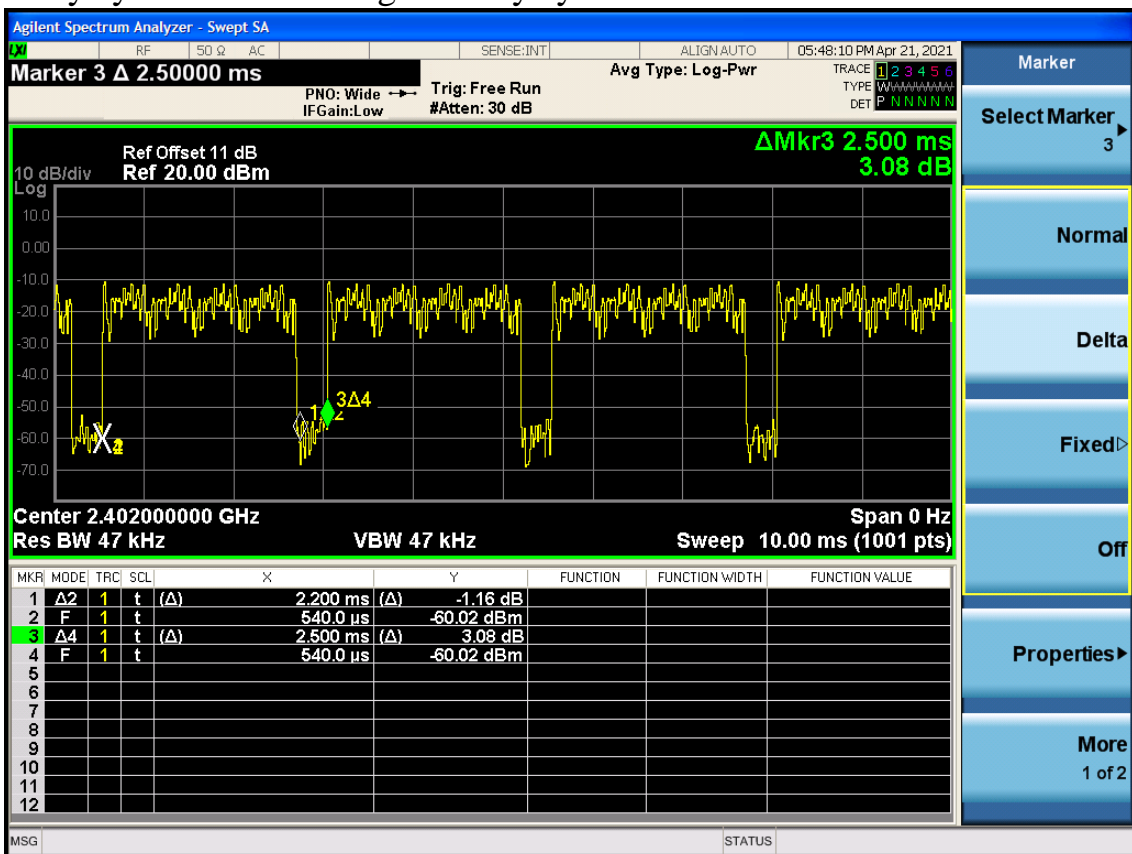
4.7. Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 25GHz were comply with the 15.209 Limit.

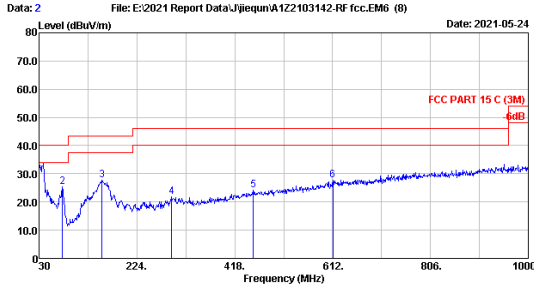
Note: The duty cycle factor for calculate average level is 1.11dB, and average limit is 20dB below peak limit, so if peak measured level comply with average limit, the average level was deemed to comply with average limit.

$$\text{Duty cycle factor} = 20\log (1/\text{duty cycle}) = 1.11\text{dB}$$



Frequency: 30MHz~1GHz

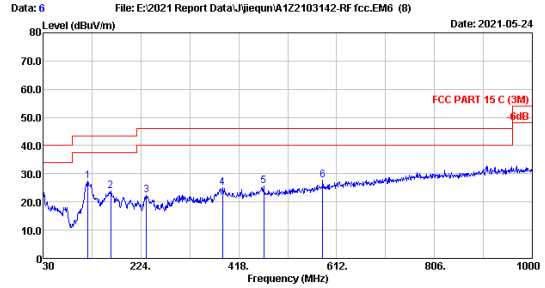
M/N: CT9C08



Date: 2021-05-24
 File: E:\2021 Report Data\Jijiequ\A122103142-RF.fcc.EM6 (8)
 Site no. : 3m Chamber
 Dis. / Ant. : 3m 2020 VULB9168-710
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54%
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT4.0 TX
 Data no. : 2
 Ant. pol. : VERTICAL
 Engineer : Hogrn

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	18.30	0.63	15.65	34.58	40.00	5.42	QP
2	76.560	15.60	0.83	8.94	25.37	40.00	14.63	QP
3	155.130	19.20	1.26	7.37	27.83	43.50	15.67	QP
4	232.870	18.90	1.72	1.13	21.75	46.00	24.25	QP
5	454.860	22.80	2.20	-0.82	24.18	46.00	21.82	QP
6	612.970	25.84	2.60	-0.64	27.80	46.00	18.20	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

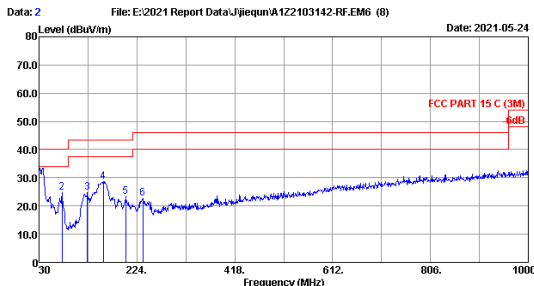


Date: 2021-05-24
 File: E:\2021 Report Data\Jijiequ\A122103142-RF.fcc.EM6 (8)
 Site no. : 3m Chamber
 Dis. / Ant. : 3m 2020 VULB9168-710
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54%
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT4.0 TX
 Data no. : 6
 Ant. pol. : HORIZONTAL
 Engineer : Hogrn

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	119.240	16.30	1.10	10.08	27.48	43.50	16.02	QP
2	163.860	19.00	1.30	3.64	23.94	43.50	19.56	QP
3	234.670	16.80	1.53	4.09	22.42	46.00	23.58	QP
4	385.990	20.92	1.99	2.30	25.21	46.00	20.79	QP
5	467.470	22.80	2.24	0.78	25.82	46.00	20.18	QP
6	594.840	24.80	2.54	0.33	27.67	46.00	18.33	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

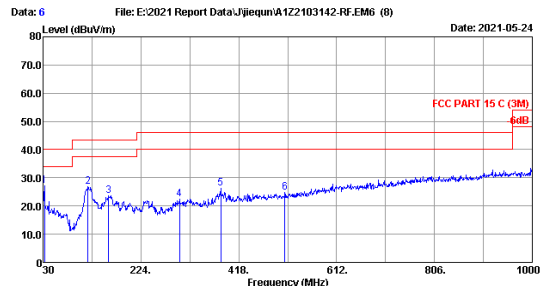
M/N: CT9C18



Date: 2021-05-24
 File: E:\2021 Report Data\Jijiequ\A122103142-RF.EM6 (8)
 Site no. : 3m Chamber
 Dis. / Ant. : 3m 2020 VULB9168-710
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54%
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT4.0 TX
 Data no. : 2
 Ant. pol. : VERTICAL
 Engineer : Hogrn

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	18.30	0.63	15.63	34.56	40.00	5.44	QP
2	75.590	15.90	0.83	8.18	24.91	40.00	15.09	QP
3	126.030	17.20	1.13	6.42	24.75	43.50	18.75	QP
4	157.070	19.20	1.27	8.16	28.63	43.50	14.87	QP
5	201.690	15.68	1.49	6.22	23.39	43.50	20.11	QP
6	235.640	16.90	1.53	4.17	22.60	46.00	23.40	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



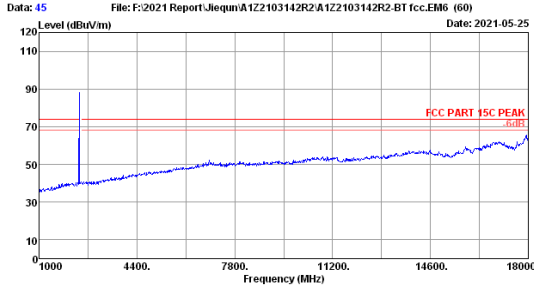
Date: 2021-05-24
 File: E:\2021 Report Data\Jijiequ\A122103142-RF.EM6 (8)
 Site no. : 3m Chamber
 Dis. / Ant. : 3m 2020 VULB9168-710
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54%
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT4.0 TX
 Data no. : 6
 Ant. pol. : HORIZONTAL
 Engineer : Hogrn

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	32.910	18.40	0.65	8.07	27.12	40.00	12.88	QP
2	119.240	16.30	1.10	9.40	26.80	43.50	16.70	QP
3	159.980	19.20	1.28	3.03	23.51	43.50	19.99	QP
4	300.630	19.10	1.74	1.63	22.47	46.00	23.53	QP
5	382.110	20.90	1.98	3.26	26.14	46.00	19.86	QP
6	509.180	23.48	2.36	-0.90	24.94	46.00	21.06	QP

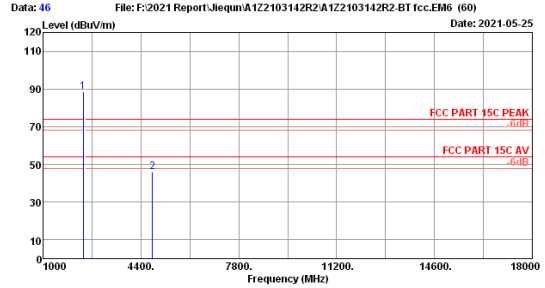
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz

M/N: CT9C08



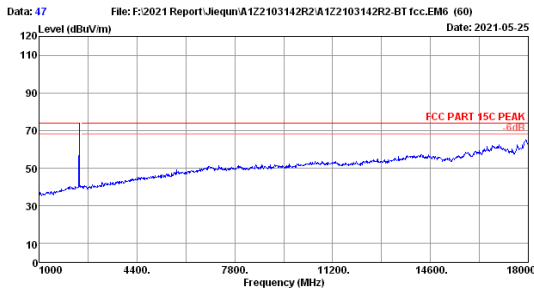
Site no. : 3m Chamber Data no. : 45
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2402MHz Tx



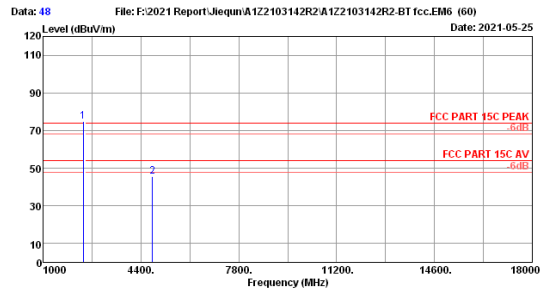
Site no. : 3m Chamber Data no. : 46
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2402MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	95.06	86.75	74.00	12.75	Peak
2	4804.000	32.61	1.38	46.68	46.21	74.00	27.79	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



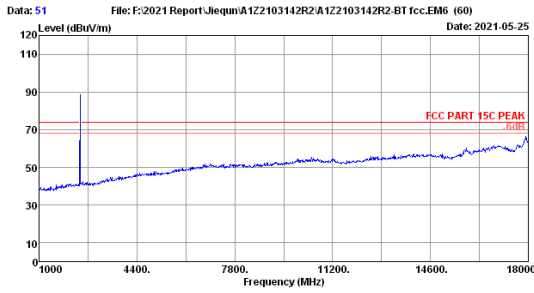
Site no. : 3m Chamber Data no. : 47
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2402MHz Tx



Site no. : 3m Chamber Data no. : 48
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2402MHz Tx

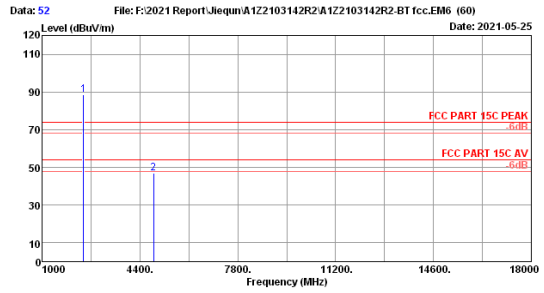
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	80.96	74.65	74.00	0.65	Peak
2	4804.000	32.61	1.38	46.19	45.72	74.00	28.28	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Data: 51 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT fcc.EM6 (60) Date: 2021-05-25

Site no. : 3m Chamber Data no. : 51
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2440MHz Tx

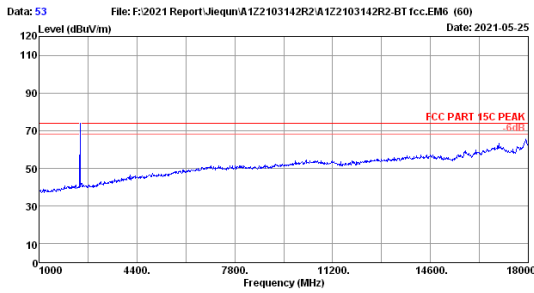


Data: 52 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT fcc.EM6 (60) Date: 2021-05-25

Site no. : 3m Chamber Data no. : 52
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2440MHz Tx

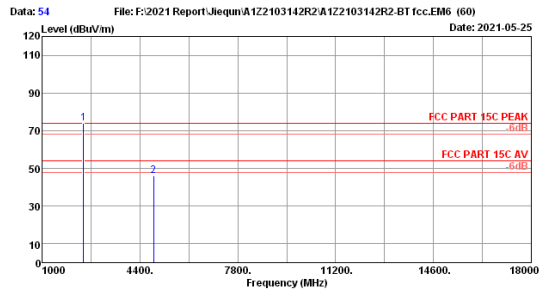
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.000	20.11	0.93	94.60	88.48	74.00	26.87	Peak
2	4880.000	32.68	1.39	47.53	47.13	74.00	26.87	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Data: 53 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT fcc.EM6 (60) Date: 2021-05-25

Site no. : 3m Chamber Data no. : 53
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2440MHz Tx

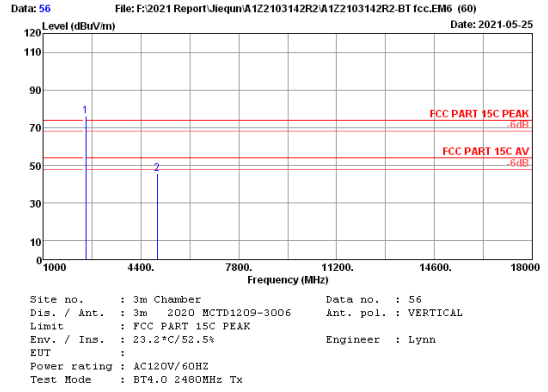
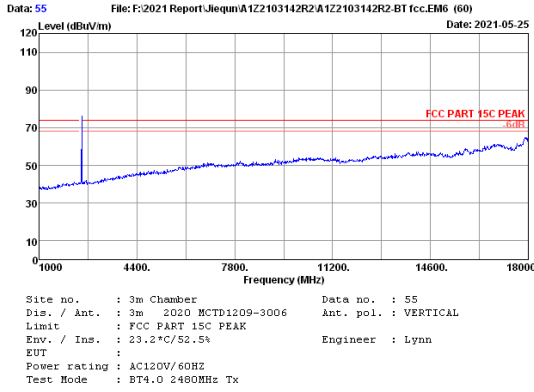


Data: 54 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT fcc.EM6 (60) Date: 2021-05-25

Site no. : 3m Chamber Data no. : 54
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2440MHz Tx

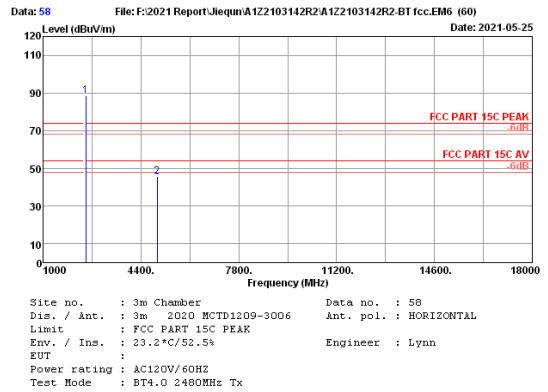
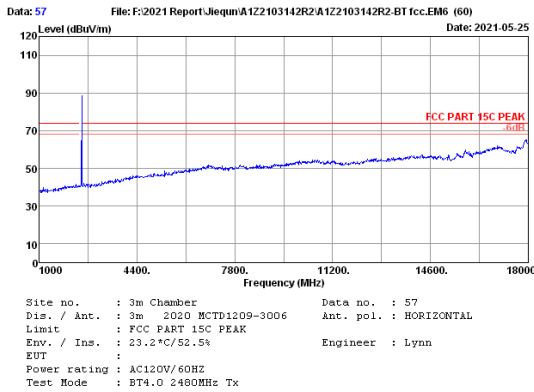
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.000	20.11	0.93	80.12	73.92	74.00	27.97	Peak
2	4880.000	32.68	1.39	46.43	46.03	74.00	27.97	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	20.17	0.94	82.14	76.00	-----	-----	Peak
2	4960.000	32.77	1.39	45.97	45.64	74.00	28.36	Peak

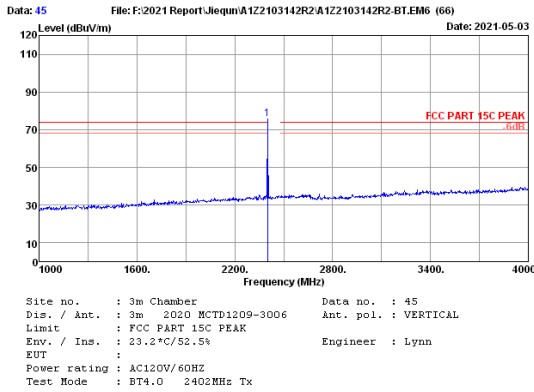
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	20.17	0.94	94.52	88.38	-----	-----	Peak
2	4960.000	32.77	1.39	46.02	45.69	74.00	28.31	Peak

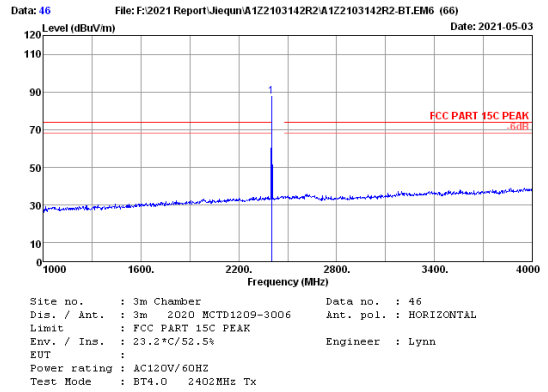
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

M/N: CT9C18



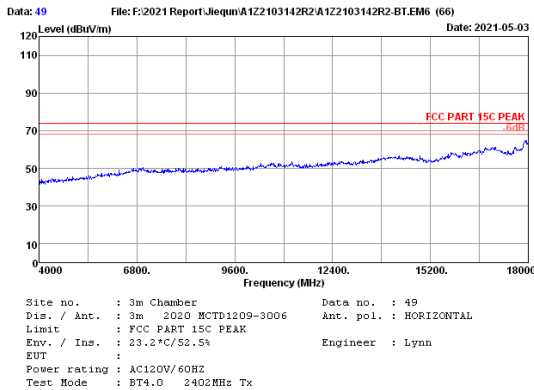
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	82.94	75.93			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



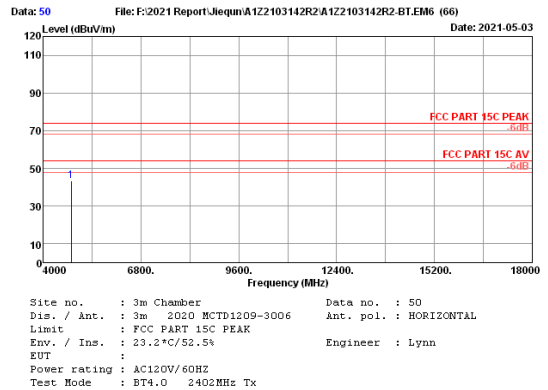
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	94.47	87.46			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



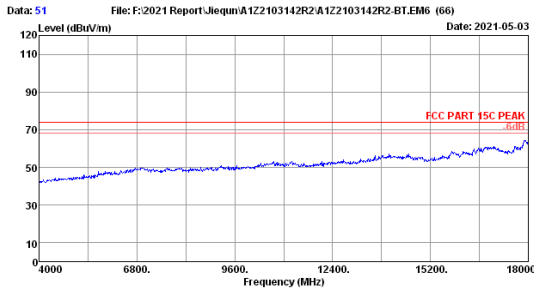
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	44.52	43.33	74.00	30.67	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



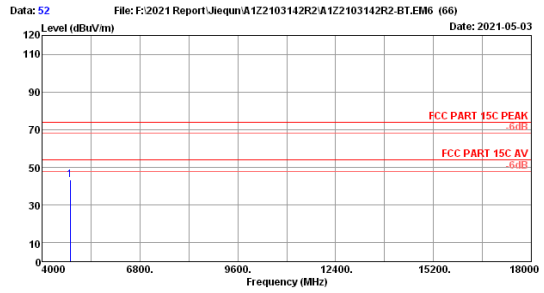
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	44.52	43.33	74.00	30.67	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Data: 51 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT.EM6 (66) Date: 2021-05-03

Site no. : 3m Chamber Data no. : 51
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2402MHz Tx

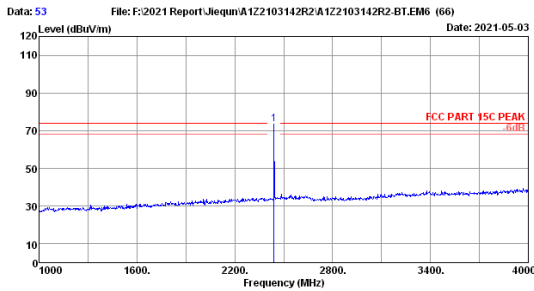


Data: 52 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT.EM6 (66) Date: 2021-05-03

Site no. : 3m Chamber Data no. : 52
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2402MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	44.57	43.38	74.00	30.62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

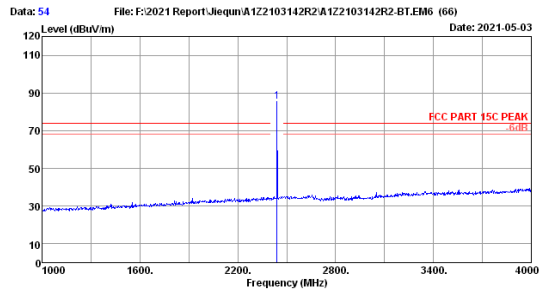


Data: 53 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT.EM6 (66) Date: 2021-05-03

Site no. : 3m Chamber Data no. : 53
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2440MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.000	28.11	0.93	80.54	73.64	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

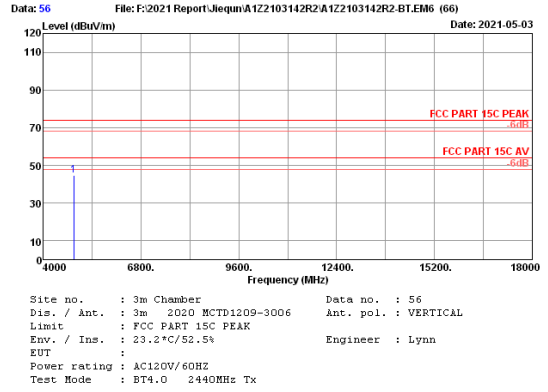
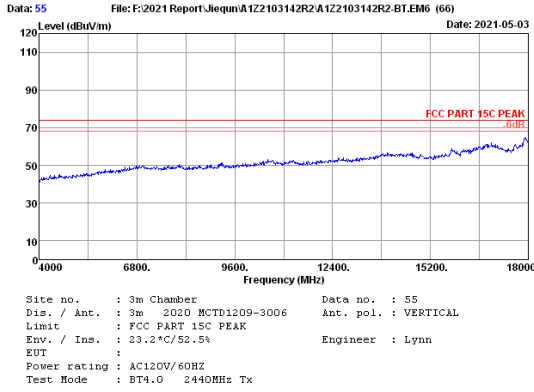


Data: 54 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT.EM6 (66) Date: 2021-05-03

Site no. : 3m Chamber Data no. : 54
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2440MHz Tx

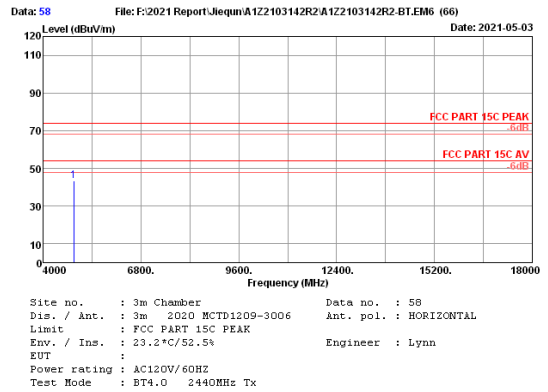
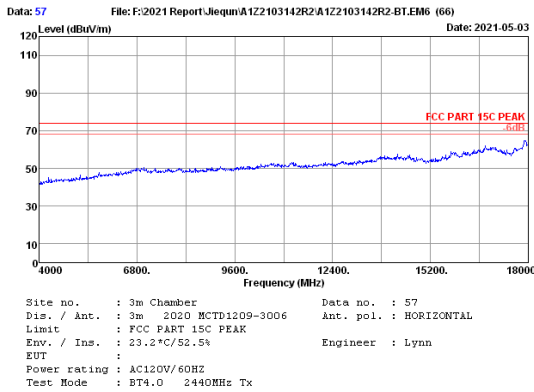
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.000	28.11	0.93	92.38	85.48	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



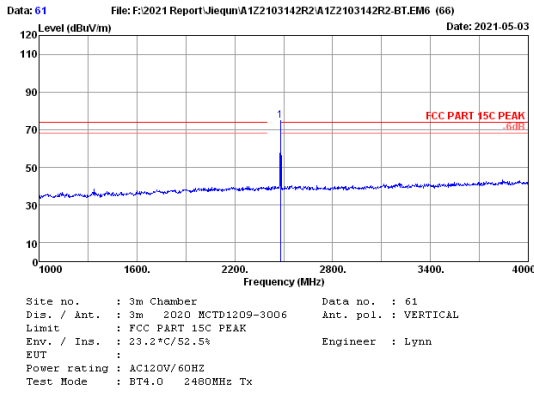
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4880.000	32.68	1.39	45.71	44.63	74.00	29.37	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



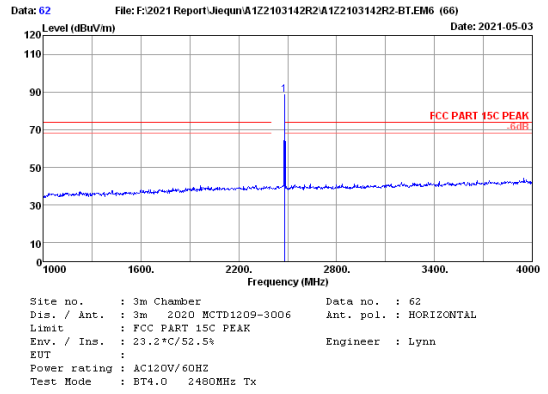
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4880.000	32.68	1.39	44.42	43.34	74.00	30.66	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



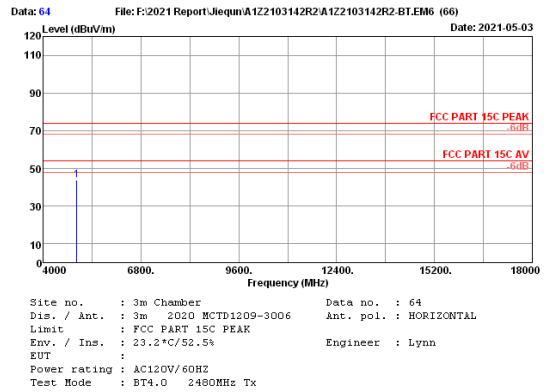
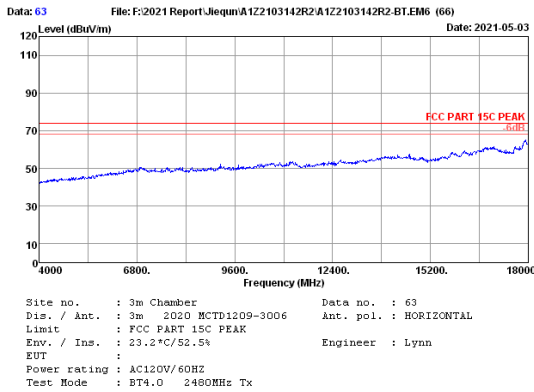
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.17	0.94	81.50	74.66			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



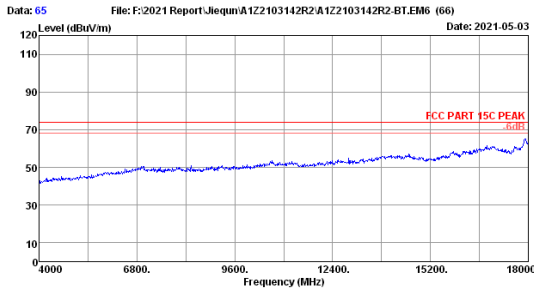
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.17	0.94	95.52	88.68			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



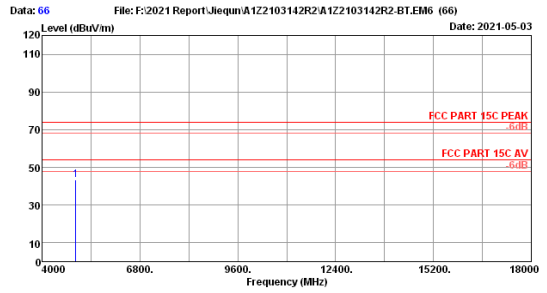
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	44.71	43.75	74.00	30.25	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Data: 65 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT.EM6 (66) Date: 2021-05-03

Site no. : 3m Chamber Data no. : 65
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2480MHz Tx



Data: 66 File: F:\2021 Report\Jiequn\A122103142R2\A122103142R2-BT.EM6 (66) Date: 2021-05-03

Site no. : 3m Chamber Data no. : 66
 Dis. / Ant. : 3m 2020 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.2°C/52.5% Engineer : Lynn
 EUT :
 Power rating : AC120V/60HZ
 Test Mode : BT4.0 2480MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	44.21	43.25	74.00	30.75	Peak

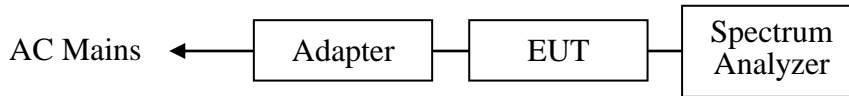
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
2.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
3.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year

5.2. Block Diagram of Test Setup



5.3. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.4. Test Procedure

Use the test method described in ANSI C63.10:

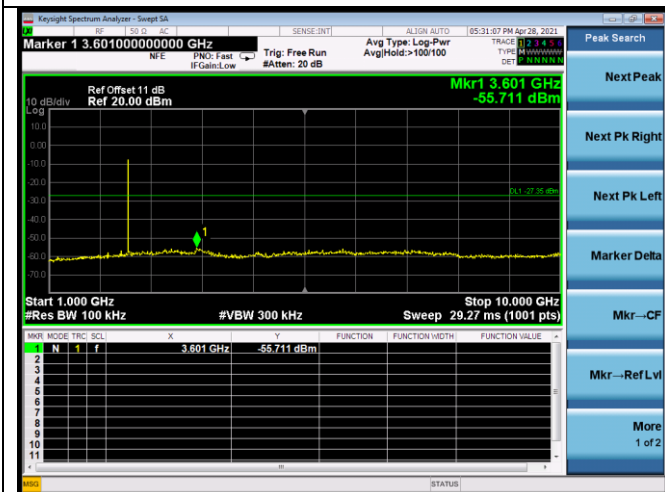
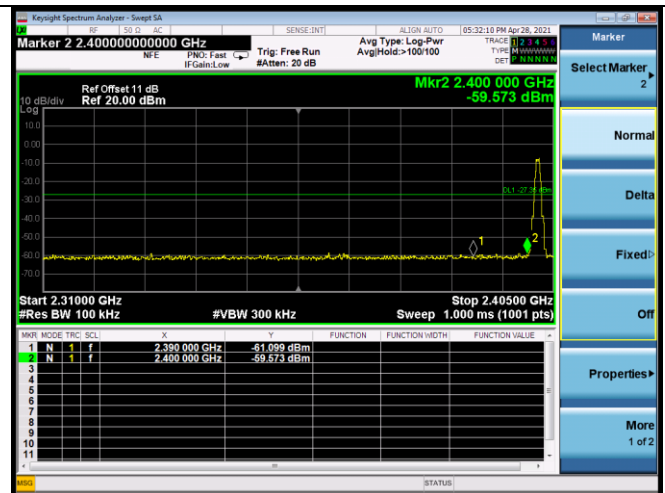
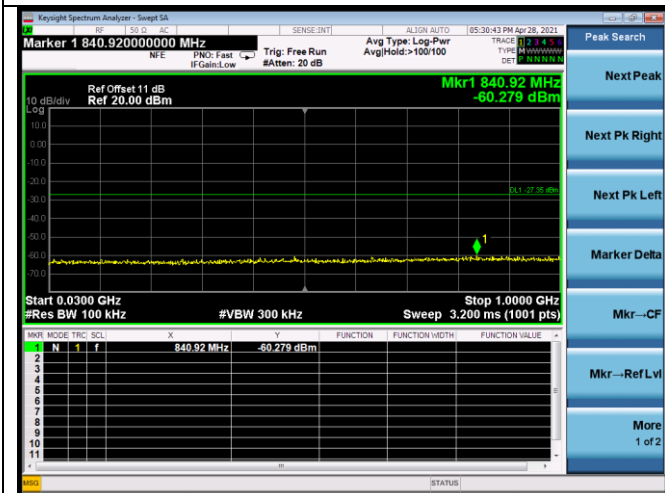
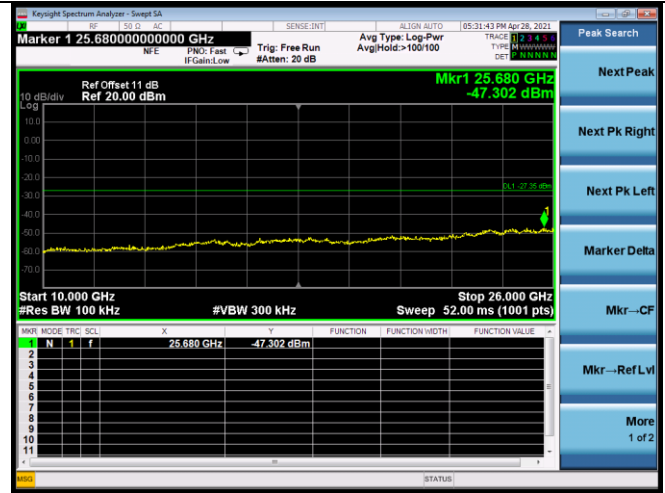
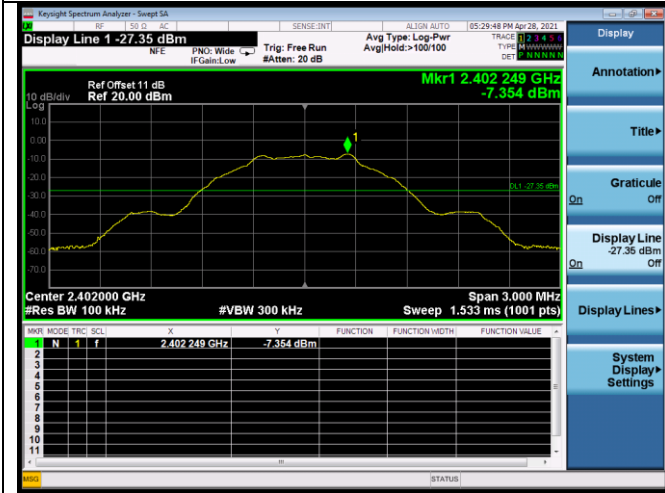
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions With peak detector.

5.5. Test result

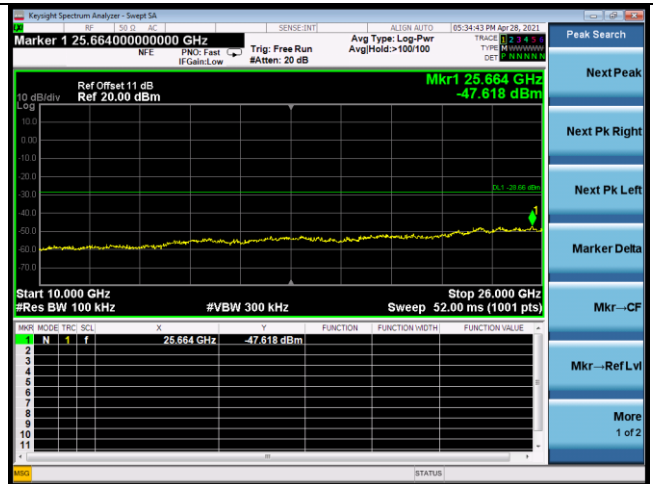
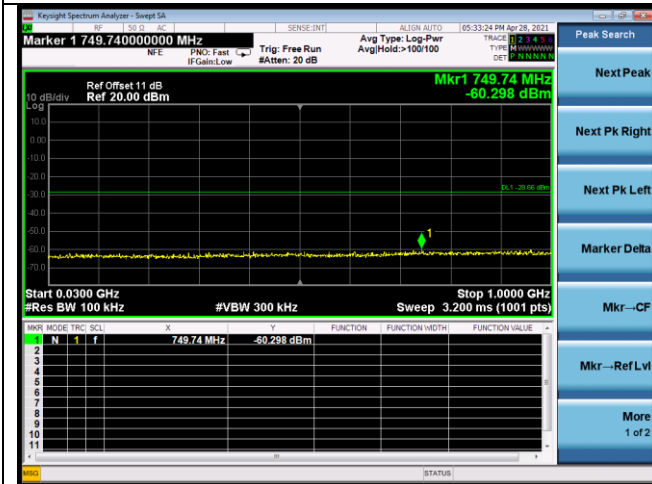
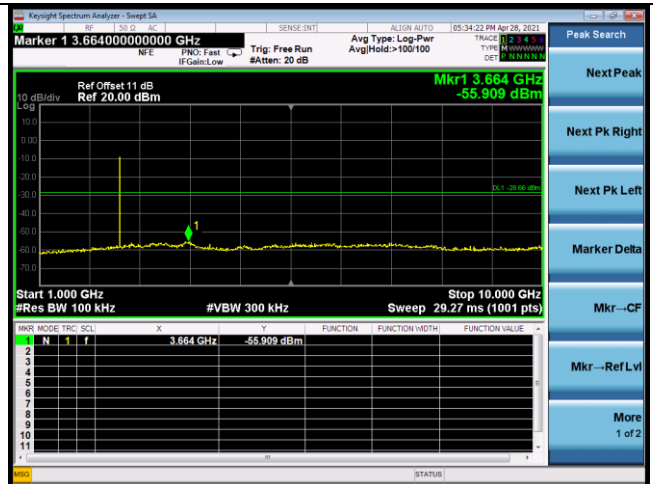
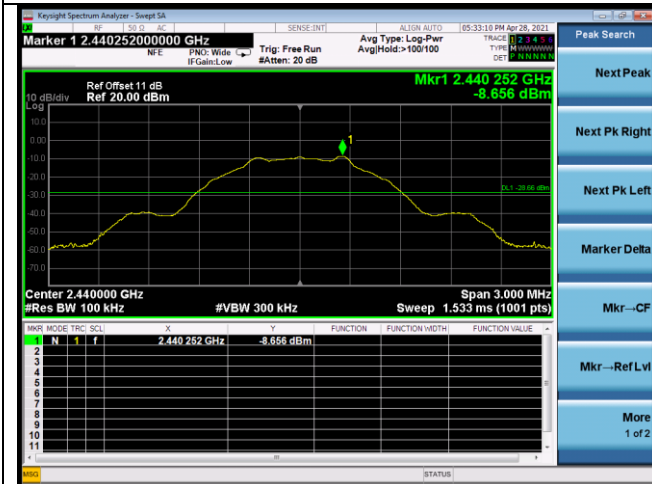
PASS (The testing data was attached in the next pages.)

EUT: Tablet		
M/N: CT9C08; CT9C18		
Test date: 2021-04-28	Pressure: 102.1 ±1.0 kpa	Humidity: 51.1 ±3.0%
Tested by: LILI	Test site: RF site	Temperature: 22.8 ±0.6 °C

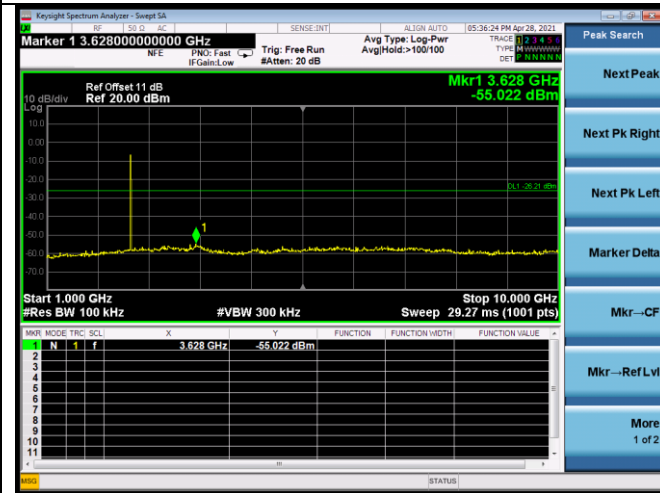
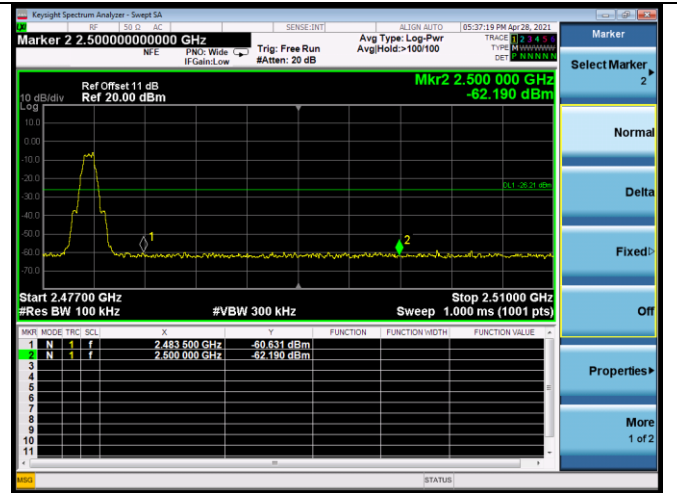
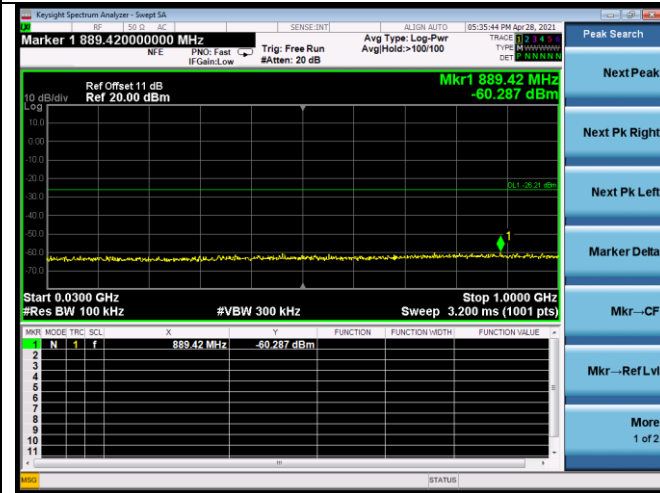
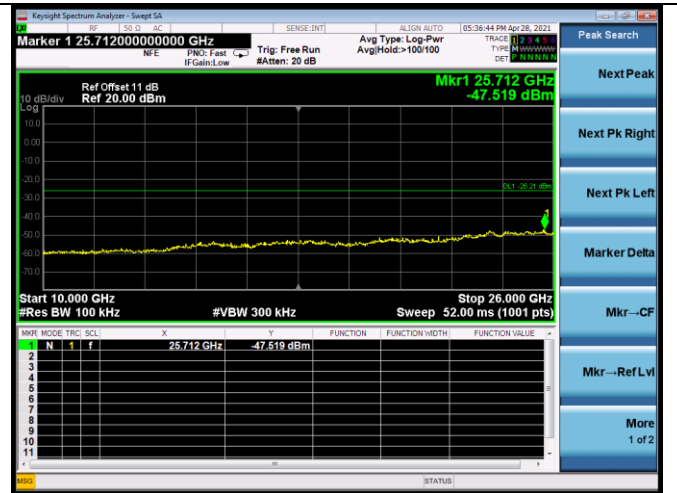
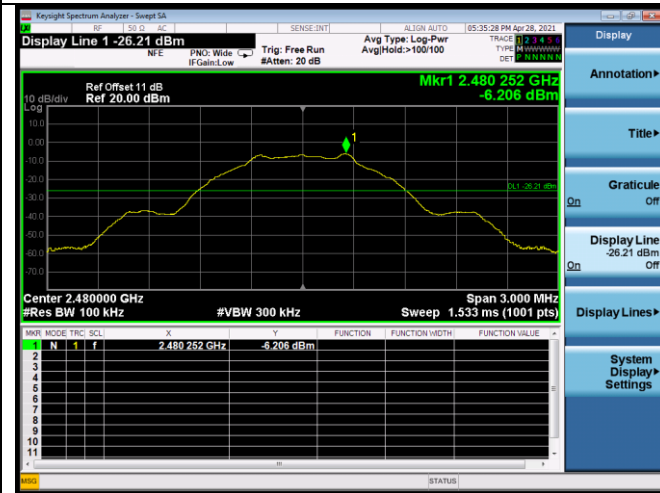
GFSK 2402MHz



2441MHz



2480MHz



6. 6dB BANDWIDTH TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
2.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
3.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year

6.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

6.3. Test Procedure

Use the test method described in ANSI C63.10 clause 11.8.2:

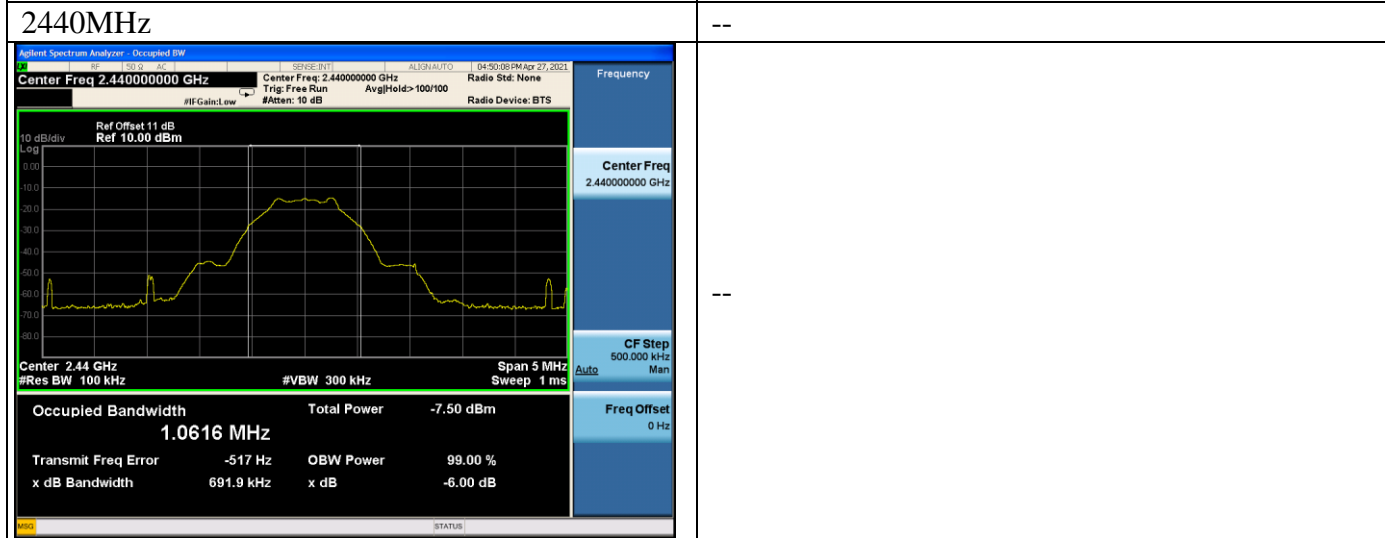
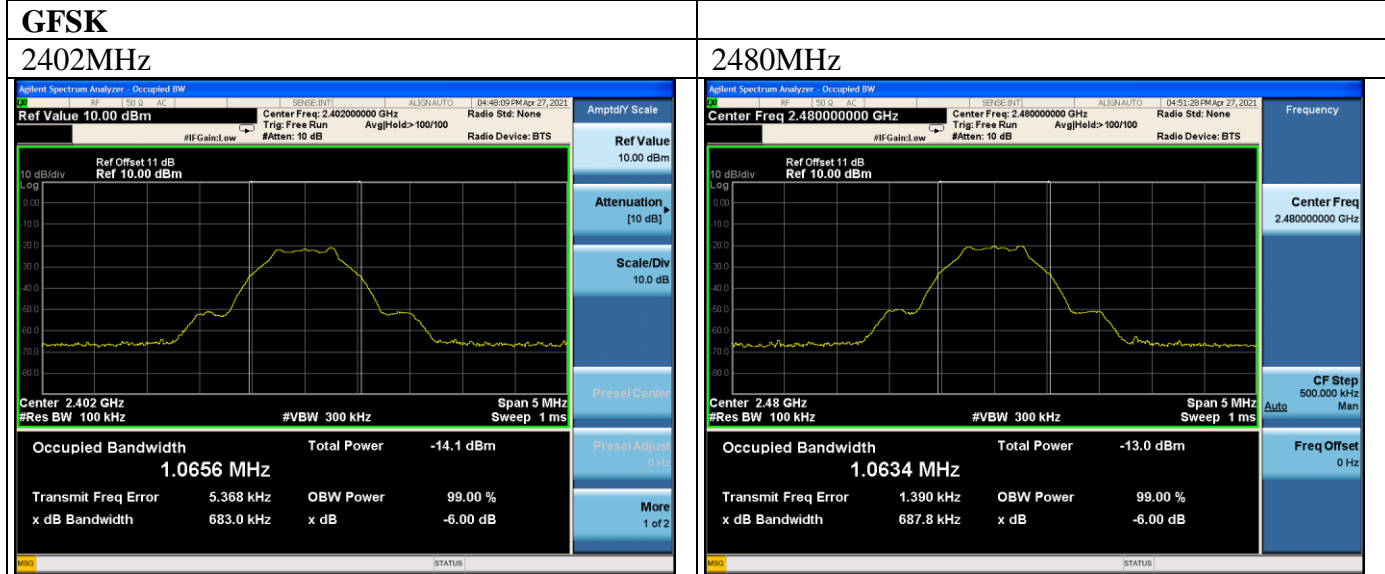
The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq 3 \times$ RBW, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.4. Test Results

EUT: Tablet		
M/N: CT9C08; CT9C18		
Test date: 2021-04-27	Pressure: 102.1 \pm 1.0 kpa	Humidity: 51.1 \pm 3.0%
Tested by: LILI	Test site: RF site	Temperature: 22.8 \pm 0.6 °C

Test Mode	Frequency (MHz)	6 dB bandwidth (kHz)	Limit (KHz)
GFSK	2402	683.0	≥ 500
	2440	691.9	≥ 500
	2480	687.8	≥ 500

Conclusion : PASS



7. MAXIMUM PEAK OUTPUT POWER TEST

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr.07,21	1 Year
3.	Power Sensor	Anritsu	MA2491A	033005	Apr.06,21	1 Year
4.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
5.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year

7.2. Limit

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm).

7.3. Test Procedure

Use the test method descried in ANSI C63.10 clause 11.9.1.3:

Connected the EUT's antenna port to Power Sensor, and use power meter to test peak output power.

7.4. Test Results

EUT: Tablet		
M/N: CT9C08; CT9C18		
Test date: 2021-04-21	Pressure: 102.3±1.0 kpa	Humidity: 53.6±3.0%
Tested by: LILI	Test site: RF site	Temperature: 25.5±0.6℃

Test Mode	Frequency (MHz)	Peak output Power (dBm)	Limit (dBm)
GFSK	2402	-5.88	30
	2440	-7.25	30
	2480	-4.687	30

Conclusion: PASS

8. BAND EDGE COMPLIANCE TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
2.	Horn Antenna	ETC	MCTD 1209	DRH15F03006	Jul.30,20	1 Year
3.	Amplifier	HP	8449B	3008A02495	Apr.07,21	1 Year
4.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year

8.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

8.3. Test Produce

Use the test method described in ANSI C63.10 clause 6.10:

For upper band emissions that are up to two bandwidths(2MHz) away (2483.5MHz to 2485.5MHz) from the band-edge use below produce:

1. Choose a spectrum analyzer span that encompasses both the peak of the fundamental emission and the band-edge emission under investigation. Set the analyzer RBW to 100KHz and with a video bandwidth 300KHz. Record the peak levels of the fundamental emission and the relevant band-edge emission, Observe the stored trace and measure the amplitude delta between the peak of the fundamental and the peak of the band-edge emission. This is not a field strength measurement, it is only a relative measurement to determine the amount by which the emission drops at the band edge relative to the highest fundamental emission level.
2. Subtract the delta measured in step (1) from the maximum field strengths measured in clause 4 .The resultant field strengths are then used to determine band-edge compliance as required by Section 15.205

For emissions above two bandwidths away from the band-edge use below produce:

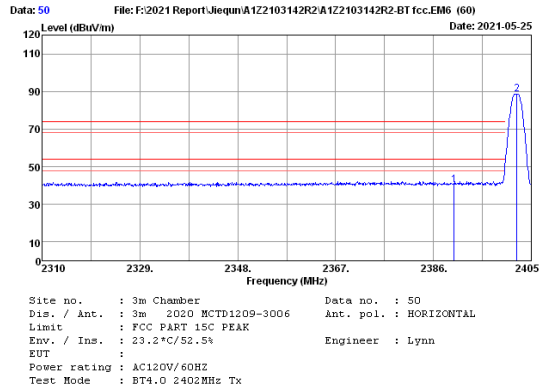
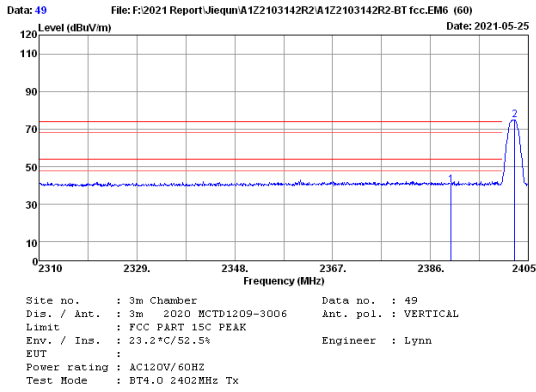
1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
 - (a) PEAK: RBW=1MHz ;VBW=3MHz, PK detector, Sweep=AUTO
 - (b) This is pulse Modulation device a duty cycle factor was used to calculate average level based measured peak level.

8.4. Test Results

Pass (The testing data was attached in the next pages.)

Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

M/N: CT9C08

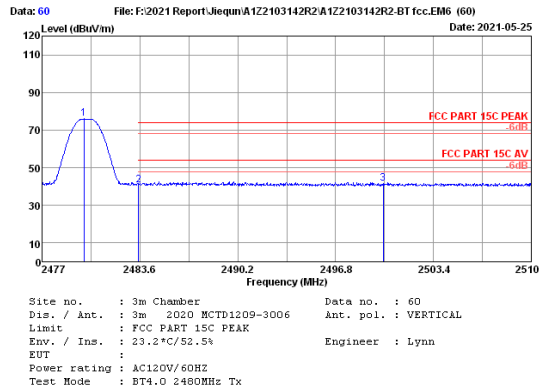
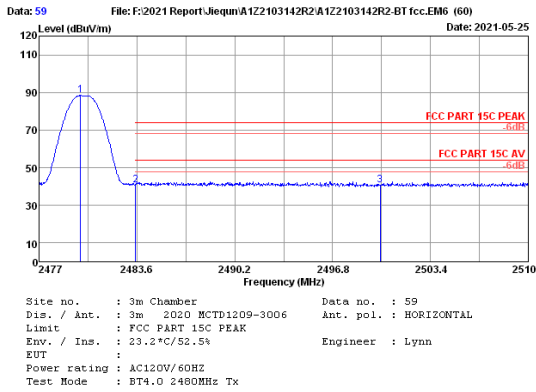


No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.01	0.92	46.75	40.44	74.00	33.56	Peak
2	2402.340	28.01	0.92	81.08	74.77			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.01	0.92	46.65	40.34	74.00	33.66	Peak
2	2402.245	28.01	0.92	95.03	88.72			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



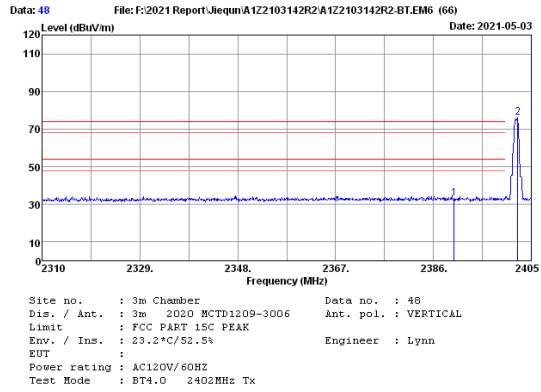
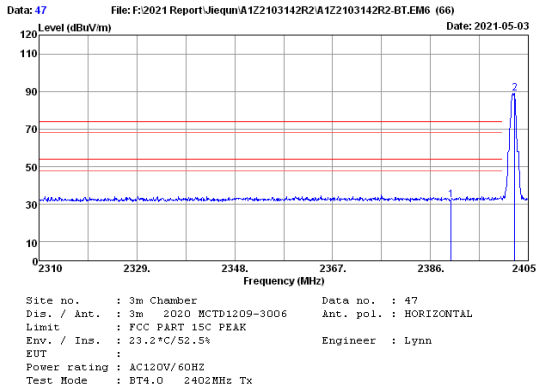
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.805	28.17	0.94	94.49	88.35			Peak
2	2489.500	28.17	0.94	47.09	40.95	74.00	33.05	Peak
3	2500.000	28.20	0.95	46.87	40.77	74.00	33.23	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.838	28.17	0.94	82.09	75.95			Peak
2	2489.500	28.17	0.94	46.95	40.81	74.00	33.19	Peak
3	2500.000	28.20	0.95	47.53	41.43	74.00	32.57	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

M/N: CT9C18

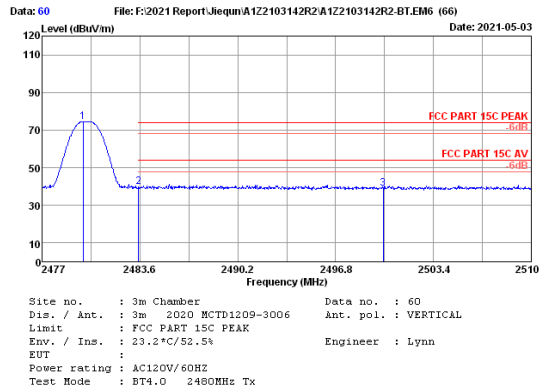
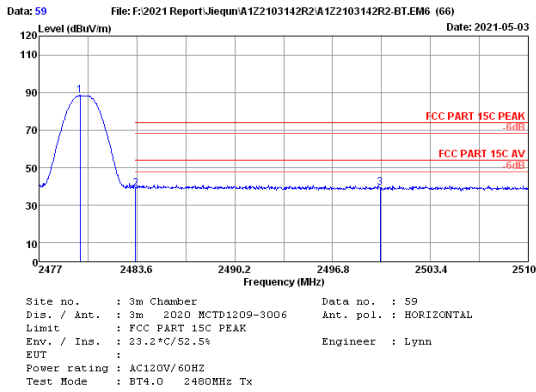


No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.01	0.92	39.34	32.33	74.00	41.67	Peak
2	2402.340	28.01	0.92	96.21	89.20			Peak

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.01	0.92	40.37	33.36	74.00	40.64	Peak
2	2402.340	28.01	0.92	83.04	76.03			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.772	28.17	0.94	95.19	88.35			Peak
2	2489.500	28.17	0.94	45.90	39.06	74.00	34.94	Peak
3	2500.000	28.20	0.95	46.21	39.41	74.00	34.59	Peak

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.772	28.17	0.94	81.37	74.53			Peak
2	2489.500	28.17	0.94	46.60	39.76	74.00	34.24	Peak
3	2500.000	28.20	0.95	45.74	38.94	74.00	35.06	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
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9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
2.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
3.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year

9.2. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3. Test Procedure

Use the test method described in ANSI C63.10 clause 11.10.2:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

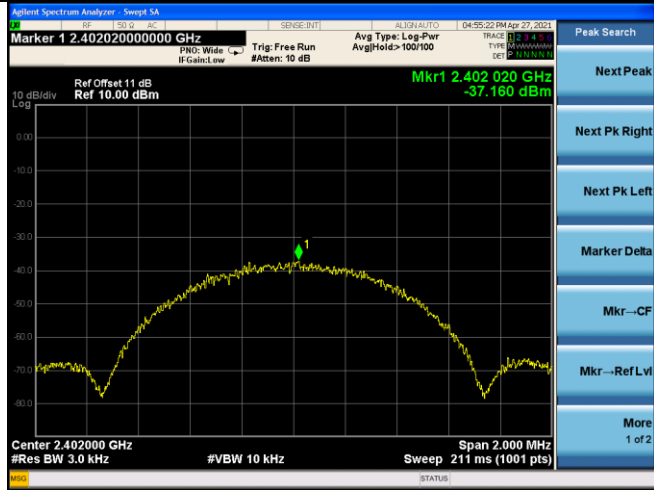
9.4. Test Results

EUT: Tablet		
M/N: CT9C08; CT9C18		
Test date: 2021-04-08~20	Pressure: 102.1 ±1.0 kpa	Humidity: 51.1 ±3.0%
Tested by: LILI	Test site: RF site	Temperature: 22.8 ±0.6 °C

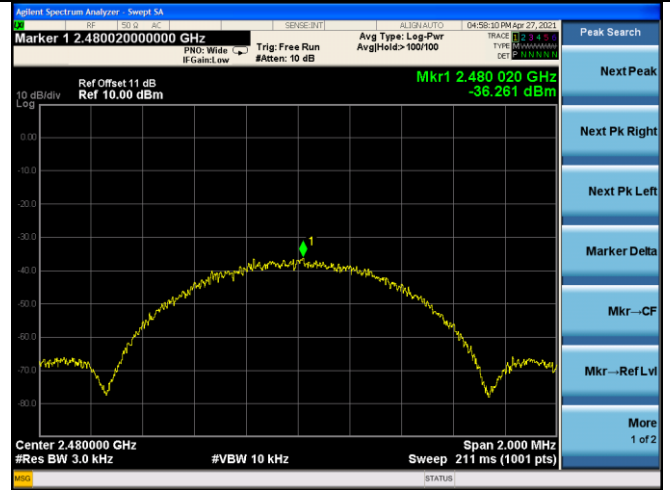
Test Mode	Frequency (MHz)	Power density (dBm/3KHz)	Limit (dBm/3KHz)
GFSK	2402	-37.160	8
	2440	-30.485	8
	2480	-36.261	8

Conclusion : PASS

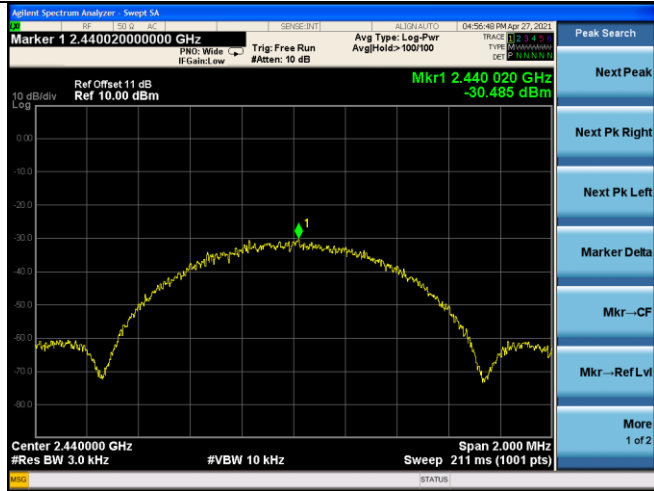
2402MHz



2480MHz



2440MHz



10. ANTENNA REQUIREMENT

10.1. STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are FPCB Antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 1.5dBi for CT9C08 and 1dBi for CT9C18.

11. DEVIATION TO TEST SPECIFICATIONS

[NONE]

..... **THE END**