TEST REPORT

Applicant Name :	Shenzhen VanTop Technology & Innovation Co., Ltd.
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Report Number :	RA230420-20687E-RF-00
FCC ID:	2AQ3A-P12

Test Standard (s)

FCC PART 15.247

Sample Description

Product Type:	Projector
Model No.:	Leisure 30W
Multiple Model(s) No.:	Leisure 3W, Leisure 35W, WPY006, WPY007, WPY008, WPY009, WPY0010
Trade Mark:	N/A
Date Received:	2023/04/20
Report Date:	2023/06/26

Test Result:	Pass*

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

Prepared and Checked By:

Amanda Wei

EMC Engineer

Approved By:

Candy Li

EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★ ".
Shenzhen Accurate Technology Co., Ltd. is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RA230420-20687E-RF-00	Original Report	2023-06-26

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Projector
Tested Model	Leisure 30W
Multiple Model(s)	Leisure 3W, Leisure 35W, WPY006, WPY007, WPY008, WPY009, WPY0010 (model difference see product declaration letter of similarity)
Frequency Range	2.4G Wi-Fi: 2412-2462MHz
Maximum Conducted Output Power	Wi-Fi: 802.11b: 12.45dBm 802.11g: 11.05dBm 802.11n-HT20: 16.09dBm 802.11n-HT40: 14.92dBm
Modulation Technique	Wi-Fi: DSSS, OFDM
Antenna Specification*	3.87dBi (provided by the applicant)
Voltage Range	DC 12V from adapter
Sample serial number	255X_1for Conducted and Radiated Emissions Test 255X_2for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter information	Model: Z48AW120400US00 Input: AC 100-240V, 50/60Hz, 1.2A Max Output: DC 12.0V, 4.0A, 48W

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

And KDB 558074 D01 15.247 Meas Guidance v05r02.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		$0.082*10^{-7}$
RF output power, conducted		0.71dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions	9k-30MHz	2.74dB, k=2
Emissions, Radiated	9kHz - 30MHz	2.06dB
	30MHz - 1GHz	5.08dB
	1GHz - 18GHz	4.96dB
	18GHz - 26.5GHz	5.16dB
	26.5GHz - 40GHz	4.64dB
Temperature		1℃
Humidity		6%
Supply voltages		0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0016. The Registration Number is 30241.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

For Wi-Fi mode, total 11 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432	/	/
6	2437	/	/
7	2442	/	/

802.11 b and 802.11g and 802.11n-HT20 mode was tested with Channel 1, 6 and 11.
802.11n-HT40 mode was tested with Channel 3, 6 and 9.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

"test_gui_litepoint.exe"* software was used to test and power level as below:

Mode	Data rate	Power Level*		
		Low Channel	Middle Channel	High Channel
802.11b	1Mbps	-5	-5	-5
802.11g	6Mbps	-5	-5	-5
802.11n-HT20	MCS0	1	1	0
802.11n-HT40	MCS0	1	1	1

The software and power level was provided by applicant.

Duty cycle

Test Result: Compliant. Please refer to the Appendix Wi-Fi.

Support Equipment List and Details

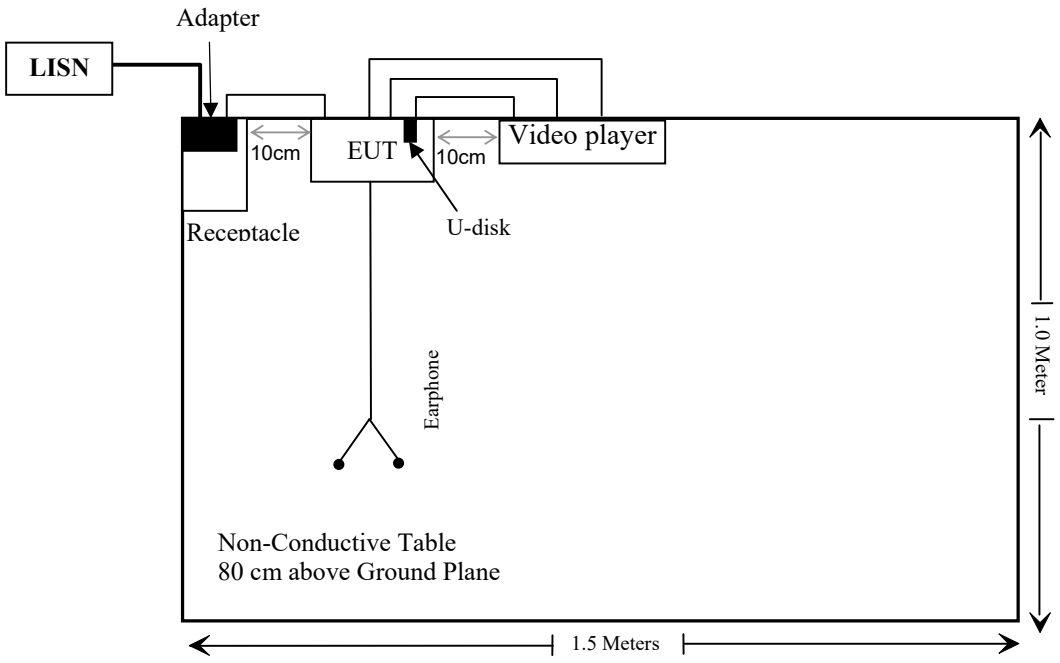
Manufacturer	Description	Model	Serial Number
GIEC	Video player	BDP-G4350	BD4350KXM2104150 0732
Unknown	U-disk	Unknown	Unknown
Unknown	Earphone	Unknown	Unknown

External I/O Cable

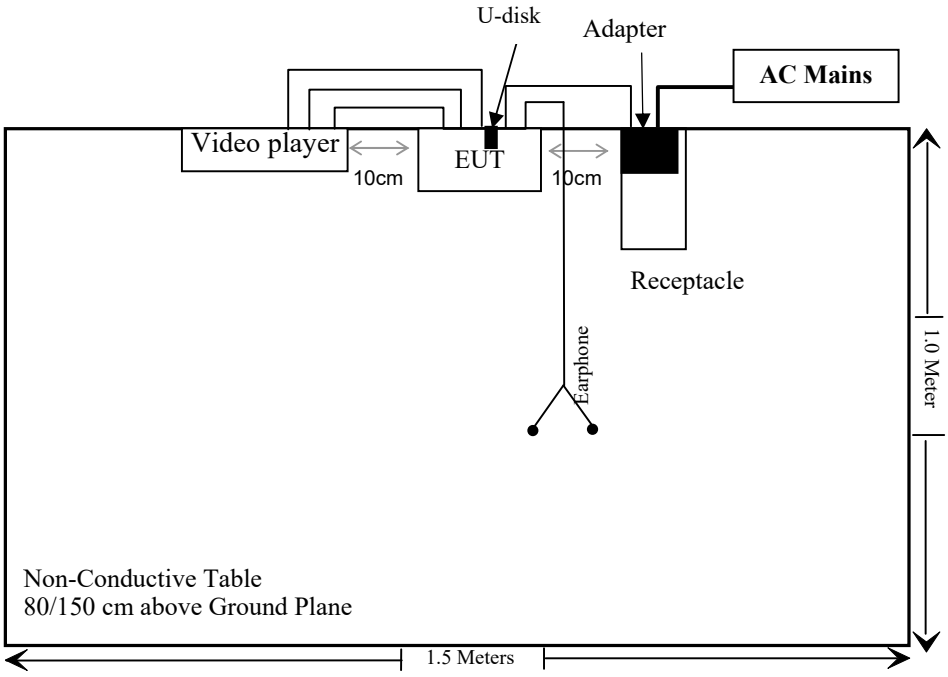
Cable Description	Length (m)	From Port	To
Un-shielded detachable AC cable	1.2	LISN/ AC Mains	Receptacle
Un-shielded Un-detachable DC cable	1.2	Adapter	EUT
Shielded detachable HDMI cable	1.5	EUT	Video player
Shielded detachable HDMI cable	1.5	EUT	Video player
Un-shielded detachable Audio cable	1.0	EUT	Video player

Block Diagram of Test Setup

For conducted emission:



For Radiated Emissions:



Note: the support table edge was flush with the center of turntable

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC§15.247 (i), §1.1307 (b)(3)&§2.1091	RF Exposure	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth & Occupied Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde& Schwarz	EMI Test Receiver	ESCI	100784	2022/11/25	2023/11/24
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2022/11/25	2023/11/24
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2022/12/07	2023/12/06
Unknown	RF Coaxial Cable	No.17	N0350	2022/11/25	2023/11/24
Conducted Emission Test Software: e3 191218 (V9)					
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2022/11/25	2023/11/24
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2022/11/25	2023/11/24
SONOMA INSTRUMENT	Amplifier	310 N	186131	2022/11/08	2023/11/07
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2022/11/08	2023/11/07
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2022/11/08	2023/11/07
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	837	2023/02/22	2026/02/21
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2022/12/26	2025/12/25
Radiated Emission Test Software:e3 191218 (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.11	N1000	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.12	N040	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.13	N300	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.14	N800	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.15	N600	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.16	N650	2022/11/25	2023/11/24
Wainwright	High Pass Filter	WHKX3.6/18G-10SS	5	2022/11/25	2023/11/24
RF Conducted Test					
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101590	2022/11/25	2023/11/24
Tonscend	RF Control Unit	JS0806-2	19G8060182	2022/10/24	2023/10/23
Agilent	Power Sensor	U2021XA	MY5425003	2023/02/25	2024/02/24
WEINSCHEL	10dB Attenuator	5324	AU 3842	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.31	RF-01	Each time	

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC§15.247 (i), §1.1307 (b)(3)&§2.1091 –RF EXPOSURE

Applicable Standard

According to subpart 15.247 (i) and subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemptionfrom further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

Ris the minimum separation distance in meters
f = frequency in MHz

Result

Mode	Frequency (MHz)	Antenna Gain		Tune up conducted power	ERP		Evaluation Distance (m)	ERP Limit (mW)
		(dBi)	(dBd)	(dBm)	(dBm)	(mW)		
Wi-Fi	2412-2462	3.87	1.72	17	18.72	74.473	0.2	768

Note: To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliance

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.
And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has an internal antenna arrangement, which was permanently attached and the antenna gain is 3.87dBi, fulfill the requirement of this section. Please refer to the EUT photos.

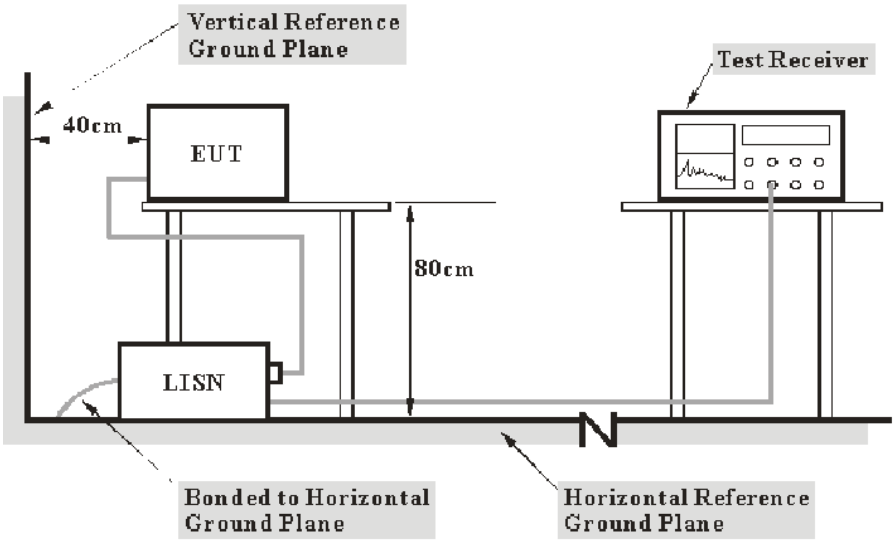
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the device was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Factor & Over Limit Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Over Limit = level – Limit
Level= reading level+ Factor

Test Data

Environmental Conditions

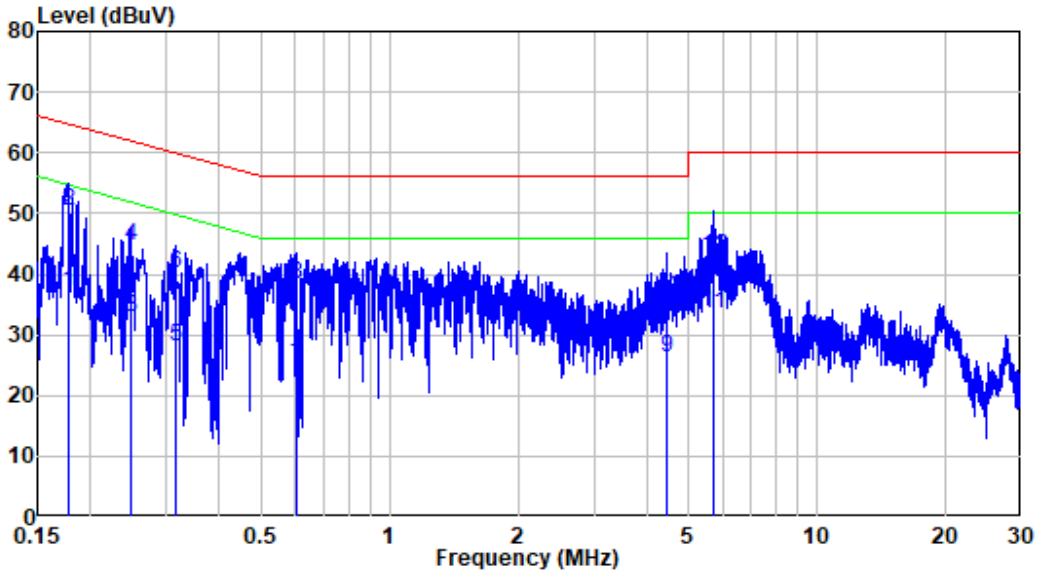
Temperature:	23 ℃
Relative Humidity:	51 %
ATM Pressure:	101.0 kPa

The testing was performed by Jerry Wu on 2023-06-21.

EUT operation mode: Transmitting

Wi-Fi: (Worst case is 802.11b mode, Low Channel)

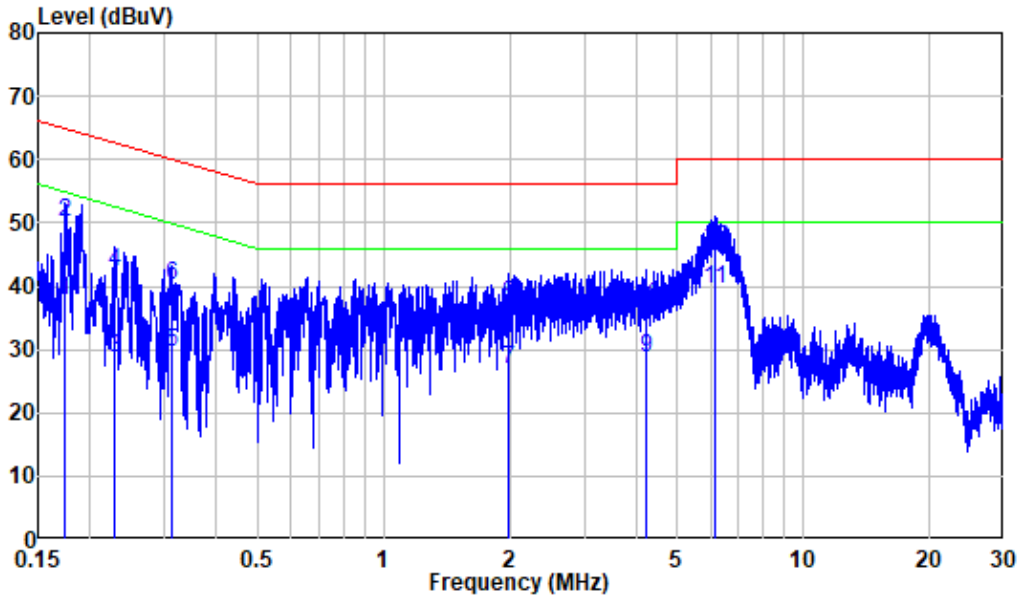
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Job No. : RA230420-20687E-RF
Mode : 2.4G WIFI Transmitting
Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.177	10.32	26.78	37.10	54.60	-17.50	Average
2	0.177	10.32	40.04	50.36	64.60	-14.24	QP
3	0.247	10.35	22.45	32.80	51.84	-19.04	Average
4	0.247	10.35	34.38	44.73	61.84	-17.11	QP
5	0.316	10.42	17.75	28.17	49.82	-21.65	Average
6	0.316	10.42	29.76	40.18	59.82	-19.64	QP
7	0.606	10.63	14.12	24.75	46.00	-21.25	Average
8	0.606	10.63	27.59	38.22	56.00	-17.78	QP
9	4.448	10.54	15.81	26.35	46.00	-19.65	Average
10	4.448	10.54	25.38	35.92	56.00	-20.08	QP
11	5.721	10.57	22.85	33.42	50.00	-16.58	Average
12	5.721	10.57	32.16	42.73	60.00	-17.27	QP

AC 120V/60 Hz, Neutral



Site : Shielding Room
Condition: Neutral
Job No. : RA230420-20687E-RF
Mode : 2.4G WIFI Transmitting
Power : AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.175	10.28	27.31	37.59	54.74	-17.15	Average
2	0.175	10.28	39.98	50.26	64.74	-14.48	QP
3	0.229	10.31	18.42	28.73	52.49	-23.76	Average
4	0.229	10.31	32.07	42.38	62.49	-20.11	QP
5	0.312	10.37	19.12	29.49	49.92	-20.43	Average
6	0.312	10.37	29.85	40.22	59.92	-19.70	QP
7	1.989	10.49	16.33	26.82	46.00	-19.18	Average
8	1.989	10.49	26.70	37.19	56.00	-18.81	QP
9	4.210	10.53	18.24	28.77	46.00	-17.23	Average
10	4.210	10.53	26.21	36.74	56.00	-19.26	QP
11	6.129	10.51	28.91	39.42	50.00	-10.58	Average
12	6.129	10.51	35.51	46.02	60.00	-13.98	QP

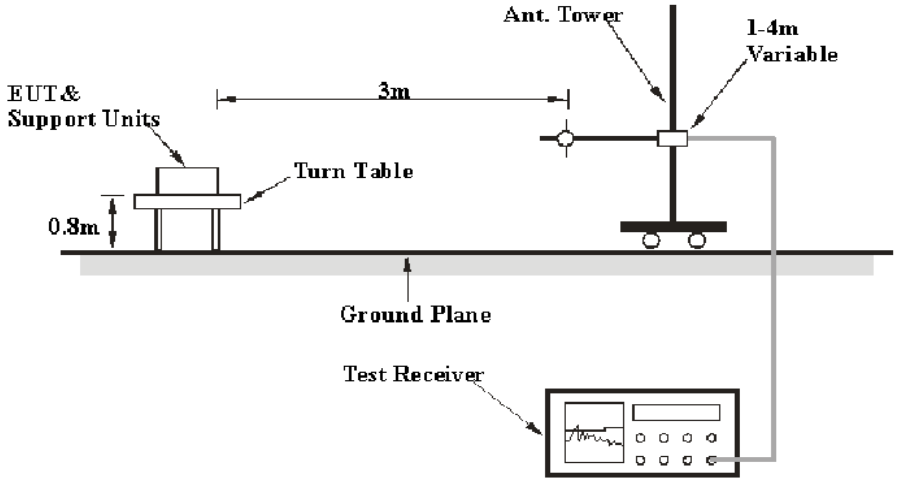
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

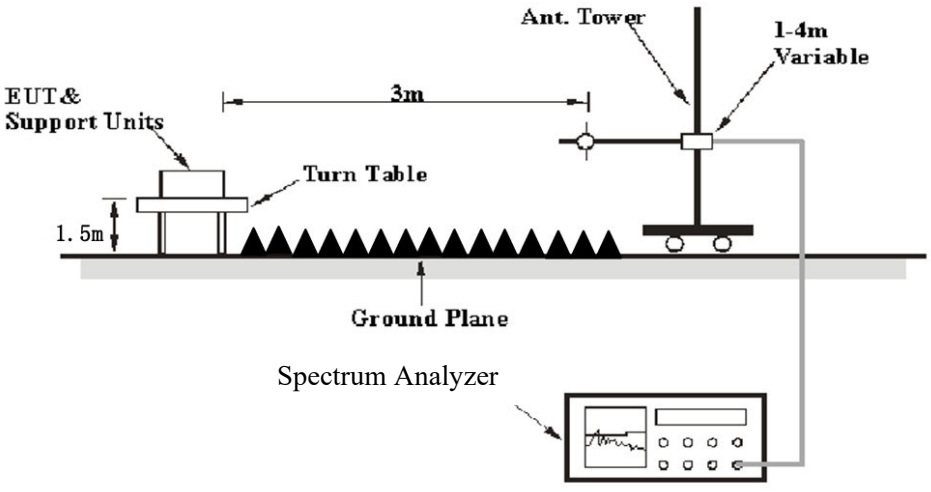
FCC §15.247 (d); §15.209; §15.205;

EUT Setup

Below 1 GHz:



Above 1GHz:



The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, FCC 15.247, RSS-247, RSS-Gen limits.

EMI Test Receiver & Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz Note 1	/	Average
	1MHz	＞1/T Note 2	/	Average

Note 1: when duty cycle is no less than 98%
Note 2: when duty cycle is less than 98%

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

Factor & Over Limit Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit/margin of -7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Over Limit = Level-Limit
Level = Reading + Corrected Factor

Test Data

Environmental Conditions

Temperature:	24 ℃
Relative Humidity:	57 ~60 %
ATM Pressure:	101.0~101.3kPa

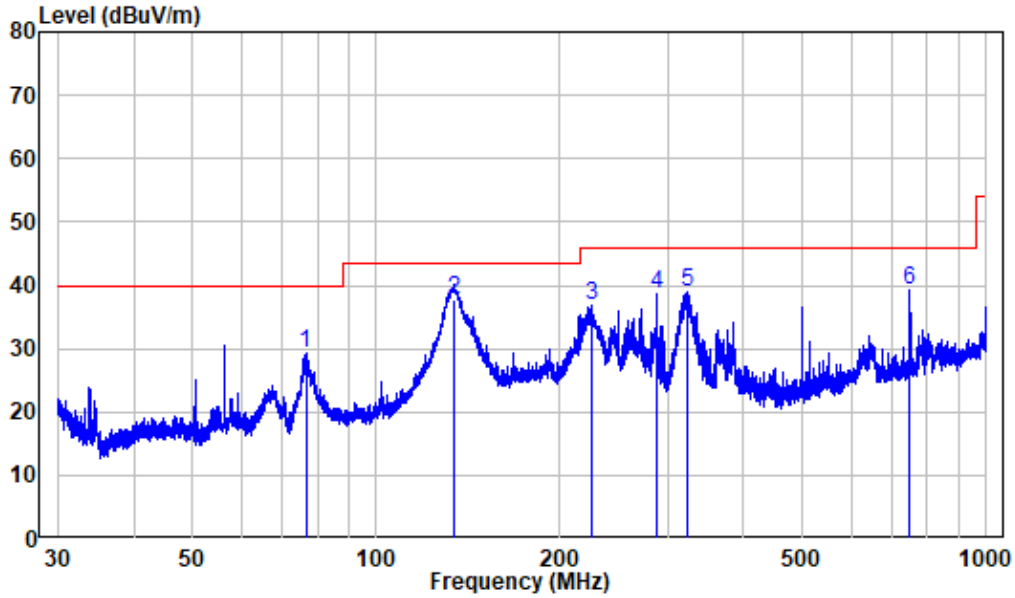
The testing was performed by Jimi Zheng on 2023-06-21 for below 1GHz and on 2023-05-15 for above 1GHz.

EUT operation mode: Transmitting (Pre-scan in the X, Y and Z axes of orientation, the worst case X-axis of orientation was recorded)

30MHz-1GHz: (Worst case is 802.11b mode, low Channel)

Note: When the test result of peak was less than the limit of QP more than 6dB, just peak value were recorded.

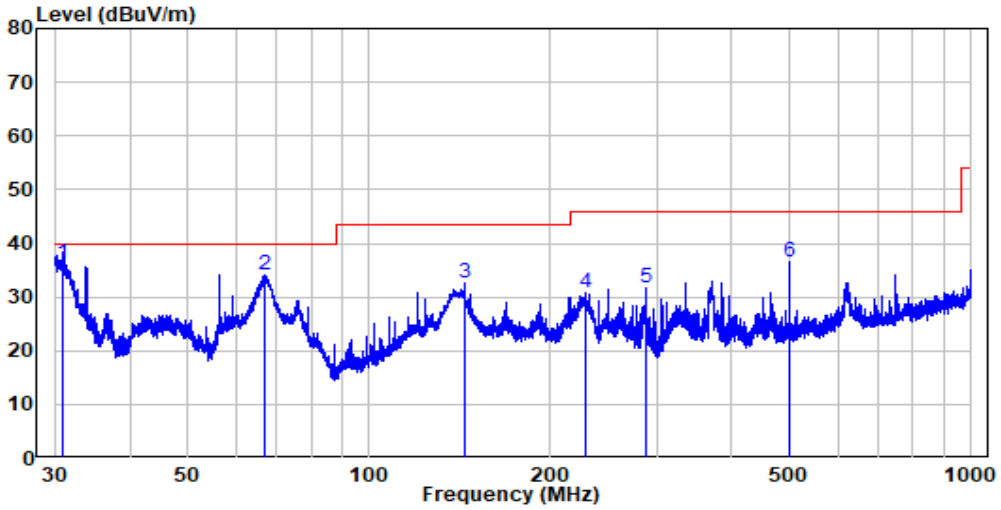
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : RA230420-20687E-RF
Test Mode: 2.4G WIFI Transmitting

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	76.613	-16.48	45.62	29.14	40.00	-10.86	Peak
2	134.088	-14.97	52.69	37.72	43.50	-5.78	QP
3	225.604	-11.24	48.18	36.94	46.00	-9.06	Peak
4	287.990	-9.36	47.99	38.63	46.00	-7.37	Peak
5	324.598	-8.29	47.15	38.86	46.00	-7.14	Peak
6	750.108	-0.87	40.24	39.37	46.00	-6.63	Peak

Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : RA230420-20687E-RF
Test Mode: 2.4G WIFI Transmitting

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.948	-12.30	48.41	36.11	40.00	-3.89	QP
2	66.791	-13.26	47.24	33.98	40.00	-6.02	Peak
3	144.019	-15.52	48.23	32.71	43.50	-10.79	Peak
4	228.490	-11.16	41.86	30.70	46.00	-15.30	Peak
5	288.117	-9.36	41.17	31.81	46.00	-14.19	Peak
6	500.082	-4.25	40.66	36.41	46.00	-9.59	Peak

1-18 GHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave.		Height (m)	Polar (H/V)				
802.11b									
Low Channel(2412MHz)									
2389.8	59.65	PK	64	2.4	H	-10.62	49.03	74	-24.97
2389.8	45.57	AV	64	2.4	H	-10.62	34.95	54	-19.05
2383.44	55.84	PK	266	2.2	V	-10.64	45.20	74	-28.80
2383.44	43.29	AV	266	2.2	V	-10.64	32.65	54	-21.35
2390	57.29	PK	123	1.6	H	-10.62	46.67	74	-27.33
2390	45.84	AV	123	1.6	H	-10.62	35.22	54	-18.78
2390	54.88	PK	295	1.8	V	-10.62	44.26	74	-29.74
2390	43.18	AV	295	1.8	V	-10.62	32.56	54	-21.44
4824	63.77	PK	29	1.2	H	-5.55	58.22	74	-15.78
4824	57.30	AV	29	1.2	H	-5.55	51.75	54	-2.25
4824	61.20	PK	188	2.1	V	-5.55	55.65	74	-18.35
4824	53.93	AV	188	2.1	V	-5.55	48.38	54	-5.62
Middle Channel(2437MHz)									
4874	63.23	PK	43	1.8	H	-5.29	57.94	74	-16.06
4874	57.03	AV	43	1.8	H	-5.29	51.74	54	-2.26
4874	60.78	PK	54	2.1	V	-5.29	55.49	74	-18.51
4874	53.82	AV	54	2.1	V	-5.29	48.53	54	-5.47
High Channel(2462 MHz)									
2483.5	63.00	PK	306	1.3	H	-10.46	52.54	74	-21.46
2483.5	47.42	AV	306	1.3	H	-10.46	36.96	54	-17.04
2483.5	66.55	PK	123	1.1	V	-10.46	56.09	74	-17.91
2483.5	54.95	AV	123	1.1	V	-10.46	44.49	54	-9.51
2484.05	63.81	PK	16	1.6	H	-10.46	53.35	74	-20.65
2484.05	47.98	AV	16	1.6	H	-10.46	37.52	54	-16.48
2488.65	68.61	PK	198	1.9	V	-10.42	58.19	74	-15.81
2488.65	55.08	AV	198	1.9	V	-10.42	44.66	54	-9.34
4924	63.65	PK	52	2	H	-5.03	58.62	74	-15.38
4924	56.51	AV	52	2	H	-5.03	51.48	54	-2.52
4924	61.94	PK	126	1.1	V	-5.03	56.91	74	-17.09
4924	55.88	AV	126	1.1	V	-5.03	50.85	54	-3.15

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave.		Height (m)	Polar (H/V)				
802.11g									
Low Channel(2412MHz)									
2389.92	66.08	PK	181	2.5	H	-10.62	55.46	74	-18.54
2389.92	51.45	AV	181	2.5	H	-10.62	40.83	54	-13.17
2389.92	69.08	PK	210	1.4	V	-10.62	58.46	74	-15.54
2389.92	57.04	AV	210	1.4	V	-10.62	46.42	54	-7.58
2390	72.94	PK	201	2.1	H	-10.62	62.32	74	-11.68
2390	60.58	AV	201	2.1	H	-10.62	49.96	54	-4.04
2390	69.52	PK	235	2.2	V	-10.62	58.9	74	-15.1
2390	57.09	AV	235	2.2	V	-10.62	46.47	54	-7.53
4824	65.15	PK	22	1.5	H	-5.55	59.6	74	-14.4
4824	54.73	AV	22	1.5	H	-5.55	49.18	54	-4.82
4824	63.84	PK	143	1.7	V	-5.55	58.29	74	-15.71
4824	50.45	AV	143	1.7	V	-5.55	44.9	54	-9.1
Middle Channel(2437MHz)									
4874	60.45	PK	299	1	H	-5.29	55.16	74	-18.84
4874	53.24	AV	299	1	H	-5.29	47.95	54	-6.05
4874	63.00	PK	64	1	V	-5.29	57.71	74	-16.29
4874	49.86	AV	64	1	V	-5.29	44.57	54	-9.43
High Channel(2462 MHz)									
2483.5	76.93	PK	153	2.2	H	-10.46	66.47	74	-7.53
2483.5	59.42	AV	153	2.2	H	-10.46	48.96	54	-5.04
2483.5	69.99	PK	155	1.6	V	-10.46	59.53	74	-14.47
2483.5	54.64	AV	155	1.6	V	-10.46	44.18	54	-9.82
2483.85	77.77	PK	21	2	H	-10.46	67.31	74	-6.69
2483.85	59.39	AV	21	2	H	-10.46	48.93	54	-5.07
2485.3	70.02	PK	47	2.3	V	-10.45	59.57	74	-14.43
2485.3	54.90	AV	47	2.3	V	-10.45	44.45	54	-9.55
4924	61.41	PK	113	1.5	H	-5.03	56.38	74	-17.62
4924	46.37	AV	113	1.5	H	-5.03	41.34	54	-12.66
4924	62.27	PK	298	1.5	V	-5.03	57.24	74	-16.76
4924	45.77	AV	298	1.5	V	-5.03	40.74	54	-13.26

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave.		Height (m)	Polar (H/V)				
802.11n20									
Low Channel(2412MHz)									
2389.92	82.50	PK	50	1.3	H	-10.62	71.88	74	-2.12
2389.92	63.08	AV	50	1.3	H	-10.62	52.46	54	-1.54
2389.92	65.53	PK	297	2.1	V	-10.62	54.91	74	-19.09
2389.92	46.93	AV	297	2.1	V	-10.62	36.31	54	-17.69
2390	82.24	PK	250	1	H	-10.62	71.62	74	-2.38
2390	62.83	AV	250	1	H	-10.62	52.21	54	-1.79
2390	64.42	PK	162	2.1	V	-10.62	53.80	74	-20.20
2390	46.76	AV	162	2.1	V	-10.62	36.14	54	-17.86
4824	60.41	PK	347	2.3	H	-5.55	54.86	74	-19.14
4824	50.40	AV	347	2.3	H	-5.55	44.85	54	-9.15
4824	61.66	PK	271	1.8	V	-5.55	56.11	74	-17.89
4924	48.94	AV	286	1.8	V	-5.03	43.91	54	-10.09
Middle Channel(2437MHz)									
4874	63.69	PK	169	2.2	H	-5.29	58.4	74	-15.60
4874	50.86	AV	169	2.2	H	-5.29	45.57	54	-8.43
4874	61.98	PK	210	1.9	V	-5.29	56.69	74	-17.31
4874	47.42	AV	210	1.9	V	-5.29	42.13	54	-11.87
High Channel(2462 MHz)									
2483.5	81.55	PK	108	1.3	H	-10.46	71.09	74	-2.91
2483.5	62.52	AV	108	1.3	H	-10.46	52.06	54	-1.94
2483.5	62.79	PK	140	1.3	V	-10.46	52.33	74	-21.67
2483.5	45.22	AV	140	1.3	V	-10.46	34.76	54	-19.24
2483.6	82.58	PK	168	1.5	H	-10.46	72.12	74	-1.88
2483.6	62.80	AV	168	1.5	H	-10.46	52.34	54	-1.66
2483.65	63.46	PK	107	1.2	V	-10.46	53	74	-21.00
2483.65	45.23	AV	107	1.2	V	-10.46	34.77	54	-19.23
4924	64.27	PK	310	1.1	H	-5.03	59.24	74	-14.76
4924	49.61	AV	310	1.1	H	-5.03	44.58	54	-9.42
4924	61.96	PK	286	1.8	V	-5.03	56.93	74	-17.07
4924	49.38	AV	286	1.8	V	-5.03	44.35	54	-9.65

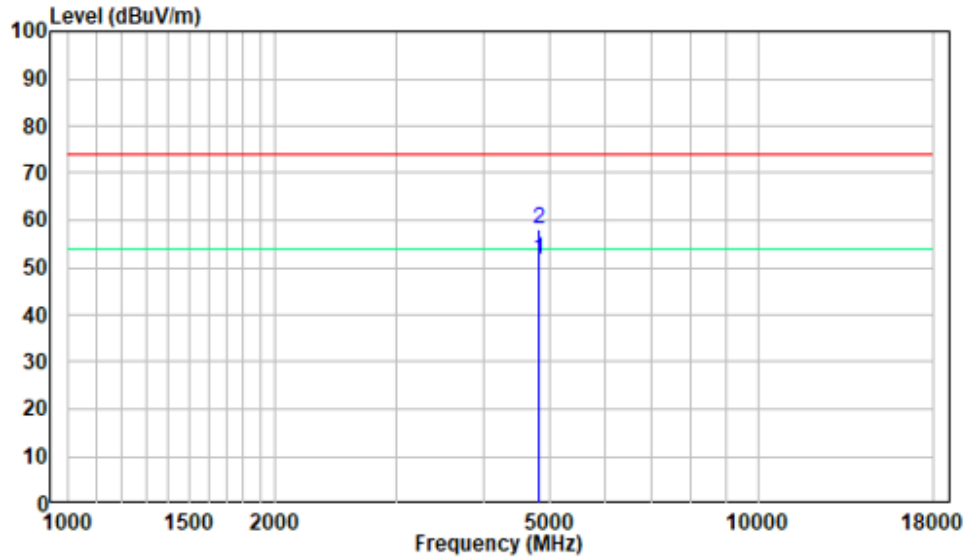
Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave.		Height (m)	Polar (H/V)				
802.11n40									
Low Channel (2422MHz)									
2385.79	80.87	PK	313	2.3	H	-10.63	70.24	74	-3.76
2385.79	62.40	AV	313	2.3	H	-10.63	51.77	54	-2.23
2385.4	64.37	PK	18	1.3	V	-10.63	53.74	74	-20.26
2385.4	47.14	AV	18	1.3	V	-10.63	36.51	54	-17.49
2390	76.91	PK	28	2.1	H	-10.62	66.29	74	-7.71
2390	62.47	AV	28	2.1	H	-10.62	51.85	54	-2.15
2390	60.16	PK	159	2.1	V	-10.62	49.54	74	-24.46
2390	46.70	AV	159	2.1	V	-10.62	36.08	54	-17.92
4844	59.72	PK	254	1	H	-5.52	54.20	74	-19.80
4844	45.01	AV	254	1	H	-5.52	39.49	54	-14.51
4844	60.90	PK	60	1.8	V	-5.52	55.38	74	-18.62
4844	45.65	AV	60	1.8	V	-5.52	40.13	54	-13.87
Middle Channel (2437MHz)									
4874	59.40	PK	229	1.3	H	-5.29	54.11	74	-19.89
4874	44.77	AV	229	1.3	H	-5.29	39.48	54	-14.52
4874	60.29	PK	129	1.2	V	-5.29	55	74	-19.00
4874	45.52	AV	129	1.2	V	-5.29	40.23	54	-13.77
High Channel (2452MHz)									
2483.5	81.79	PK	347	1.6	H	-10.46	71.33	74	-2.67
2483.5	60.37	AV	347	1.6	H	-10.46	49.91	54	-4.09
2483.5	80.04	PK	184	1.6	V	-10.46	69.58	74	-4.42
2483.5	59.97	AV	184	1.6	V	-10.46	49.51	54	-4.49
2483.69	81.92	PK	279	2.5	H	-10.46	71.46	74	-2.54
2483.69	60.78	AV	279	2.5	H	-10.46	50.32	54	-3.68
2483.97	80.78	PK	296	1.3	V	-10.46	70.32	74	-3.68
2483.97	60.64	AV	296	1.3	V	-10.46	50.18	54	-3.82
4904	61.47	PK	304	1.9	H	-5.06	56.41	74	-17.59
4904	48.36	AV	304	1.9	H	-5.06	43.30	54	-10.70
4904	65.00	PK	105	1.9	V	-5.06	59.94	74	-14.06
4904	46.76	AV	105	1.9	V	-5.06	41.70	54	-12.30

Note:
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude= Factor + Reading
Margin = Corrected Amplitude - Limit
The other spurious emission which is 20dB below to the limit or in noise floor level was not recorded.

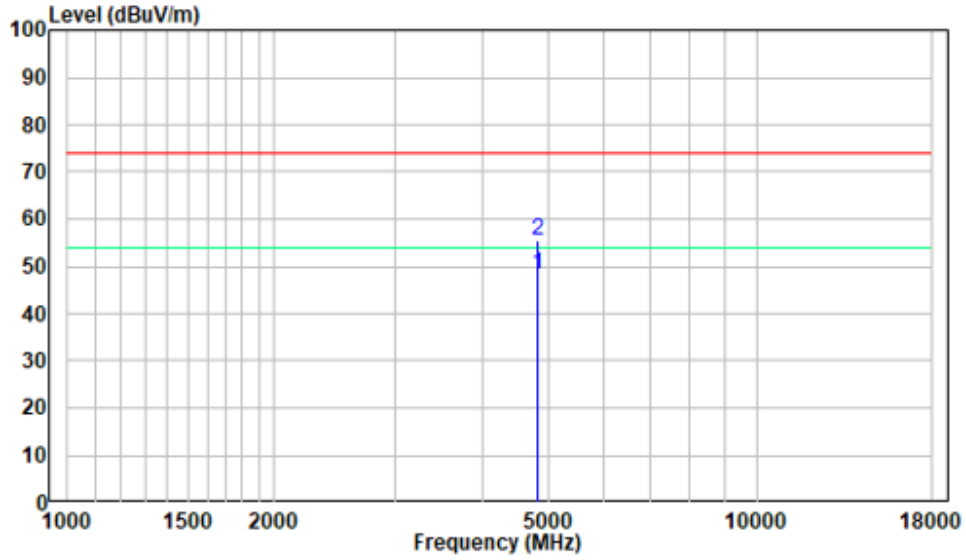
1-18 GHz:

Pre-scan Plots:

802.11 b Low Channel
Horizontal



Vertical

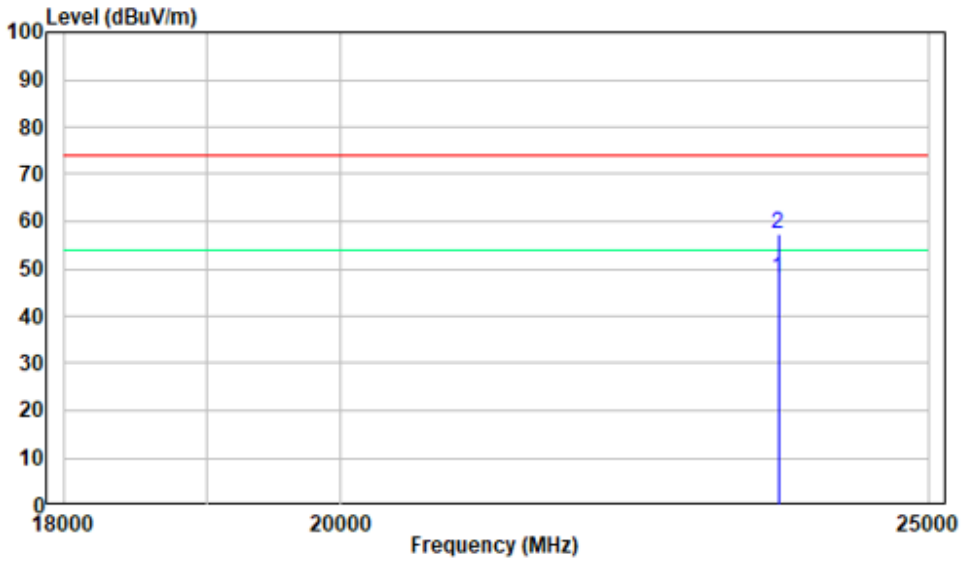


18 -25GHz:

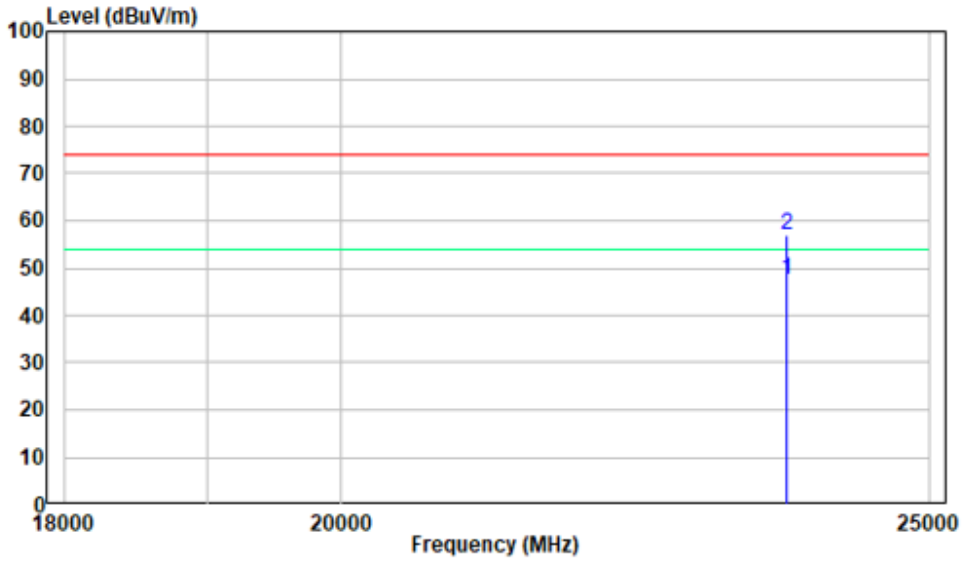
Pre-scan Plots:

802.11 b Low Channel

Horizontal



Vertical



FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH & OCCUPIED BANDWIDTH

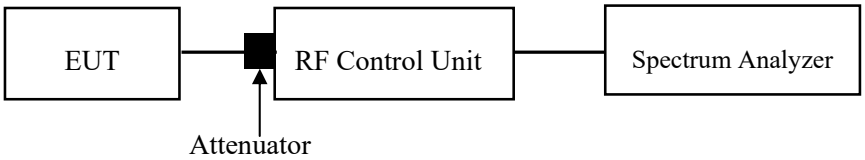
Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 11.8.1 & Clause 6.9.3

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.



Test Data

Environmental Conditions

Temperature:	24 ℃
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Matting Liang on 2023-06-21.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

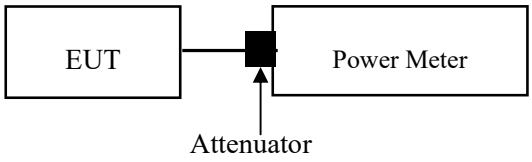
Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

Test Method: ANSI C63.10-2013 Clause 11.9.2.3.1

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



Test Data

Environmental Conditions

Temperature:	24 ℃
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Matting Liang on 2023-06-21.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

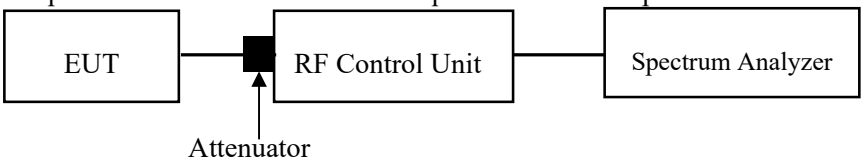
Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

Test Method: ANSI C63.10-2013 Clause 11.11

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.



Test Data

Environmental Conditions

Temperature:	24 ℃
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Matting Liang on 2023-06-21.

EUT operation mode: Transmitting

Test Result: Compliant.

Conducted Band Edge Result:

Please refer to the Appendix.

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

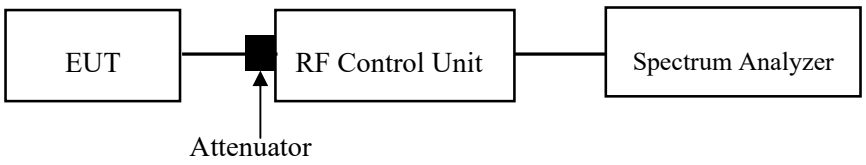
Test Method: ANSI C63.10-2013 Clause 11.10.3 Method AVGPSD-1

The following procedure may be used when the maximum (average) conducted output power was used to determine compliance to the fundamental output power limit. This is the baseline method for determining the maximum (average) conducted PSD level. If the instrument has a power averaging (rms) detector, then it must be used; otherwise, use the sample detector. The EUT must be configured to transmit continuously (D $\geqslant$ 98%), or else sweep triggering/signal gating must be implemented to ensure that measurements are made only when the EUT is transmitting at its maximum power control level (no transmitter OFF time to be considered):

1. Set instrument center frequency to DTS channel center frequency.
2. Set span to at least 1.5 times the OBW.
3. Set the RBW to: 3kHz$\leqslant$ RBW$\leqslant$100 kHz.
4. Set the VBW $\geqslant$ 3$\times$BW.
5. Detector = power averaging (rms) or sample detector (when rms not available)
6. Ensure that the number of measurement points in the sweep $\geqslant$ [2 $\times$ span / RBW].
7. Sweep time = auto couple.
8. Employ trace averaging (rms) mode over a minimum of 100 traces.
9. Use the peak marker function to determine the maximum amplitude level.
10. If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

Test Method: ANSI C63.10-2013 Clause 11.10.5 Method AVGPSD-2

The following procedure is applicable when the EUT cannot be configured to transmit continuously (i.e., D < 98%), when sweep triggering/signal gating cannot be used to measure only when the EUT is transmitting at its maximum power control level, and when the transmission duty cycle is constant (i.e., duty cycle variations are less than ±2%):
1. Measure the duty cycle (D) of the transmitter output signal as described in 11.6.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the OBW.
4. Set the RBW to: 3kHz≤ RBW≤100 kHz.
5. Set the VBW ≥ 3×BW.
6. Detector = power averaging (rms) or sample detector (when rms not available)
7. Ensure that the number of measurement points in the sweep ≥ [2 × span / RBW].
8. Sweep time = auto couple.
9. Do not use sweep triggering; allow sweep to "free run."
10. Employ trace averaging (rms) mode over a minimum of 100 traces.
11. Use the peak marker function to determine the maximum amplitude level.
12. If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).



Test Data

Environmental Conditions

Temperature:	24 ℃
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Matting Liang on 2023-06-21.

EUT operation mode: Transmitting

Test Result: Compliant. Please refer to the Appendix.

APPENDIX

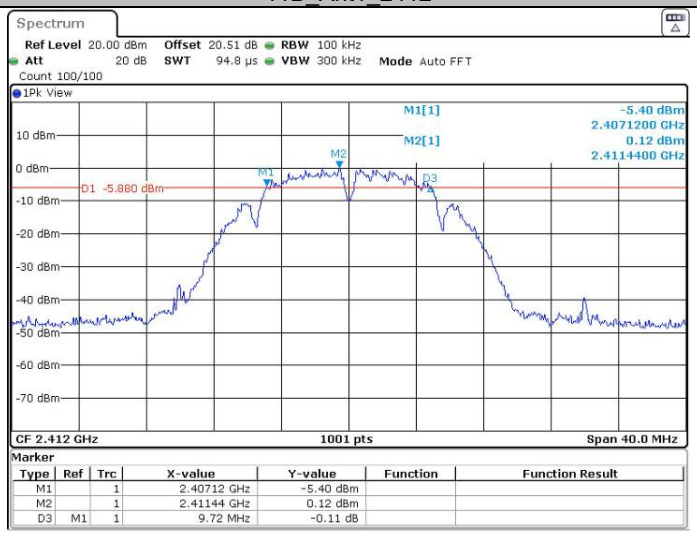
Appendix A: DTS Bandwidth

Test Result

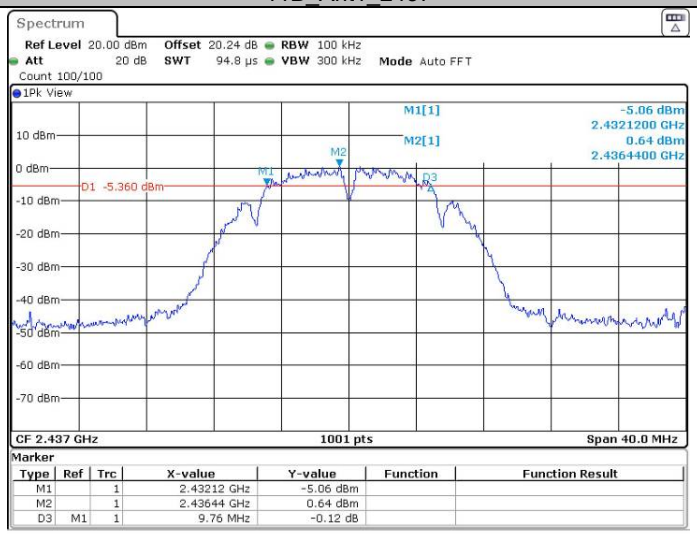
Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.72	2407.12	2416.84	0.5	PASS
		2437	9.76	2432.12	2441.88	0.5	PASS
		2462	9.76	2457.12	2466.88	0.5	PASS
11G	Ant1	2412	16.32	2403.84	2420.16	0.5	PASS
		2437	16.32	2428.84	2445.16	0.5	PASS
		2462	16.32	2453.84	2470.16	0.5	PASS
11N20SISO	Ant1	2412	17.12	2403.44	2420.56	0.5	PASS
		2437	17.56	2428.24	2445.80	0.5	PASS
		2462	17.36	2453.24	2470.60	0.5	PASS
11N40SISO	Ant1	2422	35.68	2404.24	2439.92	0.5	PASS
		2437	35.76	2419.16	2454.92	0.5	PASS
		2452	35.44	2434.48	2469.92	0.5	PASS

Test Graphs

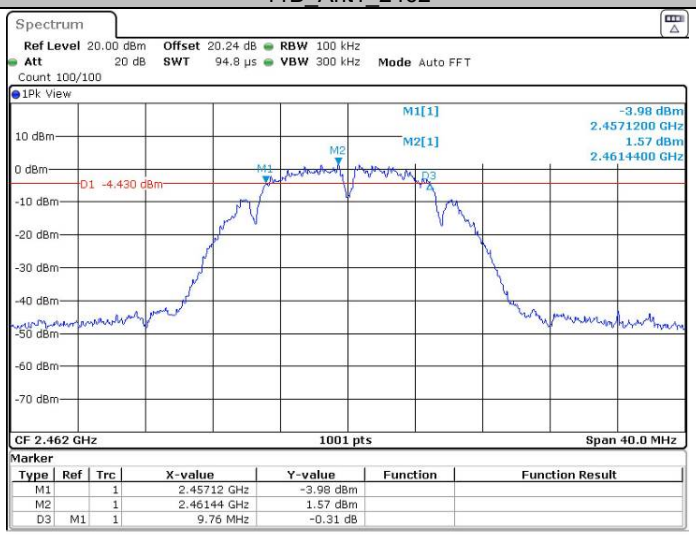
11B_Ant1_2412



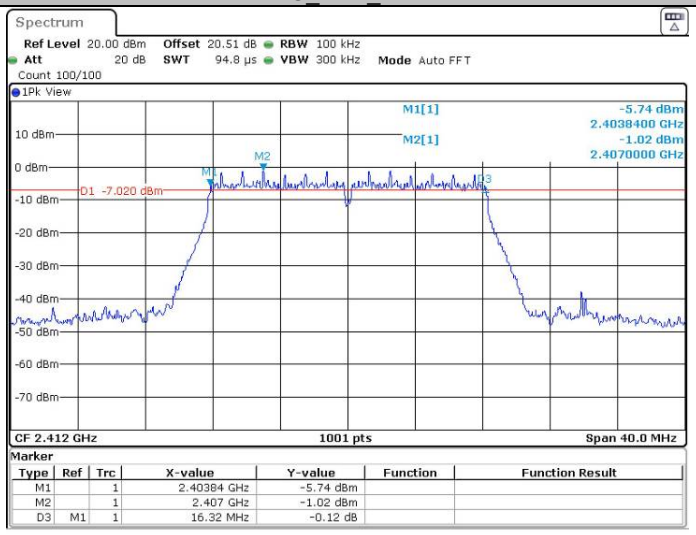
11B_Ant1_2437



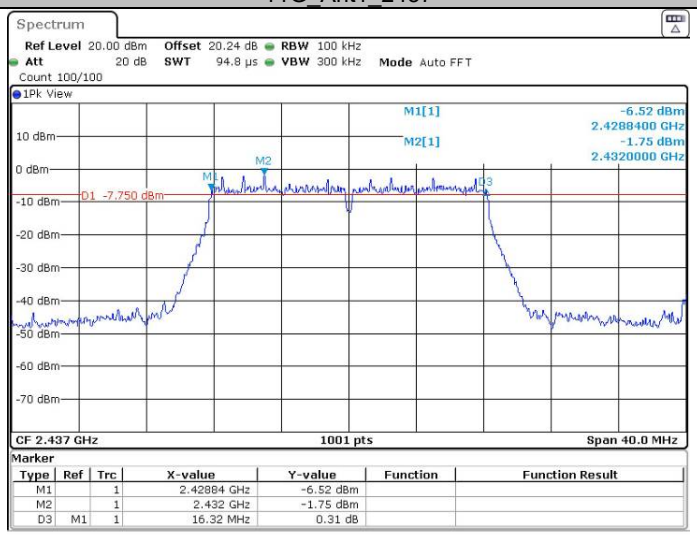
11B_Ant1_2462



11G_Ant1_2412

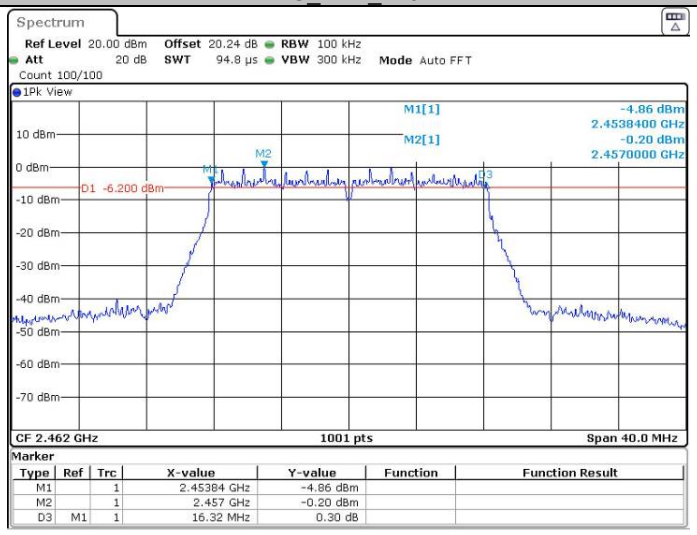


11G_Ant1_2437



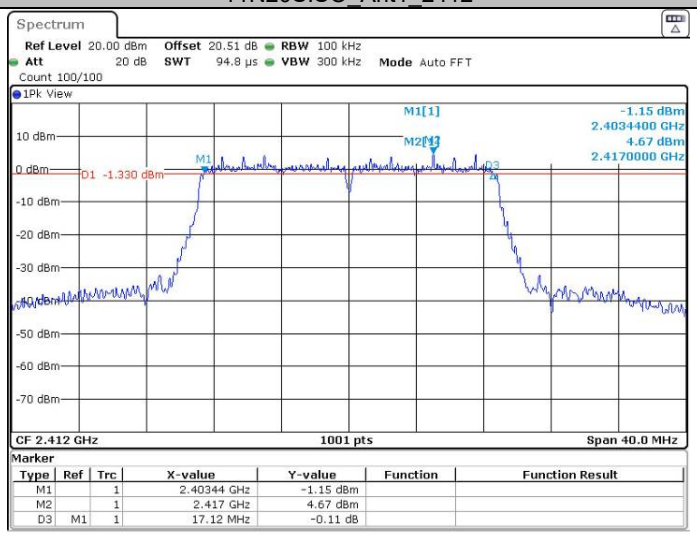
Date: 21.JUN.2023 16:24:13

11G_Ant1_2462



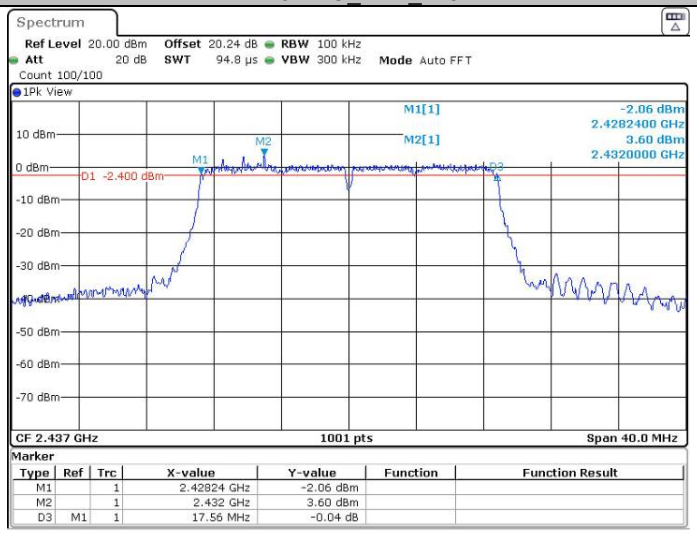
Date: 21.JUN.2023 16:30:00

11N20SISO_Ant1_2412



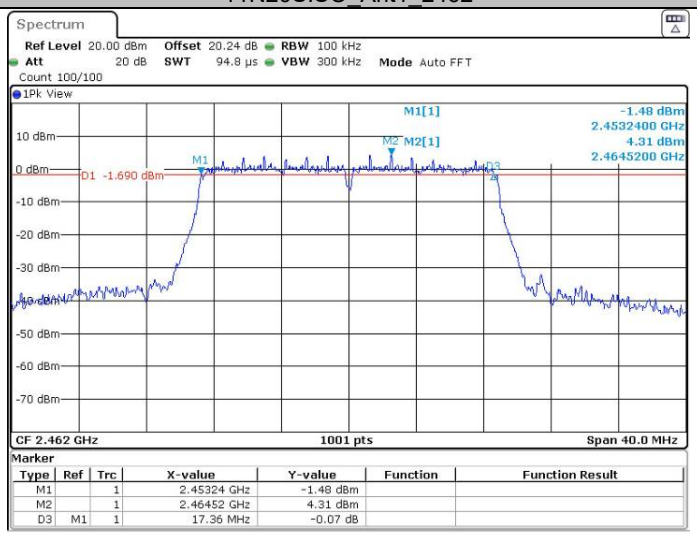
Date: 21.JUN.2023 16:32:11

11N20SISO_Ant1_2437



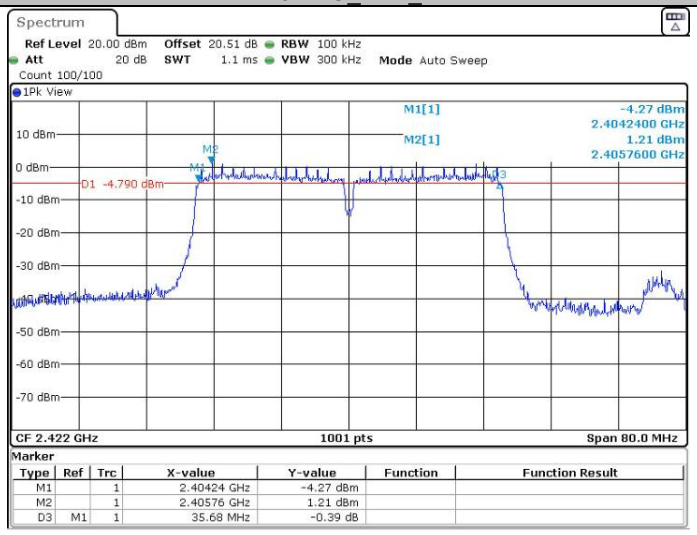
Date: 21.JUN.2023 16:35:15

11N20SISO_Ant1_2462



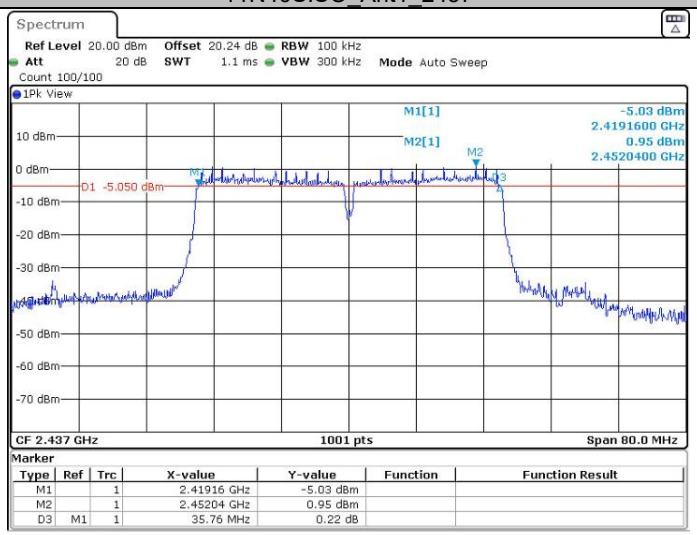
Date: 21.JUN.2023 16:37:07

11N40SISO_Ant1_2422

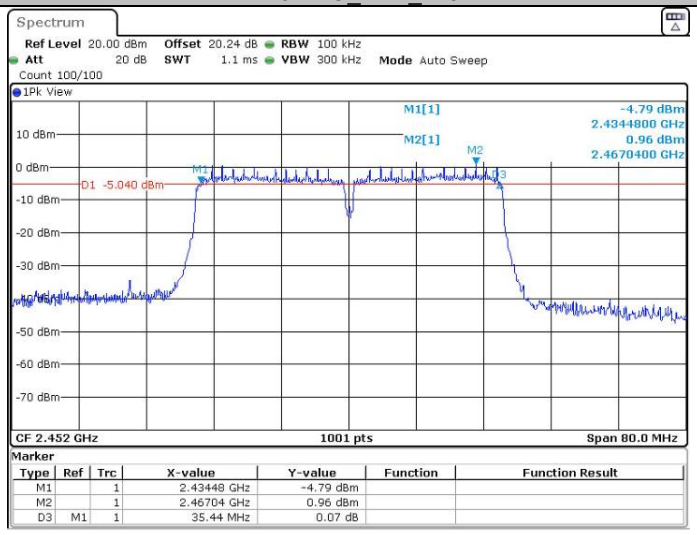


Date: 21.JUN.2023 16:40:48

11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



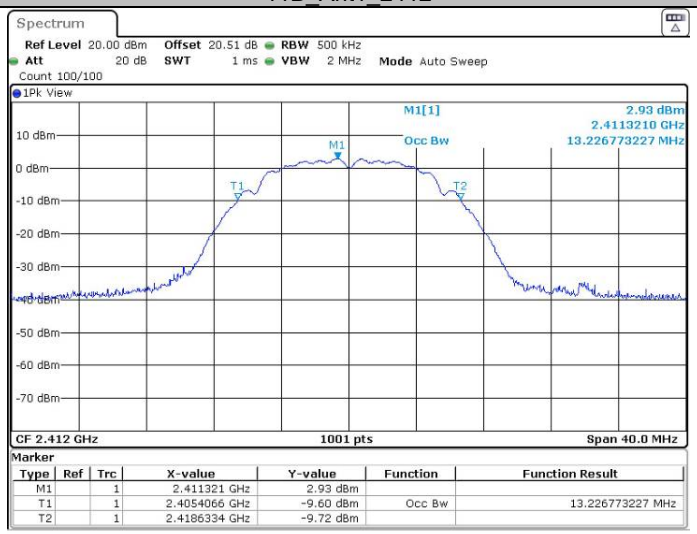
Appendix B: Occupied Channel Bandwidth

Test Result

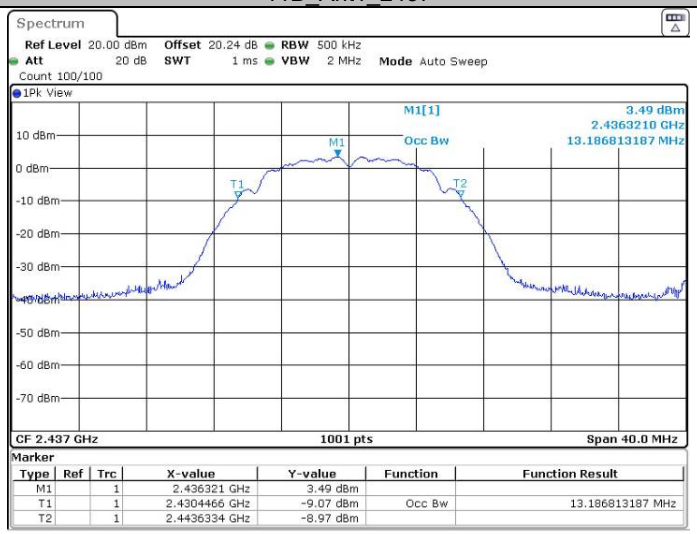
Test Mode	Antenna	Channel Frequency[MHz]	OBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.227	2405.407	2418.633	---	---
		2437	13.187	2430.447	2443.633	---	---
		2462	13.227	2455.407	2468.633	---	---
11G	Ant1	2412	17.063	2403.449	2420.511	---	---
		2437	17.542	2428.169	2445.711	---	---
		2462	17.502	2453.289	2470.791	---	---
11N20SISO	Ant1	2412	17.862	2403.089	2420.951	---	---
		2437	17.902	2428.089	2445.991	---	---
		2462	17.862	2453.089	2470.951	---	---
11N40SISO	Ant1	2422	36.284	2403.938	2440.222	---	---
		2437	36.284	2418.938	2455.222	---	---
		2452	36.284	2433.938	2470.222	---	---

Test Graphs

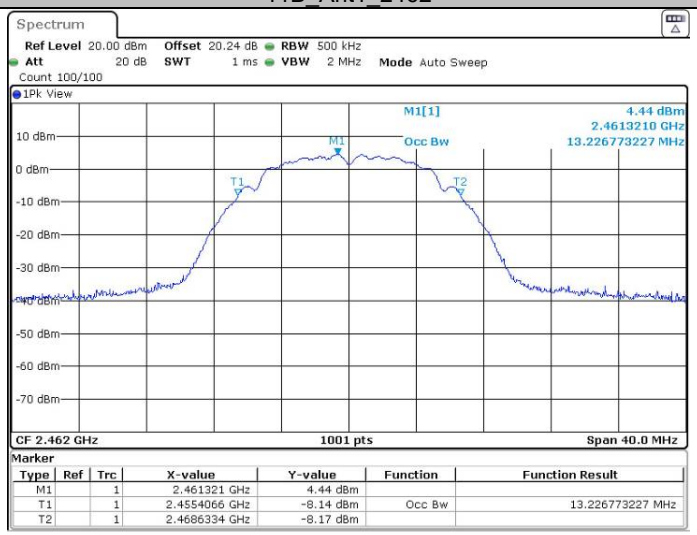
11B_Ant1_2412



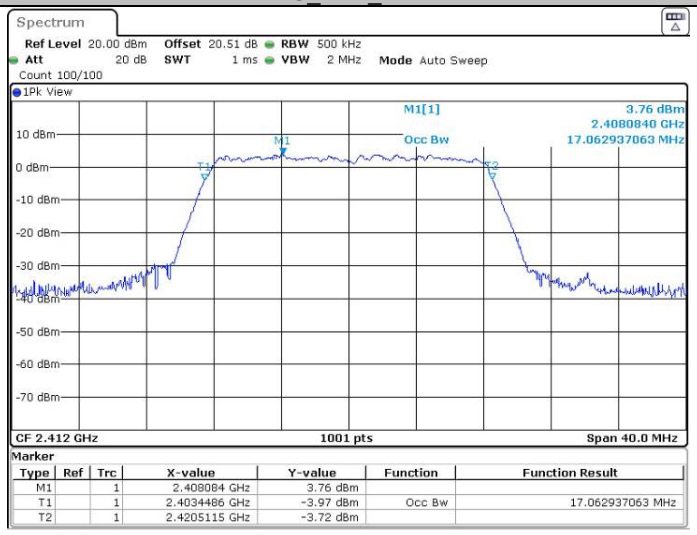
11B_Ant1_2437



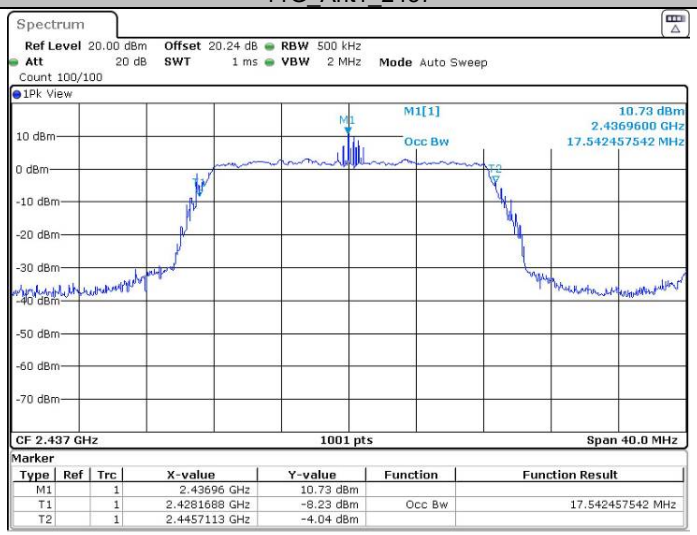
11B_Ant1_2462



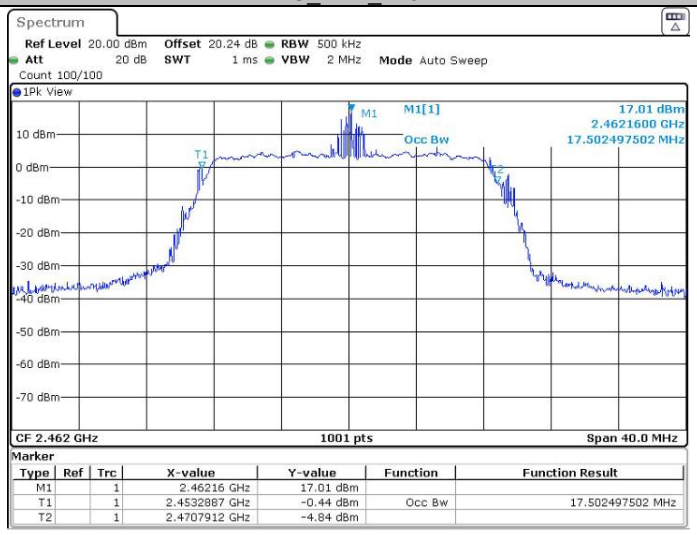
11G_Ant1_2412



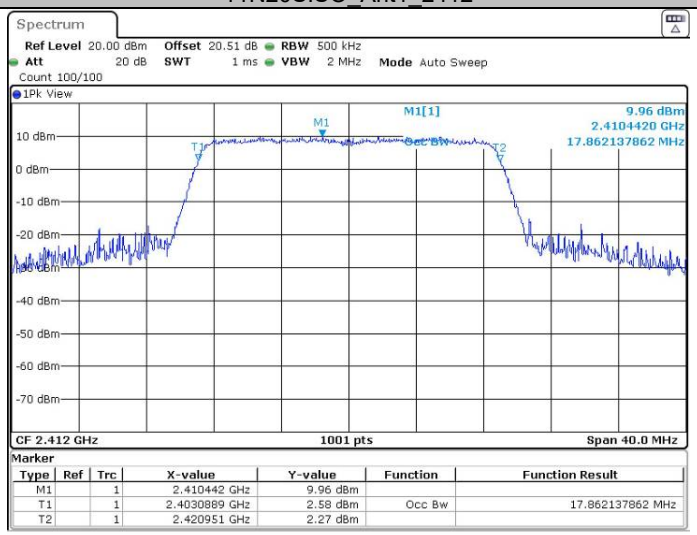
11G_Ant1_2437



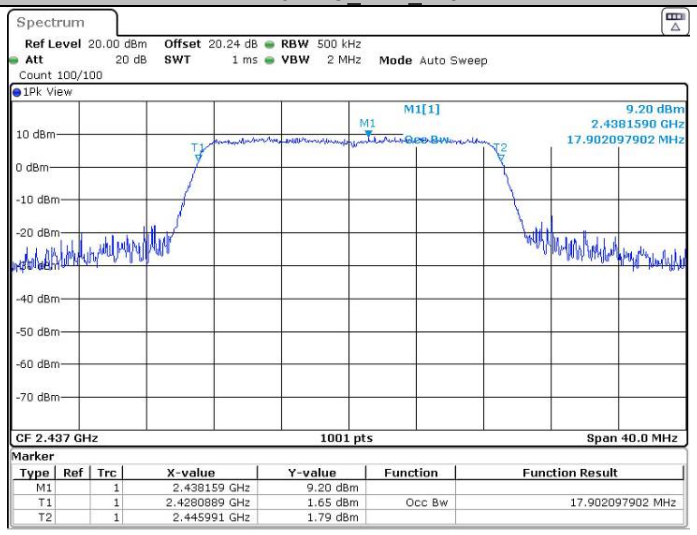
11G_Ant1_2462



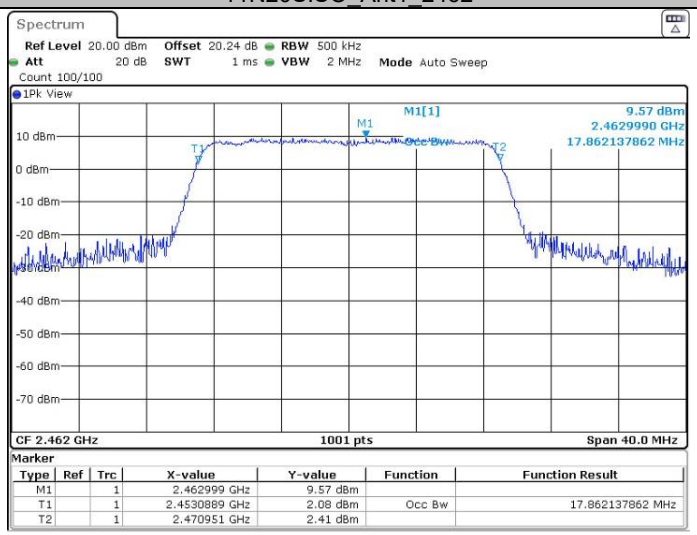
11N20SISO_Ant1_2412



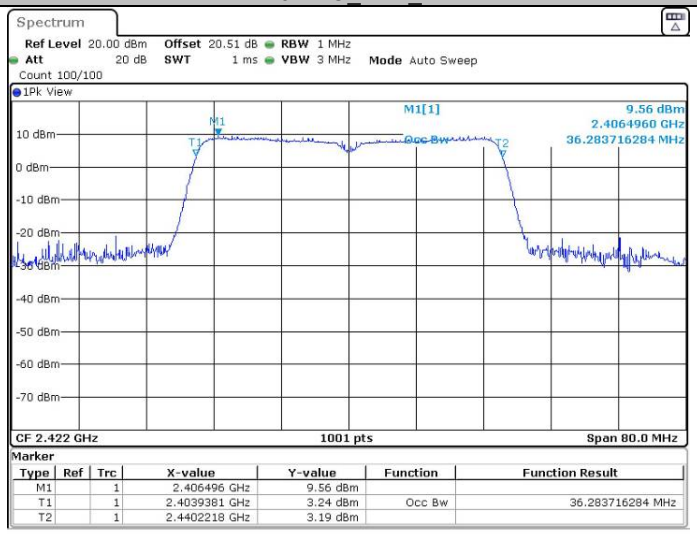
11N20SISO_Ant1_2437



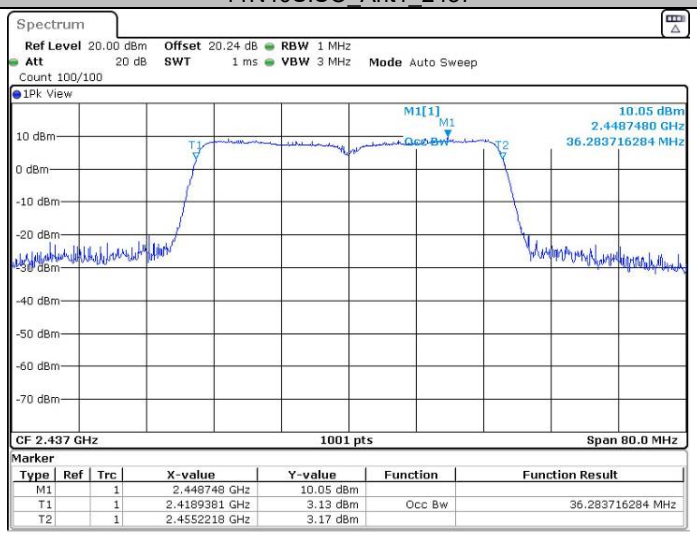
11N20SISO_Ant1_2462



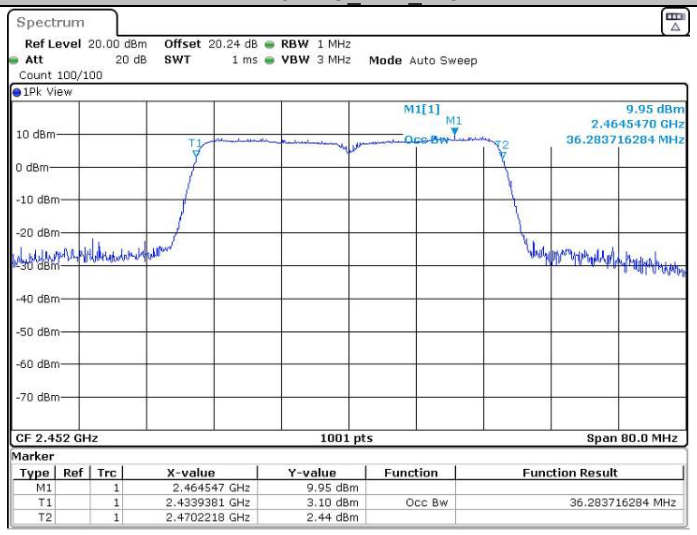
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C: Maximum conducted output power

Test Result

Test Mode	Antenna	Frequency[MHz]	Average Powert[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	10.96	≤30.00	PASS
		2437	11.50	≤30.00	PASS
		2462	12.45	≤30.00	PASS
11G	Ant1	2412	10.35	≤30.00	PASS
		2437	9.57	≤30.00	PASS
		2462	11.05	≤30.00	PASS
11N20SISO	Ant1	2412	16.09	≤30.00	PASS
		2437	15.46	≤30.00	PASS
		2462	15.86	≤30.00	PASS
11N40SISO	Ant1	2422	14.92	≤30.00	PASS
		2437	14.66	≤30.00	PASS
		2452	14.63	≤30.00	PASS

Note: The duty cycle factor were added into the offset on the Power Meter.

Appendix D: Maximum power spectral density

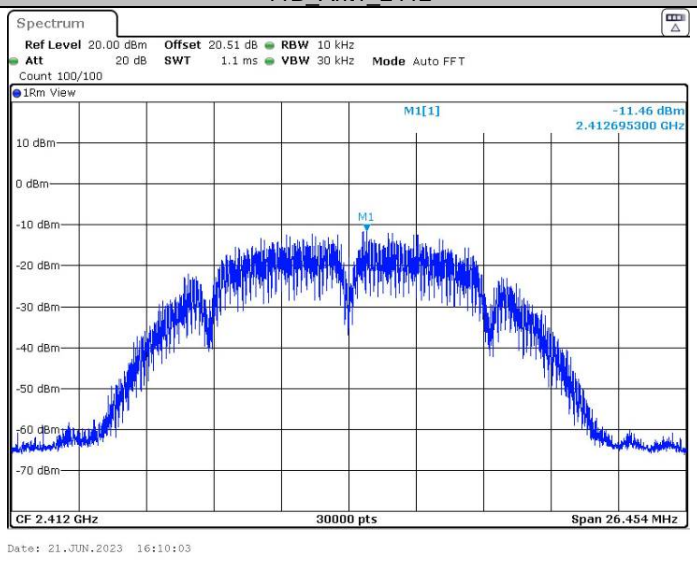
Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/10kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.46	≤8.00	PASS
		2437	-10.88	≤8.00	PASS
		2462	-9.97	≤8.00	PASS
11G	Ant1	2412	-18.16	≤8.00	PASS
		2437	-17.79	≤8.00	PASS
		2462	-17.49	≤8.00	PASS
11N20SISO	Ant1	2412	-13.41	≤8.00	PASS
		2437	-14.35	≤8.00	PASS
		2462	-13.47	≤8.00	PASS
11N40SISO	Ant1	2422	-17.11	≤8.00	PASS
		2437	-17.33	≤8.00	PASS
		2452	-17.52	≤8.00	PASS

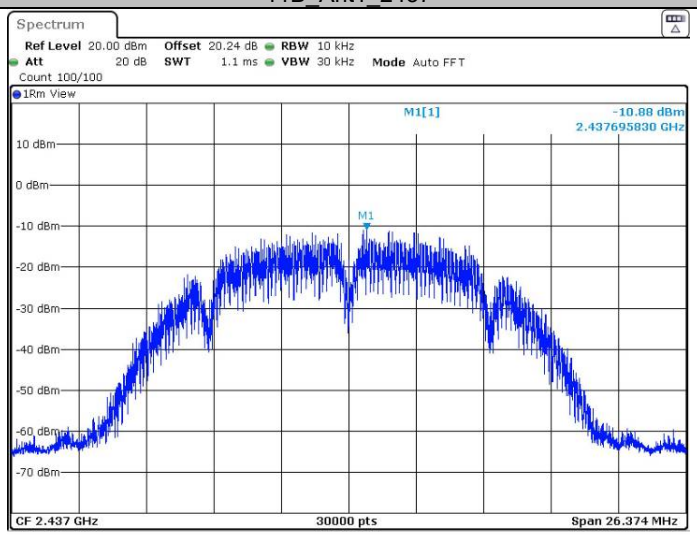
Note: The duty cycle factor were added into the offset on the Spectrum Analyzer.

Test Graphs

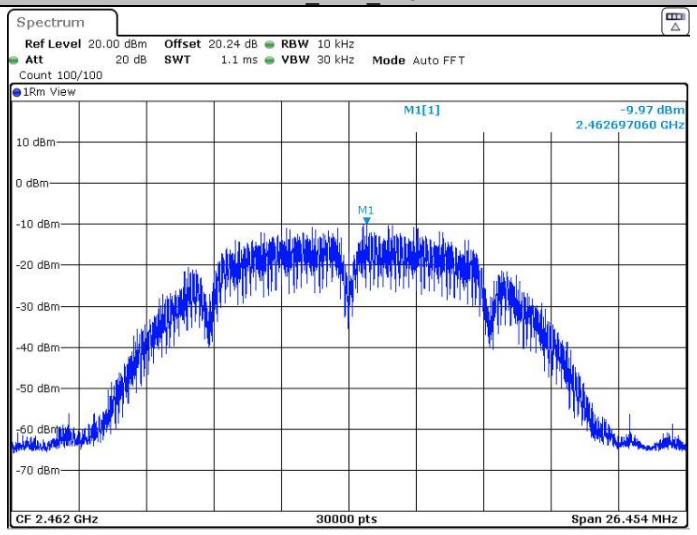
11B_Ant1_2412



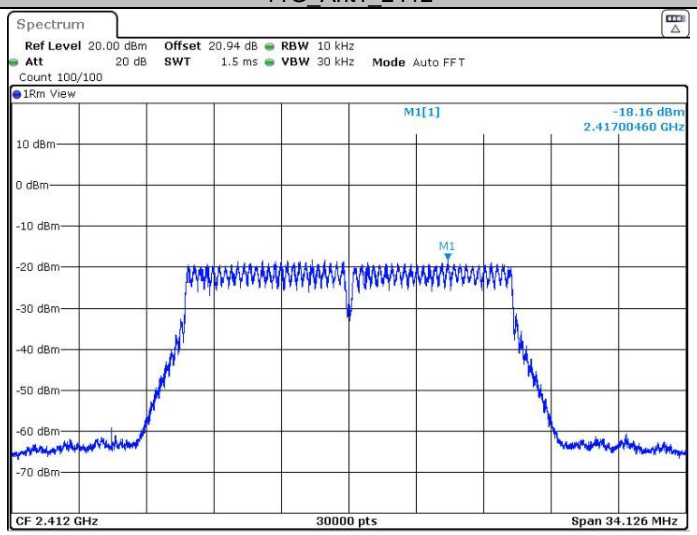
11B_Ant1_2437



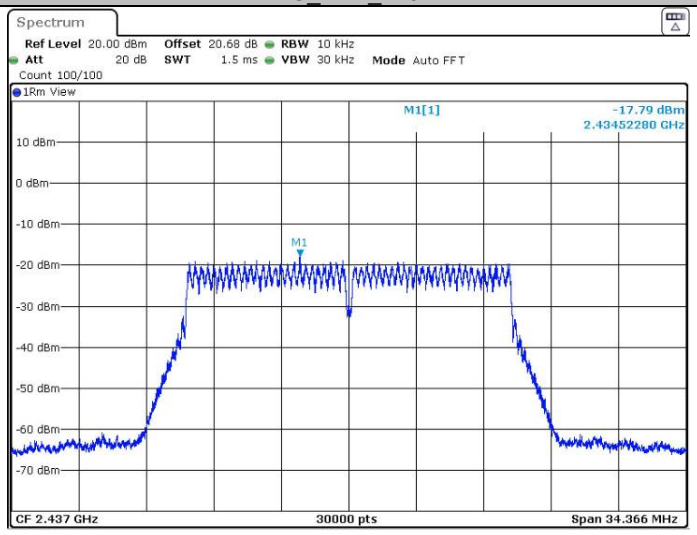
11B_Ant1_2462



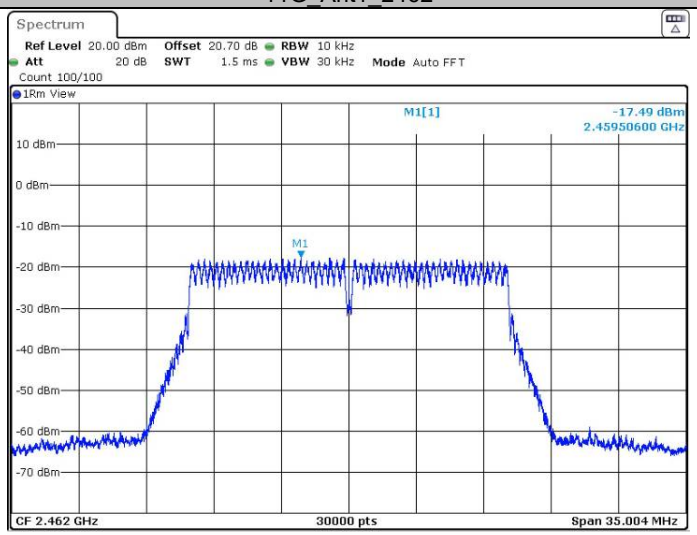
11G_Ant1_2412



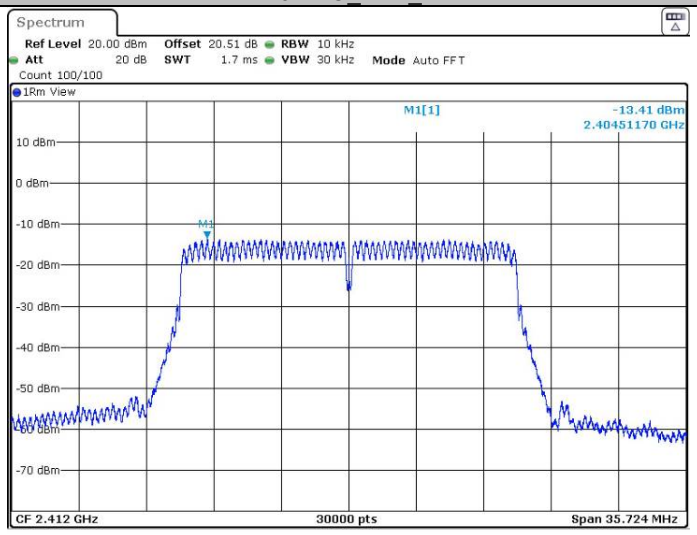
11G_Ant1_2437



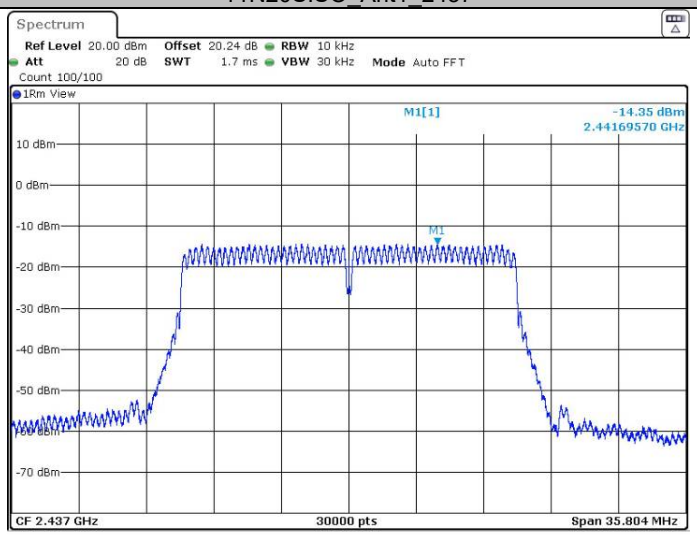
11G_Ant1_2462



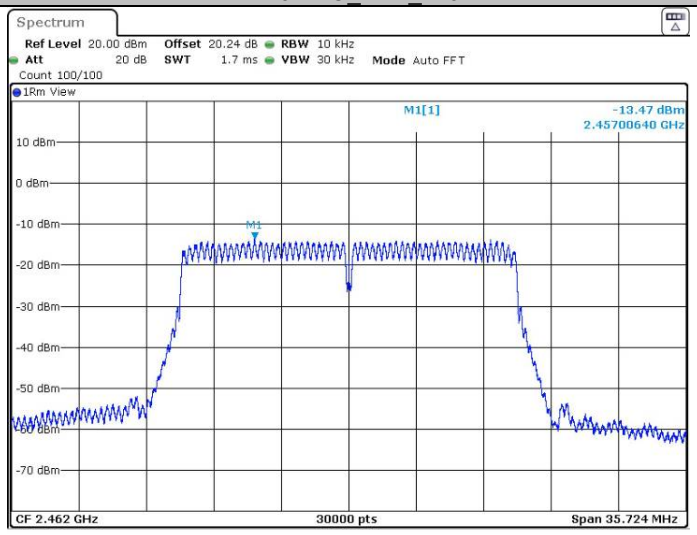
11N20SISO_Ant1_2412



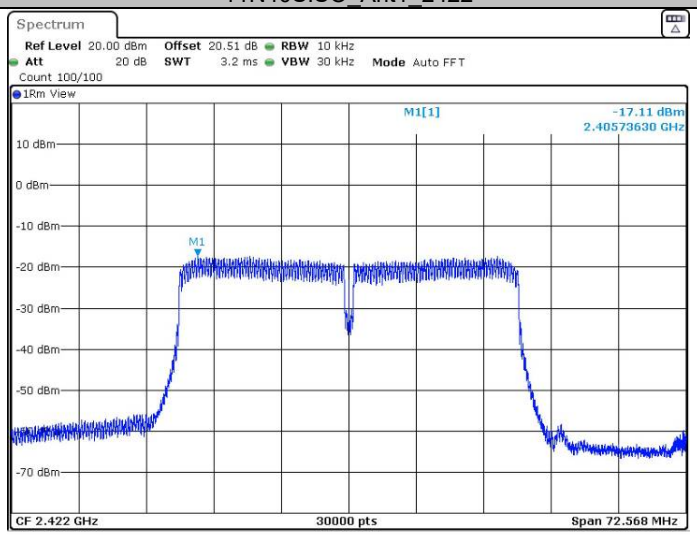
11N20SISO_Ant1_2437



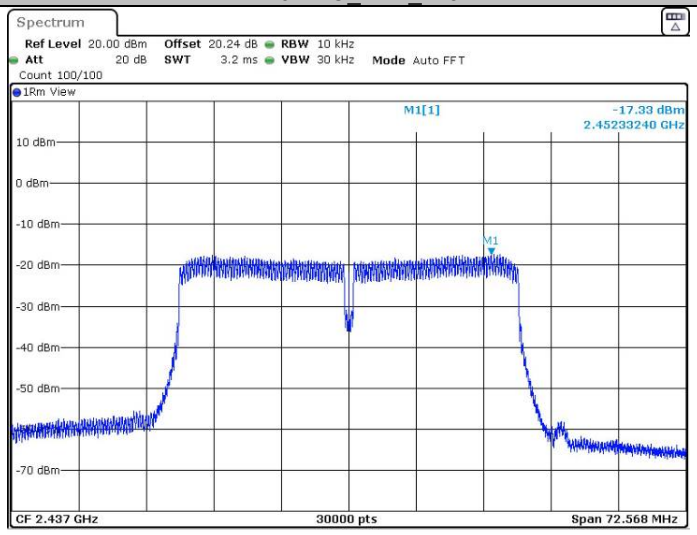
11N20SISO_Ant1_2462



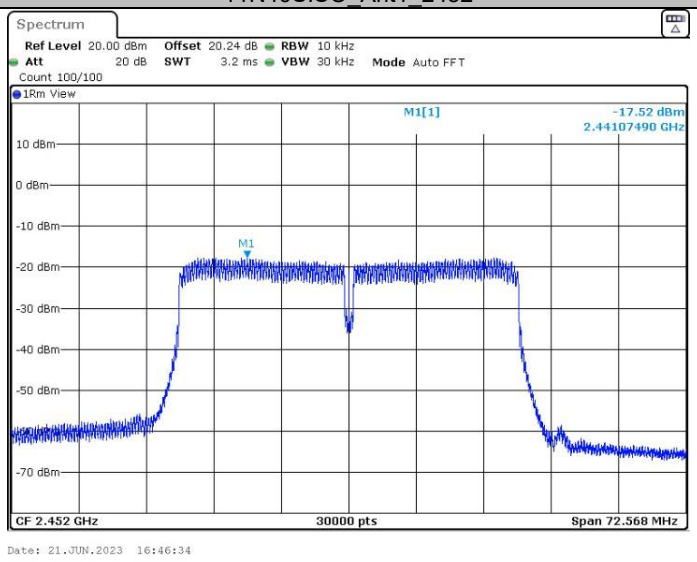
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



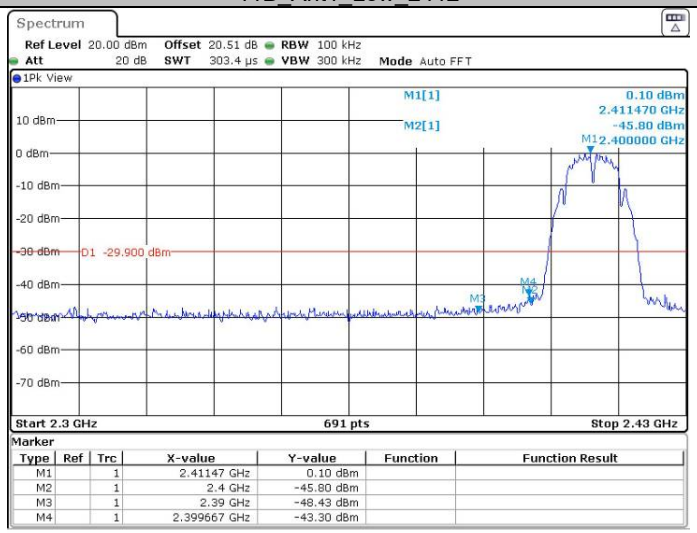
11N40SISO_Ant1_2452



Appendix E: Band edge measurements

Test Graphs

11B_Ant1_Low_2412

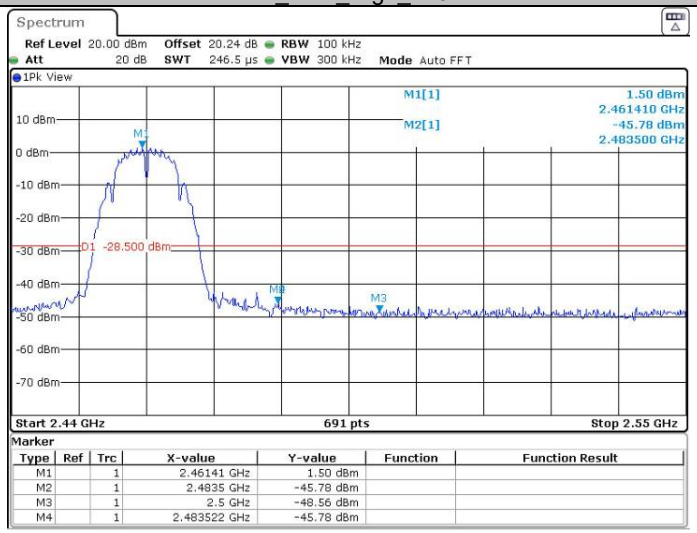


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41147 GHz	0.10 dBm		
M2		1	2.4 GHz	-45.80 dBm		
M3		1	2.39 GHz	-48.43 dBm		
M4		1	2.399667 GHz	-43.30 dBm		

Date: 21.JUN.2023 16:10:13

11B_Ant1_High_2462

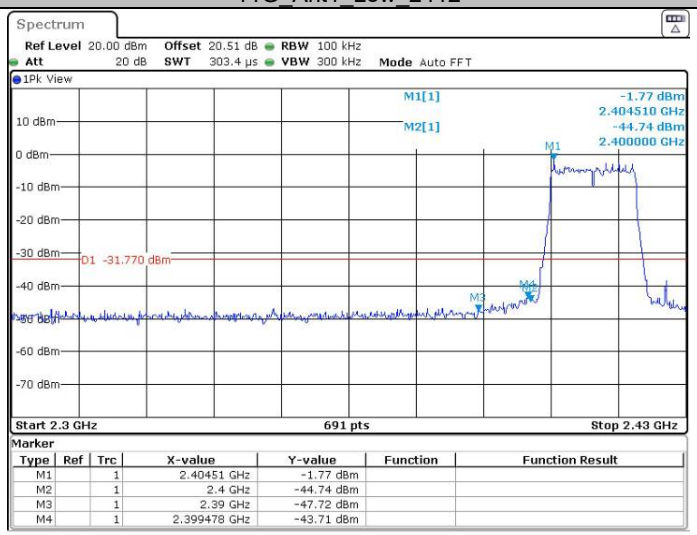


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46141 GHz	1.50 dBm		
M2		1	2.4835 GHz	-45.78 dBm		
M3		1	2.5 GHz	-48.56 dBm		
M4		1	2.483522 GHz	-45.78 dBm		

Date: 21.JUN.2023 16:17:01

11G_Ant1_Low_2412



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40451 GHz	-1.77 dBm		
M2		1	2.4 GHz	-44.74 dBm		
M3		1	2.39 GHz	-47.72 dBm		
M4		1	2.399478 GHz	-43.71 dBm		

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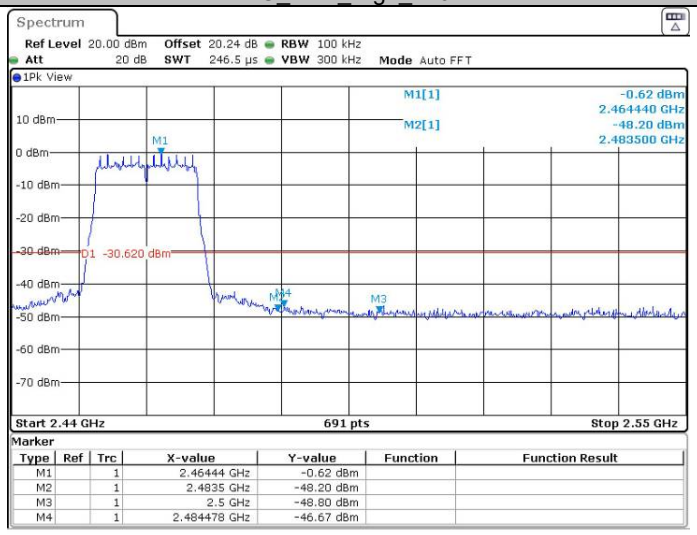
11G_Ant1_High_2462



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46444 GHz	-0.62 dBm		
M2		1	2.4835 GHz	-48.20 dBm		
M3		1	2.5 GHz	-48.80 dBm		
M4		1	2.484478 GHz	-46.67 dBm		

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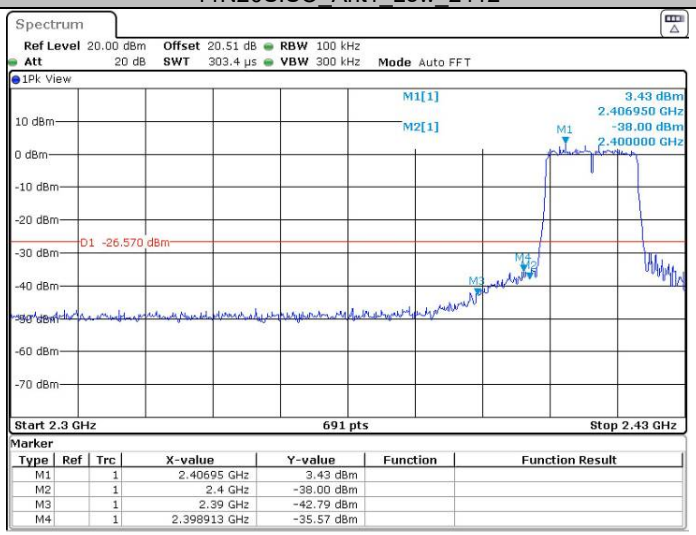
11N20SISO_Ant1_Low_2412



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40695 GHz	3.43 dBm		
M2		1	2.4 GHz	-38.00 dBm		
M3		1	2.39 GHz	-42.79 dBm		
M4		1	2.398913 GHz	-35.57 dBm		

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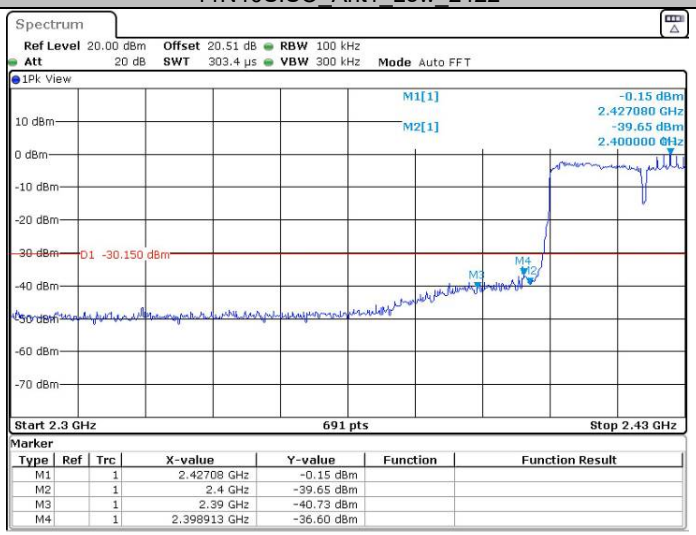
11N20SISO_Ant1_High_2462

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46698 GHz	4.39 dBm		
M2		1	2.4835 GHz	-44.21 dBm		
M3		1	2.5 GHz	-47.00 dBm		
M4		1	2.484159 GHz	-43.47 dBm		

Date: 21.JUN.2023 16:38:45

11N40SISO_Ant1_Low_2422



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.42708 GHz	-0.15 dBm		
M2		1	2.4 GHz	-39.65 dBm		
M3		1	2.39 GHz	-40.73 dBm		
M4		1	2.398913 GHz	-36.60 dBm		

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11N40SISO_Ant1_High_2452

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45568 GHz	-1.38 dBm		
M2		1	2.4835 GHz	-46.26 dBm		
M3		1	2.5 GHz	-46.37 dBm		
M4		1	2.488783 GHz	-42.48 dBm		

Date: 21.JUN.2023 16:46:45

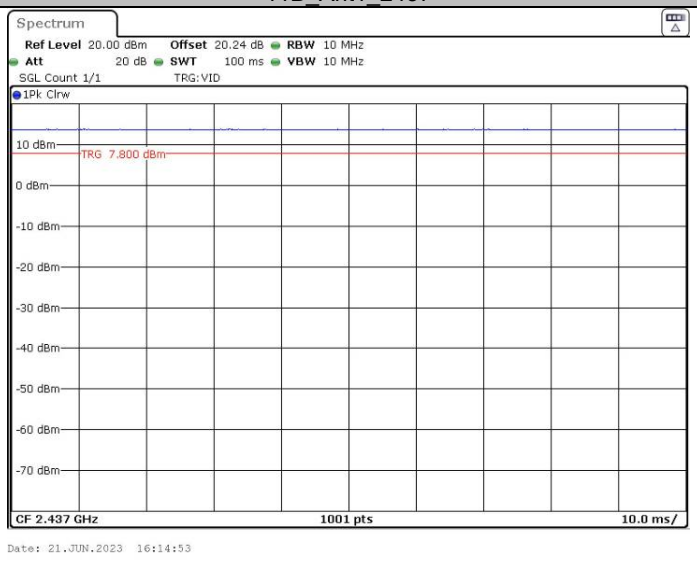
Appendix F: Duty Cycle

Test Result

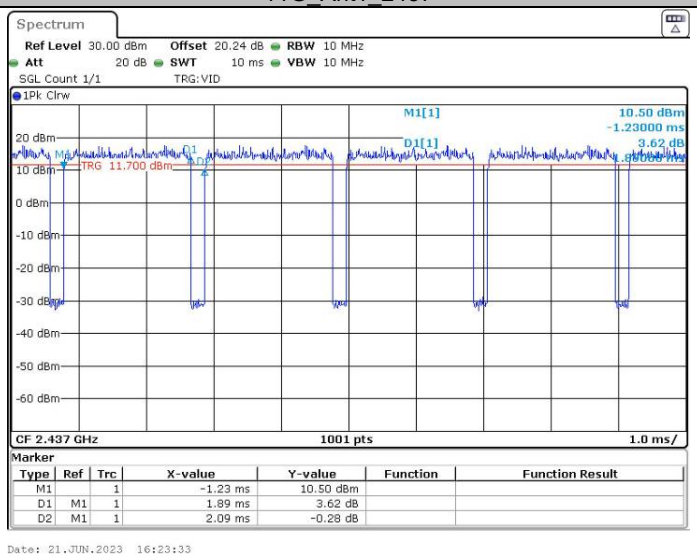
Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
11B	Ant1	2437	100.00	100.00	100.00	0.00	0.01
11G	Ant1	2437	1.89	2.09	90.43	0.44	0.48
11N20SISO	Ant1	2437	100.00	100.00	100.00	0.00	0.01
11N40SISO	Ant1	2437	100.00	100.00	100.00	0.00	0.01

Test Graphs

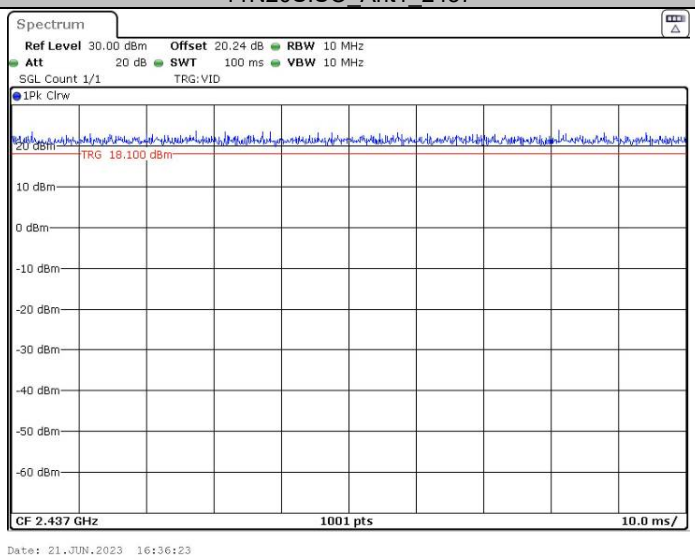
11B_Ant1_2437



11G_Ant1_2437



11N20SISO_Ant1_2437



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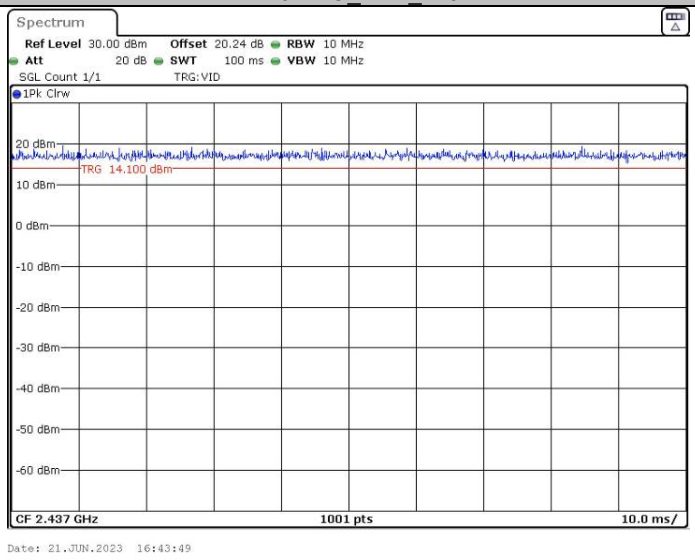

******* END OF REPORT *******