Prüfbericht-Nr.: *Test report No.:*	**50329970 001**	**Auftrags-Nr.:** *Order No.:*	168142175	Seite 1 von 21 *Page 1 of 21*
Kunden-Referenz-Nr.: *Client reference No.:*	N/A	**Auftragsdatum:** *Order date:*	17.04.2017	
Auftraggeber: *Client:*	**LEEDARSON LIGHTING CO., LTD.** Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R. China			
Prüfgegenstand: *Test item:*	Motion Sensor			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	8A-SS-BA-H0 (Trademark: LEEDARSON)			
Auftrags-Inhalt: *Order content:*	FCC approval			
Prüfgrundlage: *Test specification:*	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 2: Subpart J Section 2.1091			

Wareneingangsdatum: *Date of receipt:*	06.12.2019	Please refer to photo documents
Prüfmuster-Nr.: *Test sample No.:*	A001037388 -001, 002	
Prüfzeitraum: *Testing period:*	06.12.2019 - 16.12.2019	
Ort der Prüfung: *Place of testing:*	TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center	
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüfergebnis*: *Test result*:*	Pass	

geprüft von / *tested by:*

Datum *Date*	Name/Stellung *Name/Position*	Unterschrift *Signature*
26.02.2020	Alex Lan / Project Engineer	

kontrolliert von / *reviewed by:*

Datum *Date*	Name/Stellung *Name/Position*	Unterschrift *Signature*
26.02.2020	Sam Lin / Technical Certifier	

Sonstiges / *Other:*

FCC ID: 2AB2Q8ASSBAH0

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

TEST SUMMARY

5.1.1. ANTENNA REQUIREMENT
RESULT: Pass

5.1.2. PEAK OUTPUT POWER
RESULT: Pass

5.1.3. CONDUCTED POWER SPECTRAL DENSITY
RESULT: Pass

5.1.4. -6DB BANDWIDTH
RESULT: Pass

5.1.5. CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100KHZ BANDWIDTH
RESULT: Pass

5.1.6. SPURIOUS EMISSION
RESULT: Pass

5.1.7. RADIATED EMISSION
RESULT: Pass

6.1.1. ELECTROMAGNETIC FIELDS
RESULT: Pass

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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 setup photos.
Appendix B: Test Result

2. Test Sites

2.1.Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center

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

FCC Registration No.: 694916

IC Registration No.: 25069

2.2.List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
Wireless Connectivity Tester	Rohde & Schwarz	CMW270	101375	2020-08-30
Signal Analyzer	Rohde & Schwarz	FSV 40	101441	2020-08-30
Vector Signal Generator	Rohde & Schwarz	SMBV100A	263301	2020-08-30
Signal Generator	Rohde & Schwarz	SMB100A	115186	2020-08-30
OSP	Rohde & Schwarz	OSP 150	101017	2020-12-20
Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
Test Software	Rohde & Schwarz	WMS32 (V10.40.10)	N/A	N/A
Power Meter	Rohde & Schwarz	NRP2	107105	2020-12-20
Wideband Power Sensor	Rohde & Schwarz	NRP-Z81	105350	2020-12-20
Unwanted Emission Testing				
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
Signal Generator	Rohde & Schwarz	SMB100A	180840	2020-08-30
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	165339	2020-08-30
Signal Analyzer	Rohde & Schwarz	FSV 40	101440	2020-08-30
System Controller Interface	Rohde & Schwarz	SCI-100	S10010036	N/A
Filterbank	Rohde & Schwarz	CDMA	100751	2020-08-30
Filterbank	Rohde & Schwarz	GSM	100811	2020-08-30
OSP	Rohde & Schwarz	OSP 120	102041	N/A
OSP	Rohde & Schwarz	OSP 150	101385	N/A
Pre-amplifier	Rohde & Schwarz	SCU08F1	08320030	2020-08-30
Amplifier	Rohde & Schwarz	SCU-18F	180079	2020-08-30
Amplifier	Rohde & Schwarz	SCU40A	100450	2020-09-03
Trilog Broadband Antenna (30 MHz - 1 GHz)	Schwarzbeck	VULB9162	192	2020-09-02
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218719	2020-09-02
Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18312	2020-09-02
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19066	2020-09-02
Biconical Broadband Antenna (30 MHz - 1 GHz)	Schwarzbeck	VUBA 9117	357	2020-09-02

Double Ridged Broadband Horn Antenna (1 – 18 GHz)	Schwarzbeck	BBHA 9120 D	01760	2020-09-02
Broadband Horn Antenna (15 – 40 GHz)	Schwarzbeck	BBHA 9170	00862	2020-09-02
Test software	Rohde & Schwarz	EMC32 (V10.40.00)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NW9P2	N/A

Radiated Emission

Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR7	102022	2020-08-19
Bilog Antenna	TESEQ	CBL6112D	51321	2020-08-29

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 are ±3dB.

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 (Shenzhen) file for certification follow-up purposes.

2.7.Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center 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 Motion Sensor with Bluetooth Low Energy technology.
For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2.Ratings and System Details

Table 2: Rating of EUT

Kind of Equipment:	Motion Sensor
Type Designation:	8A-SS-BA-H0
Trade Mark:	LEEDARSON
FCC ID:	2AB2Q8ASSBAH0

Table 3: Technical Specification of EUT

Technical Specification	**Value**
Operating Frequency	2402 – 2480 MHz
Channel Number	40 channels
Channel separation	2MHz
Input Voltage	DC 3V via CR2450 battery
Modulation	GFSK
Antenna Type	Internal Antenna
Antenna Gain	2.5 dBi

Table 4: 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**

3.3.Independent Operation Modes

The basic operation modes are:

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

B. On, Operating

C. Off

3.4.Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5.Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Technical Description
- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1.Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power 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.

4.3.Special Accessories and Auxiliary Equipment

The EUT was tested with following accessories

Description	Manufacturer	Type	S/N
Bluetooth Lamp	LEEDARSON	HHA19609BLE40A	N/A
Notebook	Lenovo	ThinkPad	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 Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5.Test Setup Diagram

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

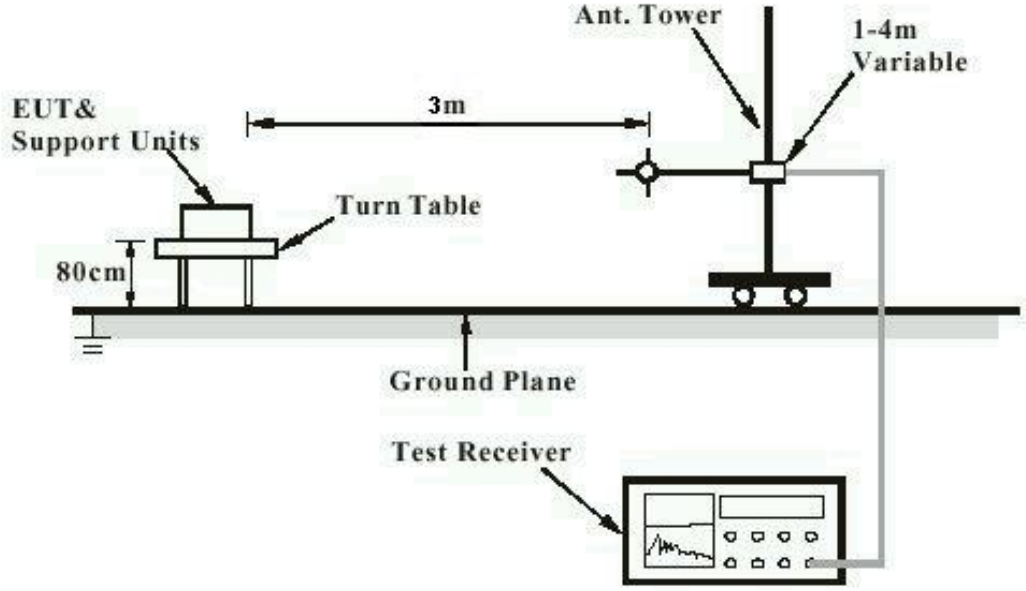


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

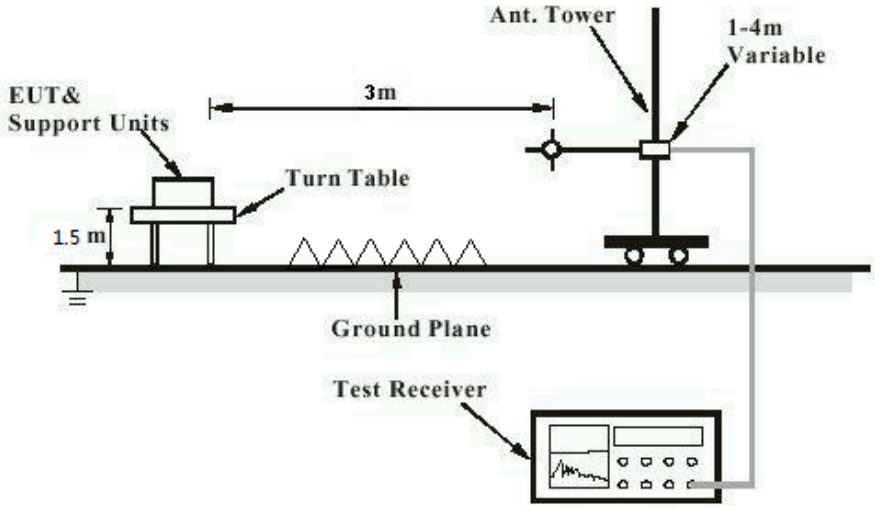


Diagram of Measurement Equipment Configuration for Conducted Transmitter Measurement

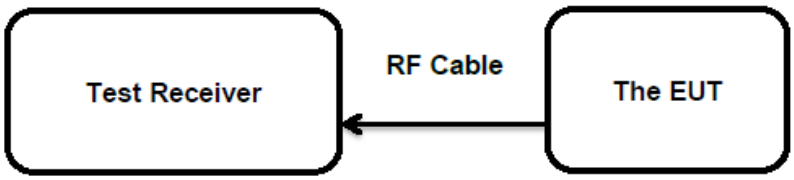
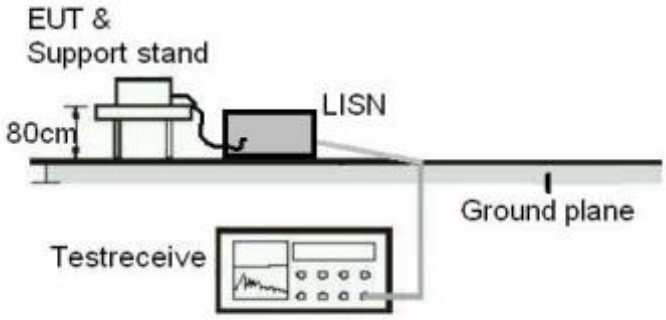


Diagram of Measurement Configuration for Mains Conduction Measurement



5. Test Results

5.1. Transmitter Requirement & Test Suites

5.1.1.Antenna Requirement

RESULT: **Pass**

Test standard	:	FCC Part 15.247(b)(4) and Part 15.203
Limit	:	the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 2.5 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 details.

5.1.2. Peak Output Power

RESULT: **Pass**

Test date	:	2019-12-12
Test standard	:	FCC Part 15.247(b)(3)
Basic standard	:	ANSI C63.10: 2013
Limit	:	1 Watt
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25℃
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 5: Test result of Peak Output Power

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	(W)
Low Channel	2402	7.1	0.00513	1
Middle Channel	2440	6.6	0.00457	1
High Channel	2480	6.4	0.00437	1

5.1.3.Conducted Power Spectral Density

RESULT: **Pass**

Test date	:	2019-12-12
Test standard	:	FCC Part 15.247(e)
Basic standard	:	ANSI C63.10: 2013
Limit	:	8dBm/3kHz
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25℃
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 6: Test result of Conducted Power Spectral Density

Channel	Channel Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
Low Channel	2402	0.37	8
Middle Channel	2440	0.00	8
High Channel	2480	0.02	8

Details refer to Appendix B.

5.1.4.-6dB Bandwidth

RESULT: **Pass**

Date of testing	:	2019-12-12
Test standard	:	FCC Part 15.247(a)(2)
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A
Ambient temperature	:	25℃
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Table 7: Test result of -6dB Bandwidth

Channel	Channel Frequency (MHz)	-6dB Bandwidth (kHz)	Limit (kHz)	Result
Low Channel	2402	712.9	500	Pass
Mid Channel	2440	732.7	500	Pass
High Channel	2480	712.9	500	Pass

Details refer to Appendix B.

5.1.5.Conducted spurious emissions measured in 100kHz Bandwidth

RESULT: **Pass**

Date of testing	:	2019-12-12
Test standard	:	FCC part 15.247(d)
Basic standard	:	ANSI C63.10: 2013
Limit	:	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	:	Shield room

Test setup

Test Channel	:	Low/ High
Operation mode	:	A
Ambient temperature	:	25℃
Relative humidity	:	55%
Atmospheric pressure	:	101 kPa

Details refer to Appendix B.

5.1.6.Spurious Emission

RESULT: **Pass**

Date of testing	:	2019-12-11
Test standard	:	FCC part 15.247(d) FCC Part 15.205
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) and FCC part 15.247(d)
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A
Ambient temperature	:	24℃
Relative humidity	:	45%
Atmospheric pressure	:	101 kPa

Remark:
During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test setup photos.
Testing was carried out within frequency range 9kHz to the tenth harmonics.

Details refer to Appendix B.

5.1.7.Radiated Emission

RESULT: **Pass**

Date of testing	:	2019-12-11
Test standard	:	FCC Part 15.209(a)
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a)
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Operation mode	:	B
Ambient temperature	:	24℃
Relative humidity	:	45%
Atmospheric pressure	:	101 kPa

refer to Appendix B.

6. Safety Human Exposure

6.1. Radio Frequency Exposure Compliance

6.1.1.Electromagnetic Fields

RESULT: **Pass**

Test Specification

Test standard	:	CFR47 FCC Part 2.1091
Limit	:	FCC KDB Publication 447498 V06

Measurement Record:

The minimum distance for the EUT is 5mm, since maximum peak output power of the transmitter is 5.13mW <10mW, hence the EUT is exclueded from SAR evaluation according to FCC KDB publication 447498 D01: Mobile and Portable RF Exposure.Guidance v06.

8. List of Photographs

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

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Appendix B: Test Results

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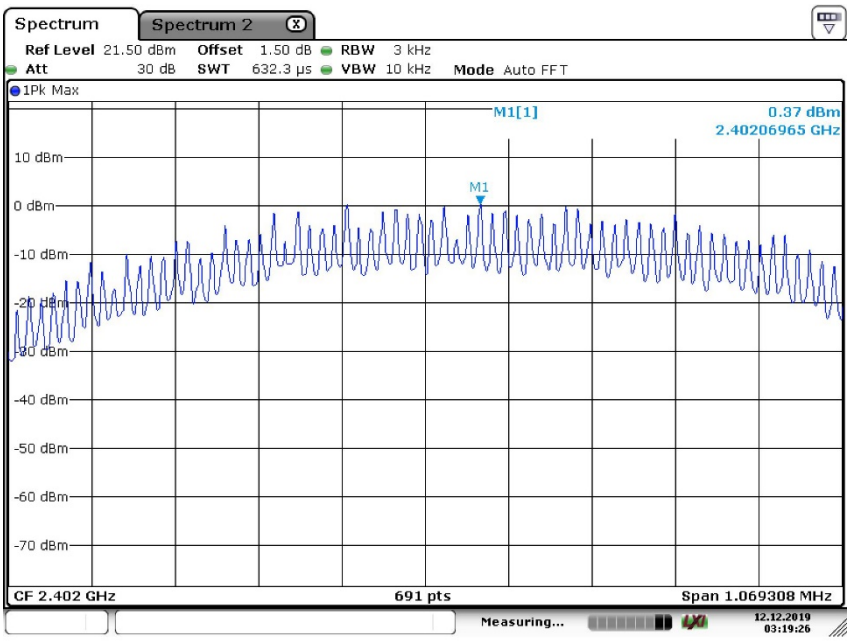
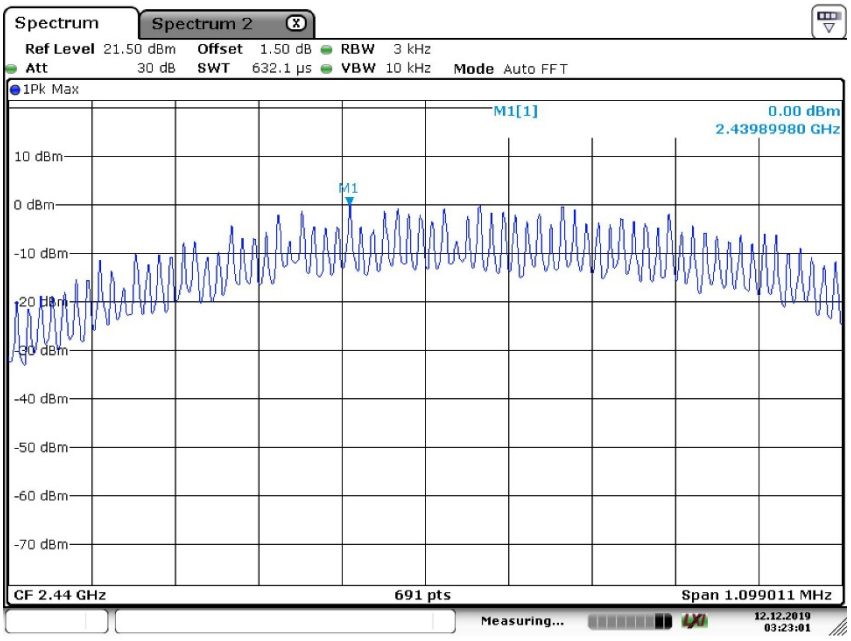
Appendix B.1: Conducted Power Spectral Density

Low Channel



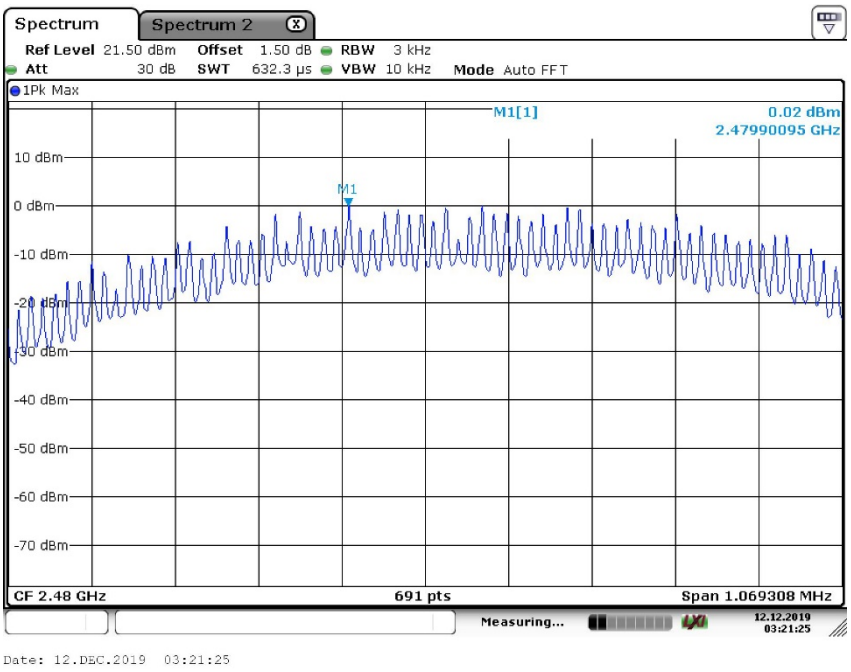
Date: 12.DEC.2019 03:19:27

Middle Channel



Date: 12.DEC.2019 03:23:02

High Channel



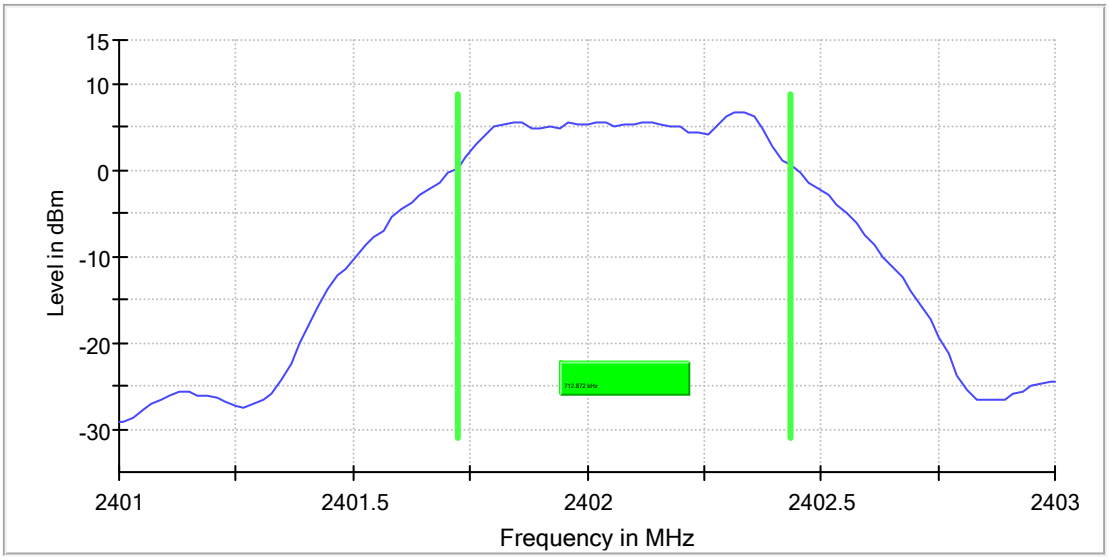
Appendix B.2: 6dB Bandwidth

Low Channel

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.722772	2402.435644

RBW=100KHz, VBW=300KHz

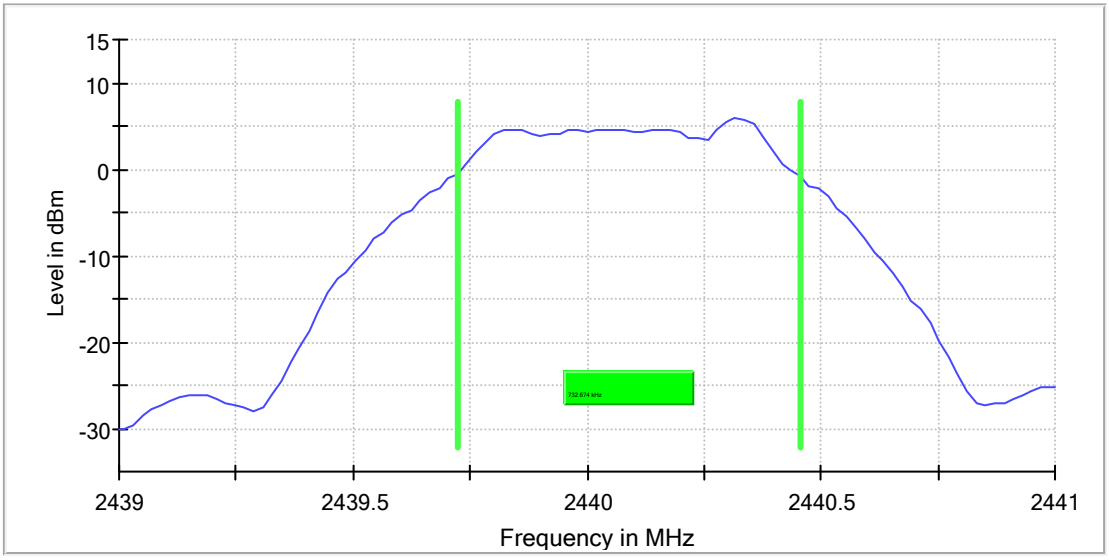


Middle Channel

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.732674	0.500000	---	2439.722772	2440.455446

RBW=100KHz, VBW=300KHz

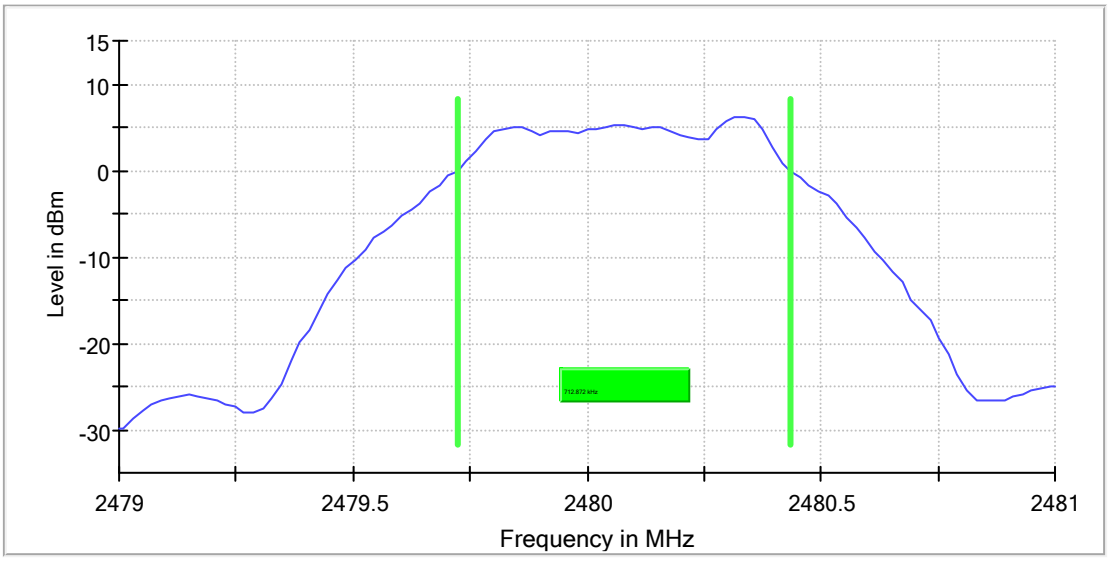


High Channel

6 dB Bandwidth

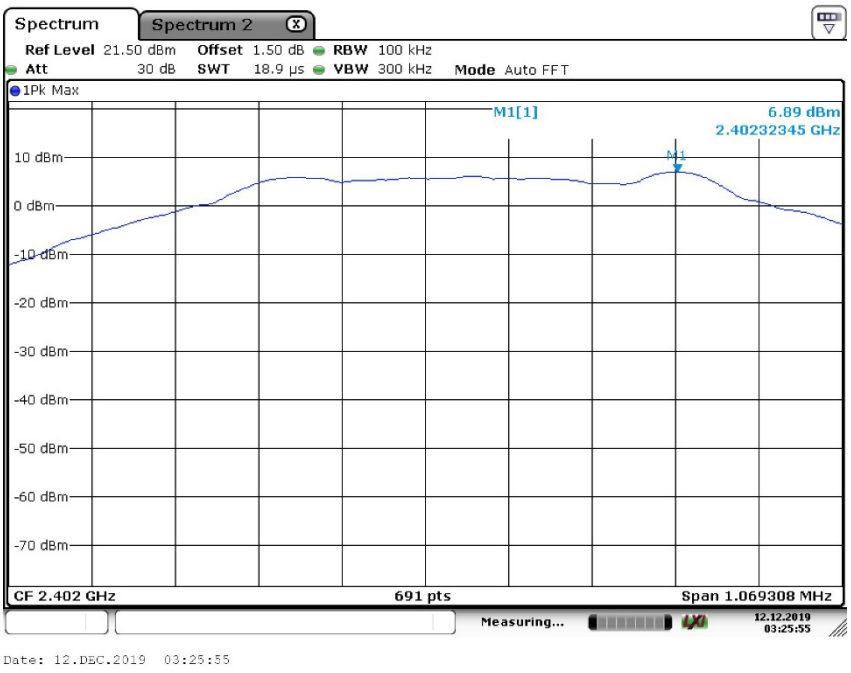
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.712872	0.500000	---	2479.722772	2480.435644

RBW=100KHz, VBW=300KHz



Appendix B.3: Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Low Channel



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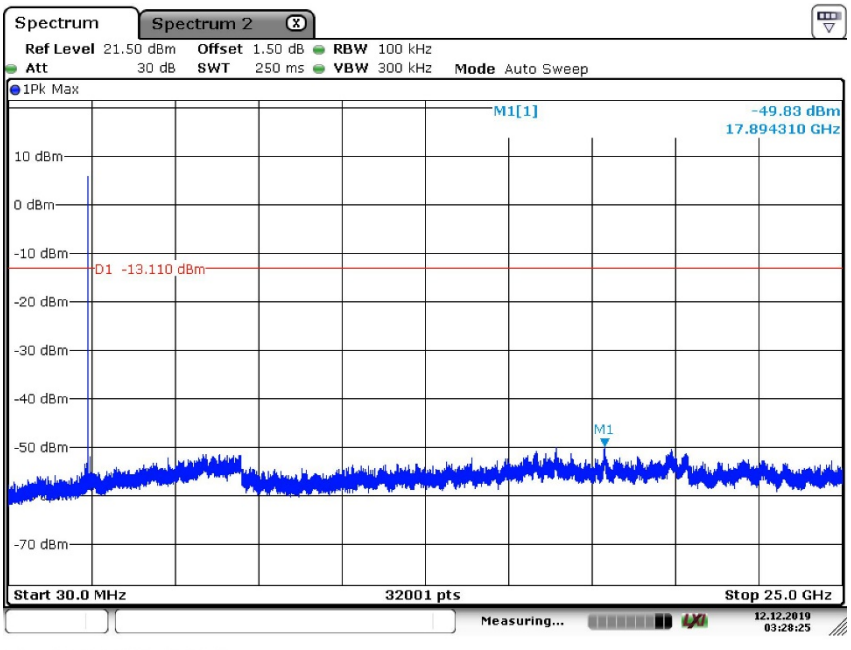
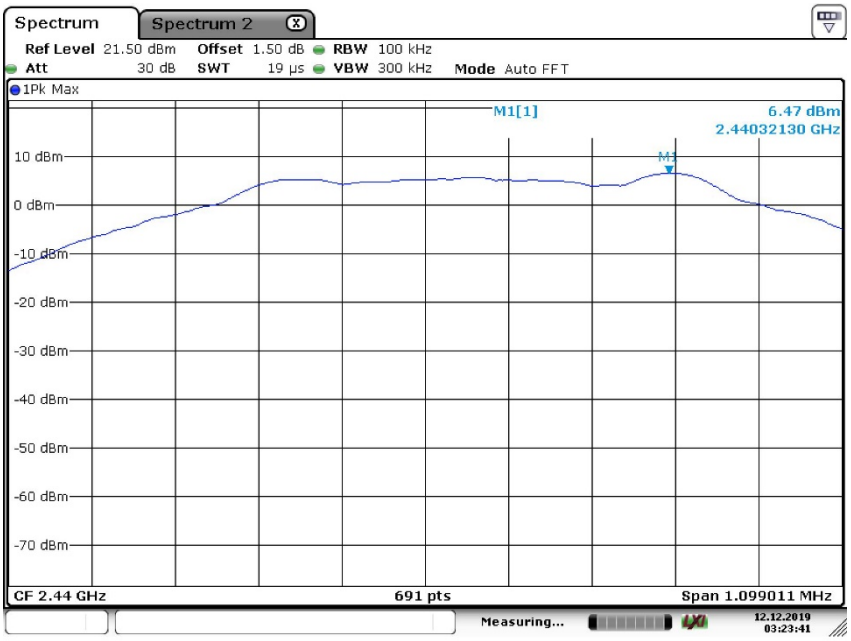
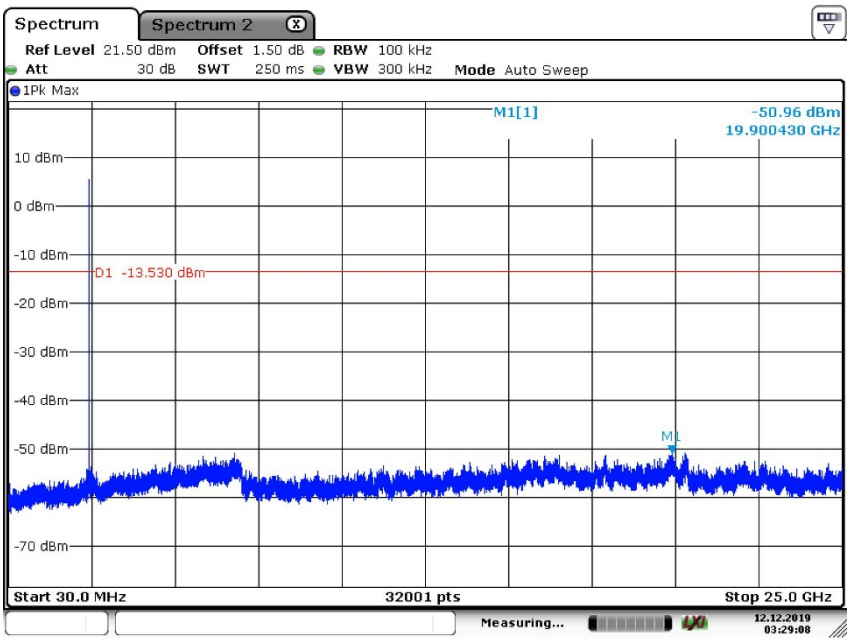


Date: 12.DEC.2019 03:28:25

Middle Channel

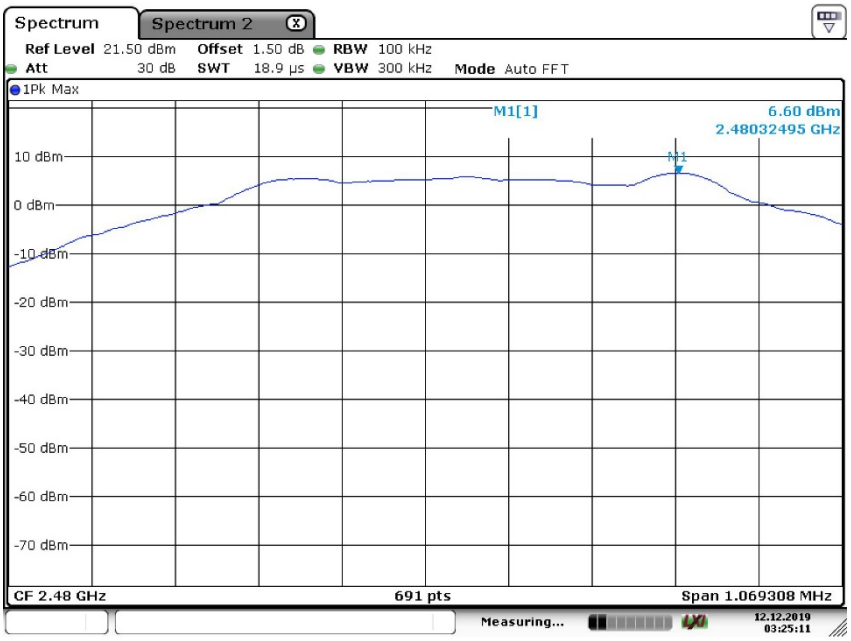


Date: 12.DEC.2019 03:23:42

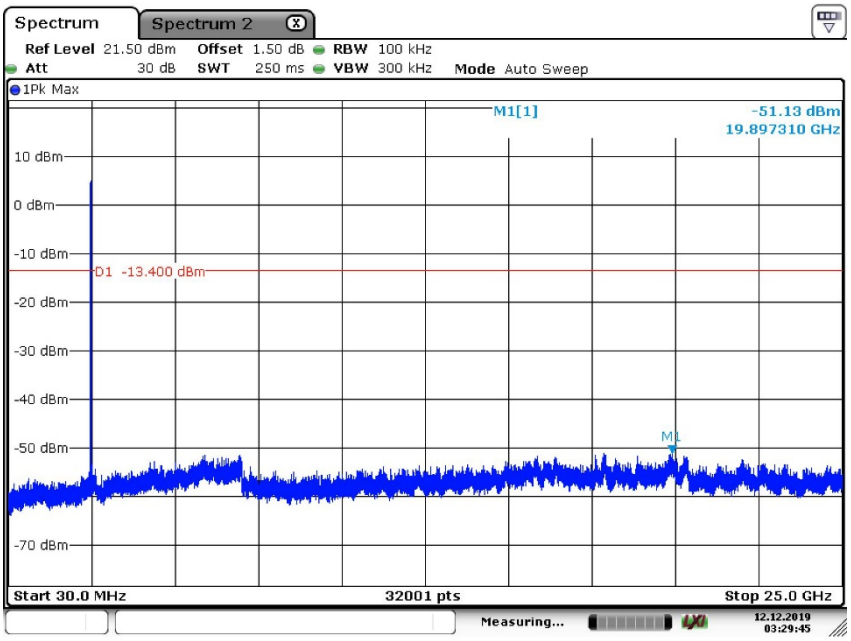


Date: 12.DEC.2019 03:29:09

High Channel

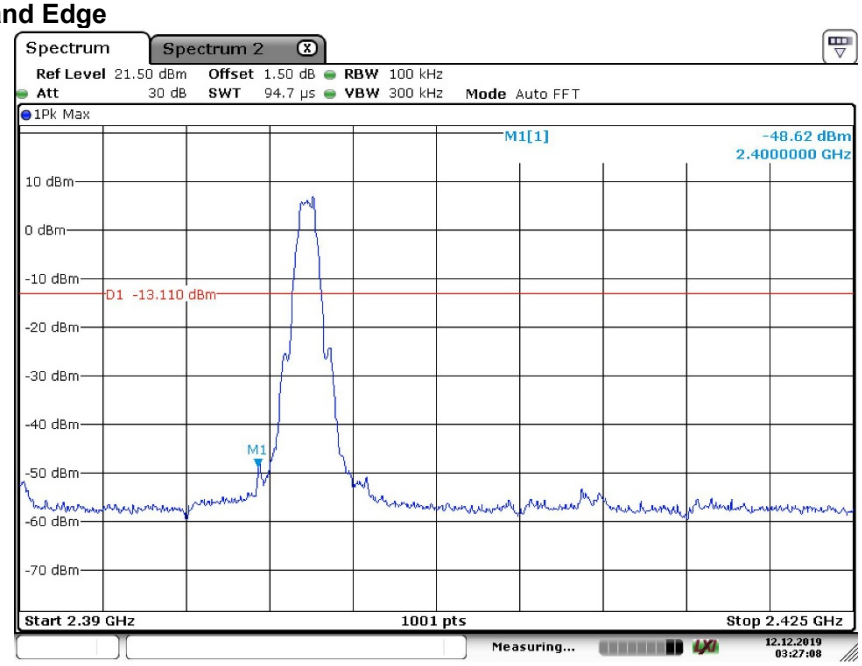


Date: 12.DEC.2019 03:25:12



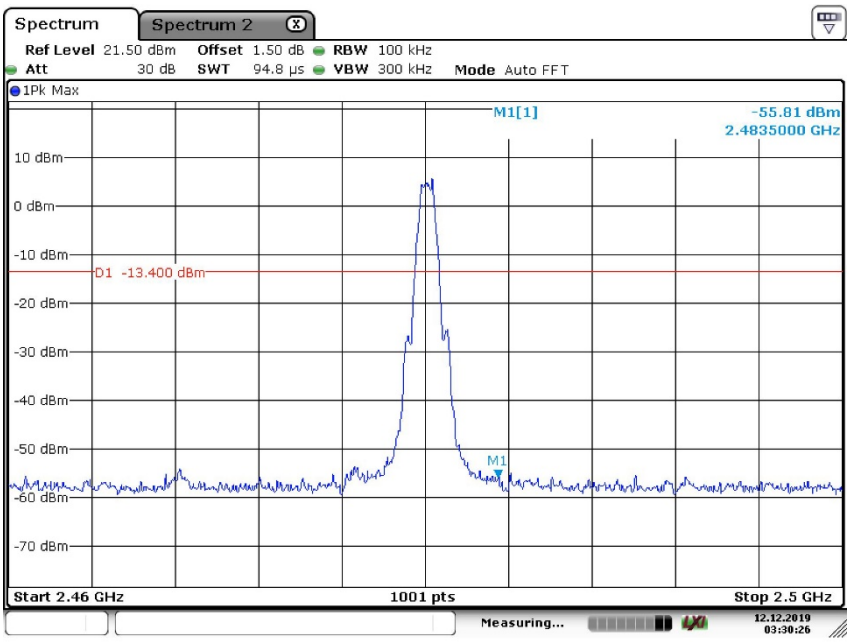
Date: 12.DEC.2019 03:29:46

Low Channel_Band Edge



Date: 12.DEC.2019 03:27:09

High Channel_Band Edge



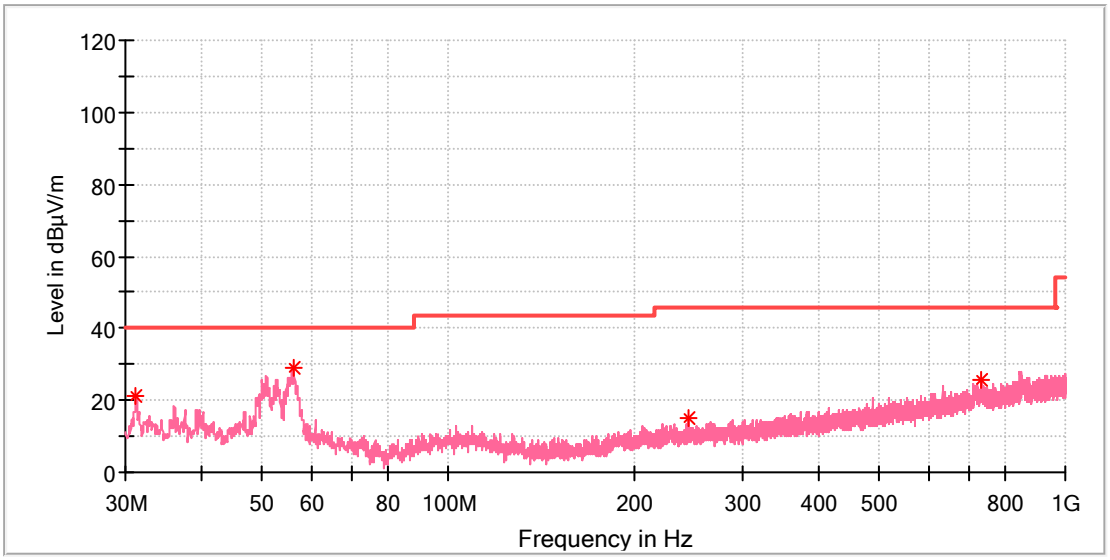
Date: 12.DEC.2019 03:30:27

Appendix B.4: Test Results of Radiated Spurious Emissions

Note 1: Testing was carried out within frequency range 9 kHz 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.

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Low CH 2402MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

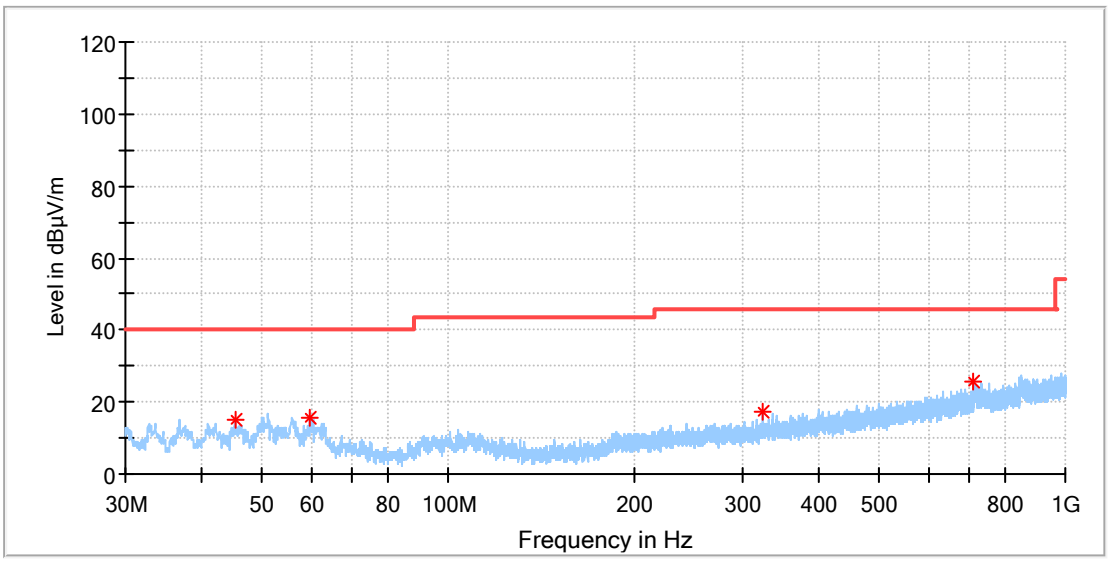


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.212500	21.28	---	40.00	18.72	100.0	V	40.0	-23.1
56.238500	28.81	---	40.00	11.19	100.0	V	275.0	-18.9
244.418500	15.19	---	46.00	30.81	100.0	V	40.0	-17.9
729.370000	25.89	---	46.00	20.11	100.0	V	209.0	-7.9

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Low CH 2402MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

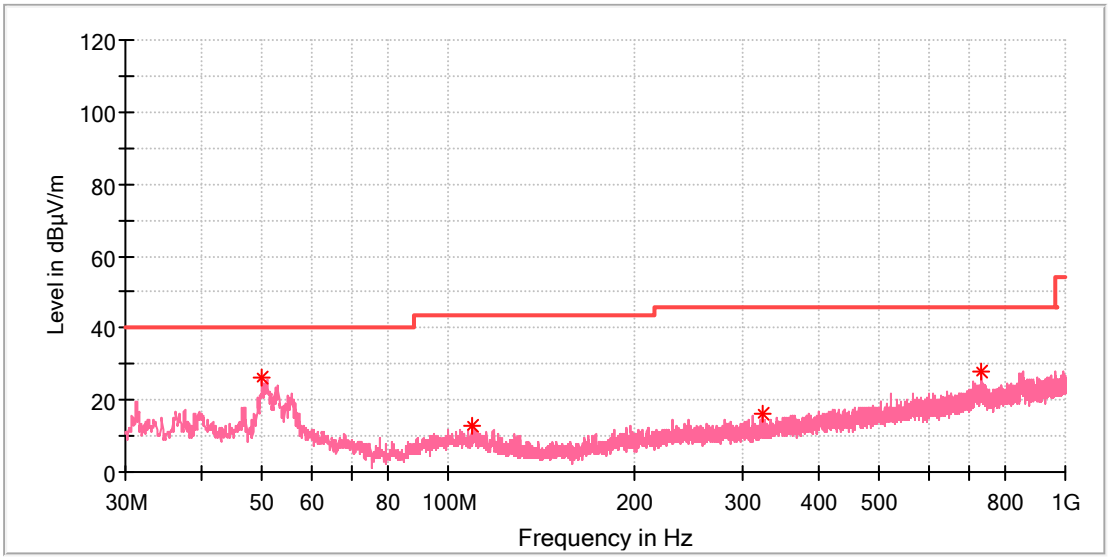


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.180500	15.28	---	40.00	24.72	100.0	H	77.0	-19.1
59.730500	15.75	---	40.00	24.25	100.0	H	61.0	-19.3
324.443500	17.48	---	46.00	28.52	100.0	H	176.0	-15.9
709.000000	25.42	---	46.00	20.58	100.0	H	184.0	-8.3

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_High CH 2480MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

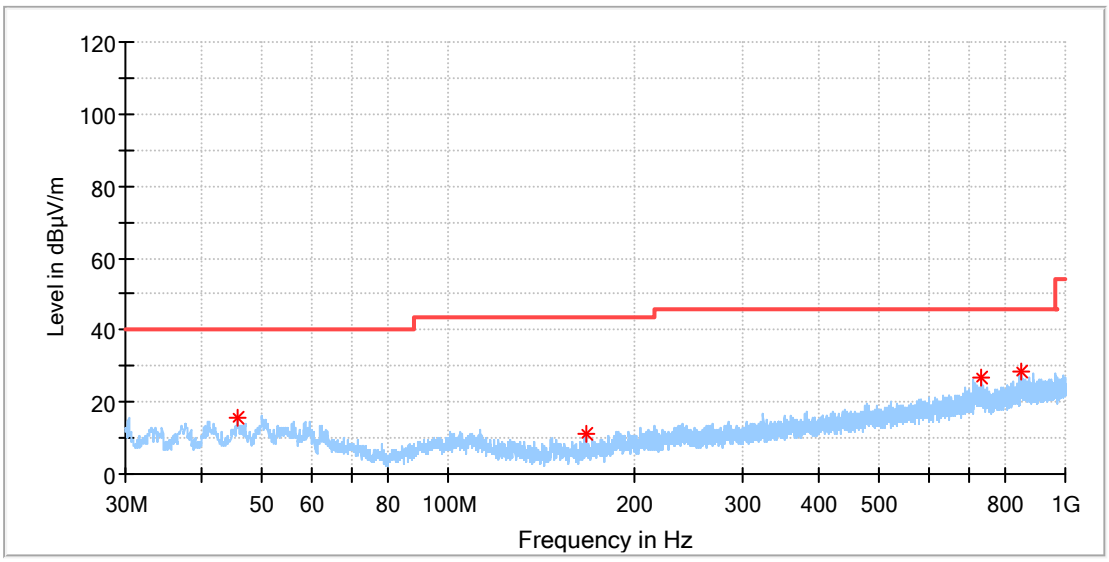


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
49.982000	26.10	---	40.00	13.90	100.0	V	20.0	-18.6
109.055000	12.83	---	43.50	30.67	100.0	V	70.0	-19.3
323.376500	16.34	---	46.00	29.66	100.0	V	266.0	-15.9
729.612500	27.92	---	46.00	18.08	100.0	V	94.0	-7.9

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_High CH 2480MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

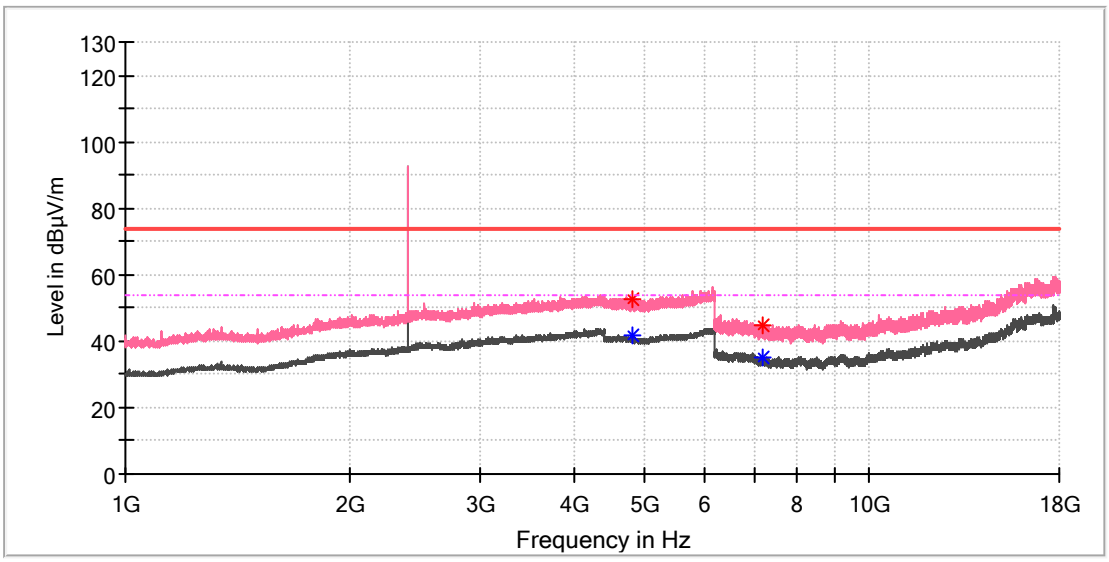


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.520000	15.50	---	40.00	24.50	100.0	H	223.0	-19.1
167.449000	11.24	---	43.50	32.26	100.0	H	0.0	-21.7
728.448500	26.76	---	46.00	19.24	100.0	H	124.0	-7.9
845.479000	28.52	---	46.00	17.48	100.0	H	305.0	-6.0

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Low CH 2402MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

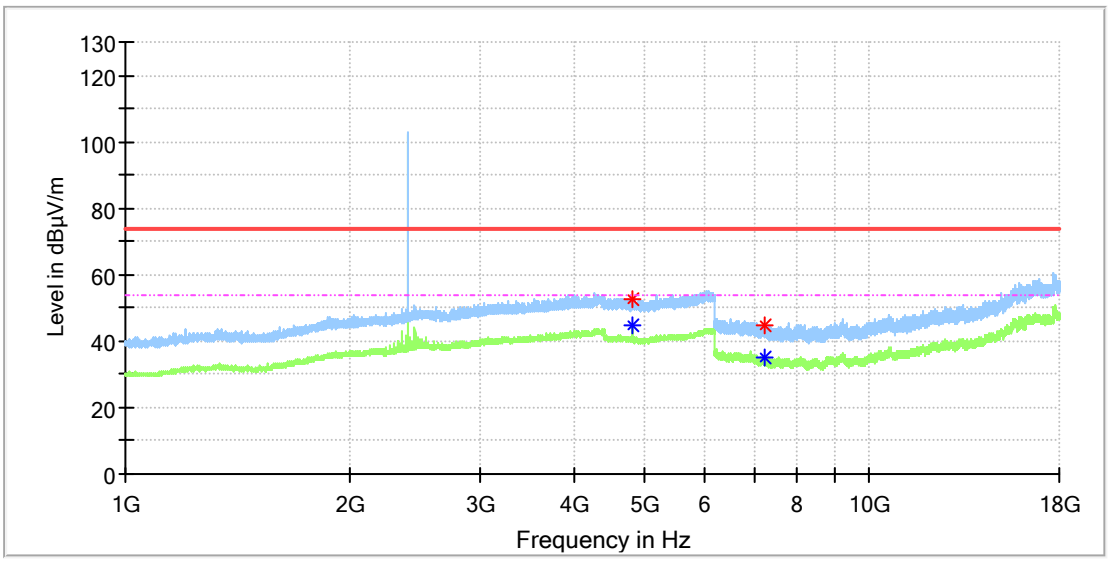


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	52.80	---	74.00	21.20	100.0	V	10.0	13.6
4804.000000	---	41.90	54.00	12.10	100.0	V	80.0	13.6
7191.691667	44.88	---	74.00	29.12	100.0	V	232.0	8.8
7205.950000	---	35.27	54.00	18.73	100.0	V	346.0	8.8

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Low CH 2402MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

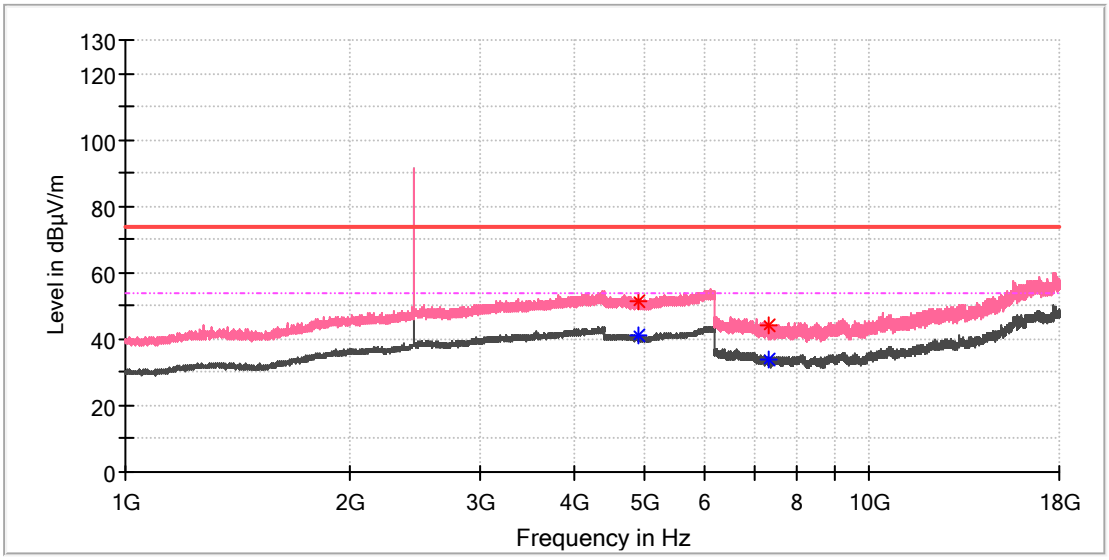


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4802.000000	52.84	---	74.00	21.16	100.0	H	333.0	13.6
4804.000000	---	44.87	54.00	9.13	100.0	H	1.0	13.6
7244.300000	---	34.89	54.00	19.11	100.0	H	206.0	8.6
7249.216667	44.78	---	74.00	29.22	100.0	H	43.0	8.5

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Mid CH 2440MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

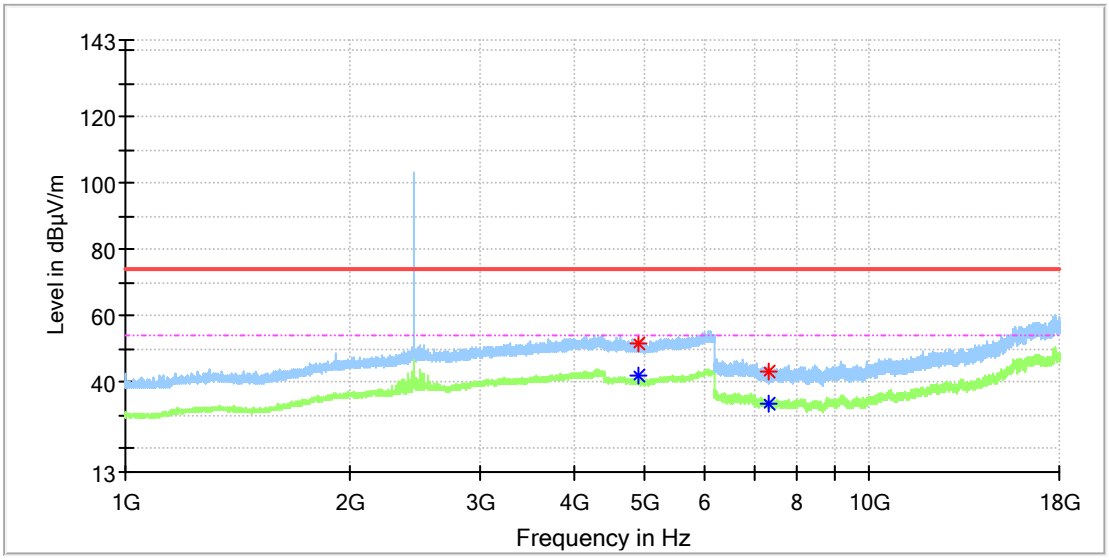


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4880.000000	---	41.10	54.00	12.90	100.0	V	61.0	13.4
4880.000000	51.42	---	74.00	22.58	100.0	V	61.0	13.4
7326.900000	---	33.91	54.00	20.09	100.0	V	174.0	8.1
7333.291667	43.95	---	74.00	30.05	100.0	V	327.0	8.1

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Mid CH 2440MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

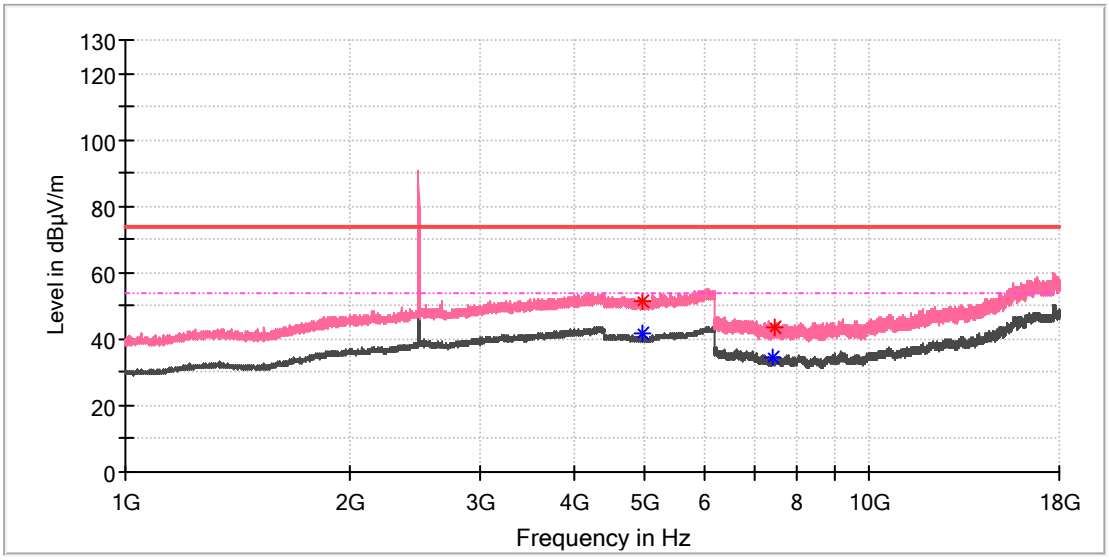


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4879.000000	51.74	---	74.00	22.26	100.0	H	10.0	13.4
4880.000000	---	42.19	54.00	11.81	100.0	H	27.0	13.4
7321.491667	---	33.71	54.00	20.29	100.0	H	0.0	8.2
7323.950000	43.37	---	74.00	30.63	100.0	H	0.0	8.2

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_High CH 2480MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

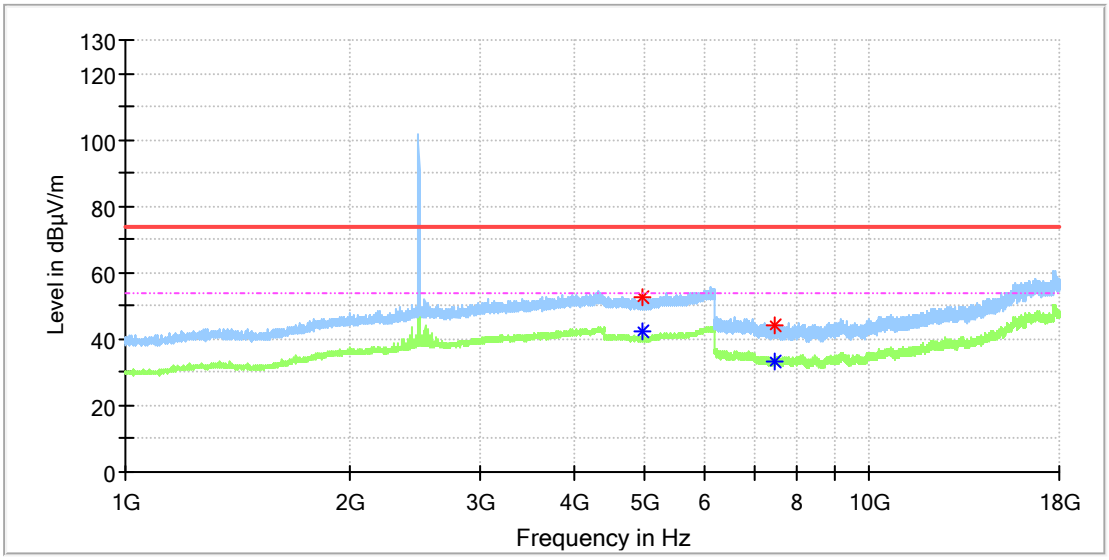


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	51.37	---	74.00	22.63	100.0	V	12.0	13.2
4960.500000	---	41.46	54.00	12.54	100.0	V	12.0	13.2
7433.591667	---	34.37	54.00	19.63	100.0	V	345.0	8.4
7441.950000	43.28	---	74.00	30.72	100.0	V	248.0	8.4

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_High CH 2480MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



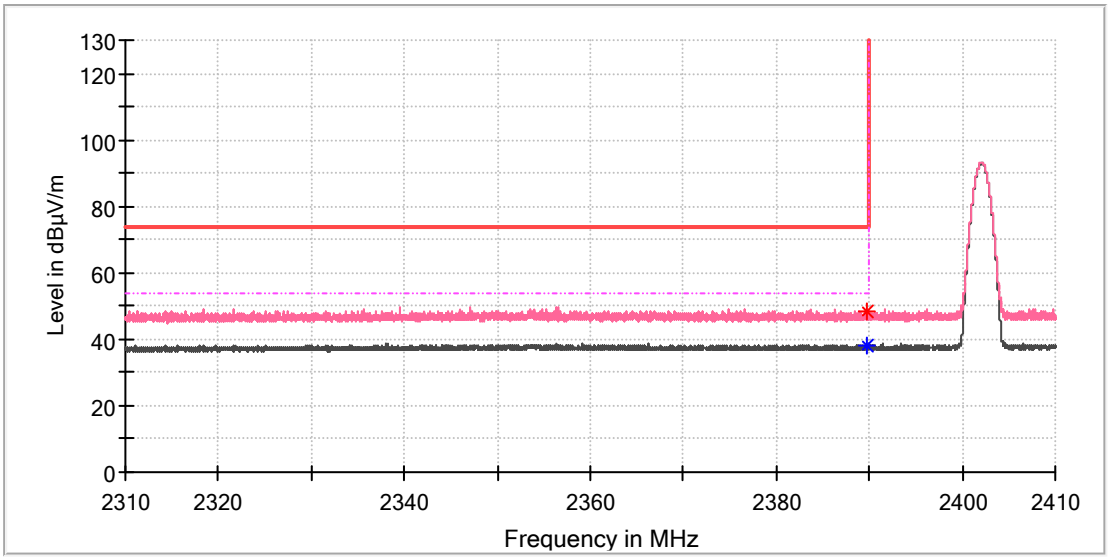
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	52.87	---	74.00	21.13	100.0	H	298.0	13.2
4960.500000	---	42.16	54.00	11.84	100.0	H	143.0	13.2
7461.616667	---	33.55	54.00	20.45	100.0	H	174.0	8.5
7468.008333	44.12	---	74.00	29.88	100.0	H	118.0	8.6

Appendix B.5: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Low CH 2402MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

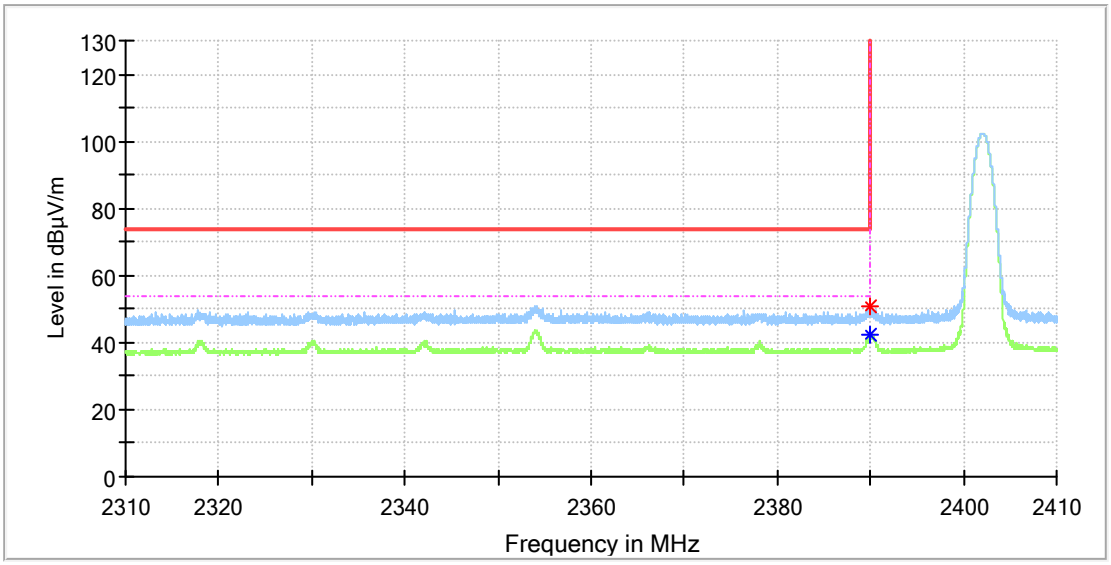


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2389.647059	---	38.03	54.00	15.97	100.0	V	190.0	7.0
2389.647059	48.42	---	74.00	25.58	100.0	V	190.0	7.0

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_Low CH 2402MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

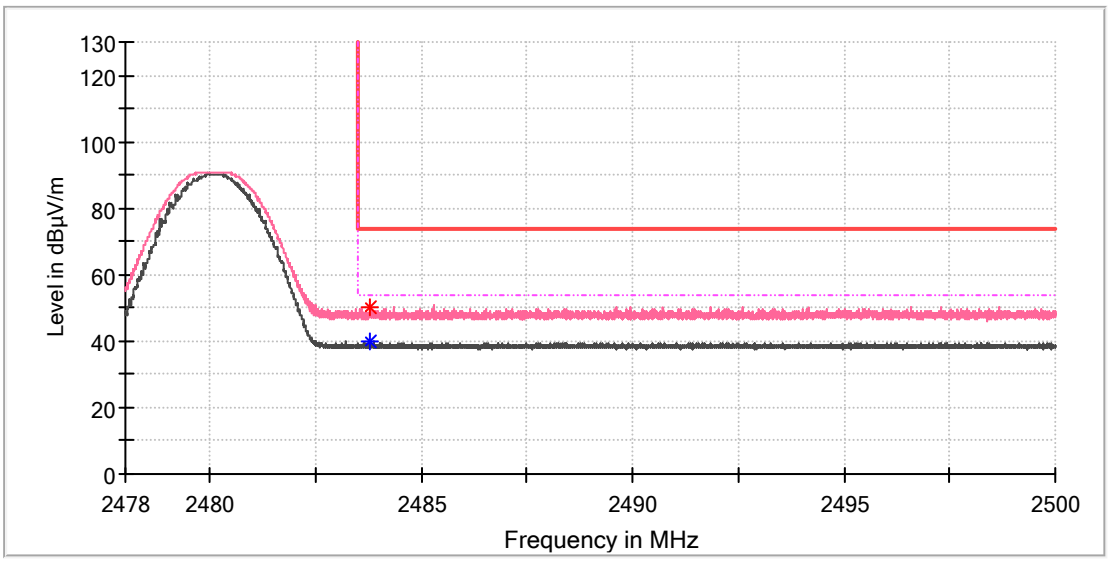


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2390.029412	---	42.41	200.00	157.59	100.0	H	264.0	7.0
2390.044118	50.51	---	200.00	149.49	100.0	H	250.0	7.0

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_High CH 2480MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

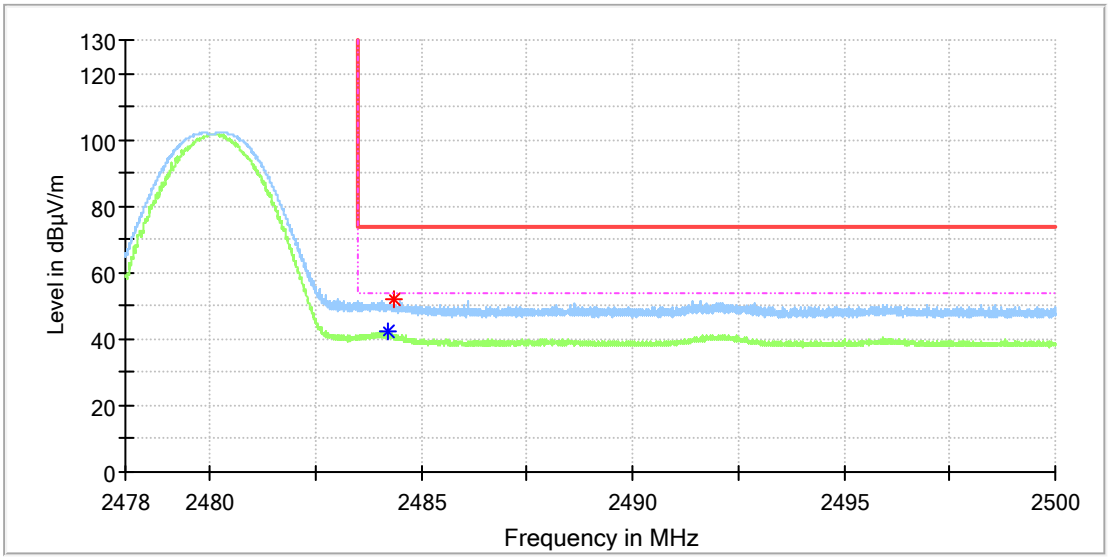


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.771765	50.10	---	74.00	23.90	100.0	V	345.0	7.4
2483.800882	---	39.76	54.00	14.24	100.0	V	356.0	7.4

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	BLE_High CH 2480MHz
Test Voltage::	DC 3V
Remark:	Temp 24 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



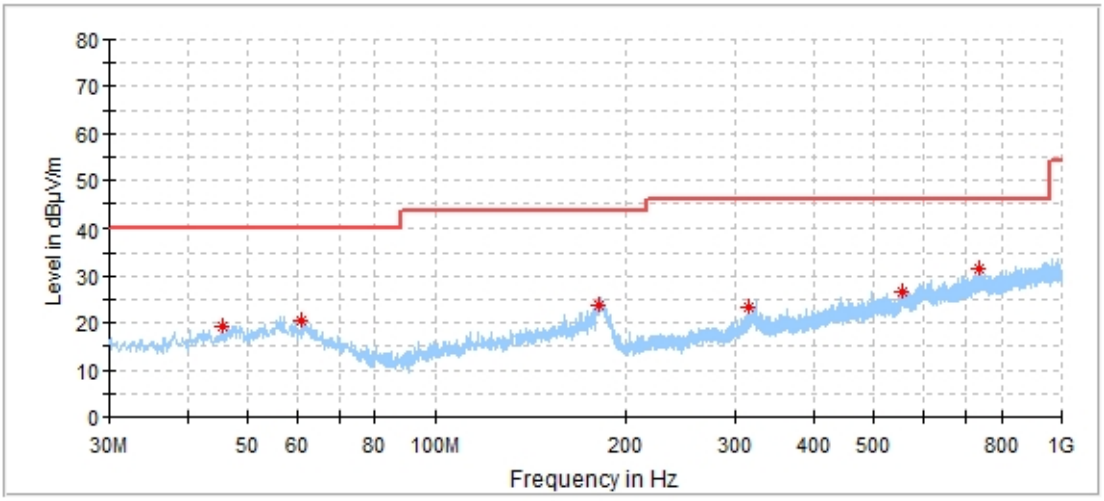
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.198824	---	42.15	54.00	11.85	100.0	H	279.0	7.4
2484.354118	52.24	---	74.00	21.76	100.0	H	62.0	7.4

Appendix B.6: Test Results of Radiated Emission

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	ON
Test Voltage:	DC 3V
Test By:	Tom Guo
Review By:	Gary Chen
Remark:	3M Chamber

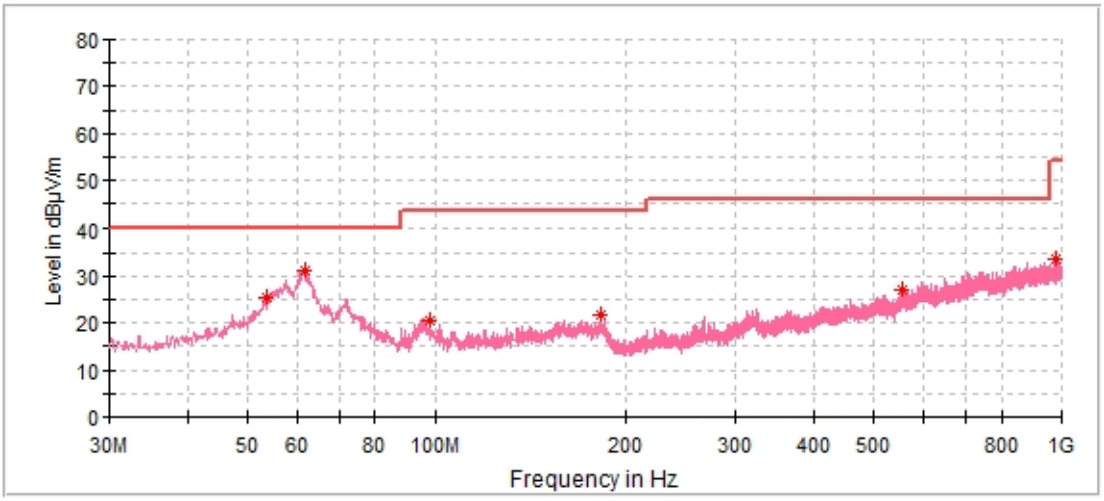


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
45.520000	19.45	40.00	20.55	---	---	100.0	H	201.0
61.040000	20.46	40.00	19.54	---	---	200.0	H	165.0
181.805000	23.79	43.50	19.71	---	---	100.0	H	99.0
315.956000	23.42	46.00	22.58	---	---	100.0	H	122.0
555.740000	26.77	46.00	19.23	---	---	100.0	H	69.0
739.846000	31.52	46.00	14.48	---	---	100.0	H	181.0

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	ON
Test Voltage:	DC 3V
Test By:	Tom Guo
Review By:	Gary Chen
Remark:	3M Chamber

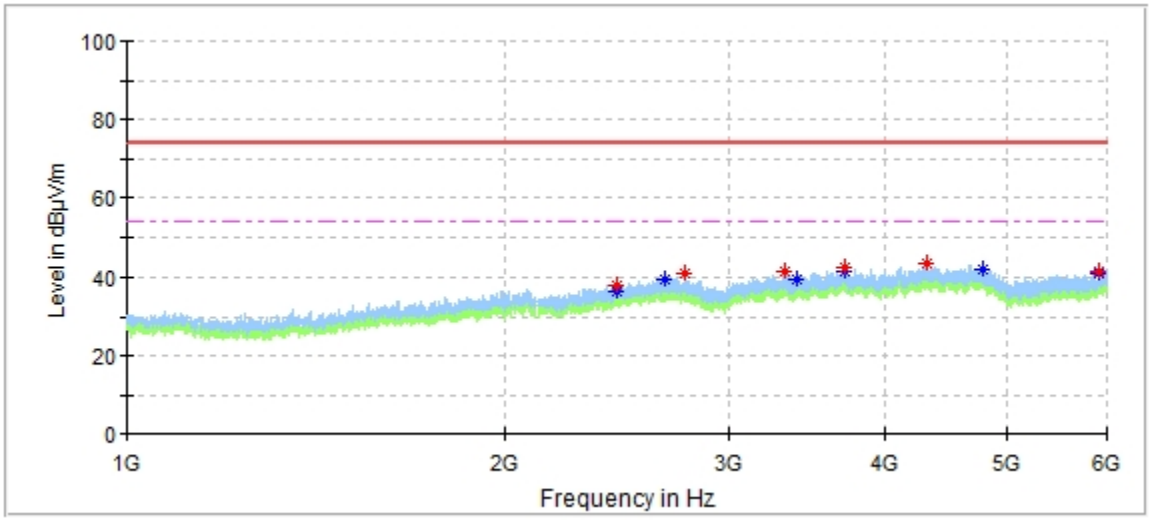


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
53.765000	25.39	40.00	14.61	---	---	100.0	V	28.0
97.997000	20.68	43.50	22.82	---	---	100.0	V	293.0
61.719000	31.34	40.00	8.66	---	---	100.0	V	301.0
979.048000	33.49	54.00	20.51	---	---	200.0	V	0.0
182.484000	21.64	43.50	21.86	---	---	200.0	V	41.0
555.449000	27.13	46.00	18.87	---	---	200.0	V	296.0

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	ON
Test Voltage:	DC 3V
Test By:	Tom Guo
Review By:	Gary Chen
Remark:	3M Chamber

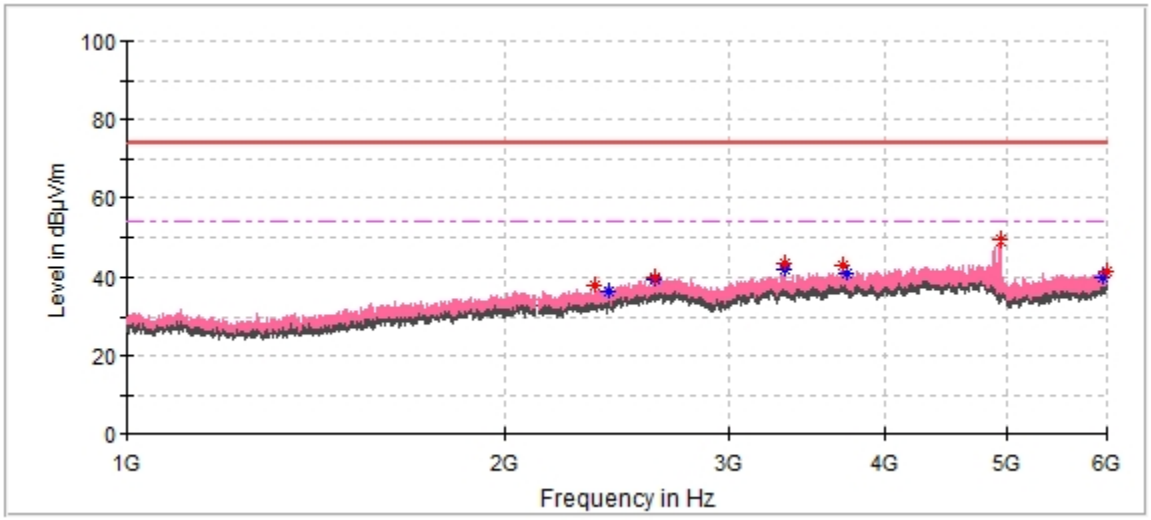


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol
3710.000000	---	41.57	54.00	12.43	---	---	100.0	H
3710.000000	42.78	---	74.00	31.22	---	---	100.0	H
2769.000000	40.93	---	74.00	33.07	---	---	100.0	H
4774.500000	---	41.85	54.00	12.15	---	---	100.0	H
2442.500000	37.84	---	74.00	36.16	---	---	100.0	H
3321.000000	41.50	---	74.00	32.50	---	---	200.0	H
4312.000000	43.42	---	74.00	30.58	---	---	200.0	H
3394.000000	---	39.74	54.00	14.26	---	---	200.0	H
5923.000000	---	40.84	54.00	13.16	---	---	200.0	H
5923.000000	41.71	---	74.00	32.29	---	---	200.0	H
2673.500000	---	39.27	54.00	14.73	---	---	200.0	H
2445.000000	---	36.48	54.00	17.52	---	---	200.0	H

EUT Information

EUT Name:	BLE motion sensor
Model:	8A-SS-BA-H0
Test Mode:	ON
Test Voltage:	DC 3V
Test By:	Tom Guo
Review By:	Gary Chen
Remark:	3M Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol
4944.500000	---	49.11	54.00	4.89	---	---	100.0	V
4944.500000	49.46	---	74.00	24.54	---	---	100.0	V
3725.500000	---	41.01	54.00	12.99	---	---	100.0	V
2352.500000	37.73	---	74.00	36.27	---	---	100.0	V
3700.000000	42.97	---	74.00	31.03	---	---	100.0	V
2413.500000	---	36.39	54.00	17.61	---	---	100.0	V
2625.000000	---	39.25	54.00	14.75	---	---	200.0	V
2625.000000	39.98	---	74.00	34.02	---	---	200.0	V
5949.000000	---	40.25	54.00	13.75	---	---	200.0	V
5991.000000	41.78	---	74.00	32.22	---	---	200.0	V
3328.500000	43.46	---	74.00	30.54	---	---	200.0	V
3328.500000	---	42.14	54.00	11.86	---	---	200.0	V