TEST REPORT

Report No.: SHATBL2412023W01

Applicant	:	Tersus GNSS Inc.
Product Name	:	GNSS Receiver
Brand Name	:	N/A
Model Name	:	LUKA
FCC ID	:	**2AMDJ-LUKA**
Test Standard	:	47 CFR 15.247
Date of Test	:	2025.01.03-2025.03.12

Report Prepared by : Emily

(Emily)

Report Approved by : Guozheng Li

(Guozheng Li)

Authorized Signatory : Terry Yang

(Terry Yang)

TABLE OF CONTENTS

REVISION HISTORY

Rev.	Issue Date	Revisions	Revised by
00	2025.03.12	Initial Release	Guozheng Li

DECLARATION OF REPORT

1. The device has been tested by ATBL, and the test results show that the equipment under test (EUT) is in compliance with the requirements of 47 CFR 15.247. And it is applicable only to the tested sample identified in the report.

2. This report shall not be reproduced except in full, without the written approval of ATBL, this document only be altered or revised by ATBL, personal only, and shall be noted in the revision of the document.

3. The general information of EUT in this report is provided by the customer or manufacture, ATBL is only responsible for the test data but not for the information provided by the customer or manufacture.

4. The results in this report is only apply to the sample as tested under conditions. The customer or manufacturer is responsible for ensuring that the additional production units of this model have the same electrical and mechanical components.

5. In this report, '☐' indicates that EUT does not support content after '☐', and '☑' indicates that it supports content after '☑'

SUMMARY OF TEST RESULT

Report Section	Standard Section	Test Item	Judgment	Remark
3.1	47 CFR 15.247(b)(1)	Maximum Peak Conducted Output Power	PASS	--
3.2	47 CFR 15.247(a)(1)(iii)	Number of Hopping Frequencies	PASS	--
3.3	47 CFR 15.247(a)(1)(iii)	Duty Cycle and Dwell Time	PASS	--
3.4	47 CFR 15.247(a)(1)	20dB Bandwidth	PASS	--
3.5	47 CFR 15.247(a)(1)	Carrier Frequency Separation	PASS	--
3.6	47 CFR 15.247(d)	Conducted Band Edge	PASS	--
3.7	47 CFR 15.247(d)	Conducted Spurious Emission	PASS	--
3.8	47 CFR 15.247(d)/15.209(a)/15.205(a)	Radiated Spurious Emission and Restricted Band	PASS	--
3.9	47 CFR 15.207(a)	AC Power-Line Conducted Emission	PASS	--
3.10	47 CFR 15.203	Antenna Requirements	PASS	--

1. GENERAL DESCRIPTION

1.1. Applicant

Name : Tersus GNSS Inc.

Address : Rm 601, Bldg E2, No. 88, Jinjihu Ave, Suzhou, China

1.2. Manufacturer

Name : Tersus GNSS Inc.

Address : Rm 601, Bldg E2, No. 88, Jinjihu Ave, Suzhou, China

1.3. Factory

Name : Tersus GNSS Inc.

Address : Rm 601, Bldg E2, No. 88, Jinjihu Ave, Suzhou, China

1.4. General Information of EUT

General Information	
Equipment Name	GNSS Receiver
Brand Name	N/A
Model Name	LUKA
Series Model	N/A
Model Difference	N/A
Sample No	202411200019003
Adapter	Model:QL015-0503100U1 Brand:/ Input:100-240V~50/60Hz 0.5A Output:5V DC 0.01-3.0A
Battery	Model:SNLB-958 Brand:/ Rated Voltage:7.4V DC Charge Limit Voltage:5V DC Capacity:7000mah
Hardware version	V1.2
Software version	2.0.90
Connecting I/O Port(s)	Refer to the remark below.

Remark:

The above information of EUT was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.5. Equipment Specification

Equipment Specification		
Frequency Range	2402 MHz - 2480 MHz	
Number of Channels	79	
Carrier Frequency of Each Channel	2402 + n*1 MHz; n = 0 ~ 78	
Maximum Output Power To Antenna	☑Bluetooth BR(1Mbps):	5.484 dBm (0.00354 W)
	☑Bluetooth EDR(2Mbps):	7.630 dBm (0.00579 W)
	☑Bluetooth EDR(3Mbps):	7.932 dBm (0.00621 W)
Type of Modulation	☑Bluetooth BR(1Mbps):	GFSK
	☑Bluetooth EDR(2Mbps):	π/4-DQPSK
	☑Bluetooth EDR(3Mbps):	8-DPSK
Antenna Type	Built-in	
Antenna Gain	1.25 dBi	

1.6. Modification of EUT

No modifications are made to the EUT during all test items.

1.7. Laboratory Information

Company Name	:	Shanghai ATBL Technology Co., Ltd.
Address	:	Building 8,No.160 Basheng Road, Waigaoqiao Free Trade Zone, Pudong New Area, Shanghai
Telephone	:	+86(0)21-51298625
FCC Test Firm registration Number	:	485917
A2LA Number	:	6184.01
CNAS Number	:	CNAS L14531
CAB Identifier	:	CN0116

1.8. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

47 CFR Part 15 Subpart C §15.247

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

ANSI C63.10-2013

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

2. TEST CONFIGURATION OF EUT

2.1. Carrier Frequency Channel

Frequency Band	Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
2400 - 2483.5 MHz	**00**	**2402**	27	2429	54	2456
	01	2403	28	2430	55	2457
	02	2404	29	2431	56	2458
	03	2405	30	2432	57	2459
	04	2406	31	2433	58	2460
	05	2407	32	2434	59	2461
	06	2408	33	2435	60	2462
	07	2409	34	2436	61	2463
	08	2410	35	2437	62	2464
	09	2411	36	2438	63	2465
	10	2412	37	2439	64	2466
	11	2413	38	2440	65	2467
	12	2414	**39**	**2441**	66	2468
	13	2415	40	2442	67	2469
	14	2416	41	2443	68	2470
	15	2417	42	2444	69	2471
	16	2418	43	2445	70	2472
	17	2419	44	2446	71	2473
	18	2420	45	2447	72	2474
	19	2421	46	2448	73	2475
	20	2422	47	2449	74	2476
	21	2423	48	2450	75	2477
	22	2424	49	2451	76	2478
	23	2425	50	2452	77	2479
	24	2426	51	2453	**78**	**2480**
	25	2427	52	2454	--	--
	26	2428	53	2455	--	--

Remark:

Low Channel: **CH00_2402 MHz**; Middle Channel: **CH39_2441 MHz**; High Channel: **CH78_2480 MHz**.

2.2. Test Modes

The table below is showing all test modes to demonstrate in compliance with the standard.

Summary Table of Test Modes			
Test Item	Data Rate / Modulation		
	Bluetooth BR(1Mbps) GFSK	Bluetooth EDR(2Mbps) π/4-DQPSK	Bluetooth EDR(3Mbps) 8-DPSK
For Conducted and Radiated Test	Mode 1: CH00_2402 MHz	Mode 2: CH00_2402 MHz	Mode 3: CH00_2402 MHz
	Mode 4: CH39_2441 MHz	Mode 5: CH39_2441 MHz	Mode 6: CH39_2441 MHz
	Mode 7: CH78_2480 MHz	Mode 8: CH78_2480 MHz	Mode 9: CH78_2480 MHz
	Mode 10: Hopping	Mode 11: Hopping	Mode 12: Hopping
For AC Power-line Conducted Emission	Mode 13: Keep Bluetooth link under the maximum output power		

2.3. Block Diagram of Test System

2.3.1. For Radiated Spurious Emission

2.3.2. For Conducted Test

2.4. Description of Support Units

NO.	Unit	Brand	Description
1	Notebook	Lenovo	Model:Air 14
2	USB Line	ZL	Model:24AWG

2.5. Test Software and Power Level

During the test, the channel and power control software provided by the customer is used to control the operation channel and output power level.

NO.	Frequency Fixing Software	Version	Power Level Control	Channel Association	Physical Layer
1	EspRFTestTool	v3.6	7 dBm	- Low:0 (2402MHz) - Mid:39 (2440MHz) - High:78 (2480MHz)	BR&EDR

2.6. EUT Operating Conditions

For AC power-line conducted emission, the EUT was connected under the large package sizes transmission.

For radiated spurious emission and conducted test, the engineering test program was provided and make the EUT to continuous transmit/receive.

2.7. Equipment List

2.7.1. For Conducted Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
Power sensor	DARE	RPR3006W	16I00054SN016	SHATBL-W008	2024.07.18	2025.07.17	1 year
Adjustable Attenuator	Agilent	8494B	MY42144015	SHATBL-W009	2024.07.18	2025.07.17	1 year
Adjustable Attenuator	Agilent	8496B	MY42143776	SHATBL-W010	2024.07.18	2025.07.17	1 year
Environmental Test Chamber	KSON	THS-B6C-150	9159K	SHATBL-W019	2024.03.18	2025.03.17	1 year
Signal analyzer	Keysight	N9020A	MY50510136	SHATBL-W003	2024.07.18	2025.07.17	1 year
Vector signal generator	Agilent	N5182A	MY48180764	SHATBL-W043	2024.07.18	2025.07.17	1 year
Analog signal generator	Keysight	N5182B	MY57300196	SHATBL-W005	2024.07.18	2025.07.17	1 year
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W007	2024.07.18	2025.07.17	1 year
Switch Box	Cesheng	smu 1003	WCS20221215	SHATBL-W047	N/A	N/A	N/A
Thermometer	DeLi	N/A	N/A	SHATBL-W011	2024.07.22	2025.07.21	1 year
Test Software	Cesheng	WCS-WCN	N/A	SHATBL-W021	N/A	N/A	N/A

2.7.2. For Radiated Spurious Emission

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
Signal analyzer	Agilent	N9020A	MY50200811	SHATBL-E017	2024.03.28	2025.03.27	1 year
Amplifier	JPT	JPA0118-55-303A	1910001800055000	SHATBL-E006	2024.03.28	2025.03.27	1 year
Amplifier	JPT	JPA-10M1G32	21010100035001	SHATBL-E005	2024.03.28	2025.03.27	1 year
Antenna/Turn table Controller	Brilliant	N/A	N/A	SHATBL-E007	N/A	N/A	N/A
Loop Antenna(9kHz-30 MHz)	Daze	ZN30900C	20077	SHATBL-E042	2024.05.17	2025.05.16	1 year
Bilog Antenna	SCHWARZBECK	VULB 9168	01174	SHATBL-E008	2024.05.17	2025.05.16	1 year
Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120D	02334	SHATBL-E009	2024.05.17	2025.05.16	1 year
Horn Antenna	COM-POWER	AH-1840	10100008	SHATBL-E043	2024.07.28	2025.07.27	1 year
Thermometer	DeLi	N/A	N/A	SHATBL-E015	2024.07.18	2025.07.17	1 year
Test Software	FALA	EMC-RI(Ver.4A2)	N/A	N/A	N/A	N/A	N/A
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W044	2024.07.18	2025.07.17	1 year

2.7.3. For AC Power-Line Conducted Emission

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
EMI Test Receiver	R&S	ESPI	100679	SHATBL-E012	2024.03.28	2025.03.27	1 year
LISN	R&S	ENV216	101300	SHATBL-E013	2024.03.28	2025.03.27	1 year
CE Cable	Chuangcexing	2M	EMI0014	SHATBL-E014	2024.03.28	2025.03.27	1 year
Temperature & Humidity	Deli	Deli	EMI0015	SHATBL-E015	2024.07.22	2025.07.21	1 year
Testing Software	FALA	EZ-EMC(Ver.EMC-CON 3A1.1)	EMI0044	SHATBL-E044	N/A	N/A	N/A

2.8. Measurement Uncertainty

The reported uncertainty of measurement y±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of *k*=2, providing a level of confidence of approximately 95 %.

No.	Item		Uncertainty
1	Conducted Output Power		1.27dB
2	Power spectral density		1.28dB
3	Conducted Frequency Stability		10.14Hz
4	Conducted spurious emissions		1.73dB
5	RF Cable Loss		1.22dB
6	Radiated Spurious Emission 9KHz-30MHz		2.35dB
7	Radiated Spurious Emission 30MHz-1GHz		2.59dB
8	Radiated Spurious Emission 1GHz-18GHz		2.62dB
9	Radiated Spurious Emission 18GHz - 40GHz		2.80dB
10	Occupied bandwidth		23.20Hz
11	Conducted Emissions	9kHz ~ 150kHz	3.4dB
		150kHz ~ 30MHz	3.73dB

3. TEST RESULT

3.1. Maximum Peak Conducted Output Power

3.1.1. Limit

47 CFR 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

3.1.2. Test Procedure

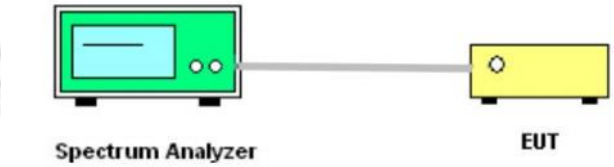
ANSI C63.10-2013 clause 7.8.5: This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. The hopping shall be disabled for this test:

1. Use the following spectrum analyzer settings:
   ① Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
   ② RBW > 20 dB bandwidth of the emission being measured.
   ③ VBW ≥ RBW.
   ④ Sweep: Auto.
   ⑤ Detector function: Peak.
   ⑥ Trace: Max hold.
2. Allow trace to stabilize.
3. Use the marker-to-peak function to set the marker to the peak of the emission.
4. The indicated level is the peak output power, after any corrections for external attenuators and cables.
5. A plot of the test results and setup description shall be included in the test report.

Remark:

A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer.

3.1.3. Test Setup



3.1.4. Test Result of Maximum Peak Conducted Output Power

Please refer to the Appendix A1.

3.2. Number of Hopping Frequencies

3.2.1. Limit

47 CFR 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

3.2.2. Test Procedure

ANSI C63.10-2013 clause 7.8.3: The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

1. Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
2. RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
3. VBW ≥ RBW.
4. Sweep: Auto.
5. Detector function: Peak.
6. Trace: Max hold.
7. Allow the trace to stabilize.

It might prove necessary to break the span up into sub ranges to show clearly all of the hopping frequencies. Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A plot of the data shall be included in the test report.

3.2.3. Test Setup

3.2.4. Test Result of Number of Hopping Frequencies

Please refer to the Appendix A2.

3.3. Duty Cycle and Dwell Time

3.3.1. Limit

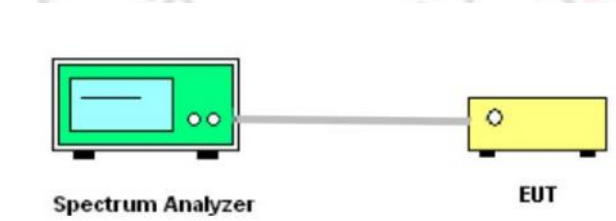
47 CFR 15.247(a)(1)(iii): The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

3.3.2. Test Procedure

ANSI C63.10-2013 clause 7.8.4: The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

1. Span: Zero span, centered on a hopping channel.
2. RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel.
3. Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel.
4. Detector function: Peak.
5. Trace: Max hold.
6. Use the marker-delta function to determine the transmit time per hop.
7. The average time of occupancy is calculated from the transmit time per hop multiplied by the number of hops in the period specified in the requirements.

3.3.3. Test Setup



3.3.4. Test Result of Duty Cycle and Dwell Time

Please refer to the Appendix A3.

3.4. 20dB Bandwidth

3.4.1. Limit

There is no limit requirement for 20dB Bandwidth.

3.4.2. Test Procedure

1. The testing follows *ANSI C63.10-2013 clause 6.9.2 and 6.9.3*.
2. 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.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW ≥ 1% of the 20 dB bandwidth; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
5. Measure and record the results in the test report.

3.4.3. Test Setup

3.4.4. Test Result of 20dB Bandwidth

Please refer to the Appendix A4.

3.5. Carrier Frequency Separation

3.5.1. Limit

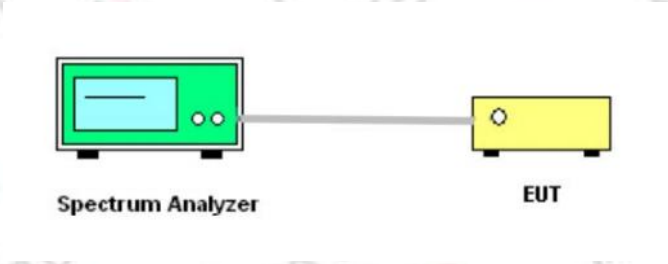
47 CFR 15.247(a)(1): Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

3.5.2. Test Procedure

ANSI C63.10-2013 clause 7.8.2: The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

1. Span: Wide enough to capture the peaks of two adjacent channels.
2. RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.
3. VBW ≥ RBW.
4. Sweep: Auto.
5. Detector function: Peak.
6. Trace: Max hold.
7. Allow the trace to stabilize.
8. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. A plot of the data shall be included in the test report.

3.5.3. Test Setup



3.5.4. Test Result of Carrier Frequency Separation

Please refer to the Appendix A5.

3.6. Conducted Band Edge

3.6.1. Limit

47 CFR 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

3.6.2. Test Procedure

1. The testing follows *ANSI C63.10-2013 clause 11.13*.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Conducted Band Edge measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the 100 kHz bandwidth within the band that contains the highest level of the desired power when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.
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.

3.6.3. Test Setup

3.6.4. Test Result of Conducted Band Edge

Please refer to the Appendix A6.

3.7. Conducted Spurious Emission

3.7.1. Limit

47 CFR 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

3.7.2. Test Procedure

1. The testing follows *ANSI C63.10-2013 clause 7.8.8*.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. 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 100 kHz RBW.
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.7.3. Test Setup

3.7.4. Test Result of Conducted Spurious Emission

Please refer to the Appendix A6.

※※※※※END OF APPENDIX A※※※※※

3.8. Radiated Spurious Emission and Restricted Band

3.8.1. Limit

47 CFR 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

47 CFR 15.205(a): Only spurious emissions are permitted in any of the frequency bands listed below:

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
0.090-0.110	12.29-12.293	149.9-150.05	1660-1710	8.025-8.5
0.495-0.505	12.51975-12.52025	156.52475-156.52525	1718.8-1722.2	9.0-9.2
2.1735-2.1905	12.57675-12.57725	156.7-156.9	2200-2300	9.3-9.5
4.125-4.128	13.36-13.41	162.0125-167.17	2310-2390	10.6-12.7
4.17725-4.17775	16.42-16.423	167.72-173.2	2483.5-2500	13.25-13.4
4.20725-4.20775	16.69475-16.69525	240-285	2690-2900	14.47-14.5
6.215-6.218	16.80425-16.80475	322-335.4	3260-3267	15.35-16.2
6.26775-6.26825	25.5-25.67	399.9-410	3332-3339	17.7-21.4
6.31175-6.31225	37.5-38.25	608-614	3345.8-3358	22.01-23.12
8.291-8.294	73-74.6	960-1240	3600-4400	23.6-24.0
8.362-8.366	74.8-75.2	1300-1427	4500-5150	31.2-31.8
8.37625-8.38675	108-121.94	1435-1626.5	5350-5460	36.43-36.5
8.41425-8.41475	123-138	1645.5-1646.5	7250-7750	Above 38.6

47 CFR 15.209(a): The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

3.8.2. Test Procedure

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.

2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.

4. Set to the maximum power setting and enable the EUT transmit continuously.

5. Use the following spectrum analyzer settings:

① Span shall wide enough to fully capture the emission being measured;

② Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak;

③ For average measurement: use duty cycle correction factor method per 15.35(c).

Duty cycle = On time/100 milliseconds

On time = N1*L1+N2*L2+...+Nn-1*LNn-1+Nn*Ln

Where N1 is number of type 1 pulses, L1 is length of type 1 pulses, etc.

Average Emission Level = Peak Emission Level + 20*log(Duty cycle)

6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Pre-amp Factor = Level

7. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.

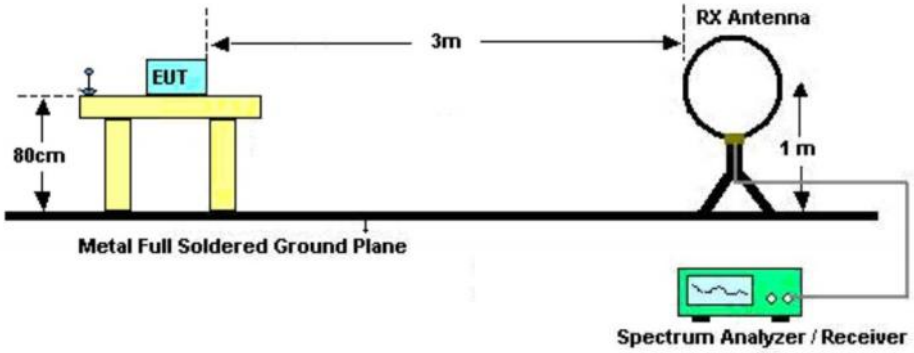
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Remark:

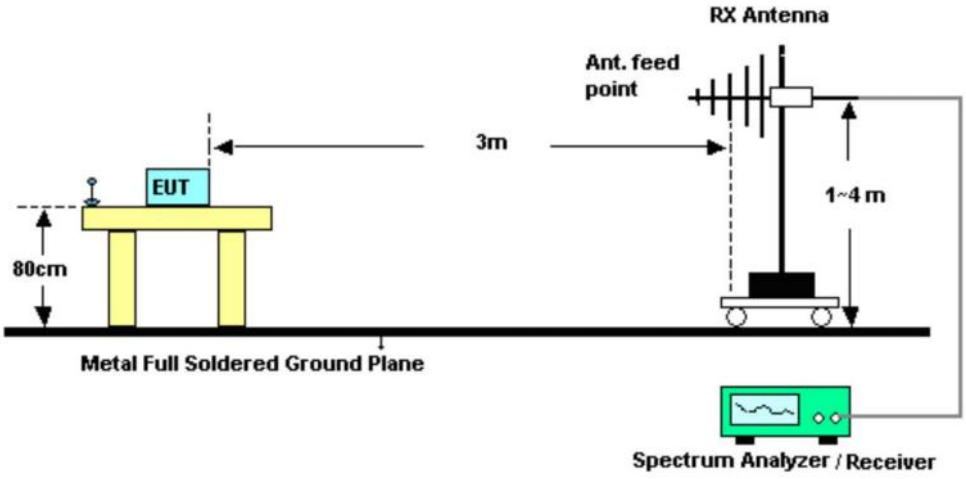
The average levels were calculated from the peak level corrected with duty cycle correction factor (-24.70dB) derived from 20log (dwell time/100ms). This correction is only for signals that hop with the fundamental signal, such as band-edge and harmonic. Other spurious signals that are independent of the hopping signal would not use this correction.

3.8.3. Test Setup

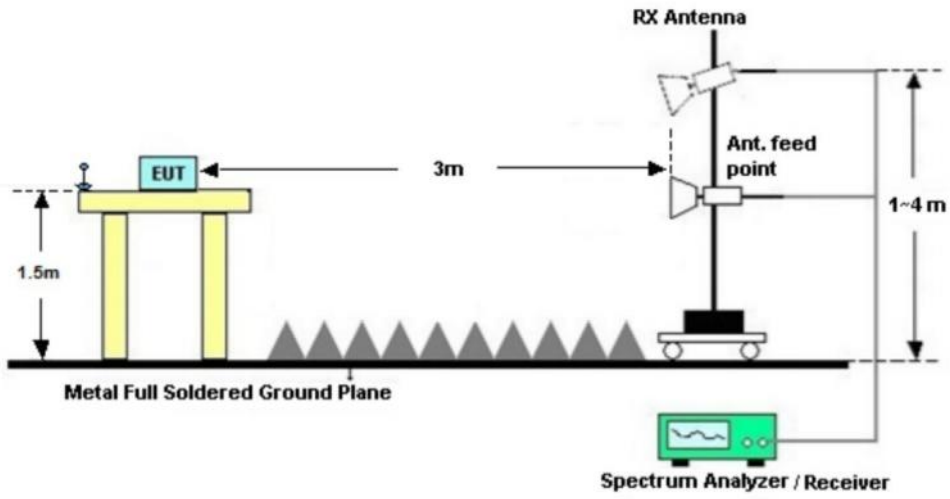
3.8.3.1. For radiated emissions below 30MHz



3.8.3.2. For radiated emissions from 30MHz to 1GHz



3.8.3.3. For radiated emissions above 1GHz



3.8.4. Test Result of Radiated Spurious Emission

Please refer to the Appendix B.

3.8.5. Test Result of Restricted Band

Please refer to the Appendix B.

3.9. AC Power-Line Conducted Emission

3.9.1. Limit

47 CFR 15.207(a): For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table:

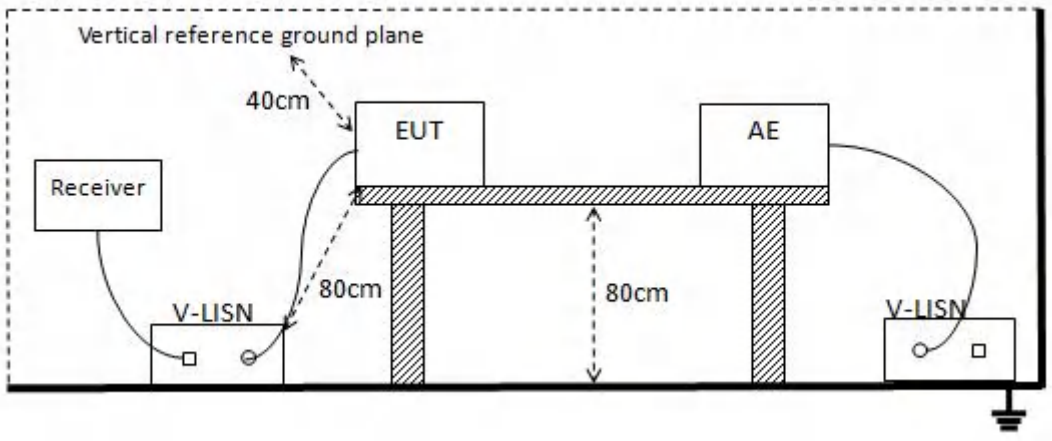
Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

3.9.2. Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9 kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.9.3. Test Setup



3.9.4. Test Result of AC Power-Line Conducted Emission

Please refer to the Appendix B.

3.10. Antenna Requirement

3.10.1. Standard Requirement

According to *47 CFR 15.203*, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

3.10.2. EUT Antenna

The antenna used for the EUT is Built-in antenna, which meets the antenna requirements.

4. TEST SETUP PHOTOGRAPHS

Please refer to the Appendix C.

5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

External Photos Please refer to the Appendix D.

Internal Photos Please refer to the Appendix E.

※※※※※END OF THE REPORT※※※※※

Appendix A _ Conducted Test Data

Appendix A1.Conducted Output Power

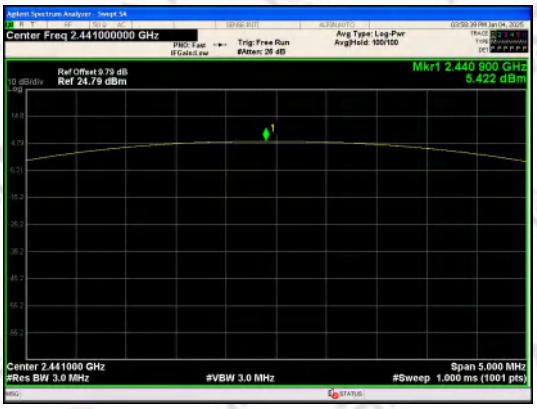
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
GFSK	DH1	0	5.271	3.366	4.966	≤30	PASS
		39	5.422	3.485	5.292		PASS
		78	5.479	3.531	5.434		PASS
	DH3	0	5.282	3.374	5.129		PASS
		39	5.417	3.481	5.321		PASS
		78	**5.484**	3.535	5.395		PASS
	DH5	0	5.276	3.370	5.258		PASS
		39	5.430	3.491	5.328		PASS
		78	5.474	3.527	5.350		PASS
π/4DQPSK	2-DH1	0	7.480	5.598	4.860		PASS
		39	7.532	5.665	4.725		PASS
		78	7.605	5.761	4.530		PASS
	2-DH3	0	7.448	5.556	4.724		PASS
		39	7.493	5.614	4.714		PASS
		78	7.596	5.749	4.747		PASS
	2-DH5	0	7.484	5.603	4.656		PASS
		39	7.523	5.653	4.670		PASS
		78	**7.630**	5.794	4.758		PASS
8DPSK	3-DH1	0	7.753	5.961	4.516		PASS
		39	7.804	6.031	4.560		PASS
		78	7.913	6.184	4.867		PASS
	3-DH3	0	7.750	5.957	4.643		PASS
		39	7.836	6.076	4.629		PASS
		78	7.927	6.204	4.718		PASS
	3-DH5	0	7.754	5.962	4.626		PASS
		39	7.827	6.063	4.685		PASS
		78	**7.932**	6.212	4.667		PASS

Note: EIRP = P_{out} + G_{ant}, where P_{out} is the conducted output power (i.e., the Peak Output Power in the table), and G_{ant} is the antenna gain equal to 1.25 dBi.

Peak Output Power

GFSK_Channel 0



Peak Output Power

GFSK_Channel 39

Peak Output Power

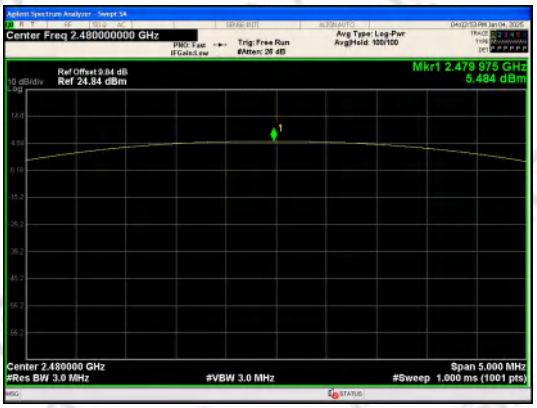
GFSK_Channel 78

Peak Output Power

GFSK_Channel 0

Peak Output Power

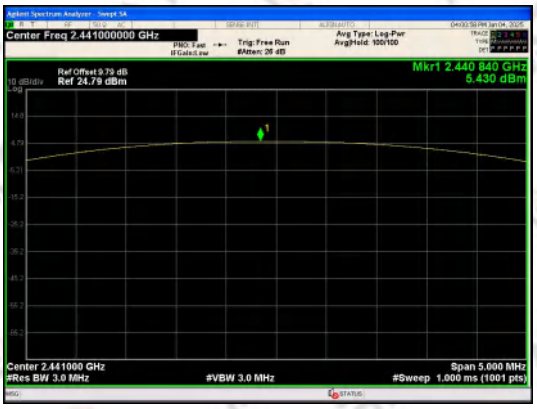
GFSK_Channel 39



Peak Output Power

GFSK_Channel 78

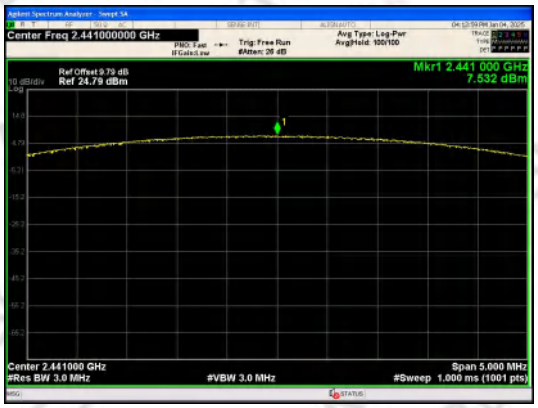
Peak Output Power
GFSK_Channel 0



Peak Output Power
GFSK_Channel 39

Peak Output Power
GFSK_Channel 78

Peak Output Power
π/4DQPSK_Channel 0



Peak Output Power
π/4DQPSK_Channel 39

Peak Output Power
π/4DQPSK_Channel 78

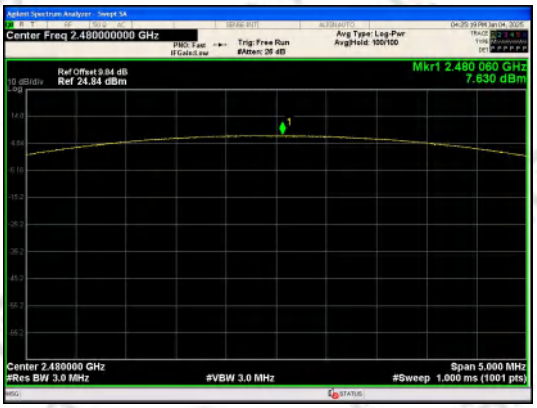
Peak Output Power
π/4DQPSK_Channel 0

Peak Output Power
π/4DQPSK_Channel 39

Peak Output Power
π/4DQPSK_Channel 78

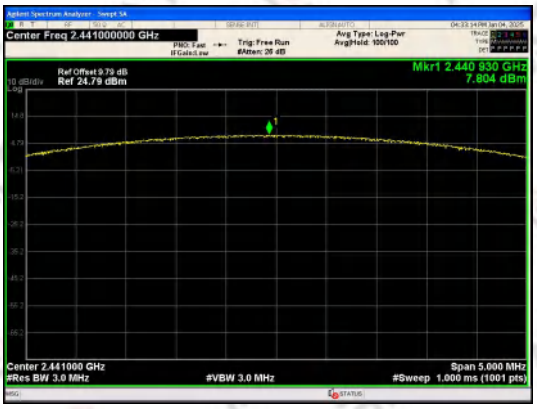
Peak Output Power
π/4DQPSK_Channel 0

Peak Output Power
π/4DQPSK_Channel 39



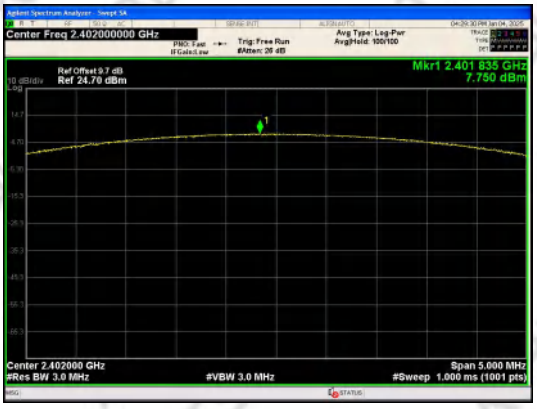
Peak Output Power
π/4DQPSK_Channel 78

Peak Output Power
8DPSK_Channel 0



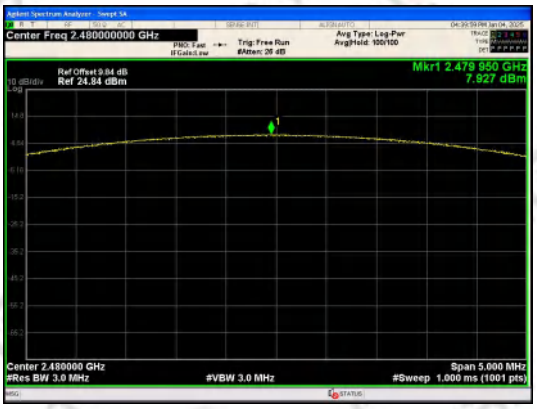
Peak Output Power
8DPSK_Channel 39

Peak Output Power
8DPSK_Channel 78

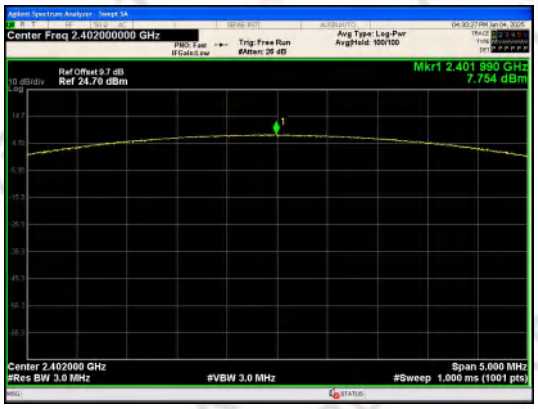


Peak Output Power
8DPSK_Channel 0

Peak Output Power
8DPSK_Channel 39

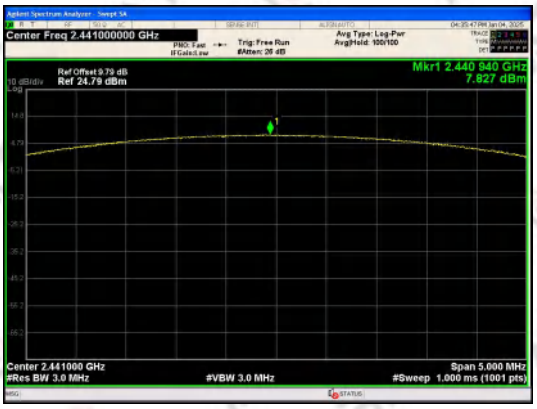


Peak Output Power
8DPSK_Channel 78



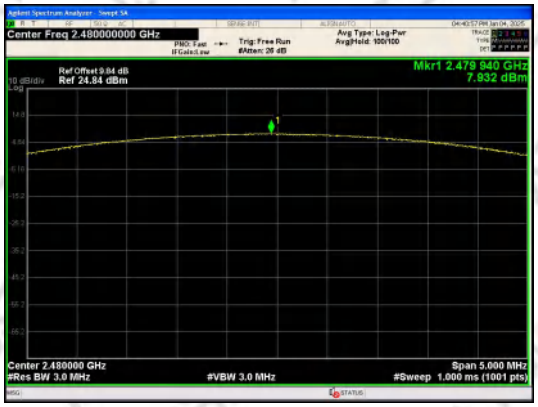
Peak Output Power

8DPSK_Channel 0



Peak Output Power

8DPSK_Channel 39



Peak Output Power

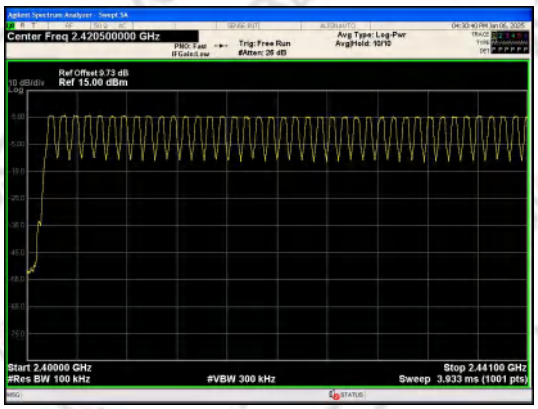
8DPSK_Channel 78

Appendix A2. Number of Hopping Frequencies

Test Result

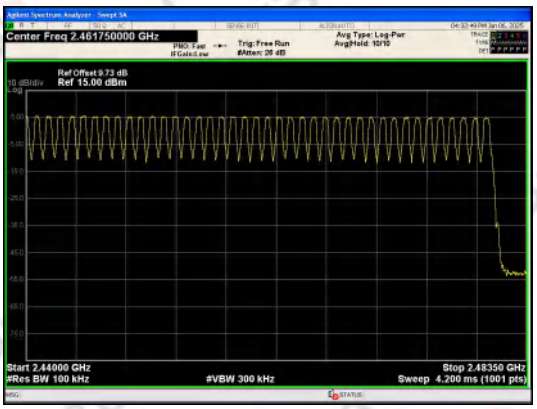
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
GFSK	DH5	79	15	PASS
GFSK	DH5	79	15	PASS
π/4DQPSK	2-DH1	79	15	PASS
π/4DQPSK	2-DH1	79	15	PASS
π/4DQPSK	2-DH1	79	15	PASS
8DPSK	3-DH1	79	15	PASS
8DPSK	3-DH1	79	15	PASS
8DPSK	3-DH1	79	15	PASS

Test Graphs



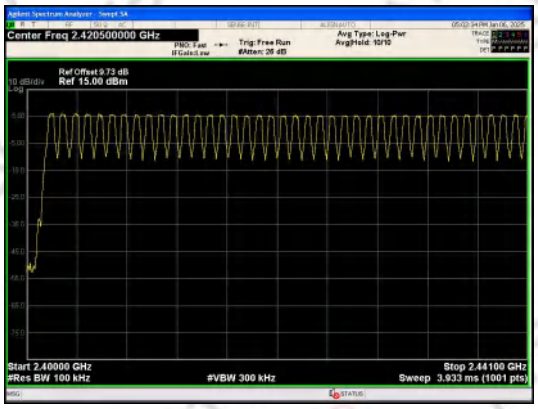
Low End Spectrum Channel Hopping Plot

GFSK



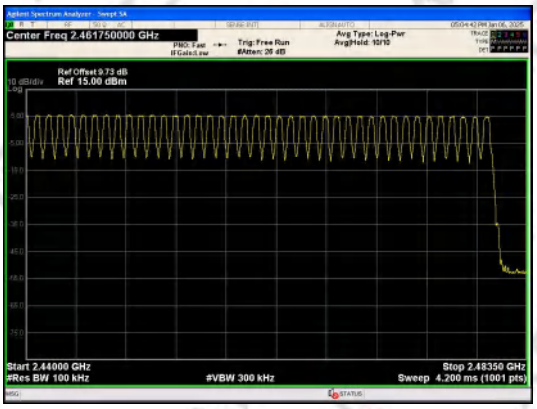
High End Spectrum Channel Hopping Plot

GFSK



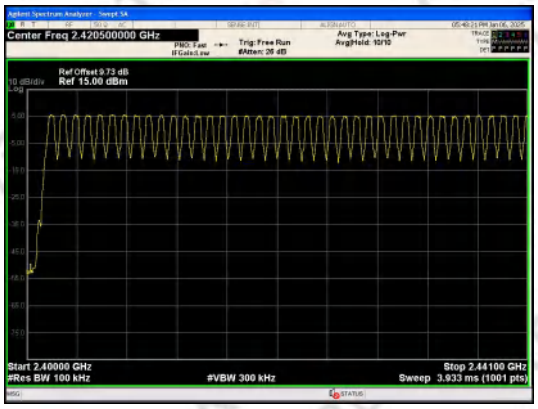
Low End Spectrum Channel Hopping Plot

GFSK



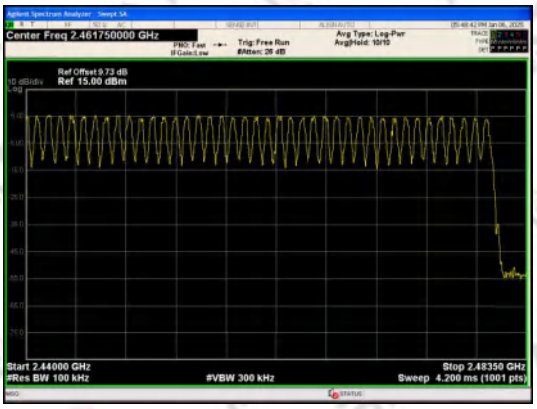
High End Spectrum Channel Hopping Plot

GFSK



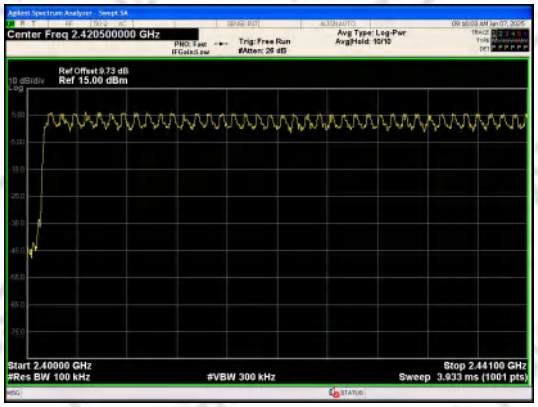
Low End Spectrum Channel Hopping Plot

GFSK



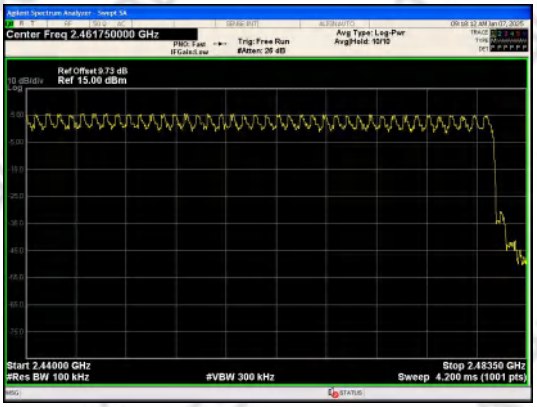
High End Spectrum Channel Hopping Plot

GFSK



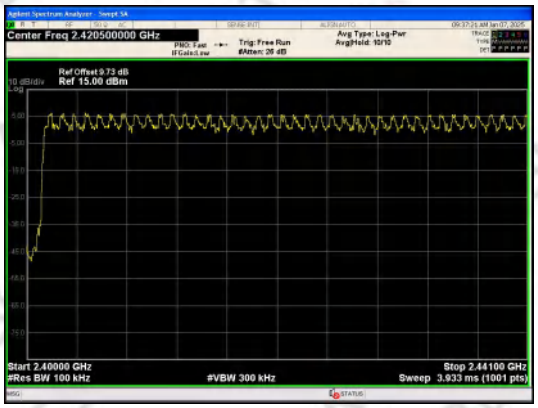
Low End Spectrum Channel Hopping Plot

π/4DQPSK



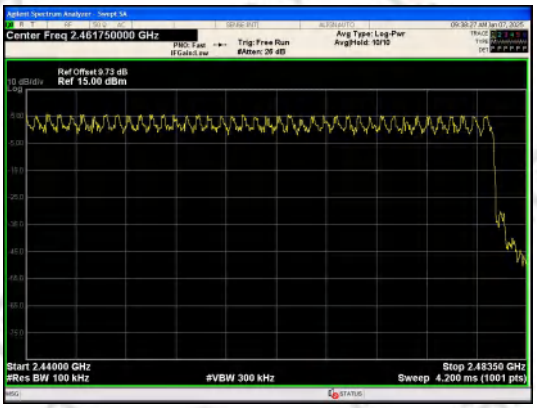
High End Spectrum Channel Hopping Plot

π/4DQPSK



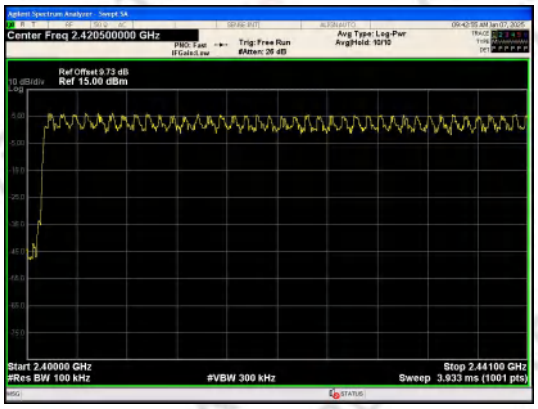
Low End Spectrum Channel Hopping Plot

π/4DQPSK



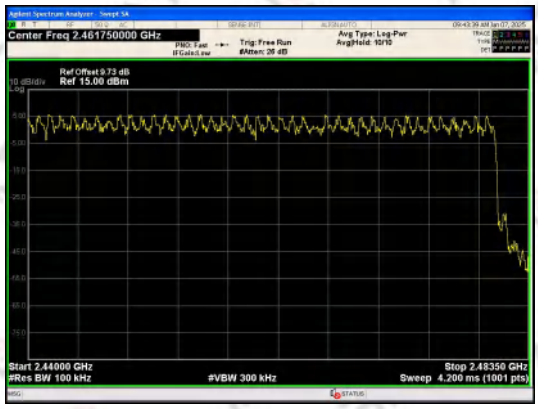
High End Spectrum Channel Hopping Plot

π/4DQPSK



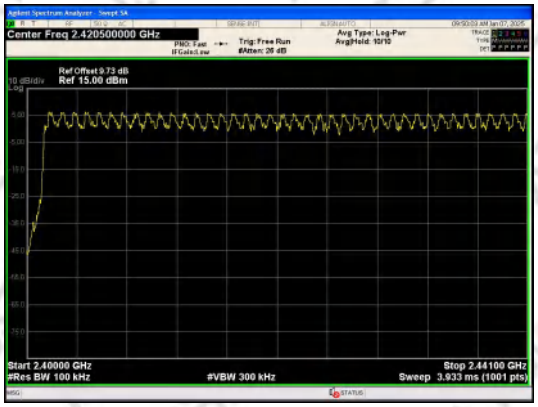
Low End Spectrum Channel Hopping Plot

π/4DQPSK



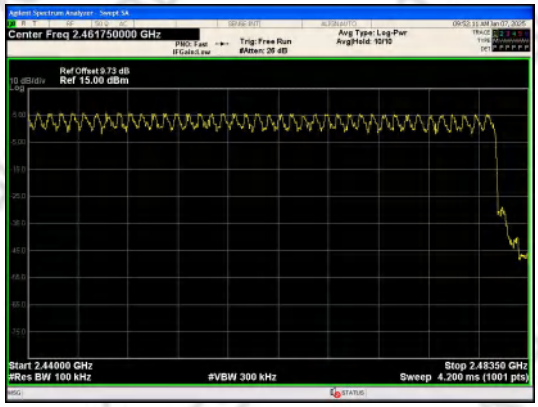
High End Spectrum Channel Hopping Plot

π/4DQPSK



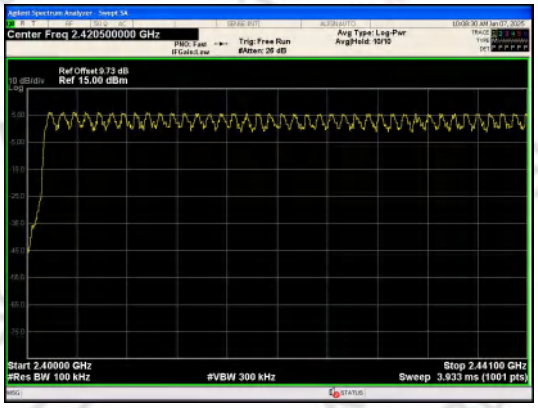
Low End Spectrum Channel Hopping Plot

8DPSK



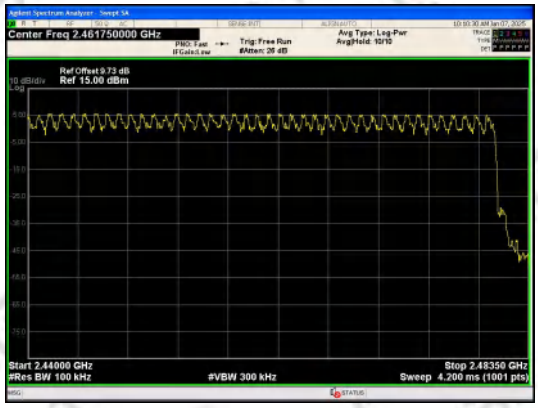
High End Spectrum Channel Hopping Plot

8DPSK



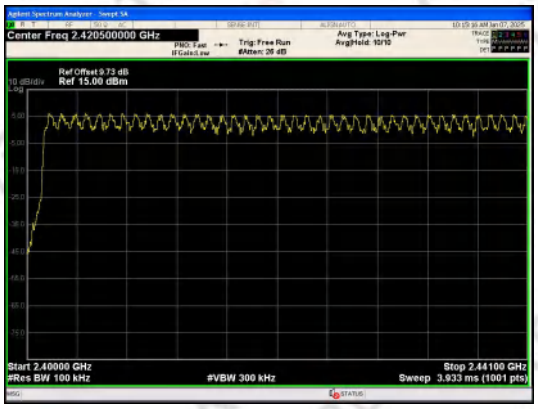
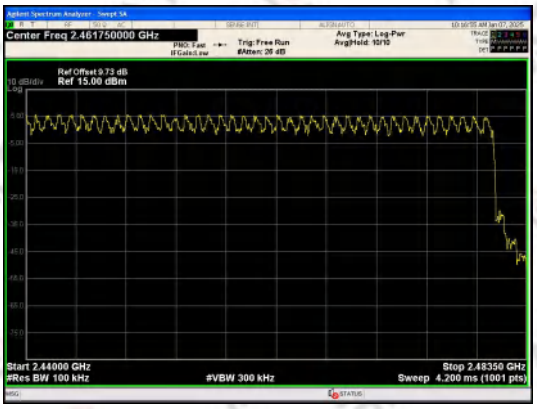
Low End Spectrum Channel Hopping Plot

8DPSK



High End Spectrum Channel Hopping Plot

8DPSK

	
Low End Spectrum Channel Hopping Plot 8DPSK	High End Spectrum Channel Hopping Plot 8DPSK

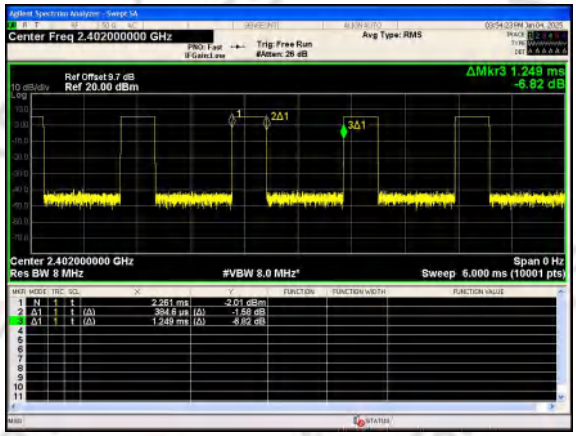
Appendix A3. Duty Cycle and Dwell Time

Duty Cycle

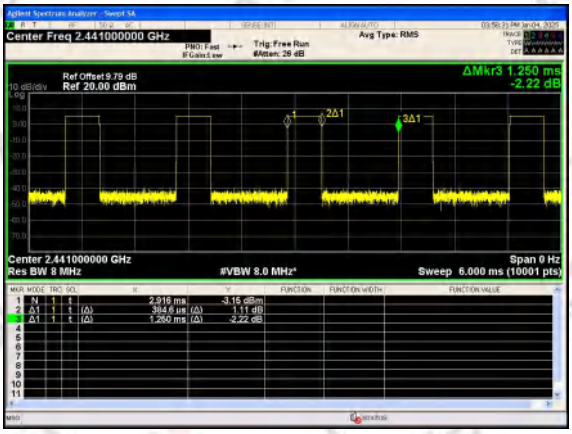
Test Result

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH1	0	0.385	1.249	30.79	0.3079	5.1159	2.5974
		39	0.385	1.250	30.77	0.3077	5.1187	2.5974
		78	0.385	1.250	30.77	0.3077	5.1187	2.5974
	DH3	0	1.641	2.499	65.64	0.6564	1.8283	0.6094
		39	1.641	2.499	65.64	0.6564	1.8283	0.6094
		78	1.641	2.499	65.64	0.6564	1.8283	0.6094
	DH5	0	2.888	3.748	77.05	0.7705	1.1323	0.3463
		39	2.888	3.748	77.05	0.7705	1.1323	0.3463
		78	2.888	3.748	77.05	0.7705	1.1323	0.3463
π/4DQPSK	2-DH1	0	0.386	1.250	30.87	0.3087	5.1046	2.5907
		39	0.386	1.250	30.87	0.3087	5.1046	2.5907
		78	0.386	1.249	30.88	0.3088	5.1032	2.5907
	2-DH3	0	1.638	2.498	65.56	0.6556	1.8336	0.6105
		39	1.638	2.498	65.56	0.6556	1.8336	0.6105
		78	1.638	2.498	65.56	0.6556	1.8336	0.6105
	2-DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.3465
		39	2.886	3.748	77.00	0.7700	1.1351	0.3465
		78	2.884	3.748	76.95	0.7695	1.1379	0.3467
8DPSK	3-DH1	0	0.385	1.249	30.79	0.3079	5.1159	2.5974
		39	0.385	1.249	30.79	0.3079	5.1159	2.5974
		78	0.385	1.250	30.82	0.3082	5.1117	2.5974
	3-DH3	0	1.635	2.498	65.44	0.6544	1.8416	0.6116
		39	1.635	2.498	65.44	0.6544	1.8416	0.6116
		78	1.635	2.498	65.44	0.6544	1.8416	0.6116
	3-DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.3465
		39	2.886	3.748	77.00	0.7700	1.1351	0.3465
		78	2.886	3.748	77.00	0.7700	1.1351	0.3465

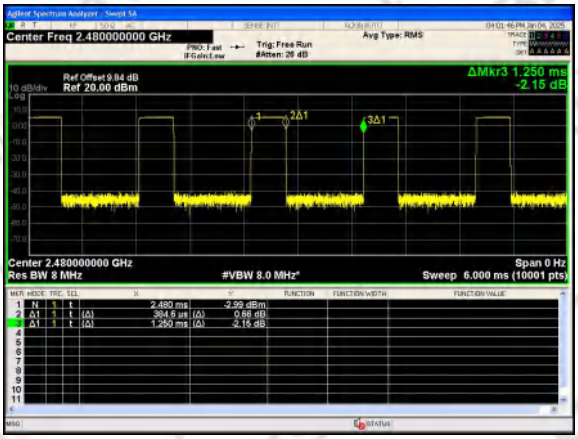
Test Graphs



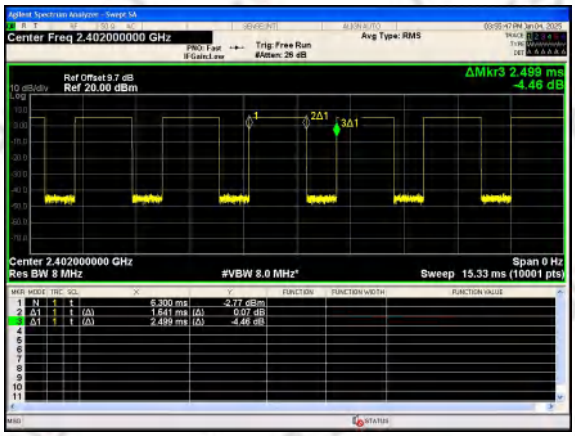
GFSK(DH1)_Channel 0



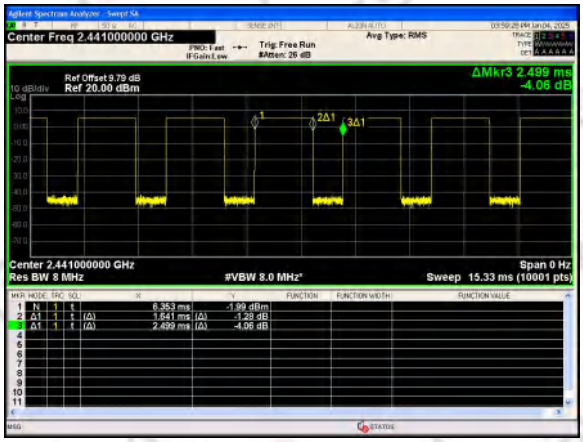
GFSK(DH1)_Channel 39



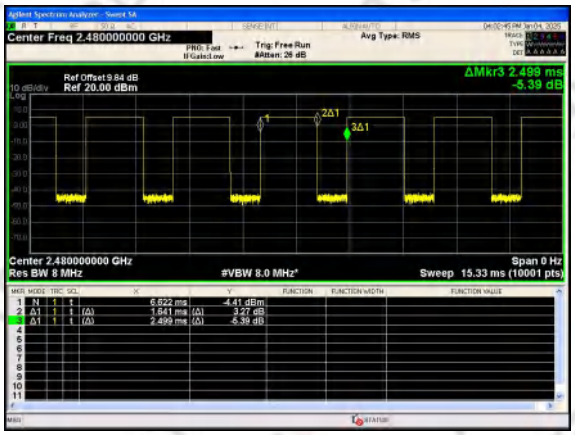
GFSK(DH1)_Channel 78



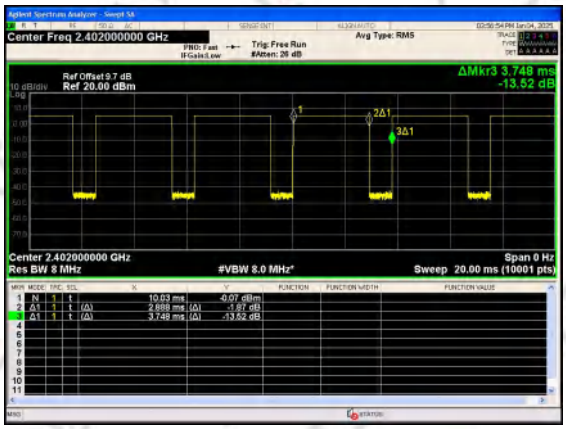
GFSK(DH3)_Channel 0



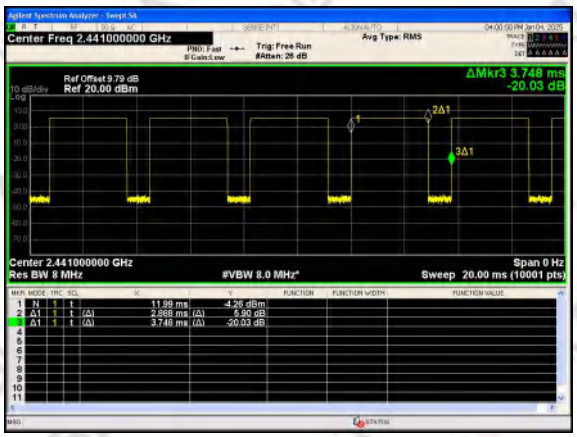
GFSK(DH3)_Channel 39



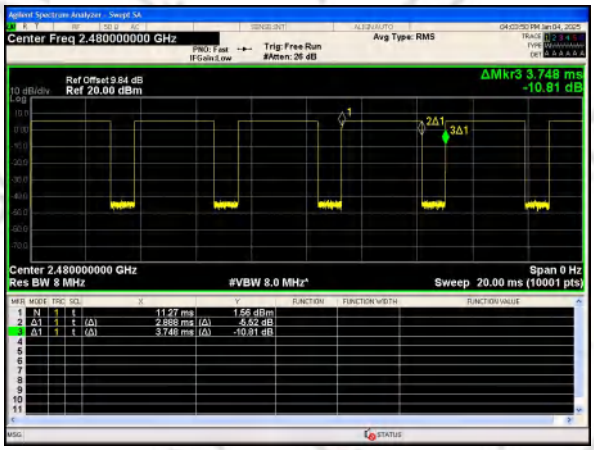
GFSK(DH3)_Channel 78



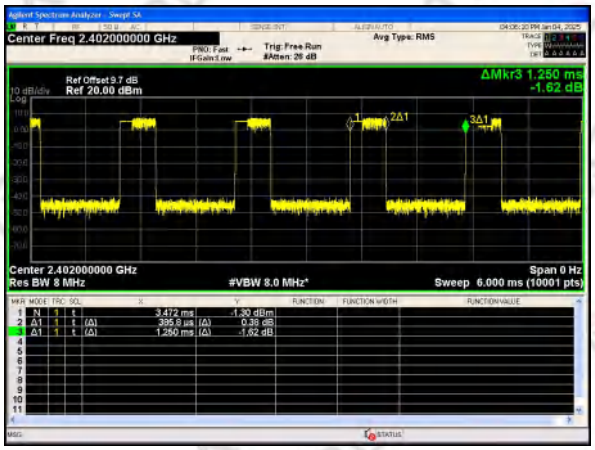
GFSK(DH5)_Channel 0



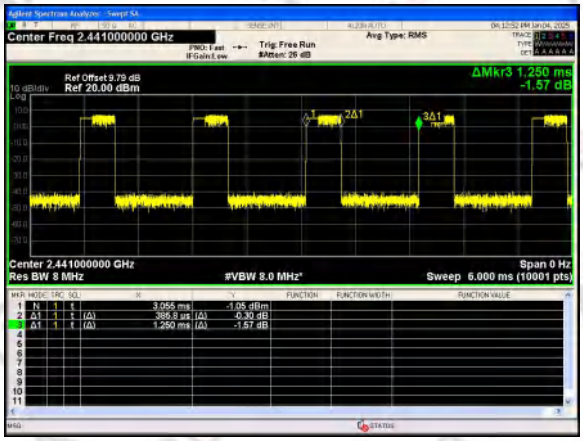
GFSK(DH5)_Channel 39



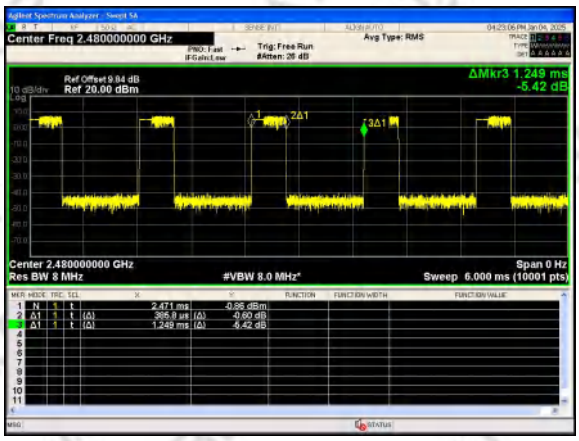
GFSK(DH5)_Channel 78



π/4DQPSK(2-DH1)_Channel 0



π/4DQPSK(2-DH1)_Channel 39

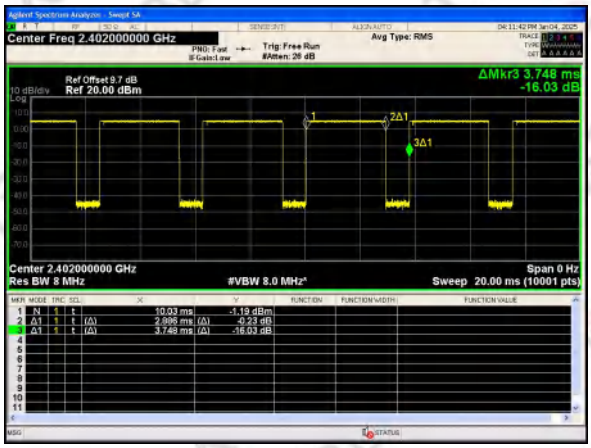


π/4DQPSK(2-DH1)_Channel 78

π/4DQPSK(2-DH3)_Channel 0

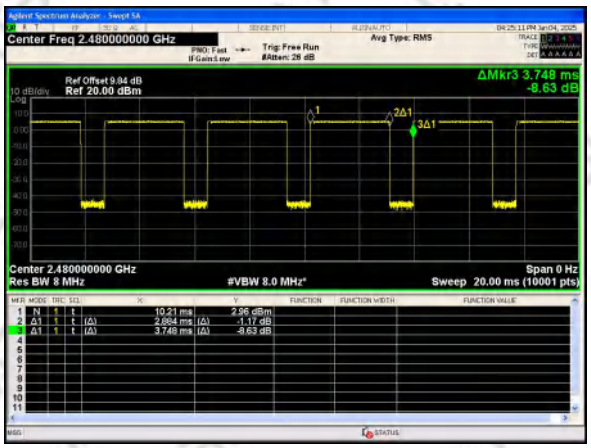
π/4DQPSK(2-DH3)_Channel 39

π/4DQPSK(2-DH3)_Channel 78

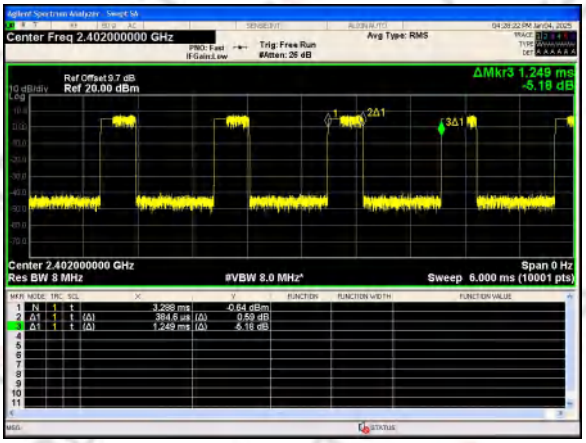


π/4DQPSK(2-DH5)_Channel 0

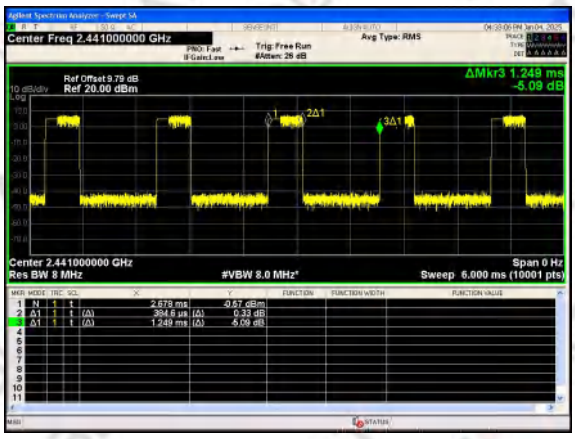
π/4DQPSK(2-DH5)_Channel 39



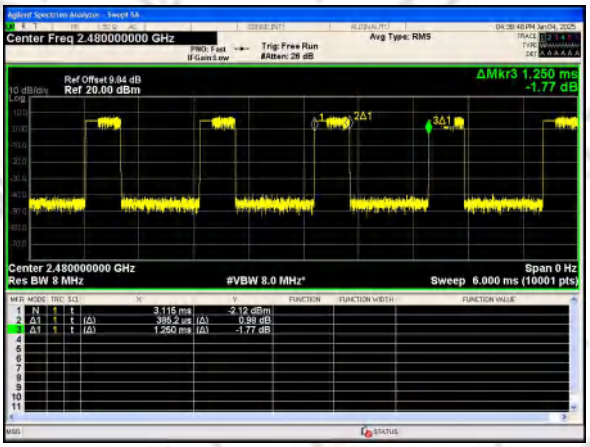
π/4DQPSK(2-DH5)_Channel 78



8DPSK(3-DH1)_Channel 0



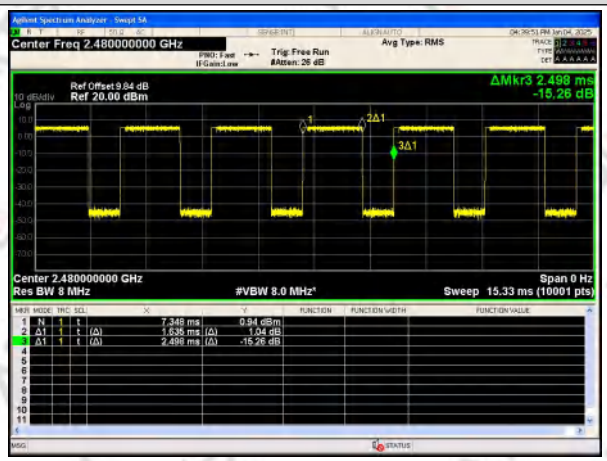
8DPSK(3-DH1)_Channel 39



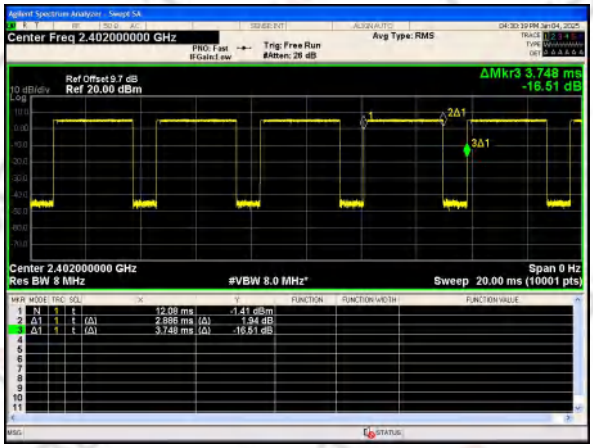
8DPSK(3-DH1)_Channel 78

8DPSK(3-DH3)_Channel 0

8DPSK(3-DH3)_Channel 39



8DPSK(3-DH3)_Channel 78



8DPSK(3-DH5)_Channel 0

8DPSK(3-DH5)_Channel 39

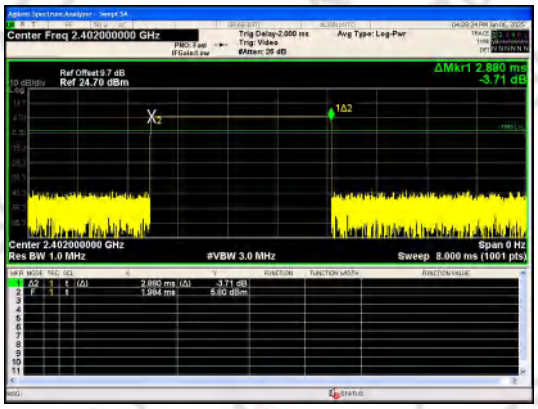
8DPSK(3-DH5)_Channel 78

Dwell Time

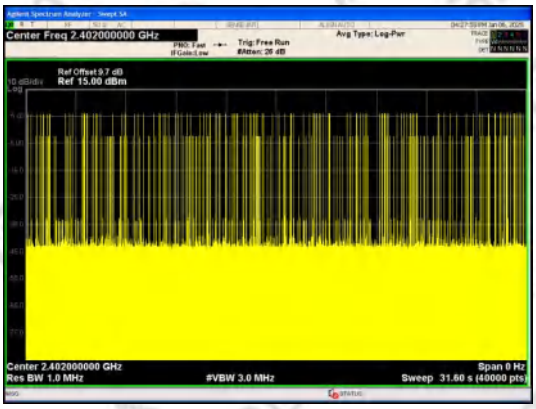
Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.880	116	334.08	< 400	PASS
	DH5	CH39 (2441MHz)	2.896	116	335.94		PASS
	DH5	CH78 (2480MHz)	2.888	118	340.78		PASS
π/4DQPSK	2-DH1	CH0 (2402MHz)	0.3840	315	120.96		PASS
	2-DH1	CH39 (2441MHz)	0.3840	320	122.88		PASS
	2-DH1	CH78 (2480MHz)	0.3840	316	121.34		PASS
8DPSK	3-DH1	CH0 (2402MHz)	0.3840	315	120.96		PASS
	3-DH1	CH39 (2441MHz)	0.3828	313	119.82		PASS
	3-DH1	CH78 (2480MHz)	0.3840	315	120.96		PASS

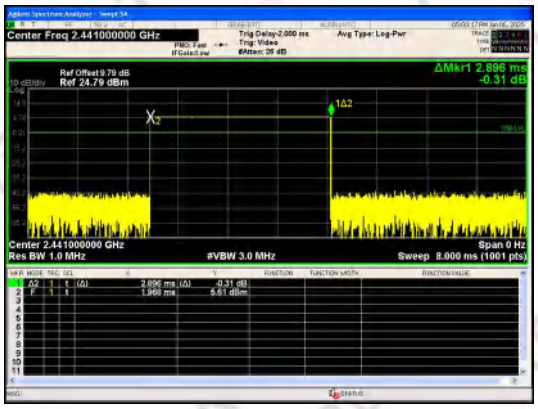
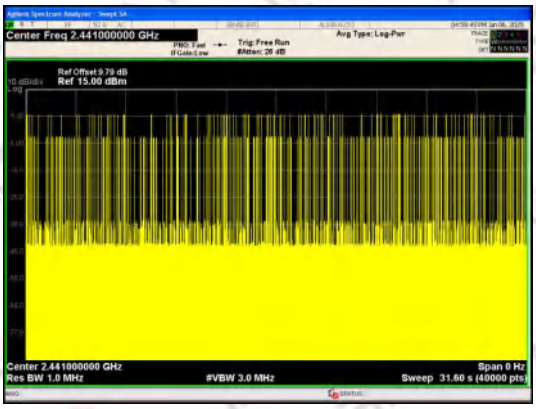
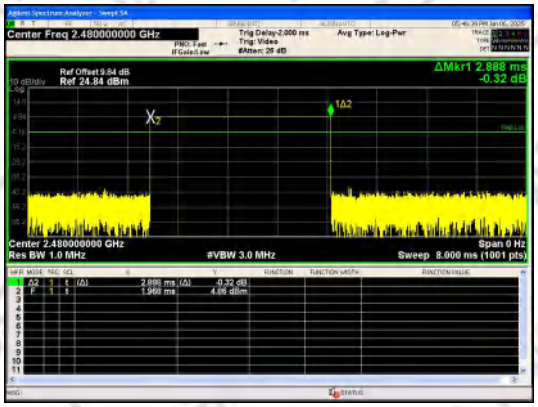
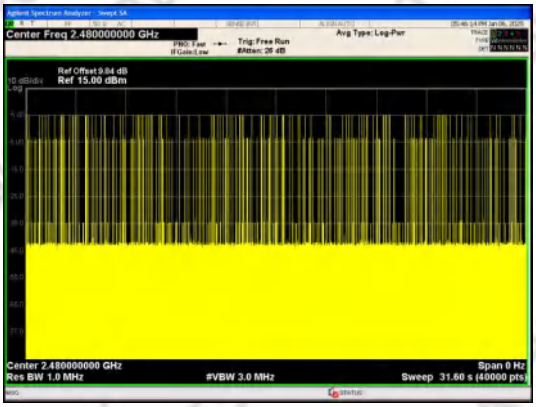
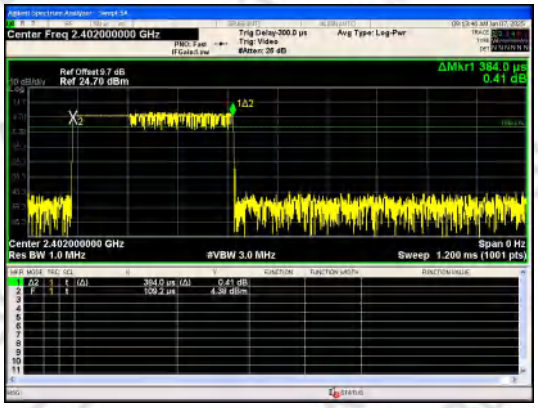
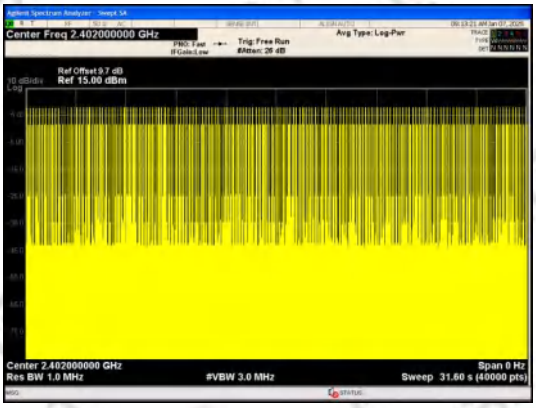
Test Graphs

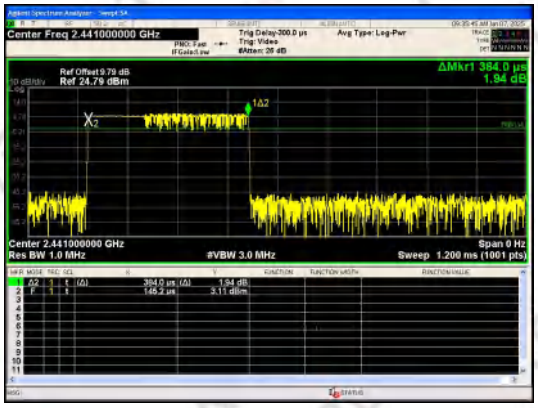
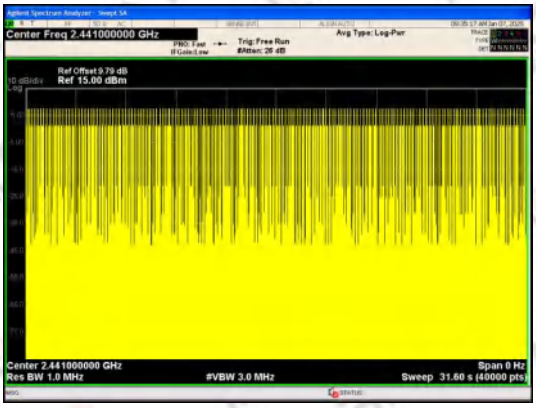
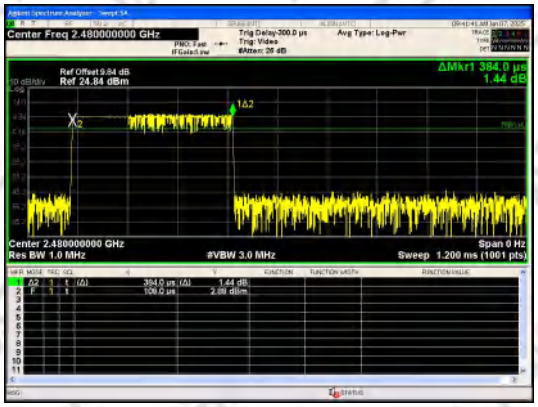
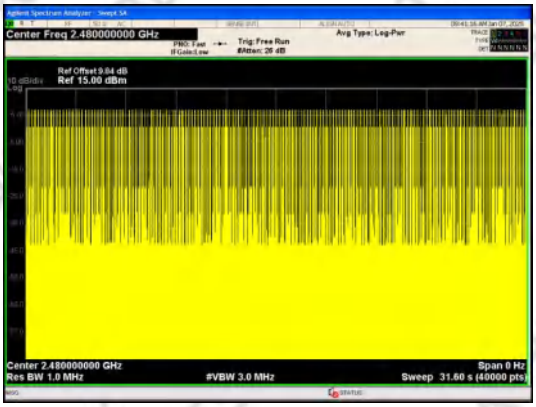
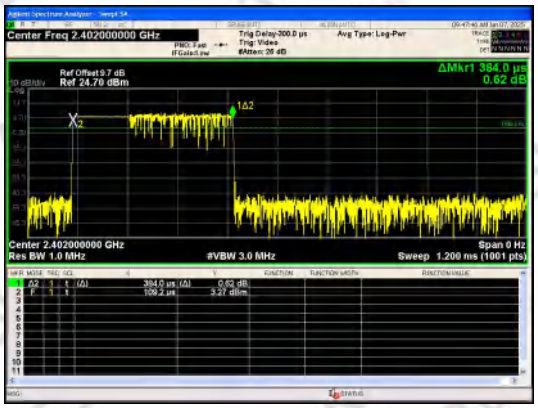
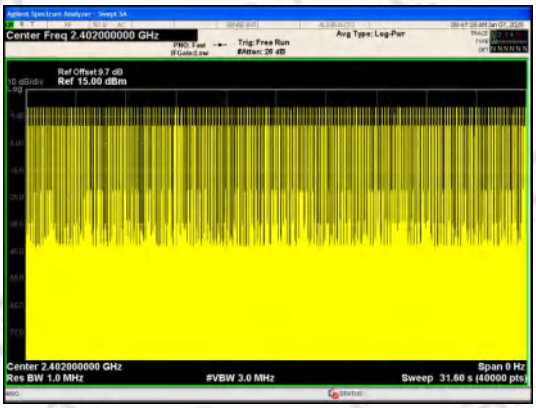


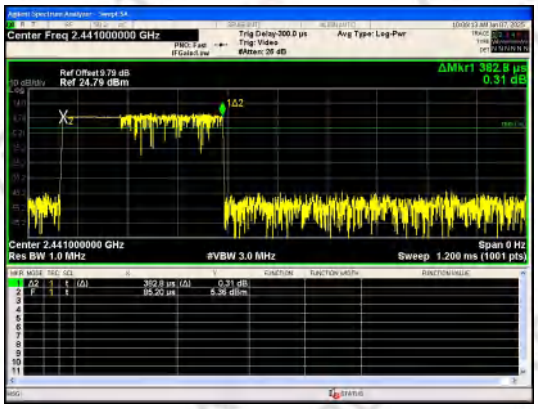
Pulse Width
GFSK_DH5



Number of Pulses in 31.6 seconds
GFSK_DH5

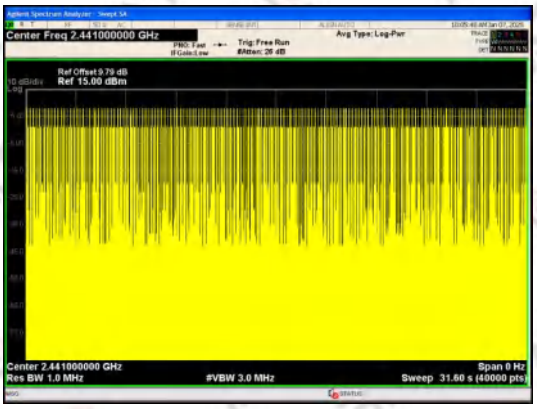
	
Pulse Width GFSK_DH5	Number of Pulses in 31.6 seconds GFSK_DH5
	
Pulse Width GFSK_DH5	Number of Pulses in 31.6 seconds GFSK_DH5
	
Pulse Width π/4DQPSK_2-DH1	Number of Pulses in 31.6 seconds π/4DQPSK_2-DH1

	
Pulse Width π/4DQPSK_2-DH1	Number of Pulses in 31.6 seconds π/4DQPSK_2-DH1
	
Pulse Width π/4DQPSK_2-DH1	Number of Pulses in 31.6 seconds π/4DQPSK_2-DH1
	
Pulse Width 8DPSK_3-DH1	Number of Pulses in 31.6 seconds 8DPSK_3-DH1



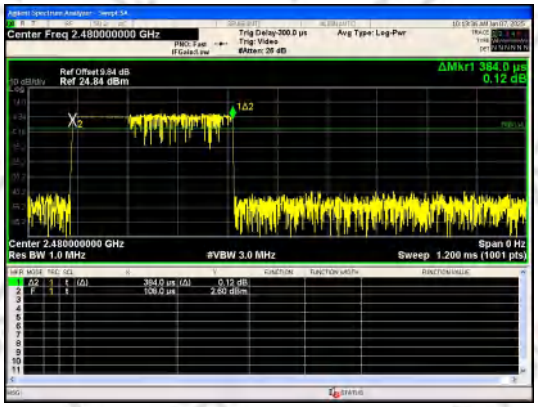
Pulse Width

8DPSK_3-DH1



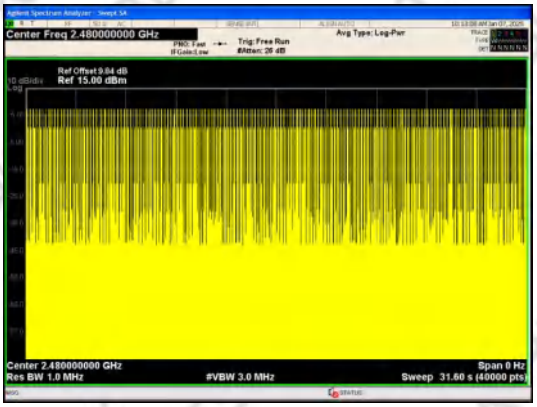
Number of Pulses in 31.6 seconds

8DPSK_3-DH1



Pulse Width

8DPSK_3-DH1



Number of Pulses in 31.6 seconds

8DPSK_3-DH1

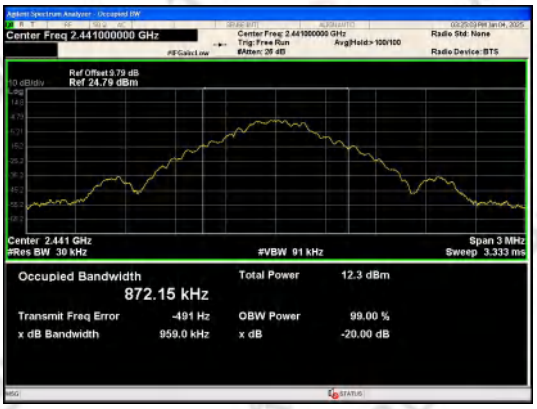
Appendix A4. 20dB Bandwidth

Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9598
	39	2441 MHz	0.9590
	78	2480 MHz	0.9591
π/4DQPSK	0	2402 MHz	1.290
	39	2441 MHz	1.297
	78	2480 MHz	1.275
8DPSK	0	2402 MHz	1.259
	39	2441 MHz	1.261
	78	2480 MHz	1.260

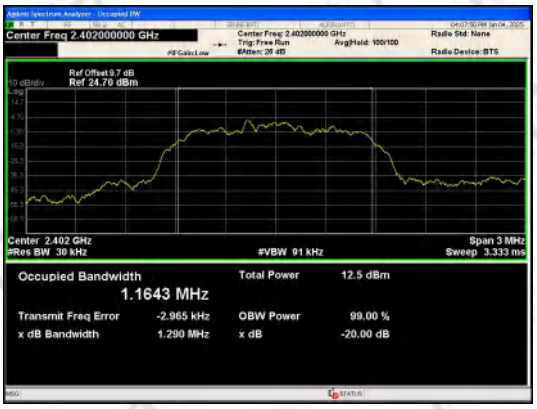
Test Graphs

GFSK_DH5_Channel 0

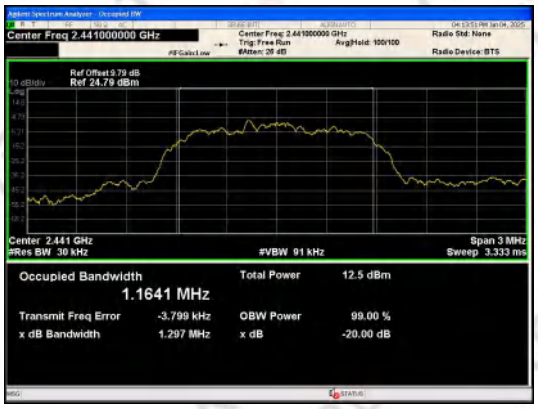


GFSK_DH5_Channel 39

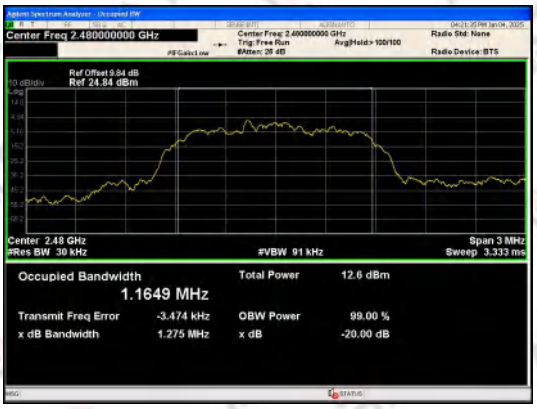
GFSK_DH5_Channel 78



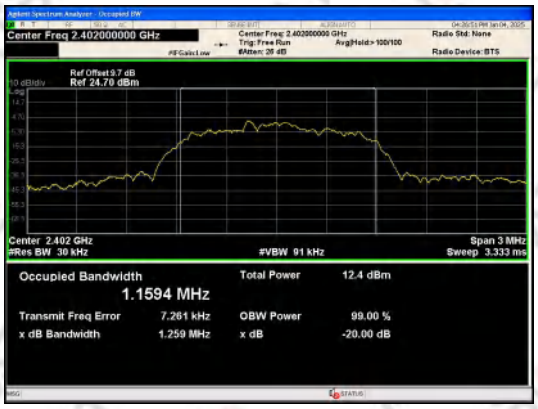
π/4DQPSK_2-DH1_Channel 0



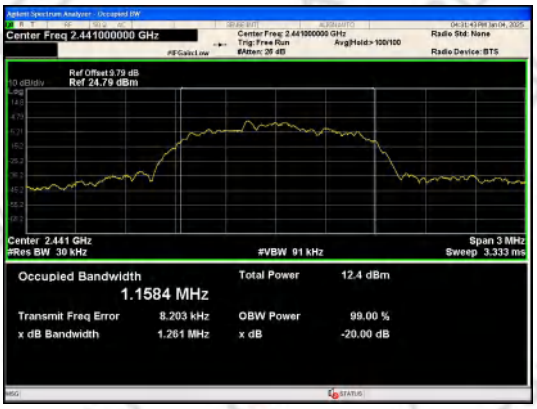
π/4DQPSK_2-DH1_Channel 39



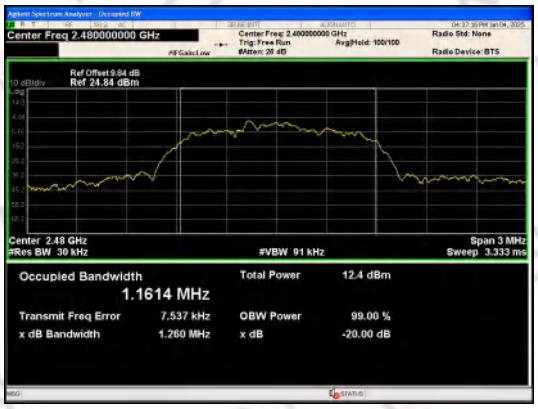
π/4DQPSK_2-DH1_Channel 78



8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



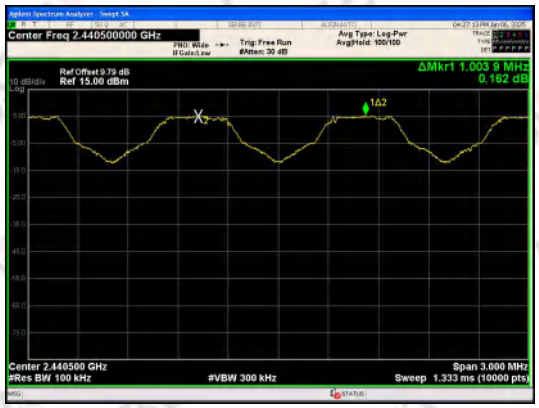
8DPSK_3-DH1_Channel 78

Appendix A5. Carrier Frequency Separation

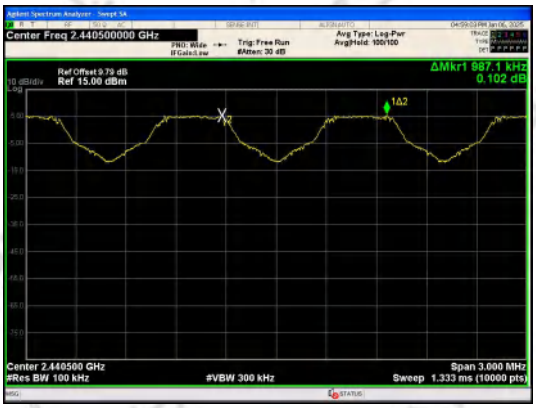
Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.0201	2441.024	1.0039	0.64	PASS
GFSK	DH5	2440.1749	2441.162	0.9871	0.639	PASS
GFSK	DH5	2440.1734	2441.1551	0.9817	0.639	PASS
π/4DQPSK	2-DH1	2439.8428	2441.0051	1.1623	0.86	PASS
π/4DQPSK	2-DH1	2439.8449	2440.8425	0.9976	0.865	PASS
π/4DQPSK	2-DH1	2439.8365	2440.8344	0.9979	0.85	PASS
8DPSK	3-DH1	2439.8449	2440.8407	0.9958	0.839	PASS
8DPSK	3-DH1	2439.8371	2441.0144	1.1773	0.841	PASS
8DPSK	3-DH1	2439.8245	2441.0126	1.1881	0.84	PASS

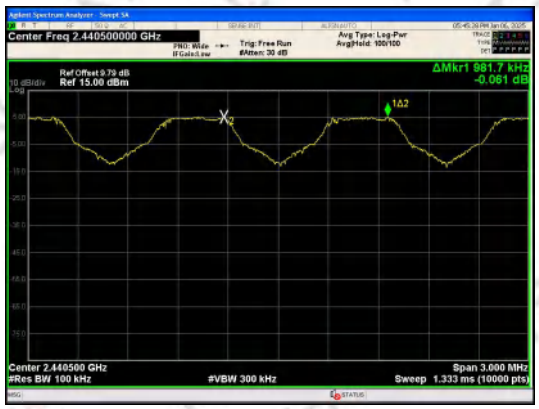
Test Graphs



GFSK



GFSK



GFSK

π/4DQPSK

π/4DQPSK

π/4DQPSK

8DPSK

8DPSK

8DPSK

Appendix A6. Conducted Out Of Band Emission

Test Result

Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2304.62	-46.444	-15.09	-31.354	PASS
			2306.00	-51.395	-15.09	-36.305	PASS
			2400.00	-51.300	-15.09	-36.210	PASS
			4803.60	-56.718	-15.09	-41.628	PASS
			7206.40	-68.615	-15.09	-53.525	PASS
			9607.90	-69.533	-15.09	-54.443	PASS
		39	2340.35	-50.211	-14.93	-35.281	PASS
			4882.30	-56.480	-14.93	-41.550	PASS
			7323.74	-66.872	-14.93	-51.942	PASS
			9764.55	-68.938	-14.93	-54.008	PASS
		78	2379.05	-51.418	-14.92	-36.498	PASS
			2483.50	-53.612	-14.92	-38.692	PASS
			4960.33	-55.884	-14.92	-40.964	PASS
			7439.85	-67.156	-14.92	-52.236	PASS
			9919.99	-69.428	-14.92	-54.508	PASS
π/4DQPSK	2-DH1	0	2400.00	-45.239	-15.05	-30.189	PASS
			4803.64	-52.417	-15.05	-37.367	PASS
			7206.38	-68.074	-15.05	-53.024	PASS
			9607.87	-69.062	-15.05	-54.012	PASS
		39	4881.67	-50.162	-15.06	-35.102	PASS
			7323.74	-67.097	-15.06	-52.037	PASS
			9764.55	-68.748	-15.06	-53.688	PASS
		78	2379.68	-51.949	-14.97	-36.979	PASS
			2483.50	-46.412	-14.97	-31.442	PASS
			4960.33	-54.472	-14.97	-39.502	PASS
			7440.47	-67.938	-14.97	-52.968	PASS
			9920.62	-69.587	-14.97	-54.617	PASS
8DPSK	3-DH1	0	2400.00	-46.497	-14.96	-31.537	PASS
			4804.26	-51.545	-14.96	-36.585	PASS
			7205.75	-67.159	-14.96	-52.199	PASS
			9607.24	-68.872	-14.96	-53.912	PASS
		39	2344.72	-51.757	-14.93	-36.827	PASS
			4881.67	-53.986	-14.93	-39.056	PASS
			7323.11	-67.893	-14.93	-52.963	PASS
			9763.93	-68.950	-14.93	-54.020	PASS
		78	2483.50	-46.874	-14.83	-32.044	PASS
			4960.33	-53.690	-14.83	-38.860	PASS
			7439.22	-68.510	-14.83	-53.680	PASS

			9919.37	-70.126	-14.83	-55.296	PASS

Note:Offset=cable loss=1.22dB

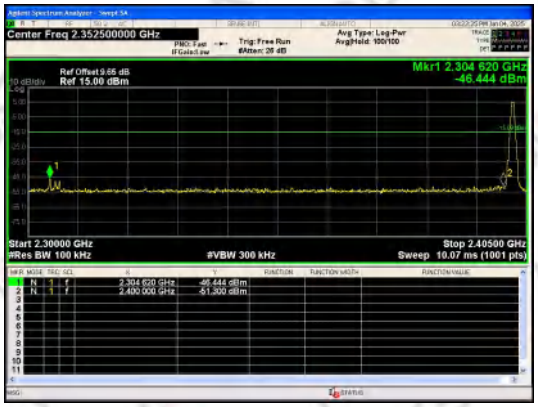
Test Graphs

In-Band Reference Level

GFSK_DH5_Channel 0

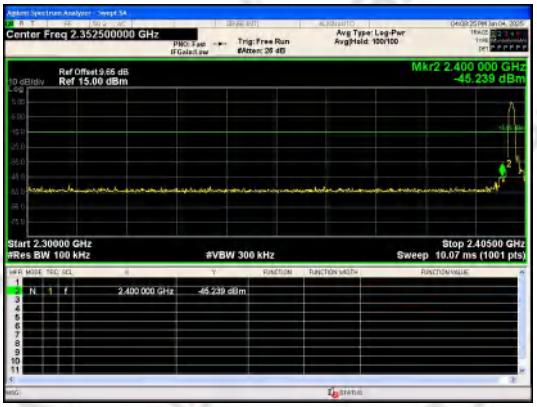
In-Band Reference Level

π/4DQPSK_2-DH1_Channel 0



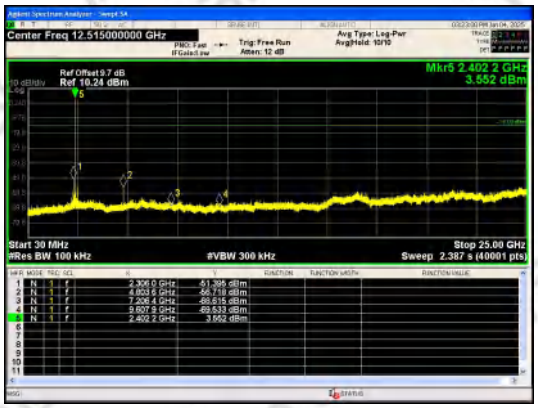
Out Of Band Emission

GFSK_DH5_Channel 0



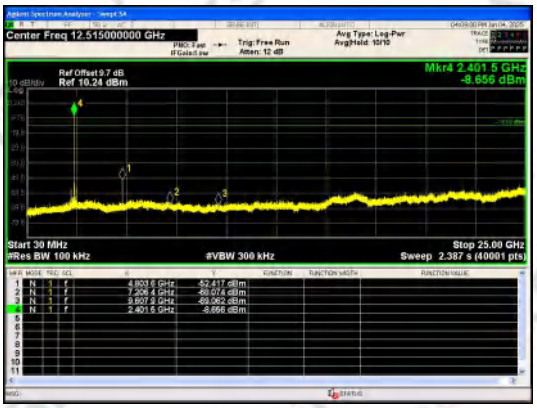
Out Of Band Emission

π/4DQPSK_2-DH1_Channel 0



30.0 MHz - 25000.0 MHz

GFSK_DH5_Channel 0

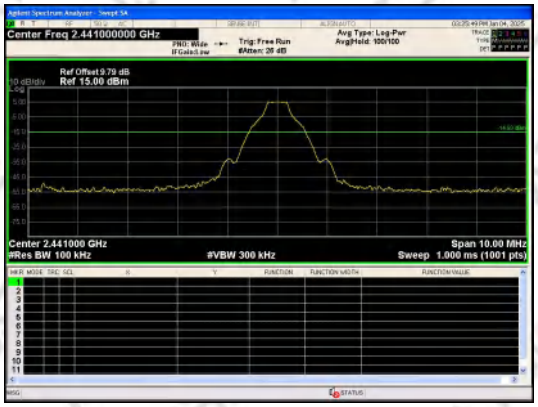


30.0 MHz - 25000.0 MHz

π/4DQPSK_2-DH1_Channel 0

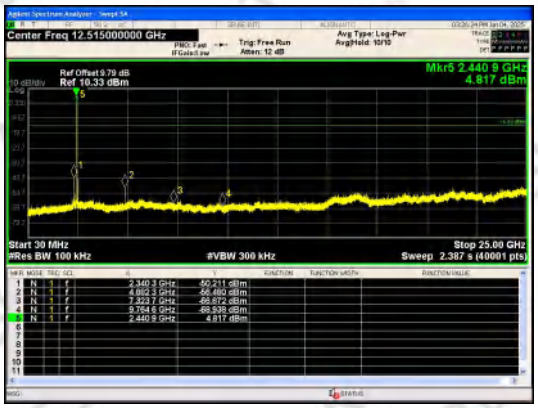
In-Band Reference Level
GFSK_DH5_Channel 39

In-Band Reference Level
π/4DQPSK_2-DH1_Channel 39

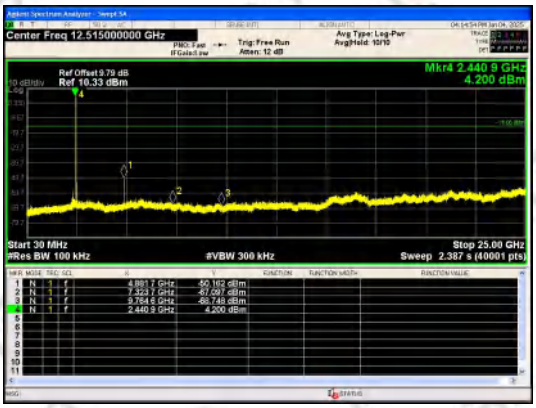


Out Of Band Emission
GFSK_DH5_Channel 39

Out Of Band Emission
π/4DQPSK_2-DH1_Channel 39



30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



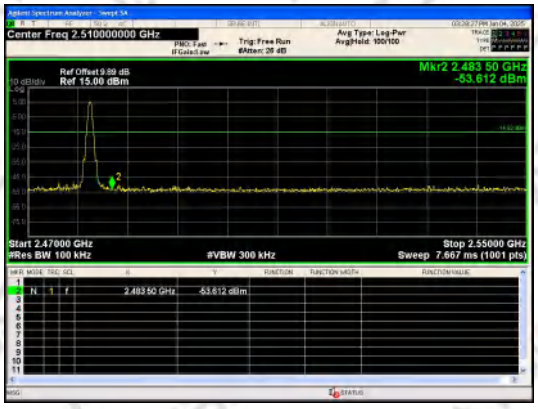
30.0 MHz - 25000.0 MHz
π/4DQPSK_2-DH1_Channel 39

In-Band Reference Level

GFSK_DH5_Channel 78

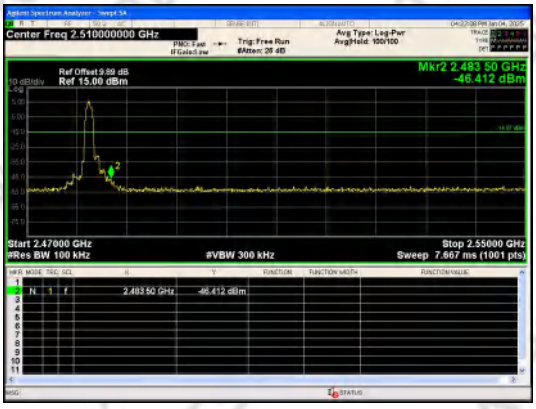
In-Band Reference Level

π/4DQPSK_2-DH1_Channel 78



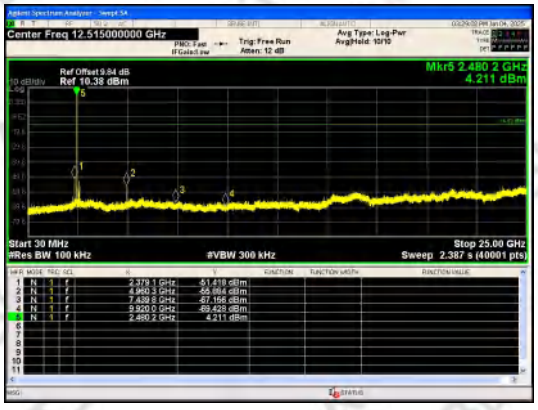
Out Of Band Emission

GFSK_DH5_Channel 78



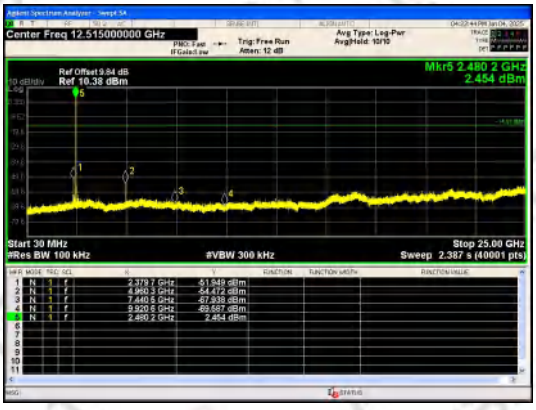
Out Of Band Emission

π/4DQPSK_2-DH1_Channel 78



30.0 MHz - 25000.0 MHz

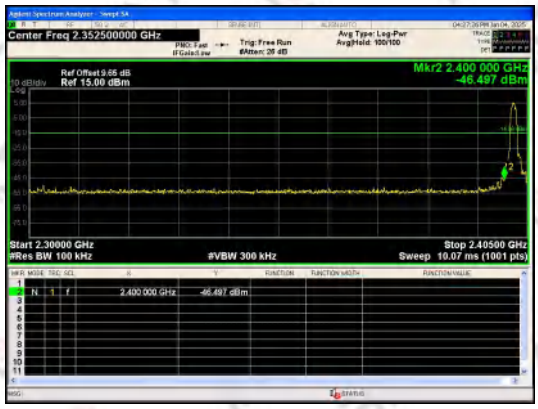
GFSK_DH5_Channel 78



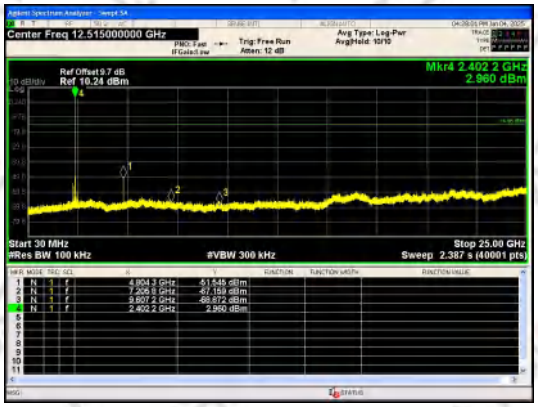
30.0 MHz - 25000.0 MHz

π/4DQPSK_2-DH1_Channel 78

In-Band Reference Level
8DPSK_3-DH1_Channel 0



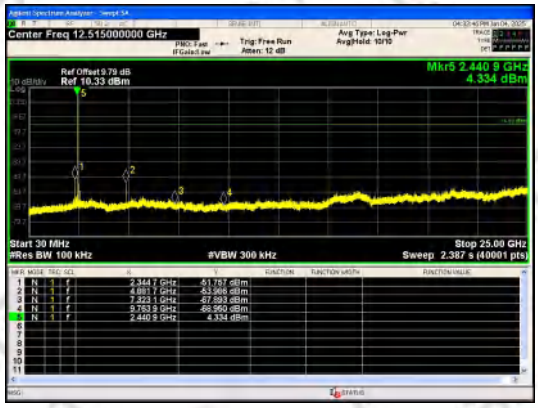
Out Of Band Emission
8DPSK_3-DH1_Channel 0



30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 0

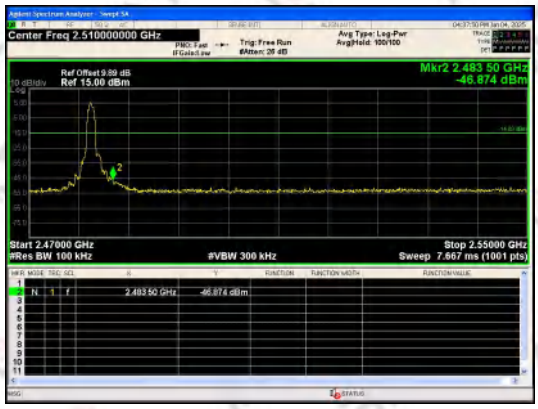
In-Band Reference Level
8DPSK_3-DH1_Channel 39

Out Of Band Emission
8DPSK_3-DH1_Channel 39

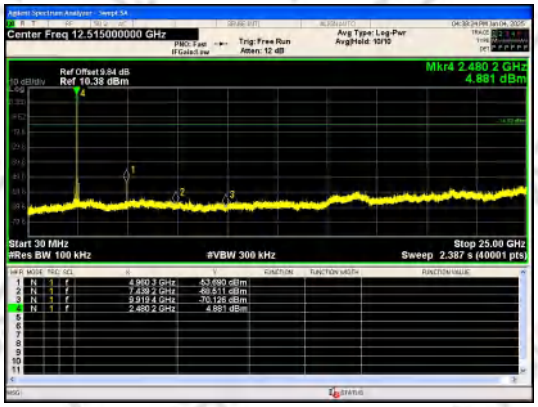


30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 39

In-Band Reference Level
8DPSK_3-DH1_Channel 78



Out Of Band Emission
8DPSK_3-DH1_Channel 78



30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 78

※※※※※END OF APPENDIX A※※※※※

Appendix B _ Radiated Test Data and AC Power-Line Conducted Emission

AppendixB1.Radiated spurious emissions

For 9 kHz ~ 30 MHz

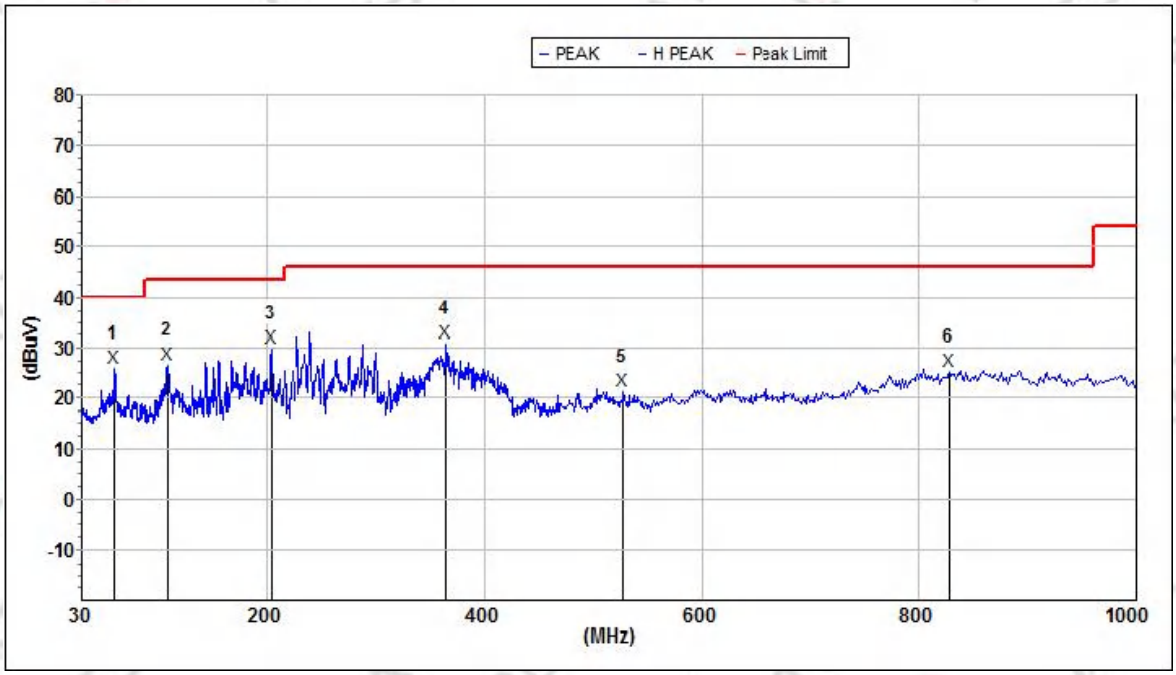
Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

For 30 MHz ~ 1 GHz

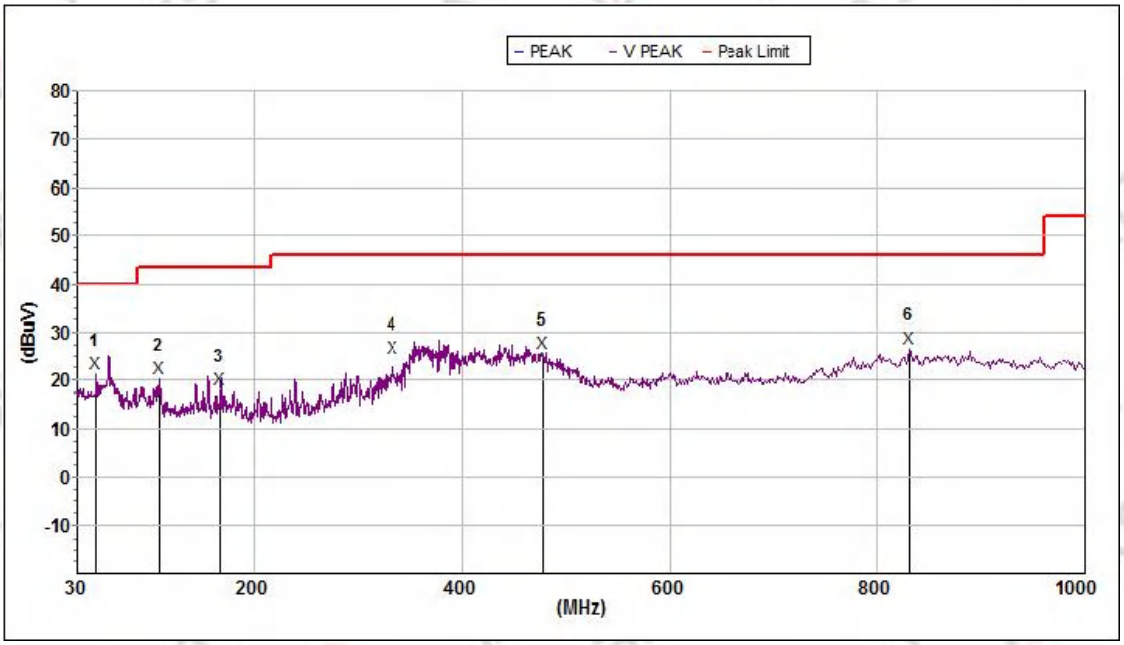
Note:All modes have been tested, only worst case mode was recorded in the test report if no any others.

BR-DH5-2402-Horizontal



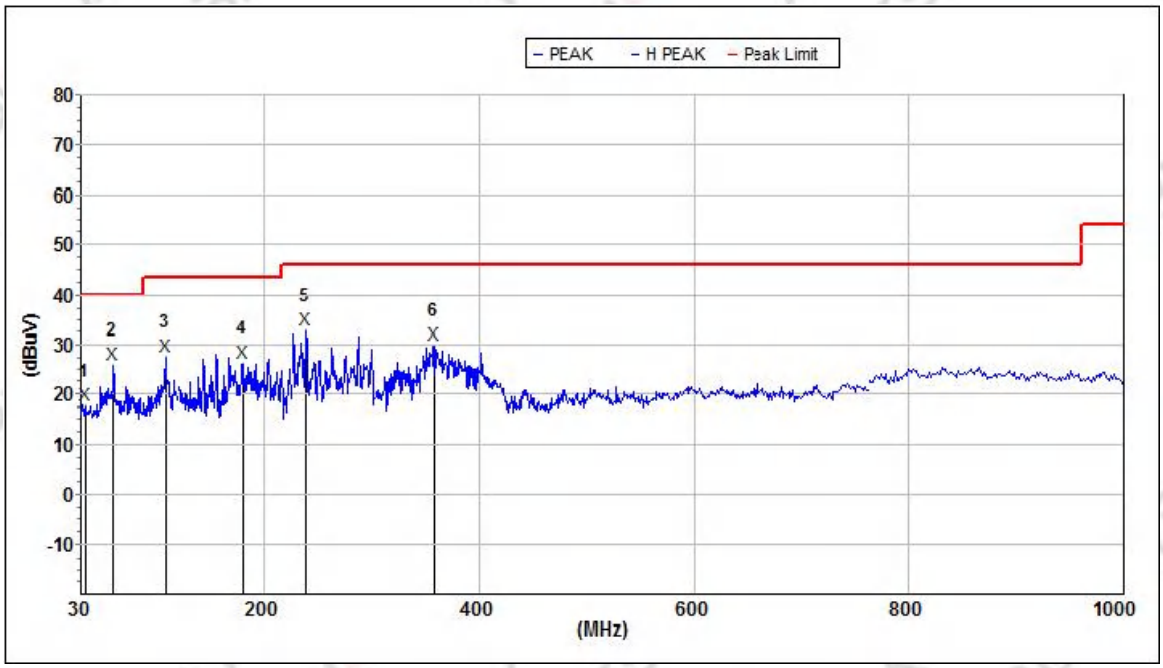
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	60.069	26.2	40.0	13.8	360	200	17.9	29.6	H
2	107.510	26.7	43.5	16.8	11	100	15.4	31.6	H
3	203.523	30.1	43.5	13.4	21	300	15.9	33.2	H
4	364.899	31.1	46.0	14.9	154	200	20.6	32.4	H
5	527.320	21.3	46.0	24.7	53	100	24.1	32.2	H
6	827.493	25.3	46.0	20.7	334	200	28.6	31.9	H

BR-DH5-2402-Vertical



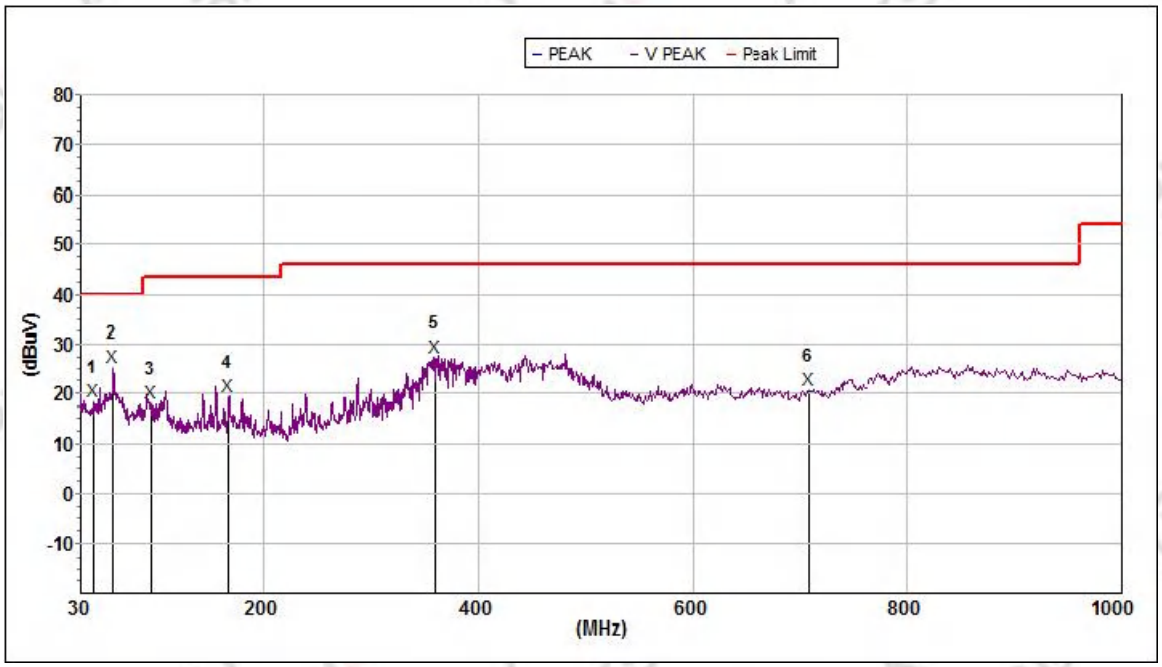
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	47.910	21.4	40.0	18.6	271	200	19.5	29.8	V
2	108.077	20.3	43.5	23.2	220	100	15.5	31.7	V
3	167.530	18.3	43.5	25.2	286	300	18.0	33.5	V
4	333.102	24.6	46.0	21.4	354	200	19.9	32.3	V
5	478.846	25.7	46.0	20.3	23	100	23.2	32.9	V
6	830.400	26.6	46.0	19.4	0	200	28.7	31.9	V

BR-DH5-2480-Horizontal



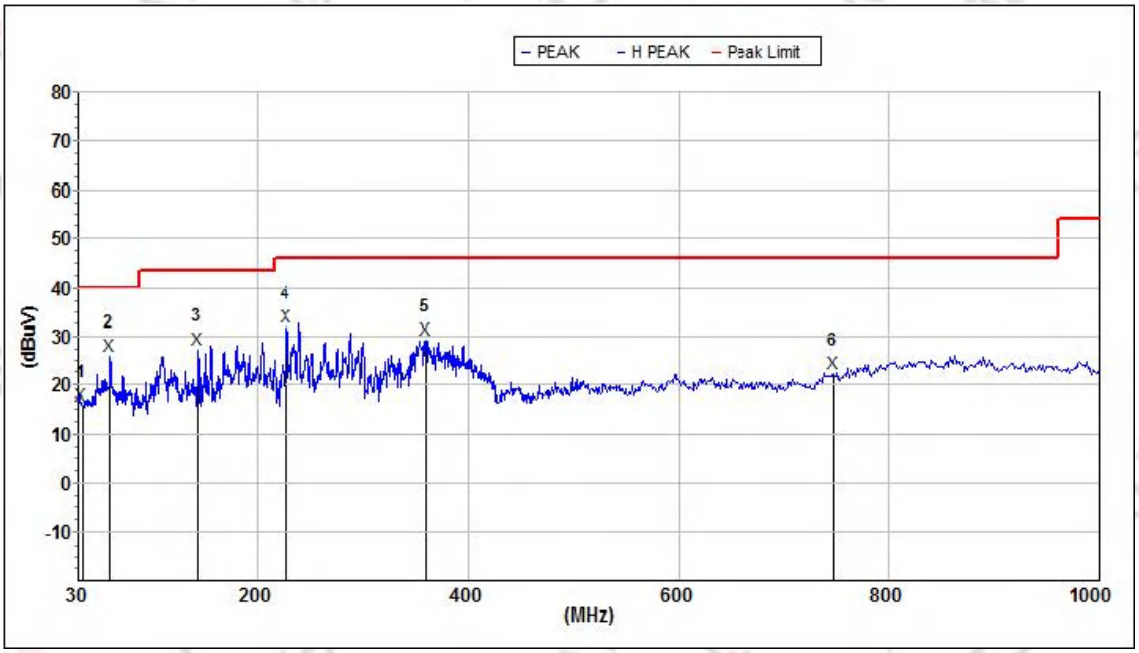
Mk.	Freq. (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	34.336	17.8	40.0	22.2	4	200	18.7	29.5	H
2	60.069	26.0	40.0	14.0	354	100	17.9	29.6	H
3	108.077	27.6	43.5	15.9	10	300	15.5	31.7	H
4	179.701	26.5	43.5	17.0	54	200	17.1	33.4	H
5	239.987	33.1	46.0	12.9	0	100	17.2	32.5	H
6	359.186	29.9	46.0	16.1	154	200	20.4	32.4	H

BR-DH5-2480-Vertical



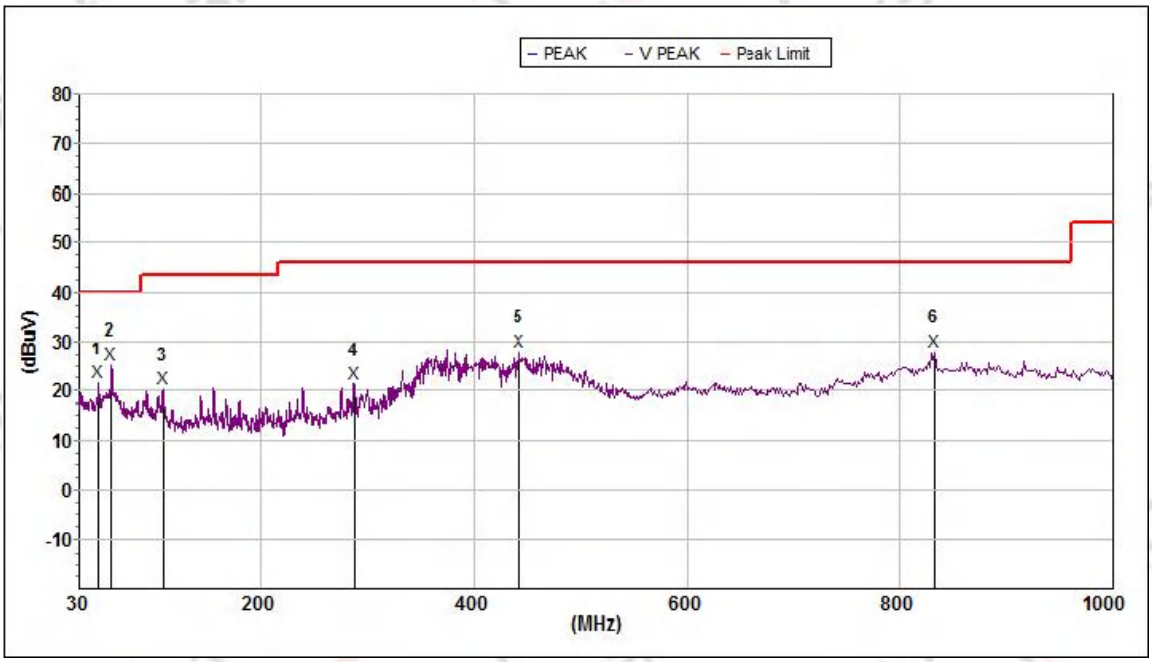
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	42.080	18.6	40.0	21.4	37	200	19.1	29.6	V
2	60.069	25.3	40.0	14.7	269	100	17.9	29.6	V
3	95.427	18.1	43.5	25.4	252	300	14.8	30.8	V
4	167.824	19.4	43.5	24.1	318	200	18.0	33.5	V
5	360.448	27.4	46.0	18.6	204	100	20.4	32.4	V
6	707.940	20.9	46.0	25.1	284	200	26.9	33.7	V

EDR-3DH5-2402-Horizontal



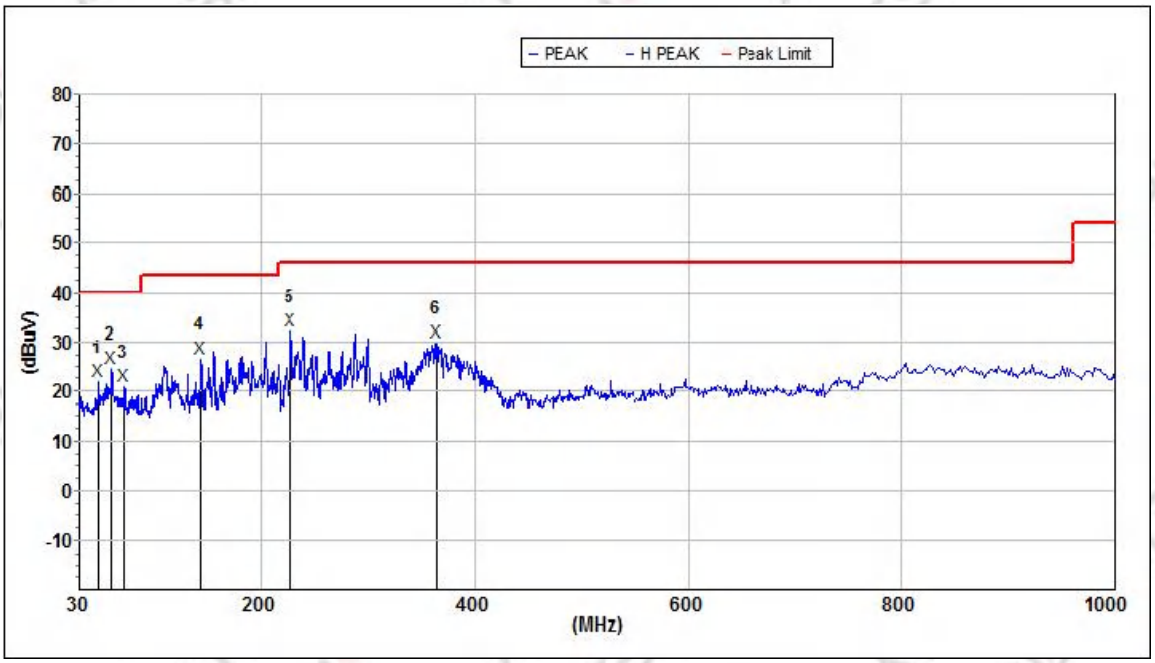
Mk.	Freq. (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	33.037	16.0	40.0	24.0	353	200	18.6	29.5	H
2	60.069	26.2	40.0	13.8	344	100	17.9	29.6	H
3	143.830	27.5	43.5	16.0	344	300	18.7	33.3	H
4	228.090	31.9	46.0	14.1	0	200	16.8	32.7	H
5	359.816	29.4	46.0	16.6	150	100	20.4	32.4	H
6	746.173	22.5	46.0	23.5	150	200	27.5	32.8	H

EDR-3DH5-2402-Vertical



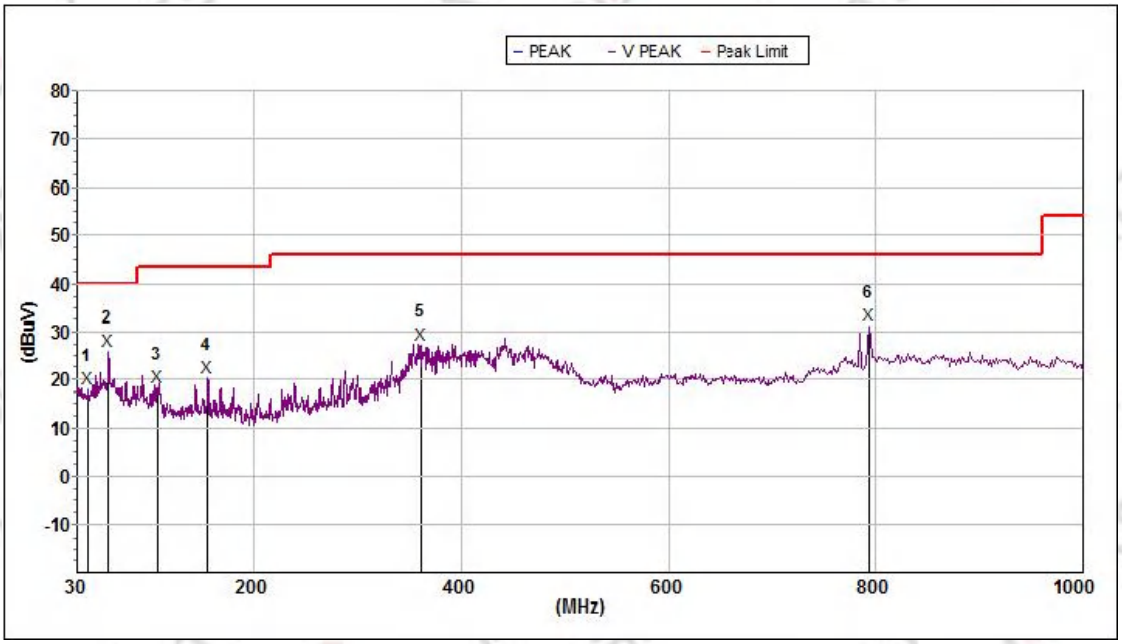
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	47.910	21.9	40.0	18.1	170	200	19.4	29.8	V
2	60.069	25.4	40.0	14.6	250	100	17.9	29.6	V
3	107.888	20.6	43.5	22.9	250	300	15.5	31.7	V
4	287.990	21.6	46.0	24.4	299	200	18.8	32.0	V
5	442.518	28.1	46.0	17.9	55	100	22.7	33.5	V
6	831.857	28.0	46.0	18.0	360	200	28.6	31.9	V

EDR-3DH5-2480-Horizontal



Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	47.910	22.0	40.0	18.0	347	200	19.4	29.8	H
2	59.545	24.9	40.0	15.1	359	100	18.0	29.6	H
3	71.706	21.0	40.0	19.0	15	300	16.1	29.3	H
4	143.830	26.8	43.5	16.7	360	200	18.7	33.3	H
5	228.090	32.2	46.0	13.8	360	100	16.8	32.7	H
6	364.899	29.9	46.0	16.1	158	200	20.6	32.4	H

EDR-3DH5-2480-Vertical



Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	40.064	18.1	40.0	21.9	105	200	19.0	29.6	V
2	60.069	26.2	40.0	13.8	238	100	17.9	29.6	V
3	106.572	18.6	43.5	24.9	238	300	15.3	31.6	V
4	155.910	20.5	43.5	23.0	321	200	18.8	33.6	V
5	361.714	27.4	46.0	18.6	206	100	20.5	32.4	V
6	793.396	31.2	46.0	14.8	347	200	28.4	31.7	V

For above 1GHz

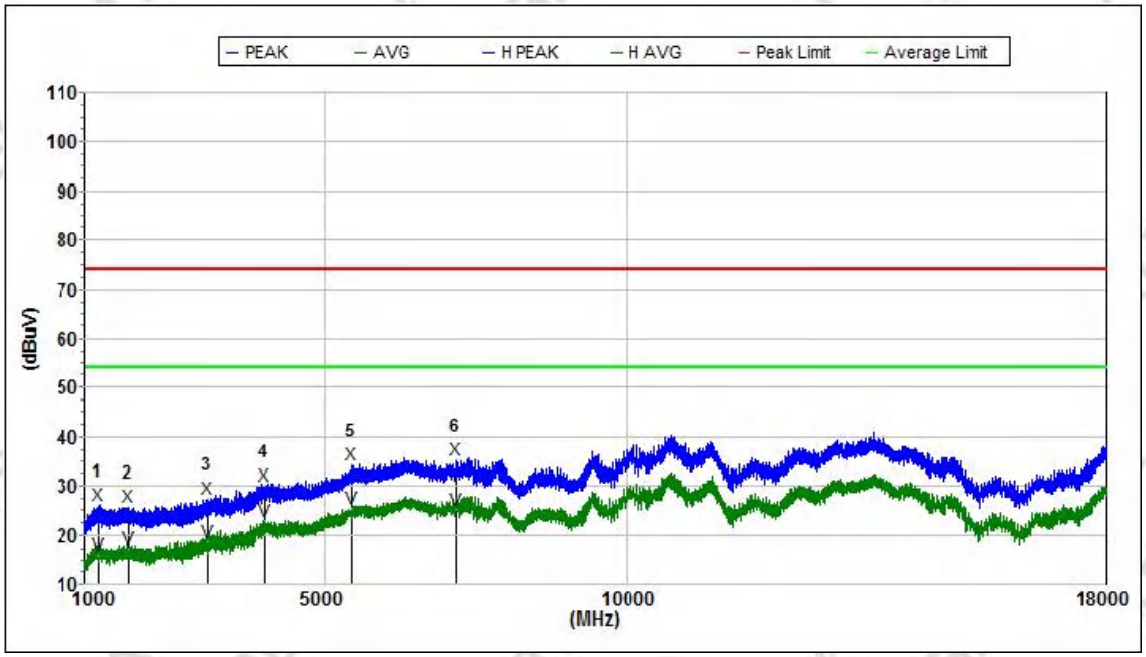
Note:

1.The all data rate modes had been test, but only worse test data was recorded in the test report.

2.In frequency ranges above 18GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.

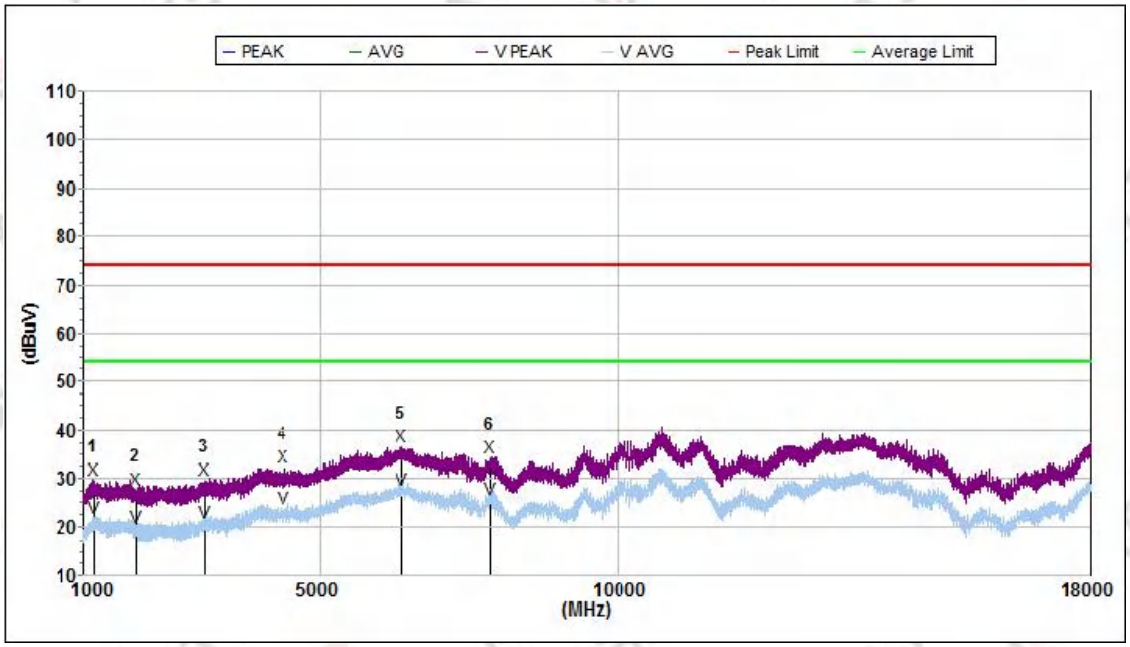
3.We used the filter to test and the main frequency was filtered out.

BR-DH5-2402-Horizontal



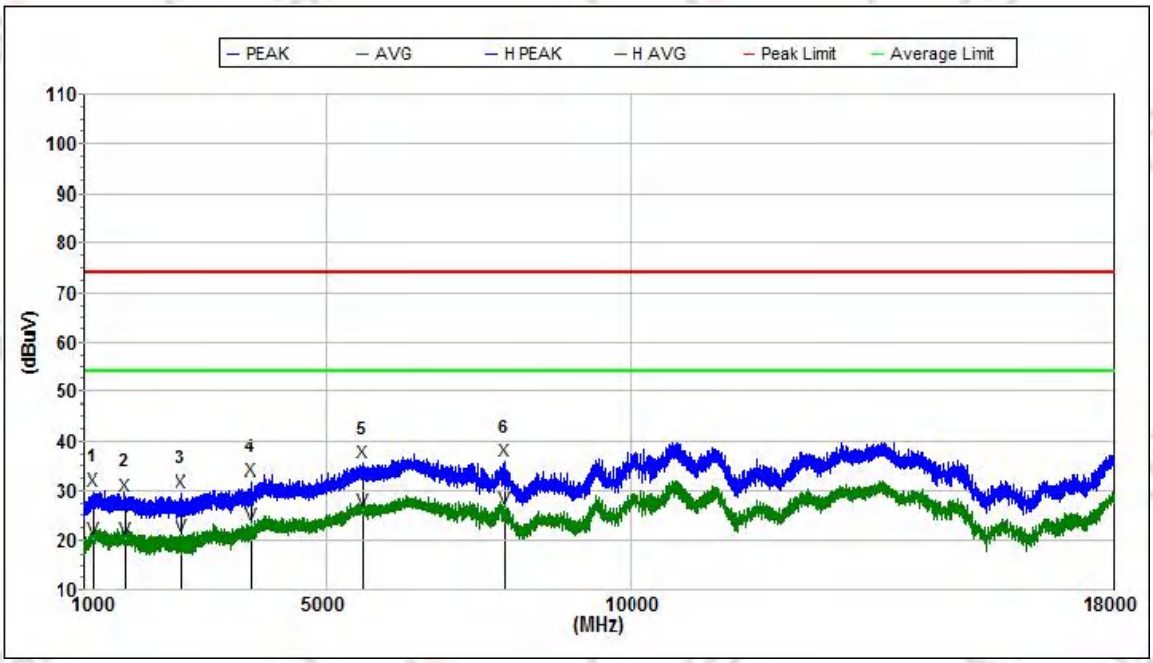
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1231.000	26.1	74.0	47.9	360	200	25.7	58.2	H
2	1721.800	25.8	74.0	48.2	257	100	25.1	58.1	H
3	3057.400	27.4	74.0	46.6	184	300	29.4	58.6	H
4	3992.500	30.2	74.0	43.8	0	200	30.9	58.0	H
5	5442.700	34.4	74.0	39.6	328	100	32.9	58.4	H
6	7166.100	35.4	74.0	38.6	20	200	36.1	59.7	H
Avg									
1	1231.000	15.9	54.0	38.1	360	200	25.7	58.2	H
2	1721.800	17.2	54.0	36.8	257	100	25.1	58.1	H
3	3057.400	18.6	54.0	35.4	184	300	29.4	58.6	H
4	3992.500	22.8	54.0	31.2	0	200	30.9	58.0	H
5	5442.700	25.3	54.0	28.7	328	100	32.9	58.4	H
6	7166.100	25.1	54.0	28.9	20	200	36.1	59.7	H

BR-DH5-2402-Vertical



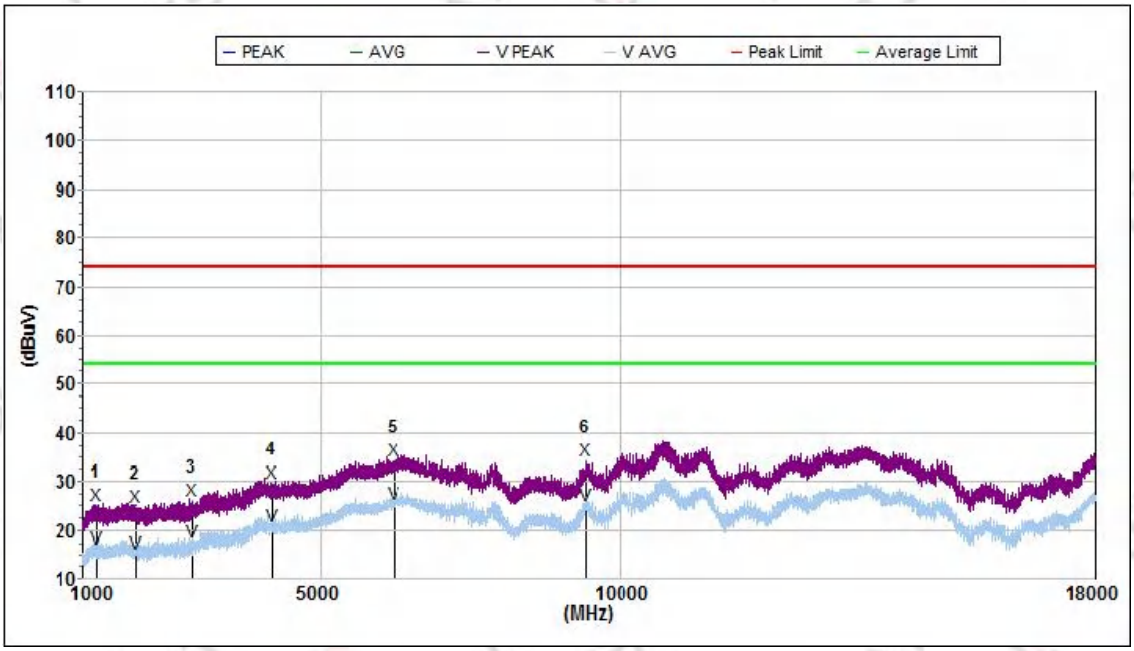
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1192.900	29.7	74.0	44.3	51	200	25.7	58.2	V
2	1882.300	27.9	74.0	46.1	190	100	25.7	58.5	V
3	3049.600	29.6	74.0	44.4	3	300	29.4	58.7	V
4	4362.100	32.4	74.0	41.6	261	200	31.4	59.0	V
5	6379.000	36.6	74.0	37.4	0	100	35.0	58.8	V
6	7851.400	34.4	74.0	39.6	308	200	36.7	59.7	V
Avg									
1	1192.900	21.8	54.0	32.2	51	200	25.7	58.2	V
2	1882.300	19.9	54.0	34.1	190	100	25.7	58.5	V
3	3049.600	20.7	54.0	33.3	3	300	29.4	58.7	V
4	4362.100	23.7	54.0	30.3	261	200	31.4	59.0	V
5	6379.000	27.6	54.0	26.4	0	100	35.0	58.8	V
6	7851.400	25.7	54.0	28.3	308	200	36.7	59.7	V

BR-DH5-2480-Horizontal



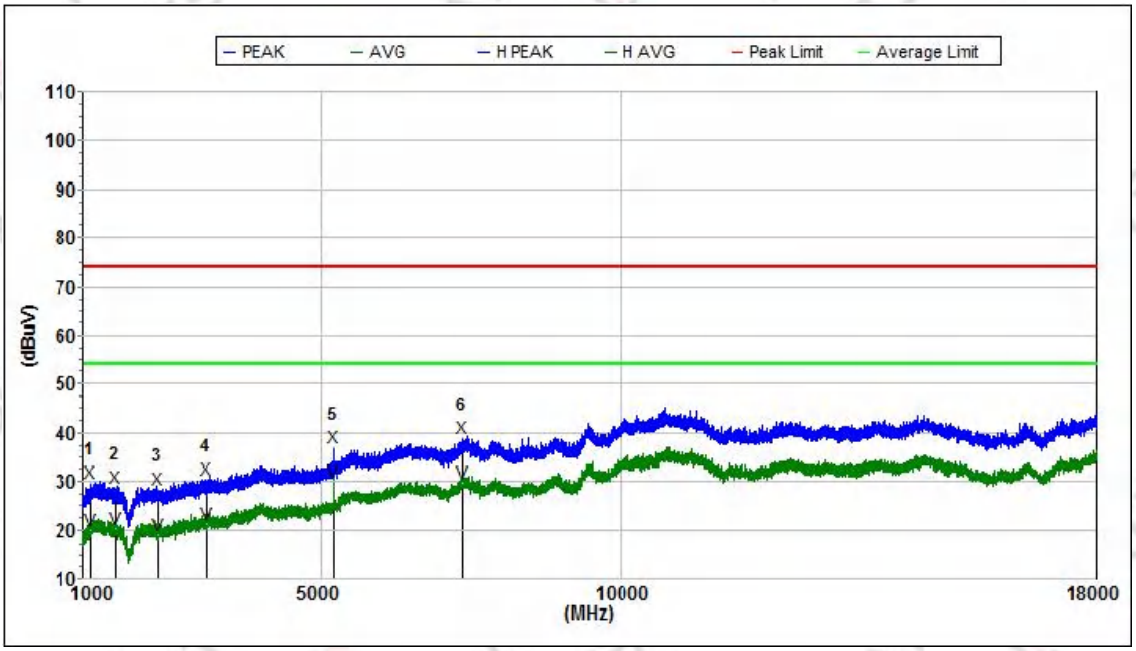
Mk.	Freq. (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1163.800	30.1	74.0	43.9	41	200	25.6	58.4	H
2	1666.300	29.0	74.0	45.0	360	100	25.2	58.2	H
3	2616.400	29.6	74.0	44.4	112	300	28.0	59.5	H
4	3760.600	32.1	74.0	41.9	360	200	30.2	58.1	H
5	5584.300	35.6	74.0	38.4	112	100	33.1	58.4	H
6	7916.850	36.0	74.0	38.0	100	200	36.8	60.0	H
Avg									
1	1163.800	20.2	54.0	33.8	41	200	25.6	58.4	H
2	1666.300	20.1	54.0	33.9	360	100	25.2	58.2	H
3	2616.400	20.8	54.0	33.2	112	300	28.0	59.5	H
4	3760.600	23.3	54.0	30.7	360	200	30.2	58.1	H
5	5584.300	26.1	54.0	27.9	112	100	33.1	58.4	H
6	7916.850	26.4	54.0	27.6	100	200	36.8	60.0	H

BR-DH5-2480-Vertical



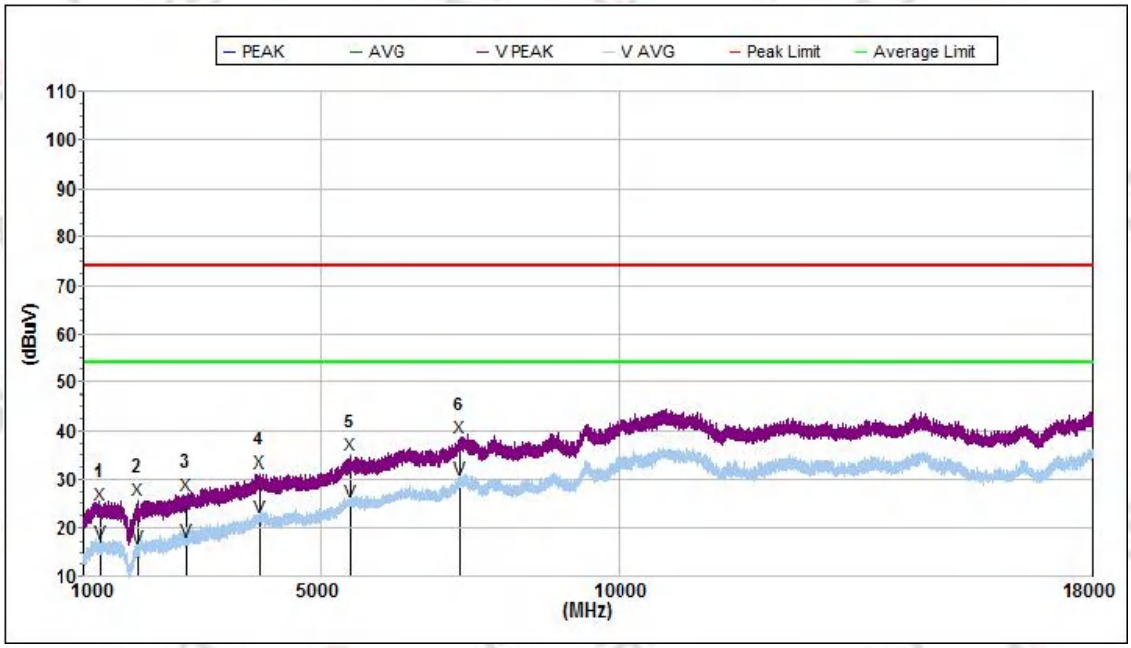
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1223.500	25.2	74.0	48.8	0	200	25.7	58.1	V
2	1875.100	24.8	74.0	49.2	257	100	25.6	58.5	V
3	2854.000	26.1	74.0	47.9	111	300	28.9	59.0	V
4	4177.600	29.7	74.0	44.3	327	200	31.1	58.5	V
5	6221.500	34.3	74.0	39.7	0	100	34.6	59.2	V
6	9437.600	34.2	74.0	39.8	29	200	38.1	60.8	V
Avg									
1	1223.500	16.1	54.0	37.9	0	200	25.7	58.1	V
2	1875.100	15.2	54.0	38.8	257	100	25.6	58.5	V
3	2854.000	17.5	54.0	36.5	111	300	28.9	59.0	V
4	4177.600	21.0	54.0	33.0	327	200	31.1	58.5	V
5	6221.500	25.4	54.0	28.6	0	100	34.6	59.2	V
6	9437.600	25.1	54.0	28.9	29	200	38.1	60.8	V

EDR-3DH5-2402-Horizontal



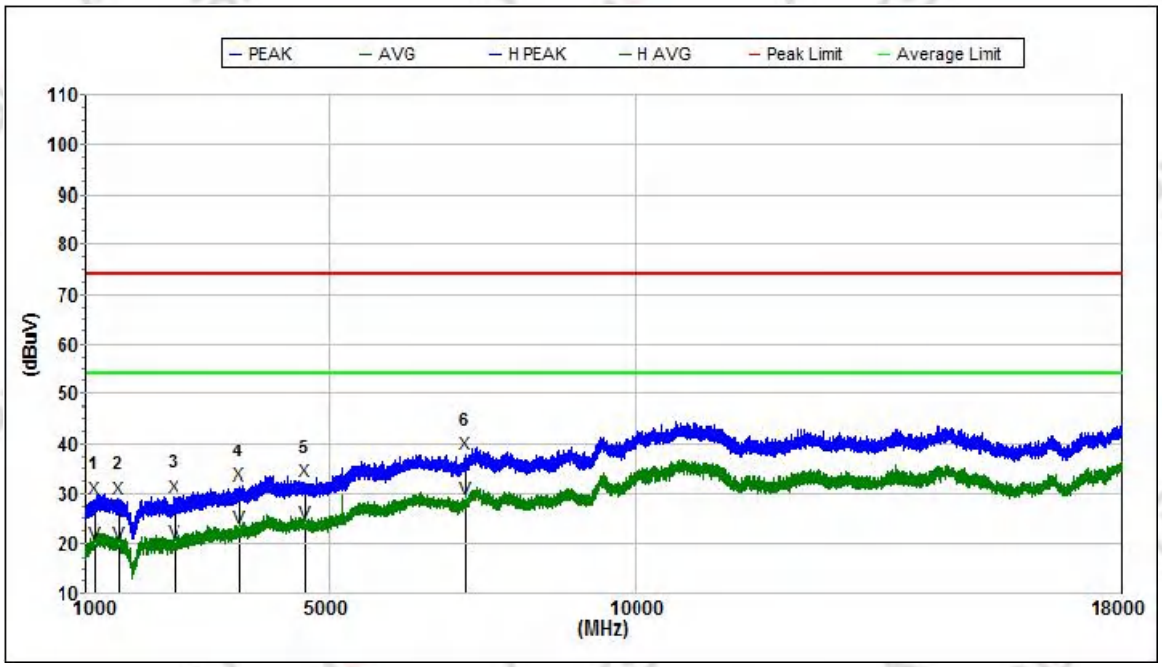
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1134.100	29.7	74.0	44.3	199	200	25.4	58.6	H
2	1544.500	28.7	74.0	45.3	0	100	25.3	58.4	H
3	2246.500	28.3	74.0	45.7	360	300	27.1	59.4	H
4	3078.100	30.4	74.0	43.6	334	200	29.4	58.6	H
5	5202.700	37.1	74.0	36.9	61	100	33.0	59.2	H
6	7350.350	38.8	74.0	35.2	164	200	36.2	58.8	H
Avg									
1	1134.100	19.8	54.0	34.2	199	200	25.4	58.6	H
2	1544.500	20.2	54.0	33.8	0	100	25.3	58.4	H
3	2246.500	18.9	54.0	35.1	360	300	27.1	59.4	H
4	3078.100	21.2	54.0	32.8	334	200	29.4	58.6	H
5	5202.700	30.0	54.0	24.0	61	100	33.0	59.2	H
6	7350.350	29.8	54.0	24.2	164	200	36.2	58.8	H

EDR-3DH5-2402-Vertical



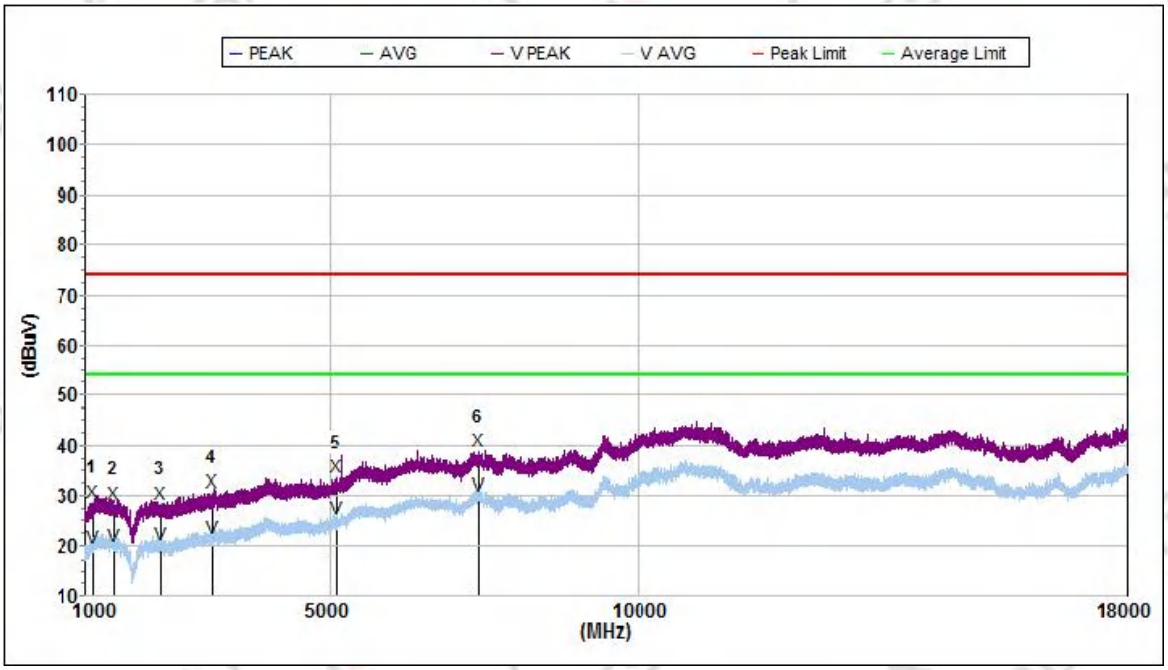
Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1295.500	24.9	74.0	49.1	360	200	25.6	58.3	V
2	1912.900	25.9	74.0	48.1	360	100	25.9	58.7	V
3	2749.900	26.9	74.0	47.1	0	300	28.5	59.2	V
4	3956.800	31.3	74.0	42.7	299	200	30.8	58.0	V
5	5493.700	35.1	74.0	38.9	354	100	32.9	58.2	V
6	7343.200	38.7	74.0	35.3	266	200	36.2	58.9	V
Avg									
1	1295.500	17.0	54.0	37.0	360	200	25.6	58.3	V
2	1912.900	15.9	54.0	38.1	360	100	25.9	58.7	V
3	2749.900	17.4	54.0	36.6	0	300	28.5	59.2	V
4	3956.800	22.3	54.0	31.7	299	200	30.8	58.0	V
5	5493.700	25.5	54.0	28.5	354	100	32.9	58.2	V
6	7343.200	30.0	54.0	24.0	266	200	36.2	58.9	V

EDR-3DH5-2480-Horizontal



Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1158.700	29.0	74.0	45.0	265	200	25.5	58.4	H
2	1555.900	29.0	74.0	45.0	360	100	25.3	58.3	H
3	2455.000	29.5	74.0	44.5	3	300	27.5	59.7	H
4	3525.700	31.8	74.0	42.2	333	200	29.6	58.2	H
5	4612.000	32.5	74.0	41.5	360	100	31.9	59.5	H
6	7231.550	37.9	74.0	36.1	0	200	36.1	59.4	H
Avg									
1	1158.700	20.0	54.0	34.0	265	200	25.5	58.4	H
2	1555.900	19.8	54.0	34.2	360	100	25.3	58.3	H
3	2455.000	20.3	54.0	33.7	3	300	27.5	59.7	H
4	3525.700	23.0	54.0	31.0	333	200	29.6	58.2	H
5	4612.000	24.2	54.0	29.8	360	100	31.9	59.5	H
6	7231.550	29.2	54.0	24.8	0	200	36.1	59.4	H

EDR-3DH5-2480-Vertical

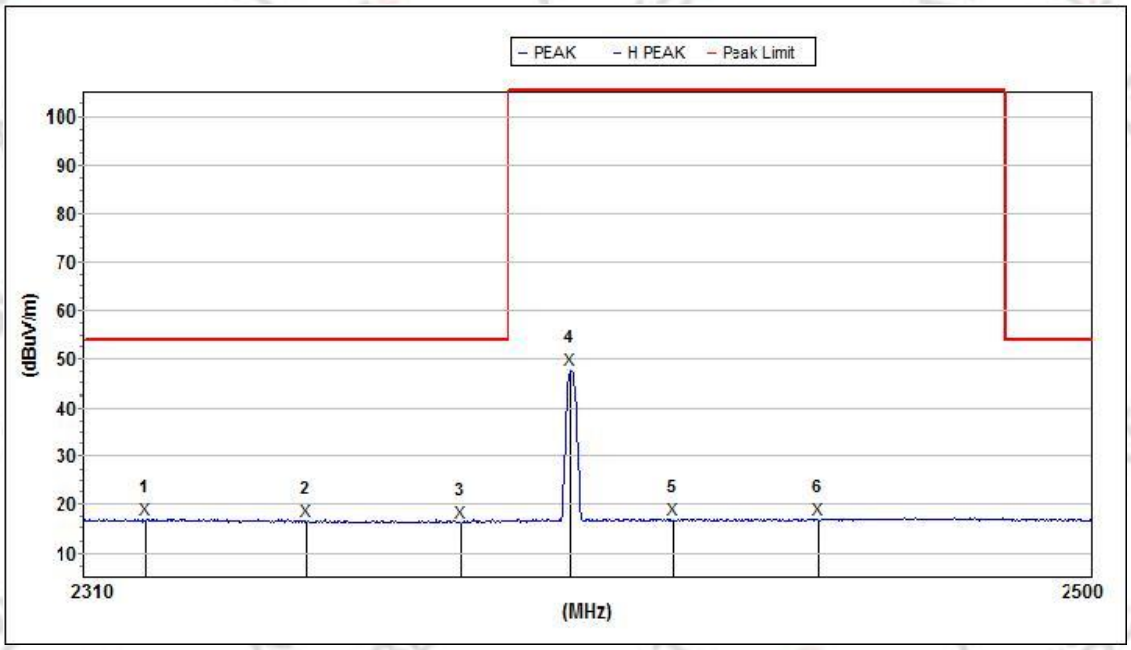


Mk.	Freq. (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Deg. (deg.)	Hi. (cm)	Ant.F/G. (dB)	Amp.G. (dB)	Pol.
Peak:									
1	1140.100	28.7	74.0	45.3	333	200	25.5	58.5	V
2	1475.500	28.3	74.0	45.7	4	100	25.4	58.4	V
3	2224.000	28.3	74.0	45.7	0	300	27.0	59.4	V
4	3066.700	30.7	74.0	43.3	78	200	29.4	58.6	V
5	5105.800	33.6	74.0	40.4	124	100	33.1	59.5	V
6	7403.700	38.8	74.0	35.2	60	200	36.2	58.6	V
Avg									
1	1140.100	19.6	54.0	34.4	333	200	25.5	58.5	V
2	1475.500	20.0	54.0	34.0	4	100	25.4	58.4	V
3	2224.000	20.1	54.0	33.9	0	300	27.0	59.4	V
4	3066.700	21.5	54.0	32.5	78	200	29.4	58.6	V
5	5105.800	25.3	54.0	28.7	124	100	33.1	59.5	V
6	7403.700	30.2	54.0	23.8	60	200	36.2	58.6	V

AppendixB2.Test Result of Restricted Band

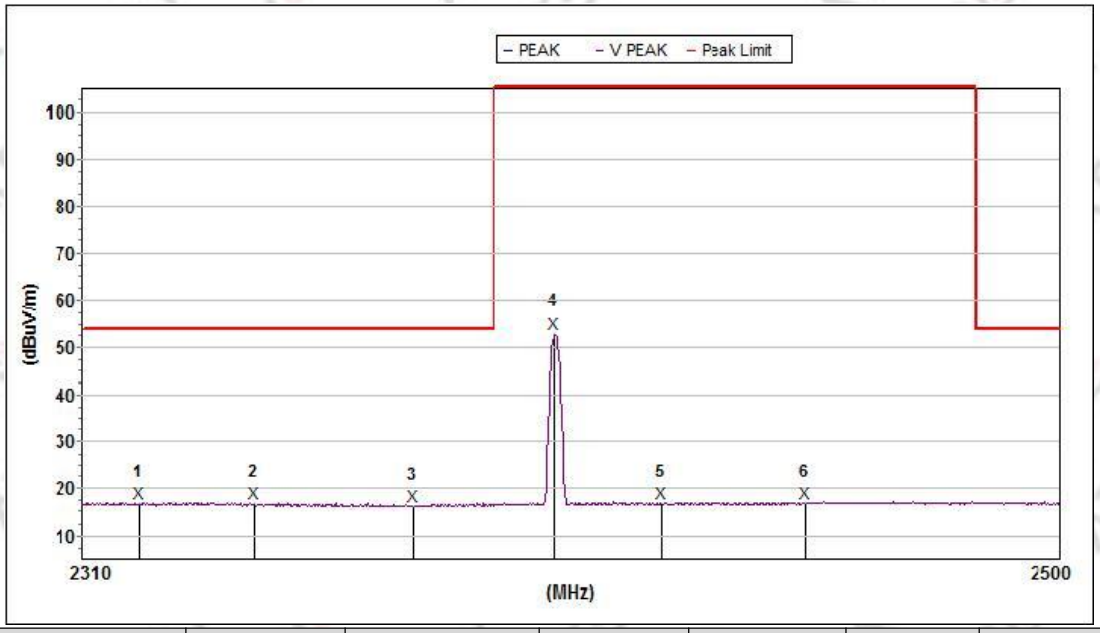
BR_DH5_2402

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2321.715	16.7	54.0	37.3	200	27.2	59.5	H
2	2352.008	16.4	54.0	37.6	100	27.3	59.6	H
3	2381.189	16.3	54.0	37.7	300	27.4	59.6	H
4	2401.794	47.6	105.2	57.6	200	27.4	59.6	H
5	2421.236	16.8	105.2	88.4	100	27.5	59.6	H
6	2448.372	16.9	105.2	88.3	200	27.5	59.6	H

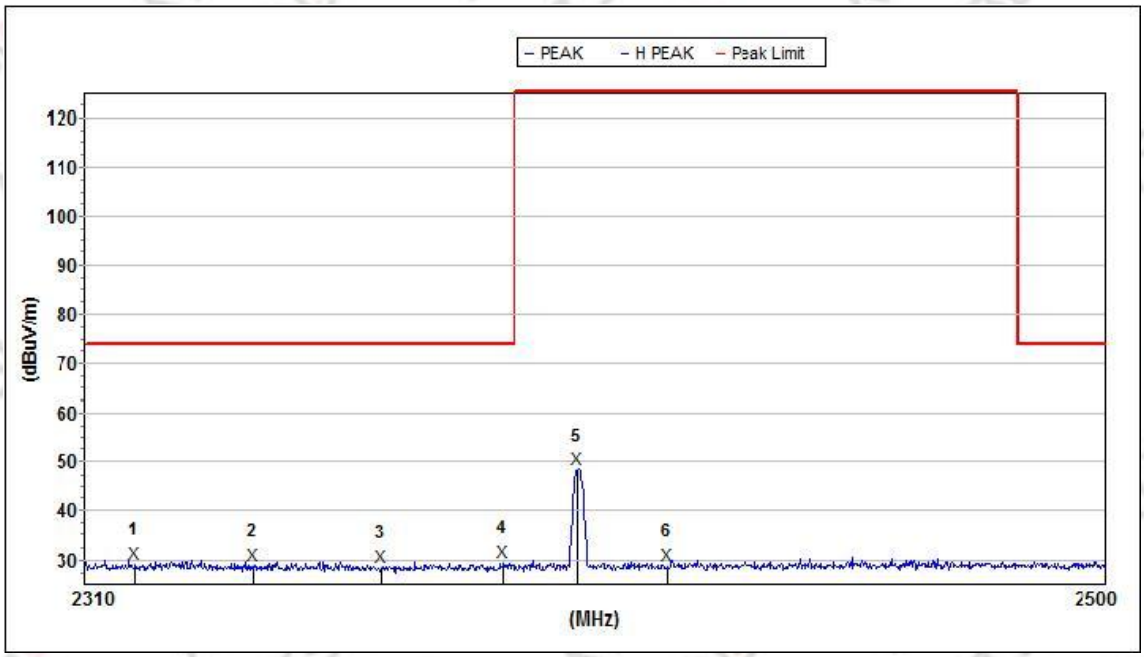
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2321.165	16.8	54.0	37.2	200	27.2	59.5	V
2	2343.286	16.7	54.0	37.3	100	27.3	59.5	V
3	2374.423	16.3	54.0	37.7	300	27.3	59.6	V
4	2401.794	52.9	105.2	52.3	200	27.4	59.6	V
5	2422.576	16.8	105.2	88.4	100	27.5	59.6	V
6	2450.308	16.9	105.2	88.3	200	27.5	59.7	V

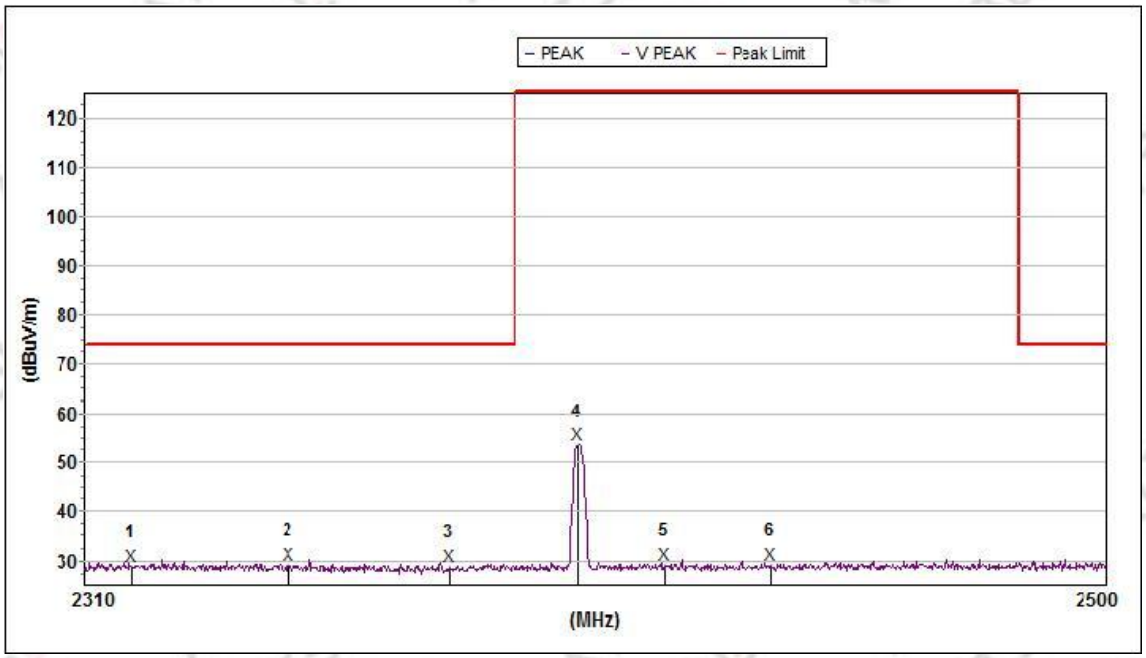
BR_DH5_2402

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2319.331	29.4	74.0	44.6	200	27.2	59.5	H
2	2341.250	29.0	74.0	45.0	100	27.3	59.5	H
3	2365.058	28.7	74.0	45.3	300	27.3	59.6	H
4	2387.786	29.7	74.0	44.3	200	27.4	59.6	H
5	2401.794	48.4	125.2	76.8	100	27.4	59.6	H
6	2418.558	29.1	125.2	96.1	200	27.4	59.6	H

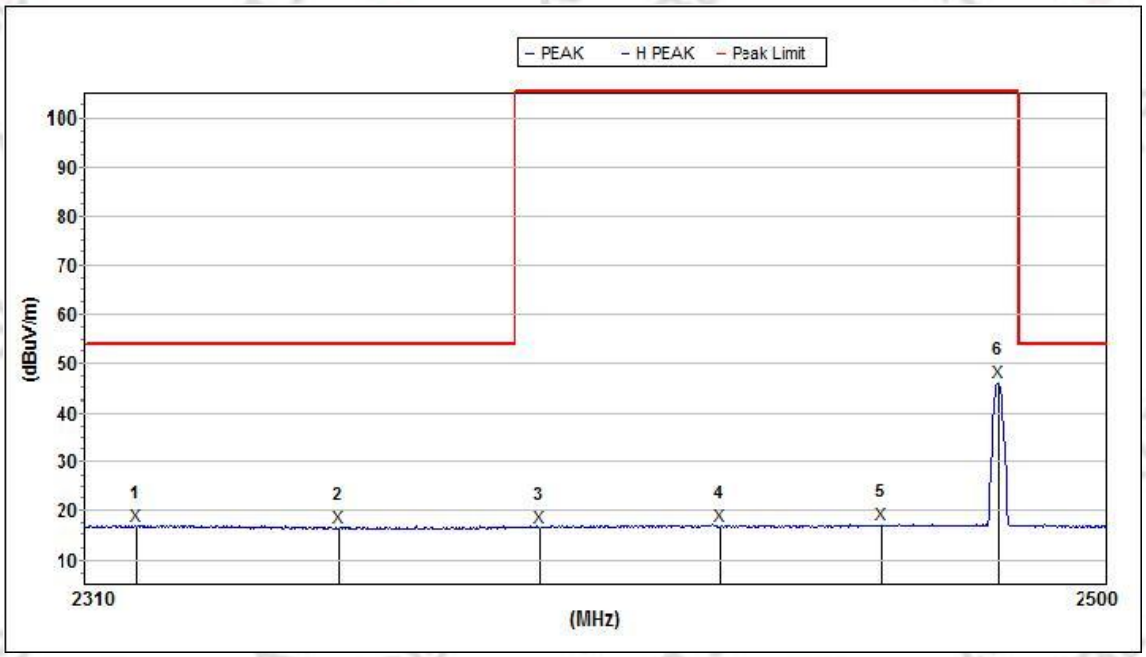
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2318.598	29.0	74.0	45.0	200	27.2	59.5	V
2	2347.921	29.3	74.0	44.7	100	27.3	59.5	V
3	2377.804	28.9	74.0	45.1	300	27.4	59.6	V
4	2401.794	53.5	125.2	71.7	200	27.4	59.6	V
5	2417.794	29.2	125.2	96.0	100	27.4	59.6	V
6	2437.558	29.2	125.2	96.0	200	27.5	59.6	V

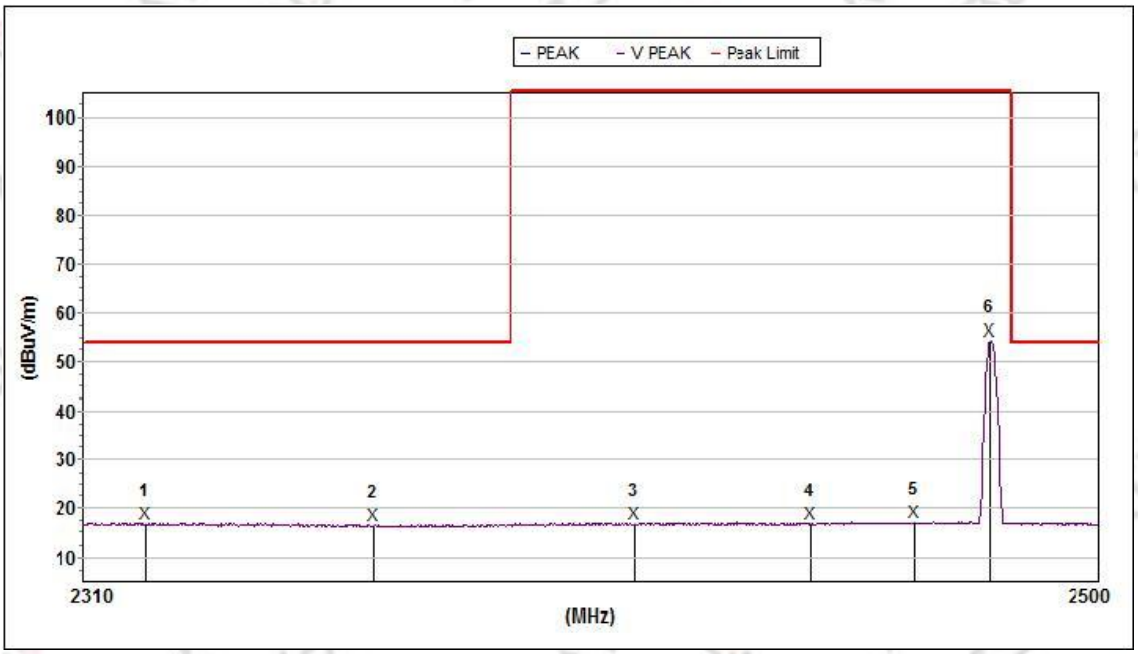
BR_DH5_2480

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2319.698	17.0	54.0	37.0	200	27.2	59.5	H
2	2357.405	16.5	54.0	37.5	100	27.3	59.6	H
3	2394.780	16.5	105.2	88.7	300	27.4	59.6	H
4	2428.136	16.9	105.2	88.3	200	27.5	59.6	H
5	2458.262	17.2	105.2	88.0	100	27.5	59.7	H
6	2479.925	46.0	105.2	59.2	200	27.6	59.7	H

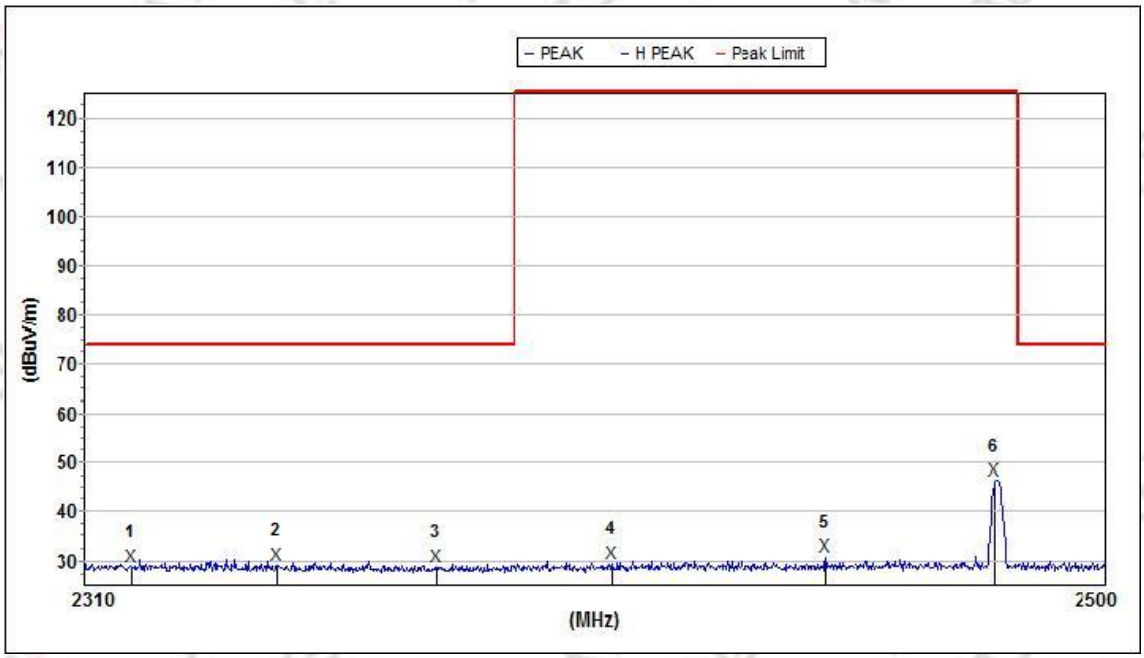
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2321.532	17.0	54.0	37.0	200	27.2	59.5	V
2	2364.310	16.5	54.0	37.5	100	27.3	59.6	V
3	2413.402	16.9	105.2	88.3	300	27.4	59.6	V
4	2446.051	16.8	105.2	88.4	200	27.5	59.6	V
5	2465.462	17.1	105.2	88.1	100	27.6	59.7	V
6	2479.729	54.4	105.2	50.8	200	27.6	59.7	V

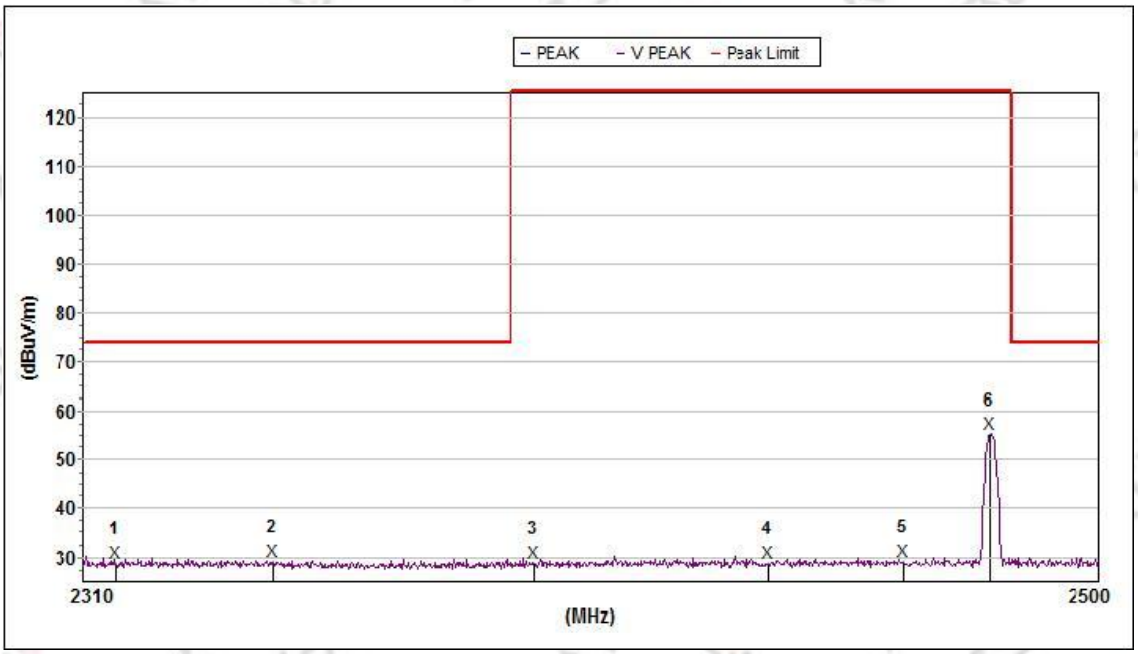
BR_DH5_2480

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2318.598	29.1	74.0	44.9	200	27.2	59.5	H
2	2345.695	29.3	74.0	44.7	100	27.3	59.5	H
3	2375.550	28.8	74.0	45.2	300	27.4	59.6	H
4	2408.067	29.7	125.2	95.5	200	27.4	59.6	H
5	2447.792	30.9	125.2	94.3	100	27.5	59.6	H
6	2479.533	46.4	125.2	78.8	200	27.6	59.7	H

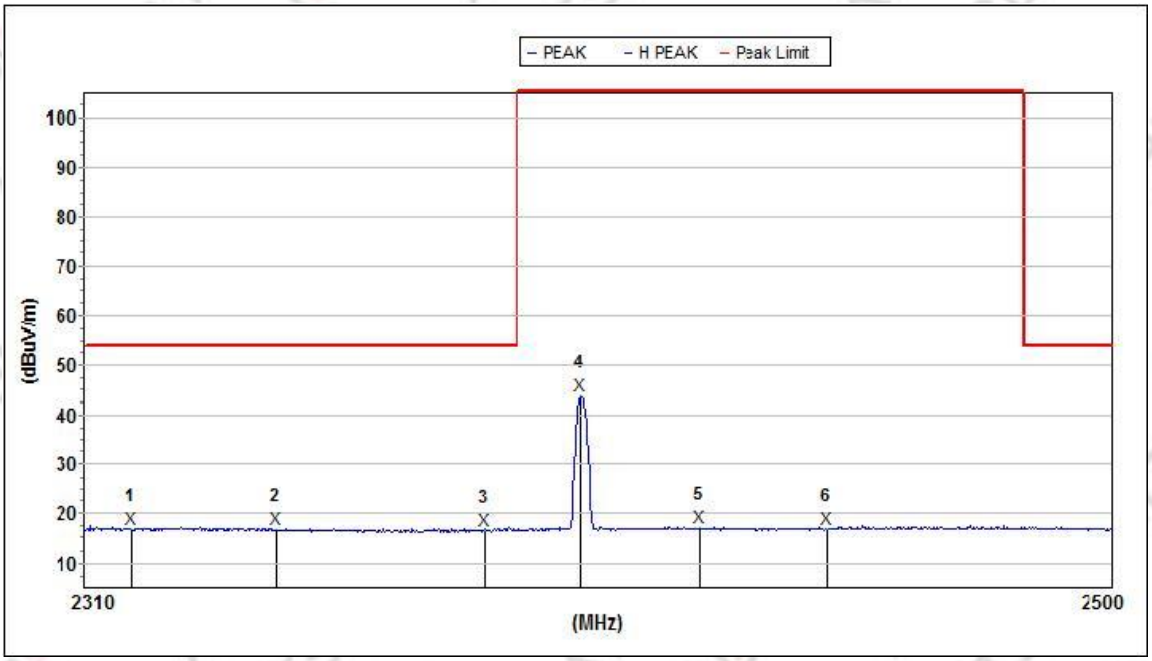
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2316.033	29.1	74.0	44.9	200	27.2	59.5	V
2	2345.325	29.2	74.0	44.8	100	27.3	59.5	V
3	2394.401	29.0	125.2	96.2	300	27.4	59.6	V
4	2438.137	28.9	125.2	96.3	200	27.5	59.6	V
5	2463.319	29.4	125.2	95.8	100	27.6	59.7	V
6	2479.729	55.2	125.2	70.0	200	27.6	59.7	V

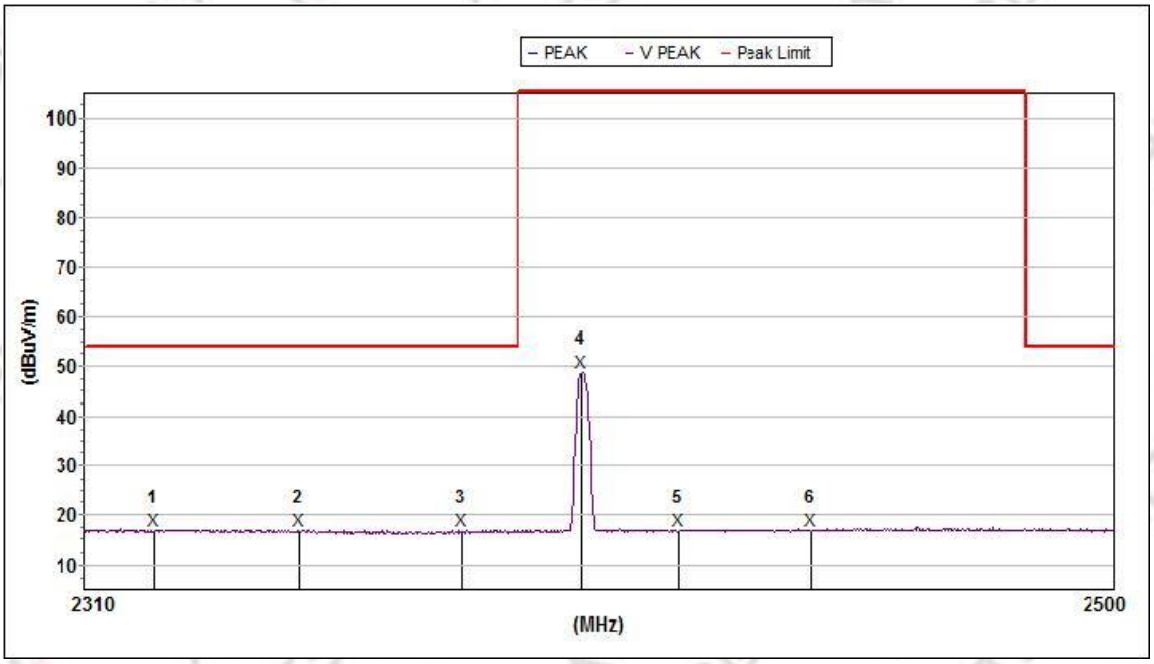
EDR_3DH5_2402

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2318.598	17.0	54.0	37.0	200	27.2	59.5	H
2	2345.510	16.7	54.0	37.3	100	27.3	59.5	H
3	2384.014	16.6	54.0	37.4	300	27.4	59.6	H
4	2401.794	43.7	105.2	61.5	200	27.4	59.6	H
5	2423.725	17.1	105.2	88.1	100	27.5	59.6	H
6	2447.211	17.0	105.2	88.2	200	27.5	59.6	H

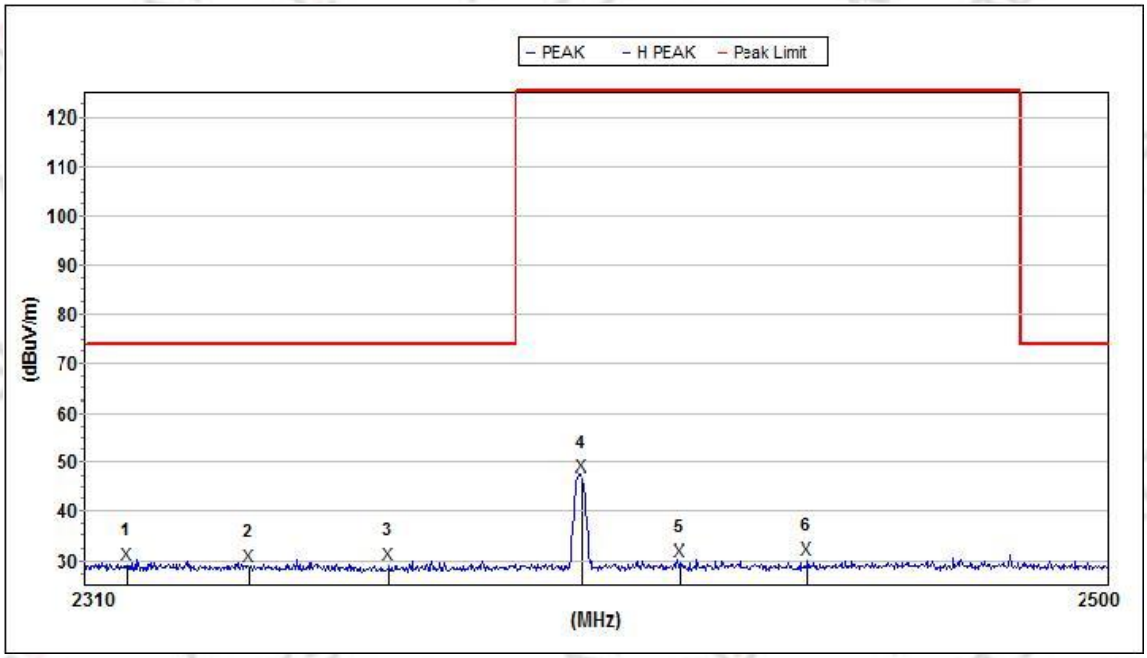
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2322.633	16.8	54.0	37.2	200	27.2	59.5	V
2	2349.778	16.8	54.0	37.2	100	27.3	59.5	V
3	2379.684	16.7	54.0	37.3	300	27.4	59.6	V
4	2401.794	48.9	105.2	56.3	200	27.4	59.6	V
5	2419.706	17.0	105.2	88.2	100	27.5	59.6	V
6	2443.925	17.0	105.2	88.2	200	27.5	59.6	V

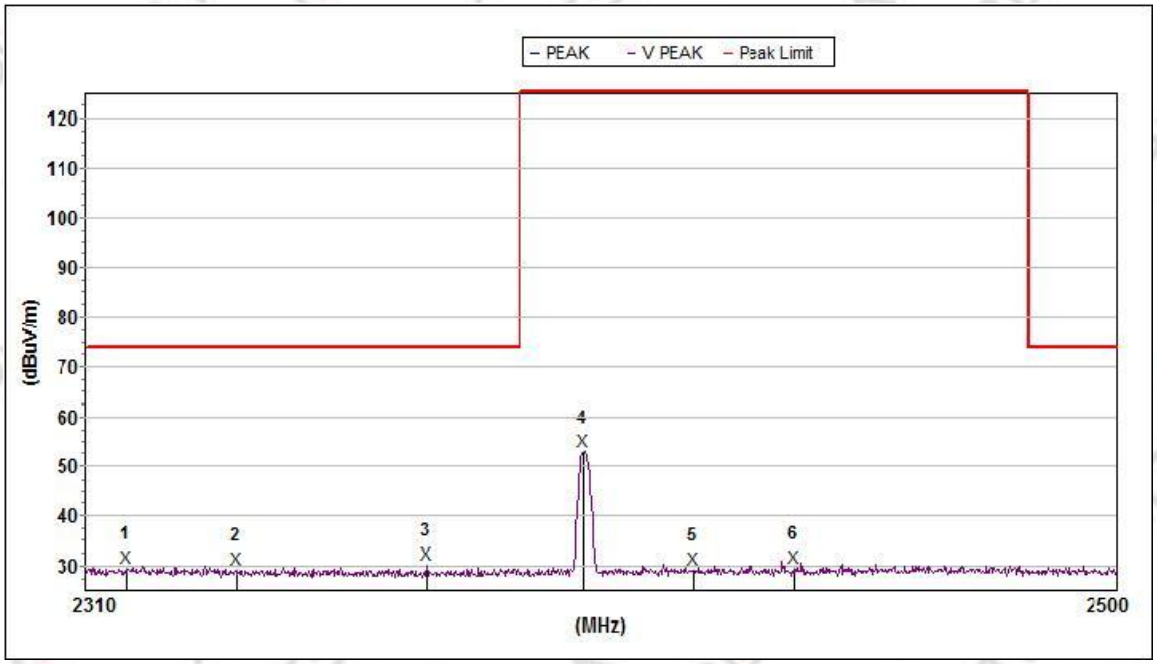
EDR_3DH5_2402

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2317.865	29.3	74.0	44.7	200	27.2	59.5	H
2	2340.510	29.1	74.0	44.9	100	27.3	59.5	H
3	2366.367	29.2	74.0	44.8	300	27.3	59.6	H
4	2402.173	47.1	125.2	78.1	200	27.4	59.6	H
5	2420.662	30.0	125.2	95.2	100	27.5	59.6	H
6	2444.118	30.4	125.2	94.8	200	27.5	59.6	H

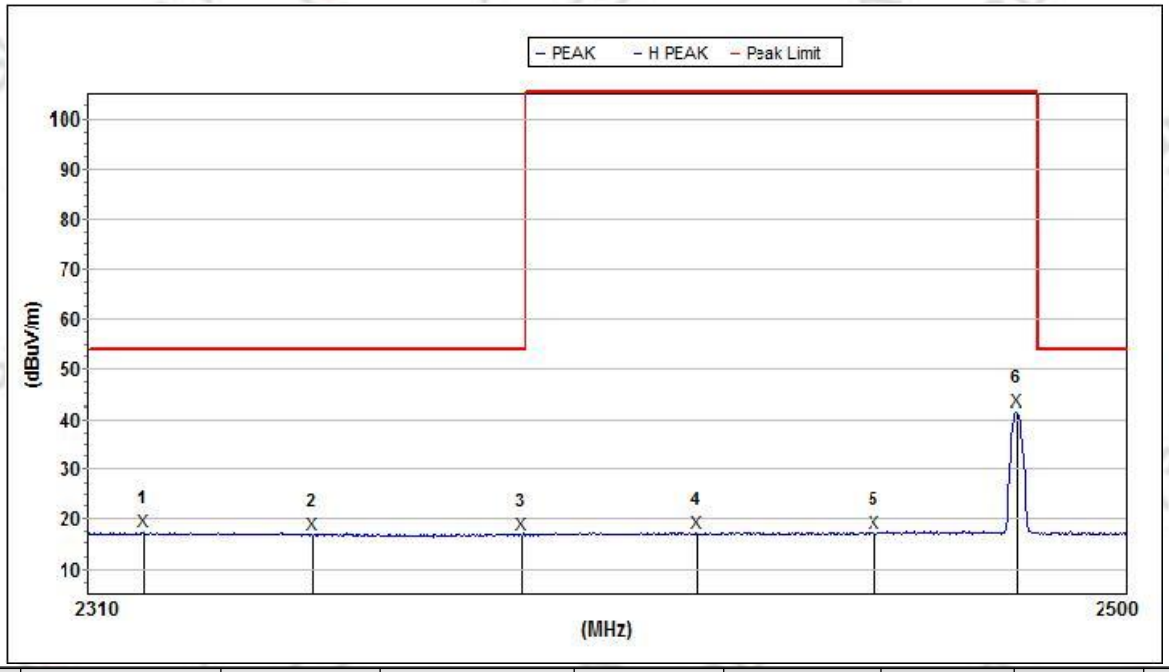
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2317.498	29.6	74.0	44.4	200	27.2	59.5	V
2	2337.736	29.3	74.0	44.7	100	27.3	59.5	V
3	2372.922	30.4	74.0	43.6	300	27.3	59.6	V
4	2401.604	52.9	125.2	72.3	200	27.4	59.6	V
5	2422.002	29.3	125.2	95.9	100	27.5	59.6	V
6	2440.450	29.7	125.2	95.5	200	27.5	59.6	V

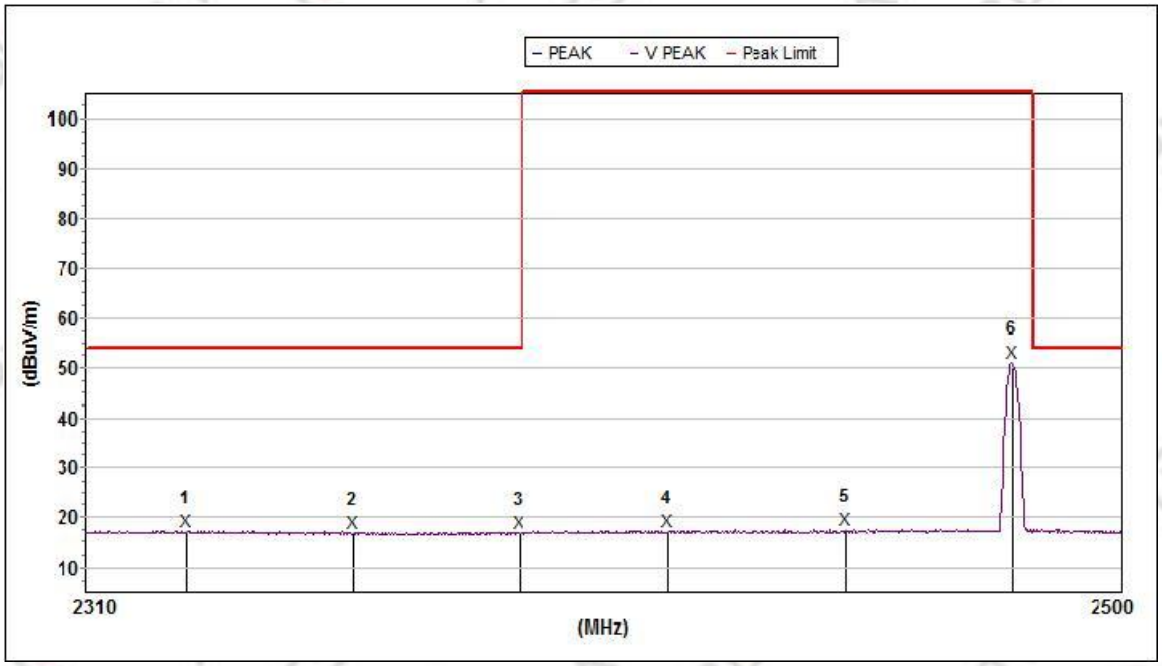
EDR_3DH5_2480

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2320.248	17.4	54.0	36.6	200	27.2	59.5	H
2	2351.079	16.9	54.0	37.1	100	27.3	59.6	H
3	2389.108	17.0	54.0	37.0	300	27.4	59.6	H
4	2421.428	17.1	105.2	88.1	200	27.5	59.6	H
5	2453.797	17.3	105.2	87.9	100	27.5	59.7	H
6	2479.925	41.6	105.2	63.6	200	27.6	59.7	H

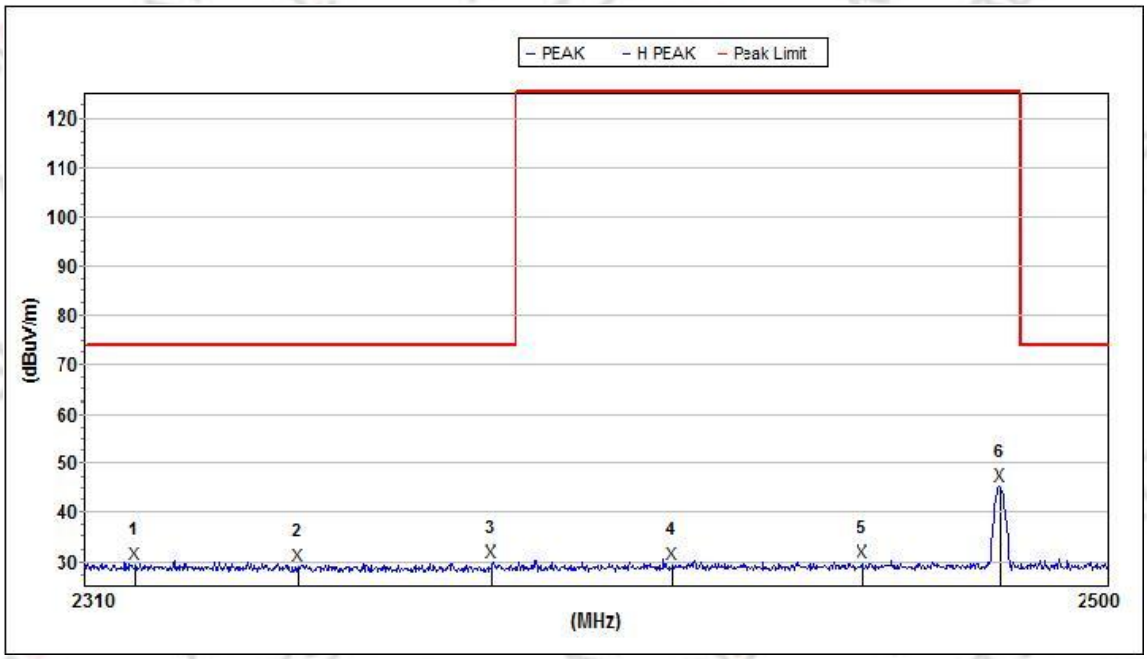
Vertical



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
AVG								
1	2328.515	17.1	54.0	36.9	200	27.2	59.5	V
2	2359.083	16.8	54.0	37.2	100	27.3	59.6	V
3	2389.485	17.0	54.0	37.0	300	27.4	59.6	V
4	2416.838	17.2	105.2	88.0	200	27.4	59.6	V
5	2449.146	17.5	105.2	87.7	100	27.5	59.6	V
6	2479.925	51.0	105.2	54.2	200	27.6	59.7	V

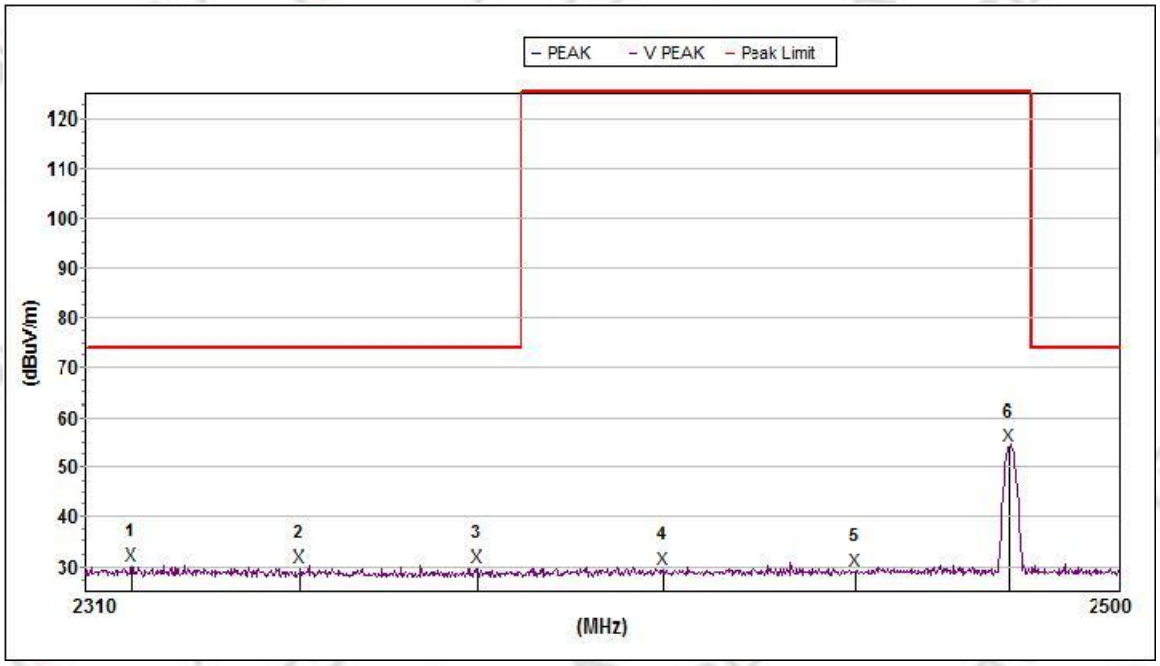
EDR_3DH5_2480

Horizontal



Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2319.331	29.7	74.0	44.3	200	27.2	59.5	H
2	2349.778	29.3	74.0	44.7	100	27.3	59.5	H
3	2385.522	29.8	74.0	44.2	300	27.4	59.6	H
4	2419.132	29.6	125.2	95.6	200	27.5	59.6	H
5	2454.379	29.8	125.2	95.4	100	27.5	59.7	H
6	2479.925	45.4	125.2	79.8	200	27.6	59.7	H

Vertical



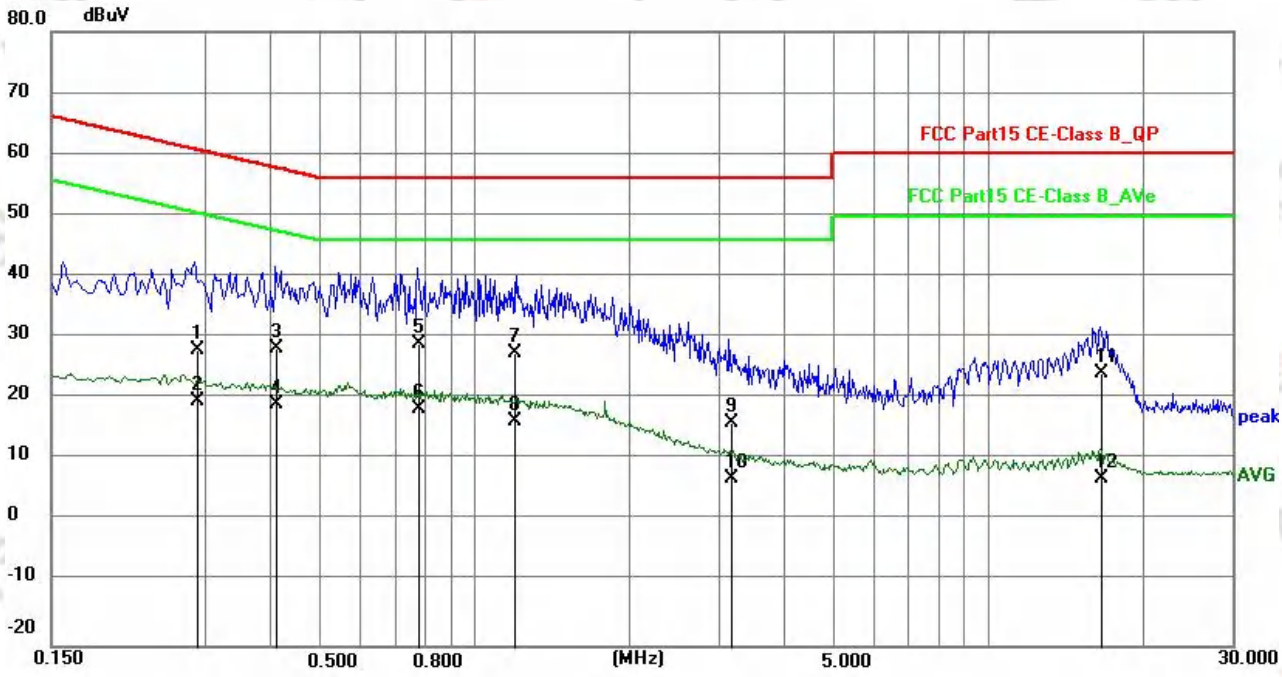
Mk.	Frequency	Level	Limit	Margin	Hi.	Ant.F/G.	Amp.G.	Pol.
	(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(dB/m)	(dB)	
Peak								
1	2318.414	30.3	74.0	43.7	200	27.2	59.5	V
2	2349.592	29.8	74.0	44.2	100	27.3	59.5	V
3	2381.942	29.9	74.0	44.1	300	27.4	59.6	V
4	2416.265	29.6	125.2	95.6	200	27.4	59.6	V
5	2451.277	29.4	125.2	95.8	100	27.5	59.7	V
6	2479.729	54.4	125.2	70.8	200	27.6	59.7	V

AppendixB3.AC Power-Line Conducted Emission Test Data

Remark:

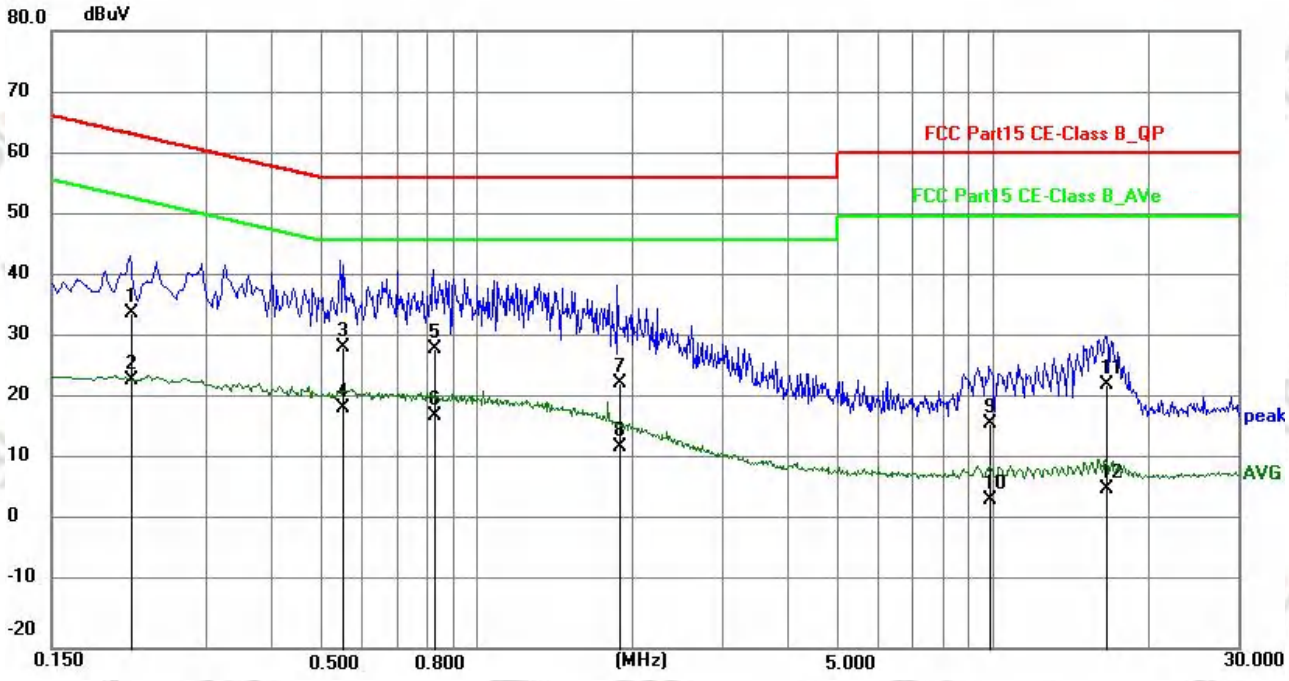
1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit.
3. Factor=LISN factor+Cable loss+Limiter (10dB)

Temperature:	19.5℃	Relative Humidity:	38%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 7		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2880	18.19	10.08	28.27	60.58	-32.31	QP
2	0.2880	9.72	10.08	19.80	50.58	-30.78	AVG
3	0.4120	18.53	10.06	28.59	57.61	-29.02	QP
4	0.4120	9.25	10.06	19.31	47.61	-28.30	AVG
5	0.7780	19.43	9.94	29.37	56.00	-26.63	QP
6	0.7780	8.74	9.94	18.68	46.00	-27.32	AVG
7	1.2030	17.84	9.95	27.79	56.00	-28.21	QP
8	1.2030	6.80	9.95	16.75	46.00	-29.25	AVG
9	3.1570	6.31	10.00	16.31	56.00	-39.69	QP
10	3.1570	-2.77	10.00	7.23	46.00	-38.77	AVG
11	16.6380	13.76	10.73	24.49	60.00	-35.51	QP
12	16.6380	-3.47	10.73	7.26	50.00	-42.74	AVG

Temperature:	19.5℃	Relative Humidity:	38%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 7		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2130	23.93	10.36	34.29	63.09	-28.80	QP
2	0.2130	13.08	10.36	23.44	53.09	-29.65	AVG
3	0.5500	18.51	10.18	28.69	56.00	-27.31	QP
4	0.5500	8.72	10.18	18.90	46.00	-27.10	AVG
5	0.8290	18.40	10.14	28.54	56.00	-27.46	QP
6	0.8290	7.54	10.14	17.68	46.00	-28.32	AVG
7	1.8890	12.85	10.20	23.05	56.00	-32.95	QP
8	1.8890	2.54	10.20	12.74	46.00	-33.26	AVG
9	9.9090	6.15	10.13	16.28	60.00	-43.72	QP
10	9.9090	-6.19	10.13	3.94	50.00	-46.06	AVG
11	16.6390	12.28	10.35	22.63	60.00	-37.37	QP
12	16.6390	-4.56	10.35	5.79	50.00	-44.21	AVG

※※※※※END OF APPENDIX B※※※※※