Prüfbericht - Produkte
Test Report - Products

TÜVRheinland®

Prüfbericht-Nr.: *Test report no.:*	**CN22X7FM 001**	**Auftrags-Nr.:** *Order no.:*	**168394479**	**Seite 1 von 18** *Page 1 of 18*
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2022-10-17	
Auftraggeber: *Client:*	**Degrii, Inc.** 8 The Green, Ste A, Dover, DE 19901, United States			
Prüfgegenstand: *Test item:*	Degrii Remote Thermostat			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	THP (Trademark: Degrii)			
Auftrags-Inhalt: *Order content:*	FCC and IC approval			
Prüfgrundlage: *Test specification:*	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		RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 February 2021	

Wareneingangsdatum: *Date of sample receipt:*	2022-10-26	Please refer to photo documents
Prüfmuster-Nr.: *Test sample no.:*	A003358728-001~003	
Prüfzeitraum: *Testing period:*	2022-10-28 – 2022-11-07	
Ort der Prüfung: *Place of testing:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüfergebnis*: *Test result*:*	Pass	

geprüft von: *tested by:*	X Alex Lan Signed by: Alex Lan	**genehmigt von:** *authorized by:*	X Lin Lin Signed by: Lin Lin
Datum: *Date:* 2022-12-01		**Ausstellungsdatum:** *Issue date:* 2022-12-02	
Stellung / Position	Assistant Project Manager	**Stellung** / Position	Reviewer

Sonstiges / *Other:*

FCC ID: 2A82N-DEGRIITHP
IC: 29487-DEGRIITHP HVIN: THP

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged:*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhalt
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specifications(s)		*F(ail) = failed a.m. test specifications(s)*	*N/A = not applicable*	*N/T = not tested*

TÜV Rheinland (Shenzhen) Co., Ltd. 1601 R&D Room, 1602-1604, 17-18F, Building 7 Site C, Vanke Cloud City Phase I, Xingke First Street, Xili Street, Xili Community, Nanshan District, Shenzhen 518052, P.R. China
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Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY
RESULT: Pass

5.1.4 99%DB BANDWIDTH
RESULT: Pass

5.1.5 6DB BANDWIDTH
RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH
RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION
RESULT: Pass

Contents

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: Photographs of the Test Set-up

Appendix B: Test Results of Bluetooth Low Energy.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, People's Republic of China

FCC Registration No.: 694916

IC Registration No.: 25069, CAB identifier: CN0078

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)				
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Cal. until**
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2023-10-10
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2023-10-10
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2023-10-10
DC power supply	Keysight	E3642A	MY61276100	2023-10-10
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2023-10-10
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2023-10-10
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
Shielding Room 8#	Albatross	SR8	APC17151-SR8	2024-06-22
Unwanted Emission Testing (TS9975)				
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Cal. until**
EMI Test Receiver	R&S	ESR 7	102021	2023-08-02
Signal Analyzer	R&S	FSV 40	101439	2023-08-01
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	2023-08-01
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2023-08-02
Amplifier	R&S	SCU-18F	180070	2023-08-02
Amplifier	R&S	SCU40A	100475	2023-08-02
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2024-08-06
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	2024-08-06
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2024-08-27
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2023-08-06
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A

Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2024-06-22

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 basics 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.

Parameter	Uncertainty (k=2)
RF output power, conducted	± 0.99 dB
Occupied Channel Bandwidth	± 2.08 %
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	±4.17 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	±4.17 dB

2.6 Location of Original Data

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

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, People's Republic of 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 a Degrii Remote Thermostat which supported Bluetooth Low Energy technology.

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	Degrii Remote Thermostat
Type Designation	THP
FCC ID	2A82N-DEGRIITHP
IC	29487-DEGRIITHP
HVIN	THP
Operating Voltage	DC 3.0V(AAA Alkaline Battery x 2)
Technical Specification of Bluetooth Low Energy	
Operating Frequency	2402 – 2480 MHz
Data rate	1Mbps
Channel Number	40 channels
Channel separation	2MHz
Modulation	GFSK
Number of Antenna	1
Antenna Type	PIFA antenna
Antenna Gain	2.93dBi

Table 3: RF Channel and Frequency of Bluetooth Low Energy

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	**2402.00**	10	2422.00	20	2442.00	30	2462.00
01	2404.00	11	2424.00	21	2444.00	31	2464.00
02	2406.00	12	2426.00	22	2446.00	32	2466.00
03	2408.00	13	2428.00	23	2448.00	33	2468.00
04	2410.00	14	2430.00	24	2450.00	34	2470.00
05	2412.00	15	2432.00	25	2452.00	35	2472.00
06	2414.00	16	2434.00	26	2454.00	36	2474.00
07	2416.00	17	2436.00	27	2456.00	37	2476.00
08	2418.00	18	2438.00	28	2458.00	38	2478.00
09	2420.00	**19**	**2440.00**	29	2460.00	**39**	**2480.00**

Test frequencies are lowest channel: 2402 MHz, middle channel: 2440 MHz and highest channel: 2480 MHz

3.3 Independent Operation Modes

The basic operation modes are:

A. On, Bluetooth transmitting mode
    1. Low channel
    2. Middle channel
    3. High channel

B. 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
- 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 testing were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model *THP* in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	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)

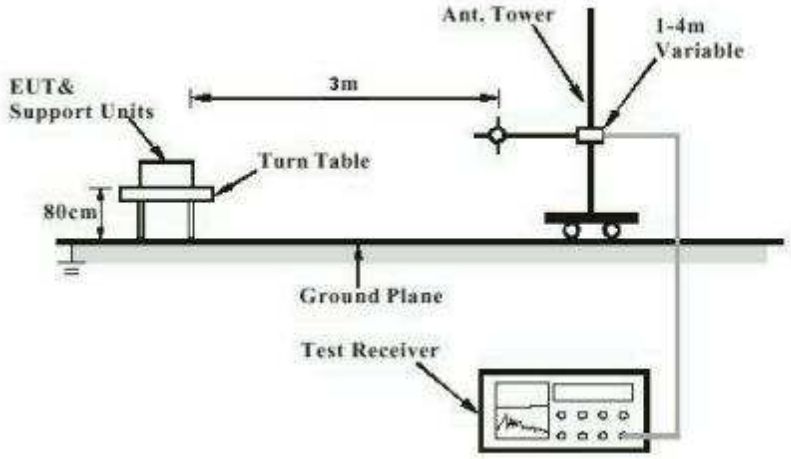


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

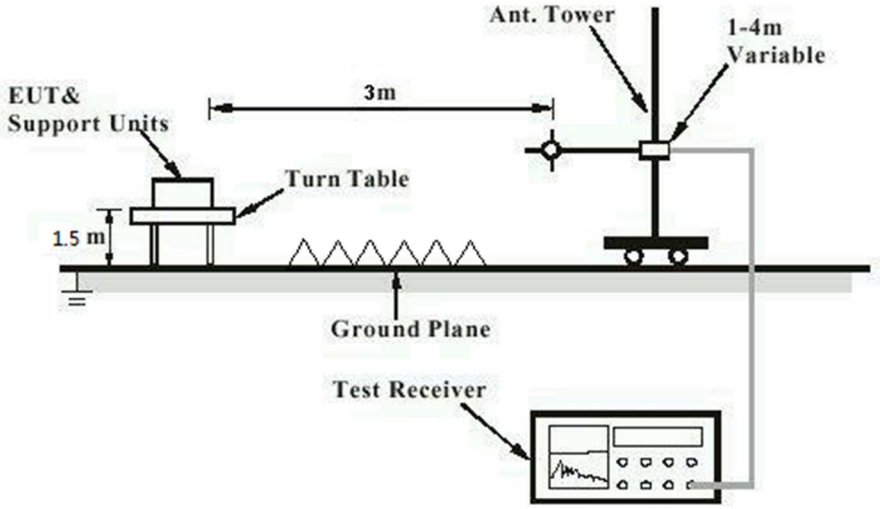
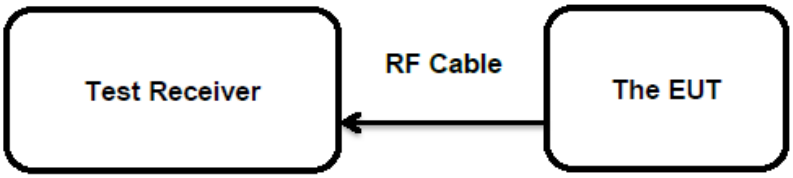


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 RSS-Gen Clause 6.7
Limit	:	the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has a PIFA antenna, the maximum directional gain of antenna IS 2.93 dBi, 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.

Refer to EUT Photo for further details.

5.1.2 Maximum Conducted Output Power

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(b)(3) RSS-247 Clause 5.4(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 1 Watt (Maximum Conducted Peak Power) e.i.r.p. <4W
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-11-07
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24 ℃
Relative humidity	:	40 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 5: Test Result of Maximum Conducted Output Power, 1Mbps

Test Mode	Channel	Channel Frequency (MHz)	Conducted Peak Output Power		Limit
			(dBm)	(W)	(W)
Bluetooth Low Energy	Low Channel	2402	13.35	0.0216	1
	Middle Channel	2440	14.03	0.0253	1
	High Channel	2480	12.25	0.0168	1

Note: The cable loss is taken into account in results and the e.i.r.p. is 16.96 dBm less than 4W (36 dBm).

5.1.3 Conducted Power Spectral Density

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(e) RSS-247 Clause 5.2(b)
Basic standard	:	ANSI C63.10: 2013
Limits	:	8 dBm / 3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-11-07
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24 ℃
Relative humidity	:	40 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

5.1.4 99%dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	RSS-Gen clause 6.7
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-10-28 to 2022-11-07
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24 ℃
Relative humidity	:	40 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

5.1.5 6dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(2) RSS-247 Clause 5.2(a)
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-10-28 to 2022-11-07
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24 ℃
Relative humidity	:	40 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

5.1.6 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	:	2022-11-07
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24 ℃
Relative humidity	:	40 %
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.

5.1.7 Radiated Spurious Emission

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3 & 5.5
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 4 & Table 5
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	2022-11-03
Input voltage	:	Fully charged battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	23 ℃
Relative humidity	:	56 %
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.

6 Photographs of the Test Set-Up

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

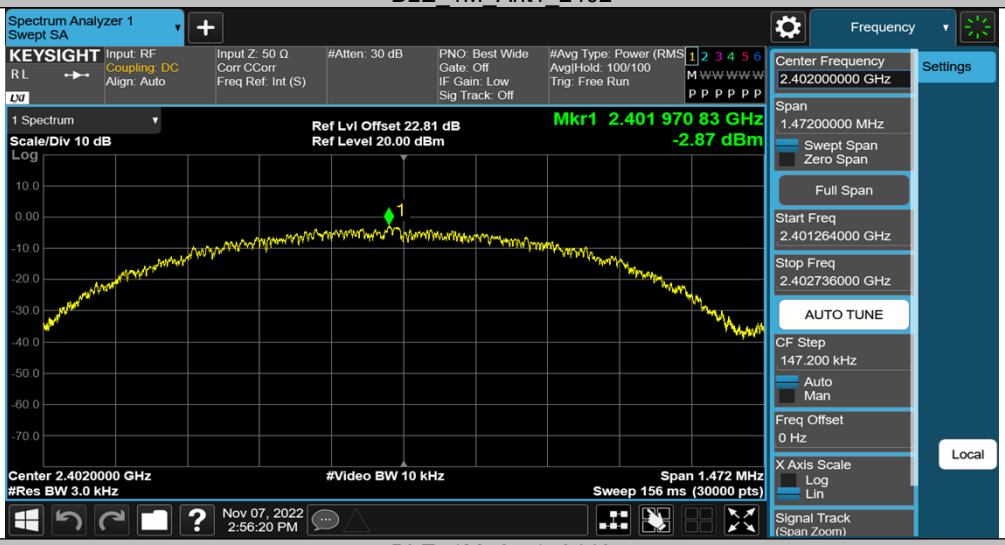
7 List of Tables

Appendix B: Test Results of Bluetooth Low Energy

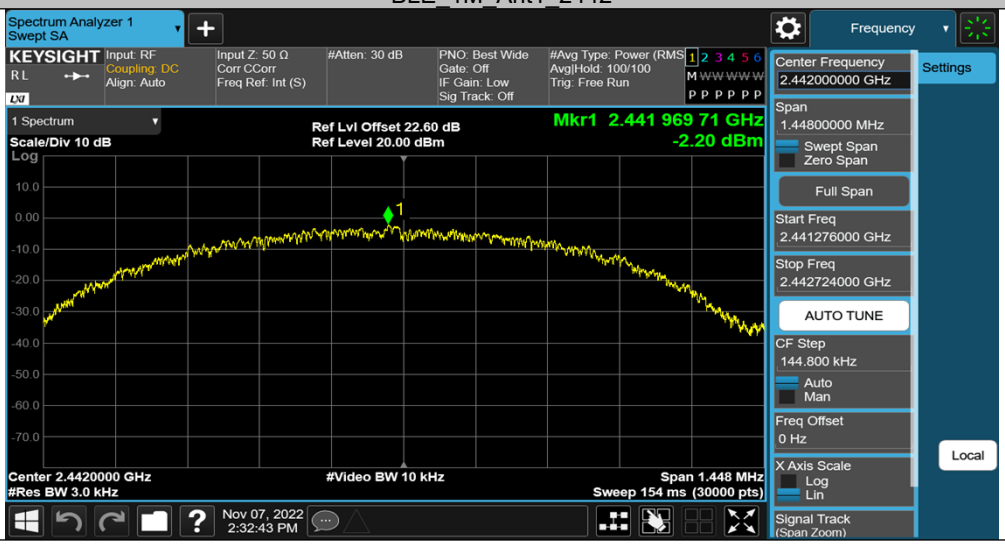
Appendix B.1: Test Results of Conducted Power Spectral Density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-2.87	≤8.00	PASS
		2442	-2.20	≤8.00	PASS
		2480	-3.08	≤8.00	PASS

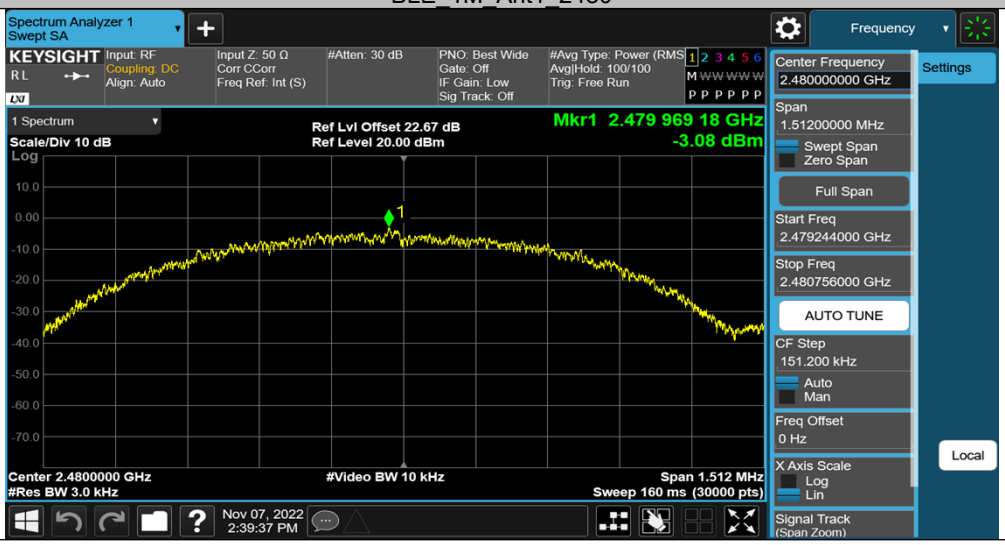
BLE_1M_Ant1_2402



BLE_1M_Ant1_2442



BLE_1M_Ant1_2480

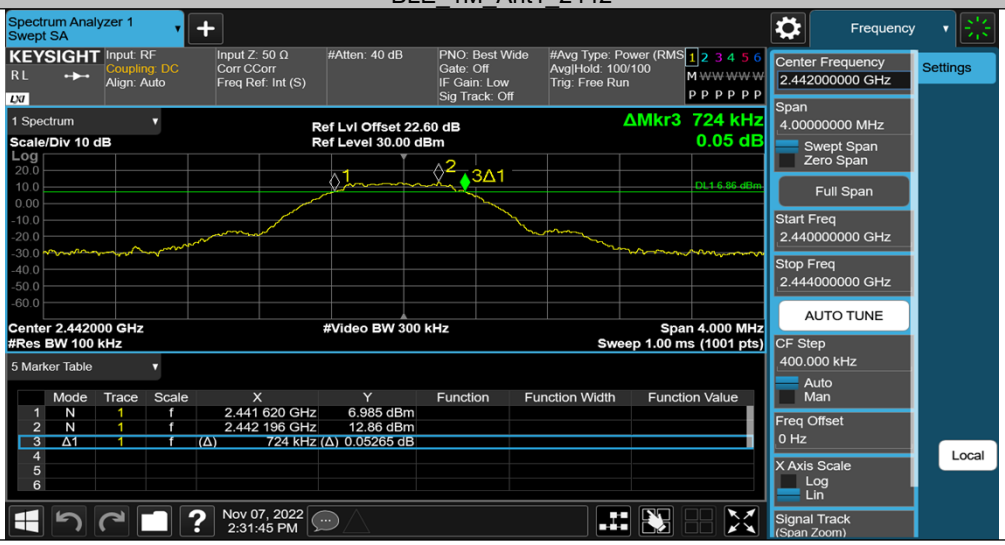


Appendix B.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.736	2401.608	2402.344	0.5	PASS
		2442	0.724	2441.620	2442.344	0.5	PASS
		2480	0.756	2479.592	2480.348	0.5	PASS

BLE_1M_Ant1_2402

BLE_1M_Ant1_2442

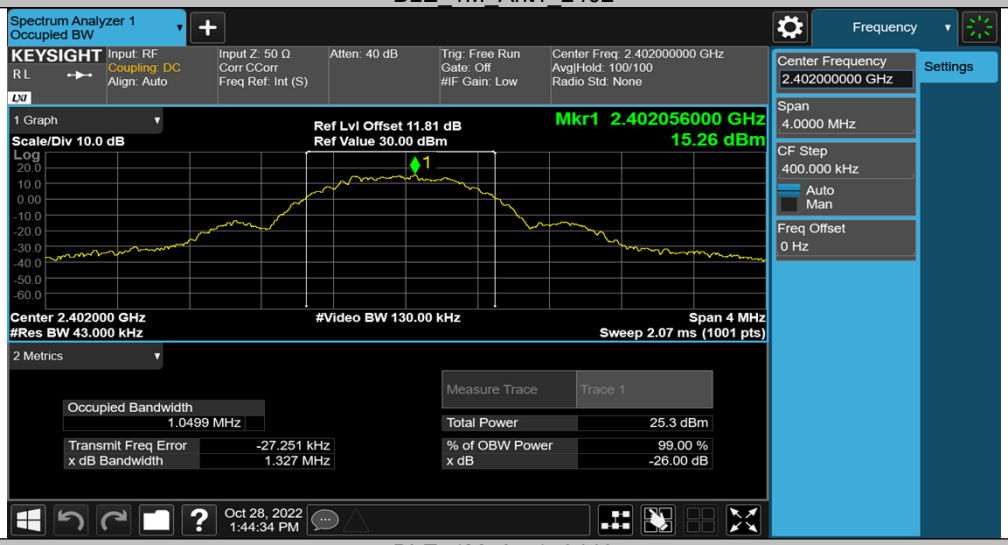


BLE_1M_Ant1_2480

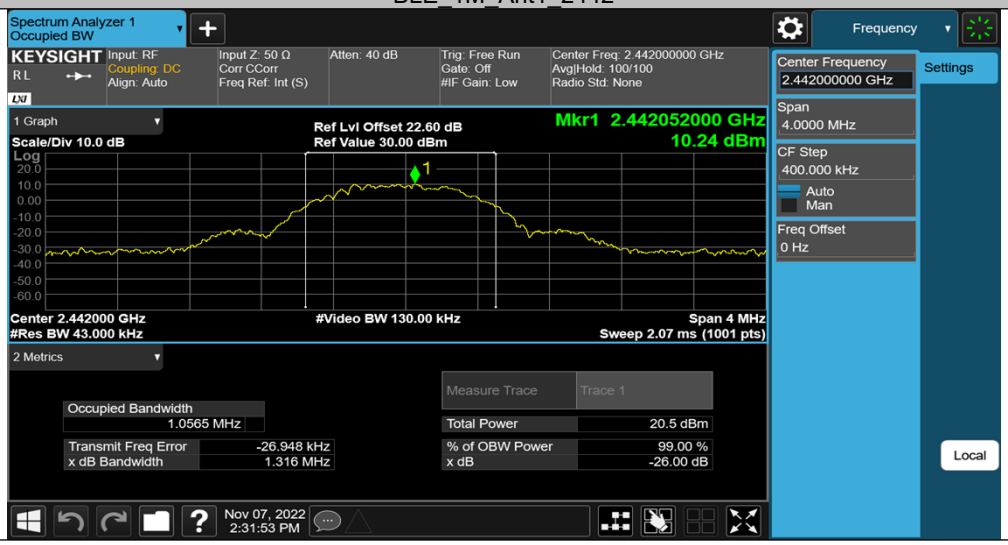
Appendix B.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0499	2401.4478	2402.4977	---	PASS
		2442	1.0565	2441.4448	2442.5013	---	PASS
		2480	1.0615	2479.4417	2480.5032	---	PASS

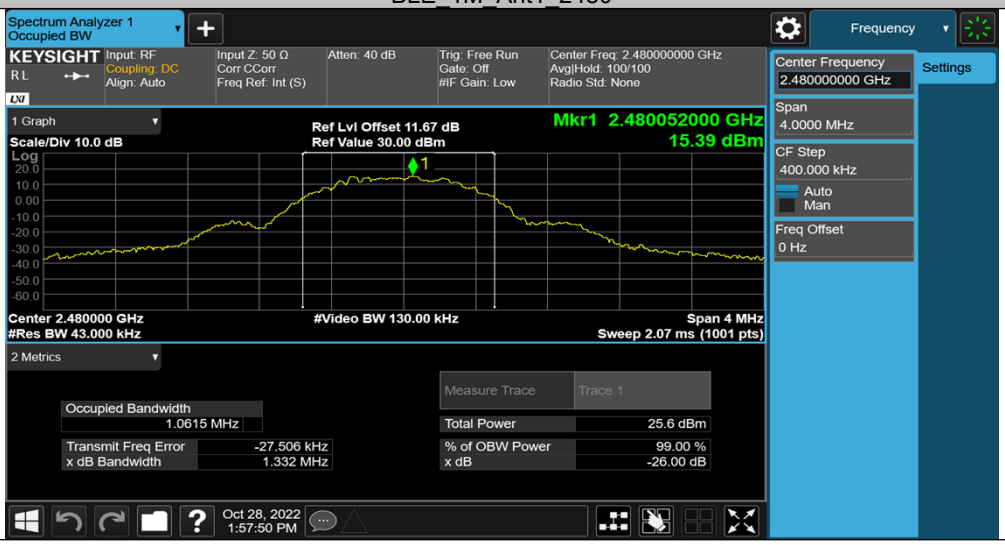
BLE_1M_Ant1_2402



BLE_1M_Ant1_2442



BLE_1M_Ant1_2480



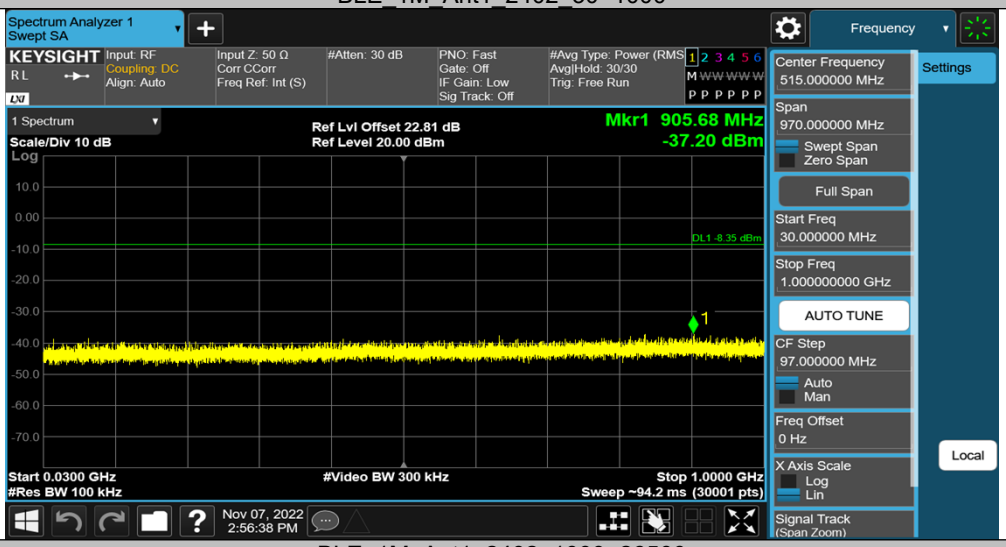
Appendix B.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Conducted Spurious Emission

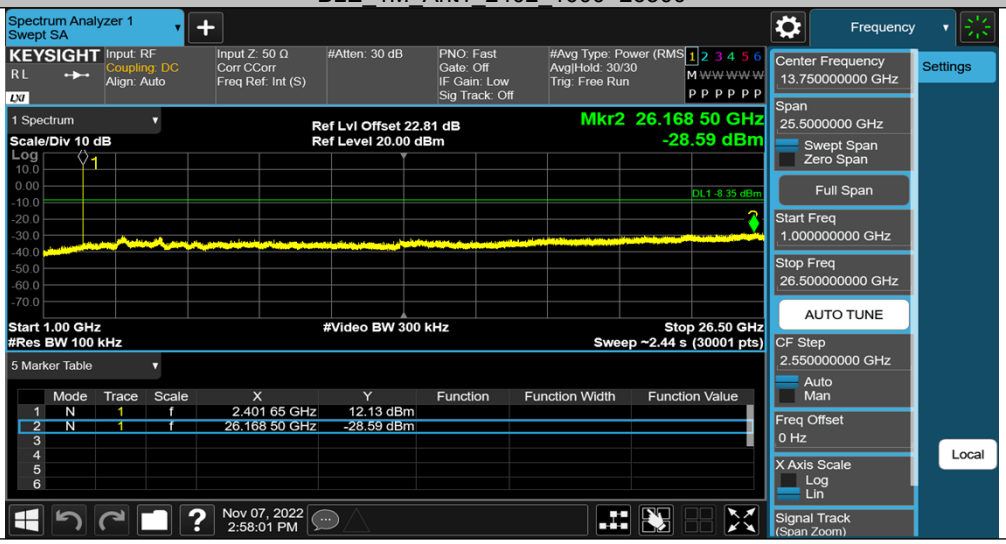
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	11.65	11.65	---	PASS
			30~1000	11.65	-37.2	≤-8.35	PASS
			1000~26500	11.65	-28.6	≤-8.35	PASS
		2442	Reference	12.12	12.12	---	PASS
			30~1000	12.12	-36.95	≤-7.88	PASS
			1000~26500	12.12	-27.78	≤-7.88	PASS
		2480	Reference	10.38	10.38	---	PASS
			30~1000	10.38	-36.61	≤-9.62	PASS
			1000~26500	10.38	-28.21	≤-9.62	PASS

BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

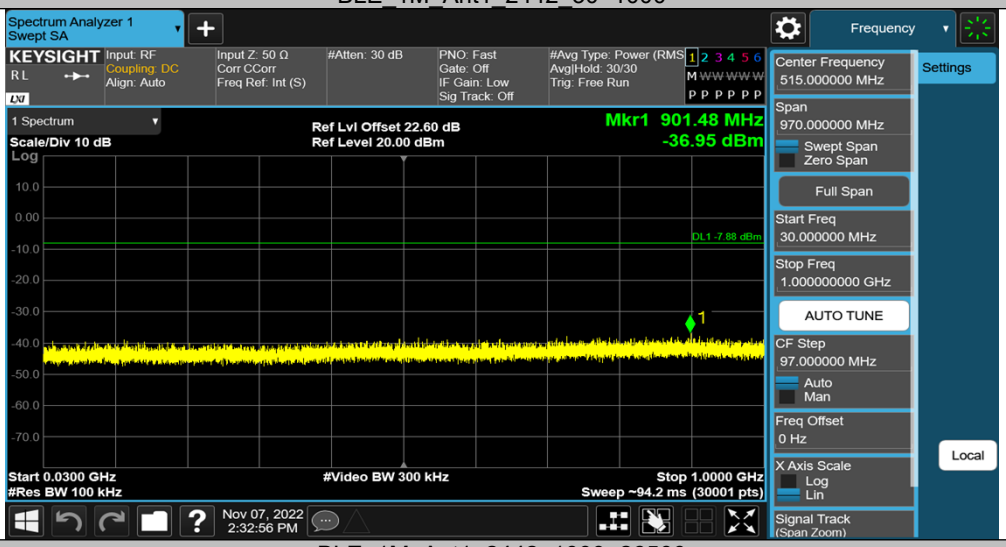


BLE_1M_Ant1_2402_1000~26500

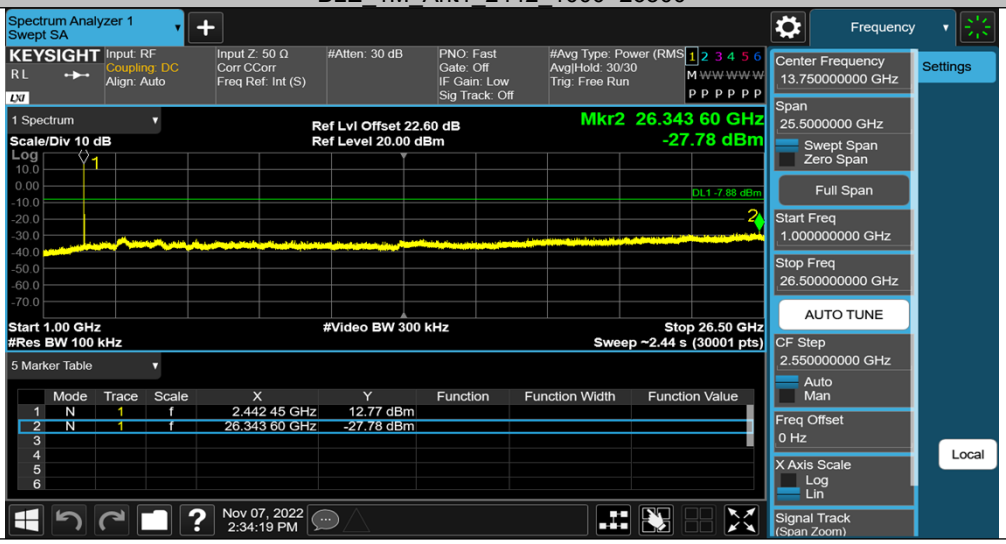


BLE_1M_Ant1_2442_0~Reference

BLE_1M_Ant1_2442_30~1000

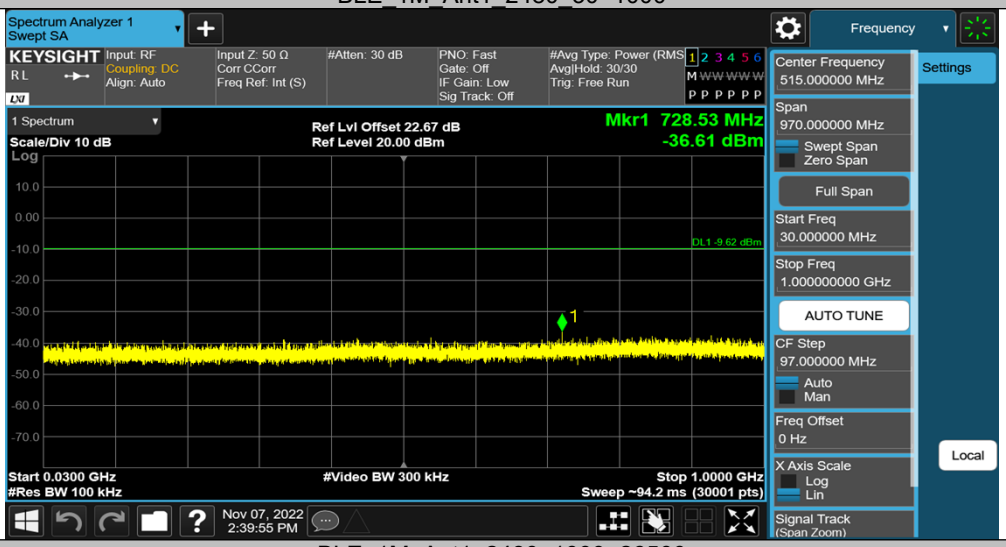


BLE_1M_Ant1_2442_1000~26500

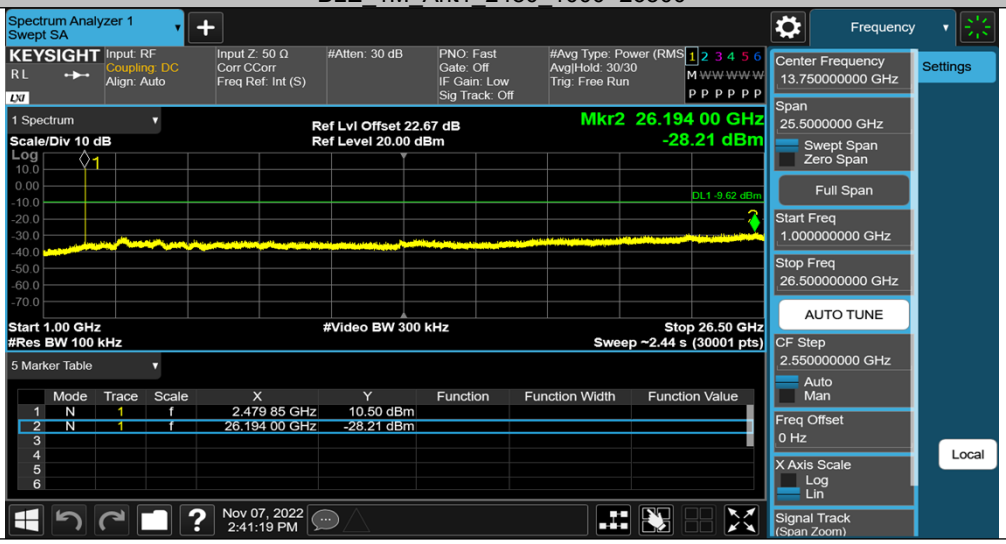


BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000



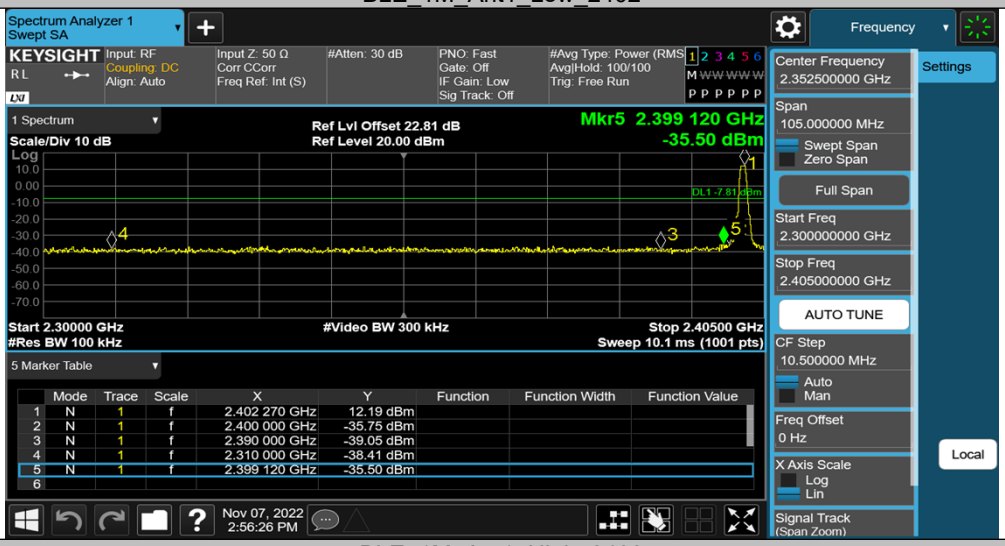
BLE_1M_Ant1_2480_1000~26500



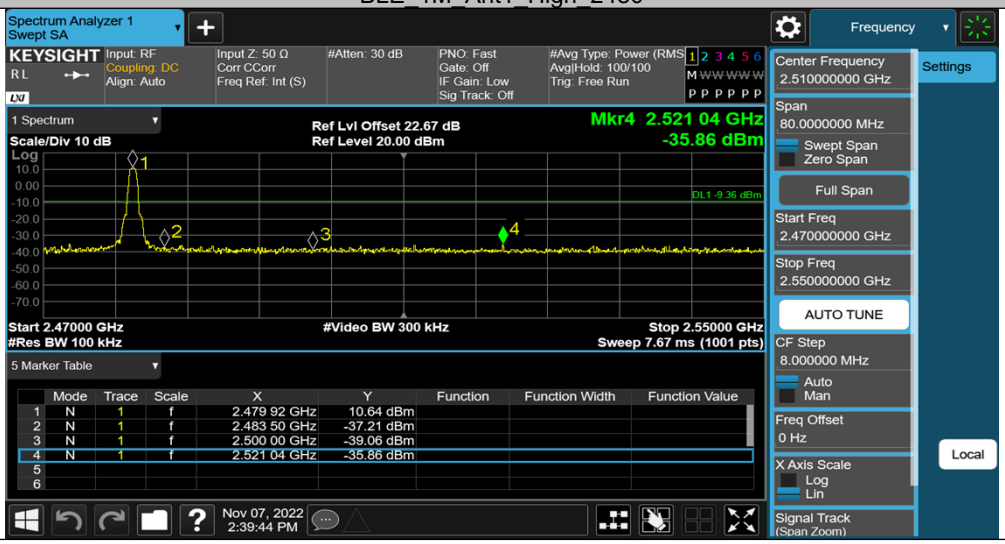
Band Edge

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	12.19	-35.5	≤-7.81	PASS
		High	2480	10.64	-35.86	≤-9.36	PASS

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



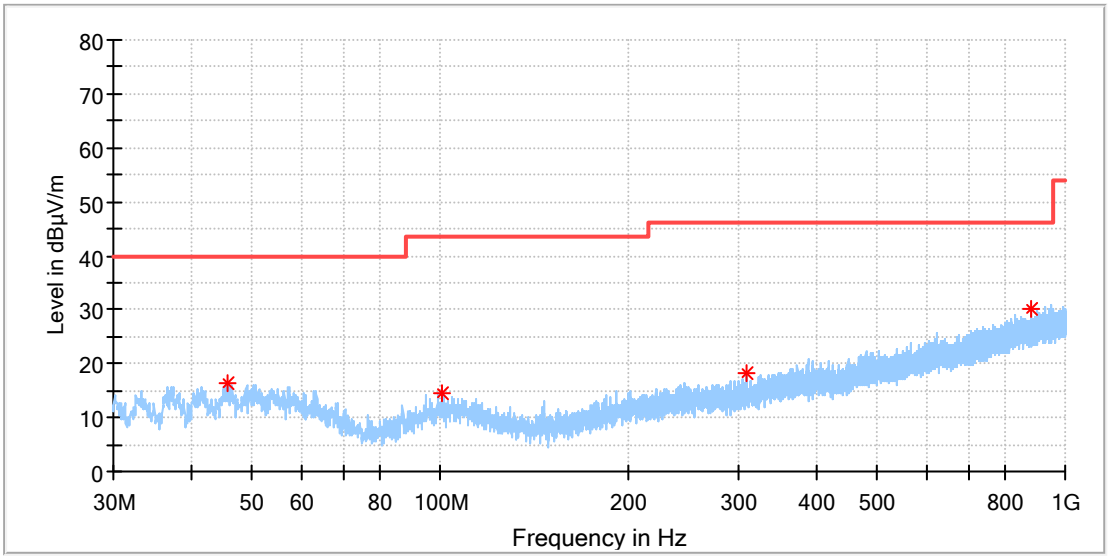
Appendix B.5: Test Results of Radiated Spurious Emissions

Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and above 18GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz - 1GHz

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

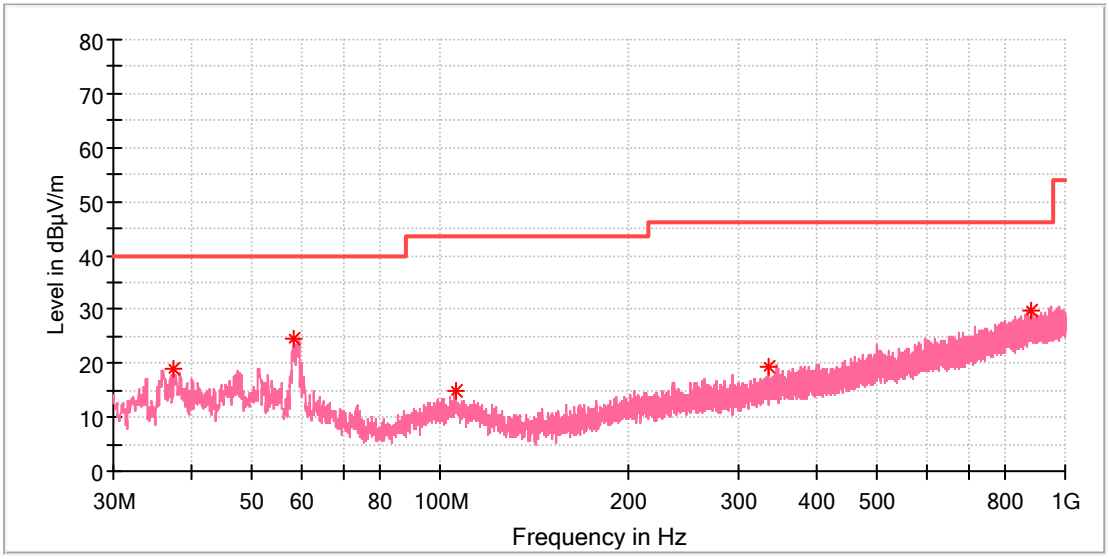


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.617000	16.40	40.00	23.60	100.0	H	355.0	-18.7
100.664500	14.46	43.50	29.04	100.0	H	237.0	-19.0
309.942000	18.40	46.00	27.60	100.0	H	339.0	-16.0
882.678500	30.05	46.00	15.95	100.0	H	61.0	-5.1

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

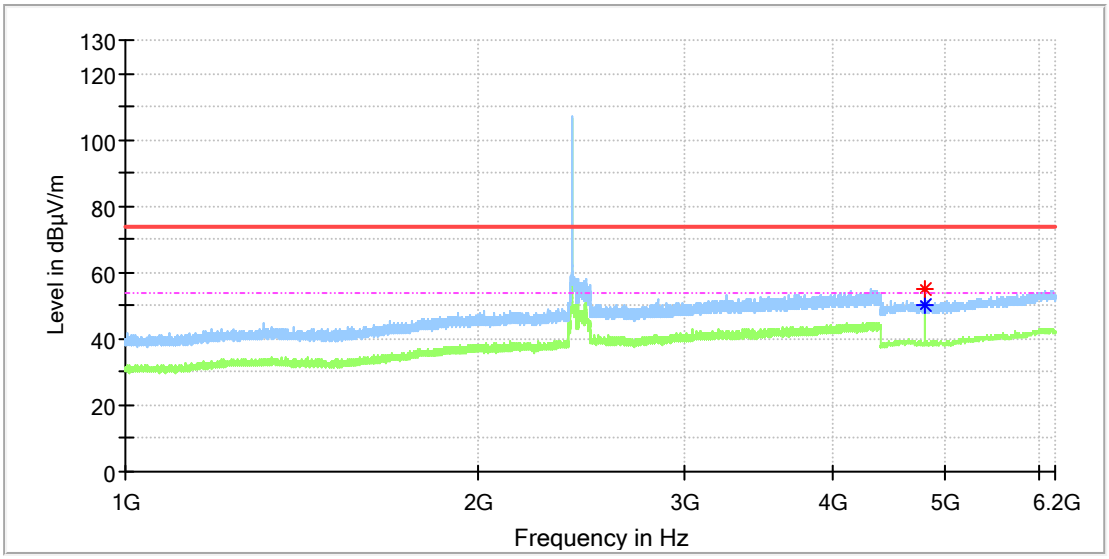
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.469000	19.01	40.00	20.99	100.0	V	208.0	-21.0
58.421000	24.39	40.00	15.61	100.0	V	0.0	-18.8
106.096500	14.80	43.50	28.70	100.0	V	15.0	-18.8
335.889500	19.38	46.00	26.62	100.0	V	220.0	-15.2
883.842500	29.88	46.00	16.12	100.0	V	120.0	-5.1

1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental.

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

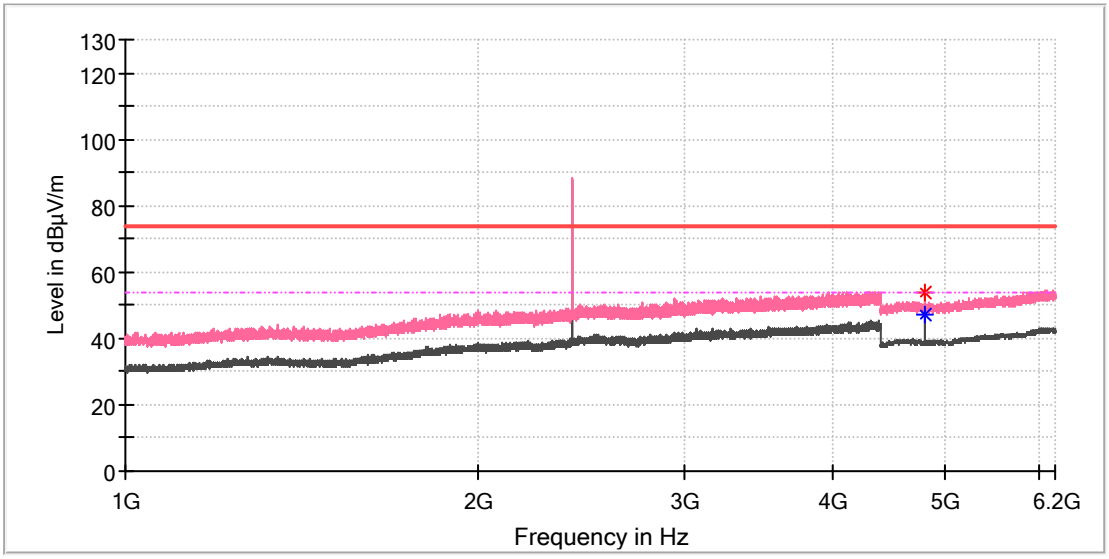


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	---	50.20	54.00	3.80	100.0	H	269.0	11.8
4804.000000	55.29	---	74.00	18.71	100.0	H	269.0	11.8

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

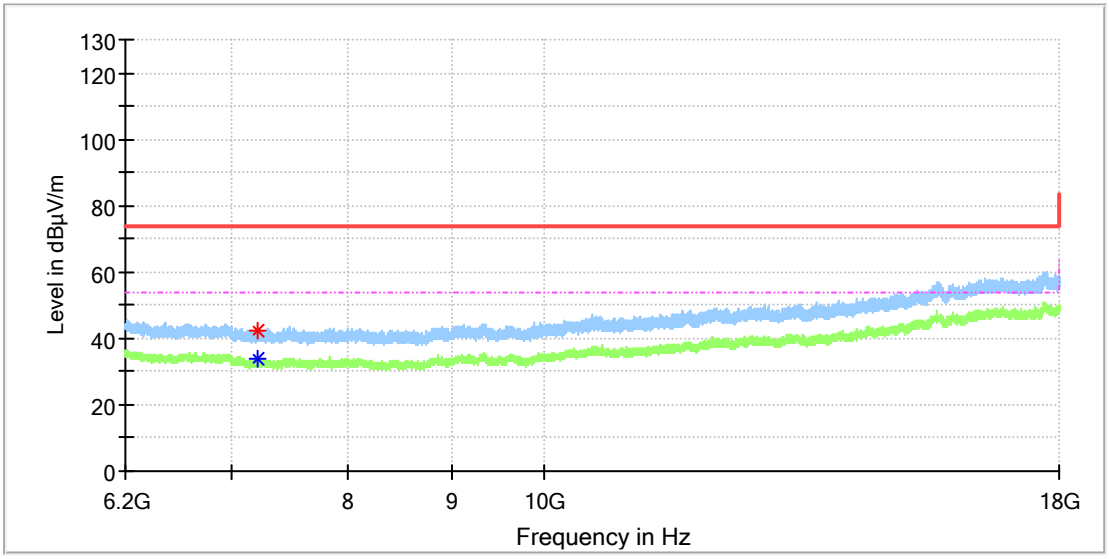


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.000000	53.98	---	74.00	20.02	100.0	V	133.0	11.8
4804.000000	---	47.39	54.00	6.61	100.0	V	133.0	11.8

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

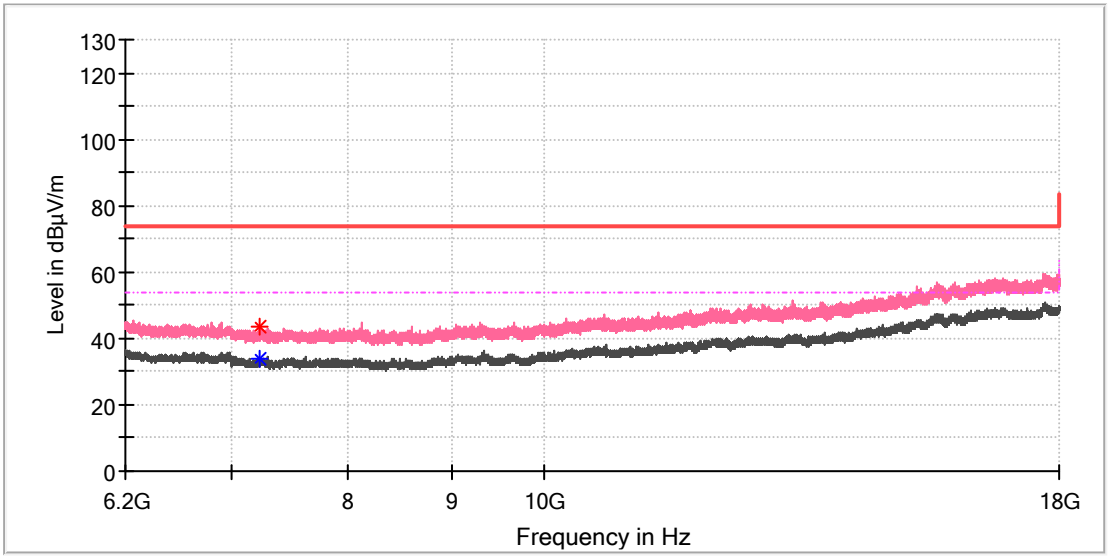


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7214.308333	42.62	---	74.00	31.38	100.0	H	9.0	8.7
7216.275000	---	33.90	54.00	20.10	100.0	H	93.0	8.7

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

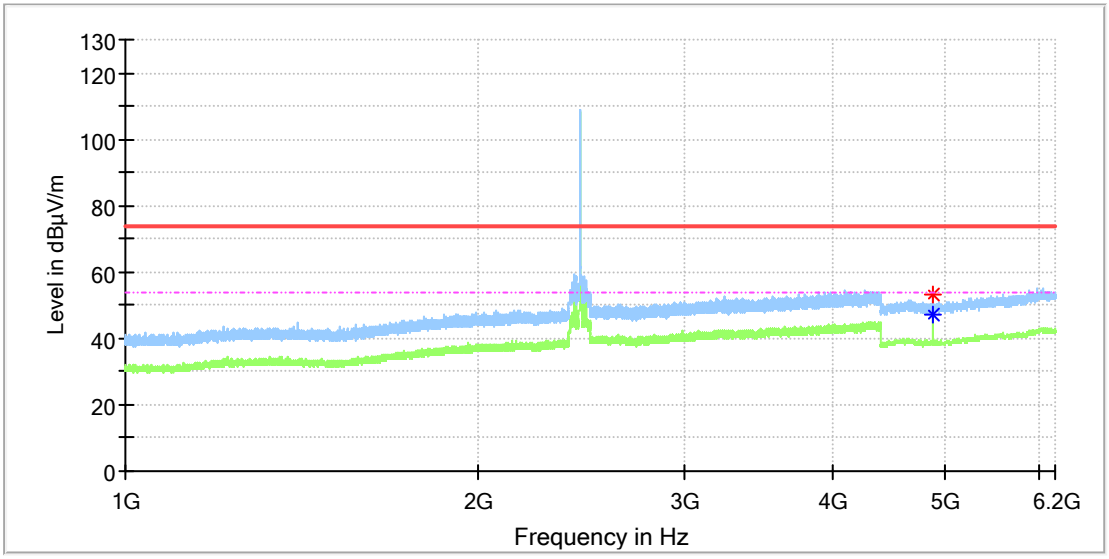


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7221.683333	---	33.93	54.00	20.07	100.0	V	108.0	8.7
7231.025000	43.80	---	74.00	30.20	100.0	V	96.0	8.6

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

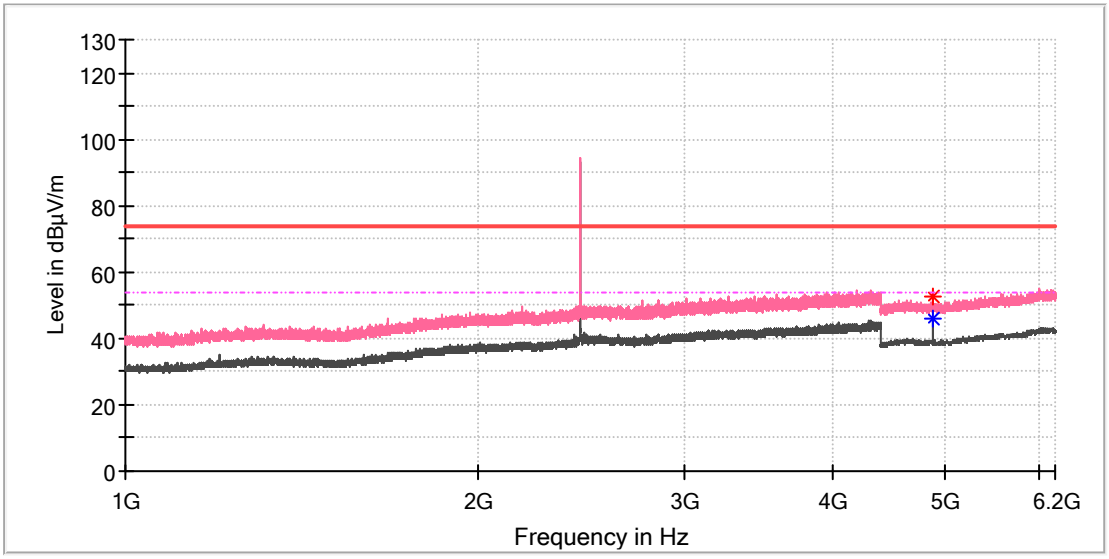


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4884.000000	53.03	---	74.00	20.97	100.0	H	189.0	11.8
4884.000000	---	47.31	54.00	6.69	100.0	H	189.0	11.8

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

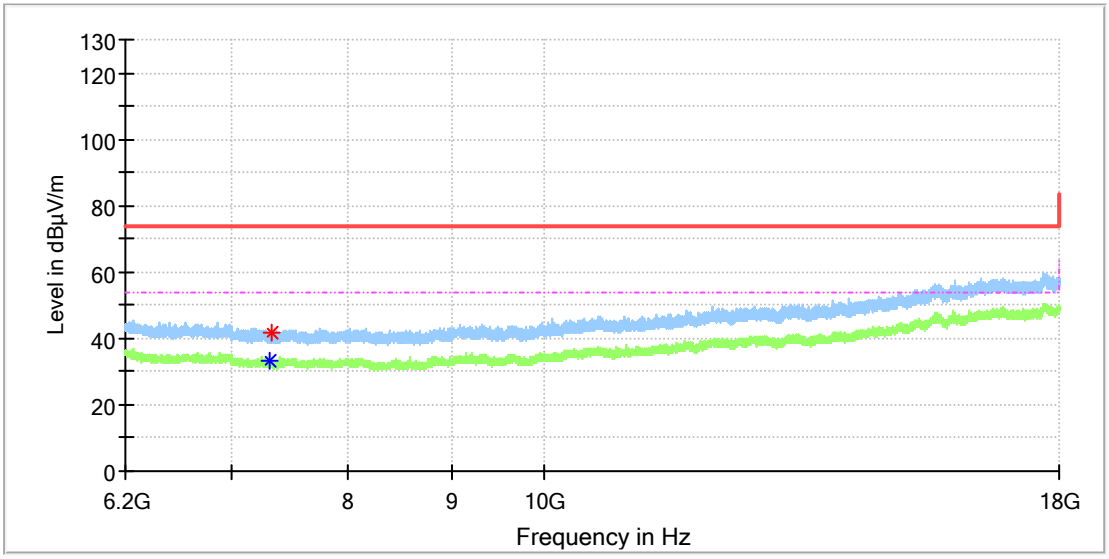


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4883.500000	52.37	---	74.00	21.63	100.0	V	120.0	11.8
4884.000000	---	46.24	54.00	7.76	100.0	V	120.0	11.8

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

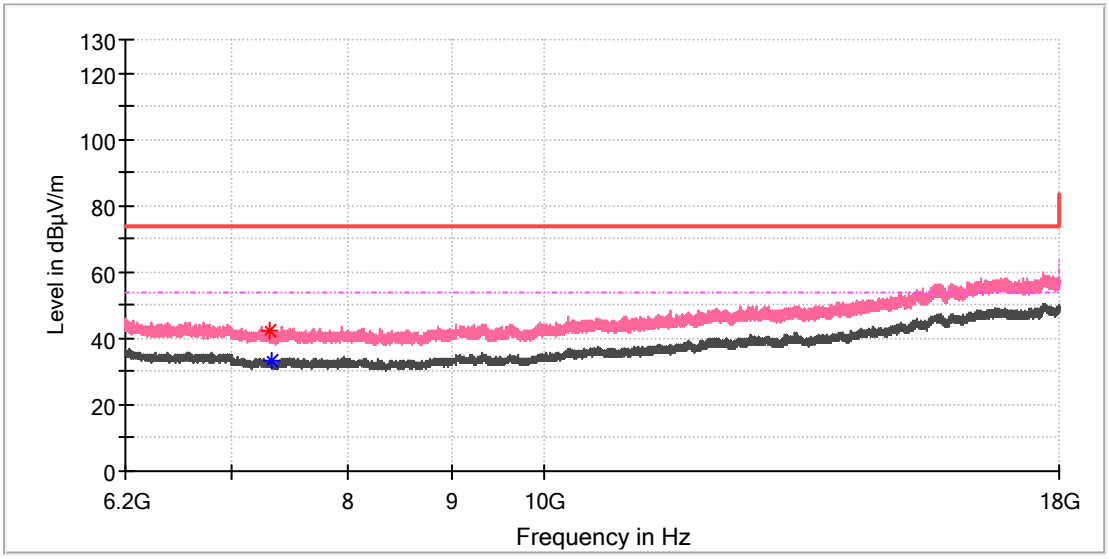


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7309.691667	---	33.45	54.00	20.55	100.0	H	308.0	8.2
7331.816667	41.76	---	74.00	32.24	100.0	H	308.0	8.1

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

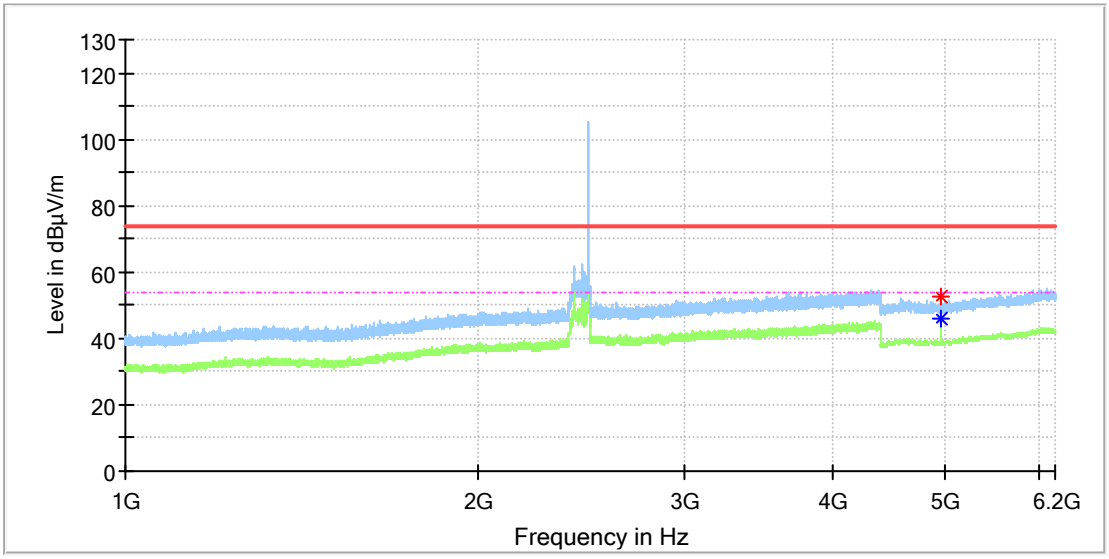


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7309.200000	42.39	---	74.00	31.61	100.0	V	0.0	8.2
7325.916667	---	33.05	54.00	20.95	100.0	V	207.0	8.2

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

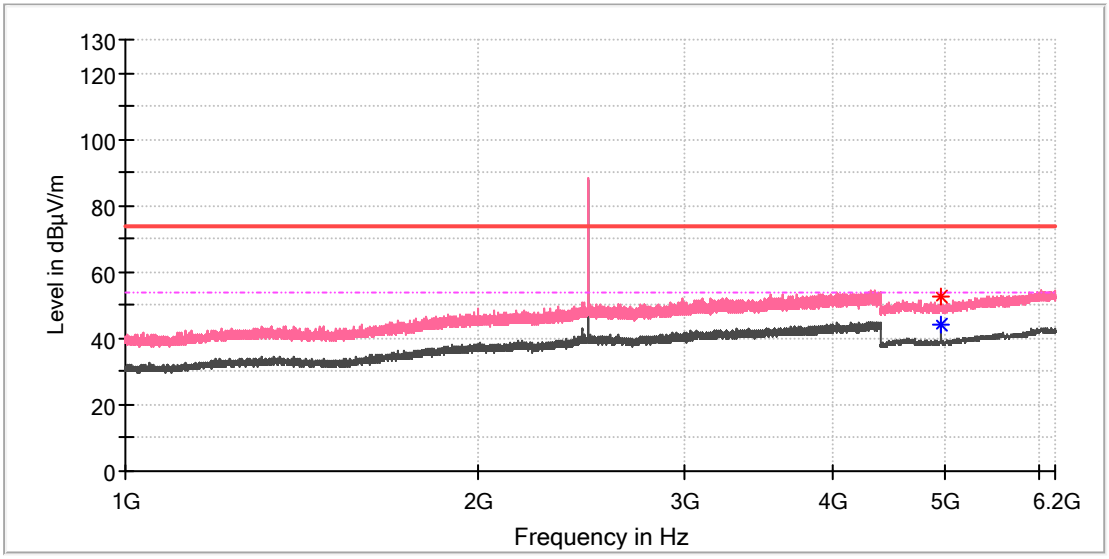


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	52.52	---	74.00	21.48	100.0	H	315.0	11.8
4960.000000	---	46.14	54.00	7.86	100.0	H	291.0	11.8

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

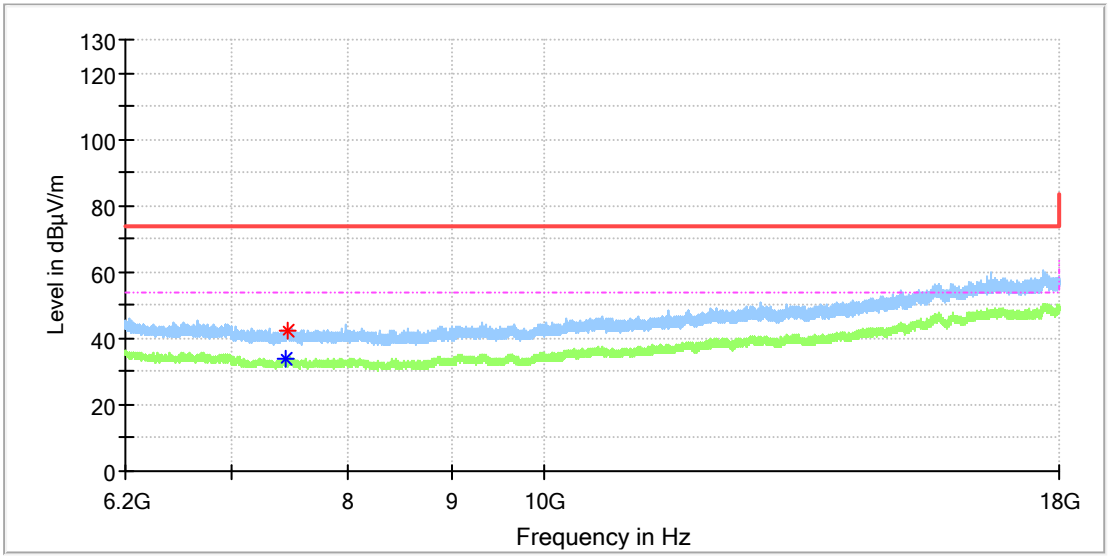


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	---	44.15	54.00	9.85	100.0	V	349.0	11.8
4960.500000	52.60	---	74.00	21.40	100.0	V	343.0	11.8

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

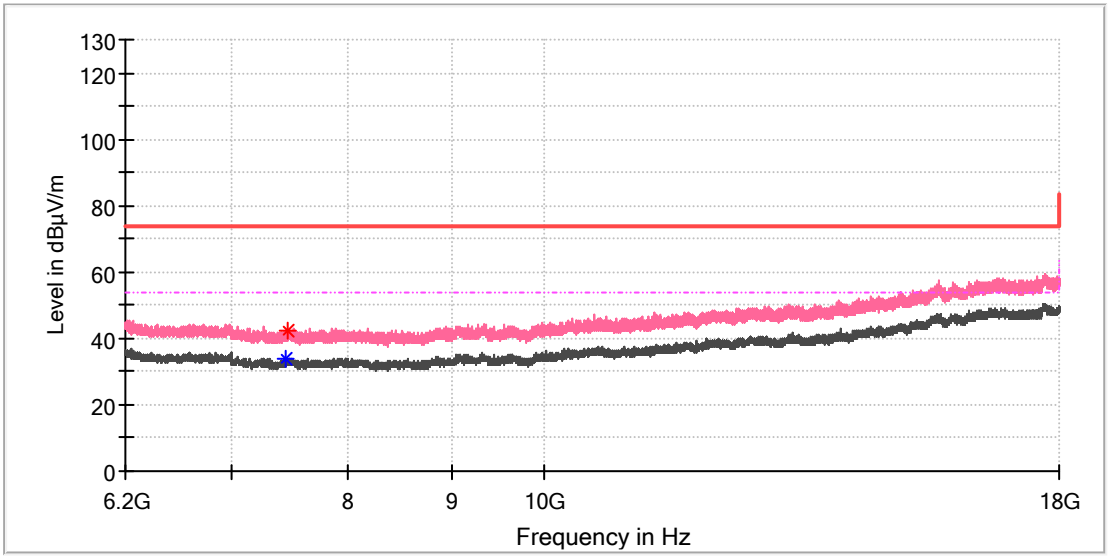


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7441.950000	---	33.97	54.00	20.03	100.0	H	317.0	8.4
7453.750000	42.31	---	74.00	31.69	100.0	H	0.0	8.5

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



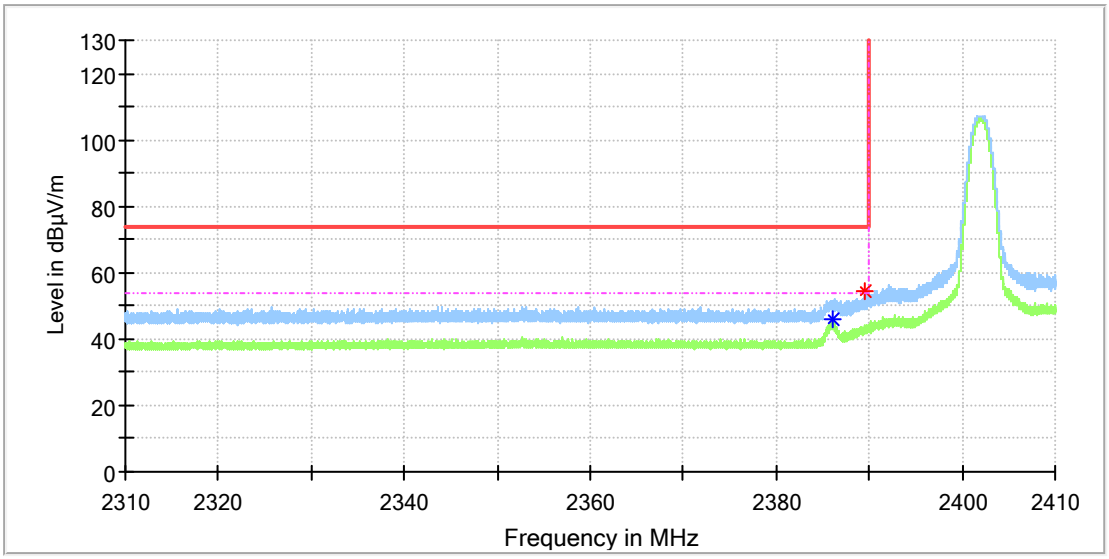
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.491667	---	33.71	54.00	20.29	100.0	V	50.0	8.4
7456.700000	42.20	---	74.00	31.80	100.0	V	0.0	8.5

Appendix B.6: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

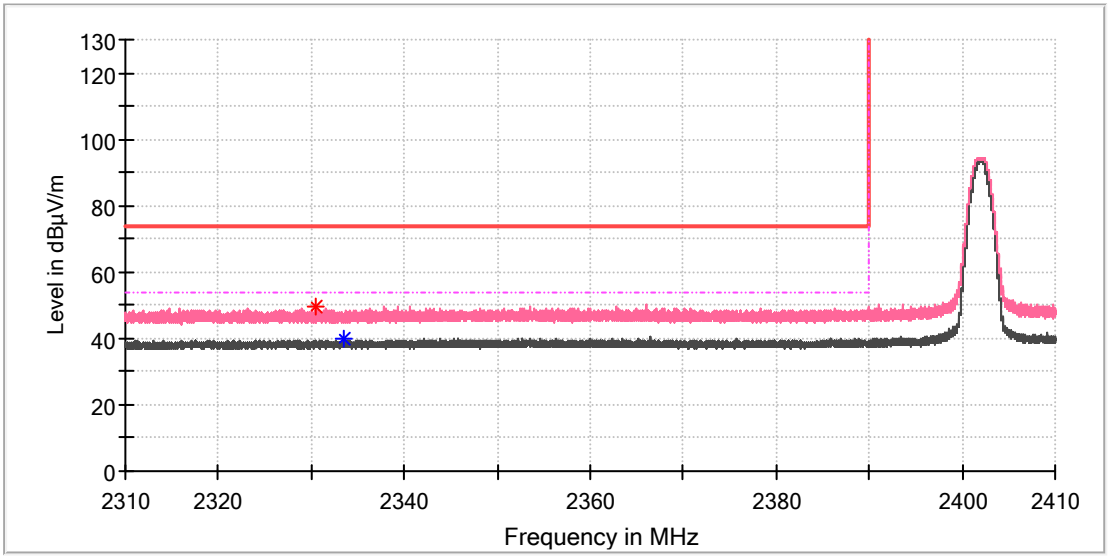


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2386.045000	---	45.75	54.00	8.25	100.0	H	4.0	7.0
2389.610000	54.21	---	74.00	19.79	100.0	H	14.0	7.0

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

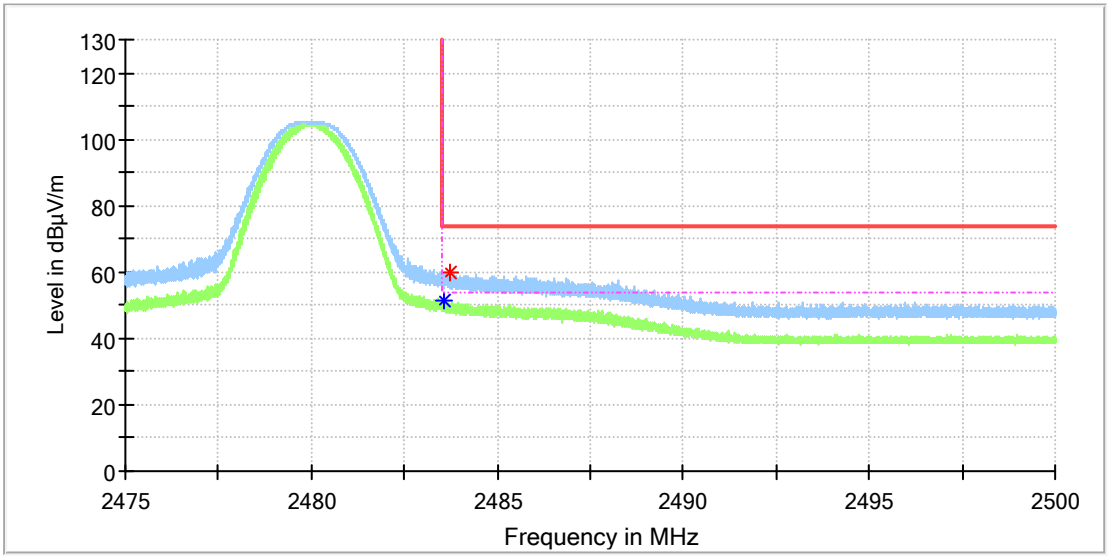


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2330.445000	49.45	---	74.00	24.55	100.0	V	84.0	6.7
2333.590000	---	39.76	54.00	14.24	100.0	V	51.0	6.7

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

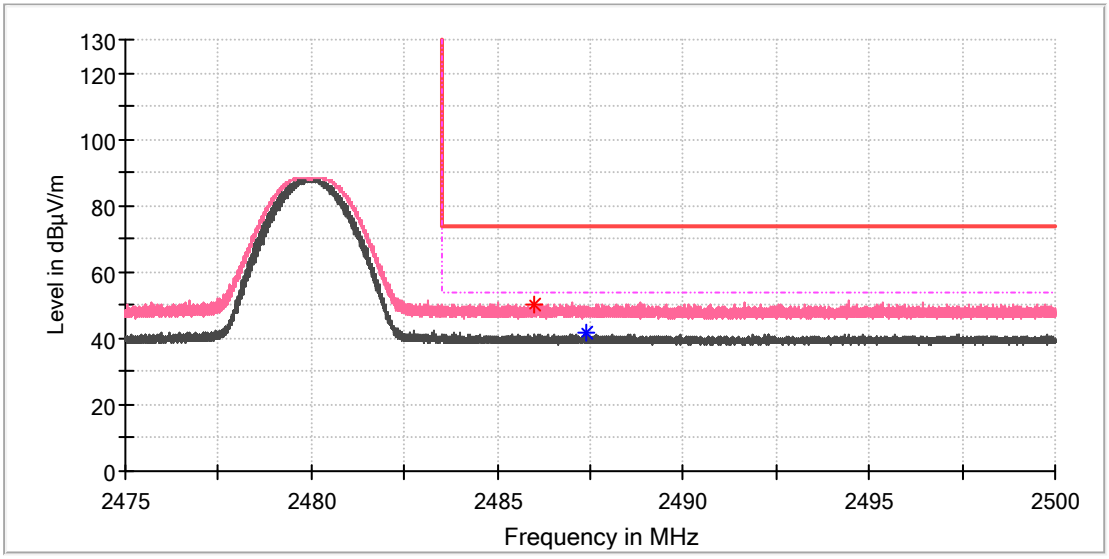


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.572500	---	51.25	54.00	2.75	100.0	H	3.0	7.4
2483.726250	59.86	---	74.00	14.14	100.0	H	11.0	7.4

EUT Information

EUT Name:	Degrii Remote Thermostat
Model:	THP
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168394479/A003358728-002
Test Voltage:	Battery
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2486.008750	50.43	---	74.00	23.57	100.0	V	0.0	7.4
2487.393750	---	41.67	54.00	12.33	100.0	V	199.0	7.4