TEST REPORT

Product	:	Remote Controller
Trade mark	:	PowerVision
Model/Type reference	:	PRC30
Serial Model	:	N/A
Report Number	:	EED39N80210201R2
FCC ID	:	2AKBMPRC30
Date of Issue	:	August 9, 2021

Test Standards	Result
☒ 47 CFR Part 15 Subpart C	PASS

Prepared for:

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Prepared by:

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Check No.: 7824090421

Modification Record

No.	Last Report No.	Modification Description
1	EED39N80210201	First report
2	EED39N80210201R1	Change applicant and manufacturer address.
3	EED39N80210201R2	Change Factory name & address.

All test data come from the report of EED39N80210201.

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1. Test Summary

Test item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (c)	ANSI C63.10-2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	N/A
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(1)	ANSI C63.10-2013	PASS
20dB Emission Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Carrier Frequencies Separation	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Number of hopping channels	47 CFR Part 15 Subpart C Section 15.247 (b)	ANSI C63.10-2013	PASS
Time of occupancy	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
Radiated Spurious emissions	47 CFR Part 15 Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15 Subpart C Section 15.205	ANSI C63.10-2013	PASS

2. Test Requirement

2.1. Test Environment

Operating Environment:	
Temperature:	25 °C
Humidity:	59 % RH
Atmospheric Pressure:	1008 mbar

2.2. Test Condition

Test Mode	Tx	RF Channel		
		Low(L)	Middle(M)	High(H)
2.4G	2405MHz ~2475 MHz	Channel 1	Channel 19	Channel 36
		2405MHz	2441MHz	2475MHz
TX mode: The EUT transmitted the continuous modulation test signal at the specific channel(s).				

3. General Information

3.1. Client Information

Applicant:	Powervision Tech Inc.
Address of Applicant:	Zone E,Ocean Venture Valley, No.40, Yangguang Rd, Nanhai new District, Weihai, Shandong,China. 264200
Manufacturer:	Powervision Tech Inc.
Address of Manufacturer:	Zone E,Ocean Venture Valley, No.40, Yangguang Rd, Nanhai new District, Weihai, Shandong,China. 264200
Factory:	Powervision (Suzhou) Technology Co.,Ltd.
Address of Factory:	Building 3,No.15, Zhujing Road,Changshu High-tech Industrial Development Zone,Suzhou,China

3.2. General Description of EUT

Product Name:	Remote Controller
Model No.(EUT):	PRC30
Trade Mark:	PowerVision
EUT Supports Radios application:	2.4G
Power Supply:	DC 3.7V FOR BATTERY/DC 5V FOR USB
Sample Received Date:	2021.04.09
Sample tested Date:	2021.05.14~2021.05.27 and 2021.08.09

3.3. Product Specification subjective to this standard

Operation Frequency:	2405MHz~2475MHz
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	64QAM，16QAM，QPSK，BPSK
Number of Channel:	36
Hopping Channel Type:	Adaptive Frequency Hopping systems
Test Software of EUT:	Artosyn8020PCTool-v4.4.8 (manufacturer declare)
Antenna Type:	Dipole antenna
Antenna Gain①:	1 dBi
Test Voltage:	DC 3.7V

Note: 1 The antenna gain is provided by the client and we Centre Testing International (Suzhou) CO., LTD. test lab is not responsible for the accuracy of the antenna gain information.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2405MHz	10	2423MHz	19	2441MHz	28	2459MHz
2	2407MHz	11	2425MHz	20	2443MHz	29	2461MHz
3	2409MHz	12	2427MHz	21	2445MHz	30	2463MHz
4	2411MHz	13	2429MHz	22	2447MHz	31	2465MHz
5	2413MHz	14	2431MHz	23	2449MHz	32	2467MHz
6	2415MHz	15	2433MHz	24	2451MHz	33	2469MHz
7	2417MHz	16	2435MHz	25	2453MHz	34	2471MHz
8	2419MHz	17	2437MHz	26	2455MHz	35	2473MHz
9	2421MHz	18	2439MHz	27	2457MHz	36	2475MHz

3.4. Description of Support Units

The EUT has been tested with associated equipment below.

1）support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
NB	ThinkPad	E490	FCC ID and DOC	CTI

3.5. Test Location

All test facilities used to collect the test data are located at Building 18, Zhihui New Town Ecological Industrial Park, No. 1206, Jinyang East Road, Lujia Town, Kunshan, Jiangsu, China.

3.6. Test Facility

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

A2LA-Lab Cert. No. 5734.01

Centre Testing International (Suzhou) CO., LTD. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration. Laboratories and any additional program requirements in the identified field of testing.

FCC-Designation No.:CN1290

Centre Testing International Group Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The American association for Centre Testing International Group Co., Ltd. EMC laboratory accreditation Designation No.:CN1290

3.7. Deviation from Standards

None.

3.8. Abnormalities from Standard Conditions

None.

3.9. Other Information Requested by the Customer

None.

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

No.	Item	Measurement Uncertainty
1	Occupied Bandwidth	0.56%
2	RF Power conducted	0.59 dB
3	Power Spectral Density, conducted	2.37 dB
4	Unwanted Emission, conducted	2.68 dB
5	All Emission, radiated	4.41 dB(30MHz-1GHz)
		4.99 dB(1GHz-18GHz)
		5.307 dB(18GHz-40GHz)
6	Temperature test	0.54°C
7	Humidity test	1.62%
8	DC and low frequency voltages test	1.14%

4. Equipment List

RF test system					
Equipment	**Manufacturer**	**Mode No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Signal Generator	R&S	SMB100A	182002	2020-10-23	2021-10-22
Communication test set test set	R&S	CMW500	107929	2021-04-29	2022-04-28
Spectrum Analyzer	R&S	FSV40	101588	2020-10-23	2021-10-22
Vector signal generator	R&S	SMBV100B	101985	2020-10-23	2021-10-22
Temperature/ Humidity Indicator	testo	608-H1	1945222628	2020-11-09	2021-11-08
Switch Automatic control	R&S	OSP-B157W8	101111	2020-10-23	2021-10-22
High-low temperature chamber	GIANT FORCE	GTH-800-40-CP	MAA1908-003	2020-12-08	2021-12-07
Automatic test software	Shenzhen JS TONSCEND	/	V2.6.77.0518	/	/

966 Semi-anechoic Chamber					
Equipment	**Manufacturer**	**Mode No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Receiver	R&S	ESU8	100537	2020-12-10	2021-12-09
Spectrum analyzer	R&S	FSV40	101185	2020-12-10	2021-12-09
Preamplifier (30MHz~1GHz)	SONOMA	317	393347	2020-12-04	2021-12-03
Preamplifier (1GHz~18GHz)	R&S	SCU-18D	1987397	2020-12-10	2021-12-09
Preamplifier (18GHz~40GHz)	/	MTLNA18040030235	12009007	2020-10-23	2021-10-22
Loop Antenna (9kHz~30MHz)	TESEQ	HLA6121	54575	2021-02-27	2022-02-26
Antenna (30MHz~1GHz)	SCHWARZBECK	VULB9163	9163-965	2020-10-16	2021-10-15
Antenna (1GHz~18GHz)	R&S	HF907	102524	2020-12-15	2021-12-14
Antenna (18GHz~40GHz)	R&S	BBHA9170	1032	2020-10-23	2021-10-22
Band rejection filter	Xi'an xingbo	XBLBQ-DZA81	200827-1-02	/	/

5. Radio Technical Requirements Specification

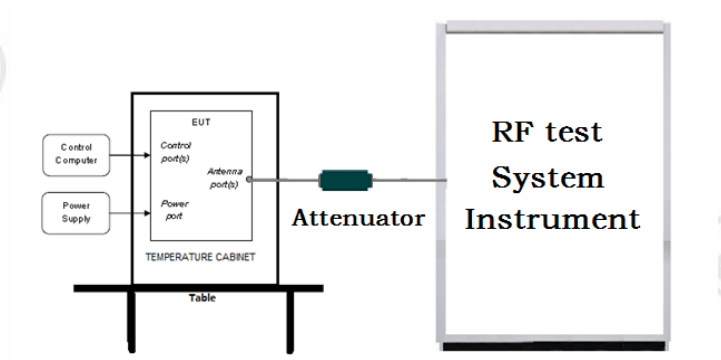
5.1. Reference Documents for Testing

No.	Identity	Document Title unlicensed
1	FCC Part15C	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

5.2. Test Results List

Test requirement	Test method	Test item	Verdict	Note
Part15C Section 15.247 (a)(1)	ANSI 63.10	20dB Emission Bandwidth	PASS	Appendix A)
Part15C Section 15.247 (b)(1)	ANSI 63.10	Maximum conducted output power	PASS	Appendix B)
Part15C Section 15.247 (a)(1)	ANSI 63.10	Carrier Frequencies Separation	PASS	Appendix C)
Part15C Section 15.247 (a)(1	ANSI 63.10	Time of occupancy	PASS	Appendix D)
Part15C Section 15.247 (b)	ANSI 63.10	Number of hopping channels	PASS	Appendix E)
Part15C Section 15.247(d)	ANSI 63.10	Band-edge for RF Conducted Emissions	PASS	Appendix F)
Part15C Section 15.247(d)	ANSI 63.10	Conducted Spurious Emissions	PASS	Appendix G)
Part15C Section 15.203/15.247 (c)	ANSI 63.10	Antenna Requirement	PASS	Appendix H)
Part15C Section 15.207	ANSI 63.10	AC Power Line Conducted Emission	PASS	Appendix I)
Part15C Section 15.205/15.209	ANSI 63.10	Restricted bands around fundamental frequency (Radiated) Emission)	PASS	Appendix J)
Part15C Section 15.205/15.209	ANSI 63.10	Radiated Spurious Emissions	PASS	Appendix K)

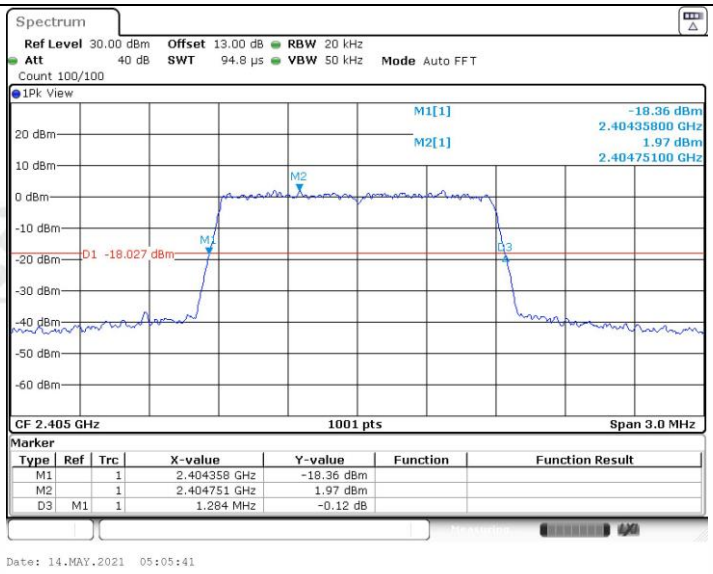
Appendix A): 20dB Emission Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel; 1%≤RBW ≤5% of the 20 dB bandwidth; VBW≥3RBW; Sweep = auto; Detector function = peak; Trace = max hold. 4. Measure and record the results in the test report.
Limit:	NA
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

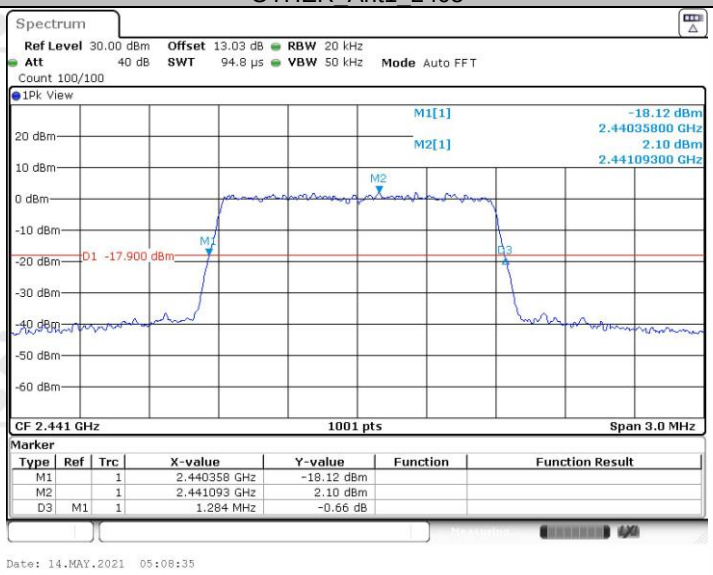
Result Table:

Test Mode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
OTHER	Ant1	2405	1.284	2404.358	2405.642	---	PASS
		2441	1.284	2440.358	2441.642	---	PASS
		2475	1.293	2474.355	2475.648	---	PASS

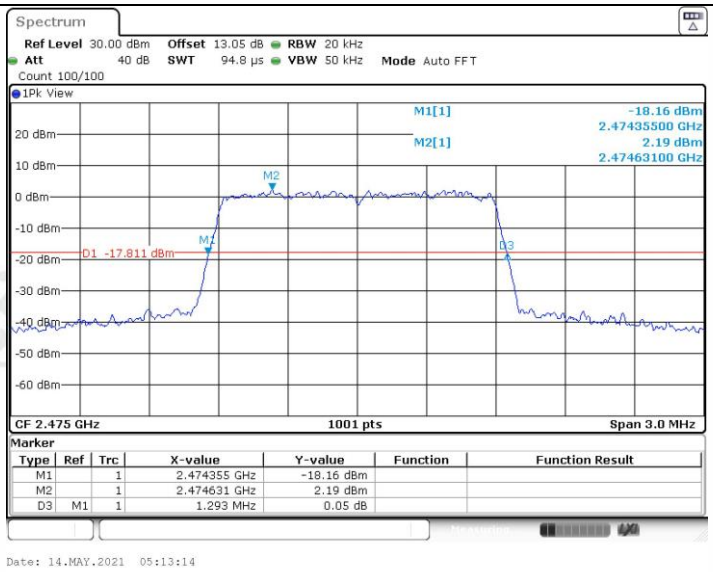
Test Graph:



OTHER_Ant1_2405

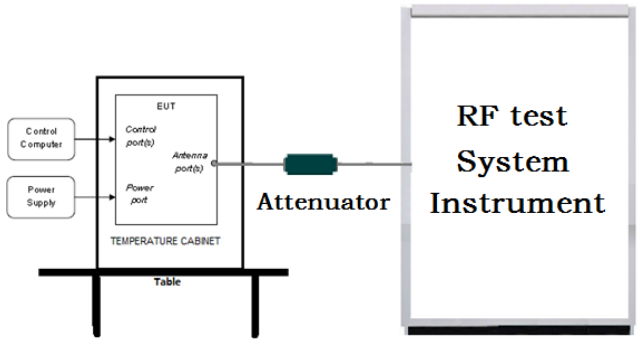


OTHER_Ant1_2441



OTHER_Ant1_2475

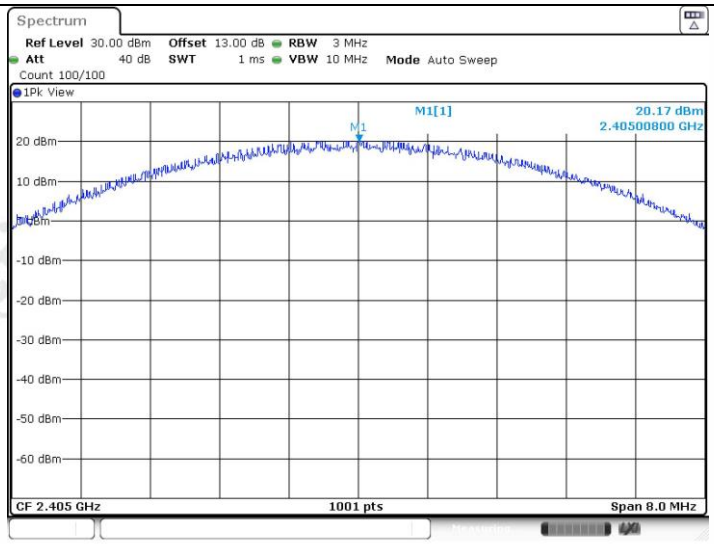
Appendix B): Maximum conducted output power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	Use the following spectrum analyzer settings: Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel RBW > the 20 dB bandwidth of the emission being measured VBW ≥ RBW Sweep = auto Detector function = peak Trace = max hold Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission.
Limit:	20.97dBm
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

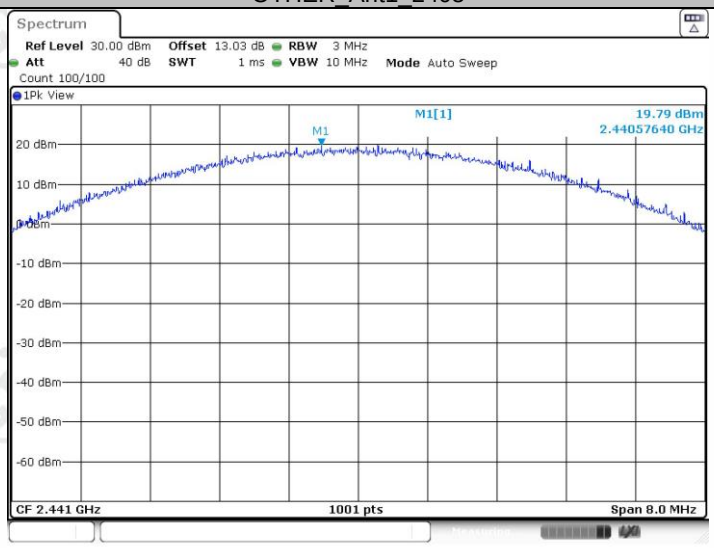
Result Table:

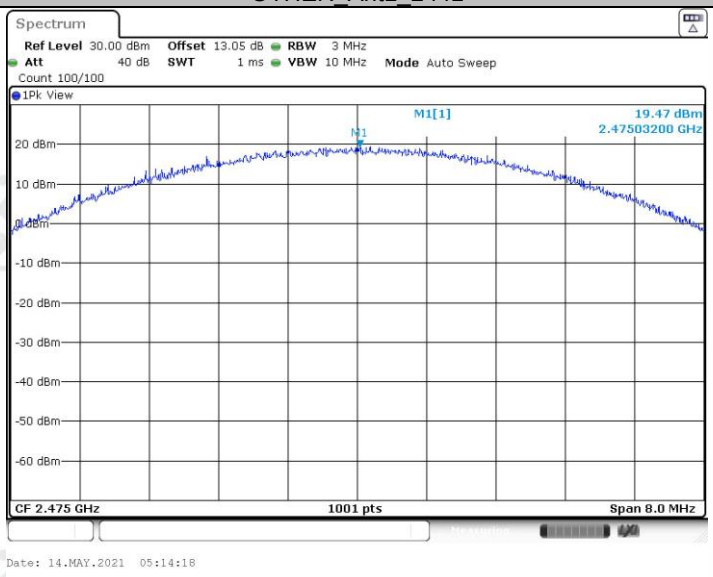
Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
OTHER	Ant1	2405	20.17	<=20.97	PASS
		2441	19.79	<=20.97	PASS
		2475	19.47	<=20.97	PASS

Test Graph:

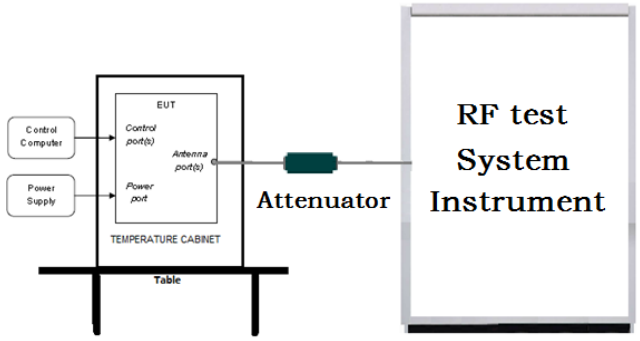


OTHER_Ant1_2405



OTHER_Ant1_2441

OTHER_Ant1_2475

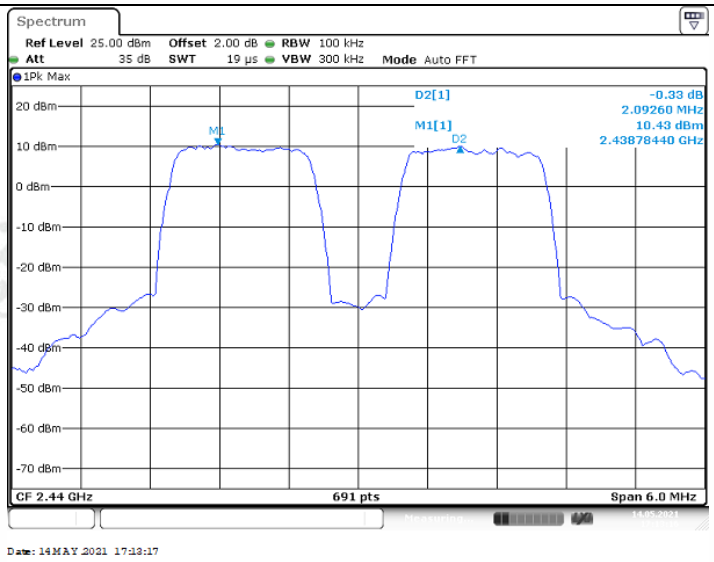
Appendix C): Carrier frequency separation

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Enable the EUT hopping function. 4. Use the following spectrum analyzer settings: Span = wide enough to capture the peaks of two adjacent channels; RBW is set to approximately 30% of the channel spacing, adjust as necessary to best identify the center of each individual channel; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. 5. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Record the value in report.
Limit:	Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.
Exploratory Test Mode:	Hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

Result Table:

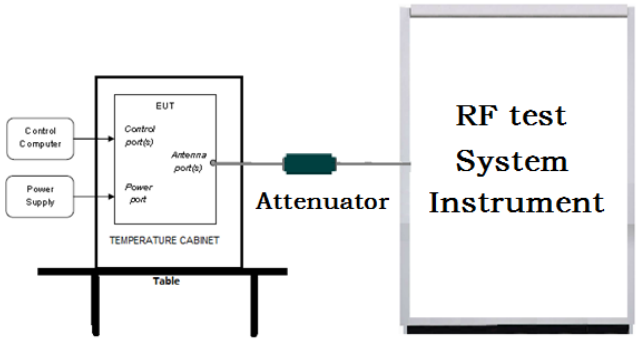
Test Mode	Antenna	Channel	Result[MHz]	Limit[dBm]	Verdict
OTHER	Ant1	Hop	2.092	≥0.862	Pass

Test Graph:



OTHER_Ant1_Hop

Appendix D): Time of occupancy

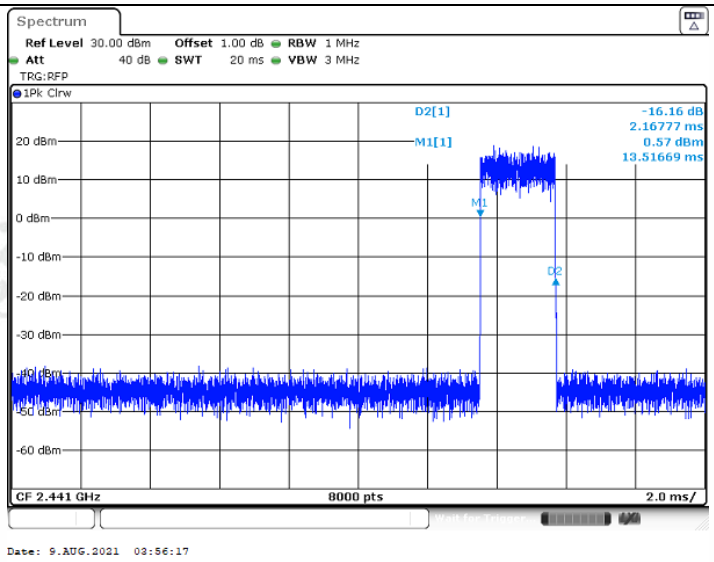
Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Enable the EUT hopping function. 4. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel; VBW≥RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold. 5. Measure and record the results in the test report.
Limit:	The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.
Test Mode:	Hopping transmitting with all kind of modulation and all kind of data type.
Test Results:	Pass

Result Table:

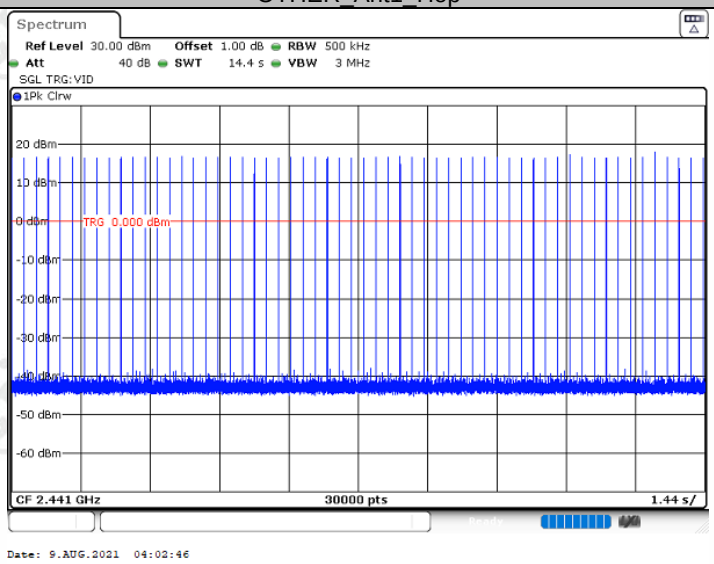
Test Mode	Antenna	Channel	Burst Width [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
OTHER	Ant1	Hop	2.17	58	0.124	<=0.4	PASS

Note 1: A period time=0.4*36=14.4(s), Result=burst width * Total Hops

Test Graph:

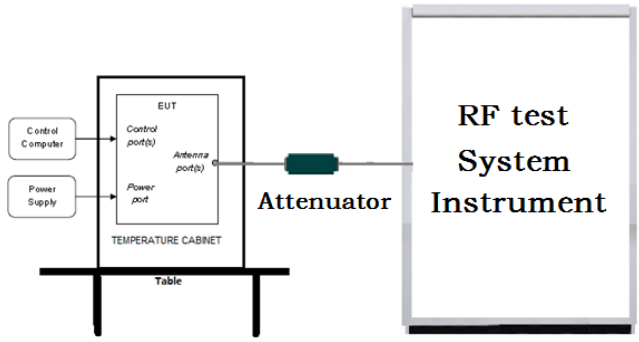


OTHER_Ant1_Hop



OTHER_Ant1_Hop

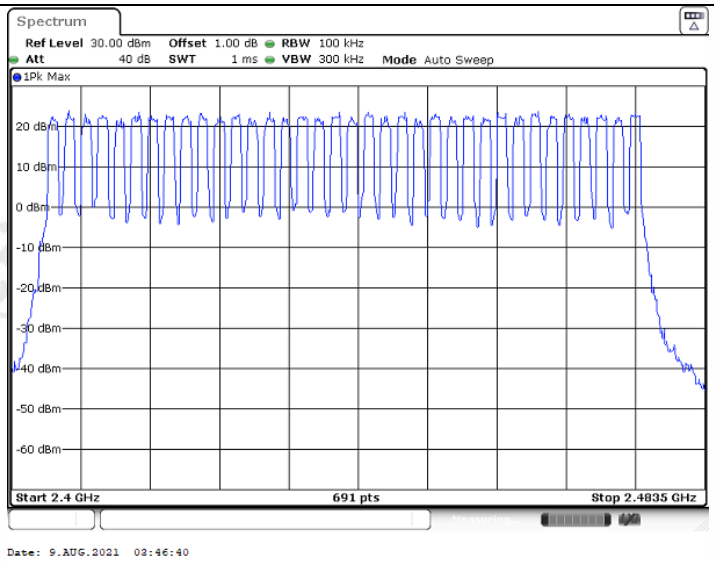
Appendix E): Number of hopping channels

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Enable the EUT hopping function. 4. Use the following spectrum analyzer settings: Span = the frequency band of operation; set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller; VBW≥RBW; Sweep= auto; Detector function = peak; Trace = max hold. 5. The number of hopping frequency used is defined as the number of total channel. 6. Record the measurement data in report.
Limit:	Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.
Test Mode:	Hopping transmitting with all kind of modulation
Test Results:	Pass

Result Table:

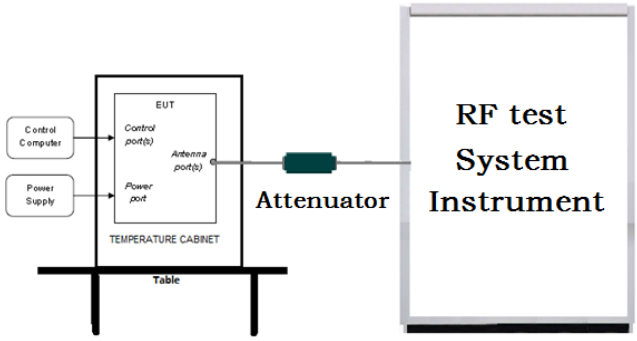
Test Mode	Antenna	Channel	Result [Num]	Limit [Num]	Verdict
OTHER	Ant1	Hop	36	>=15	PASS

Test Graph:



OTHER_Ant1_Hop

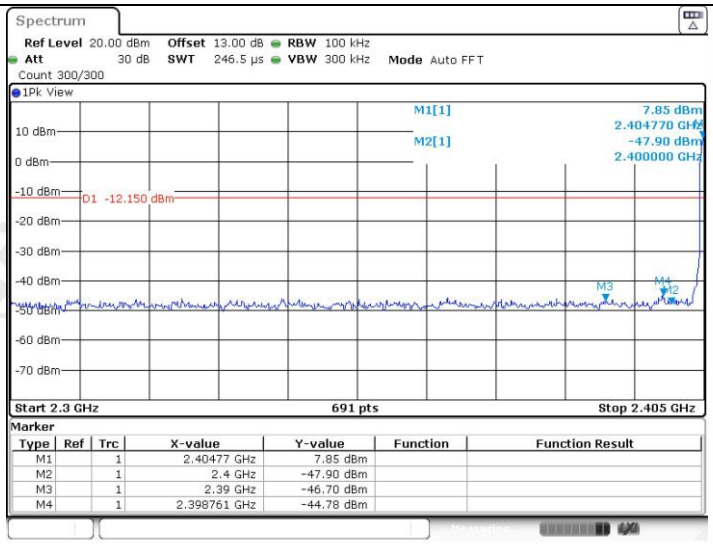
Appendix F): Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	1. Set to the maximum power setting and enable the EUT transmit continuously. 2. Set RBW = 100 kHz, VBW = 300 kHz (≥RBW). Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used. 3. Enable hopping function of the EUT and then repeat step 2 and 3. 4. Measure and record the results in the test report.
Limit:	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.
Exploratory Test Mode:	Hopping and Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

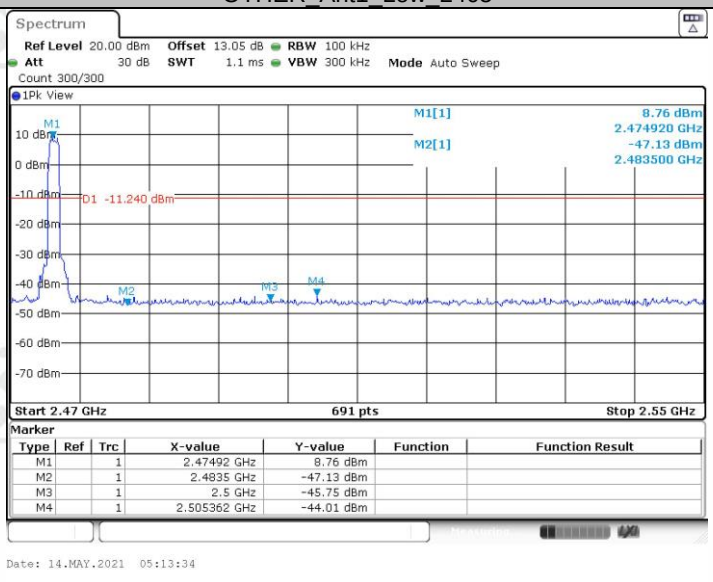
Result Table:

Test Mode	Antenna	Ch Name	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
OTHER	Ant1	Low	2405	7.85	-44.78	<=-12.15	PASS
		High	2475	8.76	-44.01	<=-11.24	PASS
		Low	Hop_2405	7.92	-49.63	<=-12.15	PASS
		High	Hop_2475	9.30	-48.30	<=-11.24	PASS

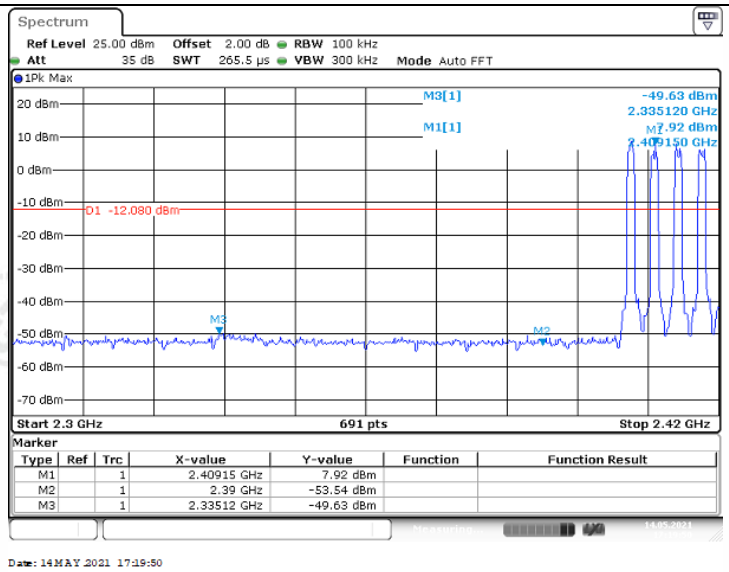
Test Graph:



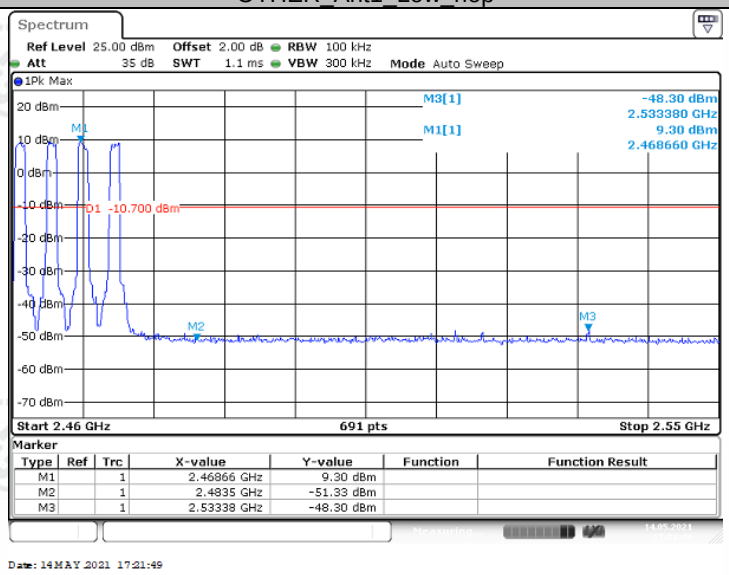
OTHER_Ant1_Low_2405



OTHER_Ant1_High_2475

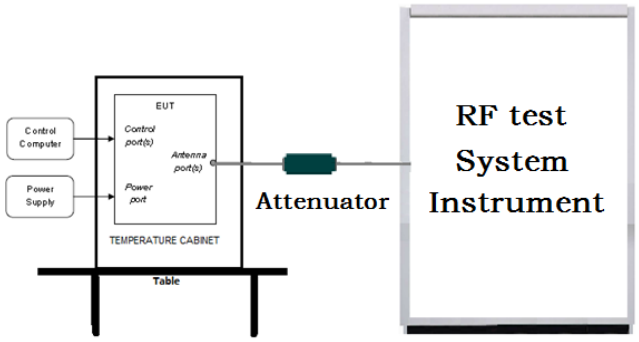


OTHER_Ant1_Low_hop



OTHER_Ant1_High_hop

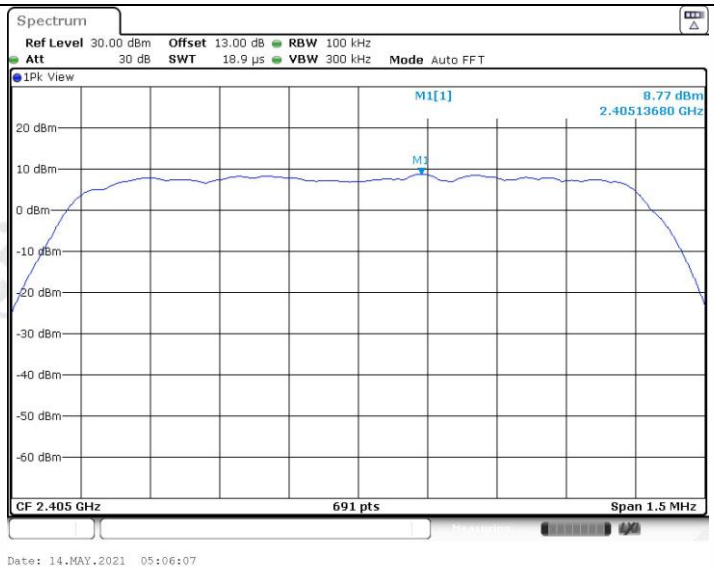
Appendix G): Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Set RBW = 100 kHz, VBW = 300kHz, scan up through 10th harmonic. All harmonics / spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. 4. Measure and record the results in the test report. 5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Limit:	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.
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

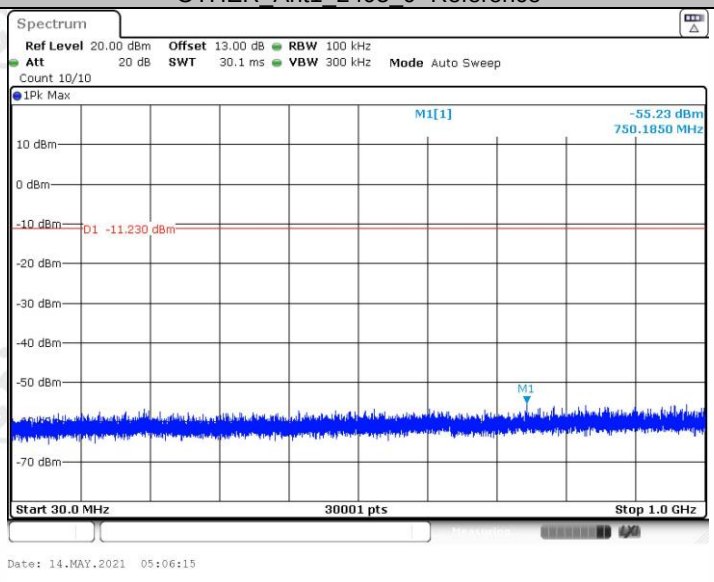
Result Table:

Test Mode	Antenna	Channel	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
OTHER	Ant1	2405	Reference	8.77	8.77	---	PASS
			30~1000	8.77	-55.23	<=-11.23	PASS
			1000~26500	8.77	-46.12	<=-11.23	PASS
		2441	Reference	8.99	8.99	---	PASS
			30~1000	8.99	-55.71	<=-11.01	PASS
			1000~26500	8.99	-45.69	<=-11.01	PASS
		2475	Reference	8.72	8.72	---	PASS
			30~1000	8.72	-55.08	<=-11.28	PASS
			1000~26500	8.72	-46.19	<=-11.28	PASS

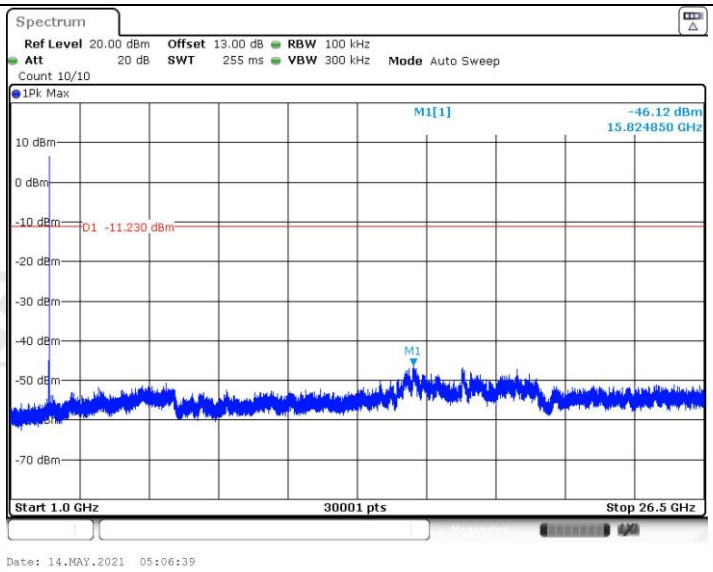
Test Graph:



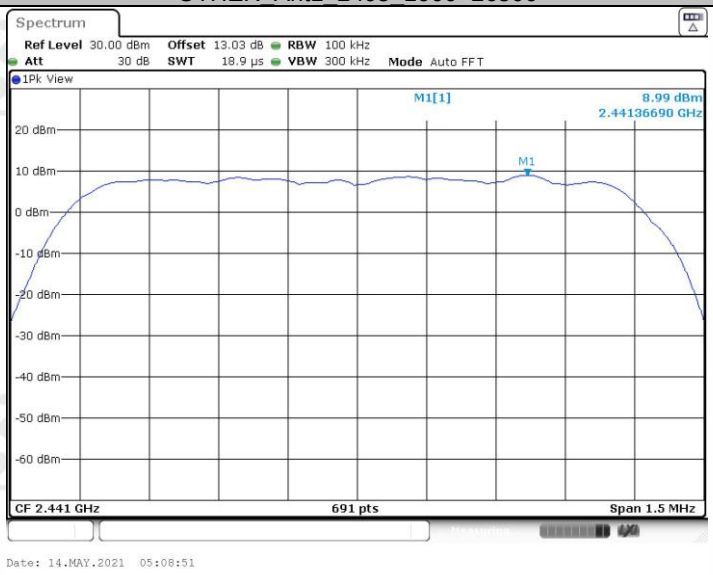
OTHER_Ant1_2405_0~Reference



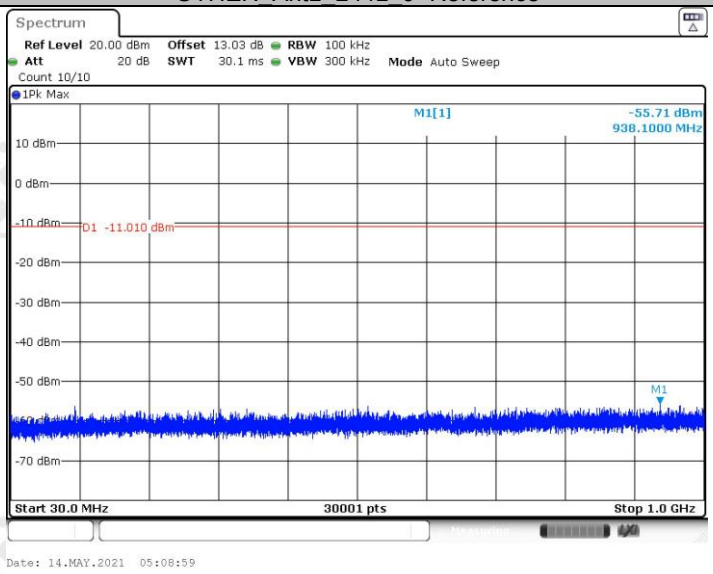
OTHER_Ant1_2405_30~1000

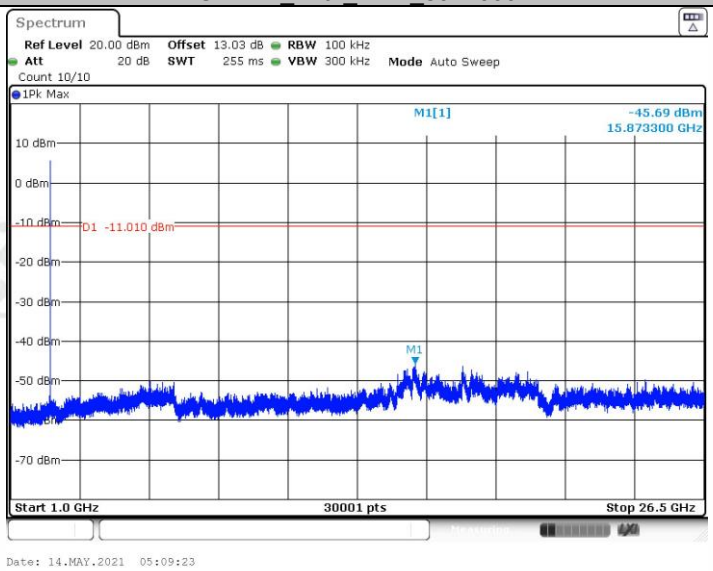
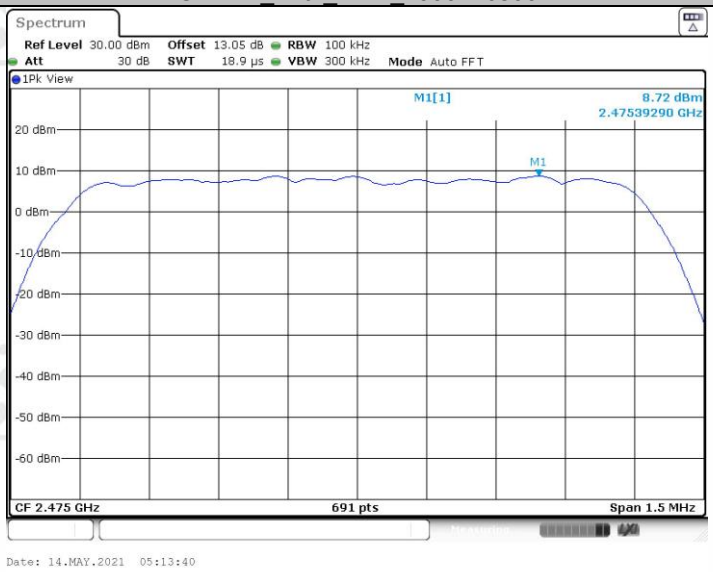


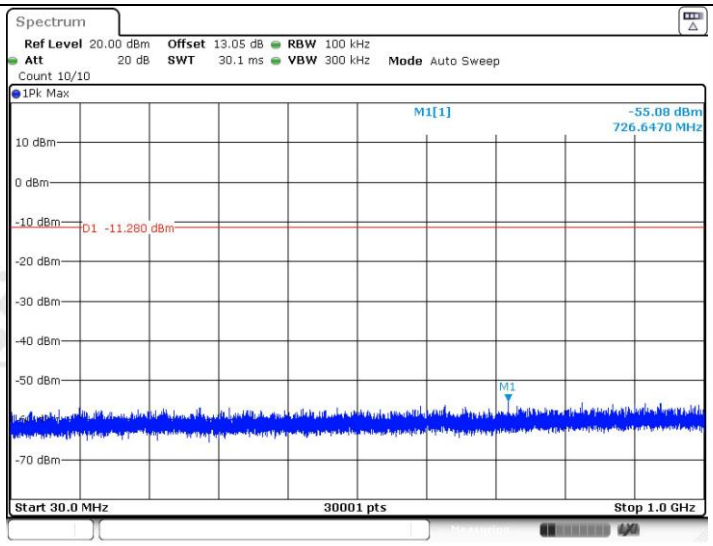
OTHER_Ant1_2405_1000~26500



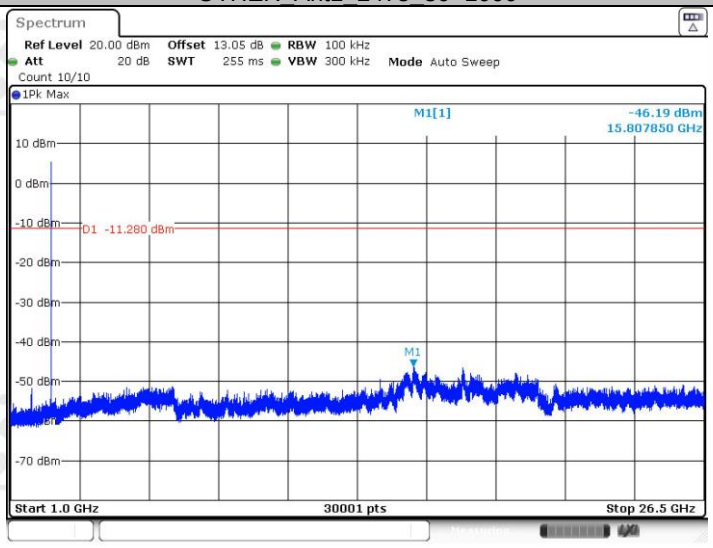
OTHER_Ant1_2441_0~Reference



OTHER_Ant1_2441_30~1000

OTHER_Ant1_2441_1000~26500

OTHER_Ant1_2475_0~Reference



OTHER_Ant1_2475_30~1000



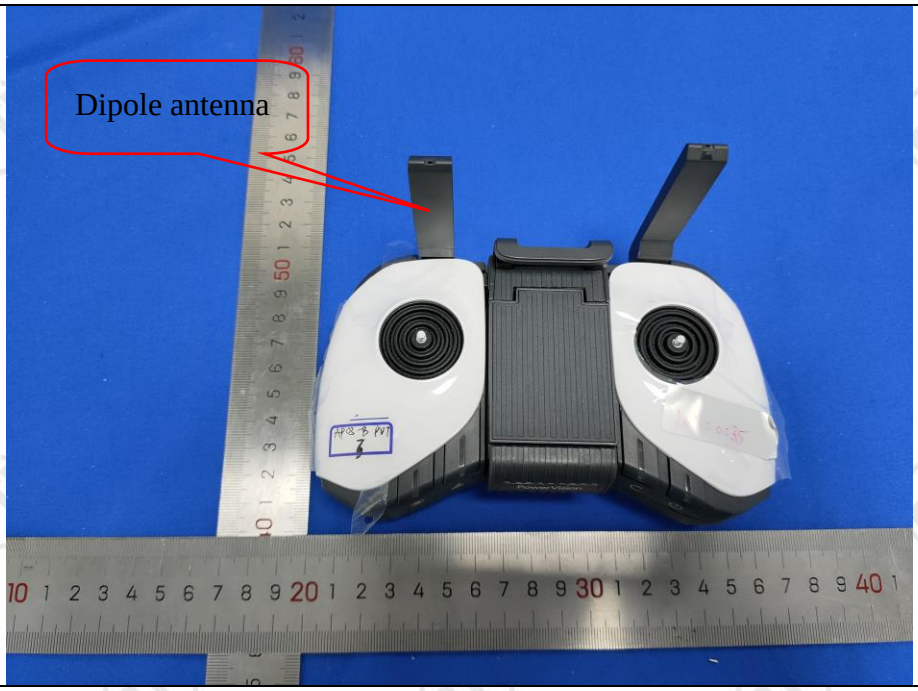
OTHER_Ant1_2475_1000~26500

Appendix H): Antenna Requirement

15.203 requirement:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

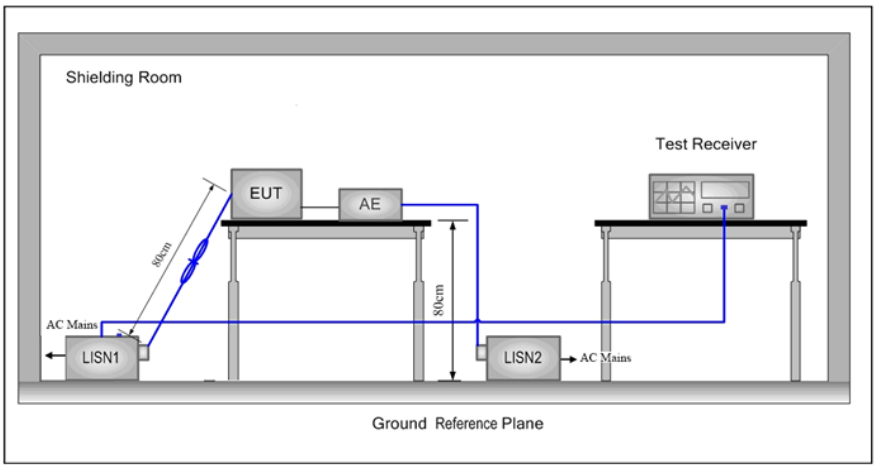
15.247(b) (4) requirement:
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:



The antenna is PCB Antenna and no consideration of replacement.

Appendix I): AC Power Line Conducted Emission

<table>
<tr><td>Test Requirement:</td><td>47 CFR Part 15C Section 15.207</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10: 2013</td></tr>
<tr><td>Test Frequency Range:</td><td>150kHz to 30MHz</td></tr>
<tr><td>Receiver setup:</td><td>RBW=9 kHz, VBW=30 kHz, Sweep time=auto</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><td rowspan="2">Frequency range (MHz)</td><td colspan="2">Limit (dBuV)</td></tr>
<tr><td>Quasi-peak</td><td>Average</td></tr>
<tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td>5-30</td><td>60</td><td>50</td></tr>
</table>
* Decreases with the logarithm of the frequency.
</td></tr>
<tr><td>Test Setup:</td><td> 
</td></tr>
<tr><td>Test Procedure:</td><td>1) The mains terminal disturbance voltage test was conducted in a shielded room.
2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according</td></tr>
</table>

	to ANSI C63.10: 2013 on conducted measurement.
Exploratory Test Mode:	Non-hopping transmitting mode with all kind of modulation and all kind of data type at the lowest, middle, high channel.
Final Test Mode:	Continue TX
Test Results:	N/A

Measurement Data

The product is supplied by DC power.

Appendix J): Restricted bands around fundamental frequency (Radiated)

<table>
<tr><td>Test Requirement:</td><td>47 CFR Part 15C Section 15.209 and 15.205</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10: 2013</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>0.009MHz-0.090MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>0.009MHz-0.090MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr>
<tr><td>0.090MHz-0.110MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr>
<tr><td>0.110MHz-0.490MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>0.110MHz-0.490MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr>
<tr><td>0.490MHz -30MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Peak</td><td>100 kHz</td><td>300kHz</td><td>Peak</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10kHz</td><td>Average</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Field strength microvolt/meter)</th><th>Limit (dBuV/m)</th><th>Remark</th><th>Measurement distance (m)</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(kHz)</td><td>-</td><td>-</td><td>300</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(kHz)</td><td>-</td><td>-</td><td>30</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>-</td><td>-</td><td>30</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>40.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>43.5</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>46.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>54.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>Above 1GHz</td><td>500</td><td>54.0</td><td>Average</td><td>3</td></tr>
</table>
Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.
</td></tr>
</table>

Test Setup:

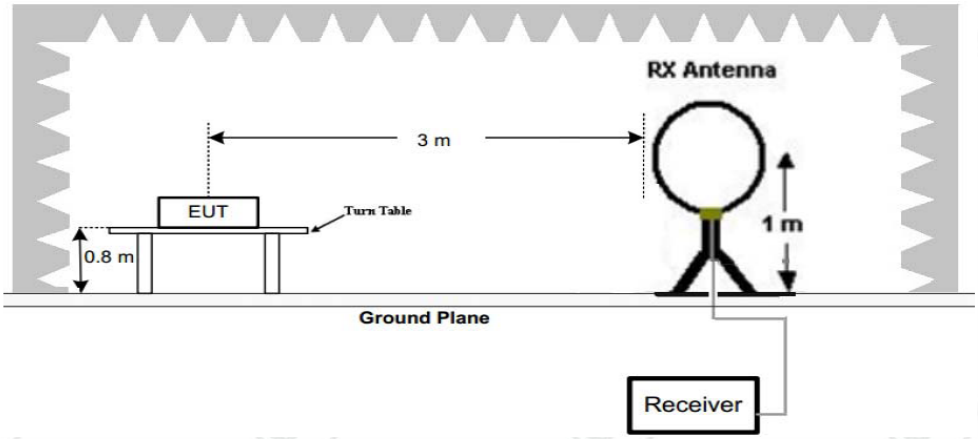


Figure 1. Below 30MHz

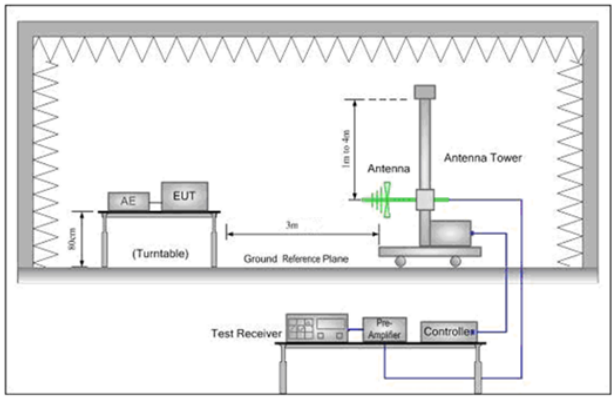


Figure 2. 30MHz to 1GHz

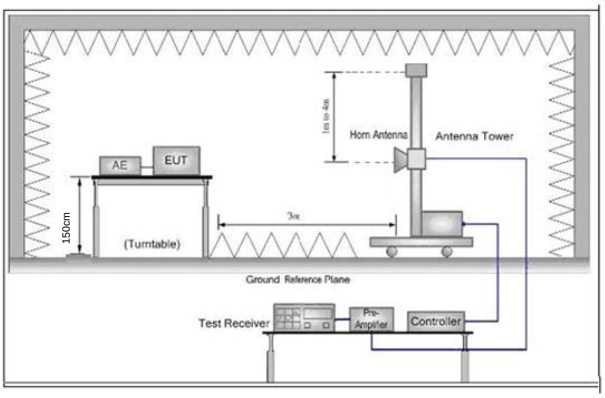


Figure 3. Above 1 GHz

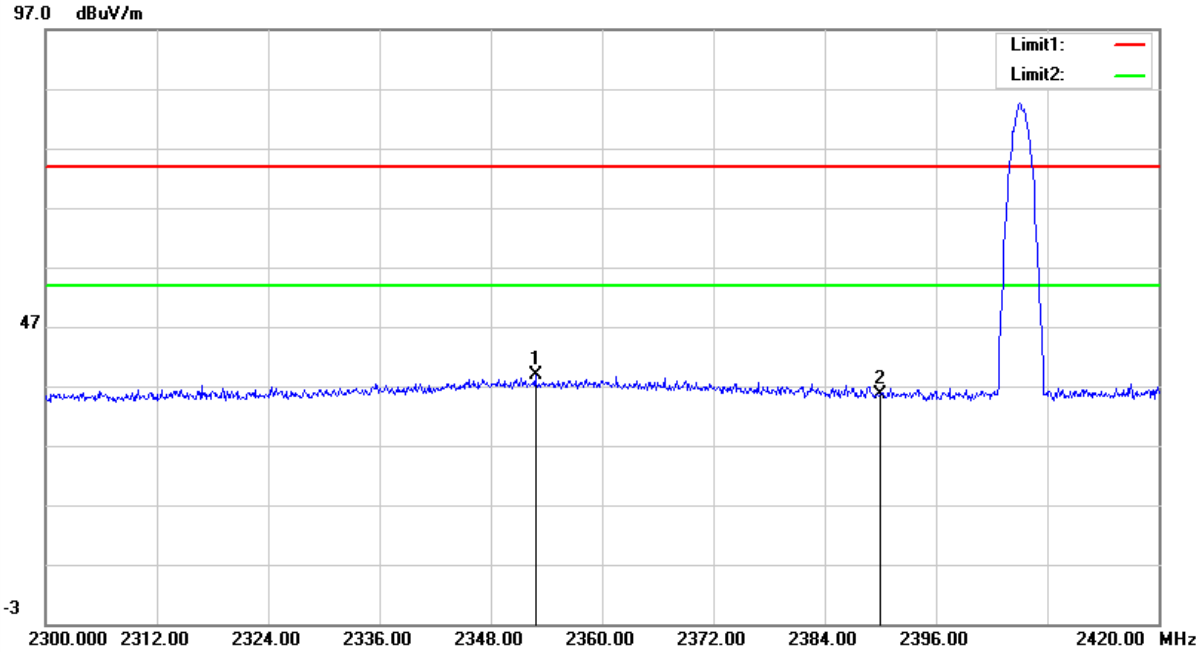
Test Procedure:	a. 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. Note: For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna

	tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel (2402MHz),the middle channel (2441MHz),the Highest channel (2480MHz) h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Non-hopping transmitting mode with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

Test plot as follows:

Mode:	Transmitting	Channel:	low
Remark:	Horizontal		

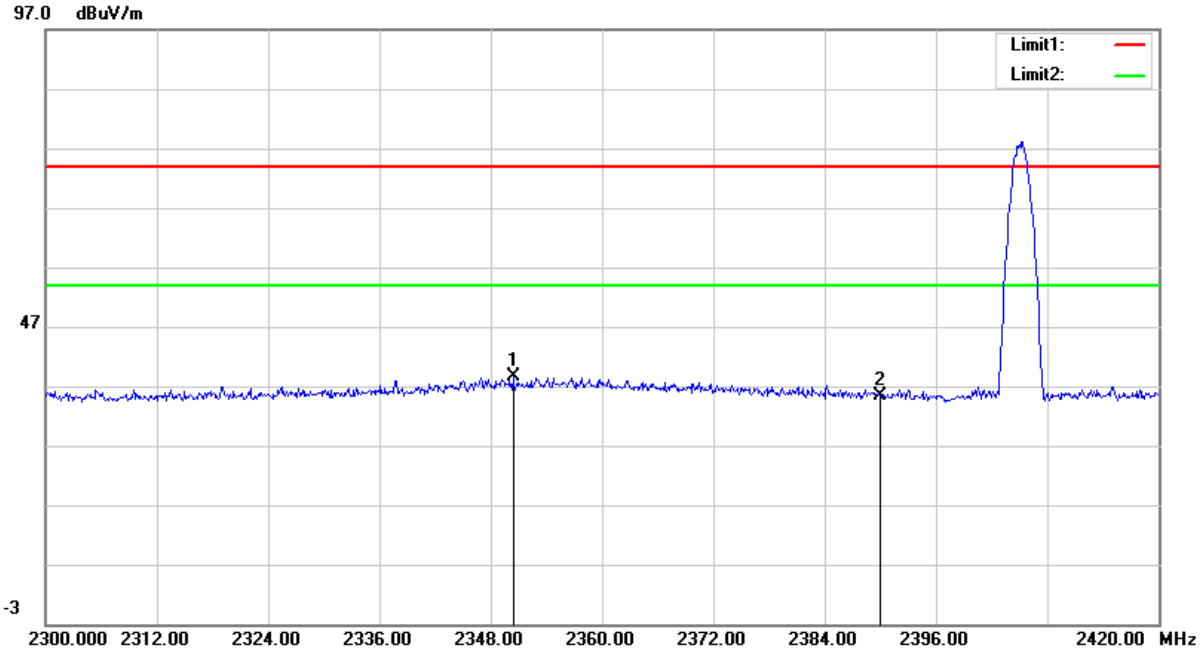
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2352.800	36.36	2.61	38.97	74.00	-35.03	200	0	peak
2	2390.000	32.89	2.71	35.60	74.00	-38.40	100	276	peak

Mode:	Transmitting	Channel:	low
Remark:	Vertical		

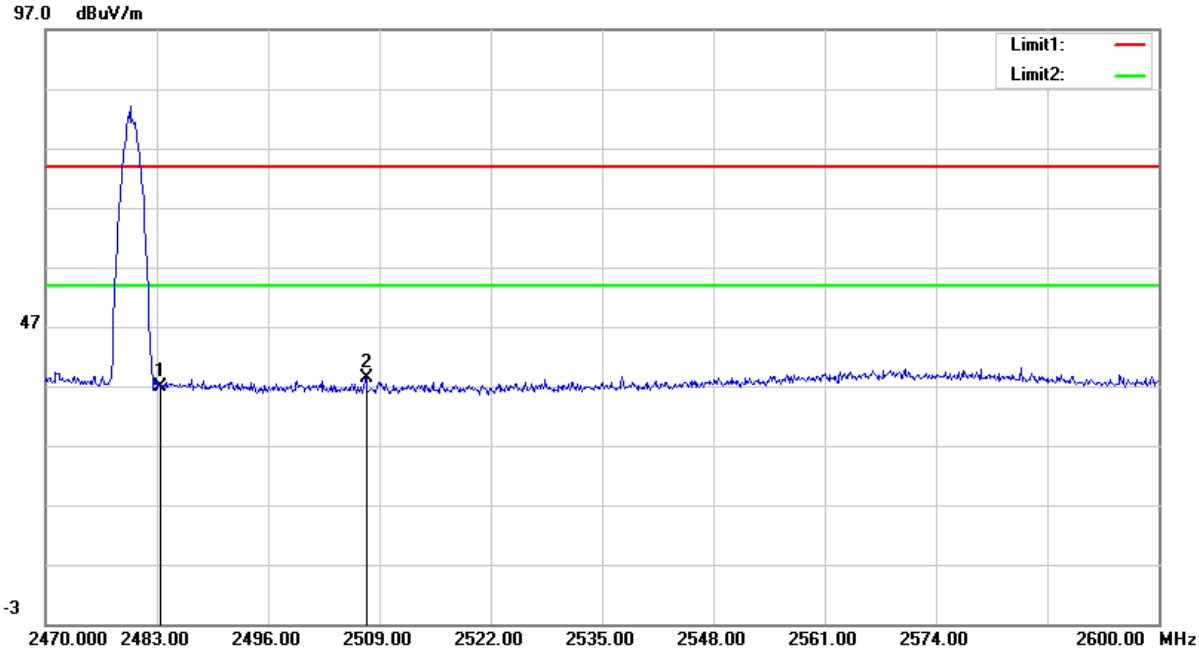
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2350.400	36.12	2.61	38.73	74.00	-35.27	100	335	peak
2	2390.000	32.71	2.71	35.42	74.00	-38.58	100	274	peak

Mode:	Transmitting	Channel:	high
Remark:	Horizontal		

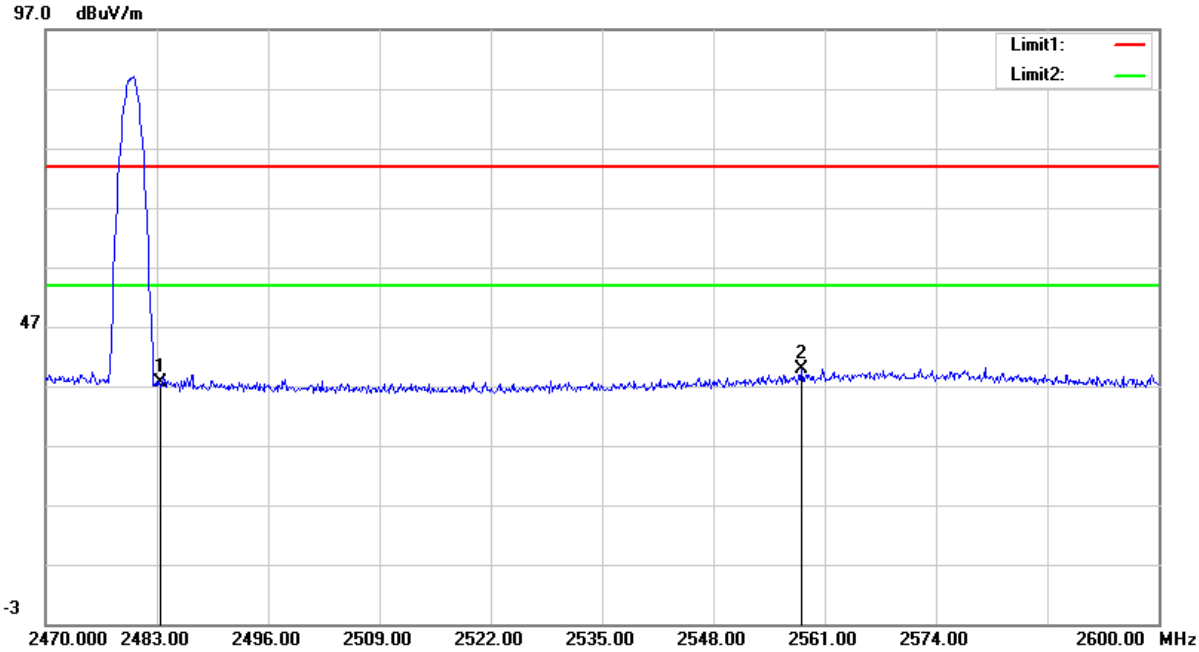
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	33.84	2.92	36.76	74.00	-37.24	100	309	peak
2	2507.440	35.35	2.97	38.32	74.00	-35.68	196	0	peak

Mode:	Transmitting	Channel:	high
Remark:	Vertical		

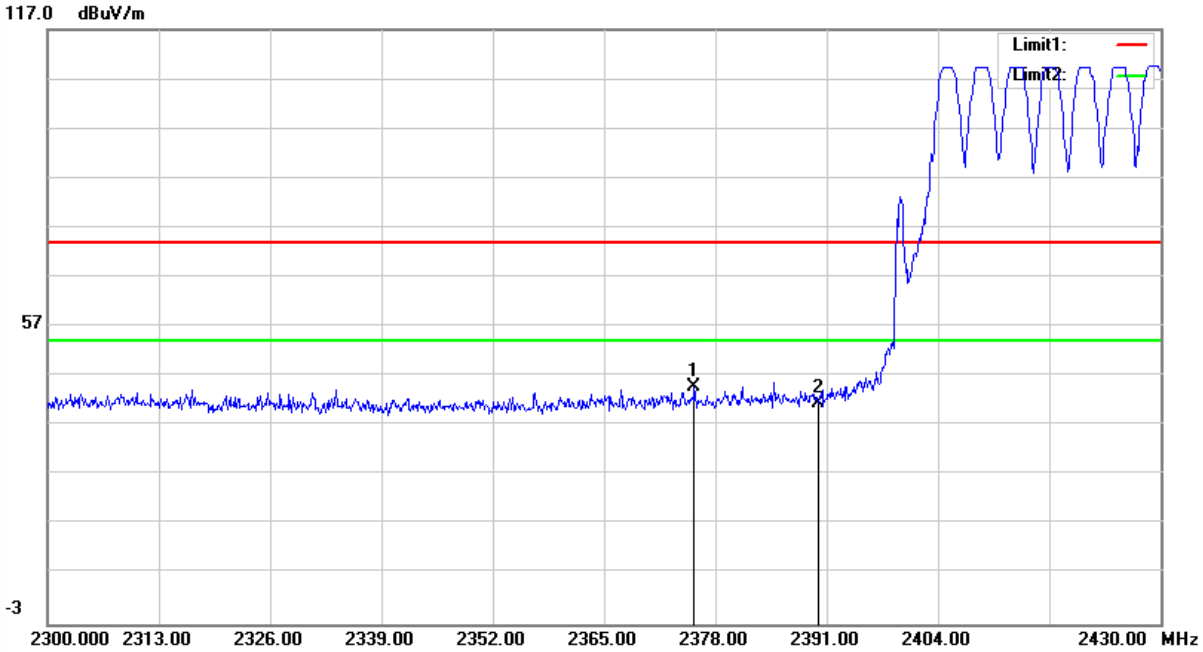
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	34.78	2.92	37.70	74.00	-36.30	181	0	peak
2	2558.270	36.71	3.07	39.78	74.00	-34.22	100	68	peak

Mode:	Transmitting	Channel:	Hopping
Remark:	Horizontal		

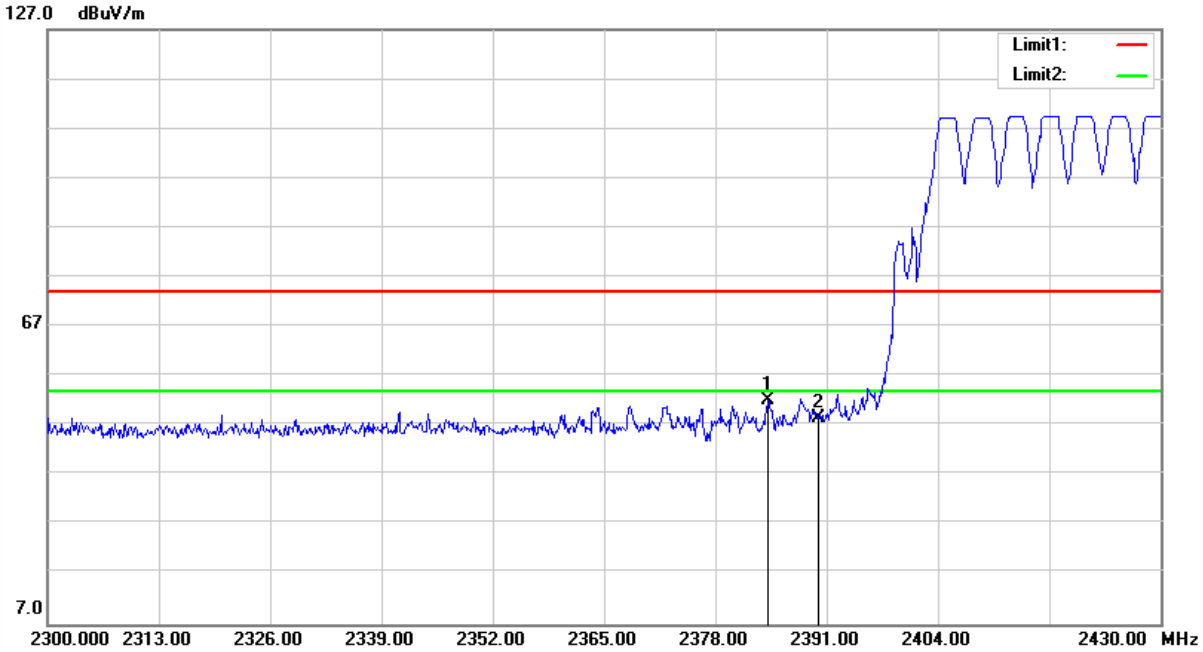
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2375.530	42.13	2.67	44.80	74.00	-29.20	200	256	peak
2	2390.000	38.87	2.71	41.58	74.00	-32.42	200	270	peak

Mode:	Transmitting	Channel:	Hopping
Remark:	Vertical		

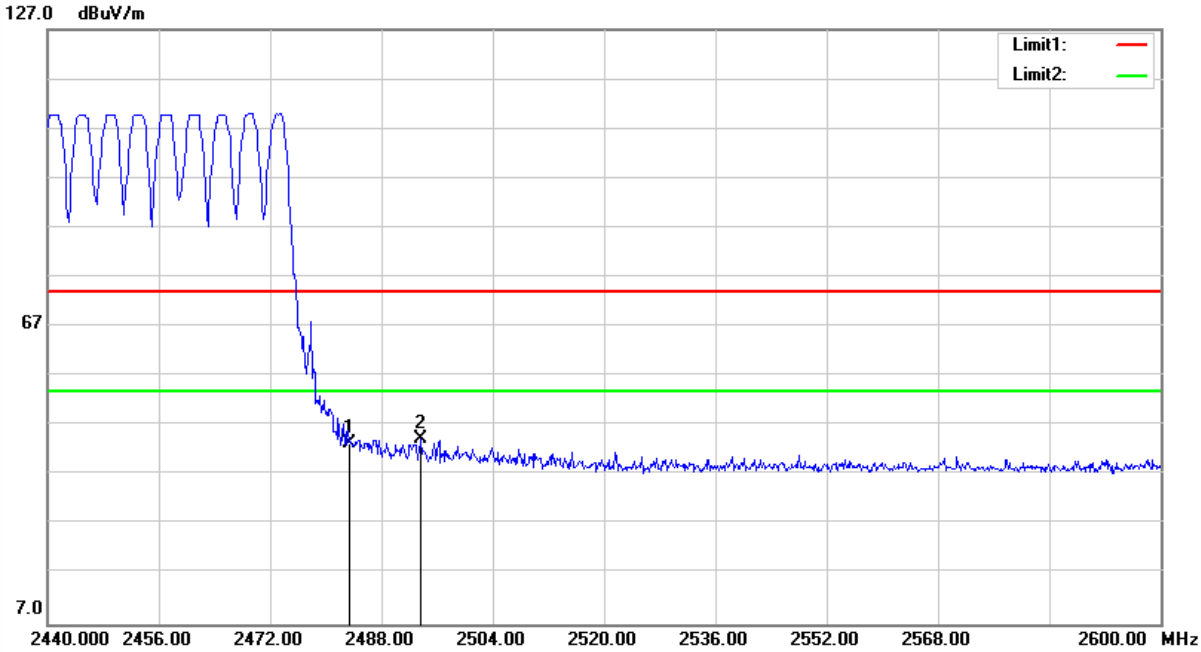
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2384.110	49.40	2.70	52.10	74.00	-21.90	200	243	peak
2	2390.000	45.90	2.71	48.61	74.00	-25.39	148	0	peak

Mode:	Transmitting	Channel:	Hopping
Remark:	Horizontal		

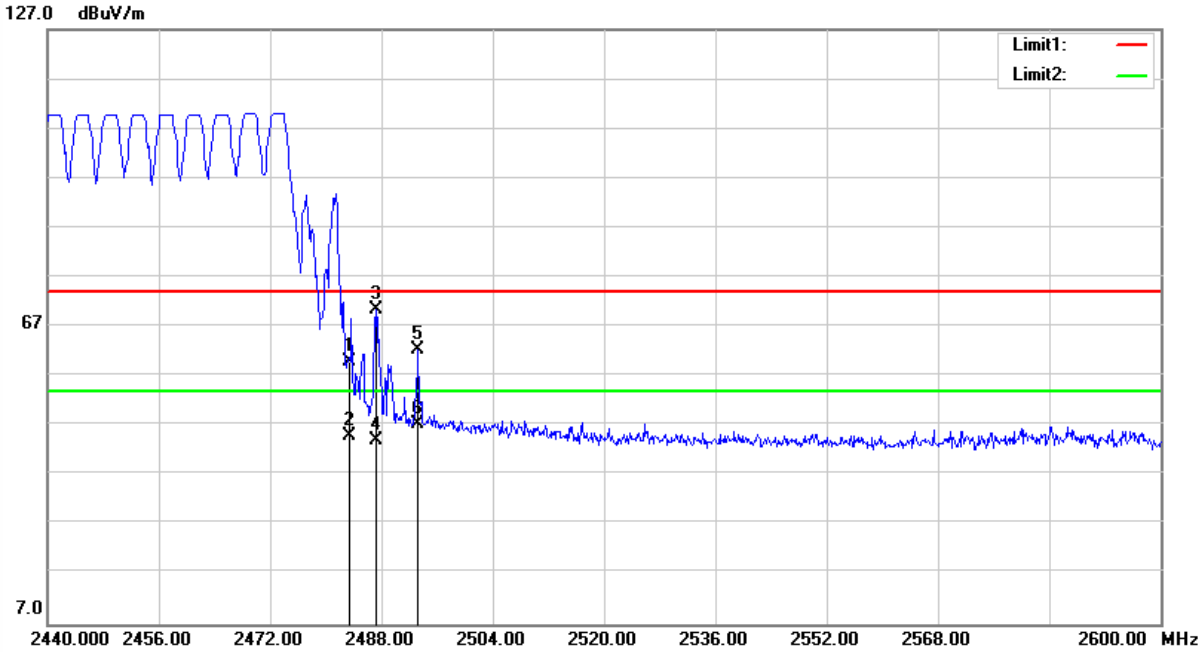
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	40.63	2.92	43.55	74.00	-30.45	100	22	peak
2	2493.600	41.28	2.94	44.22	74.00	-29.78	100	15	peak

Mode:	Transmitting	Channel:	Hopping
Remark:	Vertical		

Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	56.93	2.92	59.85	74.00	-14.15	200	273	peak
2	2483.500	41.92	2.92	44.84	54.00	-9.16	200	273	AVG
3	2487.200	67.53	2.92	70.45	74.00	-3.55	200	275	peak
4	2487.200	41.19	2.92	44.11	54.00	-9.89	200	275	AVG
5	2493.280	59.43	2.94	62.37	74.00	-11.63	200	261	peak
6	2493.280	44.27	2.94	47.21	54.00	-6.79	200	261	AVG

Notes:
1) As shown in this section, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak values are measured.
2) The field strength is calculated by adding the Correct Factor. The basic equation with a sample calculation is as follows:
Final Test Level = Reading+Correct Factor
Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

Appendix K): Radiated Spurious Emissions

<table>
<tr><td>Test Requirement:</td><td>47 CFR Part 15C Section 15.209 and 15.205</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10: 2013</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>0.009MHz-0.090MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>0.009MHz-0.090MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr>
<tr><td>0.090MHz-0.110MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr>
<tr><td>0.110MHz-0.490MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr>
<tr><td>0.110MHz-0.490MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr>
<tr><td>0.490MHz -30MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Peak</td><td>100 kHz</td><td>300kHz</td><td>Peak</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10kHz</td><td>Average</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Field strength microvolt/meter)</th><th>Limit (dBuV/m)</th><th>Remark</th><th>Measurement distance (m)</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(kHz)</td><td>-</td><td>-</td><td>300</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(kHz)</td><td>-</td><td>-</td><td>30</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>-</td><td>-</td><td>30</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>40.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>43.5</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>46.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>54.0</td><td>Quasi-peak</td><td>3</td></tr>
<tr><td>Above 1GHz</td><td>500</td><td>54.0</td><td>Average</td><td>3</td></tr>
</table>
Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.
</td></tr>
</table>

Test Setup:	

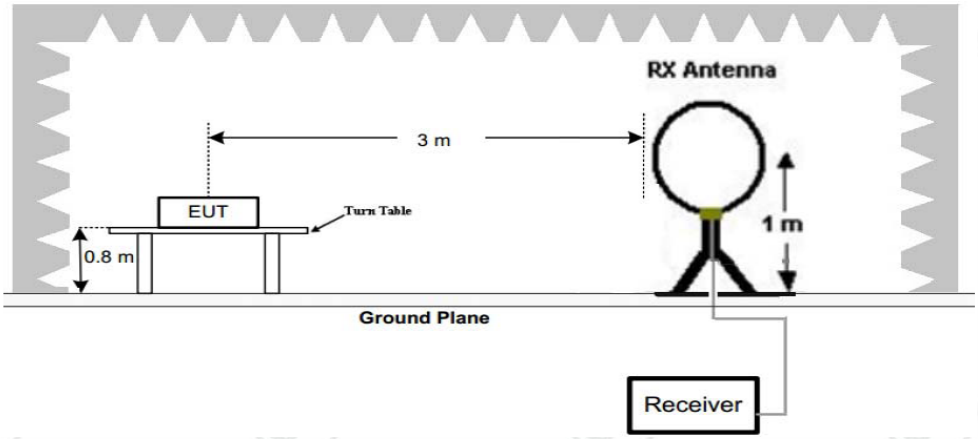


Figure 1. Below 30MHz

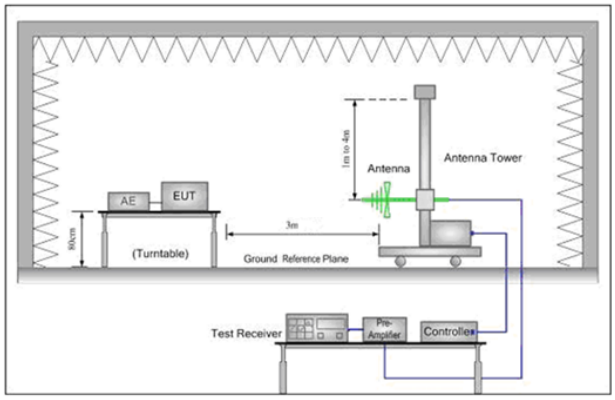


Figure 2. 30MHz to 1GHz

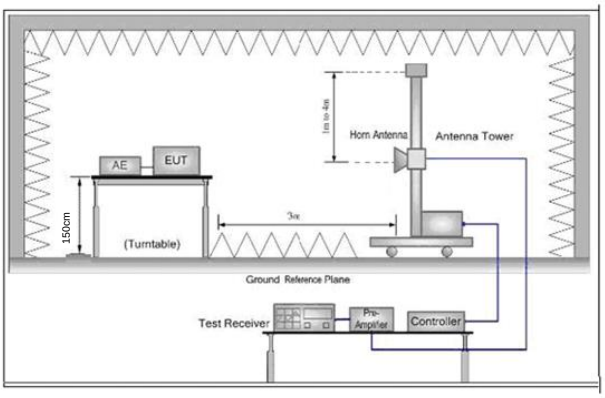


Figure 3. Above 1 GHz

Test Procedure:	a. 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. Note: For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna

	tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel (2402MHz),the middle channel (2441MHz),the Highest channel (2480MHz) h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Non-hopping transmitting mode with all kind of modulation and all kind of data type
Final Test Mode:	Continue TX
Test Results:	Pass

Radiated Spurious Emissions test Data:

Radiated Emission below 1GHz:

Mode:	Transmitting	Channel:	high
Remark:			

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
76.5600	V	58.26	-27.96	30.30	40.00	-9.70	QP
200.7200	V	50.24	-22.54	27.70	43.50	-15.80	QP
249.2200	V	46.18	-21.42	24.76	46.00	-21.24	QP
502.3900	V	39.89	-16.00	23.89	46.00	-22.11	QP
756.5300	V	37.89	-11.81	26.08	46.00	-19.92	QP
998.0600	V	45.28	-9.16	36.12	54.00	-17.88	QP
77.0540	H	55.59	-28.09	27.50	40.00	-12.50	QP
191.0200	H	57.63	-23.11	34.52	43.50	-8.98	QP
201.2860	H	51.30	-22.55	28.75	43.50	-14.75	QP
246.3100	H	53.29	-21.42	31.87	46.00	-14.13	QP
664.3800	H	38.51	-13.52	24.99	46.00	-21.01	QP
998.0600	H	43.55	-9.16	34.39	54.00	-19.61	QP

Notes:

1) Through Pre-scan then find the frequency 2475MHz is the worst case mode and only the worst data was recorded.

Transmitter Emission above 1GHz:

Mode:	Transmitting	Channel:	low
Remark:			

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2428.000	44.29	2.80	47.09	74.00	-26.91	200	143	peak
2	7392.000	32.10	12.31	44.41	74.00	-29.59	151	0	peak
3	11166.000	30.39	16.79	47.18	74.00	-26.82	200	69	peak
4	13988.000	29.60	21.49	51.09	74.00	-22.91	100	17	peak
5	14906.000	30.16	22.97	53.13	74.00	-20.87	100	18	peak
6	16844.000	27.61	25.13	52.74	74.00	-21.26	100	358	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2428.000	49.24	2.80	52.04	74.00	-21.96	170	0	peak
2	3992.000	40.18	7.83	48.01	74.00	-25.99	100	205	peak
3	4978.000	38.08	9.55	47.63	74.00	-26.37	100	168	peak
4	11166.000	31.11	16.79	47.90	74.00	-26.10	200	52	peak
5	14804.000	30.14	22.84	52.98	74.00	-21.02	100	82	peak
6	17031.000	27.79	25.65	53.44	74.00	-20.56	100	50	peak

Mode:	Transmitting	Channel:	mid
Remark:			

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2394.000	45.74	2.72	48.46	74.00	-25.54	100	32	peak
2	7392.000	32.38	12.31	44.69	74.00	-29.31	199	0	peak
3	10503.000	30.66	15.74	46.40	74.00	-27.60	200	18	peak
4	14566.000	30.23	22.30	52.53	74.00	-21.47	105	0	peak
5	14889.000	30.12	22.95	53.07	74.00	-20.93	100	248	peak
6	16844.000	28.11	25.13	53.24	74.00	-20.76	200	76	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2394.000	52.32	2.72	55.04	74.00	-18.96	100	359	peak
2	2394.000	35.62	2.72	38.34	54.00	-15.66	100	359	AVG
3	3992.000	39.52	7.83	47.35	74.00	-26.65	100	43	peak
4	4995.000	37.16	9.59	46.75	74.00	-27.25	100	356	peak
5	7001.000	33.86	11.68	45.54	74.00	-28.46	200	195	peak
6	14889.000	30.07	22.95	53.02	74.00	-20.98	200	39	peak
7	16011.000	29.15	23.63	52.78	74.00	-21.22	100	137	peak

Mode:	Transmitting	Channel:	high
Remark:			

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2462.000	41.45	2.87	44.32	74.00	-29.68	100	154	peak
2	8565.000	30.61	13.75	44.36	74.00	-29.64	200	109	peak
3	11557.000	30.40	17.24	47.64	74.00	-26.36	200	0	peak
4	14651.000	30.03	22.45	52.48	74.00	-21.52	100	0	peak
5	14906.000	30.08	22.97	53.05	74.00	-20.95	100	213	peak
6	17116.000	28.10	25.58	53.68	74.00	-20.32	200	324	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2462.000	48.98	2.87	51.85	74.00	-22.15	200	327	peak
2	3975.000	39.72	7.75	47.47	74.00	-26.53	200	190	peak
3	4978.000	38.40	9.55	47.95	74.00	-26.05	100	334	peak
4	8565.000	30.88	13.75	44.63	74.00	-29.37	178	0	peak
5	11251.000	31.04	16.91	47.95	74.00	-26.05	100	53	peak
6	16487.000	28.66	24.12	52.78	74.00	-21.22	142	0	peak

Notes:
1) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak values are measured.
2) The field strength is calculated by adding the Correct Factor. The basic equation with a sample calculation is as follows:
Final Test Level = Reading +Correct Factor
Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor
3) Scan from 9kHz to 25GHz, the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.