

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.

No. 6, Kefeng Road, Science & Technology Park,
Nanshan District, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F21122

Date of Test : Apr.21~May.24, 2021

Date of Report : Jun.04, 2021

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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

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.

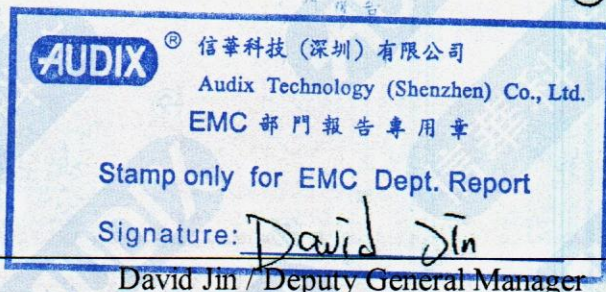
This Report is made under FCC Part 2.1074. No modifications were required during testing to bring this product into compliance.

This report applies to single evaluation of one sample of above mentioned product. And 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.24, 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
Carrier Frequency Separation Test	FCC Part 15: 15.247(a)(1) ANSI C63.10 2013	PASS
20dB Bandwidth Test	FCC Part 15: 15.215 ANSI C63.10 2013	PASS
Number Of Hopping Frequency Test	FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 2013	PASS
Dwell Time Test	FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 2013	PASS
Maximum Peak Output Power Test	FCC Part 15 15.247(b)(1) ANSI C63.10 2013	PASS
Band Edge Compliance Test	FCC Part 15 15.247(d) 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.																																																	
Manufacturer Address	11/F Metropole Square, 2 On Yiu Street, Sha Tin, New Territories, Hong Kong																																																	
Product	Tablet																																																	
Model No.	CT9C08; CT9C18; CT9C0A; VCT9C0A; CT201; CT9C1A; VCT9C1A; CT211 Model differences (Declared by the Applicant): The only differences between these models are the follows for marking purpose: ☐ Color ☐ Cosmetic details ☒ Trade name ☒ Model Number ☒ (Others, please specify) <u>TFT Different screen sizes</u> <table><tr><th>Item No.</th><th></th><th>Model No.</th><th>Trade Name</th><th>Remarks</th></tr><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></table> According to the above differences, the power line conducted emission, radiated emission and bandedge compliance were tested separately for two different display size.					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																																														
1	Basic model	CT9C08	VENTURER	10.1” display																																														
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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																																														
Test Model	CT9C08; CT9C18																																																	
FCC ID	A2HCT201																																																	
Power Adapter	Manufacture: ATC; M/N: APS-W010050200W-G Input: 100-240V~, 50/60Hz, 0.35A Max Output: DC 5V, 2.0A Cable: Shielded, Detachable, 1.0m																																																	
Rechargeable Lithium-ion Polymer Battery	Manufacturer: Guangdong Pow-Tech New Power Co., Ltd. M/N: PT3075110-2P; Power Rating Voltage: 3.7V, 6600mAh, 24.42Wh; Max Charge Voltage: 4.2V.																																																	
Sample Type	Prototype production																																																	
Date of Receipt	Apr.13, 2021																																																	
Date of Test	Apr.21~May.24, 2021																																																	
Remark: This report only for BDR+EDR.																																																		

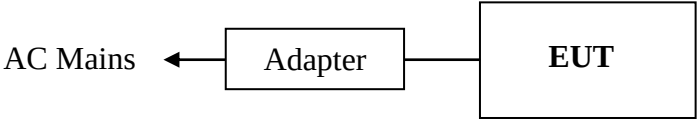
Product Feature & Specification		
Product	Tablet	
Model No.	CT9C08; CT9C18; CT9C0A; VCT9C0A; CT201; CT9C1A; VCT9C1A; CT211	
Power Source	☒ Commercial Power	AC 100~240 V
	☒ External Power Source	DC 5V
	☒ Li-ion Battery	DC 3.7V
	☐ UM battery	DC V
Bluetooth		
Radio	Bluetooth V3.0+EDR; Bluetooth V4.0	
Frequency 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 software (V1.25.100-A00) was used to control EUT work in continuous TX mode (GFSK, $\pi/4$ DQPSK, 8-DPSK Modulation)

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: CH39	2441
	1	High: CH78	2480
Tx Mode 8-DPSK modulation	3	Low :CH 0	2402
	3	Middle: CH39	2441
	3	High: CH78	2480
Note: $\pi/4$ DQPSK modulation is same type modulation with 8-DPSK, and according exploratory test, 8-DPSK will have worse emissions, so the final test were only performed with GFSK and 8-DPSK modulation.			

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.

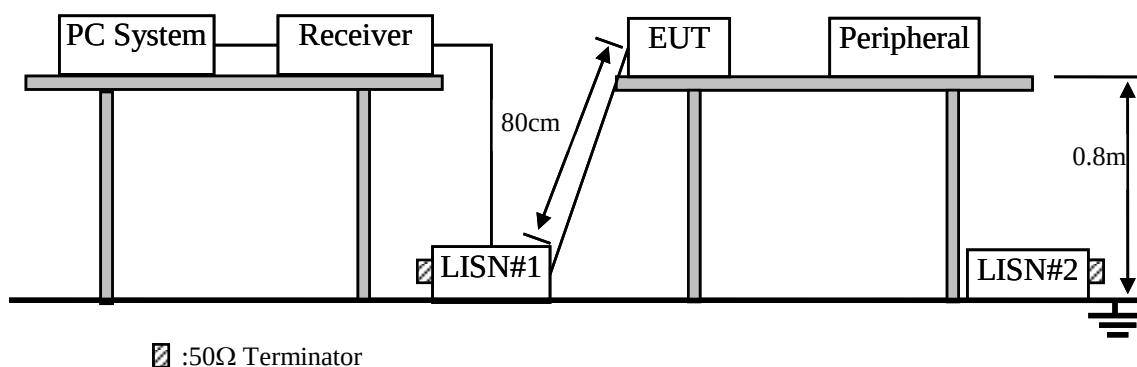
3. POWER LINE CONDUCTED EMISSION TEST

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.

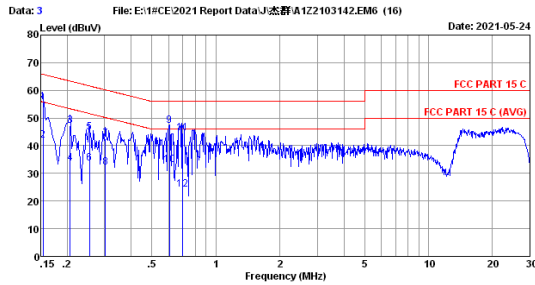
The bandwidth of test receiver (R & S ESCI) is set at 9kHz.

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.)

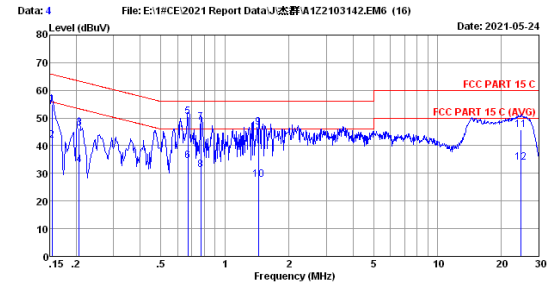
M/N: CT9C08



Site no :1# Conduction Data No :3
 Dis./Lisn :2020 ENV216-L LISN phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.0°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 3.0

No	Freq (MHz)	LISN Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	9.70	0.01	46.20	55.91	65.78	9.87	QP
2	0.154	9.70	0.01	32.30	42.01	55.78	13.77	Average
3	0.206	9.70	0.01	37.60	47.31	63.37	16.06	QP
4	0.206	9.70	0.01	23.80	33.51	53.37	19.86	Average
5	0.254	9.70	0.01	35.10	44.81	61.63	16.82	QP
6	0.254	9.70	0.01	24.00	33.71	51.63	17.92	Average
7	0.302	9.70	0.01	32.80	42.51	60.19	17.68	QP
8	0.302	9.70	0.01	22.50	32.21	50.19	17.98	Average
9	0.606	9.70	0.01	37.40	47.11	56.00	8.89	QP
10	0.606	9.70	0.01	23.30	33.01	46.00	12.99	Average
11	0.694	9.70	0.01	35.00	44.71	56.00	11.29	QP
12	0.694	9.70	0.01	14.50	24.21	46.00	21.79	Average

Remarks: 1.Emission Level=LISN 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.

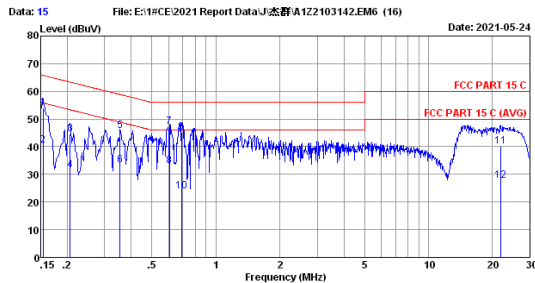


Site no :1# Conduction Data No :4
 Dis./Lisn :2020 ENV216-N LISN phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.0°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 3.0

No	Freq (MHz)	LISN Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.154	9.70	0.01	45.30	55.01	65.78	10.77	QP
2	0.154	9.70	0.01	32.30	42.01	55.78	13.77	Average
3	0.206	9.70	0.01	36.60	46.31	63.37	17.06	QP
4	0.206	9.70	0.01	23.50	33.21	53.37	20.16	Average
5	0.670	9.70	0.01	40.90	50.61	56.00	5.39	QP
6	0.670	9.70	0.01	24.70	34.41	46.00	11.59	Average
7	0.770	9.70	0.01	38.70	48.41	56.00	7.59	QP
8	0.770	9.70	0.01	21.50	31.21	46.00	14.79	Average
9	1.438	9.70	0.02	37.00	46.72	56.00	9.28	QP
10	1.438	9.70	0.02	17.90	27.62	46.00	18.38	Average
11	24.746	9.90	0.11	35.60	45.61	60.00	14.39	QP
12	24.746	9.90	0.11	23.90	33.91	50.00	16.09	Average

Remarks: 1.Emission Level=LISN 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.

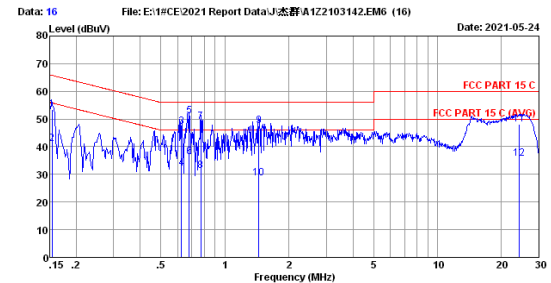
M/N: CT9C18



Site no :1# Conduction Data No :15
 Dis./Lisn :2020 ENV216-L LISN phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.0°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 3.0

No	Freq (MHz)	LISN 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	0.206	9.70	0.01	35.00	44.71	63.37	18.66	QP
4	0.206	9.70	0.01	22.00	31.71	53.37	21.66	Average
5	0.354	9.70	0.01	36.10	45.81	58.87	13.06	QP
6	0.354	9.70	0.01	23.60	33.31	48.87	15.56	Average
7	0.606	9.70	0.01	37.60	47.31	56.00	8.69	QP
8	0.606	9.70	0.01	23.30	33.01	46.00	12.99	Average
9	0.690	9.70	0.01	35.40	45.11	56.00	10.89	QP
10	0.690	9.70	0.01	14.20	23.91	46.00	22.09	Average
11	21.802	9.90	0.10	30.10	40.10	60.00	19.90	QP
12	21.802	9.90	0.10	17.60	27.60	50.00	22.40	Average

Remarks: 1.Emission Level=LISN 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.



Site no :1# Conduction Data No :16
 Dis./Lisn :2020 ENV216-N LISN phase:
 Limit :FCC PART 15 C
 Env./Ins. :Temp:24.0°C Humi:56% Engineer :Evan
 EUT :
 Power Rating :AC 120V/60Hz
 Test Mode :BT 3.0

No	Freq (MHz)	LISN 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	0.626	9.70	0.01	37.50	47.21	56.00	8.79	QP
4	0.626	9.70	0.01	22.40	32.11	46.00	13.89	Average
5	0.678	9.70	0.01	41.50	51.21	56.00	4.79	QP
6	0.678	9.70	0.01	26.60	36.31	46.00	9.69	Average
7	0.770	9.70	0.01	39.20	48.91	56.00	7.09	QP
8	0.770	9.70	0.01	21.60	31.31	46.00	14.69	Average
9	1.442	9.70	0.02	37.70	47.42	56.00	8.58	QP
10	1.442	9.70	0.02	18.90	28.62	46.00	17.38	Average
11	24.222	9.90	0.11	38.20	48.21	60.00	11.79	QP
12	24.222	9.90	0.11	25.70	35.71	50.00	14.29	Average

Remarks: 1.Emission Level=LISN 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.

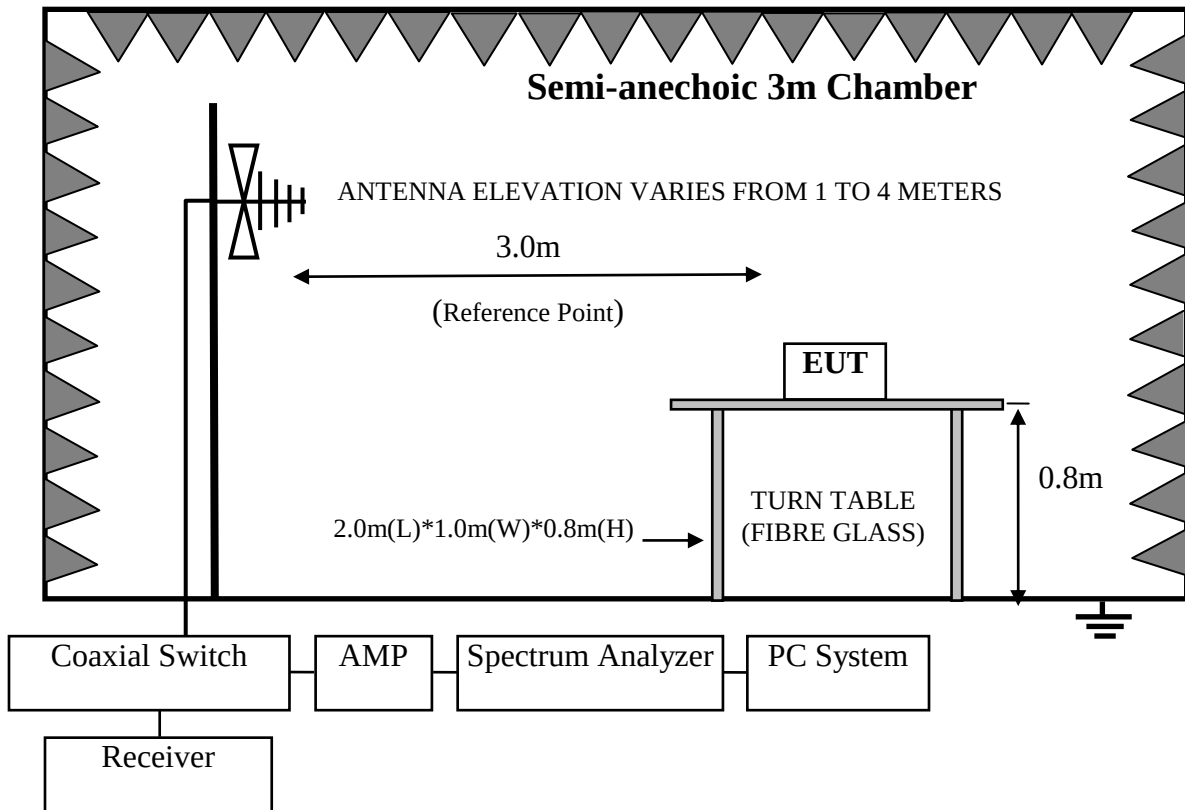
Frequency range: above 1000MHz

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

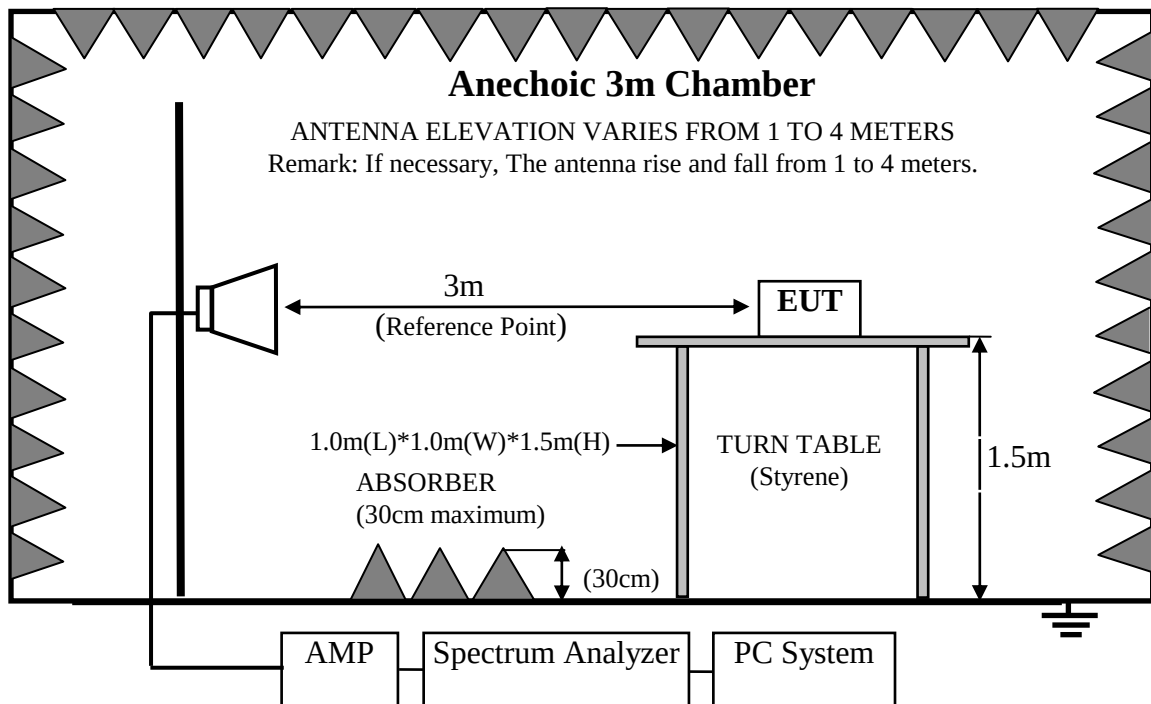
Note: N/A means Not applicable.

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	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
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 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

- Remark :
- (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$
 - (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

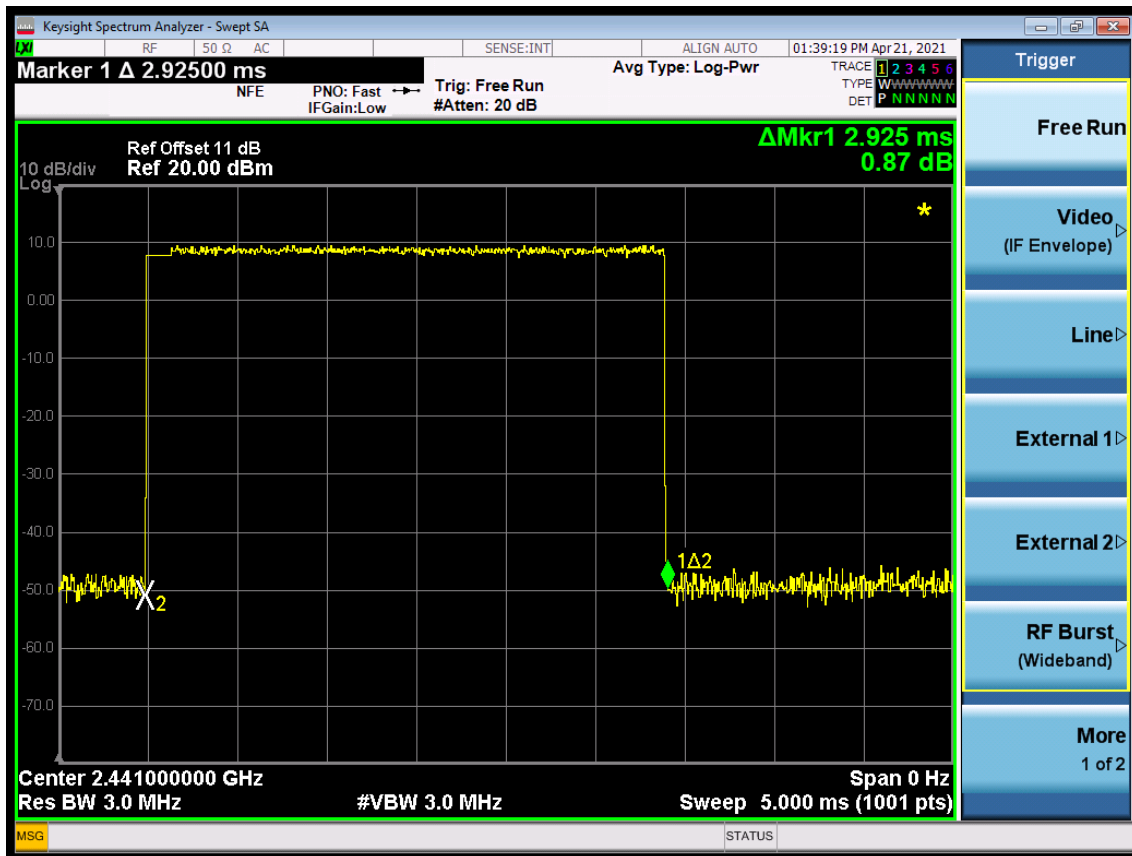
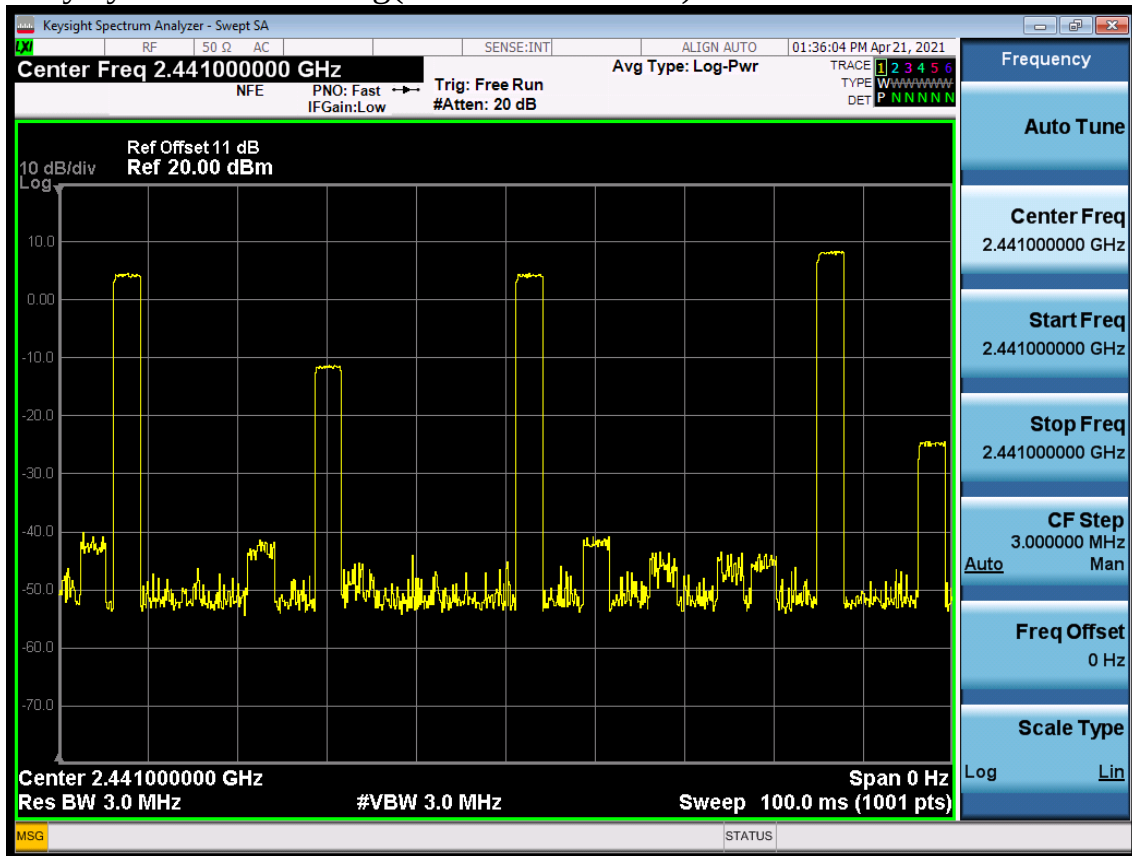
PASS.

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

Note 1: The duty cycle factor for calculate average level is -16.7dB, 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.

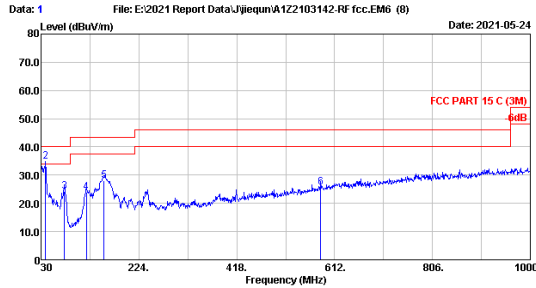
Note 2: The emissions (9kHz~30MHz) not reported for there is no emission be found.

Duty cycle factor = $20\log(\text{Dwell time}/100\text{ms}) = -16.7\text{dB}$



Frequency: 30MHz~1GHz

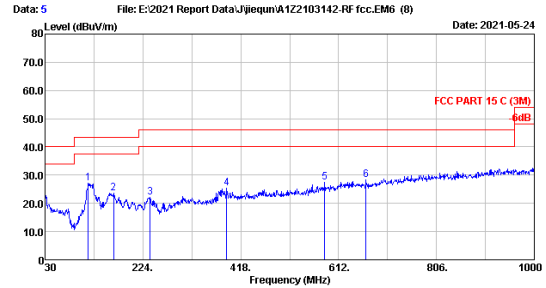
M/N: CT9C08



Site no. : 3m Chamber Data no. : 1
 Dis. / Ant. : 3m 2020 VULB9168-710 Ant. pol. : VERTICAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54% Engineer : Hogrn
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT3.0 TX

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	15.54	34.47	40.00	5.53	QP
2	38.730	18.90	0.68	15.20	34.78	40.00	5.22	QP
3	76.560	15.60	0.83	7.70	24.13	40.00	15.87	QP
4	120.210	16.30	1.10	6.47	23.87	43.50	19.63	QP
5	155.130	19.20	1.26	7.47	27.93	43.50	15.57	QP
6	584.840	24.80	2.54	-1.57	25.77	46.00	20.23	QP

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

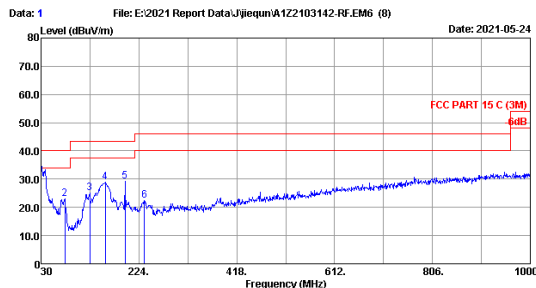


Site no. : 3m Chamber Data no. : 5
 Dis. / Ant. : 3m 2020 VULB9168-710 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54% Engineer : Hogrn
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT3.0 TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	115.360	16.20	1.08	9.90	27.18	43.50	16.32	QP
2	165.800	18.90	1.31	3.52	23.73	43.50	19.77	QP
3	238.550	17.20	1.54	3.31	22.05	46.00	23.95	QP
4	389.870	21.00	2.00	2.30	25.30	46.00	20.70	QP
5	584.840	24.80	2.54	0.17	27.51	46.00	18.49	QP
6	665.320	25.92	2.72	-0.38	28.26	46.00	17.74	QP

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

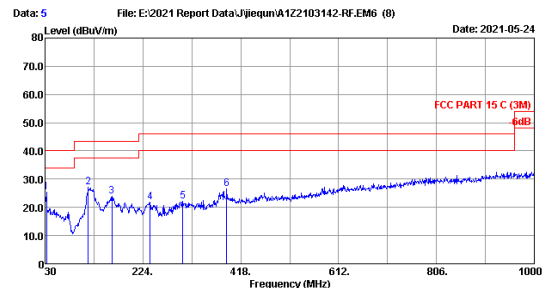
M/N: CT9C18



Site no. : 3m Chamber Data no. : 1
 Dis. / Ant. : 3m 2020 VULB9168-710 Ant. pol. : VERTICAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54% Engineer : Hogrn
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT3.0 TX

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	16.13	35.06	40.00	4.94	QP
2	77.530	15.20	0.83	6.98	23.01	40.00	16.99	QP
3	127.000	17.90	1.13	6.81	25.24	43.50	18.26	QP
4	157.070	19.20	1.27	8.44	28.91	43.50	14.59	QP
5	196.840	15.80	1.47	11.88	29.15	43.50	14.35	QP
6	234.670	16.80	1.53	4.13	22.46	46.00	23.54	QP

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



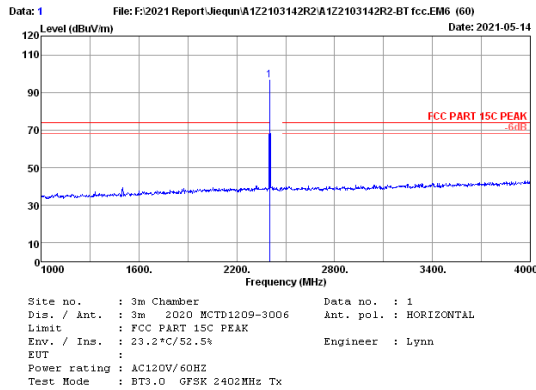
Site no. : 3m Chamber Data no. : 5
 Dis. / Ant. : 3m 2020 VULB9168-710 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.6°C/54% Engineer : Hogrn
 EUT :
 Power rating : AC 120V/60Hz
 Test Mode : BT3.0 TX

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	6.43	25.48	40.00	14.52	QP
2	115.360	16.20	1.08	10.03	27.31	43.50	16.19	QP
3	162.890	19.00	1.30	3.73	24.03	43.50	19.47	QP
4	238.550	17.20	1.54	3.06	21.80	46.00	24.20	QP
5	303.540	19.10	1.75	1.21	22.06	46.00	23.94	QP
6	389.870	21.00	2.00	3.44	26.44	46.00	19.56	QP

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

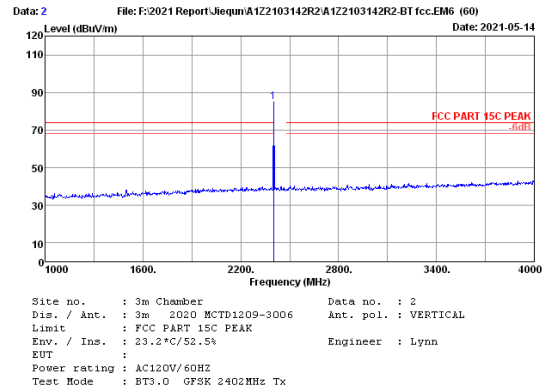
Frequency: 1GHz~18GHz

M/N: CT9C08



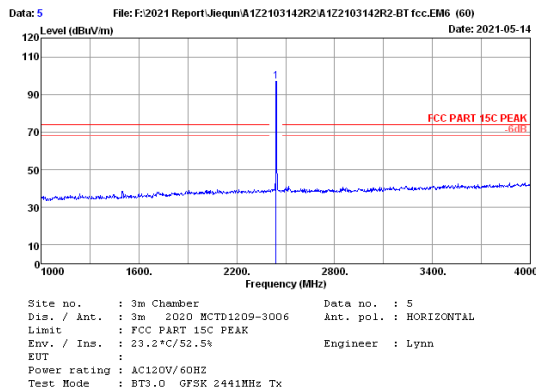
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	103.38	96.37	Peak		Peak

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



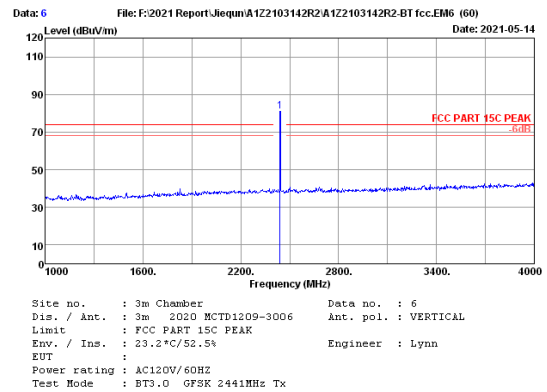
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	92.15	85.14	Peak		Peak

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	2441.000	28.11	0.93	103.85	96.94	Peak		Peak

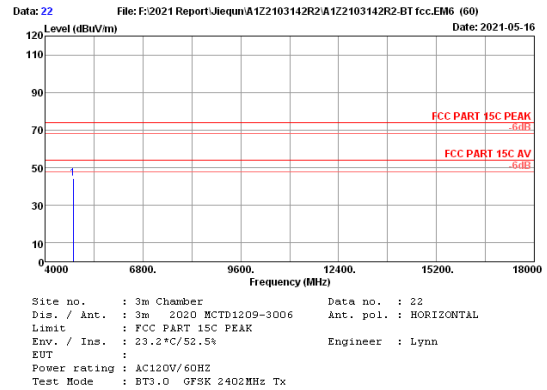
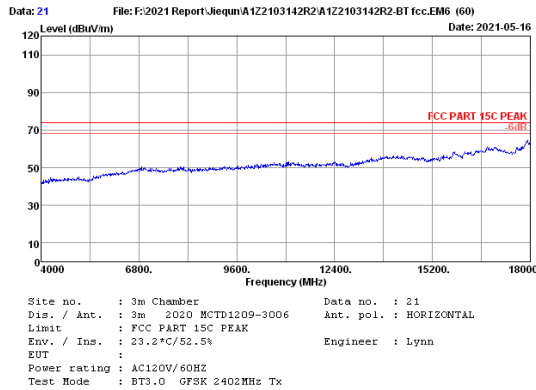
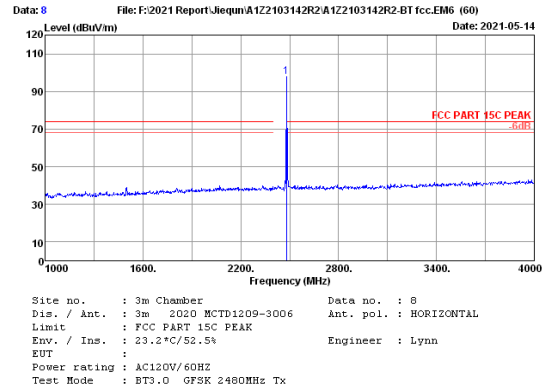
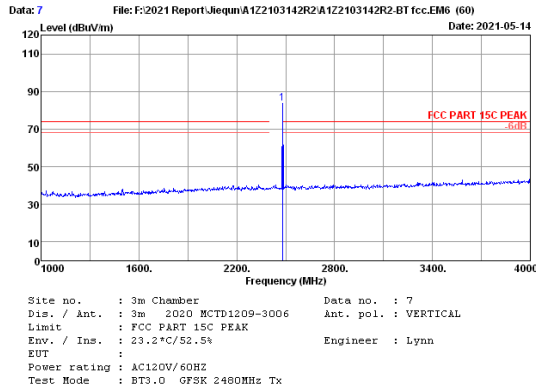
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

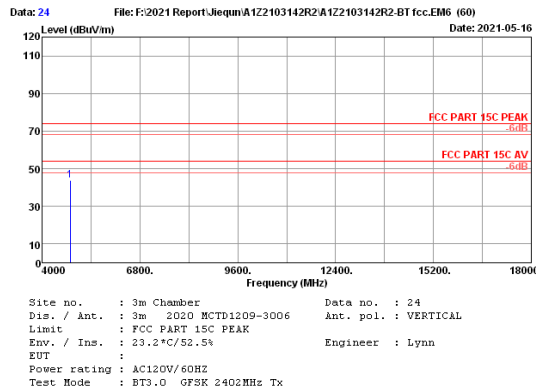
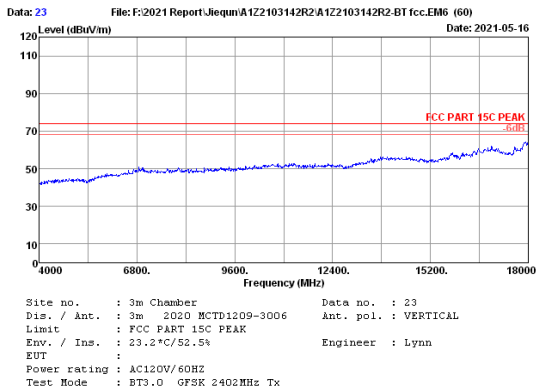


No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.11	0.93	88.09	81.18	Peak		Peak

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

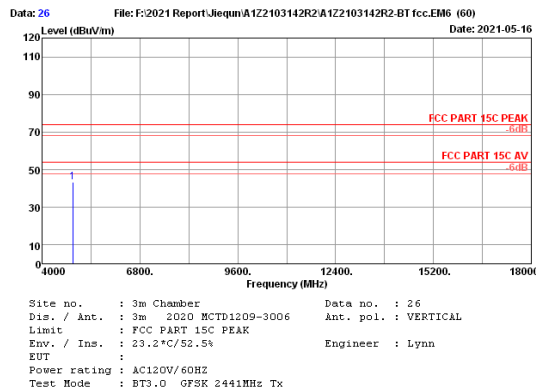
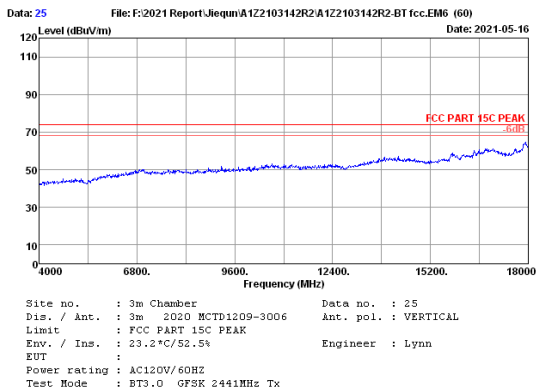
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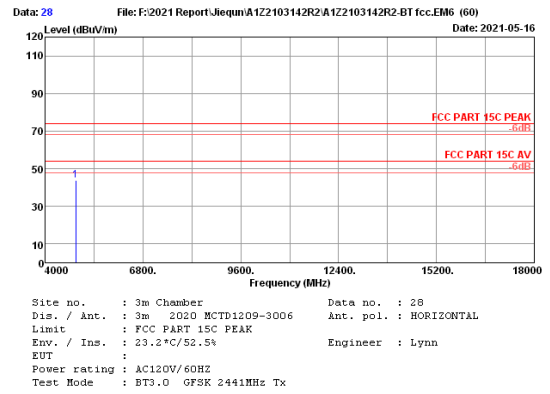
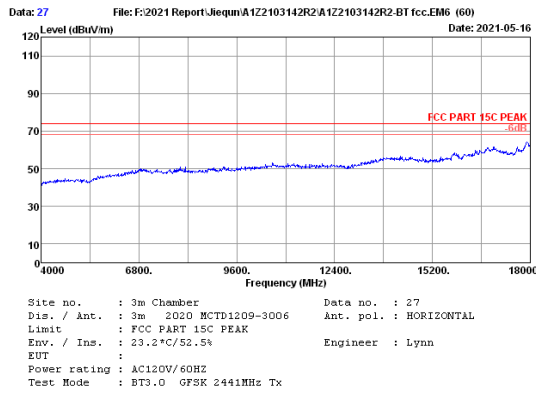
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	45.07	43.88	74.00	30.12	Peak

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



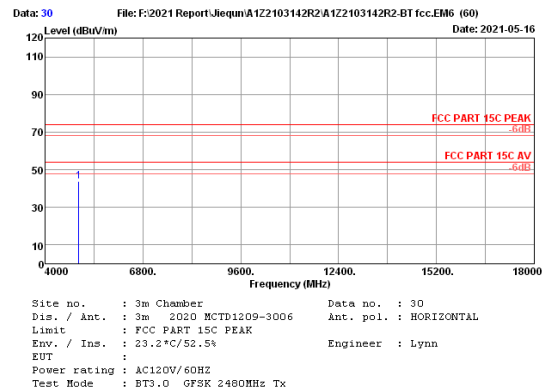
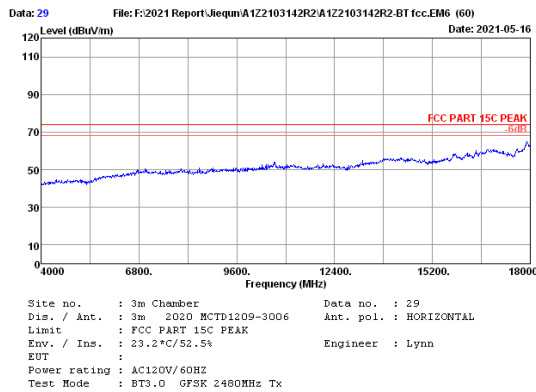
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	44.69	43.61	74.00	30.39	Peak

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



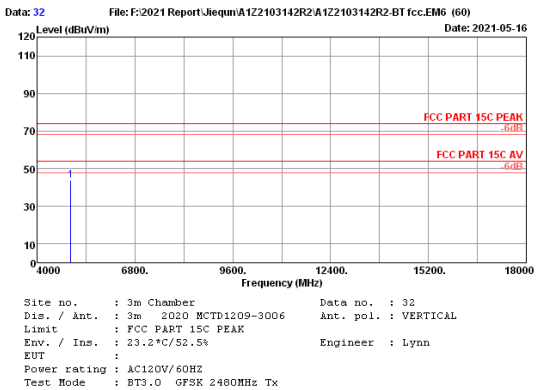
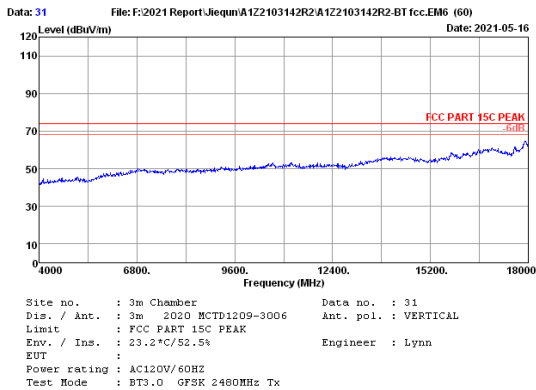
No.	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	44.75	43.67	74.00	30.33	Peak

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



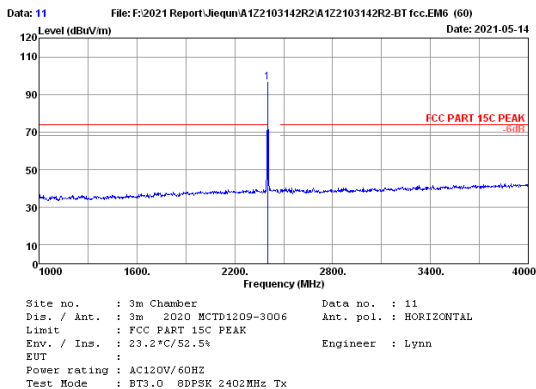
No.	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	44.62	43.66	74.00	30.34	Peak

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



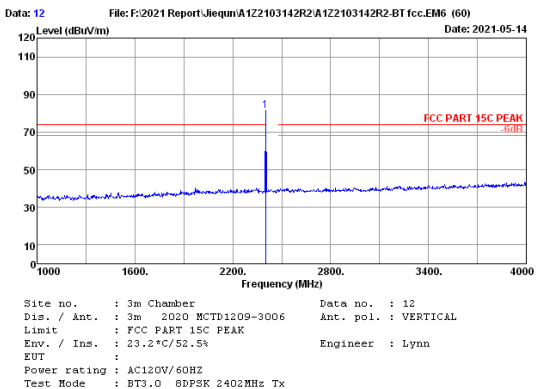
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	44.84	43.88	74.00	30.12	Peak

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



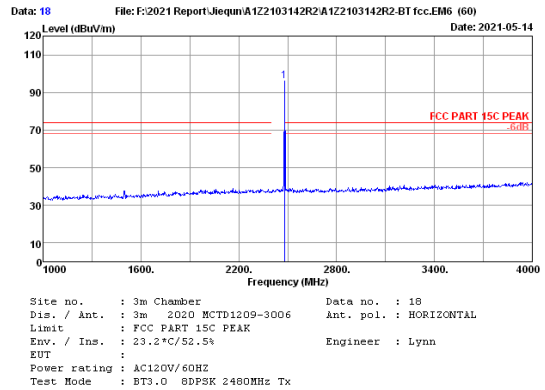
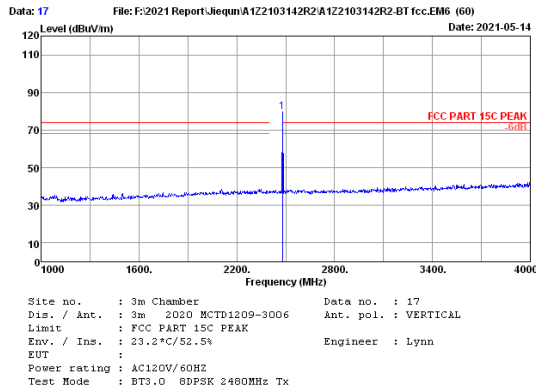
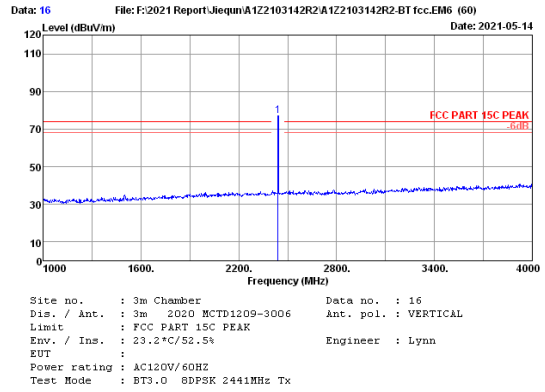
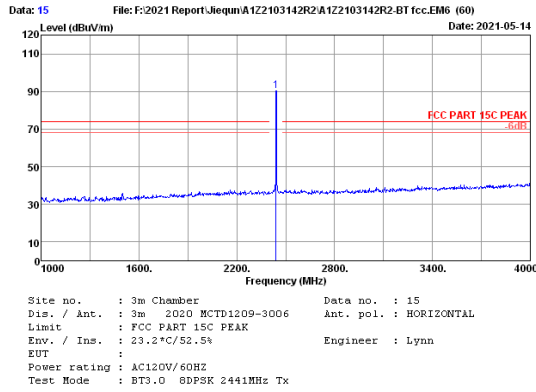
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	103.74	96.73	-----	-----	Peak

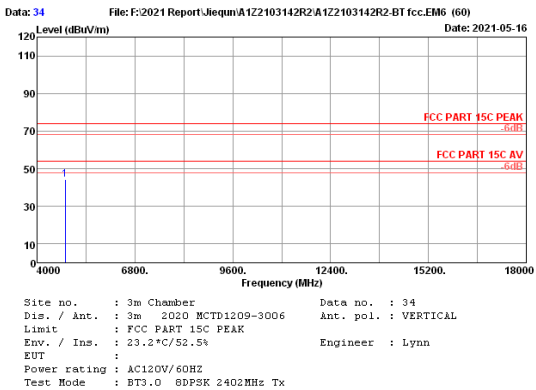
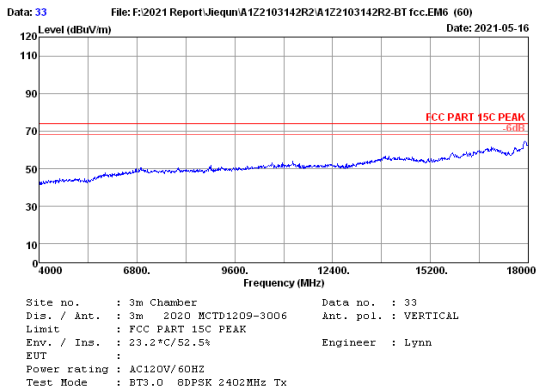
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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	88.39	81.38	-----	-----	Peak

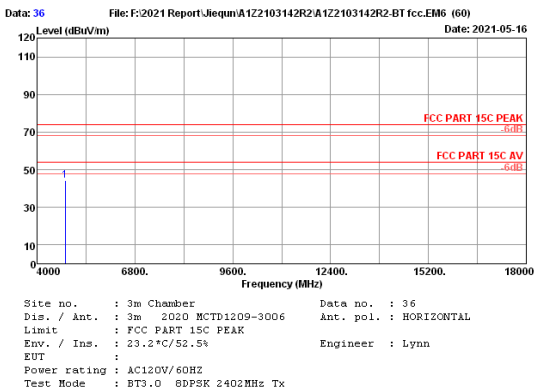
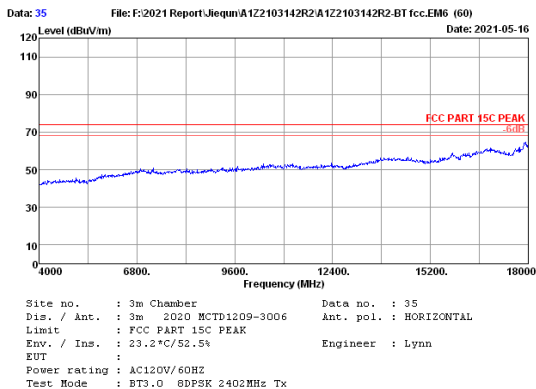
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.





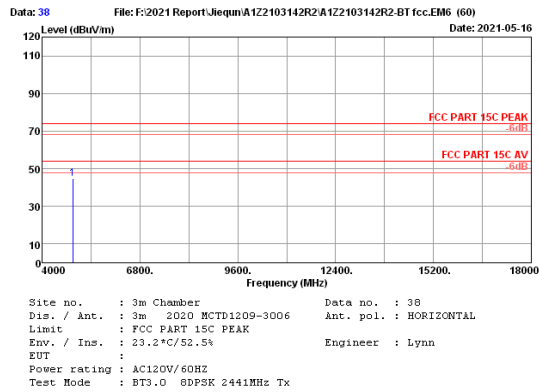
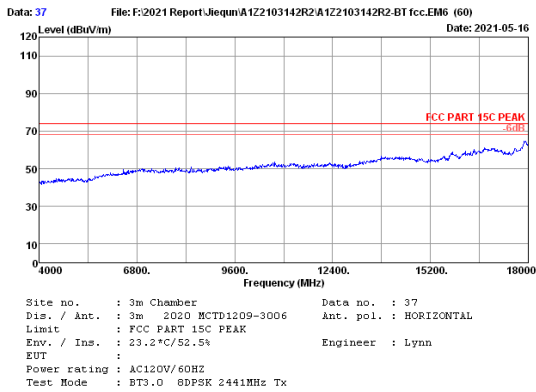
No.	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	45.35	44.16	74.00	29.84	Peak

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



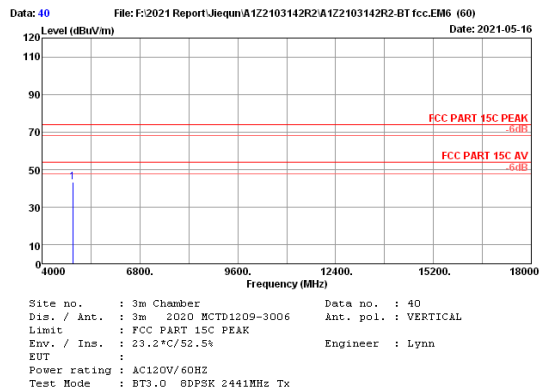
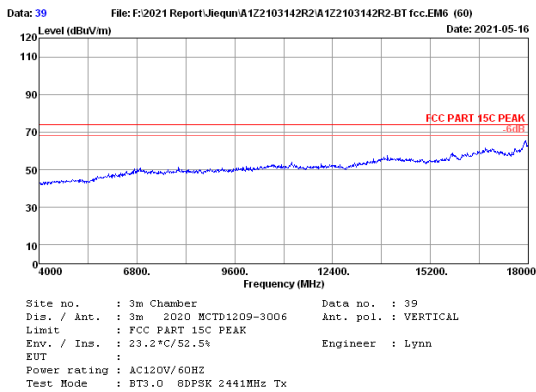
No.	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	45.43	44.24	74.00	29.76	Peak

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



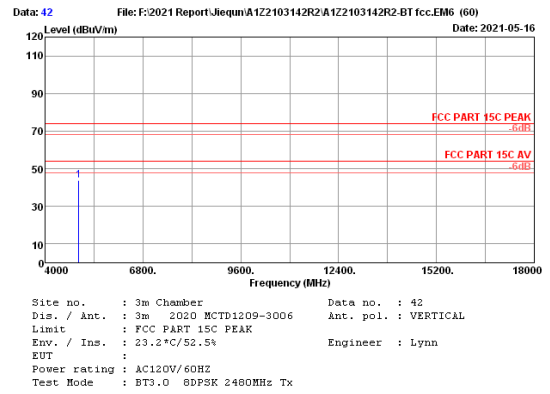
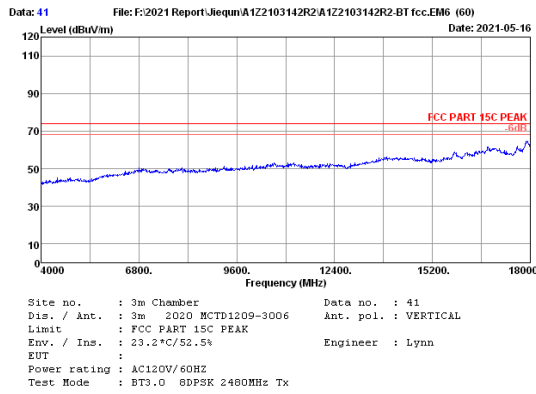
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	45.81	44.73	74.00	29.27	Peak

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



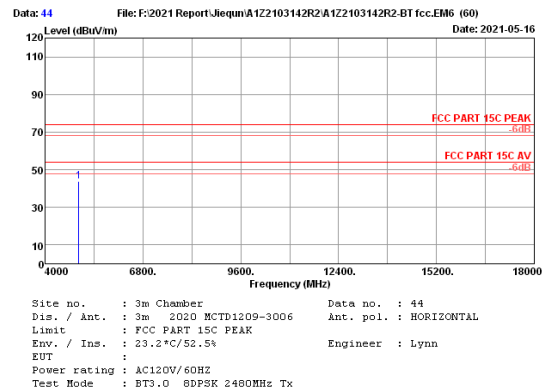
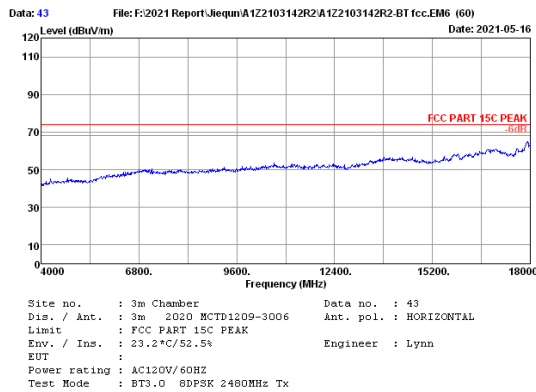
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	44.49	43.41	74.00	30.59	Peak

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	44.87	43.91	74.00	30.09	Peak

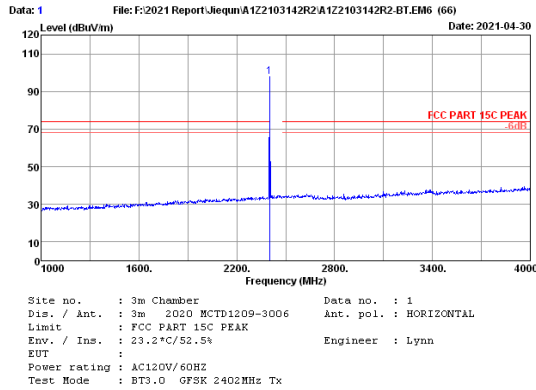
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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	44.62	43.66	74.00	30.34	Peak

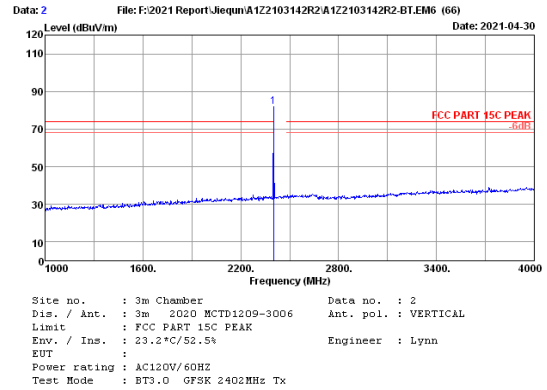
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

M/N: CT9C18



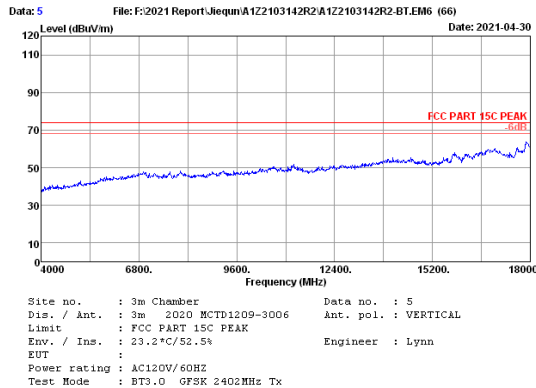
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	104.96	97.95	70.00	27.95	Peak

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



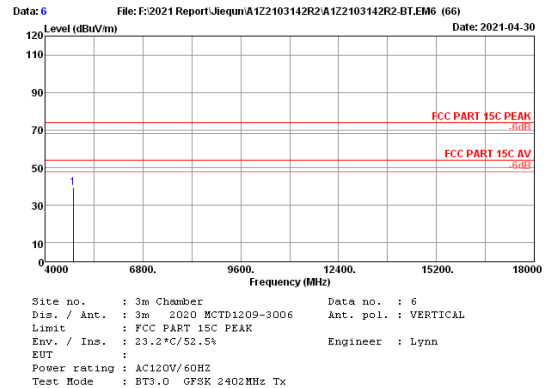
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	88.95	81.94	70.00	11.94	Peak

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	40.76	39.57	74.00	34.43	Peak

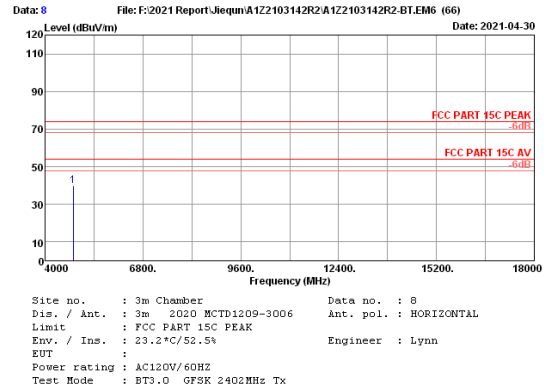
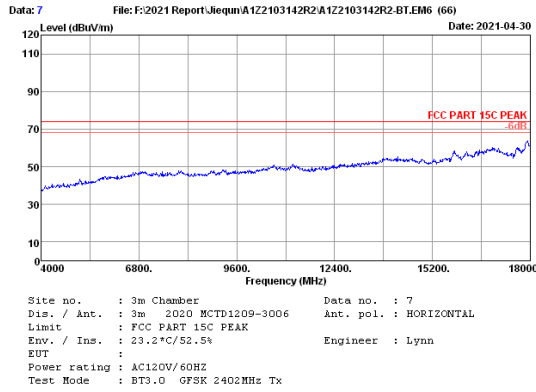
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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	40.76	39.57	74.00	34.43	Peak

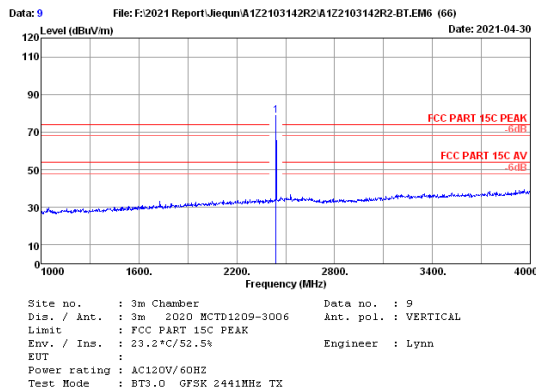
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

FCC ID:A2HCT201



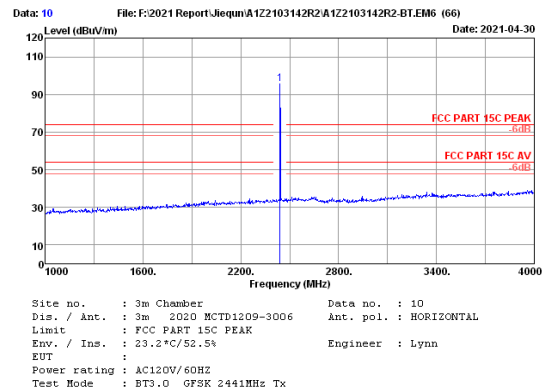
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	41.02	39.83	74.00	34.17	Peak

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



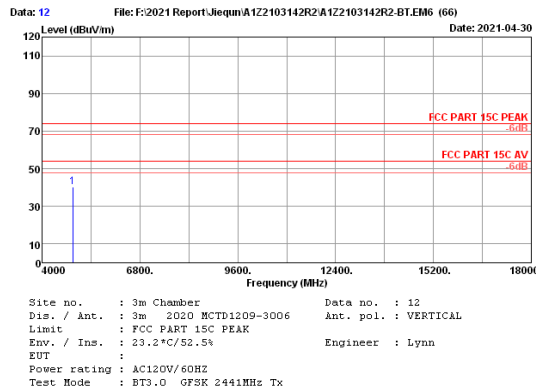
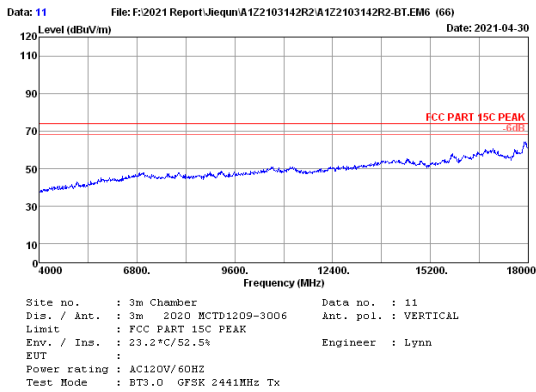
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.11	0.93	85.52	78.61	-----	-----	Peak

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



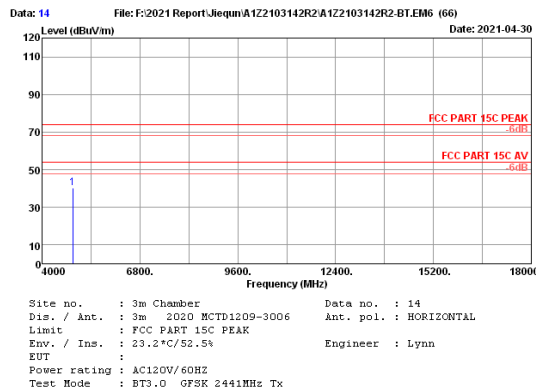
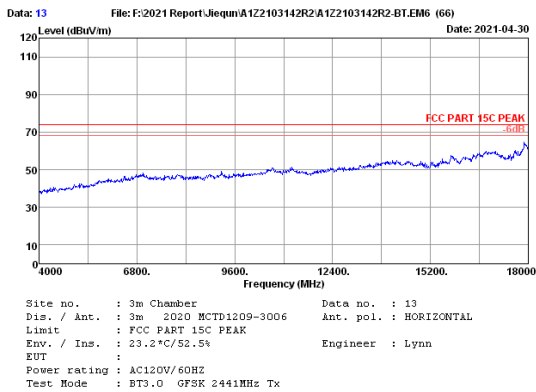
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.11	0.93	102.66	95.75	-----	-----	Peak

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



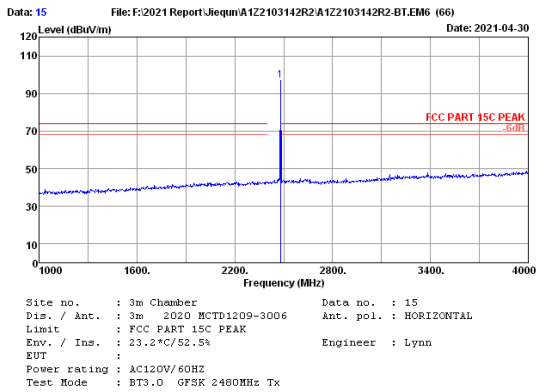
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	41.27	40.19	74.00	33.81	Peak

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



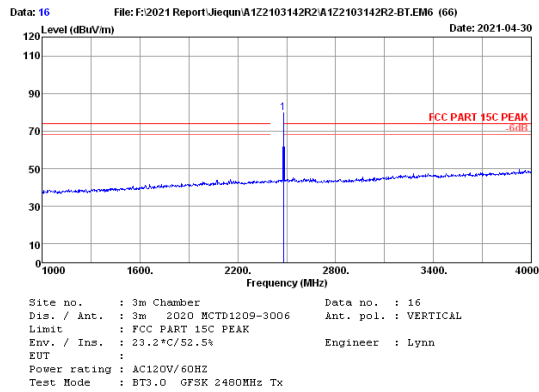
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	41.35	40.27	74.00	33.73	Peak

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



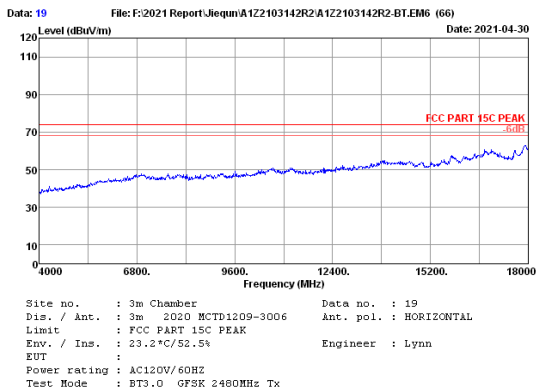
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.17	0.94	103.82	96.98	-----	-----	Peak

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



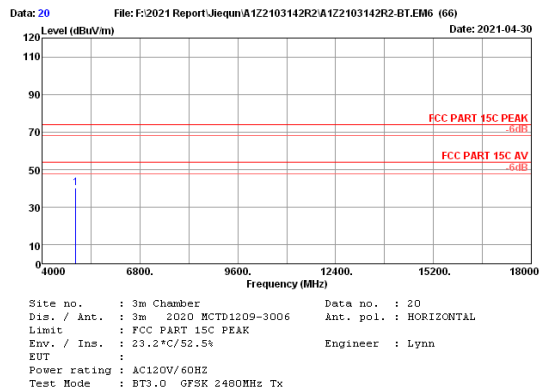
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.17	0.94	86.59	79.75	-----	-----	Peak

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



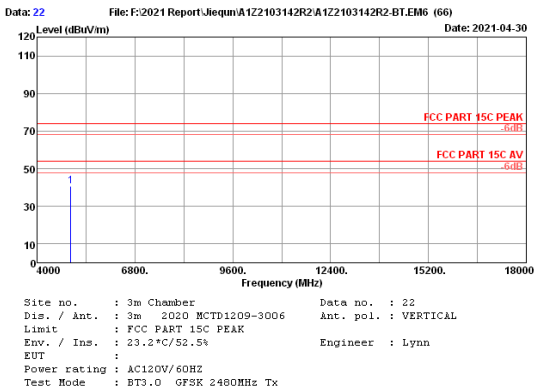
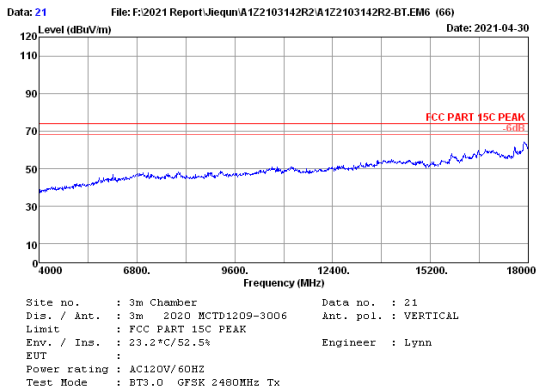
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	41.20	40.24	74.00	33.76	Peak

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



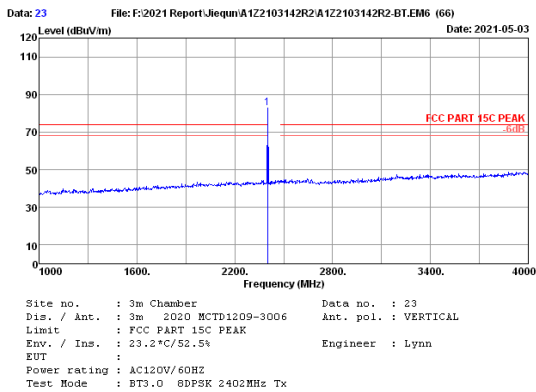
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	41.20	40.24	74.00	33.76	Peak

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



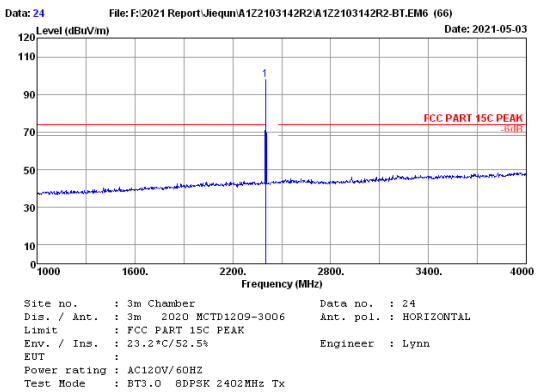
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.000	32.77	1.39	41.50	40.54	74.00	33.46	Peak

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



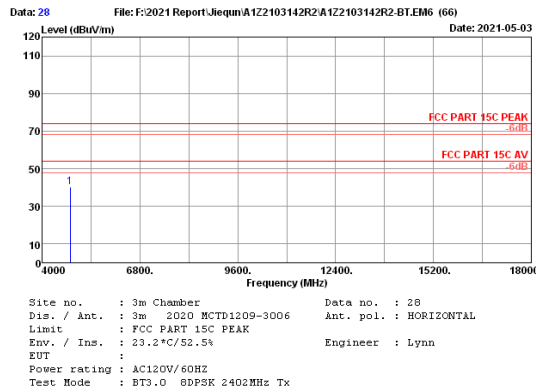
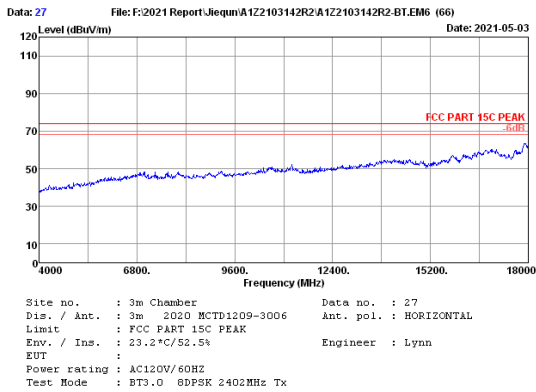
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	89.60	82.59	-----	-----	Peak

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



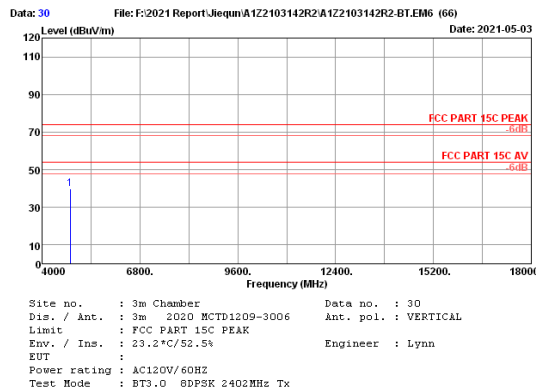
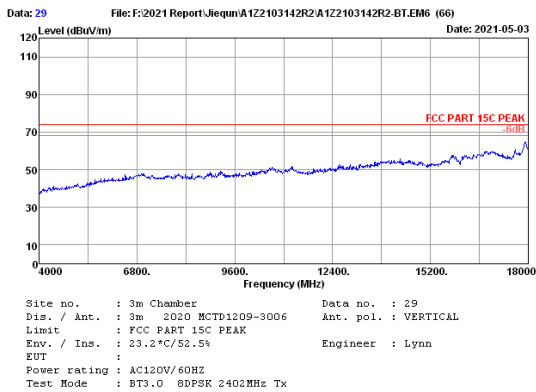
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.01	0.92	105.03	98.02	-----	-----	Peak

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



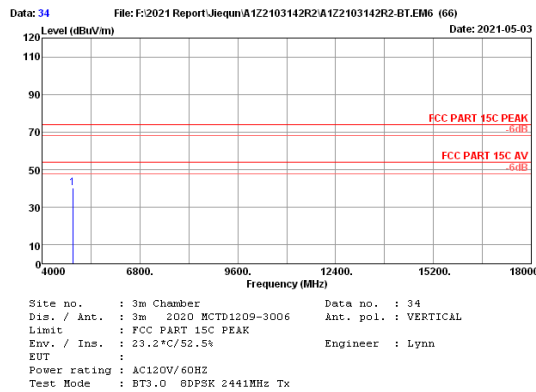
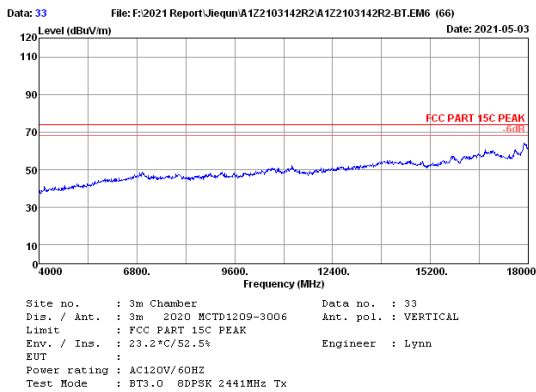
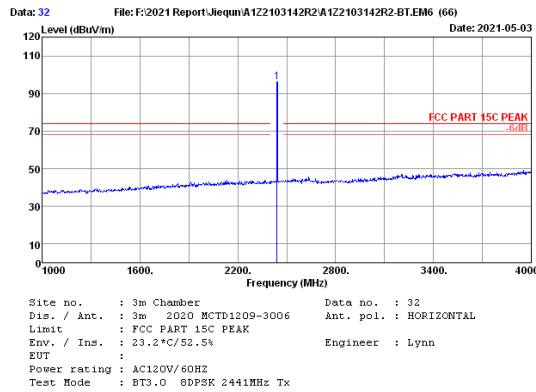
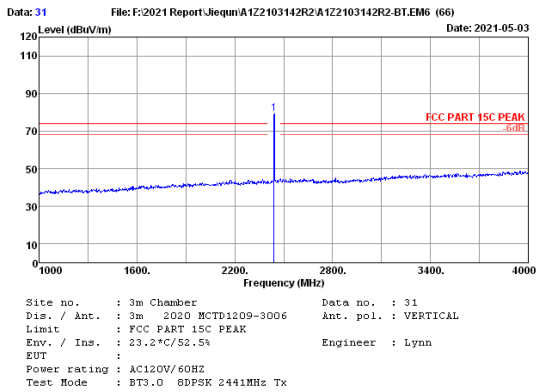
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.000	32.61	1.38	41.44	40.25	74.00	33.75	Peak

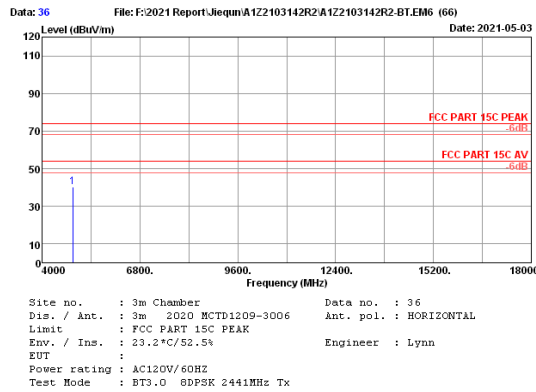
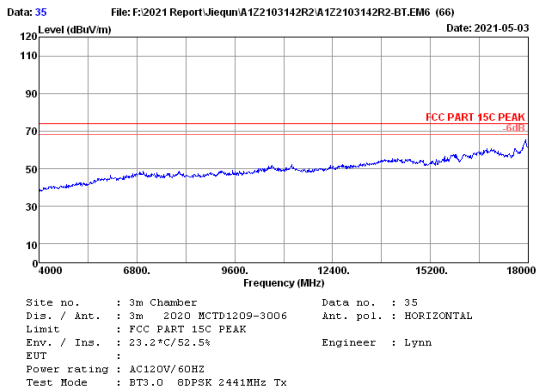
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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	41.26	40.07	74.00	33.93	Peak

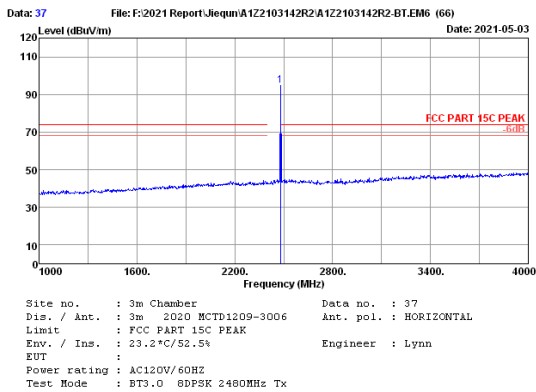
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.





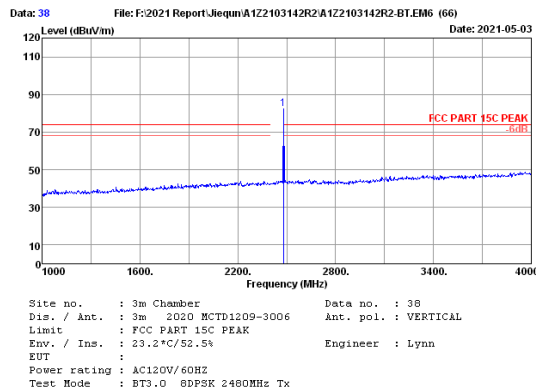
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.68	1.39	41.40	40.32	74.00	33.68	Peak

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



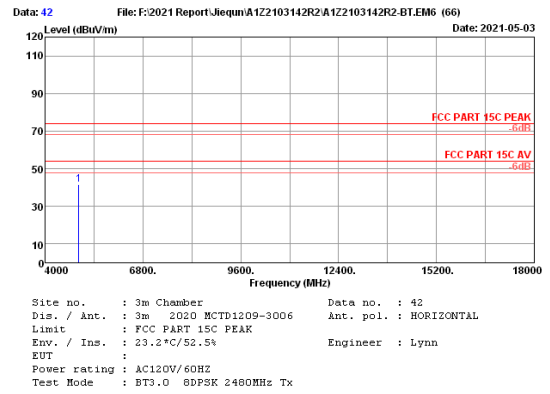
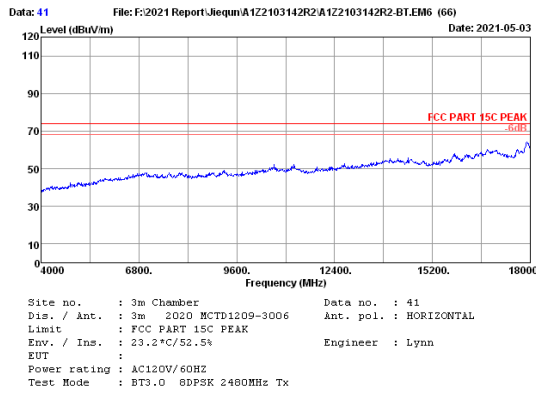
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.17	0.94	101.71	94.87	-----	-----	Peak

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



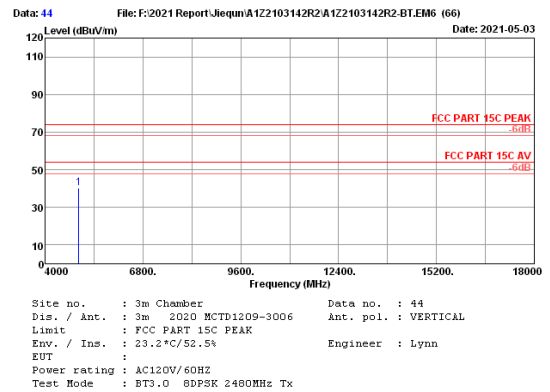
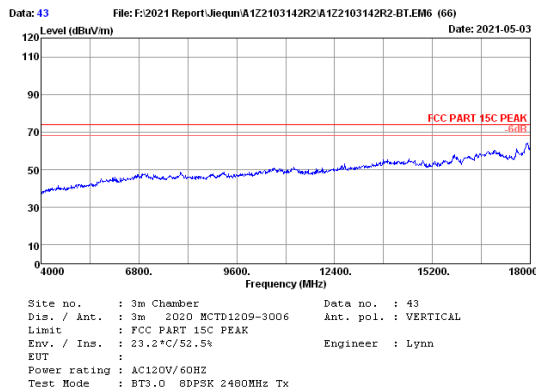
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.17	0.94	89.23	82.39	-----	-----	Peak

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	42.45	41.49	74.00	32.51	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	41.10	40.14	74.00	33.86	Peak

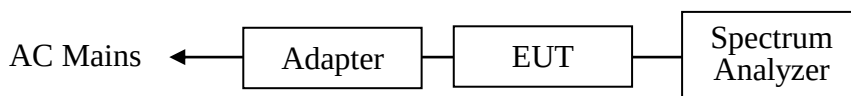
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

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 clause 7.8.8:

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.

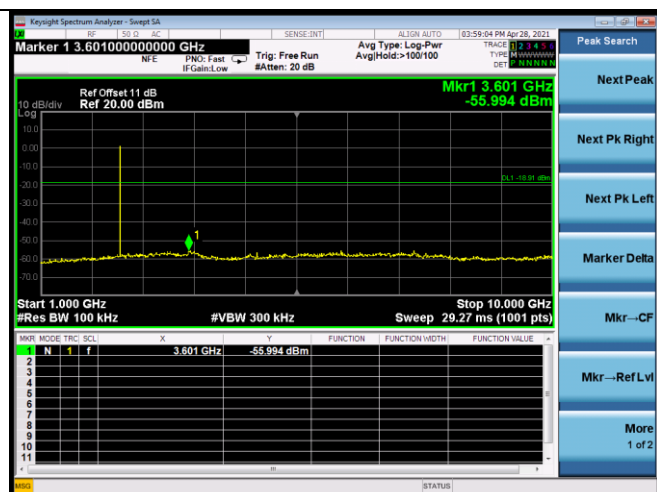
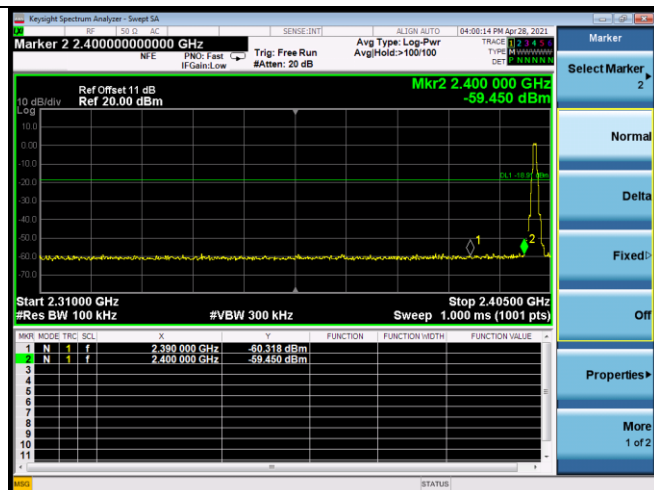
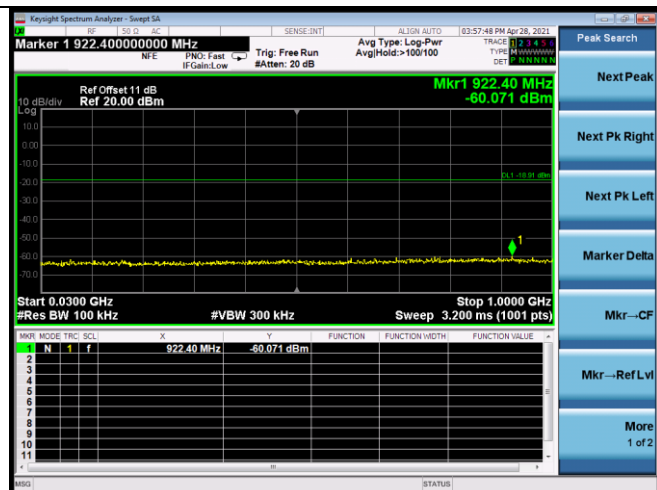
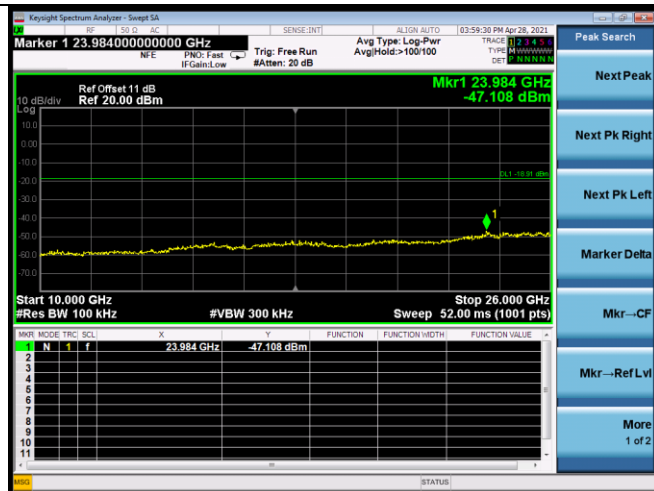
Note: The cable loss and attenuator loss were offset into spectrum analyzer as an amplitude offset.

5.5. Test result

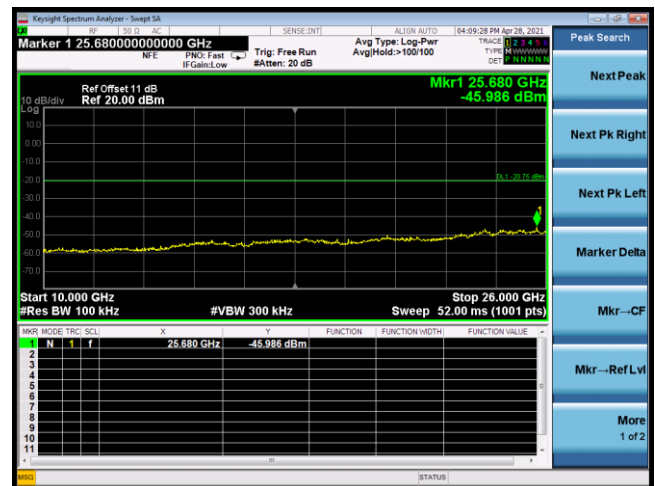
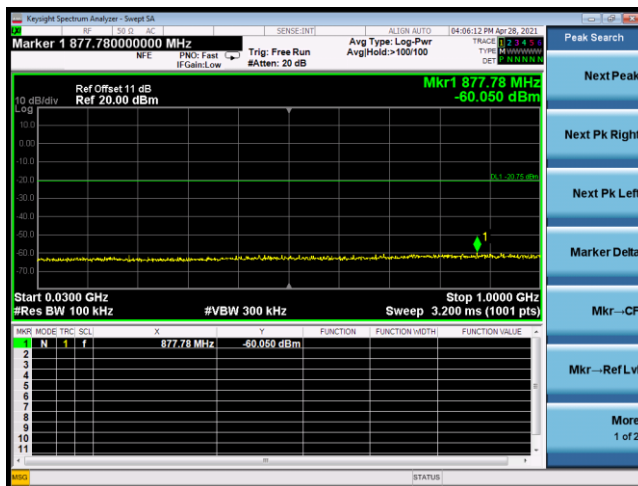
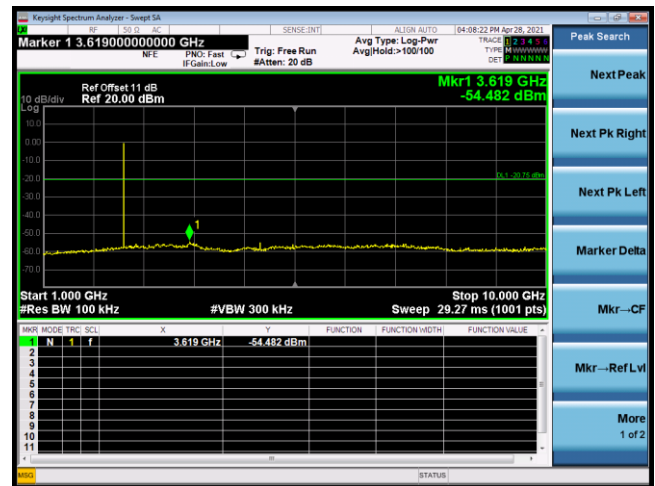
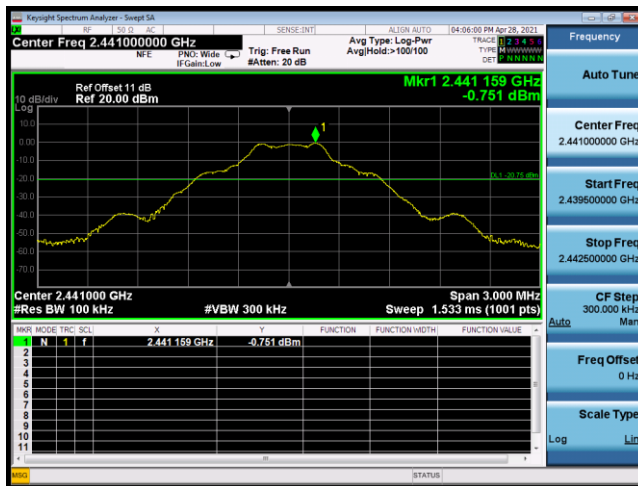
PASS (The testing data was attached in the next pages.)

EUT: Tablet		
M/N: CT9C08; CT9C18		
Test date: 2021-04-27~28	Pressure: 102.1 ±1.0 kpa	Humidity: 51.1 ±3.0%
Tested by: LILI	Test site: RF site	Temperature: 22.8 ±0.6 °C

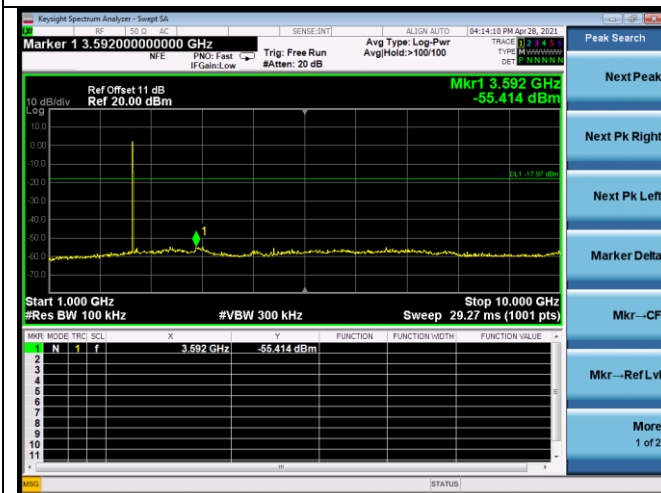
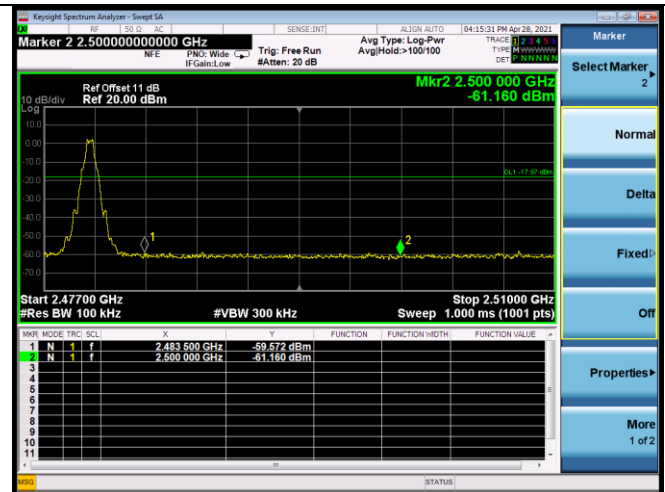
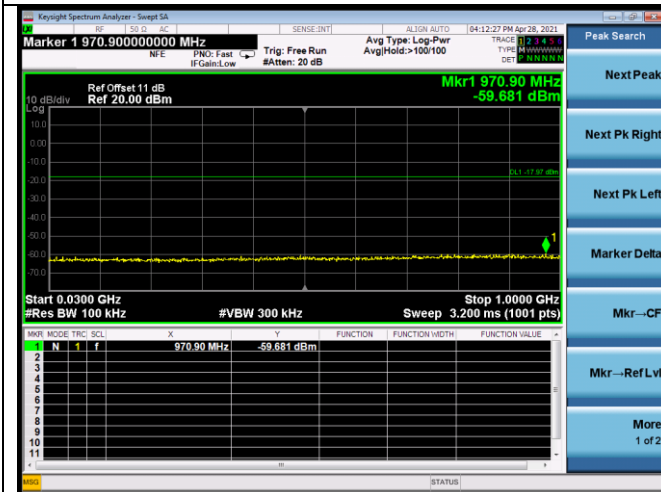
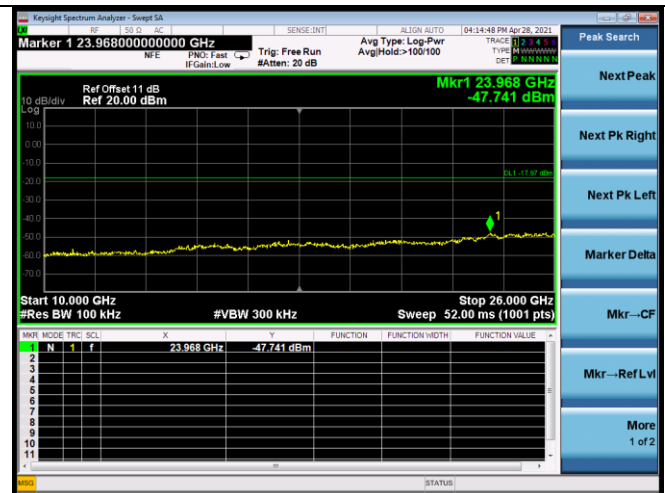
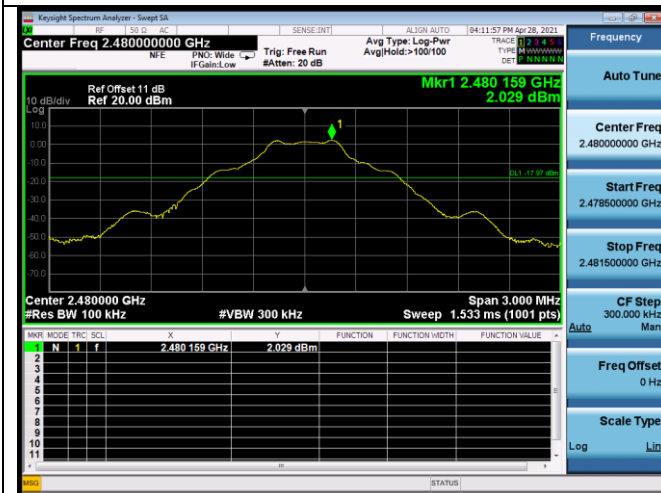
Hopping off GFSK 2402MHz



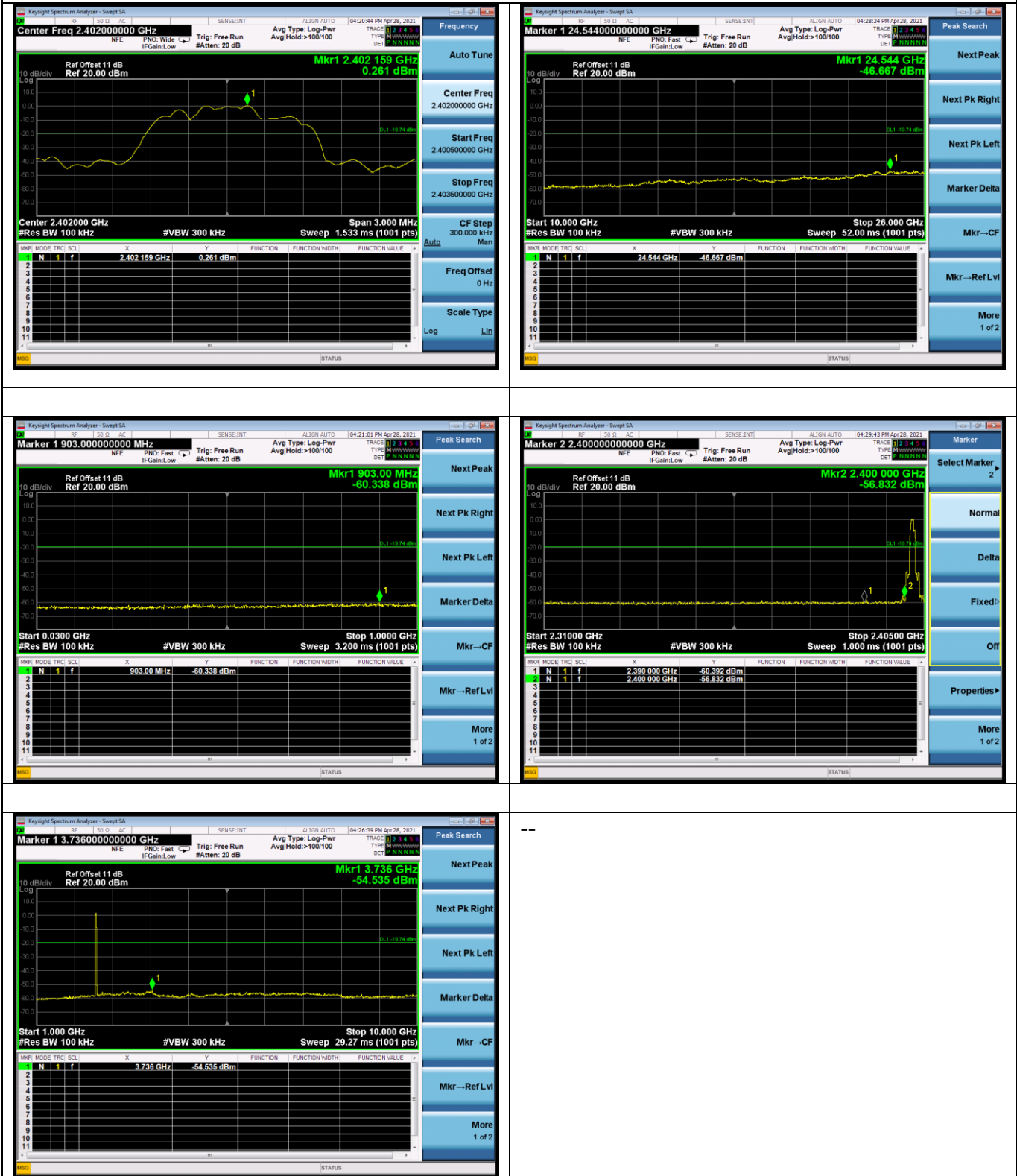
2441MHz



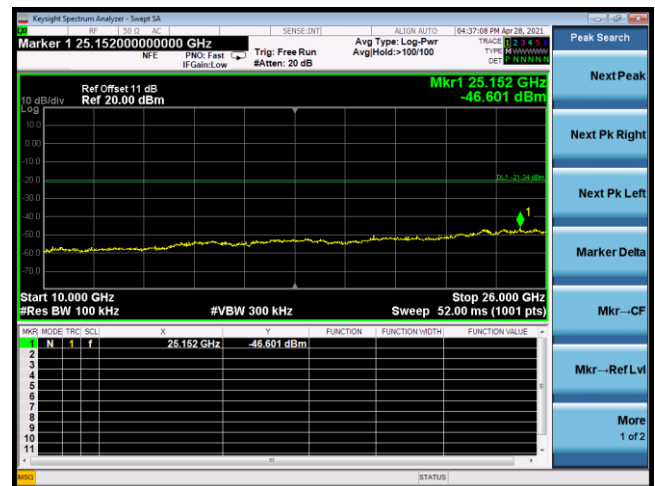
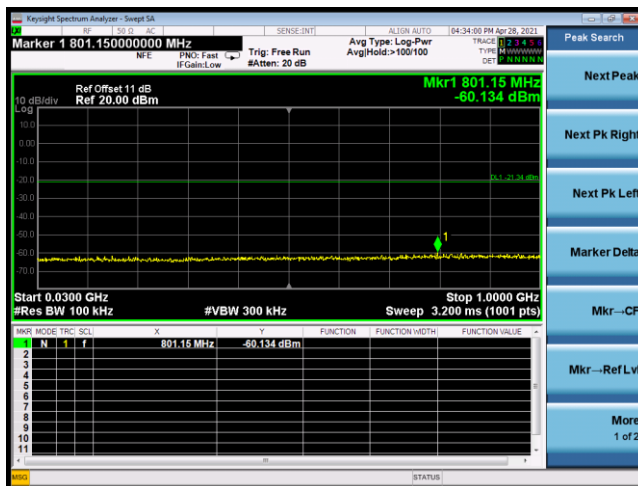
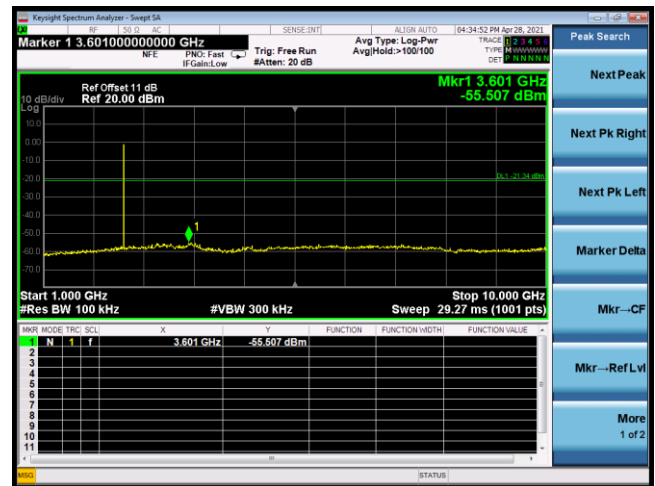
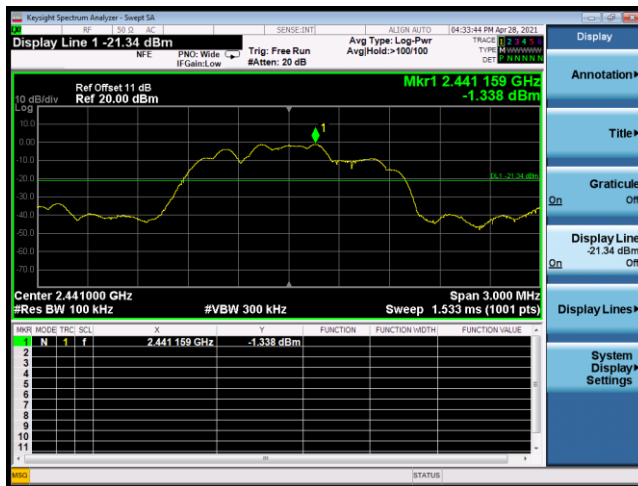
2480MHz



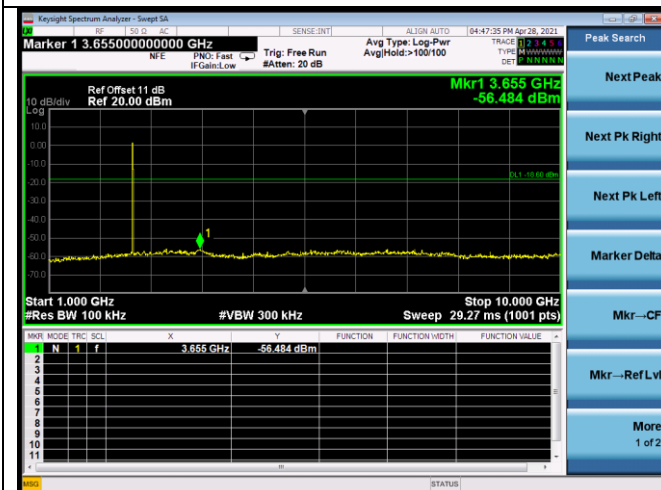
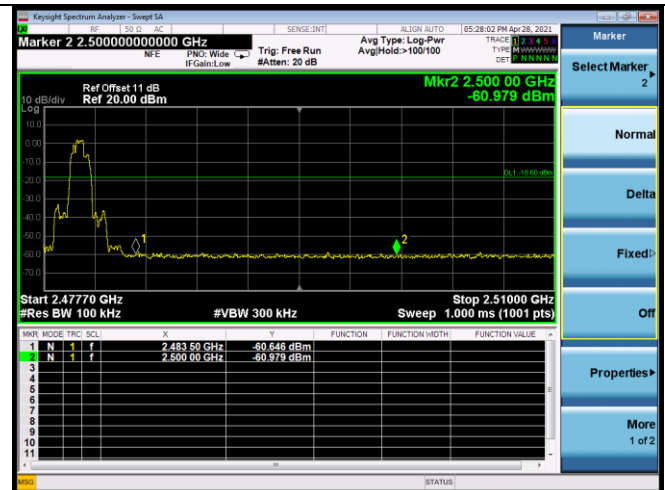
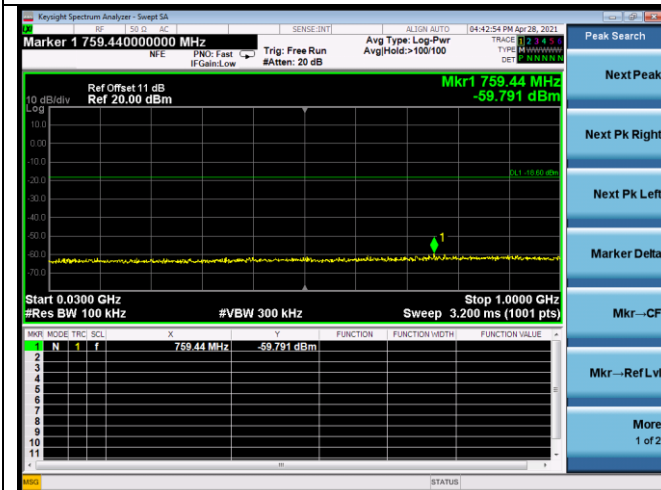
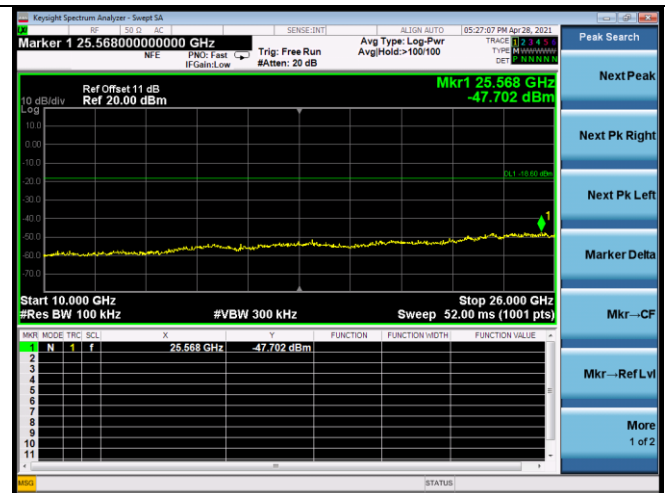
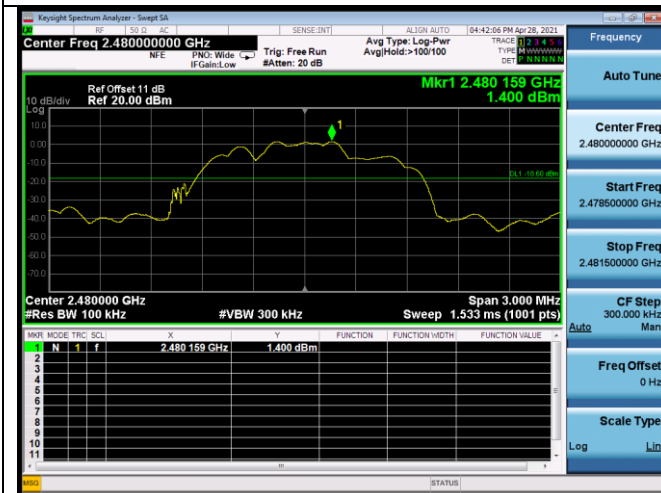
8-DPSK 2402MHz



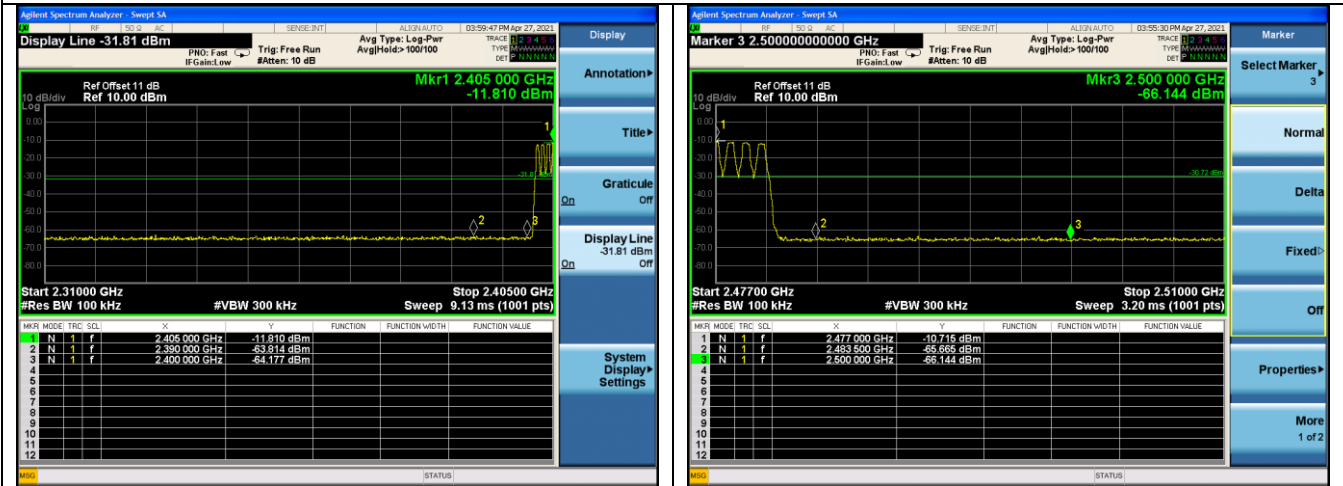
2441MHz



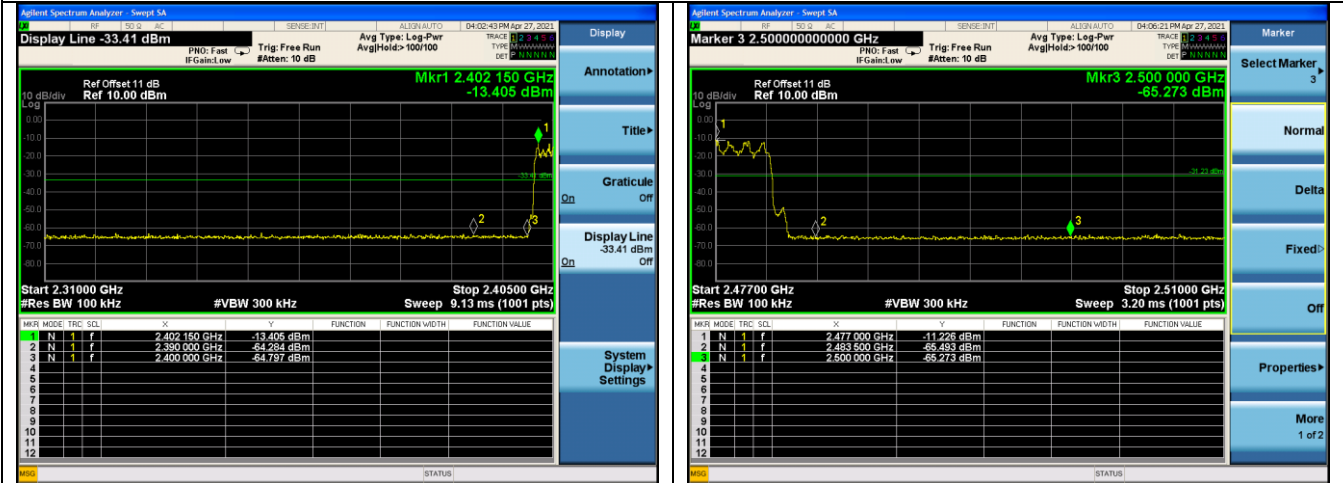
2480MHz



Hopping on GFSK



8-DPSK



6. 20 DB 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

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

6.3.Test Procedure

Use the test method descried in ANSI C63.10 clause 7.8.7:

1. Connect the antenna port of the EUT to the spectrum analyzer.
2. Let the EUT transmit at Low/ Mid/ High channel with test software.
3. Setting of SA is following as: RBW: 30kHz / VBW: 100kHz
Sweep Mode: Continuous sweep
Detect mode: Positive peak
Trace mode: Max hold.
4. Use the occupied bandwidth function of the SA measure the 20dB bandwidth directly.

6.4.Test Results

EUT: Tablet		
M/N: CT9C08; CT9C18		
Test date: 2021-04-27	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)	20dB bandwidth (kHz)	Limit (kHz)
GFSK	2402	827.7	N/A
	2441	825.8	N/A
	2480	824.3	N/A
8-DPSK	2402	1123	N/A
	2441	1121	N/A
	2480	1122	N/A

Conclusion : PASS