

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.:	RFBARR-WTW-P23110067F-3
FCC ID:	RAS-MT7925B14L
Product:	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand:	MediaTek
Model No.:	MT7925B14L
Received Date:	2024/8/30
Test Date:	2024/9/6 ~ 2024/9/11
Issued Date:	2024/9/27
Applicant:	MediaTek Inc.
Address:	No. 1, Dusing 1st Rd., Hsinchu Science Park, Hsinchu City, 30078 Taiwan
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
esignation Number:	

Designation Numbe

Approved by:

Wen Yu / Assistant Manager

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TAF Testing Laboratory 2022

2024/9/27

Date:

Prepared by : Claire Kuan / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P23110067F-3	Original release.	2024/9/27



1 Certificate

Product:	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand:	MediaTek
Test Model:	MT7925B14L
Sample Status:	Engineering sample
Applicant:	MediaTek Inc.
Test Date:	2024/9/6 ~ 2024/9/11
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	NA	Refer to Note 1 below			
15.247(e)	Power Spectral Density	NA	Refer to Note 1 below			
15.247(a)(2)	6 dB Bandwidth	NA	Refer to Note 1 below			
15.247(d)	Conducted Out of Band Emissions	NA	Refer to Note 1 below			
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -11.35 dB at 0.16562 MHz			
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -0.8 dB at 695.60 MHz			
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -3.45 dB at 7439.38 MHz			
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.			

Notes:

1. AC Power Conducted Emissions and Unwanted Emissions test items were performed for this addendum. The others testing data refer to original test report.

2. 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) (±)	
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB	
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB	
Onwanted Emissions below 1 GHz	30 MHz ~ 1 GHz	5.5 dB	
Unwanted Emissions above 1 CHz	1 GHz ~ 18 GHz	5.1 dB	
Unwanted Emissions above 1 GHz	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	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7925B14L
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
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	19.011 mW (12.79 dBm)

Note:

- 1. This report is prepared for FCC class II permissive change. The difference compared with the Report No.: RFBARR-WTW-P23110067-3 as the following:
 - Add Monopole Antenna (Refer to Section 3.2).
- 2. According to above conditions, there are AC Power Conducted Emissions and Unwanted Emissions needs to be performed. All data for meeting the requirement is verified.
- 3. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & 5.9 GHz & 6 GHz) technology used for the EUT.
- 4. Simultaneously transmission condition.

Condition	Technology					
1 WLAN (5 GHz) (2TX)		Bluetooth				
2	WLAN (5.9 GHz) (2TX)	Bluetooth				
3	WLAN (6 GHz) (2TX)	Bluetooth				
4	WLAN (2.4 GHz) (1TX)	WLAN (5 GHz) (1TX)				
5	WLAN (2.4 GHz) (1TX)	WLAN (5.9 GHz) (1TX)				
6	WLAN (2.4 GHz) (1TX)	WLAN (6 GHz) (1TX)				
Note: The emission	Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found					

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

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.

Original	1			1				r
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	(GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.895	PIFA	i-pex(MHF)	200
	Chain1	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.895	PIFA	i-pex(MHF)	200
0	Chain0	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
2	Chain1	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
3	Chain0	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	300
3	Chain1	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	300
Newly								
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
	Chain0	HongBc	0 260-25096	3.11 4.88 4.91 4.9 4.9 4.87 4.73 4.29 4.58 4.09	2.4~2.4835 5.15~5.250 5.25~5.35 5.47~5.725 5.725~5.85 5.85~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Monopole	i-pex(MHF)	300
4	Chain1	HongBo	0 260-25096	3.11 4.88 4.91 4.9 4.9 4.87 4.73 4.29 4.58 4.09	2.4~2.4835 5.15~5.250 5.25~5.35 5.47~5.725 5.725~5.85 5.85~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Monopole	i-pex(MHF)	300

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



3.3 Channel List

40 channels are provided for BT-LE:

RF	RE RECenier Channel			nnels Type for BT 5.x		
Channel	Frequency	Index	2Msym/s with Data Rate 2Mbps	1Msym/s with Data Rate 1Mbps / 500kbps / 125kbps		
0	2402 MHz	37	*	•		
1	2404 MHz	0	•	•		
2	2406 MHz	1	•	•		
3	2408 MHz	2	•	•		
4	2410 MHz	3	•	•		
5	2412 MHz	4	•	•		
6	2414 MHz	5	•	•		
7	2416 MHz	6	•	•		
8	2418 MHz	7	•	•		
9	2420 MHz	8	•	•		
10	2422 MHz	9	•	•		
11	2424 MHz	10	•	•		
12	2426 MHz	38	*	•		
13	2428 MHz	11	•	•		
14	2430 MHz	12	•	•		
15	2432 MHz	13	•	•		
16	2434 MHz	14	•	•		
17	2436 MHz	15	•	•		
18	2438 MHz	16	•	•		
19	2440 MHz	17	•	•		
20	2442 MHz	18	•	•		
21	2444 MHz	19	•	•		
22	2446 MHz	20	•	•		
23	2448 MHz	21	•	•		
24	2450 MHz	22	•	•		
25	2452 MHz	23	•	•		
26	2454 MHz	24	•	•		
27	2456 MHz	25	•	•		
28	2458 MHz	26	•	•		
29	2460 MHz	27	•	•		
30	2462 MHz	28		•		
31	2464 MHz	29	•			
32	2466 MHz	30	•	•		
33	2468 MHz	31	•	•		
34	2470 MHz	32		•		
35	2472 MHz	33	•	•		
36	2474 MHz	34	•			
37	2476 MHz	35	•			
38	2478 MHz	36	•			
39	2480 MHz	39	*			

* The channels 2402 MHz, 2426 MHz and 2480 MHz are used for primary advertising only, and these advertisement packets are never being sent over the 2Msym/s.



3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations
Fle-Scall.	between available modulations and data rates.

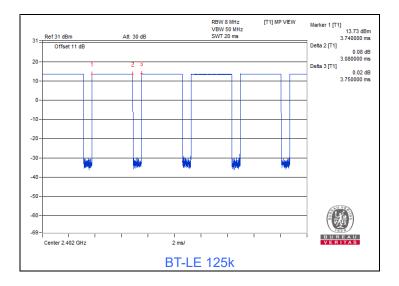
Following channel(s) was (were) selected for the final test as listed below:

Test Item	EUT Configure Mode	Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	С	BT-LE 125k	39	GFSK	125kb/s
Unwanted Emissions below 1 GHz	A,B	BT-LE 125k	39	GFSK	125kb/s
Unwanted Emissions above 1 GHz	A,B	BT-LE 125k	0, 19, 39	GFSK	125kb/s
	А	EUT only (remov	e 50 ohm termina equipi		o the appropriate
EUT Configure Mode:	В	EUT with 50 ohm terminator			
	С	E	UT with antenna (I	Monopole Antenn	a)



3.5 Duty Cycle of Test Signal

BT-LE 125k: Duty cycle = 3.08 ms / 3.75 ms x 100% = 82.1%, duty factor = 10 * log (1/Duty cycle) = 0.85 dB



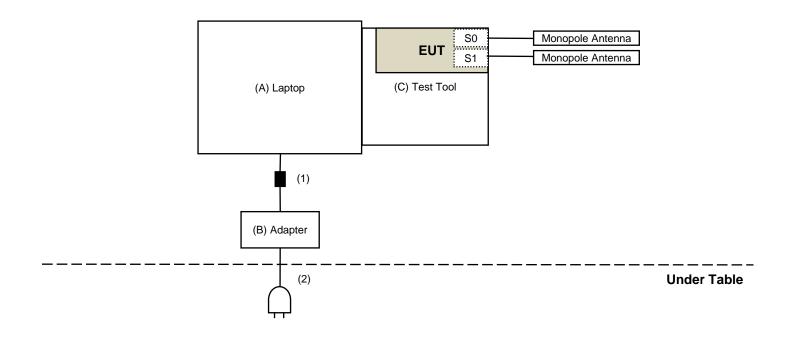


3.6 Test Program Used and Operation Descriptions

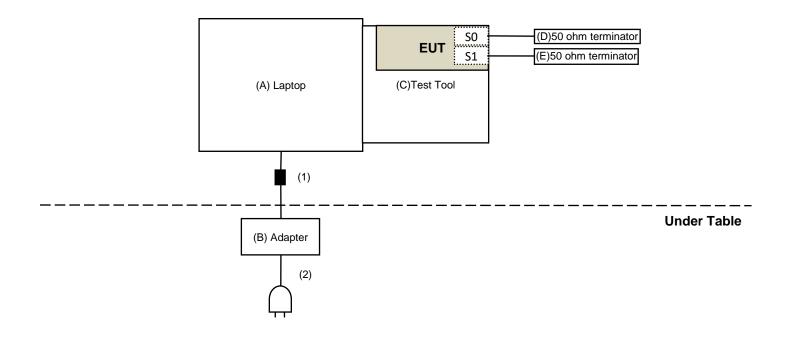
Controlling software (WCN_Combo_Tool) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

For AC Power Conducted Emission test



For Unwanted Emission test





3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
А	Laptop	Dell	Latitude 5480	14CSPH2	N/A	Provided by Lab
В	Adapter	DELL	LLA65NS2-01	N/A	N/A	Provided by Lab
С	Test Tool	Mediatek	MTK1849	N/A	N/A	Supplied by applicant
D	50 Ohm terminator	WOKEN	WTER-18S2	N/A	N/A	Provided by Lab
Е	50 Ohm terminator	WOKEN	WTER-18S2	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	1	Provided by Lab
2	AC Cable	1	1.7	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 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2023/10/20	2024/10/19
EMI Test Receiver R&S	ESCS 30	847124/029	2023/10/18	2024/10/17
Fixed Attenuator STI	STI02-2200-10	005	2024/2/19	2025/2/18
LISN	ESH3-Z5	835239/001	2024/4/3	2025/4/2
R&S	E3H3-Z3	848773/004	2023/10/13	2024/10/12
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2024/2/19	2025/2/18
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1

2. Tested Date: 2024/9/9 ~ 2024/9/10

4.2 Unwanted Emissions below 1 GHz

Mode A

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
MXA Signal Analyzer Keysight	N9020B	MY60112408	2024/3/7	2025/3/6
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.

2. Tested Date: 2024/9/11



Mode B

Model No.	Serial No.	Calibrated Date	Calibrated Until
VULB 9168	9168-406	2023/10/13	2024/10/12
MF-7802BS	MF780208530	N/A	N/A
UNAT-5+	PAD-ATT5-03	2024/2/17	2025/2/16
EM-6879	264	2024/2/23	2025/2/22
N9038A	MY51210202	2024/7/29	2025/7/28
EMC330N	980701	2024/2/17	2025/2/16
EMC001340	980142	2024/2/19	2025/2/18
	LOOPCAB-001	2024/2/19	2025/2/18
5D-FB	LOOPCAB-002	2024/2/19	2025/2/18
100100-CFD400LW-200	CFD400-200	2024/2/17	2025/2/16
100100-CFD400LW-400	CFD400-400	2024/2/17	2025/2/16
100100-CFD400LW-800	CFD400-800	2024/2/17	2025/2/16
ADT_Radiated_V8.7.08	N/A	N/A	N/A
	VULB 9168 WF-7802BS UNAT-5+ EM-6879 N9038A EMC330N EMC001340 5D-FB 100100-CFD400LW-200 100100-CFD400LW-400 100100-CFD400LW-800	VULB 9168 9168-406 MF-7802BS MF780208530 UNAT-5+ PAD-ATT5-03 EM-6879 264 N9038A MY51210202 EMC330N 980701 EMC001340 980142 5D-FB LOOPCAB-001 100100-CFD400LW-200 CFD400-200 100100-CFD400LW-400 CFD400-800	Model No. Serial No. Date VULB 9168 9168-406 2023/10/13 MF-7802BS MF780208530 N/A UNAT-5+ PAD-ATT5-03 2024/2/17 EM-6879 264 2024/2/23 N9038A MY51210202 2024/2/17 EMC001340 980701 2024/2/19 5D-FB LOOPCAB-001 2024/2/19 100100-CFD400LW-200 CFD400-200 2024/2/17 100100-CFD400LW-800 CFD400-800 2024/2/17

Notes:

1. The test was performed in 966 Chamber No. 4.

2. Tested Date: 2024/9/9

4.3 Unwanted Emissions above 1 GHz

Mode A

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



Mode B

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna	BBHA 9120D	9120D-783	2023/11/12	2024/11/11
Schwarzbeck	BBHA 9170	9170-739	2023/11/12	2024/11/11
MXA Signal Analyzer Keysight	N9020B	MY60112410	2024/3/13	2025/3/12
Preamplifier	EMC12630SE	980688	2024/8/8	2025/8/7
EMCI	EMC184045SE	980387	2024/8/8	2025/8/7
	EMC102-KM-KM-1200	160924	2024/1/29	2025/1/28
	EMC102-KM-KM-4000	200214	2024/1/29	2025/1/28
RF Coaxial Cable	EMC104-SM-SM-1200	160922	2024/1/29	2025/1/28
EMCI	EMC104-SM-SM-2000	180502	2024/1/29	2025/1/28
	EMC104-SM-SM-6000	210704	2023/11/2	2024/11/1
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

The test was performed in 966 Chamber No. 4.
 Tested Date: 2024/9/6



5 Limits of Test Items

5.1 AC Power Conducted Emissions

	Conducted Limit (dBuV)				
Frequency (MHz)	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.

5.2 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).

5.3 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:

(1) For Peak conducted power limits shall be at least 20 dB below the highest level of the desired power:(2) For RMS averaging conducted power limits shall be at least 30 dB below the highest level of the desired power:

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

Notes:

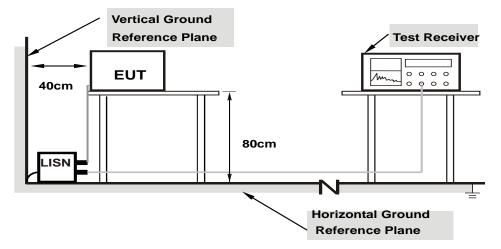
- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted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



6 Test Arrangements

6.1 AC Power Conducted Emissions

6.1.1 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).

6.1.2 Test Procedure

- a. 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.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. 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.

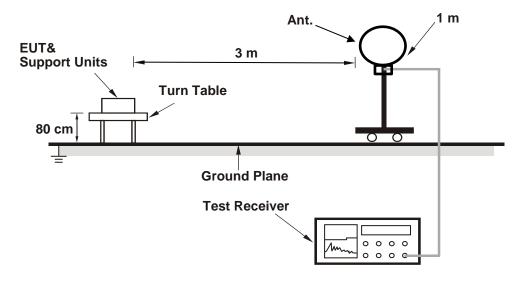


6.2 Unwanted Emissions below 1 GHz

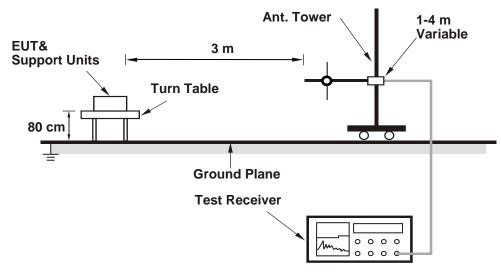
6.2.1 Test Setup

For Radiated Configuration:

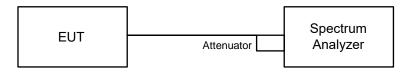
For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For Conducted Configuration:



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



6.2.2 Test Procedure

Radiated versus Conducted Measurement.

The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance. The following steps was performed:

a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.

- b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
- c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
- d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
- e. For all of Radiation emission test

For Radiated emission below 30 MHz

- e-1.1. 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.
- e-1.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- e-1.3. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- e-1.4. 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-1.5. 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

- e-2.1. 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.
- e-2.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- e-2.3. 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.
- e-2.4. 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-2.5. 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 Quasipeak detection (QP) at frequency below 1 GHz.
- 2. All modes of operation were investigated and the worst-case emissions are reported.



Radiated versus Conducted Measurement

For Radiated measurement:

The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).

For Conducted measurement:

The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).

Conducted Unwanted Emission Convert Formula

a. Emission Level (dBuV/m) = EIRP Level (dBm) - 20log(d) + 104.8
 d = measurement distance in 3 meters.

b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB)

c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands.

For the band edge the gain for the specific band may have been used.

Notes:

1. In restricted bands below 1000 MHz, add upper bound on ground plane reflection: For frequencies between 30 MHz and 1000 MHz, add 4.7 dB.

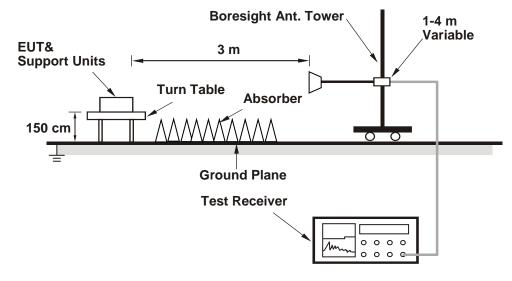
2. The conducted emission test was considered some factor to compute test result.



6.3 Unwanted Emissions above 1 GHz

6.3.1 Test Setup

For Radiated Configuration:



For Conducted Configuration:



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



6.3.2 Test Procedure

Radiated versus Conducted Measurement.

According to ANSI C63.10 section 11.11.1 and 11.12.2.7. The unwanted emission limits in both the restricted and nonrestricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.

The following steps was performed:

- a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
- b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
- c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
- d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
- e. For all of Radiation emission test
 - e-1. 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.
 - e-2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
 - e-3. 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.
 - e-4. 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-5. The test-receiver/sepctrum 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:

- 1. According to ANSI C63.10 section 6.6.4 and 4.1.4.2.2. For fundamental and harmonic signal measurement, 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 harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
- 3. All modes of operation were investigated and the worst-case emissions are reported.



Radiated versus Conducted Measurement

For Radiated measurement:

The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).

For Conducted measurement:

The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).

For Verified radiated measurement:

The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).

Conducted Unwanted Emission Convert Formula

a. Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8
 d = measurement distance in 3 meters.

b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB).

c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands.

For the band edge the gain for the specific band may have been used.

Note:

The conducted emission test was considered some factor to compute test result.



7 Test Results of Test Item

7.1 AC Power Conducted Emissions

Mode C

RF Mode	BT-LE 125K	Channel	CH 39:2480 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 64 % RH
Tested By	Willy Lin		

	Phase Of Power : Line (L)									
No	Frequency	Correction Factor		g Value suV)		on Level uV)		nit suV)		rgin B)
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	9.93	42.96	33.90	52.89	43.83	65.18	55.18	-12.29	-11.35
2	0.35313	9.94	24.84	6.16	34.78	16.10	58.89	48.89	-24.11	-32.79
3	1.79297	10.01	21.13	12.60	31.14	22.61	56.00	46.00	-24.86	-23.39
4	3.96094	10.12	18.97	12.39	29.09	22.51	56.00	46.00	-26.91	-23.49
5	14.26953	10.77	18.06	9.74	28.83	20.51	60.00	50.00	-31.17	-29.49
6	26.81250	11.40	23.35	18.59	34.75	29.99	60.00	50.00	-25.25	-20.01

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





			TENTIA O
RF Mode	BT-LE 125K	Channel	CH 39:2480 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	21 °C, 64 % RH
Tested By	Willy Lin		

	Phase Of Power : Neutral (N)									
No	Frequency	FrequencyCorrectionReading ValueEmission LevelFactor(dBuV)(dBuV)		Limit (dBuV)			rgin B)			
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.98	34.01	16.93	43.99	26.91	66.00	56.00	-22.01	-29.09
2	0.27109	9.99	25.61	15.16	35.60	25.15	61.08	51.08	-25.48	-25.93
3	0.45859	10.00	27.91	19.85	37.91	29.85	56.72	46.72	-18.81	-16.87
4	1.51172	10.05	13.52	6.22	23.57	16.27	56.00	46.00	-32.43	-29.73
5	3.85156	10.15	13.37	7.95	23.52	18.10	56.00	46.00	-32.48	-27.90
6	13.94531	10.61	16.64	8.72	27.25	19.33	60.00	50.00	-32.75	-30.67

- 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





7.2 Unwanted Emissions below 1 GHz

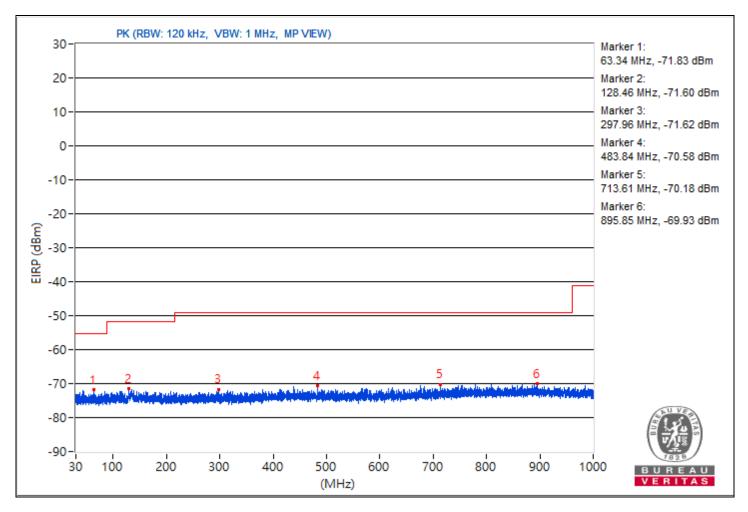
Mode A

RF Mode	LE-125k	Channel	CH 39:2480 MHz
Frequency Range	30 MHz ~ 1 GHz	Environmental Conditions	22°C, 55% RH
Tested By	Kevin Ko		

	Conducted Unwanted Emissions						
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	63.34	23.43 PK	40	-16.57	-81.45	9.62	-71.83
2	128.46	23.66 PK	43.5	-19.84	-81.22	9.62	-71.6
3	297.96	23.64 PK	46	-22.36	-81.24	9.62	-71.62
4	483.84	24.68 PK	46	-21.32	-80.2	9.62	-70.58
5	713.61	25.08 PK	46	-20.92	-79.8	9.62	-70.18
6	895.85	25.33 PK	46	-20.67	-79.55	9.62	-69.93

Notes:

^{2.} 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.



^{1.} Margin value = Emission Level - Limit value



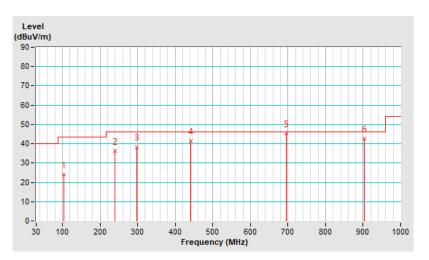
Mode B

RF Mode	BT-LE 125K	Channel	CH 39:2480 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

	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	103.97	24.0 QP	43.5	-19.5	1.50 H	337	45.4	-21.4
2	239.48	36.2 QP	46.0	-9.8	1.00 H	257	55.7	-19.5
3	297.72	38.3 QP	46.0	-7.7	1.00 H	310	55.8	-17.5
4	441.67	41.6 QP	46.0	-4.4	1.00 H	309	55.3	-13.7
5	695.60	45.2 QP	46.0	-0.8	2.00 H	267	54.3	-9.1
6	903.53	42.6 QP	46.0	-3.4	1.00 H	229	48.4	-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.

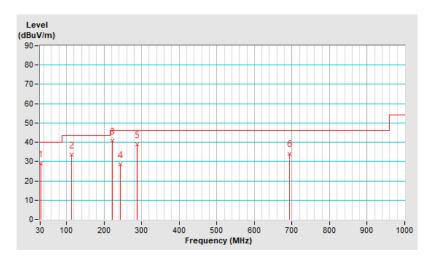




RF Mode	BT-LE 125K	Channel	CH 39:2480 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	22 °C, 65 % RH
Tested By	Willy Lin		

	Antenna Polarity & Test Distance : Vertical at 3 m							
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.98	29.0 QP	40.0	-11.0	3.00 V	280	47.8	-18.8
2	112.66	33.5 QP	43.5	-10.0	2.00 V	350	54.0	-20.5
3	222.89	40.9 QP	46.0	-5.1	1.50 V	150	62.4	-21.5
4	243.46	28.6 QP	46.0	-17.4	1.50 V	51	47.9	-19.3
5	287.15	38.8 QP	46.0	-7.2	3.00 V	298	56.6	-17.8
6	694.08	34.1 QP	46.0	-11.9	1.50 V	53	43.2	-9.1

- 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 \sim 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.





7.3 Unwanted Emissions above 1 GHz

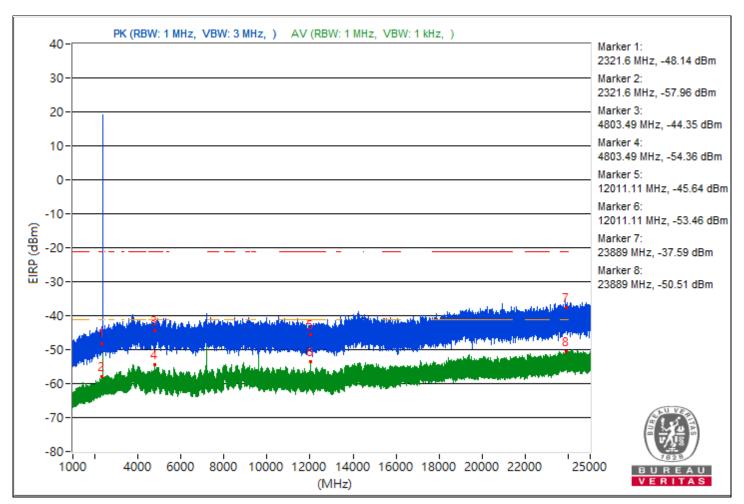
Mode A

Conducted Unwanted Emissions

RF Mode	LE-125k	Channel	CH 0:2402 MHz		
Frequency Range	1 GHz ~ 25 GHz	Environmental Conditions	22°C, 55% RH		
Tested By	Kevin Ko				

	Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)	
1	2321.6	47.12 PK	74	-26.88	-53.06	4.92	-48.14	
2	2321.6	37.3 AV	54	-16.7	-62.88	4.92	-57.96	
3	4803.49	50.91 PK	74	-23.09	-49.27	4.92	-44.35	
4	4803.49	40.9 AV	54	-13.1	-59.28	4.92	-54.36	
5	12011.11	49.62 PK	74	-24.38	-50.56	4.92	-45.64	
6	12011.11	41.8 AV	54	-12.2	-58.38	4.92	-53.46	
7	23889	57.67 PK	74	-16.33	-42.51	4.92	-37.59	
8	23889	44.75 AV	54	-9.25	-55.43	4.92	-50.51	

Note: Margin value = Emission Level - Limit value

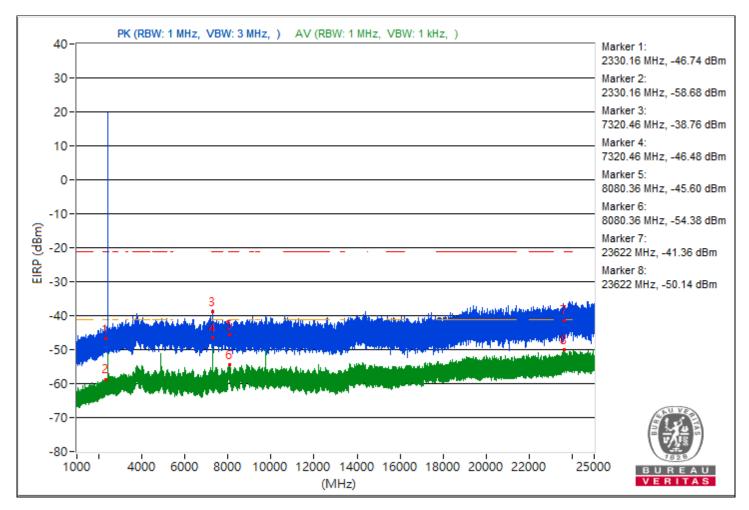




RF Mode	LE-125k	Channel	CH 19:2440 MHz
Frequency Range	1 GHz ~ 25 GHz	Environmental Conditions	22°C, 55% RH
Tested By	Kevin Ko		

	Conducted Unwanted Emissions							
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)	
1	2330.16	48.52 PK	74	-25.48	-51.66	4.92	-46.74	
2	2330.16	36.58 AV	54	-17.42	-63.6	4.92	-58.68	
3	7320.46	56.5 PK	74	-17.5	-43.68	4.92	-38.76	
4	7320.46	48.78 AV	54	-5.22	-51.4	4.92	-46.48	
5	8080.36	49.66 PK	74	-24.34	-50.52	4.92	-45.6	
6	8080.36	40.88 AV	54	-13.12	-59.3	4.92	-54.38	
7	23622	53.9 PK	74	-20.1	-46.28	4.92	-41.36	
8	23622	45.12 AV	54	-8.88	-55.06	4.92	-50.14	

Note: Margin value = Emission Level - Limit value

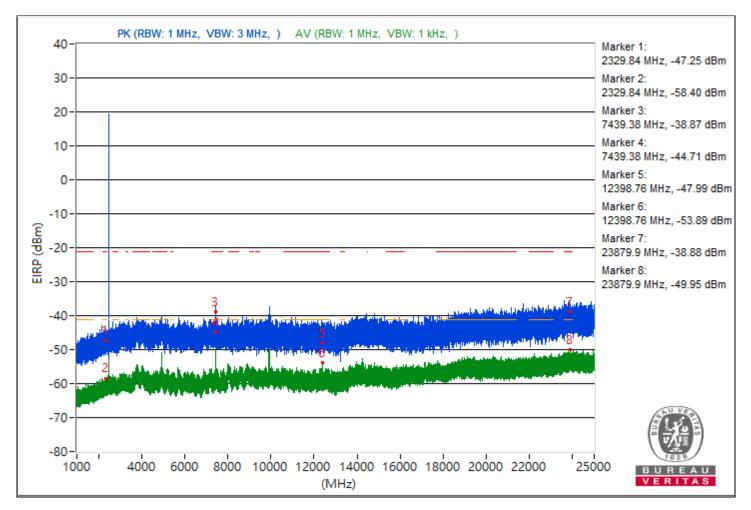




RF Mode	LE-125k	Channel	CH 39:2480 MHz
Frequency Range	1 GHz ~ 25 GHz	Environmental Conditions	22°C, 55% RH
Tested By	Kevin Ko		

	Conducted Unwanted Emissions									
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)			
1	2329.84	48.01 PK	74	-25.99	-52.17	4.92	-47.25			
2	2329.84	36.86 AV	54	-17.14	-63.32	4.92	-58.4			
3	7439.38	56.39 PK	74	-17.61	-43.79	4.92	-38.87			
4	7439.38	50.55 AV	54	-3.45	-49.63	4.92	-44.71			
5	12398.76	47.27 PK	74	-26.73	-52.91	4.92	-47.99			
6	12398.76	41.37 AV	54	-12.63	-58.81	4.92	-53.89			
7	23879.9	56.38 PK	74	-17.62	-43.8	4.92	-38.88			
8	23879.9	45.31 AV	54	-8.69	-54.87	4.92	-49.95			

Note: Margin value = Emission Level - Limit value





Conducted Band Edges

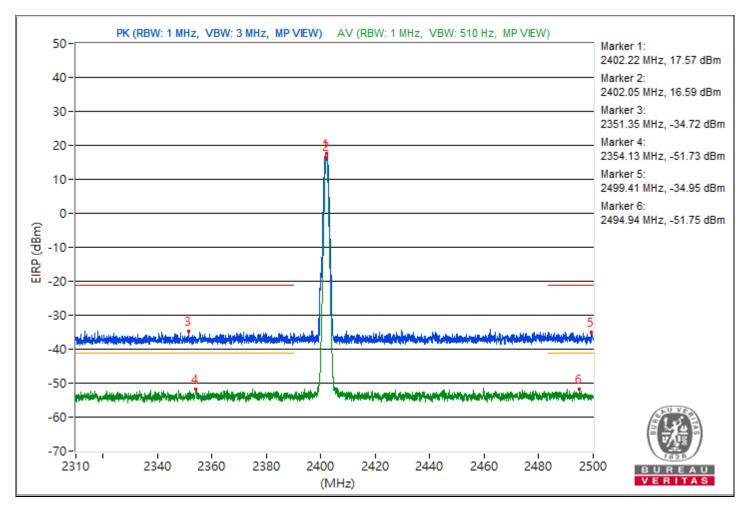
RF Mode	LE-125k	Channel	CH 0:2402 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Environmental Conditions	22°C, 55% RH
Tested By	Kevin Ko		

	Conducted Band Edge										
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)				
1	*2402.22	112.83 PK			14.39	3.18	17.57				
2	*2402.05	111.85 AV			13.41	3.18	16.59				
3	2351.35	60.54 PK	74	-13.46	-37.9	3.18	-34.72				
4	2354.13	43.53 AV	54	-10.47	-54.91	3.18	-51.73				
5	2499.41	60.31 PK	74	-13.69	-38.13	3.18	-34.95				
6	2494.94	43.51 AV	54	-10.49	-54.93	3.18	-51.75				

Notes:

1. Margin value = Emission Level - Limit value

2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.





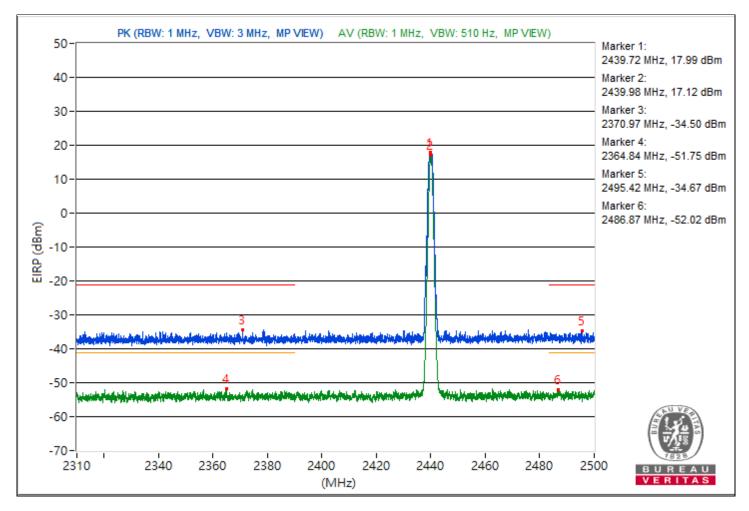
RF Mode	LE-125k	Channel	CH 19:2440 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Environmental Conditions	22°C, 55% RH
Tested By	Kevin Ko		

	Conducted Band Edge										
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)				
1	*2439.72	113.25 PK			14.81	3.18	17.99				
2	*2439.98	112.38 AV			13.94	3.18	17.12				
3	2370.97	60.76 PK	74	-13.24	-37.68	3.18	-34.5				
4	2364.84	43.51 AV	54	-10.49	-54.93	3.18	-51.75				
5	2495.42	60.59 PK	74	-13.41	-37.85	3.18	-34.67				
6	2486.87	43.24 AV	54	-10.76	-55.2	3.18	-52.02				

Notes:

1. Margin value = Emission Level - Limit value

2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.





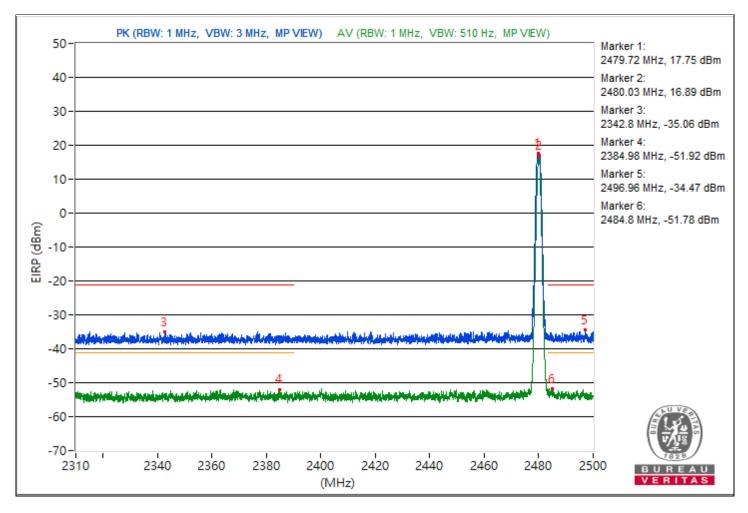
RF Mode	LE-125k	Channel	CH 39:2480 MHz
Frequency Range	2.31 GHz ~ 2.5 GHz	Environmental Conditions	22°C, 55% RH
Tested By	Kevin Ko		

	Conducted Band Edge										
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Correction Factor (dB)	EIRP Level (dBm)				
1	*2479.72	113.01 PK			14.57	3.18	17.75				
2	*2480.03	112.15 AV			13.71	3.18	16.89				
3	2342.8	60.2 PK	74	-13.8	-38.24	3.18	-35.06				
4	2384.98	43.34 AV	54	-10.66	-55.1	3.18	-51.92				
5	2496.96	60.79 PK	74	-13.21	-37.65	3.18	-34.47				
6	2484.8	43.48 AV	54	-10.52	-54.96	3.18	-51.78				

Notes:

1. Margin value = Emission Level - Limit value

2. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.





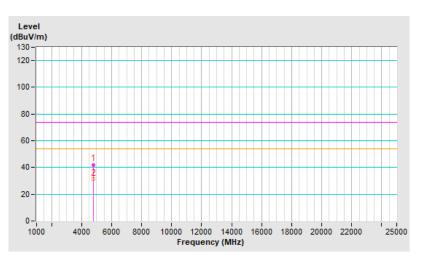
Mode B

RF Mode	BT-LE 125K	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=510 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20 °C, 64 % RH
Tested By	Willy Lin		

	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	4804.00	42.1 PK	74.0	-31.9	1.43 H	225	37.5	4.6		
2	4804.00	31.4 AV	54.0	-22.6	1.43 H	225	26.8	4.6		

Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the limit.





RF Mode	BT-LE 125K	Channel	CH 0:2402 MHz
Frequency Range	1 GHz ~ 25 GHz		PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20 °C, 64 % RH
Tested By	Willy Lin		

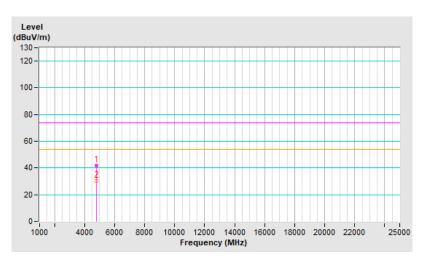
	Antenna Polarity & Test Distance : Vertical at 3 m									
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	4804.00	41.7 PK	74.0	-32.3	2.28 V	34	37.1	4.6		
2	4804.00	30.5 AV	54.0	-23.5	2.28 V	34	25.9	4.6		

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.



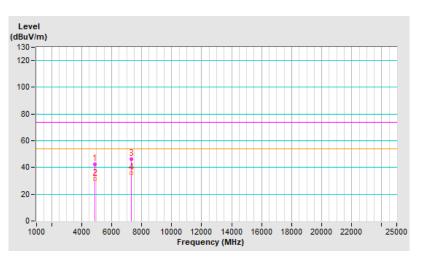


RF Mode	BT-LE 125K	Channel	CH 19:2440 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20 °C, 64 % RH
Tested By	Willy Lin		

	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	4880.00	42.3 PK	74.0	-31.7	1.45 H	212	37.7	4.6		
2	4880.00	31.2 AV	54.0	-22.8	1.45 H	212	26.6	4.6		
3	7320.00	46.5 PK	74.0	-27.5	1.27 H	128	34.9	11.6		
4	7320.00	35.7 AV	54.0	-18.3	1.27 H	128	24.1	11.6		

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.





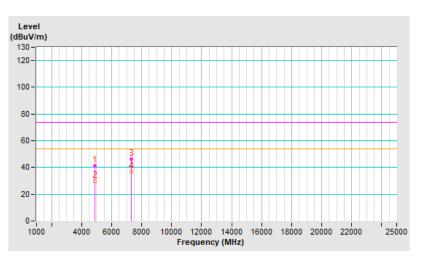
RF Mode	BT-LE 125K	Channel	CH 19:2440 MHz		
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak		
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20 °C, 64 % RH		
Tested By	Willy Lin				

	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	4880.00	41.1 PK	74.0	-32.9	2.26 V	47	36.5	4.6		
2	4880.00	29.9 AV	54.0	-24.1	2.26 V	47	25.3	4.6		
3	7320.00	46.1 PK	74.0	-27.9	3.55 V	32	34.5	11.6		
4	7320.00	37.0 AV	54.0	-17.0	3.55 V	32	25.4	11.6		

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.



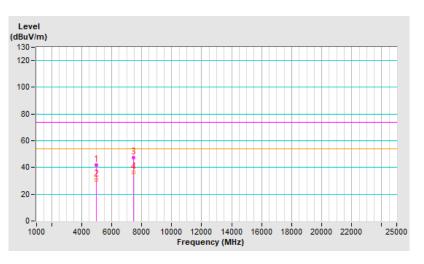


RF Mode	F Mode BT-LE 125K C		CH 39:2480 MHz	
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak	
Input Power (System)	120 Vac, 60 Hz	20 Vac, 60 Hz Environmental Conditions 20 °C, 64 % RH		
Tested By	Willy Lin			

	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	4960.00	41.6 PK	74.0	-32.4	1.48 H	235	36.6	5.0		
2	4960.00	30.7 AV	54.0	-23.3	1.48 H	235	25.7	5.0		
3	7440.00	47.2 PK	74.0	-26.8	1.24 H	133	35.3	11.9		
4	7440.00	36.2 AV	54.0	-17.8	1.24 H	133	24.3	11.9		

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.





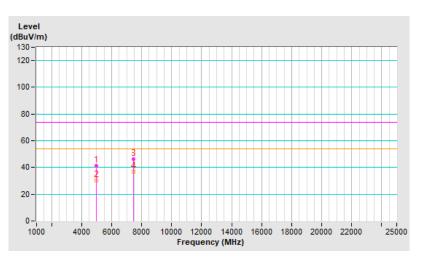
RF Mode	bde BT-LE 125K C		CH 39:2480 MHz		
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=510 Hz, DET=Peak		
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	20 °C, 64 % RH		
Tested By	Willy Lin				

	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	4960.00	41.3 PK	74.0	-32.7	2.31 V	33	36.3	5.0		
2	4960.00	30.1 AV	54.0	-23.9	2.31 V	33	25.1	5.0		
3	7440.00	46.0 PK	74.0	-28.0	3.53 V	16	34.1	11.9		
4	7440.00	37.0 AV	54.0	-17.0	3.53 V	16	25.1	11.9		

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.





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: <u>service.adt@bureauveritas.com</u> Web Site: <u>http://ee.bureauveritas.com.tw</u>

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

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