

Test report no.: <i>Prüfbericht-Nr.:</i>	CN23TV1S 001	Order No.: <i>Auftragsnr.:</i>	170357570	Page 1 of 25 <i>Seite 1 von 25</i>
Client reference no.: <i>Kunden-Referenz-Nr.:</i>	N/A	Order date: <i>Auftragsdatum:</i>	2023-11-23	
Client: <i>Auftraggeber:</i>	INNOVATIVE TECHNOLOGY ELECTRONICS LLC 3350 Walnut Street, Denver, CO 80205, USA			
Test item: <i>Prüfgegenstand:</i>	Rock Speaker Connect			
Identification / Type no.: <i>Bezeichnung / Typ-Nr.:</i>	VOS-600, VOS-600-STN, VOS-600-SND, VOS-600-GNT			
Order content: <i>Auftrags-Inhalt:</i>	Test Report			
Test specification <i>Prüfgrundlage:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 2: Section 2.1091			
Date of sample receipt: <i>Wareneingangsdatum:</i>	2023-11-23	Please refer to Photo Document		
Test sample no.: <i>Prüfmuster-Nr.:</i>	A003613269-001 A003613269-007			
Testing period: <i>Prüfzeitraum:</i>	2023-12-09 - 2023-12-14			
Place of testing: <i>Ort der Prüfung:</i>	Refer to section 2.1			
Testing laboratory: <i>Prüflaboratorium:</i>	TÜV Rheinland (Guangdong) Ltd.			
Test result*: <i>Prüfergebnis*:</i>	Pass			
tested by: <i>geprüft von:</i>	Amy Wang	authorized by: <i>genehmigt von:</i>	Storm Shu	
Date: <i>Datum:</i>	2024-01-25	Issue date: <i>Ausstellungsdatum:</i>	2024-01-25	
Position / Stellung:	Expert/Sachverständige(r)	Position / Stellung:	Expert/Sachverständige(r)	
Other: <i>Sonstiges:</i>	FCC ID: 2AFHW-VOS600			
Condition of the test item at delivery: <i>Zustand des Prüfgegenstandes bei Anlieferung:</i>	Test item complete and undamaged Prüfmuster vollständig und unbeschädigt			
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark. <i>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</i>				

v05

Test report no.: CN23TV1S 001
Prüfbericht-Nr.:

Page 2 of 25
Seite 2 von 25

Remarks
Anmerkungen

1	<p>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</p> <p><i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfbedingungen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i></p>
2	<p>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.</p> <p><i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i></p>
3	<p>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</p> <p><i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i></p>
4	<p>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</p> <p><i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i></p>

Test Summary

5.1.1 ANTENNA REQUIREMENT*RESULT: Pass***5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER***RESULT: Pass***5.1.3 99% BANDWIDTH***RESULT: Pass***5.1.4 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH***RESULT: Pass***5.1.5 RADIATED SPURIOUS EMISSION***RESULT: Pass***5.1.6 20dB BANDWIDTH***RESULT: Pass***5.1.7 CARRIER FREQUENCY SEPARATION***RESULT: Pass***5.1.8 NUMBER OF HOPPING FREQUENCY***RESULT: Pass***5.1.9 TIME OF OCCUPANCY***RESULT: Pass***5.1.10 CONDUCTED EMISSION ON AC MAINS***RESULT: Pass***6.1.1 ELECTROMAGNETIC FIELDS***RESULT: Pass*

Contents

1	GENERAL REMARKS	6
1.1	COMPLEMENTARY MATERIALS	6
2	TEST SITES	6
2.1	TEST FACILITIES	6
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	TRACEABILITY	7
2.4	CALIBRATION	7
2.5	MEASUREMENT UNCERTAINTY.....	7
2.6	LOCATION OF ORIGINAL DATA.....	7
2.7	STATUS OF FACILITY USED FOR TESTING.....	7
3	GENERAL PRODUCT INFORMATION	8
3.1	PRODUCT FUNCTION AND INTENDED USE.....	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	INDEPENDENT OPERATION MODES	10
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	10
3.5	SUBMITTED DOCUMENTS.....	10
4	TEST SET-UP AND OPERATION MODES	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION	11
4.2	TEST OPERATION AND TEST SOFTWARE.....	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	11
4.5	TEST SETUP DIAGRAM.....	12
5	TEST RESULTS	14
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	14
5.1.1	<i>Antenna Requirement</i>	<i>14</i>
5.1.2	<i>Maximum Peak Conducted Output Power.....</i>	<i>15</i>
5.1.3	<i>99% Bandwidth</i>	<i>16</i>
5.1.4	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth.....</i>	<i>17</i>
5.1.5	<i>Radiated Spurious Emission</i>	<i>18</i>
5.1.6	<i>20dB Bandwidth</i>	<i>19</i>
5.1.7	<i>Carrier Frequency Separation.....</i>	<i>20</i>
5.1.8	<i>Number of Hopping Frequency.....</i>	<i>21</i>
5.1.9	<i>Time of Occupancy</i>	<i>22</i>
5.1.10	<i>Conducted Emission on AC Mains</i>	<i>23</i>
6	SAFETY HUMAN EXPOSURE	24
6.1	RADIO FREQUENCY EXPOSURE COMPLIANCE	24
6.1.1	<i>Electromagnetic Fields.....</i>	<i>24</i>
7	PHOTOGRAPHS OF THE TEST SET-UP	25

8 LIST OF TABLES.....**25**

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results

Appendix B: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China

FCC Accreditation Designation No.: CN1333

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Signal Analyzer	Keysight	N9020A	MY50530994	2024.10.12
Radiated Spurious Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESU8	100372	2024.04.13
Active loop Antenna	ETS	6502	00049544	2024.06.02
Bilog Antenna	SCHWARZBECK	VULB 9168	01447	2024.12.12
Pre-amplifier (9kHz-1GHz)	EMtrace	RP01A	02017	2024.04.07
Temperature & Humidity	KTJ	TA218B	N.A	2024.04.24
EMC-I_V1.4.0.3_SKET				
Conducted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESU8	100372	2024.04.13

LISN	COM-POWER	LI-115	02032	2024.04.07
LISN	EMTRACE	PWL-50-3200	00317	2024.09.07
Transient Limiter	CYBERTEK	EM5010A	E2250100049	2024.04.07
Temperature & Humidity	KTJ	TA218B	N.A	2024.04.24
EMC-I_V1.4.0.3_SKET				

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Item		Extended Uncertainty
Conducted Emission		± 3.70 dB
Radiated Emission (30-1000MHz)	Field strength (dB μ V/m)	± 4.40 dB
Radiated Emission (above 1000MHz)	Field strength (dB μ V/m)	± 5.49 dB
Radio Spectrum		± 2.80 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Guangdong) Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The Shenzhen LGT Test Service Co., Ltd. Test facility located at Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is "Rock Speaker Connect" for outdoor use. The unit supports Bluetooth wireless technologies and can be supplied by external DC5V source or built-in Li-ion battery.

Model difference:

	VOS-600	VOS-600-STN	VOS-600-SND	VOS-600-GNT
Appearance colour	Stone or Sand or Granite	Stone	Sand	Granite

All the models are identical with each other only except for the model's name and appearance colour.

According to the above information, all applicable tests have been performed on VOS-600.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Rock Speaker Connect
Type Designation	VOS-600, VOS-600-STN, VOS-600-SND, VOS-600-GNT
FCC ID	2AFHW-VOS600
Operating Voltage	5Vdc, 2.0A
Testing Voltage	5Vdc, 2.0A
Technical Specification of Bluetooth 5.3 (Single mode)	
Operating Frequency	2402 - 2480 MHz
Type of Modulation	GFSK, 8DPSK, $\pi/4$ DQPSK
Channel Number	79 channels
Channel Separation	1 MHz
Antenna Type	FPC Antenna
Gain	2.0 dBi

Table 3: RF Channel and Frequency of General 2.4GHz

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	20	2422.00	40	2442.00	60	2462.00
1	2403.00	21	2423.00	41	2443.00	61	2463.00
2	2404.00	22	2424.00	42	2444.00	62	2464.00
3	2405.00	23	2425.00	43	2445.00	63	2465.00
4	2406.00	24	2426.00	44	2446.00	64	2466.00
5	2407.00	25	2427.00	45	2447.00	65	2467.00

6	2408.00	26	2428.00	46	2448.00	66	2468.00
7	2409.00	27	2429.00	47	2449.00	67	2469.00
8	2410.00	28	2430.00	48	2450.00	68	2470.00
9	2411.00	29	2431.00	49	2451.00	69	2471.00
10	2412.00	30	2432.00	50	2452.00	70	2472.00
11	2413.00	31	2433.00	51	2453.00	71	2473.00
12	2414.00	32	2434.00	52	2454.00	72	2474.00
13	2415.00	33	2435.00	53	2455.00	73	2475.00
14	2416.00	34	2436.00	54	2456.00	74	2476.00
15	2417.00	35	2437.00	55	2457.00	75	2477.00
16	2418.00	36	2438.00	56	2458.00	76	2478.00
17	2419.00	37	2439.00	57	2459.00	77	2479.00
18	2420.00	38	2440.00	58	2460.00	78	2480.00
19	2421.00	39	2441.00	59	2461.00	/	/

Test frequencies are lowest channel: 2402 MHz, middle channel: 2441 MHz and highest channel: 2480 MHz.

Table 4: Frequency Hopping Information

Technical Specification	Description
Hopping Range	Hereby we declare that the frequency range of this device is: 2402-2480MHz. This is according the Bluetooth Core Specification V5.3 (single mode) for devices which will be operated in the USA. This was checked during the Bluetooth Qualification tests (Test Case: TRM/CA/04-E).
Hopping Sequence	Example of a 79 hopping sequence in data mode: 33,04,21,44,23,42,53,46,55,48,40,59,72,29,76,31,08,73,07,75,09,45,60,39,58,13,47,11,77,52,35,50,65,54,67,56,69,62,71,64,7,25,27,66,57,70,74,61,78,63,10,41,05,43,15,44,64,68,02,70,06,01,51,03,55,05,03,66,53,49,36,47,
Receiver input bandwidth	<p>The input bandwidth of the receiver is 1MHz. In every connection one Bluetooth device is the master and the other one is the slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master.</p> <p>Additionally the type of connection is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also the slave of the connection will use these settings.</p> <p>Repeating of a packer has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case.</p> <p>That means a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.</p>

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Traditional Bluetooth
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. On, Traditional Bluetooth on Hopping channel
- C. On, Normal operation mode
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Block Diagram
- FCC/IC Label and Location Info
- Operation Description
- Photo Document
- Schematics
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model VOS-600 in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Notebook	Lenovo	HKF-16	/	N/A
iPhone	SHARK	KSR-10	/	N/A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

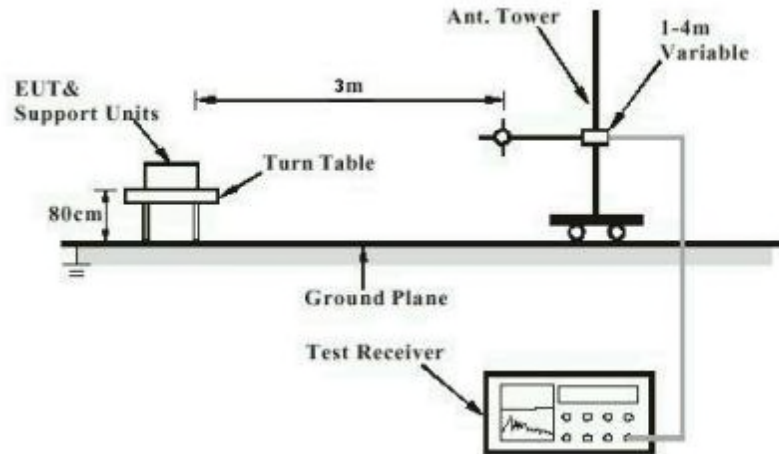


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

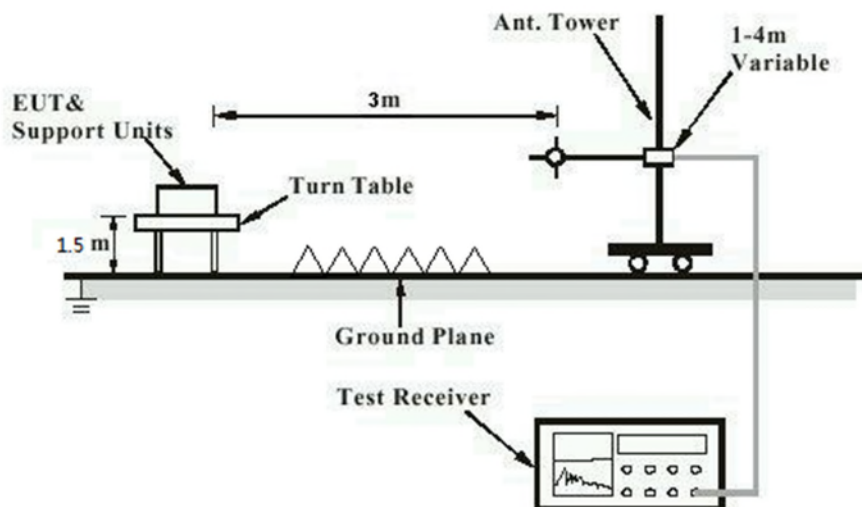


Diagram of Measurement Configuration for Mains Conduction Measurement

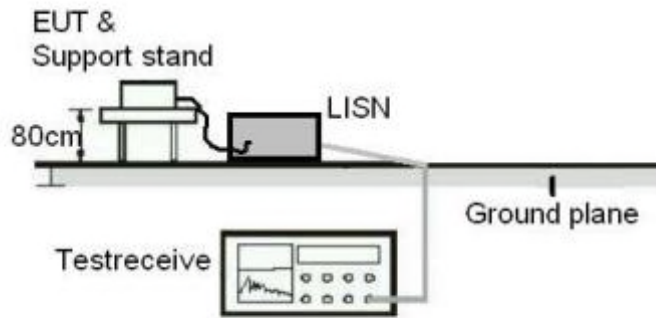
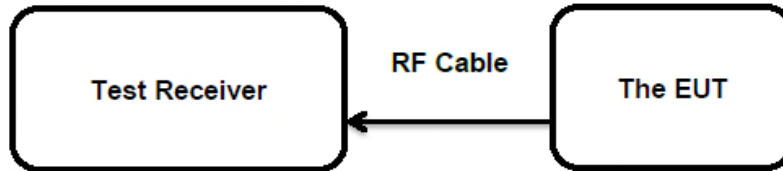


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has one FPC antenna, the directional gain of antenna is 2.0dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT: **Pass**
Test Specification

Test standard : FCC Part 15.247(b)(1)&(3)
 RSS-247 Clause 5.4(b)&(d)

Basic standard : ANSI C63.10: 2013

Limits : FHSS < 0.125 Watts

Kind of test site : Shielded Room

Test Setup

Date of testing : 13.12.2023

Input voltage : **Error! Reference source not found.**

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 24 °C

Relative humidity : 50 %

Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Peak Conducted Output Power

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(mW)	
BDR	2402	3.05	2.018	< 0.125
	2441	1.78	1.507	
	2480	0.60	1.148	
Maximum Measured Value		3.05	2.018	

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(mW)	
EDR	2402	3.21	2.094	< 0.125
	2441	2.01	1.589	
	2480	0.86	1.219	
Maximum Measured Value		3.21	2.094	

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G) of FHSS: 2.0dBi,
 The Maximum peak conducted output power (e.i.r.p.)= $P_{(Peak\ power)} + G$, which is far below the 4 W

5.1.3 99% Bandwidth

RESULT:
Pass
Test Specification

Test standard : RSS-Gen Clause 6.6
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

Date of testing : 13.12.2023
 Input voltage : **Error! Reference source not found.**
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 24 °C
 Relative humidity : 50 %
 Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 7: Test Result of 99% Bandwidth, General 2.4GHz

Test Mode	Test Channel (MHz)	99% Bandwidth (MHz)	Limit
BDR	2402	0.85	/
	2441	0.85	
	2480	0.85	
Maximum Measured Value		0.85	

Test Mode	Test Channel (MHz)	99% Bandwidth (MHz)	Limit
EDR	2402	1.17	/
	2441	1.19	
	2480	1.15	
Maximum Measured Value		1.19	

5.1.4 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(d)
RSS-247 Clause 5.5

Basic standard : ANSI C63.10: 2013

Limits : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);
In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)

Kind of test site : Shielded Room

Test Setup

Date of testing : Refer to test result

Input voltage : **Error! Reference source not found.**

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 24 °C

Relative humidity : 50 %

Atmospheric pressure : 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B.

5.1.5 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3
Basic standard	: ANSI C63.10: 2013
Limits	: Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Issue 4 Table 4
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: Refer to test result
Input voltage	: Error! Reference source not found.
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 22 °C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix B.

5.1.6 20dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(1)
 : RSS-247 Clause 5.1(a)
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

Date of testing : 13.12.2023
 Input voltage : **Error! Reference source not found.**
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 24 °C
 Relative humidity : 50 %
 Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 8: Test Result of 20dB Bandwidth, General 2.4GHz

Test Mode	Test Channel (MHz)	20dB Bandwidth (kHz)	2/3 of 20dB Bandwidth (kHz)	Limit (MHz)
BDR	2402	931.00	620.667	/
	2441	914.00	609.333	
	2480	927.00	618.000	
Maximum Measured Value		931.00	620.667	

Test Mode	Test Channel (MHz)	20dB Bandwidth (kHz)	2/3 of 20dB Bandwidth (kHz)	Limit (MHz)
EDR	2402	1259.00	839.333	/
	2441	1281.00	854.000	
	2480	1277.00	851.333	
Maximum Measured Value		1281.00	854.000	

5.1.7 Carrier Frequency Separation

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(1)
RSS-247 Clause 5.1(b)

Basic standard : ANSI C63.10: 2013

Limits : $\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth, whichever is greater

Kind of test site : Shielded Room

Test Setup

Date of testing : 13.12.2023

Input voltage : **Error! Reference source not found.**

Operation mode : C

Test channel : Low / Middle / High

Ambient temperature : 24 °C

Relative humidity : 50 %

Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 9: Test Result of Carrier Frequency Separation, General 2.4GHz

Test Mode	Test Channel	Test Channel (MHz)	Measured Channel Separation (KHz)	Limit (kHz)
FHSS	Low Channel	2402	982.0	$\geq 25\text{kHz}$ or $2/3$ of 20dB bandwidth
	Adjacency Channel	2403		
	Middle Channel	2441		
	Adjacency Channel	2442	922.0	
	High Channel	2480	996.0	
	Adjacency Channel	2479		

Note: The limit is maximum $2/3$ of the 20 dB bandwidth: 620.667 KHz.

5.1.8 Number of Hopping Frequency

RESULT: **Pass**

Test Specification

- Test standard : FCC part 15.247(a)(1)(iii)
RSS-247 Clause 5.1(d)
- Basic standard : ANSI C63.10: 2013
- Limits : ≥ 15 non-overlapping channels
- Kind of test site : Shielded Room

Test Setup

- Date of testing : 13.12.2023
- Input voltage : **Error! Reference source not found.**
- Operation mode : C
- Ambient temperature : 24 °C
- Relative humidity : 50 %
- Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 10: Test Result of Number of Hopping Frequency, General 2.4GHz

Test Mode	Frequency Range	Measured Quantity of Hopping Channel	Limit
FHSS	2402 - 2480 MHz	79	≥ 15

5.1.9 Time of Occupancy

RESULT:
Pass
Test Specification

Test standard : FCC part 15.247(a)(1)(iii)
 RSS-247 Clause 5.1(d)

Basic standard : ANSI C63.10: 2013

Limits : < 0.4s

Kind of test site : Shielded Room

Test Setup

Date of testing : 13.12.2023

Input voltage : **Error! Reference source not found.**

Operation mode : B

Test channel : Low / Middle / High

Ambient temperature : 24 °C

Relative humidity : 50 %

Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 11: Test Result of Time of Occupancy

Test Mode	Test Channel (MHz)	Pulse Width(ms)	Number of Channels	Measured Dwell Time(s)	Limit (s)
BDR	2402	2.869	107	0.307	0.4s
	2441	2.869	107	0.307	
	2480	2.869	107	0.307	

Test Mode	Test Channel (MHz)	Pulse Width(ms)	Number of Channels	Measured Dwell Time(s)	Limit (s)
EDR	2402	2.881	106	0.305	0.4s
	2441	2.881	106	0.305	
	2480	2.881	106	0.305	

Note:

Dwell time = Pulse width x Number of channels in Period

Period = 0.4 (seconds/ channel) x 79 (channel) = 31.6 seconds

5.1.10 Conducted Emission on AC Mains**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.207(a)
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 13.12.2023
Input voltage	: DC 5V via AC/DC Adapter
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: 23.2 °C
Relative humidity	: 50.6 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:

Pass

Test Specification

Test standard : CFR47 FCC Part 2: Section 2.1091
CFR47 FCC Part 1: Section 1.1310
FCC KDB Publication 447498 D01 v06
RSS-102 Issue 5 March 2015

The minimum distance for the EUT is less than 5mm.
Since maximum peak output power of the transmitter is 2.094 mW <10 mW.

Hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01 General RF Exposure Guidance v06.

The maximum peak output power of the transmitter is 3.21 dBm (2.094 mW), which is far below the SAR exclusion threshold level 4 mW \approx 6.02 dBm.
Hence the EUT is exempted from routine evaluation limits (SAR Evaluation) according to clause 2.5.1 of RSS-102 Issue 5.

7 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix B.

8 List of Tables

Table 1: List of Test and Measurement Equipment.....	6
Table 2: Technical Specification of EUT	8
Table 3: RF Channel and Frequency of General 2.4GHz	8
Table 4: Frequency Hopping Information.....	9
Table 5: List of Accessories and Auxiliary Equipment.....	11
Table 6: Test Result of Maximum Peak Conducted Output Power.....	15
Table 7: Test Result of 99% Bandwidth, General 2.4GHz	16
Table 8: Test Result of 20dB Bandwidth, General 2.4GHz	19
Table 9: Test Result of Carrier Frequency Separation, General 2.4GHz.....	20
Table 10: Test Result of Number of Hopping Frequency, General 2.4GHz.....	21
Table 11: Test Result of Time of Occupancy	22

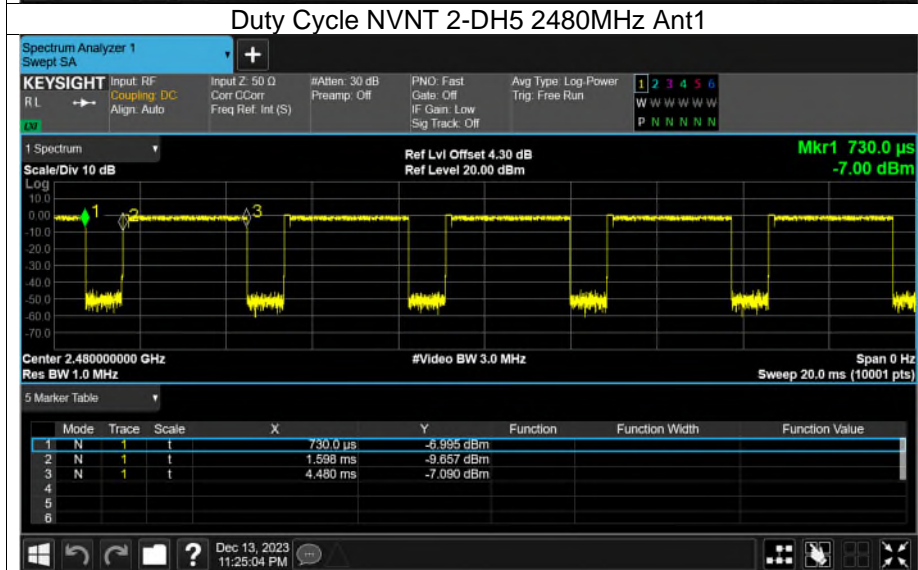
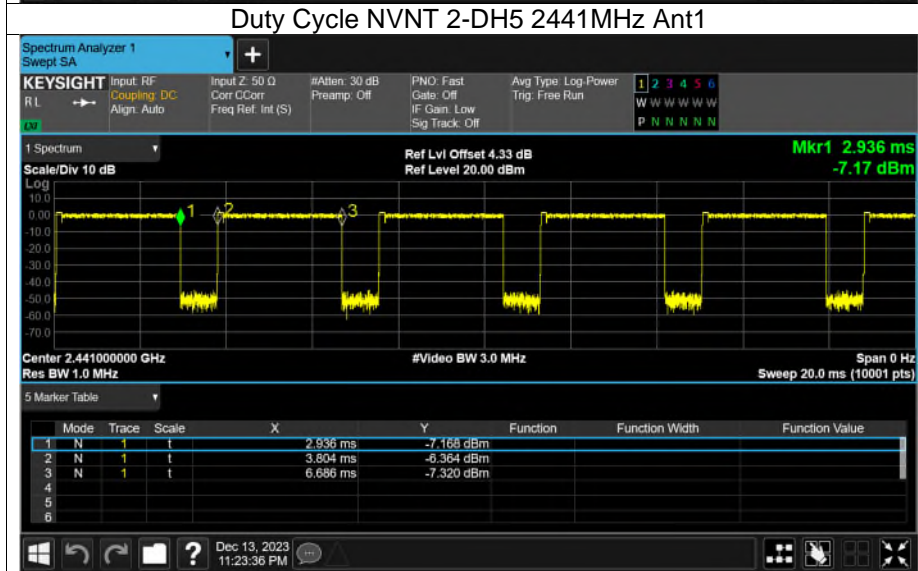
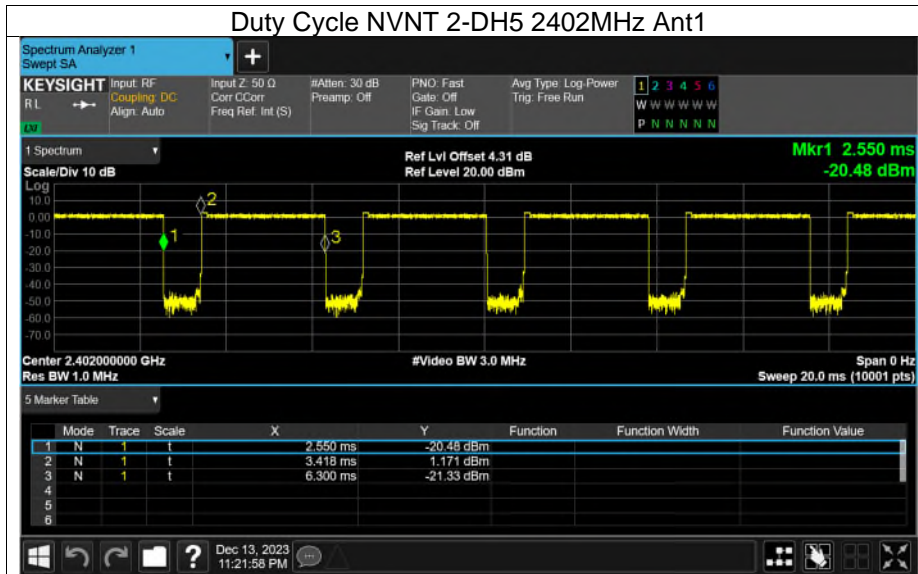
Appendix A: Test data

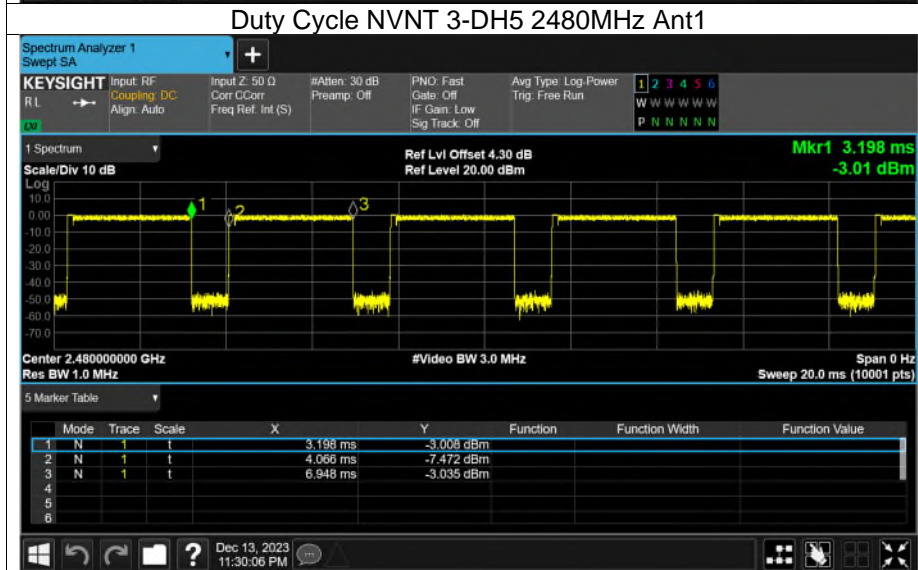
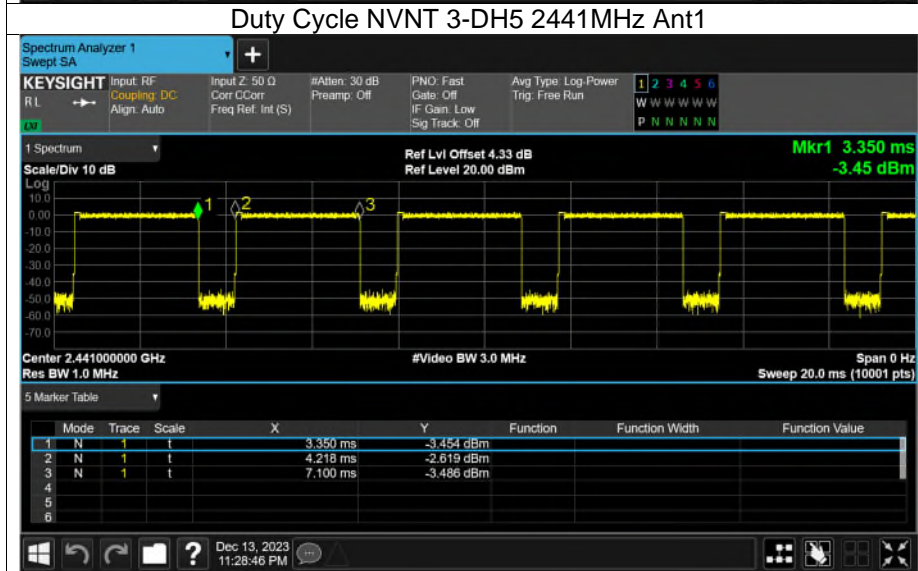
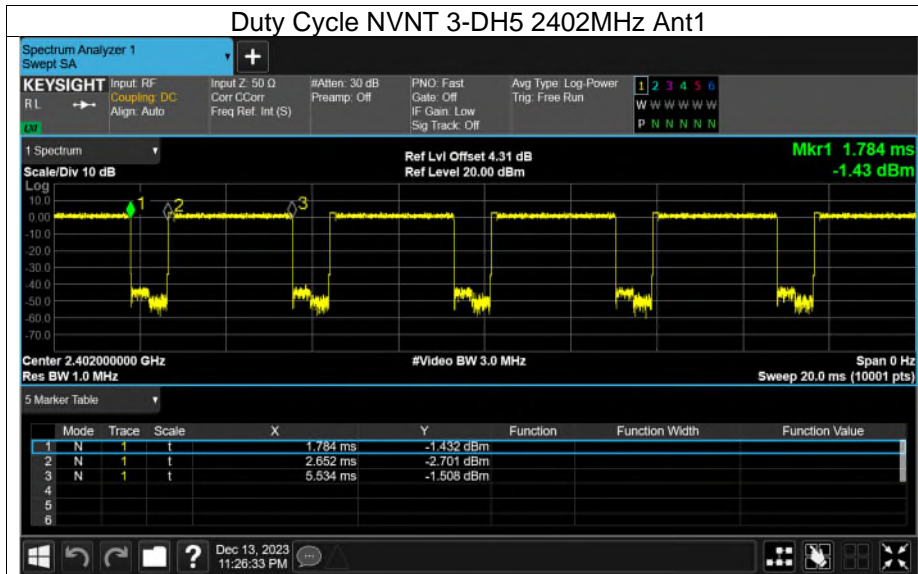
APPENDIX A: TEST DATA	1
DUTY CYCLE	2
MAXIMUM PEAK CONDUCTED OUTPUT POWER	6
-20DB BANDWIDTH	7
OCCUPIED CHANNEL BANDWIDTH.....	11
CARRIER FREQUENCIES SEPARATION	15
BAND EDGE	19
BAND EDGE (HOPPING)	24
CONDUCTED RF SPURIOUS EMISSION	29
NUMBER OF HOPPING CHANNEL	36
DWELL TIME	38
CONDUCTED EMISSION MEASUREMENT	41
RADIATED SPURIOUS EMISSION, 30MHZ - 1GHZ.....	43
RADIATED SPURIOUS EMISSION, 1GHZ - 18GHZ.....	46
RADIATED BAND EDGE	55

Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.53	1.16	0.35
NVNT	1-DH5	2441	Ant1	76.53	1.16	0.35
NVNT	1-DH5	2480	Ant1	76.53	1.16	0.35
NVNT	2-DH5	2402	Ant1	76.85	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.85	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.85	1.14	0.35
NVNT	3-DH5	2402	Ant1	76.85	1.14	0.35
NVNT	3-DH5	2441	Ant1	76.85	1.14	0.35
NVNT	3-DH5	2480	Ant1	76.85	1.14	0.35







Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	3.05	21	Pass
NVNT	1-DH5	2441	Ant1	1.78	21	Pass
NVNT	1-DH5	2480	Ant1	0.6	21	Pass
NVNT	2-DH5	2402	Ant1	3.05	21	Pass
NVNT	2-DH5	2441	Ant1	1.73	21	Pass
NVNT	2-DH5	2480	Ant1	0.55	21	Pass
NVNT	3-DH5	2402	Ant1	3.21	21	Pass
NVNT	3-DH5	2441	Ant1	2.01	21	Pass
NVNT	3-DH5	2480	Ant1	0.86	21	Pass

-20dB Bandwidth

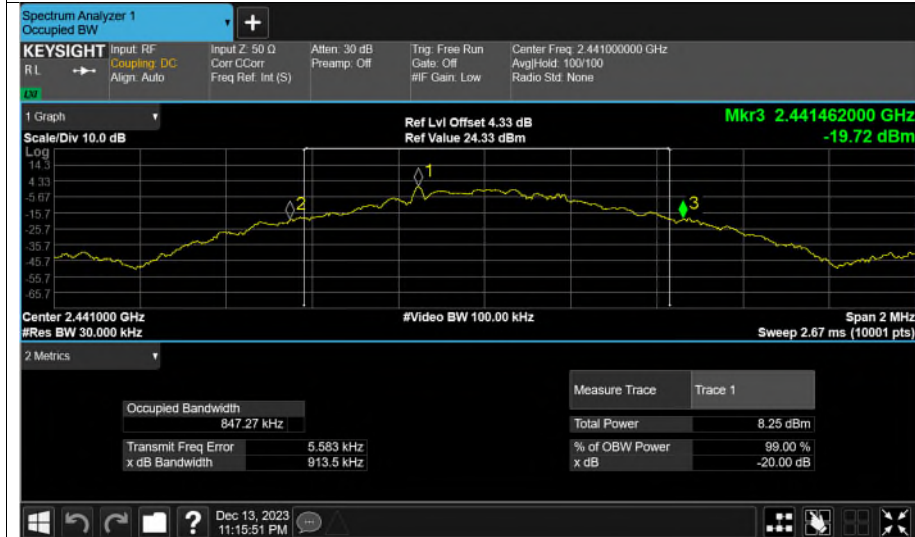
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.931	Pass
NVNT	1-DH5	2441	Ant1	0.914	Pass
NVNT	1-DH5	2480	Ant1	0.927	Pass
NVNT	2-DH5	2402	Ant1	1.258	Pass
NVNT	2-DH5	2441	Ant1	1.281	Pass
NVNT	2-DH5	2480	Ant1	1.277	Pass
NVNT	3-DH5	2402	Ant1	1.229	Pass
NVNT	3-DH5	2441	Ant1	1.2	Pass
NVNT	3-DH5	2480	Ant1	1.244	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



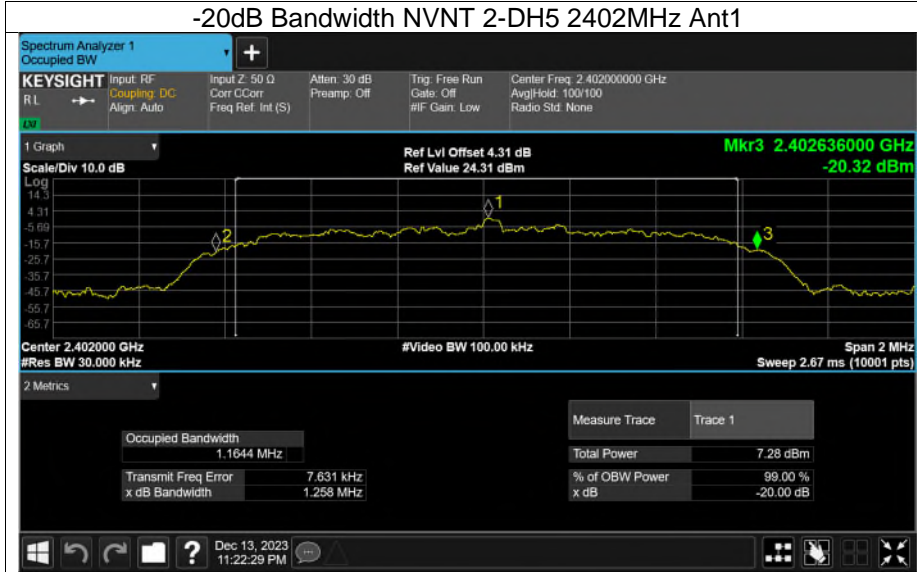
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



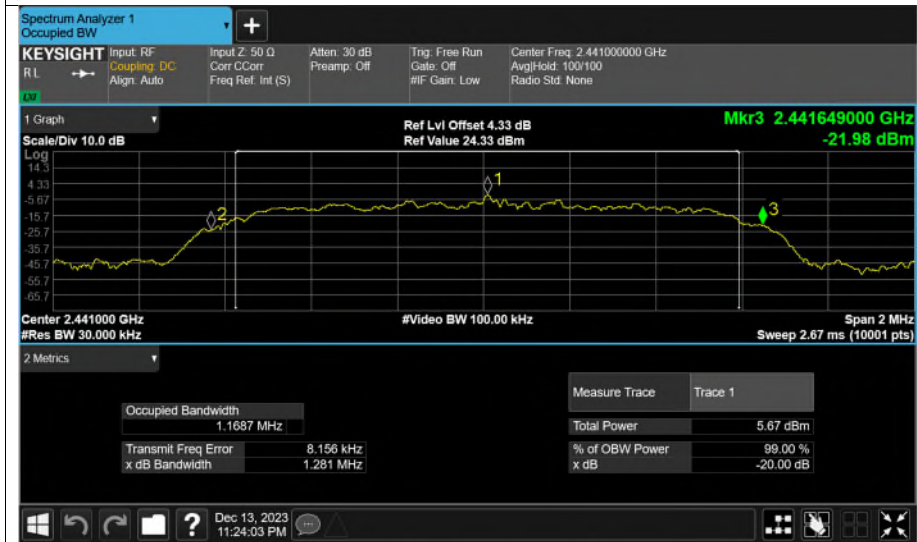
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



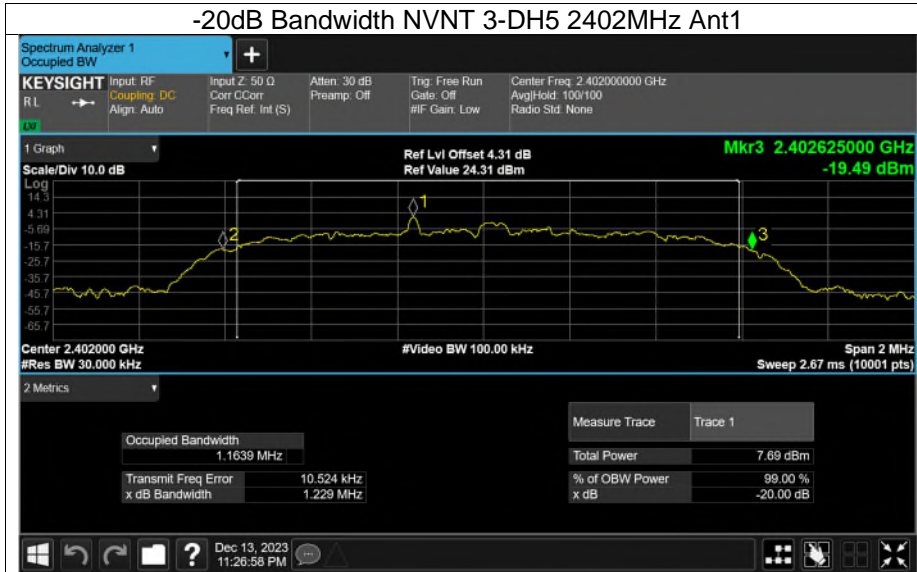
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



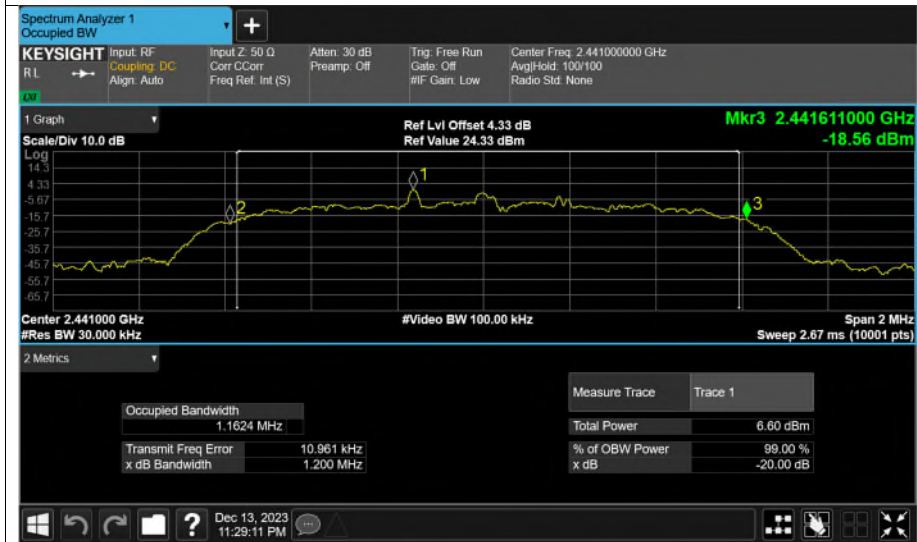
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1

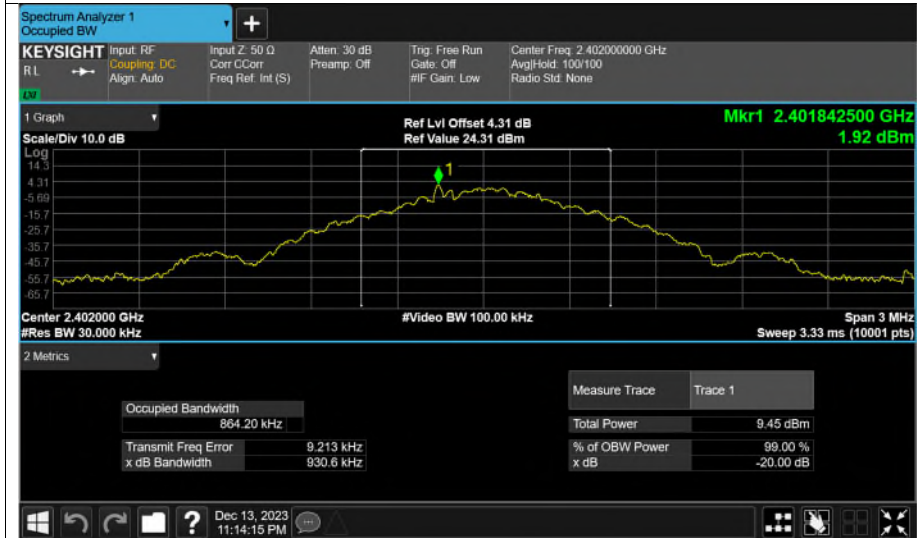


Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.864
NVNT	1-DH5	2441	Ant1	0.848
NVNT	1-DH5	2480	Ant1	0.851
NVNT	2-DH5	2402	Ant1	1.159
NVNT	2-DH5	2441	Ant1	1.156
NVNT	2-DH5	2480	Ant1	1.156
NVNT	3-DH5	2402	Ant1	1.169
NVNT	3-DH5	2441	Ant1	1.189
NVNT	3-DH5	2480	Ant1	1.153

Test Graphs

OBW NVNT 1-DH5 2402MHz Ant1



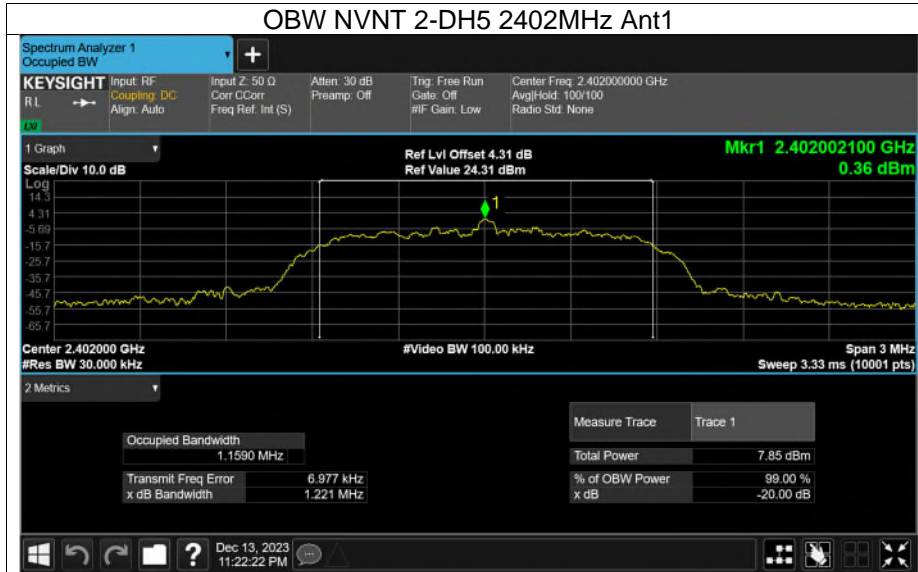
OBW NVNT 1-DH5 2441MHz Ant1



OBW NVNT 1-DH5 2480MHz Ant1



OBW NVNT 2-DH5 2402MHz Ant1



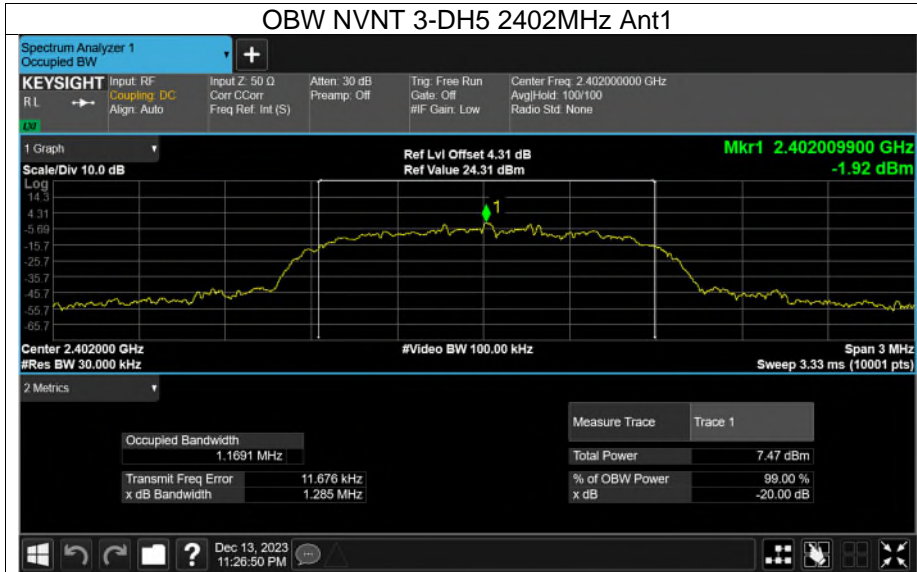
OBW NVNT 2-DH5 2441MHz Ant1



OBW NVNT 2-DH5 2480MHz Ant1



OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



OBW NVNT 3-DH5 2480MHz Ant1

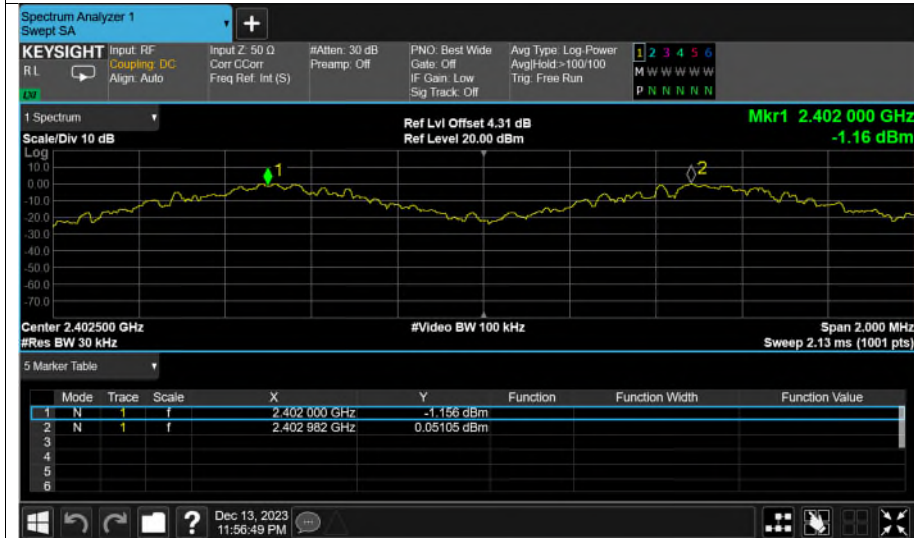


Carrier Frequencies Separation

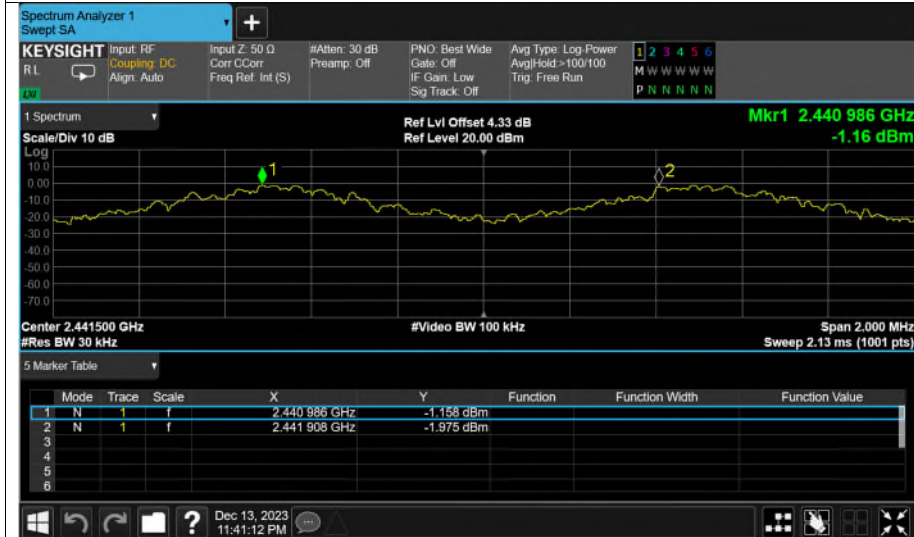
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402	2402.982	0.982	0.621	Pass
NVNT	1-DH5	Ant1	2440.986	2441.908	0.922	0.609	Pass
NVNT	1-DH5	Ant1	2478.994	2480.004	1.01	0.618	Pass
NVNT	2-DH5	Ant1	2402.004	2403.01	1.006	0.839	Pass
NVNT	2-DH5	Ant1	2441.01	2441.992	0.982	0.854	Pass
NVNT	2-DH5	Ant1	2479.02	2480.03	1.01	0.851	Pass
NVNT	3-DH5	Ant1	2402.006	2402.99	0.984	0.819	Pass
NVNT	3-DH5	Ant1	2441.006	2442.01	1.004	0.8	Pass
NVNT	3-DH5	Ant1	2479.01	2480.006	0.996	0.829	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



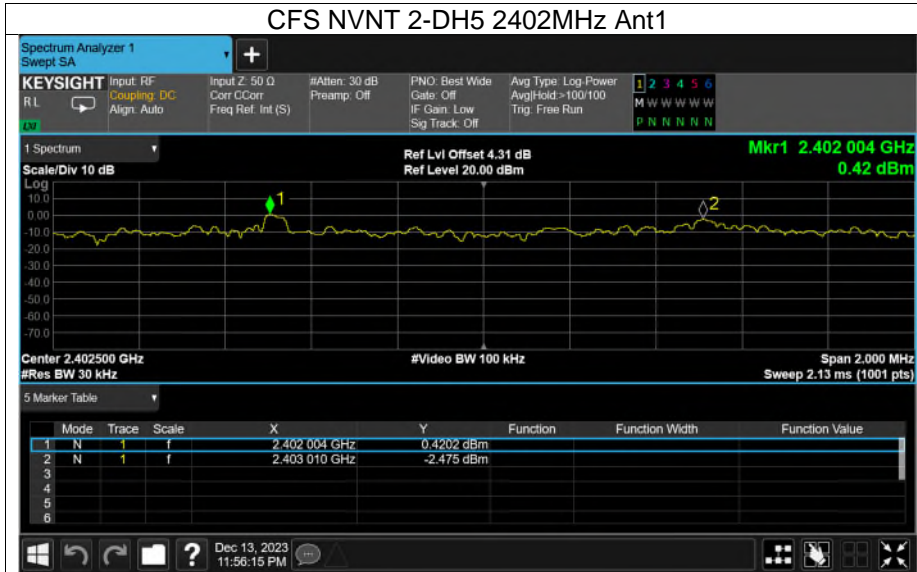
CFS NVNT 1-DH5 2441MHz Ant1



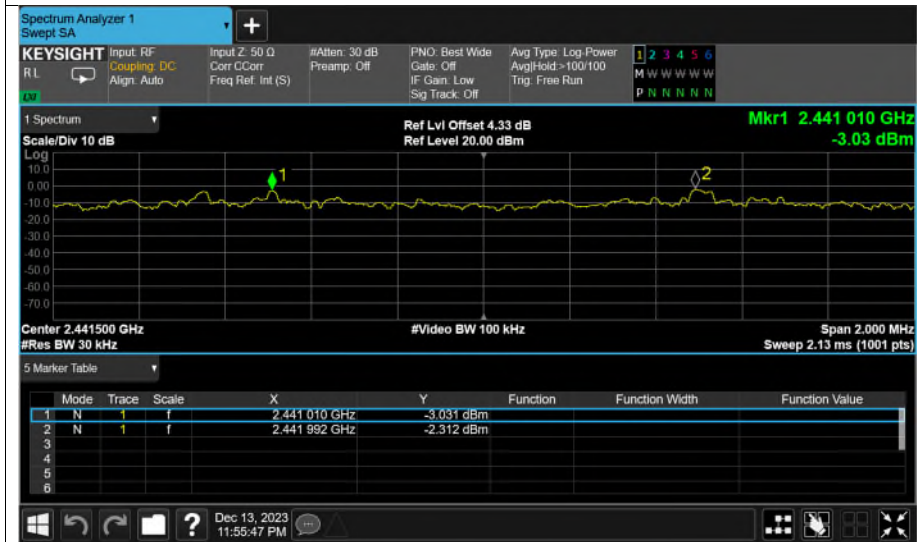
CFS NVNT 1-DH5 2480MHz Ant1



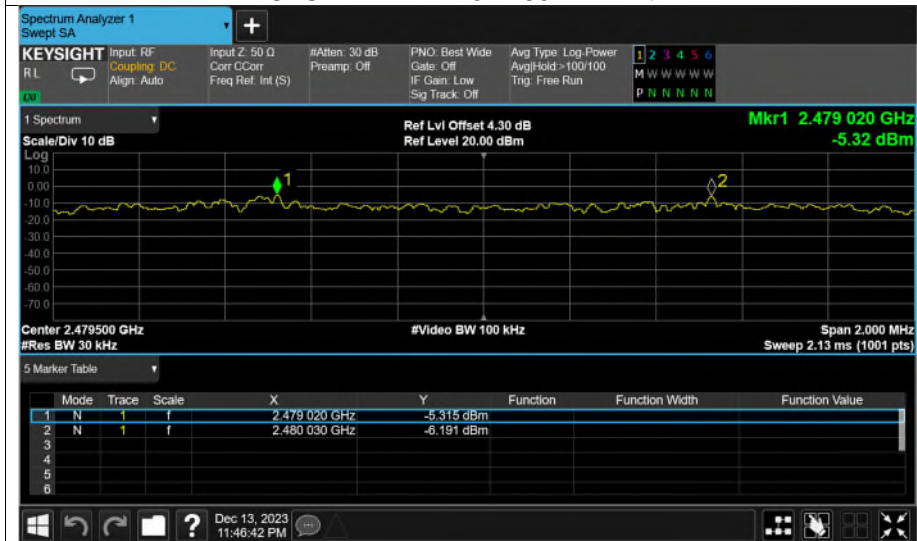
CFS NVNT 2-DH5 2402MHz Ant1



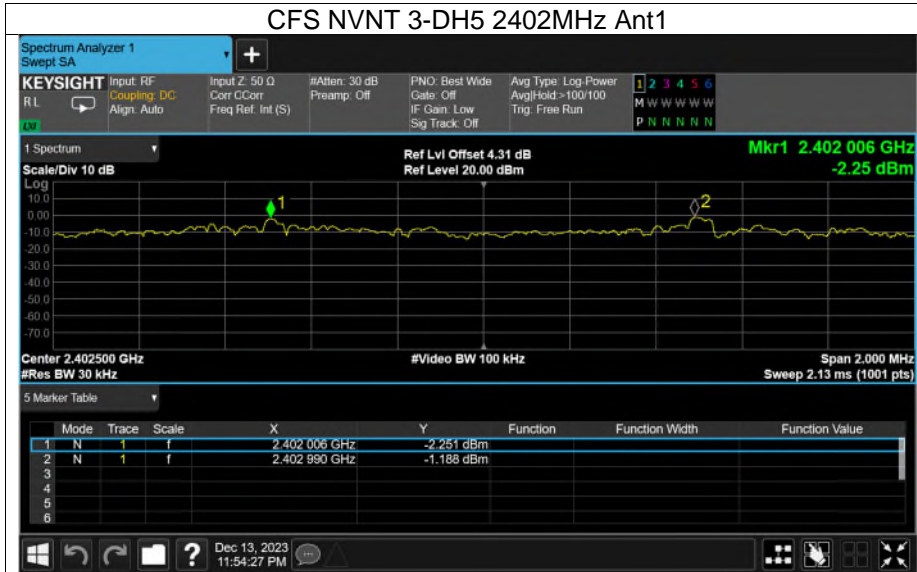
CFS NVNT 2-DH5 2441MHz Ant1



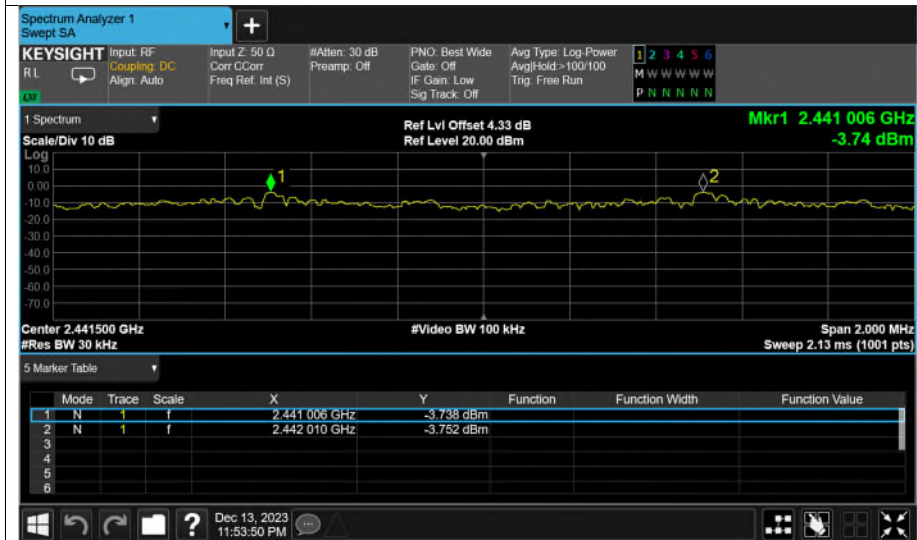
CFS NVNT 2-DH5 2480MHz Ant1



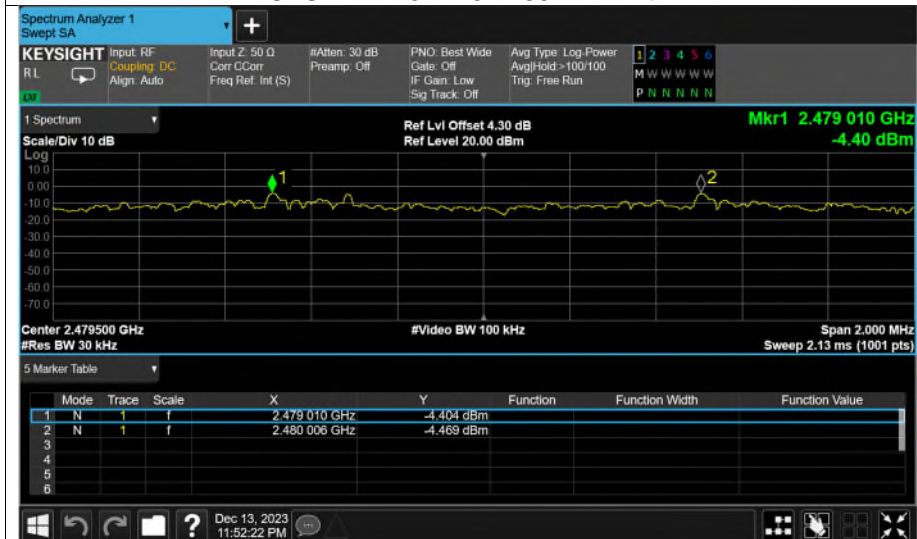
CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1



CFS NVNT 3-DH5 2480MHz Ant1

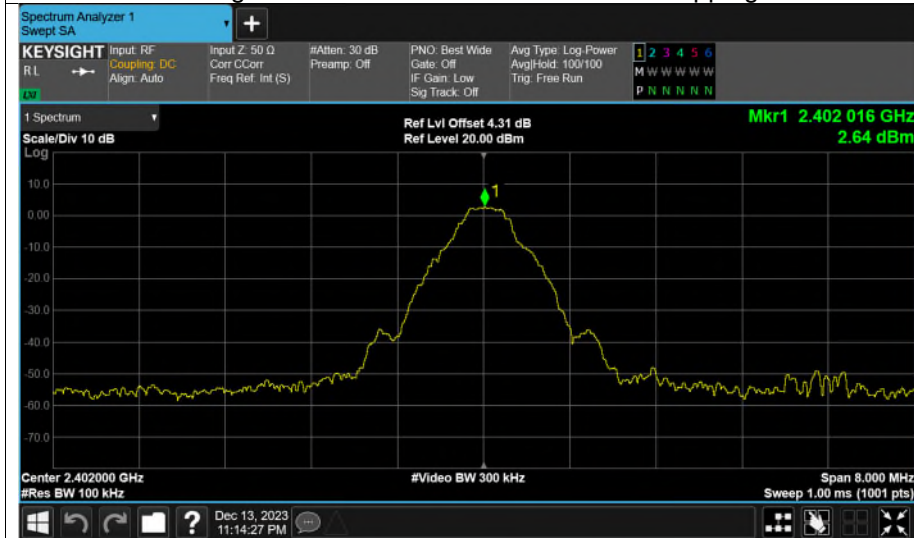


Band Edge

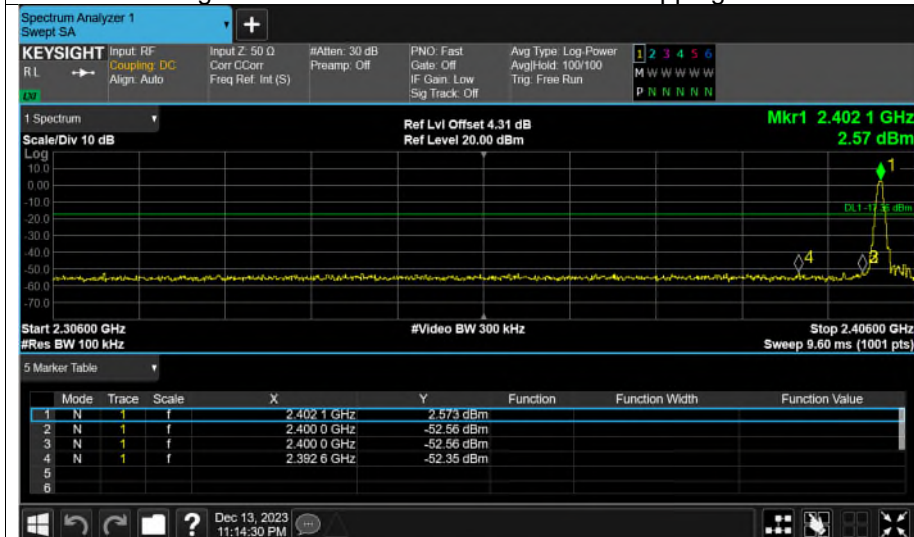
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-54.99	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-52.42	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.56	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-52.87	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.06	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-51.55	-20	Pass

Test Graphs

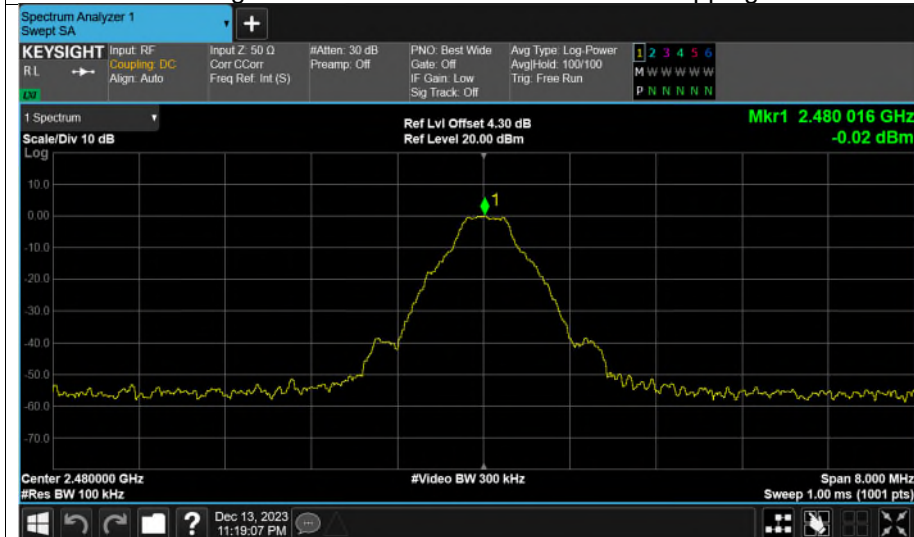
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref

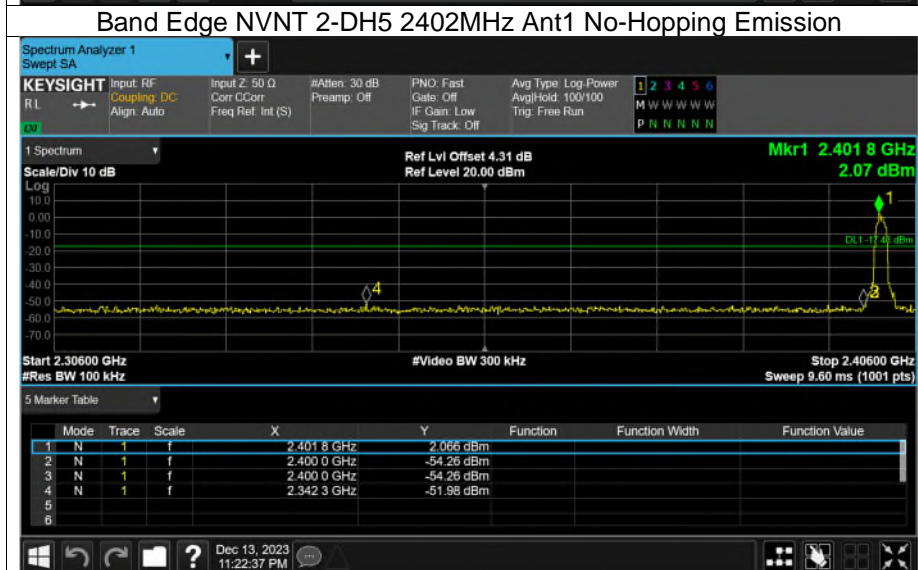
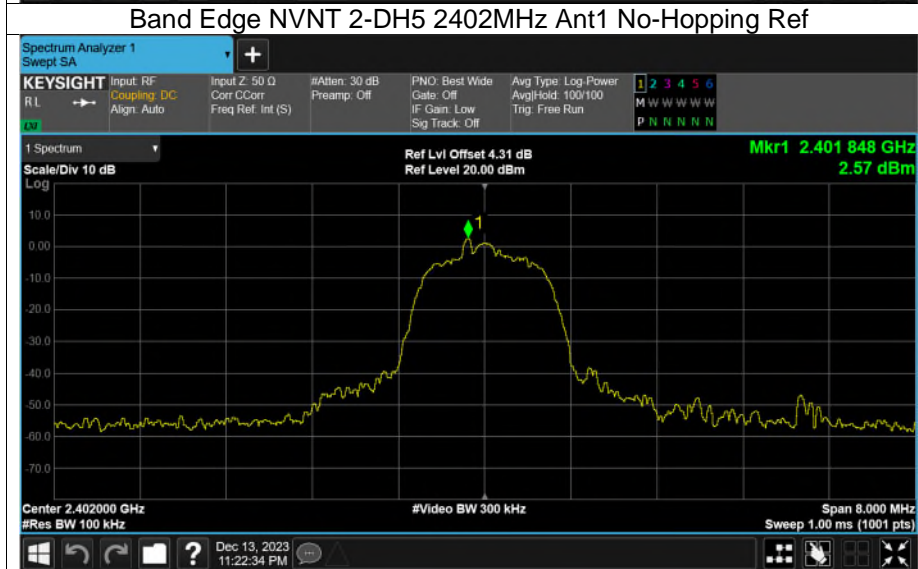
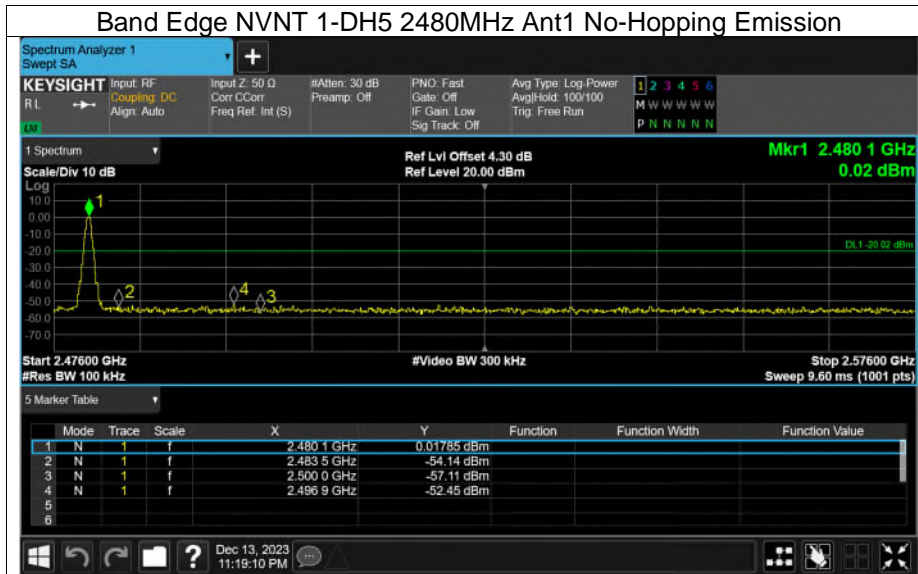


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

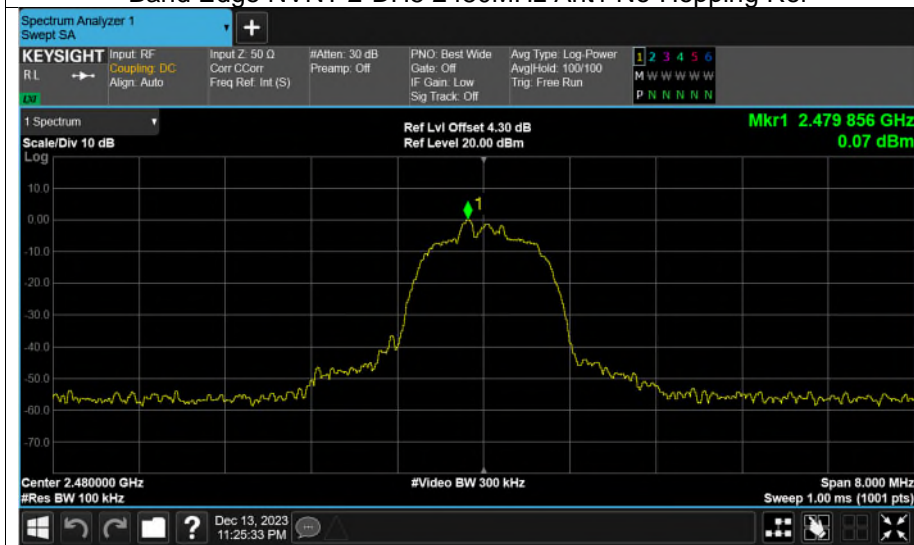


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

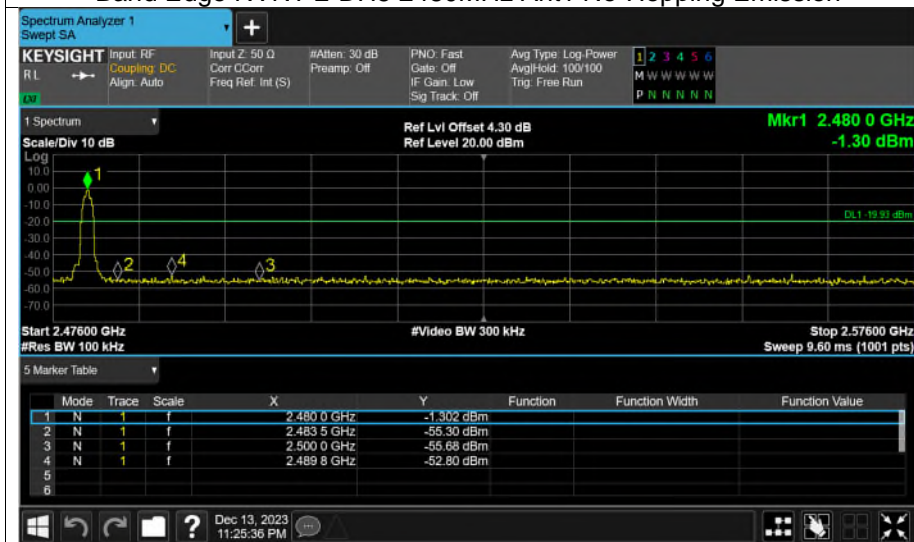




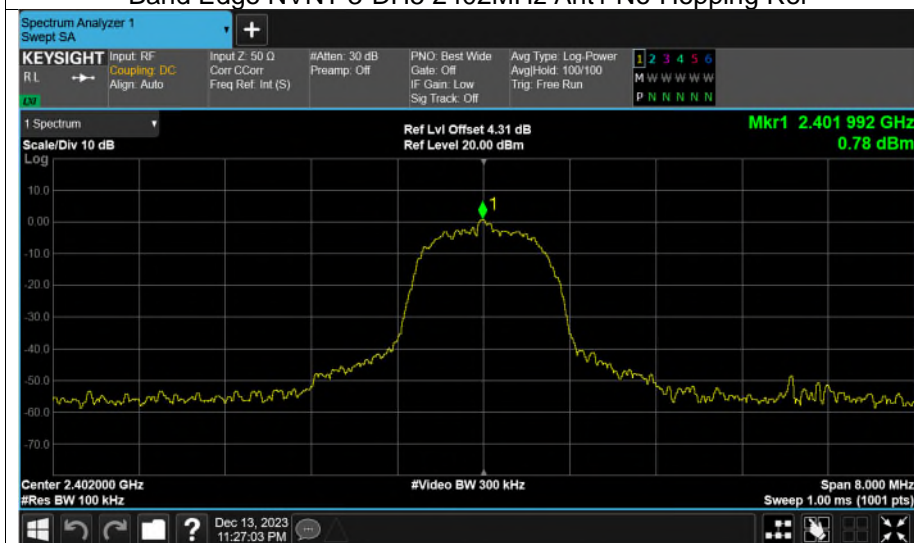
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

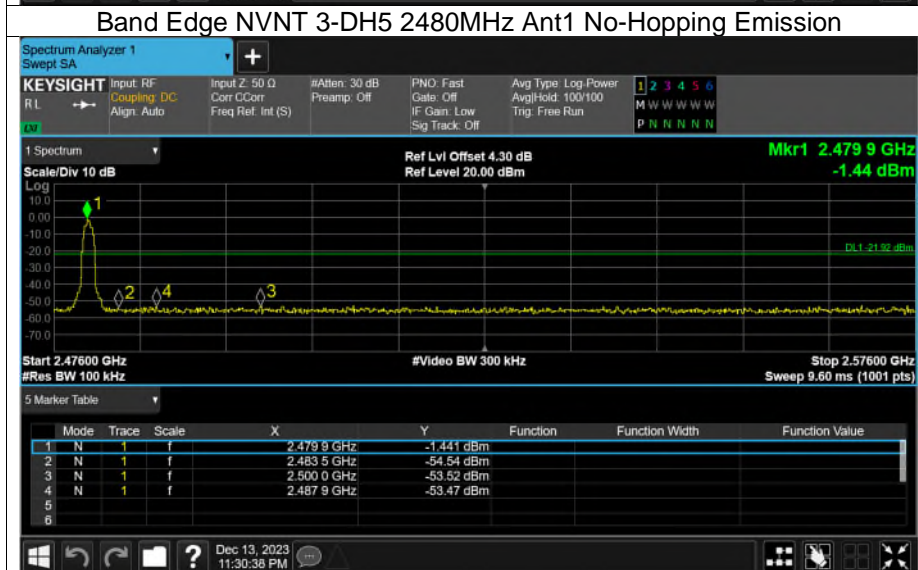
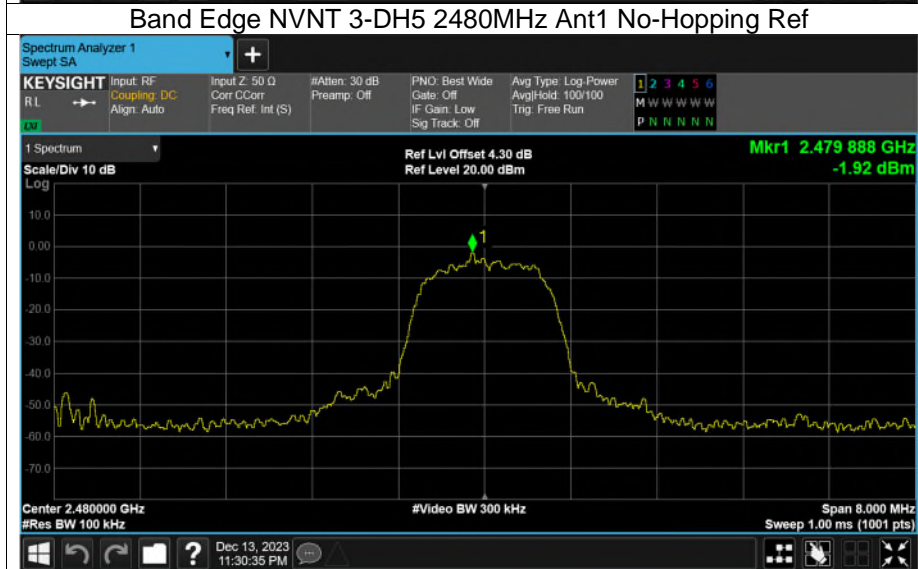
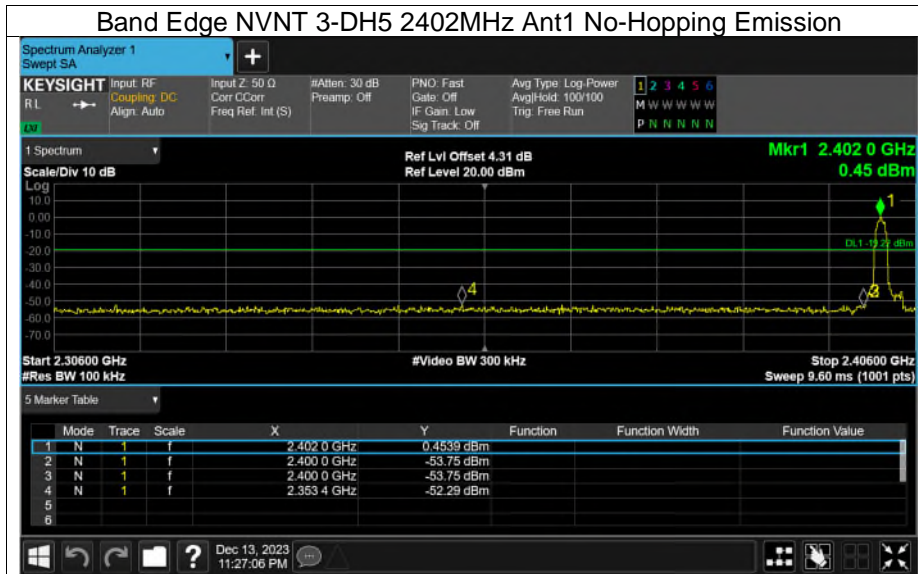


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref





Band Edge (Hopping)

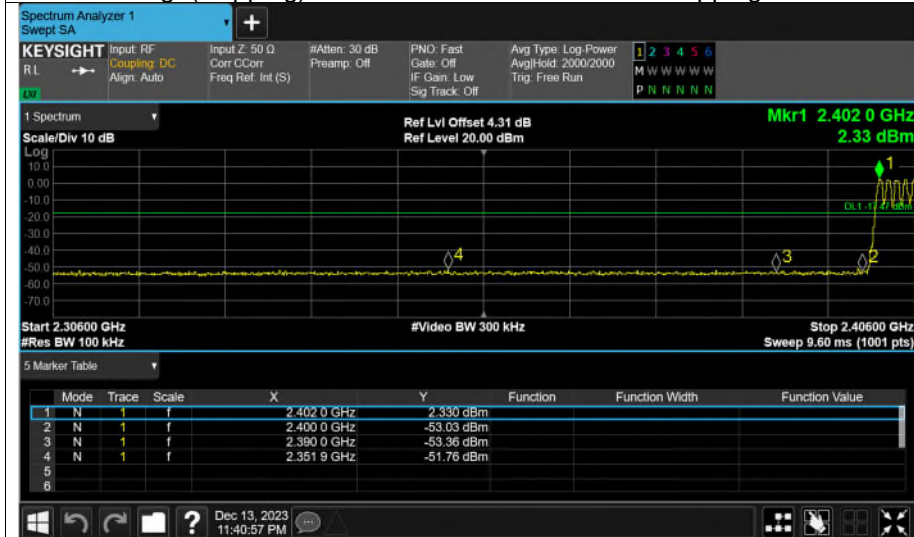
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.29	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-52.53	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-53.05	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-50.62	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-51.3	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-51.44	-20	Pass

Test Graphs

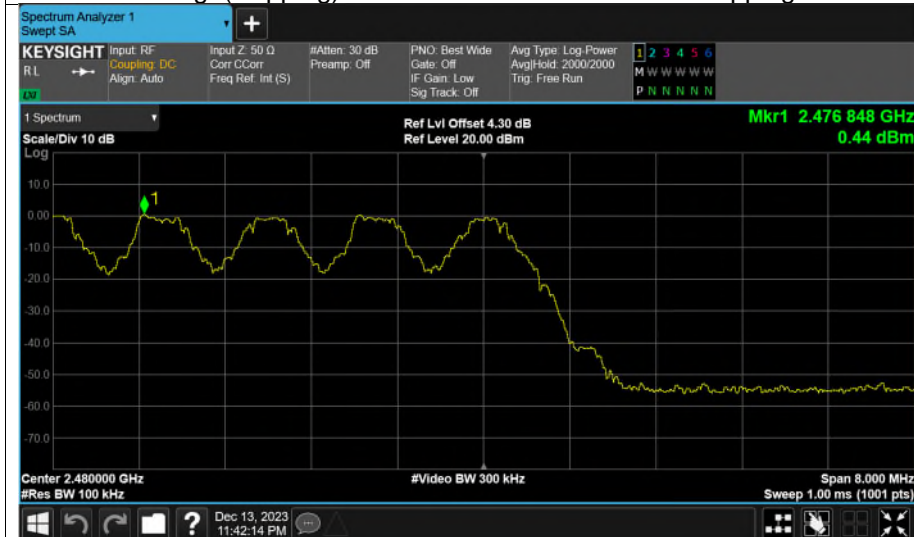
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



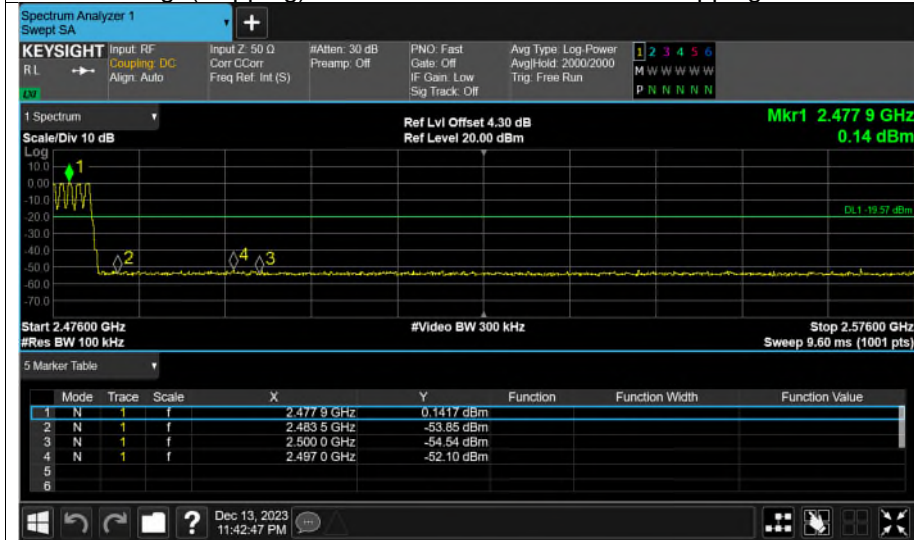
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



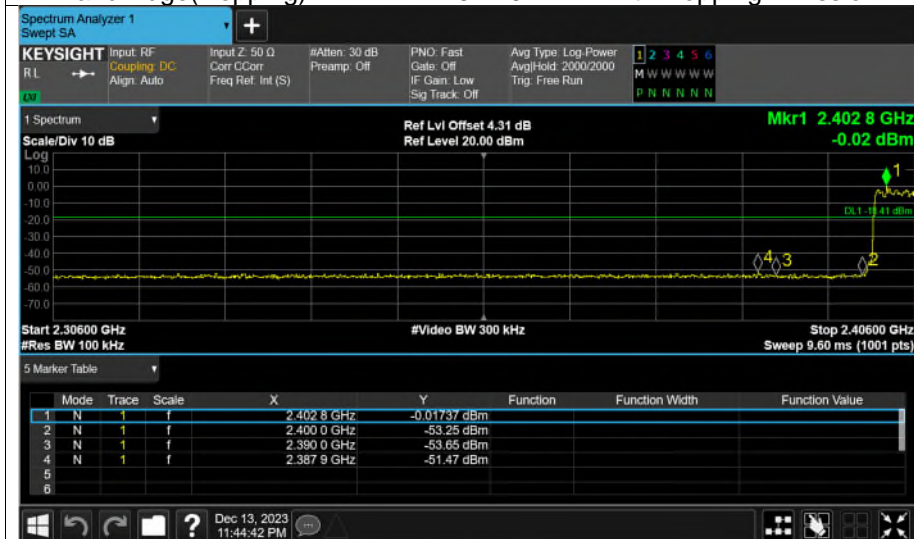
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



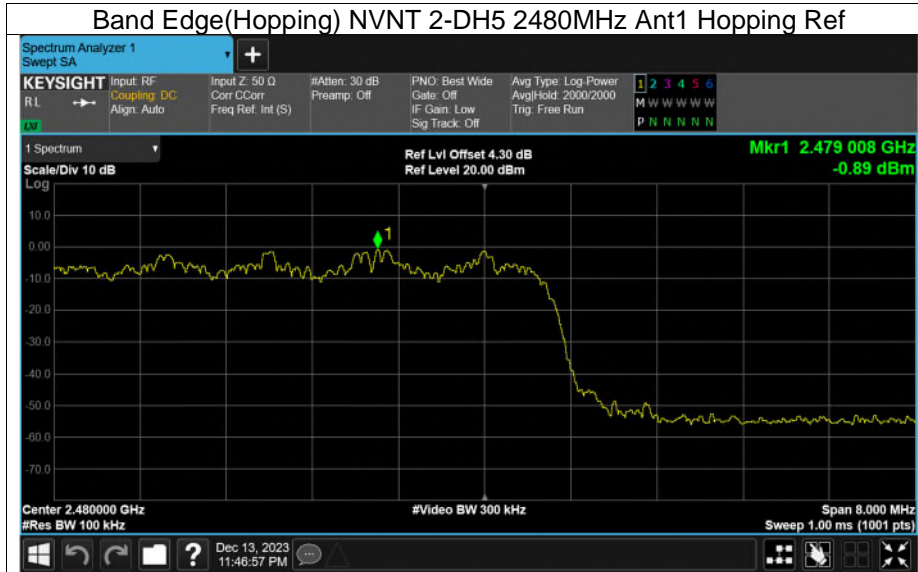
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



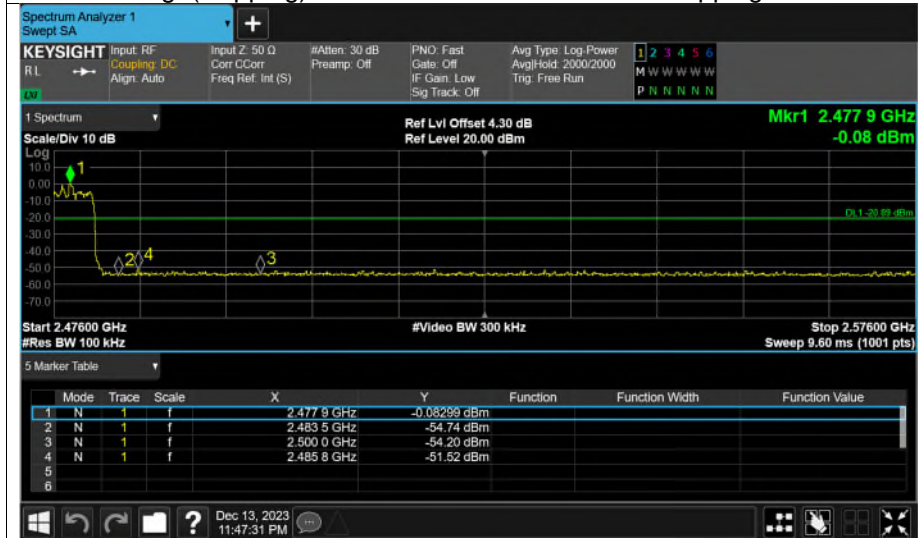
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



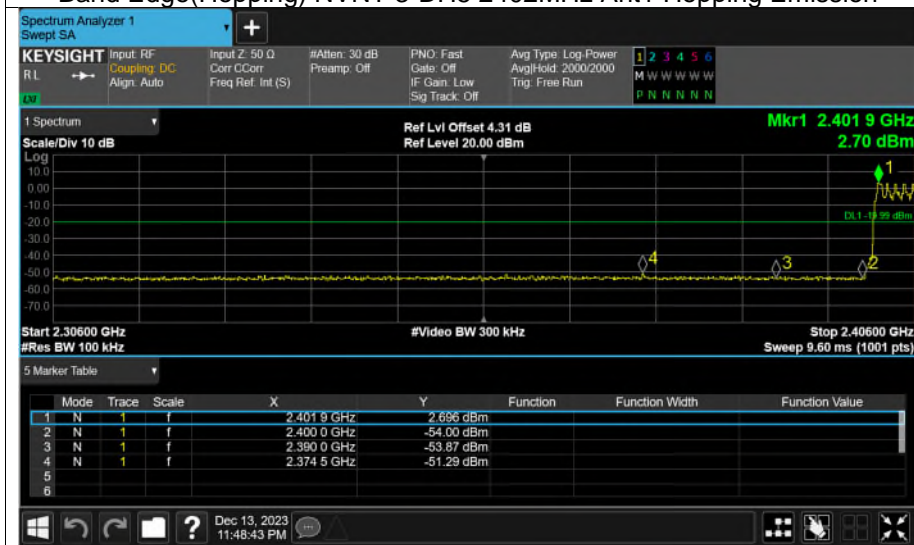
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



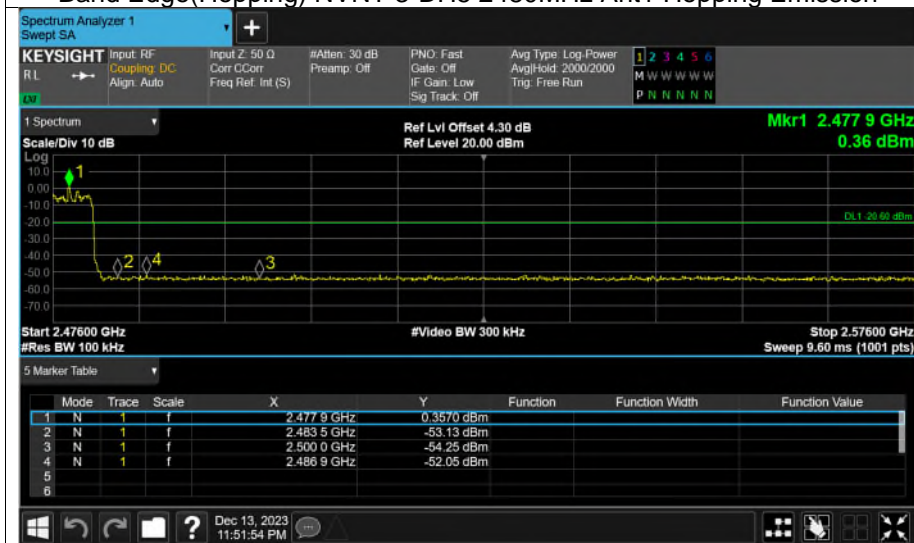
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission

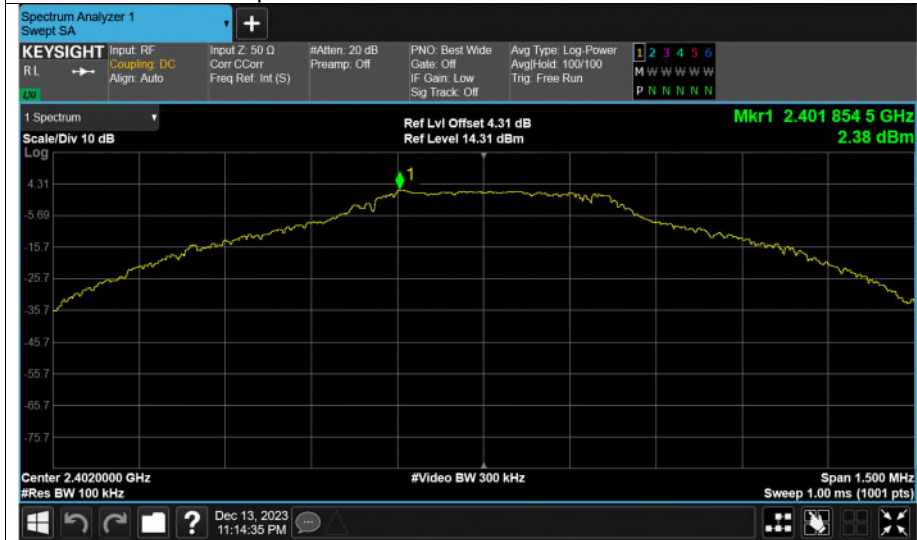


Conducted RF Spurious Emission

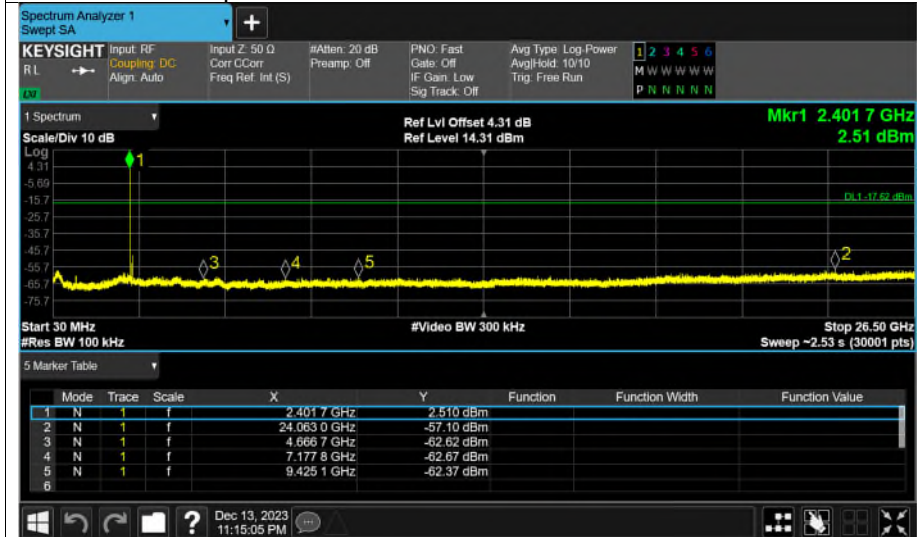
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-59.47	-20	Pass
NVNT	1-DH5	2441	Ant1	-58.94	-20	Pass
NVNT	1-DH5	2480	Ant1	-56.48	-20	Pass
NVNT	2-DH5	2402	Ant1	-59.91	-20	Pass
NVNT	2-DH5	2441	Ant1	-58.02	-20	Pass
NVNT	2-DH5	2480	Ant1	-49.7	-20	Pass
NVNT	3-DH5	2402	Ant1	-59.17	-20	Pass
NVNT	3-DH5	2441	Ant1	-57.07	-20	Pass
NVNT	3-DH5	2480	Ant1	-36.85	-20	Pass

Test Graphs

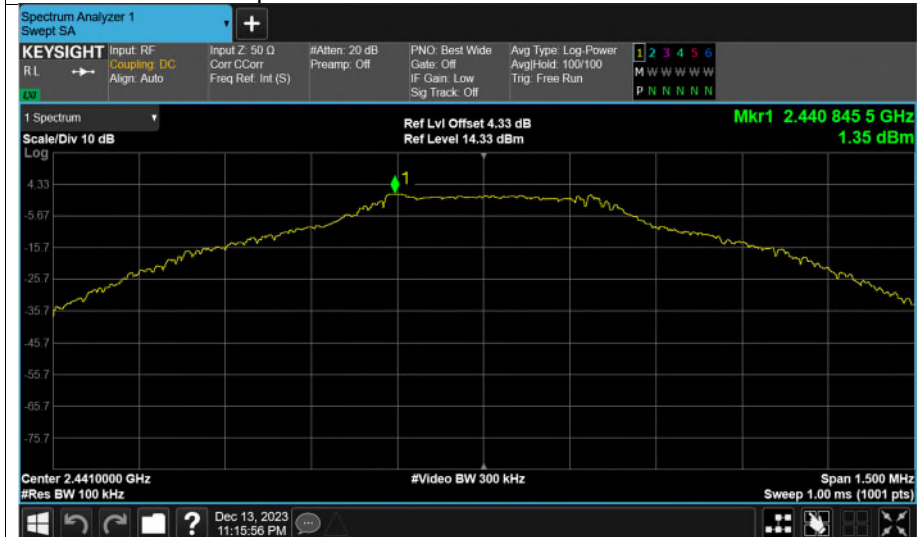
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



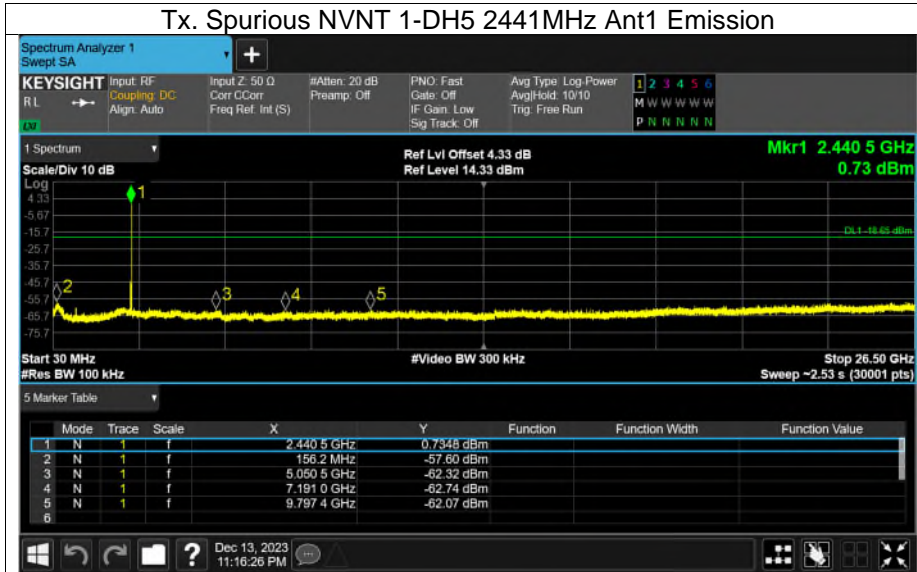
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



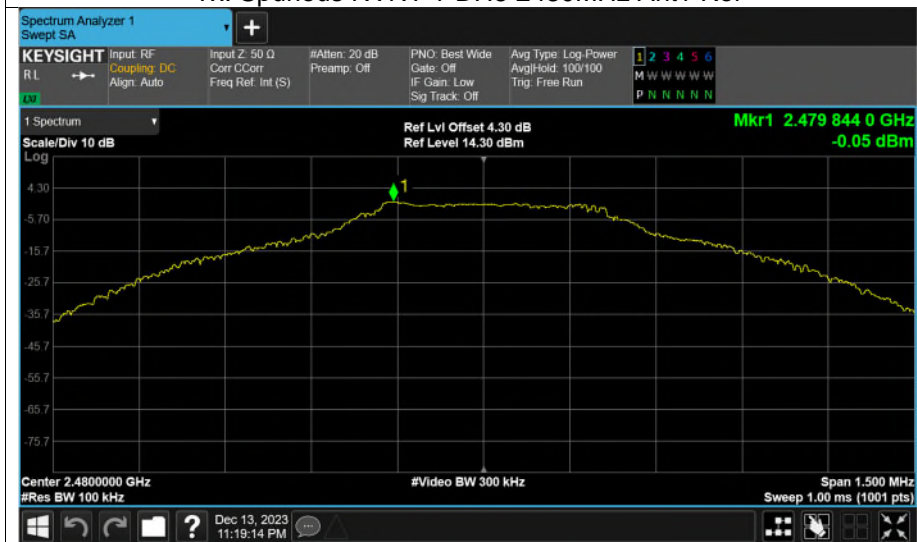
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



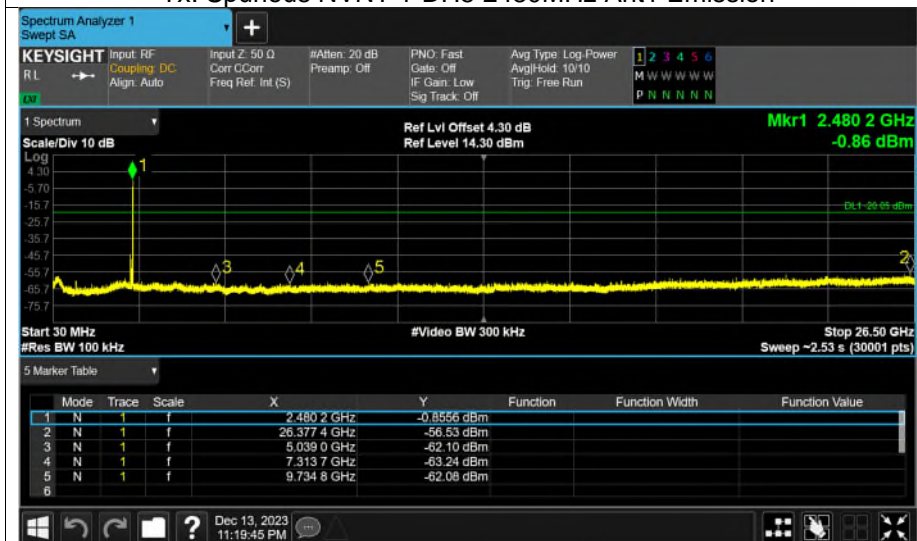
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



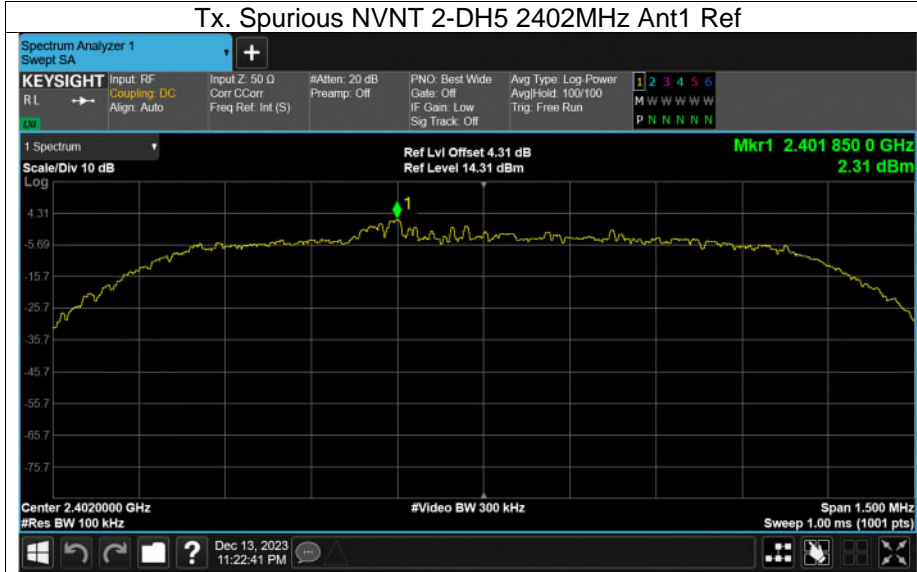
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



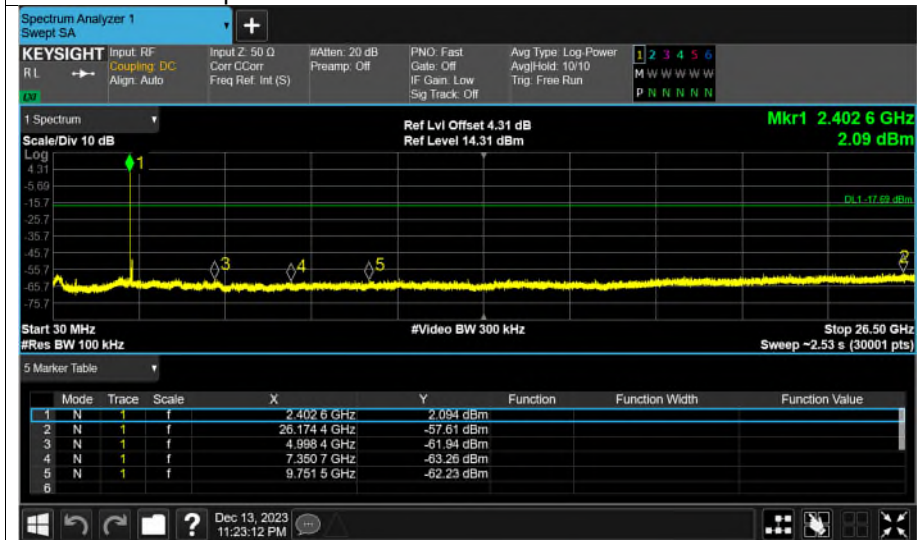
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



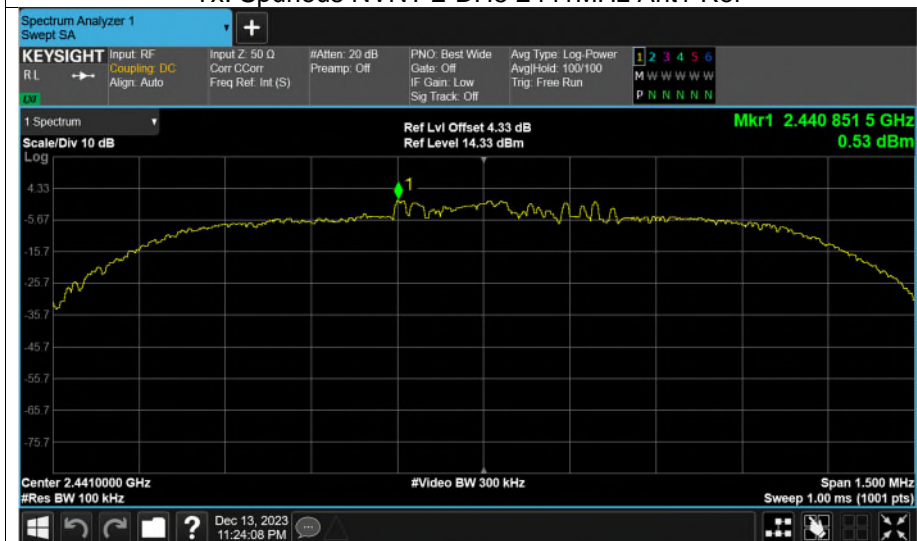
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



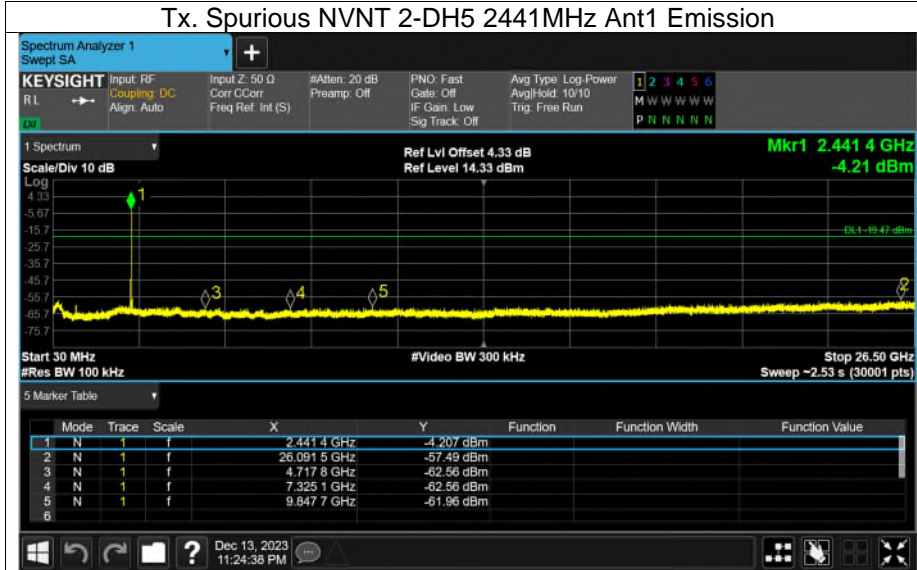
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



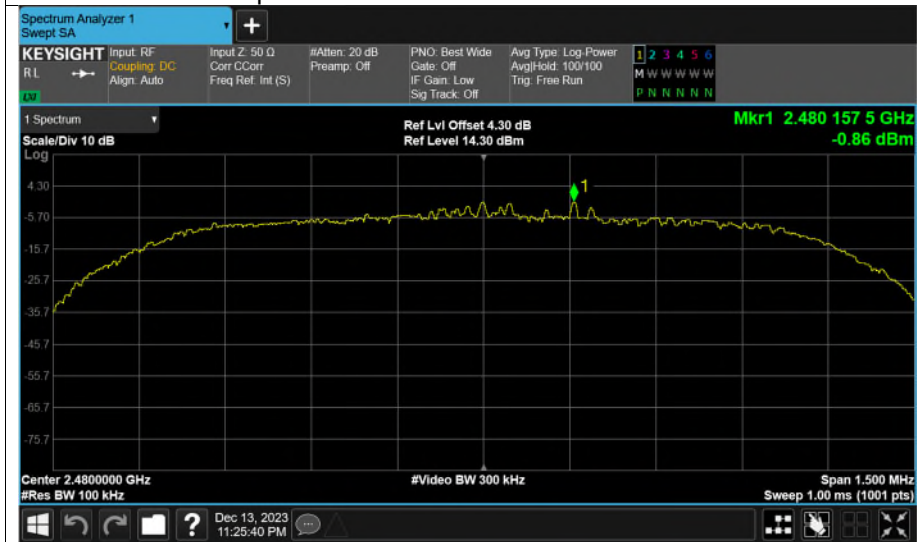
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



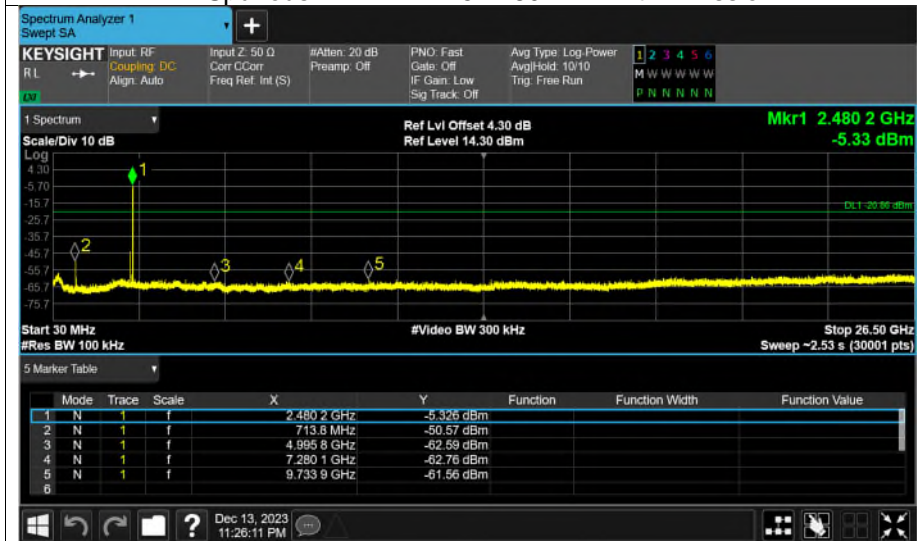
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



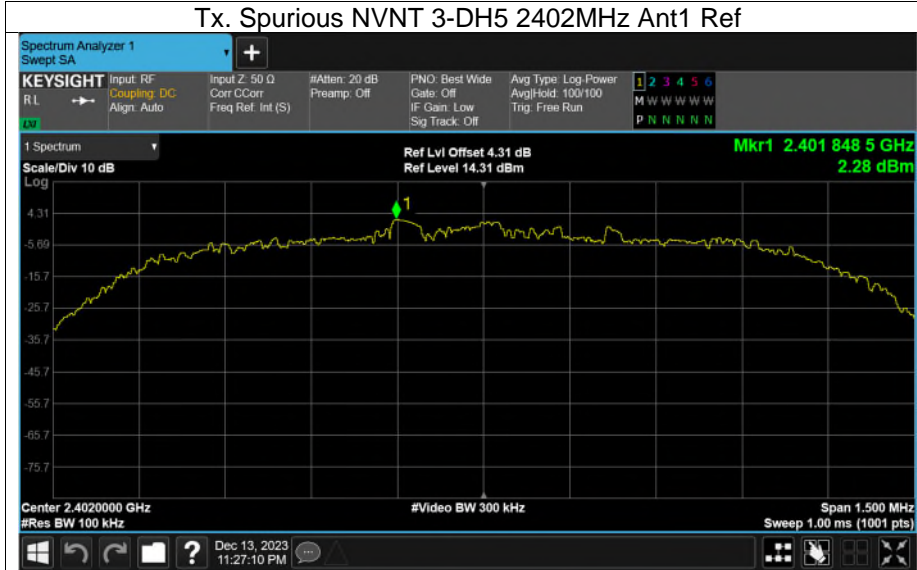
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



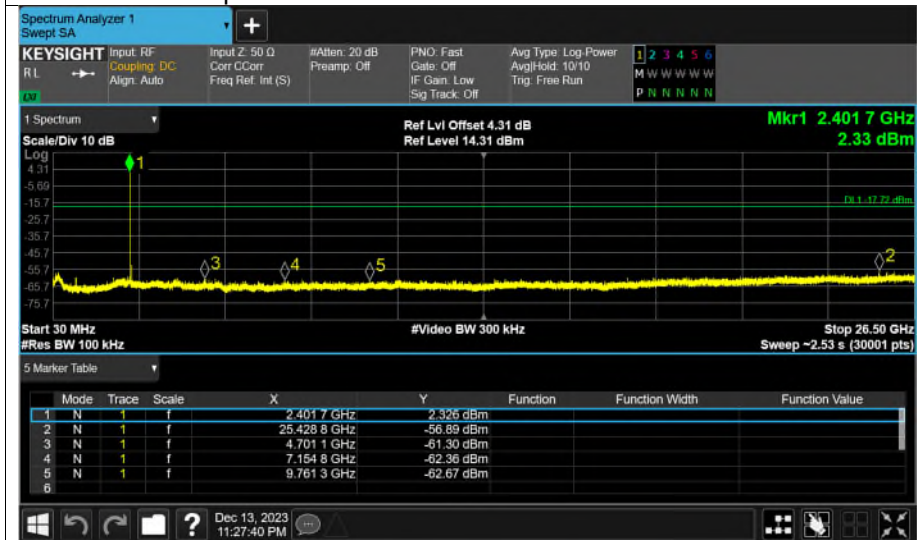
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



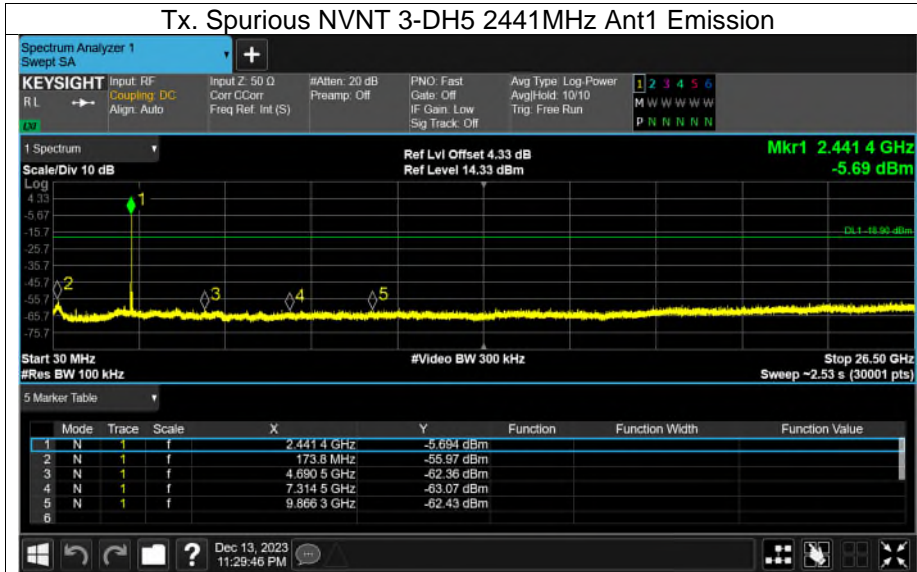
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



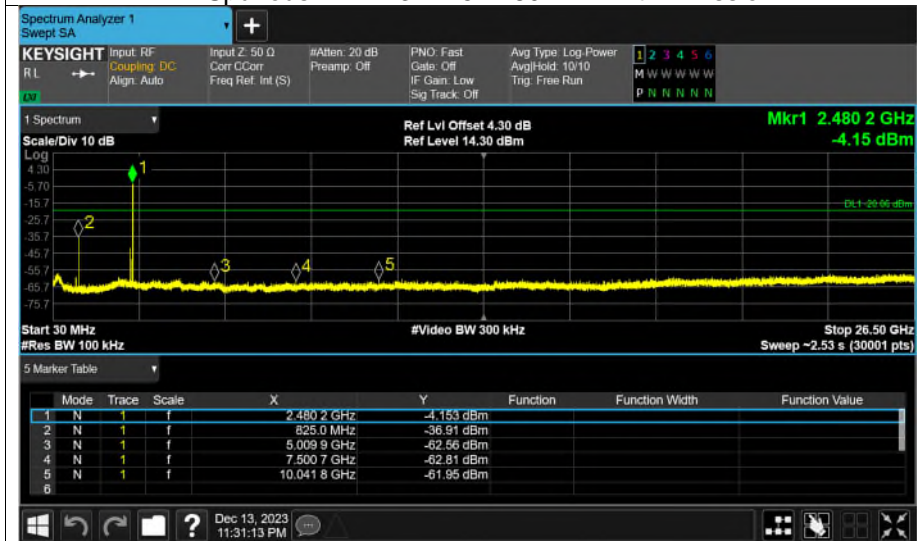
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref

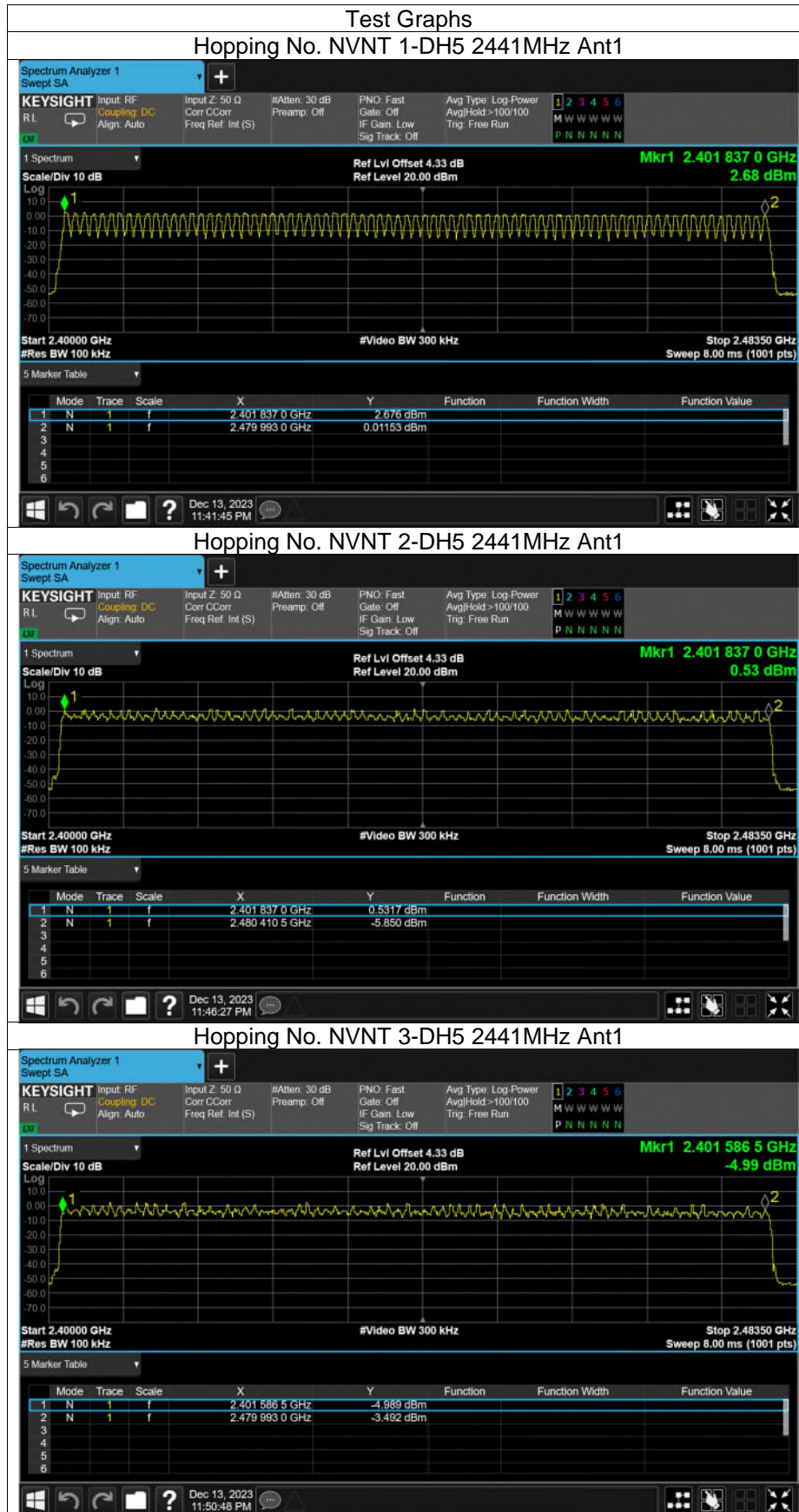


Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission



Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

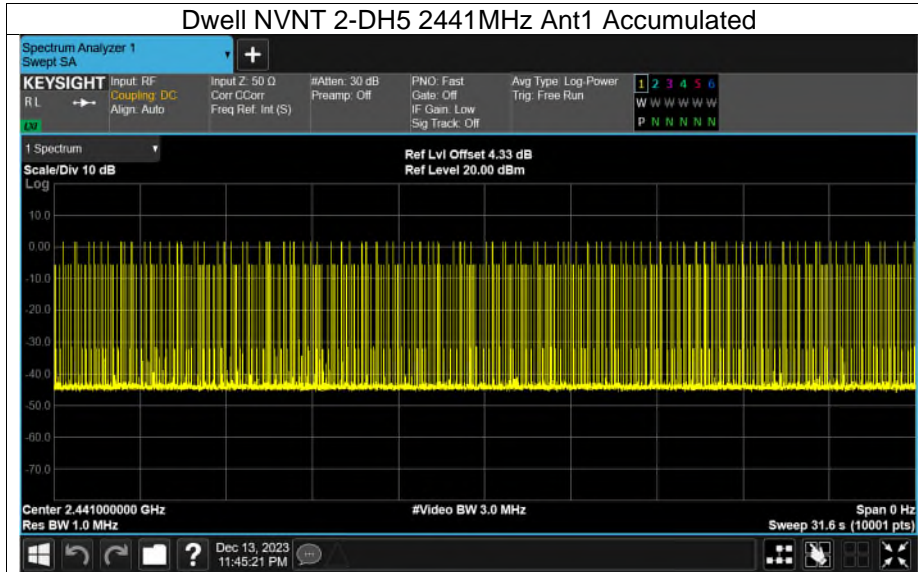


Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2441	Ant1	2.869	306.983	107	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.877	304.962	106	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.881	305.386	106	31600	400	Pass



Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2441MHz Ant1 One Burst

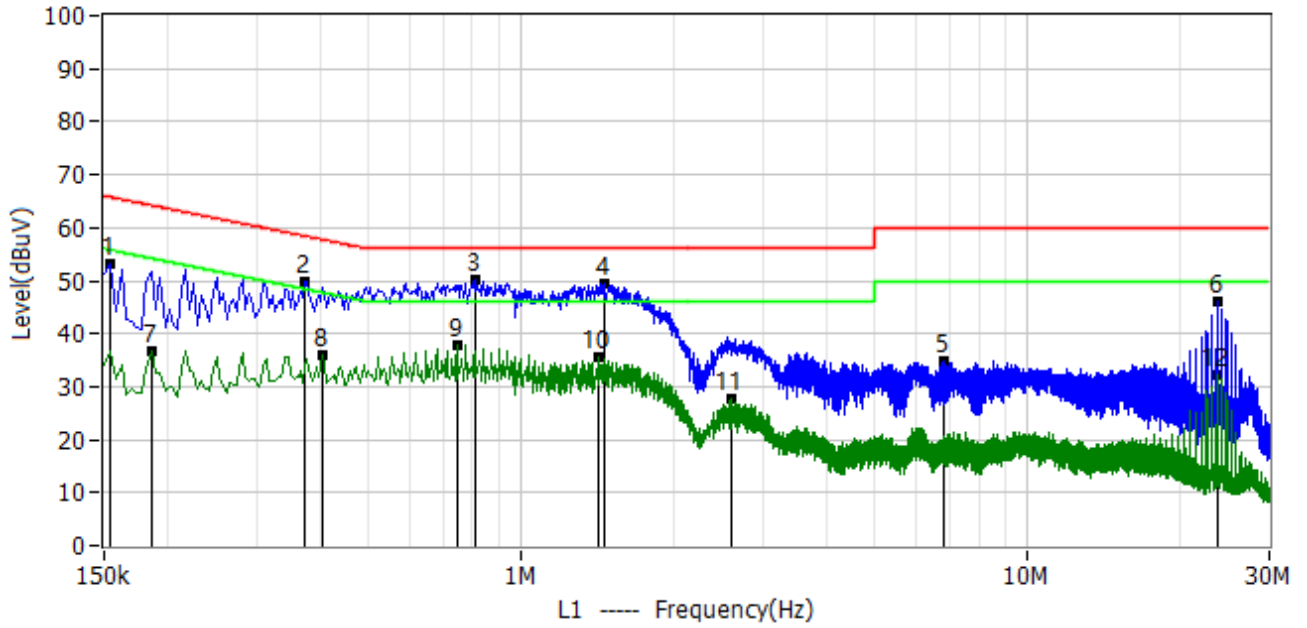


Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated



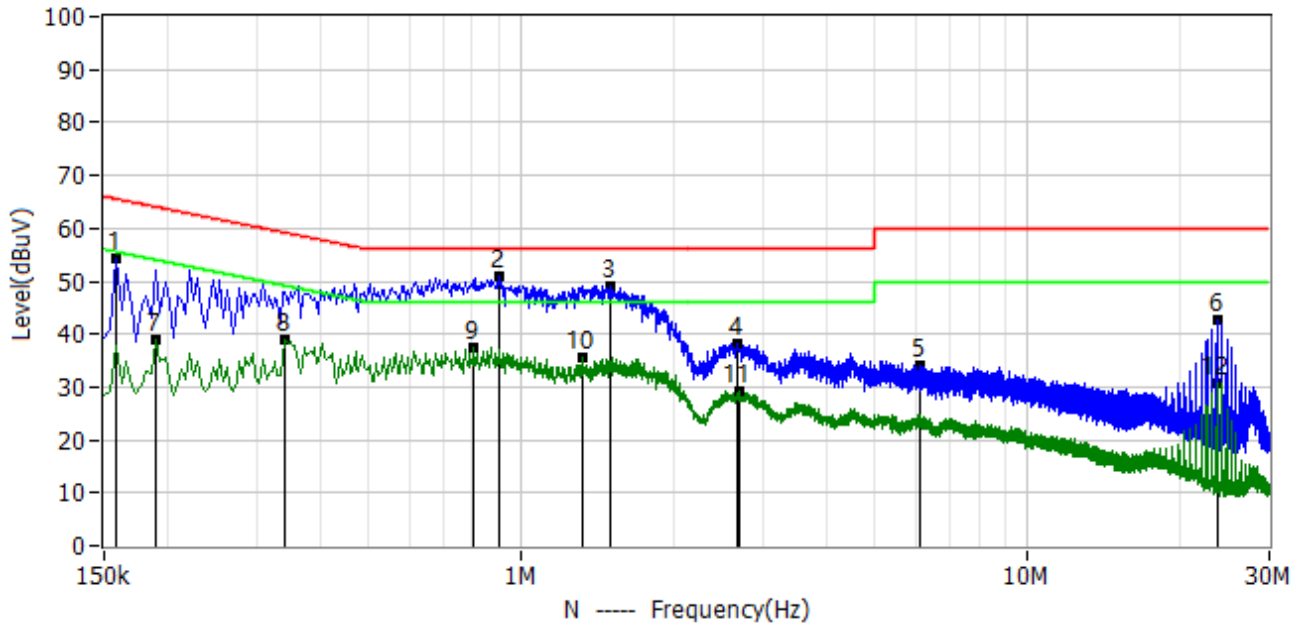
CONDUCTED EMISSION MEASUREMENT

Project: LGT23L015	Test Engineer: LiuH
EUT: Rock Speaker	Temperature: 24.9
M/N: VOS-600	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2023-12-09
Test Mode: BT	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.154	42.67	10.49	53.16	65.78	-12.62	QP	L1
2*	0.374	39.44	10.49	49.93	58.41	-8.48	QP	L1
3*	0.810	39.66	10.51	50.17	56.00	-5.83	QP	L1
4*	1.454	39.00	10.61	49.61	56.00	-6.39	QP	L1
5*	6.858	24.01	10.86	34.87	60.00	-25.13	QP	L1
6*	23.646	34.90	11.18	46.08	60.00	-13.92	QP	L1
7*	0.186	26.38	10.49	36.87	54.21	-17.35	AV	L1
8*	0.406	25.45	10.49	35.94	47.73	-11.79	AV	L1
9*	0.746	27.44	10.51	37.95	46.00	-8.05	AV	L1
10*	1.422	24.89	10.60	35.49	46.00	-10.51	AV	L1
11*	2.606	17.04	10.73	27.77	46.00	-18.23	AV	L1
12*	23.634	21.19	11.18	32.37	50.00	-17.63	AV	L1

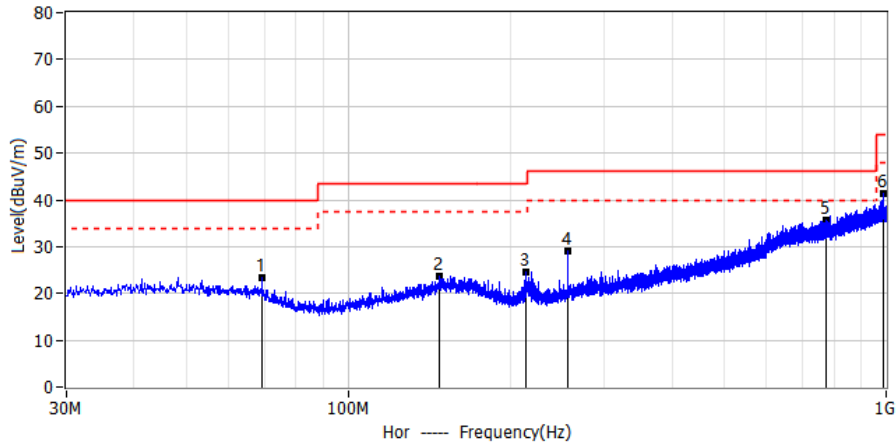
Project: LGT23L015	Test Engineer: LiuH
EUT: Rock Speaker	Temperature: 24.9
M/N: VOS-600	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2023-12-09
Test Mode: BT	
Note:	



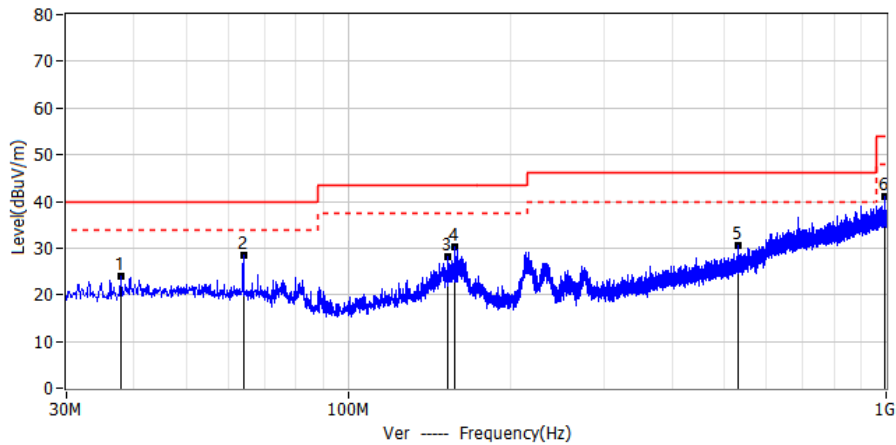
No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.158	43.86	10.49	54.35	65.57	-11.21	QP	N
2*	0.906	40.25	10.51	50.76	56.00	-5.24	QP	N
3*	1.498	38.54	10.62	49.16	56.00	-6.84	QP	N
4*	2.666	27.54	10.74	38.28	56.00	-17.72	QP	N
5*	6.146	23.14	10.84	33.98	60.00	-26.02	QP	N
6*	23.654	31.25	11.29	42.54	60.00	-17.46	QP	N
7*	0.190	28.31	10.49	38.80	54.04	-15.24	AV	N
8*	0.342	28.64	10.49	39.13	49.15	-10.03	AV	N
9*	0.806	26.94	10.51	37.45	46.00	-8.55	AV	N
10*	1.318	25.01	10.58	35.59	46.00	-10.41	AV	N
11*	2.698	18.52	10.74	29.26	46.00	-16.74	AV	N
12*	23.654	19.56	11.29	30.85	50.00	-19.15	AV	N

Radiated Spurious Emission, 30MHz - 1GHz

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-09
Test Mode: TX DH5 2402	
Note:	

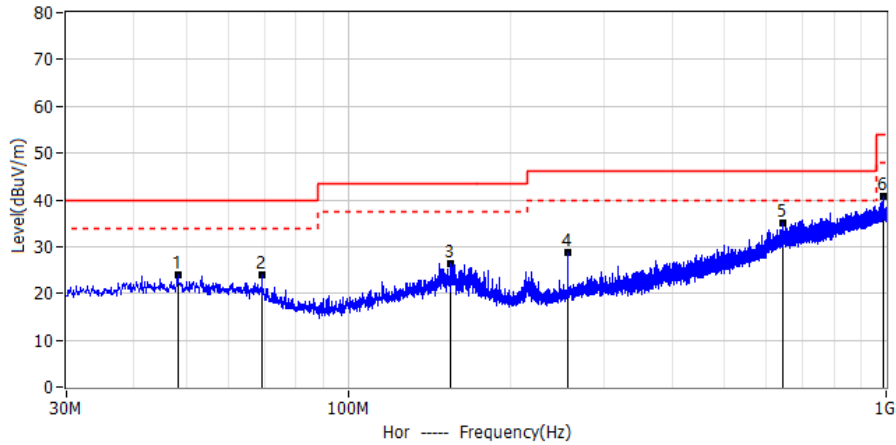


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	69.164	5.17	18.07	23.24	40.00	-16.76	QP	Hor
2*	147.491	3.95	19.75	23.70	43.50	-19.80	QP	Hor
3*	213.573	7.61	16.97	24.58	43.50	-18.92	QP	Hor
4*	256.131	10.43	18.52	28.95	46.00	-17.05	QP	Hor
5*	772.050	4.71	30.81	35.52	46.00	-10.48	QP	Hor
6*	986.784	6.71	34.51	41.22	54.00	-12.78	QP	Hor

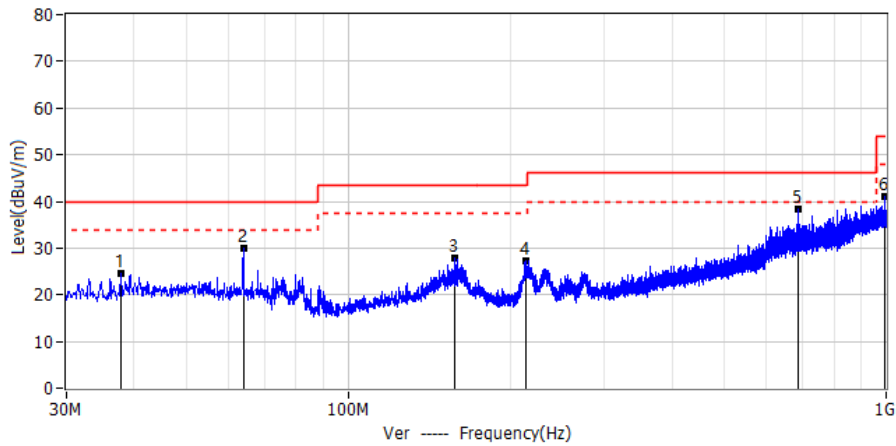


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	37.760	4.97	19.00	23.97	40.00	-16.03	QP	Ver
2*	63.950	9.94	18.40	28.34	40.00	-11.66	QP	Ver
3*	153.433	8.26	19.94	28.20	43.50	-15.30	QP	Ver
4*	158.040	10.41	19.87	30.28	43.50	-13.22	QP	Ver
5*	529.793	5.05	25.64	30.69	46.00	-15.31	QP	Ver
6*	994.301	6.54	34.54	41.08	54.00	-12.92	QP	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-09
Test Mode: TX DH5 2441	
Note:	

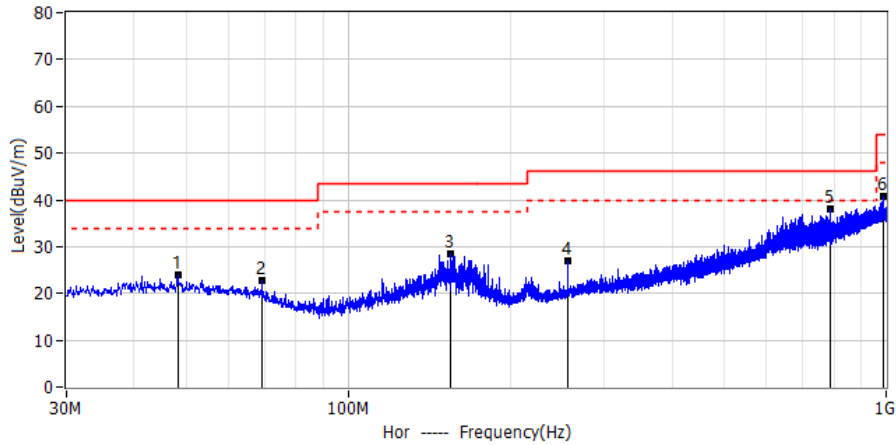


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	48.309	4.72	19.31	24.03	40.00	-15.97	QP	Hor
2*	69.164	6.04	18.07	24.11	40.00	-15.89	QP	Hor
3*	155.009	6.49	19.91	26.40	43.50	-17.10	QP	Hor
4*	256.131	10.35	18.52	28.87	46.00	-17.13	QP	Hor
5*	643.040	5.97	29.06	35.03	46.00	-10.97	QP	Hor
6*	986.784	6.15	34.51	40.66	54.00	-13.34	QP	Hor

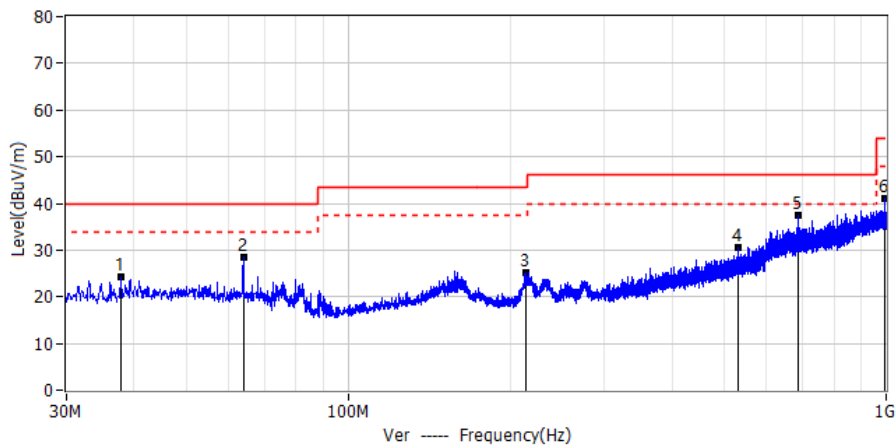


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	37.760	5.71	19.00	24.71	40.00	-15.29	QP	Ver
2*	63.950	11.50	18.40	29.90	40.00	-10.10	QP	Ver
3*	158.040	8.11	19.87	27.98	43.50	-15.52	QP	Ver
4*	214.543	10.35	16.96	27.31	43.50	-16.19	QP	Ver
5*	687.539	8.67	29.69	38.36	46.00	-7.64	QP	Ver
6*	994.301	6.54	34.54	41.08	54.00	-12.92	QP	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-09
Test Mode: TX DH5 2480	
Note:	



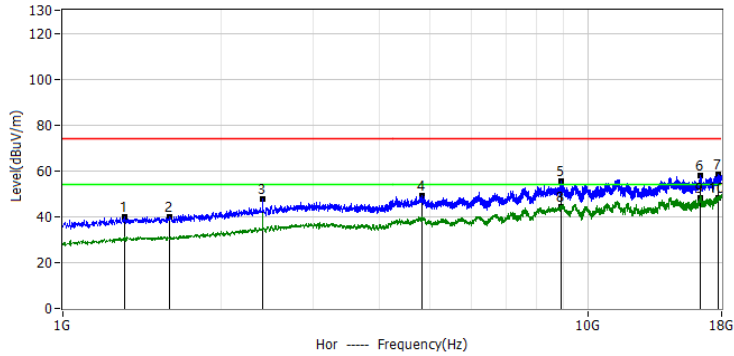
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	48.309	4.72	19.31	24.03	40.00	-15.97	QP	Hor
2*	69.164	4.61	18.07	22.68	40.00	-17.32	QP	Hor
3*	155.009	8.41	19.91	28.32	43.50	-15.18	QP	Hor
4*	256.131	8.56	18.52	27.08	46.00	-18.92	QP	Hor
5*	788.419	6.92	30.99	37.91	46.00	-8.09	QP	Hor
6*	986.784	6.15	34.51	40.66	54.00	-13.34	QP	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	37.760	5.15	19.00	24.15	40.00	-15.85	QP	Ver
2*	63.950	10.15	18.40	28.55	40.00	-11.45	QP	Ver
3*	214.543	8.20	16.96	25.16	43.50	-18.34	QP	Ver
4*	529.793	4.94	25.64	30.58	46.00	-15.42	QP	Ver
5*	687.539	7.88	29.69	37.57	46.00	-8.43	QP	Ver
6*	994.301	6.54	34.54	41.08	54.00	-12.92	QP	Ver

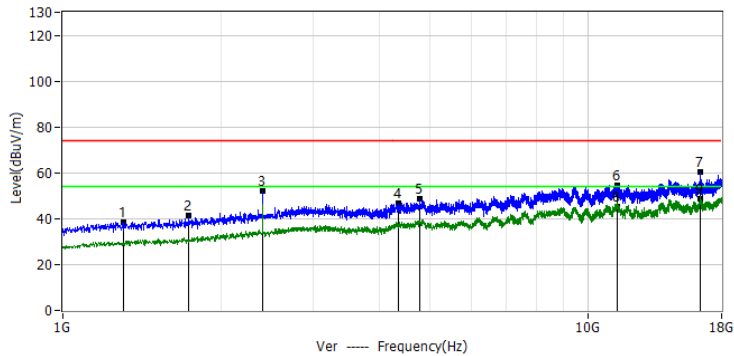
Radiated Spurious Emission, 1GHz - 18GHz

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: DH5 2402	
Note:	



Note: Point 2 is the radio fundamental frequency, so the limit is not applicable and skipped.

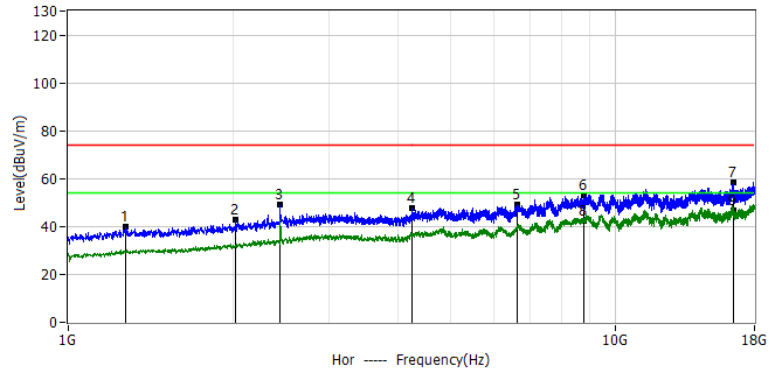
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1308.1000	61.94	-22.11	39.83	74.00	-34.17	PK	Hor
2*	1599.2000	60.24	-20.18	40.06	74.00	-33.94	PK	Hor
3*	2402.5000	59.85	-12.01	47.84	--	--	PK	Hor
4*	4835.6000	54.97	-6.01	48.96	74.00	-25.04	PK	Hor
5*	8919.9000	57.09	-1.40	55.69	74.00	-18.31	PK	Hor
6*	16387.1000	51.24	6.86	58.10	74.00	-15.90	PK	Hor
7*	17721.6000	50.32	8.33	58.65	74.00	-15.35	PK	Hor
8*	8919.9000	45.70	-1.40	44.30	54.00	-9.70	AV	Hor
9*	16387.1000	41.44	6.86	48.30	54.00	-5.70	AV	Hor
10*	17721.6000	39.77	8.33	48.10	54.00	-5.90	AV	Hor



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

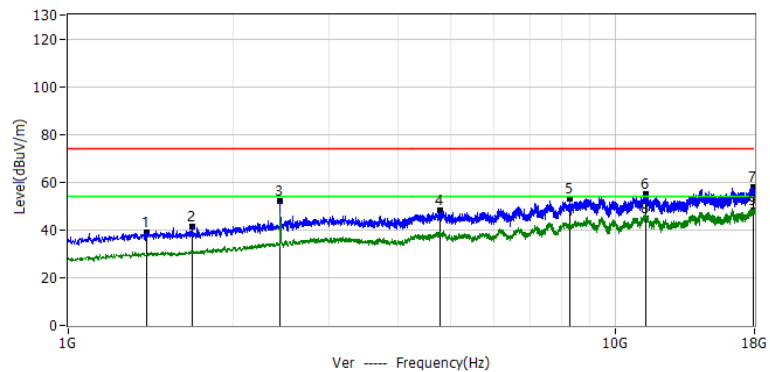
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1306.0000	60.43	-22.13	38.30	74.00	-35.70	PK	Ver
2*	1737.4000	60.04	-18.86	41.18	74.00	-32.82	PK	Ver
3*	2402.5000	64.08	-12.01	52.07	--	--	PK	Ver
4*	4363.9000	53.12	-6.33	46.79	74.00	-27.21	PK	Ver
5*	4778.2000	54.43	-5.97	48.46	74.00	-25.54	PK	Ver
6*	11393.4000	52.91	1.86	54.77	74.00	-19.23	PK	Ver
7*	16382.9000	53.46	6.86	60.32	74.00	-13.68	PK	Ver
8*	11393.4000	43.44	1.86	45.30	54.00	-8.70	AV	Ver
9*	16382.9000	41.64	6.86	48.50	54.00	-5.50	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: DH5 2440	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

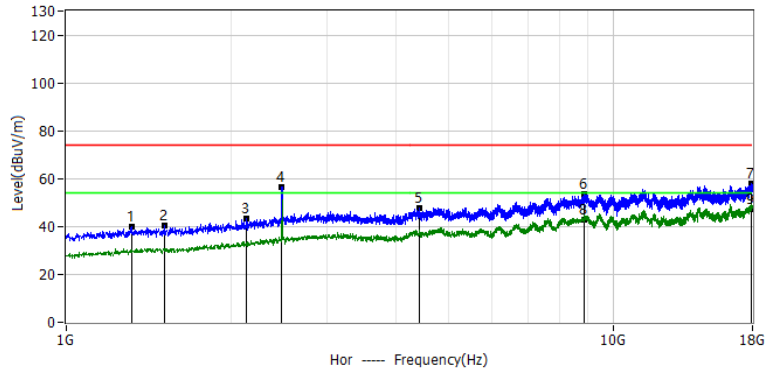
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1269.9000	62.44	-22.41	40.03	74.00	-33.97	PK	Hor
2*	2026.4000	58.68	-15.95	42.73	74.00	-31.27	PK	Hor
3*	2440.7000	61.00	-11.61	49.39	--	--	PK	Hor
4*	4261.9000	54.57	-6.76	47.81	74.00	-26.19	PK	Hor
5*	6631.2000	55.34	-6.34	49.00	74.00	-25.00	PK	Hor
6*	8783.9000	55.03	-1.78	53.25	74.00	-20.75	PK	Hor
7*	16467.9000	51.68	6.99	58.67	74.00	-15.33	PK	Hor
8*	8783.9000	43.98	-1.78	42.20	54.00	-11.80	AV	Hor
9*	16467.9000	39.51	6.99	46.50	54.00	-7.50	AV	Hor



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

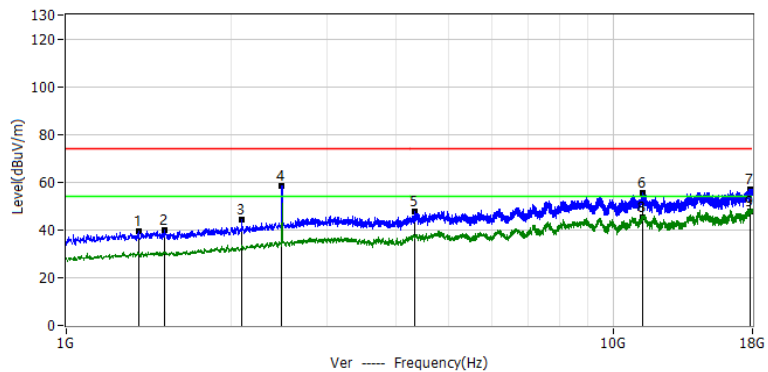
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1388.9000	60.59	-21.47	39.12	74.00	-34.88	PK	Ver
2*	1682.1000	60.86	-19.39	41.47	74.00	-32.53	PK	Ver
3*	2440.7000	63.88	-11.61	52.27	--	--	PK	Ver
4*	4776.1000	53.93	-5.97	47.96	74.00	-26.04	PK	Ver
5*	8261.1000	56.43	-3.26	53.17	74.00	-20.83	PK	Ver
6*	11365.7000	53.36	1.85	55.21	74.00	-18.79	PK	Ver
7*	17868.2000	49.54	8.43	57.97	74.00	-16.03	PK	Ver
8*	11365.7000	42.95	1.85	44.80	54.00	-9.20	AV	Ver
9*	17868.2000	39.67	8.43	48.10	54.00	-5.90	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: DH5 2480	
Note:	



Note: Point 4 is the radio fundamental frequency, so the limit is not applicable and skipped.

No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1316.6000	62.09	-22.04	40.05	74.00	-33.95	PK	Hor
2*	1510.0000	61.18	-20.77	40.41	74.00	-33.59	PK	Hor
3*	2134.7000	58.01	-14.82	43.19	74.00	-30.81	PK	Hor
4*	2479.0000	67.68	-11.21	56.47	--	--	PK	Hor
5*	4423.4000	53.62	-6.08	47.54	74.00	-26.46	PK	Hor
6*	8856.1000	54.98	-1.58	53.40	74.00	-20.60	PK	Hor
7*	17932.0000	49.25	8.47	57.72	74.00	-16.28	PK	Hor
8*	8856.1000	44.28	-1.58	42.70	54.00	-11.30	AV	Hor
9*	17932.0000	38.83	8.47	47.30	54.00	-6.70	AV	Hor



Note: Point 4 is the radio fundamental frequency, so the limit is not applicable and skipped.

No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1357.0000	61.38	-21.72	39.66	74.00	-34.34	PK	Ver
2*	1510.0000	60.51	-20.77	39.74	74.00	-34.26	PK	Ver
3*	2090.1000	59.49	-15.28	44.21	74.00	-29.79	PK	Ver
4*	2479.0000	69.46	-11.21	58.25	--	--	PK	Ver
5*	4332.0000	54.37	-6.47	47.90	74.00	-26.10	PK	Ver
6*	11355.1000	53.55	1.84	55.39	74.00	-18.61	PK	Ver
7*	17849.1000	48.70	8.41	57.11	74.00	-16.89	PK	Ver
8*	11355.1000	43.56	1.84	45.40	54.00	-8.60	AV	Ver
9*	17849.1000	39.29	8.41	47.70	54.00	-6.30	AV	Ver

Appendix A

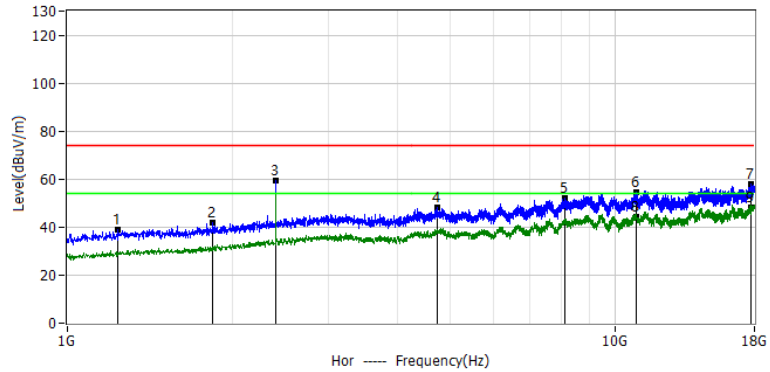


CN23TV1S 001

Page 49 of 60

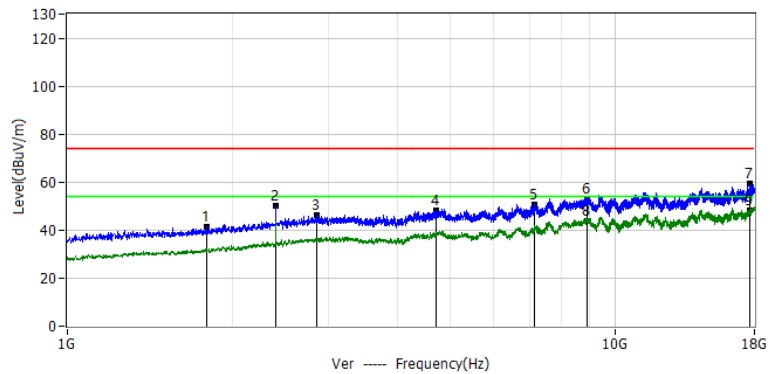
Produkte
Products

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 2DH5 2402	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

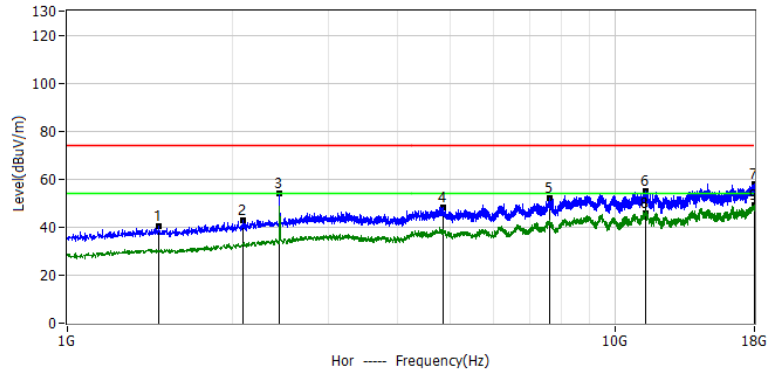
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1238.0000	61.49	-22.67	38.82	74.00	-35.18	PK	Hor
2*	1845.7000	59.48	-17.79	41.69	74.00	-32.31	PK	Hor
3*	2402.5000	71.46	-12.01	59.45	--	--	PK	Hor
4*	4731.5000	53.90	-5.93	47.97	74.00	-26.03	PK	Hor
5*	8118.7000	55.95	-3.66	52.29	74.00	-21.71	PK	Hor
6*	10970.5000	52.84	1.55	54.39	74.00	-19.61	PK	Hor
7*	17736.5000	49.45	8.34	57.79	74.00	-16.21	PK	Hor
8*	10970.5000	42.55	1.55	44.10	54.00	-9.90	AV	Hor
9*	17736.5000	39.86	8.34	48.20	54.00	-5.80	AV	Hor



Note: Point 2 is the radio fundamental frequency, so the limit is not applicable and skipped.

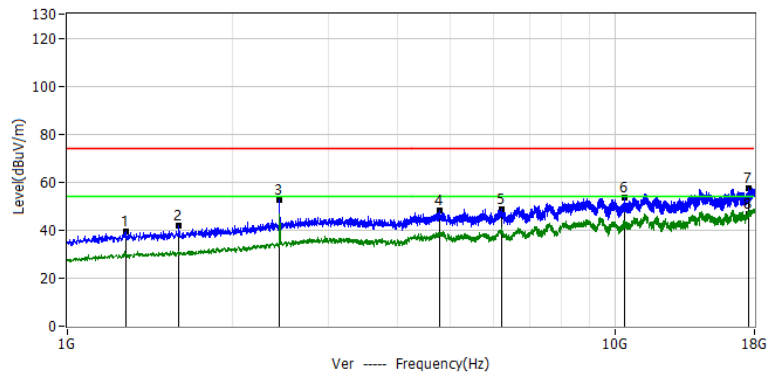
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1794.7000	59.92	-18.30	41.62	74.00	-32.38	PK	Ver
2*	2402.5000	62.28	-12.01	50.27	--	--	PK	Ver
3*	2848.7000	55.47	-9.14	46.33	74.00	-27.67	PK	Ver
4*	4706.0000	54.09	-5.91	48.18	74.00	-25.82	PK	Ver
5*	7141.2000	56.18	-5.30	50.88	74.00	-23.12	PK	Ver
6*	8881.6000	54.70	-1.51	53.19	74.00	-20.81	PK	Ver
7*	17672.7000	50.93	8.29	59.22	74.00	-14.78	PK	Ver
8*	8881.6000	45.41	-1.51	43.90	54.00	-10.10	AV	Ver
9*	17672.7000	40.11	8.29	48.40	54.00	-5.60	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 2DH5 2440	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

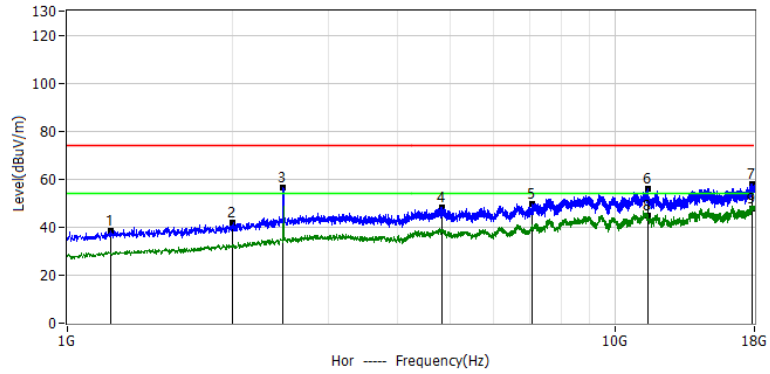
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1471.7000	61.32	-20.99	40.33	74.00	-33.67	PK	Hor
2*	2092.2000	58.24	-15.26	42.98	74.00	-31.02	PK	Hor
3*	2440.7000	65.43	-11.61	53.82	--	--	PK	Hor
4*	4854.7000	54.45	-6.03	48.42	74.00	-25.58	PK	Hor
5*	7604.5000	56.14	-4.23	51.91	74.00	-22.09	PK	Hor
6*	11399.7000	53.34	1.87	55.21	74.00	-18.79	PK	Hor
7*	17978.7000	49.22	8.51	57.73	74.00	-16.27	PK	Hor
8*	11399.7000	44.03	1.87	45.90	54.00	-8.10	AV	Hor
9*	17978.7000	40.59	8.51	49.10	54.00	-4.90	AV	Hor



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

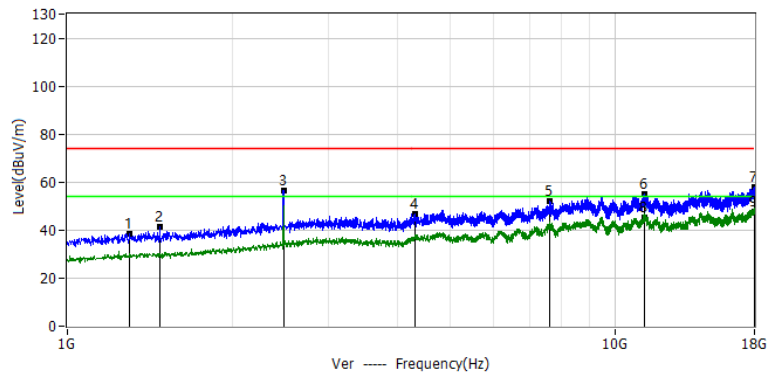
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1280.5000	61.63	-22.33	39.30	74.00	-34.70	PK	Ver
2*	1597.1000	62.21	-20.20	42.01	74.00	-31.99	PK	Ver
3*	2440.7000	64.32	-11.61	52.71	--	--	PK	Ver
4*	4795.2000	54.16	-5.98	48.18	74.00	-25.82	PK	Ver
5*	6219.0000	55.92	-7.11	48.81	74.00	-25.19	PK	Ver
6*	10437.1000	53.27	0.05	53.32	74.00	-20.68	PK	Ver
7*	17572.9000	49.40	8.22	57.62	74.00	-16.38	PK	Ver
8*	17572.9000	38.38	8.22	46.60	54.00	-7.40	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 2DH5 2480	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

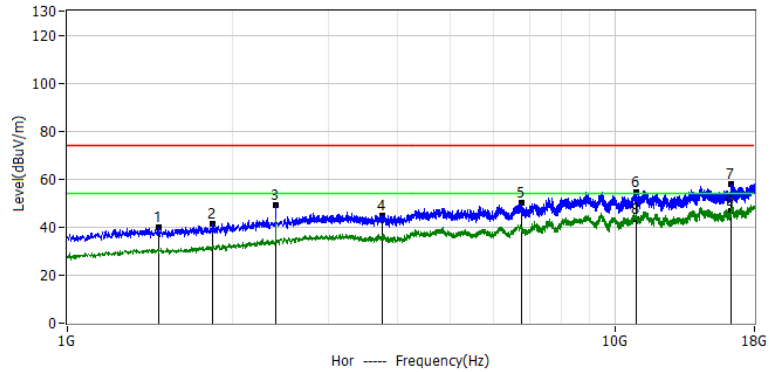
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1197.6000	61.66	-22.99	38.67	74.00	-35.33	PK	Hor
2*	2007.2000	58.00	-16.15	41.85	74.00	-32.15	PK	Hor
3*	2479.0000	67.91	-11.21	56.70	--	--	PK	Hor
4*	4831.4000	54.27	-6.01	48.26	74.00	-25.74	PK	Hor
5*	7075.4000	55.22	-5.48	49.74	74.00	-24.26	PK	Hor
6*	11495.4000	54.00	1.92	55.92	74.00	-18.08	PK	Hor
7*	17859.7000	49.68	8.42	58.10	74.00	-15.90	PK	Hor
8*	11495.4000	42.68	1.92	44.60	54.00	-9.40	AV	Hor
9*	17859.7000	39.08	8.42	47.50	54.00	-6.50	AV	Hor



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

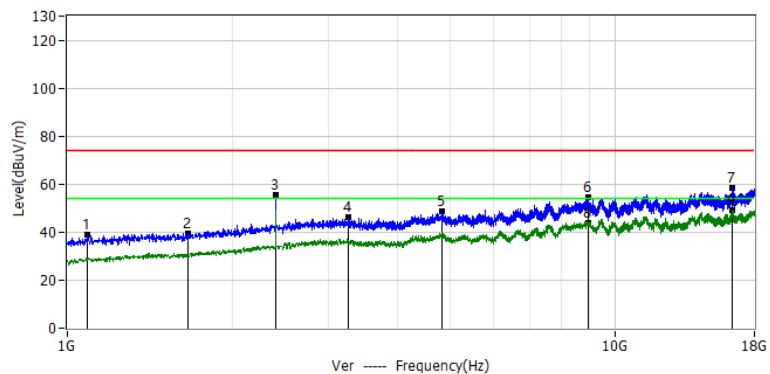
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1297.5000	60.67	-22.19	38.48	74.00	-35.52	PK	Ver
2*	1476.0000	62.13	-20.97	41.16	74.00	-32.84	PK	Ver
3*	2481.1000	67.65	-11.18	56.47	--	--	PK	Ver
4*	4323.5000	53.34	-6.50	46.84	74.00	-27.16	PK	Ver
5*	7600.2000	56.12	-4.24	51.88	74.00	-22.12	PK	Ver
6*	11346.6000	53.16	1.83	54.99	74.00	-19.01	PK	Ver
7*	17972.4000	49.36	8.50	57.86	74.00	-16.14	PK	Ver
8*	11346.6000	43.37	1.83	45.20	54.00	-8.80	AV	Ver
9*	17972.4000	39.30	8.50	47.80	54.00	-6.20	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 3DH5 2402	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

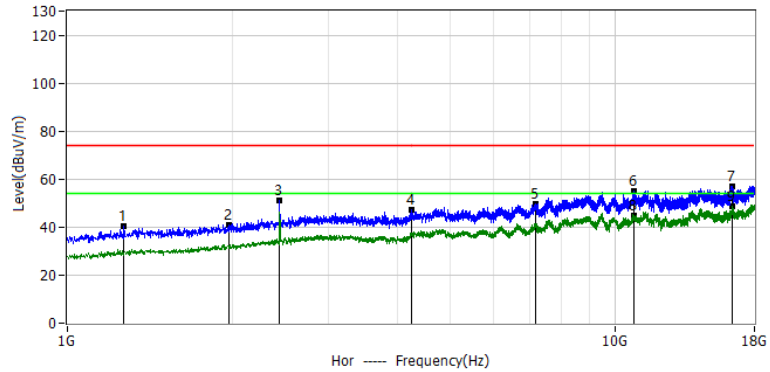
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1467.5000	60.98	-21.02	39.96	74.00	-34.04	PK	Hor
2*	1841.5000	59.29	-17.83	41.46	74.00	-32.54	PK	Hor
3*	2402.5000	61.40	-12.01	49.39	--	--	PK	Hor
4*	3760.4000	53.20	-8.17	45.03	74.00	-28.97	PK	Hor
5*	6748.1000	56.13	-6.13	50.00	74.00	-24.00	PK	Hor
6*	10959.9000	52.90	1.52	54.42	74.00	-19.58	PK	Hor
7*	16327.6000	51.19	6.77	57.96	74.00	-16.04	PK	Hor
8*	10959.9000	41.88	1.52	43.40	54.00	-10.60	AV	Hor
9*	16327.6000	40.03	6.77	46.80	54.00	-7.20	AV	Hor



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

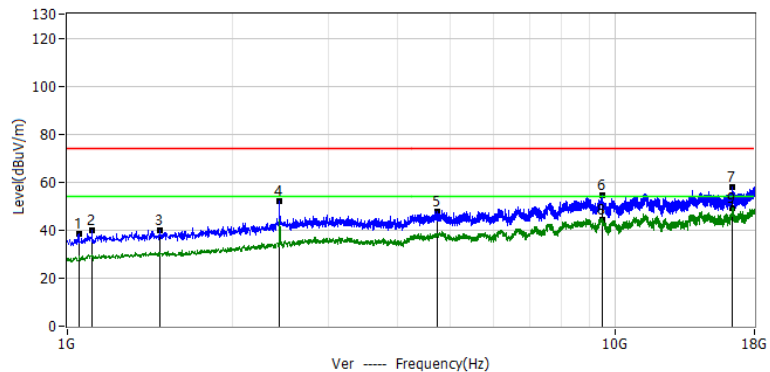
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1089.2000	62.99	-23.95	39.04	74.00	-34.96	PK	Ver
2*	1656.6000	59.30	-19.63	39.67	74.00	-34.33	PK	Ver
3*	2402.5000	67.44	-12.01	55.43	--	--	PK	Ver
4*	3256.7000	54.68	-8.42	46.26	74.00	-27.74	PK	Ver
5*	4842.0000	54.90	-6.02	48.88	74.00	-25.12	PK	Ver
6*	8947.5000	55.83	-1.32	54.51	74.00	-19.49	PK	Ver
7*	16380.7000	51.44	6.85	58.29	74.00	-15.71	PK	Ver
8*	8947.5000	45.32	-1.32	44.00	54.00	-10.00	AV	Ver
9*	16380.7000	42.25	6.85	49.10	54.00	-4.90	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 3DH5 2440	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

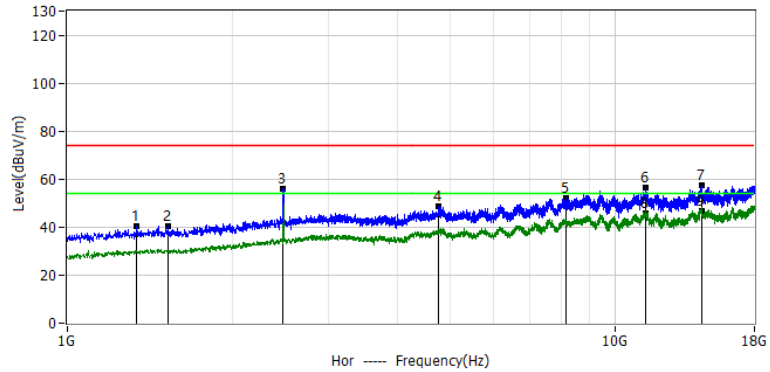
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1267.7000	62.68	-22.43	40.25	74.00	-33.75	PK	Hor
2*	1977.5000	57.41	-16.46	40.95	74.00	-33.05	PK	Hor
3*	2440.7000	62.77	-11.61	51.16	--	--	PK	Hor
4*	4259.7000	53.78	-6.77	47.01	74.00	-26.99	PK	Hor
5*	7177.4000	54.70	-5.20	49.50	74.00	-24.50	PK	Hor
6*	10853.6000	53.88	1.22	55.10	74.00	-18.90	PK	Hor
7*	16393.5000	50.30	6.87	57.17	74.00	-16.83	PK	Hor
8*	10853.6000	43.38	1.22	44.60	54.00	-9.40	AV	Hor
9*	16393.5000	41.73	6.87	48.60	54.00	-5.40	AV	Hor



Note: Point 4 is the radio fundamental frequency, so the limit is not applicable and skipped.

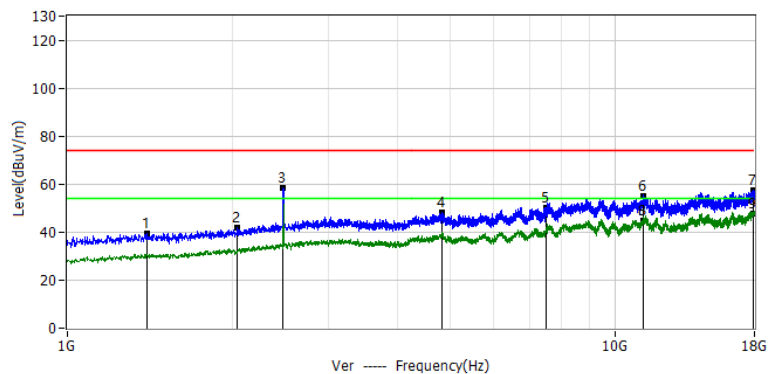
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1048.9000	62.56	-24.31	38.25	74.00	-35.75	PK	Ver
2*	1108.4000	63.66	-23.78	39.88	74.00	-34.12	PK	Ver
3*	1476.0000	61.02	-20.97	40.05	74.00	-33.95	PK	Ver
4*	2440.7000	63.65	-11.61	52.04	--	--	PK	Ver
5*	4737.9000	53.64	-5.94	47.70	74.00	-26.30	PK	Ver
6*	9470.2000	55.59	-1.17	54.42	74.00	-19.58	PK	Ver
7*	16382.9000	51.20	6.86	58.06	74.00	-15.94	PK	Ver
8*	9470.2000	45.67	-1.17	44.50	54.00	-9.50	AV	Ver
9*	16382.9000	42.24	6.86	49.10	54.00	-4.90	AV	Ver

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 3DH5 2480	
Note:	



Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1337.9000	62.39	-21.87	40.52	74.00	-33.48	PK	Hor
2*	1524.9000	61.01	-20.68	40.33	74.00	-33.67	PK	Hor
3*	2479.0000	66.97	-11.21	55.76	--	--	PK	Hor
4*	4767.6000	54.56	-5.96	48.60	74.00	-25.40	PK	Hor
5*	8129.4000	55.54	-3.63	51.91	74.00	-22.09	PK	Hor
6*	11397.6000	54.61	1.86	56.47	74.00	-17.53	PK	Hor
7*	14434.2000	51.31	5.91	57.22	74.00	-16.78	PK	Hor
8*	11397.6000	43.94	1.86	45.80	54.00	-8.20	AV	Hor
9*	14434.2000	40.69	5.91	46.60	54.00	-7.40	AV	Hor

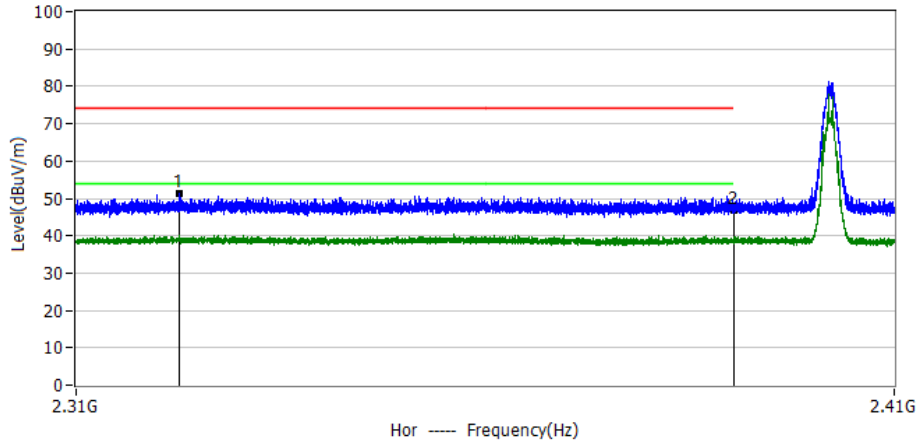


Note: Point 3 is the radio fundamental frequency, so the limit is not applicable and skipped.

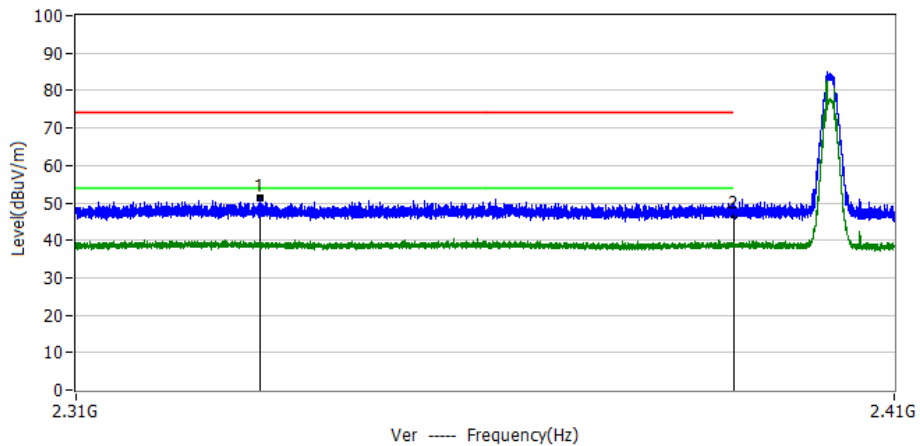
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1395.2000	60.68	-21.42	39.26	74.00	-34.74	PK	Ver
2*	2043.4000	57.55	-15.77	41.78	74.00	-32.22	PK	Ver
3*	2479.0000	69.46	-11.21	58.25	--	--	PK	Ver
4*	4842.0000	54.20	-6.02	48.18	74.00	-25.82	PK	Ver
5*	7485.5000	54.69	-4.34	50.35	74.00	-23.65	PK	Ver
6*	11280.7000	53.46	1.80	55.26	74.00	-18.74	PK	Ver
7*	17902.2000	49.21	8.45	57.66	74.00	-16.34	PK	Ver
8*	11280.7000	42.80	1.80	44.60	54.00	-9.40	AV	Ver
9*	17902.2000	39.05	8.45	47.50	54.00	-6.50	AV	Ver

Radiated Band Edge

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: DH5 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2322.4000	17.15	34.11	51.26	74.00	-22.74	PK	Hor
2*	2390.0000	13.05	33.95	47.00	74.00	-27.00	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2332.1000	17.05	34.09	51.14	74.00	-22.86	PK	Ver
2*	2390.0000	13.05	33.95	47.00	74.00	-27.00	PK	Ver

Appendix A

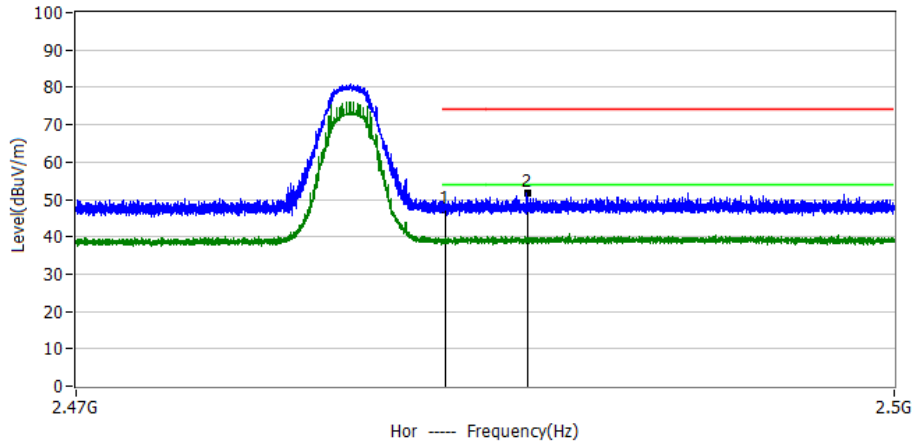


CN23TV1S 001

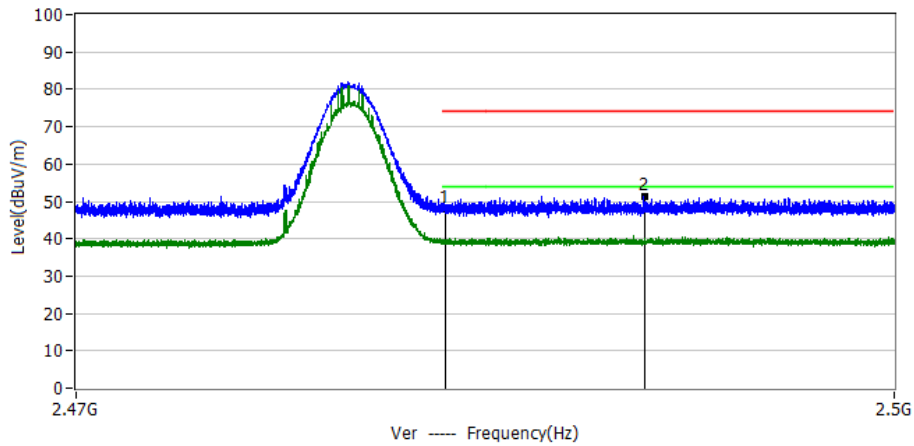
Page 56 of 60

Produkte
Products

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: DH5 2480	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	13.07	34.13	47.20	74.00	-26.80	PK	Hor
2*	2486.5000	17.61	34.13	51.74	74.00	-22.26	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	13.67	34.13	47.80	74.00	-26.20	PK	Ver
2*	2490.8000	17.22	34.14	51.36	74.00	-22.64	PK	Ver

Appendix A

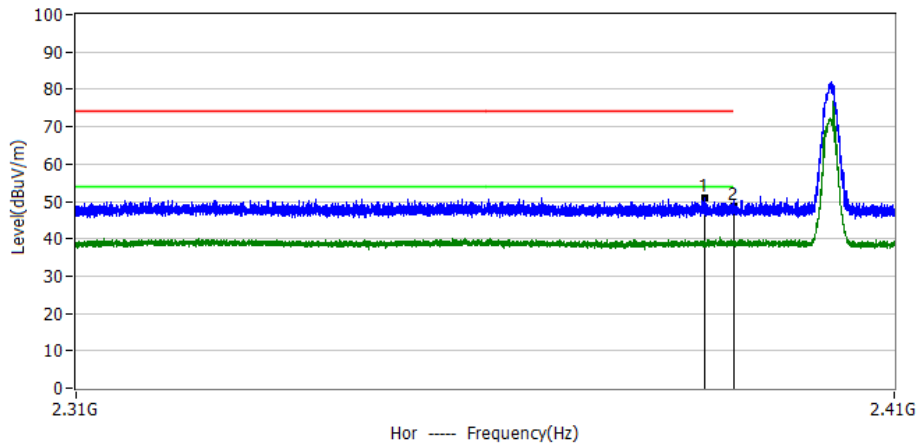


CN23TV1S 001

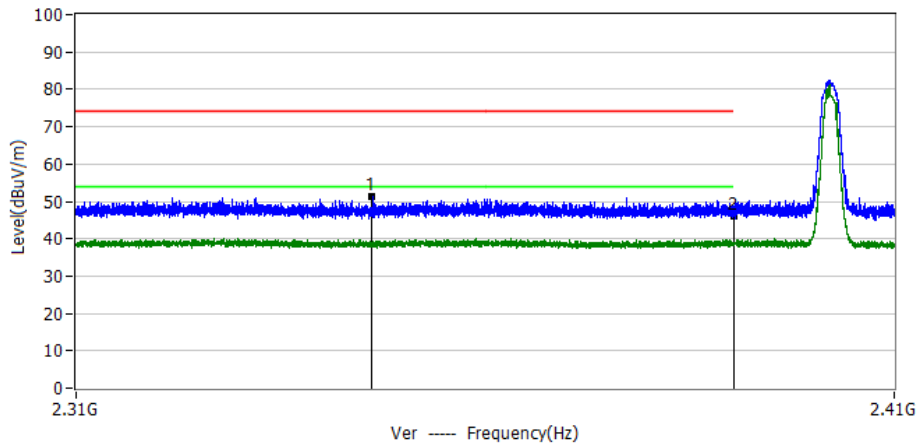
Page 57 of 60

Produkte
Products

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 2DH5 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2386.5000	17.03	33.96	50.99	74.00	-23.01	PK	Hor
2*	2390.0000	14.65	33.95	48.60	74.00	-25.40	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2345.7000	17.14	34.06	51.20	74.00	-22.80	PK	Ver
2*	2390.0000	11.95	33.95	45.90	74.00	-28.10	PK	Ver

Appendix A

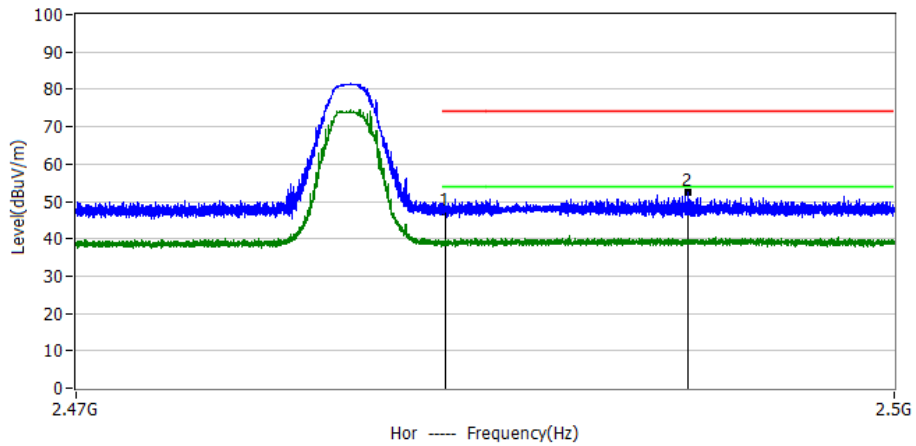


CN23TV1S 001

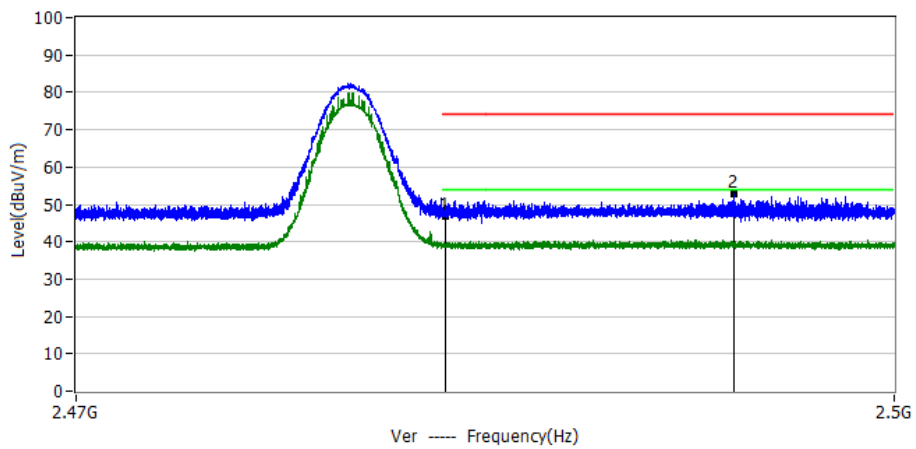
Page 58 of 60

Produkte
Products

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 2DH5 2480	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	13.07	34.13	47.20	74.00	-26.80	PK	Hor
2*	2492.4000	18.46	34.15	52.61	74.00	-21.39	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	12.57	34.13	46.70	74.00	-27.30	PK	Ver
2*	2494.1000	18.60	34.15	52.75	74.00	-21.25	PK	Ver

Appendix A

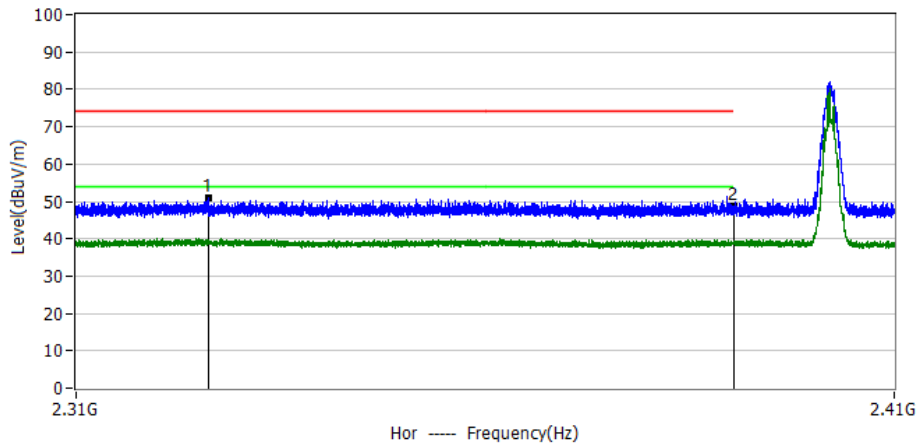


CN23TV1S 001

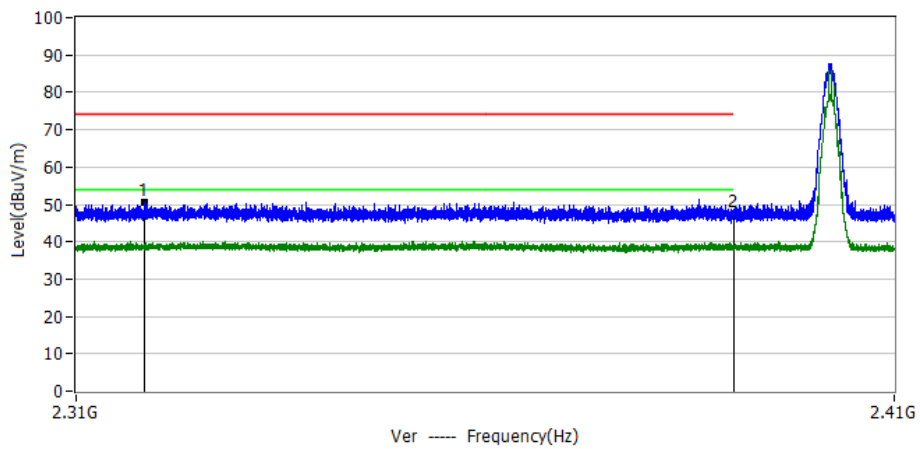
Page 59 of 60

Produkte
Products

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 3DH5 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2325.9000	17.01	34.10	51.11	74.00	-22.89	PK	Hor
2*	2390.0000	14.75	33.95	48.70	74.00	-25.30	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2318.2000	16.32	34.12	50.44	74.00	-23.56	PK	Ver
2*	2390.0000	13.55	33.95	47.50	74.00	-26.50	PK	Ver

Appendix A

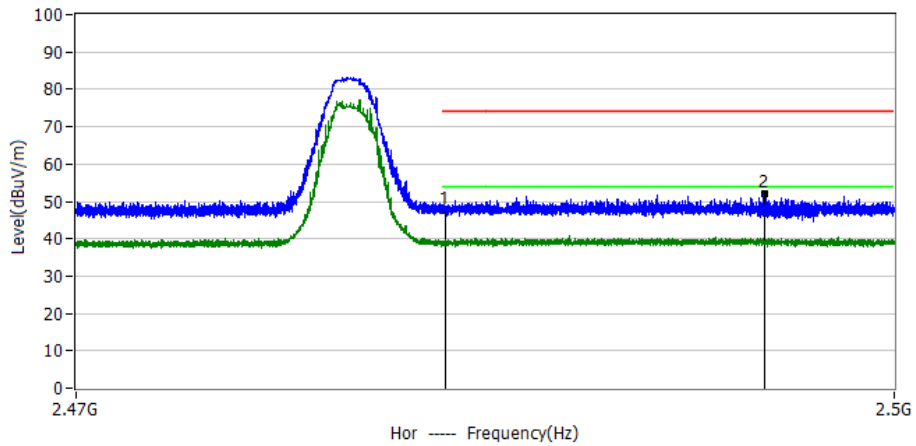


CN23TV1S 001

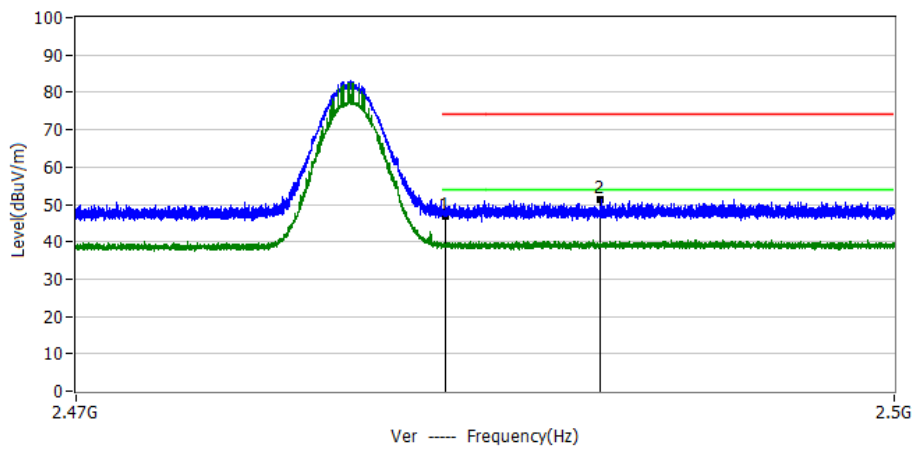
Page 60 of 60

Produkte
Products

Project: LGT23L015	Test Engineer: Xiangdong Ma
EUT: Rock Speaker	Temperature: 26.5
M/N: VOS-600	Humidity: 50%RH
Test Voltage: Battery	Test Data: 2023-12-14
Test Mode: 3DH5 2480	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	13.27	34.13	47.40	74.00	-26.60	PK	Hor
2*	2495.2000	17.90	34.15	52.05	74.00	-21.95	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	12.77	34.13	46.90	74.00	-27.10	PK	Ver
2*	2489.2000	17.16	34.14	51.30	74.00	-22.70	PK	Ver

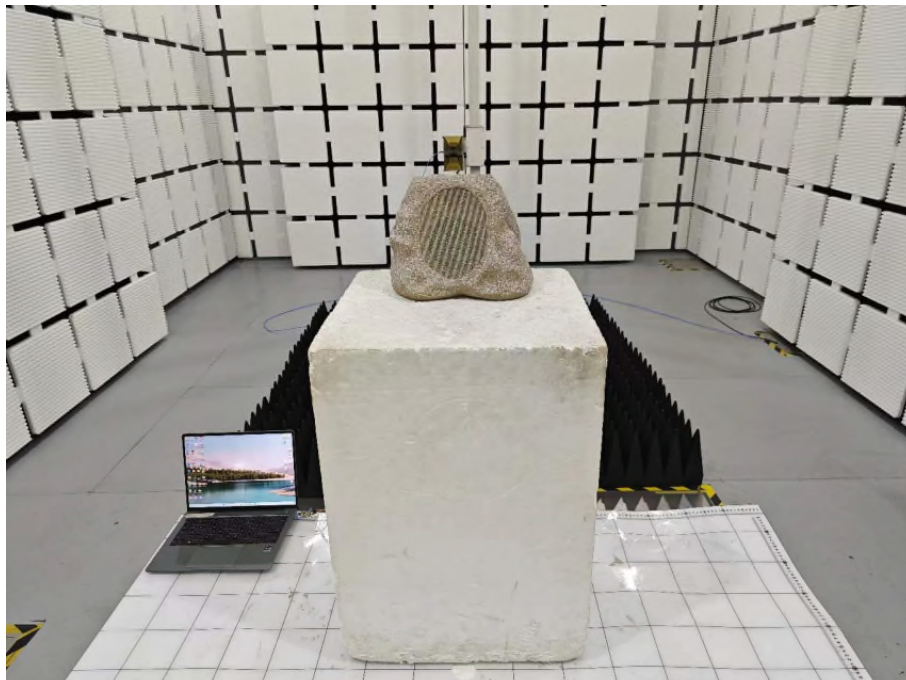
Appendix B: Photographs of the Test Set-Up

APPENDIX B: PHOTOGRAPHS OF THE TEST SET-UP	1
PHOTOGRAPH 1: SET-UP FOR RADIATED SPURIOUS EMISSION, 30MHz - 1GHz	2
PHOTOGRAPH 2: SET-UP FOR RADIATED SPURIOUS EMISSION, 1GHz - 18GHz	2
PHOTOGRAPH 3: SET-UP FOR CONDUCTED EMISSION ON AC MAINS	3

Photograph 1: Set-up for Radiated Spurious Emission, 30MHz - 1GHz



Photograph 2: Set-up for Radiated Spurious Emission, 1GHz - 18GHz



Photograph 3: Set-up for Conducted Emission on AC Mains

