Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640
Fax: +86-755-26648637
Website: www.cqa-cert.com

Report Template Version: V05
Report Template Revision Date: 2021-11-03

TEST REPORT

Report No.:	CQASZ20231202220E-02
Applicant:	Shenzhen Rinocloud Technology Co., Ltd.
Address of Applicant:	Complex A201, Qianwan Road 1, Qianhai Cooperation Zone, Shenzhen, China
Equipment Under Test (EUT):	
Product:	WiFi Bluetooth module
Model No.:	XY3721-B3C, XY3721-B3C-IPEX
Test Model No.:	XY3721-B3C
Brand Name:	N/A
FCC ID:	2A9TO-XY3721-B3C
Standards:	47 CFR Part 15, Subpart C
Date of Receipt:	2023-12-05
Date of Test:	2023-12-05 to 2023-12-18
Date of Issue:	2024-01-23
Test Result :	**PASS***

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

Tested By: lewis zhou

(Lewis Zhou)

Reviewed By: Timo Lei

(Timo Lei)

Approved By:

(Jack Ai)

SHENZHEN HUAXIA TESTING TECHNOLOGY CO.,LTD. APPROVED

1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20231202220E-02	Rev.01	Initial report	2024-01-23

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15.203	N/A	PASS
AC Power Line Conducted Emission	47 CFR Part 15.207	ANSI C63.10-2013	PASS
Conducted Peak & Average Output Power	47 CFR Part 15.247	ANSI C63.10-2013	PASS
6dB Occupied Bandwidth	47 CFR Part 15.247	ANSI C63.10-2013	PASS
Power Spectral Density	47 CFR Part 15.247	ANSI C63.10-2013	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15.247	ANSI C63.10-2013	PASS
RF Conducted Spurious Emissions	47 CFR Part 15.247	ANSI C63.10-2013	PASS
Radiated Spurious Emissions	47 CFR Part 15.209	ANSI C63.10-2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15.205/15.209	ANSI C63.10-2013	PASS

Remark:

The tested sample(s) and the sample information are provided by the client.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

3 Contents

Page

1 VERSION **2**
2 TEST SUMMARY **3**
3 CONTENTS **4**
4 GENERAL INFORMATION **5**
4.1 CLIENT INFORMATION 5
4.2 GENERAL DESCRIPTION OF EUT 5
4.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD 5
4.4 TEST ENVIRONMENT AND MODE 7
4.5 DESCRIPTION OF SUPPORT UNITS 8
4.6 TEST LOCATION 8
4.7 TEST FACILITY 8
4.8 STATEMENT OF THE MEASUREMENT UNCERTAINTY 9
4.9 DEVIATION FROM STANDARDS 9
4.10 ABNORMALITIES FROM STANDARD CONDITIONS 9
4.11 OTHER INFORMATION REQUESTED BY THE CUSTOMER 9
4.12 EQUIPMENT LIST 10
5 TEST RESULTS AND MEASUREMENT DATA **11**
5.1 ANTENNA REQUIREMENT 11
5.2 CONDUCTED EMISSIONS 12
5.3 CONDUCTED PEAK & AVERAGE OUTPUT POWER 16
Test Result *17*
Note: *17*
When Duty cycle >98%, D.C.F is not required. *17*
Test Graphs *18*
5.4 6DB OCCUPIED BANDWIDTH 23
Test Result *24*
Test Graphs *25*
5.5 POWER SPECTRAL DENSITY 30
Test Result *31*
Test Graphs *32*
5.6 BAND-EDGE FOR RF CONDUCTED EMISSIONS 37
Test Result *38*
5.6.1 Test Graphs *39*
5.7 RF CONDUCTED SPURIOUS EMISSIONS 42
Test Result *43*
Test Graphs *44*
5.8 RADIATED SPURIOUS EMISSIONS 58
5.8.1 Radiated emission below 1GHz *61*
5.8.2 Transmitter emission above 1GHz *63*
5.9 RESTRICTED BANDS AROUND FUNDAMENTAL FREQUENCY 69
6 PHOTOGRAPHS - EUT TEST SETUP **74**
6.1 RADIATED SPURIOUS EMISSION 74
6.2 CONDUCTED EMISSION 75
7 PHOTOGRAPHS - EUT CONSTRUCTIONAL DETAILS **76**

4 General Information

4.1 Client Information

Applicant:	Shenzhen Rinocloud Technology Co., Ltd.
Address of Applicant:	Complex A201, Qianwan Road 1, Qianhai Cooperation Zone, Shenzhen, China
Manufacturer:	Shenzhen Rinocloud Technology Co., Ltd.
Address of Manufacturer:	Complex A201, Qianwan Road 1, Qianhai Cooperation Zone, Shenzhen, China
Factory:	Shenzhen Rinocloud Technology Co., Ltd.
Address of Factory:	Complex A201, Qianwan Road 1, Qianhai Cooperation Zone, Shenzhen, China

4.2 General Description of EUT

Product Name:	WiFi Bluetooth module
Model No.:	XY3721-B3C, XY3721-B3C-IPEX
Test Model No.:	XY3721-B3C
Trade Mark:	N/A
Software Version:	1.0.0
Hardware Version:	V1.0
Power Supply:	Power supply DC 2.7V~3.6V
EUT Supports Radios application:	BLE: 2402-2480MHz 2.4GHz: Wi-Fi: 802.11b/g/n(HT20): 2412MHz~2462MHz
Simultaneous Transmission	☐ Simultaneous TX is supported and evaluated in this report. ☒ Simultaneous TX is not supported.

4.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM, QPSK, BPSK)
Transfer Rate:	IEEE for 802.11b: 1Mbps/2Mbps/5.5Mbps/11Mbps IEEE for 802.11g : 6Mbps/9Mbps/12Mbps/18Mbps/24Mbps/36Mbps/48Mbps/54Mbps IEEE for 802.11n(HT20) : 6.5Mbps/13Mbps/19.5Mbps/26Mbps/39Mbps/52Mbps/58.5Mbps/65Mbps
Product Type:	☒ Mobile ☐ Portable
Test Software of EUT:	Wifi_Test_Tool_V1.7.4
Antenna Type:	PCB antenna
Antenna Gain:	2.54dBi

Operation Frequency each of channel(802.11b/g/n HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

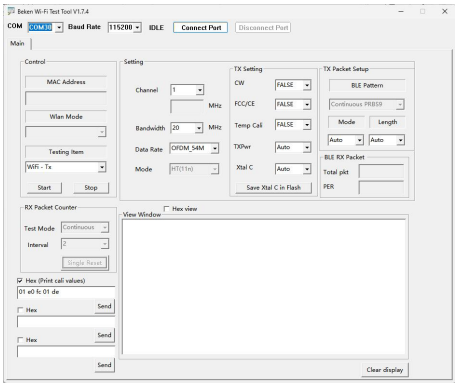
For 802.11b/g/n (HT20):

Channel	Frequency
The Lowest channel	2412MHz
The Middle channel	2437MHz
The Highest channel	2462MHz

Note:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.4 Test Environment and Mode

Operating Environment:	
Radiated Emissions:	
Temperature:	25.3 °C
Humidity:	55 % RH
Atmospheric Pressure:	1009 mbar
Conducted Emissions:	
Temperature:	25.6 °C
Humidity:	60 % RH
Atmospheric Pressure:	1009 mbar
Radio conducted item test (RF Conducted test room):	
Temperature:	25.5 °C
Humidity:	52 % RH
Atmospheric Pressure:	1009 mbar
Test mode:	
Transmitting mode:	EUT is set in RF test mode in all supported modulation types, bandwidth and data rate, etc.
Run Software:	
	

4.5 Description of Support Units

The EUT has been tested with associated equipment below.

1) Support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Computer	Lenovo	/	/	CQA

2) Cable

Cable No.	Description	Manufacturer	Cable Type/Length	Supplied by
/	/	/	/	/

4.6 Test Location

All tests were performed at:

Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua New District, Shenzhen, Guangdong, China

4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 4742.01)

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

• FCC Registration No.: 522263

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

4.8 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate.

The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities.

The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the **Shenzhen Huaxia Testing Technology Co., Ltd.** quality system acc. to DIN EN ISO/IEC 17025.

Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CQA laboratory is reported:

No.	Item	Uncertainty	Notes
1	Radiated Emission (Below 1GHz)	5.12dB	(1)
2	Radiated Emission (Above 1GHz)	4.60dB	(1)
3	Conducted Disturbance (0.15~30MHz)	3.34dB	(1)
4	Radio Frequency	3×10^{-8}	(1)
5	Duty cycle	0.6 %.	(1)
6	Occupied Bandwidth	1.1%	(1)
7	RF conducted power	0.86dB	(1)
8	RF power density	0.74	(1)
9	Conducted Spurious emissions	0.86dB	(1)
10	Temperature test	0.8℃	(1)
11	Humidity test	2.0%	(1)
12	Supply voltages	0.5 %.	(1)
13	Frequency Error	5.5 Hz	(1)

(1)This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.9 Deviation from Standards

None.

4.10 Abnormalities from Standard Conditions

None.

4.11 Other Information Requested by the Customer

None.

4.12 Equipment List

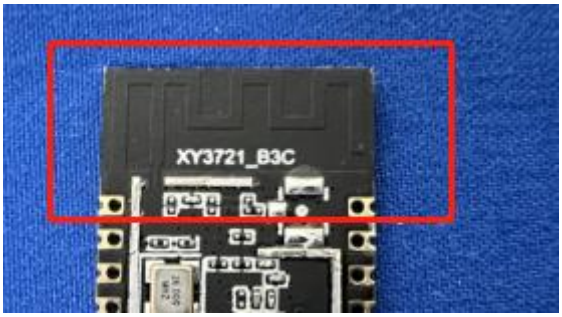
Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2023/09/08	2024/09/07
Spectrum analyzer	R&S	FSU26	CQA-038	2023/09/08	2024/09/07
Spectrum analyzer	R&S	FSU40	CQA-075	2023/09/08	2024/09/07
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	CQA-035	2023/09/08	2024/09/07
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2023/09/08	2024/09/07
Preamplifier	EMCI	EMC184055SE	CQA-089	2023/09/08	2024/09/07
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2021/09/16	2024/09/15
Bilog Antenna	R&S	HL562	CQA-011	2021/09/16	2024/09/15
Horn Antenna	R&S	HF906	CQA-012	2021/09/16	2024/09/15
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2021/09/16	2024/09/15
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2023/09/08	2024/09/07
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2023/09/08	2024/09/07
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2023/09/08	2024/09/07
Antenna Connector	CQA	RFC-01	CQA-080	2023/09/08	2024/09/07
Power Sensor	KEYSIGHT	U2021XA	CQA-30	2023/09/08	2024/09/07
N1918A Power Analysis Manager Power Panel	Agilent	N1918A	CQA-074	2023/09/08	2024/09/07
Power meter	R&S	NRVD	CQA-029	2023/09/08	2024/09/07
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2023/09/08	2024/09/07
EMI Test Receiver	R&S	ESR7	CQA-005	2023/09/08	2024/09/07
LISN	R&S	ENV216	CQA-003	2023/09/08	2024/09/07
Coaxial cable	CQA	N/A	CQA-C009	2023/09/08	2024/09/07
DC power	KEYSIGHT	E3631A	CQA-028	2023/09/08	2024/09/07

Test software:

	Manufacturer	Software brand
Radiated Emissions test software	Tonscend	JS1120-3
Conducted Emissions test software	Audix	e3
RF Conducted test software	Audix	e3

5 Test results and Measurement Data

5.1 Antenna Requirement

Standard requirement:	47 CFR Part 15C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
EUT Antenna:	
The antenna is PCB antenna. The connection/connection type between the antenna to the EUT's antenna port is: permanently attachment. This is either permanently attachment or a unique coupling that satisfies the requirement.	

5.2 Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.207
Test Method:	ANSI C63.10: 2013
Test Frequency Range:	150kHz to 30MHz

Limit:

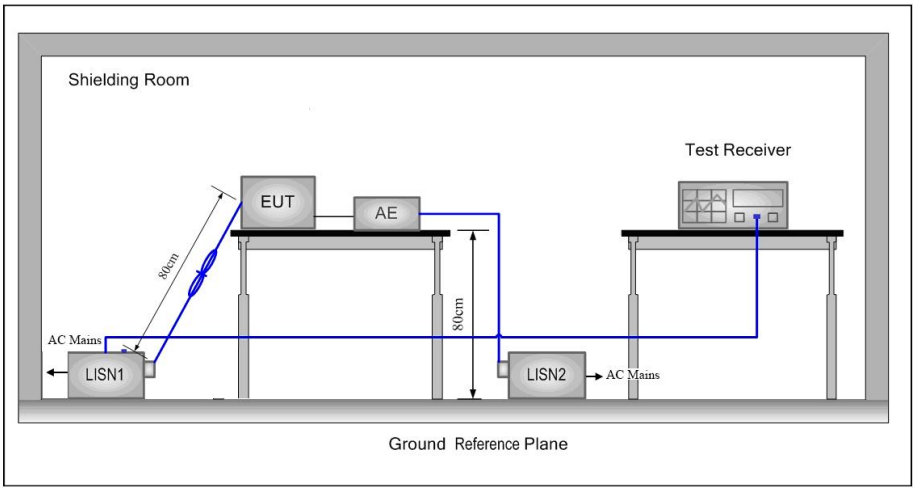
Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test Procedure:

1) The mains terminal disturbance voltage test was conducted in a shielded room.
2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.

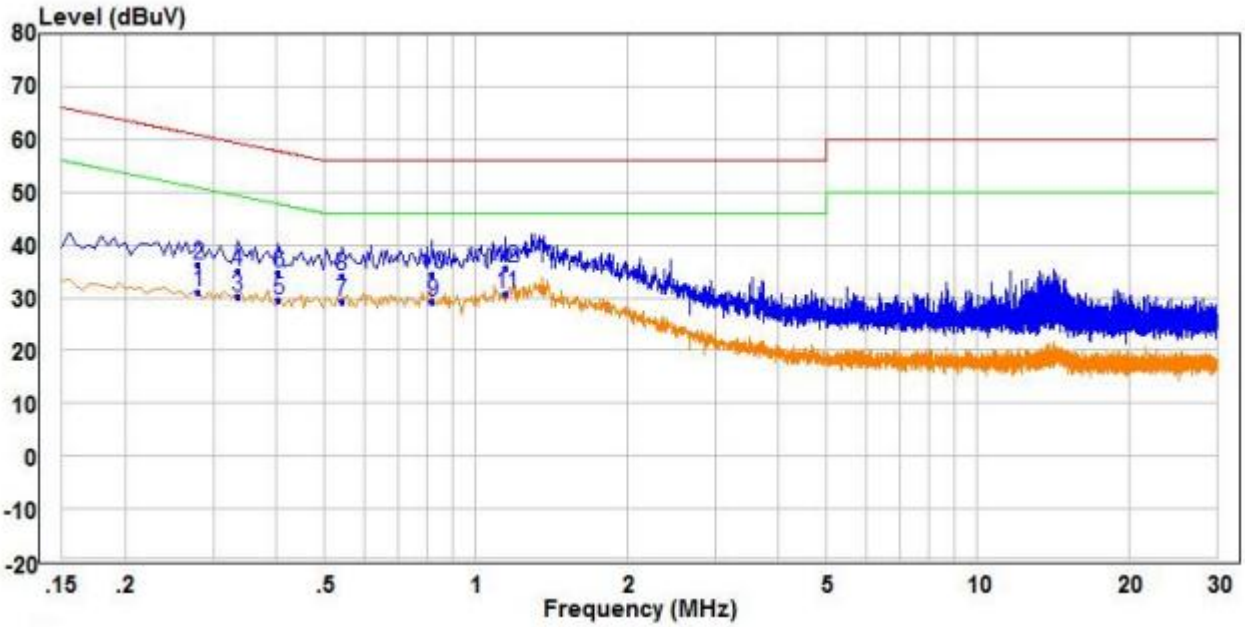
Test Setup:



Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel.
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate of 802.11b at middle channel is the worst case. Only the worst case is recorded in the report.
Test Voltage:	AC120V/60Hz
Test Results:	Pass

Measurement Data

Live Line:



		Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.280	20.53	10.51	31.04	50.82	-19.78	Average	Line
2		0.280	25.83	10.51	36.34	60.82	-24.48	QP	Line
3		0.335	19.69	10.54	30.23	49.33	-19.10	Average	Line
4		0.335	24.61	10.54	35.15	59.33	-24.18	QP	Line
5		0.405	19.05	10.61	29.66	47.75	-18.09	Average	Line
6		0.405	24.10	10.61	34.71	57.75	-23.04	QP	Line
7		0.540	18.59	10.74	29.33	46.00	-16.67	Average	Line
8		0.540	23.51	10.74	34.25	56.00	-21.75	QP	Line
9		0.820	18.55	10.82	29.37	46.00	-16.63	Average	Line
10		0.820	23.66	10.82	34.48	56.00	-21.52	QP	Line
11	PP	1.150	19.62	11.09	30.71	46.00	-15.29	Average	Line
12	QP	1.150	24.62	11.09	35.71	56.00	-20.29	QP	Line

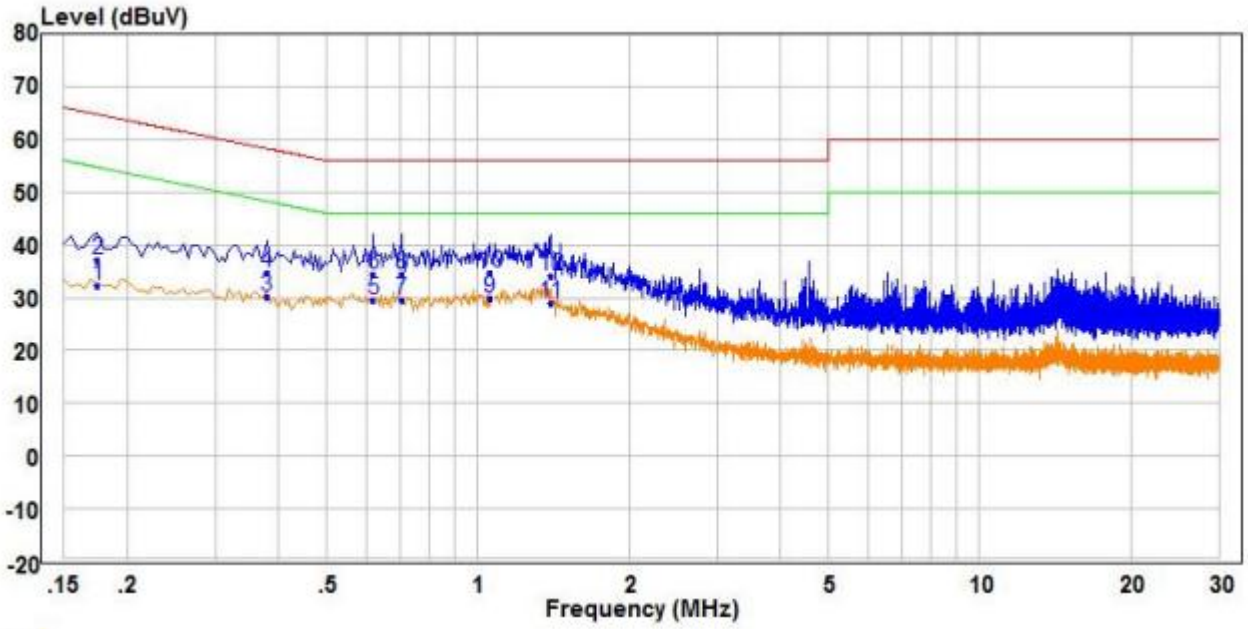
Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

3. If the Peak value under Average limit, the Average value is not recorded in the report.

Neutral Line:

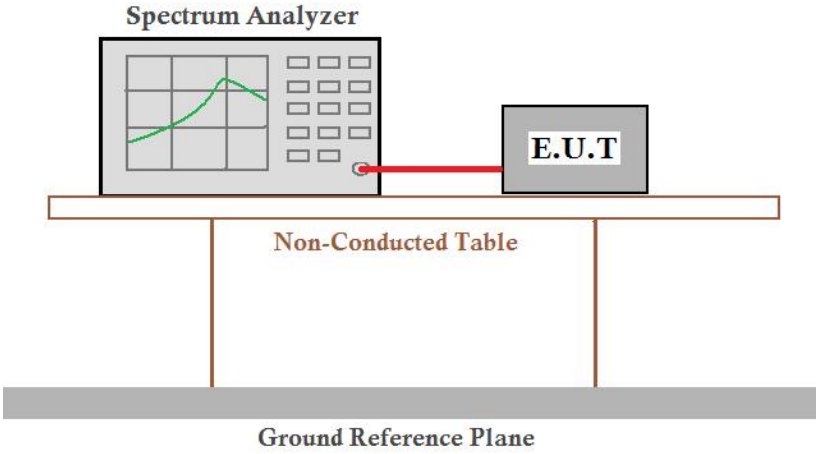


		Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.175	21.51	10.65	32.16	54.72	-22.56	Average	Neutral
2		0.175	26.50	10.65	37.15	64.72	-27.57	QP	Neutral
3		0.380	19.46	10.58	30.04	48.28	-18.24	Average	Neutral
4		0.380	24.24	10.58	34.82	58.28	-23.46	QP	Neutral
5		0.620	18.65	10.82	29.47	46.00	-16.53	Average	Neutral
6		0.620	23.68	10.82	34.50	56.00	-21.50	QP	Neutral
7		0.705	18.64	10.90	29.54	46.00	-16.46	Average	Neutral
8		0.705	23.55	10.90	34.45	56.00	-21.55	QP	Neutral
9	PP	1.055	19.30	10.70	30.00	46.00	-16.00	Average	Neutral
10	QP	1.055	24.02	10.70	34.72	56.00	-21.28	QP	Neutral
11		1.395	18.29	10.72	29.01	46.00	-16.99	Average	Neutral
12		1.395	23.49	10.72	34.21	56.00	-21.79	QP	Neutral

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

5.3 Conducted Peak & Average Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)
Test Method:	ANSI C63.10: 2013
Test Setup:	*Setup for Power meter measurement method*  *Setup for Spectrum analyser measurement method* 
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Only the worst case is recorded in the report.
Limit:	30dBm
Test Results:	Pass

Test Result

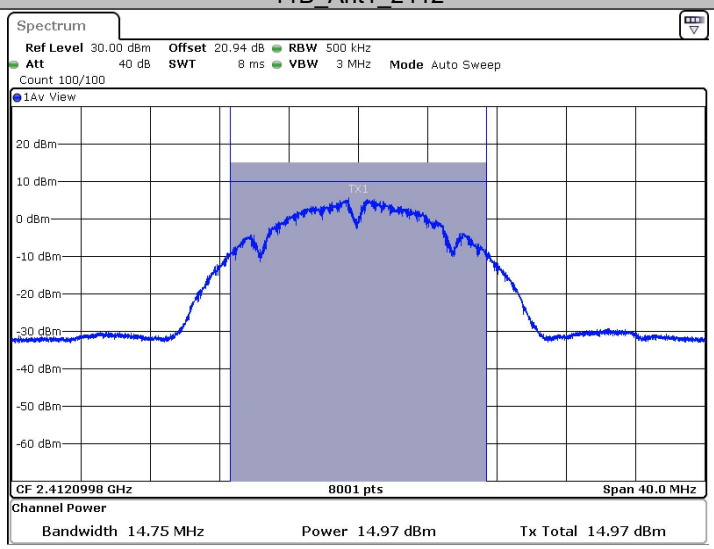
Test Mode	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	2412	14.97	≤30.00	PASS
	2437	16.42	≤30.00	PASS
	2462	17.19	≤30.00	PASS
11G	2412	13.13	≤30.00	PASS
	2437	14.95	≤30.00	PASS
	2462	16.89	≤30.00	PASS
11N20SISO	2412	12.56	≤30.00	PASS
	2437	14.18	≤30.00	PASS
	2462	15.42	≤30.00	PASS

Note:

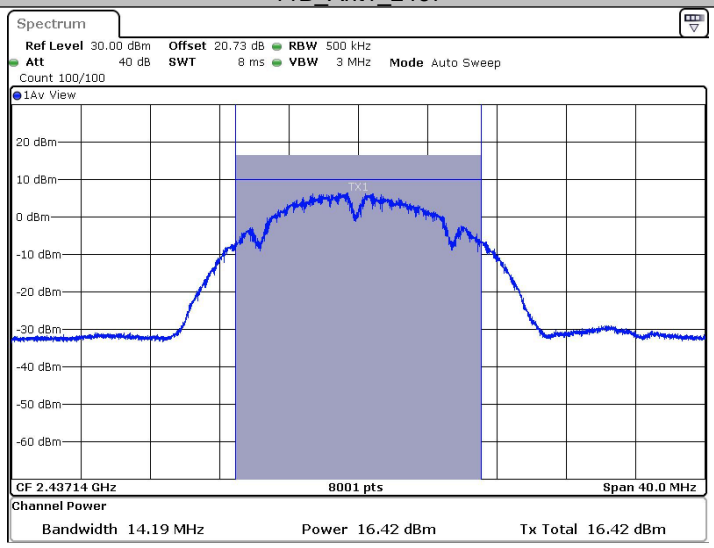
When Duty cycle >98%, D.C.F is not required.

Test Graphs

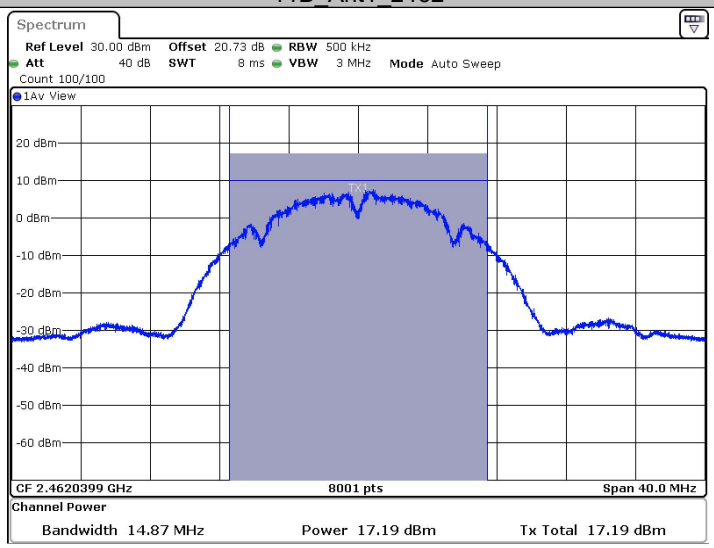
11B_Ant1_2412



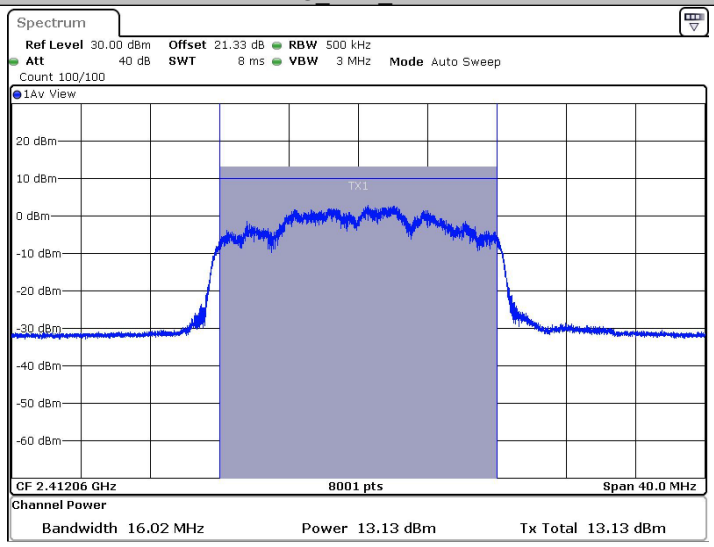
11B_Ant1_2437



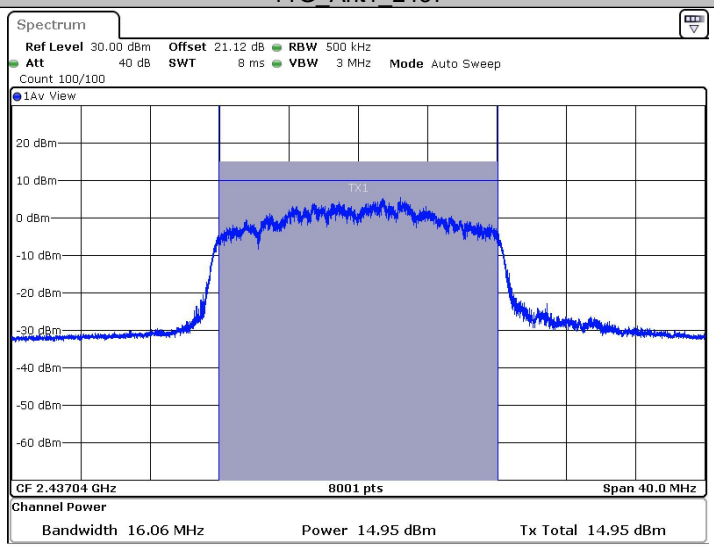
11B_Ant1_2462



11G_Ant1_2412

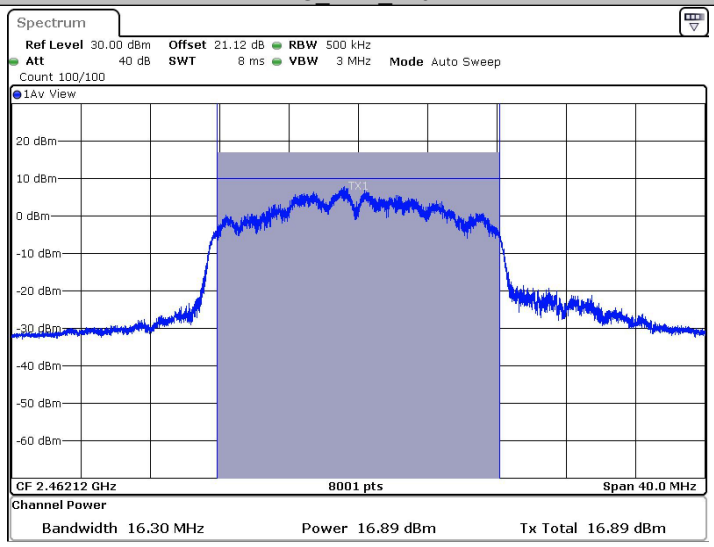


11G_Ant1_2437



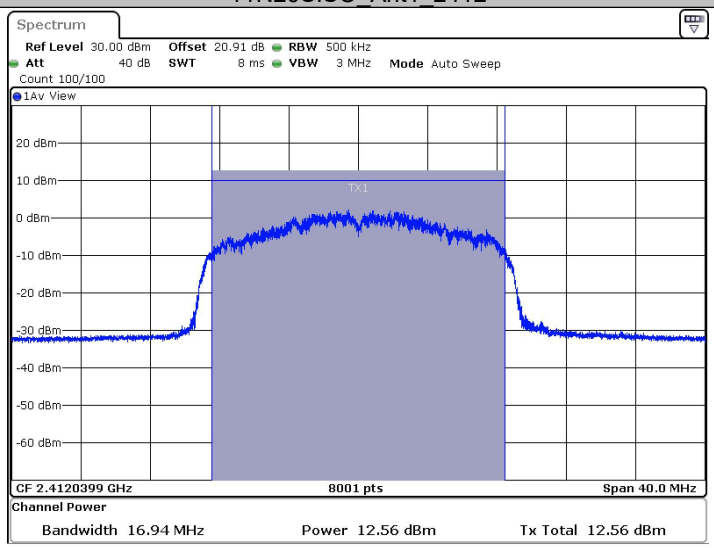
Date: 12.DEC.2023 13:16:40

11G_Ant1_2462

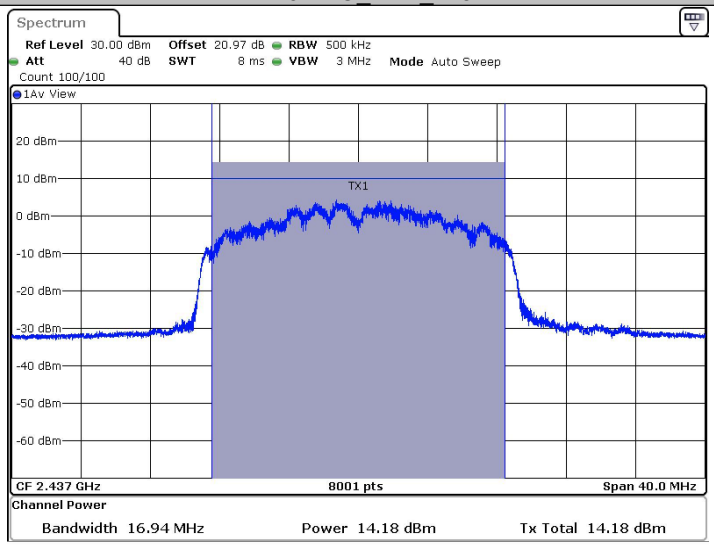


Date: 12.DEC.2023 13:21:31

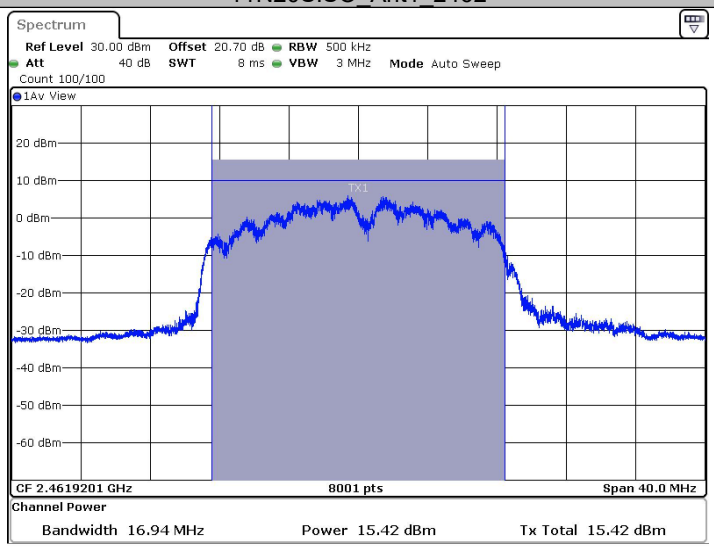
11N20SISO_Ant1_2412



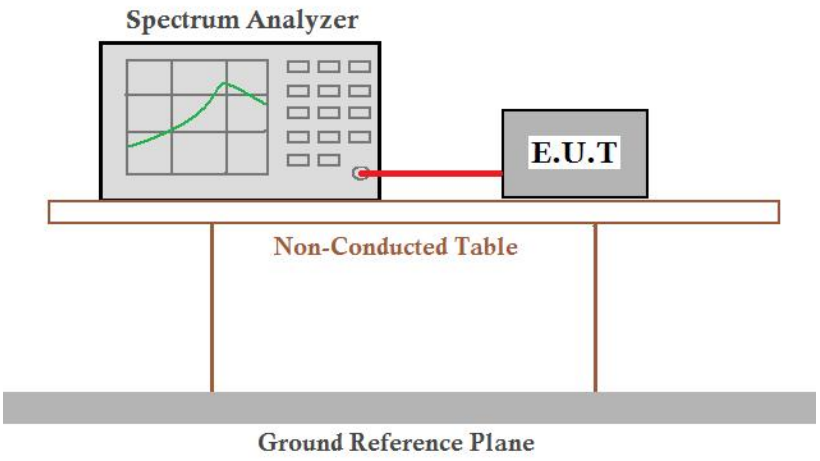
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



5.4 6dB Occupied Bandwidth

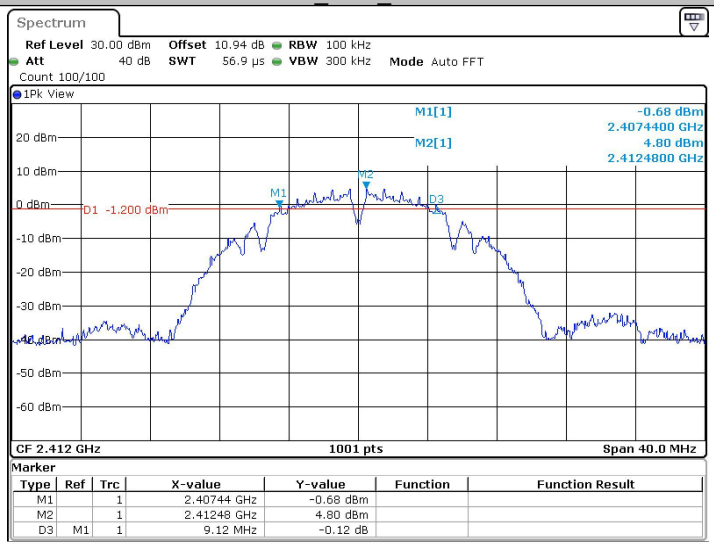
Test Requirement:	47 CFR Part 15C Section 15.247 (a)(2)
Test Method:	ANSI C63.10: 2013
Test Setup:	 Offset=cable loss+ attenuation factor
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Only the worst case is recorded in the report.
Limit:	≥ 500 kHz
Test Results:	Pass

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.12	0.5	PASS
		2437	9.08	0.5	PASS
		2462	9.12	0.5	PASS
11G	Ant1	2412	12.56	0.5	PASS
		2437	13.80	0.5	PASS
		2462	15.04	0.5	PASS
11N20SISO	Ant1	2412	15.04	0.5	PASS
		2437	12.60	0.5	PASS
		2462	12.52	0.5	PASS

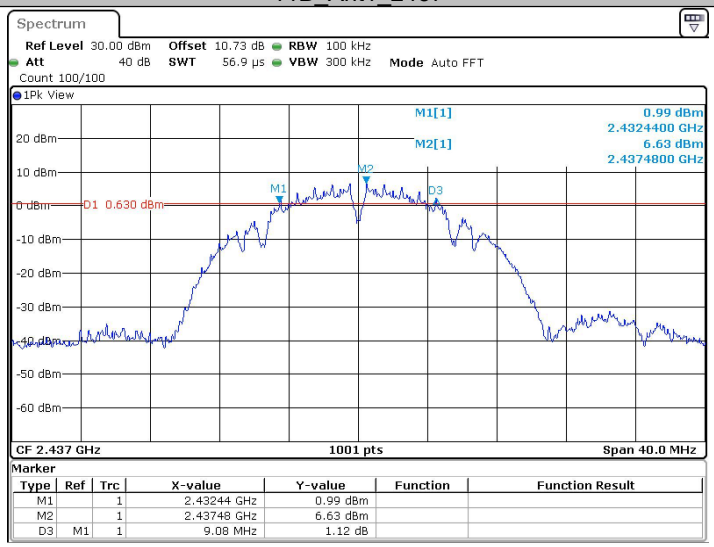
Test Graphs

11B_Ant1_2412



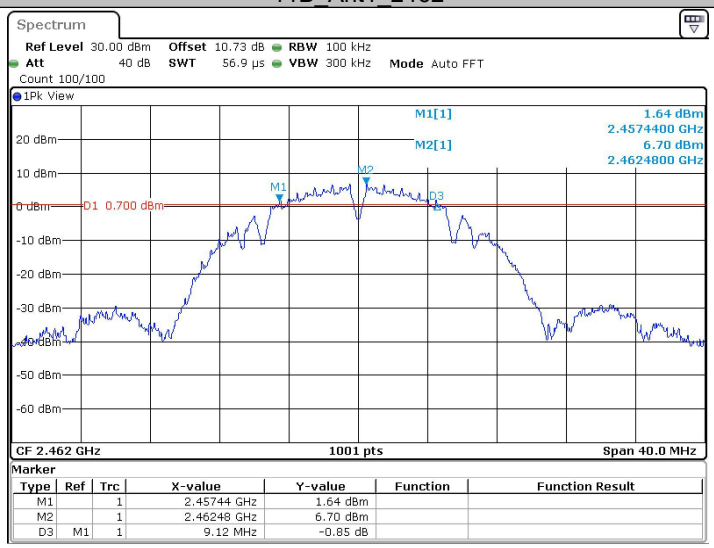
Date: 12.DEC.2023 13:01:50

11B_Ant1_2437



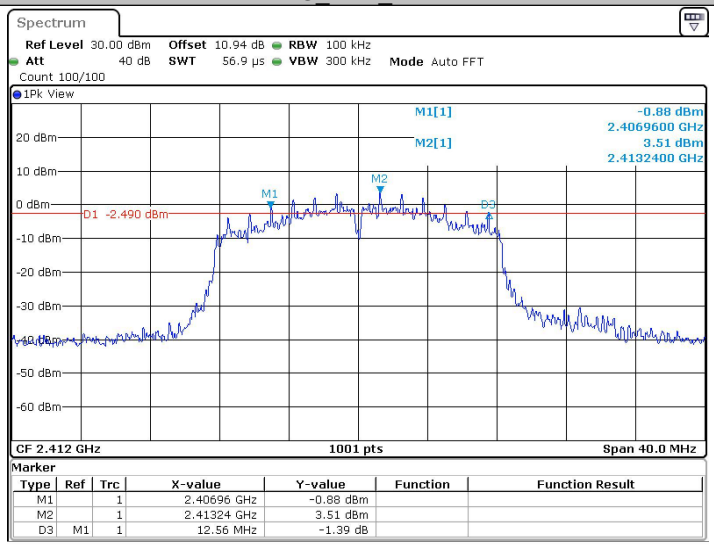
Date: 12.DEC.2023 13:06:17

11B_Ant1_2462



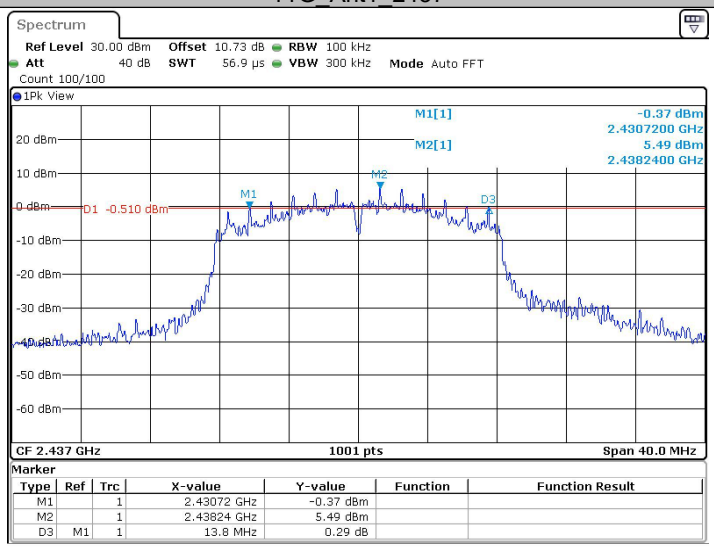
Date: 12.DEC.2023 13:12:04

11G_Ant1_2412



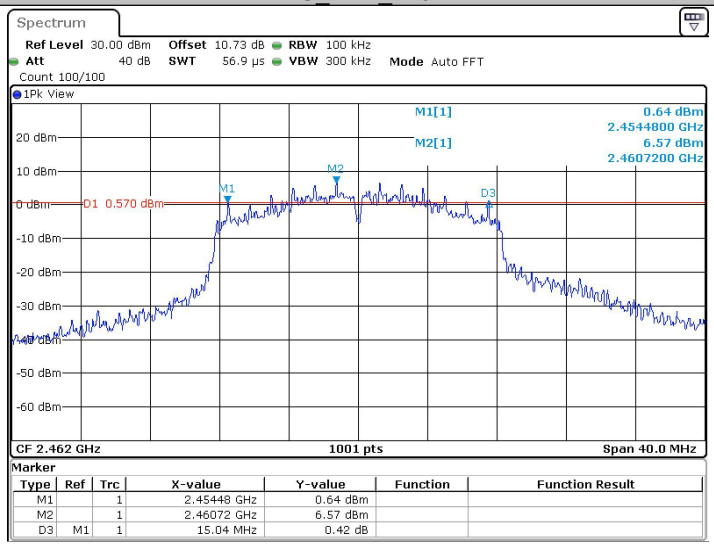
Date: 12.DEC.2023 13:13:54

11G_Ant1_2437



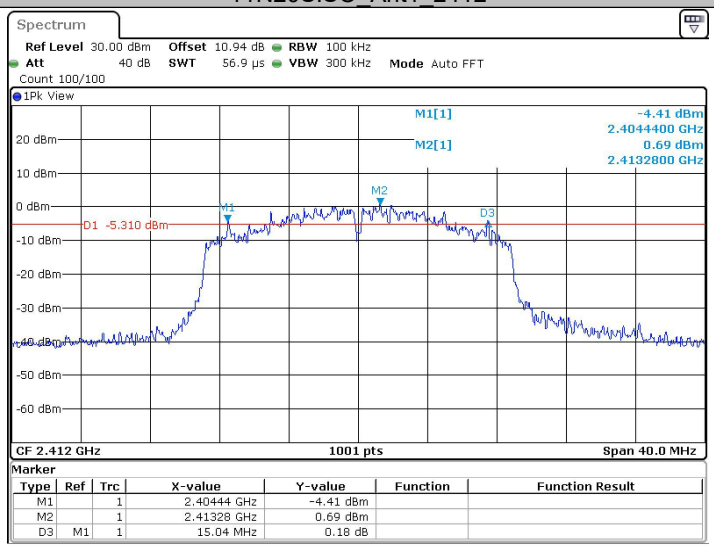
Date: 12.DEC.2023 13:16:26

11G_Ant1_2462



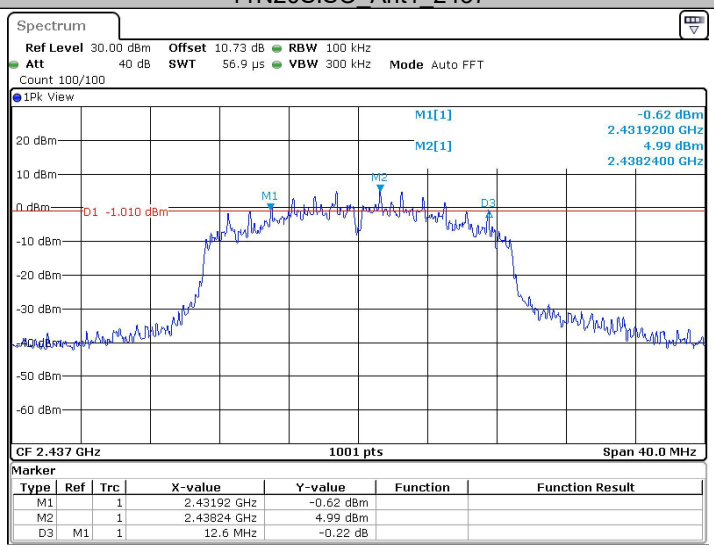
Date: 12.DEC.2023 13:21:18

11N20SISO_Ant1_2412



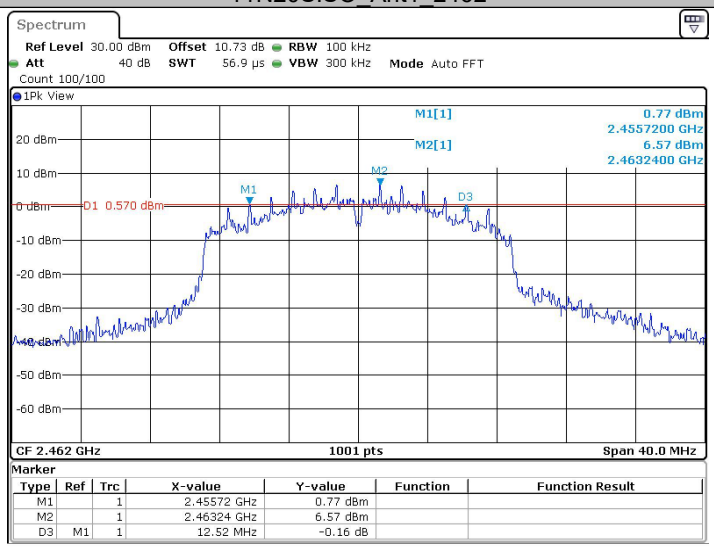
Date: 12.DEC.2023 13:23:13

11N20SISO_Ant1_2437

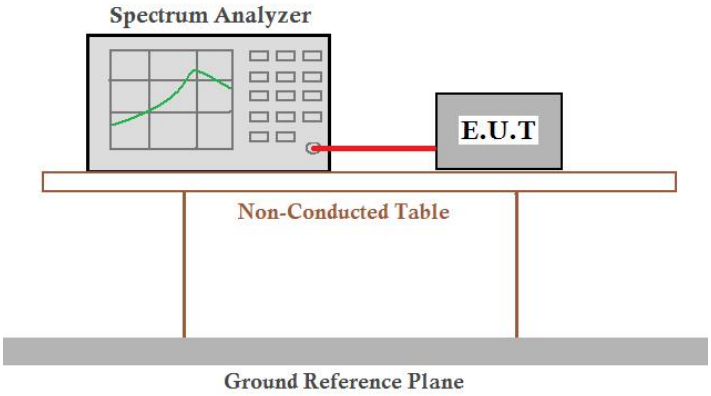


Date: 12.DEC.2023 13:25:04

11N20SISO_Ant1_2462



5.5 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)
Test Method:	ANSI C63.10: 2013
Test Setup:	 Offset=cable loss+ attenuation factor
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Only the worst case is recorded in the report.
Limit:	≤8.00dBm/3kHz
Test Results:	Pass

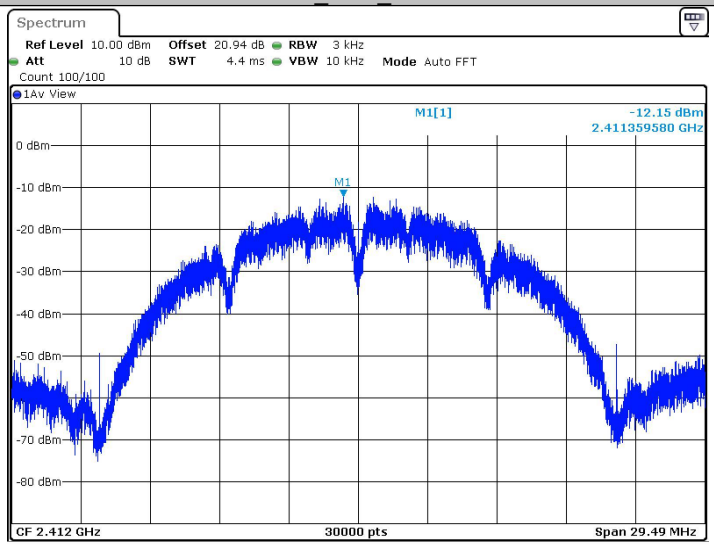
Test Result

TestMode	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	2412	-12.15	≤8.00	PASS
	2437	-9.47	≤8.00	PASS
	2462	-9.4	≤8.00	PASS
11G	2412	-11.01	≤8.00	PASS
	2437	-10.98	≤8.00	PASS
	2462	-7.4	≤8.00	PASS
11N20SISO	2412	-13.31	≤8.00	PASS
	2437	-12.29	≤8.00	PASS
	2462	-8.22	≤8.00	PASS

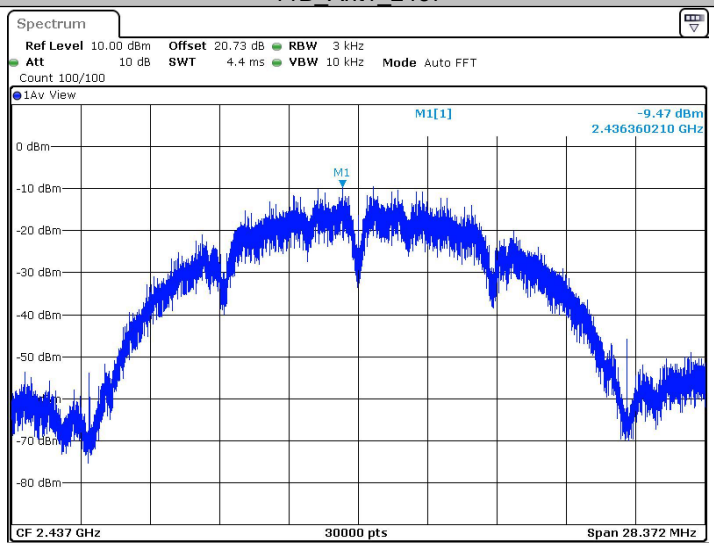
Note:
When Duty cycle >98%, D.C.F is not required.

Test Graphs

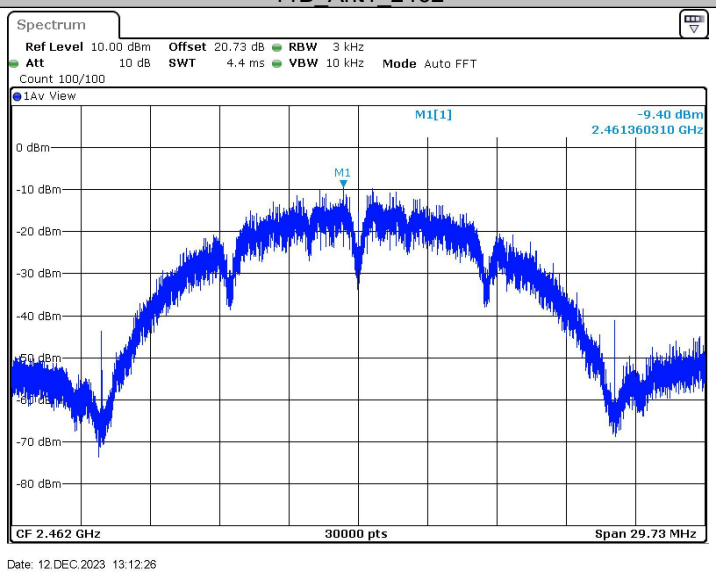
11B_Ant1_2412



11B_Ant1_2437

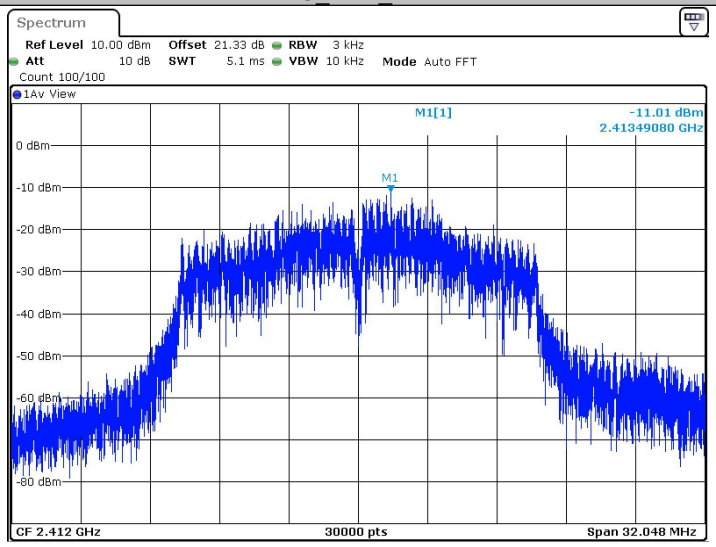


11B_Ant1_2462



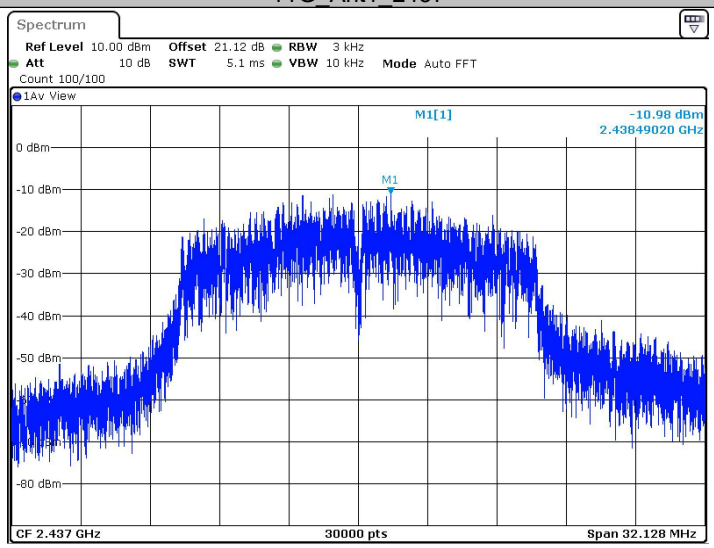
Date: 12.DEC.2023 13:12:26

11G_Ant1_2412



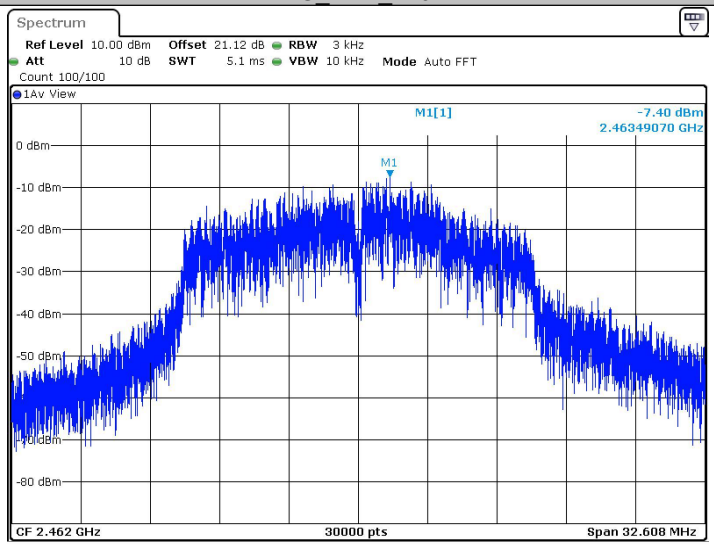
Date: 12.DEC.2023 13:14:16

11G_Ant1_2437



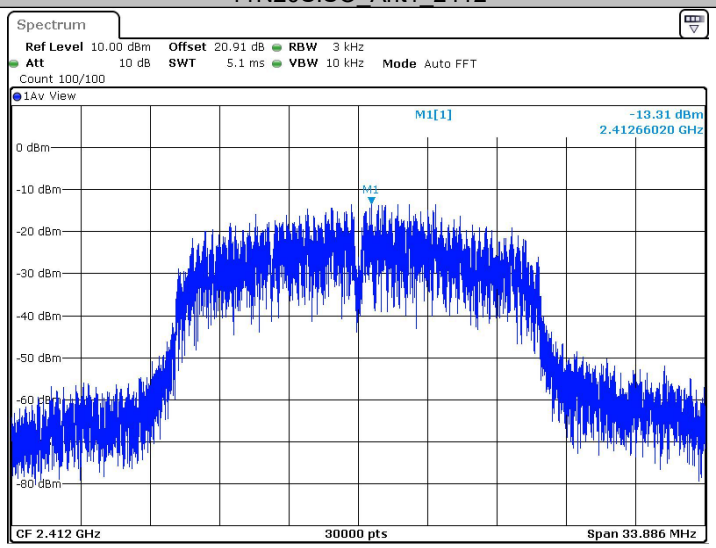
Date: 12.DEC.2023 13:16:48

11G_Ant1_2462



Date: 12.DEC.2023 13:21:40

11N20SISO_Ant1_2412



11N20SISO_Ant1_2437