TEST REPORT

Product	:	Voice Amplifier
Trade mark	:	NORWII / KNORVAY
Model/Type reference	:	S358 Pro
Serial Model	:	S100,S108,S118,S128,S158,S168,S188,S198,S200, S208,S218,S228,S258,S268,S288,S298,S300,S301, S302,S303,S305,S306,S307,S308,S309,S310,S311, S312,S315,S316,S317,S318,S319,S320,S328,S330, S338,S358,S360,S365,S368,S378,S388,S398,S500, S501,S502,S503,S505,S506,S507,S508,S509,S510, S511,S512,S515,S516,S517,S518,S519,S520,S528, S530,S558,S560,S565,S568,S578,S588,S598,S600, S601,S602,S603,S605,S606,S607,S608,S609,S610, S611,S612,S615,S616,S617,S618,S619,S620,S628, S630,S6580,S655,S658,S668,S678,S680,S688,S698, S700,S800,S801,S802,S803,S805,S806,S807,S809, S810,S811,S812,S815,S816,S817,S818,S819,S820, S828,S830,S858,S860,S865,S868,S878,S880,S900, S358Pro+
Report Number	:	EED39M00060001
FCC ID	:	2AXGRVA1
Date of Issue	:	Mar 30, 2021

Test Standards	Result
☒ 47 CFR Part 15 Subpart C	PASS

Prepared for:

Shanghai Norwii Technology Co., Ltd.
NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201，China

Prepared by:

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检验检测专用章
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Check No.: 3915566929

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Modification Record

No.	Last Report No.	Modification Description
1	EED39M00060001	First report

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1. Test Summary

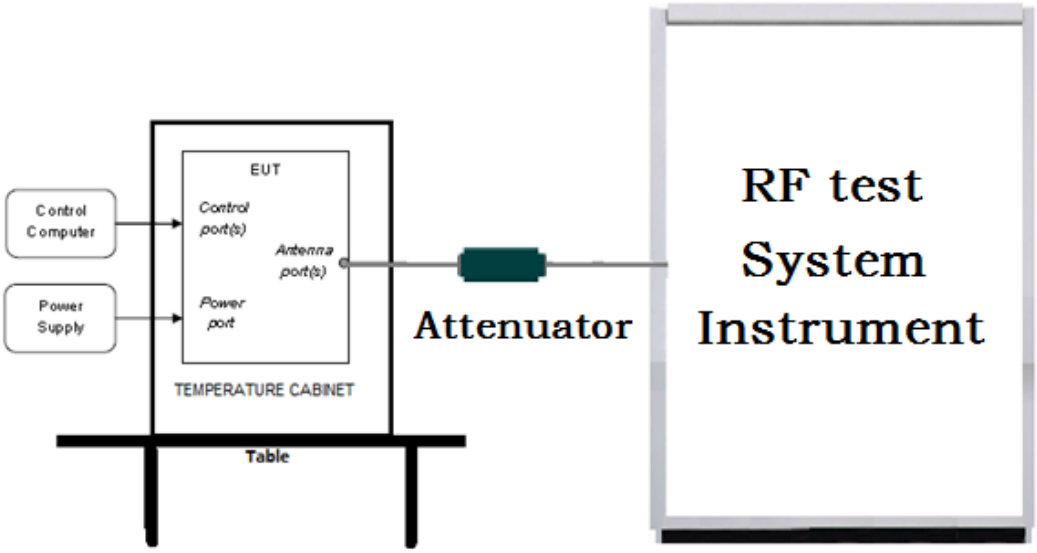
Test item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (c)	ANSI C63.10-2013	N/A
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	PASS
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.247 (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

Remark:
Test according to ANSI C63.4-2014 & ANSI C63.10-2013.
The tested samples and the sample information are provided by the client.

2. Test Requirement

2.1. Test Setup

For Conducted Test Setup



For Radiated Emissions Test Setup

Radiated Emissions setup:

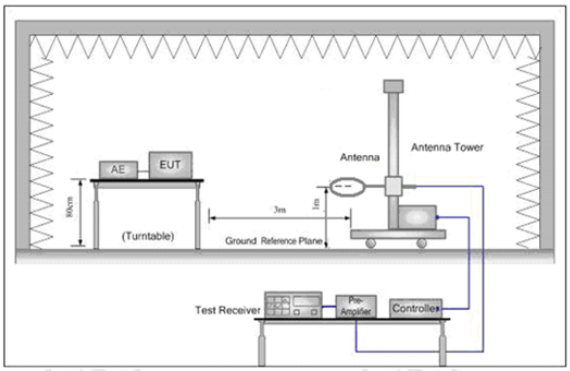


Figure 1. Below 30MHz

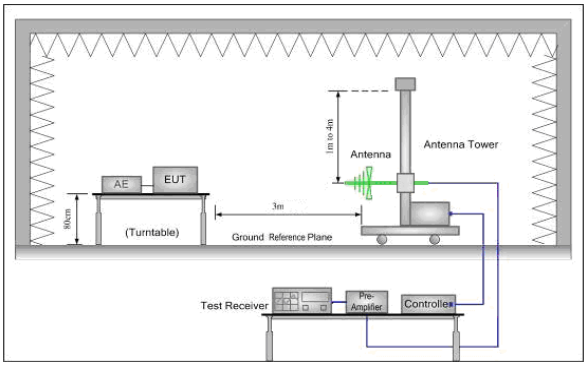


Figure 2. 30MHz to 1GHz

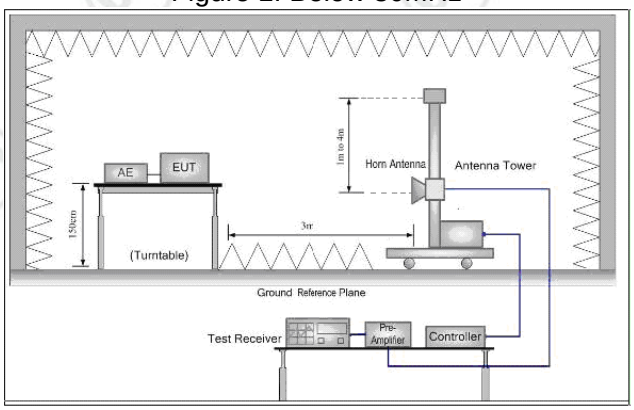


Figure 3. Above 1GHz

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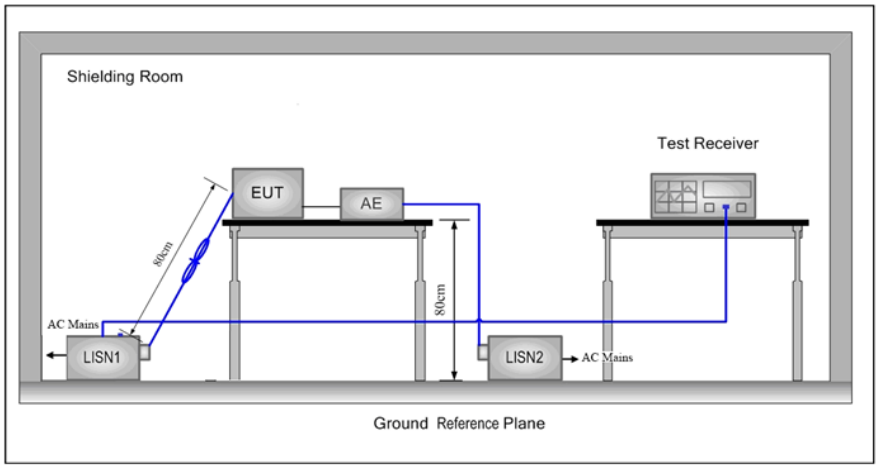
For Conducted Emissions Test Setup

Conducted Emissions setup:



2.2. Test Environment

Operating Environment:	
Temperature:	20.2°C
Humidity:	43.9 % RH
Atmospheric Pressure:	1020mbar

2.3. Test Condition

Test Mode	Tx	RF Channel		
		Low(L)	Middle(M)	High(H)
GFSK/π/4DQPSK (DH1,DH3,DH5)	2402MHz ~2480 MHz	Channel 1	Channel 40	Channel79
		2402MHz	2441MHz	2480MHz
TX mode: The EUT transmitted the continuous modulation test signal at the specific channel(s).				

Test mode:

Through Pre-scan, 1-DH5 packet the power is the worst case of GFSK, 2-DH5 packet the power is the worst case of π/4DQPSK.

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3. General Information

3.1. Client Information

Applicant:	Shanghai Norwii Technology Co., Ltd.
Address of Applicant:	NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201，China
Manufacturer:	Shanghai Norwii Technology Co., Ltd.
Address of Manufacturer:	NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201，China
Factory:	Shanghai Norwii Technology Co., Ltd.
Address of Factory:	NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201，China

3.2. General Description of EUT

Product Name:	Voice Amplifier	
Model No.(EUT):	S358 Pro	
Serial Model:	S100,S108,S118,S128,S158,S168,S188,S198,S200,S208,S218,S228,S258,S268,S288,S298,S300,S301,S302,S303,S305,S306,S307,S308,S309,S310,S311,S312,S315,S316,S317,S318,S319,S320,S328,S330,S338,S358,S360,S365,S368,S378,S388,S398,S500,S501,S502,S503,S505,S506,S507,S508,S509,S510,S511,S512,S515,S516,S517,S518,S519,S520,S528,S530,S558,S560,S565,S568,S578,S588,S598,S600,S601,S602,S603,S605,S606,S607,S608,S609,S610,S611,S612,S615,S616,S617,S618,S619,S620,S628,S630,S6580,S655,S658,S668,S678,S680,S688,S698,S700,S800,S801,S802,S803,S805,S806,S807,S809,S810,S811,S812,S815,S816,S817,S818,S819,S820,S828,S830,S858,S860,S865,S868,S878,S880,S900, S358Pro+	
Model difference:	The same is Circuit principle, PCB Layout, key components, etc. The difference is the product colour, model.	
Trade Mark:	NORWII / KNORVAY	
EUT Supports Radios application:	Bluetooth V4.2	
Power Supply:	Input: DC 5V	
	Battery	DC3.7V 2000 mAh (Li-on Rechargeable Battery)
Sample Received Date:	Feb 23, 2021	
Sample tested Date:	Feb 23, 2021 to Mar 3, 2021	

3.3. Product Specification subjective to this standard

Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	Bluetooth V4.2
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, π/4DQPSK
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Hardware Version:	V0.4 (manufacturer declare)
Software Version:	V1.4 (manufacturer declare)
Test Power Grade:	2 (manufacturer declare)
Test Software of EUT:	FCC Assist 2.4 (manufacturer declare)
Antenna Type:	PCB Antenna
Antenna Gain①:	-0.58 dBi
Test Voltage:	DC5V

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	2402MHz	21	2422MHz	41	2442MHz	61	2462MHz
2	2403MHz	22	2423MHz	42	2443MHz	62	2463MHz
3	2404MHz	23	2424MHz	43	2444MHz	63	2464MHz
4	2405MHz	24	2425MHz	44	2445MHz	64	2465MHz
5	2406MHz	25	2426MHz	45	2446MHz	65	2466MHz
6	2407MHz	26	2427MHz	46	2447MHz	66	2467MHz
7	2408MHz	27	2428MHz	47	2448MHz	67	2468MHz
8	2409MHz	28	2429MHz	48	2449MHz	68	2469MHz
9	2410MHz	29	2430MHz	49	2450MHz	69	2470MHz
10	2411MHz	30	2431MHz	50	2451MHz	70	2471MHz
11	2412MHz	31	2432MHz	51	2452MHz	71	2472MHz
12	2413MHz	32	2433MHz	52	2453MHz	72	2473MHz
13	2414MHz	33	2434MHz	53	2454MHz	73	2474MHz
14	2415MHz	34	2435MHz	54	2455MHz	74	2475MHz
15	2416MHz	35	2436MHz	55	2456MHz	75	2476MHz
16	2417MHz	36	2437MHz	56	2457MHz	76	2477MHz
17	2418MHz	37	2438MHz	57	2458MHz	77	2478MHz
18	2419MHz	38	2439MHz	58	2459MHz	78	2479MHz
19	2420MHz	39	2440MHz	59	2460MHz	79	2480MHz
20	2421MHz	40	2441MHz	60	2461MHz		

3.4. Description of Support Units

The EUT has been tested independently.

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	2020-04-27	2021-04-26
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	2020-12-10	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
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)

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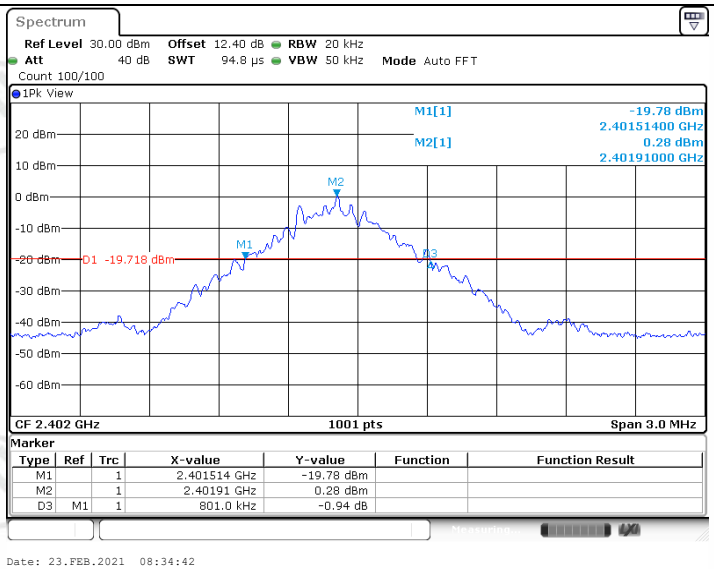
Appendix A): 20dB Emission Bandwidth

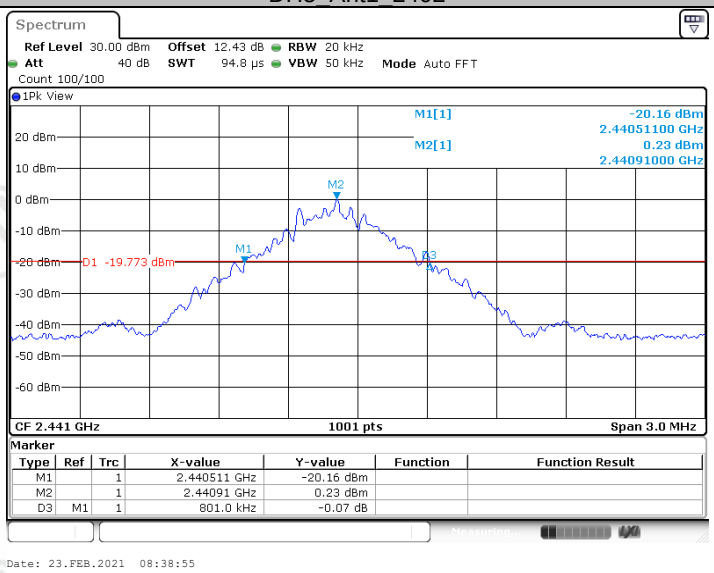
Result Table:

Test Mode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.801	2401.514	2402.315	---	PASS
		2441	0.801	2440.511	2441.312	---	PASS
		2480	0.801	2479.511	2480.312	---	PASS
2DH5	Ant1	2402	1.185	2401.313	2402.498	---	PASS
		2441	1.206	2440.310	2441.516	---	PASS
		2480	1.203	2479.310	2480.513	---	PASS

Test Graph:



DH5_Ant1_2402



DH5_Ant1_2441

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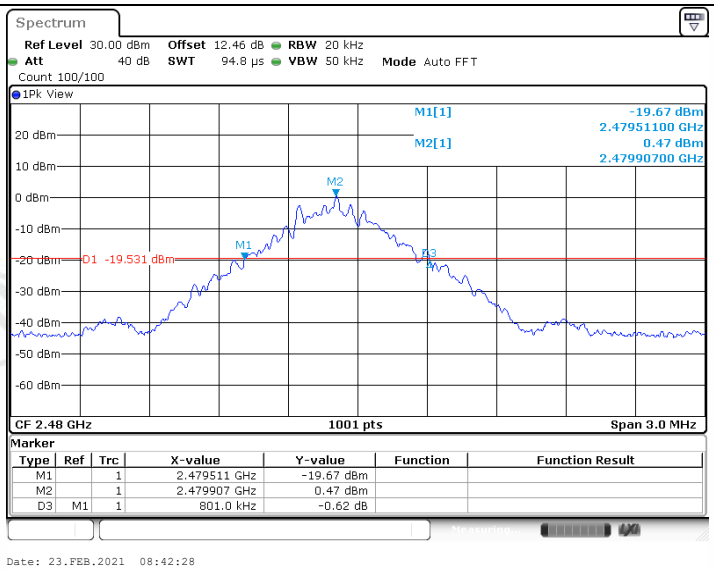
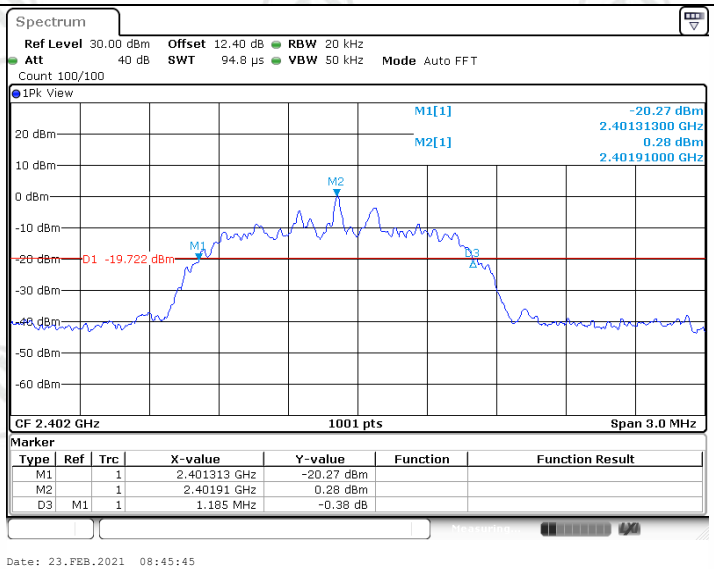


DH5_Ant1_2480



2DH5_Ant1_2402

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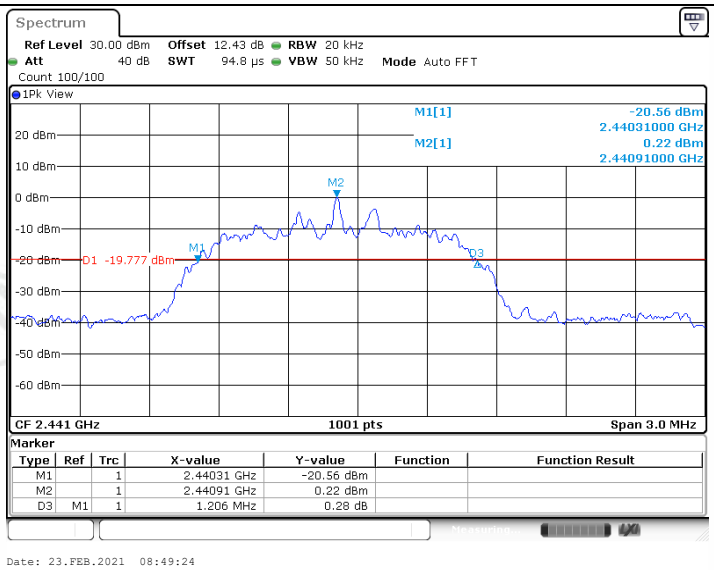

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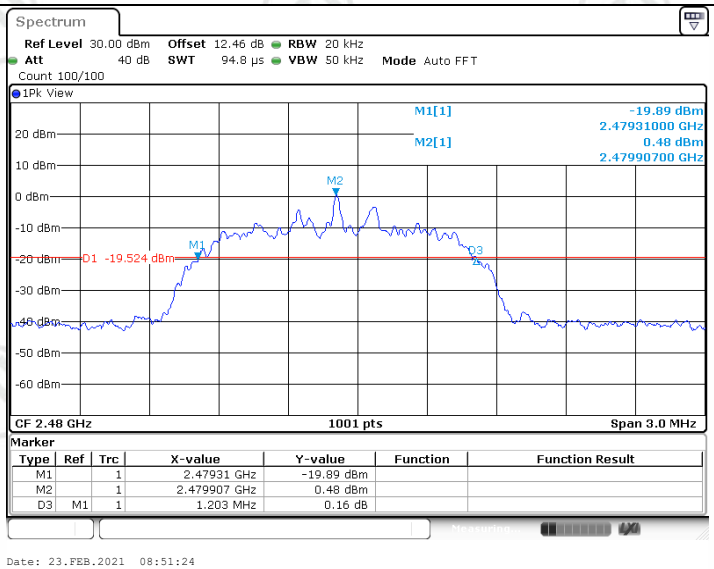

2DH5_Ant1_2480

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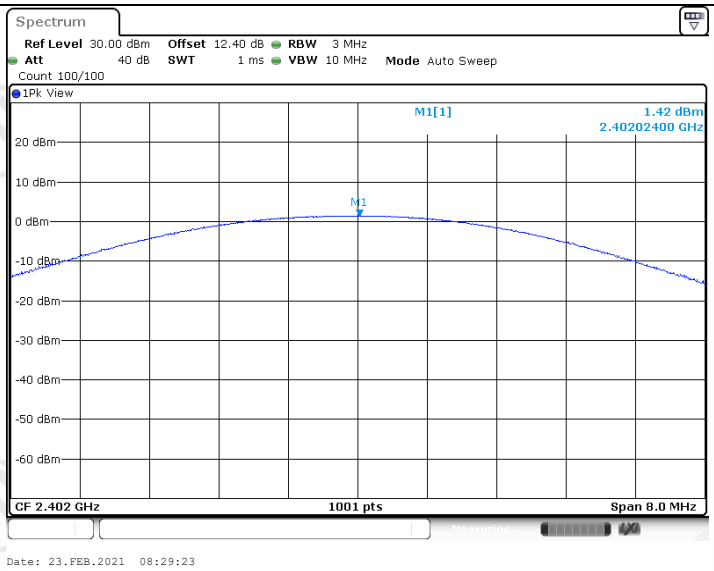
Appendix B): Maximum conducted output power

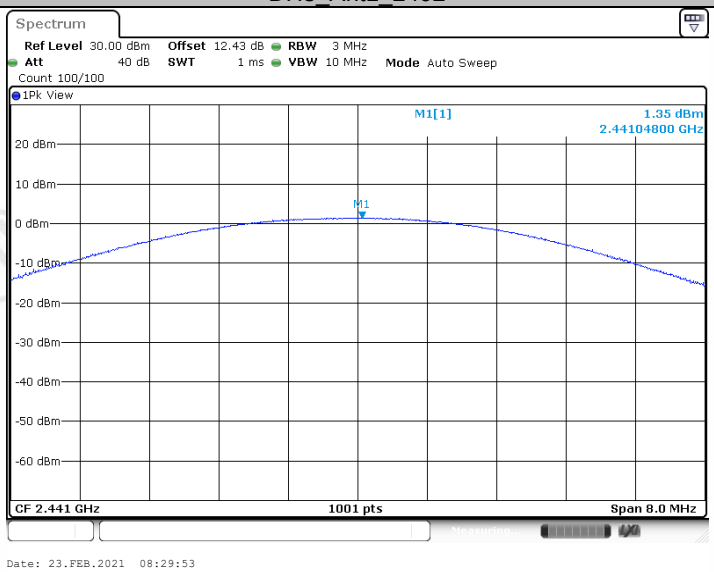
Result Table:

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.42	<=20.97	PASS
		2441	1.35	<=20.97	PASS
		2480	1.65	<=20.97	PASS
2DH5	Ant1	2402	2.16	<=20.97	PASS
		2441	1.79	<=20.97	PASS
		2480	2.15	<=20.97	PASS

Test Graph:



DH5_Ant1_2402



DH5_Ant1_2441

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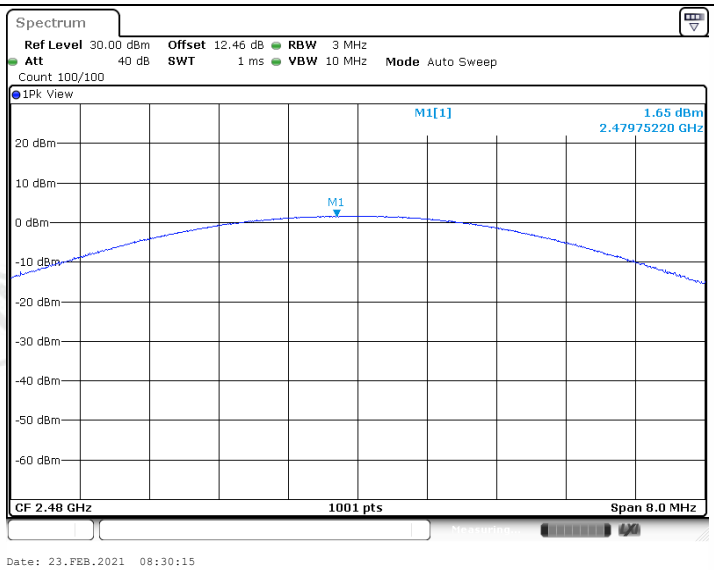
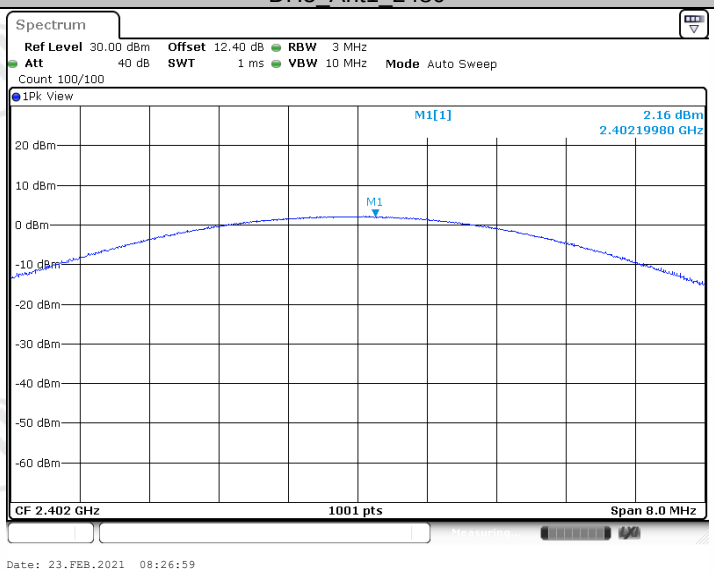


DH5_Ant1_2480



2DH5_Ant1_2402

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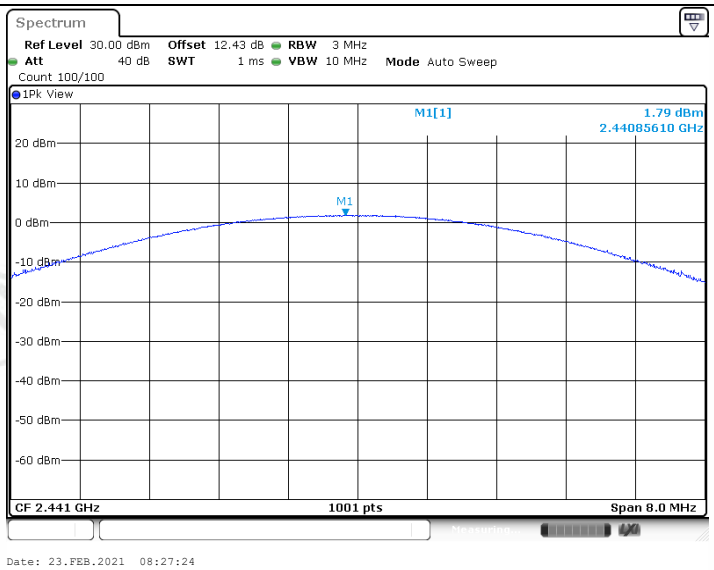
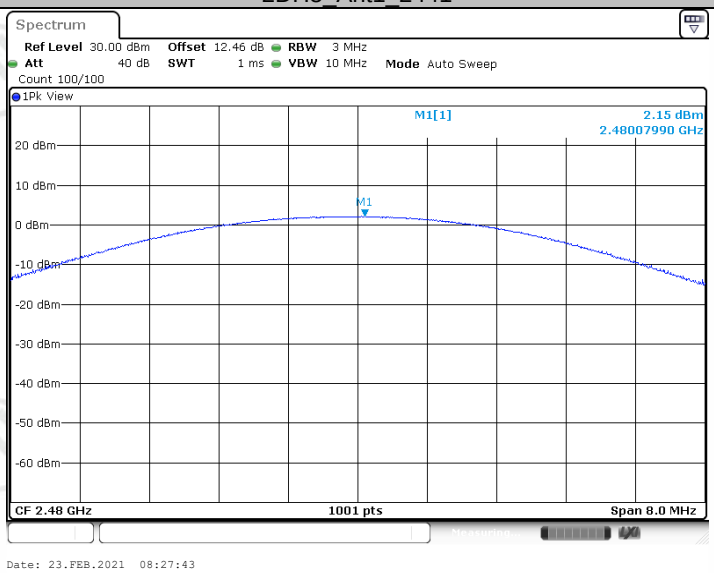


2DH5_Ant1_2441



2DH5_Ant1_2480

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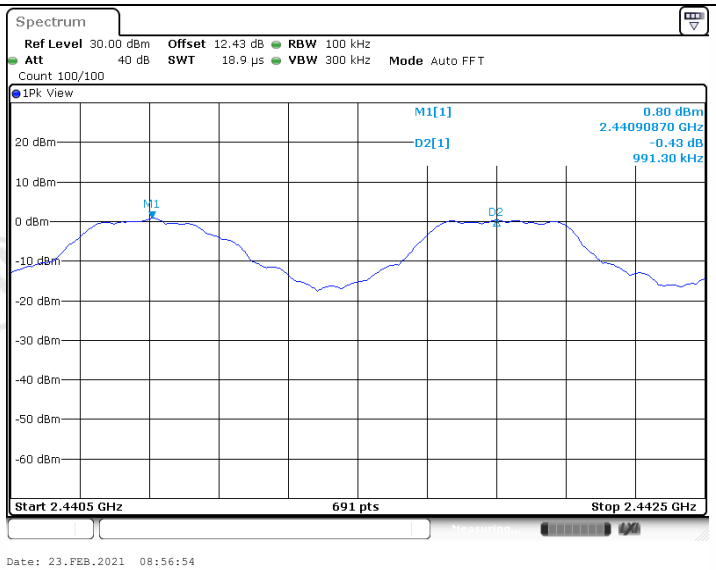
Appendix C): Carrier frequency separation

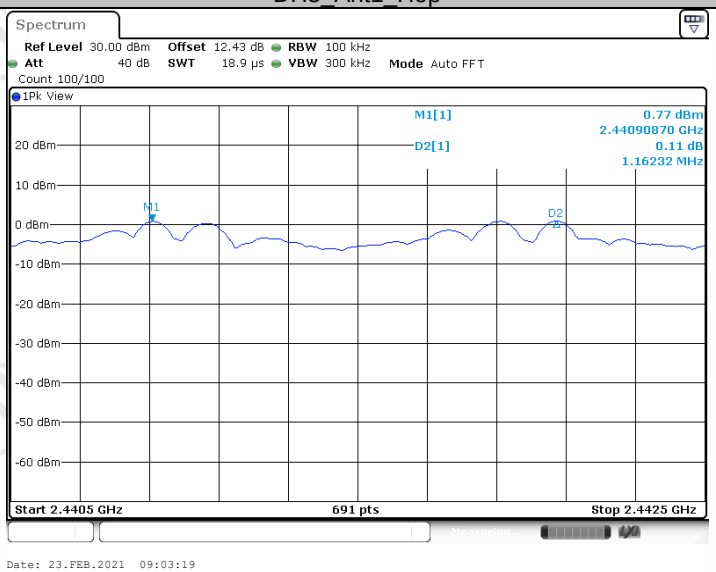
Result Table:

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	0.991	>=0.801	PASS
2DH5	Ant1	Hop	1.162	>=0.804	PASS

Test Graph:



DH5_Ant1_Hop



2DH5_Ant1_Hop

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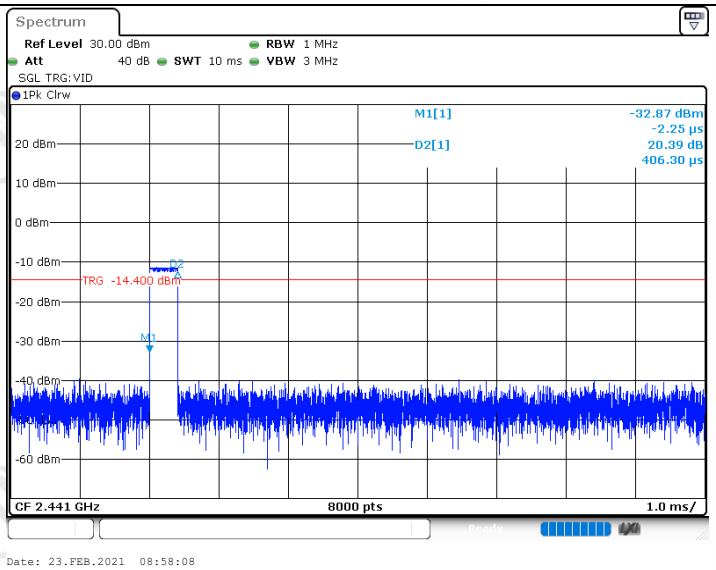
Appendix D): Time of occupancy

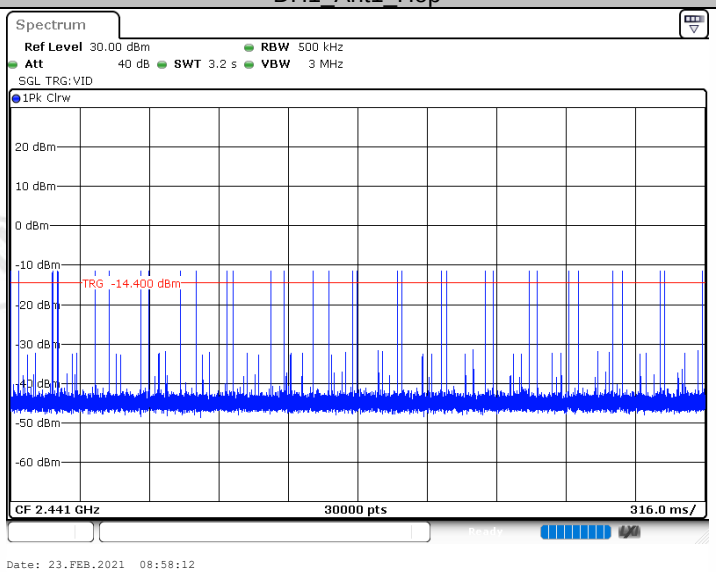
Result Table:

Test Mode	Antenna	Channel	Burst Width [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.41	330	0.134	<=0.4	PASS
DH3	Ant1	Hop	1.65	140	0.232	<=0.4	PASS
DH5	Ant1	Hop	2.89	130	0.376	<=0.4	PASS
2DH1	Ant1	Hop	0.42	320	0.133	<=0.4	PASS
2DH3	Ant1	Hop	1.66	180	0.299	<=0.4	PASS
2DH5	Ant1	Hop	-1.84	130	-0.239	<=0.4	PASS

Test Graph:



DH1_Ant1_Hop



DH1_Ant1_Hop

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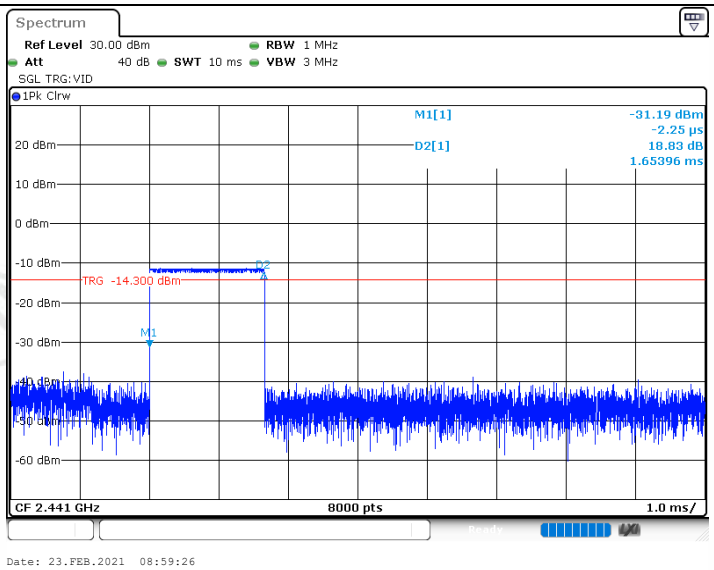
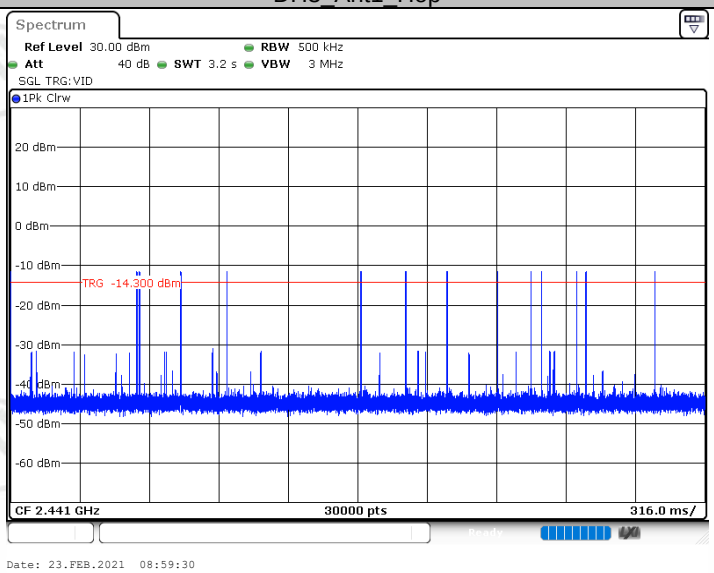


DH3_Ant1_Hop



DH3_Ant1_Hop

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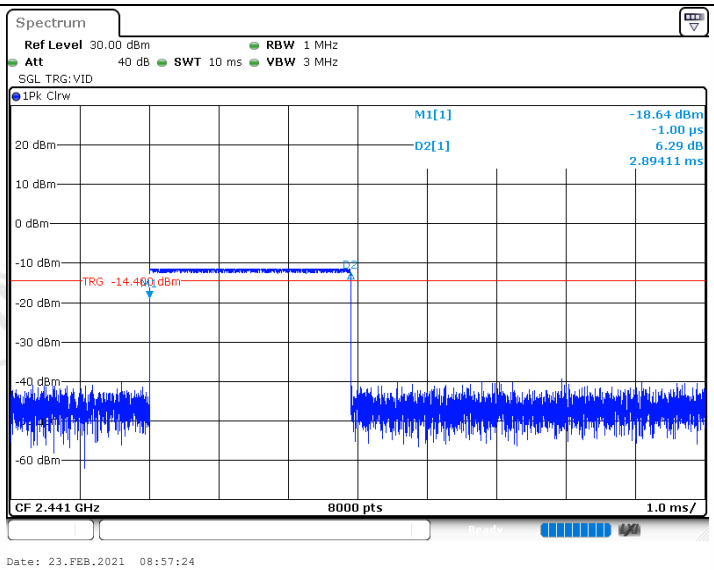
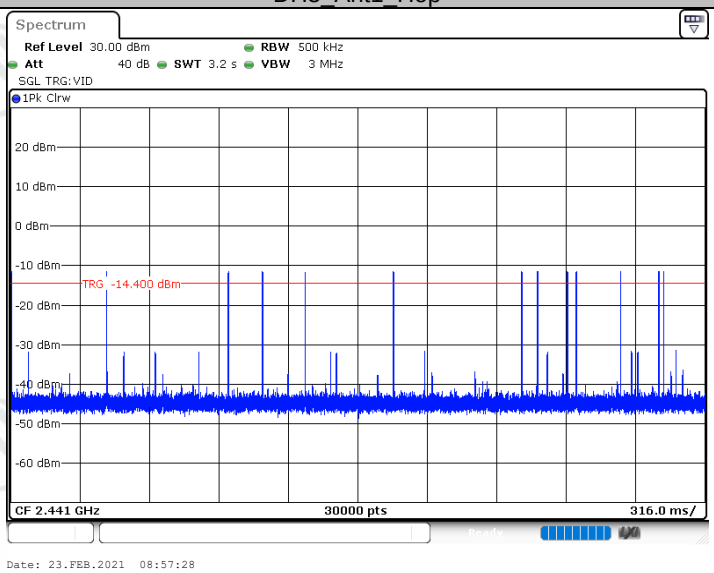


DH5_Ant1_Hop



DH5_Ant1_Hop

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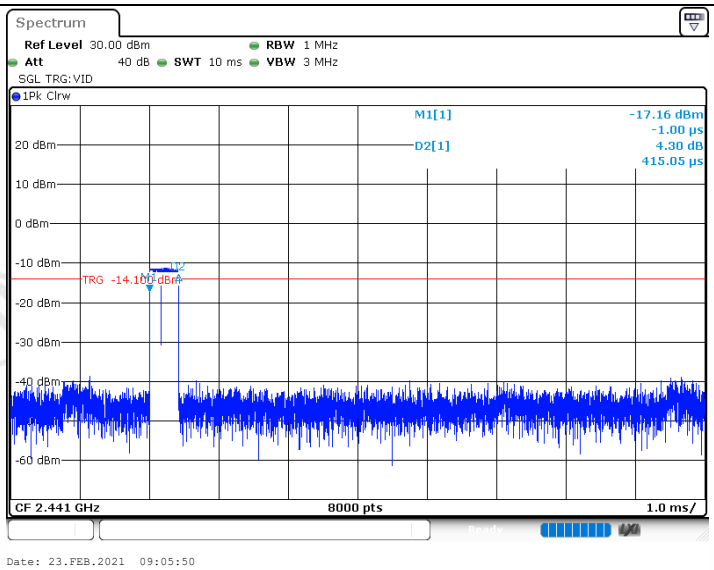
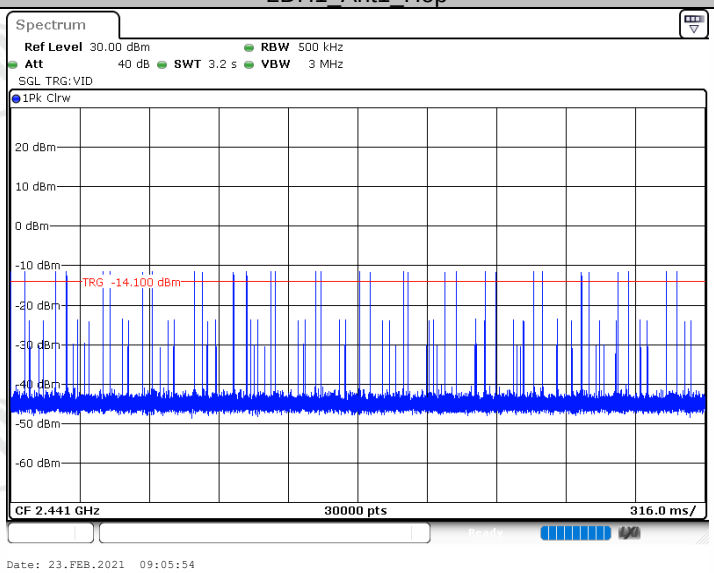


2DH1_Ant1_Hop



2DH1_Ant1_Hop

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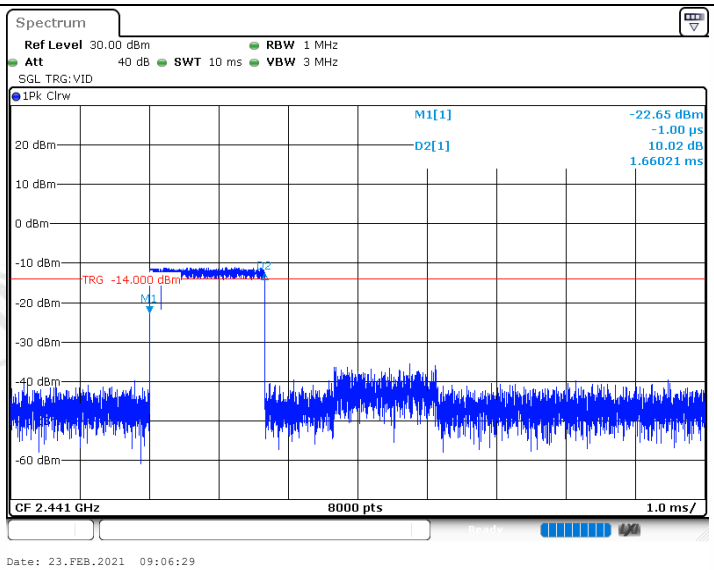
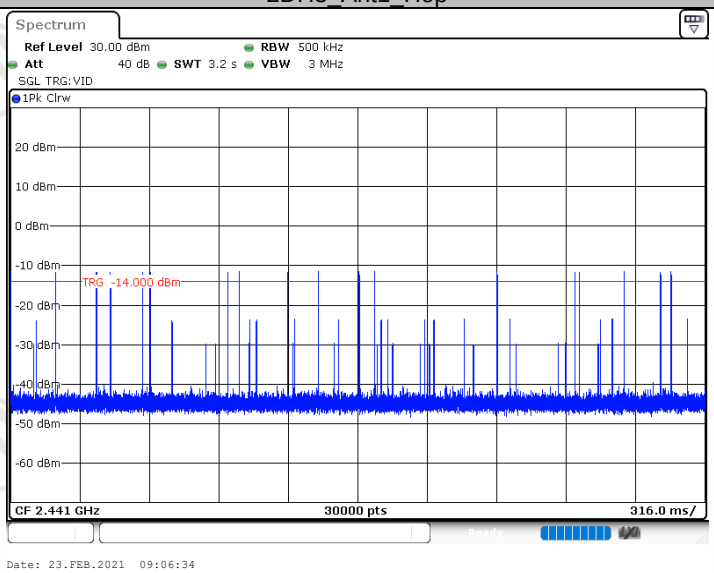


2DH3_Ant1_Hop



2DH3_Ant1_Hop

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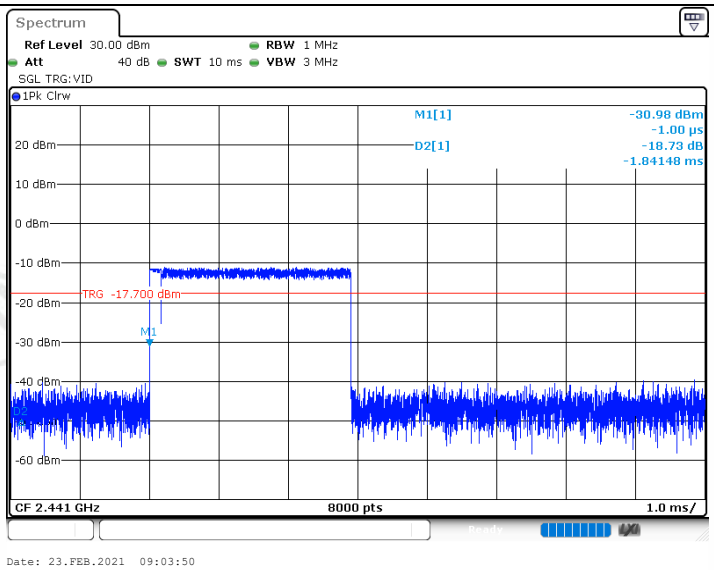
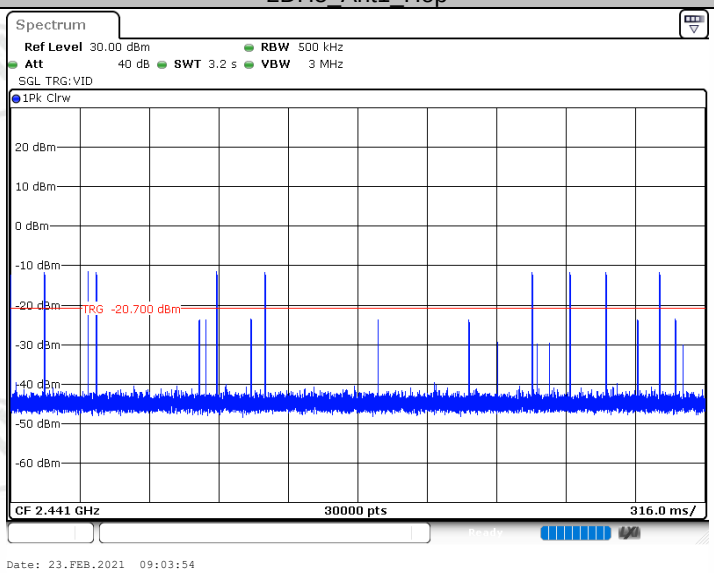


2DH5_Ant1_Hop



2DH5_Ant1_Hop

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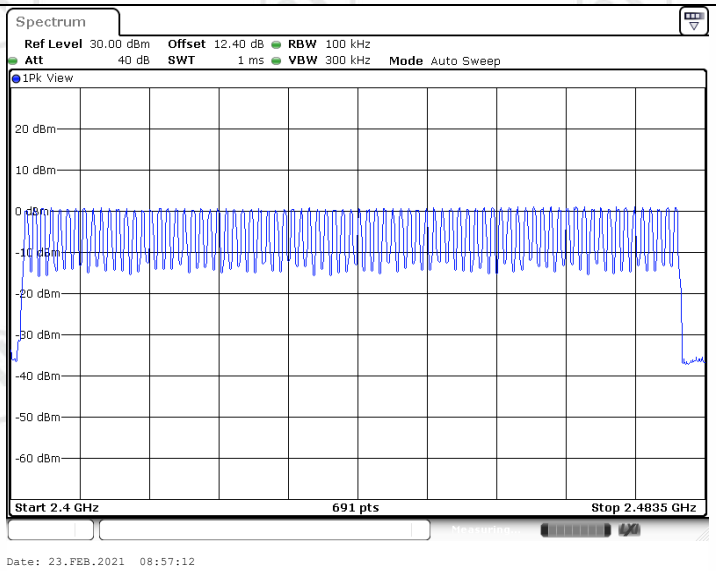
Appendix E): Number of hopping channels

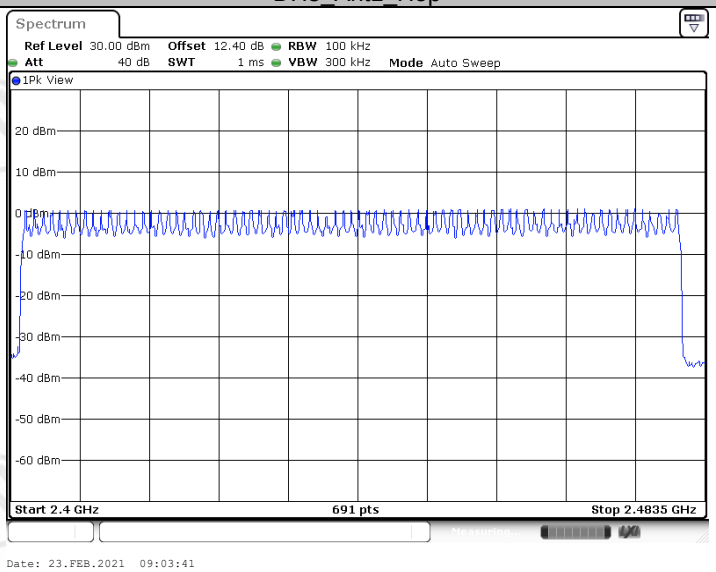
Result Table:

Test Mode	Antenna	Channel	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS

Test Graph:



DH5_Ant1_Hop



2DH5_Ant1_Hop

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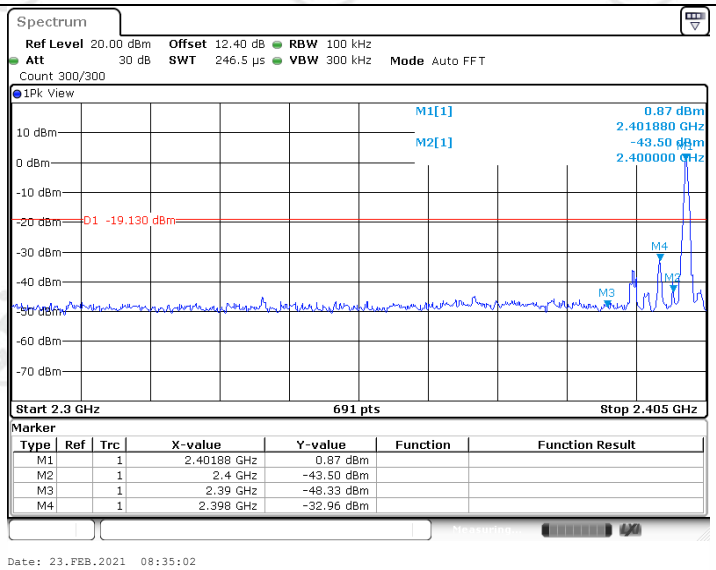
Appendix F): Band-edge for RF Conducted Emissions

Result Table:

Test Mode	Antenna	Ch Name	Channel	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.87	-32.96	<=-19.13	PASS
		High	2480	1.02	-43.7	<=-18.98	PASS
		Low	Hop_2402	0.08	-44.57	<=-19.92	PASS
		High	Hop_2480	1.01	-44.02	<=-18.99	PASS
2DH5	Ant1	Low	2402	0.93	-33.34	<=-19.07	PASS
		High	2480	1.08	-43.33	<=-18.92	PASS
		Low	Hop_2402	-1.50	-44.89	<=-21.5	PASS
		High	Hop_2480	1.09	-44.44	<=-18.91	PASS

Test Graph:



DH5_Ant1_Low_2402

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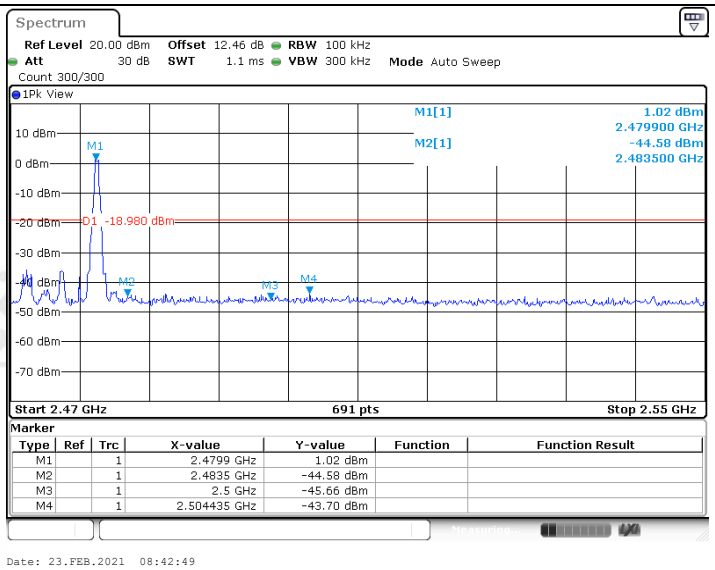
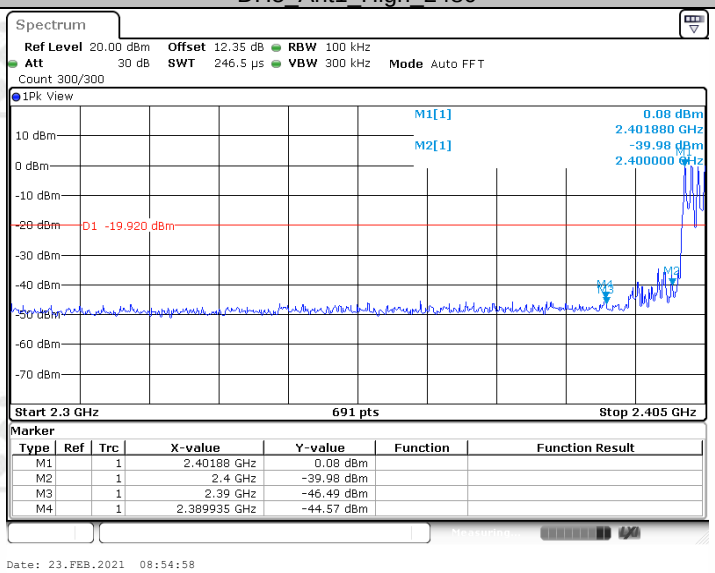


DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402

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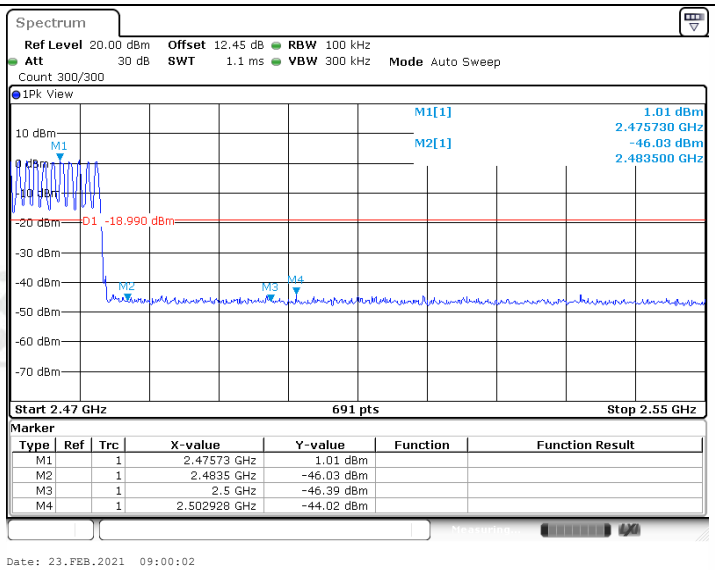
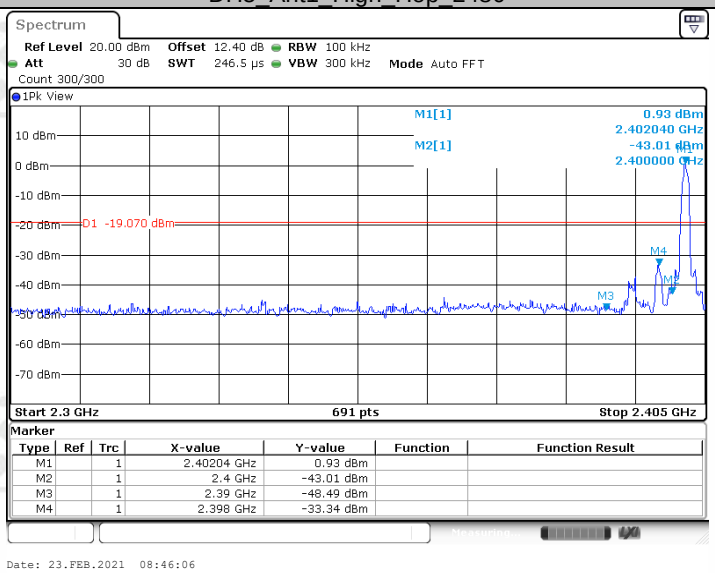


DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402

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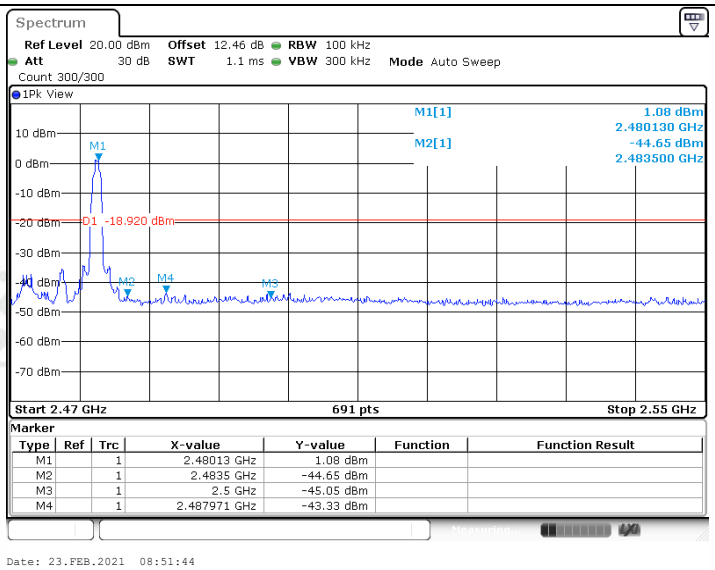
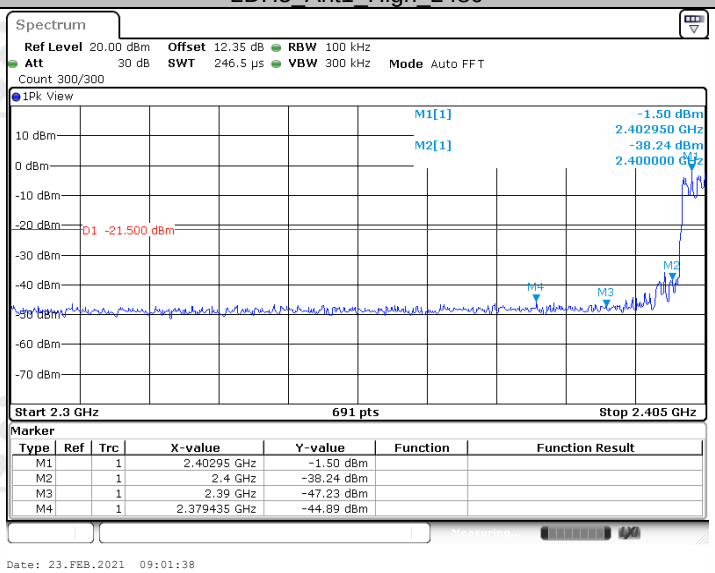


2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402

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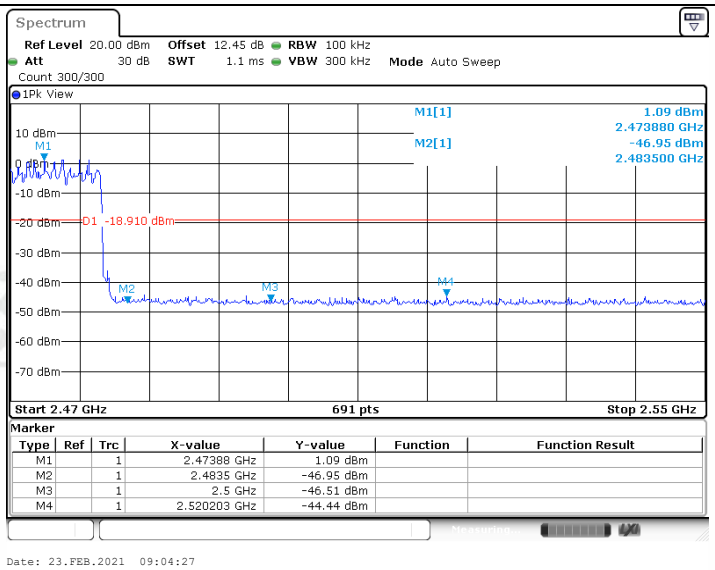

2DH5_Ant1_High_Hop_2480

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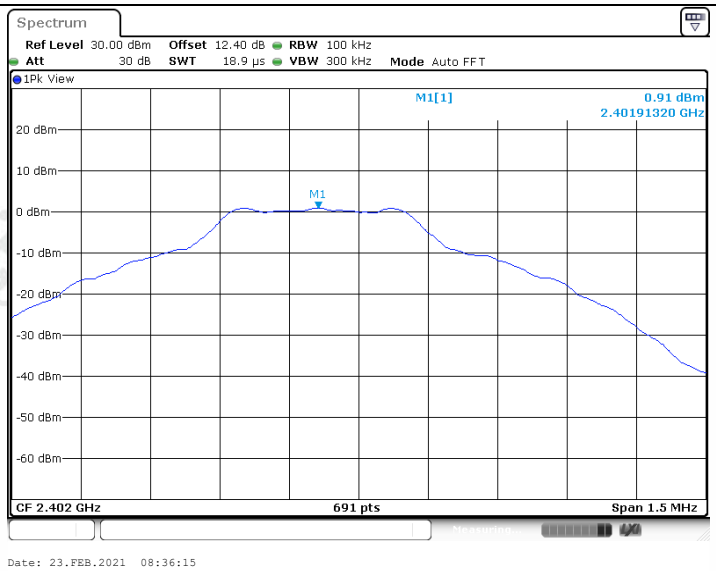
Appendix G): Conducted Spurious Emissions

Result Table:

Test Mode	Antenna	Channel	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.91	0.91	---	PASS
			30~1000	0.91	-56.29	<=-19.09	PASS
			1000~26500	0.91	-46.3	<=-19.09	PASS
		2441	Reference	0.81	0.81	---	PASS
			30~1000	0.81	-55.64	<=-19.19	PASS
			1000~26500	0.81	-45.24	<=-19.19	PASS
		2480	Reference	1.05	1.05	---	PASS
			30~1000	1.05	-56.16	<=-18.95	PASS
			1000~26500	1.05	-46.66	<=-18.95	PASS
2DH5	Ant1	2402	Reference	0.97	0.97	---	PASS
			30~1000	0.97	-56.19	<=-19.03	PASS
			1000~26500	0.97	-46.86	<=-19.03	PASS
		2441	Reference	0.86	0.86	---	PASS
			30~1000	0.86	-55.96	<=-19.14	PASS
			1000~26500	0.86	-42.92	<=-19.14	PASS
		2480	Reference	1.09	1.09	---	PASS
			30~1000	1.09	-56	<=-18.91	PASS
			1000~26500	1.09	-45.99	<=-18.91	PASS

Test Graph:



DH5_Ant1_2402_0~Reference

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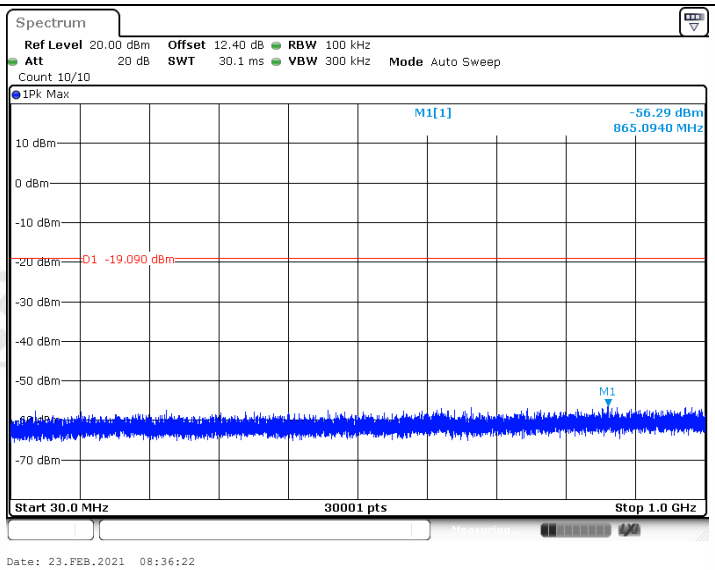
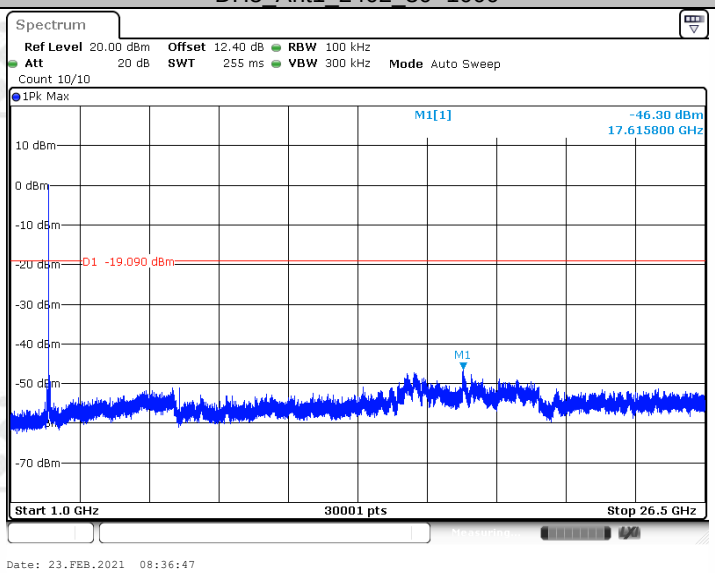


DH5_Ant1_2402_30~1000



DH5_Ant1_2402_1000~26500

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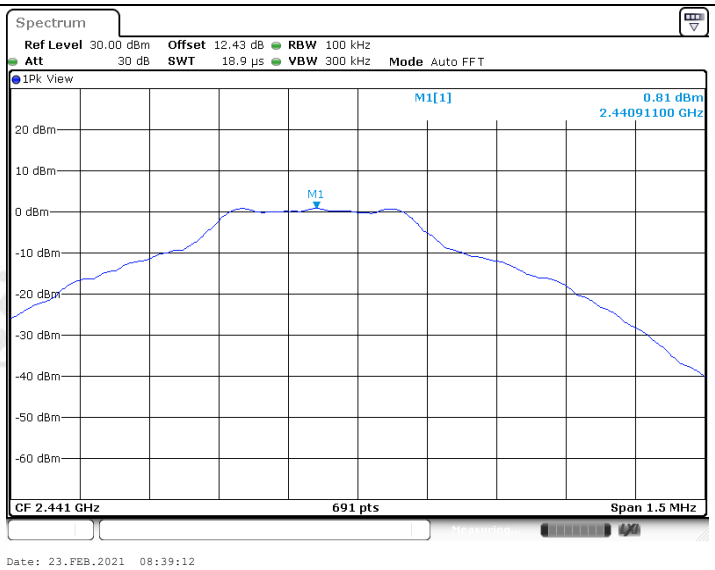
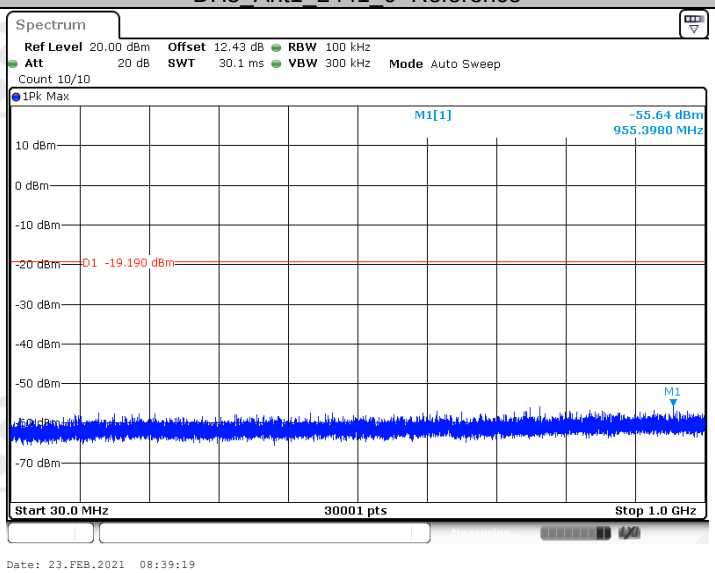


DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000

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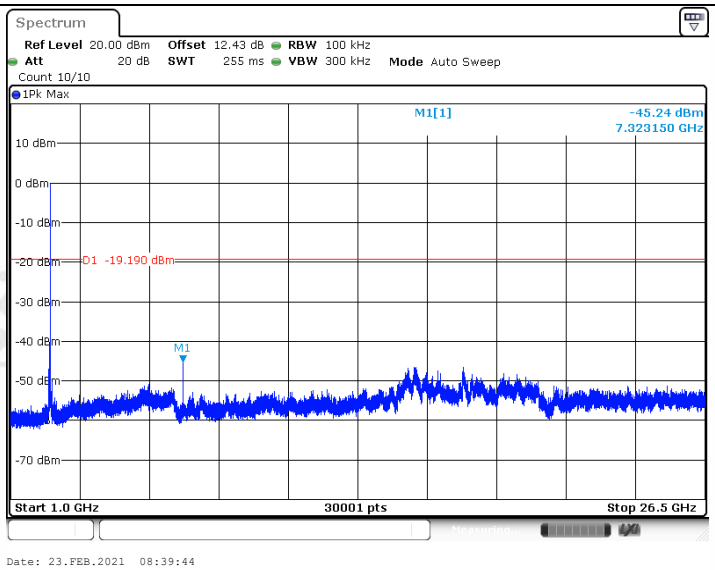
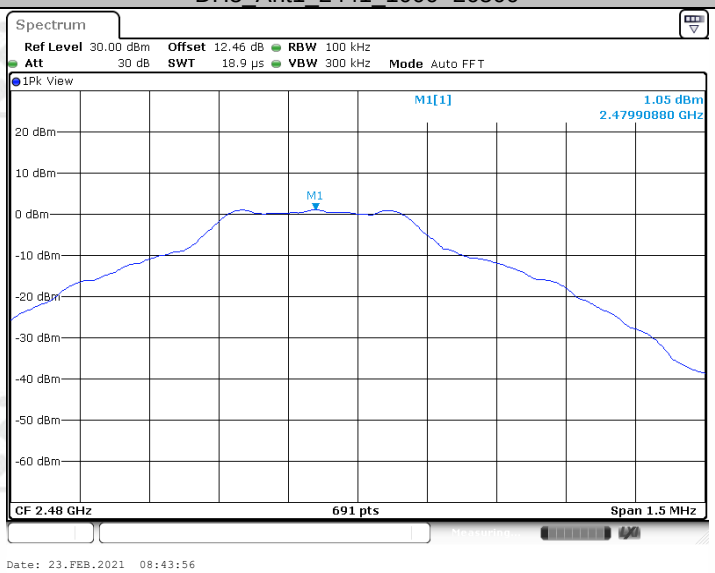


DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference

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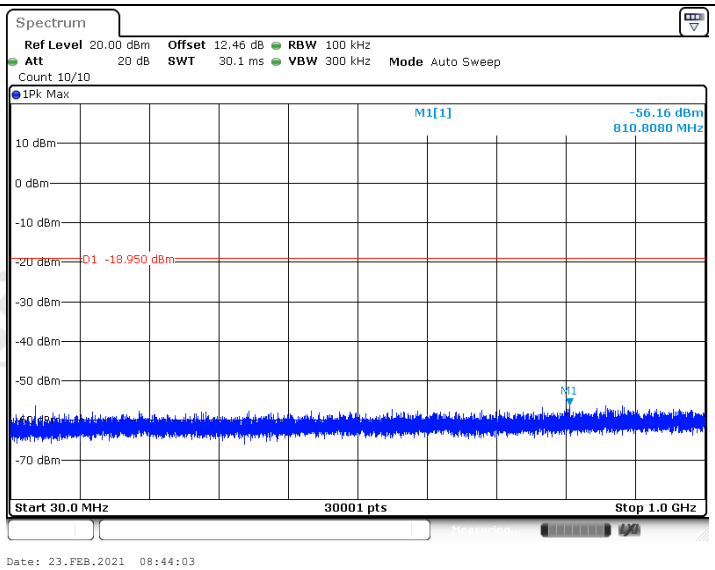
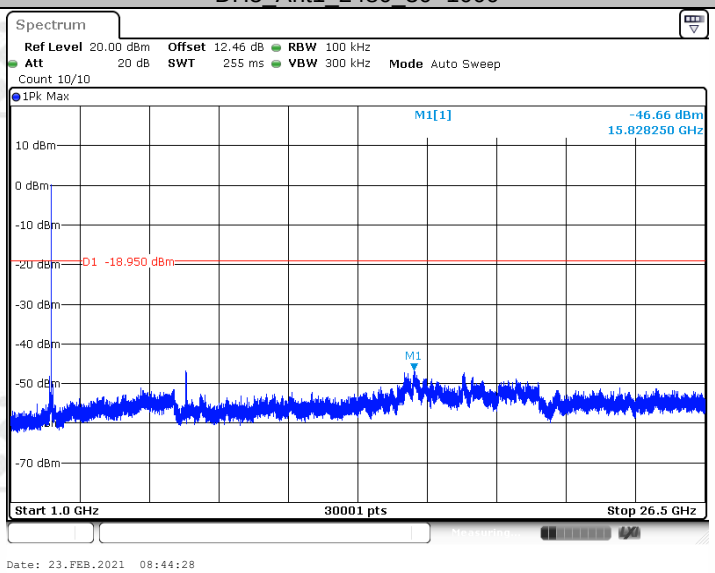


DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

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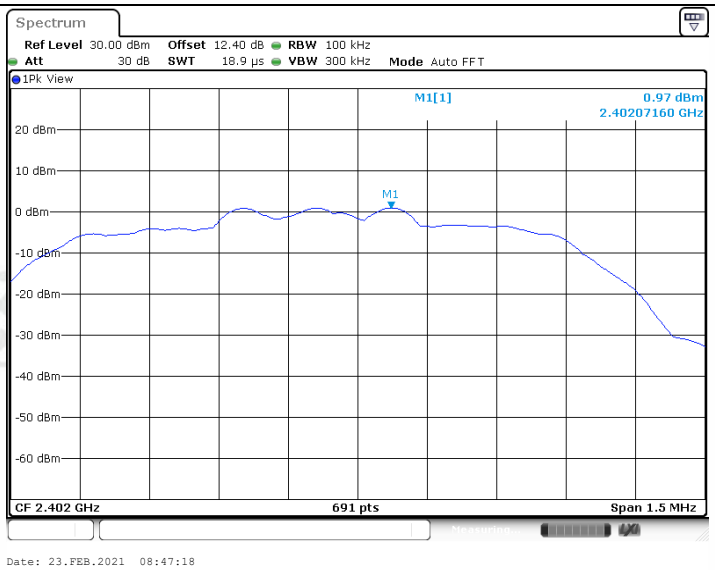
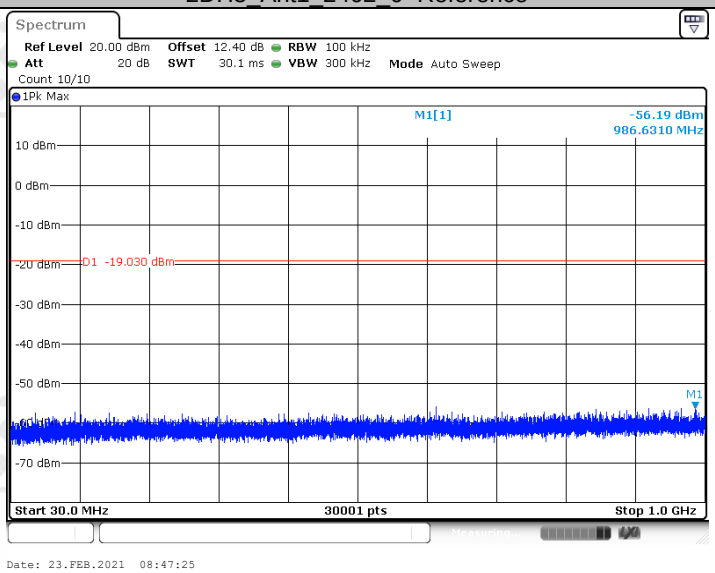


2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000

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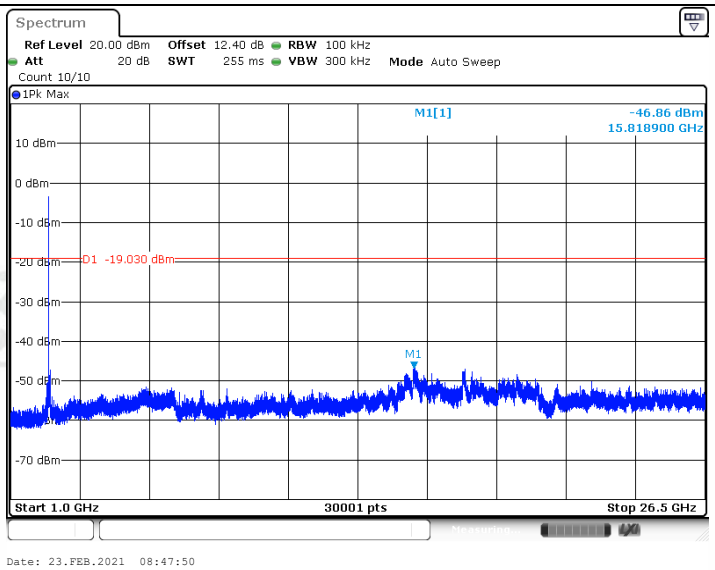
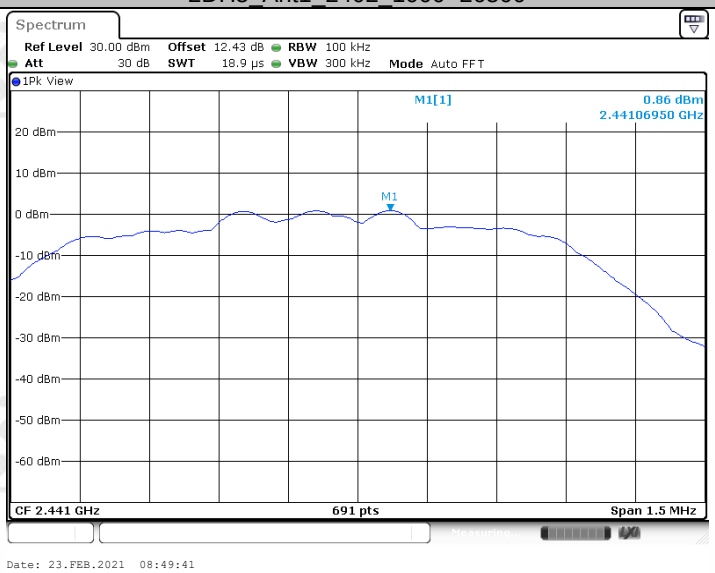


2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference

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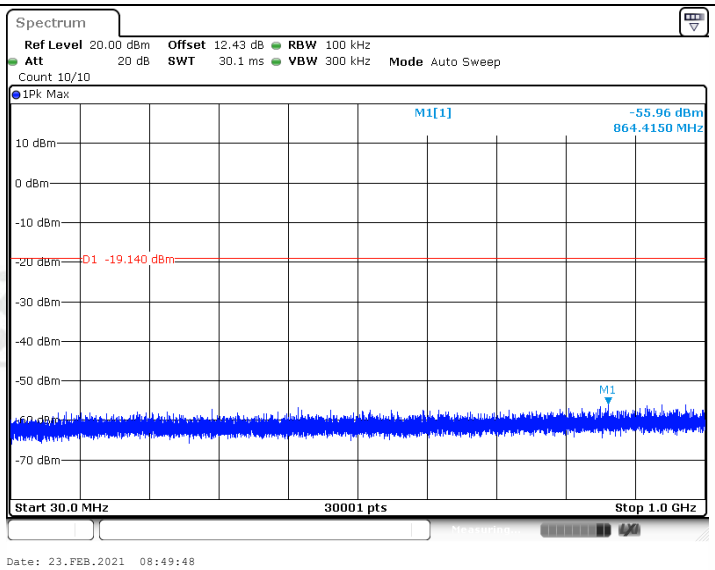

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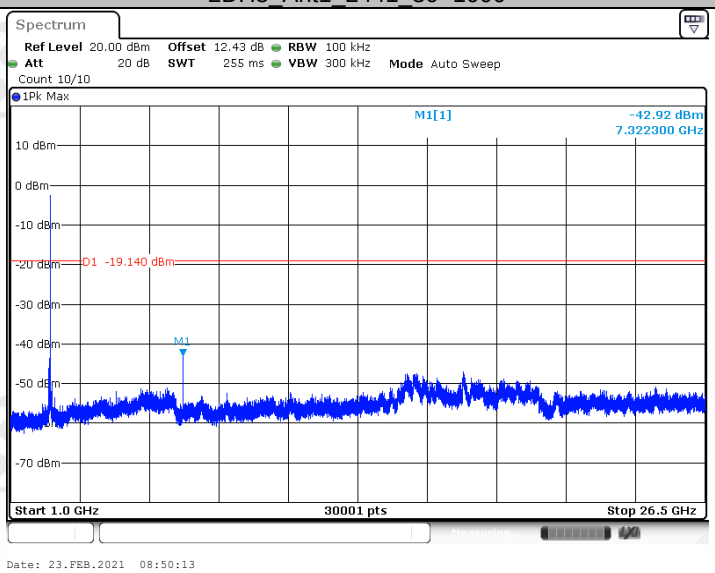

2DH5_Ant1_2441_1000~26500

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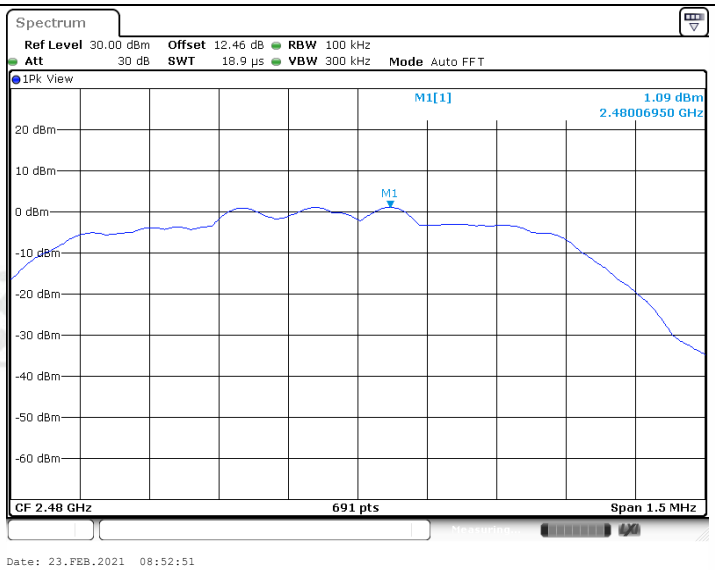
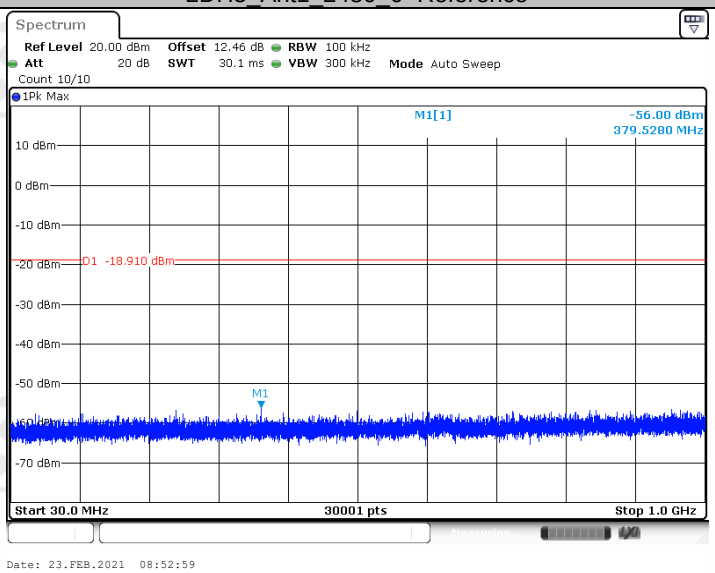


2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000

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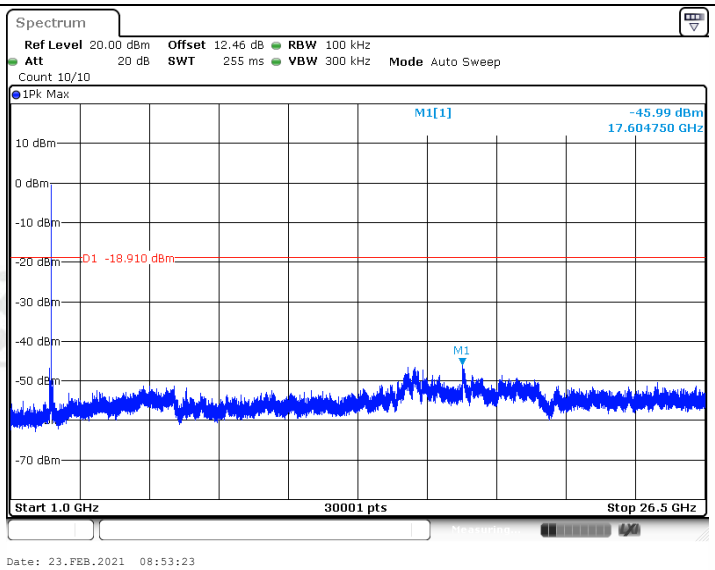

2DH5_Ant1_2480_1000~26500

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Appendix H): Antenna Requirement

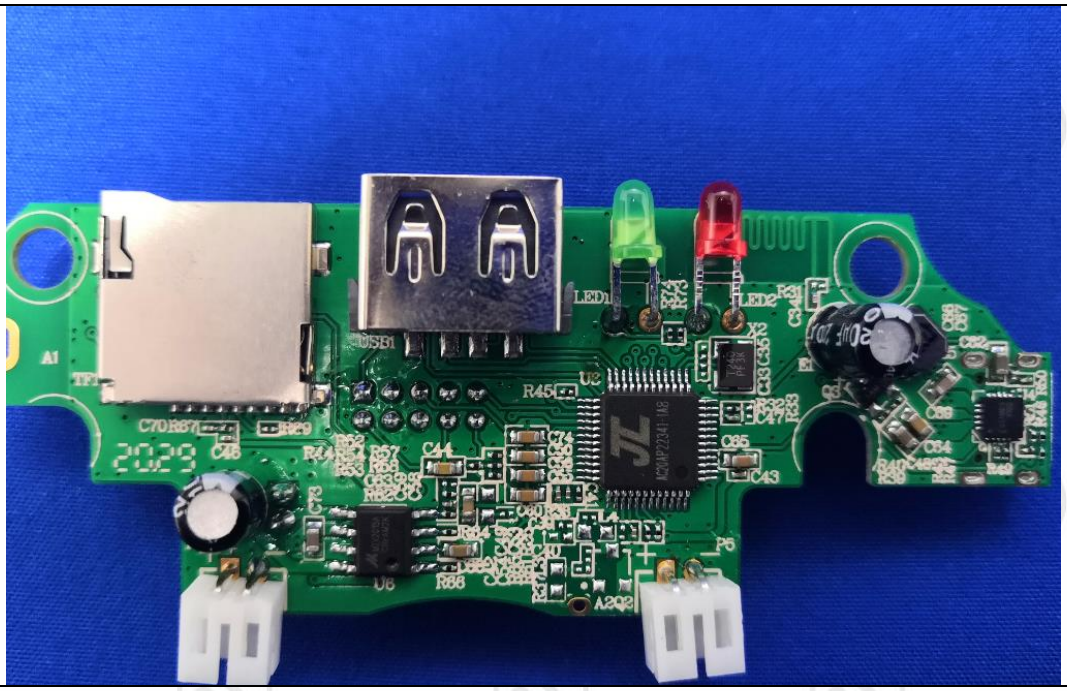
15.203 requirement:

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. The best case gain of the antenna is -0.58dBi.

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Appendix I): AC Power Line Conducted Emission

Test Procedure:

Test frequency range :150KHz-30MHz

1)The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3)The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Limit:

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

* The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

NOTE: The lower limit is applicable at the transition frequency

Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

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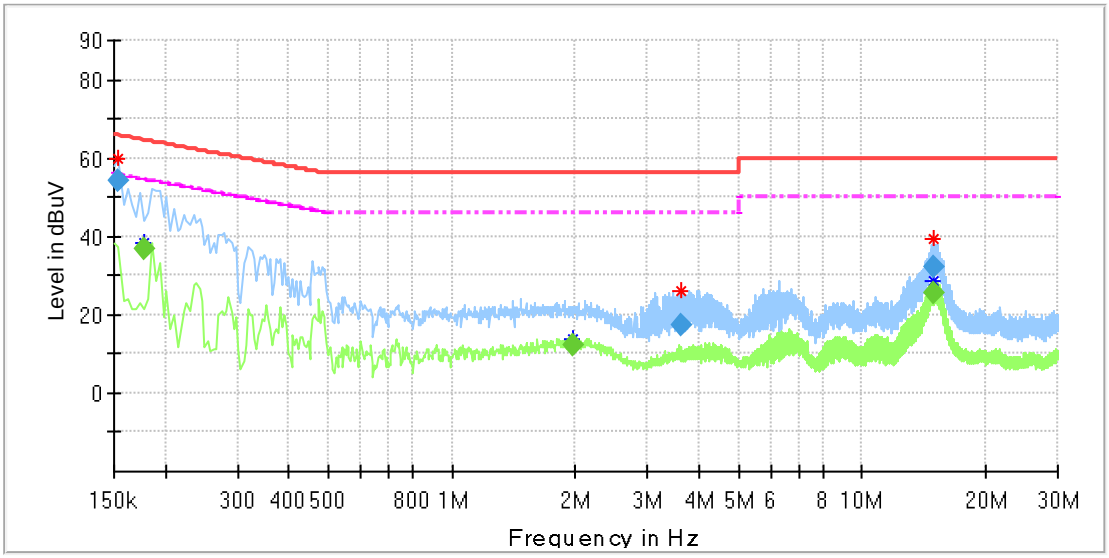
L1 line：



Final_Result

Frequency (MHz)	QuasiPeak (dbuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.152582	54.37	---	65.86	11.49	1000.0	9.000	L1	20.0
0.177048	---	36.57	54.62	18.06	1000.0	9.000	L1	20.0
1.973490	---	12.03	46.00	33.97	1000.0	9.000	L1	20.2
3.615418	17.38	---	56.00	38.62	1000.0	9.000	L1	20.2
14.986276	32.26	---	60.00	27.74	1000.0	9.000	L1	20.1
14.987014	---	25.33	50.00	24.67	1000.0	9.000	L1	20.1

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

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

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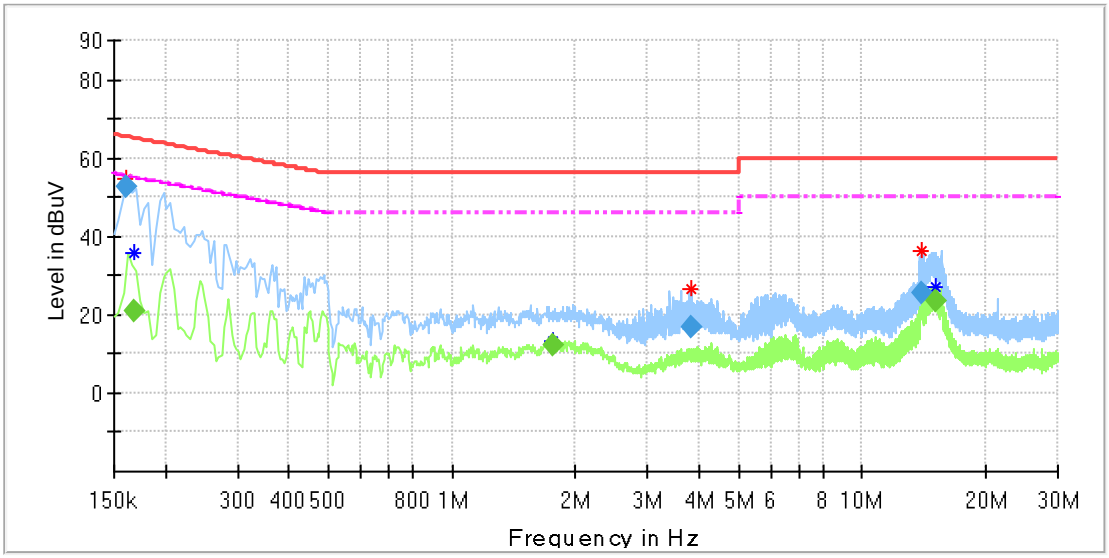
Neutral line：



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.161019	52.68	---	65.41	12.73	1000.0	9.000	N	19.9
0.168227	---	20.69	55.05	34.36	1000.0	9.000	N	19.9
1.757618	---	12.14	46.00	33.86	1000.0	9.000	N	19.9
3.843970	16.96	---	56.00	39.04	1000.0	9.000	N	19.9
13.984944	25.45	---	60.00	34.55	1000.0	9.000	N	19.8
15.120816	---	23.56	50.00	26.44	1000.0	9.000	N	19.9

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

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

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

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Procedure:

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
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 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. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel

Above 1GHz test procedure as below:

a. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter (Above 18GHz the distance is 1 meter and table is 1.5 meter).
b. b. Test the EUT in the lowest channel, the Highest channel
c. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.
d. Repeat above procedures until all frequencies measured was complete.

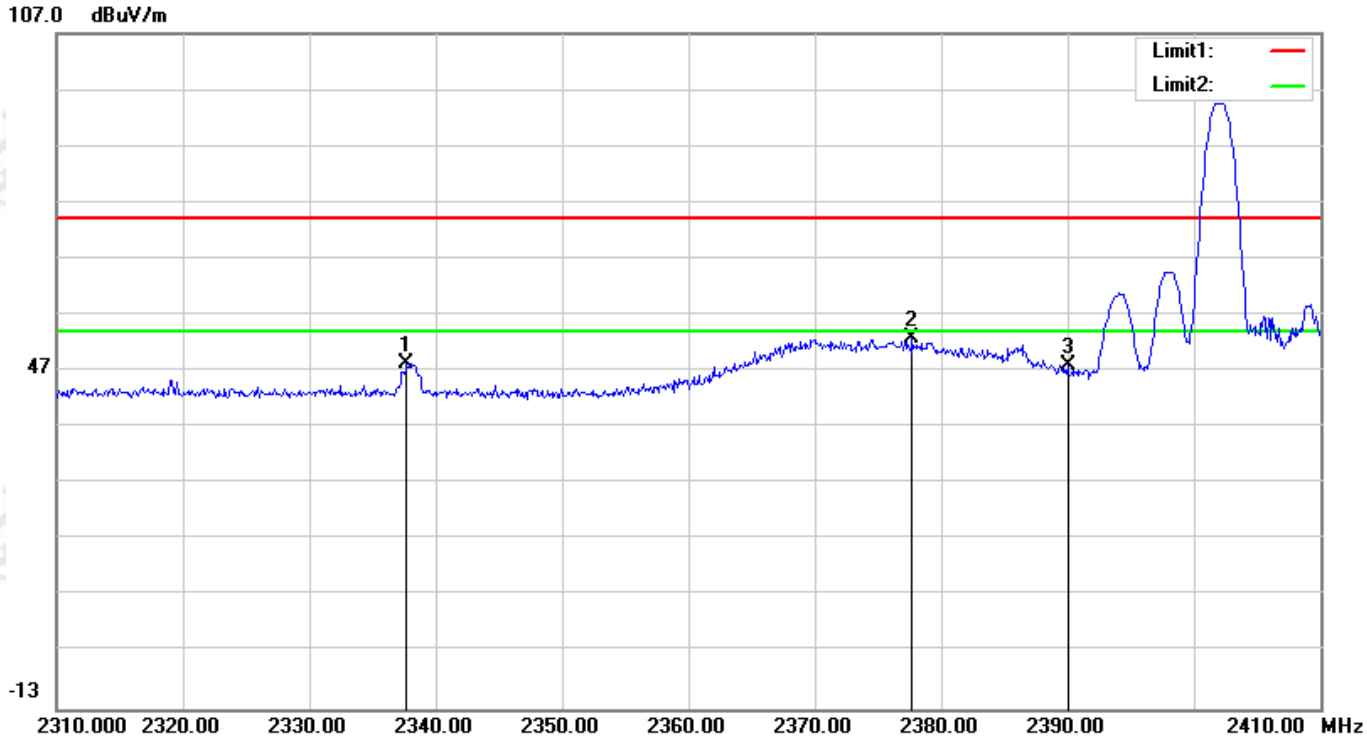
Limit:

Frequency	Limit (dBμV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

Test plot as follows:

Mode:	GFSK Transmitting	Channel:	2402
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	2337.700	45.80	2.57	48.37	74.00	-25.63	100	12	peak
2	2377.700	50.10	2.68	52.78	74.00	-21.22	137	360	peak
3	2390.000	45.32	2.71	48.03	74.00	-25.97	143	360	peak

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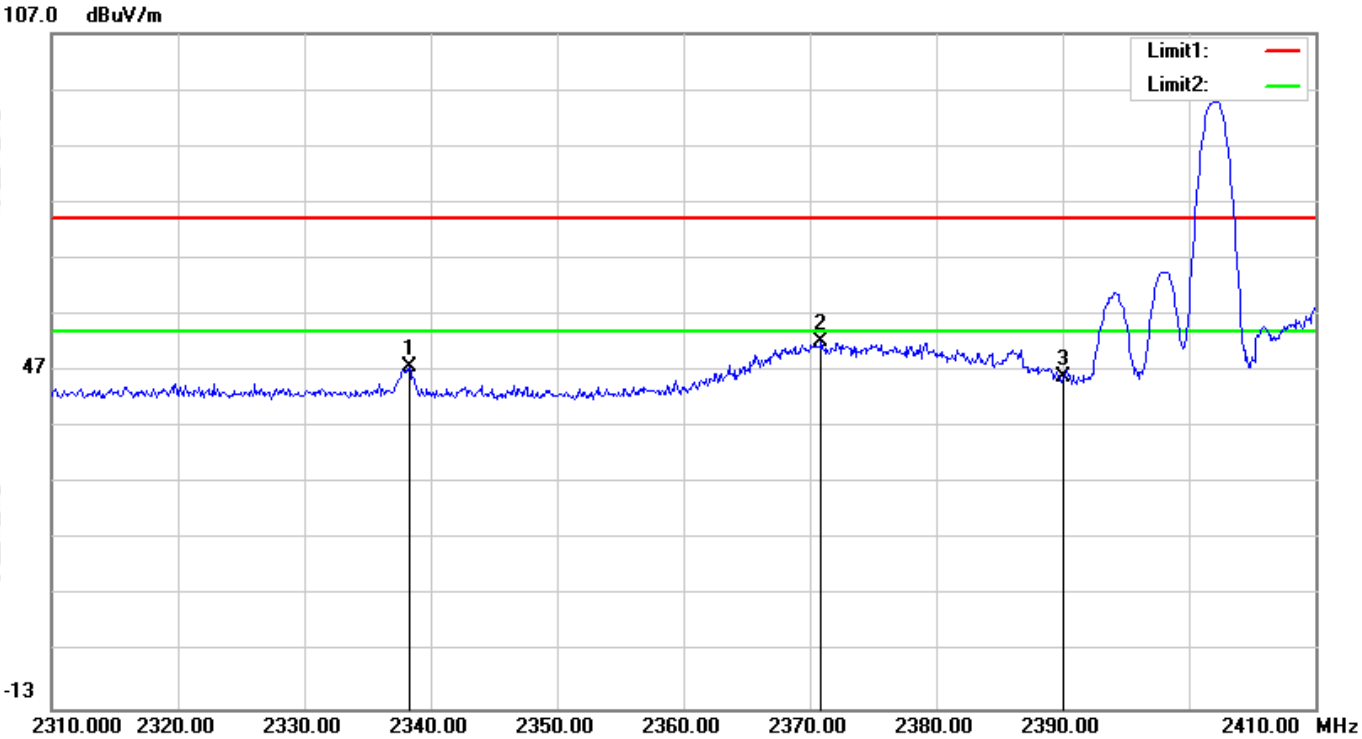
Mode:	GFSK Transmitting	Channel:	2402
Remark:	Vertical		

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	2338.300	45.08	2.57	47.65	74.00	-26.35	200	115	peak
2	2370.900	49.54	2.66	52.20	74.00	-21.80	200	123	peak
3	2390.000	43.15	2.71	45.86	74.00	-28.14	200	115	peak

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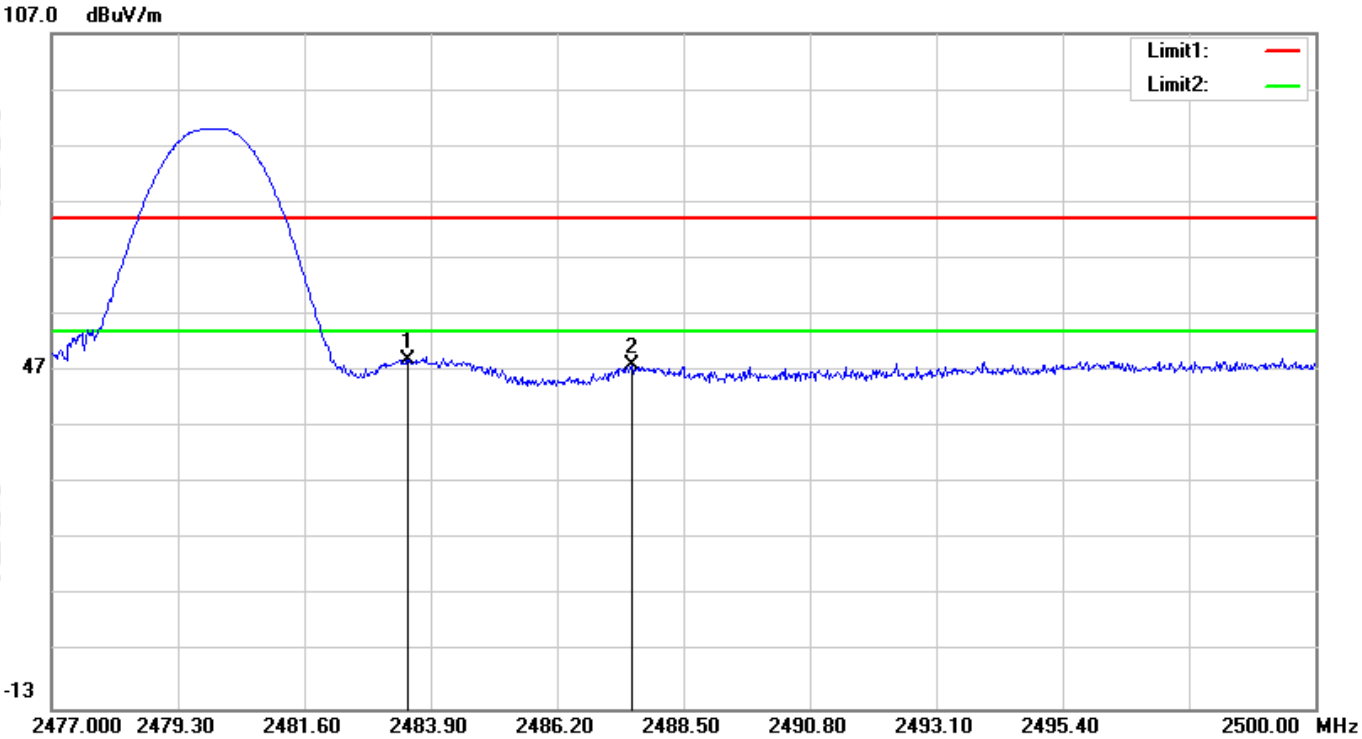
Mode:	GFSK Transmitting	Channel:	2480
Remark:	Horizontal		

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	45.91	2.92	48.83	74.00	-25.17	142	360	peak
2	2487.557	45.21	2.92	48.13	74.00	-25.87	115	360	peak

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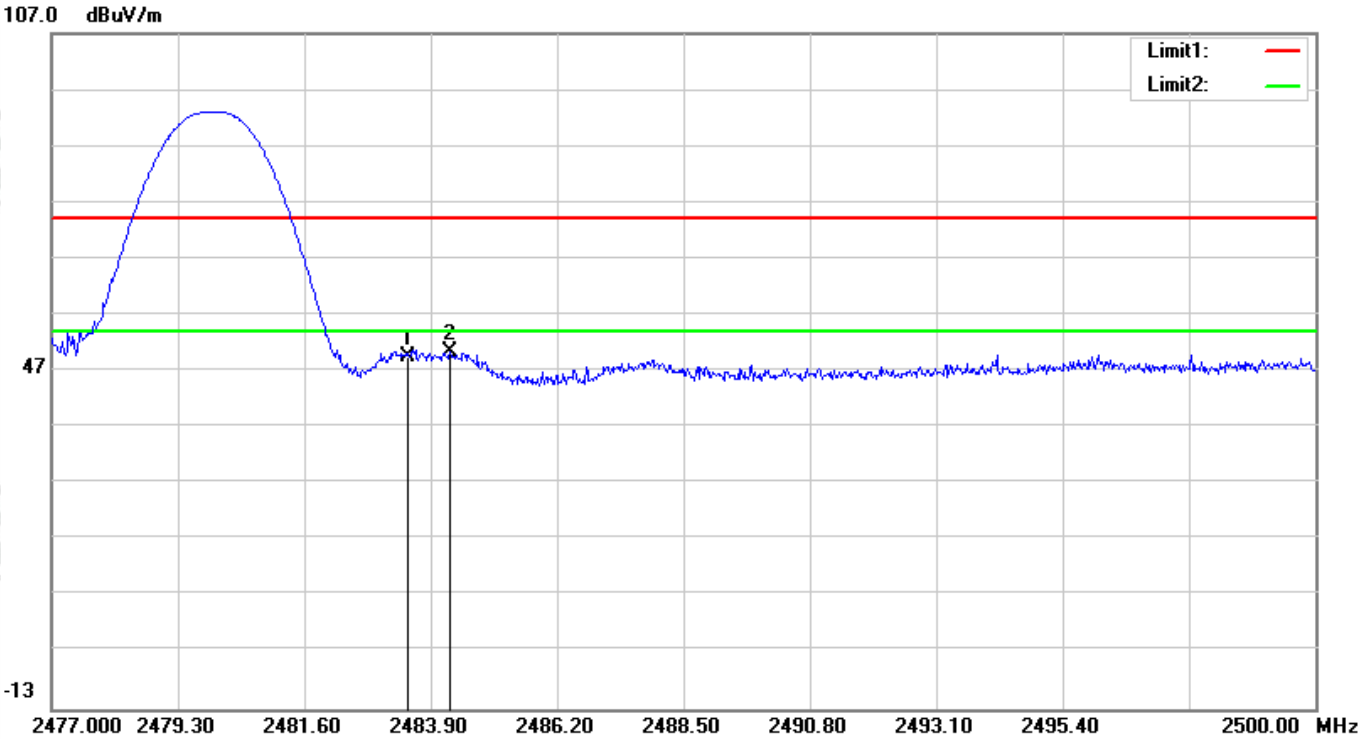
Mode:	GFSK Transmitting	Channel:	2480
Remark:	Vertical		

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	46.75	2.92	49.67	74.00	-24.33	200	122	peak
2	2484.245	47.46	2.92	50.38	74.00	-23.62	200	124	peak

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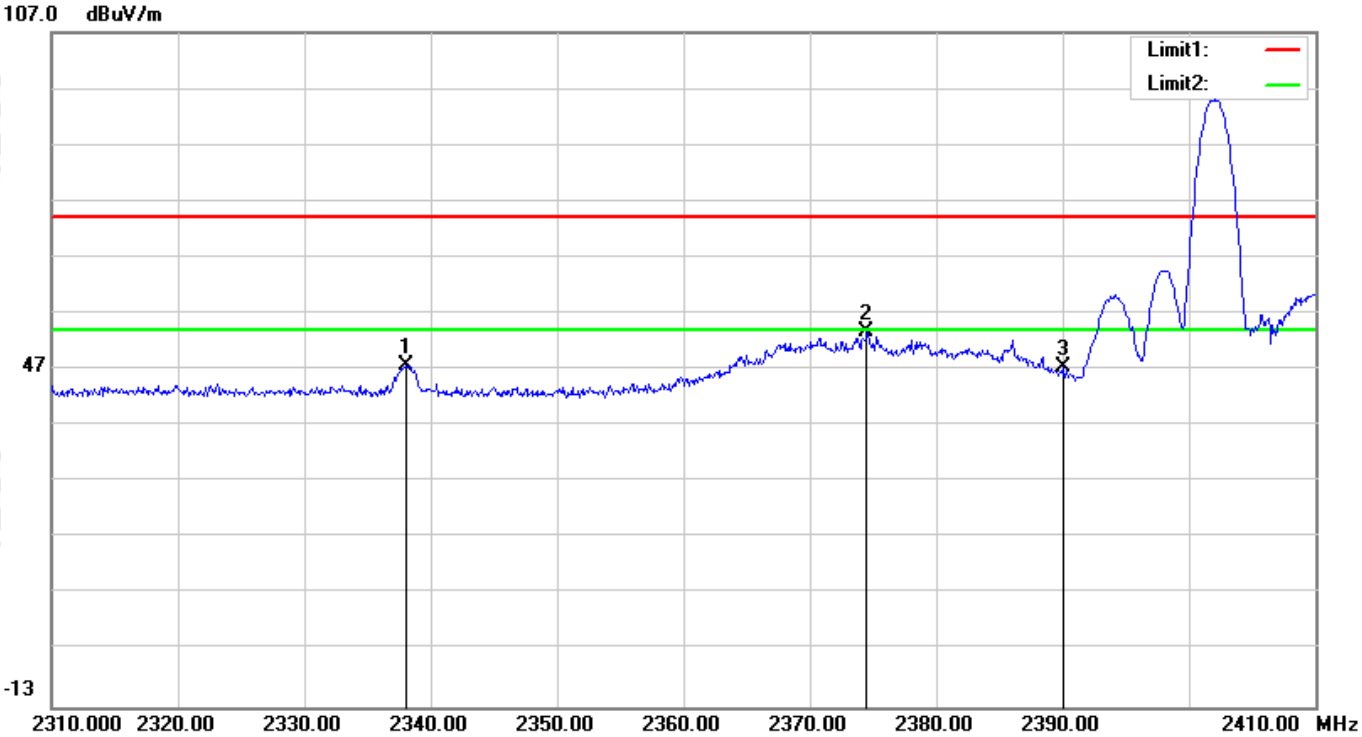
Mode:	π/4DQPSK Transmitting	Channel:	2402
Remark:	Horizontal		

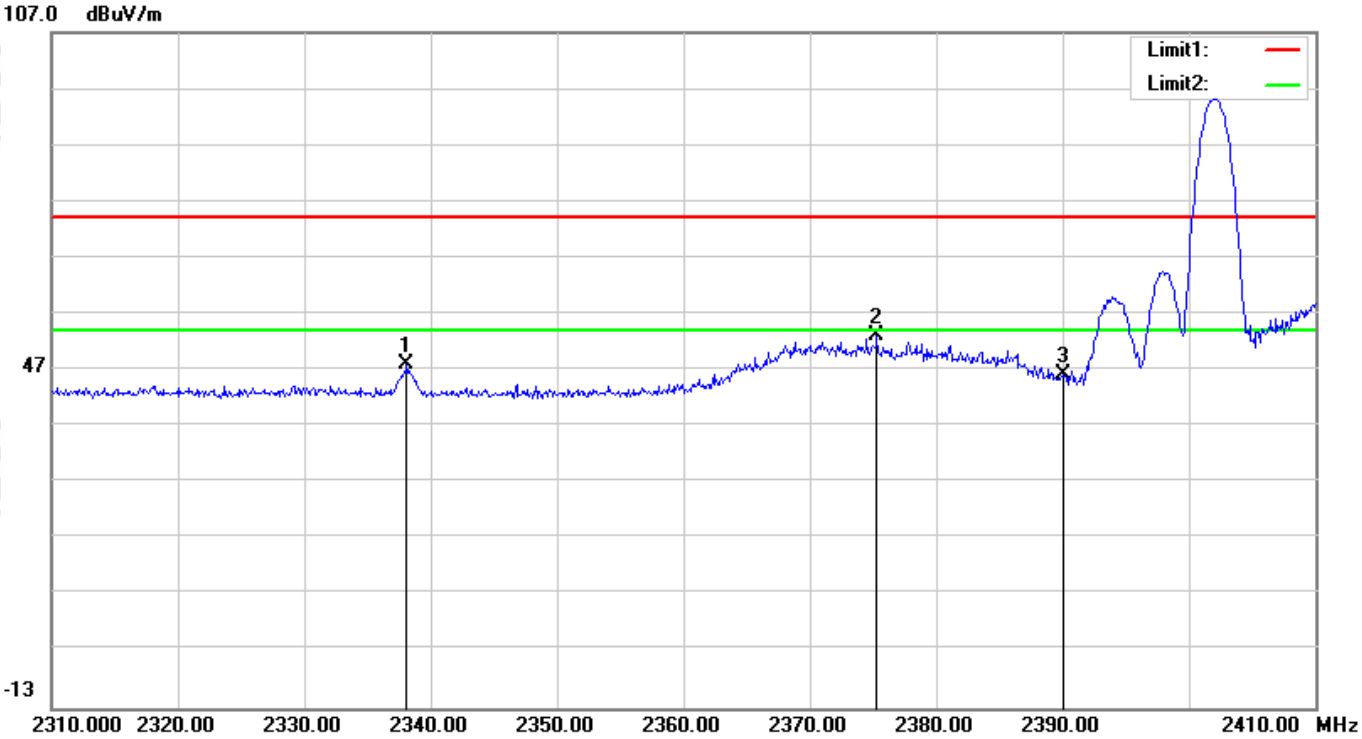
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2338.100	45.14	2.57	47.71	74.00	-26.29	140	360	peak
2	2374.500	50.96	2.67	53.63	74.00	-20.37	156	360	peak
3	2390.000	44.84	2.71	47.55	74.00	-26.45	149	360	peak

Mode:	π/4DQPSK Transmitting	Channel:	2402
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	2338.100	45.45	2.57	48.02	74.00	-25.98	200	117	peak
2	2375.300	50.55	2.67	53.22	74.00	-20.78	200	117	peak
3	2390.000	43.66	2.71	46.37	74.00	-27.63	200	117	peak

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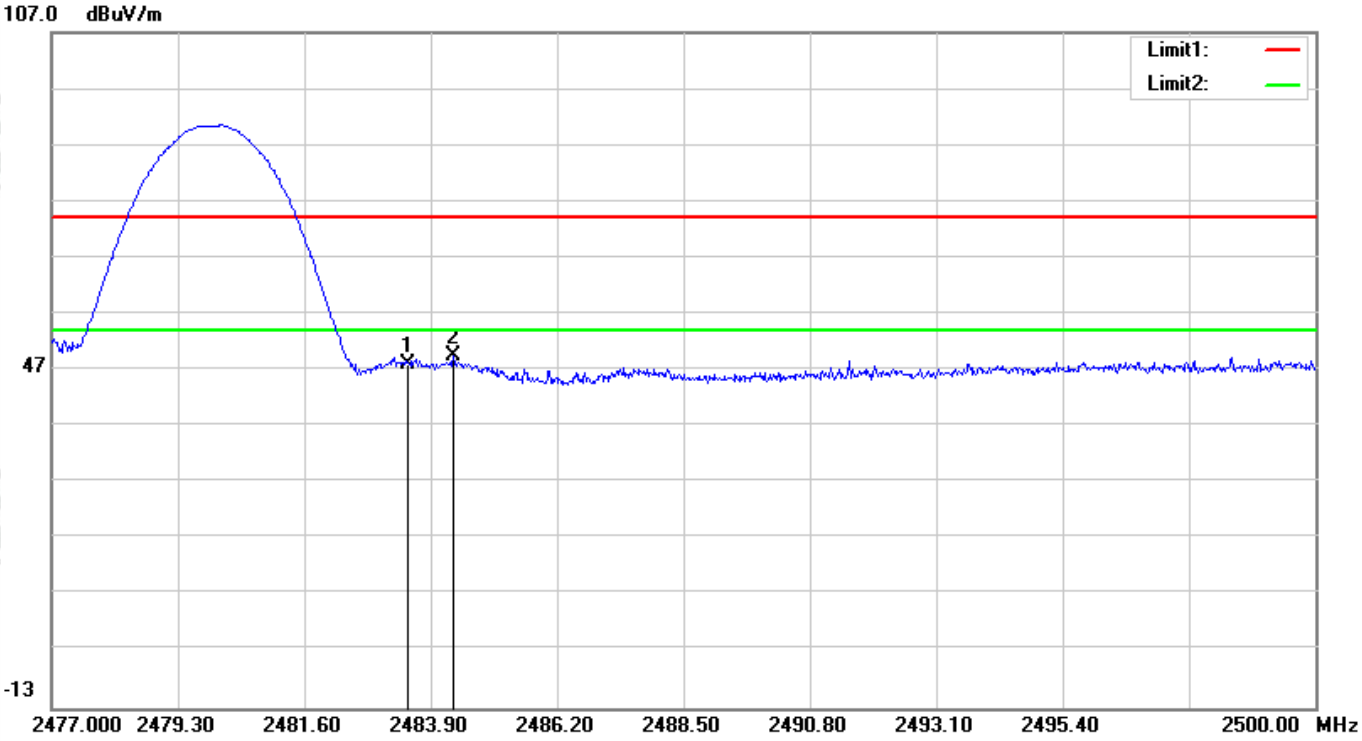
Mode:	π/4DQPSK Transmitting	Channel:	2480
Remark:	Horizontal		

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	45.09	2.92	48.01	74.00	-25.99	100	360	peak
2	2484.314	46.58	2.92	49.50	74.00	-24.50	134	360	peak

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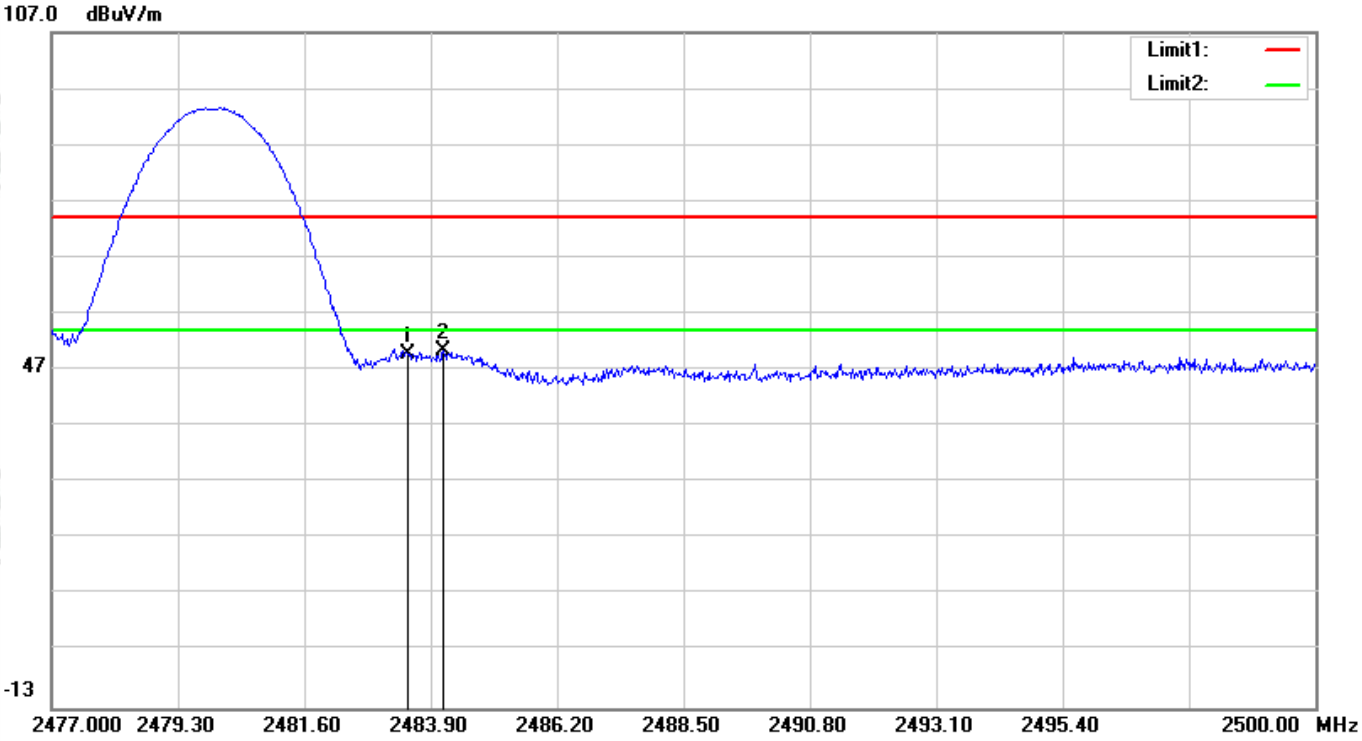
Mode:	π/4DQPSK Transmitting	Channel:	2480
Remark:	Vertical		

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	46.84	2.92	49.76	74.00	-24.24	200	124	peak
2	2484.130	47.49	2.92	50.41	74.00	-23.59	200	122	peak

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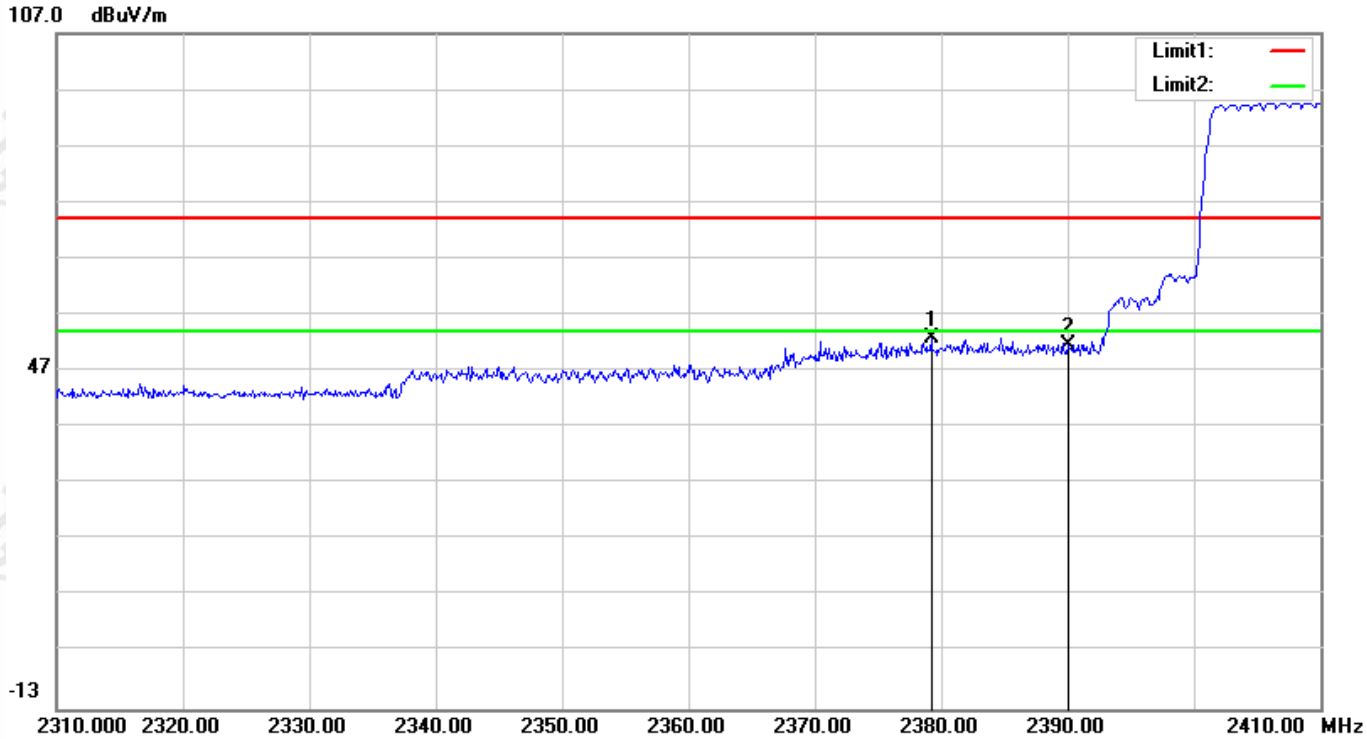
Mode:	GFSK Hopping	Channel:	2402
Remark:	Horizontal		

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	2379.200	50.10	2.68	52.78	74.00	-21.22	134	360	peak
2	2390.000	48.83	2.71	51.54	74.00	-22.46	135	360	peak

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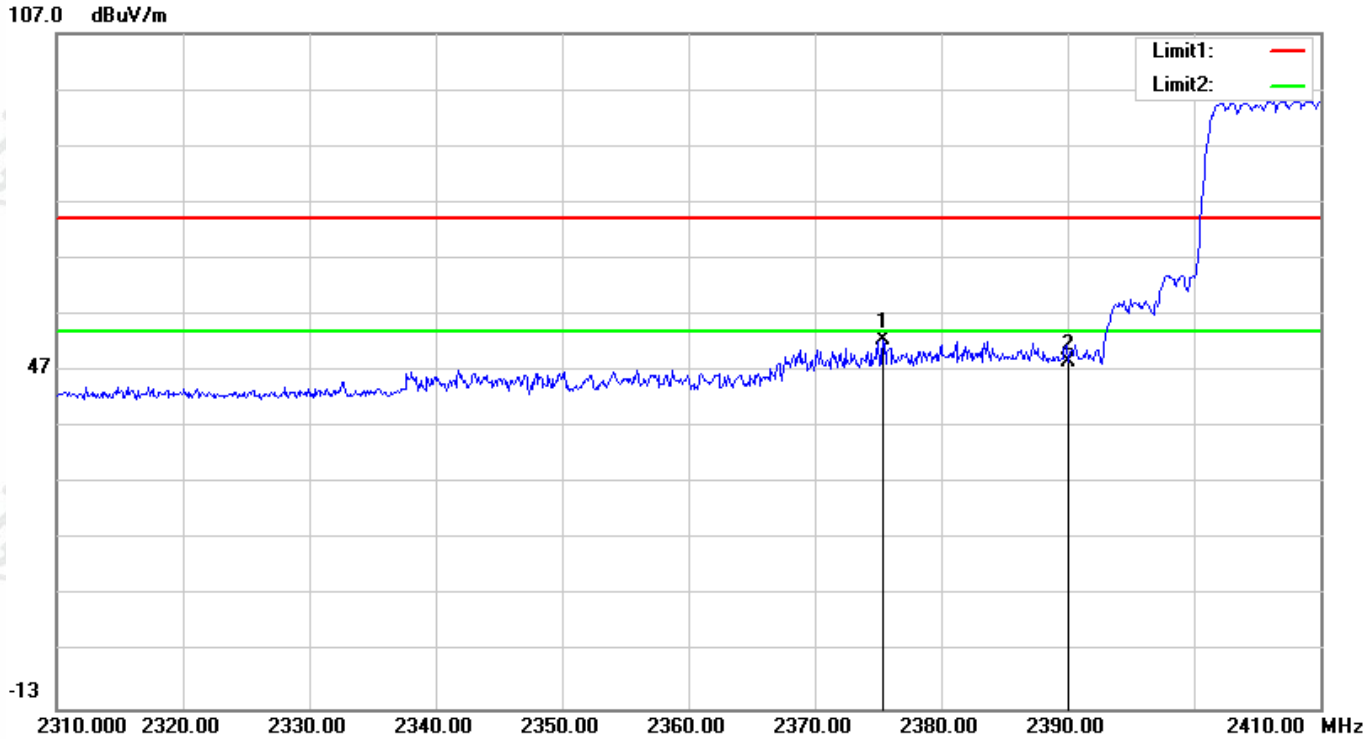
Mode:	GFSK Hopping	Channel:	2402
Remark:	Vertical		

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	2375.400	49.74	2.67	52.41	74.00	-21.59	200	126	peak
2	2390.000	46.09	2.71	48.80	74.00	-25.20	200	119	peak

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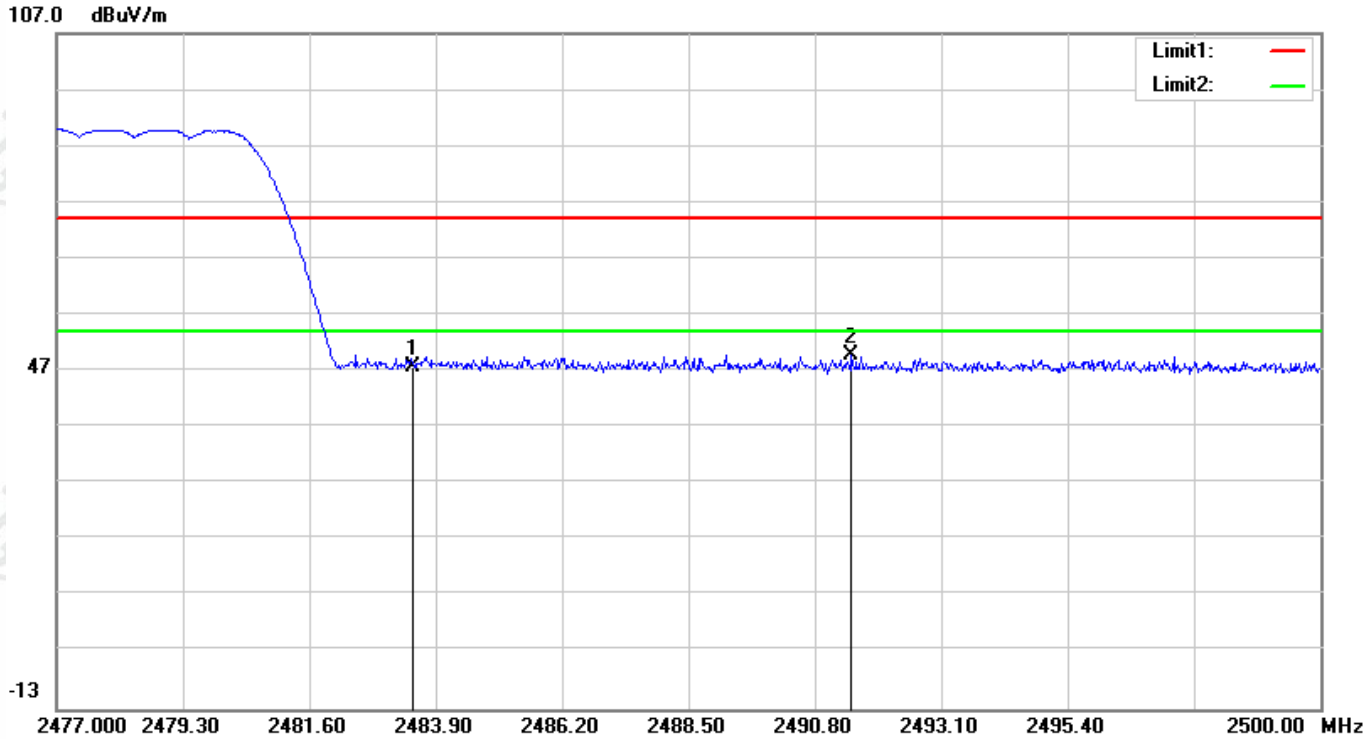
Mode:	GFSK Hopping	Channel:	2480
Remark:	Horizontal		

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	44.70	2.92	47.62	74.00	-26.38	106	360	peak
2	2491.467	46.95	2.93	49.88	74.00	-24.12	158	360	peak

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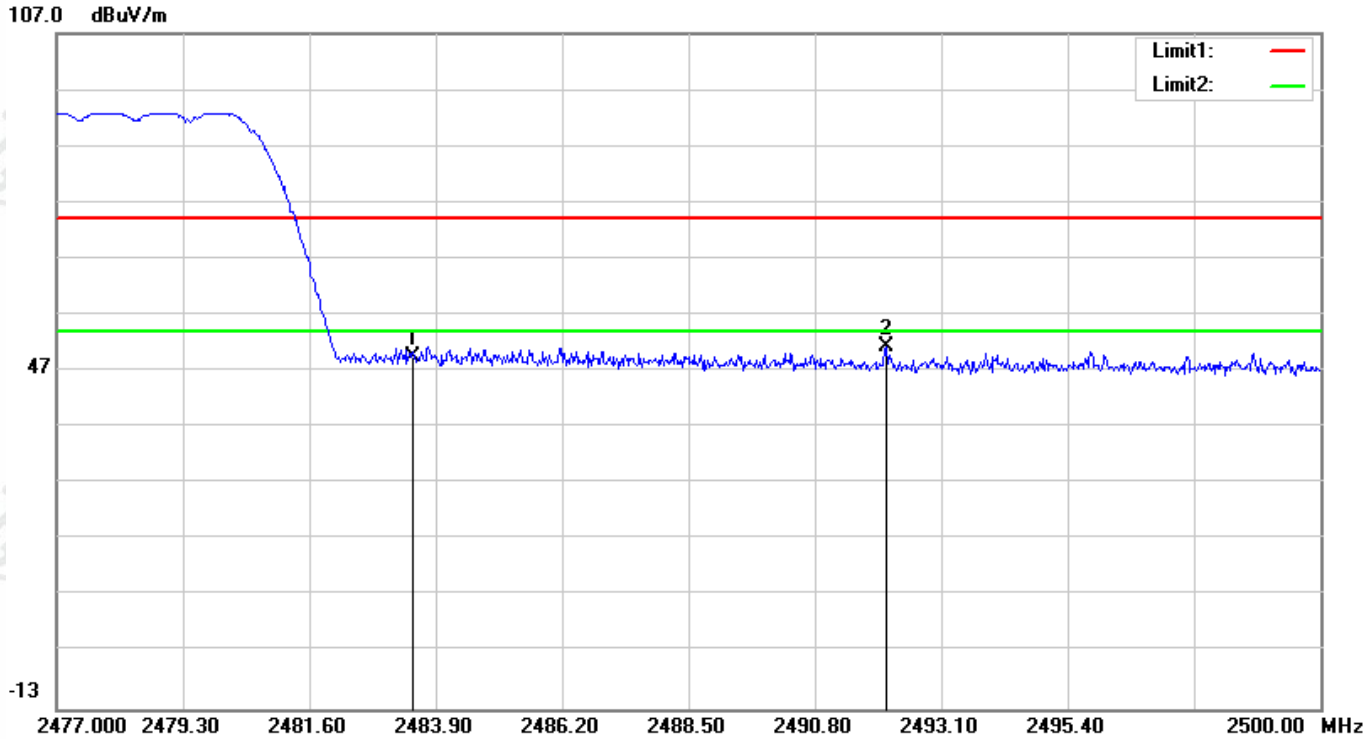
Mode:	GFSK Hopping	Channel:	2480
Remark:	Vertical		

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	46.53	2.92	49.45	74.00	-24.55	200	0	peak
2	2492.088	48.45	2.93	51.38	74.00	-22.62	200	122	peak

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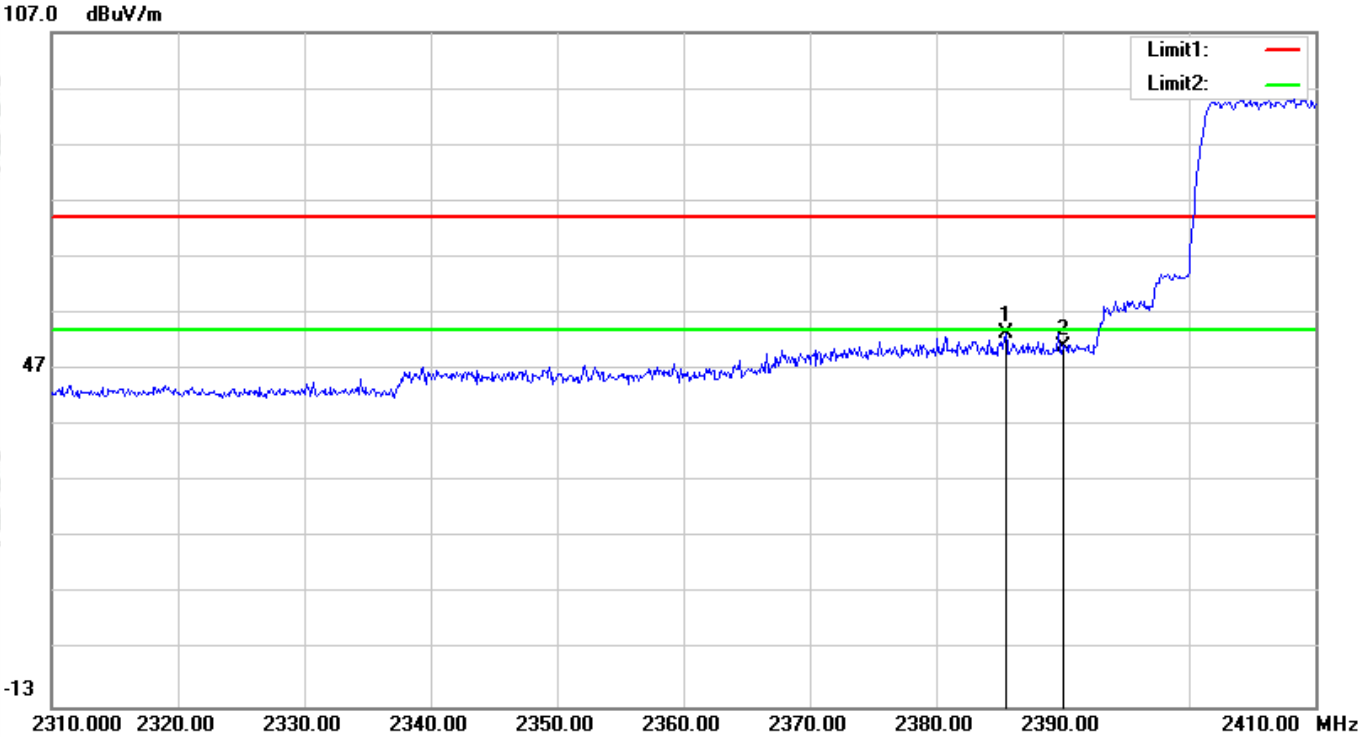
Mode:	π/4DQPSK Hopping	Channel:	2402
Remark:	Horizontal		

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	2385.500	50.88	2.70	53.58	74.00	-20.42	100	359	peak
2	2390.000	48.45	2.71	51.16	74.00	-22.84	152	360	peak

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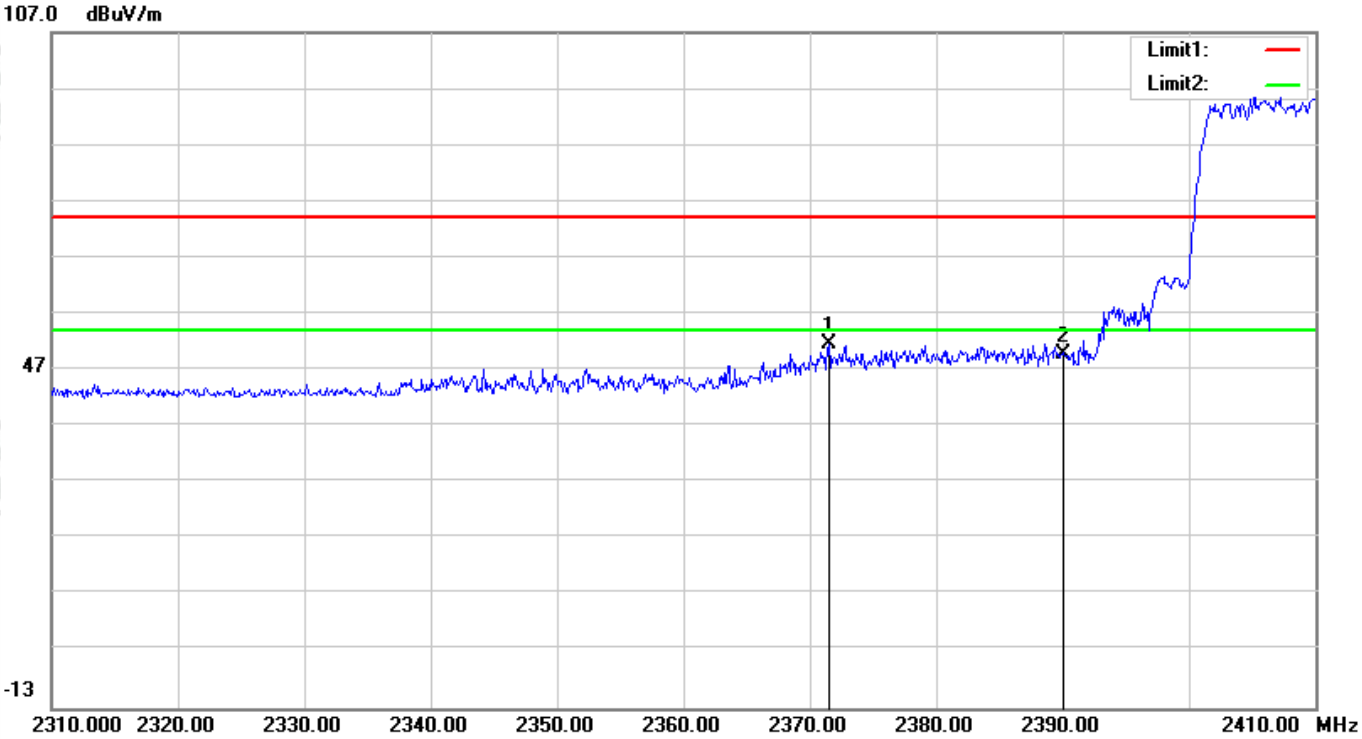
Mode:	π/4DQPSK Hopping	Channel:	2402
Remark:	Vertical		

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	2371.500	48.92	2.66	51.58	74.00	-22.42	200	121	peak
2	2390.000	47.25	2.71	49.96	74.00	-24.04	200	119	peak

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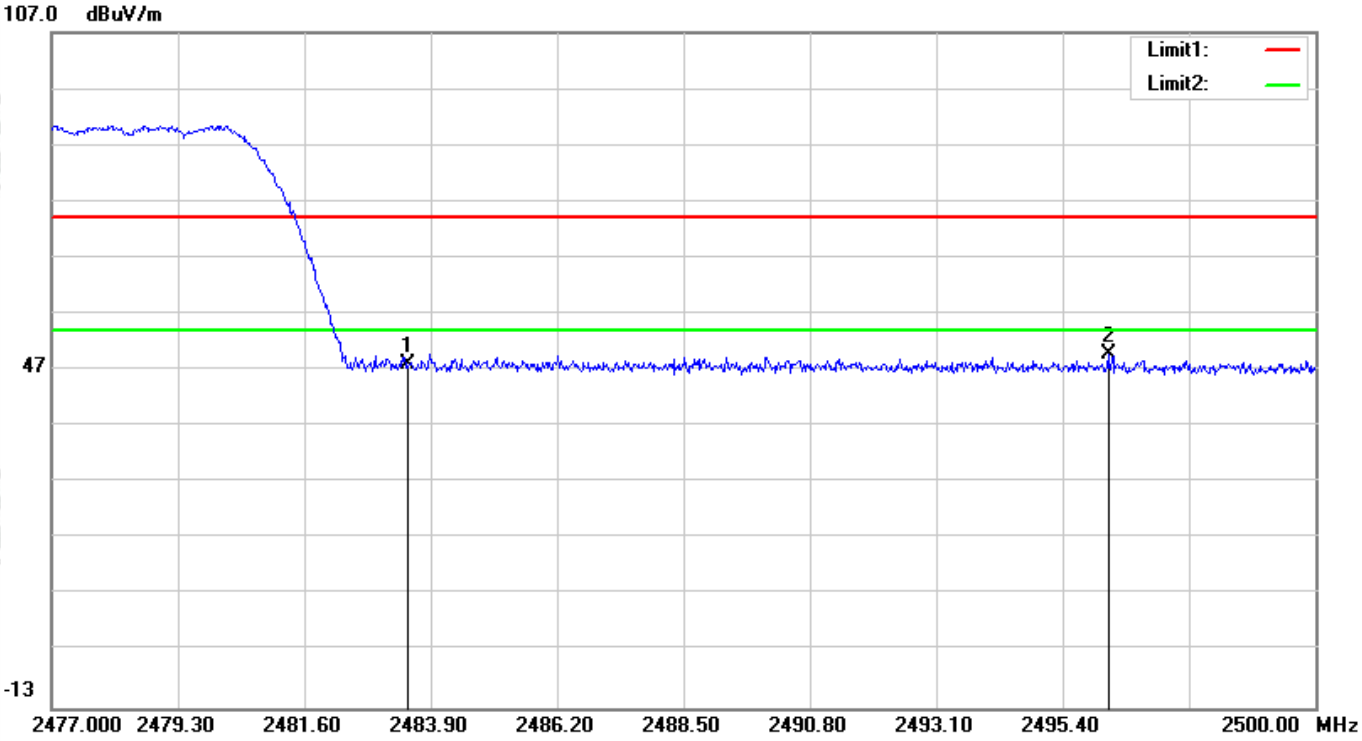
Mode:	π/4DQPSK Hopping	Channel:	2480
Remark:	Horizontal		

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	45.24	2.92	48.16	74.00	-25.84	136	360	peak
2	2496.228	46.80	2.94	49.74	74.00	-24.26	136	360	peak

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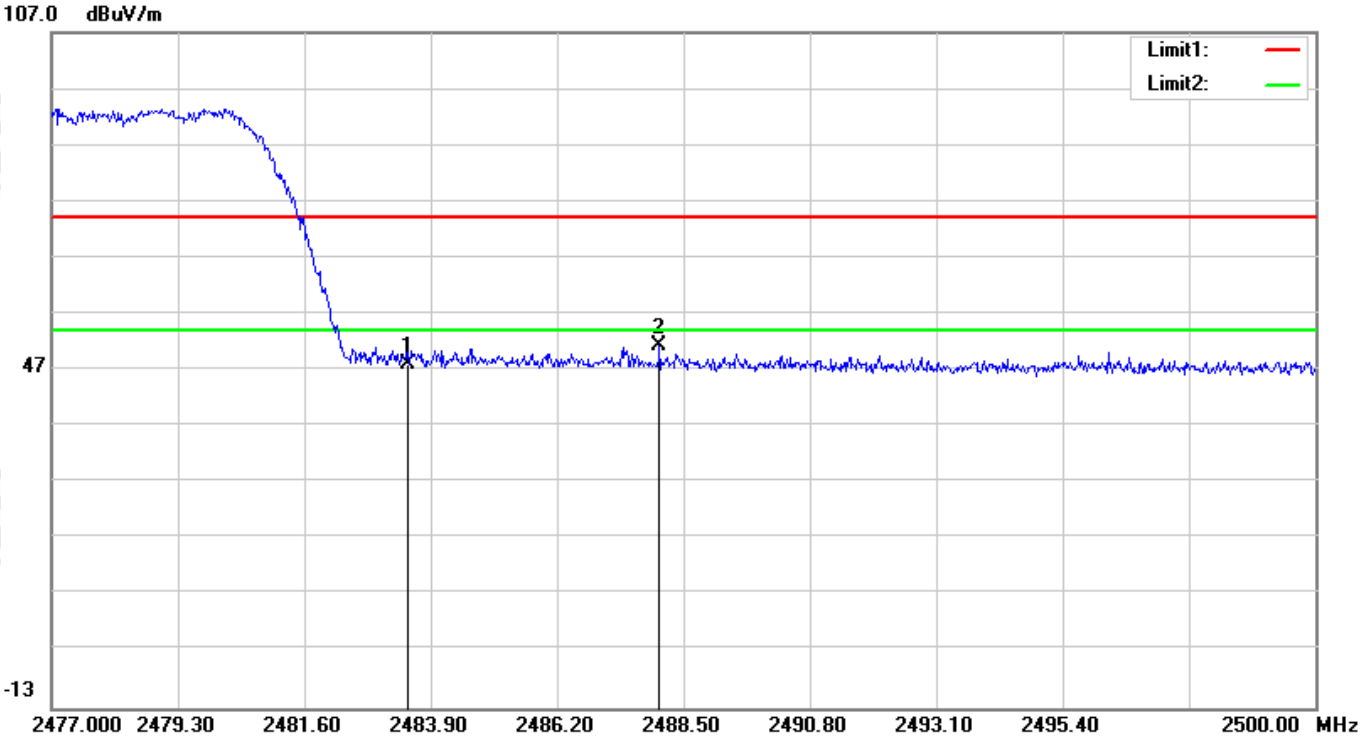
Mode:	π/4DQPSK Hopping	Channel:	2480
Remark:	Vertical		

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	45.23	2.92	48.15	74.00	-25.85	200	127	peak
2	2488.063	48.43	2.92	51.35	74.00	-22.65	200	118	peak

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

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Appendix K): Radiated Spurious Emissions

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Procedure:

Below 1GHz test procedure as below:

a. 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.
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.

Above 1GHz test procedure as below:

a. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).
b. Test the EUT in the lowest channel ,the middle channel ,the Highest channel
c. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.
d. Repeat above procedures until all frequencies measured was complete.

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBµV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

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.

Radiated Spurious Emissions test Data:

Radiated Emission below 1GHz:

Mode:	π/4DQPSK Transmitting	Channel:	2402
Remark:			

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
38.7300	V	55.37	-22.99	32.38	40.00	-7.62	QP
64.9200	V	55.21	-24.19	31.02	40.00	-8.98	QP
95.9600	V	51.90	-23.41	28.49	43.50	-15.01	QP
143.4900	V	57.35	-27.18	30.17	43.50	-13.33	QP
612.0000	V	47.19	-16.43	30.76	46.00	-15.24	QP
838.0100	V	45.22	-14.67	30.55	46.00	-15.45	QP
143.4900	H	63.05	-27.18	35.87	43.50	-7.63	QP
167.7400	H	60.23	-26.14	34.09	43.50	-9.41	QP
239.5200	H	58.55	-22.92	35.63	46.00	-10.37	QP
288.0200	H	61.03	-22.53	38.50	46.00	-7.50	QP
768.1700	H	50.83	-15.06	35.77	46.00	-10.23	QP
839.9500	H	50.89	-14.64	36.25	46.00	-9.75	QP

Notes:

1) Through Pre-scan then find the π/4DQPSK -CH0 is the worst case mode and only the worst data was recorded.

Transmitter Emission above 1GHz:

Mode:	GFSK Transmitting	Channel:	2402
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	4927.000	39.94	9.43	49.37	74.00	-24.63	100	351	peak
2	6831.000	33.89	11.54	45.43	74.00	-28.57	100	129	peak
3	8412.000	32.48	13.54	46.02	74.00	-27.98	100	327	peak
4	10231.000	31.76	15.18	46.94	74.00	-27.06	100	327	peak
5	14634.000	29.24	22.40	51.64	74.00	-22.36	100	336	peak
6	16606.000	27.99	24.29	52.28	74.00	-21.72	100	266	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	4842.000	40.66	9.24	49.90	74.00	-24.10	100	345	peak
2	6848.000	34.27	11.55	45.82	74.00	-28.18	100	68	peak
3	8803.000	31.53	13.88	45.41	74.00	-28.59	100	304	peak
4	11183.000	31.01	16.82	47.83	74.00	-26.17	100	281	peak
5	13104.000	29.83	18.61	48.44	74.00	-25.56	100	324	peak
6	14634.000	30.50	22.40	52.90	74.00	-21.10	100	17	peak

Mode:	GFSK Transmitting	Channel:	2441
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	4944.000	40.79	9.47	50.26	74.00	-23.74	100	350	peak
2	7613.000	32.20	12.49	44.69	74.00	-29.31	100	102	peak
3	9534.000	29.98	14.77	44.75	74.00	-29.25	100	87	peak
4	10214.000	31.53	15.15	46.68	74.00	-27.32	100	2	peak
5	13648.000	30.82	20.71	51.53	74.00	-22.47	100	357	peak
6	16028.000	28.73	23.64	52.37	74.00	-21.63	100	259	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	4859.000	40.31	9.28	49.59	74.00	-24.41	100	348	peak
2	6882.000	33.46	11.58	45.04	74.00	-28.96	100	12	peak
3	8599.000	31.71	13.80	45.51	74.00	-28.49	100	212	peak
4	11183.000	31.12	16.82	47.94	74.00	-26.06	100	282	peak
5	14158.000	31.45	21.72	53.17	74.00	-20.83	100	359	peak
6	16011.000	29.66	23.63	53.29	74.00	-20.71	100	233	peak

Mode:	GFSK Transmitting	Channel:	2480
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	4944.000	39.07	9.47	48.54	74.00	-25.46	100	334	peak
2	7341.000	32.75	12.23	44.98	74.00	-29.02	100	302	peak
3	10214.000	32.16	15.15	47.31	74.00	-26.69	100	119	peak
4	13665.000	30.40	20.76	51.16	74.00	-22.84	100	121	peak
5	14396.000	29.24	22.23	51.47	74.00	-22.53	100	158	peak
6	16011.000	28.28	23.63	51.91	74.00	-22.09	100	325	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	4808.000	40.06	9.16	49.22	74.00	-24.78	100	350	peak
2	8582.000	31.59	13.77	45.36	74.00	-28.64	100	277	peak
3	10996.000	31.63	16.50	48.13	74.00	-25.87	100	170	peak
4	13665.000	29.76	20.76	50.52	74.00	-23.48	100	355	peak
5	15382.000	29.03	22.84	51.87	74.00	-22.13	100	17	peak
6	16895.000	27.65	25.31	52.96	74.00	-21.04	100	66	peak

Mode:	π/4DQPSK Transmitting	Channel:	2402
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	4961.000	38.62	9.51	48.13	74.00	-25.87	100	333	peak
2	8786.000	32.31	13.87	46.18	74.00	-27.82	100	50	peak
3	11183.000	30.73	16.82	47.55	74.00	-26.45	100	155	peak
4	13393.000	30.23	19.90	50.13	74.00	-23.87	100	224	peak
5	14379.000	30.50	22.19	52.69	74.00	-21.31	100	325	peak
6	15382.000	28.45	22.84	51.29	74.00	-22.71	100	152	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	4859.000	39.01	9.28	48.29	74.00	-25.71	100	359	peak
2	7341.000	32.61	12.23	44.84	74.00	-29.16	100	66	peak
3	8820.000	32.10	13.90	46.00	74.00	-28.00	100	74	peak
4	11013.000	30.89	16.53	47.42	74.00	-26.58	100	301	peak
5	13682.000	31.24	20.81	52.05	74.00	-21.95	100	345	peak
6	14158.000	30.77	21.72	52.49	74.00	-21.51	100	38	peak

Mode:	π/4DQPSK Transmitting	Channel:	2441
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	4944.000	39.47	9.47	48.94	74.00	-25.06	100	351	peak
2	8191.000	32.01	13.22	45.23	74.00	-28.77	100	76	peak
3	10231.000	32.05	15.18	47.23	74.00	-26.77	100	40	peak
4	11183.000	31.02	16.82	47.84	74.00	-26.16	100	148	peak
5	13852.000	30.44	21.24	51.68	74.00	-22.32	100	278	peak
6	14923.000	29.95	22.99	52.94	74.00	-21.06	100	173	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	4825.000	39.83	9.20	49.03	74.00	-24.97	100	352	peak
2	8786.000	31.81	13.87	45.68	74.00	-28.32	100	132	peak
3	10231.000	32.16	15.18	47.34	74.00	-26.66	100	0	peak
4	13648.000	31.01	20.71	51.72	74.00	-22.28	100	275	peak
5	14158.000	31.69	21.72	53.41	74.00	-20.59	100	348	peak
6	15552.000	30.02	22.74	52.76	74.00	-21.24	100	178	peak

Mode:	π/4DQPSK Transmitting	Channel:	2480
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	4910.000	38.95	9.39	48.34	74.00	-25.66	100	270	peak
2	6831.000	33.95	11.54	45.49	74.00	-28.51	100	259	peak
3	8412.000	31.71	13.54	45.25	74.00	-28.75	100	346	peak
4	10996.000	31.84	16.50	48.34	74.00	-25.66	100	42	peak
5	13886.000	30.34	21.30	51.64	74.00	-22.36	100	85	peak
6	15807.000	28.79	23.19	51.98	74.00	-22.02	100	63	peak

Vertical

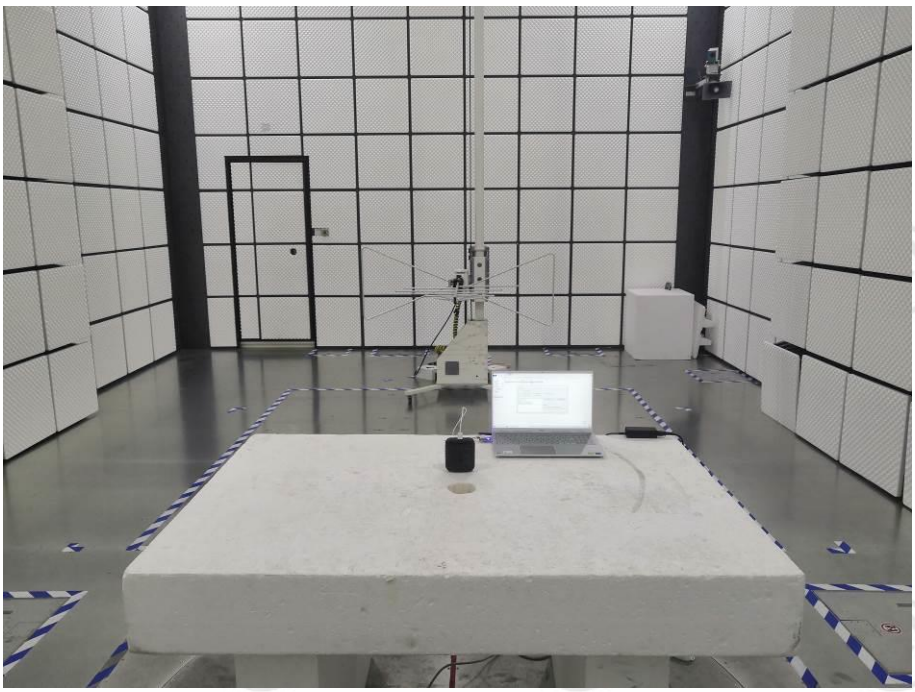
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	4842.000	40.18	9.24	49.42	74.00	-24.58	100	345	peak
2	7341.000	34.11	12.23	46.34	74.00	-27.66	100	104	peak
3	8786.000	32.44	13.87	46.31	74.00	-27.69	100	250	peak
4	10979.000	30.85	16.48	47.33	74.00	-26.67	100	296	peak
5	13665.000	31.35	20.76	52.11	74.00	-21.89	100	167	peak
6	15008.000	29.52	23.09	52.61	74.00	-21.39	100	254	peak

Notes:
1) Through Pre-scan transmitter mode with all kind of modulation and all kind of data type, find the 1-DH5 of data type is the worse case of GFSK modulation type, the 2-DH5 of data type is the worse case of π/4DQPSK modulation type.
2) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the pe ak 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.
3) 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
4) 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.

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

Conducted spurious emission Test Setup-1

Radiated spurious emission Test Setup-2 (Below 1GHz)



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Radiated spurious emission Test Setup-3(Above 1GHz)

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APPENDIX 2 PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS

View of Product-1

View of Product-2

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View of Product-3

View of Product-4

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View of Product-5

View of Product-6

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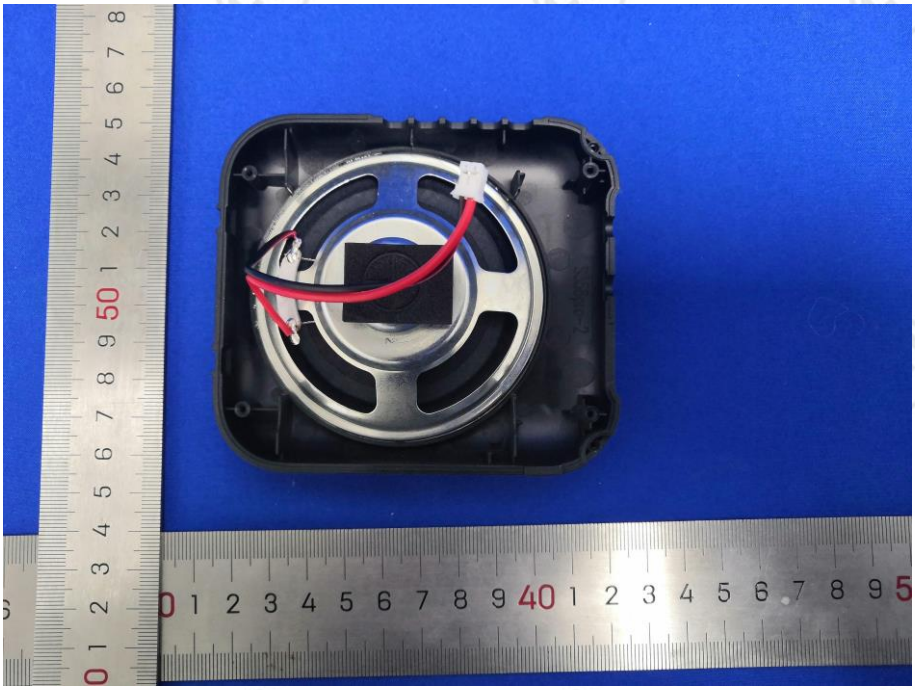
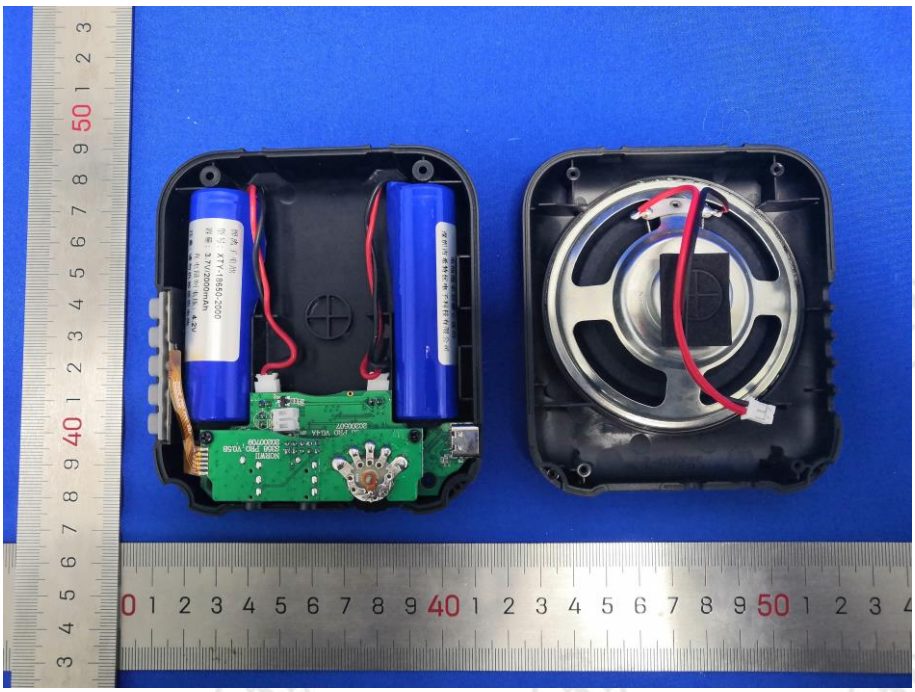
View of Product-7



View of Product-8



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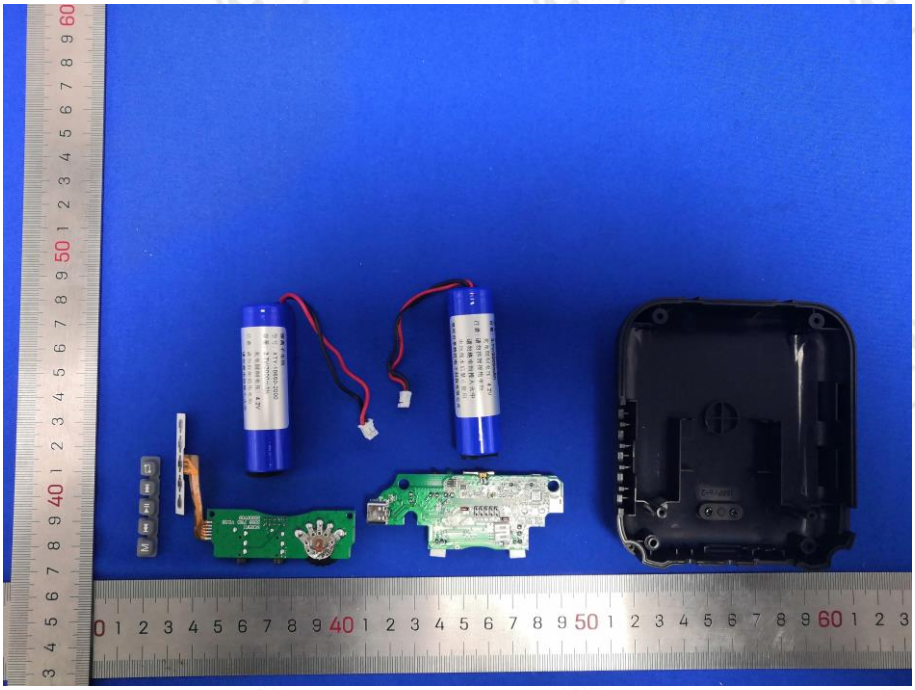
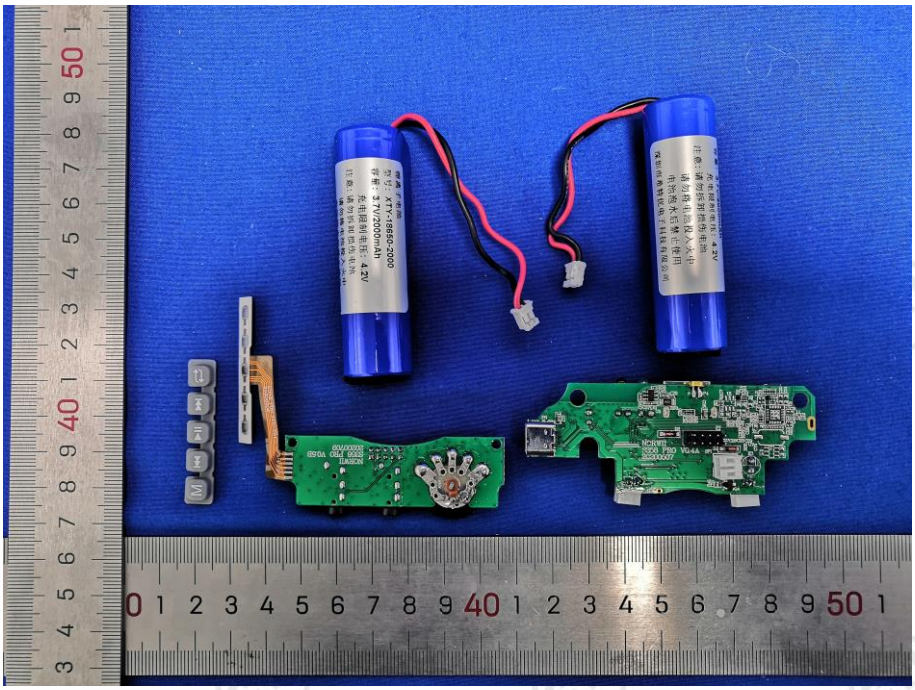
View of Product-9



View of Product-10



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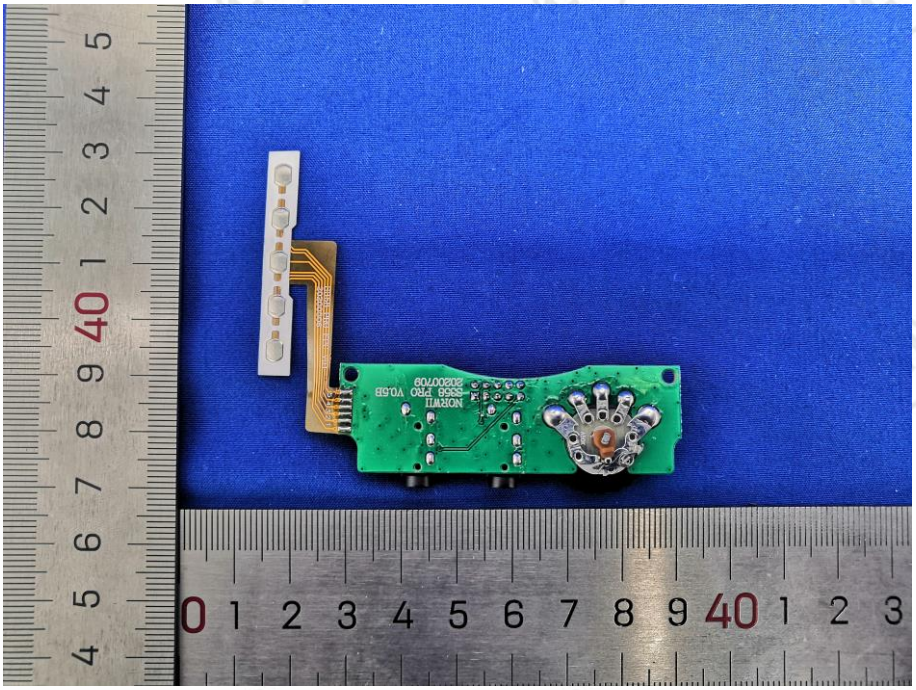
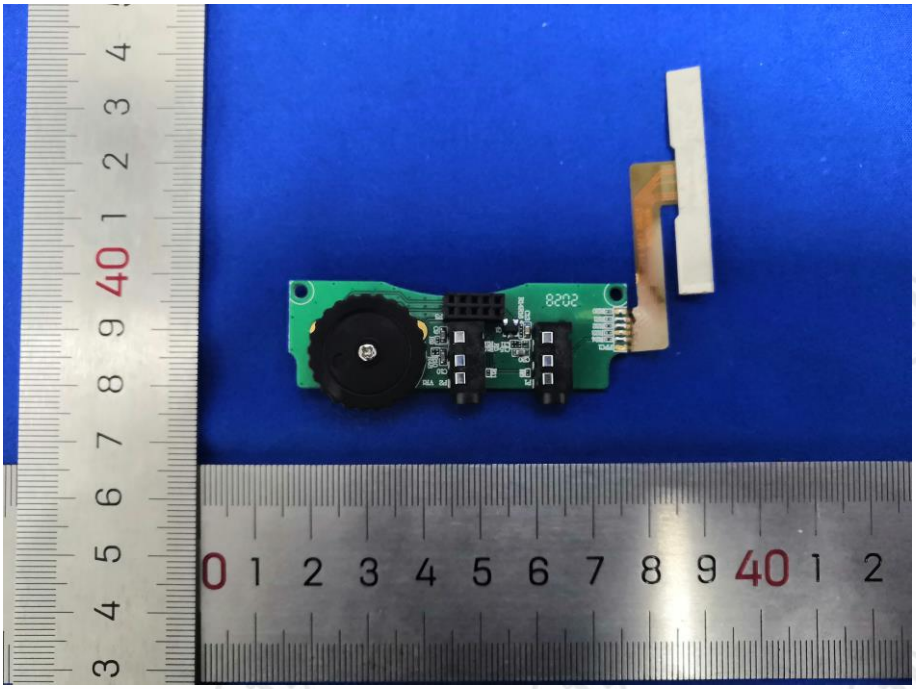
View of Product-11



View of Product-12



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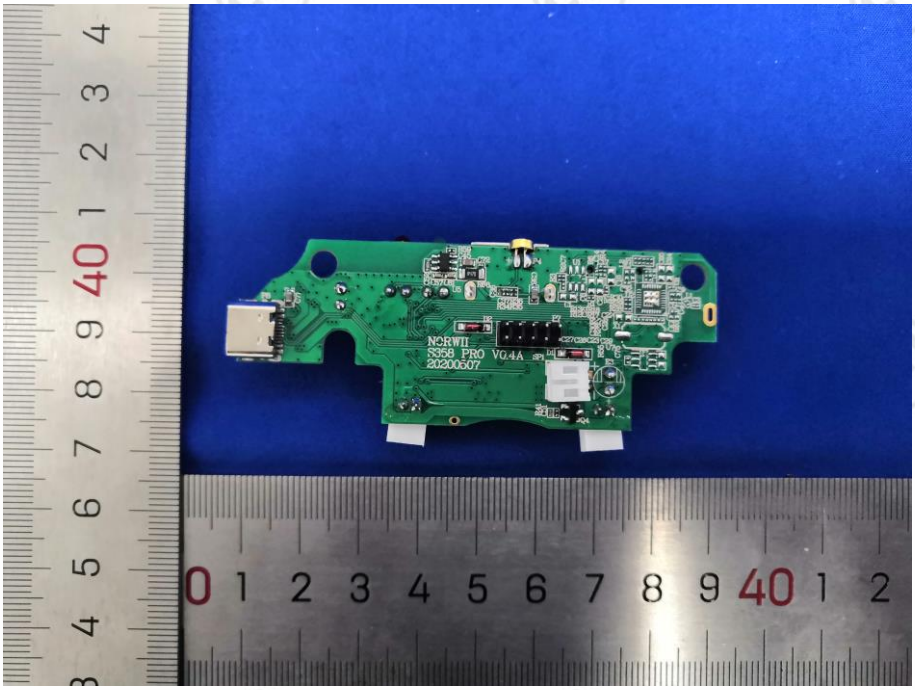
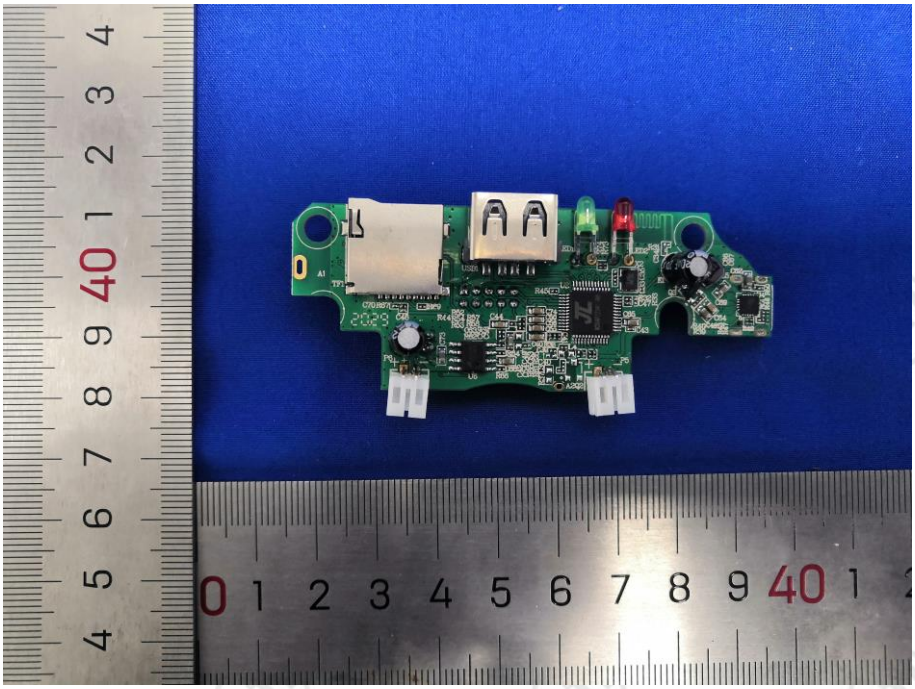
View of Product-13



View of Product-14



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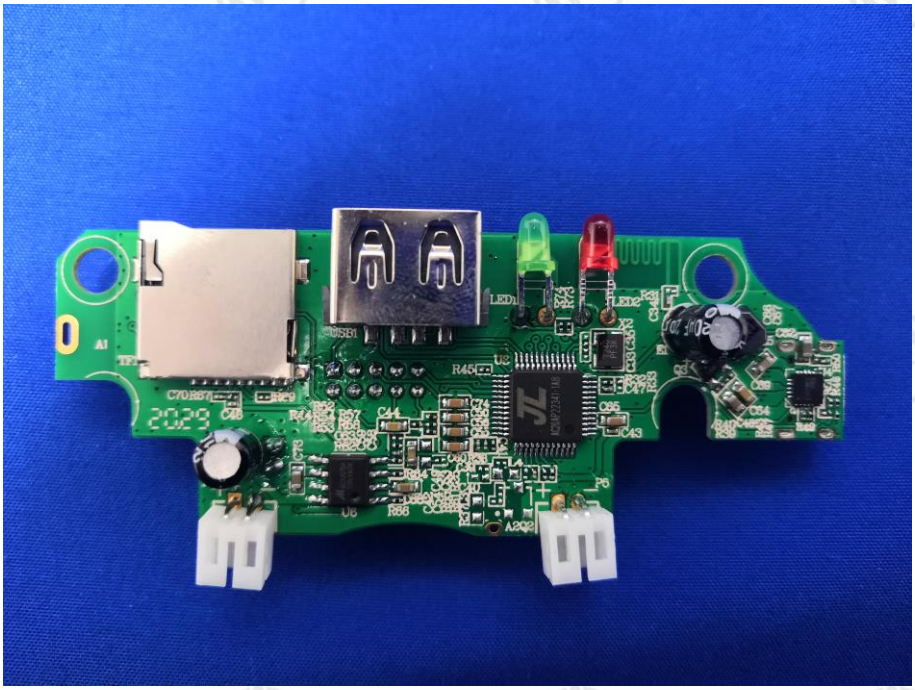
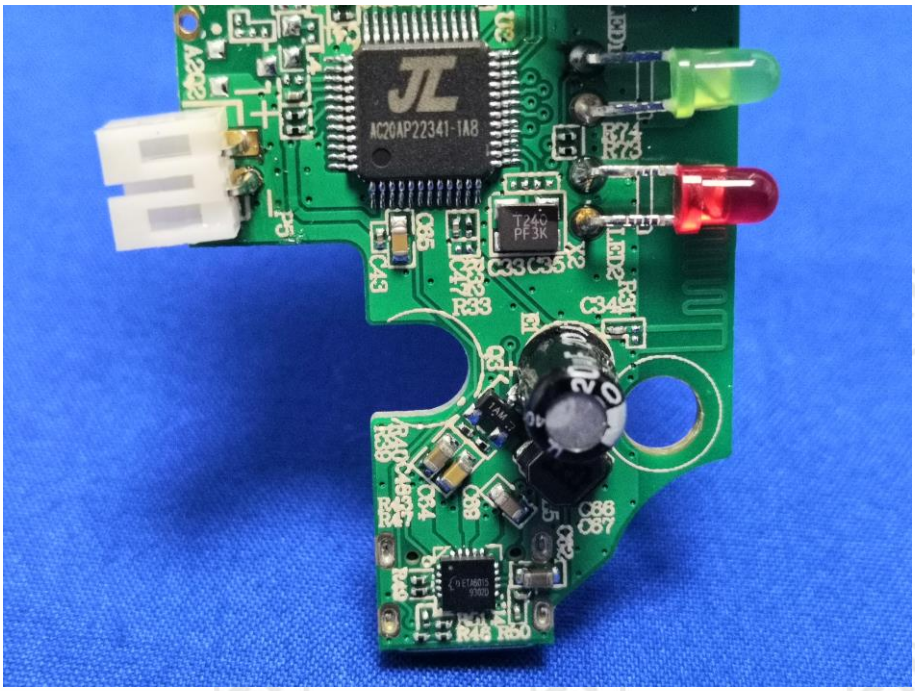


View of Product-16



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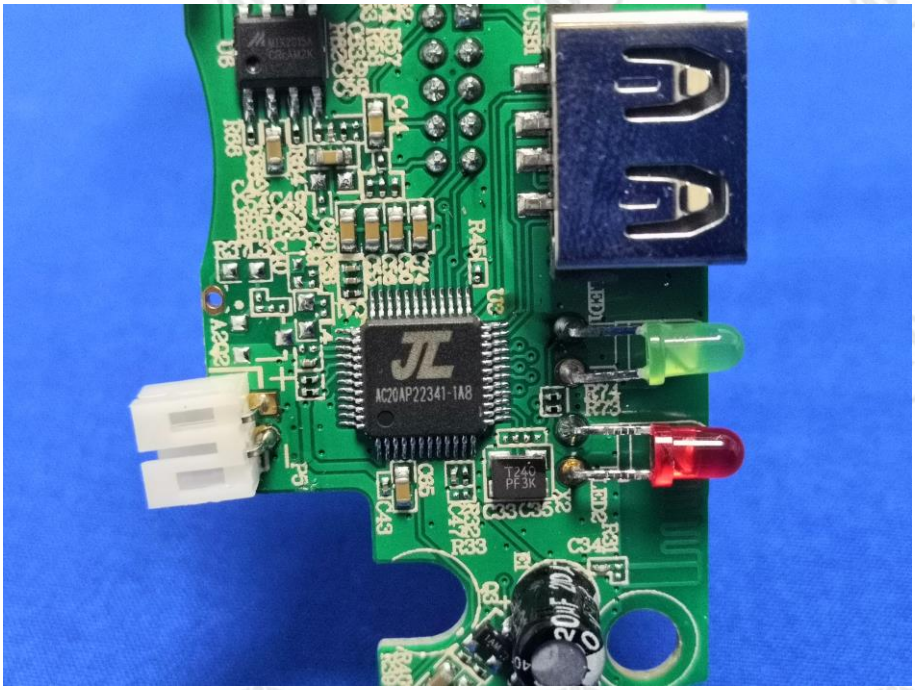
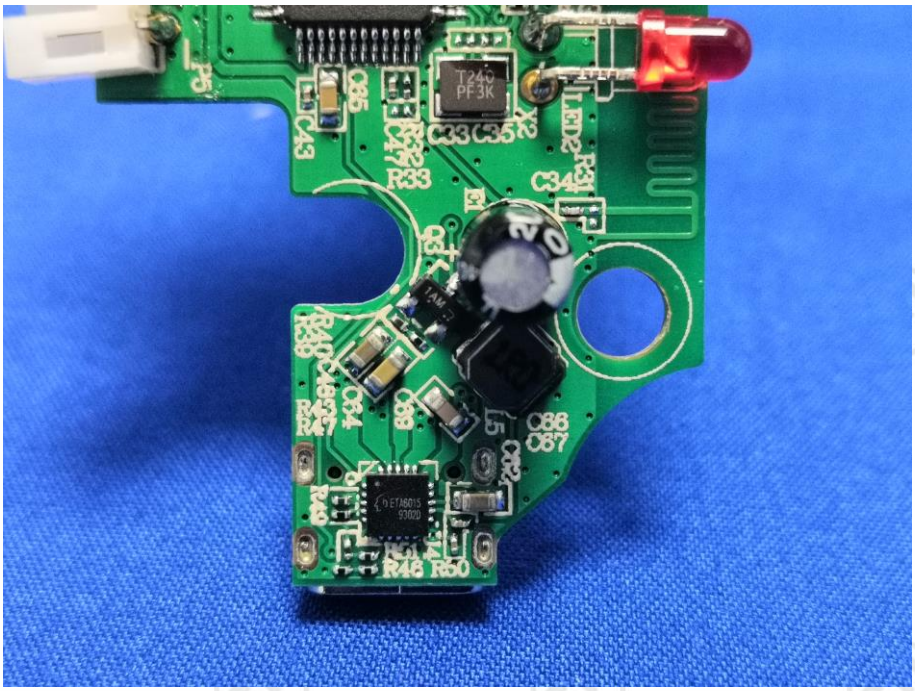
View of Product-17



View of Product-18



The testing data and results in this report are just for scientific research, education, internal quality control and product development etc.

*** End of Report ***

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