FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

IAdea Corporation

Smart Signboard

Model No.: IAD-18001

FCC ID: Y9E-IAD-18001

Prepared for : IAdea Corporation
3F, No.21, Lane 168, Xingshan Road, Neihu Dist. Taipei, 114
Taiwan

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-F23037
Date of Test	:	Feb.08~24, 2023
Date of Report	:	Mar.15, 2023

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TEST REPORT

Applicant	:	IAdea Corporation
Manufacturer	:	IAdea Corporation
Product	:	Smart Signboard
FCC ID	:	Y9E-IAD-18001
	(A) Model No.	: IAD-18001
	(B) Test Voltage	: AC 120V/60Hz

Tested for comply with:
FCC CFR 47 Part 15 Subpart C

Test procedure used:
ANSI C63.10: 2020
KDB 558074 D01v05

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 2.1075. 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 : Feb.08~24, 2023 Report of date: Mar.15, 2023

Prepared by : Mia Zhao / Assistant

Reviewed by : Thomas Chen / Assistant Manager

AUDIX® 信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report

Approved & Authorized Signer : Signature:
Sunny Lu / Manager

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	FCC Part 15: 15.207	PASS
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.205	PASS
Band Edge Compliance	FCC Part 15: 15.247(d)	PASS
Conducted spurious emissions	FCC Part 15: 15.247(d)	PASS
6dB Bandwidth	FCC Part 15: 15.247(a)(2)	PASS
Peak Output Power	FCC Part 15: 15.247(b)(3)	PASS
Power Spectral Density	FCC Part 15: 15.247(e)	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1.Description of Equipment Under Test

Applicant	IAdea Corporation
Applicant Address	3F, No.21, Lane 168, Xingshan Road, Neihu Dist. Taipei, 114 Taiwan
Manufacturer	IAdea Corporation
Manufacturer Address	3F, No.21, Lane 168, Xingshan Road, Neihu Dist. Taipei, 114 Taiwan
Product	Smart Signboard
Model No.	IAD-18001
FCC ID	Y9E-IAD-18001
AC Adapter	Manufacture: Asian Power Devices Inc. M/N: WB-24J12R Input:100-240V~ 0.7A 50-60Hz Output:12V, 2.0A,24.0W DC Cable: Unshielded, Detachable, 1.8m (with one core)
Sample Type	Prototype production
Date of Receipt	Feb.03, 2023
Date of Test	Feb.08~24, 2023
Remark: This report only for WIFI 2.4GHz.	

2.2.Feature of Equipment Under Test

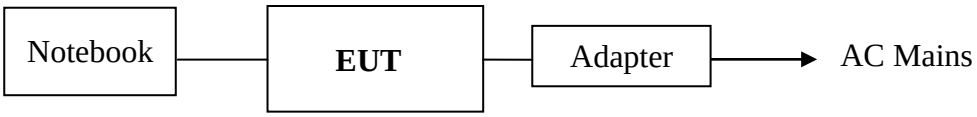
Product Feature & Specification		
Product	Smart Signboard	
Model No.	IAD-18001	
Radio	IEEE802.11 a/b/g/n/ac	
Power Source	☒ Commercial Power	AC 100 ~ 240V, 50-60Hz, 0.7A
	☒ External Power Source	DC 12V, 2.0A, 24.0W
	☐ Lithium battery	DC V, mAh
	☐ UM battery	DC V
2.4GHz Wi-Fi		
Support Modes	802.11b/g/n20	
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 300Mbps	
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: up to 300Mbps; 802.11ac: up to 433Mbps	
Channel Separation	5MHz	

Antenna System	
Type of Antenna	Internal Antenna
Antenna Peak Gain	DTS Band (2400-2483.5MHz) Peak Gain: 3.3dBi U-NII-1 Band (5150-5250MHz) Peak Gain: 2.3dBi. U-NII-4 Band (5725-5850MHz) Peak Gain: 1.9dBi.

2.3.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number
1.	Notebook	N/A	ACER	ZOW	N/A

2.4.Block diagram of connection between the EUT and simulators



(EUT: Smart Signboard)

2.5.Test Information

A special test software (Ampak RFTesttool V7.0) was used to control EUT work in Continuous TX mode(The duty cycle of the test signal is 100%), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	MCS0	Low :CH1	2412
	MCS0	Middle: CH6	2437
	MCS0	High: CH11	2462
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

2.6. 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. : Certificated by ISED, Canada
Company Number: 5183A
CAB identifier: CN0034
Valid Date: Mar.31, 2023

: Certificated by FCC, USA
Designation No.: CN5022
Valid Date: Mar.31, 2023

: Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2023

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

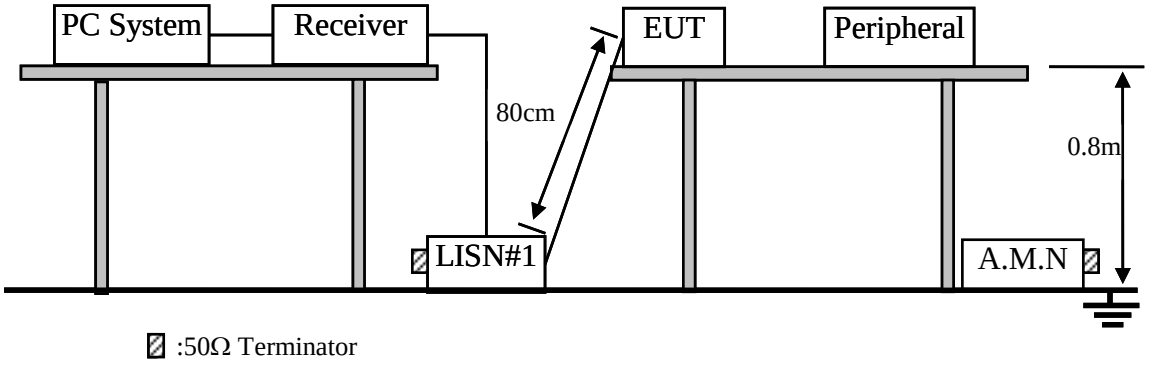
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	±2.6dB(150kHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	±3.8dB(30~200MHz, Polarization: H)
	±3.8dB(30~200MHz, Polarization: V)
	±4.0dB(200M~1GHz, Polarization: H)
	±4.0dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in 3m chamber(1GHz-18GHz)	±4.0dB(1~6GHz, Distance: 3m)
	±4.0dB(6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	±3.7dB(30MHz~1000MHz)
	±3.3dB(1~26.5GHz)
Uncertainty for Power density test	±2.0dB
Uncertainty for Output power test	±0.8dB
Uncertainty for Bandwidth test	±83kHz
Uncertainty for DC power test	±1%
Uncertainty for test site temperature and humidity	±0.6℃
	±3%

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	Sep.16,22	5 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.07,22	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ENV216	102160	Oct.08,22	1 Year
4.	L.I.S.N.#2	Kyoritsu	KNW-407	8-1628-5	Apr.06,22	1 Year
5.	RF Cable	Eastsheep	RG223	190424	Oct.08,22	1 Year
6.	Terminator	Hubersuhner	50Ω	No.1	Apr.06,22	1 Year
7.	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 limits 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. Smart Signboard (EUT)

Model No. : IAD-18001
Serial No. : 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 as shown as Section 3.2.

3.5.2. Turn on the power of EUT.

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

3.6.Test Procedure

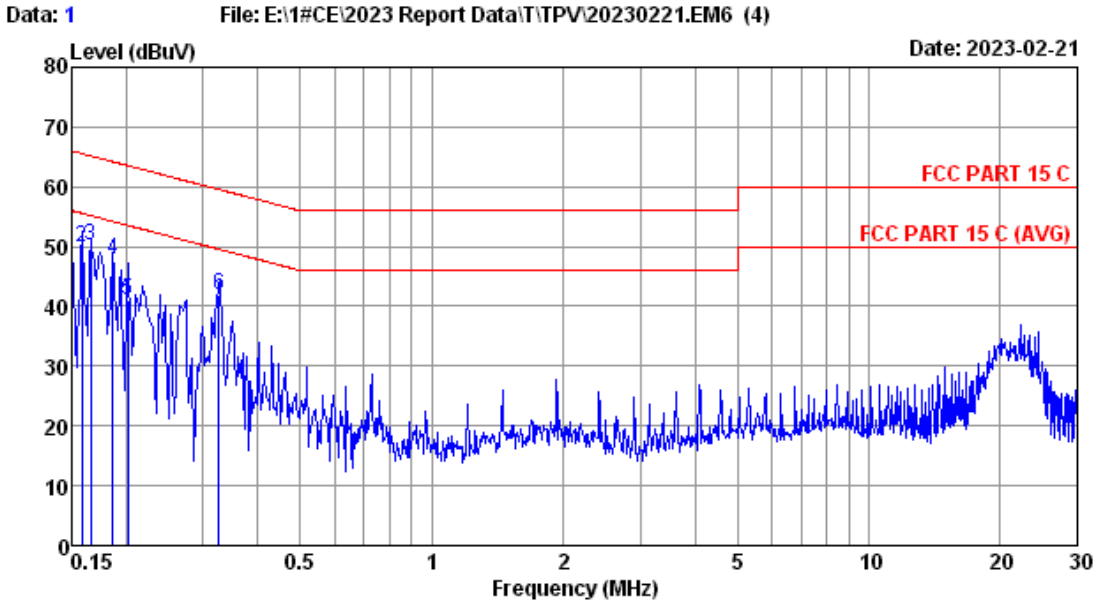
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via AC unit connected to the power mains through a line impedance stabilization network (L.I.S.N. #1). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). 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 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.)

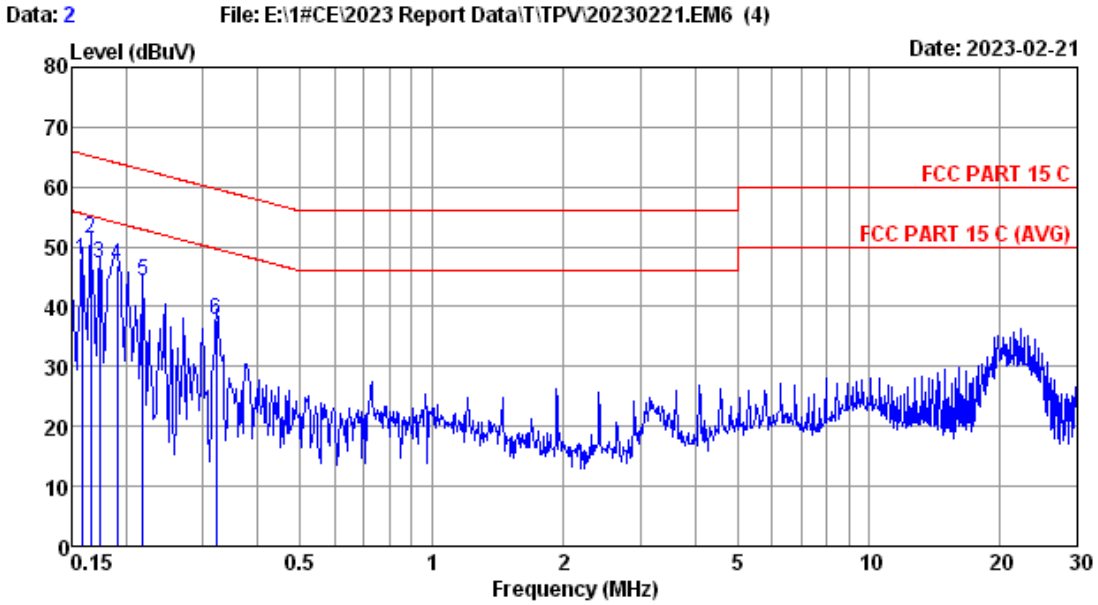


Site no :1# CE
Dis./Lisn :2022 ENV216-L
Limit :FCC PART 15 C
Env./Ins. :22.7*C/47%
Power Rating :AC 120V/60Hz
Test Mode :WIFI 2.4G TX

Data No :1
Engineer :Evan

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.150	9.60	0.01	44.10	53.71	66.00	12.29	QP
2	0.158	9.60	0.01	40.30	49.91	65.57	15.66	QP
3	0.166	9.60	0.01	40.50	50.11	65.16	15.05	QP
4	0.186	9.60	0.01	38.30	47.91	64.21	16.30	QP
5	0.202	9.60	0.01	31.40	41.01	63.53	22.52	QP
6	0.326	9.60	0.01	32.30	41.91	59.55	17.64	QP

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# CE
Dis./Lisn :2022 ENV216-N
Limit :FCC PART 15 C
Env./Ins. :22.7*C/47%
Power Rating :AC 120V/60Hz
Test Mode :WIFI 2.4G TX

Data No :2
Engineer :Evan

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.158	9.60	0.01	38.28	47.89	65.56	17.67	QP
2	0.166	9.60	0.01	41.85	51.46	65.16	13.70	QP
3	0.174	9.60	0.01	37.67	47.28	64.77	17.49	QP
4	0.190	9.60	0.01	37.41	47.02	64.02	17.00	QP
5	0.219	9.60	0.01	34.66	44.27	62.88	18.61	QP
6	0.322	9.60	0.01	28.05	37.66	59.66	22.00	QP

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 TEST

4.1.Test Equipments

4.1.1. For frequency range 30MHz~1000MHz (In 3m Anechoic Chamber)

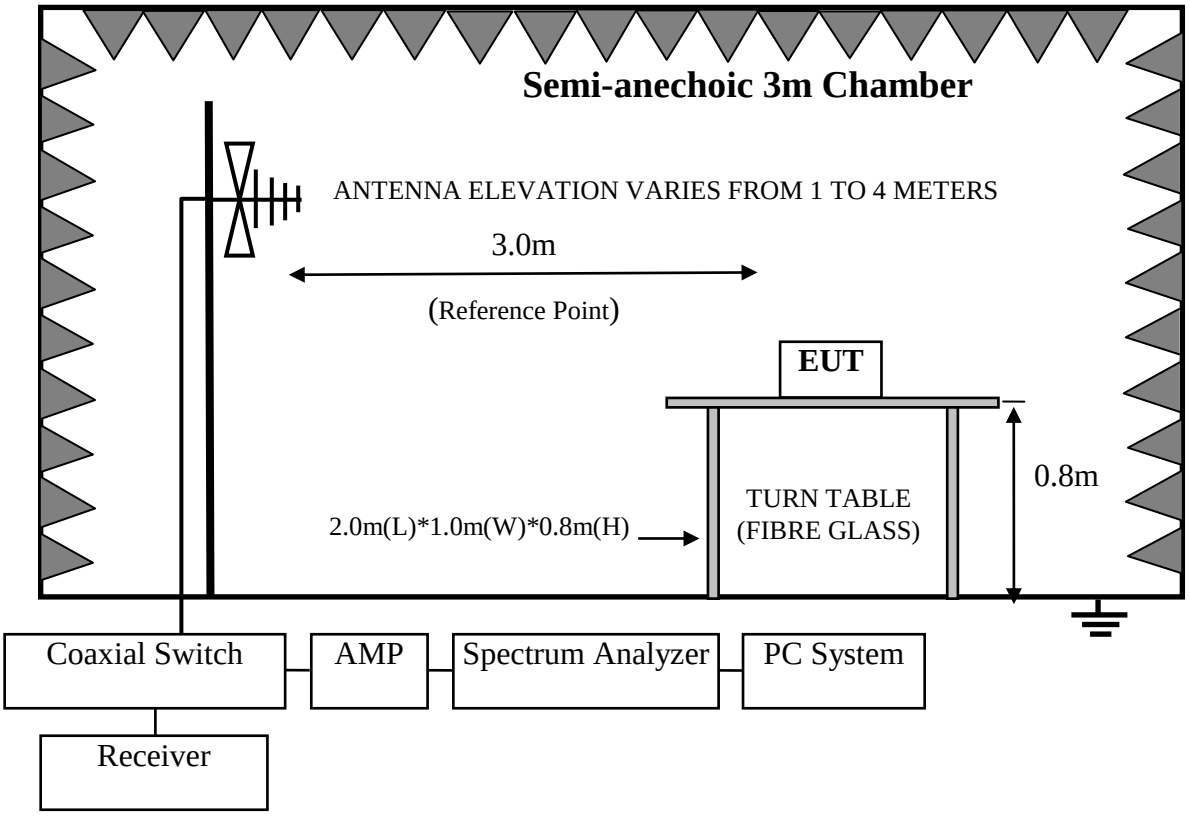
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber(NSA)	AUDIX	N/A	N/A	Aug.11,22	5 Year
2.	3#Chamber(SE)	AUDIX	N/A	N/A	Sep.16,22	5 Year
3.	Signal Analyzer	Rohde & Schwarz	FSV30	104050	Apr.06,22	1 Year
4.	Tri-log-Broadband Antenna	SCHWARZBECK	VULB 9168	01317	Oct.28,22	1 Year
5.	NSA Cable	HUBER+SUHNER	CFD400NL-LW	No.3	Oct.09,22	1 Year
6.	Coaxial Switch	Anritsu	MP59B	6201397223	Apr.06,22	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESR7	101547	Apr.06,22	1 Year
8.	Amplifier	HP	8447D	2944A11159	Apr.06,22	1 Year
9.	Test Software	AUDIX	e3	6.100913a	N/A	N/A
Note: N/A means Not applicable.						

4.1.2. For frequency range 1GHz~25GHz (In 3m Anechoic Chamber)

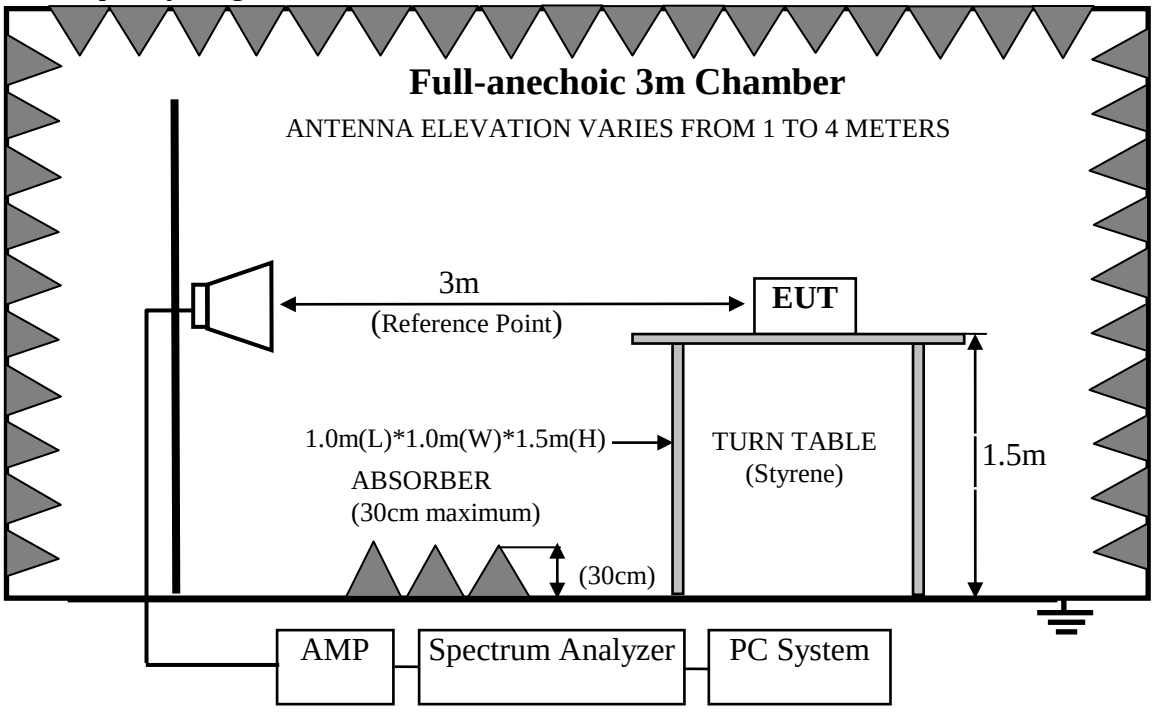
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3mChamber(Svswr)	AUDIX	N/A	N/A	Aug.09,22	5 Year
2.	3mChamber(SE)	AUDIX	N/A	N/A	Sep.16,22	5 Year
3.	Signal Analyzer	Rohde & Schwarz	FSV30	104050	Apr.06,22	1 Year
4.	Amplifier	Agilent	83017A	MY53270084	Oct.09,22	1 Year
5.	RF Cable	EMCI	EMC104-SM-SM-15000	190407	Jul.01,22	1 Year
6.	Test Software	AUDIX	e3	6.100913a	N/A	N/A
7.	Horn Antenna	ETC	MCTD 1209	DRH15F03006	Aug.12,22	1 Year
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 Limits

4.3.1. 15.247&209 limits

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 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark： (1) Emission Level (dBμV/m) = Reading (Receiver) (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB)
Emission Level (dBμV/m) = Reading (Spectrum) (dBμV) + Antenna Factor (dB/m) – Amp Factor (dB) + Cable Loss (dB)(above 1000MHz)
(2) The smaller limits 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.

4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4.EUT Configuration 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.

4.4.1. Smart Signboard (EUT)

Model No. : IAD-18001
Serial No. : N/A

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

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(WiFi 2.4GHz) 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 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 Horm antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found and reported.

The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

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

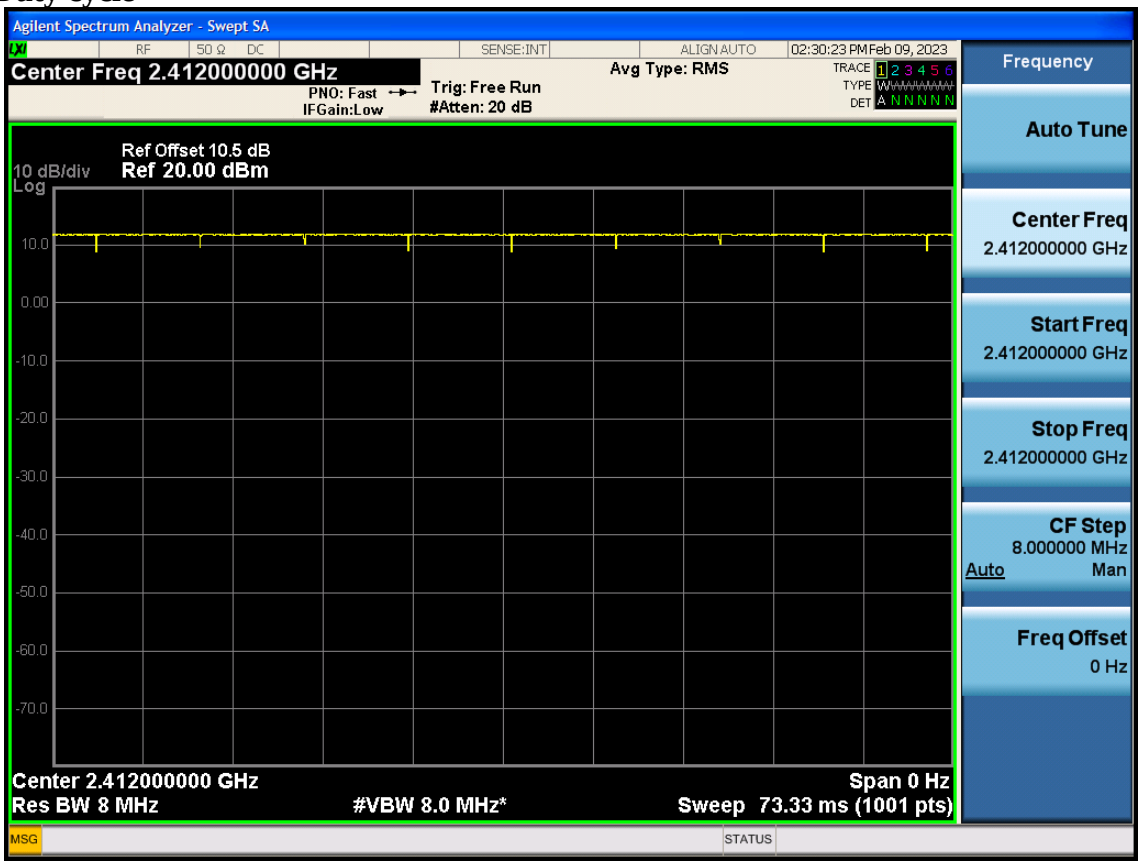
4.7.Radiated Emission Test Results

PASS.

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

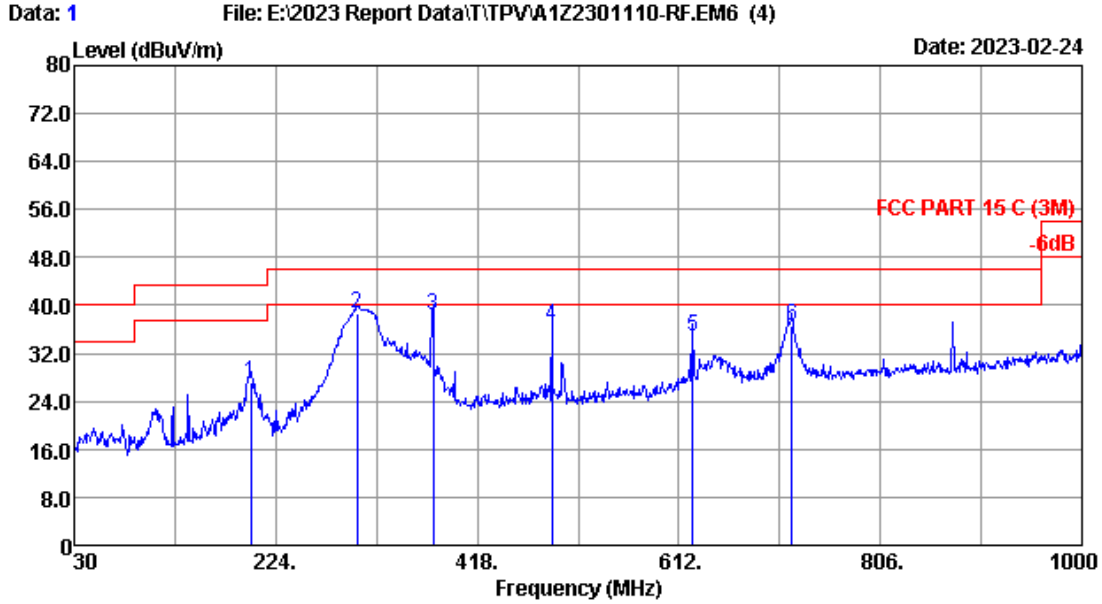
Note 1: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
Note 2: The emissions (9kHz~30MHz) not reported for there is no emission be found.

Duty cycle



Note: The duty cycle of the test signal is 100%.

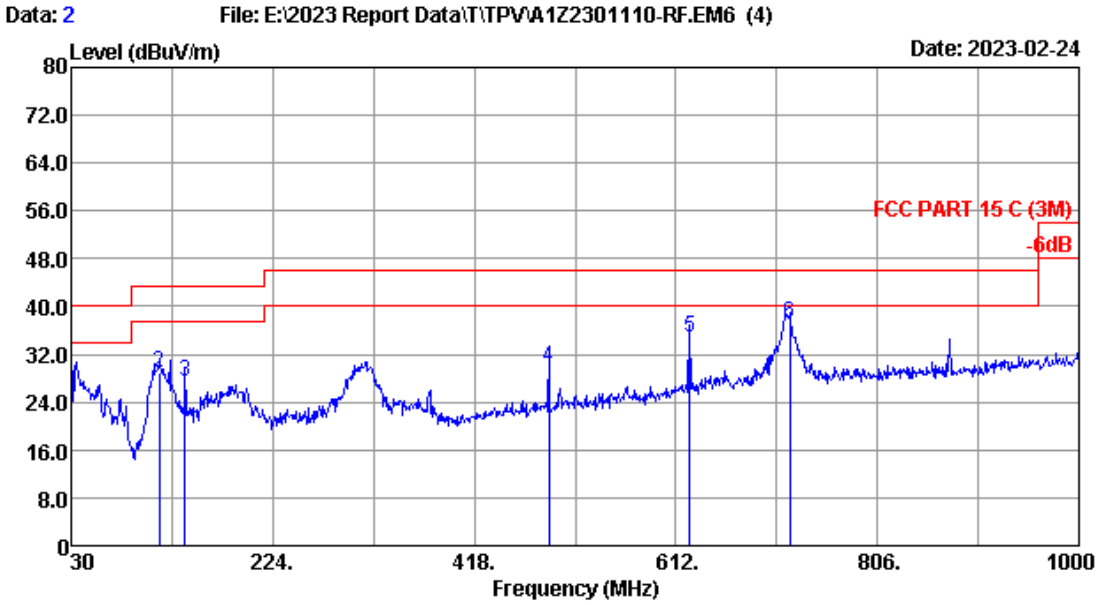
Frequency: 30MHz~1GHz




```
Site no.      : 3m Chamber                    Data no.   : 1
Dis. / Ant.   : 3m   2022 VULB 9168-01317     Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15 C (3M)
Env. / Ins.   : 23.4*C/51%                    Engineer   : Abel
Test Mode     : WIFI 2.4G TX
```

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	199.750	15.70	1.42	9.96	27.08	43.50	16.42	QP
2	302.570	19.40	1.80	17.59	38.79	46.00	7.21	QP
3	375.320	21.20	1.99	15.04	38.23	46.00	7.77	QP
4	489.780	23.50	2.35	10.82	36.67	46.00	9.33	QP
5	625.580	26.08	2.71	6.18	34.97	46.00	11.03	QP
6	720.640	27.40	2.94	6.36	36.70	46.00	9.30	QP

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

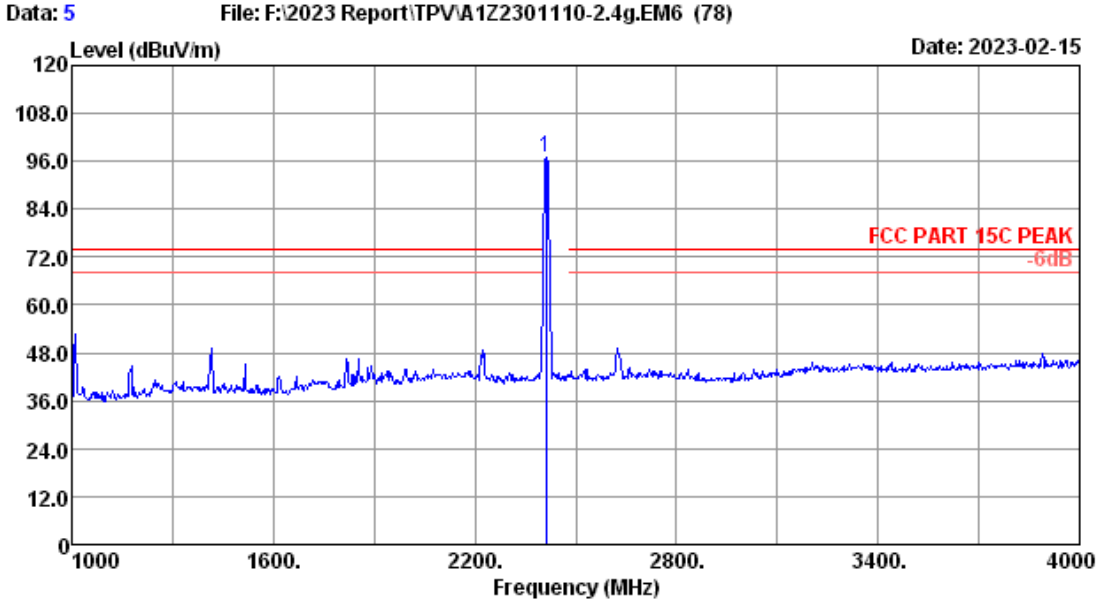


Site no. : 3m Chamber
Data no. : 2
Dis. / Ant. : 3m 2022 VULB 9168-01317
Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 23.4*C/51%
Engineer : Abel
Test Mode : WIFI 2.4G TX

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	18.20	0.55	11.29	30.04	40.00	9.96	QP
2	114.390	16.30	1.07	11.57	28.94	43.50	14.56	QP
3	139.610	19.00	1.18	7.42	27.60	43.50	15.90	QP
4	489.780	23.50	2.35	3.92	29.77	46.00	16.23	QP
5	625.580	26.08	2.71	6.01	34.80	46.00	11.20	QP
6	721.610	27.40	2.94	6.76	37.10	46.00	8.90	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

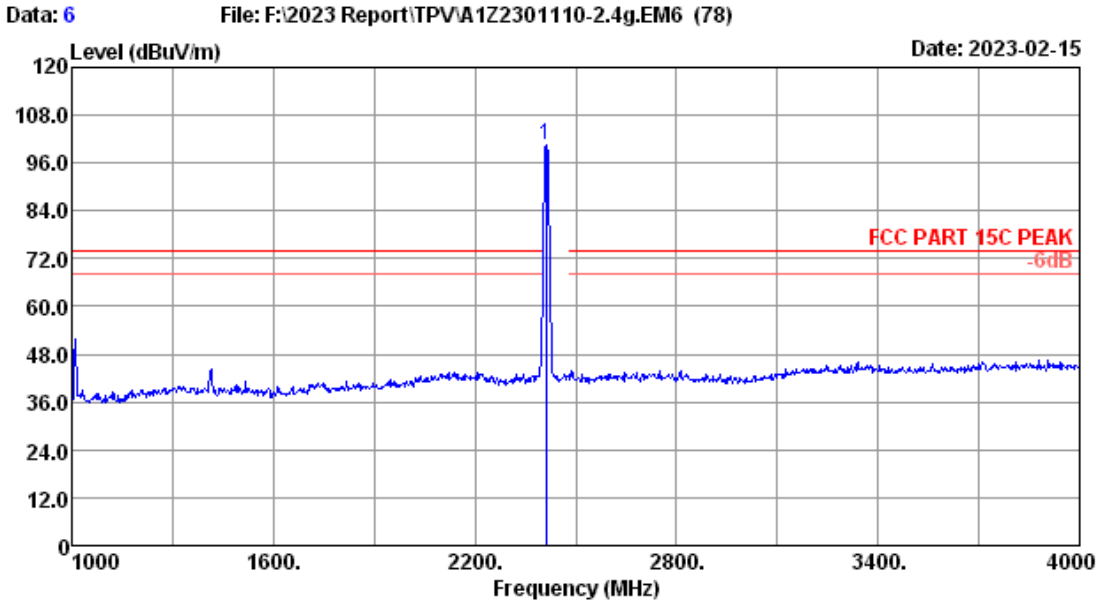


Site no. : 3m Chamber
Dis. / Ant. : 3m 2022 MCTD1209-3006
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Test Mode : 11b 2412MHz TX

Data no. : 5
Ant. pol. : VERTICAL
Engineer : nier

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.73	2.30	101.45	34.36	97.12	------	------	Peak

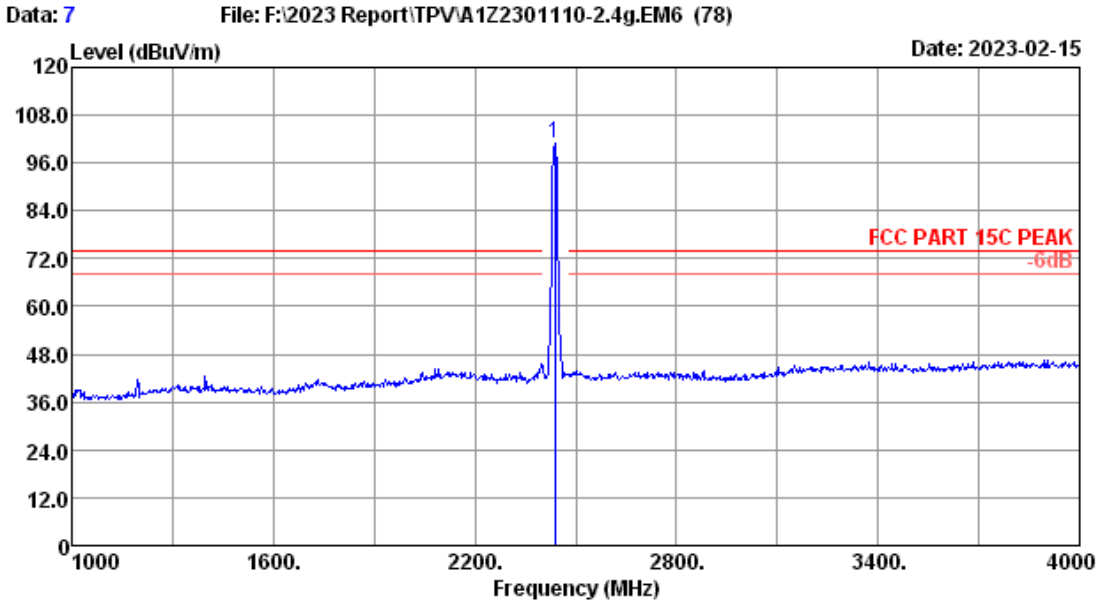
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : nier
Test Mode : 11b 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.73	2.30	104.70	34.36	100.37	------	------	Peak

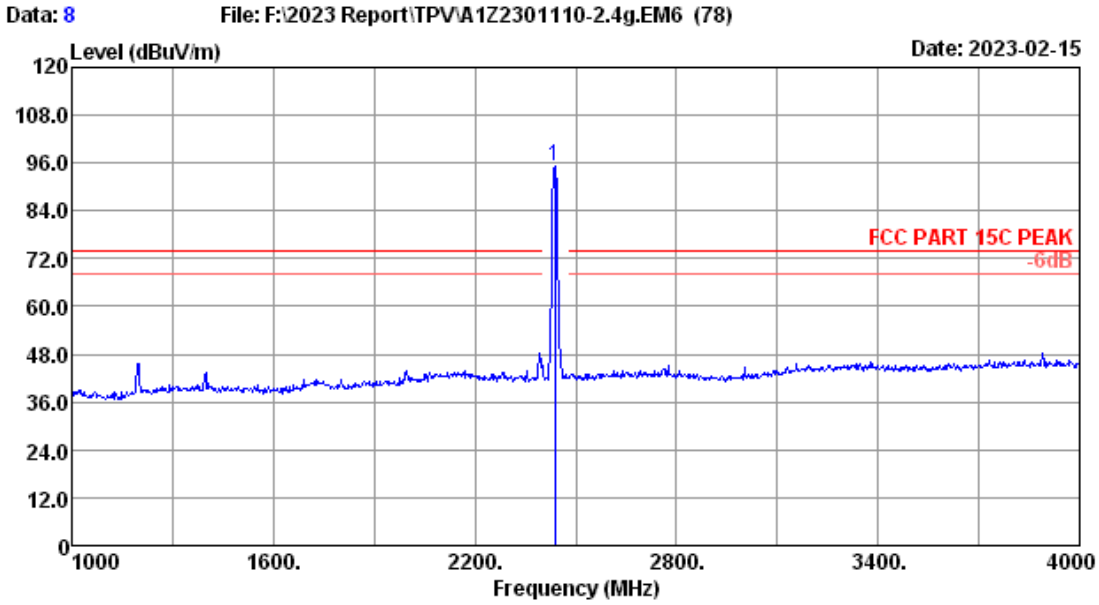
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11b 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.80	2.32	105.01	34.36	100.77	------	------	Peak

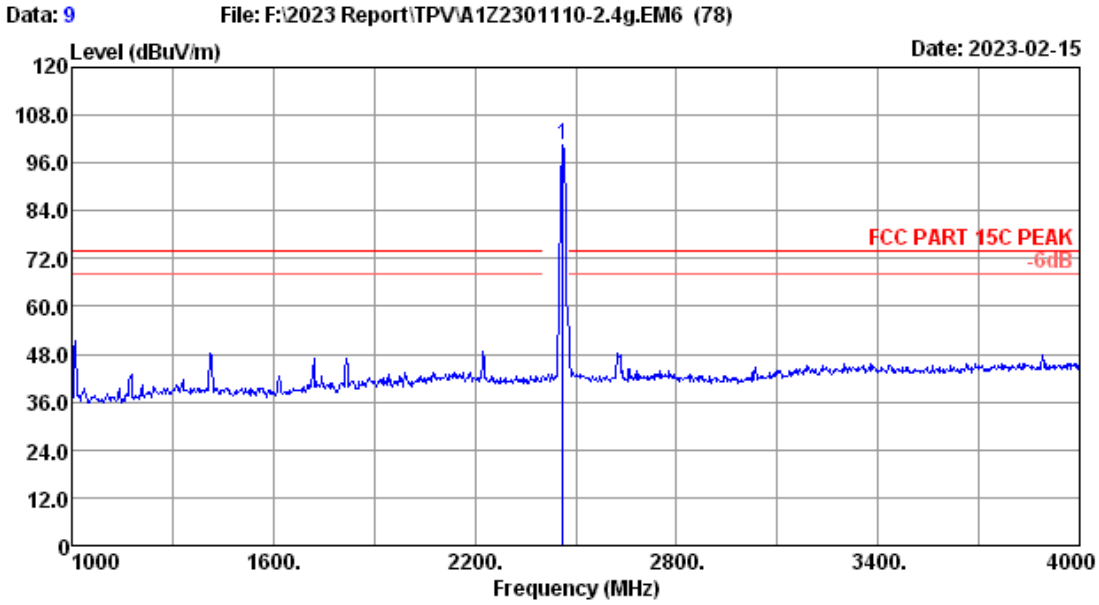
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11b 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.80	2.32	99.65	34.36	95.41	------	------	Peak

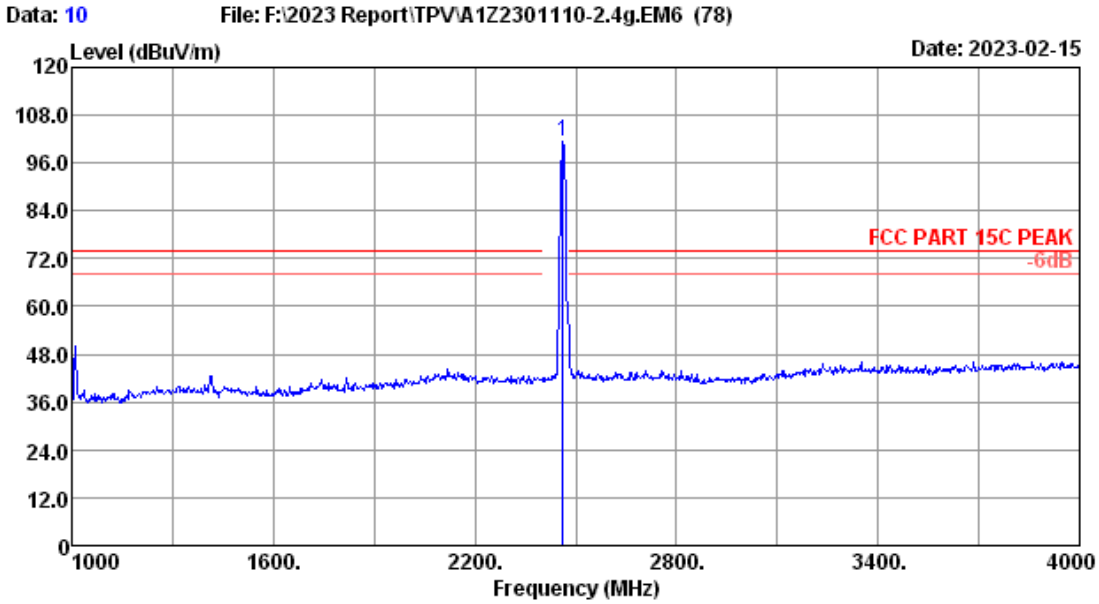
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 9
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : nier
Test Mode : 11b 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.80	2.33	104.96	34.35	100.74	------	------	Peak

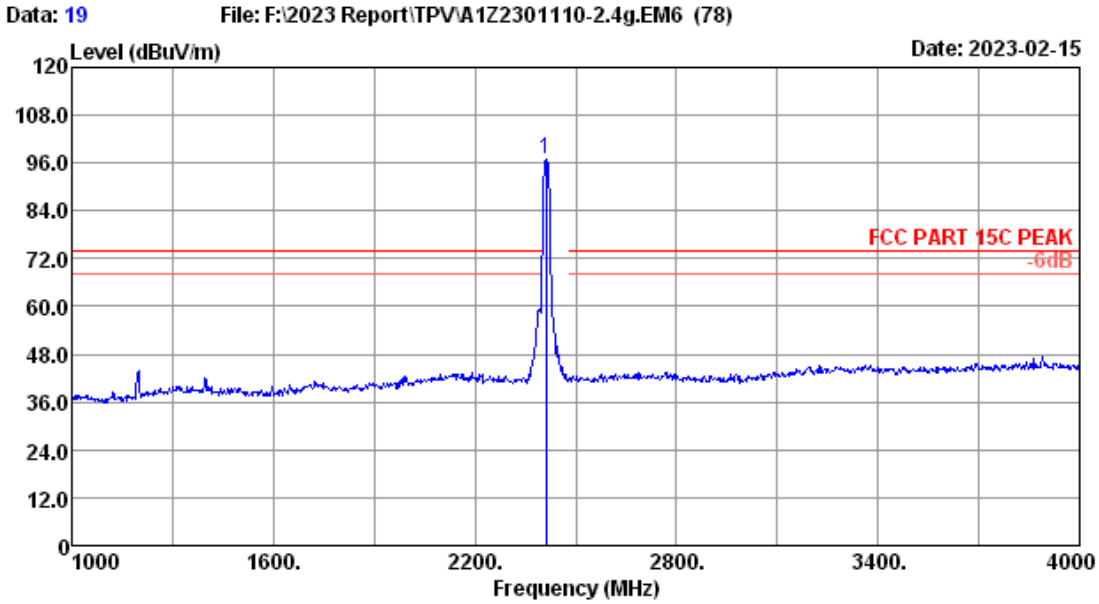
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : nier
Test Mode : 11b 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.80	2.33	105.72	34.35	101.50	------	------	Peak

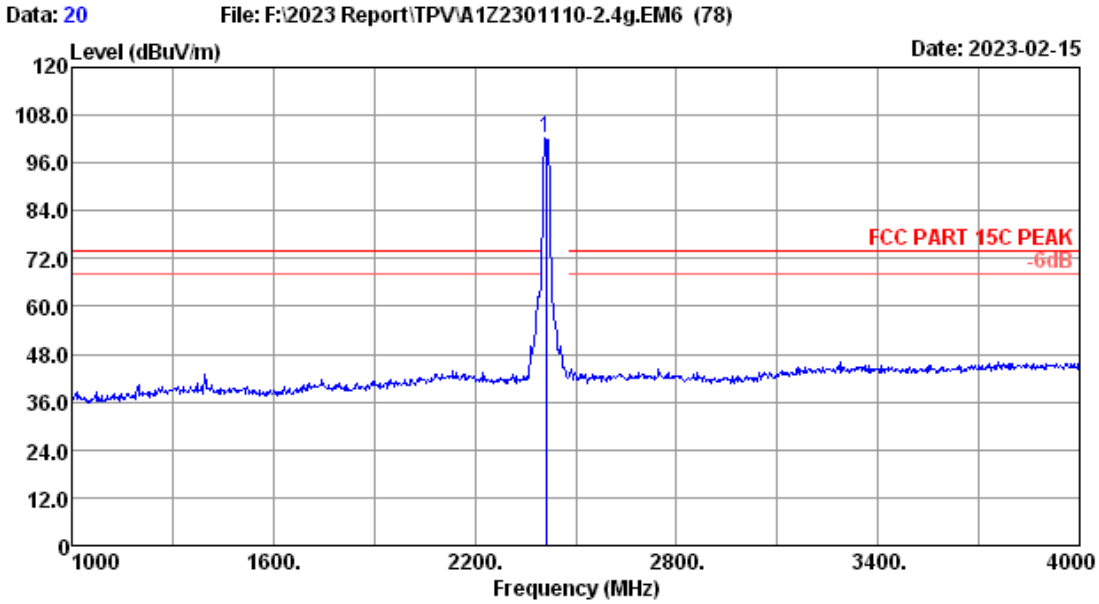
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.73	2.30	101.30	34.36	96.97	------	------	Peak

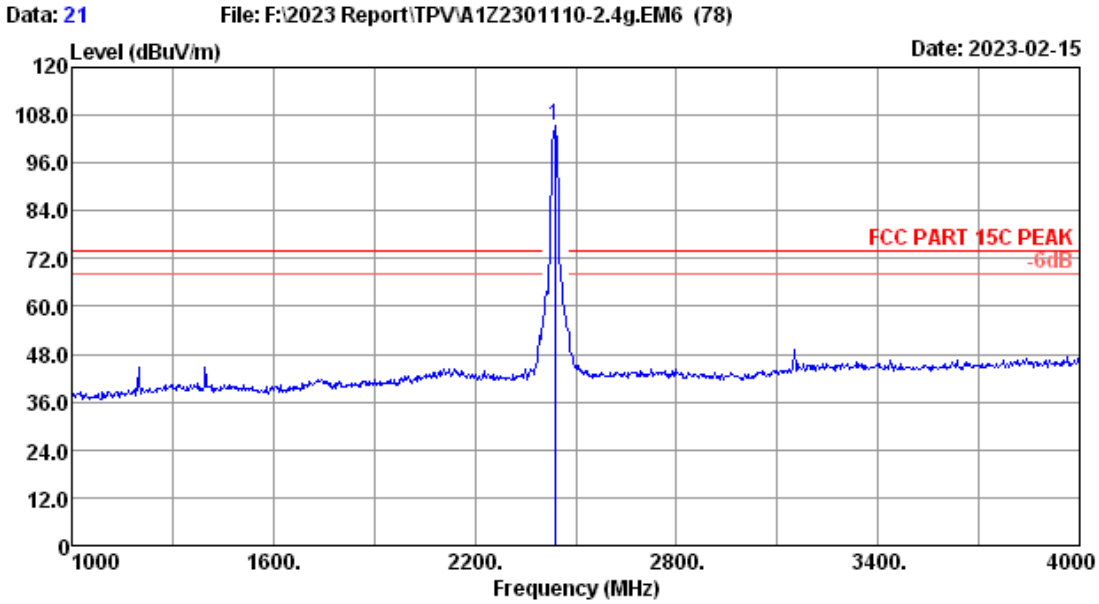
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.73	2.30	106.69	34.36	102.36	------	------	Peak

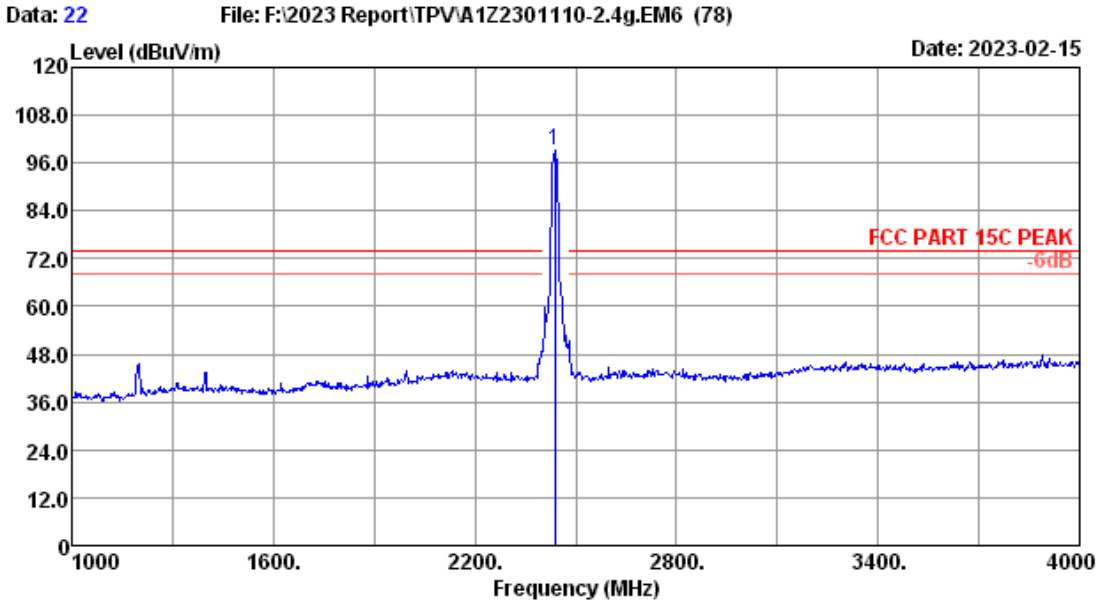
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.80	2.32	109.53	34.36	105.29	------	------	Peak

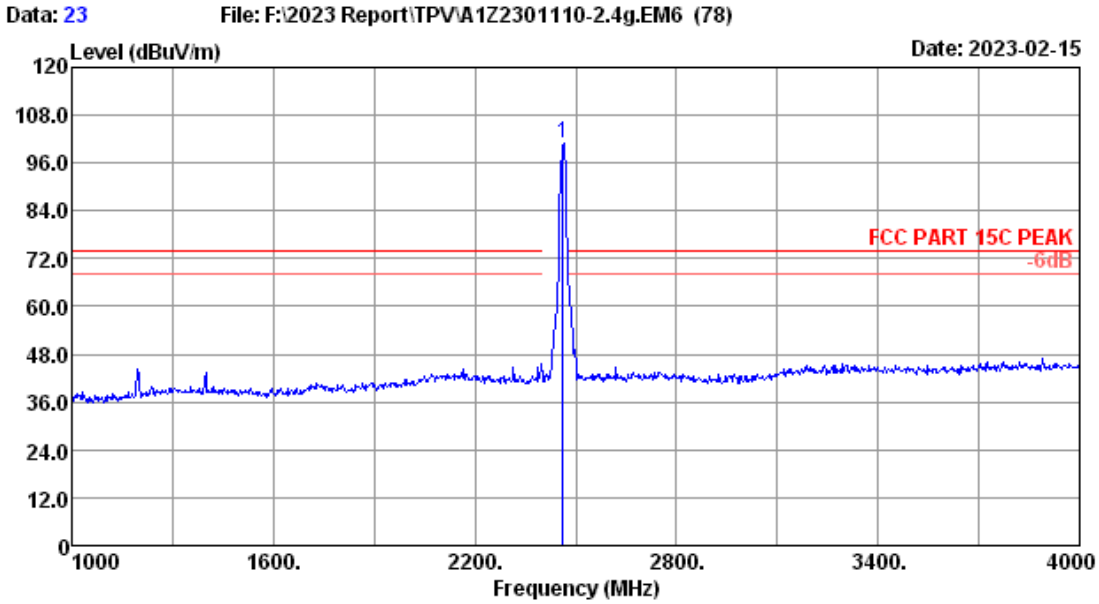
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.80	2.32	103.24	34.36	99.00	------	------	Peak

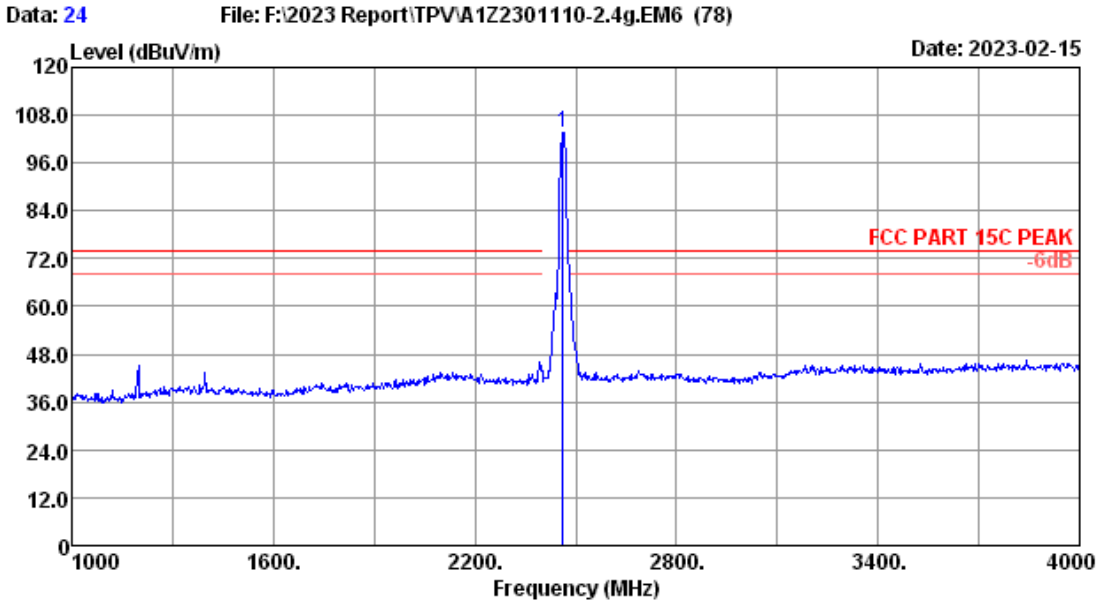
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.80	2.33	105.38	34.35	101.16	------	------	Peak

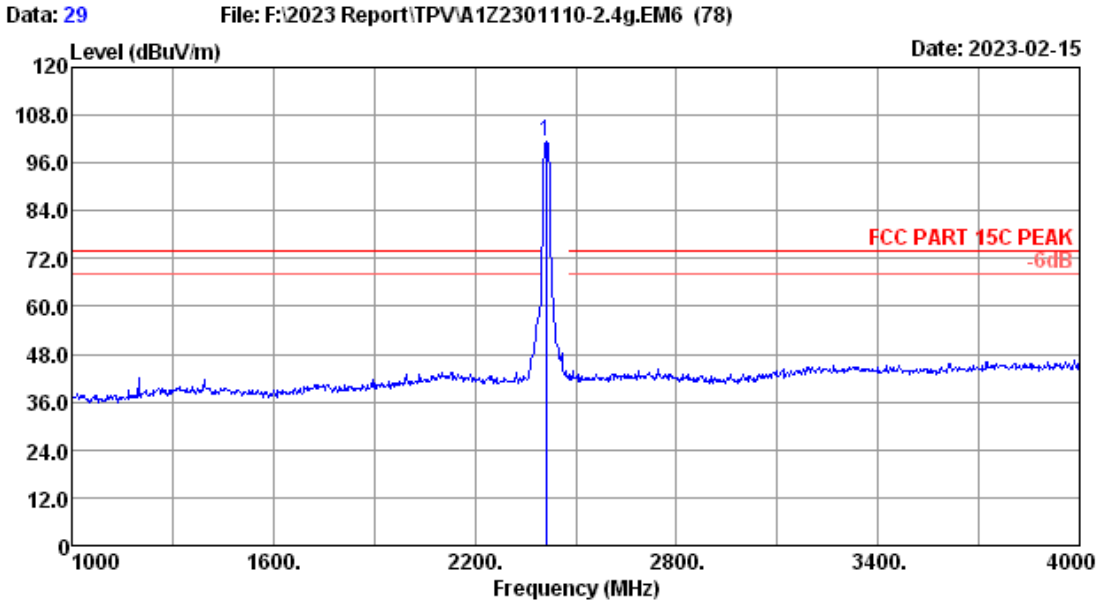
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.80	2.33	107.74	34.35	103.52	------	------	Peak

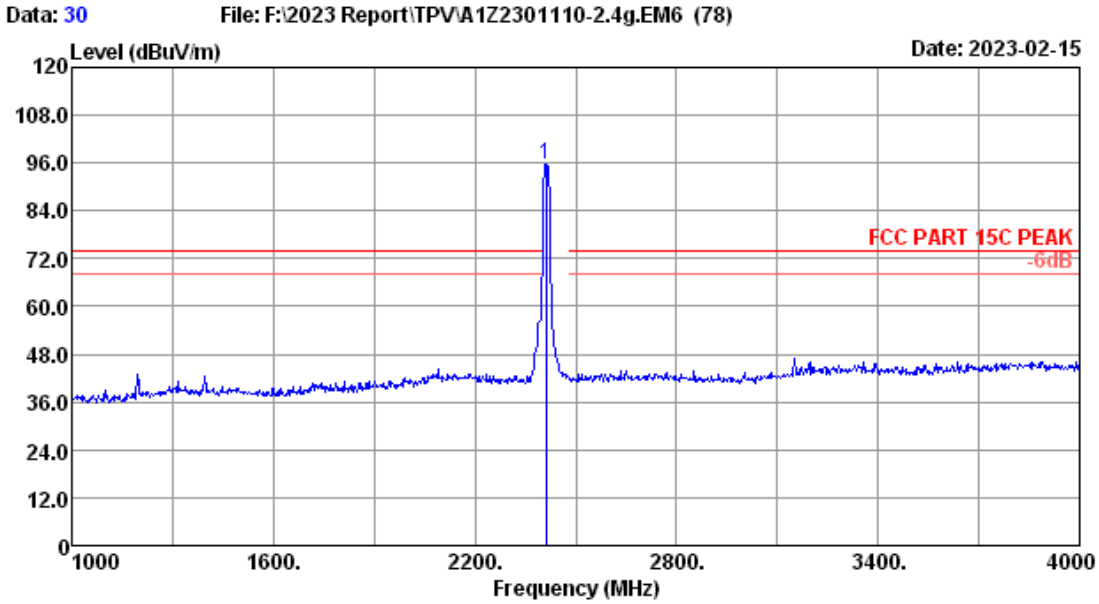
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.73	2.30	105.53	34.36	101.20	------	------	Peak

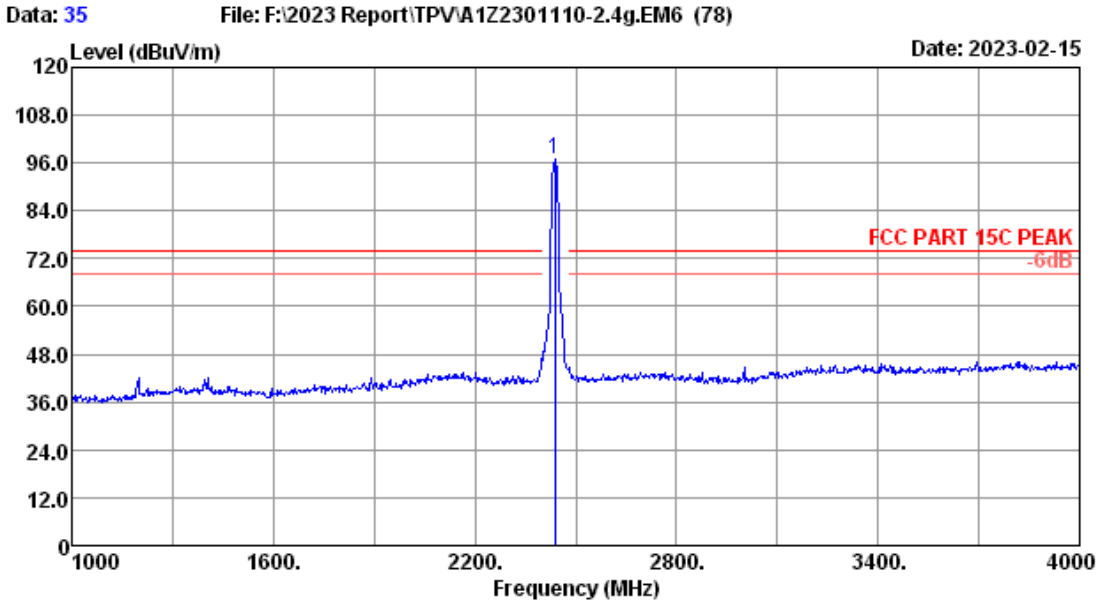
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.73	2.30	100.15	34.36	95.82	------	------	Peak

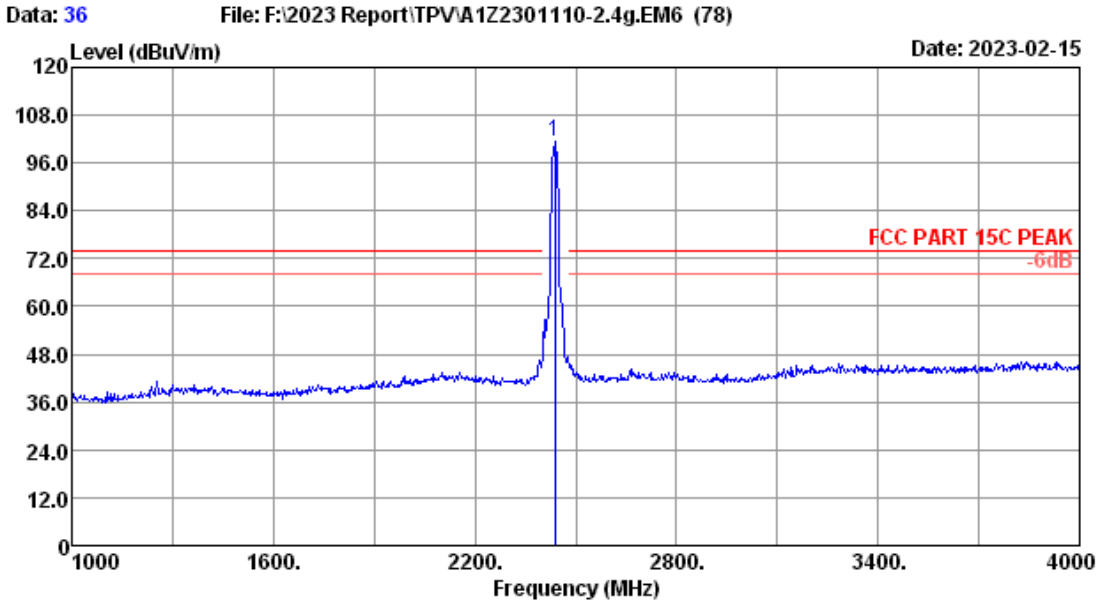
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp factor.
2. The emission levels that are 20dB below the official
limit are not reported.



Site no. : 3m Chamber Data no. : 35
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.80	2.32	101.17	34.36	96.93	------	------	Peak

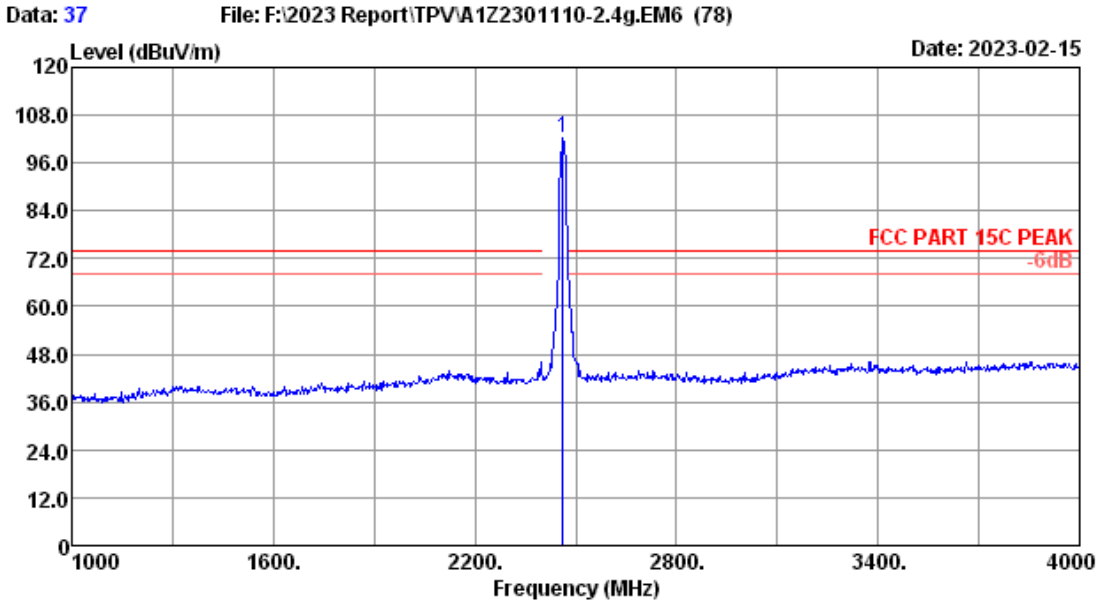
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	27.80	2.32	105.57	34.36	101.33	------	------	Peak

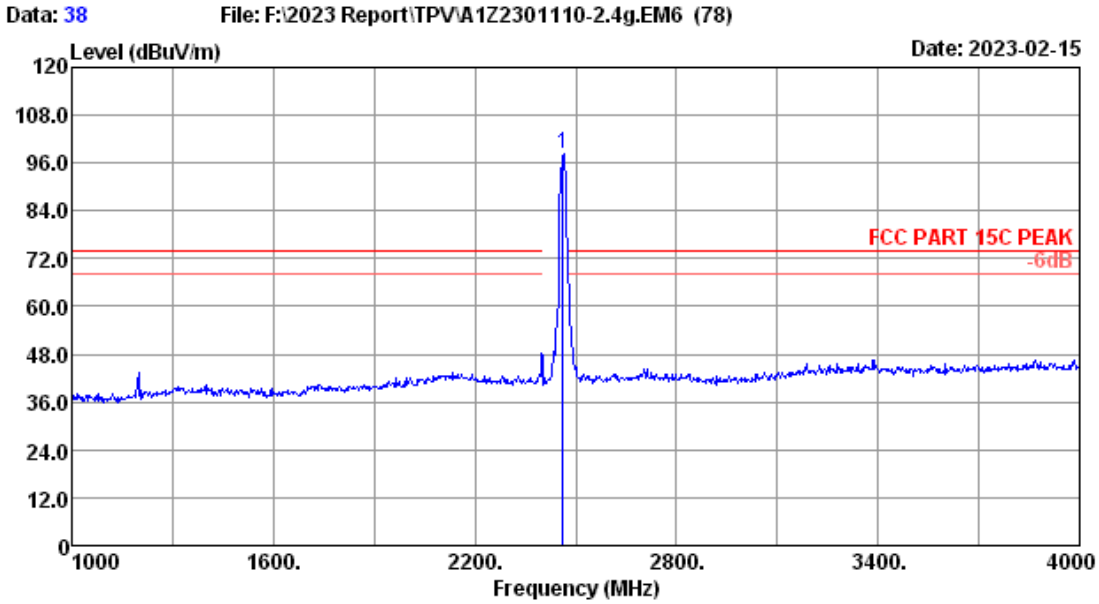
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.80	2.33	106.64	34.35	102.42	------	------	Peak

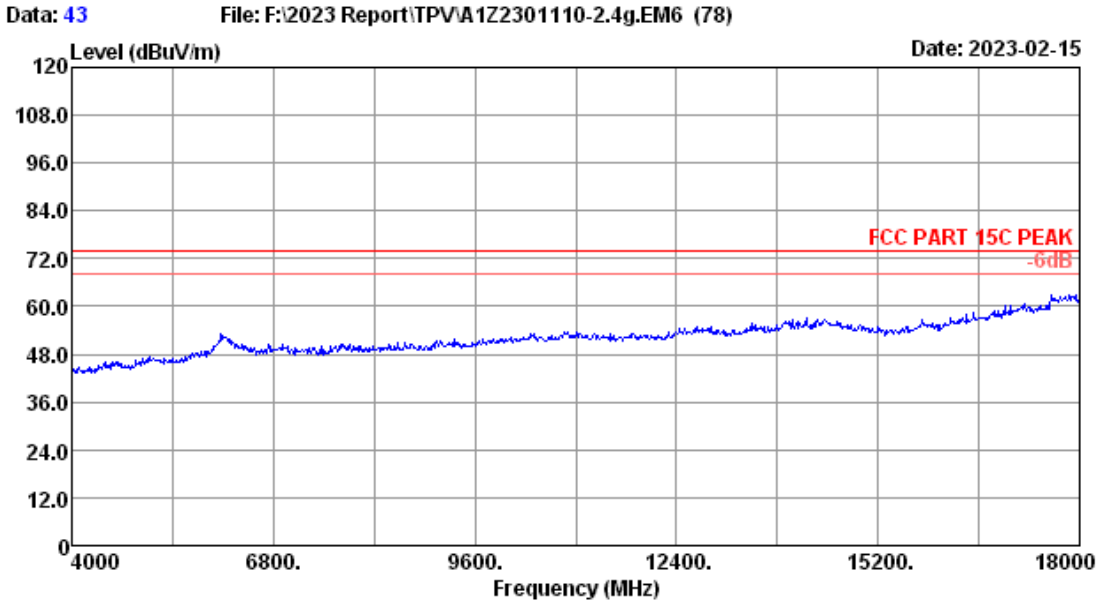
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
2. The emission levels that are 20dB below the official limit are not reported.



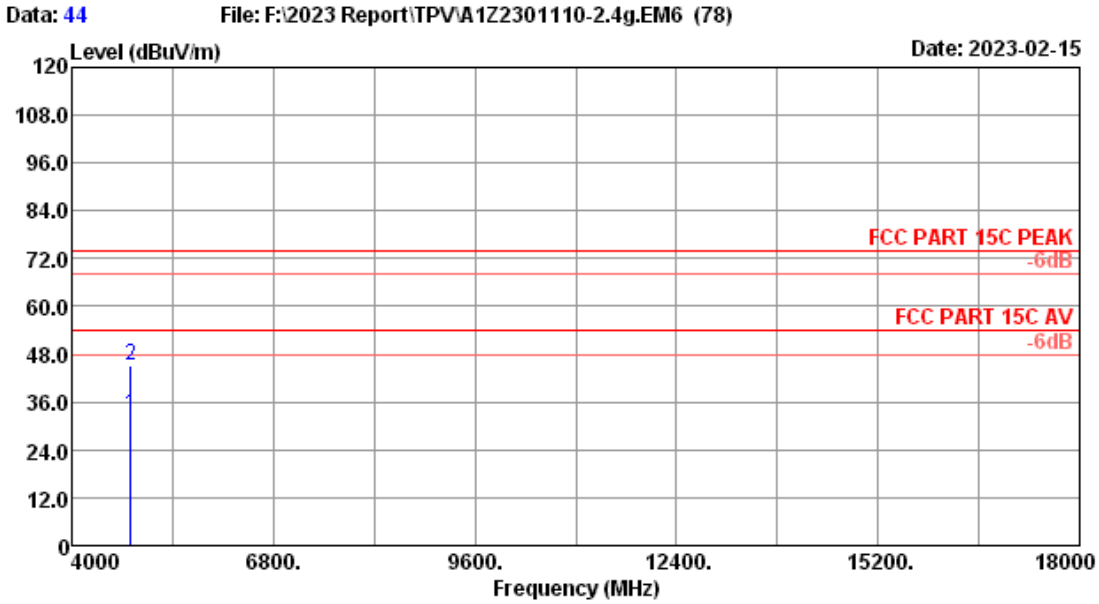
Site no. : 3m Chamber
Data no. : 38
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11n20 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	27.80	2.33	102.45	34.35	98.23	------	------	Peak

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



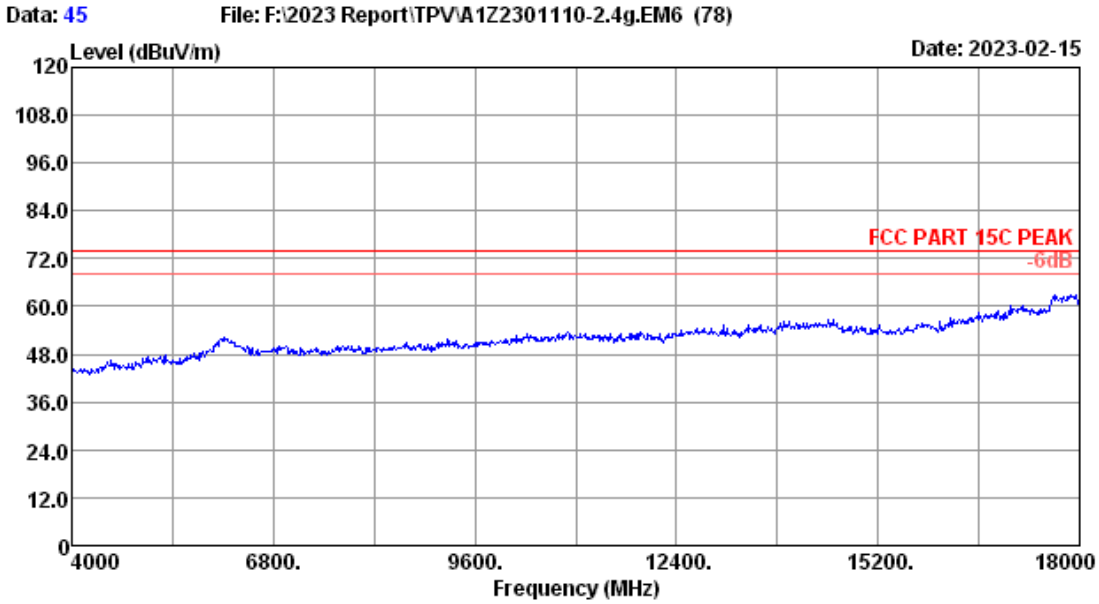
Site no.	: 3m Chamber	Data no.	: 43
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11b 2412MHz TX		



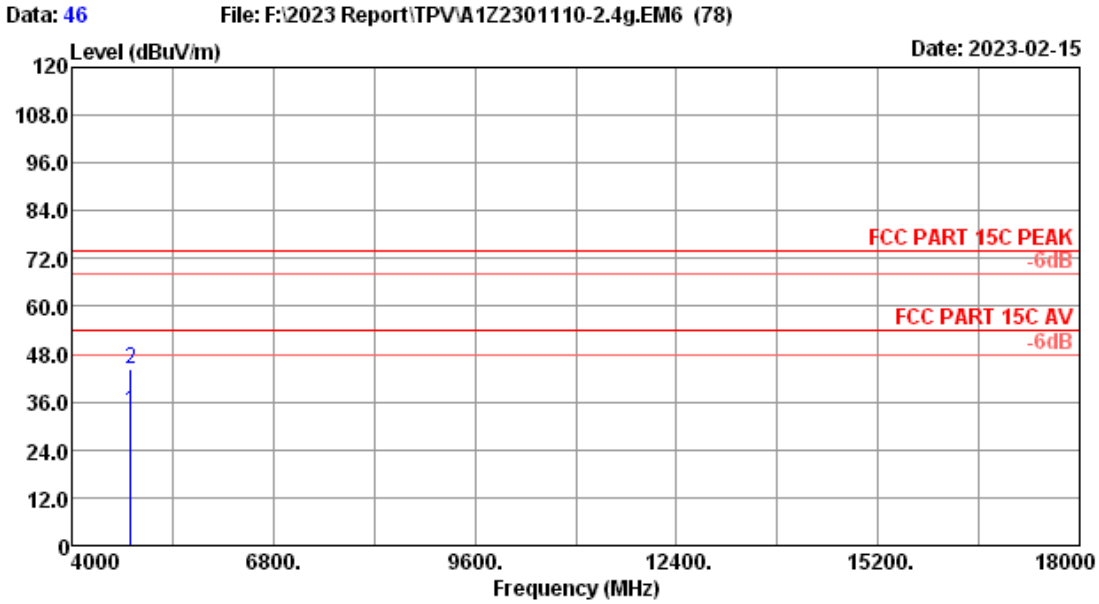
Site no. : 3m Chamber
Data no. : 44
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11b 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	31.25	3.33	31.97	33.68	32.87	54.00	21.13	Average
2	4824.00	31.25	3.33	44.17	33.68	45.07	74.00	28.93	Peak

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



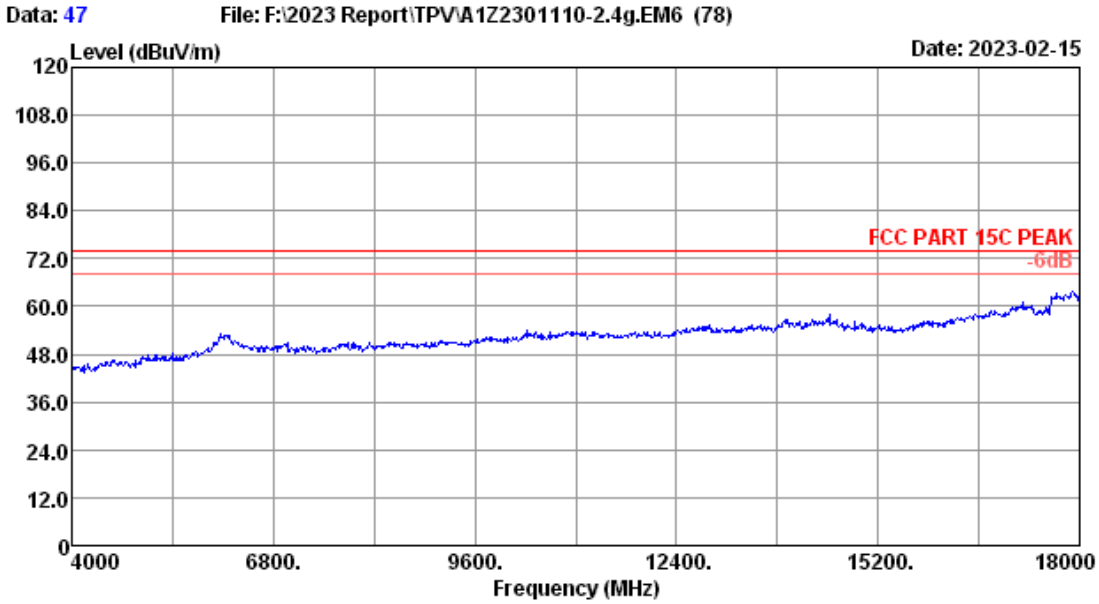
Site no.	: 3m Chamber	Data no.	: 45
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11b 2412MHz TX		



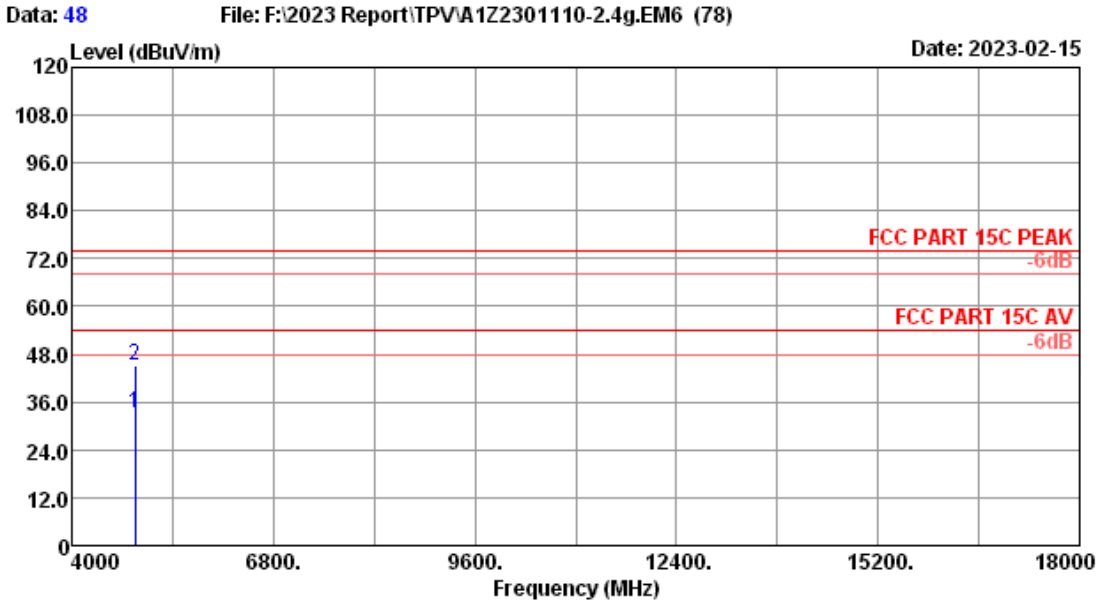
Site no. : 3m Chamber
Data no. : 46
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11b 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	31.25	3.33	32.86	33.68	33.76	54.00	20.24	Average
2	4824.00	31.25	3.33	43.16	33.68	44.06	74.00	29.94	Peak

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



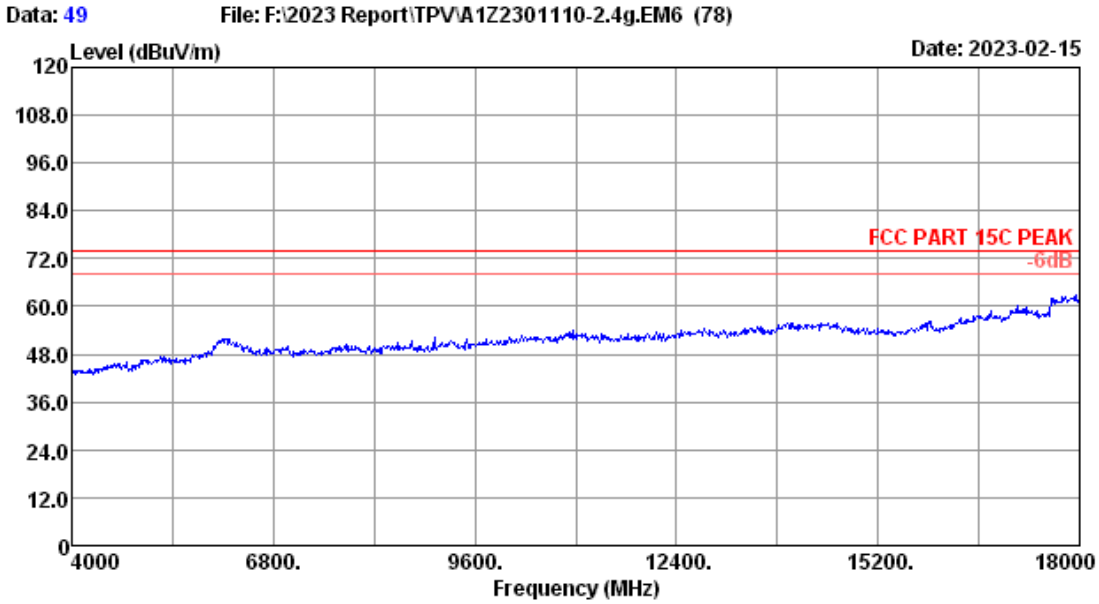
Site no.	: 3m Chamber	Data no.	: 47
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11b 2437MHz TX		



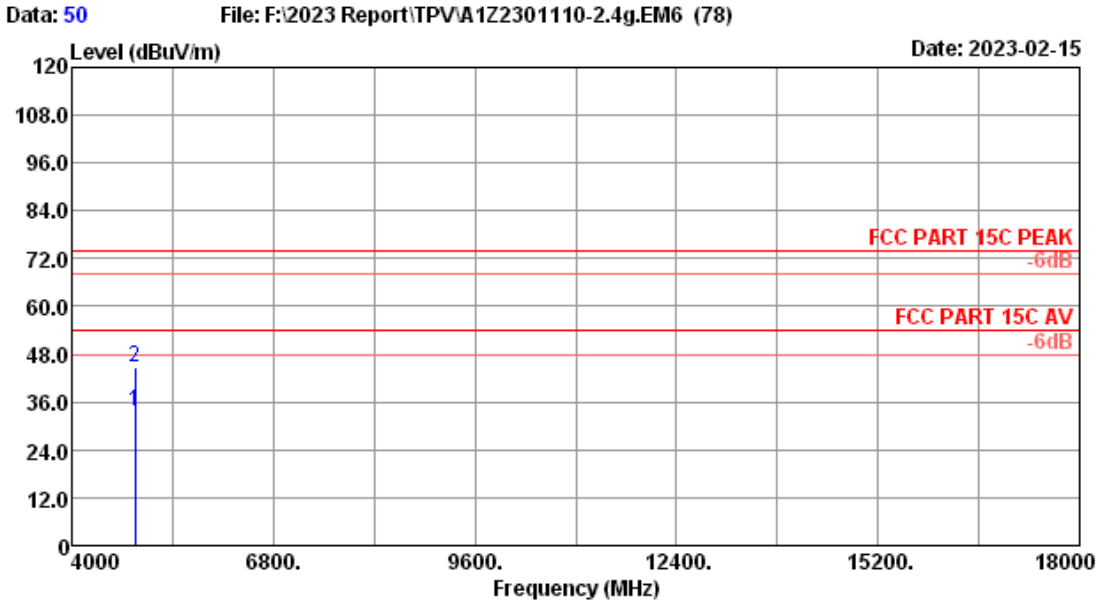
Site no. : 3m Chamber
Data no. : 48
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11b 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	31.43	3.35	31.97	33.69	33.06	54.00	20.94	Average
2	4874.00	31.43	3.35	44.15	33.69	45.24	74.00	28.76	Peak

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



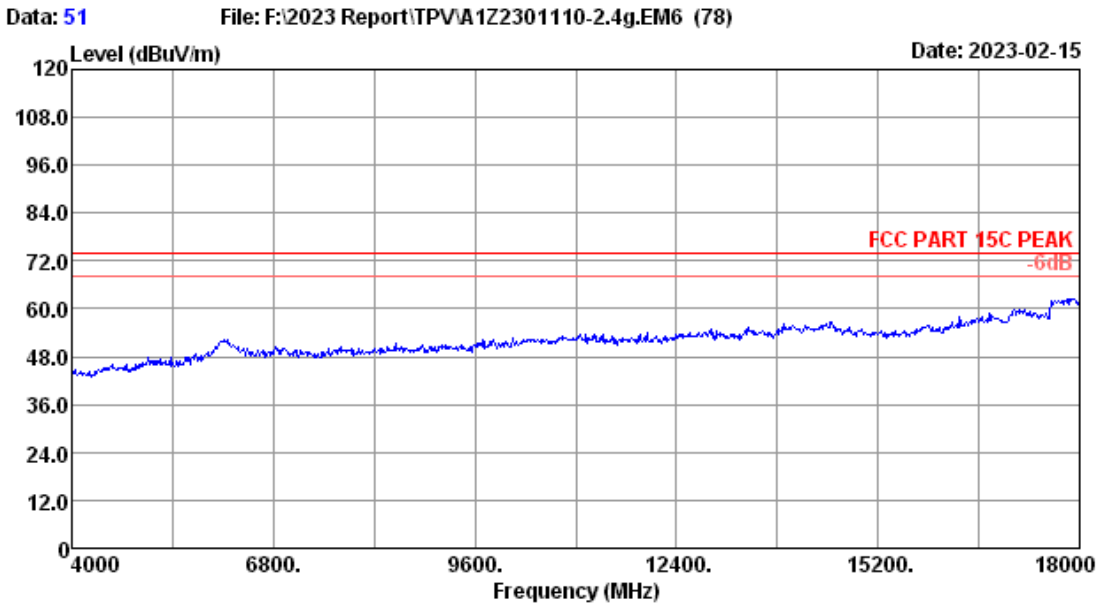
Site no.	: 3m Chamber	Data no.	: 49
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11b 2437MHz TX		



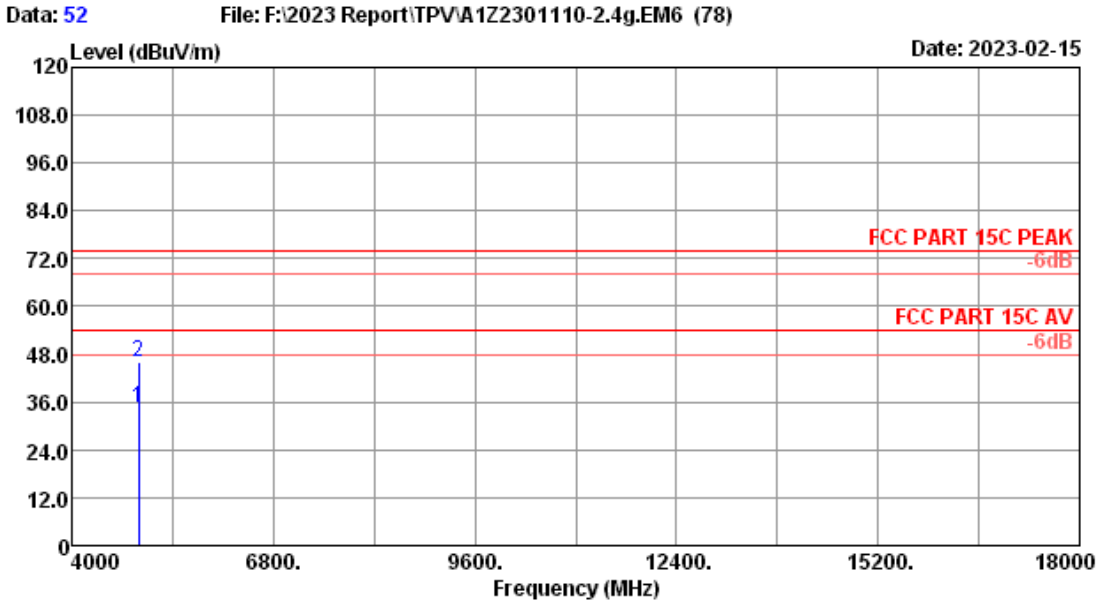
Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11b 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	31.43	3.35	32.59	33.69	33.68	54.00	20.32	Average
2	4874.00	31.43	3.35	43.79	33.69	44.88	74.00	29.12	Peak

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



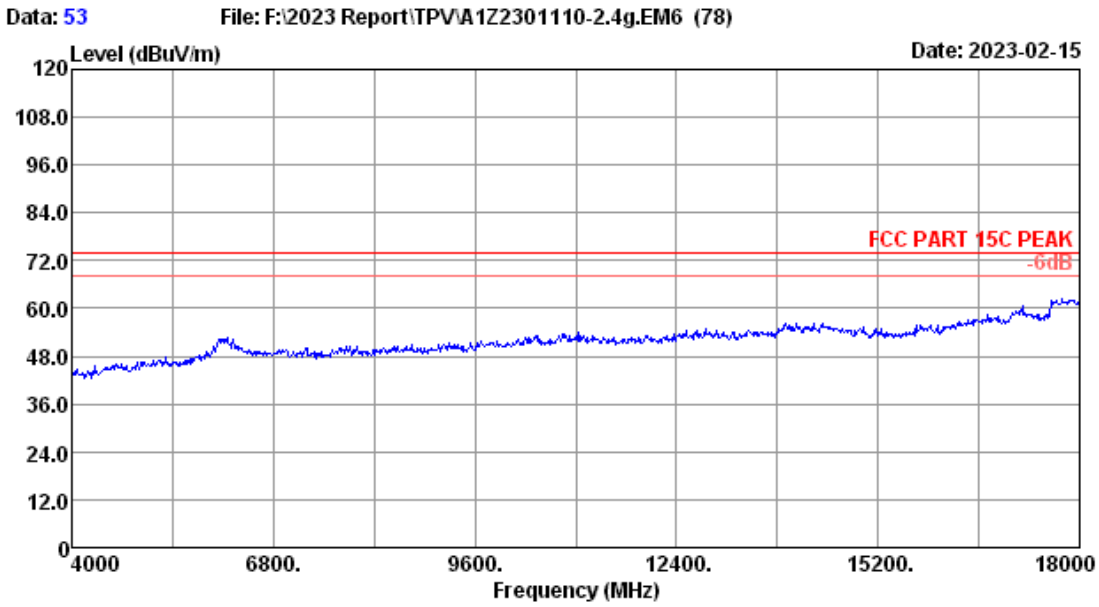
Site no.	: 3m Chamber	Data no.	: 51
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11b 2462MHz TX		



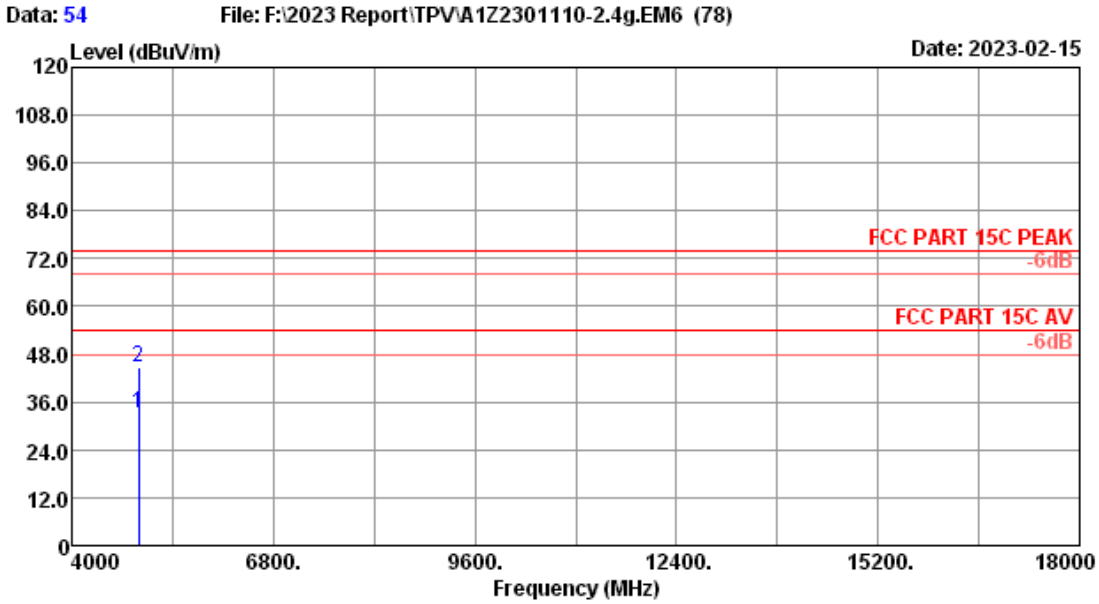
Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11b 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	31.70	3.37	33.04	33.69	34.42	54.00	19.58	Average
2	4924.00	31.70	3.37	44.57	33.69	45.95	74.00	28.05	Peak

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



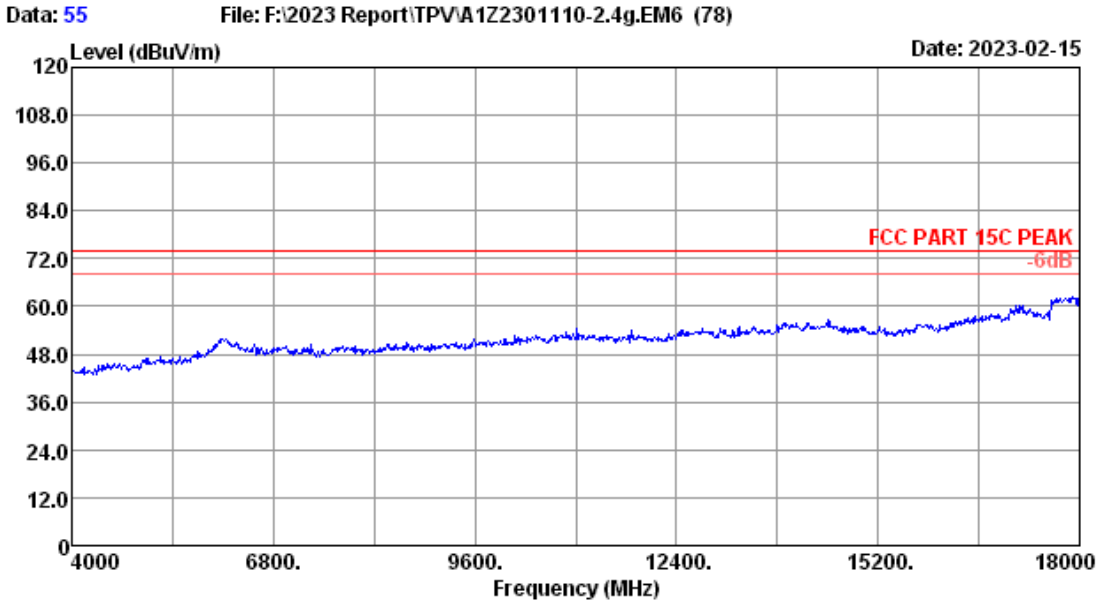
Site no.	: 3m Chamber	Data no.	: 53
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11b 2462MHz TX		



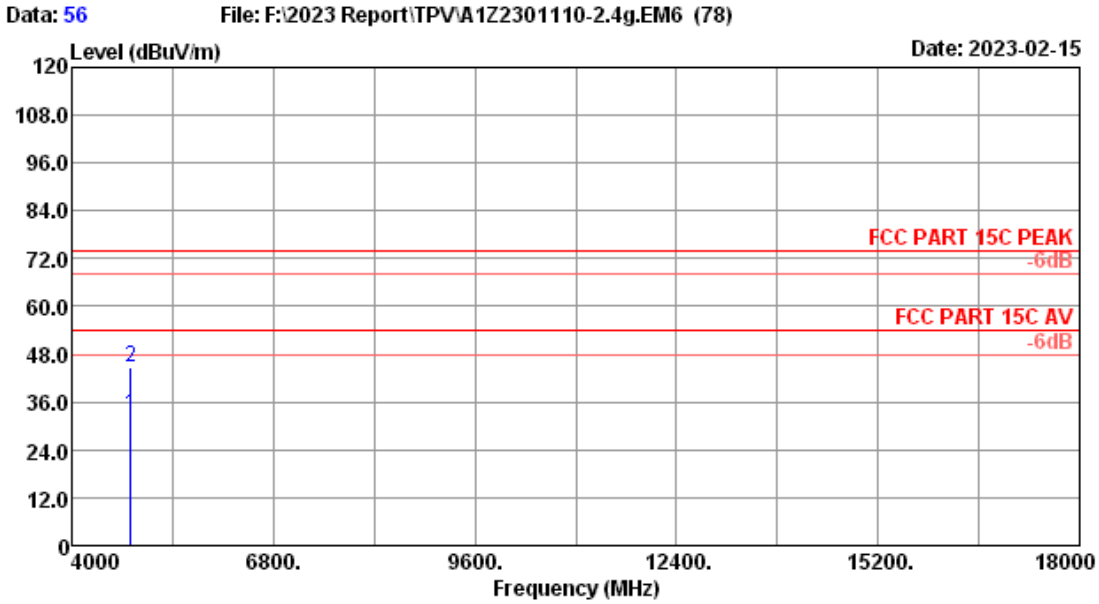
Site no. : 3m Chamber
Data no. : 54
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11b 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	31.70	3.37	32.03	33.69	33.41	54.00	20.59	Average
2	4924.00	31.70	3.37	43.48	33.69	44.86	74.00	29.14	Peak

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



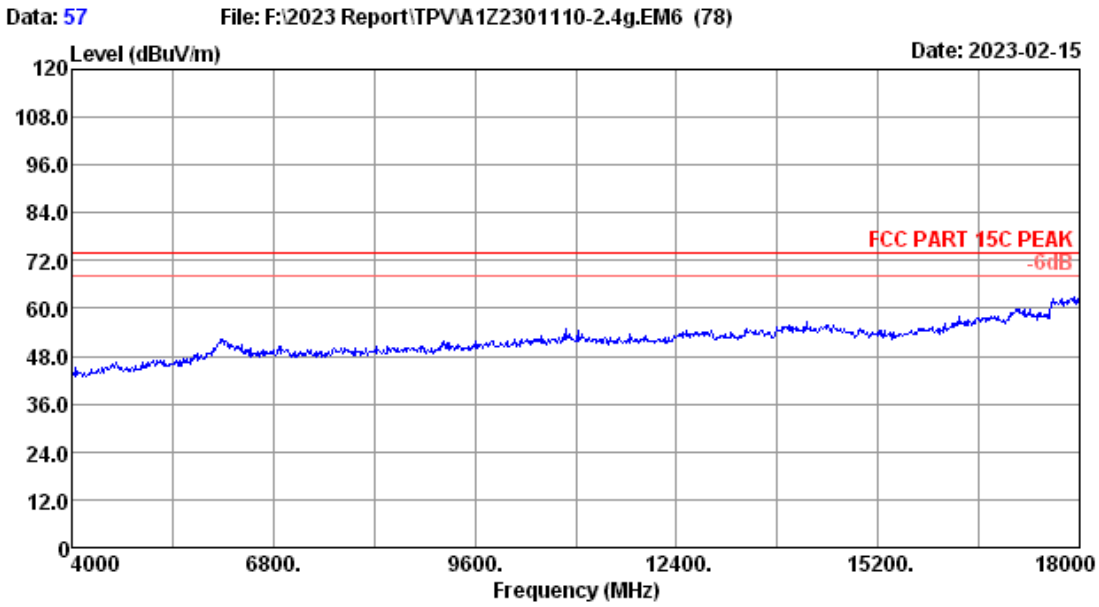
Site no.	: 3m Chamber	Data no.	: 55
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11g 2412MHz TX		



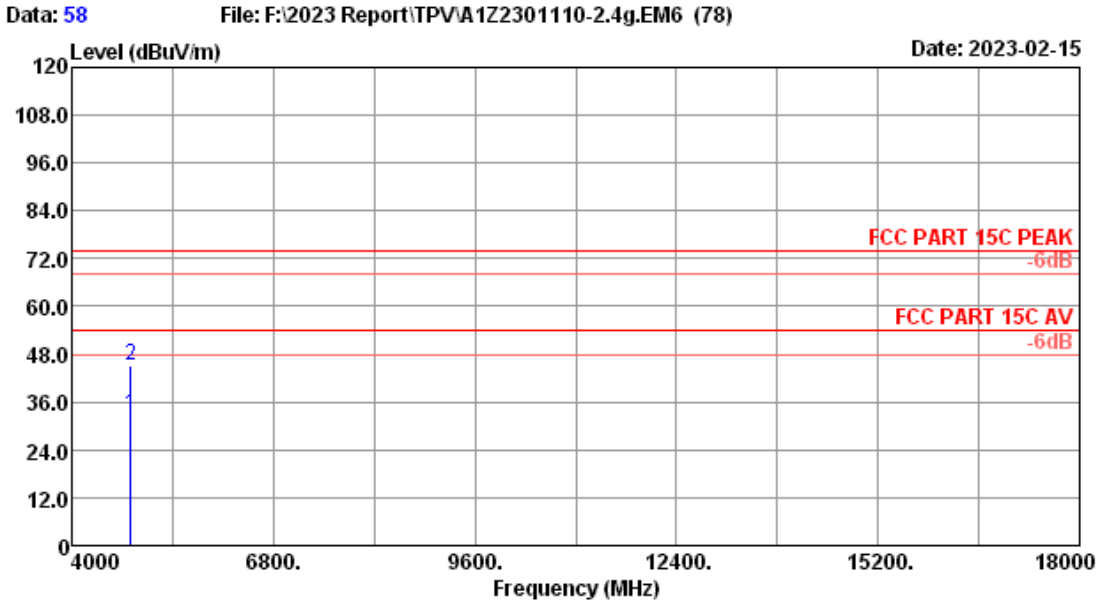
Site no. : 3m Chamber
Data no. : 56
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11g 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	31.25	3.33	31.86	33.68	32.76	54.00	21.24	Average
2	4824.00	31.25	3.33	43.62	33.68	44.52	74.00	29.48	Peak

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



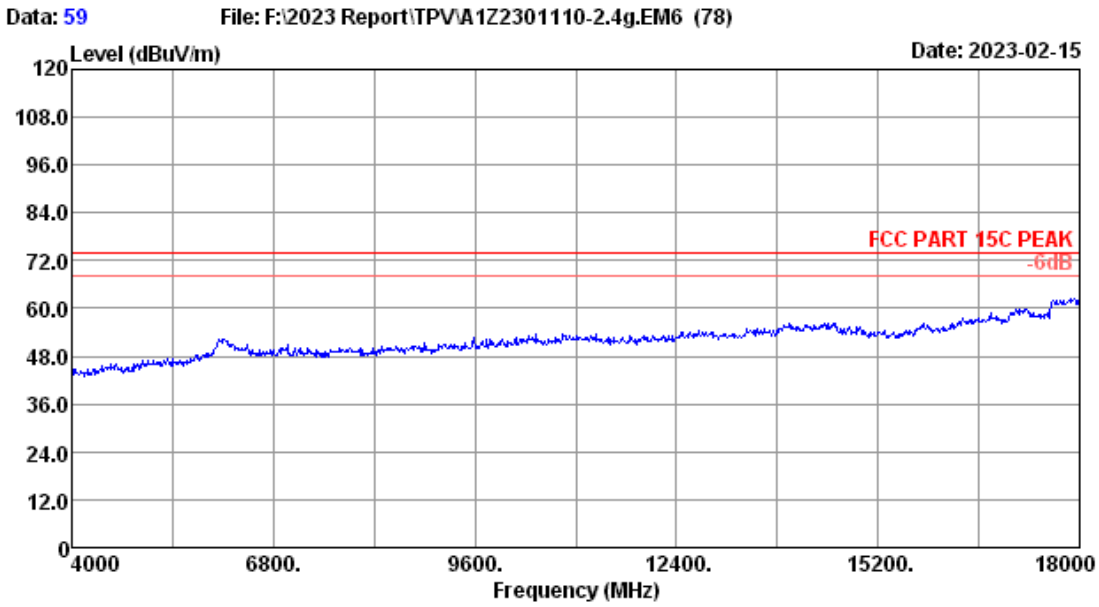
Site no.	: 3m Chamber	Data no.	: 57
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11g 2412MHz TX		



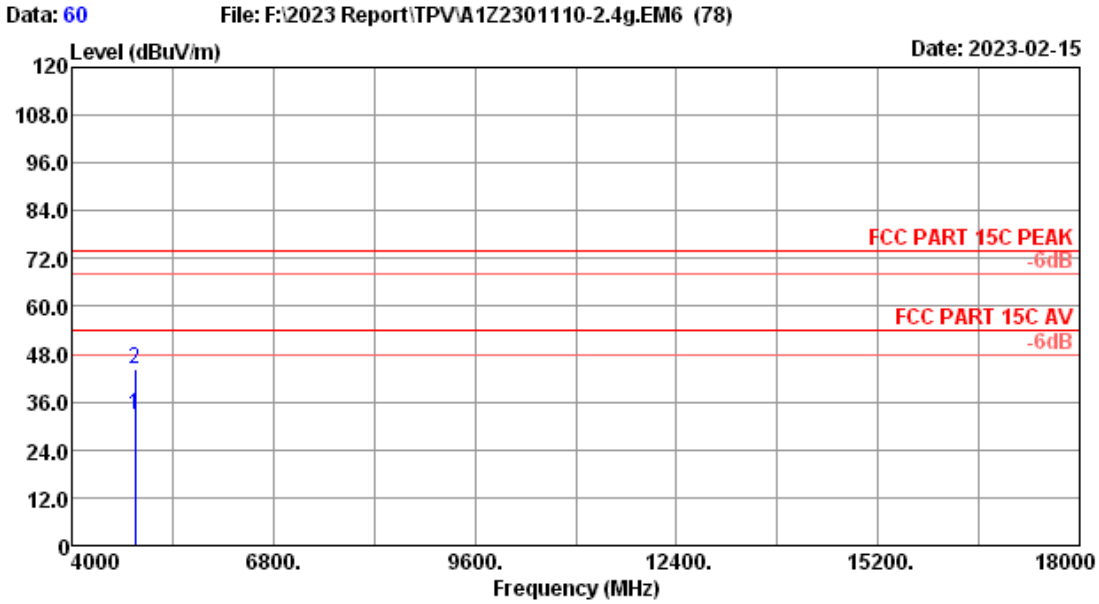
Site no. : 3m Chamber
Data no. : 58
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11g 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	31.25	3.33	31.97	33.68	32.87	54.00	21.13	Average
2	4824.00	31.25	3.33	44.18	33.68	45.08	74.00	28.92	Peak

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



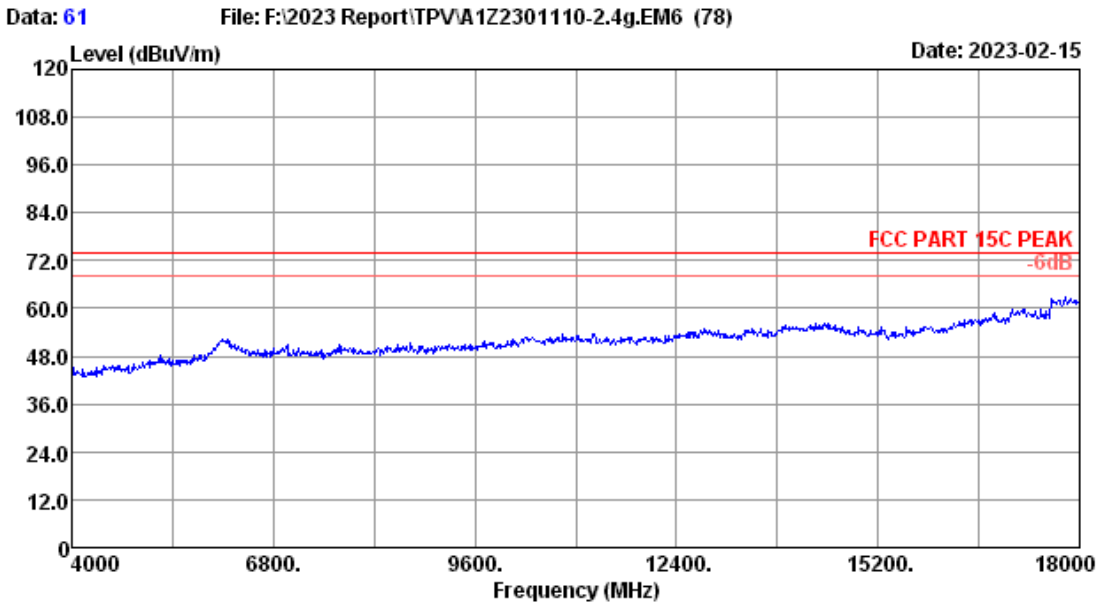
Site no.	: 3m Chamber	Data no.	: 59
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11g 2437MHz TX		



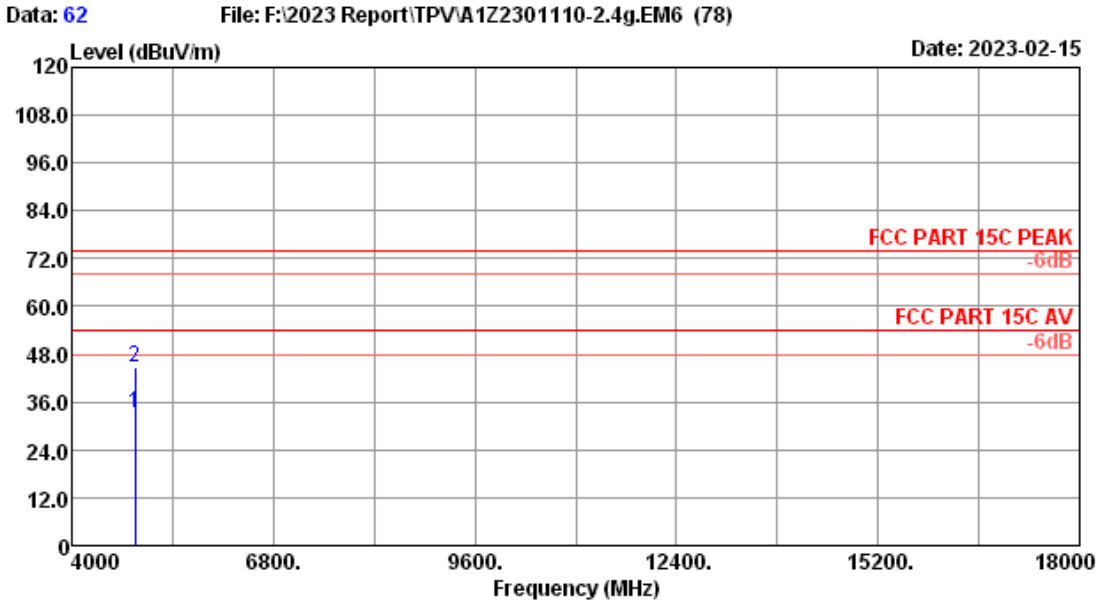
Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	31.43	3.35	31.88	33.69	32.97	54.00	21.03	Average
2	4874.00	31.43	3.35	43.18	33.69	44.27	74.00	29.73	Peak

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



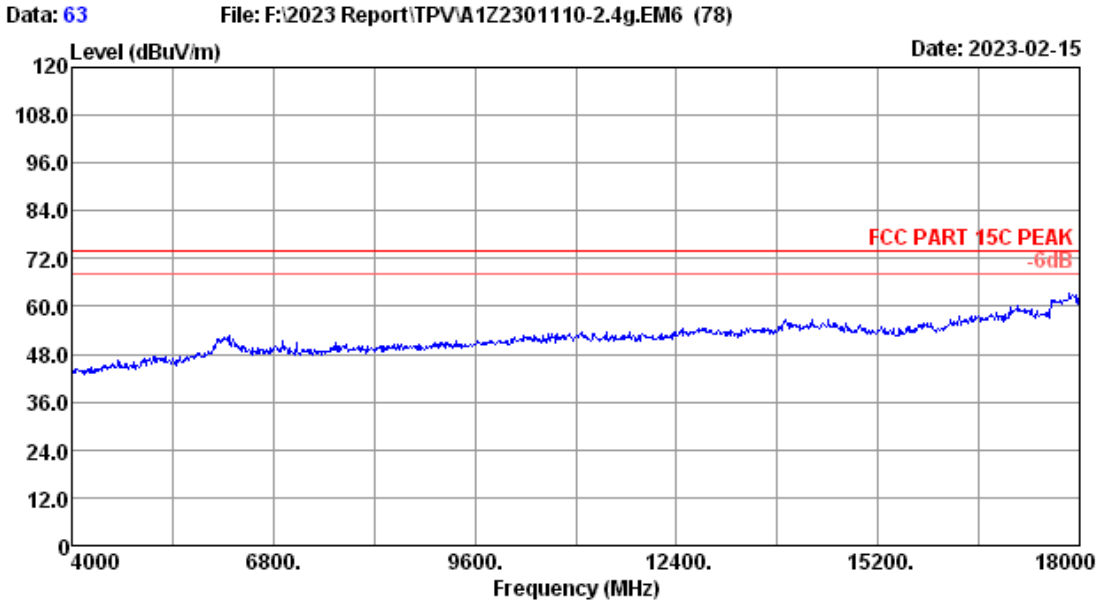
Site no.	: 3m Chamber	Data no.	: 61
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11g 2437MHz TX		



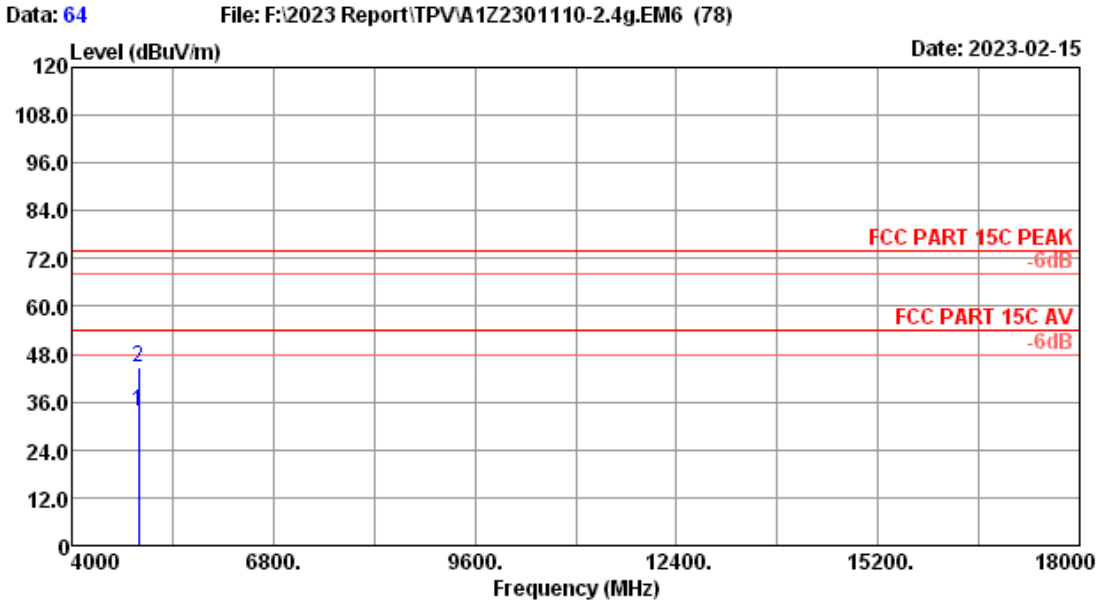
Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11g 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	31.43	3.35	32.10	33.69	33.19	54.00	20.81	Average
2	4874.00	31.43	3.35	43.66	33.69	44.75	74.00	29.25	Peak

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



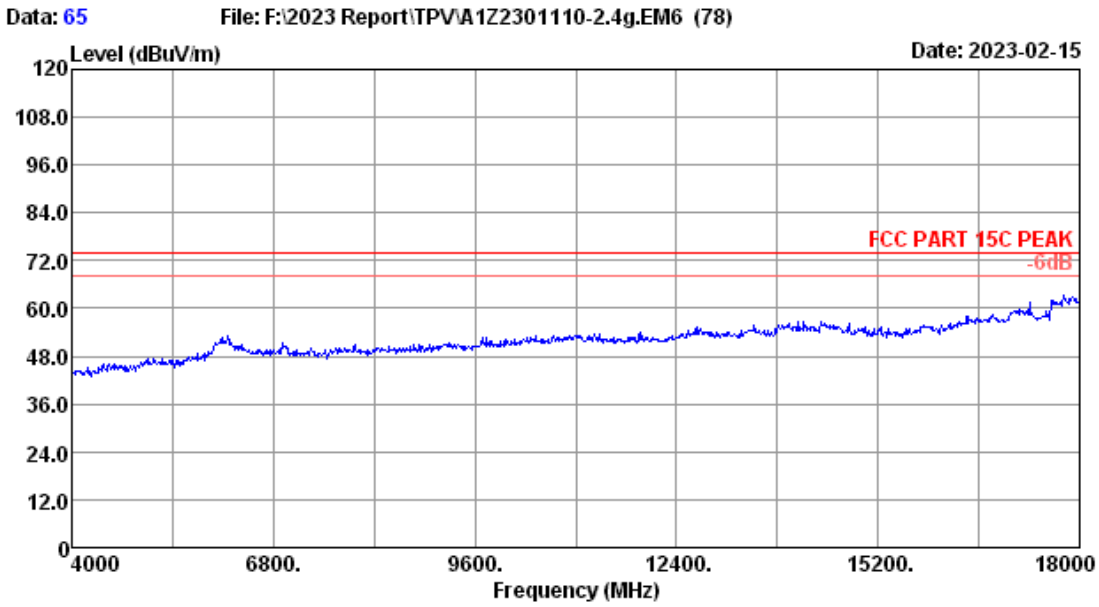
Site no.	: 3m Chamber	Data no.	: 63
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11g 2462MHz TX		



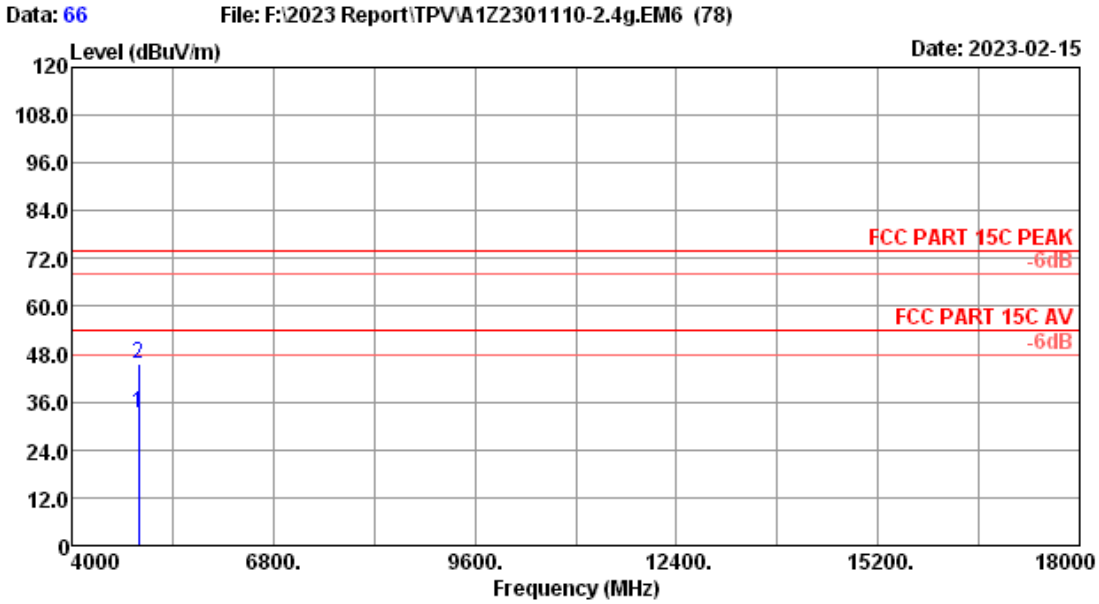
Site no. : 3m Chamber
Data no. : 64
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11g 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	31.70	3.37	32.15	33.69	33.53	54.00	20.47	Average
2	4924.00	31.70	3.37	43.27	33.69	44.65	74.00	29.35	Peak

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



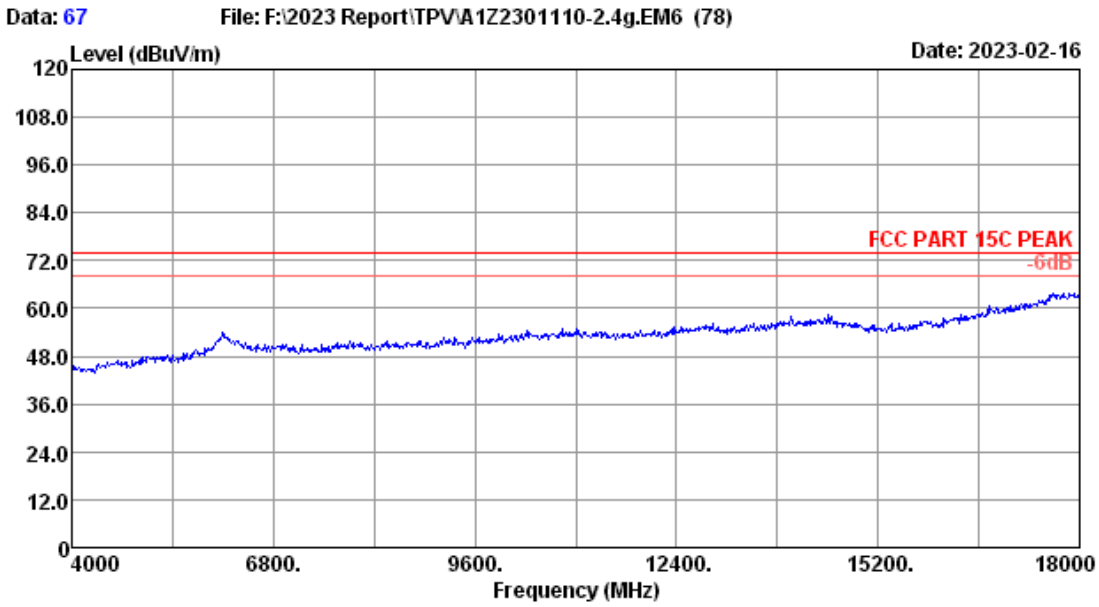
Site no.	: 3m Chamber	Data no.	: 65
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11g 2462MHz TX		



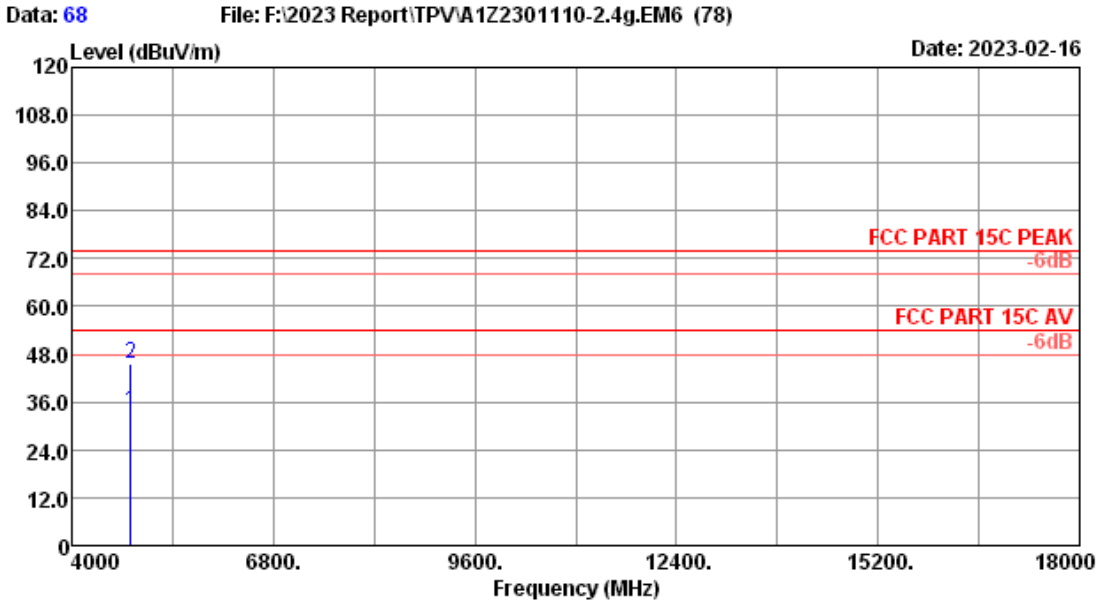
Site no. : 3m Chamber
Data no. : 66
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11g 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	31.70	3.37	31.81	33.69	33.19	54.00	20.81	Average
2	4924.00	31.70	3.37	44.41	33.69	45.79	74.00	28.21	Peak

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



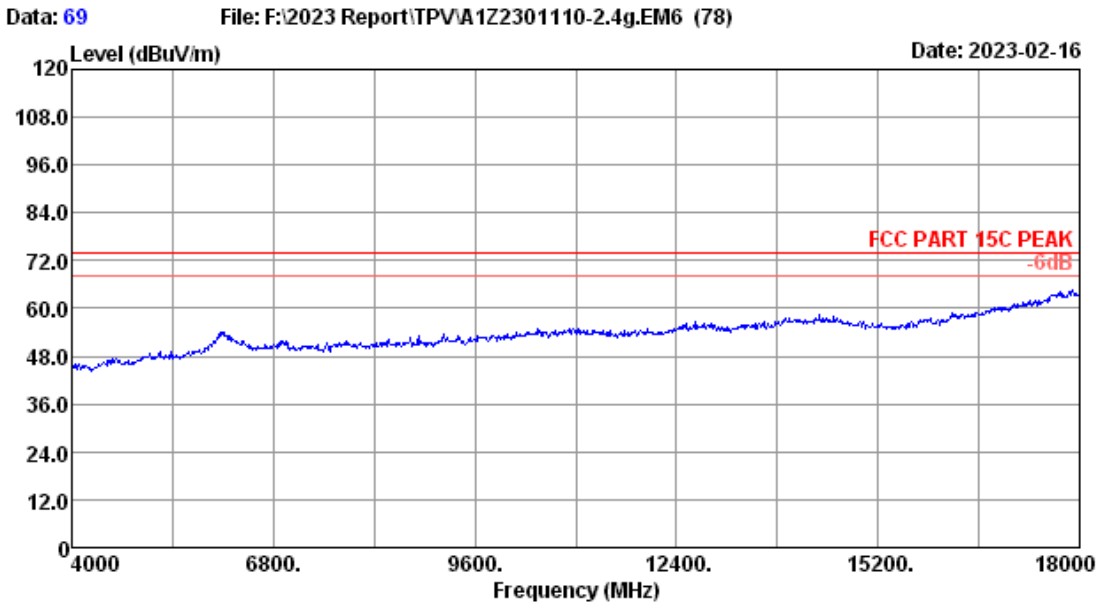
Site no.	: 3m Chamber	Data no.	: 67
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11n20 2412MHz TX		



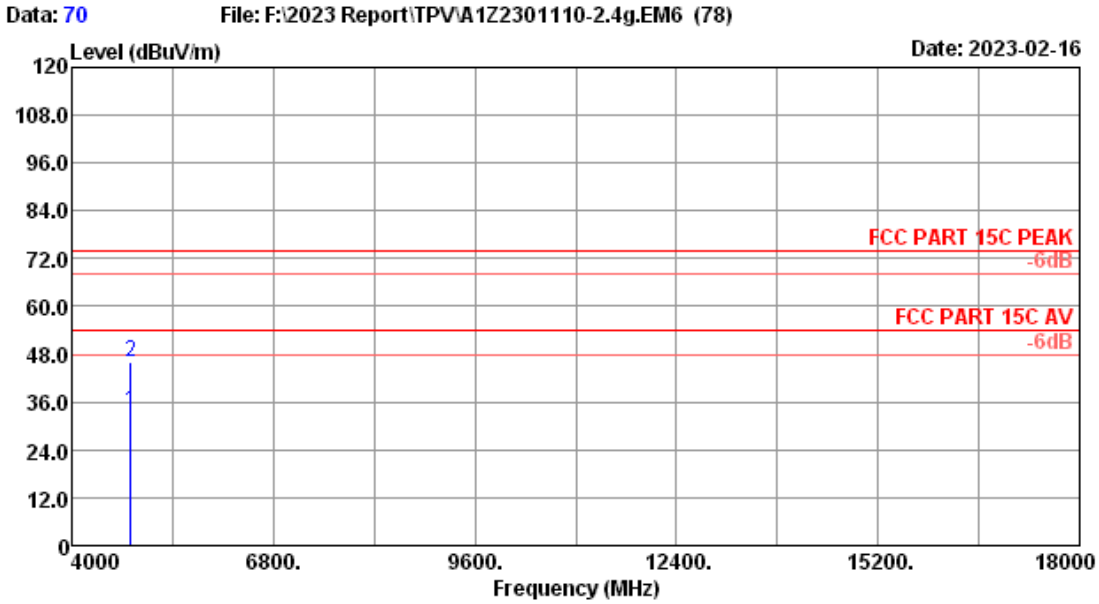
Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	31.25	3.33	32.60	33.68	33.50	54.00	20.50	Average
2	4824.00	31.25	3.33	44.83	33.68	45.73	74.00	28.27	Peak

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



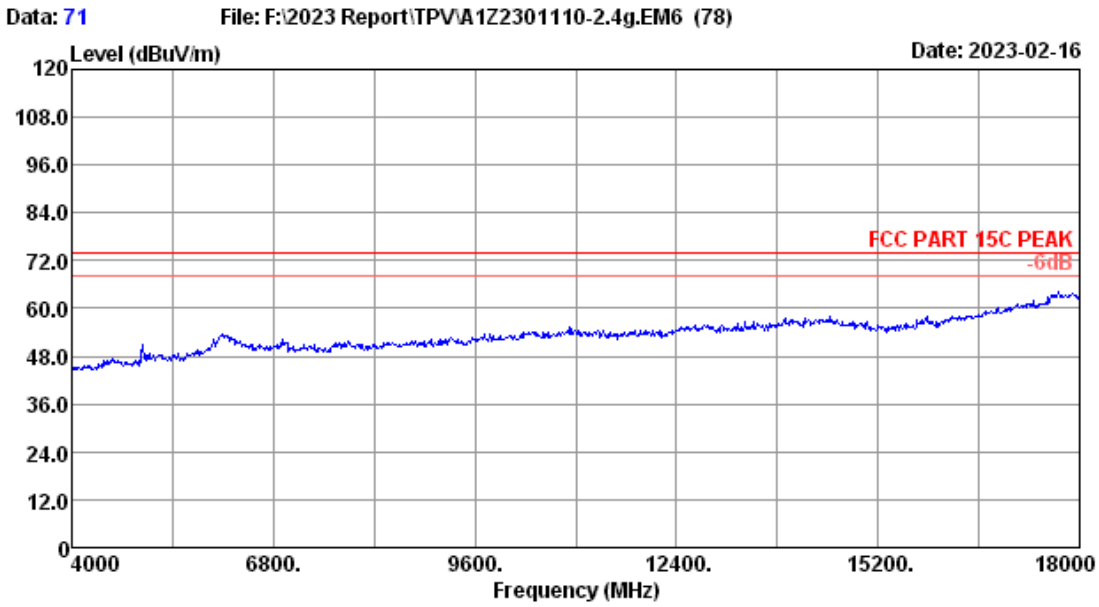
Site no.	: 3m Chamber	Data no.	: 69
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11n20 2412MHz TX		



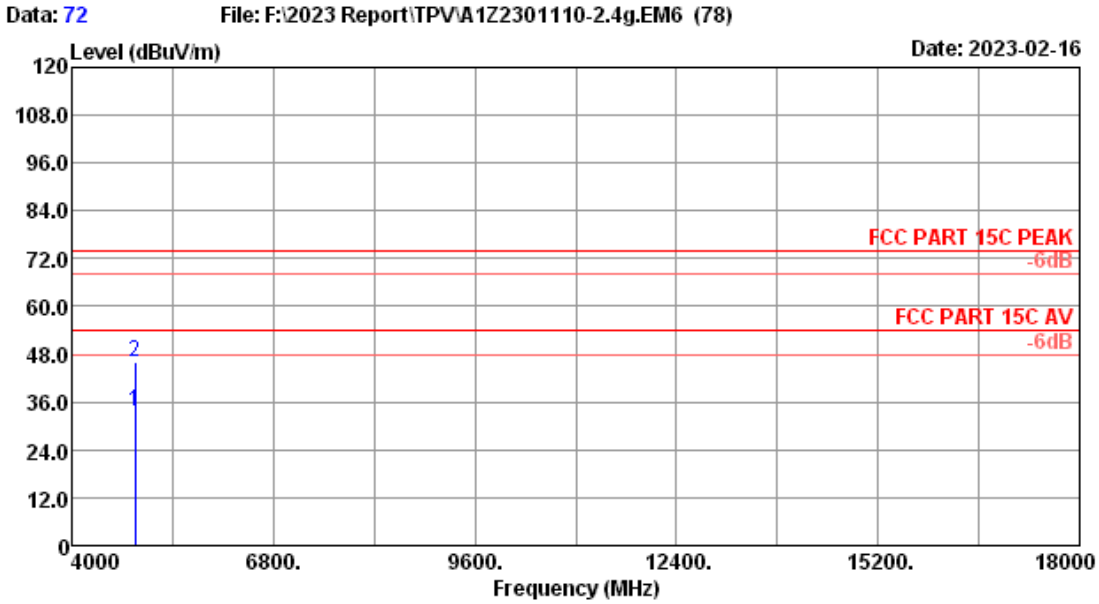
Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2412MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	31.25	3.33	32.74	33.68	33.64	54.00	20.36	Average
2	4824.00	31.25	3.33	45.23	33.68	46.13	74.00	27.87	Peak

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



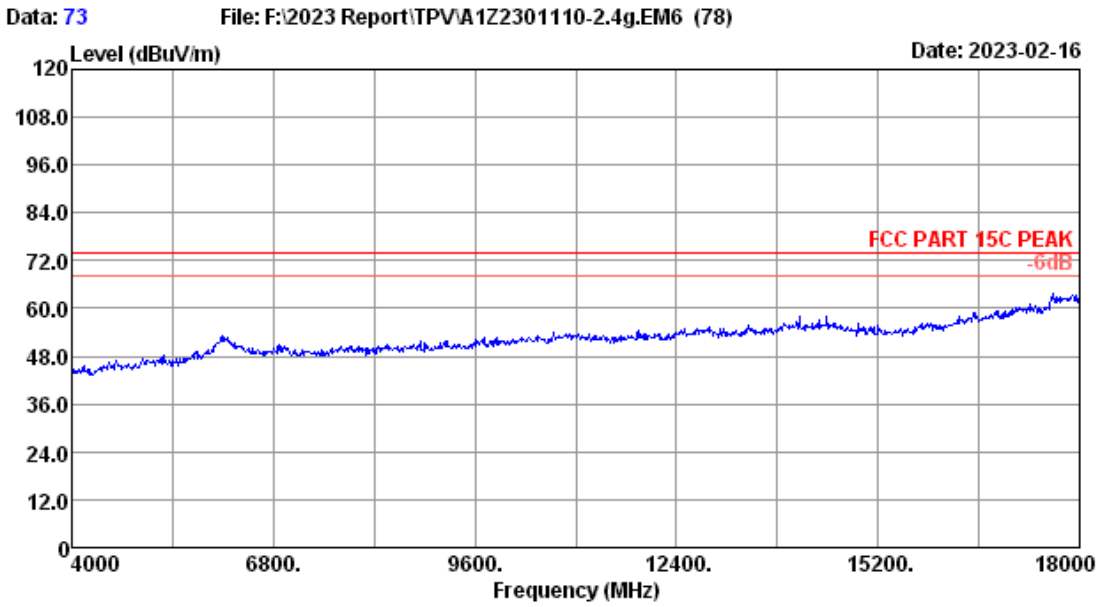
Site no.	: 3m Chamber	Data no.	: 71
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11n20 2437MHz TX		



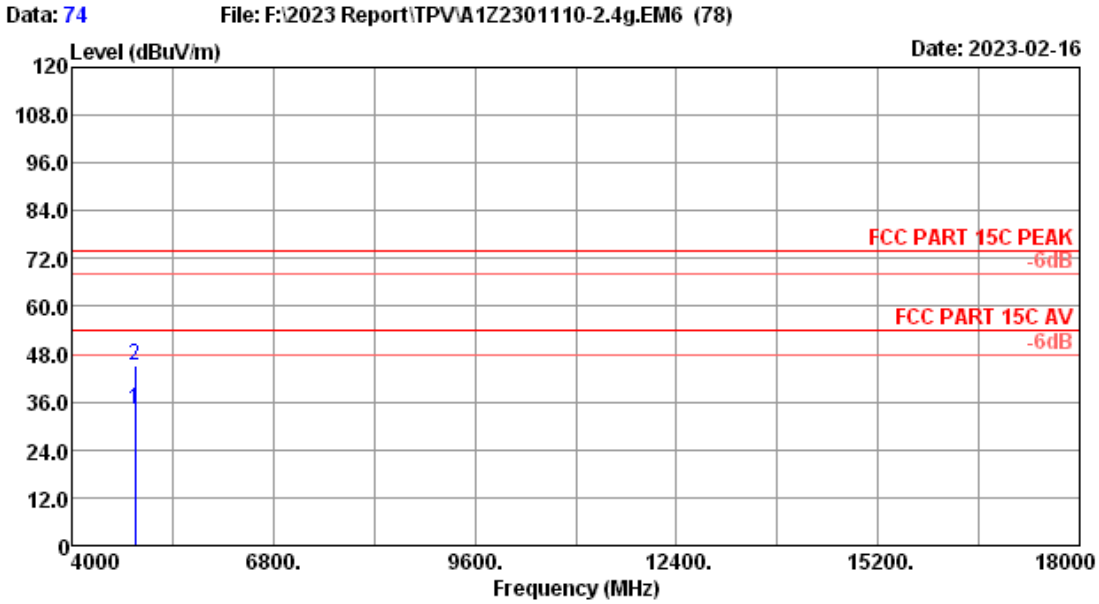
Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	31.43	3.35	32.58	33.69	33.67	54.00	20.33	Average
2	4874.00	31.43	3.35	45.17	33.69	46.26	74.00	27.74	Peak

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



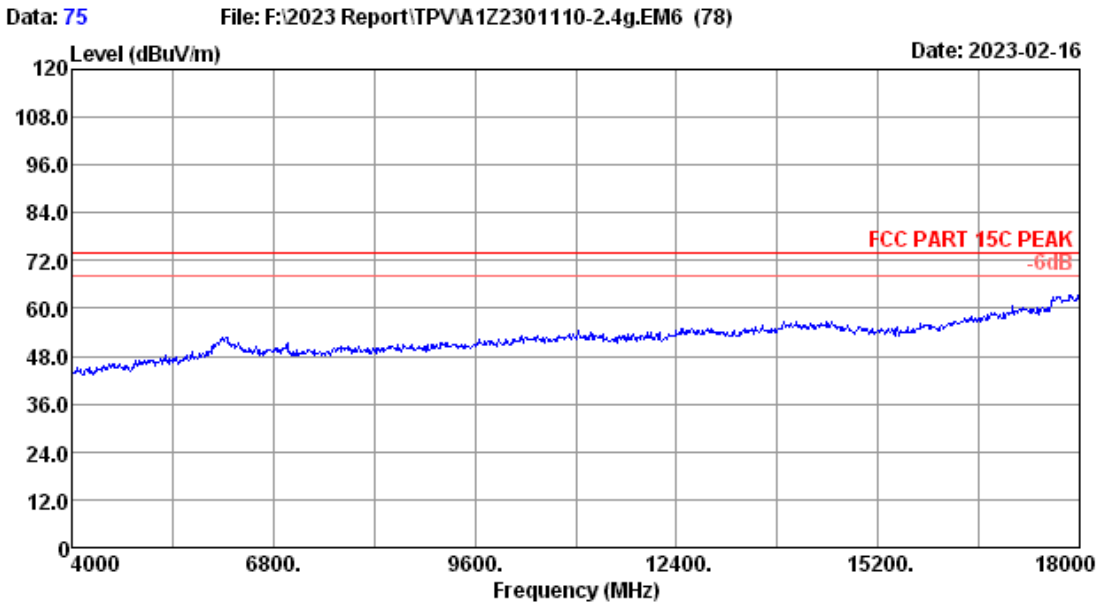
Site no.	: 3m Chamber	Data no.	: 73
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11n20 2437MHz TX		



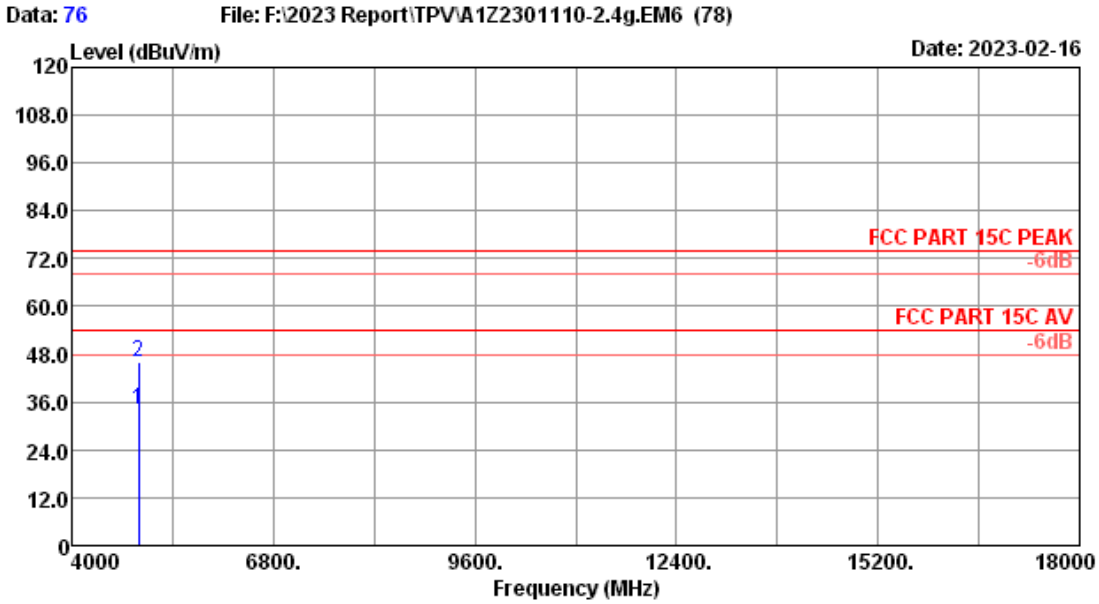
Site no. : 3m Chamber
Data no. : 74
Dis. / Ant. : 3m 2022 MCTD1209-3006
Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5%
Engineer : Allen
Test Mode : 11n20 2437MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	31.43	3.35	32.82	33.69	33.91	54.00	20.09	Average
2	4874.00	31.43	3.35	44.09	33.69	45.18	74.00	28.82	Peak

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



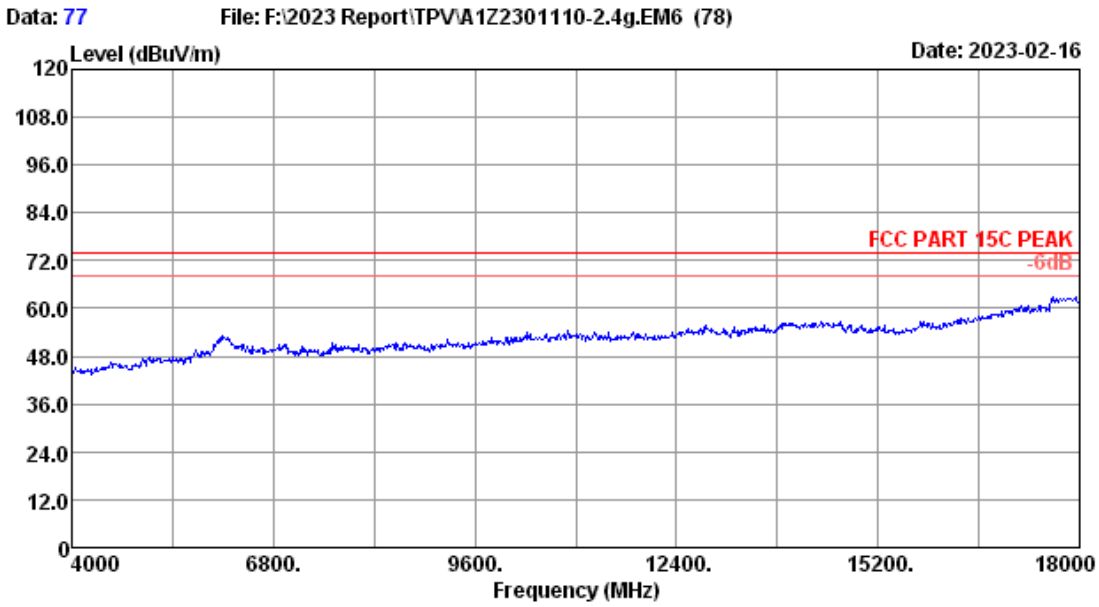
Site no.	: 3m Chamber	Data no.	: 75
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11n20 2462MHz TX		



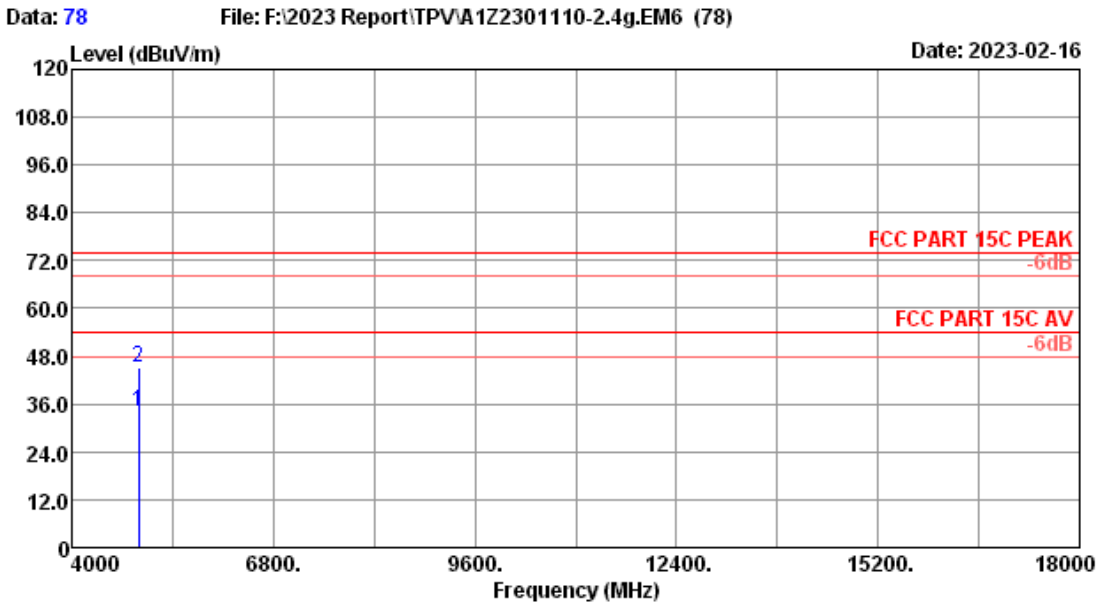
Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	31.70	3.37	32.81	33.69	34.19	54.00	19.81	Average
2	4924.00	31.70	3.37	44.54	33.69	45.92	74.00	28.08	Peak

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



Site no.	: 3m Chamber	Data no.	: 77
Dis. / Ant.	: 3m 2022 MCTD1209-3006	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23.2*C/52.5%	Engineer	: Allen
Test Mode	: 11n20 2462MHz TX		



Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 2022 MCTD1209-3006 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23.2*C/52.5% Engineer : Allen
Test Mode : 11n20 2462MHz TX

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	31.70	3.37	32.56	33.69	33.94	54.00	20.06	Average
2	4924.00	31.70	3.37	43.71	33.69	45.09	74.00	28.91	Peak

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

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,22	1 Year
2.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.06,22	1 Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30dB instead of 20dB.

5.3.Test Procedure

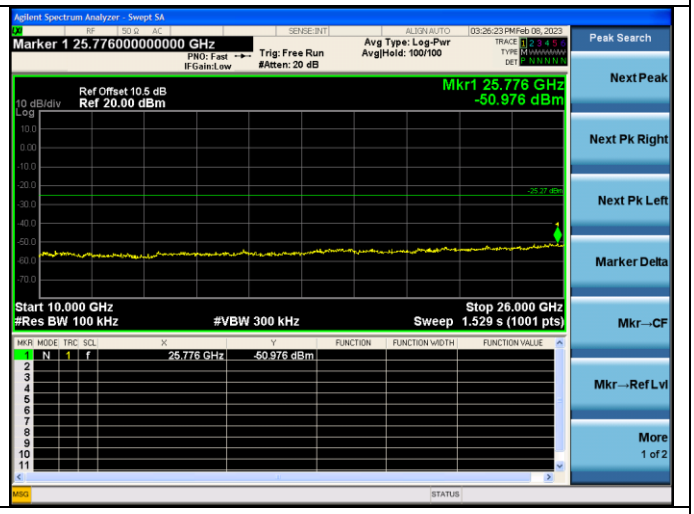
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions with peak detector.

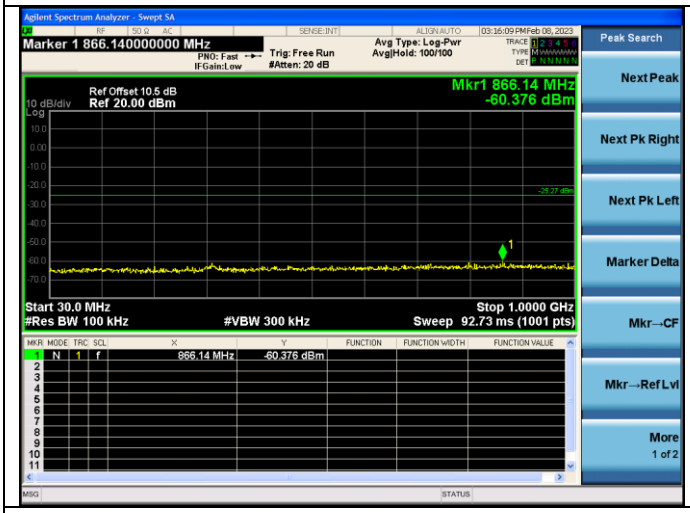
5.4.Test result

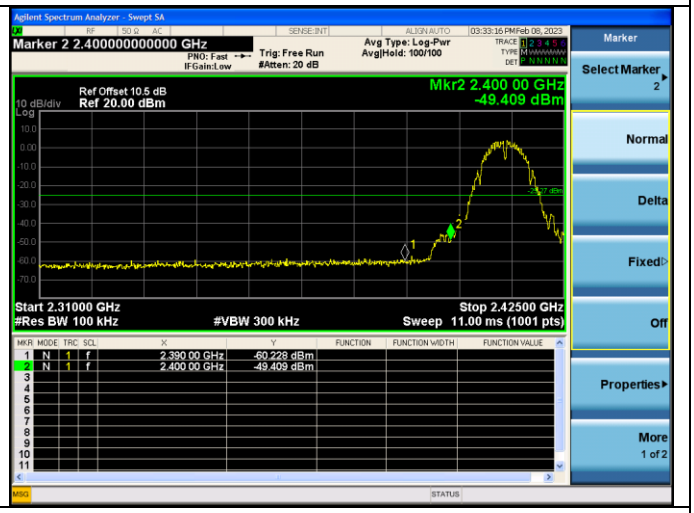
PASS (The testing data was attached in the next pages.)

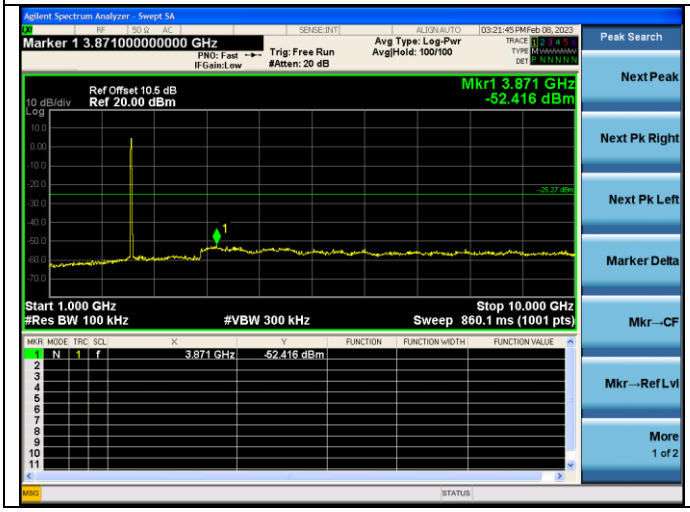
EUT: Smart Signboard		
M/N: IAD-18001		
Test date: 2023-02-08~09	Pressure: 102.1±1.0 kpa	Humidity: 53.2±3.0%
Tested by: Lili	Test site: RF site	Temperature:22.3±0.1℃

Test Mode: IEEE 802.11b
Test CH1: 2412MHz

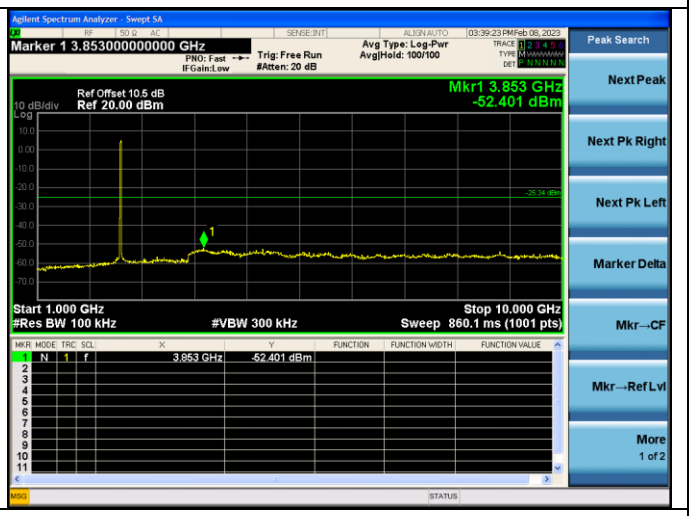


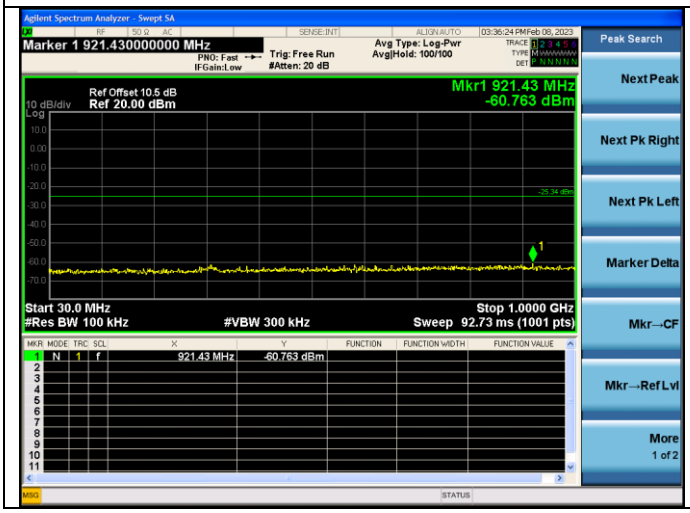


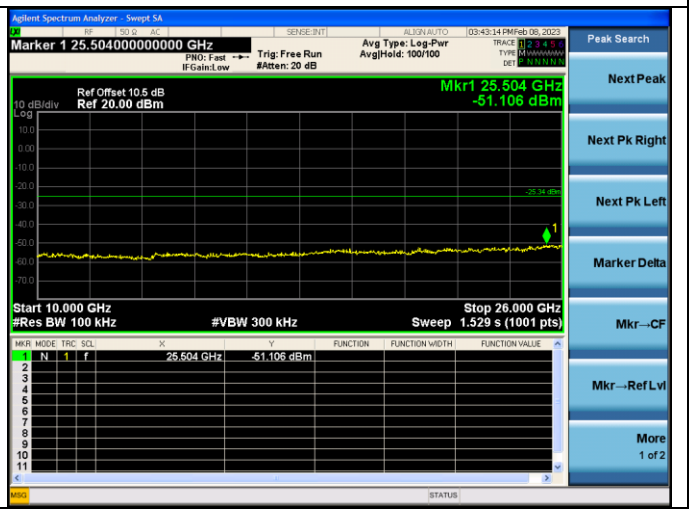




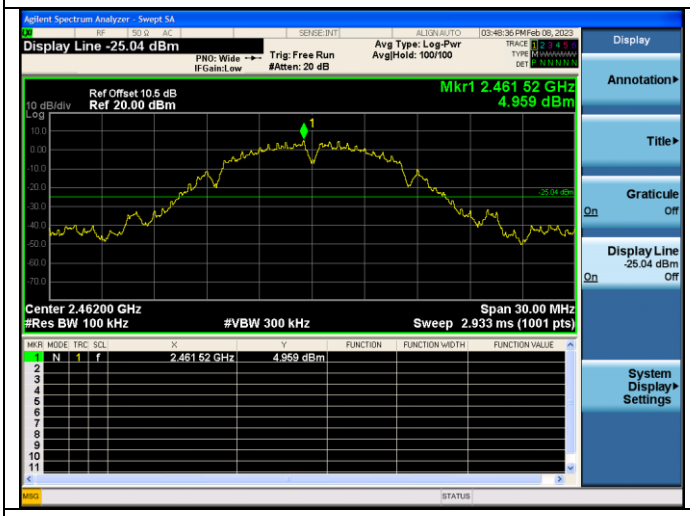
Test CH6: 2437MHz

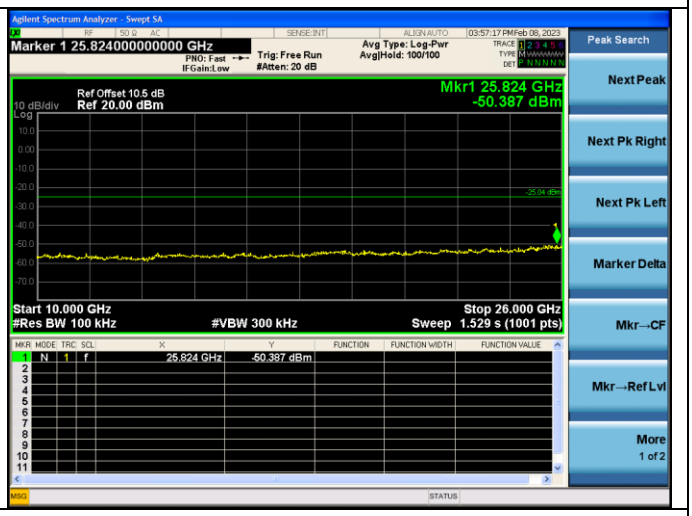


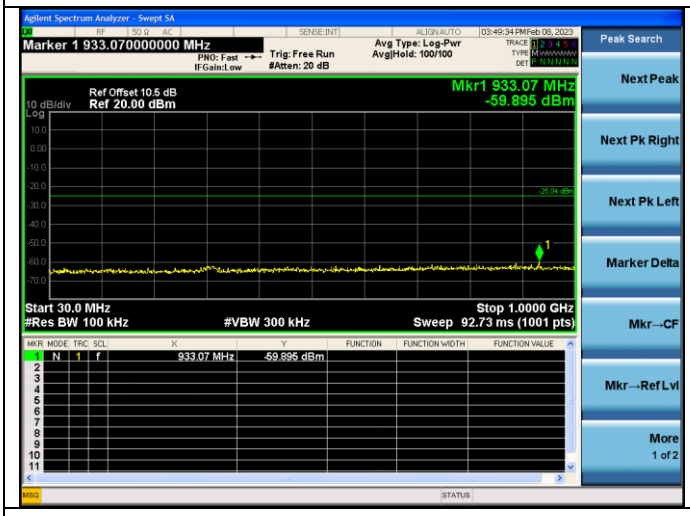


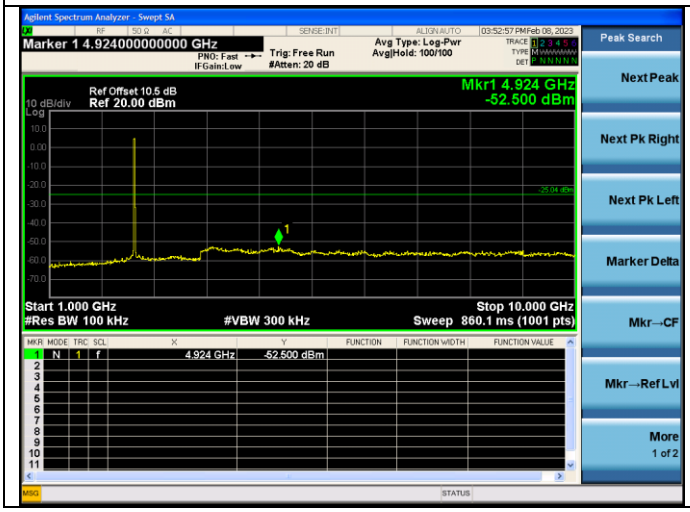


Test CH11: 2462MHz

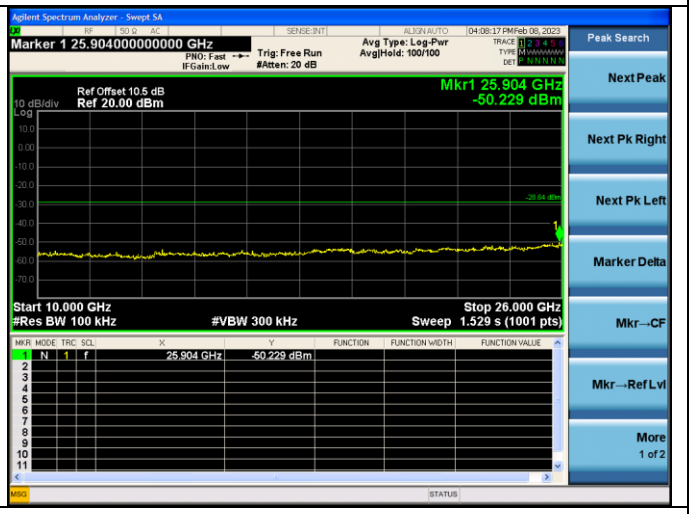


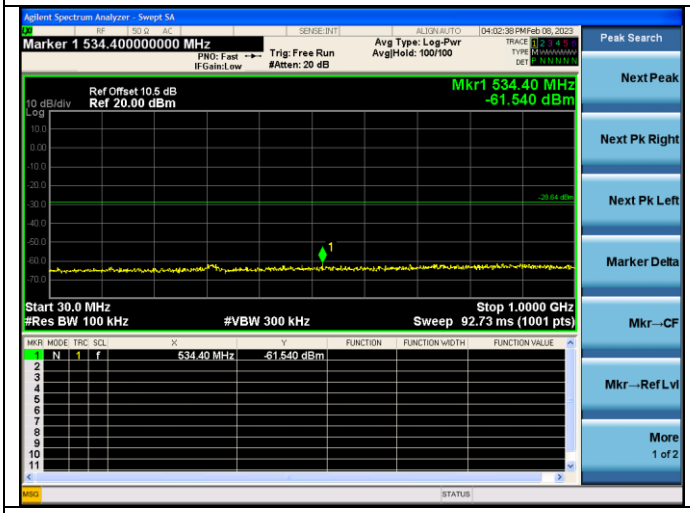


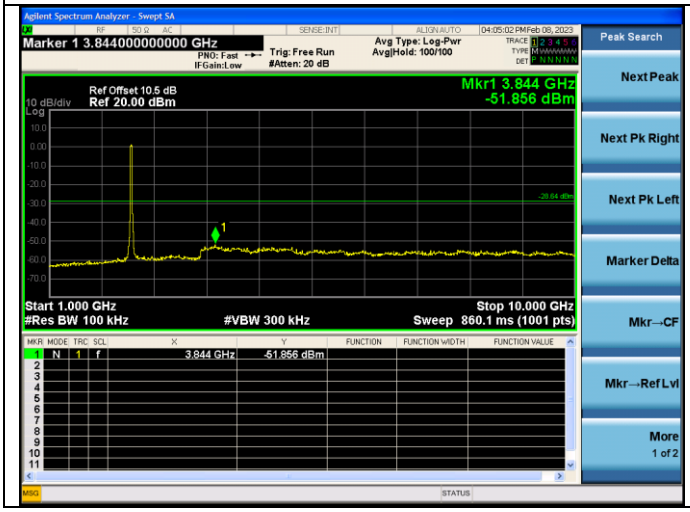




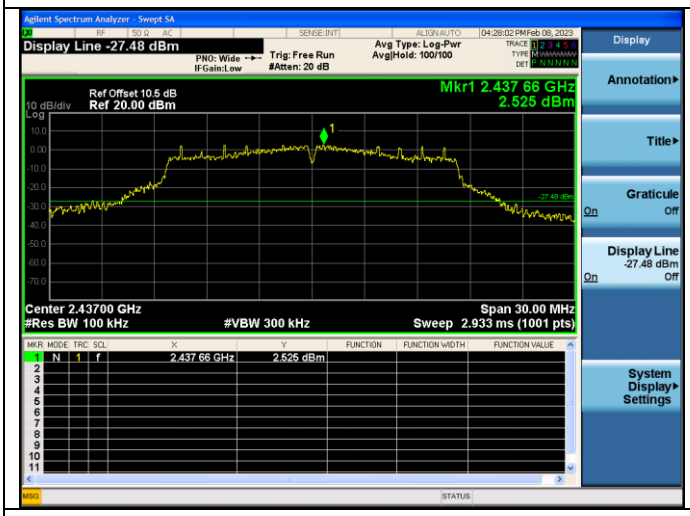
Test Mode: IEEE 802.11g
Test CH1: 2412MHz

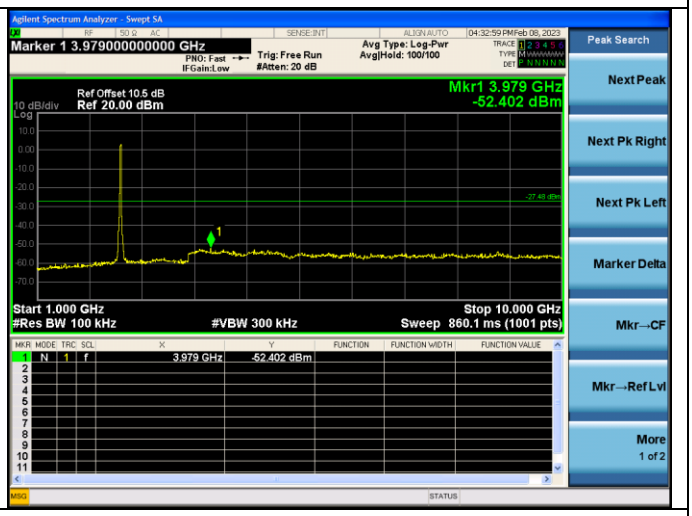


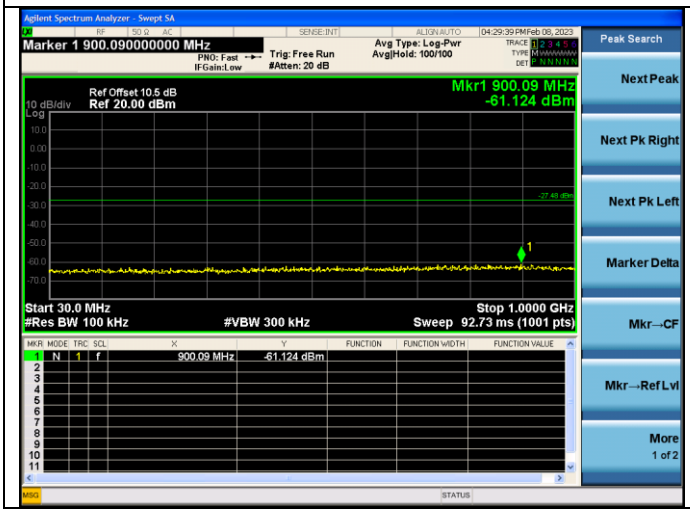


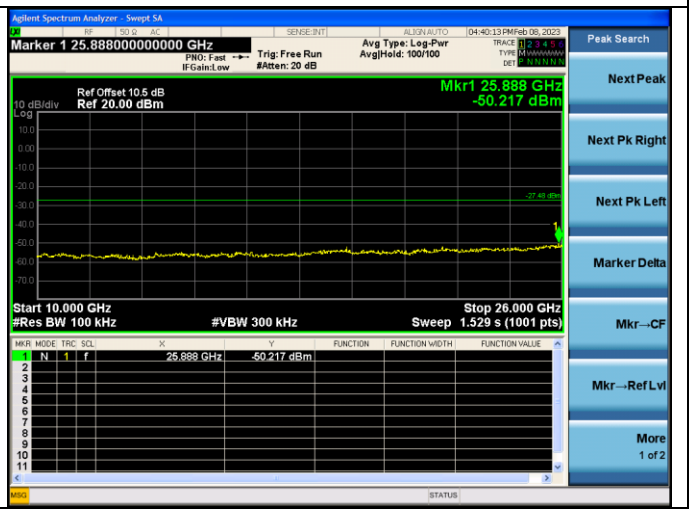


Test CH6: 2437MHz

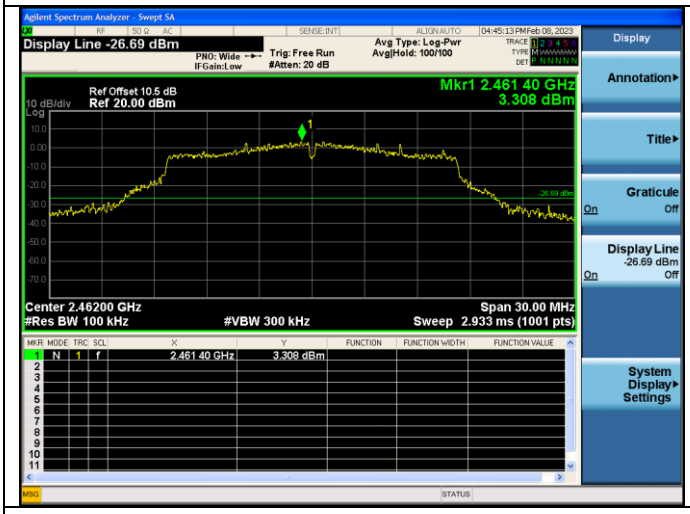


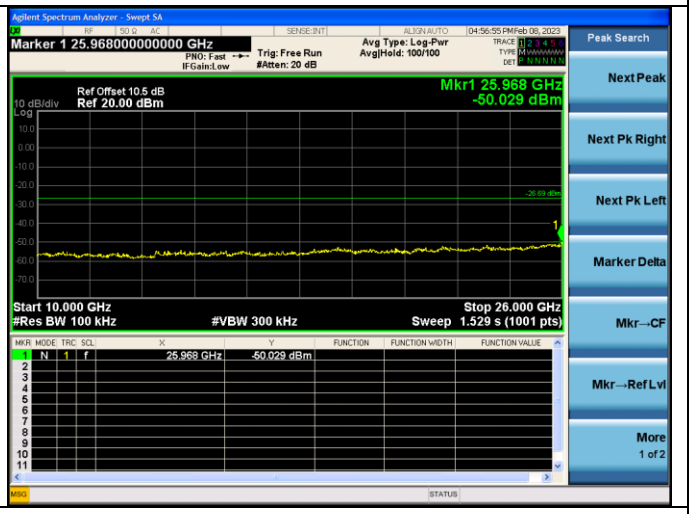


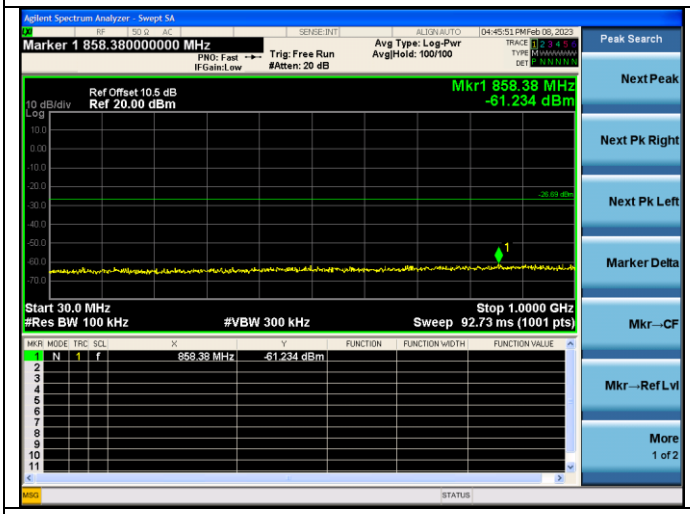


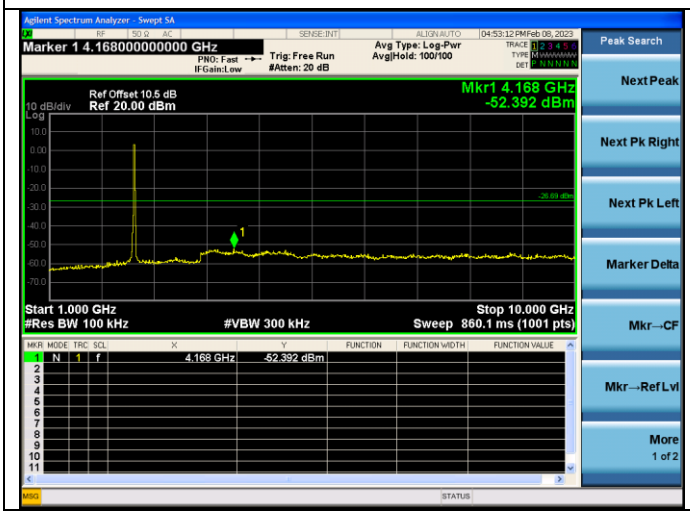


Test CH11: 2462MHz

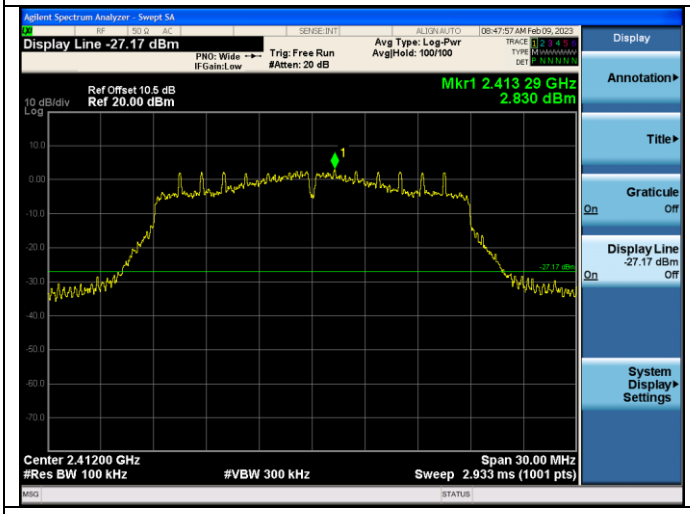


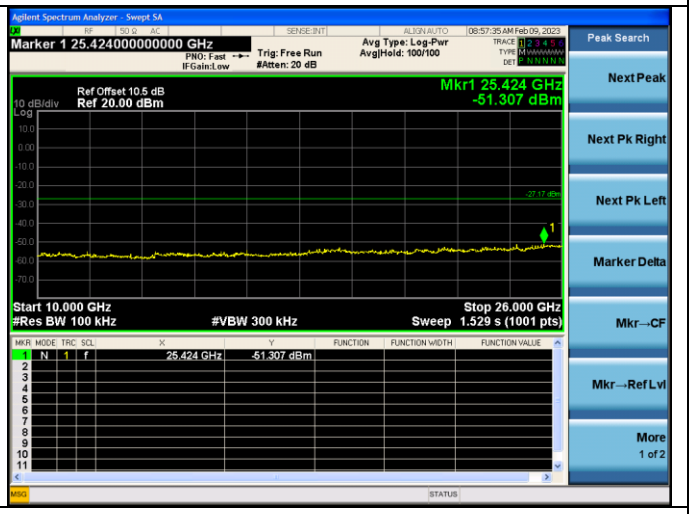


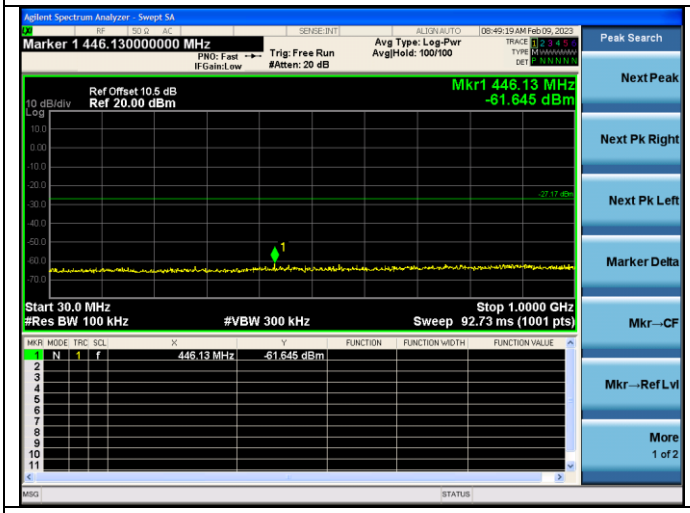


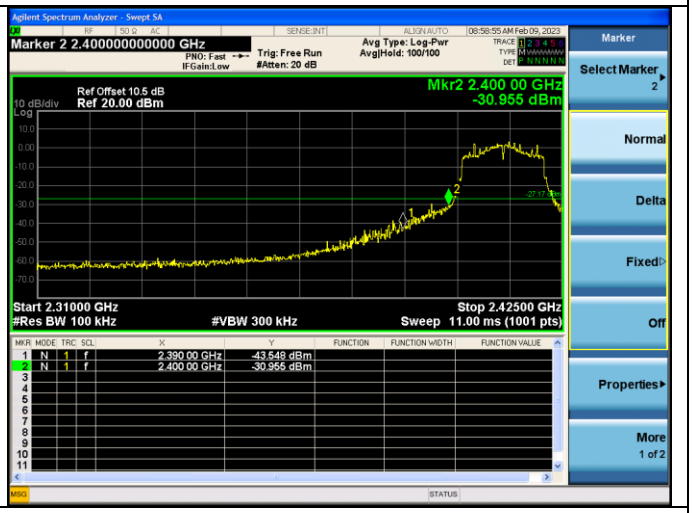


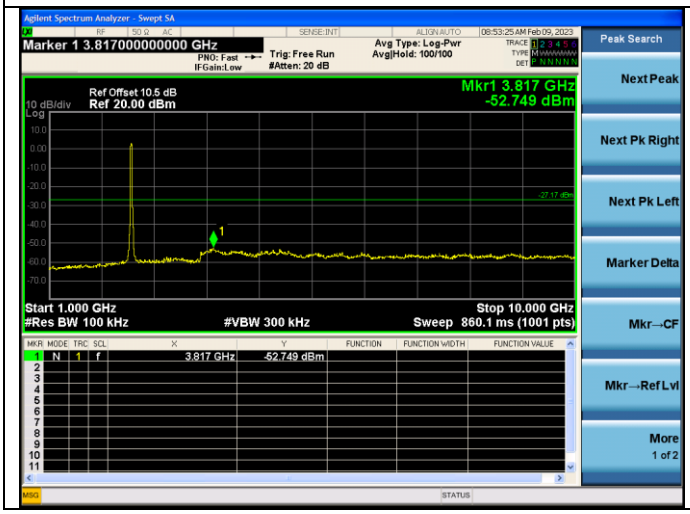
Test Mode: IEEE 802.11n HT20
Test CH1: 2412MHz











Test CH6: 2437MHz