FCC Test Report

Product Name	AX3200 SMART ROUTER
Model No	R32
FCC ID.	KA2R32A1

Applicant	D-Link Corporation
Address	14420 Myford Road Suite 100 Irvine California 92606 United States

Date of Receipt	Nov. 15, 2021
Issue Date	Mar. 30, 2022
Report No.	21B0548R-RFUSWL2V01-A
Report Version	V1.0

Testing Laboratory
3023

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
This report must not be used to claim product endorsement by TAF or any agency of the government.
The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report

Issue Date: Mar. 30, 2022
Report No.: 21B0548R-RFUSWL2V01-A

Product Name	AX3200 SMART ROUTER
Applicant	D-Link Corporation
Address	14420 Myford Road Suite 100 Irvine California 92606 United States
Manufacturer	D-Link Corporation
Model No.	R32
FCC ID.	KA2R32A1
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	D-Link
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By : April Chen

(Senior Project Specialist / April Chen)

Tested By : Ivan Chuang

(Senior Engineer / Ivan Chuang)

Approved By : Jack Hsu

(Senior Engineer / Jack Hsu)

TABLE OF CONTENTS

	Description	Page
1.	**GENERAL INFORMATION**	**6**
1.1.	EUT Description	6
1.2.	Tested System Details	8
1.3.	Configuration of Tested System	8
1.4.	EUT Exercise Software	8
1.5.	Test Facility	9
1.6.	List of Test Item and Equipment	10
1.7.	Uncertainty	11
2.	**Conducted Emission**	**12**
2.1.	Test Setup	12
2.2.	Limits	12
2.3.	Test Procedure	12
2.4.	Test Result of Conducted Emission	13
3.	**Peak Power Output**	**14**
3.1.	Test Setup	14
3.2.	Limits	14
3.3.	Test Procedure	14
3.4.	Test Result of Peak Power Output	15
4.	**Radiated Emission**	**26**
4.1.	Test Setup	26
4.2.	Limits	27
4.3.	Test Procedure	28
4.4.	Test Result of Radiated Emission	30
5.	**RF antenna conducted test**	**37**
5.1.	Test Setup	37
5.2.	Limits	37
5.3.	Test Procedure	37
5.4.	Test Result of RF antenna conducted test	38
6.	**Band Edge**	**42**
6.1.	Test Setup	42
6.2.	Limits	43
6.3.	Test Procedure	43
6.4.	Test Result of Band Edge	45
7.	**6dB Bandwidth**	**66**
7.1.	Test Setup	66
7.2.	Limits	66
7.3.	Test Procedure	66
7.4.	Test Result of 6dB Bandwidth	67
8.	**Power Density**	**74**
8.1.	Test Setup	74

8.2. Limits 74
8.3. Test Procedure 74
8.4. Test Result of Power Density 75

9. Duty Cycle 79

9.1. Test Setup 79
9.2. Test Procedure 79
9.3. Test Result of Duty Cycle....80

10. EMI Reduction Method During Compliance Testing 83

Appendix 1: EUT Test Photographs
Appendix 2: Product Photos-Please refer to the file: 21B0548R-Product Photos

Revision History

Report No.	Version	Description	Issued Date
21B0548R-RFUSWL2V01-A	V1.0	Initial issue of report.	Mar. 30, 2022

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	AX3200 SMART ROUTER
Trade Name	D-Link
Model No.	R32
FCC ID.	KA2R32A1
Frequency Range	802.11b/g/n-20: 2412-2462MHz, 802.11n-40: 2422-2452MHz
Number of Channels	802.11b/g/n-20MHz: 11CH, n-40MHz: 7CH
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 800Mbps
Channel separation	802.11b/g/n: 5 MHz
Type of Modulation	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Antenna Type	Dipole antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
LAN Cable	Non-shielded, 1.0m
Power Adapter#1	MFR: AMIGO, M/N: AMS200-1202000FU Input: AC 100-240V~50-60Hz 0.8A Output: 12V⎓2A Cable Out: Non-shielded, 1.2m
Power Adapter#2	MFR: AMIGO, M/N: AMS200-1202000F Input: AC 100-240V~50-60Hz 0.8A Output: 12V⎓2A Cable Out: Non-shielded, 1.2m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain	Directional Gain
1	LYNwave	AOX21X-221051-00	Dipole antenna	5.1dBi for 2.4 GHz	11.12dBi for 2.4 GHz
2	LYNwave	AOX21X-221051-00	Dipole antenna	5.1dBi for 2.4 GHz	
3	LYNwave	AOX21X-221051-00	Dipole antenna	5.1dBi for 2.4 GHz	
4	LYNwave	AOX21X-221051-00	Dipole antenna	5.1dBi for 2.4 GHz	

Note: The antenna of EUT is conforming to FCC 15.203.

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

802.11n-40MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 03:	2422 MHz	Channel 04:	2427 MHz	Channel 05:	2432 MHz	Channel 06:	2437 MHz
Channel 07:	2442 MHz	Channel 08:	2447 MHz	Channel 09:	2452 MHz		

Note:

1. The EUT is a AX3200 SMART ROUTER with a built-in WLAN(802.11a/b/g/n/ac/ax) transceiver, this report for 2.4GHz WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
4. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.
5. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n-20MBW MCS0 28.9Mbps)
	Mode 4: Transmit (802.11n-40MBW MCS0 60Mbps)

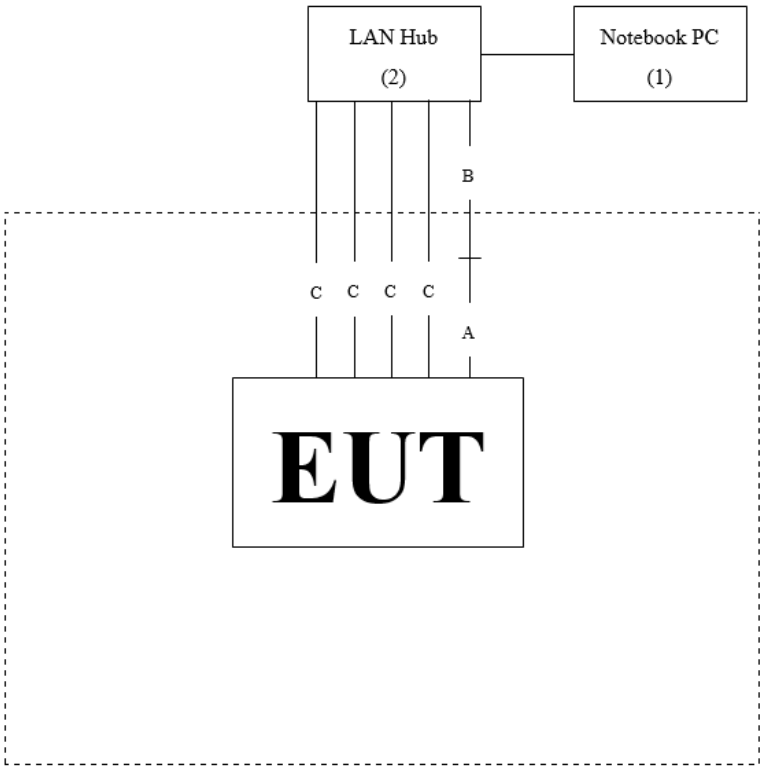
1.2. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1.	Notebook PC	DELL	Latitude E5440	FS9TK32	N/A
2.	LAN Hub	TP-LINK	TL-SG108	2161597000480	Non-Shielded, 1.5m

Signal Cable Type		Signal cable Description
A	LAN Cable	Non-shielded, 1.0m
B	LAN Cable	Non-shielded, 2.0m
C	LAN Cable	Non-shielded, 3.0m

1.3. Configuration of Tested System



1.4. EUT Exercise Software

1. Setup the EUT as shown in Section 1.3.
2. Execute software “QA v0.0.2.33” on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous transmit.
5. Verify that the EUT works properly.

1.5. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	22.3 °C
	Humidity (%RH)	10~90 %	59.9 %
Radiated Emission	Temperature (°C)	10~40 °C	25.1 °C
	Humidity (%RH)	10~90 %	66.7 %
Conductive	Temperature (°C)	10~40 °C	22 °C
	Humidity (%RH)	10~90 %	55 %

USA : FCC Registration Number: TW0033
Canada : IC Registration Number: 26930

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan
Performed Location : No. 26, Huaya 1st Rd., Guishan Dist.,Taoyuan City 333411, Taiwan, R.O.C.
Phone number : +886-3-275-7255
Fax number : +866-3-327-8031
Email address : info.tw@dekra.com
Website : http://www.dekra.com.tw

1.6. List of Test Item and Equipment

For Conduction measurements /SH1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	101601	2021.06.19	2022.06.18
X	Two-Line V-Network	R&S	ENV216	101306	2021.04.08	2022.04.07
X	Two-Line V-Network	R&S	ENV216	101307	2021.05.04	2022.05.03
X	Coaxial Cable	SUHNER	RG400_BNC	RF001	2021.05.24	2022.05.23

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : AUDIX e3 V9

For Conducted measurements /SH2

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV40	101149	2021.02.04	2022.02.03
X	Peak Power Analyzer	KEYSIGHT	8900B	MY51000539	2021.06.07	2022.06.06
X	Power Sensor	KEYSIGHT	N1923A	MY59240002	2021.05.17	2022.05.16
X	Power Sensor	KEYSIGHT	N1923A	MY59240003	2021.05.17	2022.05.16

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : DEKRA Conduction Test System V9.0.5

For Radiated measurements /966-3

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due. Date
X	Loop Antenna	AMETEK	HLA6121	56736	2021.04.14	2022.04.13
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-675	2021.08.11	2022.08.10
X	Horn Antenna	ETS-Lindgren	3117	00227700	2021.10.12	2022.10.11
X	Horn Antenna	Com-Power	AH-840	101100	2021.10.04	2022.10.03
X	Pre-Amplifier	EMCI	EMC001330	980254	2021.01.20	2022.01.19
X	Pre-Amplifier	SGH	PRAMP118	20200202	2021.03.25	2022.03.24
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2021.07.07	2022.07.06
	Pre-Amplifier	EMCI	EMC184045SE	980369	2021.04.27	2022.04.26
	Coaxial Cable	EMCI	EMC102-KM-KM-600	1160314		
	Coaxial Cable	EMCI	EMC102-KM-KM-7000	170242		
X	Filter	MICRO TRONICS	BRM50702	G251	2021.09.16	2022.09.15
	Filter	MICRO TRONICS	BRM50716	G188	2021.09.16	2022.09.15
X	EMI Test Receiver	R&S	ESR	102793	2021.12.15	2022.12.14
X	Spectrum Analyzer	R&S	FSV3044	101113	2021.02.03	2022.02.02
X	Coaxial Cable	SGH	HA800	GD20110222-3	2021.03.05	2022.03.04
	Coaxial Cable	SGH	SGH18	20110223-1		
	Coaxial Cable	SGH	SGH18	2021001-1		
	Coaxial Cable	SGH	SGH18	2021001-18		

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : AUDIX e3 V9

1.7. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.

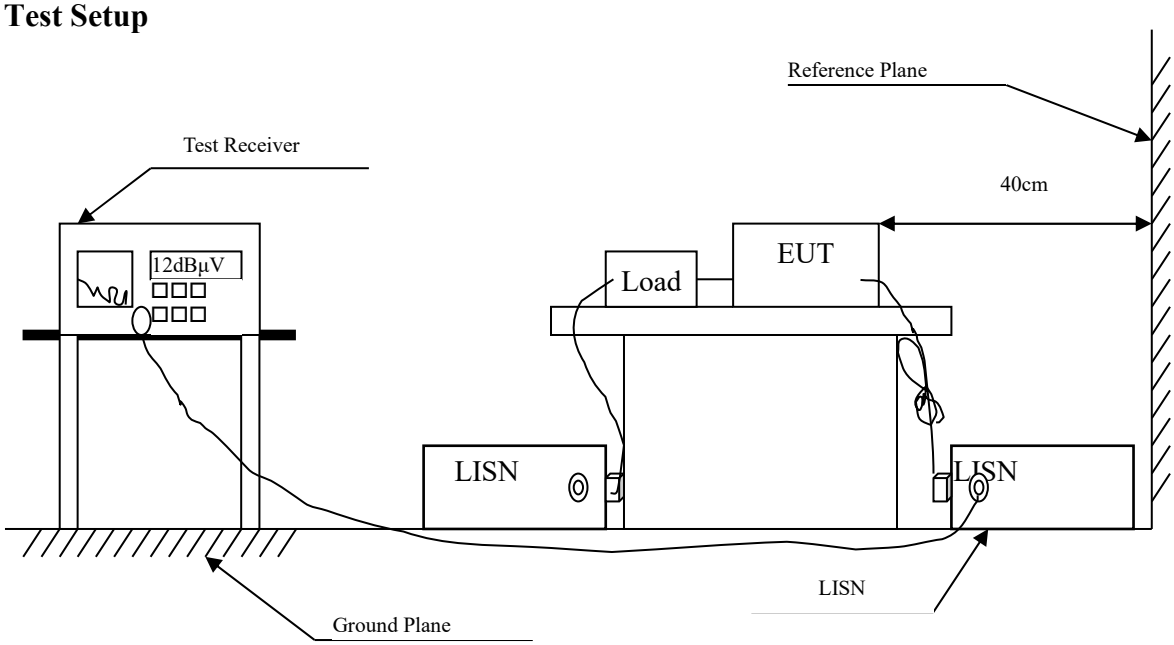
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	**Uncertainty**	
Conducted Emission	±3.42 dB	
Peak Power Output	±0.91 dB	
Radiated Emission	Under 1GHz ±4.06 dB	Above 1GHz ±3.73 dB
RF Antenna Conducted Test	±2.53 dB	
Band Edge	Under 1GHz ±4.06 dB	Above 1GHz ±3.73 dB
6dB Bandwidth	±682.83 Hz	
Power Density	±2.53 dB	
Duty Cycle	±2.31 ms	

2. Conducted Emission

2.1. Test Setup



2.2. Limits

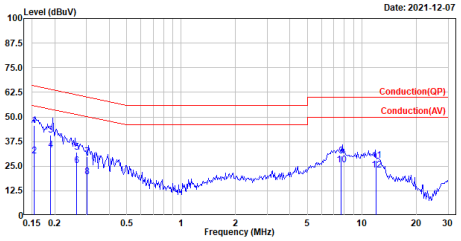
FCC Part 15 Subpart C Paragraph 15.207 (dBµV) Limit		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Test Result of Conducted Emission

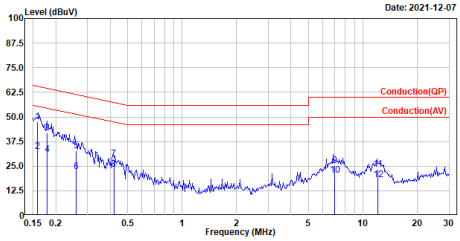
Site :SH1
Condition :Line
Mode :n40_2437MHz_TX
test by :Gerry



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	0.154	45.77	65.79	-20.02	36.07	9.70	QP
2	0.154	30.22	55.79	-25.57	20.52	9.70	Average
3	0.190	40.71	64.02	-23.31	31.02	9.69	QP
4	0.190	33.31	54.02	-20.71	23.62	9.69	Average
5	0.264	32.24	61.29	-29.05	22.55	9.69	QP
6	0.264	25.28	51.29	-26.01	15.59	9.69	Average
7	0.303	29.85	60.15	-30.30	20.16	9.69	QP
8	0.303	19.52	50.15	-30.63	9.83	9.69	Average
9	7.693	30.37	60.00	-29.63	19.53	10.84	QP
10	7.693	25.53	50.00	-24.47	14.69	10.84	Average
11	12.028	28.02	60.00	-31.98	17.19	10.83	QP
12	12.028	23.05	50.00	-26.95	12.22	10.83	Average

Note:
1. Level = Read Level + Factor
2. Factor = LISN insertion loss + Cable loss
3. Over Limit = Level - Limit Line

Site :SH1
Condition :Neutral
Mode :n40_2437MHz_TX
test by :Gerry



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	0.158	47.50	65.54	-18.04	37.79	9.71	QP
2	0.158	32.57	55.54	-22.97	22.86	9.71	Average
3	0.179	41.98	64.51	-22.53	32.27	9.71	QP
4	0.179	31.07	54.51	-23.44	21.36	9.71	Average
5	0.260	32.75	61.42	-28.67	23.04	9.71	QP
6	0.260	22.22	51.42	-29.20	12.51	9.71	Average
7	0.419	28.80	57.47	-28.67	19.09	9.71	QP
8	0.419	23.51	47.47	-23.96	13.80	9.71	Average
9	6.998	25.33	60.00	-34.67	14.47	10.86	QP
10	6.998	20.25	50.00	-29.75	9.39	10.86	Average
11	12.050	23.51	60.00	-36.49	12.65	10.86	QP
12	12.050	18.28	50.00	-31.72	7.42	10.86	Average

Note:
1. Level = Read Level + Factor
2. Factor = LISN insertion loss + Cable loss
3. Over Limit = Level - Limit Line

3. Peak Power Output

3.1. Test Setup

3.2. Limits

The maximum peak power shall be less 1 Watt.

3.3. Test Procedure

The EUT was tested according to C63.10:2013 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using C63.10:2013 Section 11.9.1.3 PKPM1 Peak power meter method. The maximum average conducted output power using C63.10:2013 Section 11.9.2.3 Measurement using a power meter (PM). (Measurement using a gated RF average-reading power meter).

3.4. Test Result of Peak Power Output

Product : AX3200 SMART ROUTER
Test Item : Peak Power Output Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2022/01/04

Chain A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	21.19	--	--	--	<30dBm	Pass
02	2417	27.91	--	--	--	<30dBm	Pass
06	2437	27.71	27.64	27.54	27.49	<30dBm	Pass
09	2452	27.88	--	--	--	<30dBm	Pass
10	2457	24.51	--	--	--	<30dBm	Pass
11	2462	23.8	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : AX3200 SMART ROUTER
Test Item : Peak Power Output Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -CDD
Test Date : 2022/01/04

Chain A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	17.1	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	23.58	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	23.96	23.88	23.85	23.79	23.72	23.62	23.52	23.47	<30dBm	Pass
10	2457	24.48	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	21.14	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	16.09	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	23.15	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	23.23	23.16	23.06	23.02	22.92	22.87	22.8	22.72	<30dBm	Pass
10	2457	23.12	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	20.16	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	16.07	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	23.38	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	23.45	23.36	23.29	23.2	23.1	23	22.95	22.88	<30dBm	Pass
10	2457	23.59	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	20.51	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain D

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	16.53	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	24.07	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	24.02	23.99	23.95	23.85	23.77	23.73	23.67	23.62	<30dBm	Pass
10	2457	24.09	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	20.94	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain A+B+C+D

Channel No	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Chain A+B+C+D Power (dBm)	Limit (dBm)	Result
01	2412	6	17.10	16.09	16.07	16.53	22.49	<30dBm	Pass
02	2417	6	23.58	23.15	23.38	24.07	29.58	<30dBm	Pass
06	2437	6	23.96	23.23	23.45	24.02	29.70	<30dBm	Pass
10	2457	6	24.48	23.12	23.59	24.09	29.87	<30dBm	Pass
11	2462	6	21.14	20.16	20.51	20.94	26.72	<30dBm	Pass

Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW) + Chain B (mW) + Chain C (mW) + Chain D (mW))

Product : AX3200 SMART ROUTER
Test Item : Peak Power Output Data
Test Mode : Mode 3: Transmit (802.11n-20MBW MCS0 28.9Mbps) -CDD
Test Date : 2022/01/04

Chain A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	16.44	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	22.64	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	22.5	22.4	22.37	22.31	22.27	22.17	22.07	22.01	<30dBm	Pass
10	2457	22.52	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	17.97	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	15.46	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	21.59	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.56	21.46	21.41	21.36	21.26	21.19	21.1	21.07	<30dBm	Pass
10	2457	21.4	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	16.87	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	15.39	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	21.39	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.89	21.86	21.82	21.79	21.72	21.65	21.56	21.47	<30dBm	Pass
10	2457	21.92	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	16.61	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain D

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	16.08	--	--	--	--	--	--	--	<30dBm	Pass
02	2417	21.95	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	22.41	22.31	22.28	22.24	22.16	22.13	22.1	22	<30dBm	Pass
10	2457	22.31	--	--	--	--	--	--	--	<30dBm	Pass
11	2462	17.53	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain A+B+C+D

Channel No	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Chain A+B+C+D Power (dBm)	Limit (dBm)	Result
01	2412	HT0	16.44	15.46	15.39	16.08	21.89	<30dBm	Pass
02	2417	HT0	22.64	21.59	21.39	21.95	27.94	<30dBm	Pass
06	2437	HT0	22.50	21.56	21.89	22.41	28.13	<30dBm	Pass
10	2457	HT0	22.52	21.40	21.92	22.31	28.08	<30dBm	Pass
11	2462	HT0	17.97	16.87	16.61	17.53	23.30	<30dBm	Pass

Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW) + Chain B (mW) + Chain C (mW) + Chain D (mW))

Product : AX3200 SMART ROUTER
Test Item : Peak Power Output Data
Test Mode : Mode 4: Transmit (802.11n-40MBW MCS0 60Mbps) -CDD
Test Date : 2022/01/04

Chain A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	14.65	--	--	--	--	--	--	--	<30dBm	Pass
04	2427	19.34	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.64	19.56	19.52	19.44	19.36	19.28	19.22	19.12	<30dBm	Pass
08	2447	19.74	--	--	--	--	--	--	--	<30dBm	Pass
09	2452	16.08	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	14.3	--	--	--	--	--	--	--	<30dBm	Pass
04	2427	19.91	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.89	19.85	19.81	19.78	19.75	19.71	19.61	19.55	<30dBm	Pass
08	2447	19.95	--	--	--	--	--	--	--	<30dBm	Pass
09	2452	15.47	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	14.32	--	--	--	--	--	--	--	<30dBm	Pass
04	2427	19.3	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.24	19.16	19.09	19.04	18.99	18.94	18.91	18.84	<30dBm	Pass
08	2447	19.51	--	--	--	--	--	--	--	<30dBm	Pass
09	2452	16.2	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain D

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	14.94	--	--	--	--	--	--	--	<30dBm	Pass
04	2427	20.05	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.73	19.65	19.57	19.51	19.42	19.34	19.26	19.17	<30dBm	Pass
08	2447	20.01	--	--	--	--	--	--	--	<30dBm	Pass
09	2452	16.19	--	--	--	--	--	--	--	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain A+B+C+D

Channel No	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Chain A+B+C+D Power (dBm)	Limit (dBm)	Result
03	2422	HT0	14.65	14.30	14.32	14.94	20.58	<30dBm	Pass
04	2427	HT0	19.34	19.91	19.30	20.05	25.68	<30dBm	Pass
06	2437	HT0	19.64	19.89	19.24	19.73	25.65	<30dBm	Pass
08	2447	HT0	19.74	19.95	19.51	20.01	25.83	<30dBm	Pass
09	2452	HT0	16.08	15.47	16.20	16.19	22.02	<30dBm	Pass

Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW) + Chain B (mW) + Chain C (mW) + Chain D (mW))

Product : AX3200 SMART ROUTER
Test Item : Peak Power Output Data
Test Mode : Mode 3: Transmit (802.11n-20MBW MCS0 28.9Mbps) -Beforming
Test Date : 2022/01/04

Chain A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	10.42	--	--	--	--	--	--	--	<29dBm	Pass
02	2417	16.62	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	16.48	16.41	16.37	16.32	16.25	16.22	16.16	16.11	<29dBm	Pass
10	2457	16.50	--	--	--	--	--	--	--	<29dBm	Pass
11	2462	11.95	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	9.44	--	--	--	--	--	--	--	<29dBm	Pass
02	2417	15.57	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	15.54	15.48	15.44	15.37	15.32	15.26	15.19	15.16	<29dBm	Pass
10	2457	15.38	--	--	--	--	--	--	--	<29dBm	Pass
11	2462	10.85	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	9.37	--	--	--	--	--	--	--	<29dBm	Pass
02	2417	15.37	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	15.87	15.84	15.78	15.72	15.66	15.60	15.54	15.48	<29dBm	Pass
10	2457	15.90	--	--	--	--	--	--	--	<29dBm	Pass
11	2462	10.59	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain D

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
01	2412	10.06	--	--	--	--	--	--	--	<29dBm	Pass
02	2417	15.93	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	16.39	16.33	16.28	16.24	16.17	16.12	16.07	16.04	<29dBm	Pass
10	2457	16.29	--	--	--	--	--	--	--	<29dBm	Pass
11	2462	11.51	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain A+B+C+D

Channel No	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Chain A+B+C+D Power (dBm)	Limit (dBm)	Result
01	2412	HT0	10.42	9.44	9.37	10.06	15.87	<29dBm	Pass
02	2417	HT0	16.62	15.57	15.37	15.93	21.92	<29dBm	Pass
06	2437	HT0	16.48	15.54	15.87	16.39	22.11	<29dBm	Pass
10	2457	HT0	16.50	15.38	15.90	16.29	22.06	<29dBm	Pass
11	2462	HT0	11.95	10.85	10.59	11.51	17.28	<29dBm	Pass

Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW) + Chain B (mW) + Chain C (mW) + Chain D (mW))

Product : AX3200 SMART ROUTER
Test Item : Peak Power Output Data
Test Mode : Mode 4: Transmit (802.11n-40MBW MCS0 60Mbps) -Beforming
Test Date : 2022/01/04

Chain A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	8.63	--	--	--	--	--	--	--	<29dBm	Pass
04	2427	13.32	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	13.62	13.56	13.49	13.43	13.37	13.32	13.26	13.21	<29dBm	Pass
08	2447	13.72	--	--	--	--	--	--	--	<29dBm	Pass
09	2452	10.06	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	8.28	--	--	--	--	--	--	--	<29dBm	Pass
04	2427	13.89	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	13.87	13.82	13.79	13.72	13.65	13.59	13.53	13.50	<29dBm	Pass
08	2447	13.93	--	--	--	--	--	--	--	<29dBm	Pass
09	2452	9.45	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	8.30	--	--	--	--	--	--	--	<29dBm	Pass
04	2427	13.28	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	13.22	13.18	13.14	13.07	13.03	13.00	12.95	12.88	<29dBm	Pass
08	2447	13.49	--	--	--	--	--	--	--	<29dBm	Pass
09	2452	10.18	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain D

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		HT0	HT1	HT2	HT3	HT4	HT4	HT6	HT7		
		Measurement Level (dBm)									
03	2422	8.92	--	--	--	--	--	--	--	<29dBm	Pass
04	2427	14.03	--	--	--	--	--	--	--	<29dBm	Pass
06	2437	13.71	13.65	13.58	13.53	13.49	13.45	13.39	13.32	<29dBm	Pass
08	2447	13.99	--	--	--	--	--	--	--	<29dBm	Pass
09	2452	10.17	--	--	--	--	--	--	--	<29dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Chain A+B+C+D

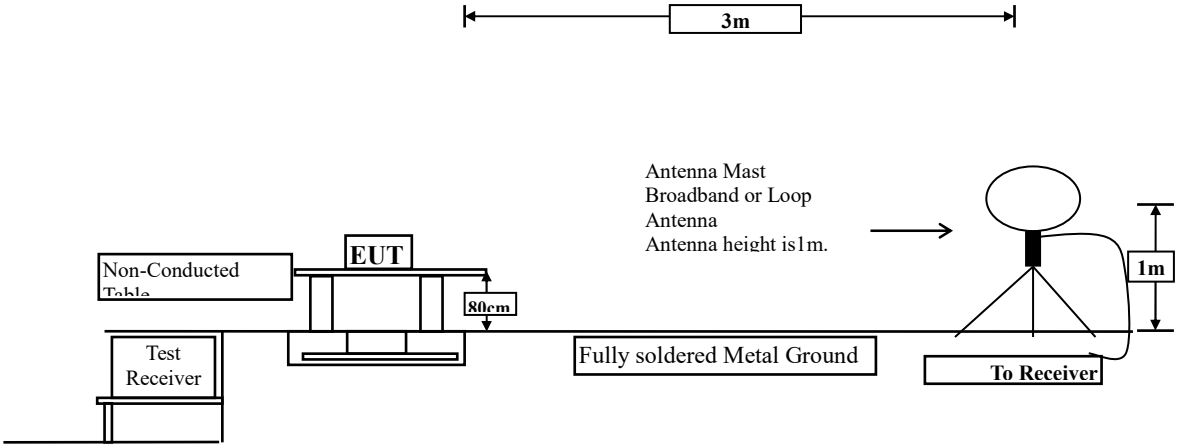
Channel No	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Chain A+B+C+D Power (dBm)	Limit (dBm)	Result
03	2422	HT0	8.63	8.28	8.30	8.92	14.56	<29dBm	Pass
04	2427	HT0	13.32	13.89	13.28	14.03	19.66	<29dBm	Pass
06	2437	HT0	13.62	13.87	13.22	13.71	19.63	<29dBm	Pass
08	2447	HT0	13.72	13.93	13.49	13.99	19.81	<29dBm	Pass
09	2452	HT0	10.06	9.45	10.18	10.17	16.00	<29dBm	Pass

Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW) + Chain B (mW) + Chain C (mW) + Chain D (mW))

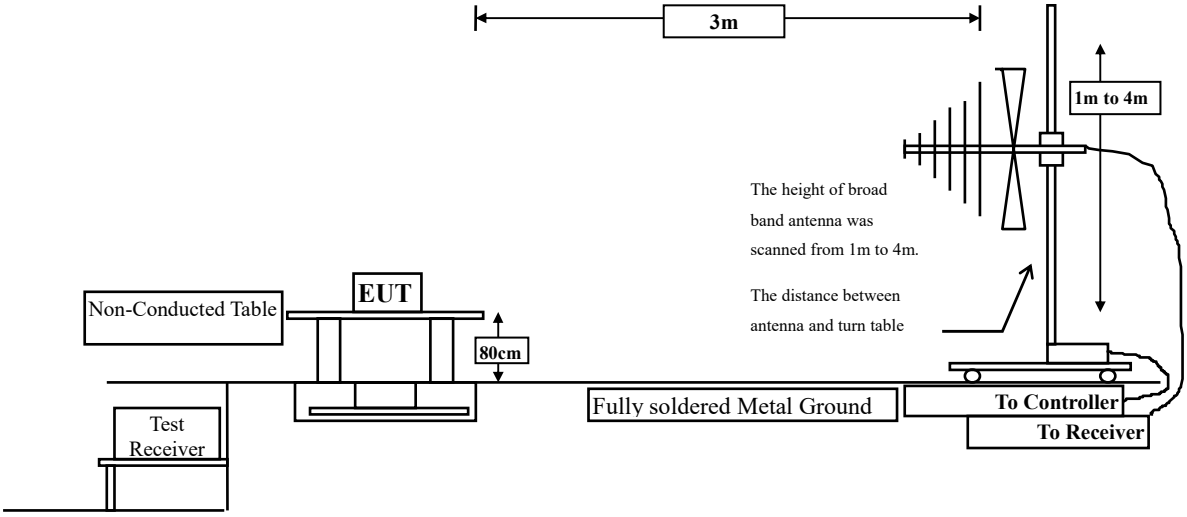
4. Radiated Emission

4.1. Test Setup

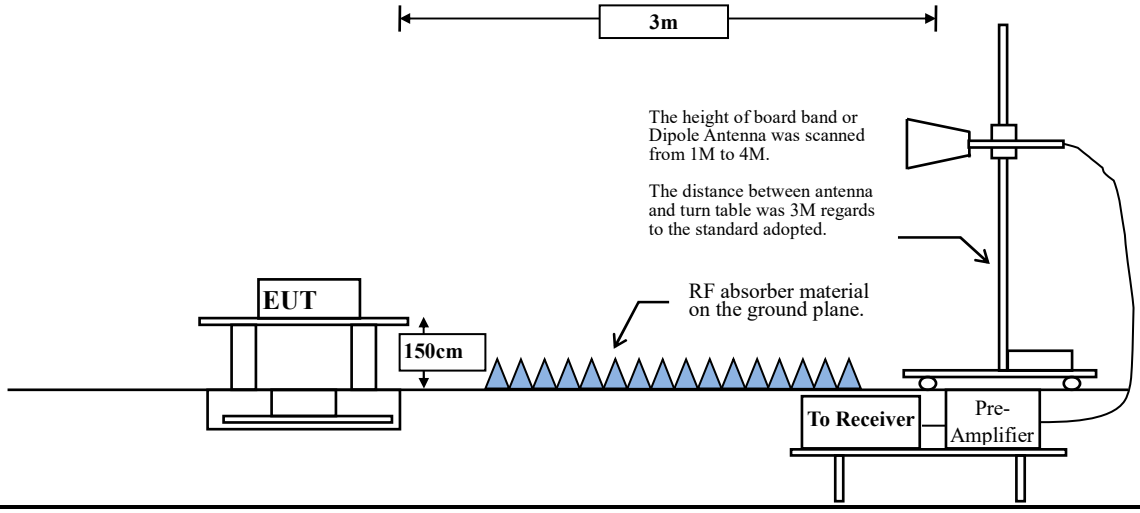
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.2. Limits

➢ **General Radiated Emission Limits**

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks:
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to C63.10:2013 Section 11.12.1 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to C63.10 Section 11.12.2.4 Peak measurement procedure.

RBW = as specified in Table 1.

VBW ≥ 3 x RBW.

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to C63.10 Section 11.12.2.5 Average measurement procedure.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

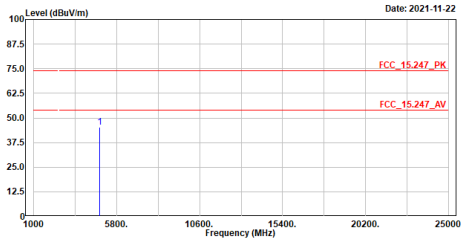
2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11b	99.06	8.4000	119	10
802.11g-CDD	95.83	1.3800	725	1000
802.11n20-CDD	94.12	1.2800	781	1000
802.11n40-CDD	88.57	0.6200	1613	2000

Note: Duty Cycle Refer to Section 9

4.4. Test Result of Radiated Emission

Chain A:

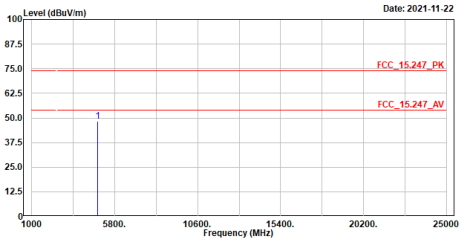
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_b_2412MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4824.000	45.43	74.00	-28.57	53.85	-8.42	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

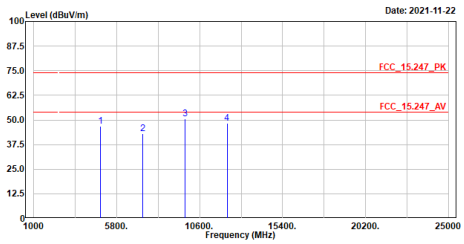
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_b_2412MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4824.000	48.24	74.00	-25.76	56.67	-8.43	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

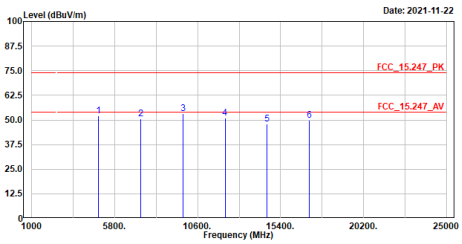
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_b_2437MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4874.000	46.82	74.00	-27.18	55.11	-8.29	Peak
2	7311.000	43.03	74.00	-30.97	46.98	-3.95	Peak
3	9748.000	50.70	74.00	-23.30	54.74	-4.04	Peak
4	12185.000	48.37	74.00	-25.63	48.33	0.04	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

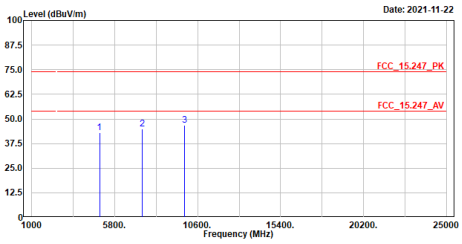
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_b_2437MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4874.000	51.99	74.00	-22.01	60.28	-8.29	Peak
2	7311.000	50.49	74.00	-23.51	54.50	-4.01	Peak
3	9748.000	53.05	74.00	-20.95	57.09	-4.04	Peak
4	12185.000	50.79	74.00	-23.21	50.75	0.04	Peak
5	14622.000	47.80	74.00	-26.20	46.61	1.19	Peak
6	17059.000	49.79	74.00	-24.21	43.26	6.53	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

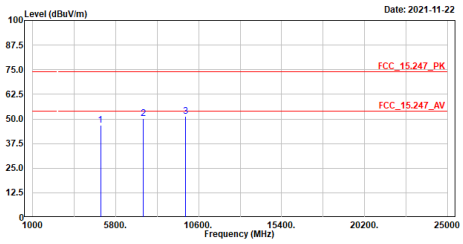
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_b_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4924.000	42.97	74.00	-31.03	51.03	-8.06	Peak
2	7386.000	44.84	74.00	-29.16	48.85	-4.01	Peak
3	9848.000	46.84	74.00	-27.16	50.80	-3.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-3
Condition :3m ,VERTICAL
Mode :TX_b_2462MHz
TEST BY :Jing Chang

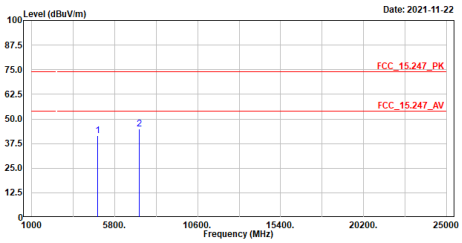


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4924.000	46.80	74.00	-27.20	54.86	-8.06	Peak
2	7386.000	50.34	74.00	-23.66	54.35	-4.01	Peak
3	9848.000	51.45	74.00	-22.55	55.41	-3.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

CDD:

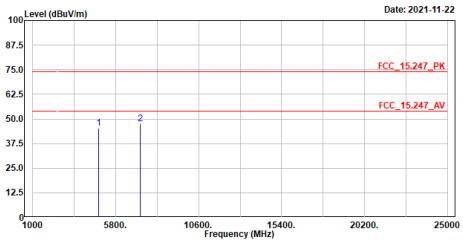
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_g_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4824.000	41.51	74.00	-32.49	49.94	-8.43	Peak
2	7236.000	44.87	74.00	-29.13	48.81	-3.94	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

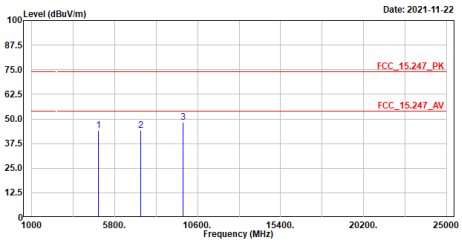
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_g_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4824.000	45.45	74.00	-28.55	53.88	-8.43	Peak
2	7236.000	47.50	74.00	-26.50	51.46	-3.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

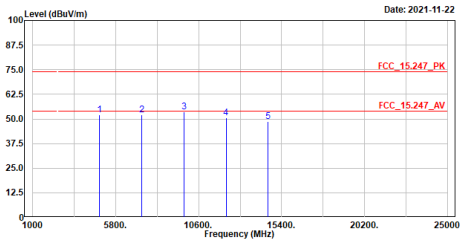
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_g_2437MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4874.000	44.09	74.00	-29.91	52.38	-8.29	Peak
2	7311.000	44.14	74.00	-29.86	48.09	-3.95	Peak
3	9748.000	48.36	74.00	-25.64	52.42	-4.06	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

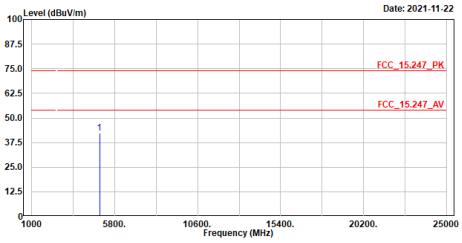
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_g_2437MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4874.000	52.13	74.00	-21.87	60.42	-8.29	Peak
2	7311.000	52.10	74.00	-21.90	56.11	-4.01	Peak
3	9748.000	53.44	74.00	-20.56	57.50	-4.06	Peak
4	12185.000	50.54	74.00	-23.46	50.50	0.04	Peak
5	14622.000	48.59	74.00	-25.41	47.35	1.24	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

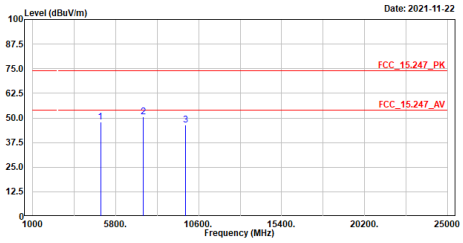
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_g_2462MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4924.000	42.09	74.00	-31.91	50.15	-8.06	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

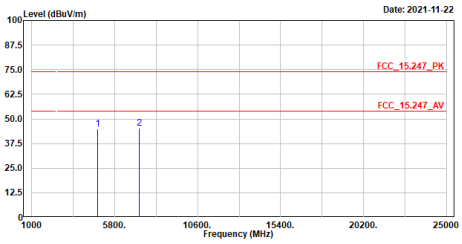
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_g_2462MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4924.000	47.98	74.00	-26.02	56.04	-8.06	Peak
2	7386.000	50.38	74.00	-23.62	54.39	-4.01	Peak
3	9848.000	46.48	74.00	-27.52	50.44	-3.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

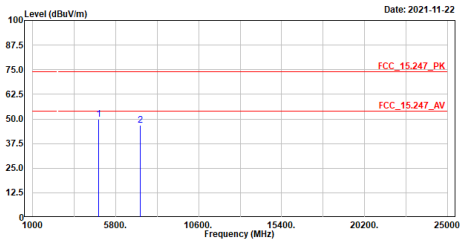
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_n20_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4824.000	44.72	74.00	-29.28	53.14	-8.42	Peak
2	7236.000	45.15	74.00	-28.85	49.08	-3.93	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

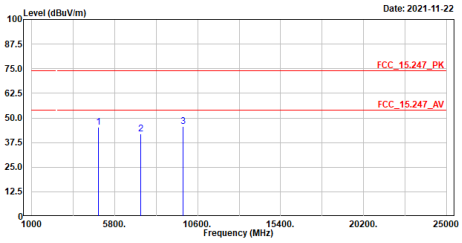
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_n20_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4824.000	49.76	74.00	-24.24	58.17	-8.41	Peak
2	7236.000	46.91	74.00	-27.09	50.87	-3.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

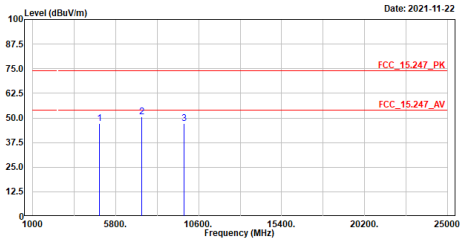
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_n20_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4874.000	45.10	74.00	-28.90	53.52	-8.42	Peak
2	7311.000	42.02	74.00	-31.98	45.97	-3.95	Peak
3	9748.000	45.63	74.00	-28.37	49.70	-4.07	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

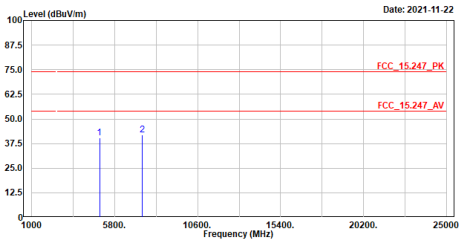
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_n20_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	4874.000	47.20	74.00	-26.80	55.61	-8.41	Peak
2	7311.000	50.42	74.00	-23.58	54.43	-4.01	Peak
3	9748.000	47.30	74.00	-26.70	51.34	-4.04	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

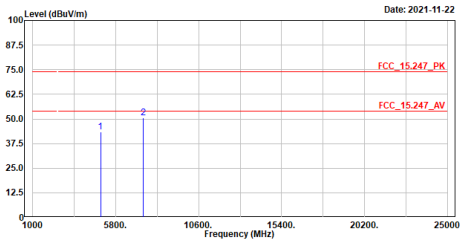
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_n20_2462MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4924.000	40.50	74.00	-33.50	48.56	-8.06	Peak
2	7386.000	41.99	74.00	-32.01	45.88	-3.89	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

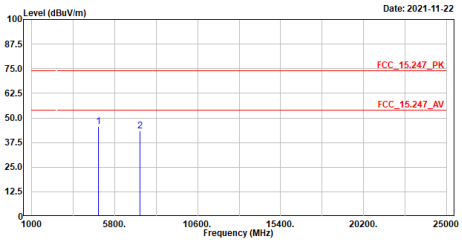
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_n20_2462MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4924.000	43.44	74.00	-30.56	51.37	-7.93	Peak
2	7386.000	50.63	74.00	-23.37	54.64	-4.01	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

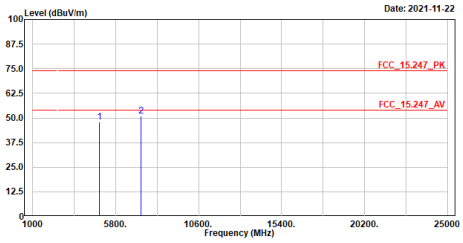
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_n40_2422MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4844.000	45.78	74.00	-28.22	54.20	-8.42	Peak
2	7266.000	43.22	74.00	-30.78	47.16	-3.94	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

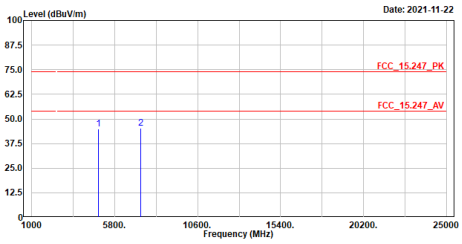
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_n40_2422MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4844.000	47.79	74.00	-26.21	56.21	-8.42	Peak
2	7266.000	50.94	74.00	-23.06	54.95	-4.01	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

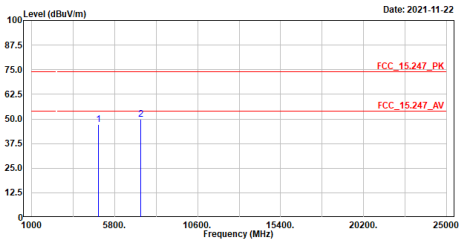
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_n40_2437MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4874.000	44.81	74.00	-29.19	53.22	-8.41	Peak
2	7311.000	45.31	74.00	-28.69	49.24	-3.93	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

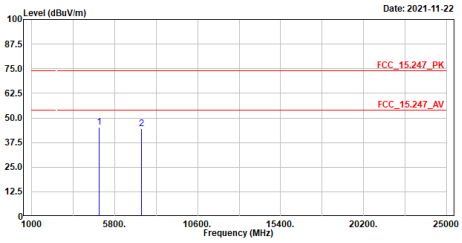
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_n40_2437MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4874.000	47.03	74.00	-26.97	55.44	-8.41	Peak
2	7311.000	49.97	74.00	-24.03	53.98	-4.01	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

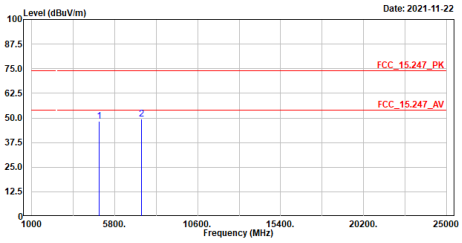
Site :966-3
Condition :3m ,HORIZONTAL
Mode :TX_n40_2452MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4904.000	45.35	74.00	-28.65	53.76	-8.41	Peak
2	7356.000	44.50	74.00	-29.50	48.51	-4.01	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

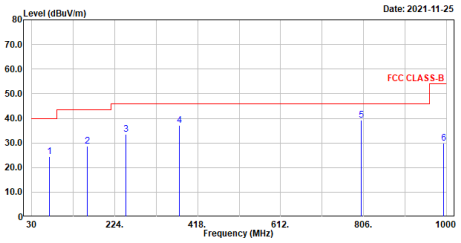
Site :966-3
Condition :3m ,VERTICAL
Mode :TX_n40_2452MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	4904.000	48.25	74.00	-25.75	56.66	-8.41	Peak
2	7356.000	49.58	74.00	-24.42	53.59	-4.01	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

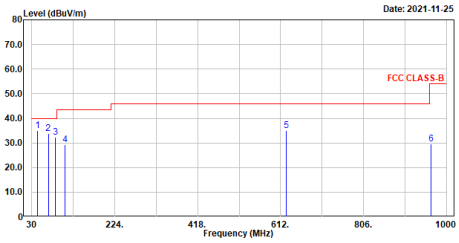
Site :966-1
Condition :3m ,Horizontal
Mode :TX_ax40_2437MHz
TEST BY :Ashton Chiu



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	70.740	24.55	40.00	-15.45	38.77	-14.22	QP
2	159.980	28.83	43.50	-14.67	40.33	-11.50	QP
3	250.190	33.61	46.00	-12.39	46.43	-12.82	QP
4	375.320	37.00	46.00	-9.00	46.41	-9.41	QP
5	800.180	39.20	46.00	-6.80	41.01	-1.81	QP
6	994.180	29.81	54.00	-24.19	29.65	0.16	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

Site :966-1
Condition :3m ,Vertical
Mode :TX_ax40_2437MHz
TEST BY :Ashton Chiu



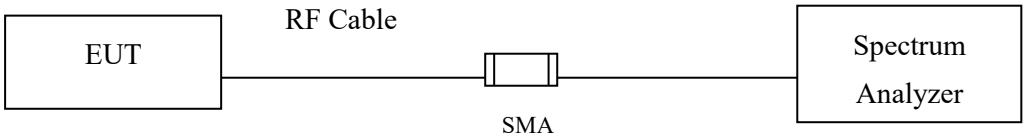
No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	43.580	35.15	40.00	-4.85	46.99	-11.84	QP
2	68.800	33.73	40.00	-6.27	47.67	-13.94	QP
3	85.290	32.36	40.00	-7.64	49.95	-17.59	QP
4	108.570	29.33	43.50	-14.17	44.50	-15.17	QP
5	625.580	35.09	46.00	-10.91	39.31	-4.22	QP
6	963.140	29.56	54.00	-24.44	29.49	0.07	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

5. RF Antenna Conducted Test

5.1. Test Setup

RF antenna Conducted Measurement:



5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.3. Test Procedure

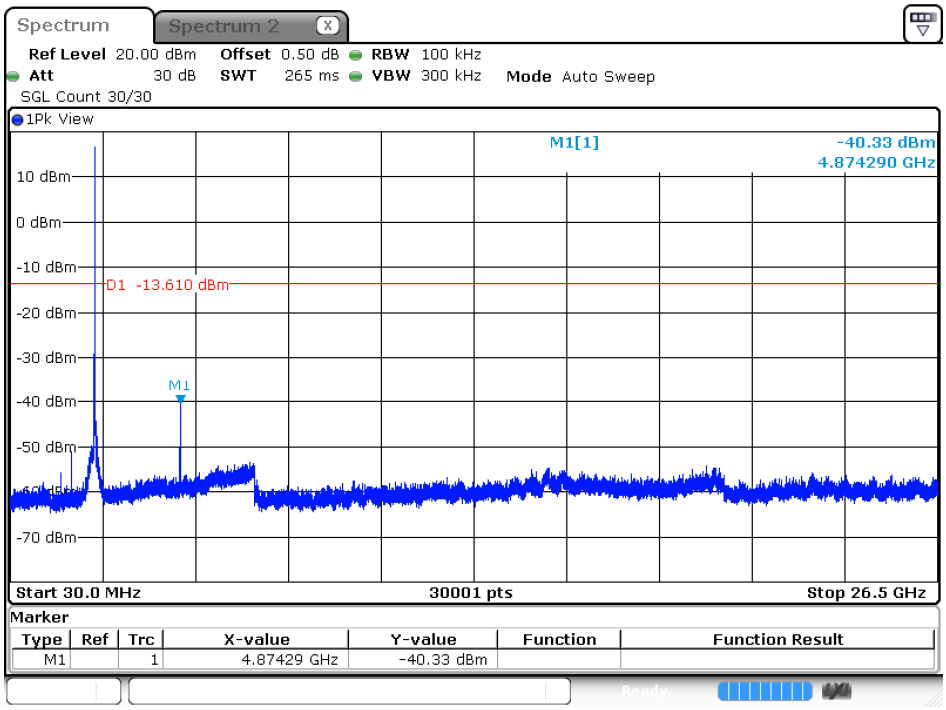
The EUT was tested according to C63.10:2013 Section 11.11 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.4. Test Result of RF antenna conducted test

Product : AX3200 SMART ROUTER
Test Item : RF antenna conducted test
Test Mode : Mode 1: Transmit (802.11b 1Mbps)
Test Date : 2022/01/04

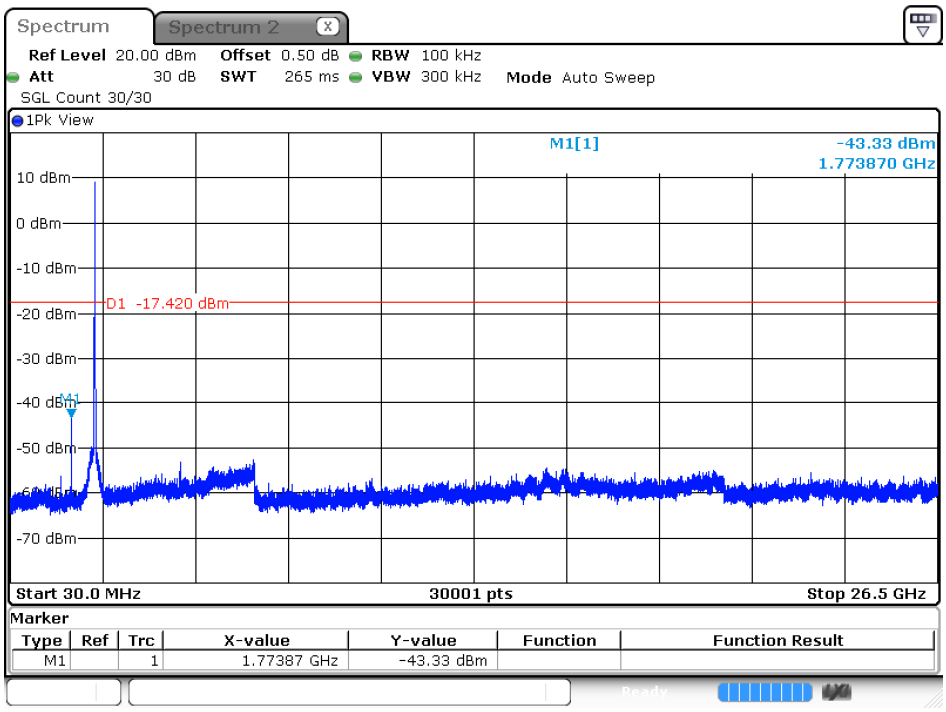
Channel 06 (2437MHz)



Date: 4.JAN.2022 10:18:41

Product : AX3200 SMART ROUTER
Test Item : RF Antenna Conducted Spurious
Test Mode : Mode 2: Transmit (802.11g 6Mbps)-CDD
Test Date : 2022/01/04

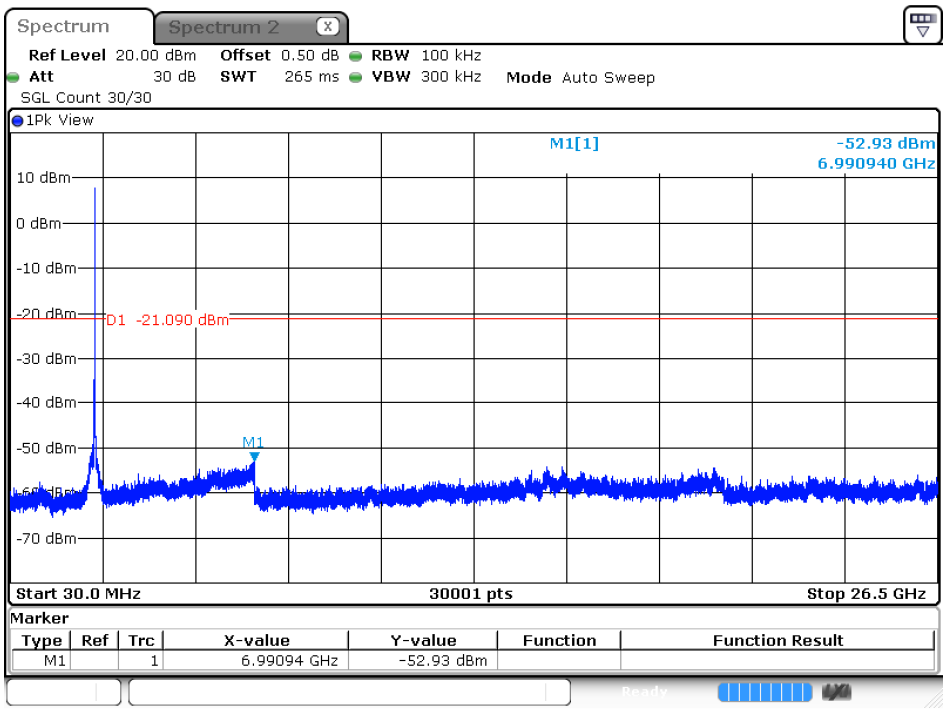
Channel 01 (2412MHz)



Date: 4.JAN.2022 14:29:45

Product	:	AX3200 SMART ROUTER
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 3: Transmit (802.11n-20MBW MCS0 28.9Mbps) -CDD
Test Date	:	2022/01/04

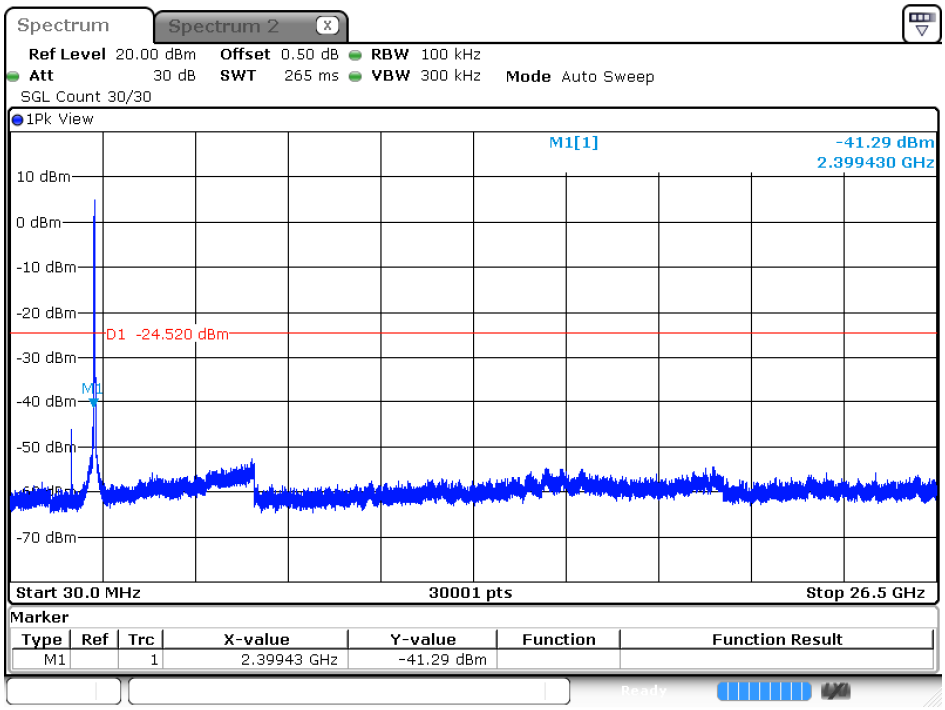
Channel 06 (2437MHz)



Date: 4.JAN.2022 11:13:35

Product : AX3200 SMART ROUTER
Test Item : RF Antenna Conducted Spurious
Test Mode : Mode 4: Transmit (802.11n-40MBW MCS0 60Mbps) -CDD
Test Date : 2022/01/04

Channel 06 (2437MHz)

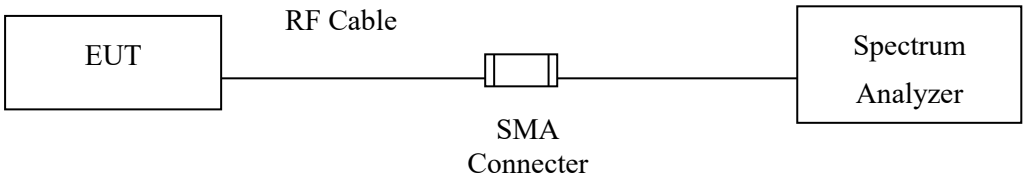


Date: 4.JAN.2022 14:42:13

6. Band Edge

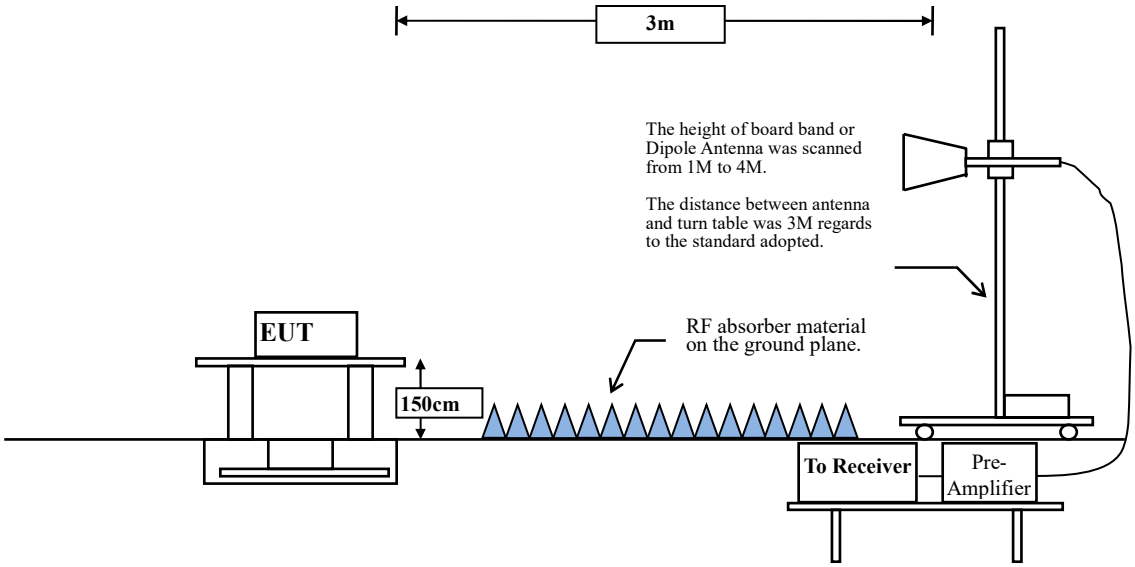
6.1. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz



6.2. Limits

According to FCC Section 15.247(d). 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 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to C63.10:2013 Section 11.12.1 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.

RBW and VBW Parameter setting:

According to C63.10 Section 11.12.2.4 Peak measurement procedure.

RBW = as specified in Table 1.

VBW ≥ 3 x RBW.

Table 1 —RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

According to C63.10 Section 11.12.2.5 Average measurement procedure.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

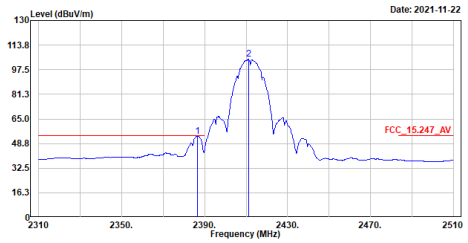
2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11b	99.06	8.4000	119	10
802.11g-CDD	95.83	1.3800	725	1000
802.11n20-CDD	94.12	1.2800	781	1000
802.11n40-CDD	88.57	0.6200	1613	2000

Note: Duty Cycle Refer to Section 9

6.4. Test Result of Band Edge

Chain A:

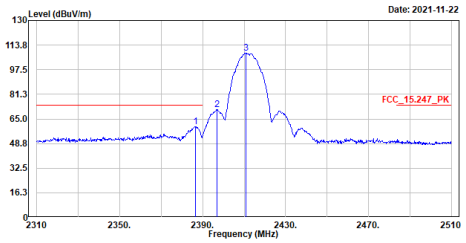
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2412MHz
TEST BY :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2386.600	53.66	54.00	-0.34	39.39	14.27	Average
2	2411.200	104.58	------	------	90.23	14.35	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

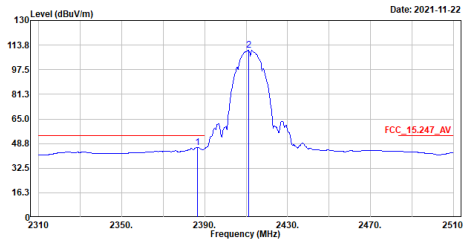
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2412MHz
TEST BY :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2386.600	60.07	74.00	-13.93	45.80	14.27	Peak
2	2397.000	71.20	------	------	56.87	14.33	Peak
3	2410.800	108.51	------	------	94.16	14.35	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

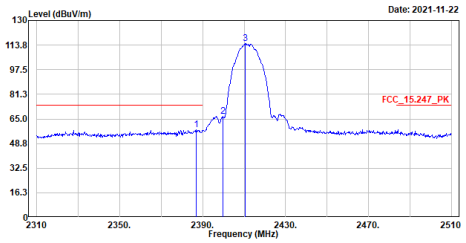
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2412MHz
TEST BY :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2386.600	46.26	54.00	-7.74	31.99	14.27	Average
2	2411.200	110.60	------	------	96.25	14.35	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

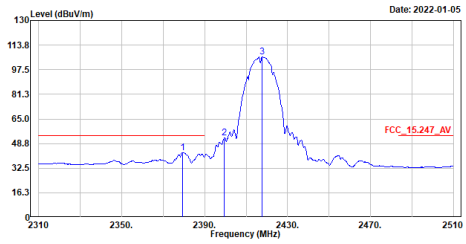
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2412MHz
TEST BY :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2387.000	57.92	74.00	-16.08	43.65	14.27	Peak
2	2399.800	66.59	------	------	52.25	14.34	Peak
3	2410.600	114.57	------	------	100.22	14.35	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

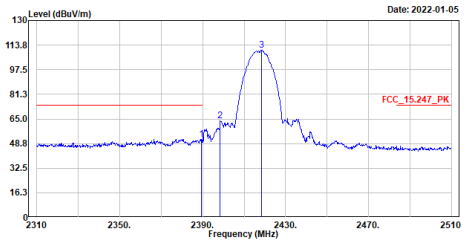
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2417MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2379.400	42.90	54.00	-11.10	28.67	14.23	Average
2	2399.600	52.45	------	------	38.11	14.34	Average
3	2417.800	106.06	------	------	91.69	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

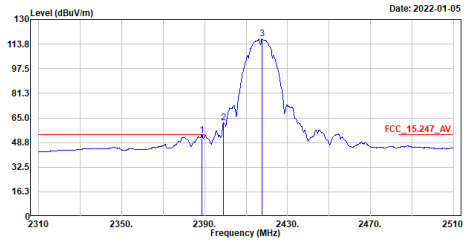
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2417MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2389.400	51.47	74.00	-22.53	37.19	14.28	Peak
2	2398.400	63.64	------	------	49.31	14.33	Peak
3	2418.400	110.37	------	------	96.00	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

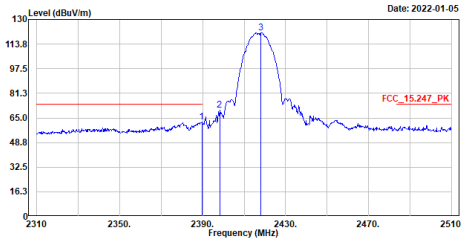
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2417MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2388.800	53.65	54.00	-0.35	39.37	14.28	Average
2	2399.200	61.64	------	------	47.30	14.34	Average
3	2417.800	117.08	------	------	102.71	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

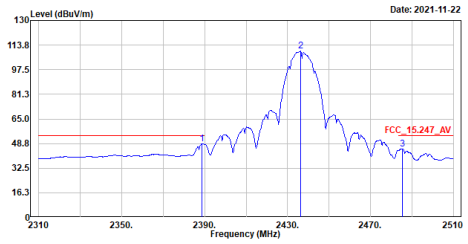
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2417MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2389.600	62.29	74.00	-11.71	48.01	14.28	Peak
2	2398.200	69.92	------	------	55.59	14.33	Peak
3	2418.200	121.26	------	------	106.89	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

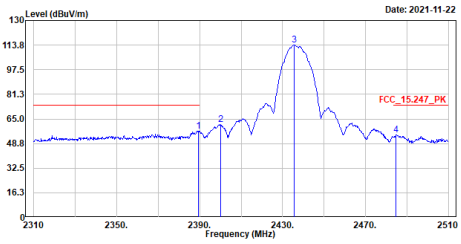
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.800	48.72	54.00	-5.28	34.44	14.28	Average
2	2436.200	109.72	------	------	95.33	14.39	Average
3	2485.200	45.35	54.00	-8.65	30.89	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

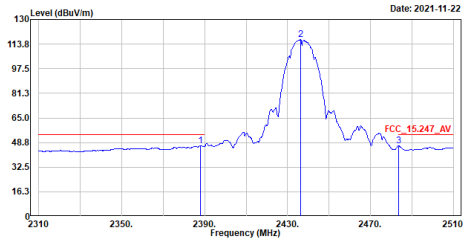
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.400	57.06	74.00	-16.94	42.78	14.28	Peak
2	2400.000	61.29	------	------	46.95	14.34	Peak
3	2435.600	113.98	------	------	99.59	14.39	Peak
4	2484.800	54.57	74.00	-19.43	40.11	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

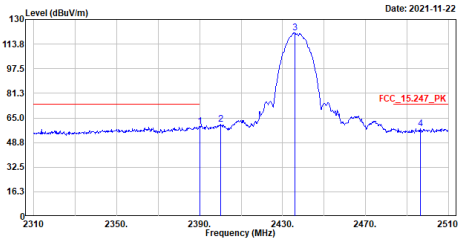
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.000	46.67	54.00	-7.33	32.40	14.27	Average
2	2436.200	116.99	------	------	102.60	14.39	Average
3	2483.500	46.51	54.00	-7.49	32.05	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

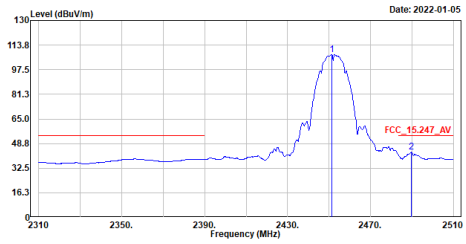
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2390.000	59.47	74.00	-14.53	45.19	14.28	Peak
2	2400.000	60.88	------	------	46.54	14.34	Peak
3	2435.800	121.11	------	------	106.72	14.39	Peak
4	2496.600	58.06	74.00	-15.94	43.58	14.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

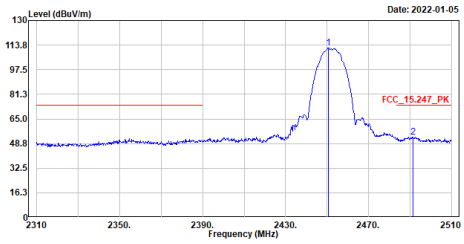
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2451.200	107.61	------	------	93.19	14.42	Average
2	2489.600	42.93	54.00	-11.07	28.45	14.48	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

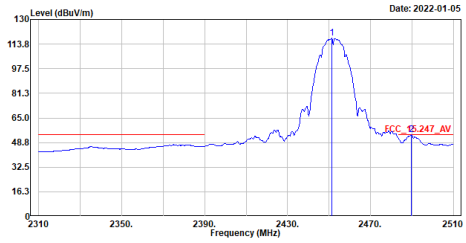
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2450.600	111.73	------	------	97.31	14.42	Peak
2	2491.400	53.16	74.00	-20.84	38.68	14.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

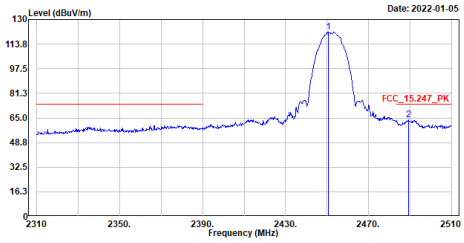
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2451.200	117.57	------	------	103.15	14.42	Average
2	2489.800	53.82	54.00	-0.18	39.34	14.48	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

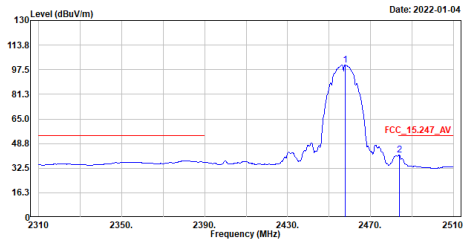
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2450.800	121.62	------	------	107.20	14.42	Peak
2	2489.200	63.65	74.00	-10.35	49.17	14.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

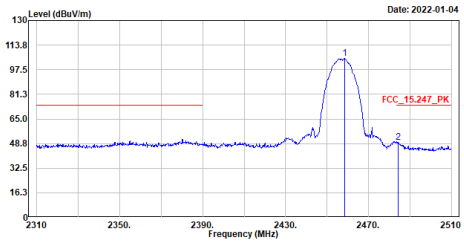
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2457.800	100.80	------	------	86.38	14.42	Average
2	2483.800	41.36	54.00	-12.64	26.90	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

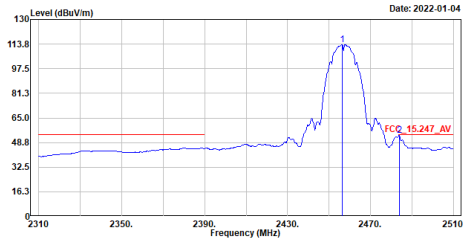
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2458.400	104.86	------	------	90.44	14.42	Peak
2	2484.200	49.73	74.00	-24.27	35.27	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

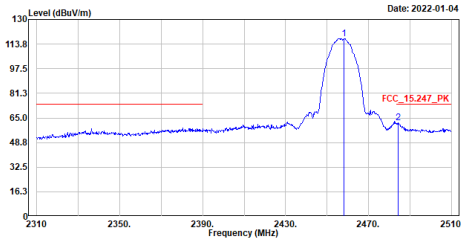
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2456.200	113.47	------	------	99.05	14.42	Average
2	2483.800	53.36	54.00	-0.64	38.90	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

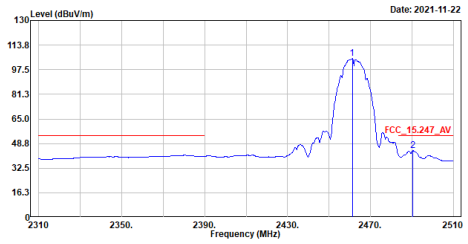
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2458.200	117.43	------	------	103.01	14.42	Peak
2	2484.200	61.63	74.00	-12.37	47.17	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

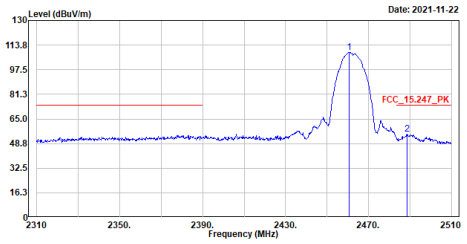
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2461.200	104.91	------	------	90.48	14.43	Average
2	2490.400	43.94	54.00	-10.06	29.46	14.48	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

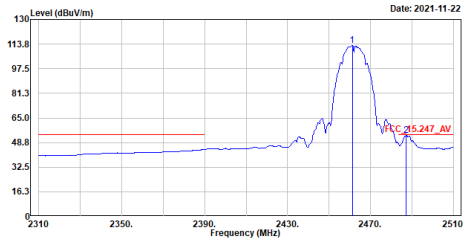
Site :966-3
Condition :3m ,Horizontal
Mode :TX_b_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.600	108.99	------	------	94.56	14.43	Peak
2	2488.600	54.72	74.00	-19.28	40.24	14.48	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

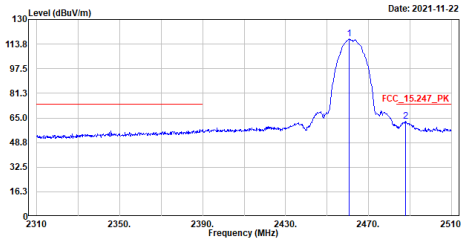
Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2461.200	112.91	------	------	98.48	14.43	Average
2	2487.200	53.53	54.00	-0.47	39.07	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-3
Condition :3m ,Vertical
Mode :TX_b_2462MHz
TEST BY :Jing Chang

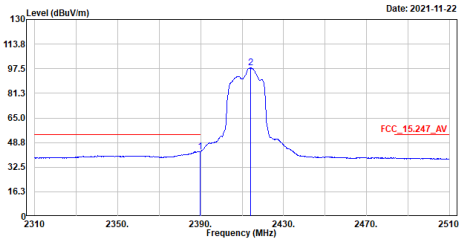


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.800	117.05	------	------	102.62	14.43	Peak
2	2487.800	62.64	74.00	-11.36	48.17	14.47	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

CDD:

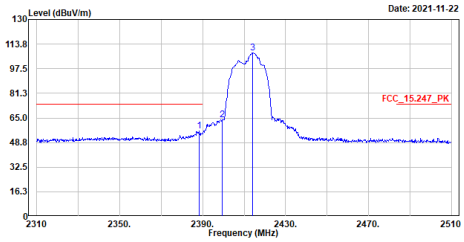
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2412MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2389.800	42.88	54.00	-11.12	28.60	14.28	Average
2	2414.200	98.04	------	------	83.68	14.36	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

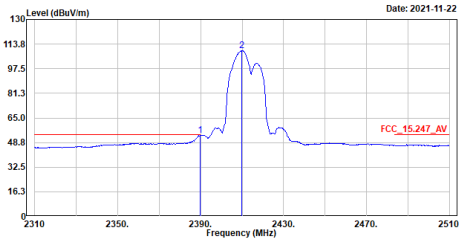
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2412MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2388.200	56.49	74.00	-17.51	42.22	14.27	Peak
2	2399.400	63.68	------	------	49.34	14.34	Peak
3	2414.200	107.82	------	------	93.46	14.36	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

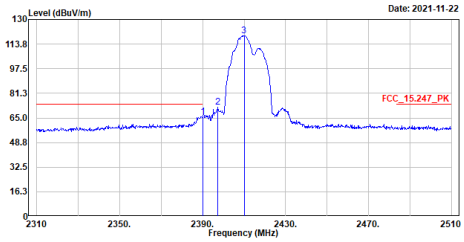
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2412MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2389.800	53.57	54.00	-0.43	39.29	14.28	Average
2	2409.800	109.34	------	------	94.99	14.35	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

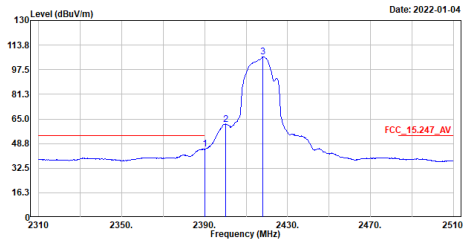
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2412MHz
TEST BY :Jing Chang



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	2390.000	65.87	74.00	-8.13	51.59	14.28	Peak
2	2397.400	72.01	------	------	57.68	14.33	Peak
3	2410.000	119.32	------	------	104.97	14.35	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

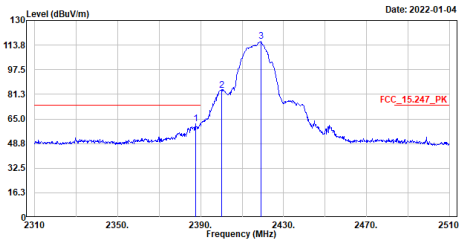
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2390.000	44.95	54.00	-9.05	30.67	14.28	Average
2	2400.000	61.40	------	------	47.06	14.34	Average
3	2418.200	106.06	------	------	91.69	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

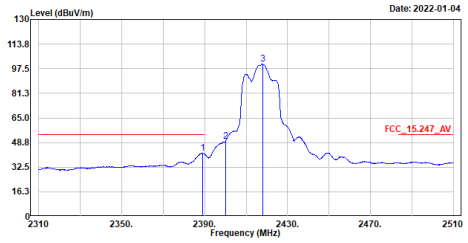
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2387.600	61.61	74.00	-12.39	47.34	14.27	Peak
2	2400.000	84.11	------	------	69.77	14.34	Peak
3	2419.200	116.16	------	------	101.79	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

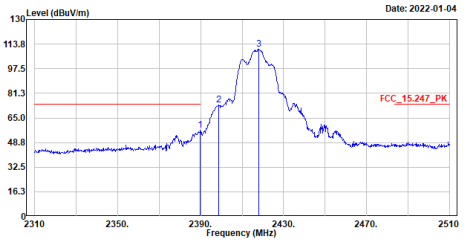
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.000	41.81	54.00	-12.19	27.53	14.28	Average
2	2400.000	49.78	------	------	35.44	14.34	Average
3	2418.000	100.78	------	------	86.41	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

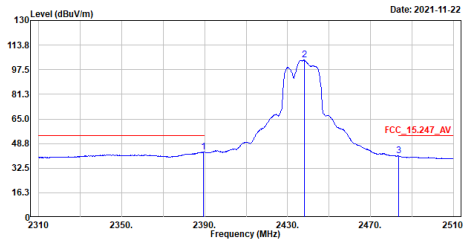
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.800	56.94	74.00	-17.06	42.66	14.28	Peak
2	2398.600	73.38	------	------	59.05	14.33	Peak
3	2418.000	110.19	------	------	95.82	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

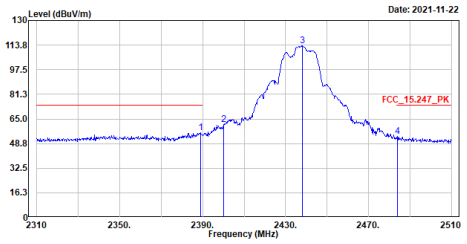
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.400	43.20	54.00	-10.80	28.92	14.28	Average
2	2438.000	103.92	------	------	89.53	14.39	Average
3	2483.600	40.53	54.00	-13.47	26.07	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

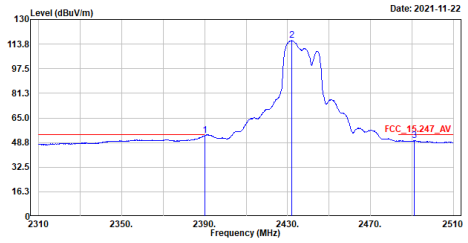
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.000	55.92	74.00	-18.08	41.64	14.28	Peak
2	2400.000	61.18	------	------	46.84	14.34	Peak
3	2438.000	113.49	------	------	99.10	14.39	Peak
4	2484.000	53.53	74.00	-20.47	39.07	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

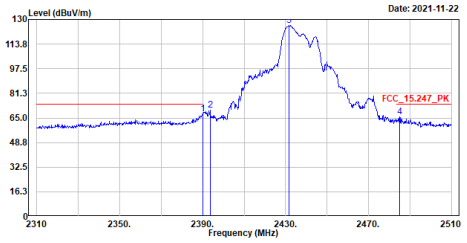
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2390.000	53.68	54.00	-0.32	39.40	14.28	Average
2	2432.000	116.03	------	------	101.64	14.39	Average
3	2491.000	50.23	54.00	-3.77	35.75	14.48	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

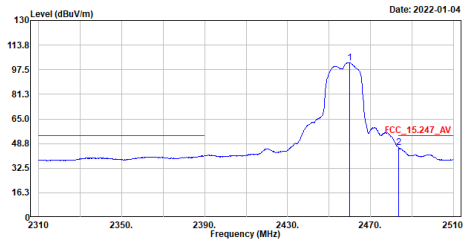
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2390.000	67.79	74.00	-6.21	53.51	14.28	Peak
2	2393.600	69.99	------	------	55.68	14.31	Peak
3	2431.800	125.90	------	------	111.51	14.39	Peak
4	2485.000	65.55	74.00	-8.45	51.09	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

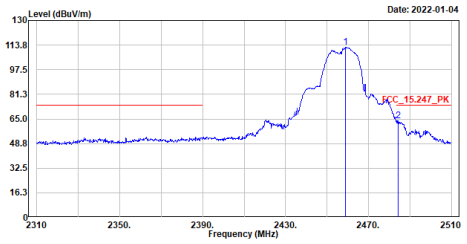
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2459.800	102.11	------	------	87.68	14.43	Average
2	2483.600	45.95	54.00	-8.05	31.49	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

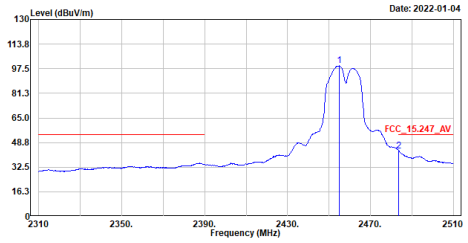
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2459.000	112.13	------	------	97.71	14.42	Peak
2	2484.400	63.68	74.00	-10.32	49.22	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

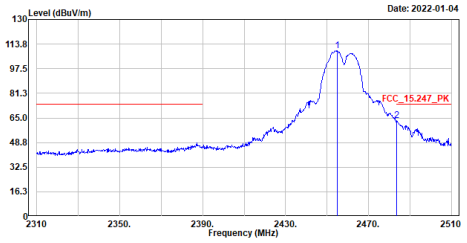
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2455.000	99.37	------	------	84.95	14.42	Average
2	2483.600	43.23	54.00	-10.77	28.77	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

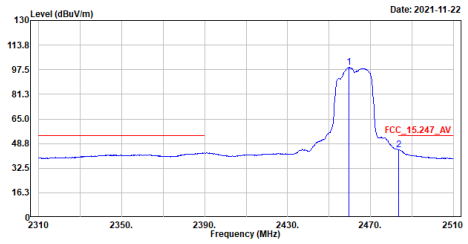
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2454.800	109.33	------	------	94.91	14.42	Peak
2	2483.600	63.05	74.00	-10.95	48.59	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

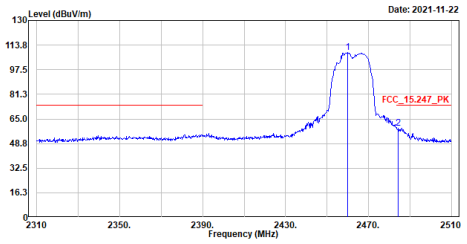
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2459.600	98.92	------	------	84.49	14.43	Average
2	2483.600	44.78	54.00	-9.22	30.32	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

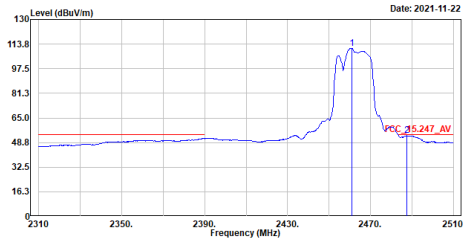
Site :966-3
Condition :3m ,Horizontal
Mode :TX_g_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2459.800	108.67	------	------	94.24	14.43	Peak
2	2484.400	58.70	74.00	-15.30	44.24	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

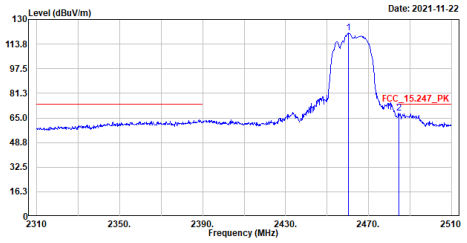
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2461.000	111.03	------	------	96.60	14.43	Average
2	2487.400	53.54	54.00	-0.46	39.08	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

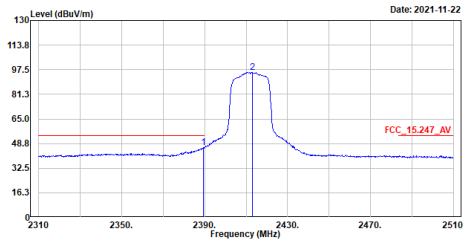
Site :966-3
Condition :3m ,Vertical
Mode :TX_g_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.400	121.03	------	------	106.60	14.43	Peak
2	2484.600	68.34	74.00	-5.66	53.88	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

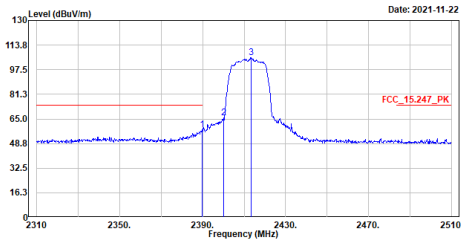
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.400	46.15	54.00	-7.85	31.87	14.28	Average
2	2413.000	95.76	------	------	81.40	14.36	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

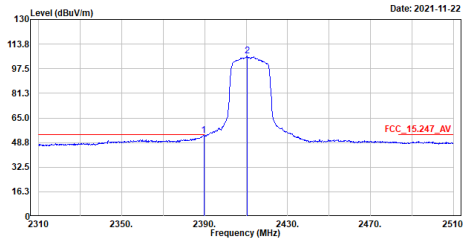
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.800	58.12	74.00	-15.88	43.84	14.28	Peak
2	2400.000	65.81	------	------	51.47	14.34	Peak
3	2413.400	105.34	------	------	90.98	14.36	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

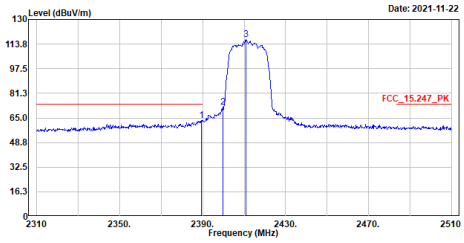
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.600	53.54	54.00	-0.46	39.26	14.28	Average
2	2410.400	105.77	------	------	91.42	14.35	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

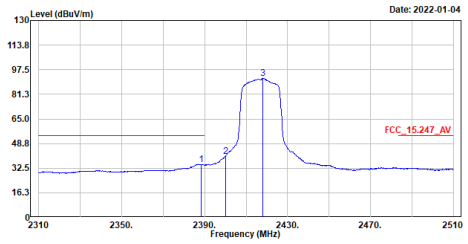
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2412MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.400	63.20	74.00	-10.80	48.92	14.28	Peak
2	2399.800	72.00	------	------	57.66	14.34	Peak
3	2411.000	116.57	------	------	102.22	14.35	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

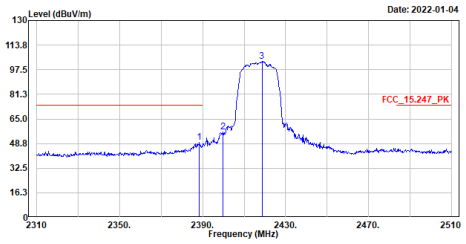
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.200	34.98	54.00	-19.02	20.71	14.27	Average
2	2400.000	40.43	------	------	26.09	14.34	Average
3	2418.200	91.79	------	------	77.42	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

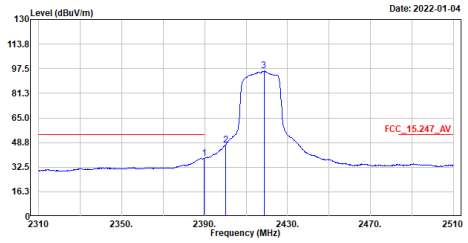
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.400	49.46	74.00	-24.54	35.19	14.27	Peak
2	2399.800	56.40	------	------	42.06	14.34	Peak
3	2418.600	103.03	------	------	88.66	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

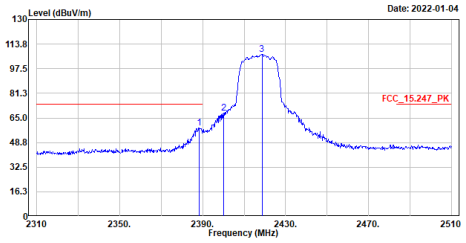
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.800	38.28	54.00	-15.72	24.00	14.28	Average
2	2400.000	47.03	------	------	32.69	14.34	Average
3	2418.600	95.91	------	------	81.54	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

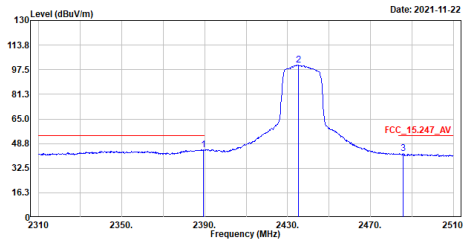
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2417MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.400	58.46	74.00	-15.54	44.19	14.27	Peak
2	2400.000	68.09	------	------	53.75	14.34	Peak
3	2418.600	107.02	------	------	92.65	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

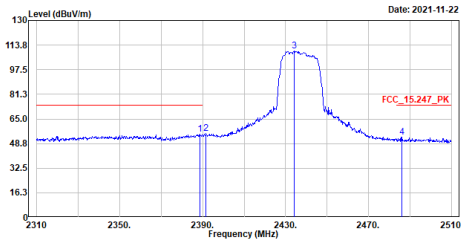
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.400	44.62	54.00	-9.38	30.34	14.28	Average
2	2435.200	100.62	------	------	86.23	14.39	Average
3	2485.600	42.10	54.00	-11.90	27.64	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

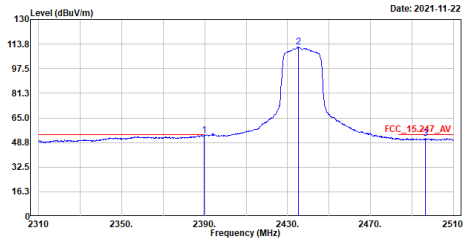
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.800	54.83	74.00	-19.17	40.55	14.28	Peak
2	2391.600	55.19	------	------	40.90	14.29	Peak
3	2434.200	109.79	------	------	95.40	14.39	Peak
4	2486.000	53.01	74.00	-20.99	38.55	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

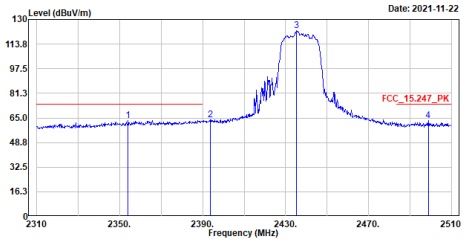
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.800	53.60	54.00	-0.40	39.32	14.28	Average
2	2435.200	111.91	------	------	97.52	14.39	Average
3	2496.600	51.42	54.00	-2.58	36.94	14.48	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

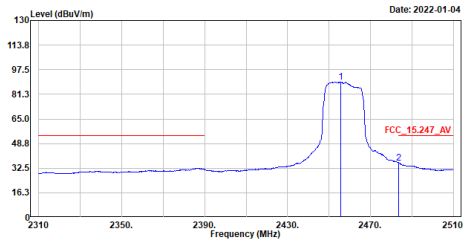
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2354.000	63.36	74.00	-10.64	49.27	14.09	Peak
2	2393.600	63.97	------	------	49.66	14.31	Peak
3	2435.400	122.43	------	------	108.04	14.39	Peak
4	2498.800	63.27	74.00	-10.73	48.78	14.49	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

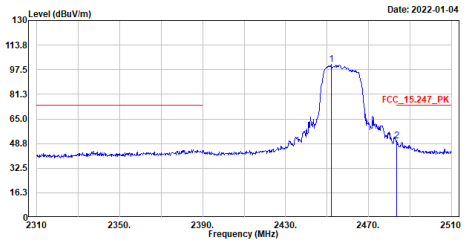
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2455.600	89.29	------	------	74.87	14.42	Average
2	2483.600	35.91	54.00	-18.09	21.45	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

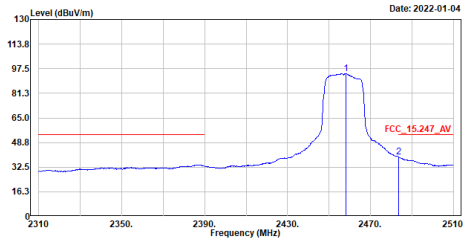
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2452.000	100.87	------	------	86.45	14.42	Peak
2	2483.600	50.30	74.00	-23.70	35.84	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

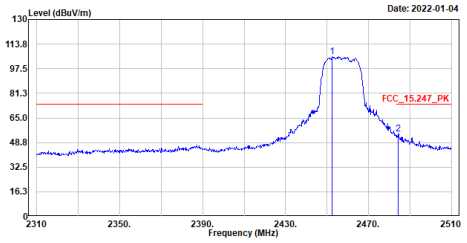
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2458.000	94.40	------	------	79.98	14.42	Average
2	2483.600	39.07	54.00	-14.93	24.61	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

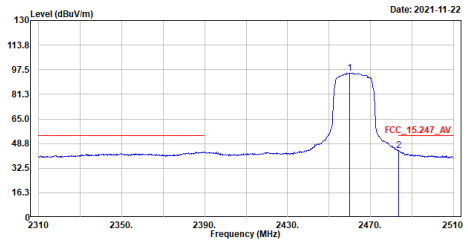
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2457MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2452.600	105.61	------	------	91.19	14.42	Peak
2	2484.400	54.67	74.00	-19.33	40.21	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

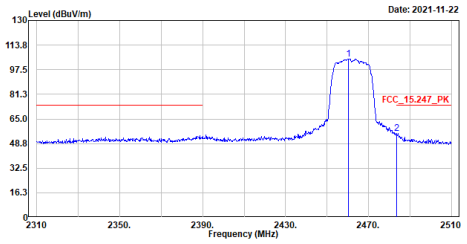
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.000	95.30	------	------	80.87	14.43	Average
2	2483.600	44.17	54.00	-9.83	29.71	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

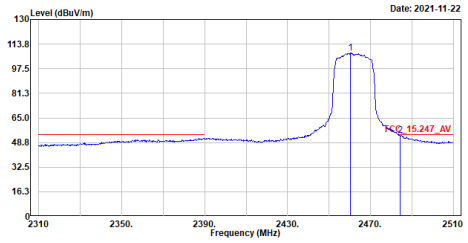
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n20_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.400	104.63	------	------	90.20	14.43	Peak
2	2483.600	55.50	74.00	-18.50	41.04	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

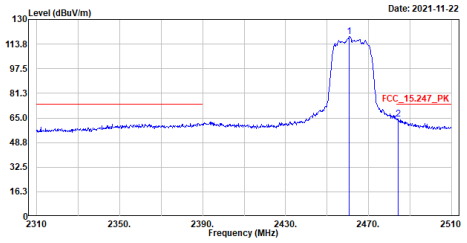
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.400	108.08	------	------	93.65	14.43	Average
2	2484.400	53.62	54.00	-0.38	39.16	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

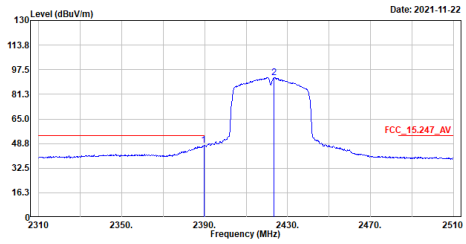
Site :966-3
Condition :3m ,Vertical
Mode :TX_n20_2462MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2460.800	118.64	------	------	104.21	14.43	Peak
2	2484.400	64.16	74.00	-9.84	49.70	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

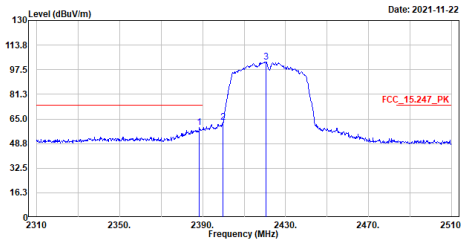
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2422MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.600	47.81	54.00	-6.19	33.53	14.28	Average
2	2423.600	92.40	------	------	78.02	14.38	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

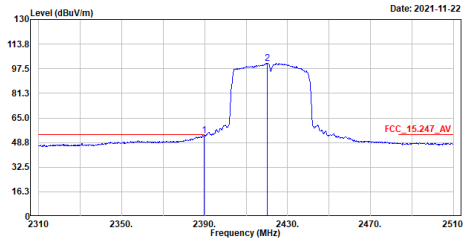
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2422MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.400	59.30	74.00	-14.70	45.03	14.27	Peak
2	2399.800	62.76	------	------	48.42	14.34	Peak
3	2420.600	102.58	------	------	88.21	14.37	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

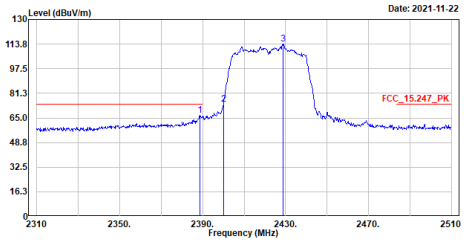
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2422MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.800	53.67	54.00	-0.33	39.39	14.28	Average
2	2420.200	101.21	------	------	86.84	14.37	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

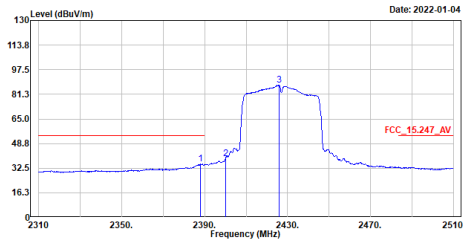
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2422MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.600	66.76	74.00	-7.24	52.49	14.27	Peak
2	2400.000	74.29	------	------	59.95	14.34	Peak
3	2428.800	113.76	------	------	99.38	14.38	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

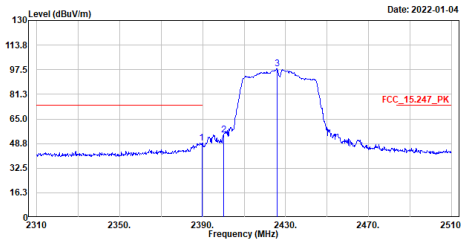
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2427MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.000	35.30	54.00	-18.70	21.03	14.27	Average
2	2400.000	38.72	------	------	24.38	14.34	Average
3	2426.000	87.34	------	------	72.96	14.38	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

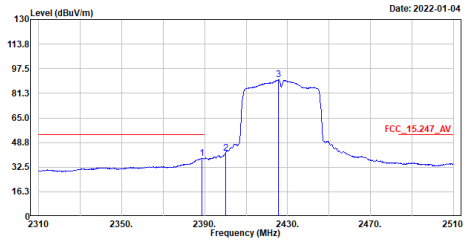
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2427MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.600	49.13	74.00	-24.87	34.85	14.28	Peak
2	2400.000	54.62	------	------	40.28	14.34	Peak
3	2425.800	98.07	------	------	83.69	14.38	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

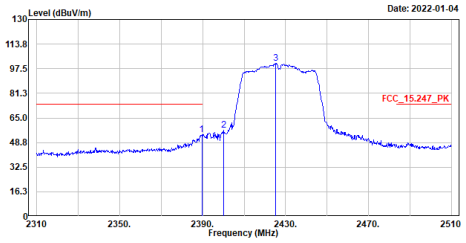
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2427MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.600	38.43	54.00	-15.57	24.16	14.27	Average
2	2400.000	41.52	------	------	27.18	14.34	Average
3	2425.600	90.06	------	------	75.68	14.38	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

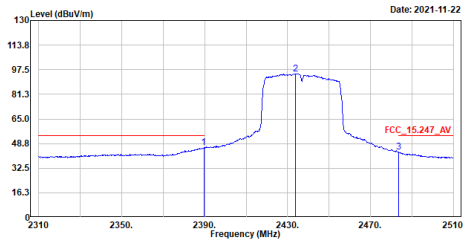
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2427MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.600	53.78	74.00	-20.22	39.50	14.28	Peak
2	2400.000	56.74	------	------	42.40	14.34	Peak
3	2425.200	100.95	------	------	86.57	14.38	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

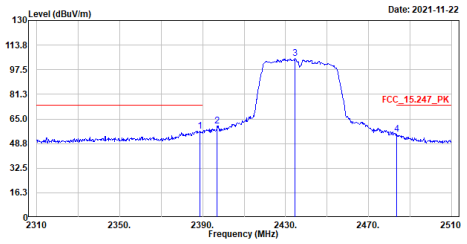
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.600	46.09	54.00	-7.91	31.81	14.28	Average
2	2433.800	94.85	------	------	80.46	14.39	Average
3	2483.600	43.21	54.00	-10.79	28.75	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

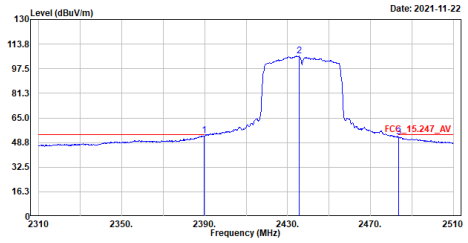
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2388.800	56.89	74.00	-17.11	42.61	14.28	Peak
2	2397.000	60.52	------	------	46.19	14.33	Peak
3	2434.400	105.03	------	------	90.64	14.39	Peak
4	2483.600	54.82	74.00	-19.18	40.36	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

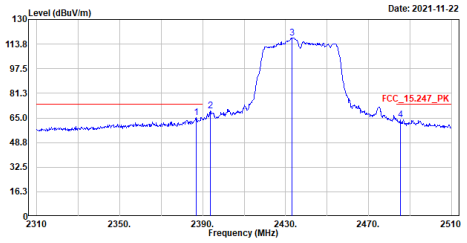
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2389.800	53.59	54.00	-0.41	39.31	14.28	Average
2	2435.600	105.75	------	------	91.36	14.39	Average
3	2483.600	52.25	54.00	-1.75	37.79	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

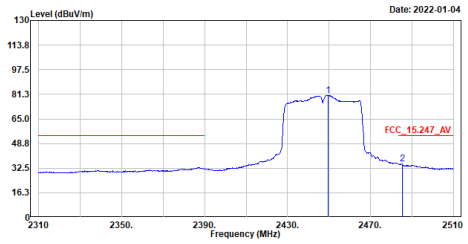
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2437MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2386.800	65.24	74.00	-8.76	50.97	14.27	Peak
2	2393.800	69.44	------	------	55.12	14.32	Peak
3	2433.000	117.95	------	------	103.56	14.39	Peak
4	2485.200	63.89	74.00	-10.11	49.43	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

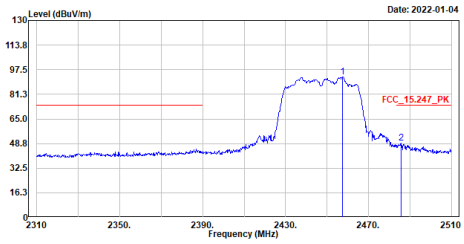
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2447MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2449.400	80.64	------	------	66.23	14.41	Average
2	2485.200	35.24	54.00	-18.76	20.78	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

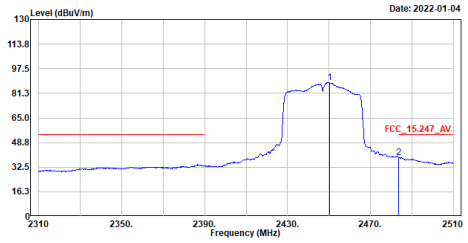
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2447MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2457.600	92.74	------	------	78.32	14.42	Peak
2	2485.600	49.13	74.00	-24.87	34.67	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

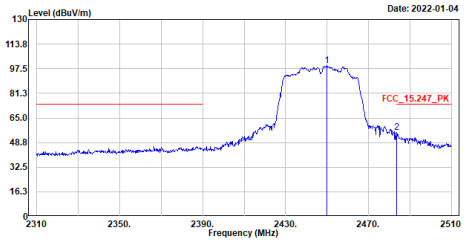
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2447MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2450.200	88.25	------	------	73.83	14.42	Average
2	2483.600	38.76	54.00	-15.24	24.30	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

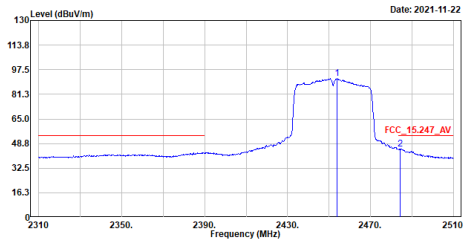
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2447MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2449.800	99.70	------	------	85.28	14.42	Peak
2	2483.600	55.28	74.00	-18.72	40.82	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

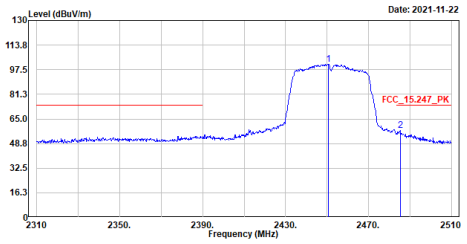
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2453.800	91.62	------	------	77.20	14.42	Average
2	2484.200	45.14	54.00	-8.86	30.68	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

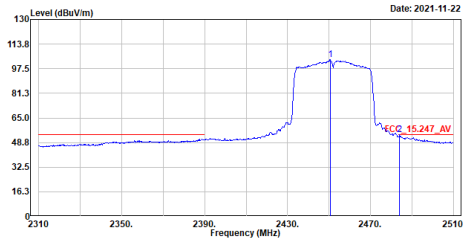
Site :966-3
Condition :3m ,Horizontal
Mode :TX_n40_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2450.800	101.26	------	------	86.84	14.42	Peak
2	2485.200	57.63	74.00	-16.37	43.17	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

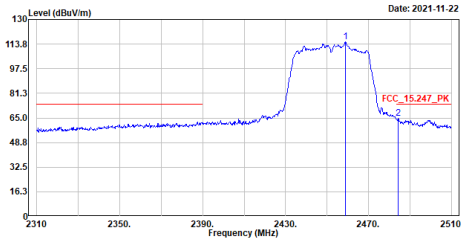
Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2452MHz
TEST BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2450.800	103.28	------	------	88.86	14.42	Average
2	2484.000	53.77	54.00	-0.23	39.31	14.46	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

Site :966-3
Condition :3m ,Vertical
Mode :TX_n40_2452MHz
TEST BY :Jing Chang

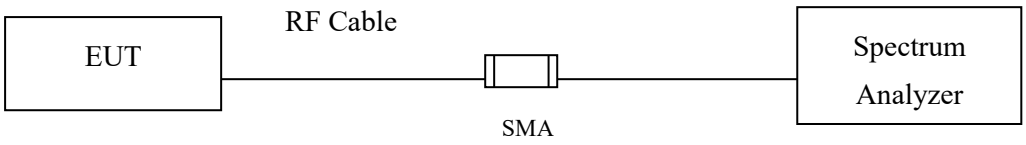


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1	2459.000	115.18	------	------	100.76	14.42	Peak
2	2484.200	64.52	74.00	-9.48	50.06	14.46	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line

7. 6dB Bandwidth

7.1. Test Setup



7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

7.3. Test Procedure

The EUT was setup according to ANSI C63.4, 2014; tested according to ANSI C63.10 Section 11.8 for compliance to FCC 47CFR 15.247 requirements.

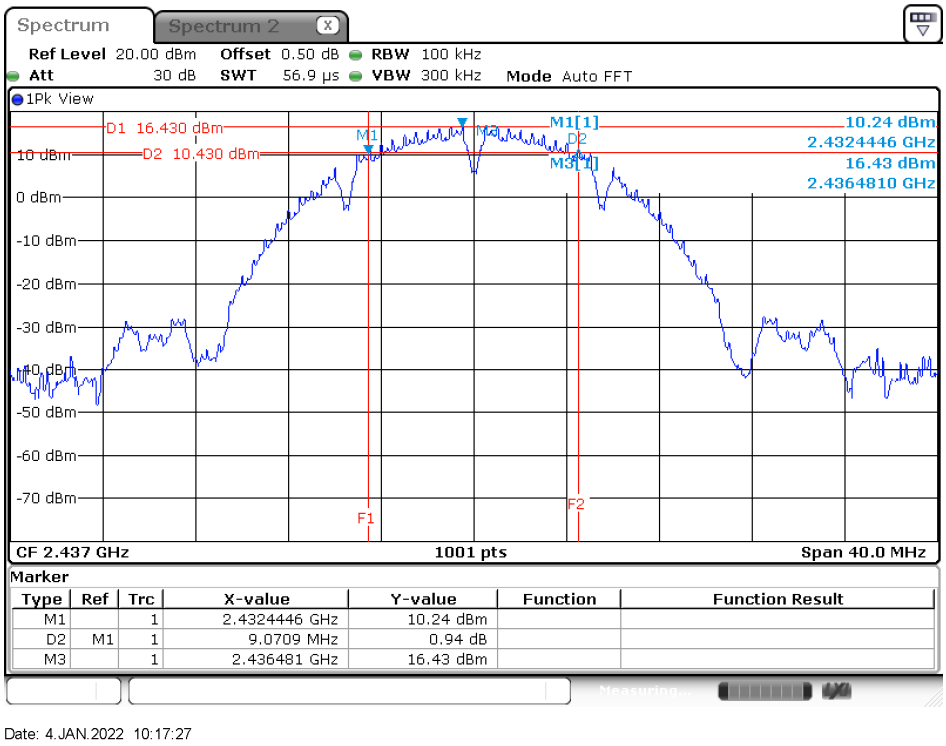
7.4. Test Result of 6dB Bandwidth

Product : AX3200 SMART ROUTER
Test Item : 6dB Bandwidth Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Chain A

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	9071	>500	Pass
06	2437	9071	>500	Pass
11	2462	9031	>500	Pass

Figure Channel 06:



Product : AX3200 SMART ROUTER
Test Item : 6dB Bandwidth Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -CDD

Chain A

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

Chain B

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

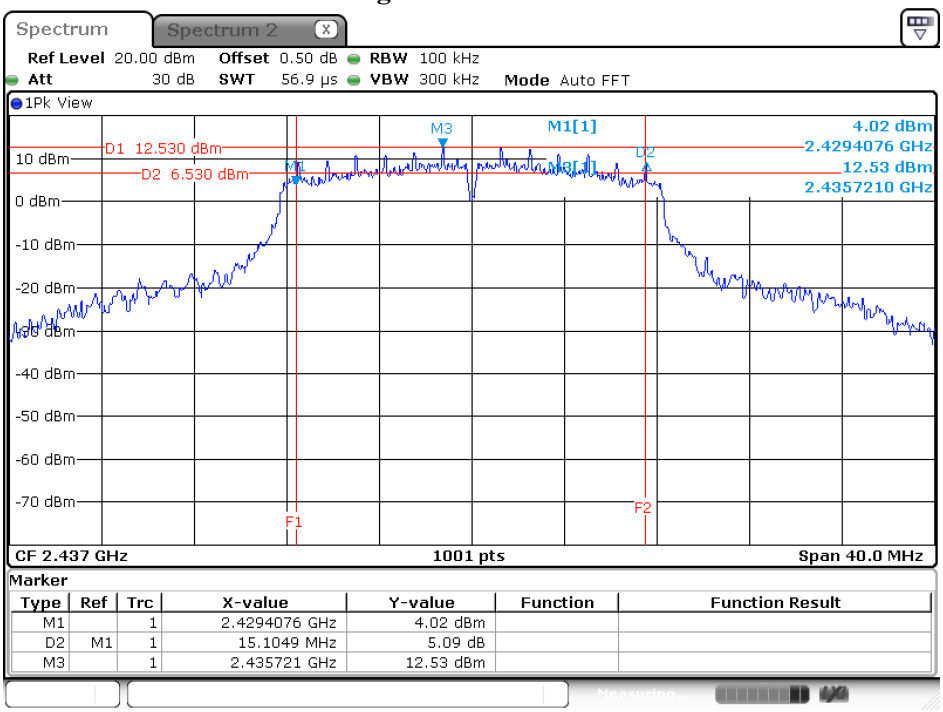
Chain C

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

Chain D

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

Figure Channel 06:



Date: 4.JAN.2022 14:28:49

Product : AX3200 SMART ROUTER
Test Item : 6dB Bandwidth Data
Test Mode : Mode 3: Transmit (802.11n-20MBW MCS0 28.9Mbps) -CDD

Chain A

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

Chain B

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15704	>500	Pass
06	2437	15704	>500	Pass
11	2462	15704	>500	Pass

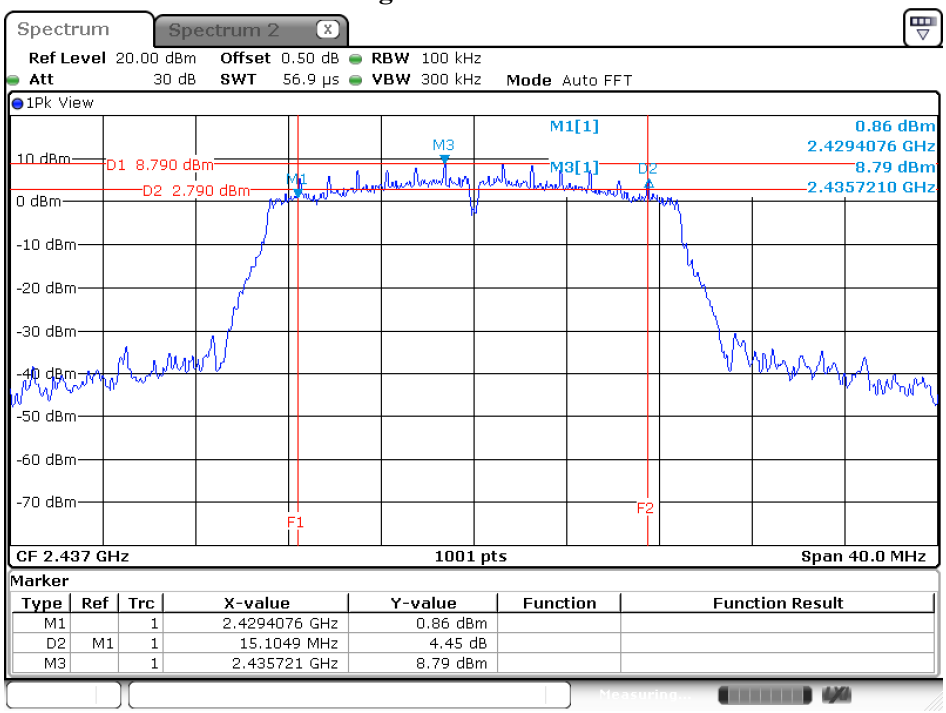
Chain C

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

Chain D

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15105	>500	Pass
06	2437	15105	>500	Pass
11	2462	15105	>500	Pass

Figure Channel 06:



Date: 4.JAN.2022 11:12:39

Product : AX3200 SMART ROUTER
Test Item : 6dB Bandwidth Data
Test Mode : Mode 4: Transmit (802.11n-40MBW MCS0 60Mbps) -CDD

Chain A

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	35005	>500	Pass
06	2437	35005	>500	Pass
09	2452	35005	>500	Pass

Chain B

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	35005	>500	Pass
06	2437	35005	>500	Pass
09	2452	35005	>500	Pass

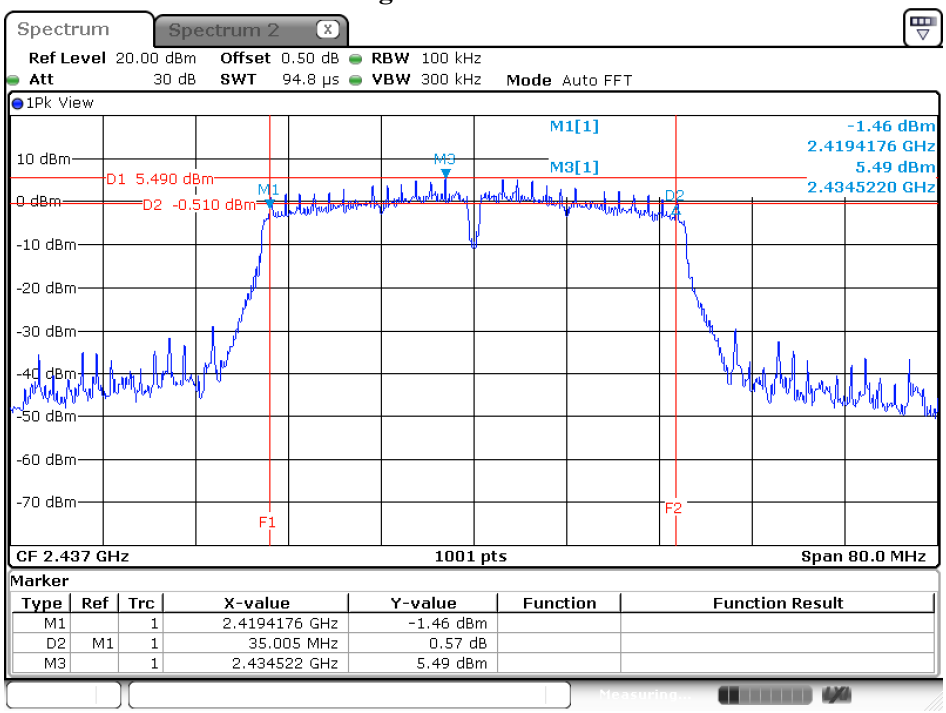
Chain C

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	35005	>500	Pass
06	2437	35005	>500	Pass
09	2452	35085	>500	Pass

Chain D

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	35005	>500	Pass
06	2437	35005	>500	Pass
09	2452	35005	>500	Pass

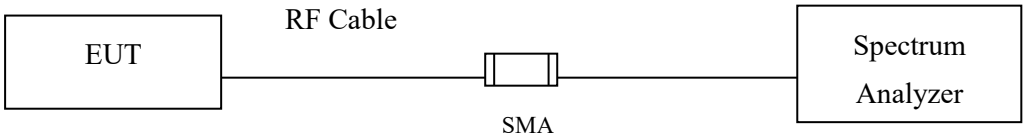
Figure Channel 06:



Date: 4.JAN.2022 14:41:14

8. Power Density

8.1. Test Setup



8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
The maximum power spectral density using C63.10 Section 11.10.2 Method PKPSD (peak PSD)

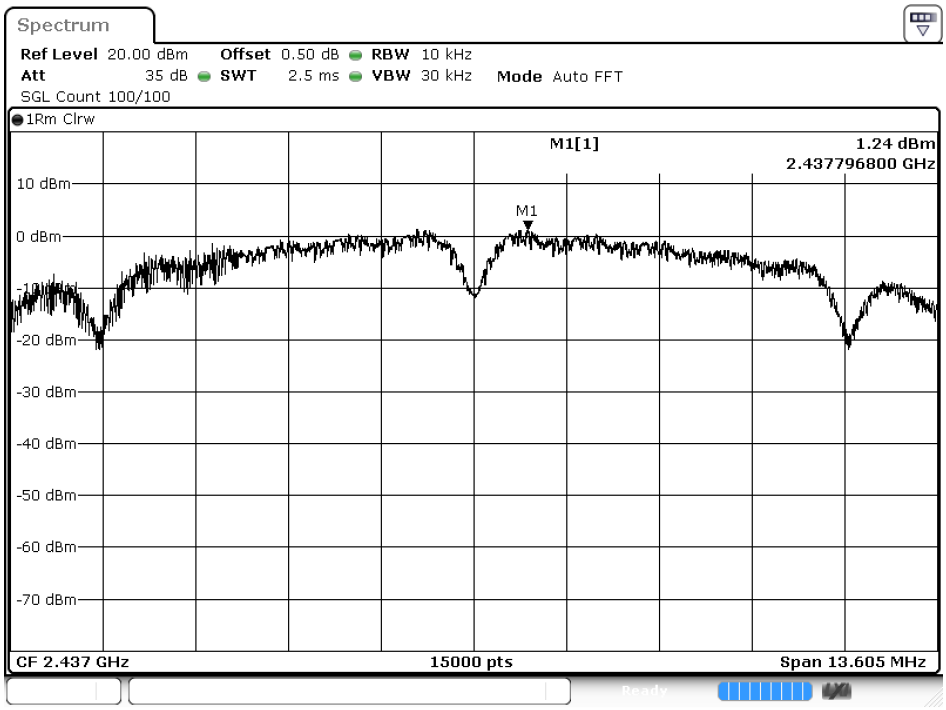
8.4. Test Result of Power Density

Product : AX3200 SMART ROUTER
Test Item : Power Density Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Chain A :

Channel No.	Frequency (MHz)	Data Rate (Mbps)	PPSD/MHz (dBm)	Duty factor (dBm)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
01	2412	1	-4.590	0.000	-4.590	≦8dBm	Pass
06	2437	1	1.240	0.000	1.240	≦8dBm	Pass
11	2462	1	-1.810	0.000	-1.810	≦8dBm	Pass

Figure Channel 06:



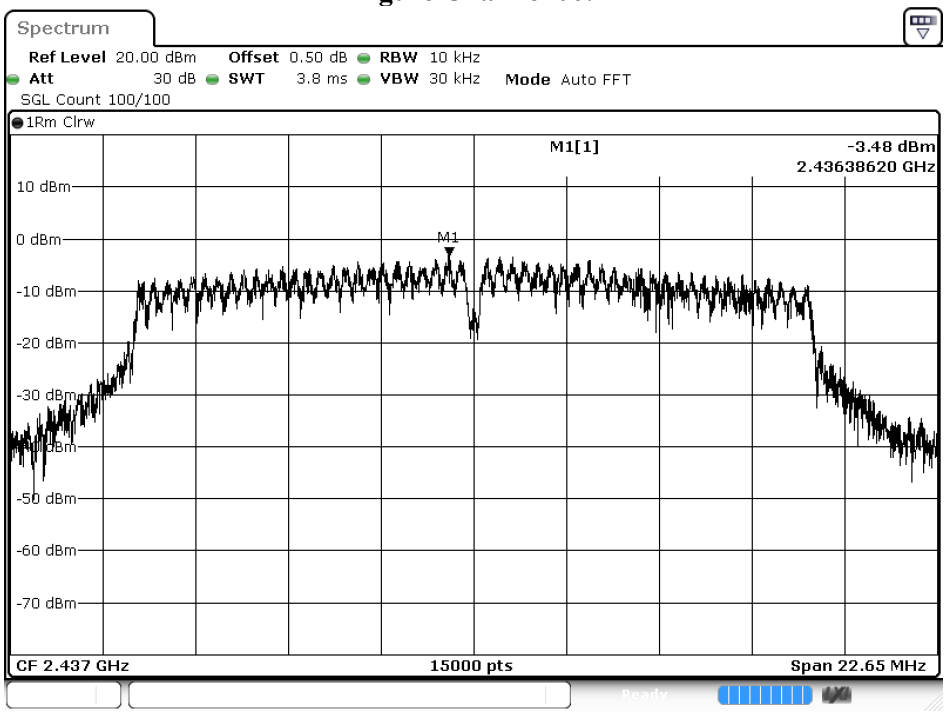
Date: 20.JAN.2022 17:06:57

Product : AX3200 SMART ROUTER
Test Item : Power Density Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -CDD

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain (dBm)	PPSD/MHz (dBm)	Duty factor (dBm)	10*log(4) (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
01	2412	6	A	-10.270	0.18	6.021	-4.065	≦2.88	Pass
			B	-11.570	0.18	6.021	-5.365		Pass
			C	-11.830	0.18	6.021	-5.625		Pass
			D	-10.770	0.18	6.021	-4.565		Pass
06	2437	6	A	-3.480	0.18	6.021	2.725	≦2.88	Pass
			B	-4.630	0.18	6.021	1.575		Pass
			C	-4.750	0.18	6.021	1.455		Pass
			D	-4.390	0.18	6.021	1.815		Pass
11	2462	6	A	-6.050	0.18	6.021	0.155	≦2.88	Pass
			B	-7.380	0.18	6.021	-1.175		Pass
			C	-6.840	0.18	6.021	-0.635		Pass
			D	-6.600	0.18	6.021	-0.395		Pass

Note :
The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Figure Channel 06:



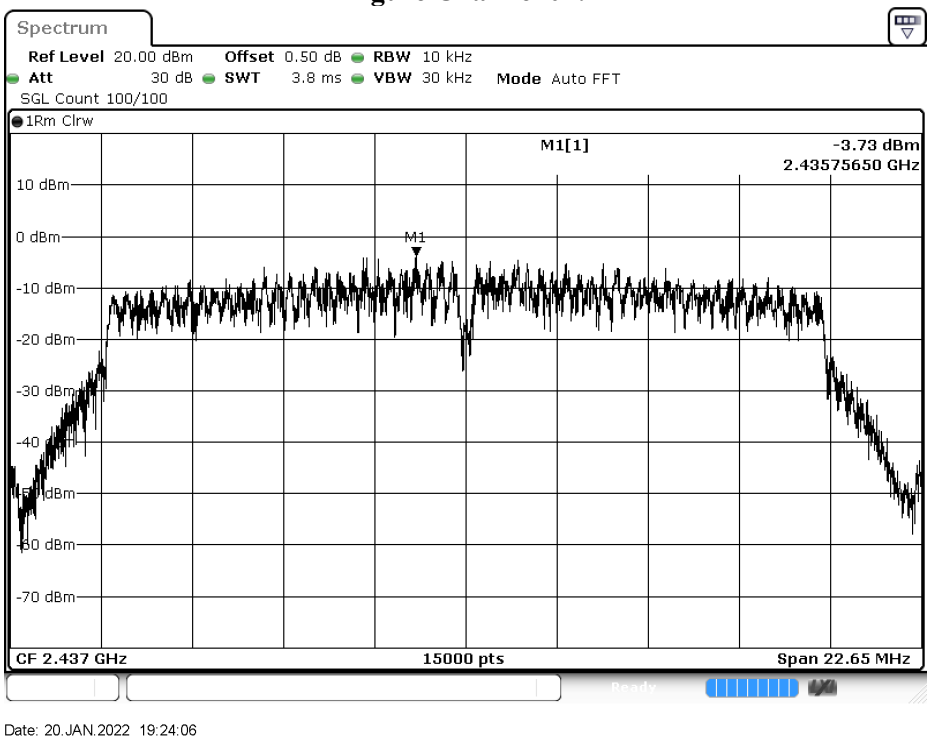
Date: 20.JAN.2022 19:11:45

Product : AX3200 SMART ROUTER
Test Item : Power Density Data
Test Mode : Mode 3: Transmit (802.11n-20MBW MCS0 28.9Mbps) -CDD

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain (dBm)	PPSD/MHz (dBm)	Duty factor (dBm)	10*log(4) (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
01	2412	HT8	A	-9.920	0.26	6.021	-3.636	≦2.88	Pass
			B	-11.610	0.26	6.021	-5.326		Pass
			C	-9.980	0.26	6.021	-3.696		Pass
			D	-10.390	0.26	6.021	-4.106		Pass
06	2437	HT8	A	-5.000	0.26	6.021	1.284	≦2.88	Pass
			B	-5.190	0.26	6.021	1.094		Pass
			C	-5.200	0.26	6.021	1.084		Pass
			D	-3.730	0.26	6.021	2.554		Pass
11	2462	HT8	A	-7.750	0.26	6.021	-1.466	≦2.88	Pass
			B	-10.150	0.26	6.021	-3.866		Pass
			C	-8.230	0.26	6.021	-1.946		Pass
			D	-8.500	0.26	6.021	-2.216		Pass

Note :
The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Figure Channel 01:

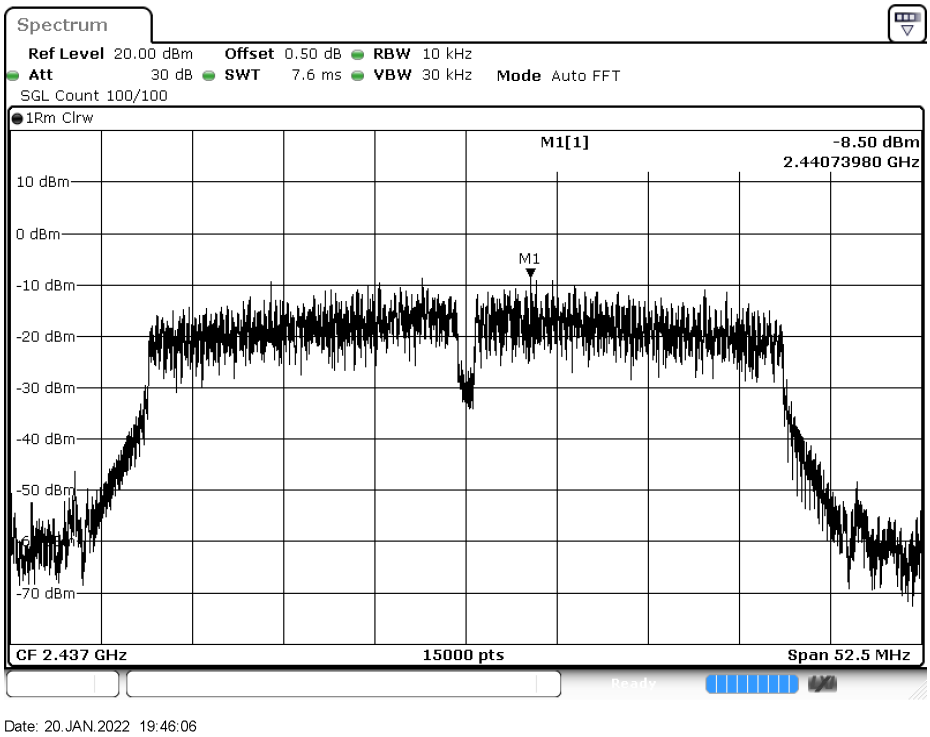


Product : AX3200 SMART ROUTER
Test Item : Power Density Data
Test Mode : Mode 4: Transmit (802.11n-40MBW MCS0 60Mbps) -CDD

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Chain (dBm)	PPSD/MHz (dBm)	Duty factor (dBm)	10*log(4) (dB)	Total PPSD/MHz (dBm)	Limit (dBm)	Result
03	2422	HT8	A	-12.860	0.53	6.021	-6.312	≦2.88	Pass
			B	-13.050	0.53	6.021	-6.502		Pass
			C	-11.570	0.53	6.021	-5.022		Pass
			D	-13.940	0.53	6.021	-7.392		Pass
06	2437	HT8	A	-8.740	0.53	6.021	-2.192	≦2.88	Fail
			B	-10.380	0.53	6.021	-3.832		Pass
			C	-9.000	0.53	6.021	-2.452		Pass
			D	-8.500	0.53	6.021	-1.952		Pass
09	2452	HT8	A	-12.380	0.53	6.021	-5.832	≦2.88	Pass
			B	-12.120	0.53	6.021	-5.572		Pass
			C	-11.060	0.53	6.021	-4.512		Pass
			D	-11.680	0.53	6.021	-5.132		Pass

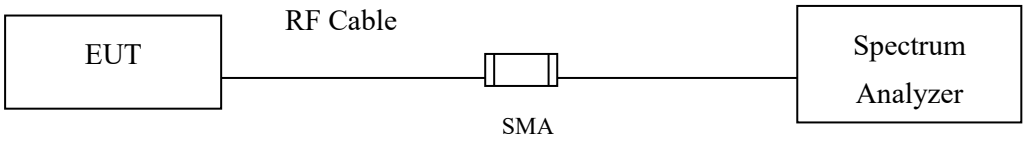
Note :
The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Figure Channel 09:



9. Duty Cycle

9.1. Test Setup



9.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to ANSI C63.10 2013 for compliance to FCC 47CFR 15.247 requirements.

9.3. Test Result of Duty Cycle

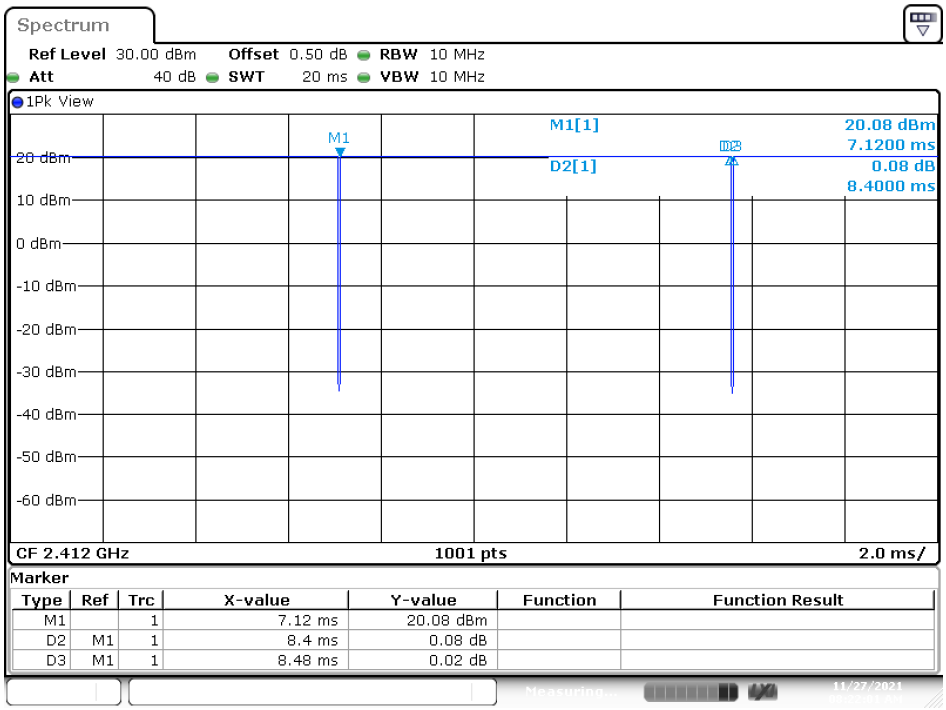
Product : AX3200 SMART ROUTER
Test Item : Duty Cycle
Test Mode : Transmit

Duty Cycle Formula:
Duty Cycle = Ton / (Ton + Toff)
Duty Factor = 10 Log (1/Duty Cycle)

Results:

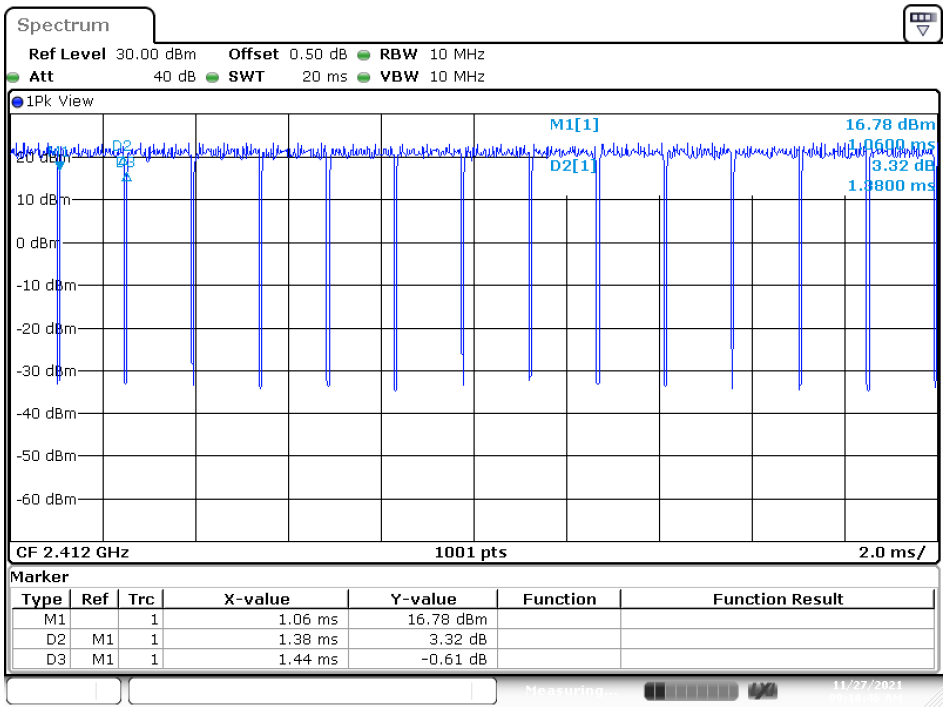
2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11b	8.4000	8.4800	99.06	0.04
802.11g-CDD	1.3800	1.4400	95.83	0.18
802.11n20-CDD	1.2800	1.3600	94.12	0.26
802.11n40-CDD	0.6200	0.7000	88.57	0.53

802.11b



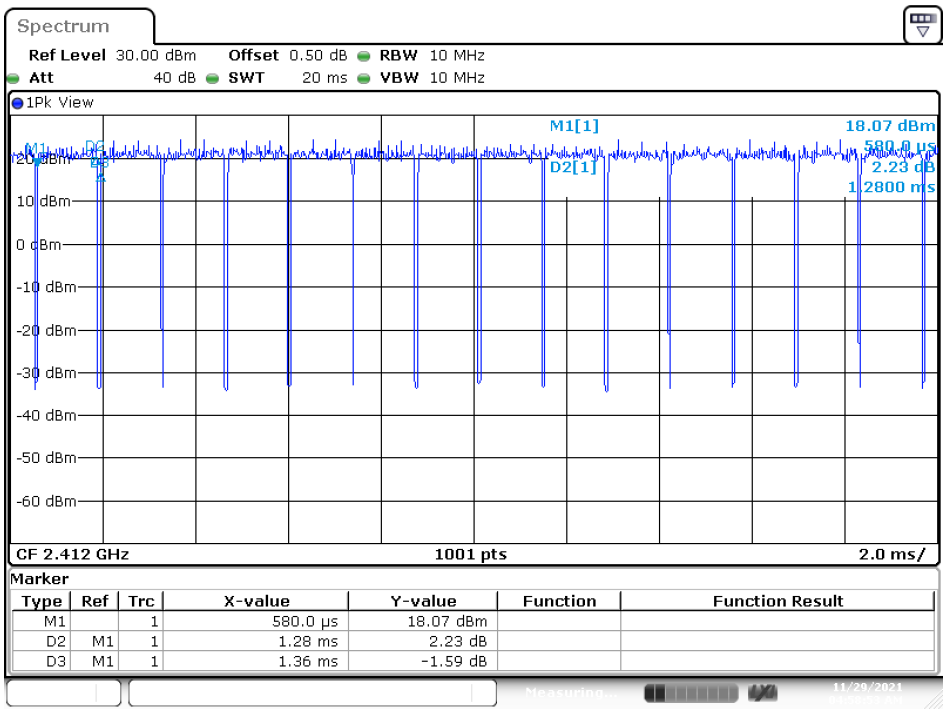
Date: 27.NOV.2021 08:22:02

802.11g-CDD



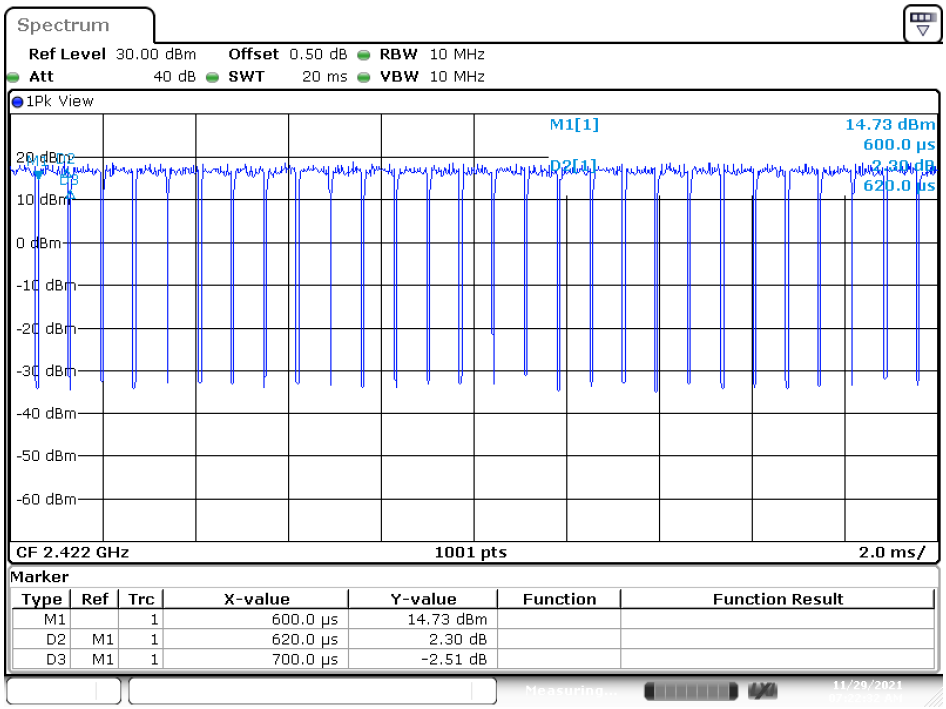
Date: 27.NOV.2021 09:18:46

802.11n20-CDD



Date: 29.NOV.2021 04:58:54

802.11n40-CDD



Date: 29.NOV.2021 07:22:32

10. EMI Reduction Method During Compliance Testing

No modification was made during testing.