

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)

Report No.: RFBDKG-WTW-P26080435

FCC ID: JNZMR0168

Product: Wireless Mouse

Brand: Logitech, logi, logitech

Model No.: MR0168

Received Date: 2026/8/20

Test Date: 2026/8/24 ~ 2026/9/9

Issued Date: 2026/9/21

Applicant: Logitech Far East Ltd.

Address: #2 Creation Rd. 4, Science-Based Ind. Park Hsinchu Taiwan, R.O.C.

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____, **Date:** 2026/9/21
May Chen / Manager

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Prepared by : Phoenix Huang / Specialist

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Table of Contents

Release Control Record	4
1 Certificate.....	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Supplementary Information	6
3 General Information	7
3.1 General Description	7
3.2 Antenna Description of EUT	8
3.3 Channel List	9
3.4 Test Mode Applicability and Tested Channel Detail	10
3.5 Duty Cycle of Test Signal	11
3.6 Test Program Used and Operation Descriptions	12
3.7 Connection Diagram of EUT and Peripheral Devices	12
3.8 Configuration of Peripheral Devices and Cable Connections	12
4 Test Instruments	13
4.1 RF Output Power	13
4.2 Power Spectral Density	13
4.3 6 dB Bandwidth	13
4.4 Conducted Out of Band Emissions	13
4.5 Unwanted Emissions below 1 GHz	14
4.6 Unwanted Emissions above 1 GHz	14
5 Limits of Test Items.....	15
5.1 RF Output Power	15
5.2 Power Spectral Density	15
5.3 6 dB Bandwidth	15
5.4 Conducted Out of Band Emissions	15
5.5 Unwanted Emissions below 1 GHz	15
5.6 Unwanted Emissions above 1 GHz	15
6 Test Arrangements.....	16
6.1 RF Output Power	16
6.1.1 Test Setup	16
6.1.2 Test Procedure	16
6.2 Power Spectral Density	16
6.2.1 Test Setup	16
6.2.2 Test Procedure	16
6.3 6 dB Bandwidth	17
6.3.1 Test Setup	17
6.3.2 Test Procedure	17
6.4 Conducted Out of Band Emissions	18
6.4.1 Test Setup	18
6.4.2 Test Procedure	18
6.5 Unwanted Emissions below 1 GHz	19
6.5.1 Test Setup	19
6.5.2 Test Procedure	20
6.6 Unwanted Emissions above 1 GHz	21
6.6.1 Test Setup	21
6.6.2 Test Procedure	21
7 Test Results of Test Item	22
7.1 RF Output Power	22
7.2 Power Spectral Density	24
7.3 6 dB Bandwidth	26
7.4 Conducted Out of Band Emissions	28
7.5 Unwanted Emissions below 1 GHz	32

7.6	Unwanted Emissions above 1 GHz.....	36
8	Pictures of Test Arrangements	60
9	Information of the Testing Laboratories	61

Release Control Record

Issue No.	Description	Date Issued
RFBDKG-WTW-P26080435	Original release.	2026/9/21

1 Certificate

Product: Wireless Mouse

Brand: Logitech, logi, logitech

Test Model: MR0168

Sample Status: Engineering sample

Applicant: Logitech Far East Ltd.

Test Date: 2026/8/24 ~ 2026/9/9

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)

Measurement procedure: ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024
KDB 558074 D01 15.247 Meas Guidance v05r02

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	N/A	Power supply is from battery.
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -14.6 dB at 31.12 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -7.8 dB at 2390.00 MHz
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Parameter	Specification	Uncertainty (±)
RF Output Power	-	1.1 dB
Power Spectral Density	-	1.3 dB
6 dB Bandwidth	-	1050.00 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.6 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description

Product	Wireless Mouse
Brand	Logitech, logi, logitech
Test Model	MR0168
Status of EUT	Engineering sample
Power Supply Rating	1.5 Vdc from battery
Modulation Type	GFSK
Modulation Technology	DTS
Transfer Rate	Up to 2 Mbps (*Note 1)
Operating Frequency	2.402 GHz ~ 2.48 GHz (*Note 1)
Number of Channel	40 (*Note 1)
Output Power	BT-LE 1M: 5.248 mW (7.2 dBm) BT-LE 2M: 4.932 mW (6.93 dBm) Logi Bolt 1M: 5.224 mW (7.18 dBm) Logi Bolt 2M: 4.92 mW (6.92 dBm)

Note:

1. BT-LE technique supports 1 Mbps and 2 Mbps data rates, both have been evaluated in this test report. Refer to **“section 3.3 Channel List” for more detail specification.**
2. The EUT may have a lot of colors for marketing requirement.
3. The product is supplied by primary alkaline batteries.
4. This device has BT-LE and Logi Bolt functions. Logi Bolt is the same technology as BT-LE then enhancement secure protocol.
5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1	2.4~2.4835	Printed monopole	None

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

3.3 Channel List

40 channels are provided for BT-LE & Logi Bolt:

RF Channel	RF Center Frequency	Channel Index	Channels Type for BT 5.x		Channels Type for BT 4.x
			Maximum Data Rate 2Mbps	Maximum Data Rate 1Mbps	Maximum Data Rate 1Mbps
0	2402 MHz	37		●	●
1	2404 MHz	0	●		●
2	2406 MHz	1	●		●
3	2408 MHz	2	●		●
4	2410 MHz	3	●		●
5	2412 MHz	4	●		●
6	2414 MHz	5	●		●
7	2416 MHz	6	●		●
8	2418 MHz	7	●		●
9	2420 MHz	8	●		●
10	2422 MHz	9	●		●
11	2424 MHz	10	●		●
12	2426 MHz	38		●	●
13	2428 MHz	11	●		●
14	2430 MHz	12	●		●
15	2432 MHz	13	●		●
16	2434 MHz	14	●		●
17	2436 MHz	15	●		●
18	2438 MHz	16	●		●
19	2440 MHz	17	●		●
20	2442 MHz	18	●		●
21	2444 MHz	19	●		●
22	2446 MHz	20	●		●
23	2448 MHz	21	●		●
24	2450 MHz	22	●		●
25	2452 MHz	23	●		●
26	2454 MHz	24	●		●
27	2456 MHz	25	●		●
28	2458 MHz	26	●		●
29	2460 MHz	27	●		●
30	2462 MHz	28	●		●
31	2464 MHz	29	●		●
32	2466 MHz	30	●		●
33	2468 MHz	31	●		●
34	2470 MHz	32	●		●
35	2472 MHz	33	●		●
36	2474 MHz	34	●		●
37	2476 MHz	35	●		●
38	2478 MHz	36	●		●
39	2480 MHz	39		●	●

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
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Following channel(s) was (were) selected for the final test as listed below:

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	BT-LE 1M	0, 19, 39	GFSK	1Mb/s
	BT-LE 2M	1, 19, 38	GFSK	2Mb/s
	Logi Bolt 1M	0, 19, 39	GFSK	1Mb/s
	Logi Bolt 2M	1, 19, 38	GFSK	2Mb/s
Power Spectral Density	BT-LE 1M	0, 19, 39	GFSK	1Mb/s
	BT-LE 2M	1, 19, 38	GFSK	2Mb/s
	Logi Bolt 1M	0, 19, 39	GFSK	1Mb/s
	Logi Bolt 2M	1, 19, 38	GFSK	2Mb/s
6 dB Bandwidth / Conducted Out of Band Emissions	BT-LE 1M	0, 19, 39	GFSK	1Mb/s
	BT-LE 2M	1, 19, 38	GFSK	2Mb/s
	Logi Bolt 1M	0, 19, 39	GFSK	1Mb/s
	Logi Bolt 2M	1, 19, 38	GFSK	2Mb/s
Unwanted Emissions below 1 GHz	BT-LE 1M	0	GFSK	1Mb/s
	Logi Bolt 1M	0	GFSK	1Mb/s
Unwanted Emissions above 1 GHz	BT-LE 1M	0, 19, 39	GFSK	1Mb/s
	BT-LE 2M	1, 19, 38	GFSK	2Mb/s
	Logi Bolt 1M	0, 19, 39	GFSK	1Mb/s
	Logi Bolt 2M	1, 19, 38	GFSK	2Mb/s

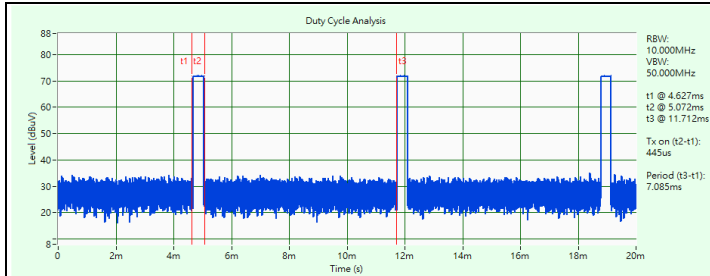
3.5 Duty Cycle of Test Signal

BT-LE 1M: Duty cycle = $0.445 \text{ ms} / 7.085 \text{ ms} \times 100\% = 6.3\%$

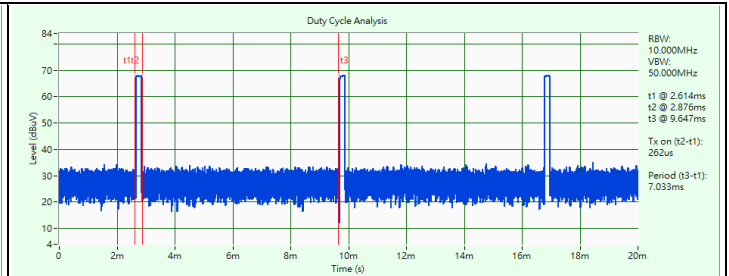
BT-LE 2M: Duty cycle = $0.262 \text{ ms} / 7.033 \text{ ms} \times 100\% = 3.7\%$

Logi Bolt 1M: Duty cycle = $0.444 \text{ ms} / 7.059 \text{ ms} \times 100\% = 6.3\%$

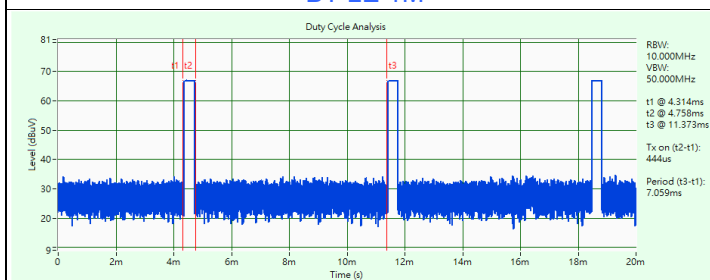
Logi Bolt 2M: Duty cycle = $0.261 \text{ ms} / 7.033 \text{ ms} \times 100\% = 3.7\%$



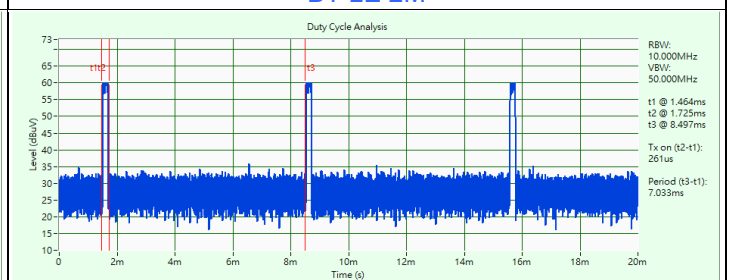
BT-LE 1M



BT-LE 2M



Logi Bolt 1M



Logi Bolt 2M

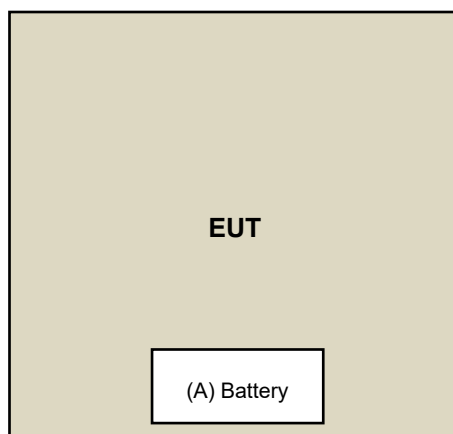
3.6 Test Program Used and Operation Descriptions

Controlling software (RF Sample with Receiver [Number Lock]) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

Test Item	Operation Description
RF Output Power / Power Spectral Density / 6 dB Bandwidth / Conducted Out of Band Emissions / Unwanted Emissions above 1 GHz	BLE1M TX Modulated low duty 2402MHz BLE1M TX Modulated low duty 2440MHz BLE1M TX Modulated low duty 2480MHz BLE2M TX Modulated low duty 2404MHz BLE2M TX Modulated low duty 2440MHz BLE2M TX Modulated low duty 2478MHz
Unwanted Emissions below 1 GHz	BLE1M TX Modulated low duty 2402MHz

Note: The operational description for Logi Bolt follows the same procedure as described for BLE.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Battery	Energizer	AA	N/A	N/A	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-20	00800A1K01A-20-02	2026/5/21	2027/5/20
Pulse Power Sensor Anritsu	MA2411B	1726433	2026/5/8	2027/5/7
RF Power Meter Anritsu	ML2496A	1529003	2026/6/15	2027/6/14

Notes:

1. The test was performed in HC - Oven room 2(Hsinchu).
2. Tested Date: 2026/8/24

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2026/5/21	2027/5/20
MXA Signal Analyzer Keysight	N9020B	MY60112408	2026/2/12	2027/2/11
Software	ADT_RF Test Software v8.5.6.4	N/A	N/A	N/A

Notes:

1. The test was performed in HC - Oven room 2(Hsinchu).
2. Tested Date: 2026/8/24

4.3 6 dB Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

4.4 Conducted Out of Band Emissions

Refer to section 4.2 to get the tested date and information of the instruments.

4.5 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0942	2025/9/16	2026/9/15
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-01	2026/4/12	2027/4/11
Loop Antenna TESEQ	HLA 6121	63620	2025/10/20	2026/10/19
MXA Signal Analyzer Keysight	N9020B	MY60112410	2026/3/26	2027/3/25
MXE EMI Receiver Keysight	N9038A	MY55420137	2026/3/26	2027/3/25
Preamplifier EMCI	EMC330N	980852	2026/1/31	2027/1/30
RF Coaxial Cable PEWC	8D	966-6-1	2026/4/12	2027/4/11
		966-6-2	2026/4/12	2027/4/11
		966-6-3	2026/4/12	2027/4/11
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in HC - 966 Chamber No. 6(Hsinchu).
2. Tested Date: 2026/9/2

4.6 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-2035	2025/11/9	2026/11/8
	BBHA 9170	BBHA9170519	2025/11/9	2026/11/8
MXA Signal Analyzer Keysight	N9020B	MY60112410	2026/3/26	2027/3/25
MXE EMI Receiver Keysight	N9038A	MY55420137	2026/3/26	2027/3/25
Preamplifier EMCI	EMC12630SE	980385	2026/5/23	2027/5/22
	EMC184045SE	980387	2026/8/5	2027/8/4
RF Coaxial Cable EMCI	EMC104-SM-SM-1300	210205	2026/5/23	2027/5/22
	EMC104-SM-SM-2000	210203	2026/5/23	2027/5/22
	EMC104-SM-SM-8000	221015	2026/5/23	2027/5/22
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in HC - 966 Chamber No. 6(Hsinchu).
2. Tested Date: 2026/8/25 ~ 2026/9/9

5 Limits of Test Items

5.1 RF Output Power

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30 dBm)

5.2 Power Spectral Density

The maximum of power spectral density measurement is 8 dBm in any 3 kHz.

5.3 6 dB Bandwidth

The minimum of 6 dB bandwidth measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

Below 20 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

5.5 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.6 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

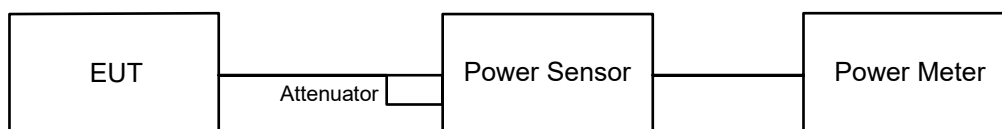
Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



Note: The correction factor has already been compensated by the instrument.

6.1.2 Test Procedure

Peak Power:

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

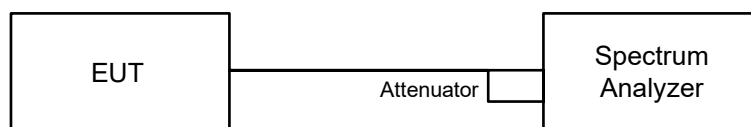
The power meter video bandwidth is greater than or equal to the DTS bandwidth and use a fast responding diode detector.

Average Power:

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

6.2 Power Spectral Density

6.2.1 Test Setup



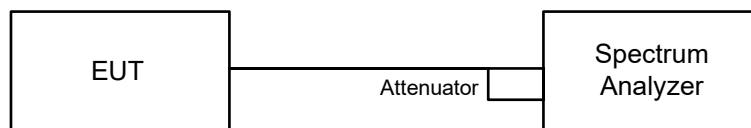
Note: The correction factor has already been compensated by the instrument.

6.2.2 Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span > 1.5 times the DTS bandwidth.
- Set the RBW to: 3 kHz.
- Set the VBW $\geq 3 \times$ RBW.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

6.3 6 dB Bandwidth

6.3.1 Test Setup



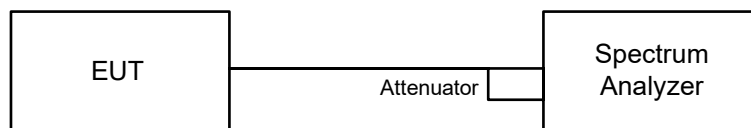
Note: The correction factor has already been compensated by the instrument.

6.3.2 Test Procedure

- a. Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b. Set the VBW $\geq [3 \times \text{RBW}]$.
- c. Detector = peak.
- d. Trace mode = max-hold.
- e. Sweep = No faster than coupled (auto) time.
- f. Allow the trace to stabilize.
- g. Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



Note: The correction factor has already been compensated by the instrument.

6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

- Set instrument center frequency to DTS channel center frequency.
- Set the span to ≥ 1.5 times the DTS bandwidth.
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum PSD level.

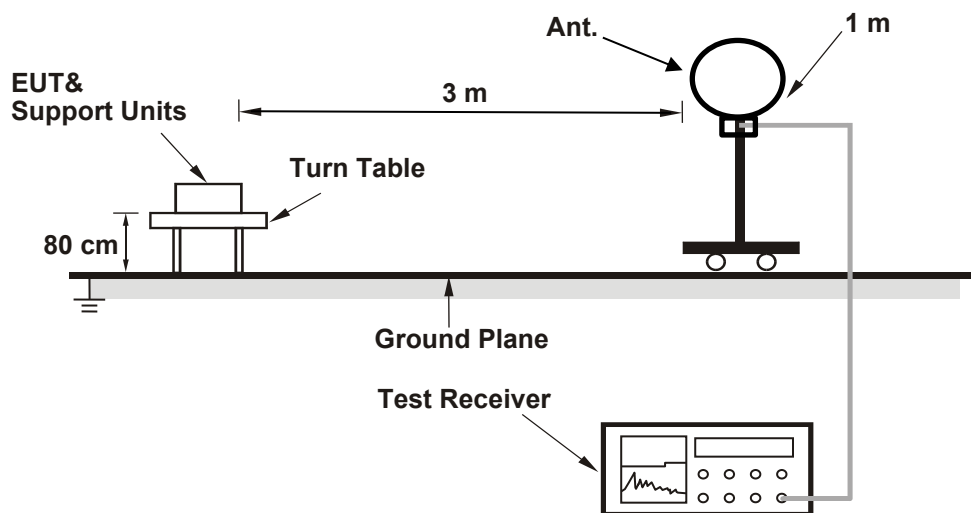
MEASUREMENT PROCEDURE OOB

- Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution.
- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Detector = peak.
- Sweep = No faster than coupled (auto) time.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level.

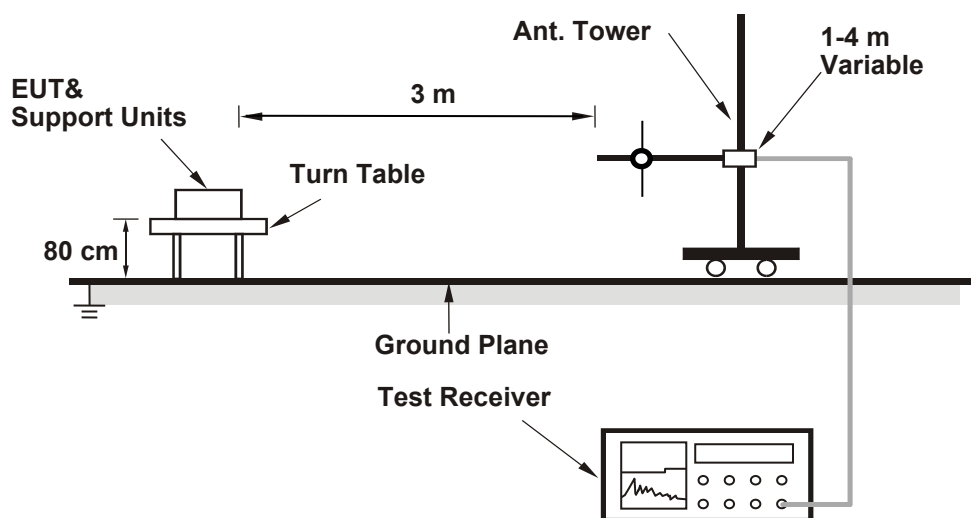
6.5 Unwanted Emissions below 1 GHz

6.5.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.5.2 Test Procedure

For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode (however, peak detector measurements may be used to determine compliance with QP requirements), except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

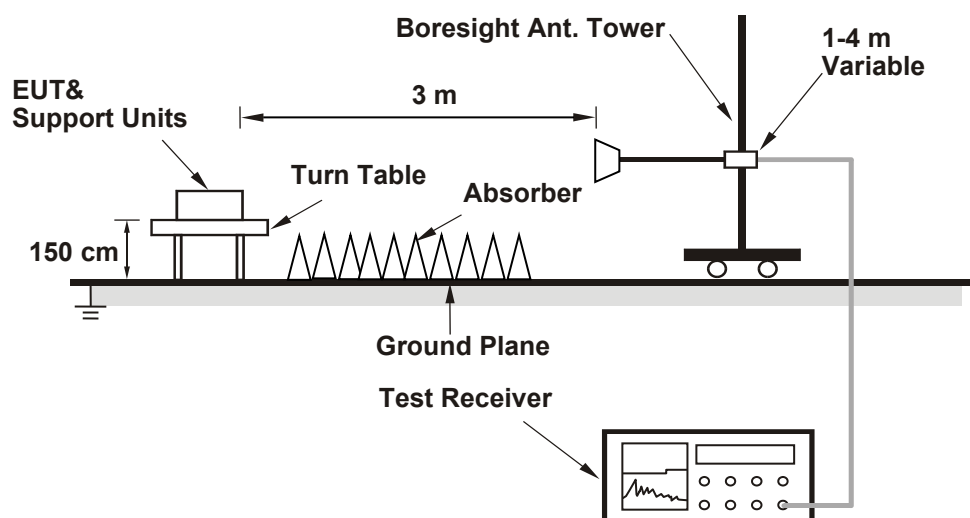
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-peak(QP) detect function, Average(AV) detect function, Peak(PK) detect function and specified bandwidth with maximum hold mode when the test frequencies less than or equal to 1 GHz.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz (however, peak detector measurements may be used to determine compliance with QP requirements).
2. All modes of operation were investigated and the worst-case emissions are reported.

6.6 Unwanted Emissions above 1 GHz

6.6.1 Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.6.2 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver/spectrum analyzer was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, according to KDB 558074 D01 15.247 Meas Guidance v05r02 section 8.1(c)(3). The spectrum analyzer settings meet the requirements of 11.12.2.4 in ANSI C63.10 for making a Peak measurement, the average value = Peak value + duty cycle correction factor. The duty cycle measurement refers to FCC 47 CFR Part 15C section 15.35 (c). For duty cycle correction factor values, see the Test Signal Duty Cycle section in this report.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	1.5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	MAX Tseng
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For Peak Power

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	5.248	7.20	30	Pass
19	2440	4.667	6.69	30	Pass
39	2480	3.99	6.01	30	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
1	2404	4.932	6.93	30	Pass
19	2440	4.539	6.57	30	Pass
38	2478	3.981	6.00	30	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

Logi Bolt 1M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	5.224	7.18	30	Pass
19	2440	4.634	6.66	30	Pass
39	2480	3.972	5.99	30	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

Logi Bolt 2M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
1	2404	4.92	6.92	30	Pass
19	2440	4.519	6.55	30	Pass
38	2478	3.954	5.97	30	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

For Average Power

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	5.164	7.13
19	2440	4.592	6.62
39	2480	3.936	5.95

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
1	2404	4.842	6.85
19	2440	4.467	6.50
38	2478	3.936	5.95

Logi Bolt 1M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	5.14	7.11
19	2440	4.56	6.59
39	2480	3.917	5.93

Logi Bolt 2M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
1	2404	4.819	6.83
19	2440	4.436	6.47
38	2478	3.908	5.92

7.2 Power Spectral Density

Input Power:	1.5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	MAX Tseng
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BT-LE 1M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	6.40	8	Pass
19	2440	5.70	8	Pass
39	2480	5.41	8	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 2M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
1	2404	0.03	8	Pass
19	2440	1.34	8	Pass
38	2478	1.04	8	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

Logi Bolt 1M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	6.08	8	Pass
19	2440	5.85	8	Pass
39	2480	5.52	8	Pass

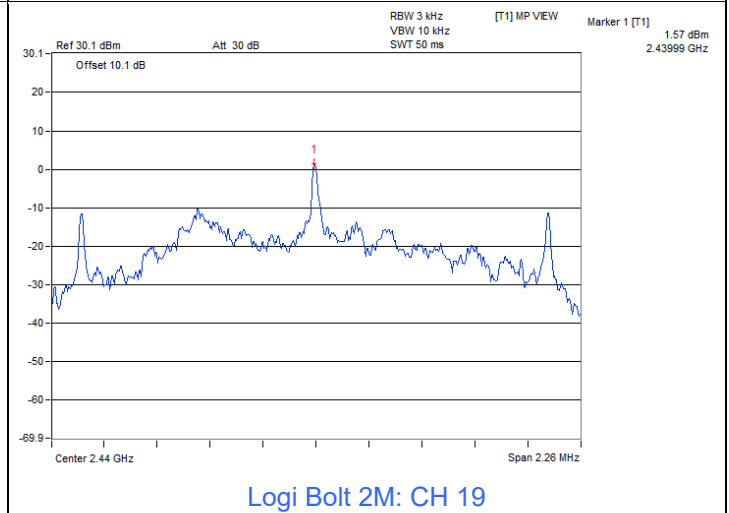
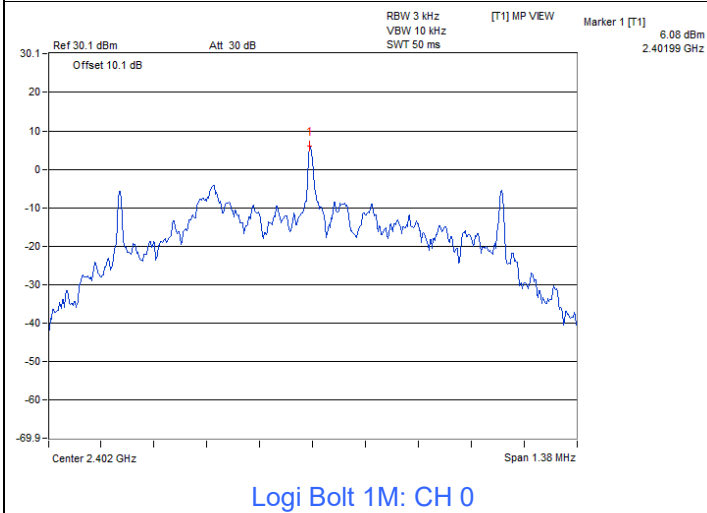
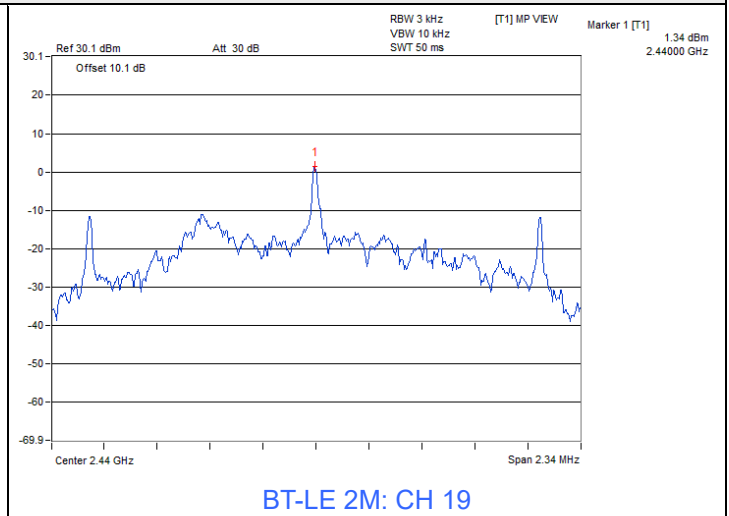
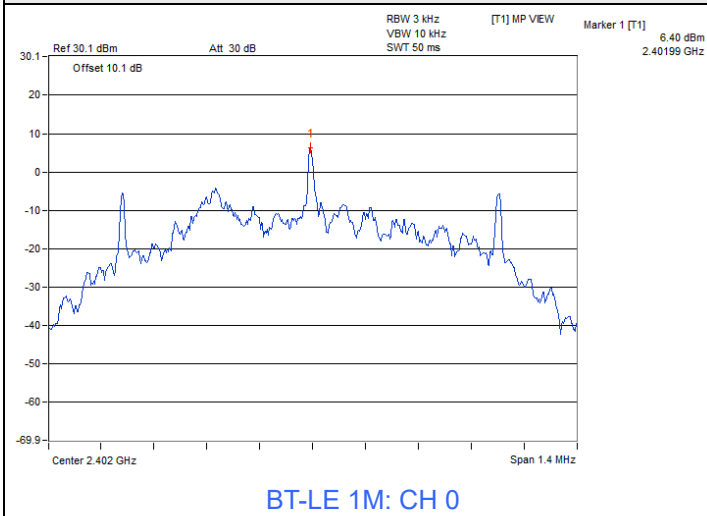
Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

Logi Bolt 2M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
1	2404	1.35	8	Pass
19	2440	1.57	8	Pass
38	2478	0.45	8	Pass

Note: The antenna gain is 1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

Spectrum Plot of Maximum Value



7.3 6 dB Bandwidth

Input Power:	1.5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	MAX Tseng
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BT-LE 1M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	0.7	0.5	Pass
19	2440	0.69	0.5	Pass
39	2480	0.7	0.5	Pass

BT-LE 2M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
1	2404	1.13	0.5	Pass
19	2440	1.17	0.5	Pass
38	2478	1.14	0.5	Pass

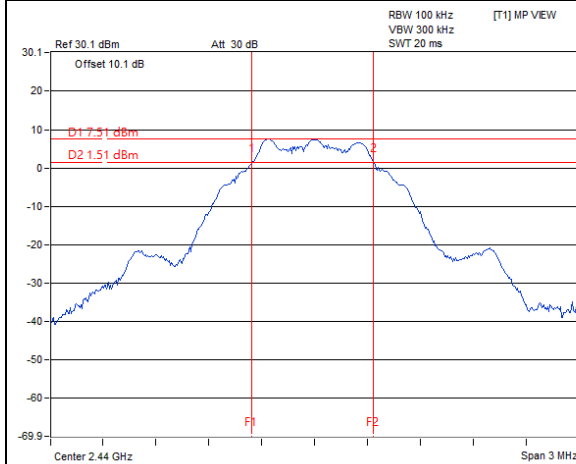
Logi Bolt 1M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	0.69	0.5	Pass
19	2440	0.7	0.5	Pass
39	2480	0.7	0.5	Pass

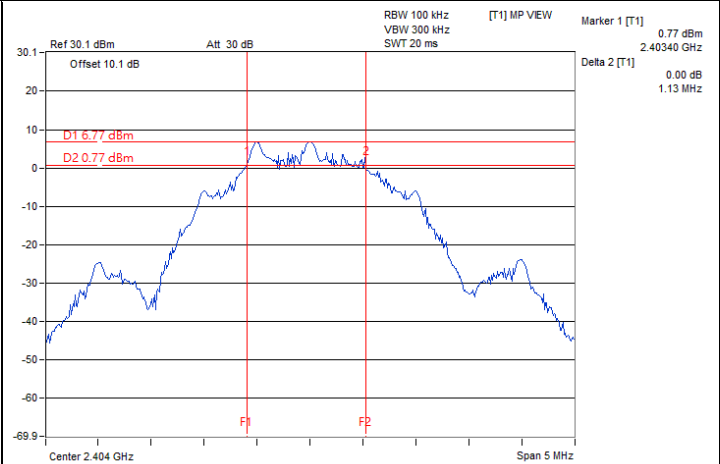
Logi Bolt 2M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
1	2404	1.18	0.5	Pass
19	2440	1.13	0.5	Pass
38	2478	1.16	0.5	Pass

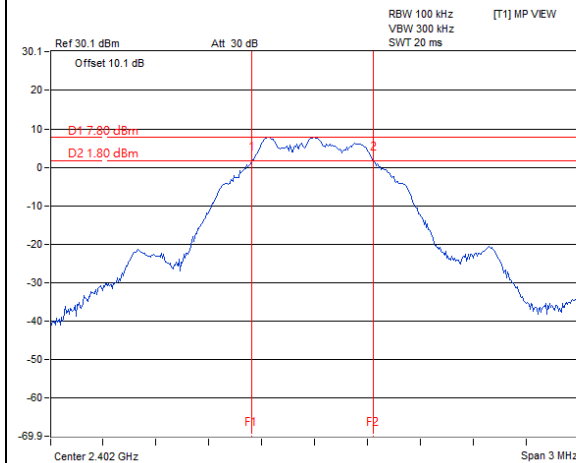
Spectrum Plot of Minimum Value



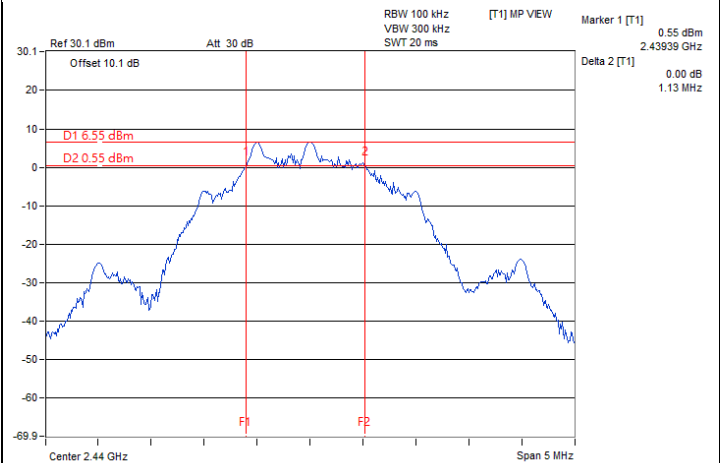
BT-LE 1M: CH 19



BT-LE 2M: CH 1



Logi Bolt 1M: CH 0

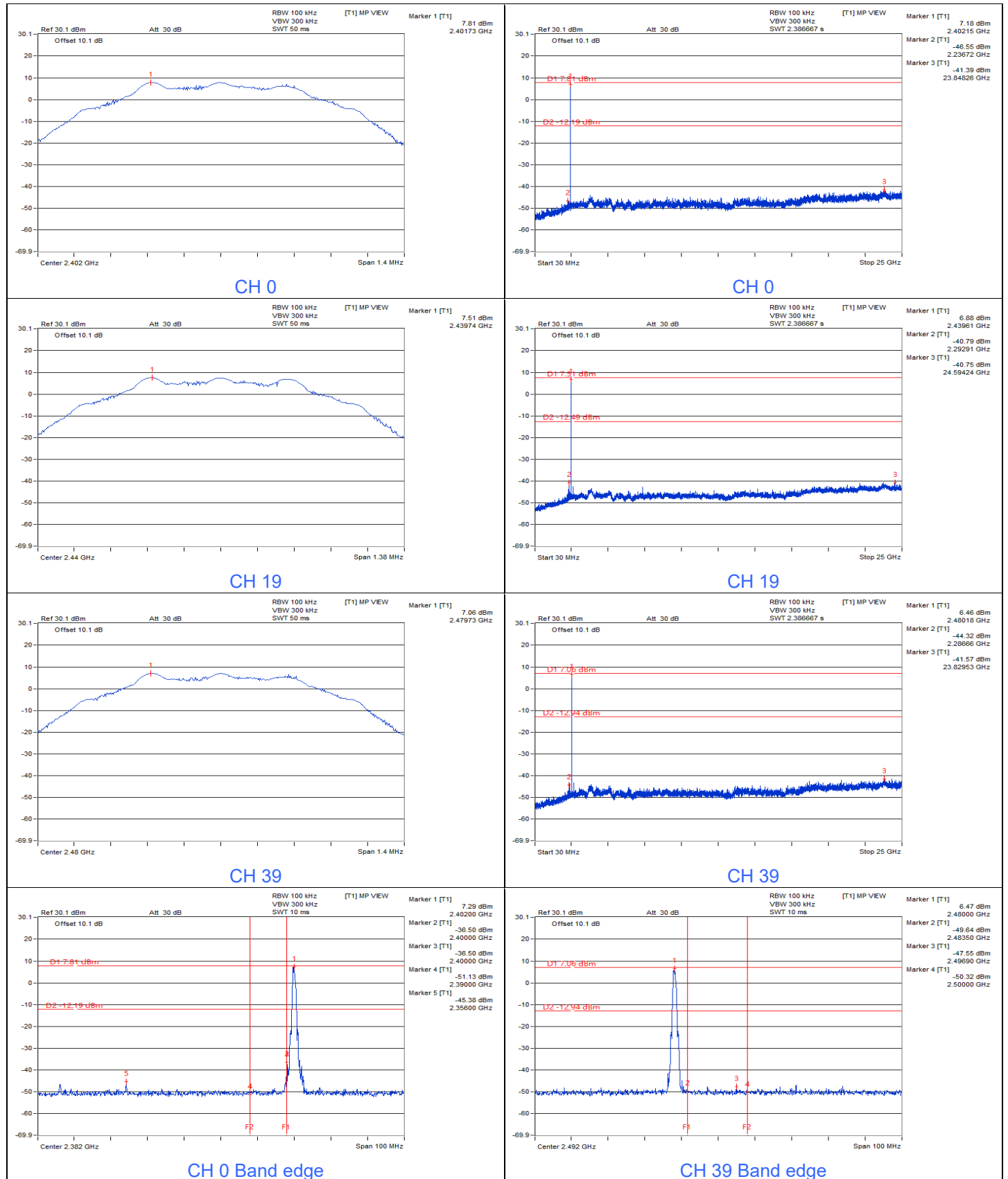


Logi Bolt 2M: CH 19

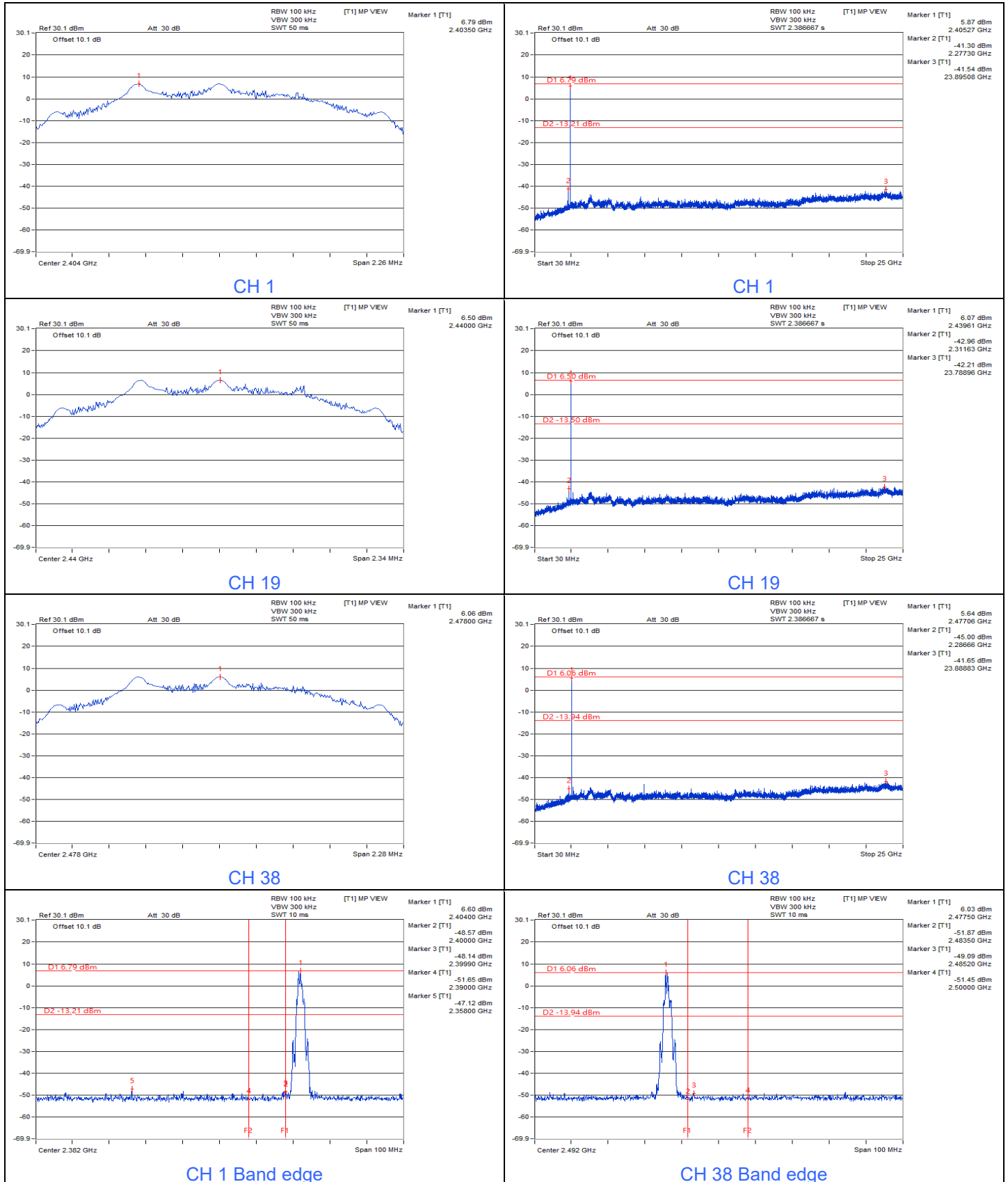
7.4 Conducted Out of Band Emissions

Input Power:	1.5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	MAX Tseng
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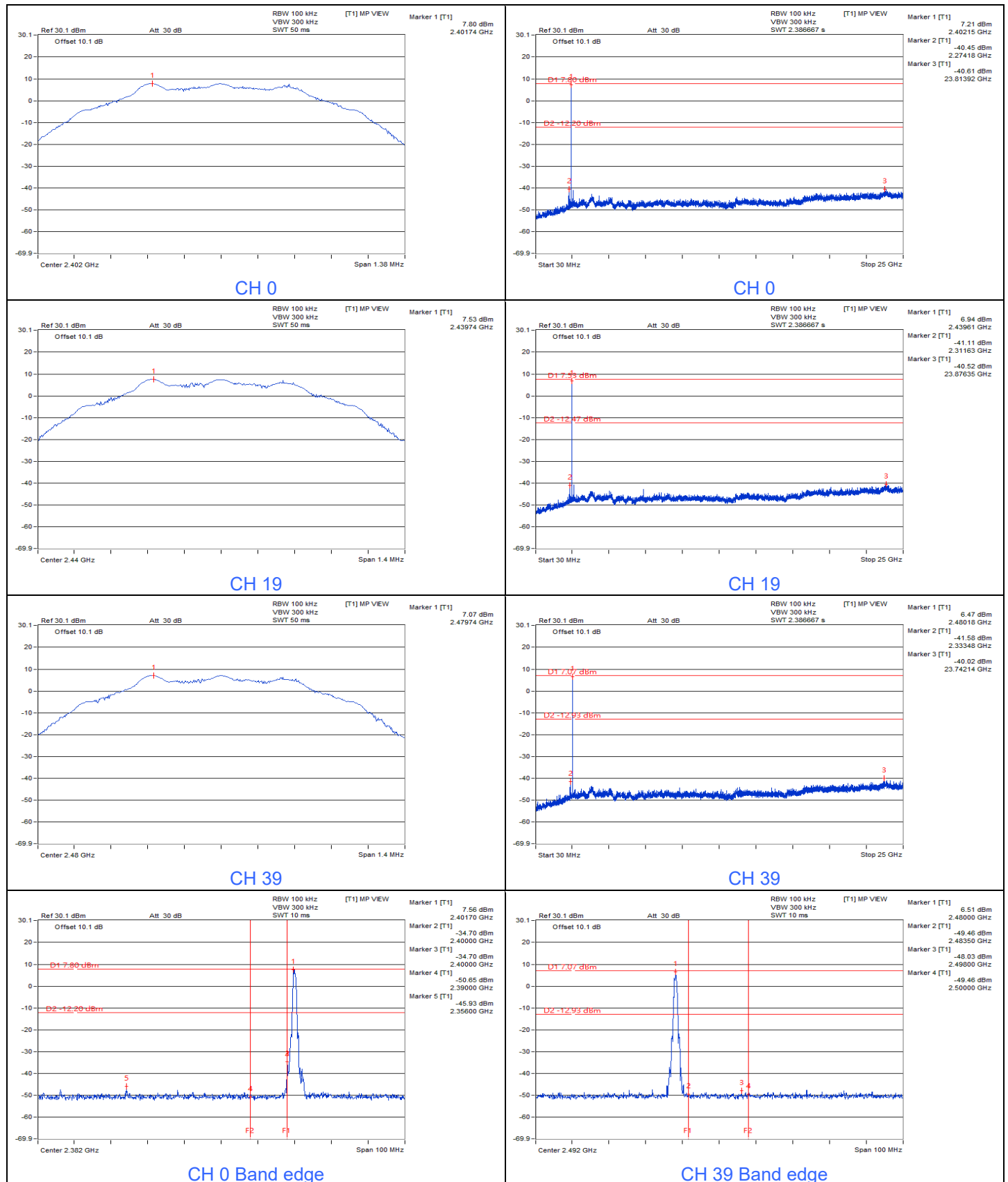
BT-LE 1M



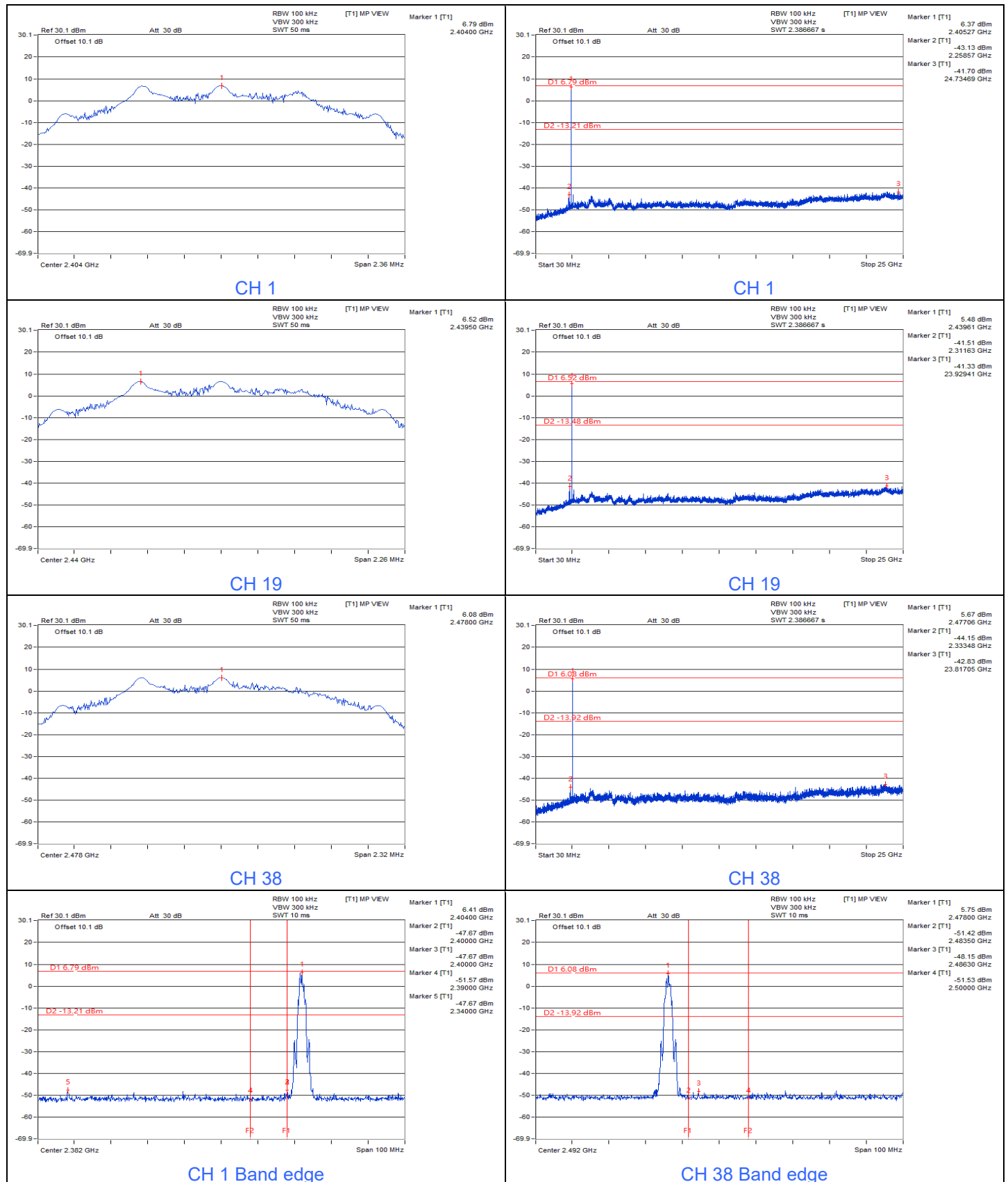
BT-LE 2M



Logi Bolt 1M



Logi Bolt 2M



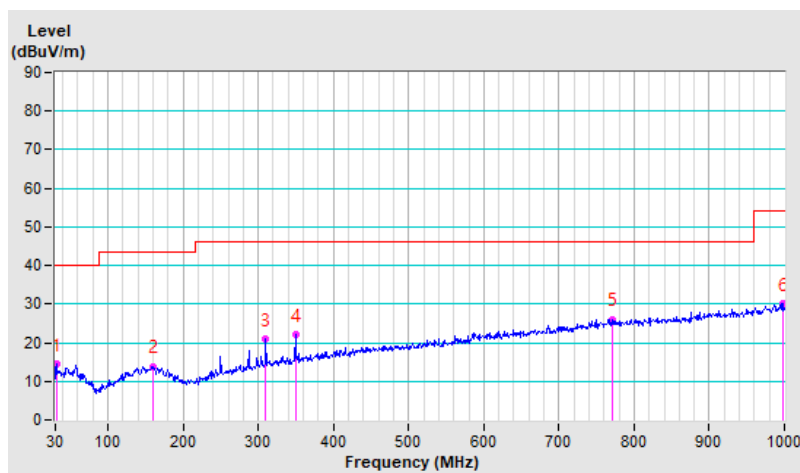
7.5 Unwanted Emissions below 1 GHz

RF Mode	BT-LE 1M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak
Input Power	1.5 Vdc	Environmental Conditions	25 °C, 75% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.21	14.5 PK	40.0	-25.5	3.00 H	282	29.1	-14.6
2	159.33	13.9 PK	43.5	-29.6	3.00 H	173	26.8	-12.9
3	309.65	20.9 PK	46.0	-25.1	3.00 H	360	33.2	-12.3
4	350.00	22.2 PK	46.0	-23.8	2.00 H	1	33.7	-11.5
5	771.73	26.1 PK	46.0	-19.9	3.00 H	360	29.0	-2.9
6	998.96	30.2 PK	54.0	-23.8	3.00 H	273	29.1	1.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

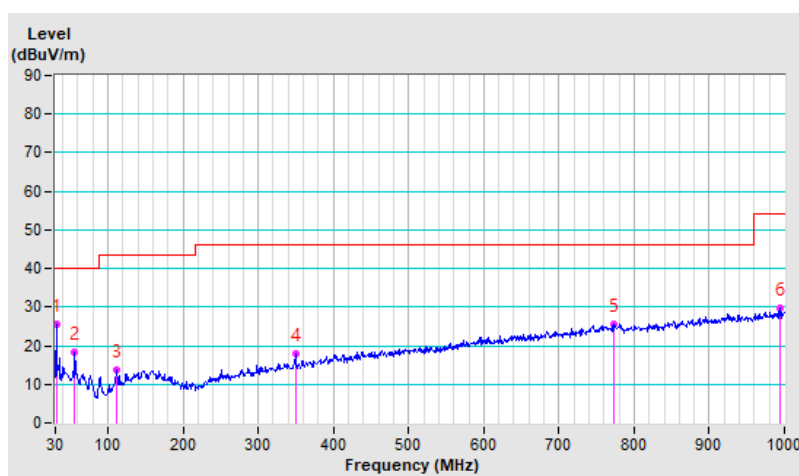


RF Mode	BT-LE 1M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak
Input Power	1.5 Vdc	Environmental Conditions	25 °C, 75% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.12	25.4 PK	40.0	-14.6	2.00 V	1	40.1	-14.7
2	55.87	18.4 PK	40.0	-21.6	2.00 V	1	31.6	-13.2
3	111.60	13.7 PK	43.5	-29.8	1.00 V	110	29.8	-16.1
4	349.98	17.8 PK	46.0	-28.2	2.00 V	1	29.3	-11.5
5	773.65	25.5 PK	46.0	-20.5	2.00 V	97	28.4	-2.9
6	995.05	29.7 PK	54.0	-24.3	3.00 V	106	28.6	1.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

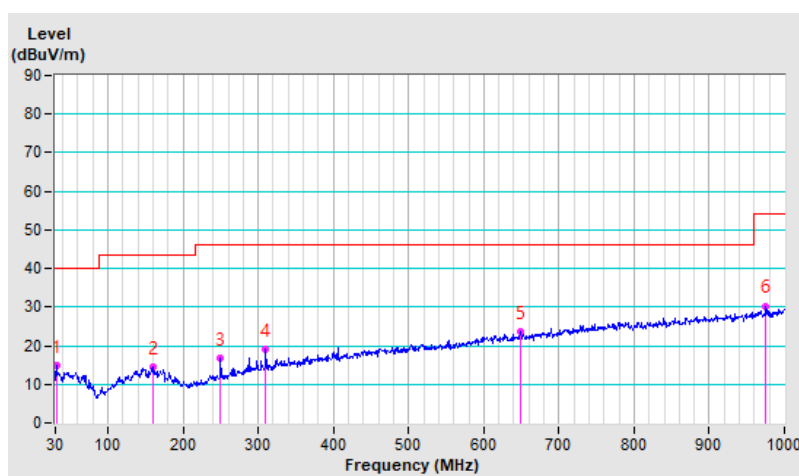


RF Mode	Logi Bolt 1M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak
Input Power	1.5 Vdc	Environmental Conditions	25 °C, 75% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.12	14.9 PK	40.0	-25.1	2.00 H	360	29.6	-14.7
2	159.66	14.5 PK	43.5	-29.0	3.00 H	196	27.4	-12.9
3	250.00	16.7 PK	46.0	-29.3	2.00 H	360	31.0	-14.3
4	309.65	19.2 PK	46.0	-26.8	2.00 H	360	31.5	-12.3
5	649.10	23.5 PK	46.0	-22.5	3.00 H	86	28.6	-5.1
6	975.48	30.3 PK	54.0	-23.7	1.00 H	96	29.7	0.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

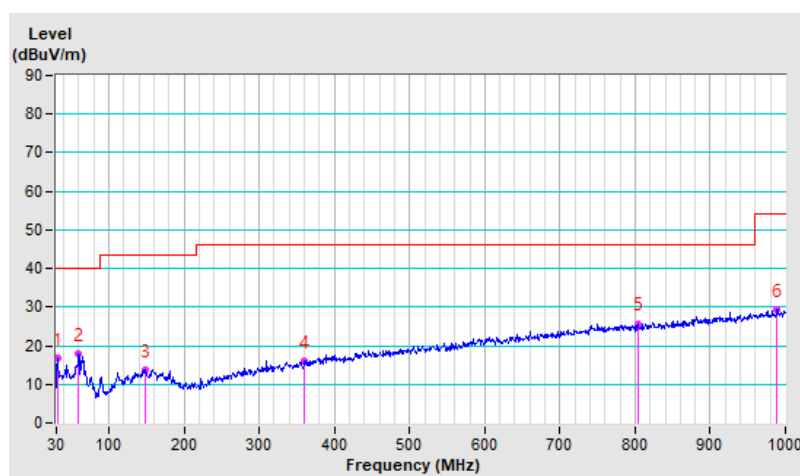


RF Mode	Logi Bolt 1M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak
Input Power	1.5 Vdc	Environmental Conditions	25 °C, 75% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.09	16.9 PK	40.0	-23.1	1.00 V	61	31.6	-14.7
2	59.39	17.8 PK	40.0	-22.2	1.00 V	1	31.3	-13.5
3	148.53	13.8 PK	43.5	-29.7	1.00 V	306	26.7	-12.9
4	360.75	16.0 PK	46.0	-30.0	3.00 V	62	27.3	-11.3
5	803.82	25.7 PK	46.0	-20.3	2.00 V	101	28.4	-2.7
6	988.46	29.5 PK	54.0	-24.5	1.00 V	3	28.7	0.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.6 Unwanted Emissions above 1 GHz

RF Mode	BT-LE 1M	Channel	CH 0 : 2402 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.6 PK	74.0	-17.4	1.07 H	80	58.0	-1.4
2	2390.00	46.0 AV	54.0	-8.0	1.07 H	80	47.4	-1.4
3	*2402.00	102.9 PK			1.07 H	80	104.3	-1.4
4	*2402.00	78.9 AV			1.07 H	80	80.3	-1.4
5	4804.00	48.7 PK	74.0	-25.3	1.22 H	163	45.9	2.8
6	4804.00	24.7 AV	54.0	-29.3	1.22 H	163	21.9	2.8
7	12010.00	55.1 PK	74.0	-18.9	2.78 H	347	41.4	13.7
8	12010.00	31.1 AV	54.0	-22.9	2.78 H	347	17.4	13.7

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.2 PK	74.0	-17.8	3.64 V	135	57.6	-1.4
2	2390.00	45.9 AV	54.0	-8.1	3.64 V	135	47.3	-1.4
3	*2402.00	98.1 PK			3.64 V	135	99.5	-1.4
4	*2402.00	74.1 AV			3.64 V	135	75.5	-1.4
5	4804.00	47.2 PK	74.0	-26.8	1.21 V	180	44.4	2.8
6	4804.00	23.2 AV	54.0	-30.8	1.21 V	180	20.4	2.8
7	12010.00	56.7 PK	74.0	-17.3	1.11 V	321	43.0	13.7
8	12010.00	32.7 AV	54.0	-21.3	1.11 V	321	19.0	13.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.445 \text{ ms} / 7.085 \text{ ms}) = -24.0 \text{ dB}$$

RF Mode	BT-LE 1M	Channel	CH 19 : 2440 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	102.1 PK			1.05 H	88	103.4	-1.3
2	*2440.00	78.1 AV			1.05 H	88	79.4	-1.3
3	4880.00	47.2 PK	74.0	-26.8	1.70 H	154	44.5	2.7
4	4880.00	23.2 AV	54.0	-30.8	1.70 H	154	20.5	2.7
5	7320.00	55.6 PK	74.0	-18.4	1.73 H	98	46.6	9.0
6	7320.00	31.6 AV	54.0	-22.4	1.73 H	98	22.6	9.0
7	12200.00	53.3 PK	74.0	-20.7	2.96 H	335	38.8	14.5
8	12200.00	29.3 AV	54.0	-24.7	2.96 H	335	14.8	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	98.2 PK			3.61 V	134	99.5	-1.3
2	*2440.00	74.2 AV			3.61 V	134	75.5	-1.3
3	4880.00	45.8 PK	74.0	-28.2	1.90 V	197	43.1	2.7
4	4880.00	21.8 AV	54.0	-32.2	1.90 V	197	19.1	2.7
5	7320.00	54.2 PK	74.0	-19.8	3.20 V	194	45.2	9.0
6	7320.00	30.2 AV	54.0	-23.8	3.20 V	194	21.2	9.0
7	12200.00	55.6 PK	74.0	-18.4	1.46 V	312	41.1	14.5
8	12200.00	31.6 AV	54.0	-22.4	1.46 V	312	17.1	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.445 \text{ ms} / 7.085 \text{ ms}) = -24.0 \text{ dB}$$

RF Mode	BT-LE 1M	Channel	CH 39 : 2480 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	101.6 PK			1.04 H	87	103.0	-1.4
2	*2480.00	77.6 AV			1.04 H	87	79.0	-1.4
3	2483.50	57.2 PK	74.0	-16.8	1.04 H	87	58.6	-1.4
4	2483.50	46.0 AV	54.0	-8.0	1.04 H	87	47.4	-1.4
5	4960.00	48.2 PK	74.0	-25.8	1.47 H	142	45.3	2.9
6	4960.00	24.2 AV	54.0	-29.8	1.47 H	142	21.3	2.9
7	7440.00	55.9 PK	74.0	-18.1	1.53 H	73	46.3	9.6
8	7440.00	31.9 AV	54.0	-22.1	1.53 H	73	22.3	9.6
9	12400.00	54.0 PK	74.0	-20.0	2.59 H	319	39.5	14.5
10	12400.00	30.0 AV	54.0	-24.0	2.59 H	319	15.5	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	98.8 PK			4.00 V	133	100.2	-1.4
2	*2480.00	74.8 AV			4.00 V	133	76.2	-1.4
3	2483.50	56.0 PK	74.0	-18.0	4.00 V	133	57.4	-1.4
4	2483.50	45.7 AV	54.0	-8.3	4.00 V	133	47.1	-1.4
5	4960.00	46.7 PK	74.0	-27.3	1.42 V	193	43.8	2.9
6	4960.00	22.7 AV	54.0	-31.3	1.42 V	193	19.8	2.9
7	7440.00	53.2 PK	74.0	-20.8	3.63 V	230	43.6	9.6
8	7440.00	29.2 AV	54.0	-24.8	3.63 V	230	19.6	9.6
9	12400.00	56.1 PK	74.0	-17.9	1.34 V	338	41.6	14.5
10	12400.00	32.1 AV	54.0	-21.9	1.34 V	338	17.6	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.445 \text{ ms} / 7.085 \text{ ms}) = -24.0 \text{ dB}$$

RF Mode	BT-LE 2M	Channel	CH 1 : 2404 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.7 PK	74.0	-17.3	1.08 H	72	58.1	-1.4
2	2390.00	46.1 AV	54.0	-7.9	1.08 H	72	47.5	-1.4
3	*2404.00	102.8 PK			1.08 H	72	104.2	-1.4
4	*2404.00	74.2 AV			1.08 H	72	75.6	-1.4
5	4808.00	48.1 PK	74.0	-25.9	1.65 H	176	45.3	2.8
6	4808.00	19.5 AV	54.0	-34.5	1.65 H	176	16.7	2.8
7	12020.00	54.1 PK	74.0	-19.9	2.87 H	322	40.2	13.9
8	12020.00	25.5 AV	54.0	-28.5	2.87 H	322	11.6	13.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.9 PK	74.0	-17.1	2.98 V	127	58.3	-1.4
2	2390.00	46.1 AV	54.0	-7.9	2.98 V	127	47.5	-1.4
3	*2404.00	97.8 PK			2.98 V	127	99.2	-1.4
4	*2404.00	69.2 AV			2.98 V	127	70.6	-1.4
5	4808.00	46.0 PK	74.0	-28.0	1.91 V	179	43.2	2.8
6	4808.00	17.4 AV	54.0	-36.6	1.91 V	179	14.6	2.8
7	12020.00	56.8 PK	74.0	-17.2	1.60 V	311	42.9	13.9
8	12020.00	28.2 AV	54.0	-25.8	1.60 V	311	14.3	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.262 \text{ ms} / 7.033 \text{ ms}) = -28.6 \text{ dB}$$

RF Mode	BT-LE 2M	Channel	CH 19 : 2440 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	102.2 PK			1.03 H	86	103.5	-1.3
2	*2440.00	73.6 AV			1.03 H	86	74.9	-1.3
3	4880.00	47.9 PK	74.0	-26.1	1.49 H	153	45.2	2.7
4	4880.00	19.3 AV	54.0	-34.7	1.49 H	153	16.6	2.7
5	7320.00	56.1 PK	74.0	-17.9	1.47 H	94	47.1	9.0
6	7320.00	27.5 AV	54.0	-26.5	1.47 H	94	18.5	9.0
7	12200.00	54.3 PK	74.0	-19.7	2.96 H	360	39.8	14.5
8	12200.00	25.7 AV	54.0	-28.3	2.96 H	360	11.2	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	98.5 PK			3.21 V	129	99.8	-1.3
2	*2440.00	69.9 AV			3.21 V	129	71.2	-1.3
3	4880.00	46.0 PK	74.0	-28.0	1.79 V	167	43.3	2.7
4	4880.00	17.4 AV	54.0	-36.6	1.79 V	167	14.7	2.7
5	7320.00	52.7 PK	74.0	-21.3	3.18 V	184	43.7	9.0
6	7320.00	24.1 AV	54.0	-29.9	3.18 V	184	15.1	9.0
7	12200.00	55.4 PK	74.0	-18.6	1.56 V	287	40.9	14.5
8	12200.00	26.8 AV	54.0	-27.2	1.56 V	287	12.3	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.262 \text{ ms} / 7.033 \text{ ms}) = -28.6 \text{ dB}$$

RF Mode	BT-LE 2M	Channel	CH 38 : 2478 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2478.00	101.9 PK			1.62 H	80	103.3	-1.4
2	*2478.00	73.3 AV			1.62 H	80	74.7	-1.4
3	2483.50	56.0 PK	74.0	-18.0	1.62 H	80	57.4	-1.4
4	2483.50	45.8 AV	54.0	-8.2	1.62 H	80	47.2	-1.4
5	4956.00	48.6 PK	74.0	-25.4	1.68 H	167	45.7	2.9
6	4956.00	20.0 AV	54.0	-34.0	1.68 H	167	17.1	2.9
7	7434.00	55.7 PK	74.0	-18.3	1.76 H	72	46.1	9.6
8	7434.00	27.1 AV	54.0	-26.9	1.76 H	72	17.5	9.6
9	12390.00	53.8 PK	74.0	-20.2	2.58 H	357	39.3	14.5
10	12390.00	25.2 AV	54.0	-28.8	2.58 H	357	10.7	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2478.00	99.2 PK			4.00 V	132	100.6	-1.4
2	*2478.00	70.6 AV			4.00 V	132	72.0	-1.4
3	2483.50	55.9 PK	74.0	-18.1	4.00 V	132	57.3	-1.4
4	2483.50	46.1 AV	54.0	-7.9	4.00 V	132	47.5	-1.4
5	4956.00	46.4 PK	74.0	-27.6	1.46 V	196	43.5	2.9
6	4956.00	17.8 AV	54.0	-36.2	1.46 V	196	14.9	2.9
7	7434.00	53.6 PK	74.0	-20.4	3.59 V	215	44.0	9.6
8	7434.00	25.0 AV	54.0	-29.0	3.59 V	215	15.4	9.6
9	12390.00	56.1 PK	74.0	-17.9	1.70 V	331	41.6	14.5
10	12390.00	27.5 AV	54.0	-26.5	1.70 V	331	13.0	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.262 \text{ ms} / 7.033 \text{ ms}) = -28.6 \text{ dB}$$

RF Mode	Logi Bolt 1M	Channel	CH 0 : 2402 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.7 PK	74.0	-17.3	1.06 H	77	58.1	-1.4
2	2390.00	45.9 AV	54.0	-8.1	1.06 H	77	47.3	-1.4
3	*2402.00	102.5 PK			1.06 H	77	103.9	-1.4
4	*2402.00	78.5 AV			1.06 H	77	79.9	-1.4
5	4804.00	47.5 PK	74.0	-26.5	1.47 H	135	44.7	2.8
6	4804.00	23.5 AV	54.0	-30.5	1.47 H	135	20.7	2.8
7	12010.00	55.9 PK	74.0	-18.1	2.81 H	325	42.2	13.7
8	12010.00	31.9 AV	54.0	-22.1	2.81 H	325	18.2	13.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.3 PK	74.0	-16.7	3.69 V	115	58.7	-1.4
2	2390.00	46.1 AV	54.0	-7.9	3.69 V	115	47.5	-1.4
3	*2402.00	97.2 PK			3.69 V	115	98.6	-1.4
4	*2402.00	73.2 AV			3.69 V	115	74.6	-1.4
5	4804.00	47.1 PK	74.0	-26.9	1.72 V	153	44.3	2.8
6	4804.00	23.1 AV	54.0	-30.9	1.72 V	153	20.3	2.8
7	12010.00	56.4 PK	74.0	-17.6	1.47 V	325	42.7	13.7
8	12010.00	32.4 AV	54.0	-21.6	1.47 V	325	18.7	13.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.444 \text{ ms} / 7.059 \text{ ms}) = -24.0 \text{ dB}$$

RF Mode	Logi Bolt 1M	Channel	CH 19 : 2440 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	101.5 PK			1.14 H	91	102.8	-1.3
2	*2440.00	77.5 AV			1.14 H	91	78.8	-1.3
3	4880.00	47.7 PK	74.0	-26.3	1.65 H	168	45.0	2.7
4	4880.00	23.7 AV	54.0	-30.3	1.65 H	168	21.0	2.7
5	7320.00	55.1 PK	74.0	-18.9	1.53 H	106	46.1	9.0
6	7320.00	31.1 AV	54.0	-22.9	1.53 H	106	22.1	9.0
7	12200.00	55.6 PK	74.0	-18.4	2.60 H	316	41.1	14.5
8	12200.00	31.6 AV	54.0	-22.4	2.60 H	316	17.1	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	97.7 PK			3.57 V	125	99.0	-1.3
2	*2440.00	73.7 AV			3.57 V	125	75.0	-1.3
3	4880.00	46.7 PK	74.0	-27.3	1.46 V	192	44.0	2.7
4	4880.00	22.7 AV	54.0	-31.3	1.46 V	192	20.0	2.7
5	7320.00	54.2 PK	74.0	-19.8	3.24 V	217	45.2	9.0
6	7320.00	30.2 AV	54.0	-23.8	3.24 V	217	21.2	9.0
7	12200.00	56.1 PK	74.0	-17.9	1.41 V	340	41.6	14.5
8	12200.00	32.1 AV	54.0	-21.9	1.41 V	340	17.6	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.444 \text{ ms} / 7.059 \text{ ms}) = -24.0 \text{ dB}$$

RF Mode	Logi Bolt 1M	Channel	CH 39 : 2480 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	101.4 PK			1.05 H	85	102.8	-1.4
2	*2480.00	77.4 AV			1.05 H	85	78.8	-1.4
3	2483.50	56.0 PK	74.0	-18.0	1.05 H	85	57.4	-1.4
4	2483.50	45.8 AV	54.0	-8.2	1.05 H	85	47.2	-1.4
5	4960.00	47.2 PK	74.0	-26.8	1.67 H	146	44.3	2.9
6	4960.00	23.2 AV	54.0	-30.8	1.67 H	146	20.3	2.9
7	7440.00	54.8 PK	74.0	-19.2	1.50 H	74	45.2	9.6
8	7440.00	30.8 AV	54.0	-23.2	1.50 H	74	21.2	9.6
9	12400.00	53.4 PK	74.0	-20.6	2.58 H	335	38.9	14.5
10	12400.00	29.4 AV	54.0	-24.6	2.58 H	335	14.9	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	98.4 PK			3.99 V	131	99.8	-1.4
2	*2480.00	74.4 AV			3.99 V	131	75.8	-1.4
3	2483.50	55.8 PK	74.0	-18.2	3.99 V	131	57.2	-1.4
4	2483.50	45.6 AV	54.0	-8.4	3.99 V	131	47.0	-1.4
5	4960.00	45.7 PK	74.0	-28.3	1.90 V	171	42.8	2.9
6	4960.00	21.7 AV	54.0	-32.3	1.90 V	171	18.8	2.9
7	7440.00	53.7 PK	74.0	-20.3	3.22 V	219	44.1	9.6
8	7440.00	29.7 AV	54.0	-24.3	3.22 V	219	20.1	9.6
9	12400.00	55.0 PK	74.0	-19.0	1.37 V	331	40.5	14.5
10	12400.00	31.0 AV	54.0	-23.0	1.37 V	331	16.5	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.444 \text{ ms} / 7.059 \text{ ms}) = -24.0 \text{ dB}$$

RF Mode	Logi Bolt 2M	Channel	CH 1 : 2404 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.6 PK	74.0	-17.4	1.05 H	76	58.0	-1.4
2	2390.00	46.2 AV	54.0	-7.8	1.05 H	76	47.6	-1.4
3	*2404.00	102.1 PK			1.05 H	76	103.5	-1.4
4	*2404.00	73.5 AV			1.05 H	76	74.9	-1.4
5	4808.00	48.3 PK	74.0	-25.7	1.75 H	177	45.5	2.8
6	4808.00	19.7 AV	54.0	-34.3	1.75 H	177	16.9	2.8
7	12020.00	55.0 PK	74.0	-19.0	2.50 H	333	41.1	13.9
8	12020.00	26.4 AV	54.0	-27.6	2.50 H	333	12.5	13.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.5 PK	74.0	-17.5	2.96 V	125	57.9	-1.4
2	2390.00	27.9 AV	54.0	-26.1	2.96 V	125	29.3	-1.4
3	*2404.00	97.0 PK			2.96 V	125	98.4	-1.4
4	*2404.00	68.4 AV			2.96 V	125	69.8	-1.4
5	4808.00	46.0 PK	74.0	-28.0	1.71 V	180	43.2	2.8
6	4808.00	18.4 AV	54.0	-35.6	1.71 V	180	15.6	2.8
7	12020.00	56.6 PK	74.0	-17.4	1.33 V	287	42.7	13.9
8	12020.00	28.0 AV	54.0	-26.0	1.33 V	287	14.1	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.261 \text{ ms} / 7.033 \text{ ms}) = -28.6 \text{ dB}$$

RF Mode	Logi Bolt 2M	Channel	CH 19 : 2440 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	101.9 PK			1.06 H	84	103.2	-1.3
2	*2440.00	73.3 AV			1.06 H	84	74.6	-1.3
3	4880.00	47.9 PK	74.0	-26.1	1.58 H	168	45.2	2.7
4	4880.00	19.3 AV	54.0	-34.7	1.58 H	168	16.6	2.7
5	7320.00	56.6 PK	74.0	-17.4	1.39 H	105	47.6	9.0
6	7320.00	28.0 AV	54.0	-26.0	1.39 H	105	19.0	9.0
7	12200.00	54.4 PK	74.0	-19.6	2.80 H	360	39.9	14.5
8	12200.00	25.8 AV	54.0	-28.2	2.80 H	360	11.3	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	97.5 PK			3.12 V	128	98.8	-1.3
2	*2440.00	68.9 AV			3.12 V	128	70.2	-1.3
3	4880.00	46.9 PK	74.0	-27.1	1.42 V	175	44.2	2.7
4	4880.00	18.3 AV	54.0	-35.7	1.42 V	175	15.6	2.7
5	7320.00	53.3 PK	74.0	-20.7	3.63 V	206	44.3	9.0
6	7320.00	24.7 AV	54.0	-29.3	3.63 V	206	15.7	9.0
7	12200.00	55.4 PK	74.0	-18.6	1.38 V	298	40.9	14.5
8	12200.00	26.8 AV	54.0	-27.2	1.38 V	298	12.3	14.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.261 \text{ ms} / 7.033 \text{ ms}) = -28.6 \text{ dB}$$

RF Mode	Logi Bolt 2M	Channel	CH 38 : 2478 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	1.5 Vdc	Environmental Conditions	23 °C, 73% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2478.00	101.7 PK			1.59 H	82	103.1	-1.4
2	*2478.00	73.1 AV			1.59 H	82	74.5	-1.4
3	2483.50	56.2 PK	74.0	-17.8	1.59 H	82	57.6	-1.4
4	2483.50	45.7 AV	54.0	-8.3	1.59 H	82	47.1	-1.4
5	4956.00	48.4 PK	74.0	-25.6	1.55 H	157	45.5	2.9
6	4956.00	19.8 AV	54.0	-34.2	1.55 H	157	16.9	2.9
7	7434.00	56.1 PK	74.0	-17.9	1.45 H	102	46.5	9.6
8	7434.00	27.5 AV	54.0	-26.5	1.45 H	102	17.9	9.6
9	12390.00	54.4 PK	74.0	-19.6	2.86 H	343	39.9	14.5
10	12390.00	25.8 AV	54.0	-28.2	2.86 H	343	11.3	14.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2478.00	98.2 PK			3.98 V	130	99.6	-1.4
2	*2478.00	69.6 AV			3.98 V	130	71.0	-1.4
3	2483.50	56.1 PK	74.0	-17.9	3.98 V	130	57.5	-1.4
4	2483.50	45.8 AV	54.0	-8.2	3.98 V	130	47.2	-1.4
5	4956.00	47.1 PK	74.0	-26.9	1.78 V	157	44.2	2.9
6	4956.00	18.5 AV	54.0	-35.5	1.78 V	157	15.6	2.9
7	7434.00	54.1 PK	74.0	-19.9	3.33 V	185	44.5	9.6
8	7434.00	25.5 AV	54.0	-28.5	3.33 V	185	15.9	9.6
9	12390.00	55.8 PK	74.0	-18.2	1.37 V	326	41.3	14.5
10	12390.00	27.2 AV	54.0	-26.8	1.37 V	326	12.7	14.5

Remarks:

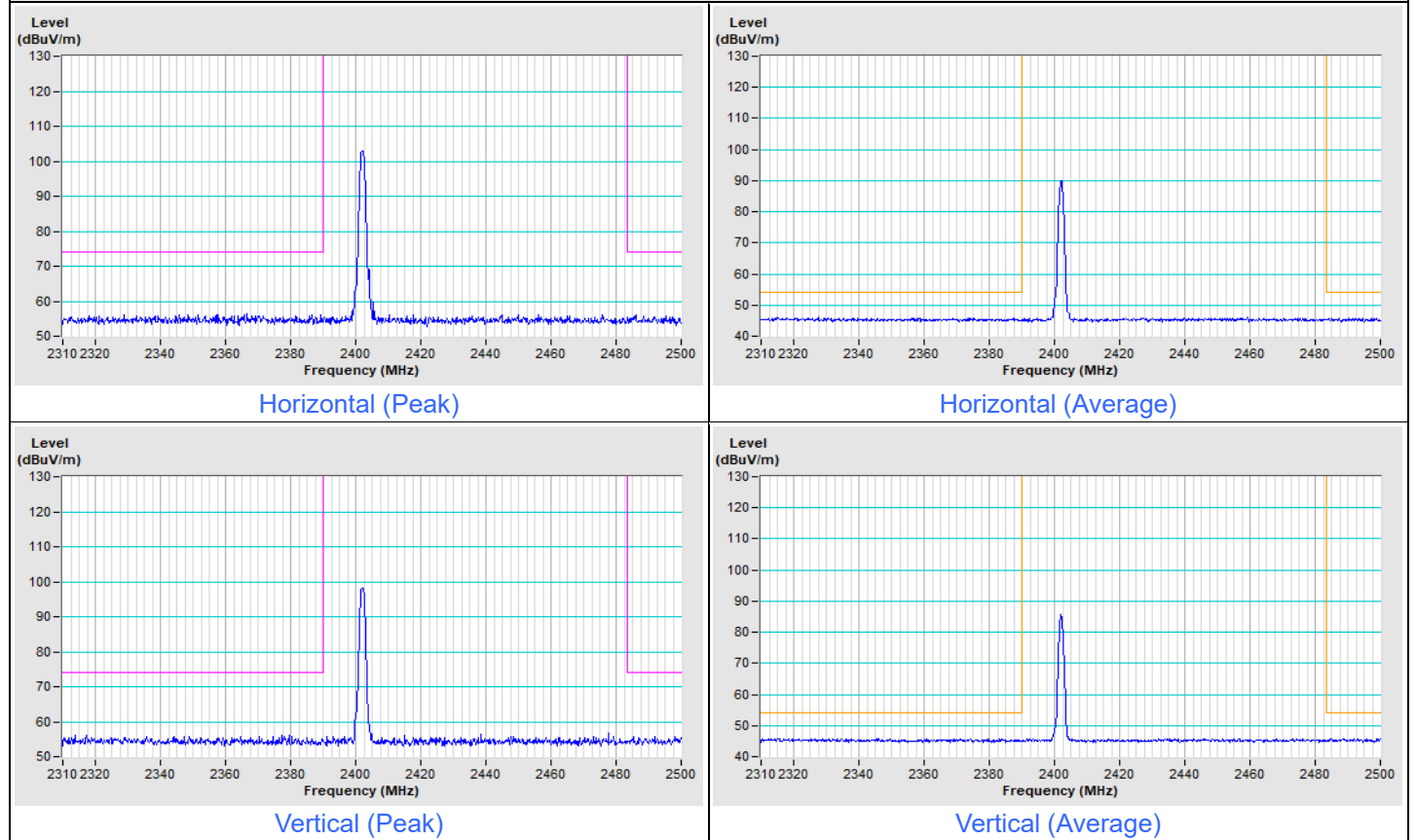
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:

$$20 \log(\text{Duty cycle}) = 20 \log(0.261 \text{ ms} / 7.033 \text{ ms}) = -28.6 \text{ dB}$$

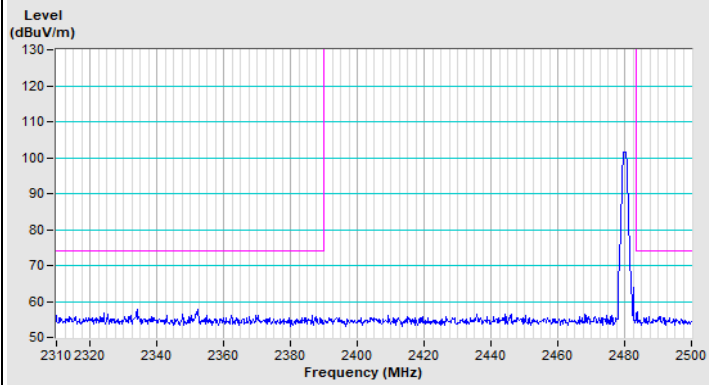
Plot of Band Edge

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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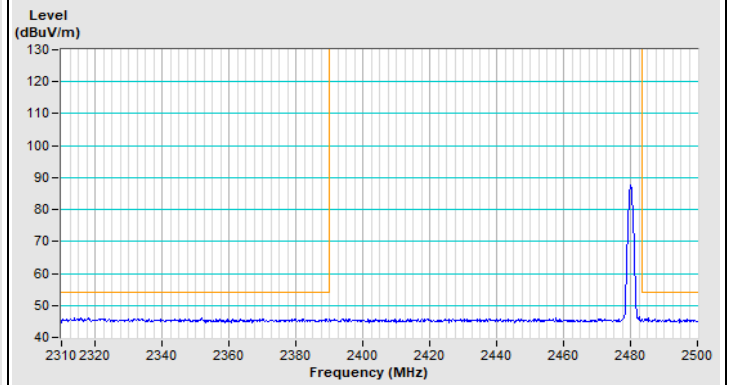
BT-LE 1M Channel 0



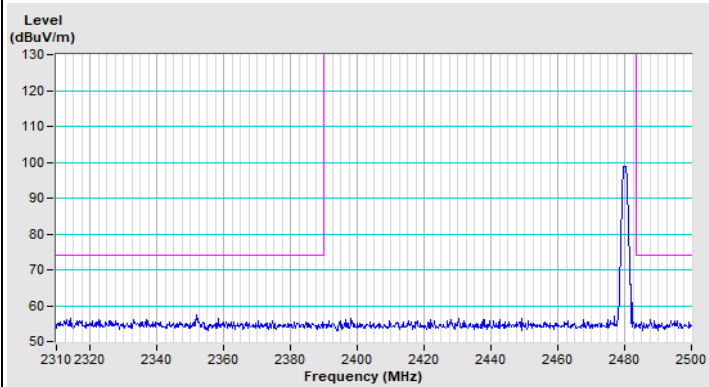
BT-LE 1M Channel 39



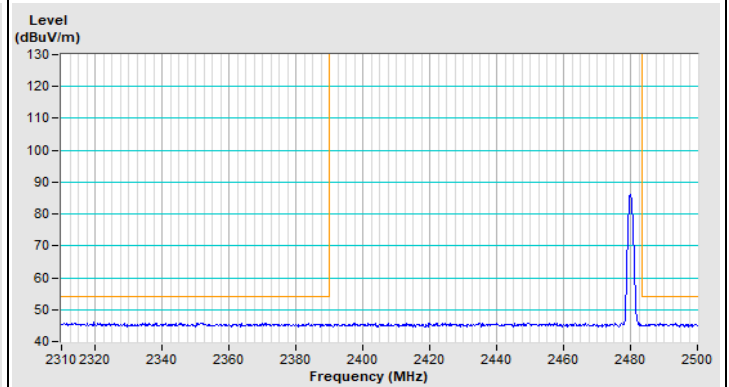
Horizontal (Peak)



Horizontal (Average)

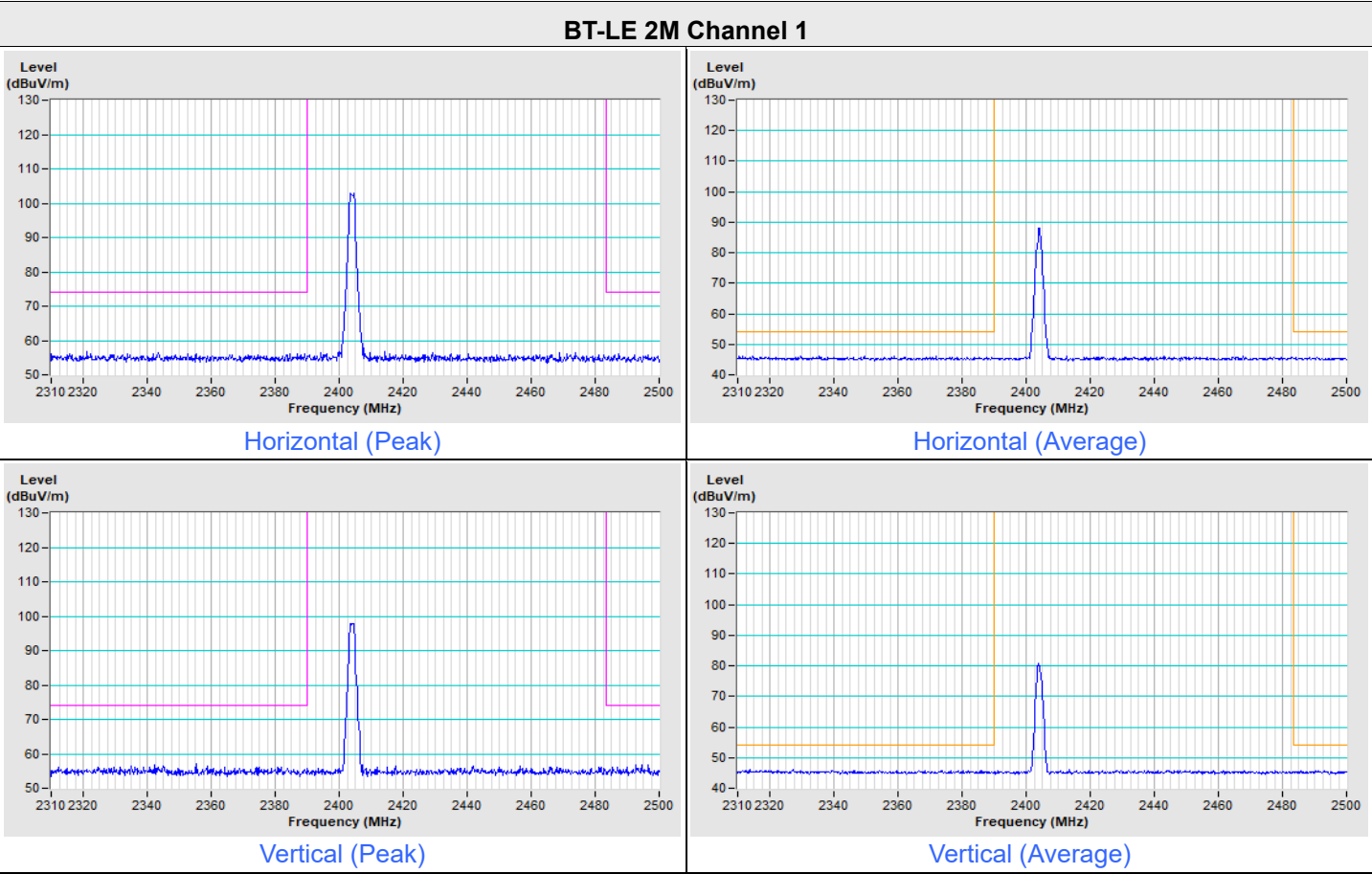


Vertical (Peak)

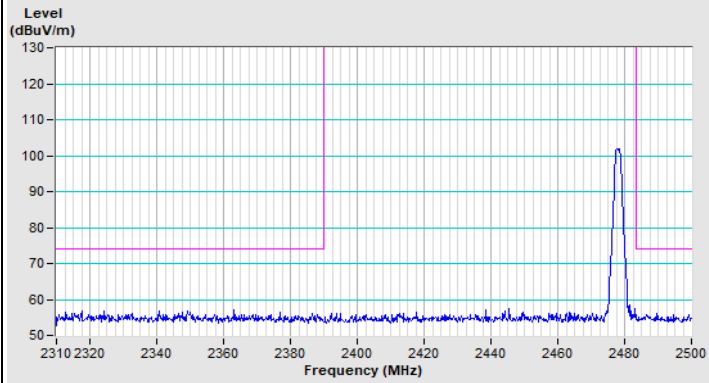


Vertical (Average)

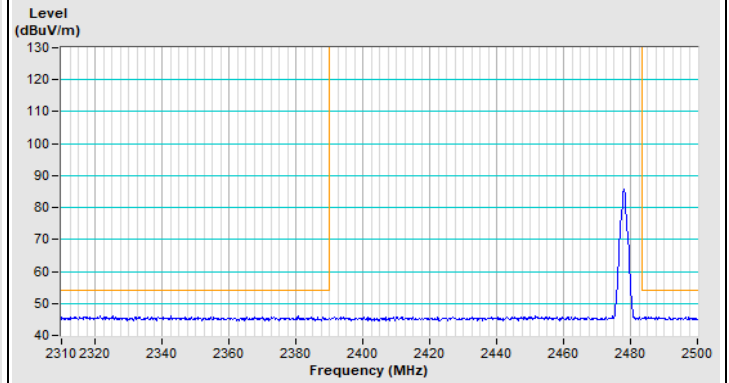
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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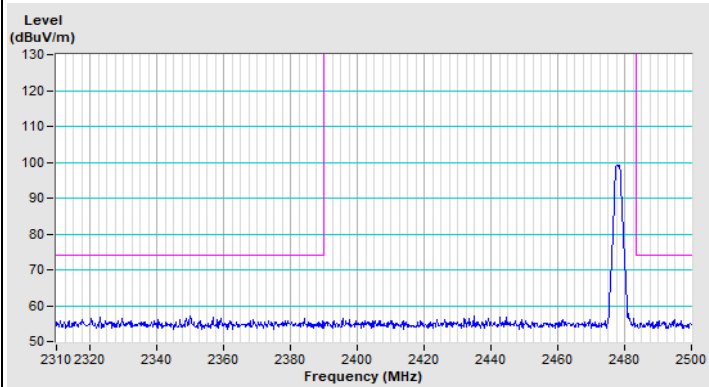
BT-LE 2M Channel 38



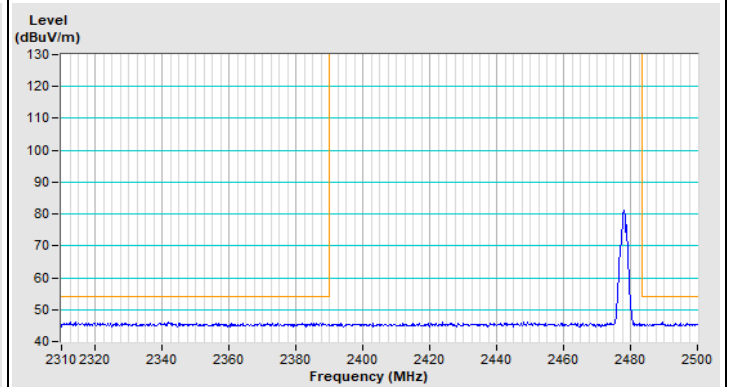
Horizontal (Peak)



Horizontal (Average)



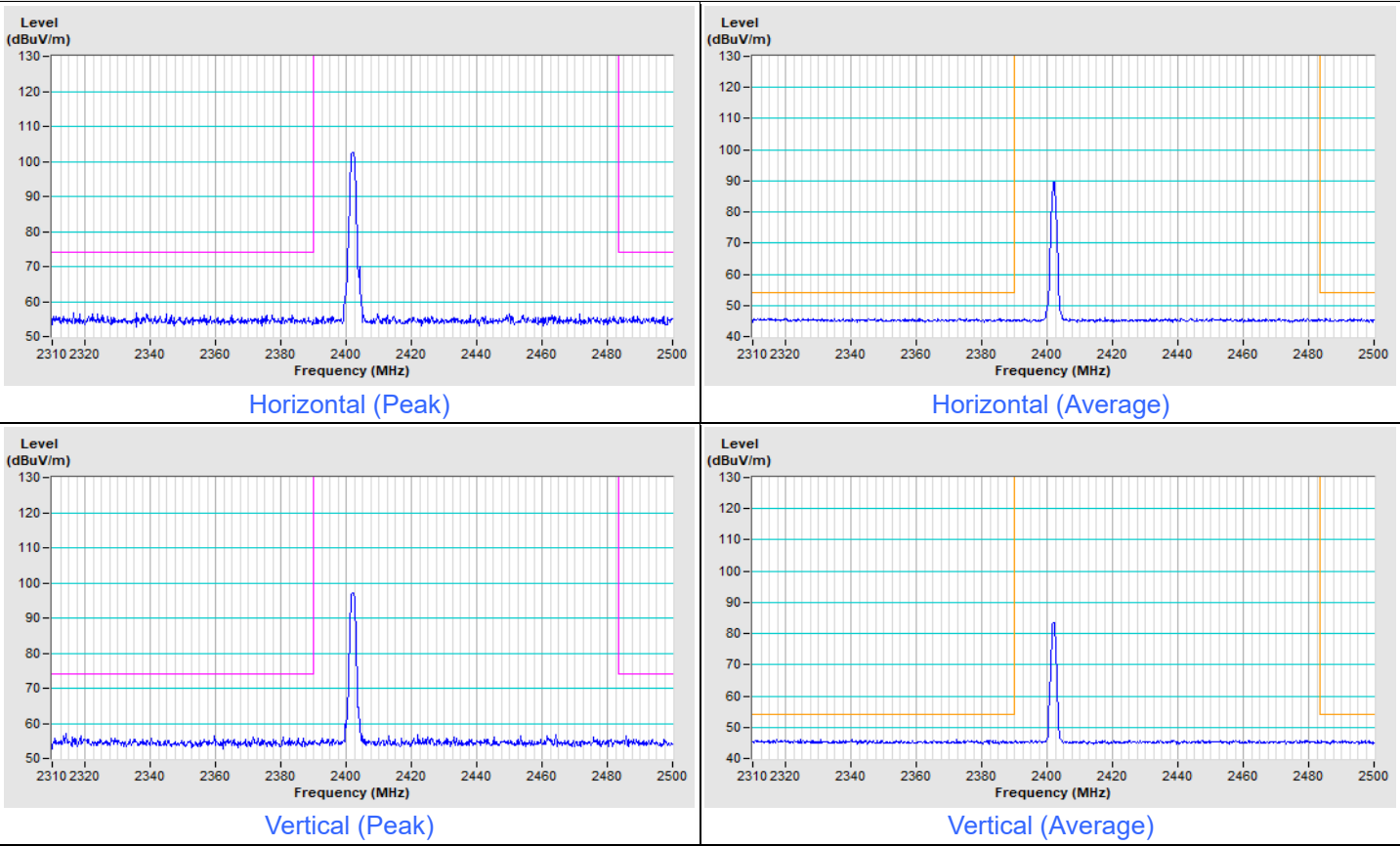
Vertical (Peak)



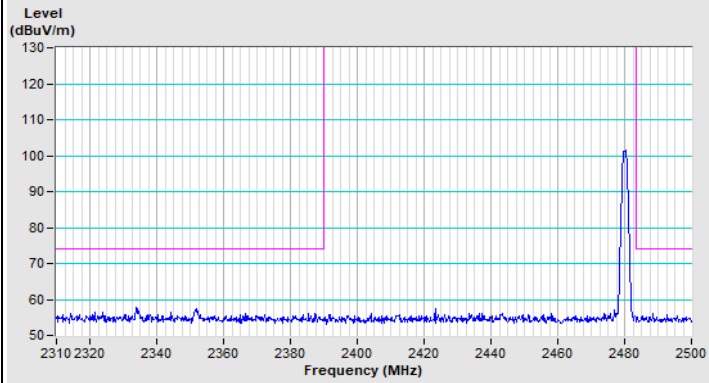
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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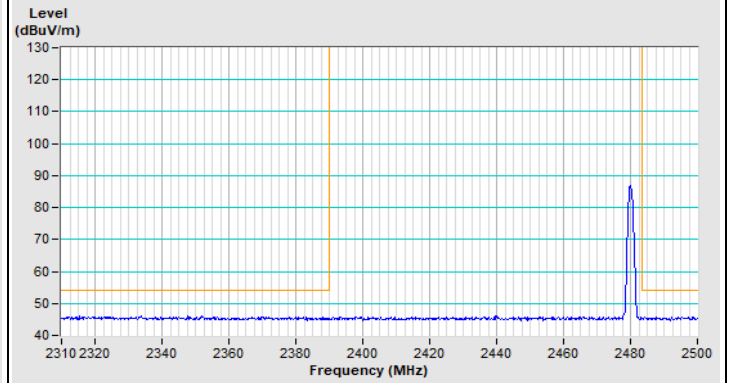
Logi Bolt 1M Channel 0



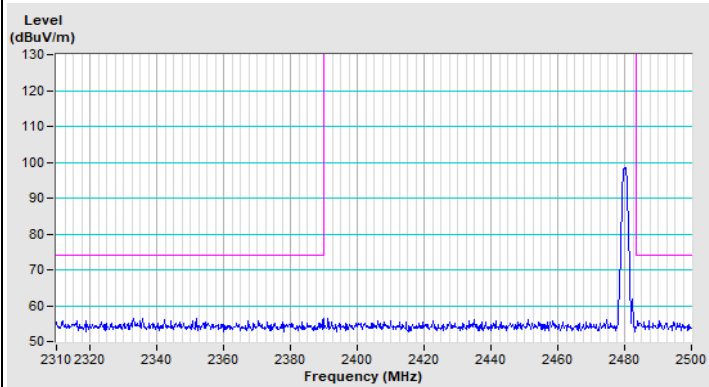
Logi Bolt 1M Channel 39



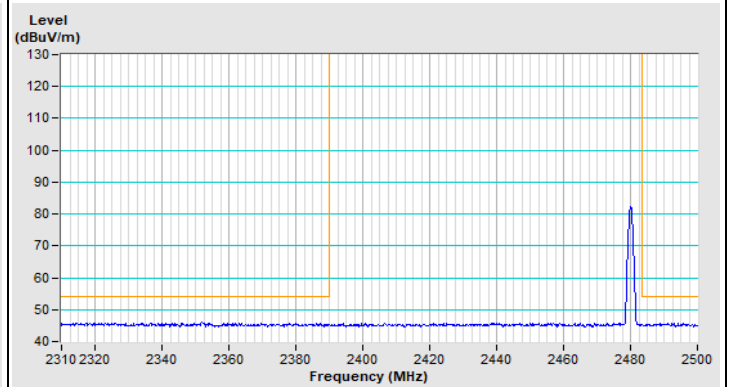
Horizontal (Peak)



Horizontal (Average)

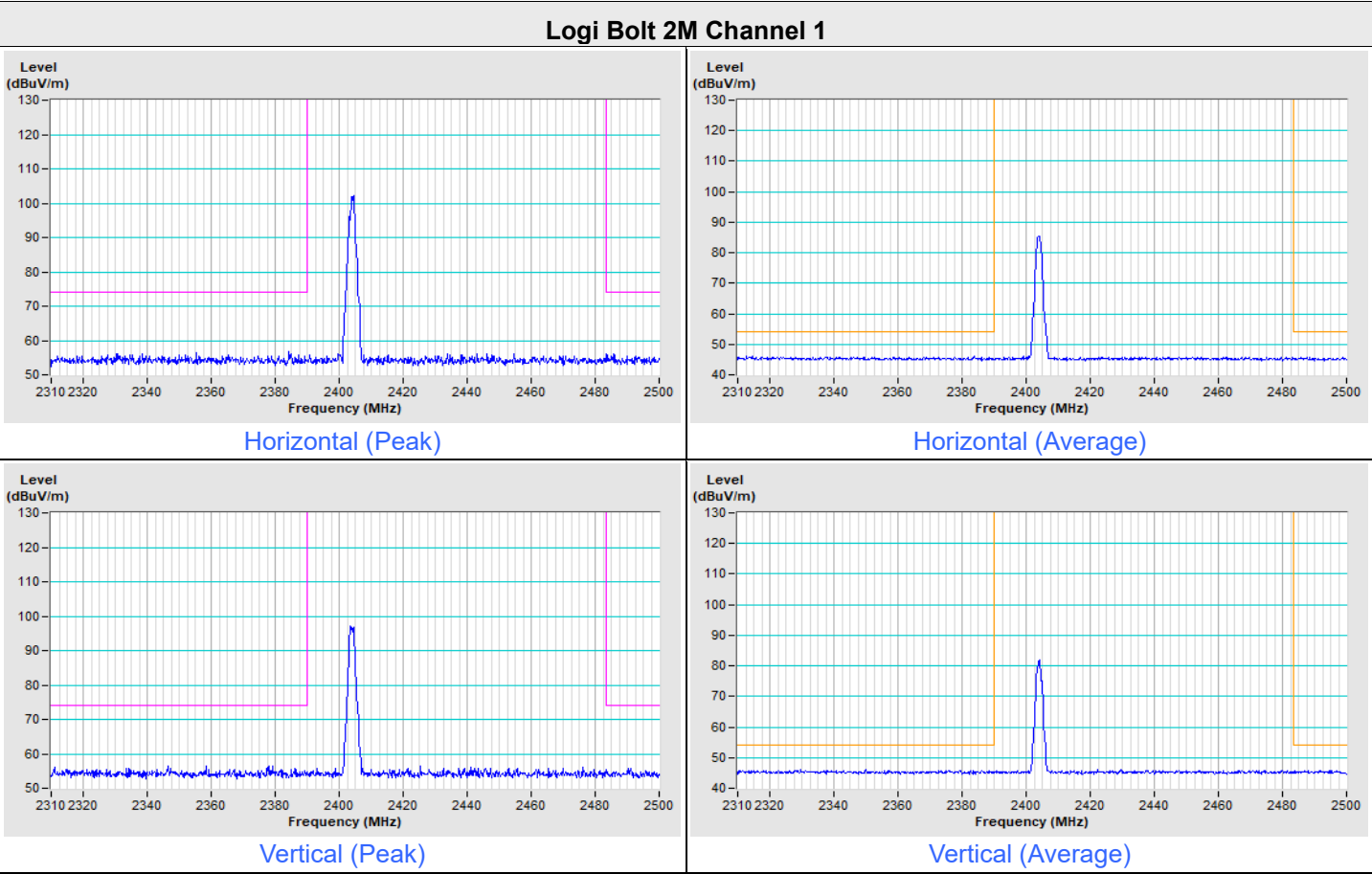


Vertical (Peak)

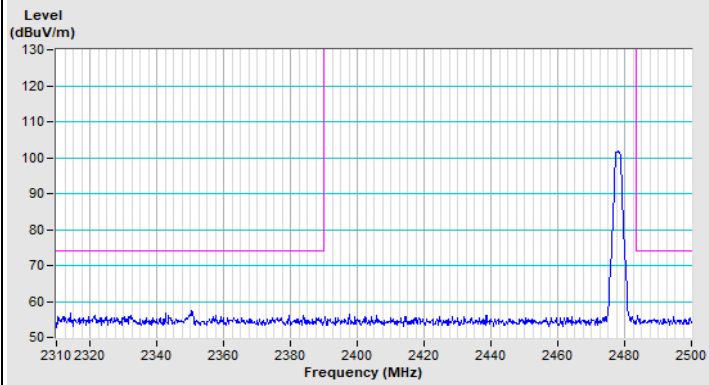


Vertical (Average)

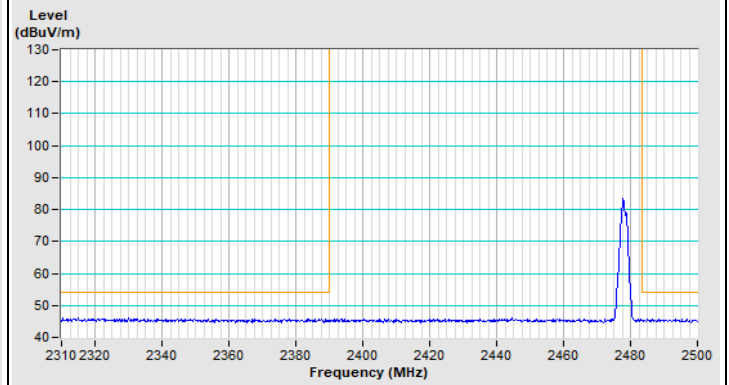
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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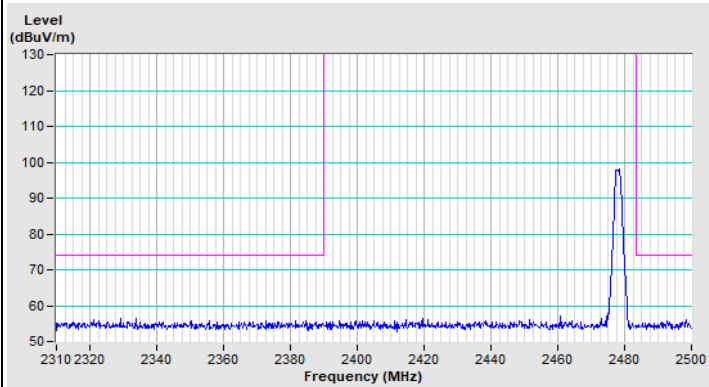
Logi Bolt 2M Channel 38



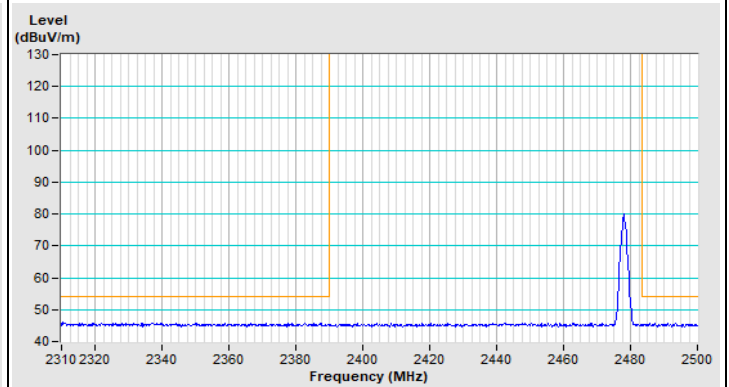
Horizontal (Peak)



Horizontal (Average)



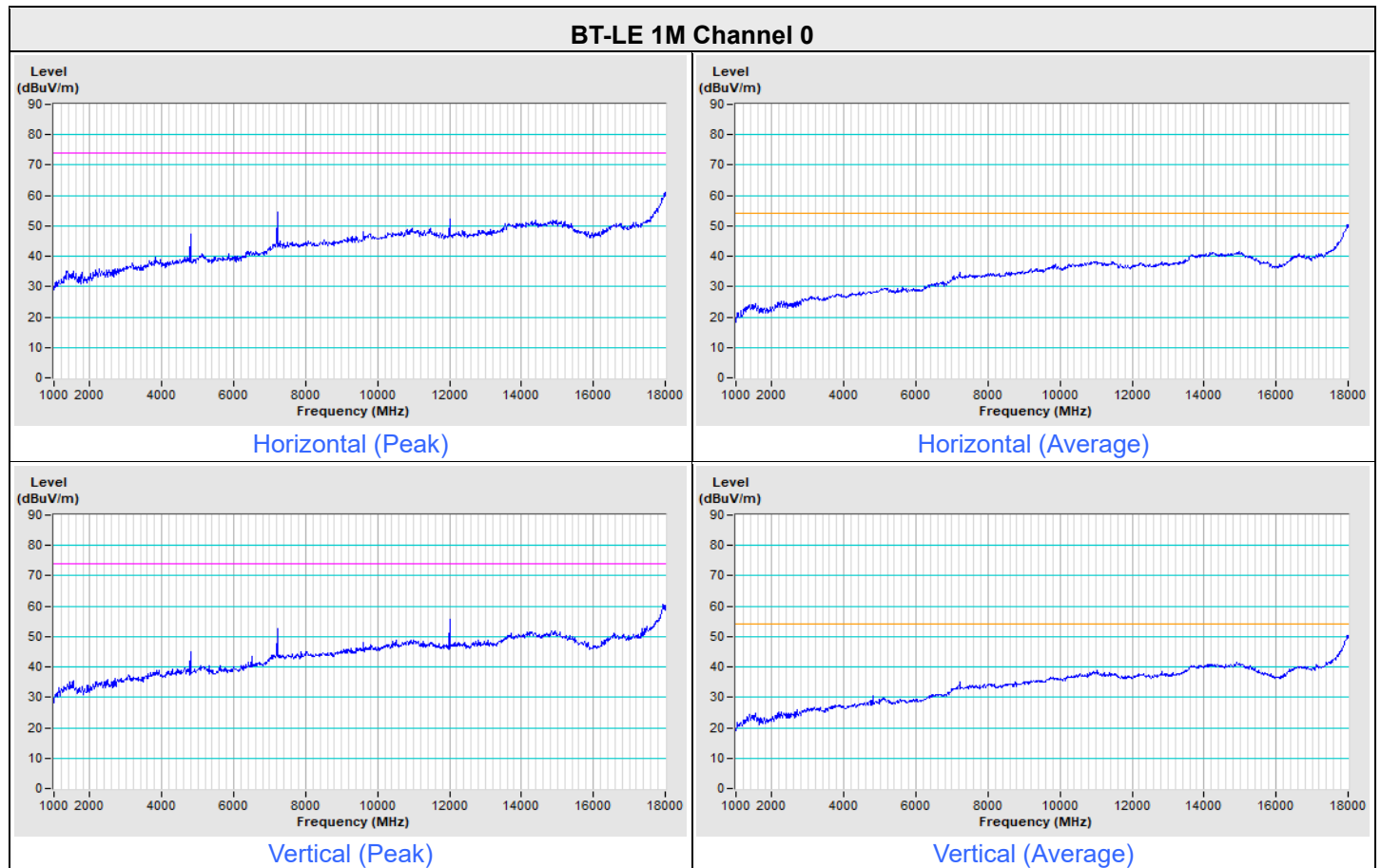
Vertical (Peak)



Vertical (Average)

Plot of Other Emission

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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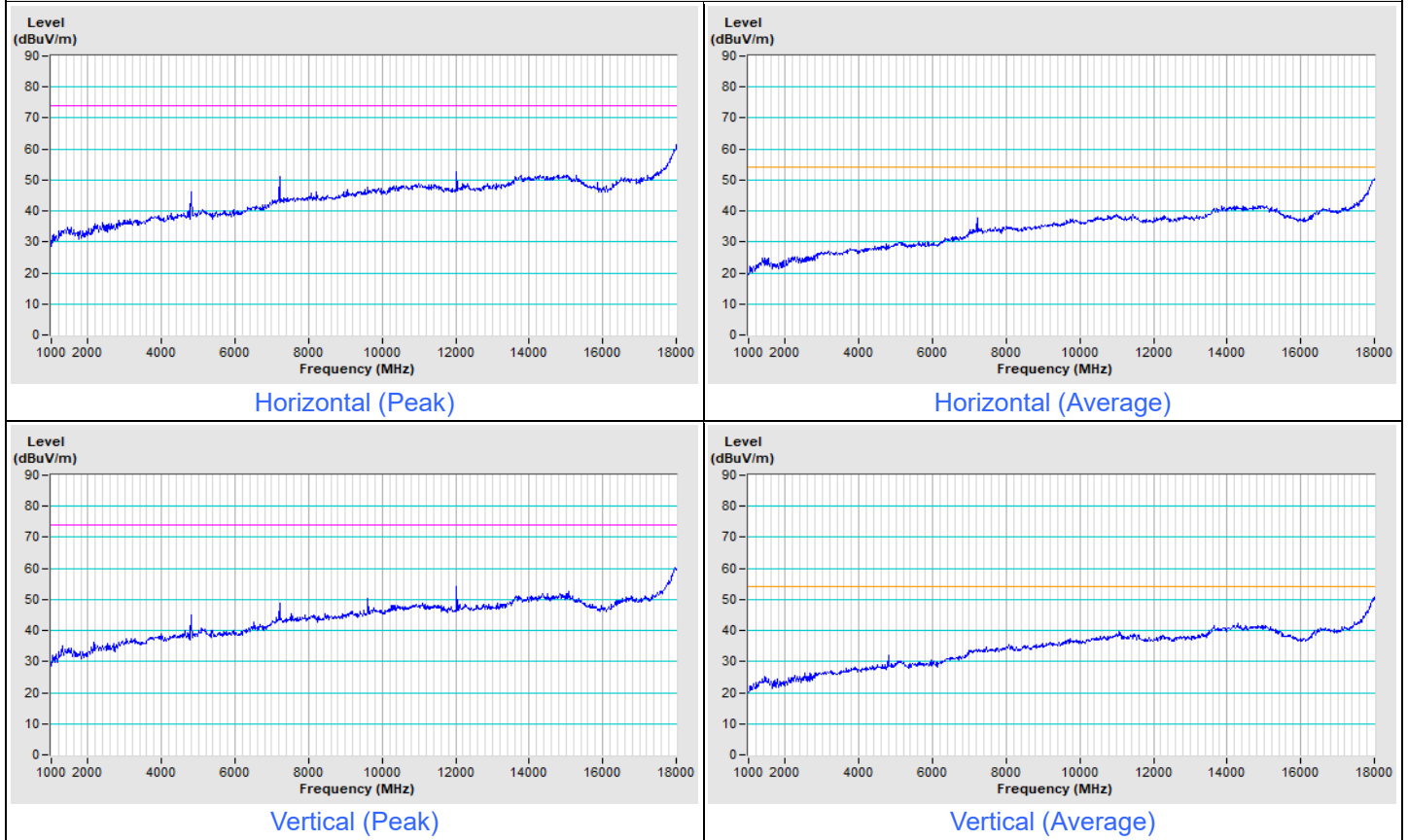


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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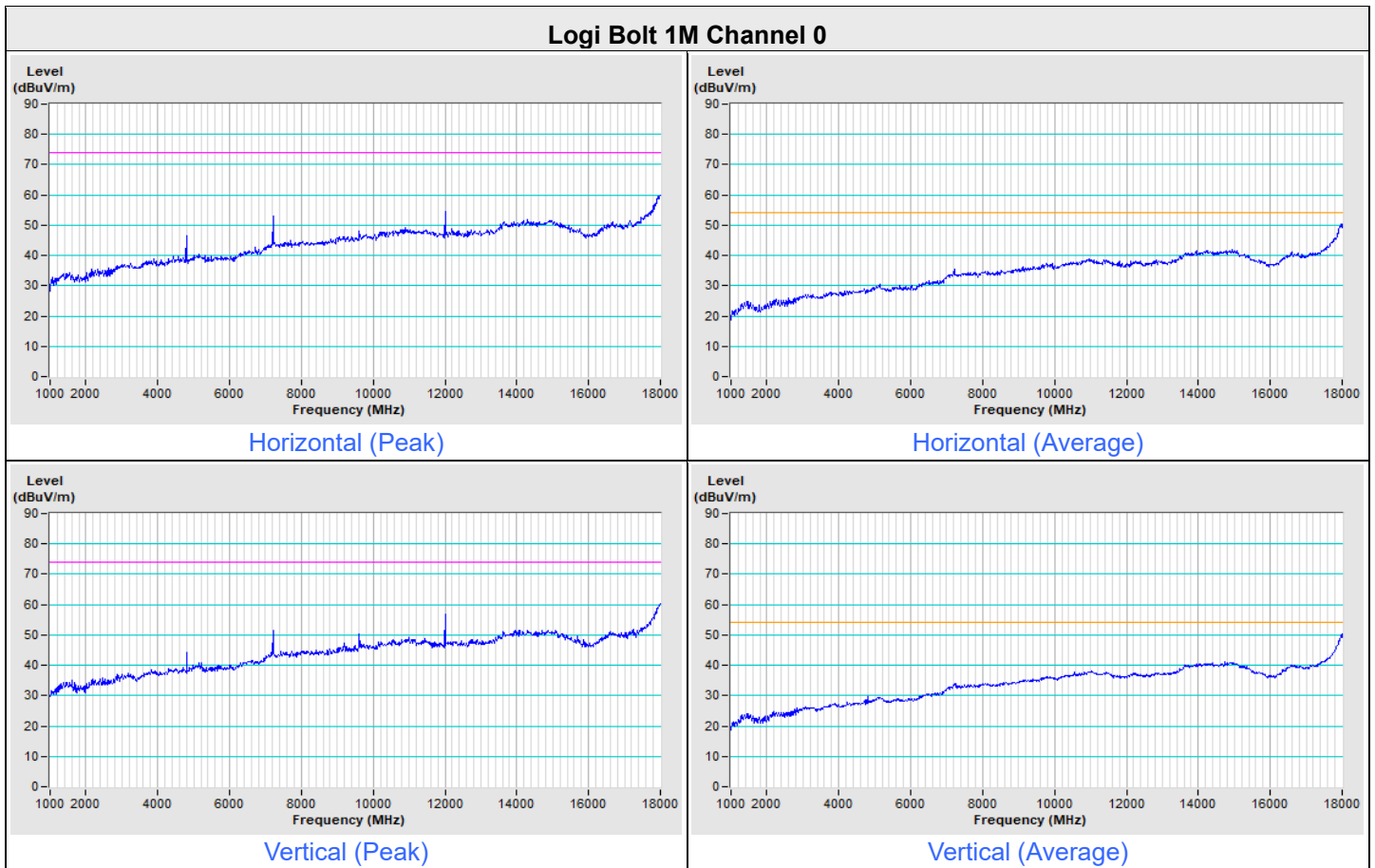
BT-LE 2M Channel 1



Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

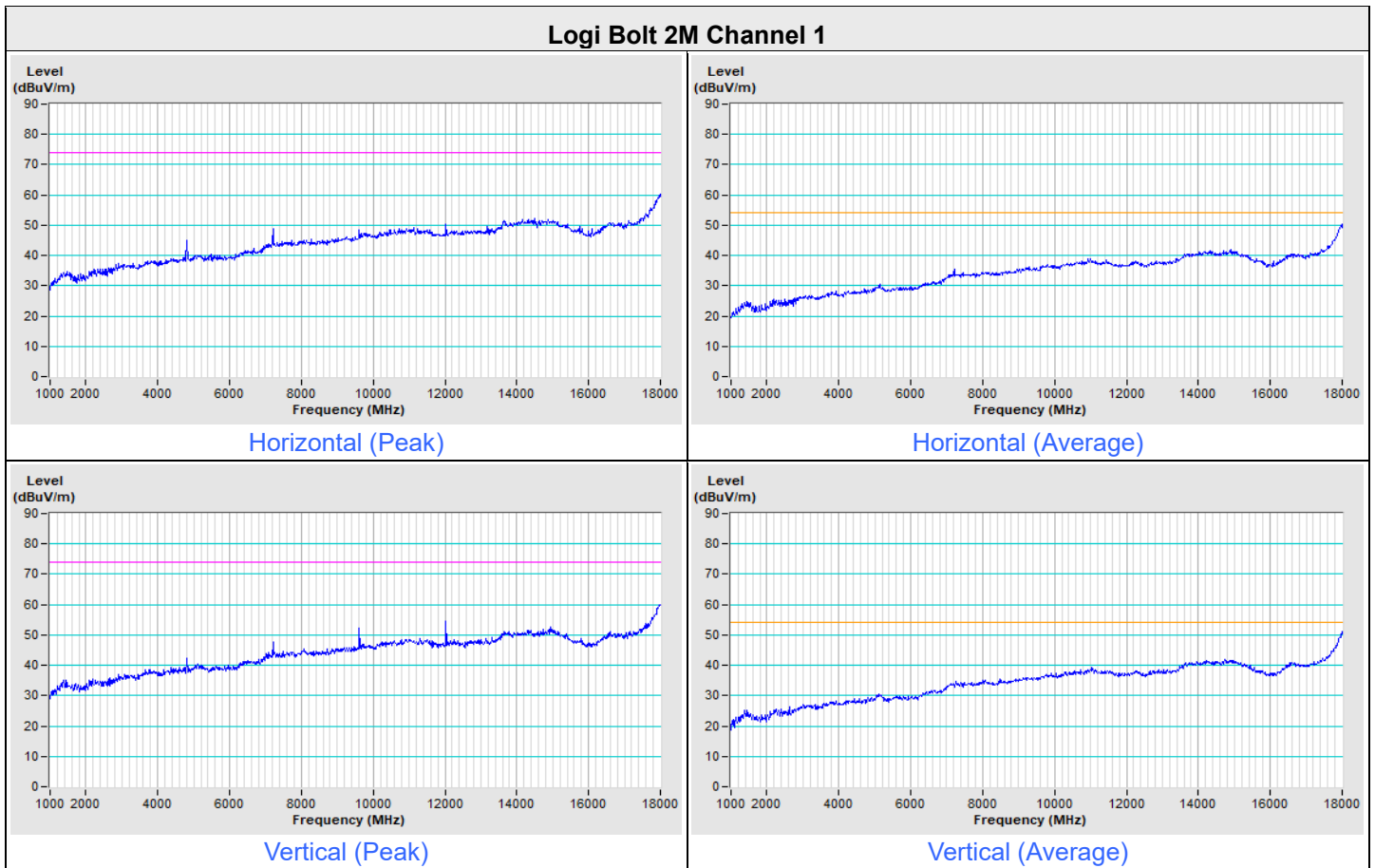
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 25 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Hsin Chu EMC/RF/Telecom Lab

Tel: 886-(0)3-6668565 (SIP)

Tel: 886-(0)3-5120595 (WD)

Hwa Ya EMC/RF/Safety/SAR Lab & Wenming EMC/RF Lab

Tel: 886-(0)3-3183232

Email: service.adt@bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

The address and road map of all our labs can be found in our web site also.

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