

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBAPP-WTW-P26030041-2
FCC ID: PD5-NWA1250
Product: Outdoor Wireless AP
Brand: Nile Global
Model No.: NWA1250
Received Date: 2026/3/10
Test Date: 2026/4/20 ~ 2026/6/5
Issued Date: 2026/9/3
Applicant: Delta Electronics, Inc.
Address: No.31-1, Shien Pan Rd., Kuei San District, Taoyuan City 33341, Taiwan
Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories
Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / 788550 / TW0003
Designation Number:

Approved by: _____

Jeremy Lin

Jeremy Lin / Project Engineer

, Date: _____

2026/9/3

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Prepared by : Polly Chien / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBAPP-WTW-P26030041-2	Original release.	2026/9/3

1 Certificate

Product: Outdoor Wireless AP
Brand: Nile Global
Test Model: NWA1250
Sample Status: Engineering sample
Applicant: Delta Electronics, Inc.
Test Date: 2026/4/20 ~ 2026/6/5
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	Pass	Minimum passing margin is -16.95 dB at 13.99400 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.1 dB at 38.73 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.3 dB at 4824.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is I-PEX not a standard connector.

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:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.371 dB
Power Spectral Density	-	1.017 dB
6 dB Bandwidth	-	206.5 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.79 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.6 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 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	Outdoor Wireless AP
Brand	Nile Global
Test Model	NWA1250
Status of EUT	Engineering sample
Power Supply Rating	54 Vdc (From POE)
Modulation Type	GFSK
Modulation Technology	DTS
Transfer Rate	Up to 2 Mbps
Operating Frequency	2.402 GHz ~ 2.48 GHz
Number of Channel	40
Output Power	2.944 mW (4.69 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
Wall Mount	-	-	-

2. There are five modules for the EUT.

Mode	Function	Radio
Traffic	WLAN (2.4G)	1
Traffic	WLAN (5G)	2
Scan	WLAN (2.4G+5G)	4
Traffic	BT	5

3. Simultaneously transmission condition.

Condition	Technology			
1	WLAN 2.4G (Radio 1)	WLAN 5G (Radio 2)	BT LE (Radio 5)	WLAN 2.4G (Radio 4)
2	WLAN 2.4G (Radio 1)	WLAN 5G (Radio 2)	BT LE (Radio 5)	WLAN 5G (Radio 4)

Note: The emission of the simultaneous operation has been evaluated, and no non-compliance was found.

4. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & Scan radio) technology used for the EUT.

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 No.	Radio	Mode	Antenna Gain (dBi)	Frequency range (MHz)	Antenna Type	Connector Type
Ant. 1	2	WLAN	8.56	5150	Patch	ipex
			8.36	5200	Patch	ipex
			8.35	5250	Patch	ipex
			8.24	5300	Patch	ipex
			8.24	5350	Patch	ipex
			8.30	5470	Patch	ipex
			8.02	5600	Patch	ipex
			8.05	5725	Patch	ipex
			8.18	5785	Patch	ipex
			8.10	5850	Patch	ipex
Ant. 2		WLAN	8.99	5150	Patch	ipex
			8.82	5200	Patch	ipex
			8.73	5250	Patch	ipex
			8.53	5300	Patch	ipex
			8.44	5350	Patch	ipex
			8.36	5470	Patch	ipex
			8.09	5600	Patch	ipex
			8.10	5725	Patch	ipex
			8.11	5785	Patch	ipex
			8.17	5850	Patch	ipex
Ant. 3		WLAN	8.99	5150	Patch	ipex
			8.92	5200	Patch	ipex
			8.87	5250	Patch	ipex
			8.71	5300	Patch	ipex
			8.56	5350	Patch	ipex
			8.10	5470	Patch	ipex
			8.18	5600	Patch	ipex
			8.09	5725	Patch	ipex
			8.32	5785	Patch	ipex
			8.44	5850	Patch	ipex
Ant. 4	WLAN	8.98	5150	Patch	ipex	
		8.87	5200	Patch	ipex	
		8.88	5250	Patch	ipex	
		8.94	5300	Patch	ipex	
		8.88	5350	Patch	ipex	
		8.96	5470	Patch	ipex	
		8.91	5600	Patch	ipex	
		8.93	5725	Patch	ipex	
		8.90	5785	Patch	ipex	
		8.81	5850	Patch	ipex	

Antenna No.	Radio	Mode	Antenna Gain (dBi)	Frequency range (MHz)	Antenna Type	Connector Type
Ant. 5	1	WLAN	7.25	2400	Patch	ipex
			7.01	2450	Patch	ipex
			7.47	2500	Patch	ipex
Ant. 6		WLAN	7.80	2400	Patch	ipex
			8.65	2450	Patch	ipex
			8.25	2500	Patch	ipex
Ant. 11	4	WLAN	6.88	2400	PIFA	ipex
			6.68	2450	PIFA	ipex
			6.03	2500	PIFA	ipex
			5.76	5150	PIFA	ipex
			5.09	5200	PIFA	ipex
			4.80	5250	PIFA	ipex
			4.09	5300	PIFA	ipex
			4.34	5350	PIFA	ipex
			5.40	5470	PIFA	ipex
			5.64	5600	PIFA	ipex
			5.31	5725	PIFA	ipex
			5.55	5785	PIFA	ipex
			5.21	5850	PIFA	ipex
Ant. 12		WLAN	6.04	2400	PIFA	ipex
			6.13	2450	PIFA	ipex
			5.66	2500	PIFA	ipex
			6.89	5150	PIFA	ipex
			6.40	5200	PIFA	ipex
			5.97	5250	PIFA	ipex
			5.81	5300	PIFA	ipex
			5.68	5350	PIFA	ipex
			5.87	5470	PIFA	ipex
			5.12	5600	PIFA	ipex
			6.67	5725	PIFA	ipex
			6.45	5785	PIFA	ipex
Ant. 13	5	BT	6.83	5850	PIFA	ipex
			5.96	2400	PIFA	ipex
			5.63	2450	PIFA	ipex
			6.62	2500	PIFA	ipex

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

3.3 Channel List

40 channels are provided for BT-LE:

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

3.4 Test Mode Applicability and Tested Channel Detail

The EUT is designed to be positioned on the Wall Mount Mode only.

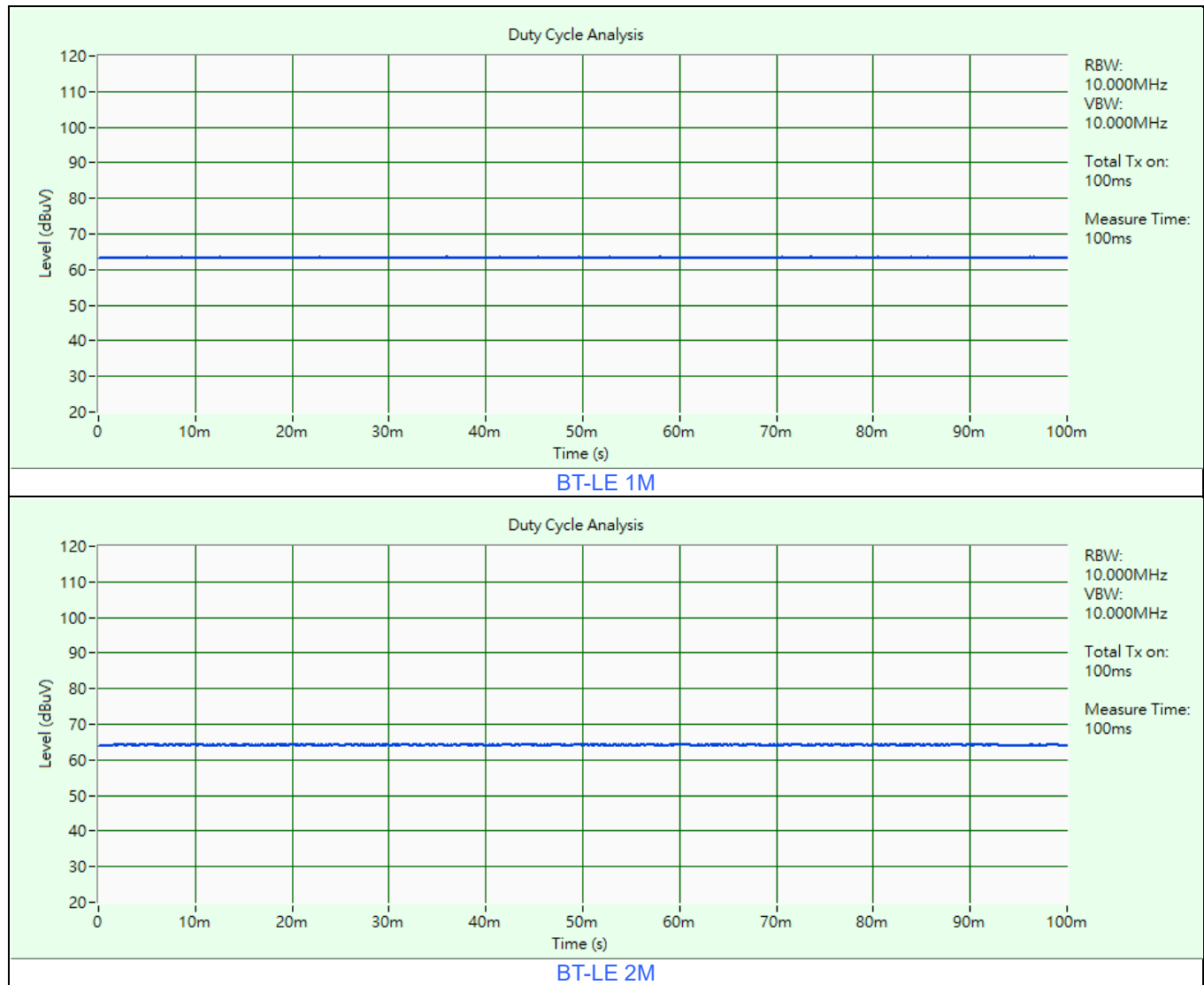
Following channel(s) was (were) selected for the final test as listed below:

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

3.5 Duty Cycle of Test Signal

BT-LE 1M: Duty cycle = 100 ms / 100 ms x 100% = 100.0%

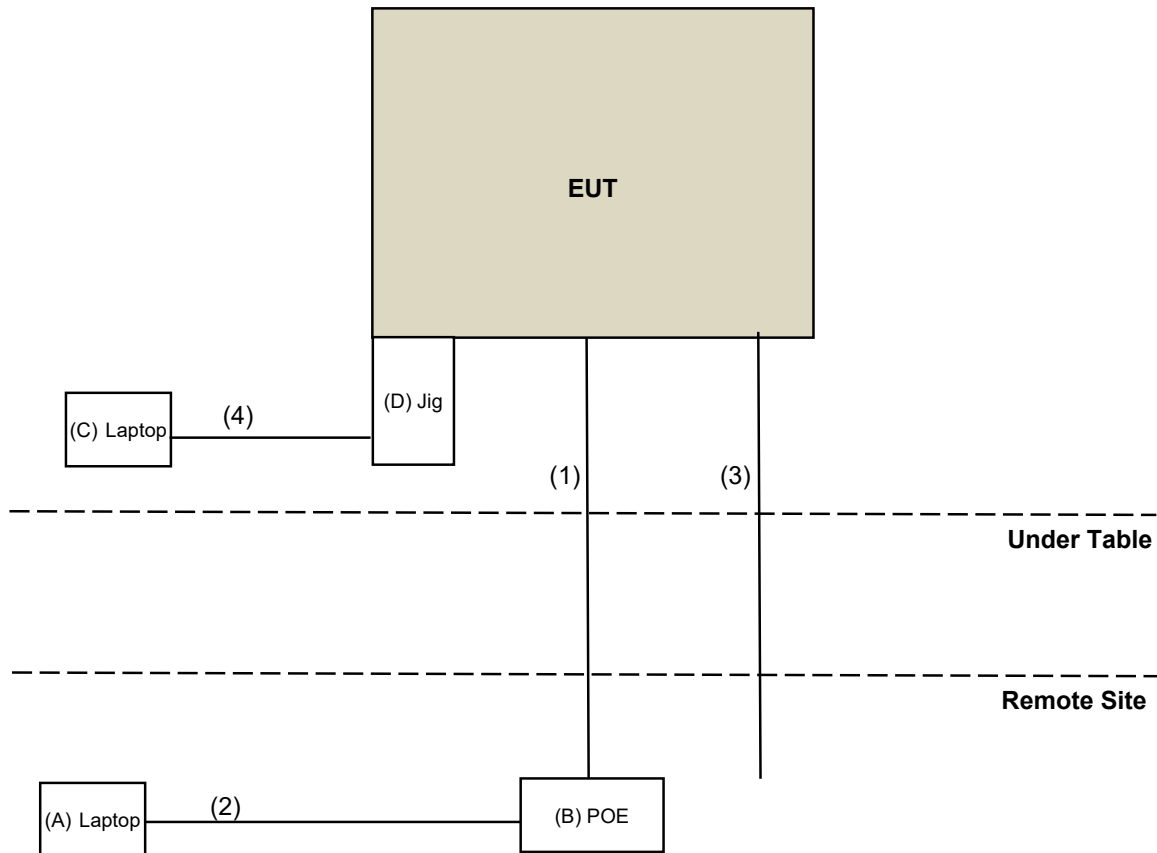
BT-LE 2M: Duty cycle = 100 ms / 100 ms x 100% = 100.0%



3.6 Test Program Used and Operation Descriptions

Controlling software SmartRF Studio 7 version 2.32.0 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

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	Laptop	Lenovo	X250	PC04UZN1	NA	Provided by Lab
B	POE	NA	NA	NA	NA	Supplied by applicant
C	Laptop	Lenovo	X260 4G	PC0ECUAT	NA	Provided by Lab
D	Jig	NA	NA	NA	NA	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	LAN Cable	1	6	No	0	Provided by Lab
2	LAN Cable	1	1.5	No	0	Provided by Lab
3	GND Cable	1	1.5	No	0	Provided by Lab
4	?	1		No	0	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-10	00800A1K01A-10-01	2026/5/21	2027/5/20
Peak Power Analyzer Keysight	8990B	MY51000485	2026/1/23	2027/1/22
USB Power Sensor Anritsu	MA24408A	12994	2025/12/5	2026/12/4
Wideband Power Sensor Keysight	N1923A	MY58020002	2026/1/26	2027/1/25
		MY58140009	2026/1/26	2027/1/25

Notes:

1. The test was performed in HY - Oven room(Hwaya).
2. Tested Date: 2026/6/5

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
Signal & Spectrum Analyzer R&S	FSV3044	101504	2025/6/18	2026/6/17
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in HY - Oven room(Hwaya).
2. Tested Date: 2026/6/5

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 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance	E1-011279	04	2025/12/4	2026/12/3
	E1-011280	05	2025/12/4	2026/12/3
	E1-011311	09	2025/12/4	2026/12/3
DC LISN Schwarzbeck	NNBM 8126G	8126G-069	2025/11/3	2026/11/2
Diode Pulse Limiter Schwarzbeck	VTSD 9561 F-N	01617	2025/8/23	2026/8/22
EMI Test Receiver R&S	ESR3	102783	2025/12/15	2026/12/14
LISN R&S	ESH2-Z5	100100	2026/3/4	2027/3/3
	ESH3-Z5	100312	2025/8/29	2026/8/28
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2025/8/23	2026/8/22
Software BVADT	BVADT_Cond_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2025/8/27	2026/8/26

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2026/5/20

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn BV ADT	AT100	AT93021705	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-160	2025/9/16	2026/9/15
Loop Antenna TESEQ	HLA 6121	45745	2025/9/1	2026/8/31
MXE EMI Receiver Agilent	N9038A	MY51210203	2025/8/27	2026/8/26
Preamplifier Agilent	8447D	2944A10638	2026/4/18	2027/4/17
Preamplifier EMCI	EMC001340	980201	2025/9/21	2026/9/20
RF Coaxial Cable Woken	8D-FB	Cable-CH9-01	2026/4/18	2027/4/17
Signal & Spectrum Analyzer R&S	FSW43	101582	2026/5/2	2027/5/1
Software BV ADT	ADT_Radiated_ V7.7.1.1.1	N/A	N/A	N/A
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4(Hwaya).
2. Tested Date: 2026/5/20

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn BV ADT	AT100	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1169	2025/11/9	2026/11/8
	BBHA 9170	9170-480	2025/11/9	2026/11/8
		BBHA9170243	2025/11/9	2026/11/8
MXE EMI Receiver Agilent	N9038A	MY51210203	2025/8/27	2026/8/26
Preamplifier Agilent	8449B	3008A02367	2026/1/3	2027/1/2
Preamplifier EMCI	EMC 184045	980116	2025/9/21	2026/9/20
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2025/6/30	2026/6/29
	EMC102-KM-KM-3000	150929	2025/6/30	2026/6/29
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2026/1/3	2027/1/2
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2026/1/3	2027/1/2
Software BV ADT	ADT_Radiated_ V7.7.1.1.1	N/A	N/A	N/A
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4(Hwaya).
2. Tested Date: 2026/4/20

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 AC Power Conducted Emissions

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

5.6 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).

5.7 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

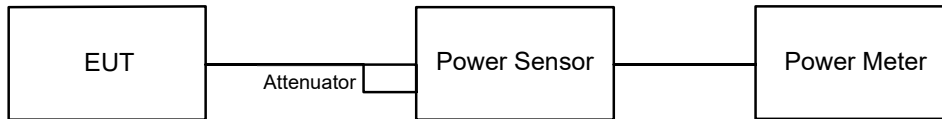
Notes:

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



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.

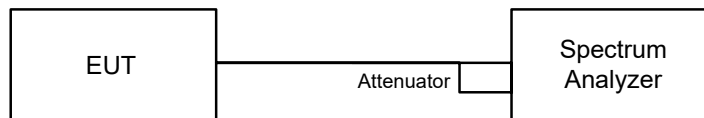
The power meter video bandwidth is greater than or equal to the DTS bandwidth and use a fast responding diode detector.

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

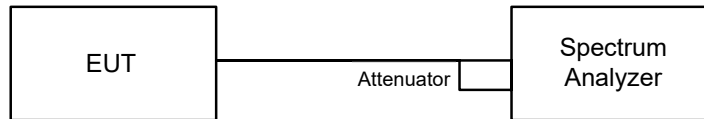


6.2.2 Test Procedure

- 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

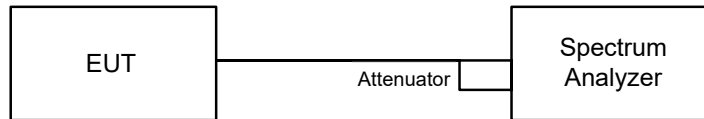


6.3.2 Test Procedure

- 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



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

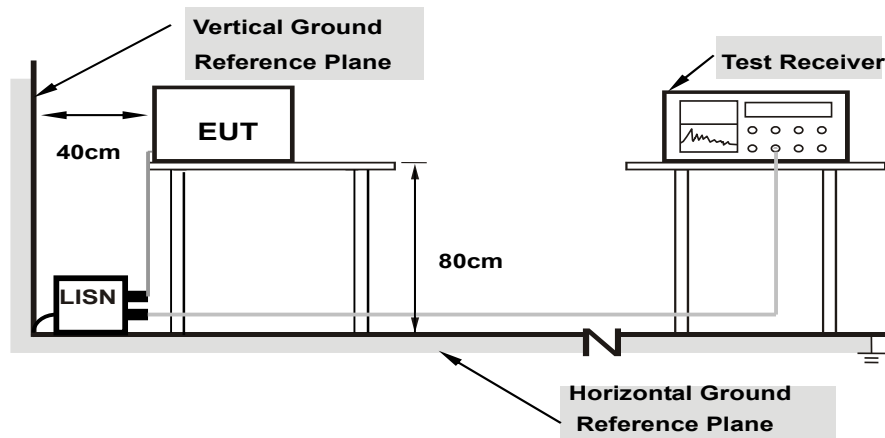
- Set instrument center frequency to DTS channel center frequency.
- Set the span to ≥ 1.5 times the DTS bandwidth.
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use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

6.5.1 Test Setup



Note: 1.Support units were connected to second LISN.

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

6.5.2 Test Procedure

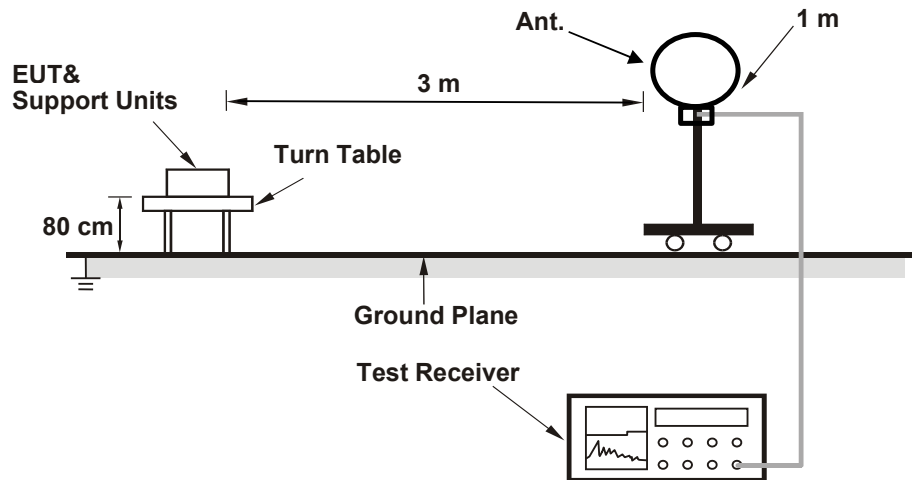
- Exploratory ac power-line conducted emission measurements: The EUT shall be operated on the mid channel and in the mode with highest output power unless the fundamental operates in the AC power-line emission test range then the EUT shall be operated in the range of typical modes of operation.
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

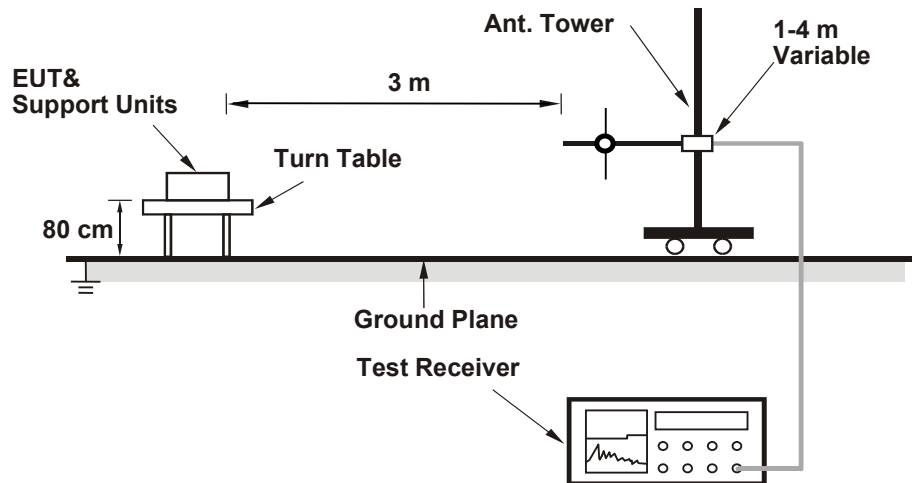
6.6 Unwanted Emissions below 1 GHz

6.6.1 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).

6.6.2 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

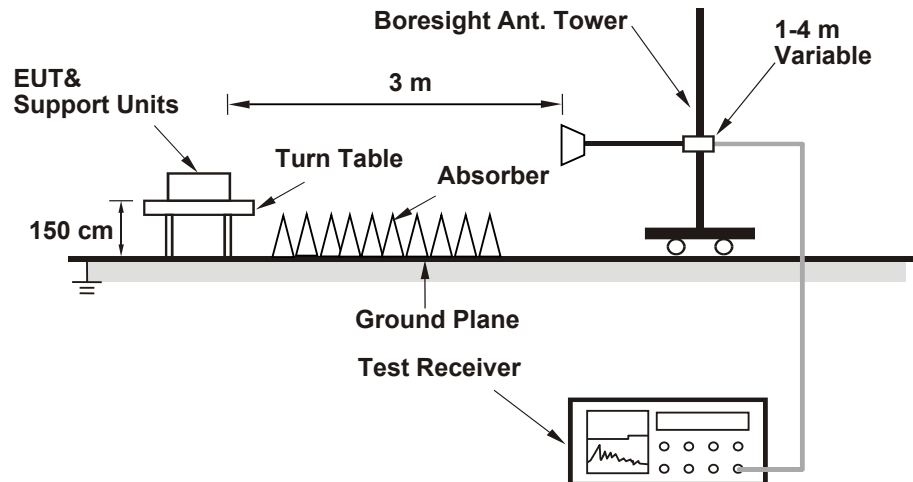
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 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, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 RF Output Power

Environmental Conditions:	25°C, 60% RH	Tested By:	Gary Lin
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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	2.944	4.69	29.38	Pass
19	2440	2.897	4.62	29.38	Pass
39	2480	2.805	4.48	29.38	Pass

Note: The antenna gain is 6.62 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.62 - 6) = 29.38$ dBm.

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	2.944	4.69	29.38	Pass
19	2440	2.877	4.59	29.38	Pass
39	2480	2.891	4.61	29.38	Pass

Note: The antenna gain is 6.62 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.62 - 6) = 29.38$ dBm.

For Average Power

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	2.793	4.46
19	2440	2.748	4.39
39	2480	2.661	4.25

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	2.786	4.45
19	2440	2.742	4.38
39	2480	2.748	4.39

7.2 Power Spectral Density

Environmental Conditions:	25°C, 60% RH	Tested By:	Gary Lin
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BT-LE 1M

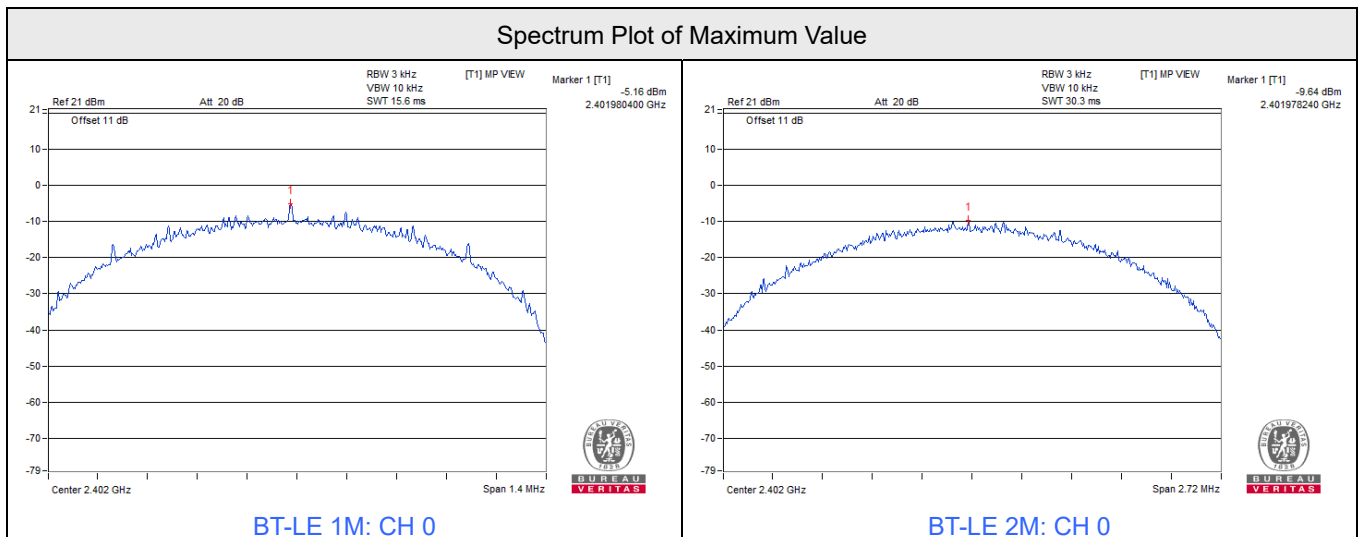
Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	-5.16	7.38	Pass
19	2440	-5.33	7.38	Pass
39	2480	-5.71	7.38	Pass

Note: The antenna gain is 6.62 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.62 - 6) = 7.38$ dBm/3kHz.

BT-LE 2M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	-9.64	7.38	Pass
19	2440	-9.94	7.38	Pass
39	2480	-9.80	7.38	Pass

Note: The antenna gain is 6.62 dBi > 6 dBi, so the power density limit shall be reduced to $8 - (6.62 - 6) = 7.38$ dBm/3kHz.



7.3 6 dB Bandwidth

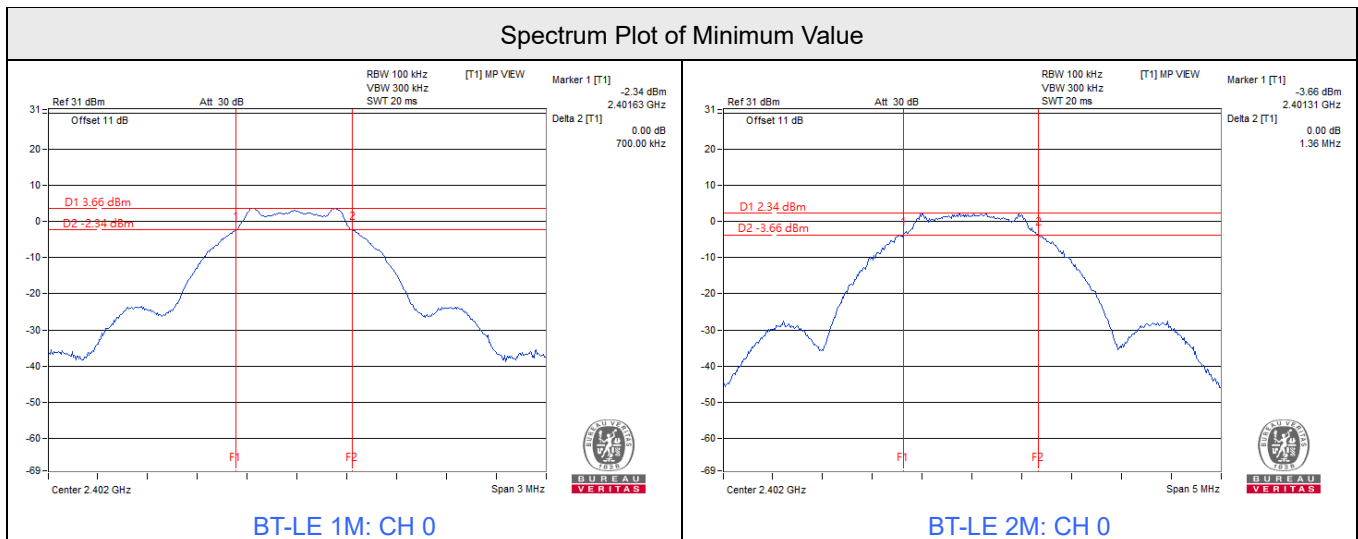
Environmental Conditions:	25°C, 60% RH	Tested By:	Gary Lin
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BT-LE 1M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	0.7	0.5	Pass
19	2440	0.71	0.5	Pass
39	2480	0.71	0.5	Pass

BT-LE 2M

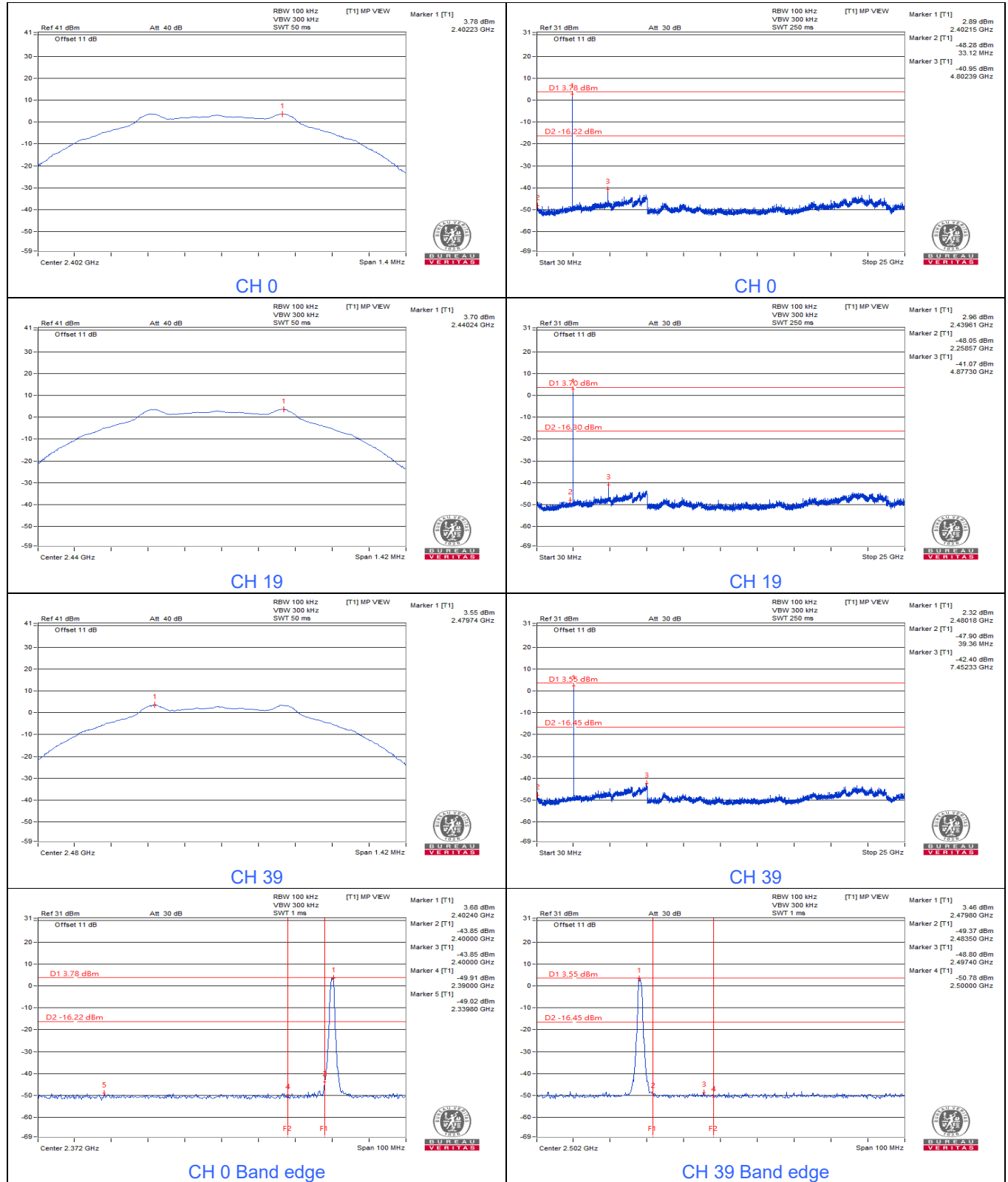
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	1.36	0.5	Pass
19	2440	1.43	0.5	Pass
39	2480	1.37	0.5	Pass



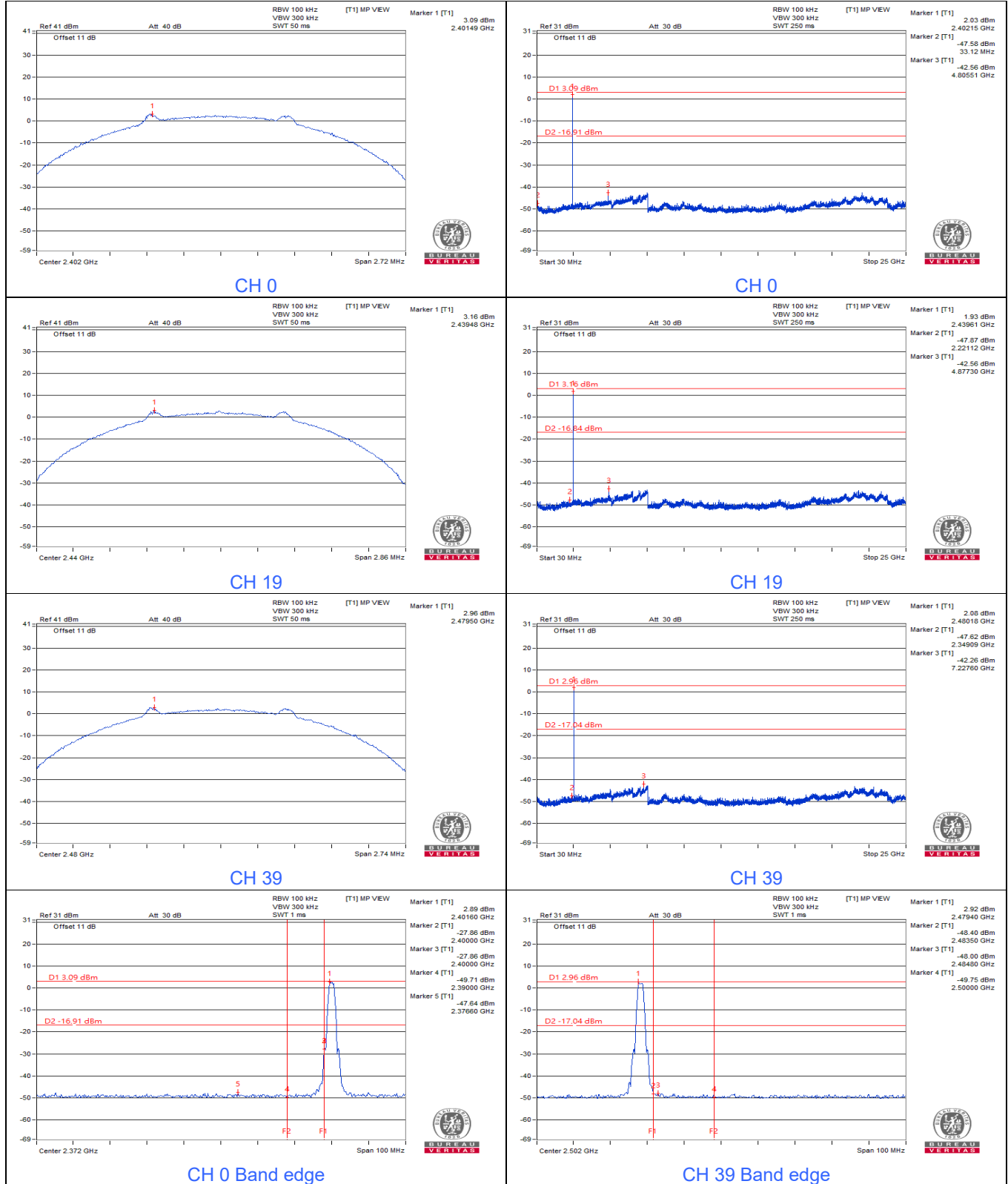
7.4 Conducted Out of Band Emissions

Environmental Conditions:	25°C, 60% RH	Tested By:	Gary Lin
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BT-LE 1M



BT-LE 2M



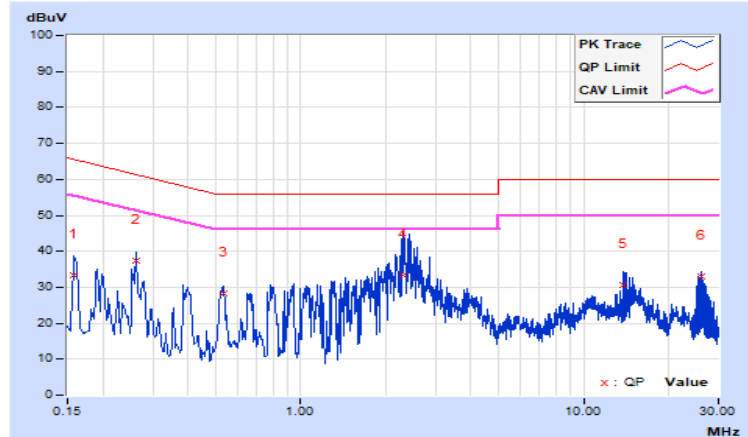
7.5 AC Power Conducted Emissions

RF Mode	BT LE-1M	Channel	CH 19 : 2440 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67% RH
Tested By	Adair Peng		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.21	23.20	1.98	33.41	12.19	65.57	55.57	-32.16	-43.38
2	0.26200	10.24	27.25	17.06	37.49	27.30	61.37	51.37	-23.88	-24.07
3	0.53265	10.36	18.08	11.54	28.44	21.90	56.00	46.00	-27.56	-24.10
4	2.29400	10.44	22.81	5.50	33.25	15.94	56.00	46.00	-22.75	-30.06
5	13.79400	10.81	19.74	16.61	30.55	27.42	60.00	50.00	-29.45	-22.58
6	26.18600	10.67	22.19	21.36	32.86	32.03	60.00	50.00	-27.14	-17.97

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

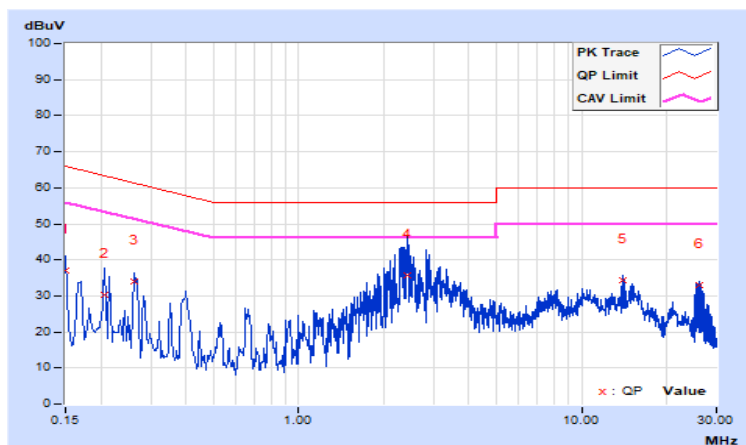


RF Mode	BT LE-1M	Channel	CH 19 : 2440 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67% RH
Tested By	Adair Peng		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.22	26.68	5.29	36.90	15.51	66.00	56.00	-29.10	-40.49
2	0.20600	10.20	20.05	1.93	30.25	12.13	63.37	53.37	-33.12	-41.24
3	0.26200	10.25	23.65	13.38	33.90	23.63	61.37	51.37	-27.47	-27.74
4	2.41400	10.46	25.36	9.48	35.82	19.94	56.00	46.00	-20.18	-26.06
5	13.99400	10.86	23.64	22.19	34.50	33.05	60.00	50.00	-25.50	-16.95
6	26.18600	10.73	22.23	21.53	32.96	32.26	60.00	50.00	-27.04	-17.74

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



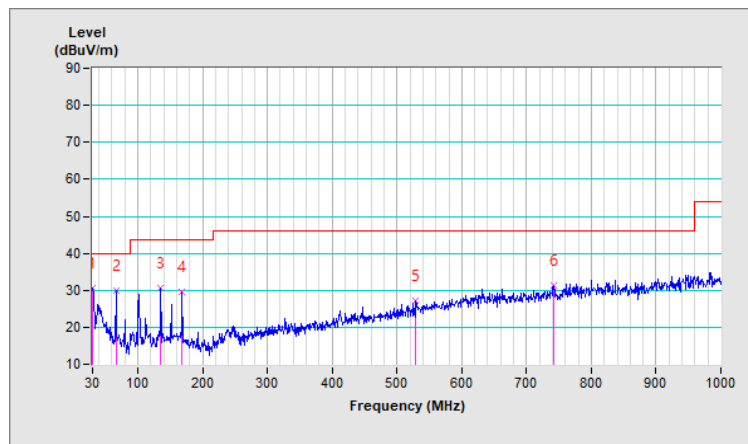
7.6 Unwanted Emissions below 1 GHz

RF Mode	BT LE-1M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67% RH
Tested By	Rex Wang		

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	30.00	30.5 QP	40.0	-9.5	1.50 H	22	41.0	-10.5
2	65.89	29.9 QP	40.0	-10.1	1.00 H	191	40.4	-10.5
3	135.73	30.5 QP	43.5	-13.0	1.00 H	242	40.1	-9.6
4	167.74	29.7 QP	43.5	-13.8	1.50 H	110	38.7	-9.0
5	529.55	27.3 QP	46.0	-18.7	1.00 H	333	30.0	-2.7
6	741.98	31.2 QP	46.0	-14.8	1.00 H	255	29.2	2.0

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.

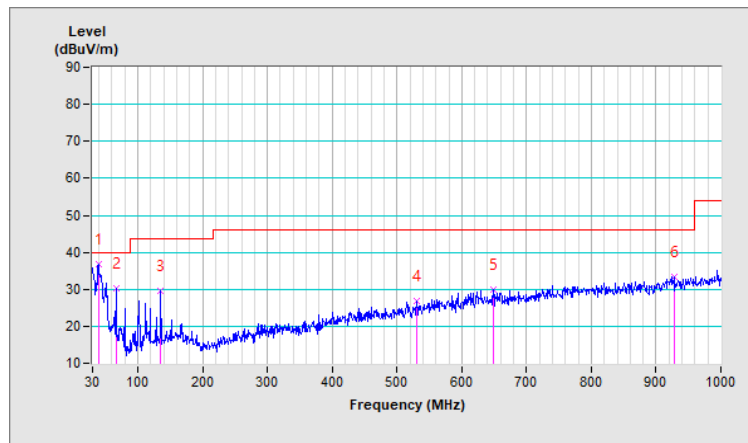


RF Mode	BT LE-1M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67% RH
Tested By	Rex Wang		

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	38.73	36.9 QP	40.0	-3.1	1.00 V	195	46.8	-9.9
2	65.89	30.4 QP	40.0	-9.6	1.00 V	266	40.9	-10.5
3	135.73	29.5 QP	43.5	-14.0	1.00 V	323	39.1	-9.6
4	530.52	26.8 QP	46.0	-19.2	1.50 V	247	29.5	-2.7
5	648.86	29.9 QP	46.0	-16.1	1.00 V	299	29.7	0.2
6	927.25	33.4 QP	46.0	-12.6	1.00 V	271	27.6	5.8

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.



7.7 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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	19.5 °C, 79.3% RH
Tested By	Rex Wang		

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	60.9 PK	74.0	-13.1	2.10 H	28	25.9	35.0
2	2390.00	47.8 AV	54.0	-6.2	2.10 H	28	12.8	35.0
3	*2402.00	100.7 PK			2.10 H	28	65.8	34.9
4	*2402.00	99.9 AV			2.10 H	28	65.0	34.9
5	4824.00	59.6 PK	74.0	-14.4	1.50 H	38	48.1	11.5
6	4824.00	53.7 AV	54.0	-0.3	1.50 H	38	42.2	11.5
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	2390.00	61.0 PK	74.0	-13.0	2.26 V	352	26.0	35.0
2	2390.00	47.9 AV	54.0	-6.1	2.26 V	352	12.9	35.0
3	*2402.00	104.1 PK			2.26 V	352	69.2	34.9
4	*2402.00	103.2 AV			2.26 V	352	68.3	34.9
5	4824.00	58.5 PK	74.0	-15.5	1.20 V	334	47.0	11.5
6	4824.00	52.3 AV	54.0	-1.7	1.20 V	334	40.8	11.5

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.

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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	19.5 °C, 79.3% RH
Tested By	Rex Wang		

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			1.45 H	28	66.6	34.9
2	*2440.00	100.2 AV			1.45 H	28	65.3	34.9
3	4880.00	54.8 PK	74.0	-19.2	1.54 H	33	43.3	11.5
4	4880.00	43.7 AV	54.0	-10.3	1.54 H	33	32.2	11.5
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	104.4 PK			2.37 V	349	69.5	34.9
2	*2440.00	103.5 AV			2.37 V	349	68.6	34.9
3	4880.00	53.7 PK	74.0	-20.3	1.26 V	334	42.2	11.5
4	4880.00	42.4 AV	54.0	-11.6	1.26 V	334	30.9	11.5

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.

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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	19.5 °C, 79.3% RH
Tested By	Rex Wang		

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	100.9 PK			1.41 H	29	66.0	34.9
2	*2480.00	99.9 AV			1.41 H	29	65.0	34.9
3	2483.50	61.6 PK	74.0	-12.4	1.41 H	29	26.7	34.9
4	2483.50	48.3 AV	54.0	-5.7	1.41 H	29	13.4	34.9
5	4960.00	54.0 PK	74.0	-20.0	1.52 H	39	42.5	11.5
6	4960.00	40.5 AV	54.0	-13.5	1.52 H	39	29.0	11.5
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	104.1 PK			2.26 V	352	69.2	34.9
2	*2480.00	103.2 AV			2.26 V	352	68.3	34.9
3	2483.50	61.8 PK	74.0	-12.2	2.26 V	352	26.9	34.9
4	2483.50	48.4 AV	54.0	-5.6	2.26 V	352	13.5	34.9
5	4960.00	53.1 PK	74.0	-20.9	1.22 V	335	41.6	11.5
6	4960.00	39.1 AV	54.0	-14.9	1.22 V	335	27.6	11.5

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.

RF Mode	BT LE-2M	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	19.5 °C, 79.3% RH
Tested By	Adair Peng		

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	60.5 PK	74.0	-13.5	1.47 H	27	25.5	35.0
2	2390.00	47.9 AV	54.0	-6.1	1.47 H	27	12.9	35.0
3	*2402.00	101.0 PK			1.47 H	27	66.1	34.9
4	*2402.00	98.6 AV			1.47 H	27	63.7	34.9
5	4804.00	59.3 PK	74.0	-14.7	1.37 H	41	47.8	11.5
6	4804.00	49.6 AV	54.0	-4.4	1.37 H	41	38.1	11.5
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	2390.00	61.2 PK	74.0	-12.8	2.72 V	349	26.2	35.0
2	2390.00	48.0 AV	54.0	-6.0	2.72 V	349	13.0	35.0
3	*2402.00	104.0 PK			2.72 V	349	69.1	34.9
4	*2402.00	101.9 AV			2.72 V	349	67.0	34.9
5	4804.00	58.3 PK	74.0	-15.7	1.50 V	352	46.8	11.5
6	4804.00	48.2 AV	54.0	-5.8	1.50 V	352	36.7	11.5

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.

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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	19.5 °C, 79.3% RH
Tested By	Adair Peng		

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			1.46 H	28	67.0	34.9
2	*2440.00	99.6 AV			1.46 H	28	64.7	34.9
3	4880.00	54.7 PK	74.0	-19.3	1.35 H	42	43.2	11.5
4	4880.00	42.4 AV	54.0	-11.6	1.35 H	42	30.9	11.5
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	104.7 PK			2.55 V	353	69.8	34.9
2	*2440.00	102.5 AV			2.55 V	353	67.6	34.9
3	4880.00	53.8 PK	74.0	-20.2	1.50 V	354	42.3	11.5
4	4880.00	41.1 AV	54.0	-12.9	1.50 V	354	29.6	11.5

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.

RF Mode	BT LE-2M	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=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	19.5 °C, 79.3% RH
Tested By	Adair Peng		

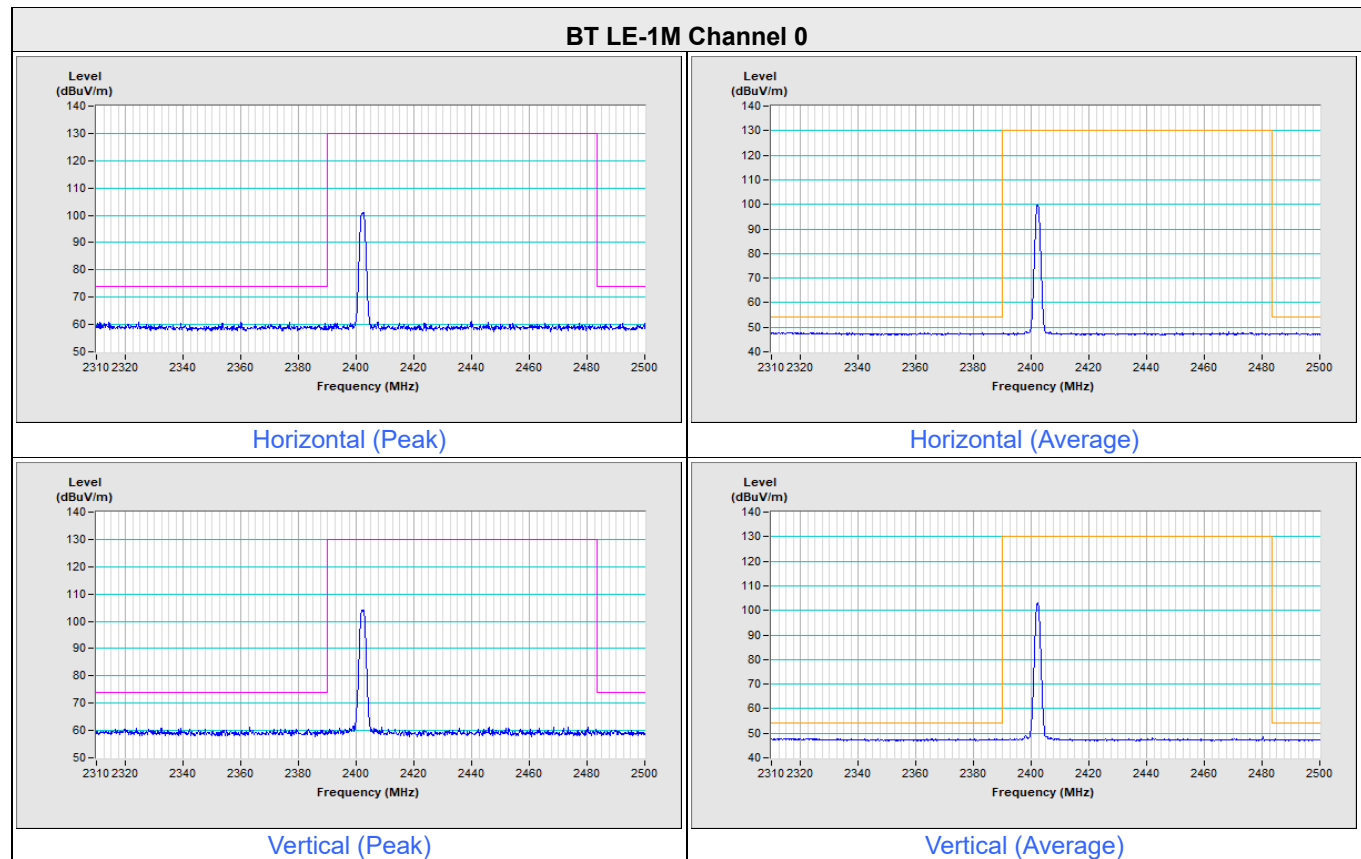
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	101.2 PK			1.44 H	27	66.3	34.9
2	*2480.00	99.1 AV			1.44 H	27	64.2	34.9
3	2483.50	61.8 PK	74.0	-12.2	1.44 H	27	26.9	34.9
4	2483.50	49.3 AV	54.0	-4.7	1.44 H	27	14.4	34.9
5	4960.00	52.4 PK	74.0	-21.6	1.40 H	45	40.9	11.5
6	4960.00	40.5 AV	54.0	-13.5	1.40 H	45	29.0	11.5
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	104.0 PK			2.26 V	353	69.1	34.9
2	*2480.00	101.9 AV			2.26 V	353	67.0	34.9
3	2483.50	61.9 PK	74.0	-12.1	2.26 V	353	27.0	34.9
4	2483.50	50.5 AV	54.0	-3.5	2.26 V	353	15.6	34.9
5	4960.00	51.4 PK	74.0	-22.6	1.51 V	350	39.9	11.5
6	4960.00	39.1 AV	54.0	-14.9	1.51 V	350	27.6	11.5

Remarks:

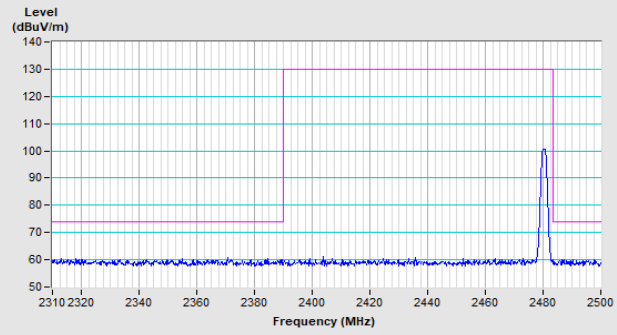
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * " : Fundamental frequency, the limit was restricted at the RF Output Power.

Plot of Band Edge

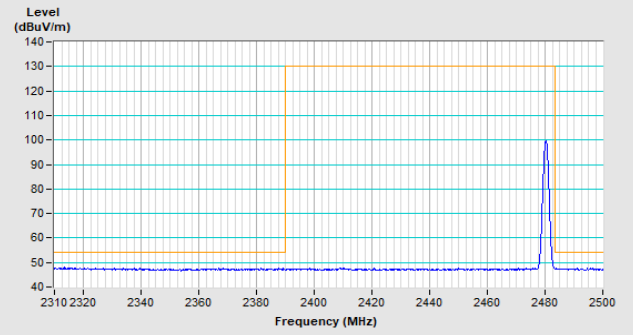
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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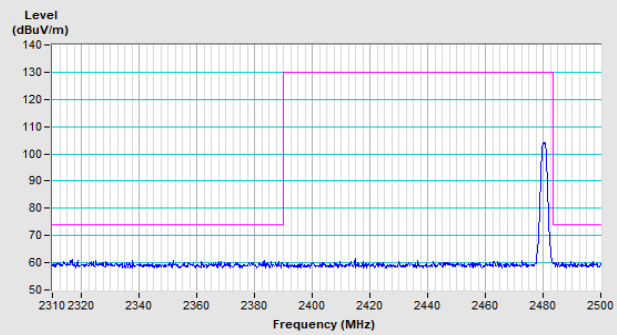
BT LE-1M Channel 39



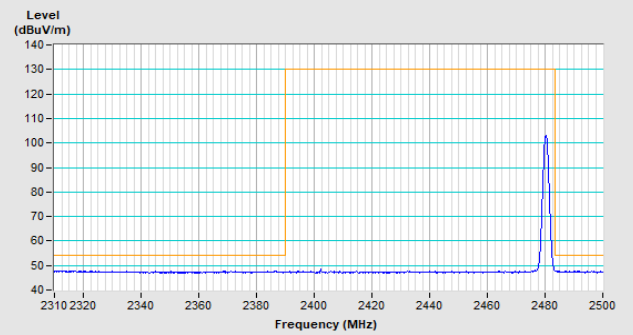
Horizontal (Peak)



Horizontal (Average)

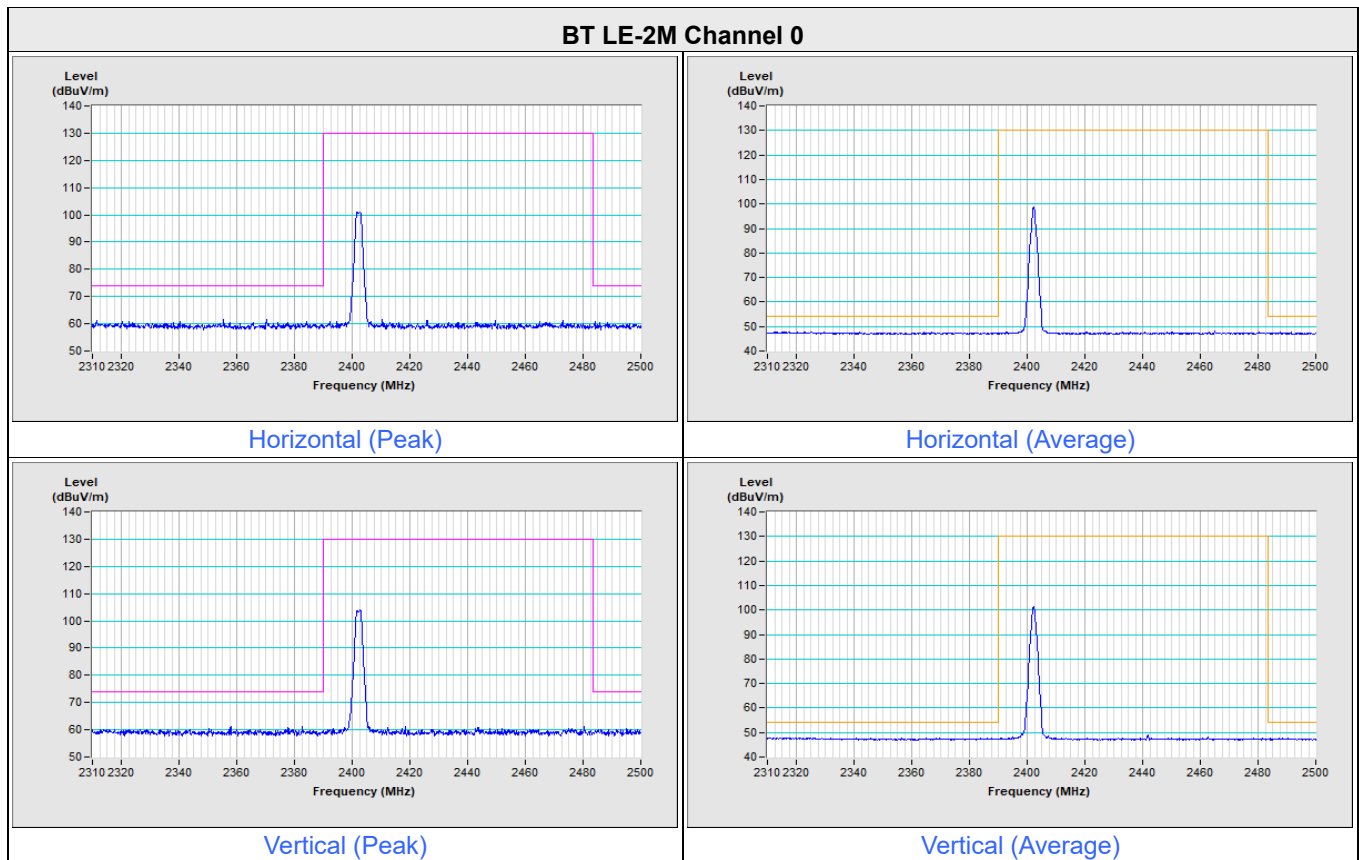


Vertical (Peak)

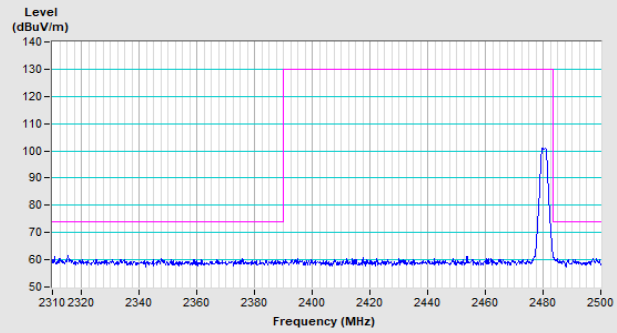


Vertical (Average)

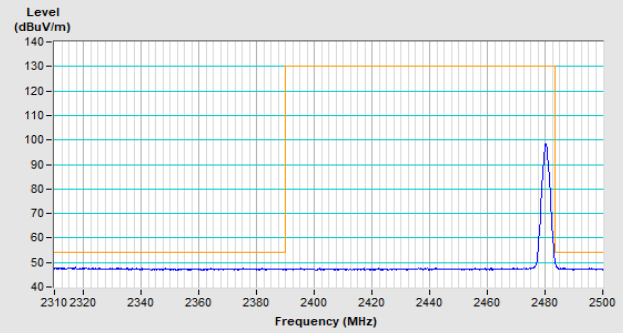
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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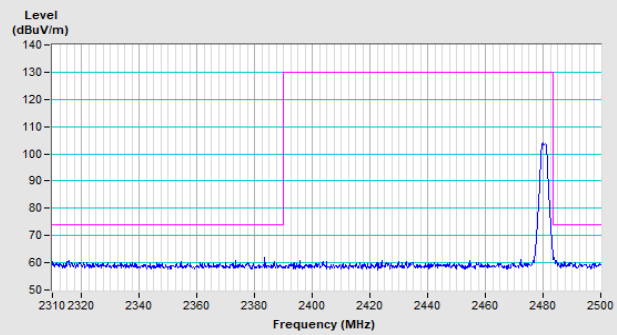
BT LE-2M Channel 39



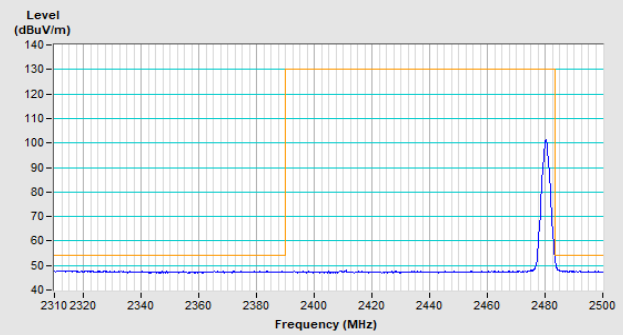
Horizontal (Peak)



Horizontal (Average)



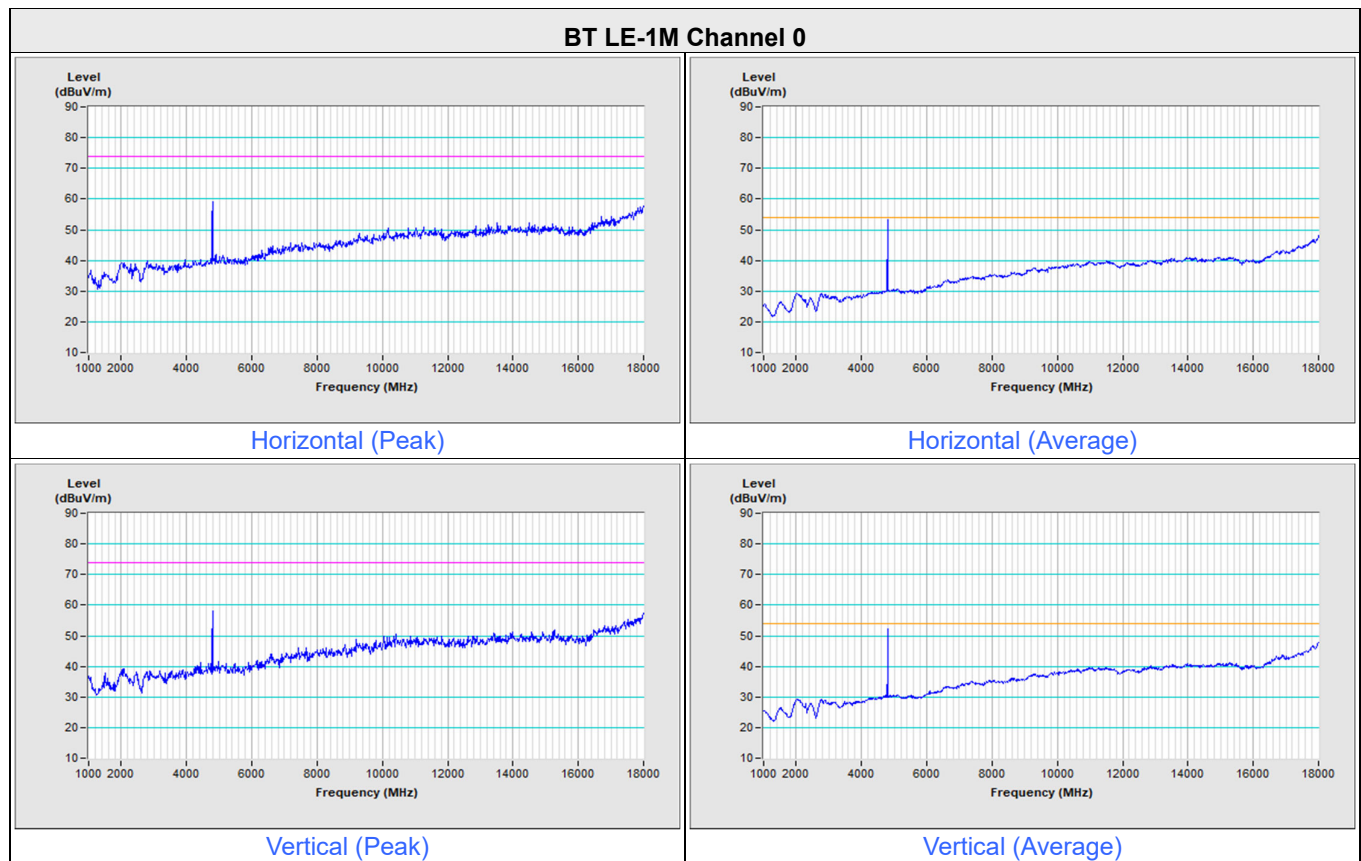
Vertical (Peak)



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=10 Hz, DET=Peak
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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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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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