

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBCMA-WTW-P25030859-2
FCC ID: RAXWE8214443
Product: Wi-Fi Extender
Brand: T-Mobile
Model No.: T-MOBILE V2 Wi-Fi MESH ACCESS POINT
Received Date: 2025/3/25
Test Date: 2025/5/19 ~ 2025/6/11
Issued Date: 2025/7/9
Applicant: Arcadyan Technology Corporation
Address: No.8, Sec.2, Guangfu Rd., Hsinchu City 30071, 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: _____



Wen Yu / Assistant Manager

, Date: _____

2025/7/9

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Prepared by : Phoenix Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P25030859-2	Original release.	2025/7/9

1 Certificate

Product: Wi-Fi Extender

Brand: T-Mobile

Test Model: T-MOBILE V2 Wi-Fi MESH ACCESS POINT

Sample Status: Engineering sample

Applicant: Arcadyan Technology Corporation

Test Date: 2025/5/19 ~ 2025/6/11

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

Measurement ANSI C63.10-2013

procedure: 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 -8.37 dB at 0.76328 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -6.9 dB at 63.97 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -2.0 dB at 2483.50 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) 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	-	1.1 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
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 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	5.1 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	Wi-Fi Extender
Brand	T-Mobile
Test Model	T-MOBILE V2 Wi-Fi MESH ACCESS POINT
Status of EUT	Engineering sample
Power Supply Rating	15 Vdc from power adapter
Modulation Type	GFSK
Modulation Technology	DTS
Transfer Rate	125 kbps / 500 kbps / 1 Mbps / 2 Mbps
Operating Frequency	2.402 GHz ~ 2.48 GHz
Number of Channel	40
Output Power	95.499 mW (19.8 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	Mass power	PD030E-A1C0AVU	AC Input: 100-240 Vac, 0.8 A, 50-60 Hz DC Output: 15 Vdc, 2 A DC Output Cable: 1.8 m, unshielded cable, w/o ferrite core
AC Adapter 2	MOSO	P40-V1500R200-030CC0-US	AC Input: 100-240 Vac, 0.8 A, 50-60 Hz DC Output: 15 Vdc, 2 A DC Output Cable: 1.8 m, unshielded cable, w/o ferrite core
RJ45 Cable	-	-	Signal Line: 2 meter, unshielded, w/o ferrite core

2. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	Radio 4
WLAN (2.4GHz)	WLAN (5GHz)	BT-LE	BT-LE / 802.15.4 (Zigbee/Open Thread/Matter)

3. Simultaneously transmission combination.

Combination	Technology
1	WLAN (2.4 GHz) + WLAN (5 GHz) + 802.15.4 (Zigbee/Open Thread/Matter) + BT-LE

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

4. 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.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1_DB	0	HONGBO	290-70562	3.6	2.4 ~ 2.4835	Monopole	ipex(MHF)
				3.8	5.15 ~ 5.25		
				3.5	5.25 ~ 5.35		
				3.4	5.47 ~ 5.725		
				3.5	5.725 ~ 5.85		
2_DB	1	HONGBO	290-70563	2.8	2.4 ~ 2.4835	Monopole	ipex(MHF)
				1.7	5.15 ~ 5.25		
				1.8	5.25 ~ 5.35		
				2	5.47 ~ 5.725		
				2.2	5.725 ~ 5.85		
3_DB	2	HONGBO	290-70564	3.1	2.4 ~ 2.4835	Monopole	ipex(MHF)
				1.5	5.15 ~ 5.25		
				1.3	5.25 ~ 5.35		
				1.5	5.47 ~ 5.725		
				1.3	5.725 ~ 5.85		
4_DB	3	HONGBO	290-70565	2.8	2.4 ~ 2.4835	Monopole	ipex(MHF)
				2.5	5.15 ~ 5.25		
				2	5.25 ~ 5.35		
				1.8	5.47 ~ 5.725		
				2.2	5.725 ~ 5.85		
5_RX	0	HONGBO	290-70566	3.2	5.15 ~ 5.25	Monopole	ipex(MHF)
				3	5.25 ~ 5.35		
				2.7	5.47 ~ 5.725		
				2.2	5.725 ~ 5.85		
6_BT	BJ1	HONGBO	290-70567	4.1	2.4 ~ 2.4835	Monopole	ipex(MHF)
7_iot	ZJ1	HONGBO	290-70568	5.1	2.4 ~ 2.4835	Monopole	ipex(MHF)

* 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

Pre-Scan:	1. The AC Adapter has the following models: AC Adapter 1 (MASS power)/ AC Adapter 2 (MOSO). Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. BT LE-1M, LE-125k, LE-500k of these modes under the same 1 Msym/s modulation scheme, but the data rates are different; based on the same modulation scheme, pre-scan all of these modes and find the worst case as a representative test mode (except Output power and Power Density test item)
Worst Case:	1. AC Adapter worst condition: AC Adapter 2 (MOSO) 2. For 1Msym/s modulation scheme the worst mode is: BT-LE 1M

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

Test Item	EUT Configure Mode	Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	A, B	BT-LE 125k	0, 19, 39	GFSK	125kb/s
		BT-LE 500k	0, 19, 39	GFSK	500kb/s
		BT-LE 1M	0, 19, 39	GFSK	1Mb/s
		BT-LE 2M	0, 19, 39	GFSK	2Mb/s
Power Spectral Density	A, B	BT-LE 125k	0, 19, 39	GFSK	125kb/s
		BT-LE 500k	0, 19, 39	GFSK	500kb/s
		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	A, B	BT-LE 1M	0, 19, 39	GFSK	1Mb/s
		BT-LE 2M	0, 19, 39	GFSK	2Mb/s
AC Power Conducted Emissions	A, B	BT-LE 2M	0	GFSK	2Mb/s
Unwanted Emissions below 1 GHz	A, B	BT-LE 2M	0	GFSK	2Mb/s
Unwanted Emissions above 1 GHz	A, B	BT-LE 1M	0, 19, 39	GFSK	500kb/s
		BT-LE 2M	0, 19, 39	GFSK	2Mb/s
EUT Configure Mode:	A	Radio 3 BLE for antenna NO.6			
	B	Radio 4 BLE for antenna NO.7			

3.5 Duty Cycle of Test Signal

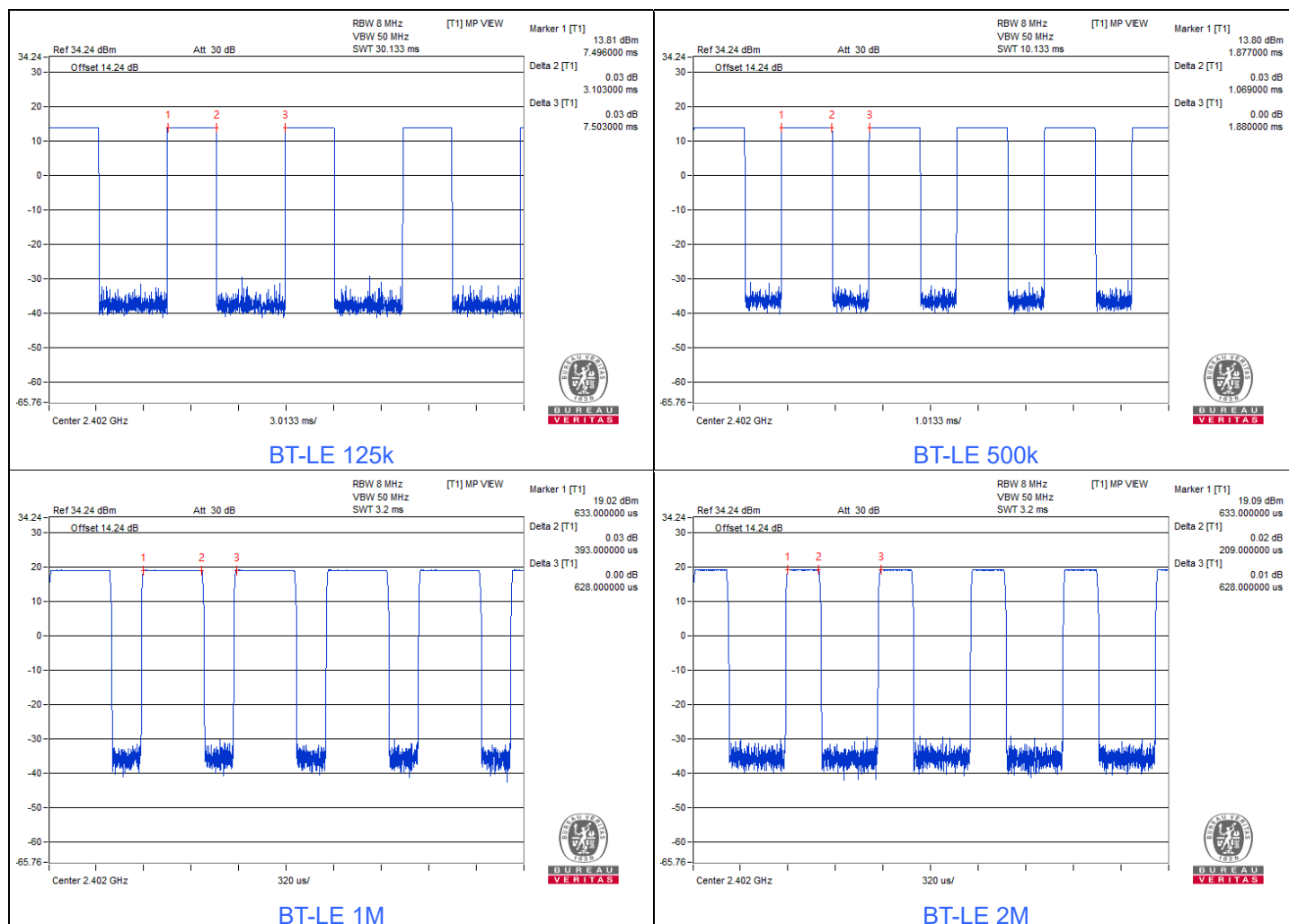
Mode A

BT-LE 125k: Duty cycle = $3.103 \text{ ms} / 7.503 \text{ ms} \times 100\% = 41.4\%$, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 3.83 \text{ dB}$

BT-LE 500k: Duty cycle = $1.069 \text{ ms} / 1.88 \text{ ms} \times 100\% = 56.9\%$, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 2.45 \text{ dB}$

BT-LE 1M: Duty cycle = $0.393 \text{ ms} / 0.628 \text{ ms} \times 100\% = 62.6\%$, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 2.04 \text{ dB}$

BT-LE 2M: Duty cycle = $0.209 \text{ ms} / 0.628 \text{ ms} \times 100\% = 33.3\%$, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 4.78 \text{ dB}$



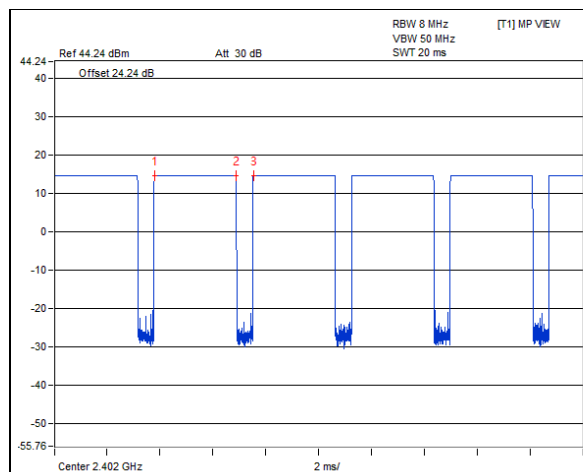
Mode B

BT-LE 125k: Duty cycle = 3.095 ms / 3.76 ms x 100% = 82.3%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.85 \text{ dB}$

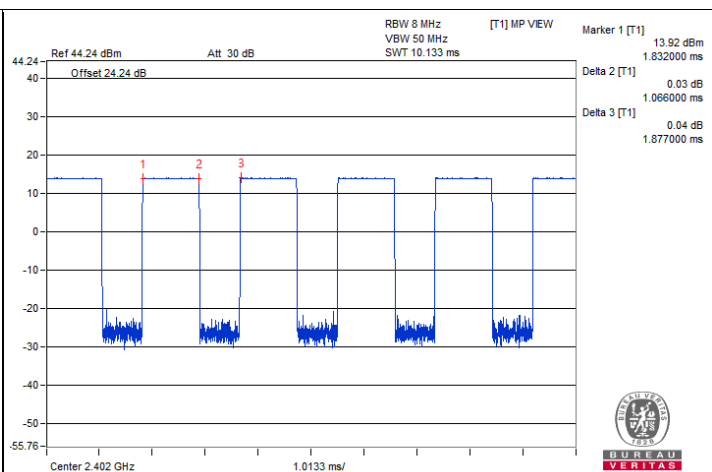
BT-LE 500k: Duty cycle = 1.066 ms / 1.877 ms x 100% = 56.8%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 2.46 \text{ dB}$

BT-LE 1M: Duty cycle = 0.392 ms / 0.625 ms x 100% = 62.7%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 2.03 \text{ dB}$

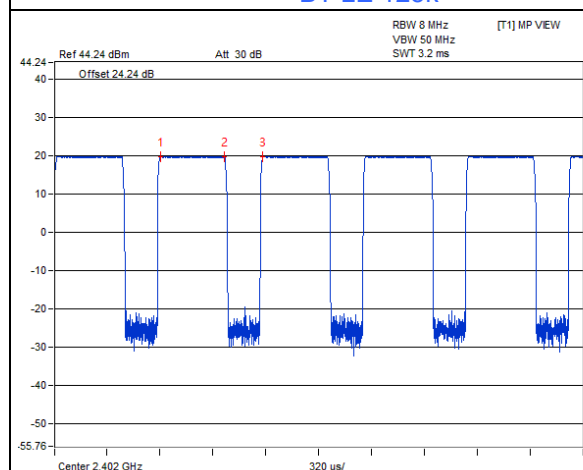
BT-LE 2M: Duty cycle = 0.206 ms / 0.624 ms x 100% = 33.0%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 4.81 \text{ dB}$



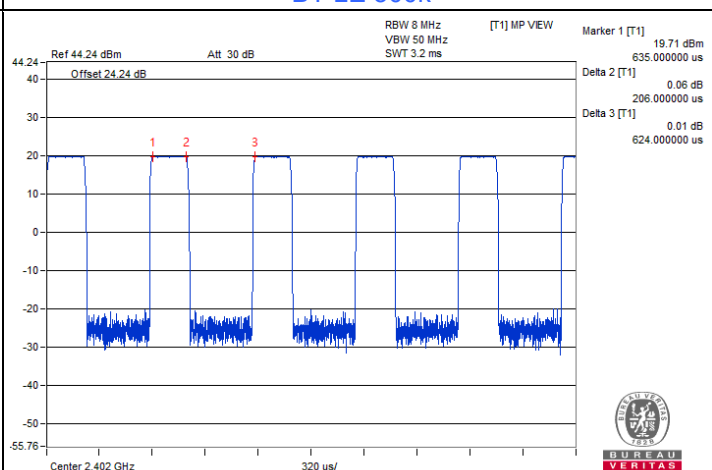
BT-LE 125k



BT-LE 500k



BT-LE 1M

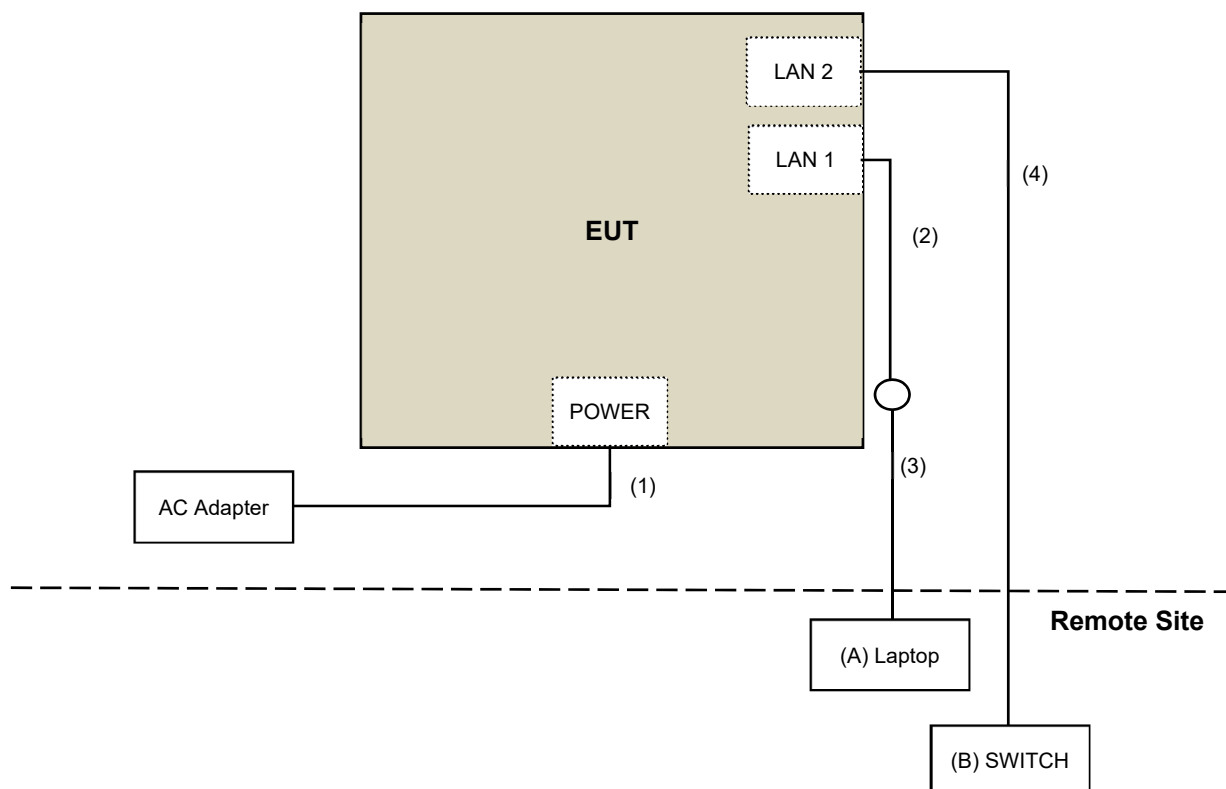


BT-LE 2M

3.6 Test Program Used and Operation Descriptions

Controlling software (Telnet Paste WE8214443-T0_command.txt) 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	DELL	E6420	H62T3R1	DoC	Provided by Lab
B	SWITCH	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Supplied by applicant
2	RJ-45 Cable	1	2	No	0	Supplied by applicant
3	RJ-45 Cable	1	10	No	0	Provided by Lab
4	RJ-45 Cable	1	10	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-20	00800A1K01A-20-02	2025/5/23	2026/5/22
Pulse Power Sensor Anritsu	MA2411B	1726434	2025/5/28	2026/5/27
RF Power Meter Anritsu	ML2495A	1529002	2025/6/3	2026/6/2

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/6/11

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2025/5/23	2026/5/22
PXA Signal Analyzer Keysight	N9030A	MY55330160	2025/1/16	2026/1/15
Software	ADT_RF Test Software V8	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/6/11

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 Telegartner	50 ohm	3	2024/11/1	2025/10/31
EMI Test Receiver R&S	ESCS 30	100375	2025/5/21	2026/5/20
Fixed Attenuator STI	STI02-2200-10	005	2025/2/17	2026/2/16
LISN R&S	ESH3-Z5	835239/001	2025/3/27	2026/3/26
		848773/004	2024/10/7	2025/10/6
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2025/2/17	2026/2/16
Software BVADT	BVADT_Conc_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2025/5/26 ~ 2025/5/29

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0842	2024/10/8	2025/10/7
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
EMI Test Receiver R&S	ESR7	102026	2025/3/25	2026/3/24
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	2025/3/29	2026/3/28
Loop Antenna TESEQ	HLA 6121	63620	2024/10/17	2025/10/16
Preamplifier EMCI	EMC330N	980538	2025/3/29	2026/3/28
	EMC001340	980142	2025/2/17	2026/2/16
PXA Signal Analyzer Keysight	N9030B	MY57141948	2025/5/20	2026/5/19
RF Coaxial Cable PEWC	8D	966-5-1	2025/3/29	2026/3/28
		966-5-2	2025/3/29	2026/3/28
		966-5-3	2025/3/29	2026/3/28
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2025/5/26

4.7 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
EMI Test Receiver R&S	ESR7	102026	2025/3/25	2026/3/24
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1819	2024/11/10	2025/11/9
	BBHA 9170	9170-739	2024/11/10	2025/11/9
Preamplifier EMCI	EMC12630SE	980509	2025/1/18	2026/1/17
	EMC184045SE	980387	2024/8/8	2025/8/7
PXA Signal Analyzer Keysight	N9030B	MY57141948	2024/5/20 2025/5/20	2025/5/19 2026/5/19
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2025/1/24	2026/1/23
	EMC102-KM-KM-4000	200214	2025/1/24	2026/1/23
	EMC104-SM-SM-1500	180503	2025/3/8	2026/3/7
	EMC104-SM-SM-2000	180501	2025/3/8	2026/3/7
	EMC104-SM-SM-6000	180506	2025/3/8	2026/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2025/5/19 ~ 2025/6/5

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

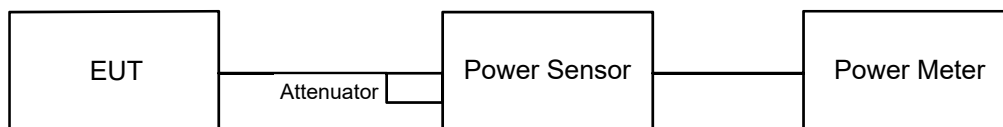
Notes:

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:

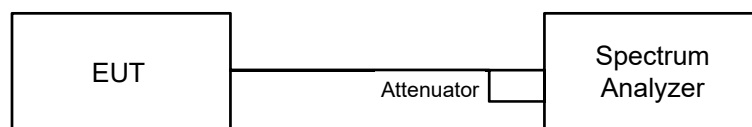
A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

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

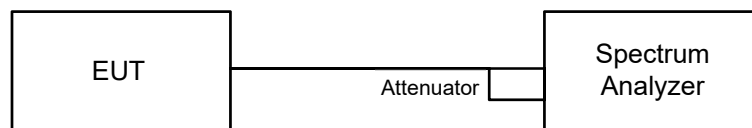


6.2.2 Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set the RBW to: 3 kHz.
- Set the VBW $\geq 3 \times$ RBW.
- Detector = peak.
- Sweep time = auto couple.
- 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

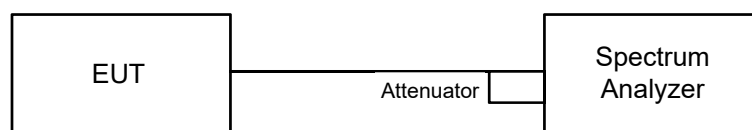


6.3.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

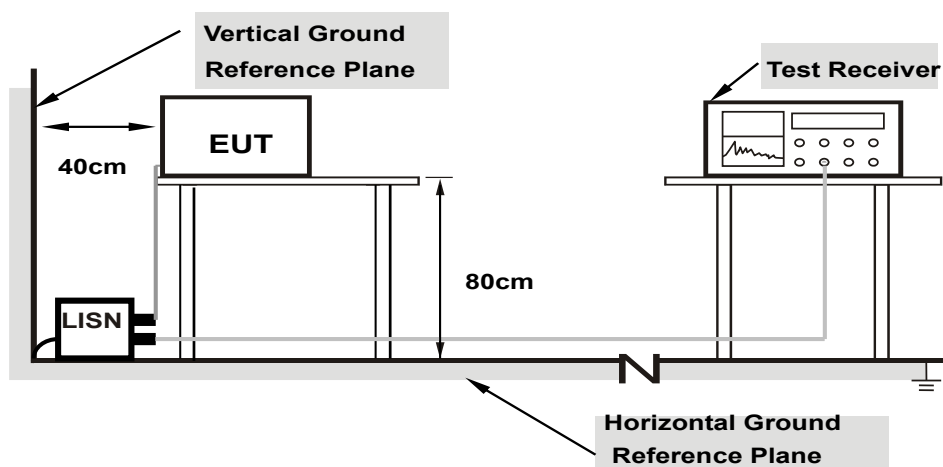
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- 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

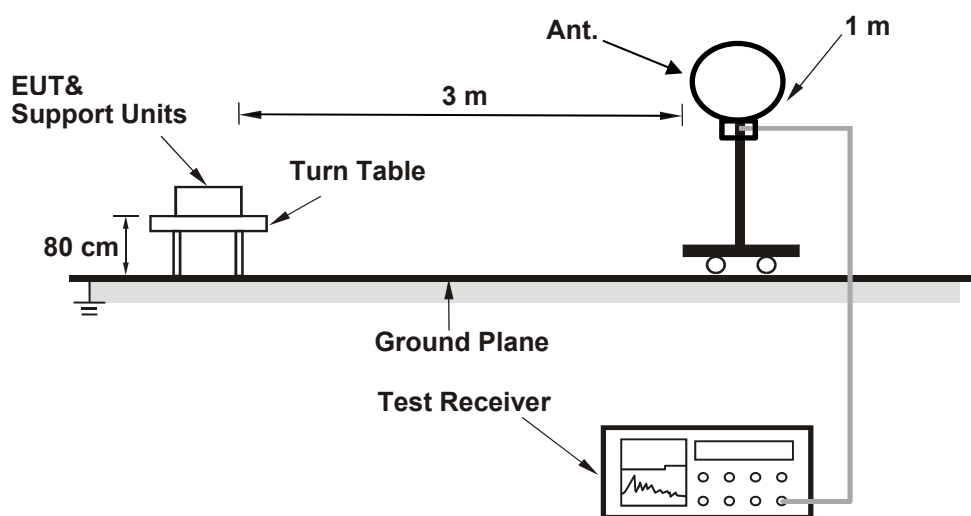
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The 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.

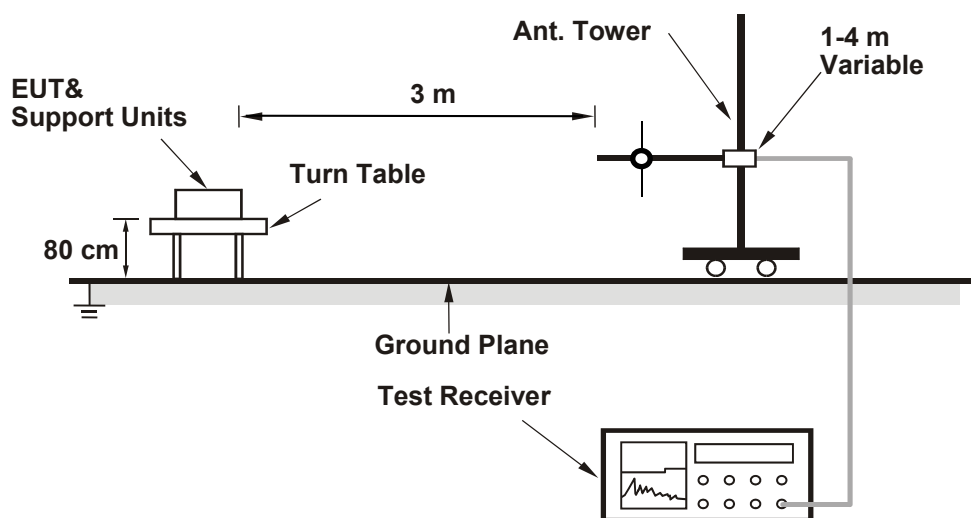
6.6 Unwanted Emissions below 1 GHz

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, 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

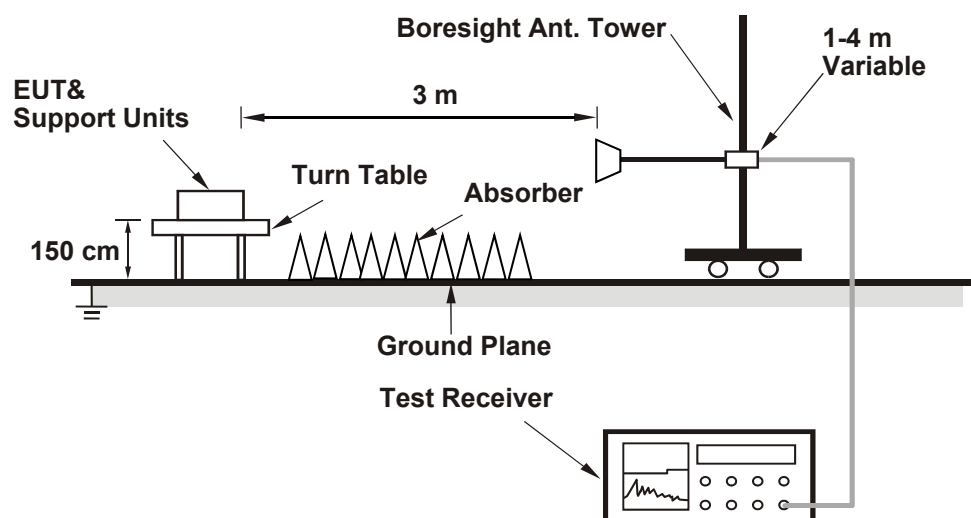
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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 detect function and specified bandwidth with maximum hold mode when the test frequency is below 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.
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

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode A

For Peak Power

BT-LE 125k

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	25.41	14.05	30	Pass
19	2440	24.322	13.86	30	Pass
39	2480	22.439	13.51	30	Pass

Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

BT-LE 500k

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	25.119	14.00	30	Pass
19	2440	24.491	13.89	30	Pass
39	2480	22.233	13.47	30	Pass

Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	82.794	19.18	30	Pass
19	2440	78.705	18.96	30	Pass
39	2480	36.813	15.66	30	Pass

Note: The antenna gain is 4.1 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
0	2402	83.753	19.23	30	Pass
19	2440	79.799	19.02	30	Pass
39	2480	19.055	12.80	30	Pass

Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

For Average Power

BT-LE 125k

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	24.889	13.96
19	2440	23.823	13.77
39	2480	21.979	13.42

BT-LE 500k

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	24.604	13.91
19	2440	23.496	13.71
39	2480	21.727	13.37

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	81.283	19.10
19	2440	77.983	18.92
39	2480	36.224	15.59

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	82.985	19.19
19	2440	78.886	18.97
39	2480	18.836	12.75

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode B

For Peak Power

BT-LE 125k

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	25.351	14.04	30	Pass
19	2440	24.155	13.83	30	Pass
39	2480	22.131	13.45	30	Pass

Note: The antenna gain is 5.1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

BT-LE 500k

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	25.645	14.09	30	Pass
19	2440	24.21	13.84	30	Pass
39	2480	22.336	13.49	30	Pass

Note: The antenna gain is 5.1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Power Limit (dBm)	Test Result
0	2402	94.406	19.75	30	Pass
19	2440	90.157	19.55	30	Pass
39	2480	26.242	14.19	30	Pass

Note: The antenna gain is 5.1 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
0	2402	95.499	19.80	30	Pass
19	2440	92.257	19.65	30	Pass
39	2480	12.794	11.07	30	Pass

Note: The antenna gain is 5.1 dBi $\leq$ 6 dBi, so the output power limit shall not be reduced.

For Average Power

BT-LE 125k

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	24.322	13.86
19	2440	23.014	13.62
39	2480	21.038	13.23

BT-LE 500k

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	24.322	13.86
19	2440	23.067	13.63
39	2480	21.135	13.25

BT-LE 1M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	91.833	19.63
19	2440	87.297	19.41
39	2480	25.351	14.04

BT-LE 2M

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	92.897	19.68
19	2440	90.991	19.59
39	2480	12.388	10.93

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode A

BT-LE 125k

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	7.57	8	Pass
19	2440	7.52	8	Pass
39	2480	7.47	8	Pass

Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 500k

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	7.33	8	Pass
19	2440	7.27	8	Pass
39	2480	7.26	8	Pass

Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 1M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	3.18	8	Pass
19	2440	3.15	8	Pass
39	2480	0.20	8	Pass

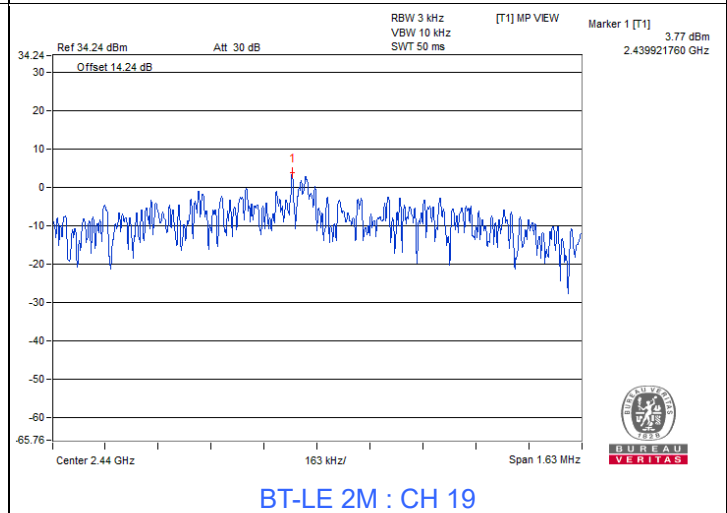
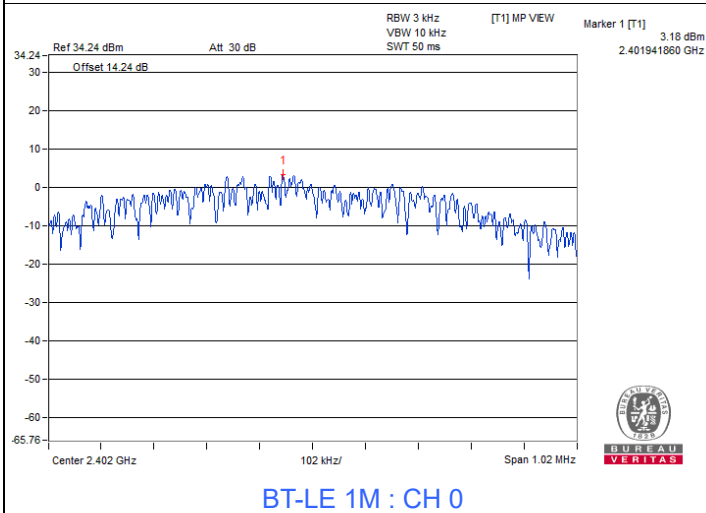
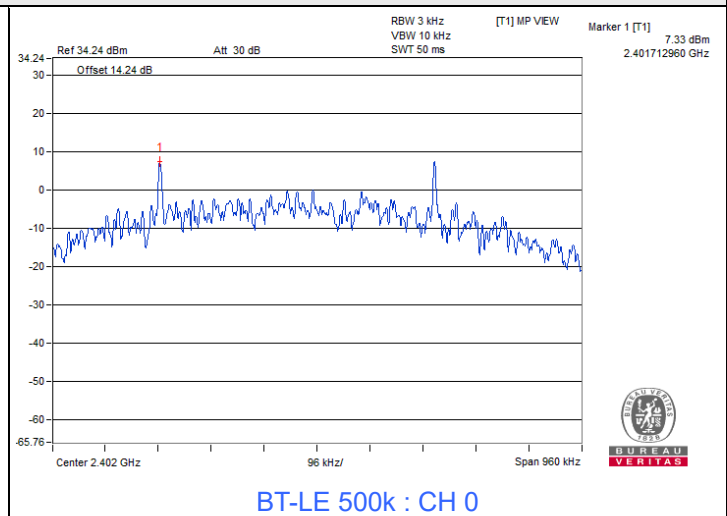
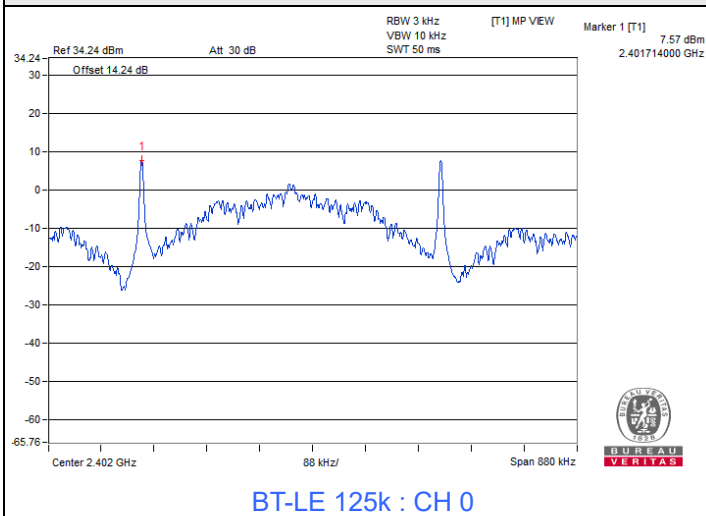
Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 2M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	3.76	8	Pass
19	2440	3.77	8	Pass
39	2480	-0.66	8	Pass

Note: The antenna gain is 4.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

Spectrum Plot of Maximum Value



Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode B

BT-LE 125k

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	7.59	8	Pass
19	2440	7.45	8	Pass
39	2480	7.31	8	Pass

Note: The antenna gain is 5.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 500k

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	7.39	8	Pass
19	2440	7.27	8	Pass
39	2480	7.14	8	Pass

Note: The antenna gain is 5.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 1M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	4.04	8	Pass
19	2440	3.65	8	Pass
39	2480	-1.64	8	Pass

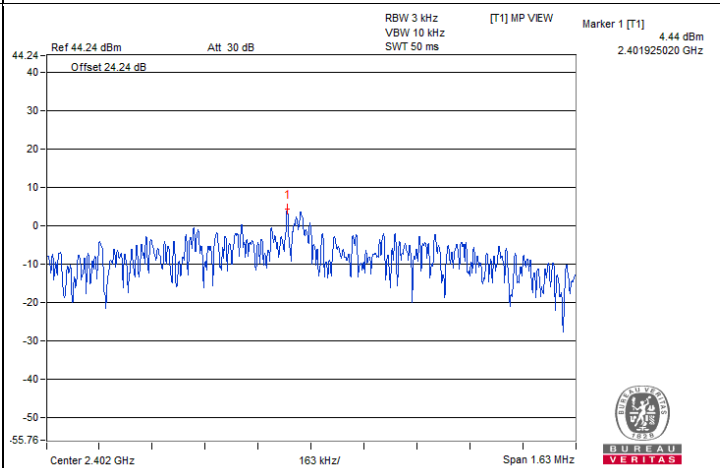
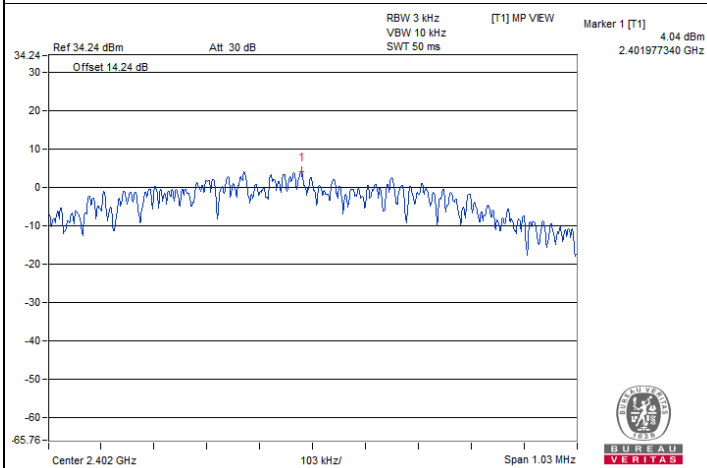
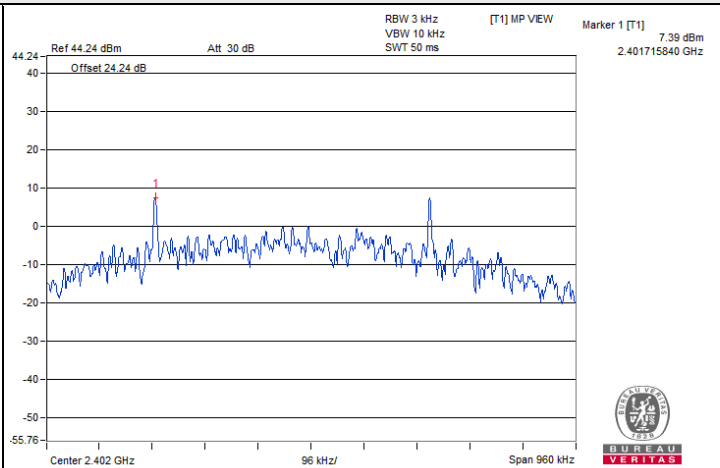
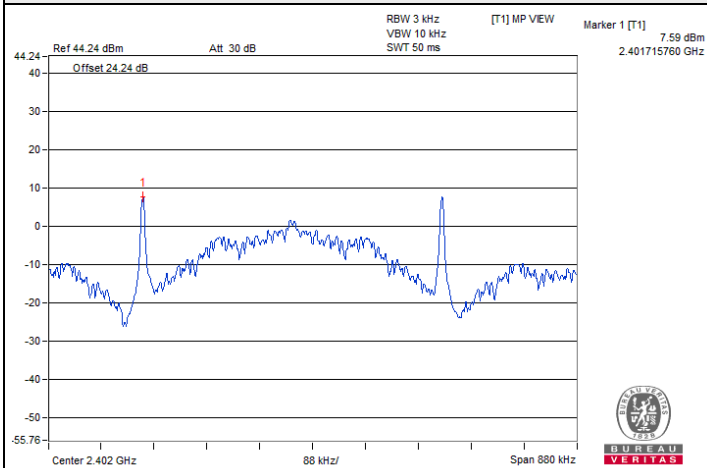
Note: The antenna gain is 5.1 dBi $\leq$ 6 dBi, so the power density limit shall not be reduced.

BT-LE 2M

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
0	2402	4.44	8	Pass
19	2440	4.37	8	Pass
39	2480	-6.35	8	Pass

Note: The antenna gain is 5.1 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:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode A

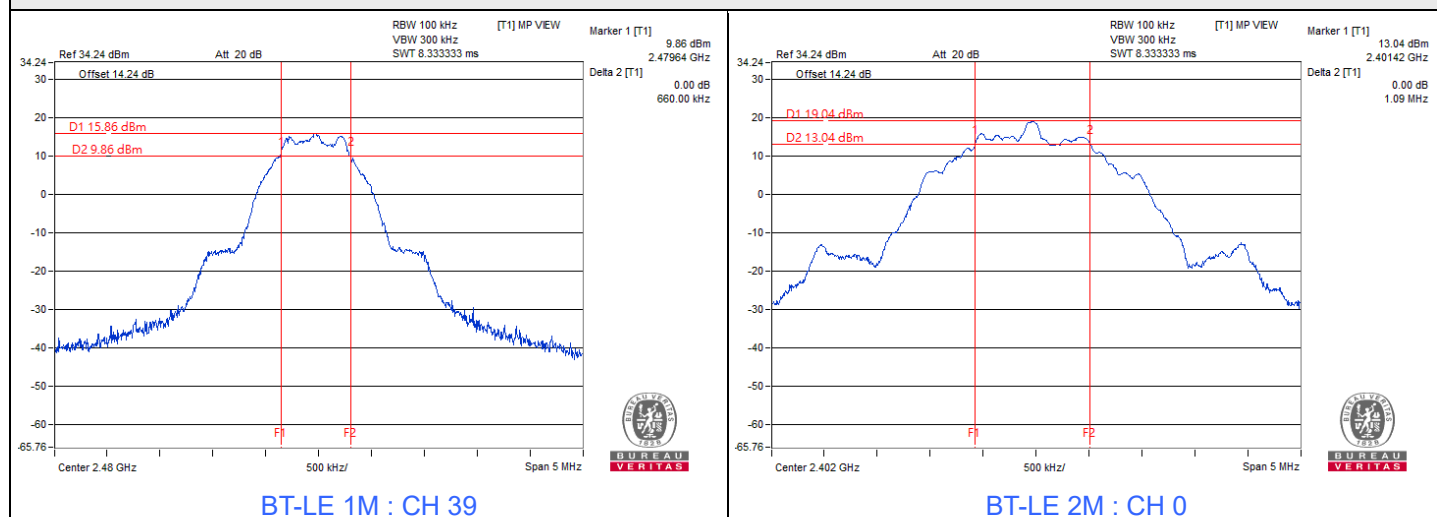
BT-LE 1M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	0.68	0.5	Pass
19	2440	0.67	0.5	Pass
39	2480	0.66	0.5	Pass

BT-LE 2M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	1.09	0.5	Pass
19	2440	1.09	0.5	Pass
39	2480	1.1	0.5	Pass

Spectrum Plot of Minimum Value



Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode B

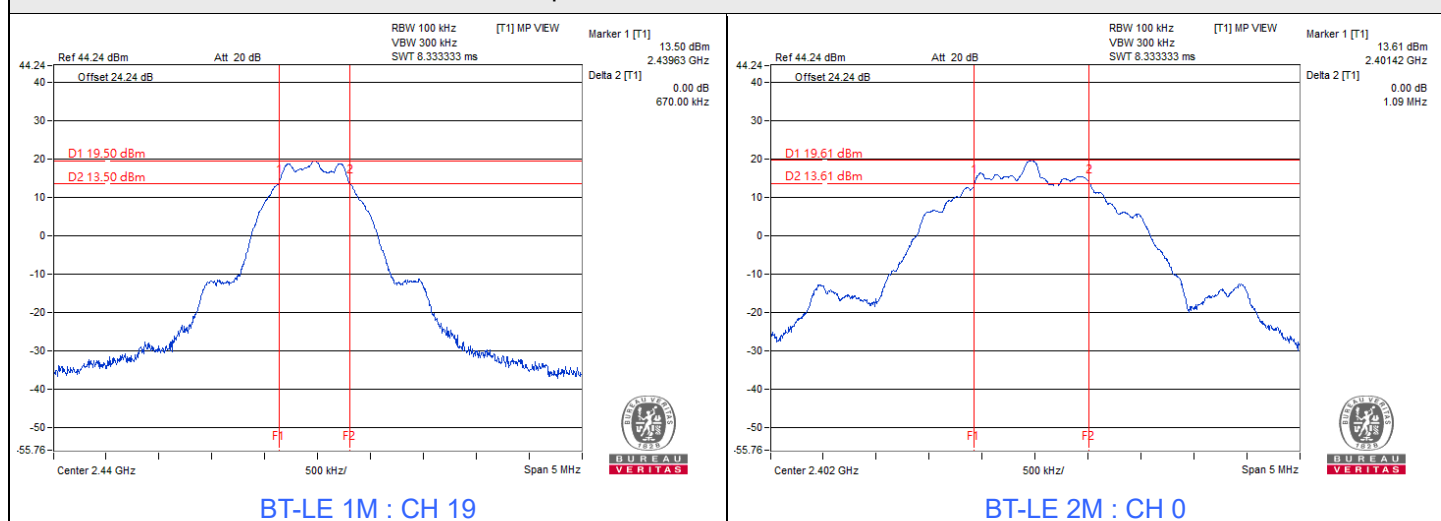
BT-LE 1M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	0.69	0.5	Pass
19	2440	0.67	0.5	Pass
39	2480	0.69	0.5	Pass

BT-LE 2M

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
0	2402	1.09	0.5	Pass
19	2440	1.1	0.5	Pass
39	2480	1.09	0.5	Pass

Spectrum Plot of Minimum Value

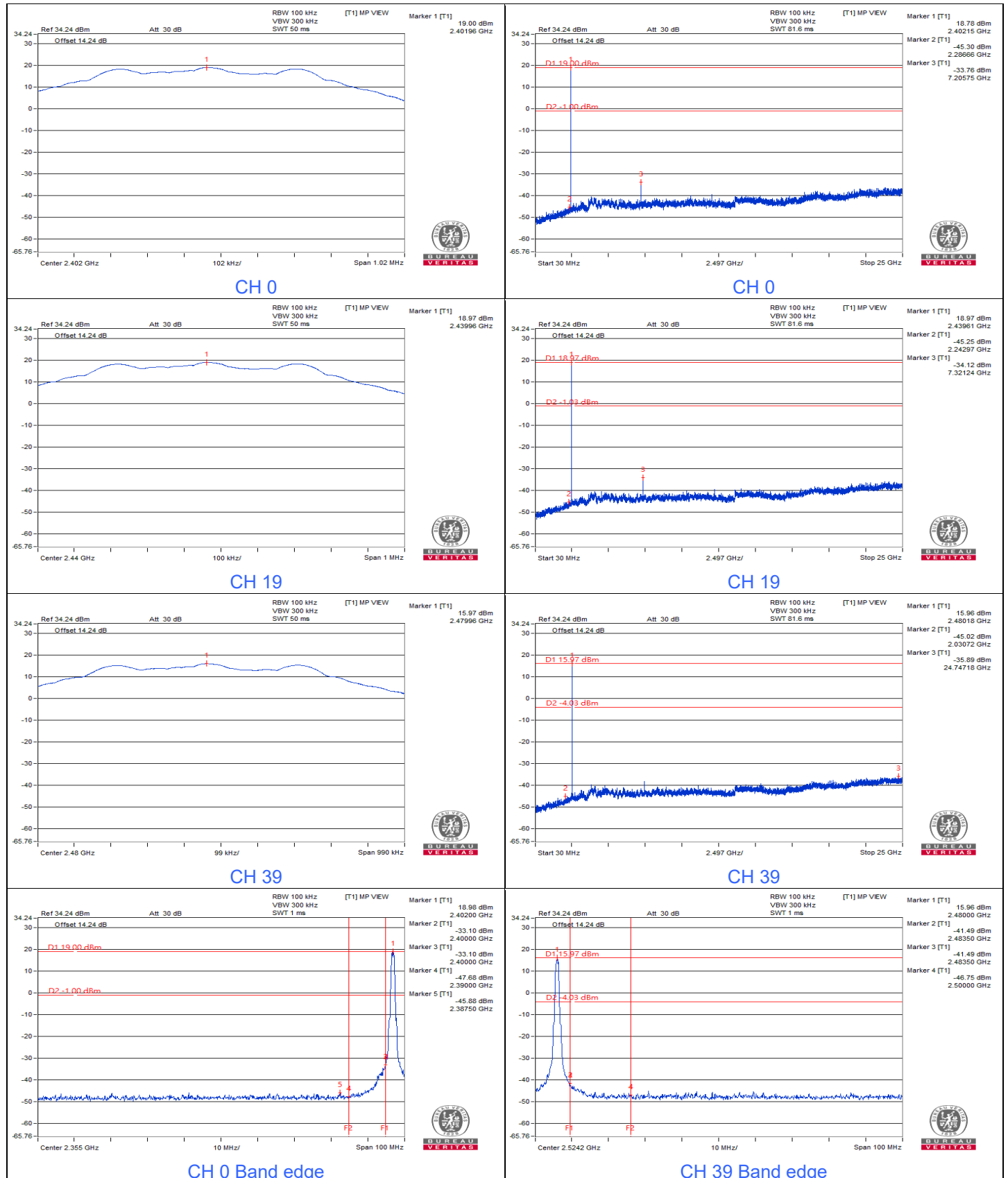


7.4 Conducted Out of Band Emissions

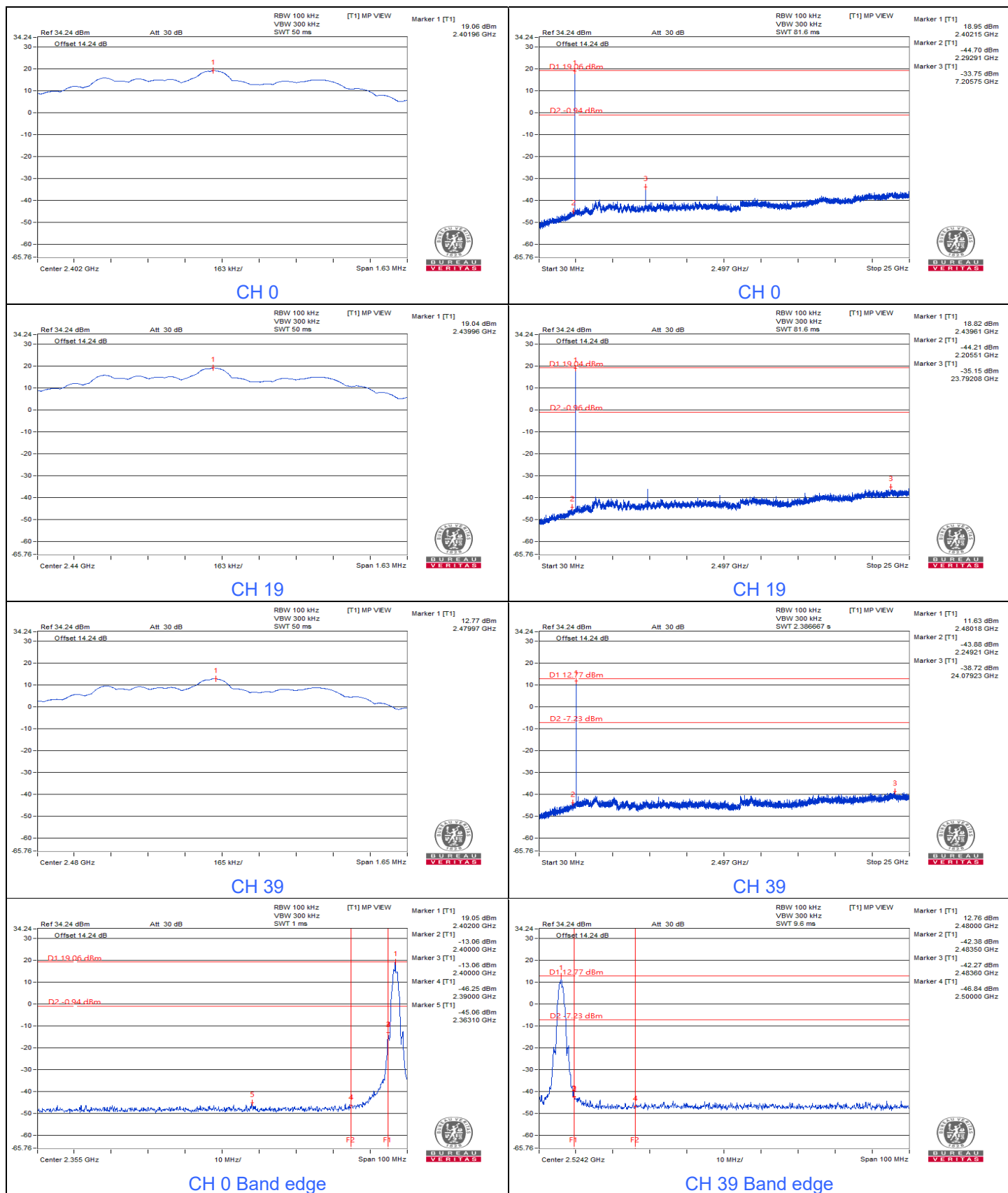
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode A

BT-LE 1M



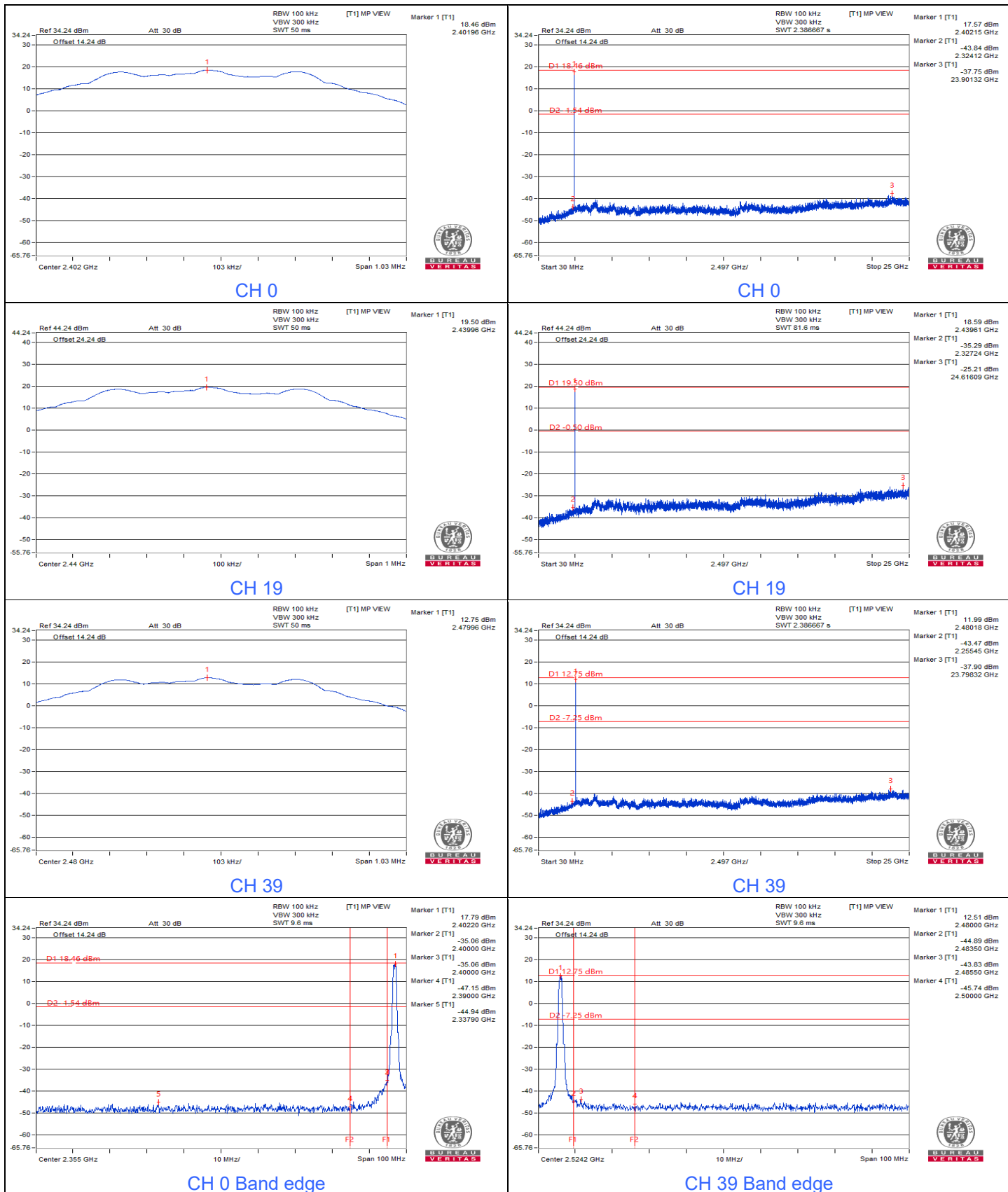
BT-LE 2M



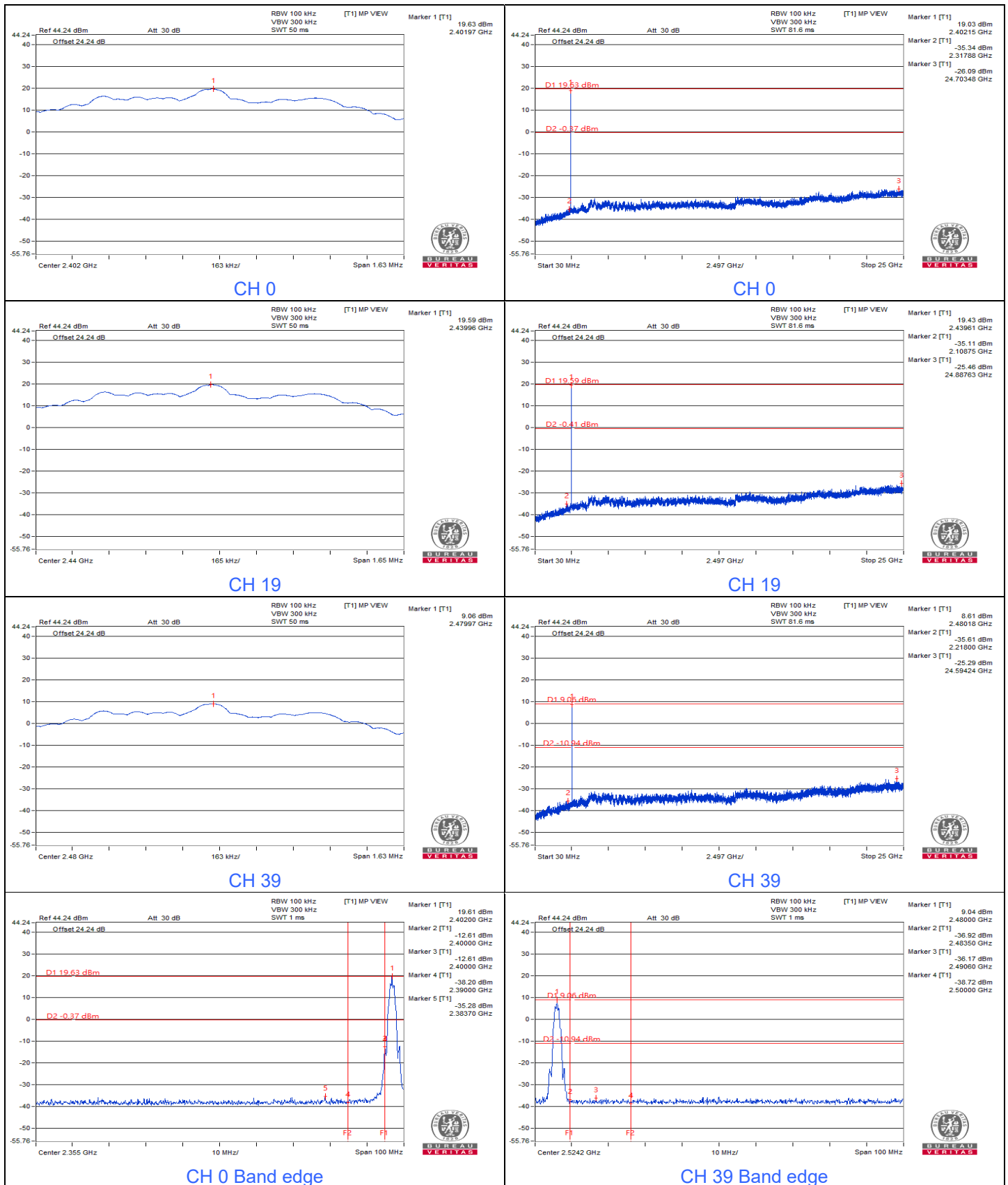
Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 63% RH	Tested By:	Dolly Chung
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Mode B

BT-LE 1M



BT-LE 2M



7.5 AC Power Conducted Emissions

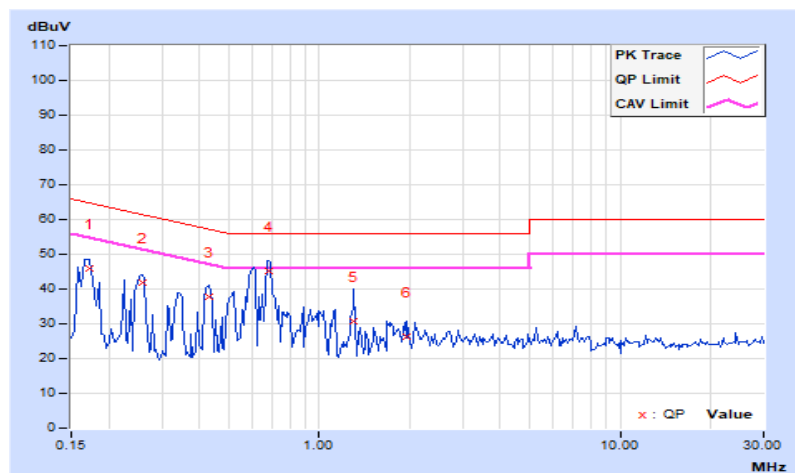
Mode A

RF Mode	BT-LE 2M	Channel	CH 0 : 2402 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	25 °C, 75% RH
Tested By	Louis Yang		

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	0.17344	10.01	35.90	22.05	45.91	32.06	64.79	54.79	-18.88	-22.73
2	0.25938	10.03	31.82	18.56	41.85	28.59	61.45	51.45	-19.60	-22.86
3	0.43125	10.04	27.59	15.35	37.63	25.39	57.23	47.23	-19.60	-21.84
4	0.67734	10.06	35.22	23.93	45.28	33.99	56.00	46.00	-10.72	-12.01
5	1.30469	10.11	20.49	3.18	30.60	13.29	56.00	46.00	-25.40	-32.71
6	1.96094	10.16	16.16	6.73	26.32	16.89	56.00	46.00	-29.68	-29.11

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

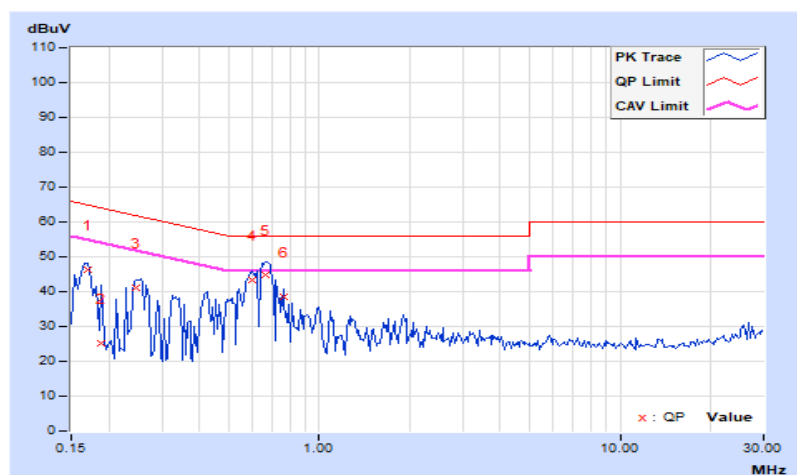


RF Mode	BT-LE 2M	Channel	CH 0 : 2402 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Louis Yang		

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	0.16953	10.01	36.41	24.17	46.42	34.18	64.98	54.98	-18.56	-20.80
2	0.18906	10.02	15.18	-6.10	25.20	3.92	64.08	54.08	-38.88	-50.16
3	0.24766	10.02	30.96	18.07	40.98	28.09	61.84	51.84	-20.86	-23.75
4	0.59922	10.02	33.13	19.53	43.15	29.55	56.00	46.00	-12.85	-16.45
5	0.66563	10.02	34.89	24.11	44.91	34.13	56.00	46.00	-11.09	-11.87
6	0.76328	10.03	28.33	27.60	38.36	37.63	56.00	46.00	-17.64	-8.37

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



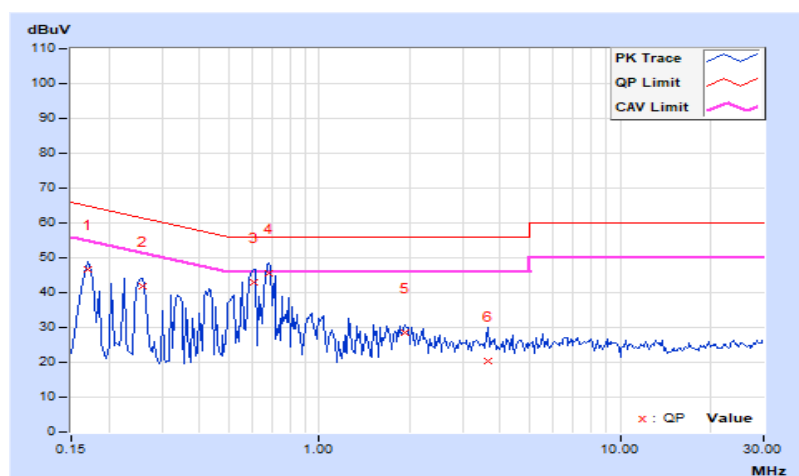
Mode B

RF Mode	BT-LE 2M	Channel	CH 0 : 2402 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	25 °C, 75% RH
Tested By	Louis Yang		

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	0.16953	10.01	36.53	24.21	46.54	34.22	64.98	54.98	-18.44	-20.76
2	0.25938	10.03	31.76	18.78	41.79	28.81	61.45	51.45	-19.66	-22.64
3	0.60313	10.06	32.99	21.92	43.05	31.98	56.00	46.00	-12.95	-14.02
4	0.67734	10.06	35.52	24.31	45.58	34.37	56.00	46.00	-10.42	-11.63
5	1.92969	10.16	18.44	7.45	28.60	17.61	56.00	46.00	-27.40	-28.39
6	3.62109	10.27	9.97	1.54	20.24	11.81	56.00	46.00	-35.76	-34.19

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

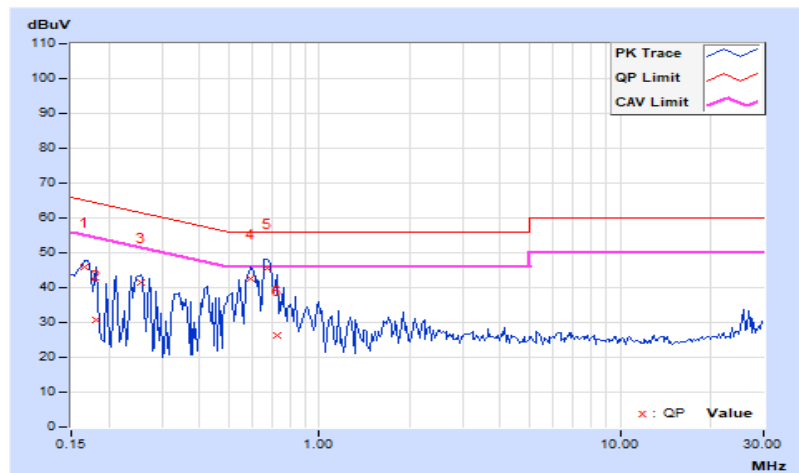


RF Mode	BT-LE 2M	Channel	CH 0 : 2402 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Louis Yang		

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	0.16562	10.01	36.10	23.22	46.11	33.23	65.18	55.18	-19.07	-21.95
2	0.18125	10.01	20.81	-2.54	30.82	7.47	64.43	54.43	-33.61	-46.96
3	0.25547	10.01	31.37	20.22	41.38	30.23	61.58	51.58	-20.20	-21.35
4	0.59531	10.02	32.71	22.81	42.73	32.83	56.00	46.00	-13.27	-13.17
5	0.66953	10.02	35.50	24.82	45.52	34.84	56.00	46.00	-10.48	-11.16
6	0.72422	10.03	16.42	-5.49	26.45	4.54	56.00	46.00	-29.55	-41.46

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

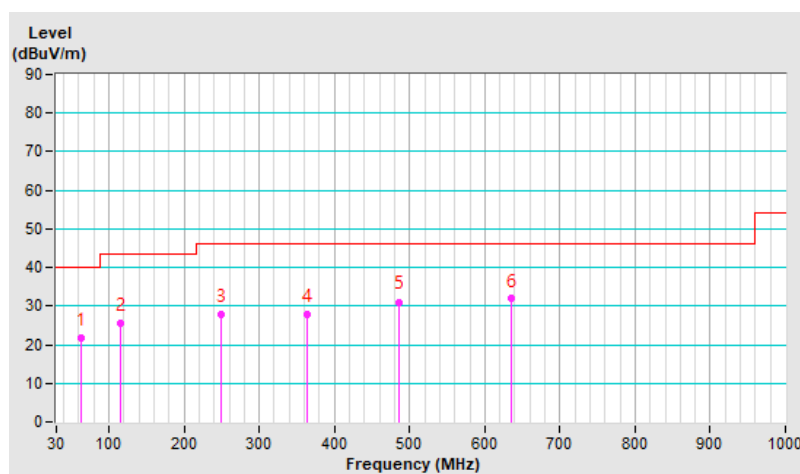
Mode A

RF Mode	BT-LE 2M	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, 68% RH
Tested By	Louis Yang		

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	63.51	21.8 QP	40.0	-18.2	3.00 H	242	35.4	-13.6
2	115.31	25.4 QP	43.5	-18.1	3.00 H	88	40.4	-15.0
3	250.02	27.8 QP	46.0	-18.2	1.00 H	86	41.3	-13.5
4	364.41	27.9 QP	46.0	-18.1	1.00 H	127	38.1	-10.2
5	485.85	31.1 QP	46.0	-14.9	2.00 H	170	38.1	-7.0
6	634.65	31.8 QP	46.0	-14.2	1.50 H	186	35.5	-3.7

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 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.

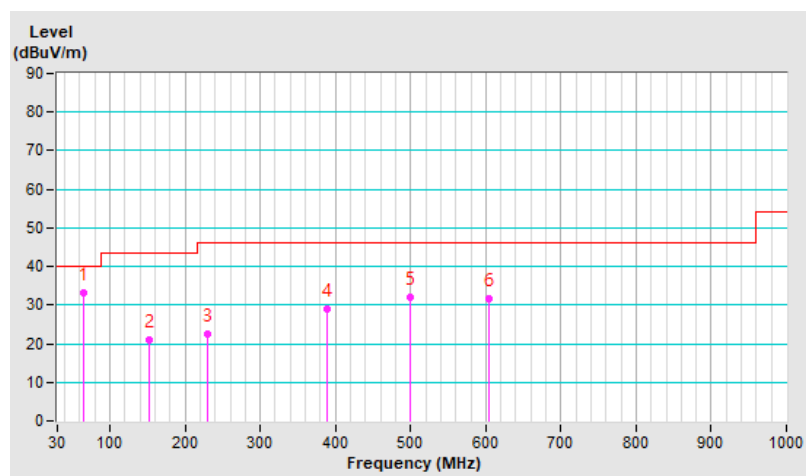


RF Mode	BT-LE 2M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 68% RH
Tested By	Louis Yang		

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	63.97	33.0 QP	40.0	-7.0	1.00 V	14	46.6	-13.6
2	151.30	21.1 QP	43.5	-22.4	1.50 V	215	33.4	-12.3
3	230.21	22.3 QP	46.0	-23.7	1.00 V	272	37.2	-14.9
4	388.66	29.0 QP	46.0	-17.0	1.00 V	74	38.2	-9.2
5	499.96	32.0 QP	46.0	-14.0	1.00 V	119	38.8	-6.8
6	604.89	31.7 QP	46.0	-14.3	1.00 V	156	35.7	-4.0

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.



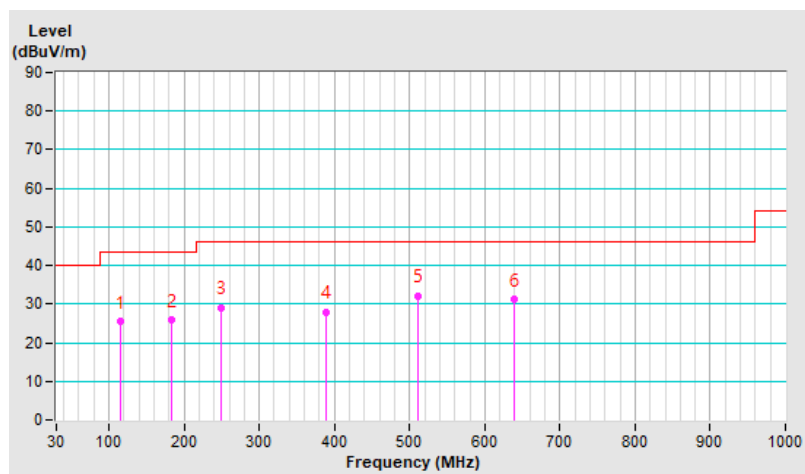
Mode B

RF Mode	BT-LE 2M	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, 68% RH
Tested By	Louis Yang		

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	116.04	25.4 QP	43.5	-18.1	2.00 H	115	40.3	-14.9
2	183.43	26.0 QP	43.5	-17.5	1.50 H	267	40.6	-14.6
3	250.02	29.2 QP	46.0	-16.8	1.00 H	88	42.7	-13.5
4	388.85	28.0 QP	46.0	-18.0	1.00 H	254	37.2	-9.2
5	510.17	32.2 QP	46.0	-13.8	1.50 H	181	38.8	-6.6
6	638.63	31.4 QP	46.0	-14.6	1.50 H	178	35.1	-3.7

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 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.

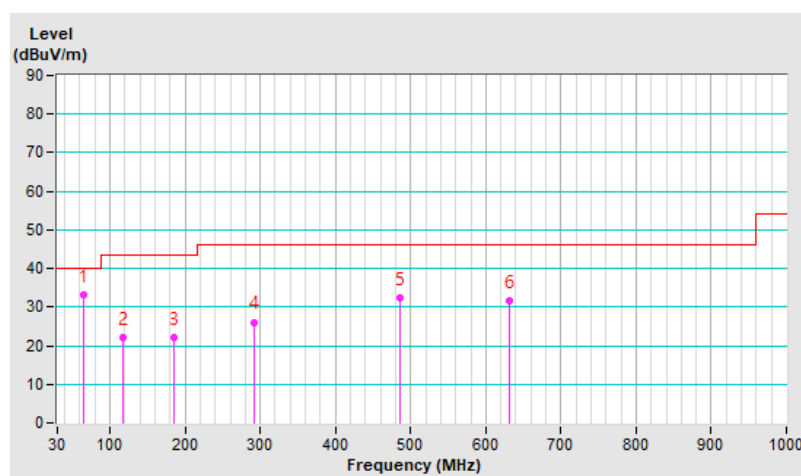


RF Mode	BT-LE 2M	Channel	CH 0 : 2402 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 68% RH
Tested By	Louis Yang		

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	63.97	33.1 QP	40.0	-6.9	1.50 V	127	46.7	-13.6
2	116.79	22.1 QP	43.5	-21.4	1.00 V	206	36.9	-14.8
3	185.10	22.2 QP	43.5	-21.3	1.00 V	185	37.0	-14.8
4	291.49	26.1 QP	46.0	-19.9	1.50 V	121	38.0	-11.9
5	485.90	32.3 QP	46.0	-13.7	1.00 V	104	39.3	-7.0
6	631.86	31.6 QP	46.0	-14.4	1.00 V	103	35.4	-3.8

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

Mode A

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 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	55.7 PK	74.0	-18.3	3.55 H	76	58.8	-3.1
2	2390.00	45.0 AV	54.0	-9.0	3.55 H	76	48.1	-3.1
3	*2402.00	117.3 PK			3.55 H	76	120.5	-3.2
4	*2402.00	116.8 AV			3.55 H	76	120.0	-3.2
5	4804.00	34.8 PK	74.0	-39.2	2.31 H	140	32.6	2.2
6	4804.00	22.9 AV	54.0	-31.1	2.31 H	140	20.7	2.2
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	55.3 PK	74.0	-18.7	2.34 V	295	58.4	-3.1
2	2390.00	43.5 AV	54.0	-10.5	2.34 V	295	46.6	-3.1
3	*2402.00	106.1 PK			2.34 V	295	109.3	-3.2
4	*2402.00	105.5 AV			2.34 V	295	108.7	-3.2
5	4804.00	33.5 PK	74.0	-40.5	1.54 V	98	31.3	2.2
6	4804.00	22.2 AV	54.0	-31.8	1.54 V	98	20.0	2.2

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=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	116.4 PK			3.46 H	76	119.7	-3.3
2	*2440.00	116.0 AV			3.46 H	76	119.3	-3.3
3	4880.00	35.8 PK	74.0	-38.2	2.27 H	146	33.7	2.1
4	4880.00	23.6 AV	54.0	-30.4	2.27 H	146	21.5	2.1
5	7320.00	33.8 PK	74.0	-40.2	1.46 H	26	26.4	7.4
6	7320.00	22.2 AV	54.0	-31.8	1.46 H	26	14.8	7.4
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	113.3 PK			3.16 V	146	116.6	-3.3
2	*2440.00	112.9 AV			3.16 V	146	116.2	-3.3
3	4880.00	33.3 PK	74.0	-40.7	1.52 V	86	31.2	2.1
4	4880.00	21.6 AV	54.0	-32.4	1.52 V	86	19.5	2.1
5	7320.00	33.0 PK	74.0	-41.0	2.49 V	18	25.6	7.4
6	7320.00	20.5 AV	54.0	-33.5	2.49 V	18	13.1	7.4

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=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	106.8 PK			3.48 H	93	109.9	-3.1
2	*2480.00	105.6 AV			3.48 H	93	108.7	-3.1
3	2483.50	57.6 PK	74.0	-16.4	3.48 H	93	60.7	-3.1
4	2483.50	49.8 AV	54.0	-4.2	3.48 H	93	52.9	-3.1
5	4960.00	34.9 PK	74.0	-39.1	2.31 H	123	32.5	2.4
6	4960.00	22.9 AV	54.0	-31.1	2.31 H	123	20.5	2.4
7	7440.00	33.9 PK	74.0	-40.1	1.51 H	17	26.2	7.7
8	7440.00	22.1 AV	54.0	-31.9	1.51 H	17	14.4	7.7
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	*2480.00	104.9 PK			3.45 V	128	108.0	-3.1
2	*2480.00	104.4 AV			3.45 V	128	107.5	-3.1
3	2483.50	56.1 PK	74.0	-17.9	3.45 V	128	59.2	-3.1
4	2483.50	45.4 AV	54.0	-8.6	3.45 V	128	48.5	-3.1
5	4960.00	33.0 PK	74.0	-41.0	1.58 V	108	30.6	2.4
6	4960.00	21.5 AV	54.0	-32.5	1.58 V	108	19.1	2.4
7	7440.00	33.3 PK	74.0	-40.7	2.51 V	28	25.6	7.7
8	7440.00	21.1 AV	54.0	-32.9	2.51 V	28	13.4	7.7

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.

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=5.1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	57.1 PK	74.0	-16.9	2.53 H	64	60.2	-3.1
2	2390.00	46.1 AV	54.0	-7.9	2.53 H	64	49.2	-3.1
3	*2402.00	118.5 PK			2.53 H	64	121.7	-3.2
4	*2402.00	115.7 AV			2.53 H	64	118.9	-3.2
5	4804.00	35.6 PK	74.0	-38.4	2.22 H	128	33.4	2.2
6	4804.00	23.8 AV	54.0	-30.2	2.22 H	128	21.6	2.2
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	54.3 PK	74.0	-19.7	1.50 V	101	57.4	-3.1
2	2390.00	44.1 AV	54.0	-9.9	1.50 V	101	47.2	-3.1
3	*2402.00	103.1 PK			1.50 V	101	106.3	-3.2
4	*2402.00	100.7 AV			1.50 V	101	103.9	-3.2
5	4804.00	33.5 PK	74.0	-40.5	1.52 V	90	31.3	2.2
6	4804.00	22.0 AV	54.0	-32.0	1.52 V	90	19.8	2.2

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=5.1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	116.8 PK			3.56 H	67	120.1	-3.3
2	*2440.00	114.4 AV			3.56 H	67	117.7	-3.3
3	4880.00	35.1 PK	74.0	-38.9	2.23 H	142	33.0	2.1
4	4880.00	22.9 AV	54.0	-31.1	2.23 H	142	20.8	2.1
5	7320.00	33.7 PK	74.0	-40.3	1.46 H	39	26.3	7.4
6	7320.00	21.8 AV	54.0	-32.2	1.46 H	39	14.4	7.4
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	108.4 PK			3.06 V	148	111.7	-3.3
2	*2440.00	106.1 AV			3.06 V	148	109.4	-3.3
3	4880.00	33.3 PK	74.0	-40.7	1.58 V	81	31.2	2.1
4	4880.00	21.9 AV	54.0	-32.1	1.58 V	81	19.8	2.1
5	7320.00	33.2 PK	74.0	-40.8	2.48 V	0	25.8	7.4
6	7320.00	20.9 AV	54.0	-33.1	2.48 V	0	13.5	7.4

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=5.1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	106.0 PK			3.90 H	94	109.1	-3.1
2	*2480.00	104.9 AV			3.90 H	94	108.0	-3.1
3	2483.50	58.3 PK	74.0	-15.7	3.90 H	94	61.4	-3.1
4	2483.50	47.9 AV	54.0	-6.1	3.90 H	94	51.0	-3.1
5	4960.00	35.8 PK	74.0	-38.2	2.26 H	150	33.4	2.4
6	4960.00	23.7 AV	54.0	-30.3	2.26 H	150	21.3	2.4
7	7440.00	34.0 PK	74.0	-40.0	1.52 H	29	26.3	7.7
8	7440.00	22.0 AV	54.0	-32.0	1.52 H	29	14.3	7.7
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	*2480.00	105.1 PK			3.44 V	127	108.2	-3.1
2	*2480.00	102.7 AV			3.44 V	127	105.8	-3.1
3	2483.50	58.0 PK	74.0	-16.0	3.44 V	127	61.1	-3.1
4	2483.50	48.0 AV	54.0	-6.0	3.44 V	127	51.1	-3.1
5	4960.00	33.3 PK	74.0	-40.7	1.58 V	88	30.9	2.4
6	4960.00	22.2 AV	54.0	-31.8	1.58 V	88	19.8	2.4
7	7440.00	33.7 PK	74.0	-40.3	2.58 V	1	26.0	7.7
8	7440.00	21.1 AV	54.0	-32.9	2.58 V	1	13.4	7.7

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.

Mode B

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 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	57.0 PK	74.0	-17.0	1.23 H	119	60.1	-3.1
2	2390.00	46.0 AV	54.0	-8.0	1.23 H	119	49.1	-3.1
3	*2402.00	118.3 PK			1.23 H	119	121.5	-3.2
4	*2402.00	117.8 AV			1.23 H	119	121.0	-3.2
5	4804.00	35.7 PK	74.0	-38.3	2.22 H	120	33.5	2.2
6	4804.00	24.2 AV	54.0	-29.8	2.22 H	120	22.0	2.2
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	56.3 PK	74.0	-17.7	3.58 V	125	59.4	-3.1
2	2390.00	44.6 AV	54.0	-9.4	3.58 V	125	47.7	-3.1
3	*2402.00	115.0 PK			3.58 V	125	118.2	-3.2
4	*2402.00	114.4 AV			3.58 V	125	117.6	-3.2
5	4804.00	32.9 PK	74.0	-41.1	1.52 V	103	30.7	2.2
6	4804.00	21.7 AV	54.0	-32.3	1.52 V	103	19.5	2.2

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=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	116.6 PK			1.05 H	114	119.9	-3.3
2	*2440.00	116.1 AV			1.05 H	114	119.4	-3.3
3	4880.00	35.5 PK	74.0	-38.5	2.27 H	134	33.4	2.1
4	4880.00	23.4 AV	54.0	-30.6	2.27 H	134	21.3	2.1
5	7320.00	33.8 PK	74.0	-40.2	1.51 H	29	26.4	7.4
6	7320.00	22.0 AV	54.0	-32.0	1.51 H	29	14.6	7.4
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	114.3 PK			3.92 V	124	117.6	-3.3
2	*2440.00	113.8 AV			3.92 V	124	117.1	-3.3
3	4880.00	34.0 PK	74.0	-40.0	1.61 V	81	31.9	2.1
4	4880.00	22.5 AV	54.0	-31.5	1.61 V	81	20.4	2.1
5	7320.00	33.0 PK	74.0	-41.0	2.63 V	21	25.6	7.4
6	7320.00	20.5 AV	54.0	-33.5	2.63 V	21	13.1	7.4

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=3 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	116.4 PK			1.19 H	116	119.5	-3.1
2	*2480.00	111.0 AV			1.19 H	116	114.1	-3.1
3	2483.50	63.1 PK	74.0	-10.9	1.19 H	116	66.2	-3.1
4	2483.50	52.0 AV	54.0	-2.0	1.19 H	116	55.1	-3.1
5	4960.00	35.4 PK	74.0	-38.6	2.23 H	125	33.0	2.4
6	4960.00	23.7 AV	54.0	-30.3	2.23 H	125	21.3	2.4
7	7440.00	33.2 PK	74.0	-40.8	1.51 H	34	25.5	7.7
8	7440.00	21.3 AV	54.0	-32.7	1.51 H	34	13.6	7.7
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	*2480.00	111.5 PK			3.35 V	126	114.6	-3.1
2	*2480.00	110.9 AV			3.35 V	126	114.0	-3.1
3	2483.50	61.6 PK	74.0	-12.4	3.35 V	126	64.7	-3.1
4	2483.50	51.8 AV	54.0	-2.2	3.35 V	126	54.9	-3.1
5	4960.00	33.2 PK	74.0	-40.8	1.55 V	96	30.8	2.4
6	4960.00	21.8 AV	54.0	-32.2	1.55 V	96	19.4	2.4
7	7440.00	33.1 PK	74.0	-40.9	2.53 V	14	25.4	7.7
8	7440.00	20.7 AV	54.0	-33.3	2.53 V	14	13.0	7.7

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.

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=5.1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	55.8 PK	74.0	-18.2	1.56 H	111	58.9	-3.1
2	2390.00	46.4 AV	54.0	-7.6	1.56 H	111	49.5	-3.1
3	*2402.00	116.9 PK			1.56 H	111	120.1	-3.2
4	*2402.00	114.4 AV			1.56 H	111	117.6	-3.2
5	4804.00	35.3 PK	74.0	-38.7	2.26 H	131	33.1	2.2
6	4804.00	23.5 AV	54.0	-30.5	2.26 H	131	21.3	2.2
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	55.5 PK	74.0	-18.5	3.48 V	121	58.6	-3.1
2	2390.00	44.6 AV	54.0	-9.4	3.48 V	121	47.7	-3.1
3	*2402.00	113.6 PK			3.48 V	121	116.8	-3.2
4	*2402.00	111.0 AV			3.48 V	121	114.2	-3.2
5	4804.00	32.6 PK	74.0	-41.4	1.43 V	296	30.4	2.2
6	4804.00	21.3 AV	54.0	-32.7	1.43 V	296	19.1	2.2

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=5.1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	116.2 PK			1.21 H	110	119.5	-3.3
2	*2440.00	113.8 AV			1.21 H	110	117.1	-3.3
3	4880.00	35.6 PK	74.0	-38.4	2.23 H	125	33.5	2.1
4	4880.00	23.8 AV	54.0	-30.2	2.23 H	125	21.7	2.1
5	7320.00	33.4 PK	74.0	-40.6	1.55 H	36	26.0	7.4
6	7320.00	21.7 AV	54.0	-32.3	1.55 H	36	14.3	7.4
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	113.9 PK			3.68 V	50	117.2	-3.3
2	*2440.00	111.5 AV			3.68 V	50	114.8	-3.3
3	4880.00	33.4 PK	74.0	-40.6	1.56 V	88	31.3	2.1
4	4880.00	22.1 AV	54.0	-31.9	1.56 V	88	20.0	2.1
5	7320.00	32.8 PK	74.0	-41.2	2.58 V	11	25.4	7.4
6	7320.00	20.3 AV	54.0	-33.7	2.58 V	11	12.9	7.4

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=5.1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	26 °C, 72% RH
Tested By	Louis Yang		

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	104.2 PK			1.37 H	114	107.3	-3.1
2	*2480.00	103.7 AV			1.37 H	114	106.8	-3.1
3	2483.50	57.7 PK	74.0	-16.3	1.37 H	114	60.8	-3.1
4	2483.50	48.8 AV	54.0	-5.2	1.37 H	114	51.9	-3.1
5	4960.00	35.9 PK	74.0	-38.1	2.26 H	128	33.5	2.4
6	4960.00	24.2 AV	54.0	-29.8	2.26 H	128	21.8	2.4
7	7440.00	33.9 PK	74.0	-40.1	1.53 H	26	26.2	7.7
8	7440.00	22.1 AV	54.0	-31.9	1.53 H	26	14.4	7.7
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	*2480.00	104.4 PK			3.42 V	127	107.5	-3.1
2	*2480.00	101.9 AV			3.42 V	127	105.0	-3.1
3	2483.50	61.7 PK	74.0	-12.3	3.42 V	127	64.8	-3.1
4	2483.50	49.5 AV	54.0	-4.5	3.42 V	127	52.6	-3.1
5	4960.00	39.7 PK	74.0	-34.3	2.29 V	34	37.3	2.4
6	4960.00	21.9 AV	54.0	-32.1	2.29 V	34	19.5	2.4
7	7440.00	37.6 PK	74.0	-36.4	1.18 V	149	29.9	7.7
8	7440.00	21.0 AV	54.0	-33.0	1.18 V	149	13.3	7.7

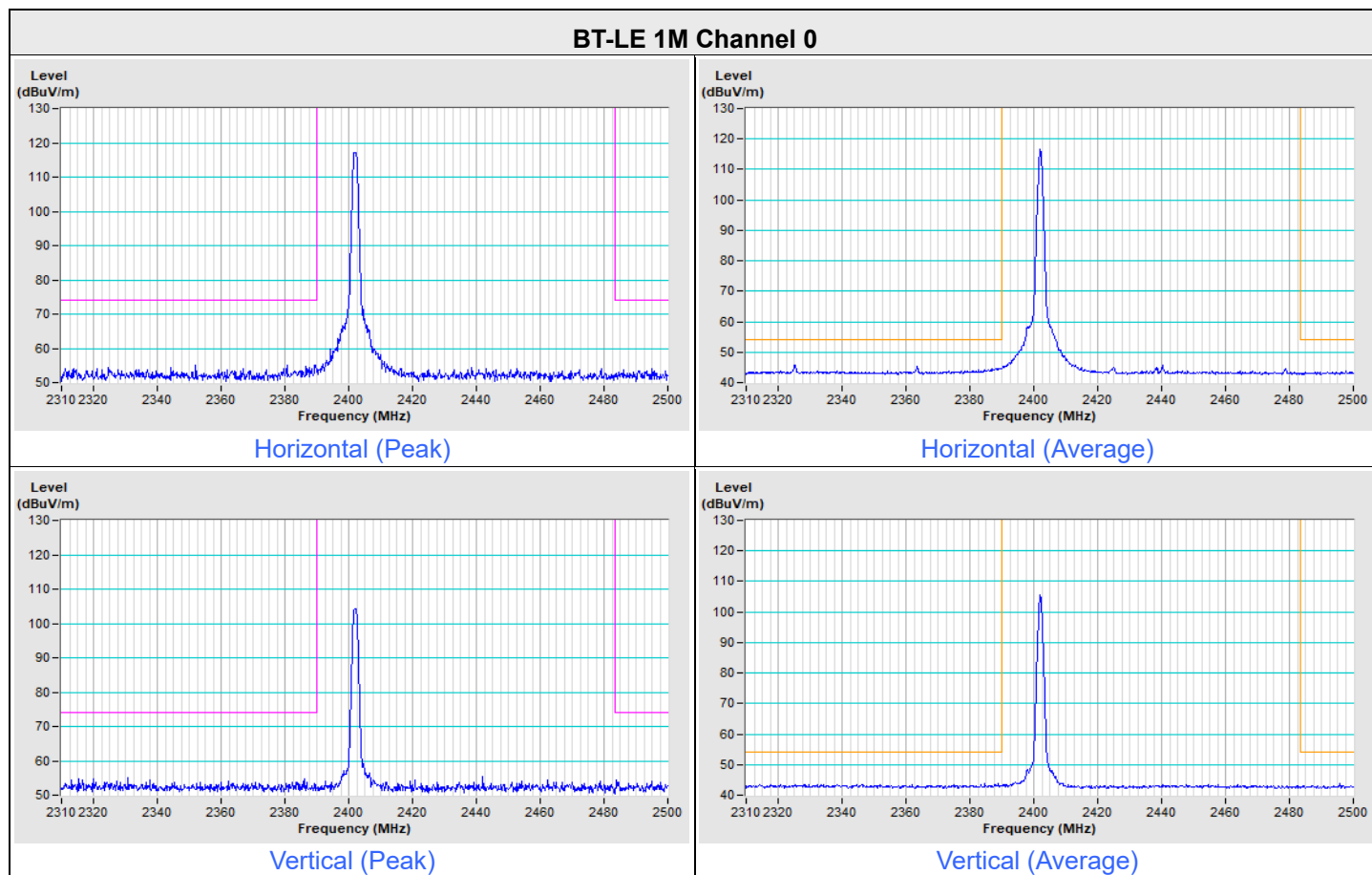
Remarks:

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.

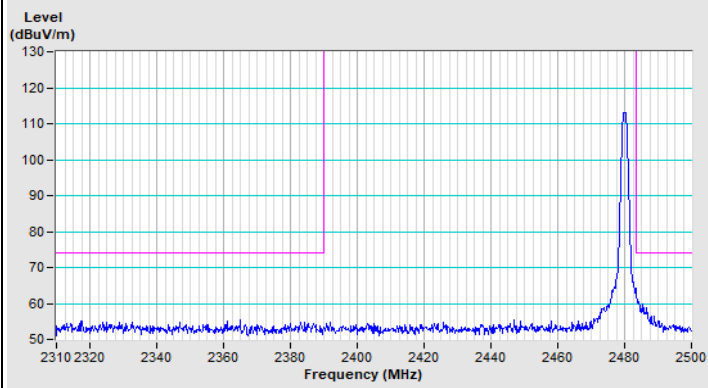
Plot of Band Edge

Mode A

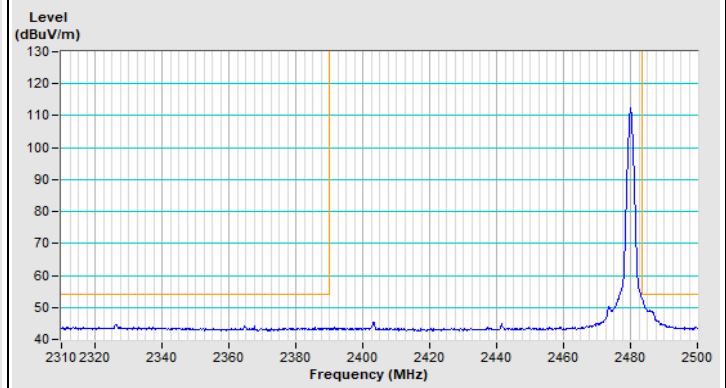
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 kHz, DET=Peak
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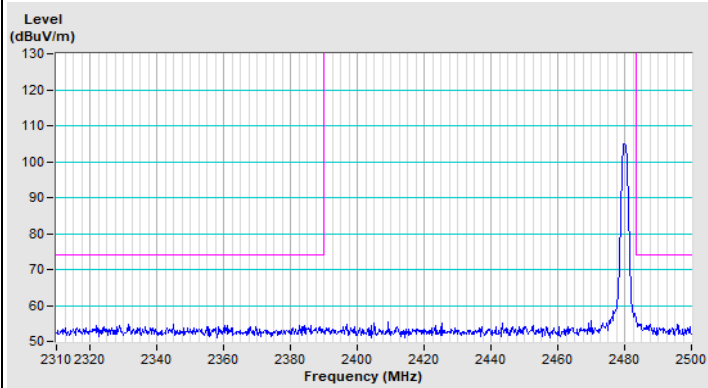
BT-LE 1M Channel 39



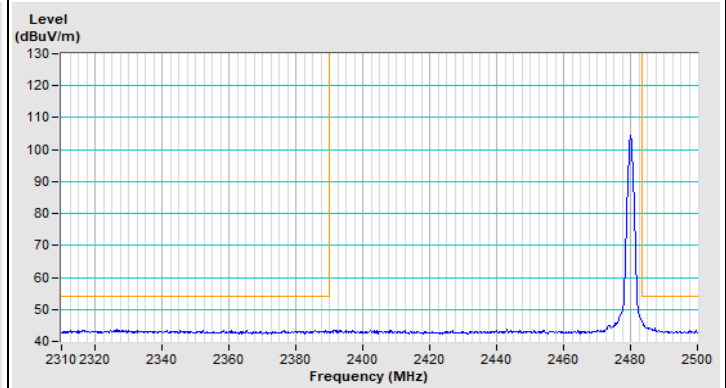
Horizontal (Peak)



Horizontal (Average)



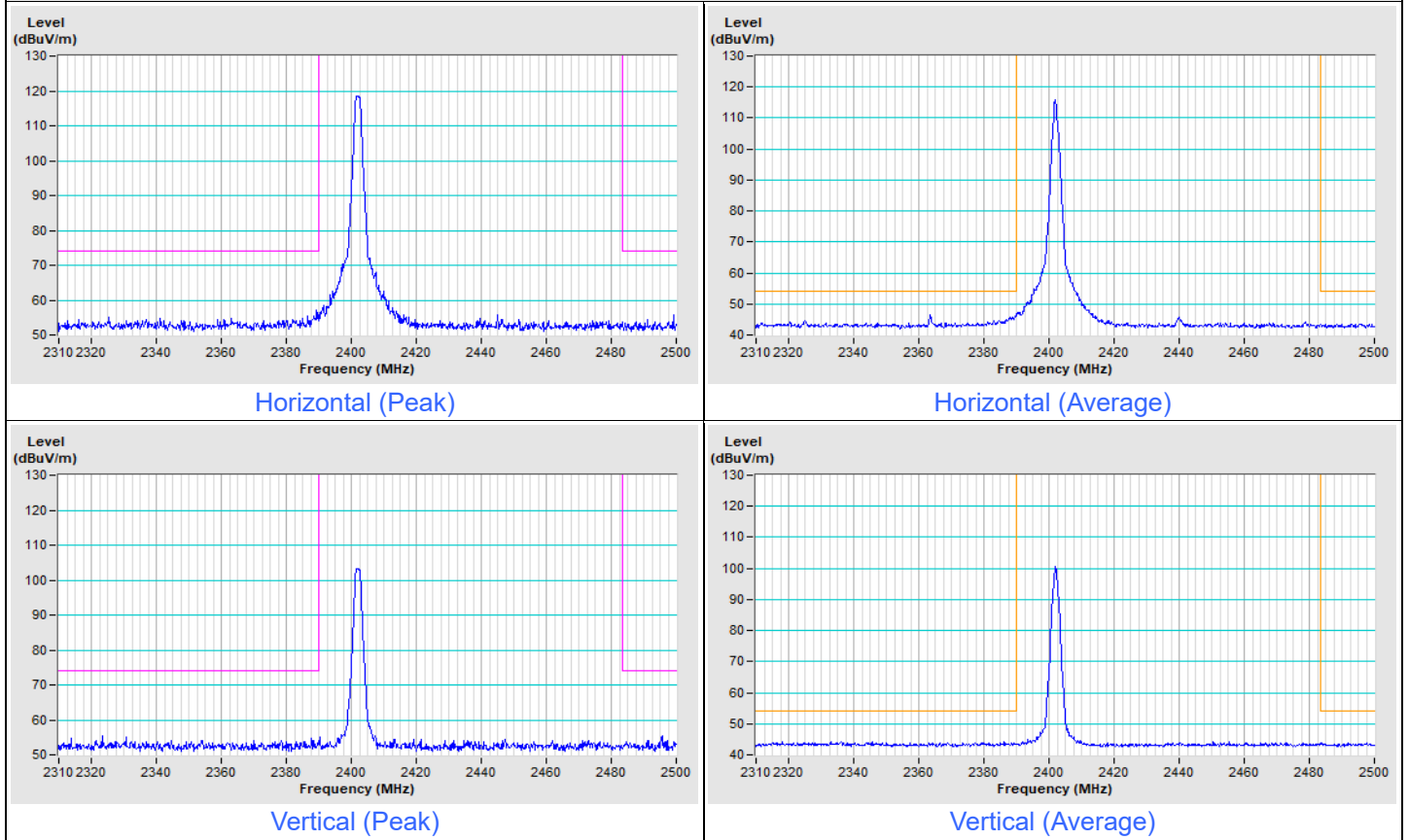
Vertical (Peak)



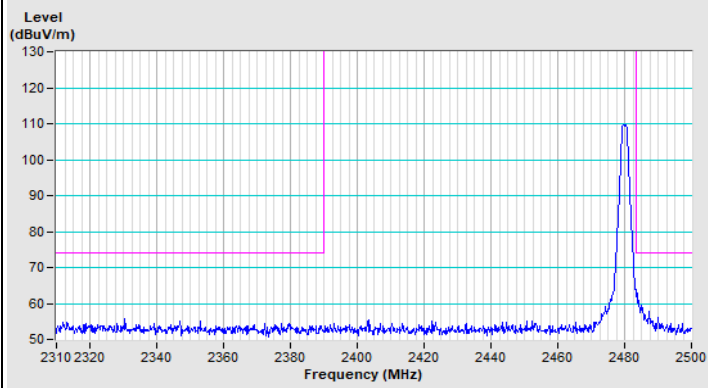
Vertical (Average)

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=5.1 kHz, DET=Peak
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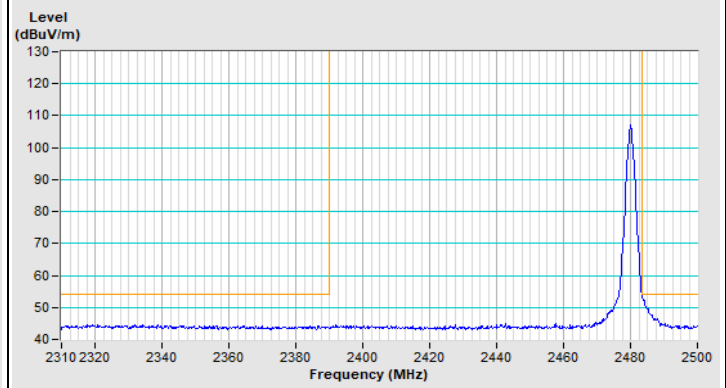
BT-LE 2M Channel 0



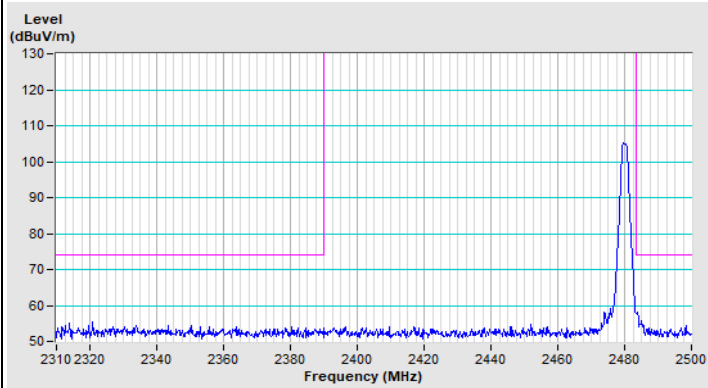
BT-LE 2M Channel 39



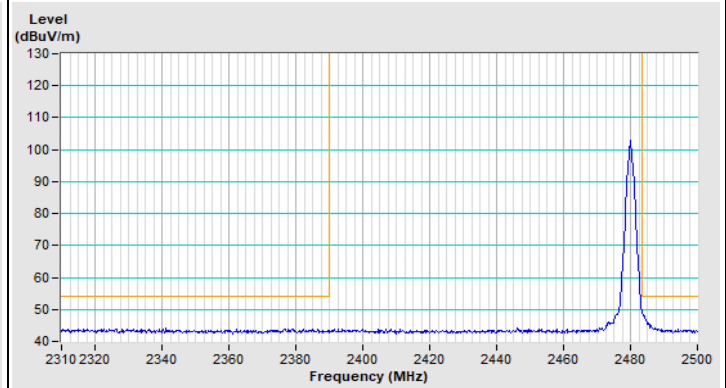
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)

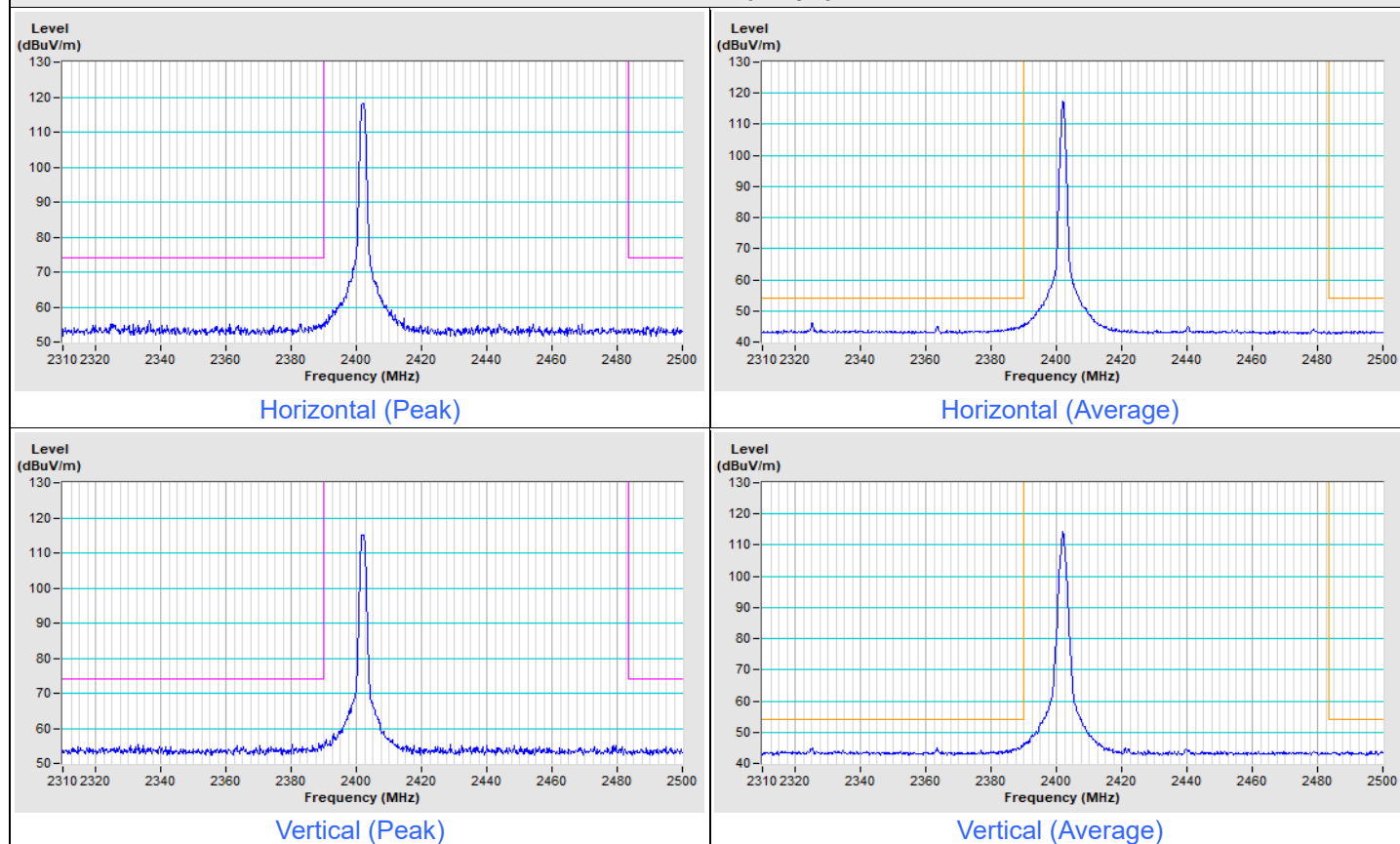


Vertical (Average)

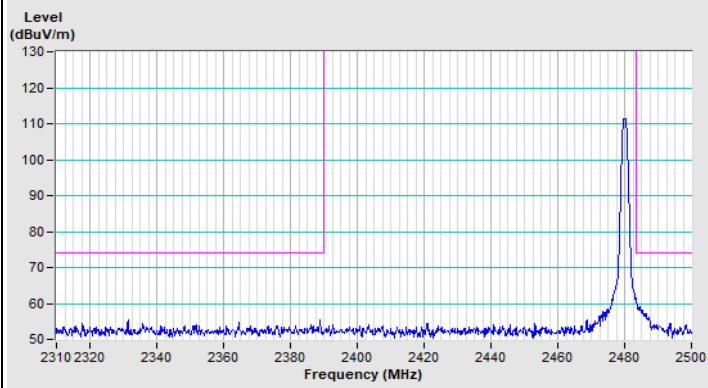
Mode B

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 kHz, DET=Peak
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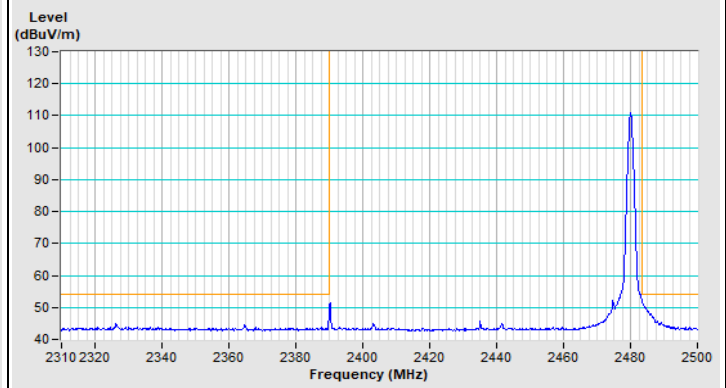
BT-LE 1M Channel 0



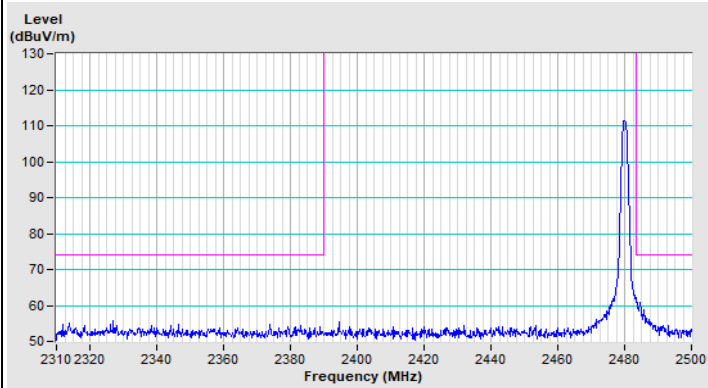
BT-LE 1M Channel 39



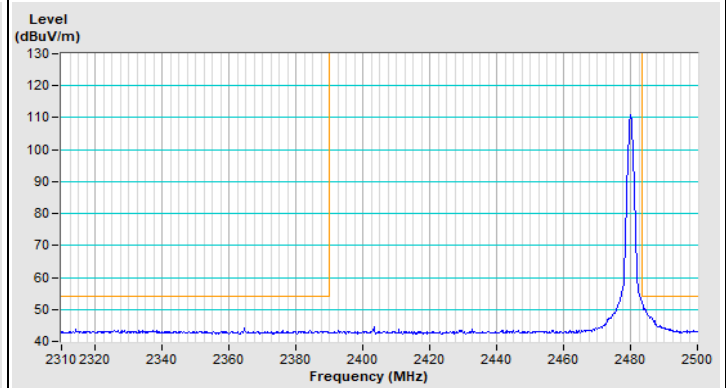
Horizontal (Peak)



Horizontal (Average)



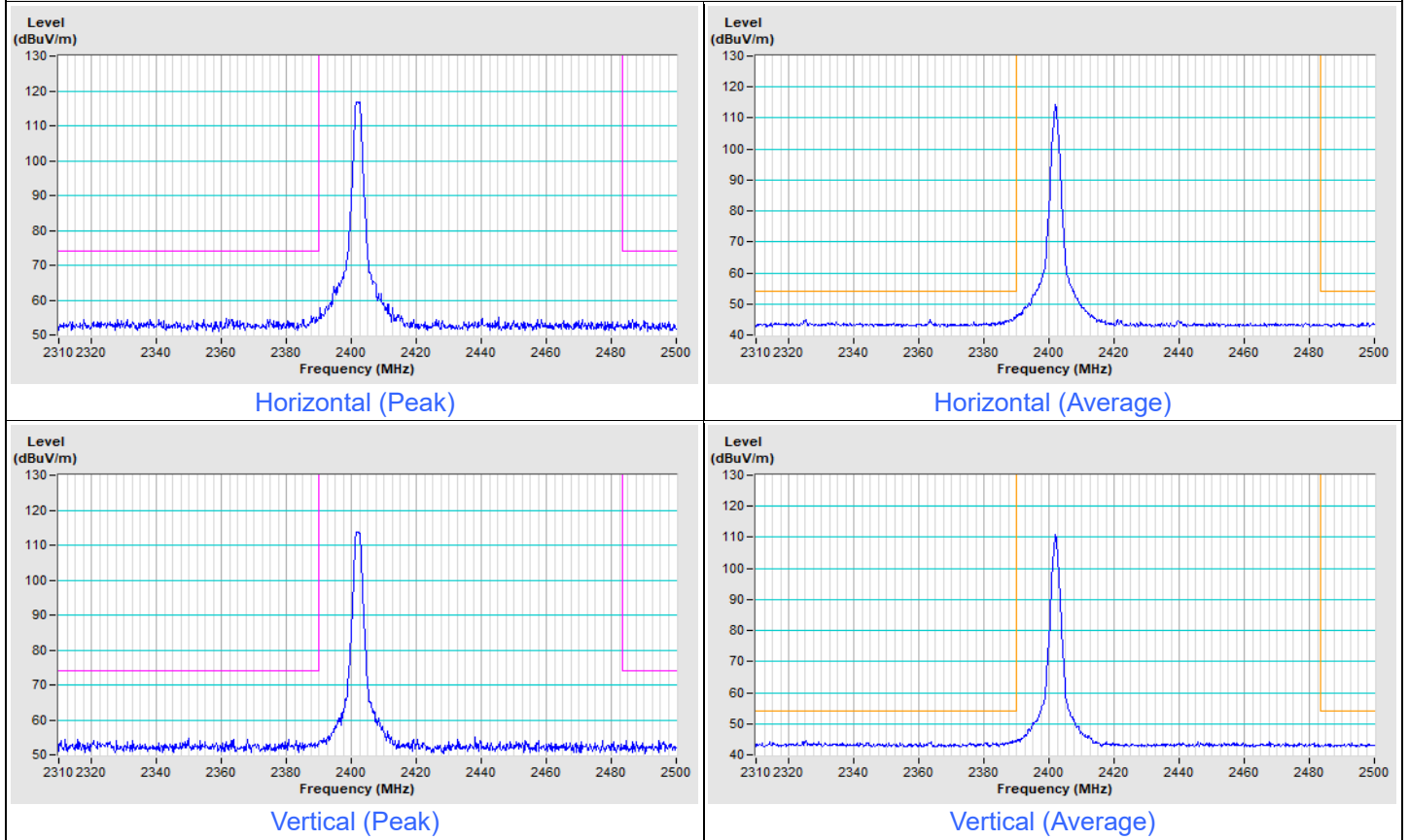
Vertical (Peak)



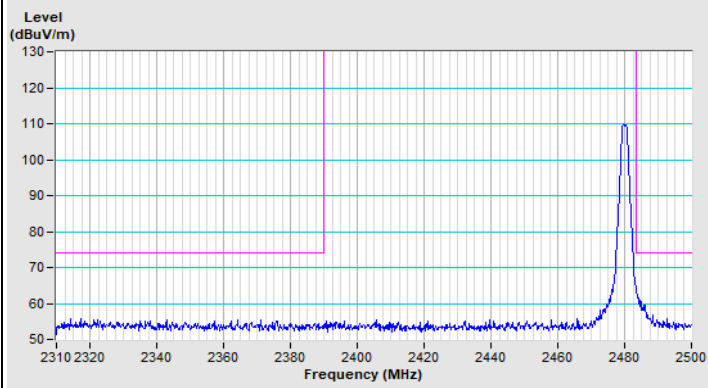
Vertical (Average)

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=5.1 kHz, DET=Peak
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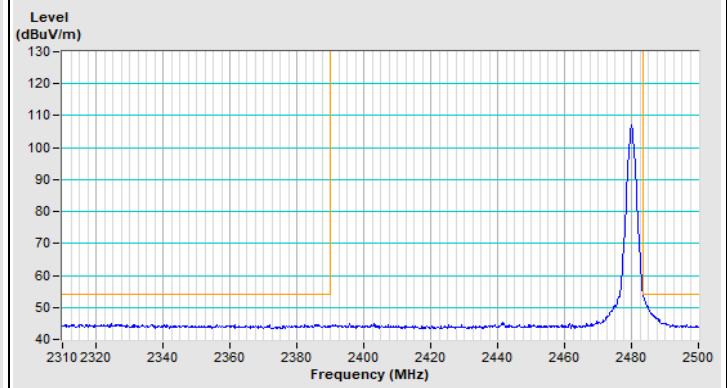
BT-LE 2M Channel 0



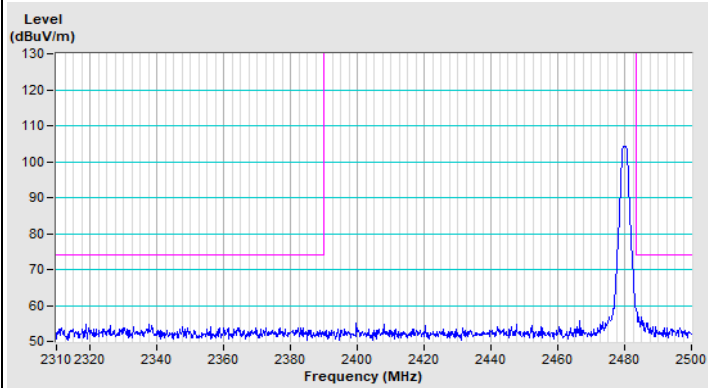
BT-LE 2M Channel 39



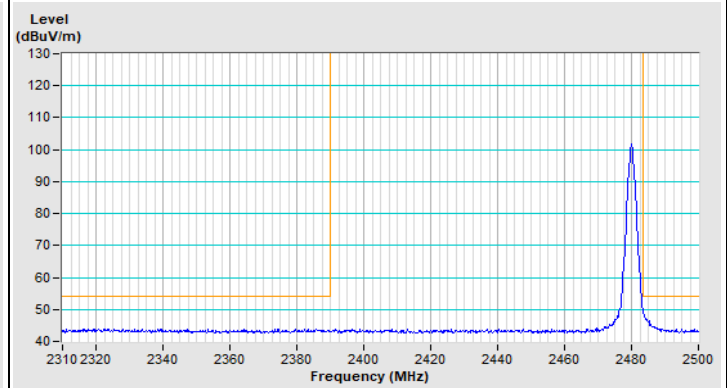
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

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:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

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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