FCC Test Report

Report No.:	RFBBQZ-WTW-P20100751
FCC ID:	PY319200453
Test Model:	RBR850
Series Model:	RBS850
Received Date:	Nov. 12, 2020
Test Date:	Nov. 18, 2020 to Feb. 03, 2021
Issued Date:	Feb. 09, 2021
Applicant/Manufacturer:	NETGEAR, Inc.
Address:	350 East Plumeria Drive San Jose, CA 95134
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 / Designation Number:	723255 / TW2022

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P20100751	Original release.	Feb. 09, 2021

1 Certificate of Conformity

Product:	Orbi Router, Orbi Satellite
Brand:	NETGEAR
Test Model:	RBR850
Series Moel:	RBS850
Sample Status:	Engineering sample
Applicant/ Manufacturer:	NETGEAR, Inc.
Test Date:	Nov. 18, 2020 to Feb. 03, 2021
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10: 2013

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 EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Feb. 09, 2021

Claire Kuan / Specialist

Approved by : _____ , **Date:** Feb. 09, 2021

Clark Lin / Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -9.54dB at 0.34922MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 2390.00MHz, 2483.50MHz, 2487.83MHz, 2493.90MHz,
15.247(d)	Antenna Port Emission	N/A	Refer to Note 2 below
15.247(a)(2)	6dB bandwidth	N/A	Refer to Note 2 below
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	N/A	Refer to Note 2 below
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) not a standard connector.

Note:
1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. AC Power Conducted Emission, Radiated Emissions and Band Edge Measurement and Conducted power were performed for this addendum. The other testing data refer to original test report.
3. For 2.4GHz band compliance with rule 15.247(d) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.

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	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.5 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 dB
	18GHz ~ 40GHz	5.3 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Orbi Router, Orbi Satellite
Brand	NETGEAR
Test Model	RBR850
Series Model	RBS850
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT20/40 in 2.4GHz 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733.3Mbps 802.11ax: up to 2401.9Mbps
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462GHz **5GHz:** 5.18~ 5.24GHz, 5.745 ~ 5.825GHz
Number of Channel	**2.4GHz:** 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7 **5GHz (U-NII-1):** 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 **5GHz (U-NII-3):** 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1
Output Power	**Non-Beamforming Mode:** **2.412 ~ 2.462GHz:** 958.745 mW **5.18 ~ 5.24GHz:** 889.326mW **5.745 ~ 5.825GHz:** 959.092mW **Beamforming Mode:** **2.412 ~ 2.462 GHz:** 958.745 mW **5.18 ~ 5.24GHz:** 876.003mW **5.745 ~ 5.825GHz:** 857.36mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	RJ45 cable x 1 (Unshielded, 1.8m)

Note:

1. This report is prepared for FCC Class II permissive change. The difference compared with the Report No.: RF190716E02 R3 design is as the following information:
   - Change RF FEM: Pin to Pin, draws 50mA more current.
   - The new chip component is pin-for-pin compatible.
   - The new chip has the same basic function as the old chip, from an external perspective (internal circuitry may differ).
   - No change in radio parameters has occurred.
   - The same conditions apply when a small area (approximately the same area as the chip) of the PCB is replaced with an equivalent chip.
2. According to above conditions, only AC Power Conducted Emission, Radiated Emissions and Band Edge Measurement and Conducted power test need to be performed. And all data are verified to meet the requirements.
3. All models are listed as below.

Product	Model	Difference
Orbi Router	RBR850	Function:Master With Internet port x 1
Orbi Satellite	RBS850	Function:Master+Client Without Internet port

From the above models, model: **RBR850** was the worst case and it was selected as representative model for the test and its data was recorded in this report.

4. The EUT has below radios as following table:

Radio 1	**Radio 2**	**Radio 3**
WLAN(2.4GHz)	WLAN 5GHz (low band)	WLAN 5GHz (high band)

5. Simultaneously transmission condition.

Condition	Technology		
1	WLAN 2.4GHz	WLAN 5GHz (low band)	WLAN 5GHz (high band)
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.			

6. The EUT must be supplied power adapter and following different models could be chosen as following table:

No.	Brand	Model No.	P/N	Spec.
1	NETGEAR	2ABN042F	332-11507-01	Input: 100-240Vac, 1.3A, 50/60Hz Output: 12V, 3.5A DC Output cable: Unshielded, 1.8m
2	NETGEAR	AD2150F10	332-11093-01	Input: 100-120Vac, 1.0A, 50/60Hz Output: 12V, 3.5A DC Output cable: Unshielded, 1.8m

In the original test report, for conducted and radiated emissions test, the EUT was pre-tested with adapter 1 & 2, the conducted emission worst case was found in adapter 1 and the radiated emission worst case was found in adapter 2. Therefore the test and its data was recorded in this report.

7. The antennas provided to the EUT, please refer to the following table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	6.01	Dipole	i-pex(MHF)
5.15~5.25	6.22		
5.25~5.35	6.37		
5.47~5.725	6.29		
5.725~5.85	6.52		
Note: More detailed information, please refer to opearating description.			

8. The EUT incorporates a MIMO function:

2.4GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11b	4TX	4RX
802.11g	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
VHT20	4TX	4RX
VHT40	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
5GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX

N ote:
1. All of modulation mode support beamforming function except 802.11a/b/g modulation mode.
2. The EUT support Beamforming and non-beamforming mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz) and 802.11ax mode for 20MHz (40MHz, 80MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

9. 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.

10. The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20), VHT20 and 802.11ax (HE20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

7 channels are provided for 802.11n (HT40), VHT40 and 802.11ax (HE40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442
4	2427	8	2447
5	2432	9	2452
6	2437		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz & Bandedge Measurement **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

Non-Beamforming Mode					
Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1Mb/s
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6Mb/s
802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	BPSK	MCS0
802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

Non-Beamforming Mode					
Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11b	1 to 11	6	DSSS	DBPSK	1Mb/s

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

Non-Beamforming Mode					
Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11b	1 to 11	6	DSSS	DBPSK	1Mb/s

Antenna Port Conducted Measurement:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

Non-Beamforming Mode					
Mode	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1Mb/s
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6Mb/s
VHT20 (Output power only)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
VHT40 (Output power only)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	BPSK	MCS0
802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0
Beamforming Mode					
Mode	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
VHT20	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
VHT40	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
802.11ax (HE20)	1 to 11	1, 6, 11	OFDMA	BPSK	MCS0
802.11ax (HE40)	3 to 9	3, 6, 9	OFDMA	BPSK	MCS0

Test Condition:

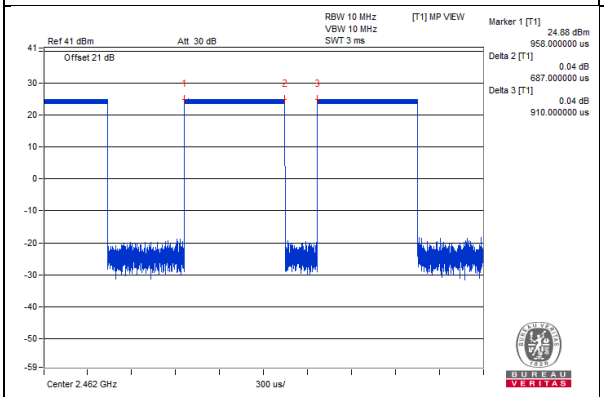
APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	22deg. C, 70%RH 21deg. C, 62%RH	120Vac, 60Hz	Sampson Chen Gary Cheng
RE<1G	23deg. C, 71%RH	120Vac, 60Hz	Sampson Chen
PLC	25deg. C, 75%RH	120Vac, 60Hz	Carter Lin
APCM	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin

3.3 Duty Cycle of Test Signal

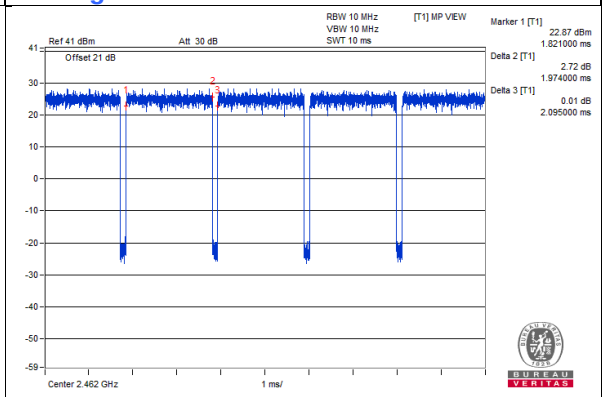
Duty cycle of test signal is < 98 %, duty factor shall be considered.

802.11b: Duty cycle = 0.687/0.91 = 0.755, Duty factor = 10 * log(1/Duty cycle) = 1.22
802.11g: Duty cycle = 1.974/2.095 = 0.942, Duty factor = 10 * log(1/Duty cycle) = 0.26
VHT20: Duty cycle = 5.422/5.662 = 0.958, Duty factor = 10 * log(1/Duty cycle) = 0.19
VHT40: Duty cycle = 5.428/5.688 = 0.954, Duty factor = 10 * log(1/Duty cycle) = 0.2
802.11ax (HE20): Duty cycle = 5.452/5.742 = 0.949, Duty factor = 10 * log(1/Duty cycle) = 0.23
802.11ax (HE40): Duty cycle = 5.442/5.775 = 0.942, Duty factor = 10 * log(1/Duty cycle) = 0.26

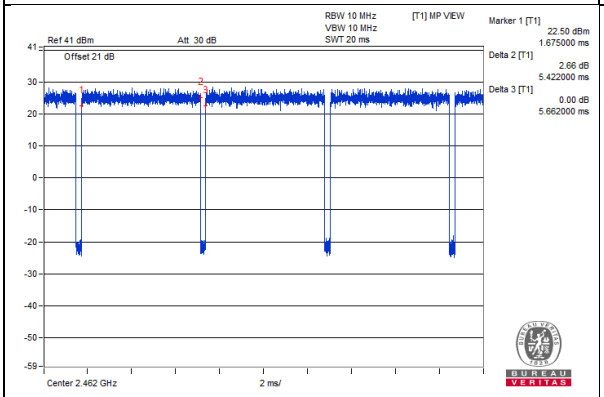
802.11b



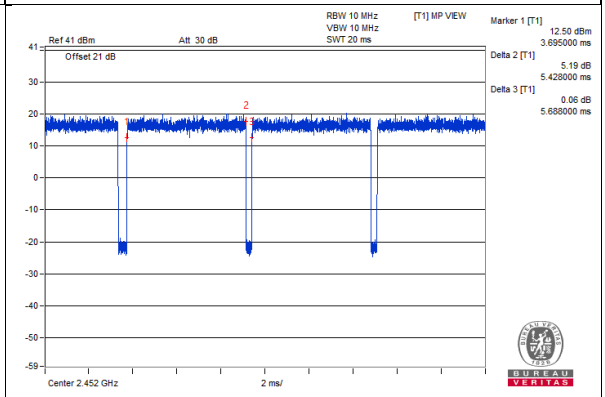
802.11g



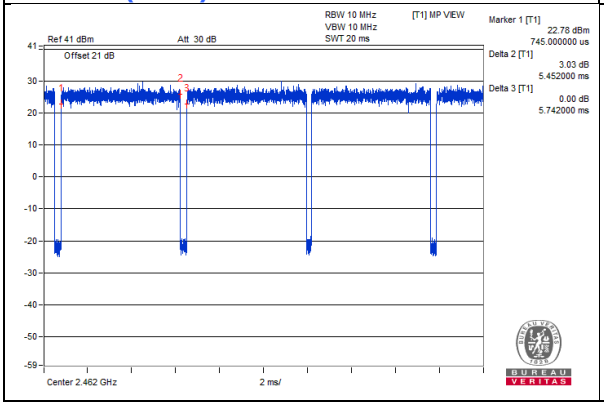
VHT20



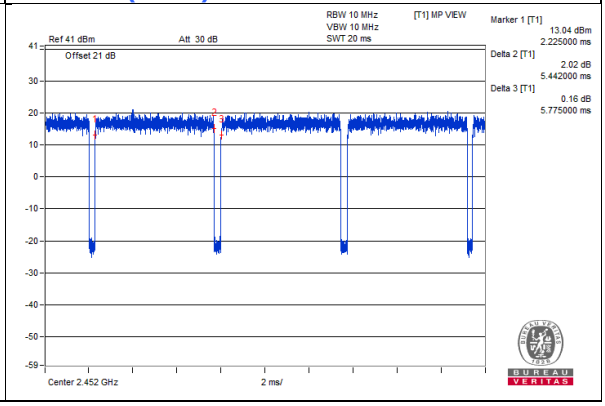
VHT40



802.11ax (HE20)



802.11ax (HE40)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

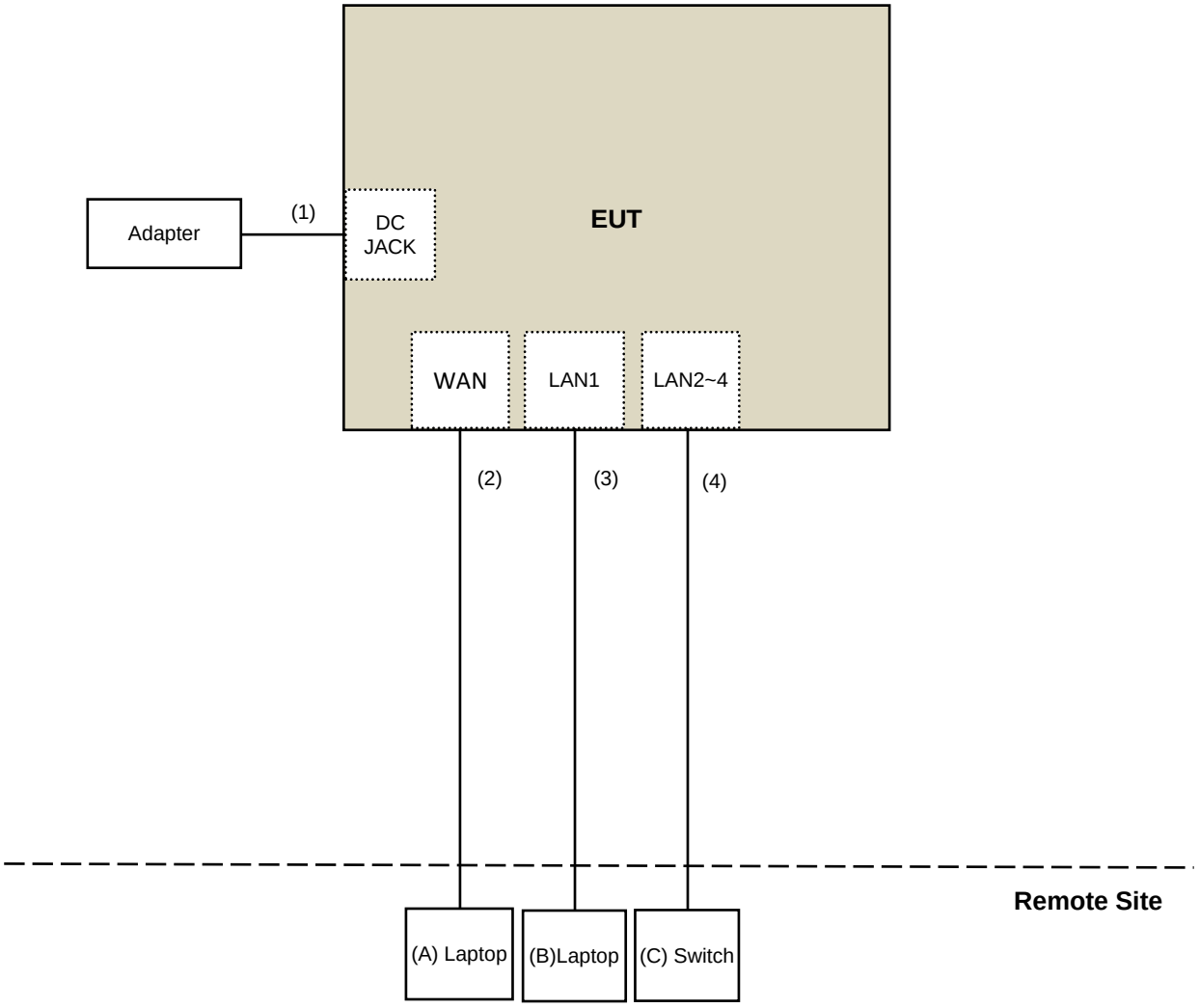
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	4YV4VY1	DoC	Provided by Lab
B.	Laptop	DELL	E6420	482T3R1	DoC	Provided by Lab
C.	Switch	D-Link	DGS-1005D	DR8WC92000523	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.8	No	0	Supplied by client
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	3	10	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test Standard:

FCC Part 15, Subpart C (15.247)

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 558074 D01 15.247 Meas Guidance v05r02

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB 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

Note:

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 1000MHz, 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 20dB under any condition of modulation.

4.1.2 Test Instruments

For below 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 13, 2019	Dec. 12, 2020
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	5D-FB	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	5D-FB	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-02	Oct. 21, 2020	Oct. 20, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 06, 2020	Nov. 05, 2021
RF Cable	8D	966-6-1	Apr. 04, 2020	Apr. 03, 2021
RF Cable	8D	966-4-2	Mar. 18, 2020	Mar. 17, 2021
RF Cable	8D	966-4-3	Mar. 18, 2020	Mar. 17, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Sep. 24, 2020	Sep. 23, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: Nov. 18, 2020

For above 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 01, 2020	Nov. 30, 2021
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC 12630 SE	980638	Apr. 08, 2020	Apr. 07, 2021
RF Cable	EMC104-SM-SM-1200	160922	Dec. 25, 2020	Dec. 24, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-6000	180418	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 11, 2021	Jan. 10, 2022
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 11, 2021	Jan. 10, 2022
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Tested Date: Feb. 02, 2021

For Conducted power test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

NOTE: 1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Feb. 02 to 03, 2021

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) 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.

f. The test-receiver system 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.

Note:

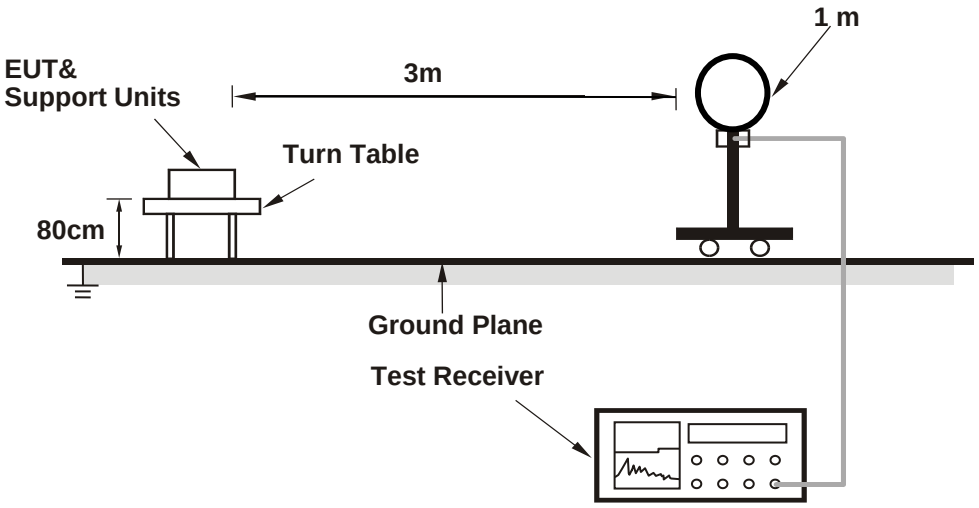
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

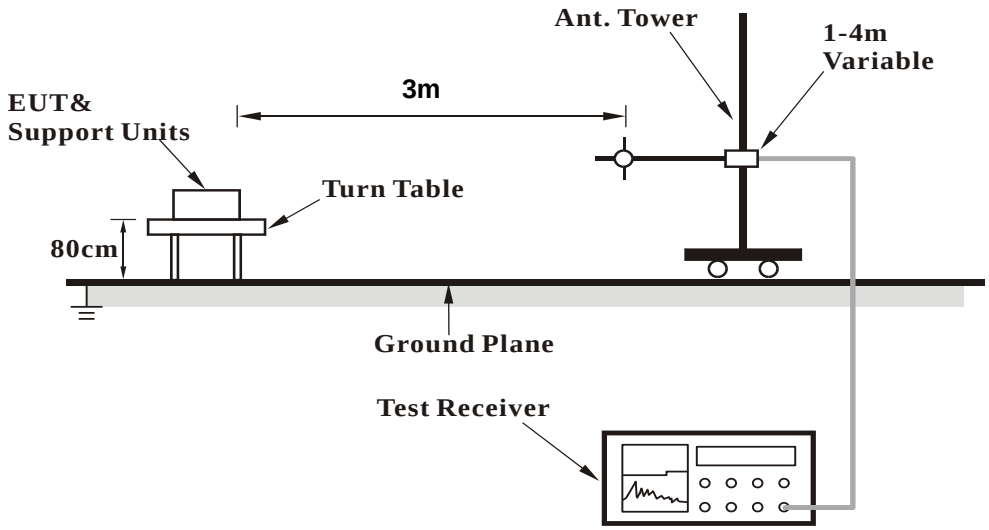
No deviation.

4.1.5 Test Setup

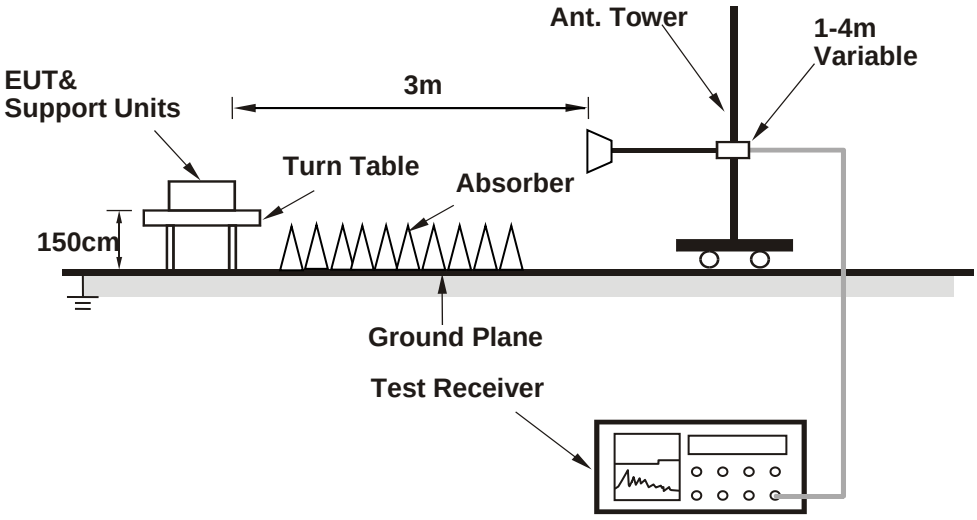
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Connected the EUT with the Laptop which is placed on remote site.
b. Controlling software (QSPR (5.0-00140)) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data:

RF Mode	TX 802.11b	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	55.9 PK	74.0	-18.1	2.07 H	168	60.4	-4.5
2	2390.00	43.9 AV	54.0	-10.1	2.07 H	168	48.4	-4.5
3	*2412.00	112.4 PK			2.07 H	168	116.8	-4.4
4	*2412.00	109.8 AV			2.07 H	168	114.2	-4.4
5	4824.00	52.7 PK	74.0	-21.3	2.30 H	212	52.6	0.1
6	4824.00	50.4 AV	54.0	-3.6	2.30 H	212	50.3	0.1
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	56.1 PK	74.0	-17.9	2.90 V	51	60.6	-4.5
2	2390.00	44.1 AV	54.0	-9.9	2.90 V	51	48.6	-4.5
3	*2412.00	122.7 PK			2.90 V	51	127.1	-4.4
4	*2412.00	119.9 AV			2.90 V	51	124.3	-4.4
5	4824.00	53.9 PK	74.0	-20.1	2.12 V	214	53.8	0.1
6	4824.00	52.2 AV	54.0	-1.8	2.12 V	214	52.1	0.1

Remarks:

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

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	55.6 PK	74.0	-18.4	2.06 H	174	60.1	-4.5
2	2390.00	43.2 AV	54.0	-10.8	2.06 H	174	47.7	-4.5
3	*2437.00	111.7 PK			2.06 H	174	116.1	-4.4
4	*2437.00	109.5 AV			2.06 H	174	113.9	-4.4
5	2483.50	57.1 PK	74.0	-16.9	2.06 H	174	61.6	-4.5
6	2483.50	44.3 AV	54.0	-9.7	2.06 H	174	48.8	-4.5
7	4874.00	50.0 PK	74.0	-24.0	1.88 H	229	49.9	0.1
8	4874.00	47.8 AV	54.0	-6.2	1.88 H	229	47.7	0.1
9	7311.00	45.2 PK	74.0	-28.8	1.57 H	274	38.9	6.3
10	7311.00	33.6 AV	54.0	-20.4	1.57 H	274	27.3	6.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.2 PK	74.0	-17.8	2.90 V	84	60.7	-4.5
2	2390.00	43.5 AV	54.0	-10.5	2.90 V	84	48.0	-4.5
3	*2437.00	123.4 PK			2.90 V	84	127.8	-4.4
4	*2437.00	121.1 AV			2.90 V	84	125.5	-4.4
5	2483.50	59.7 PK	74.0	-14.3	2.90 V	84	64.2	-4.5
6	2483.50	46.4 AV	54.0	-7.6	2.90 V	84	50.9	-4.5
7	4874.00	54.5 PK	74.0	-19.5	1.87 V	206	54.4	0.1
8	4874.00	53.2 AV	54.0	-0.8	1.87 V	206	53.1	0.1
9	7311.00	45.6 PK	74.0	-28.4	1.72 V	195	39.3	6.3
10	7311.00	34.8 AV	54.0	-19.2	1.72 V	195	28.5	6.3

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.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	*2462.00	119.8 PK			2.10 H	157	124.2	-4.4
2	*2462.00	107.7 AV			2.10 H	157	112.1	-4.4
3	2483.50	56.3 PK	74.0	-17.7	2.10 H	157	60.8	-4.5
4	2483.50	43.8 AV	54.0	-10.2	2.10 H	157	48.3	-4.5
5	4924.00	52.2 PK	74.0	-21.8	2.19 H	216	51.9	0.3
6	4924.00	50.2 AV	54.0	-3.8	2.19 H	216	49.9	0.3
7	7386.00	56.3 PK	74.0	-17.7	1.71 H	273	49.7	6.6
8	7386.00	44.3 AV	54.0	-9.7	1.71 H	273	37.7	6.6
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	*2462.00	119.7 PK			2.89 V	81	124.1	-4.4
2	*2462.00	117.3 AV			2.89 V	81	121.7	-4.4
3	2486.87	60.3 PK	74.0	-13.7	2.89 V	81	64.8	-4.5
4	2486.87	53.5 AV	54.0	-0.5	2.89 V	81	58.0	-4.5
5	4924.00	52.7 PK	74.0	-21.3	3.11 V	213	52.4	0.3
6	4924.00	50.6 AV	54.0	-3.4	3.11 V	213	50.3	0.3
7	7386.00	56.9 PK	74.0	-17.1	1.66 V	180	50.3	6.6
8	7386.00	44.0 AV	54.0	-10.0	1.66 V	180	37.4	6.6

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.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	55.3 PK	74.0	-18.7	2.00 H	175	59.8	-4.5
2	2390.00	44.3 AV	54.0	-9.7	2.00 H	175	48.8	-4.5
3	*2412.00	114.1 PK			2.00 H	175	118.5	-4.4
4	*2412.00	105.1 AV			2.00 H	175	109.5	-4.4
5	4824.00	52.0 PK	74.0	-22.0	2.27 H	212	51.9	0.1
6	4824.00	50.0 AV	54.0	-4.0	2.27 H	212	49.9	0.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.5 PK	74.0	-17.5	2.83 V	48	61.0	-4.5
2	2390.00	44.5 AV	54.0	-9.5	2.83 V	48	49.0	-4.5
3	*2412.00	123.8 PK			2.83 V	48	128.2	-4.4
4	*2412.00	114.7 AV			2.83 V	48	119.1	-4.4
5	4824.00	52.7 PK	74.0	-21.3	3.01 V	203	52.6	0.1
6	4824.00	50.6 AV	54.0	-3.4	3.01 V	203	50.5	0.1

Remarks:

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

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	55.1 PK	74.0	-18.9	2.12 H	158	59.6	-4.5
2	2390.00	44.2 AV	54.0	-9.8	2.12 H	158	48.7	-4.5
3	*2437.00	113.6 PK			2.12 H	158	118.0	-4.4
4	*2437.00	105.1 AV			2.12 H	158	109.5	-4.4
5	2483.50	64.5 PK	74.0	-9.5	2.12 H	158	69.0	-4.5
6	2483.50	49.9 AV	54.0	-4.1	2.12 H	158	54.4	-4.5
7	4874.00	52.4 PK	74.0	-21.6	2.22 H	239	52.3	0.1
8	4874.00	50.6 AV	54.0	-3.4	2.22 H	239	50.5	0.1
9	7311.00	55.9 PK	74.0	-18.1	1.81 H	266	49.6	6.3
10	7311.00	43.6 AV	54.0	-10.4	1.81 H	266	37.3	6.3
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	55.8 PK	74.0	-18.2	2.89 V	66	60.3	-4.5
2	2390.00	43.6 AV	54.0	-10.4	2.89 V	66	48.1	-4.5
3	*2437.00	124.5 PK			2.89 V	66	128.9	-4.4
4	*2437.00	115.6 AV			2.89 V	66	120.0	-4.4
5	2483.50	64.8 PK	74.0	-9.2	2.89 V	66	69.3	-4.5
6	2483.50	50.2 AV	54.0	-3.8	2.89 V	66	54.7	-4.5
7	4874.00	52.0 PK	74.0	-22.0	3.08 V	205	51.9	0.1
8	4874.00	50.2 AV	54.0	-3.8	3.08 V	205	50.1	0.1
9	7311.00	56.9 PK	74.0	-17.1	1.60 V	187	50.6	6.3
10	7311.00	44.0 AV	54.0	-10.0	1.60 V	187	37.7	6.3

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.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	*2462.00	117.4 PK			2.07 H	176	121.8	-4.4
2	*2462.00	98.2 AV			2.07 H	176	102.6	-4.4
3	2483.50	64.2 PK	74.0	-9.8	2.07 H	176	68.7	-4.5
4	2483.50	49.3 AV	54.0	-4.7	2.07 H	176	53.8	-4.5
5	4924.00	49.0 PK	74.0	-25.0	2.20 H	243	48.7	0.3
6	4924.00	47.5 AV	54.0	-6.5	2.20 H	243	47.2	0.3
7	7386.00	55.2 PK	74.0	-18.8	1.85 H	267	48.6	6.6
8	7386.00	42.8 AV	54.0	-11.2	1.85 H	267	36.2	6.6
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	*2462.00	117.1 PK			1.85 V	13	121.5	-4.4
2	*2462.00	107.9 AV			1.85 V	13	112.3	-4.4
3	2483.50	69.7 PK	74.0	-4.3	1.85 V	13	74.2	-4.5
4	**2483.50**	**53.8 AV**	**54.0**	**-0.2**	**1.85 V**	**13**	**58.3**	**-4.5**
5	4924.00	49.1 PK	74.0	-24.9	3.13 V	202	48.8	0.3
6	4924.00	47.6 AV	54.0	-6.4	3.13 V	202	47.3	0.3
7	7386.00	54.6 PK	74.0	-19.4	1.56 V	168	48.0	6.6
8	7386.00	41.8 AV	54.0	-12.2	1.56 V	168	35.2	6.6

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.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE20)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	2.01 H	153	60.3	-4.5
2	2390.00	44.7 AV	54.0	-9.3	2.01 H	153	49.2	-4.5
3	*2412.00	113.7 PK			2.01 H	153	118.1	-4.4
4	*2412.00	105.4 AV			2.01 H	153	109.8	-4.4
5	4824.00	49.1 PK	74.0	-24.9	2.10 H	235	49.0	0.1
6	4824.00	47.7 AV	54.0	-6.3	2.10 H	235	47.6	0.1
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	64.4 PK	74.0	-9.6	1.92 V	19	68.9	-4.5
2	2390.00	48.9 AV	54.0	-5.1	1.92 V	19	53.4	-4.5
3	*2412.00	127.7 PK			1.92 V	19	132.1	-4.4
4	*2412.00	114.8 AV			1.92 V	19	119.2	-4.4
5	4824.00	49.3 PK	74.0	-24.7	3.14 V	210	49.2	0.1
6	4824.00	47.7 AV	54.0	-6.3	3.14 V	210	47.6	0.1

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	56.1 PK	74.0	-17.9	2.02 H	161	60.6	-4.5
2	2390.00	43.0 AV	54.0	-11.0	2.02 H	161	47.5	-4.5
3	*2437.00	113.8 PK			2.02 H	161	118.2	-4.4
4	*2437.00	105.1 AV			2.02 H	161	109.5	-4.4
5	2483.50	63.5 PK	74.0	-10.5	2.02 H	161	68.0	-4.5
6	2483.50	48.2 AV	54.0	-5.8	2.02 H	161	52.7	-4.5
7	4874.00	48.4 PK	74.0	-25.6	2.18 H	255	48.3	0.1
8	4874.00	47.4 AV	54.0	-6.6	2.18 H	255	47.3	0.1
9	7311.00	56.2 PK	74.0	-17.8	1.78 H	247	49.9	6.3
10	7311.00	43.7 AV	54.0	-10.3	1.78 H	247	37.4	6.3
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	56.4 PK	74.0	-17.6	2.64 V	28	60.9	-4.5
2	2390.00	43.4 AV	54.0	-10.6	2.64 V	28	47.9	-4.5
3	*2437.00	129.7 PK			2.64 V	28	134.1	-4.4
4	*2437.00	117.1 AV			2.64 V	28	121.5	-4.4
5	2483.50	67.6 PK	74.0	-6.4	2.64 V	28	72.1	-4.5
6	2483.50	51.1 AV	54.0	-2.9	2.64 V	28	55.6	-4.5
7	4874.00	49.6 PK	74.0	-24.4	3.09 V	215	49.5	0.1
8	4874.00	47.3 AV	54.0	-6.7	3.09 V	215	47.2	0.1
9	7311.00	53.5 PK	74.0	-20.5	1.65 V	143	47.2	6.3
10	7311.00	41.1 AV	54.0	-12.9	1.65 V	143	34.8	6.3

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.

RF Mode	TX 802.11ax (HE20)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	*2462.00	110.8 PK			2.15 H	170	115.2	-4.4
2	*2462.00	98.8 AV			2.15 H	170	103.2	-4.4
3	2483.50	63.3 PK	74.0	-10.7	2.15 H	170	67.8	-4.5
4	2483.50	51.6 AV	54.0	-2.4	2.15 H	170	56.1	-4.5
5	4924.00	46.6 PK	74.0	-27.4	2.37 H	240	46.3	0.3
6	4924.00	45.0 AV	54.0	-9.0	2.37 H	240	44.7	0.3
7	7386.00	54.8 PK	74.0	-19.2	1.83 H	240	48.2	6.6
8	7386.00	42.8 AV	54.0	-11.2	1.83 H	240	36.2	6.6
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	*2462.00	117.6 PK			1.96 V	33	122.0	-4.4
2	*2462.00	105.9 AV			1.96 V	33	110.3	-4.4
3	2483.50	58.7 PK	74.0	-15.3	1.96 V	33	63.2	-4.5
4	2483.50	51.1 AV	54.0	-2.9	1.96 V	33	55.6	-4.5
5	2487.83	67.1 PK	74.0	-6.9	1.96 V	33	71.6	-4.5
6	**2487.83**	**53.8 AV**	**54.0**	**-0.2**	**1.96 V**	**33**	**58.3**	**-4.5**
7	4924.00	46.3 PK	74.0	-27.7	3.19 V	204	46.0	0.3
8	4924.00	44.5 AV	54.0	-9.5	3.19 V	204	44.2	0.3
9	7386.00	54.1 PK	74.0	-19.9	1.57 V	167	47.5	6.6
10	7386.00	41.1 AV	54.0	-12.9	1.57 V	167	34.5	6.6

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.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ax (HE40)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	55.1 PK	74.0	-18.9	2.07 H	170	59.6	-4.5
2	2390.00	44.4 AV	54.0	-9.6	2.07 H	170	48.9	-4.5
3	*2422.00	113.2 PK			2.07 H	170	117.6	-4.4
4	*2422.00	101.4 AV			2.07 H	170	105.8	-4.4
5	4844.00	49.6 PK	74.0	-24.4	2.31 H	251	49.5	0.1
6	4844.00	48.0 AV	54.0	-6.0	2.31 H	251	47.9	0.1
7	7266.00	55.5 PK	74.0	-18.5	1.80 H	284	49.3	6.2
8	7266.00	43.1 AV	54.0	-10.9	1.80 H	284	36.9	6.2
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	70.1 PK	74.0	-3.9	1.91 V	31	74.6	-4.5
2	**2390.00**	**53.8 AV**	**54.0**	**-0.2**	**1.91 V**	**31**	**58.3**	**-4.5**
3	*2422.00	123.4 PK			1.91 V	31	127.8	-4.4
4	*2422.00	111.5 AV			1.91 V	31	115.9	-4.4
5	4844.00	48.6 PK	74.0	-25.4	3.24 V	174	48.5	0.1
6	4844.00	46.6 AV	54.0	-7.4	3.24 V	174	46.5	0.1
7	7266.00	54.1 PK	74.0	-19.9	1.62 V	190	47.9	6.2
8	7266.00	41.3 AV	54.0	-12.7	1.62 V	190	35.1	6.2

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	55.4 PK	74.0	-18.6	2.14 H	181	59.9	-4.5
2	2390.00	43.2 AV	54.0	-10.8	2.14 H	181	47.7	-4.5
3	*2437.00	113.5 PK			2.14 H	181	117.9	-4.4
4	*2437.00	99.7 AV			2.14 H	181	104.1	-4.4
5	2483.50	55.4 PK	74.0	-18.6	2.14 H	181	59.9	-4.5
6	2483.50	43.2 AV	54.0	-10.8	2.14 H	181	47.7	-4.5
7	2493.90	63.9 PK	74.0	-10.1	2.14 H	181	68.4	-4.5
8	2493.90	48.1 AV	54.0	-5.9	2.14 H	181	52.6	-4.5
9	4874.00	48.8 PK	74.0	-25.2	2.25 H	237	48.7	0.1
10	4874.00	47.6 AV	54.0	-6.4	2.25 H	237	47.5	0.1
11	7311.00	56.0 PK	74.0	-18.0	1.84 H	254	49.7	6.3
12	7311.00	43.4 AV	54.0	-10.6	1.84 H	254	37.1	6.3
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	55.7 PK	74.0	-18.3	1.87 V	22	60.2	-4.5
2	2390.00	43.7 AV	54.0	-10.3	1.87 V	22	48.2	-4.5
3	*2437.00	123.8 PK			1.87 V	22	128.2	-4.4
4	*2437.00	110.5 AV			1.87 V	22	114.9	-4.4
5	2483.50	56.1 PK	74.0	-17.9	1.87 V	22	60.6	-4.5
6	2483.50	44.1 AV	54.0	-9.9	1.87 V	22	48.6	-4.5
7	2493.90	67.8 PK	74.0	-6.2	1.87 V	22	72.3	-4.5
8	**2493.90**	**53.8 AV**	**54.0**	**-0.2**	**1.87 V**	**22**	**58.3**	**-4.5**
9	4874.00	49.0 PK	74.0	-25.0	3.19 V	187	48.9	0.1
10	4874.00	46.4 AV	54.0	-7.6	3.19 V	187	46.3	0.1
11	7311.00	53.6 PK	74.0	-20.4	1.64 V	180	47.3	6.3
12	7311.00	40.7 AV	54.0	-13.3	1.64 V	180	34.4	6.3

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.

RF Mode	TX 802.11ax (HE40)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

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	*2452.00	106.2 PK			2.06 H	157	110.6	-4.4
2	*2452.00	94.3 AV			2.06 H	157	98.7	-4.4
3	2483.50	64.0 PK	74.0	-10.0	2.06 H	157	68.5	-4.5
4	2483.50	51.3 AV	54.0	-2.7	2.06 H	157	55.8	-4.5
5	4904.00	46.8 PK	74.0	-27.2	2.22 H	270	46.6	0.2
6	4904.00	45.2 AV	54.0	-8.8	2.22 H	270	45.0	0.2
7	7356.00	55.0 PK	74.0	-19.0	1.91 H	256	48.6	6.4
8	7356.00	43.3 AV	54.0	-10.7	1.91 H	256	36.9	6.4
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	*2452.00	114.6 PK			1.87 V	11	119.0	-4.4
2	*2452.00	102.9 AV			1.87 V	11	107.3	-4.4
3	2483.50	65.3 PK	74.0	-8.7	1.87 V	11	69.8	-4.5
4	2483.50	53.7 AV	54.0	-0.3	1.87 V	11	58.2	-4.5
5	4904.00	47.1 PK	74.0	-26.9	3.17 V	190	46.9	0.2
6	4904.00	44.9 AV	54.0	-9.1	3.17 V	190	44.7	0.2
7	7356.00	54.1 PK	74.0	-19.9	1.60 V	150	47.7	6.4
8	7356.00	41.2 AV	54.0	-12.8	1.60 V	150	34.8	6.4

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.

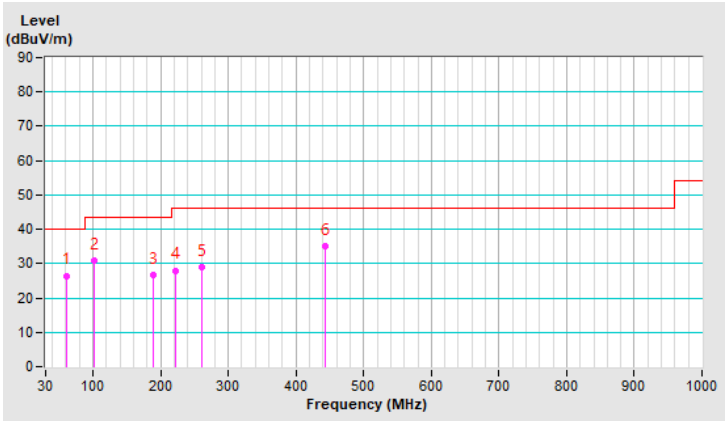
Below 1GHz Data:

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	61.87	26.5 QP	40.0	-13.5	1.00 H	299	35.3	-8.8
2	100.84	30.8 QP	43.5	-12.7	1.50 H	228	42.6	-11.8
3	189.16	26.7 QP	43.5	-16.8	1.50 H	101	37.0	-10.3
4	221.80	28.0 QP	46.0	-18.0	1.50 H	267	38.8	-10.8
5	260.54	28.8 QP	46.0	-17.2	2.00 H	54	36.8	-8.0
6	442.41	35.2 QP	46.0	-10.8	1.50 H	231	37.4	-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 of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

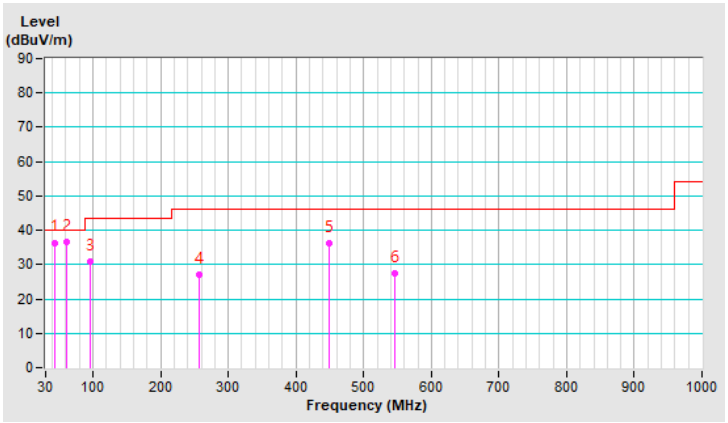


RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	43.26	36.4 QP	40.0	-3.6	1.00 V	324	44.4	-8.0
2	**60.23**	**36.7 QP**	**40.0**	**-3.3**	**1.00 V**	**352**	**45.1**	**-8.4**
3	96.43	30.8 QP	43.5	-12.7	1.00 V	244	43.5	-12.7
4	256.54	27.0 QP	46.0	-19.0	1.50 V	201	35.2	-8.2
5	449.23	36.2 QP	46.0	-9.8	1.50 V	121	38.2	-2.0
6	546.62	27.6 QP	46.0	-18.4	1.00 V	311	27.7	-0.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 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 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 20, 2020	Oct. 19, 2021
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 27, 2020	Oct. 26, 2021
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 26, 2020	Oct. 25, 2021
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. Tested Date: Jan. 26, 2021

4.2.3 Test Procedures

a. The EUT was 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/ 50uH of coupling impedance for the measuring instrument.

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

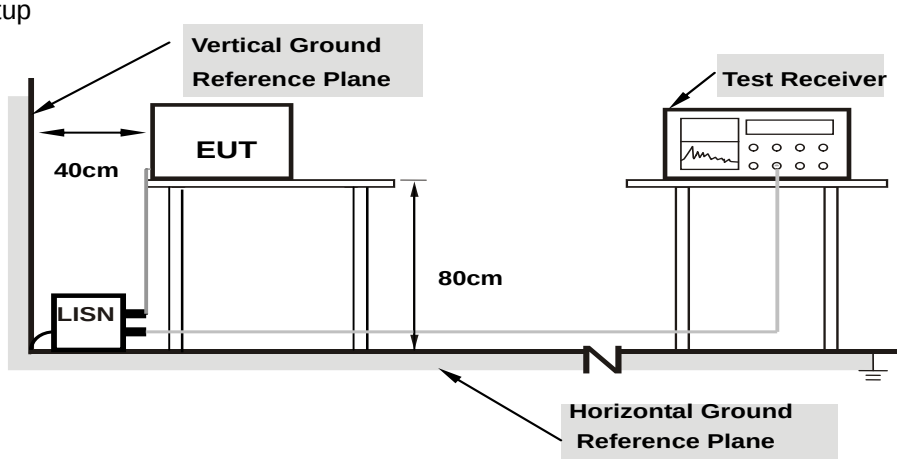
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 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).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

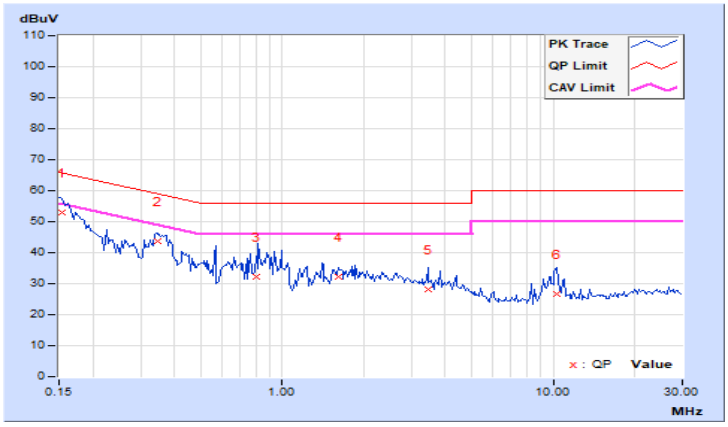
4.2.7 Test Results

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.15391	9.96	42.87	28.28	52.83	38.24	65.79	55.79	-12.96	-17.55
2	0.34531	10.01	33.85	28.37	43.86	38.38	59.07	49.07	-15.21	-10.69
3	0.79844	10.05	22.19	14.95	32.24	25.00	56.00	46.00	-23.76	-21.00
4	1.60938	10.11	22.18	14.99	32.29	25.10	56.00	46.00	-23.71	-20.90
5	3.45703	10.24	17.99	12.13	28.23	22.37	56.00	46.00	-27.77	-23.63
6	10.26172	10.74	15.77	9.50	26.51	20.24	60.00	50.00	-33.49	-29.76

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

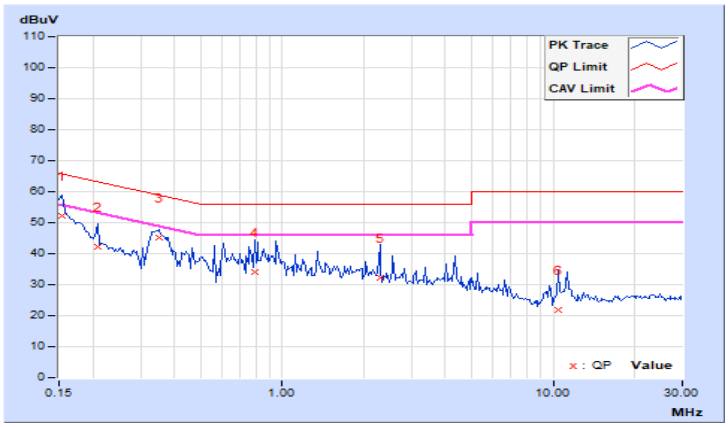


RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.15391	9.94	42.13	26.91	52.07	36.85	65.79	55.79	-13.72	-18.94
2	0.20859	9.98	32.27	16.69	42.25	26.67	63.26	53.26	-21.01	-26.59
3	**0.34922**	**10.00**	**35.35**	**29.44**	**45.35**	**39.44**	**58.98**	**48.98**	**-13.63**	**-9.54**
4	0.79453	10.05	24.18	16.75	34.23	26.80	56.00	46.00	-21.77	-19.20
5	2.29297	10.16	22.06	15.23	32.22	25.39	56.00	46.00	-23.78	-20.61
6	10.42188	10.64	11.33	3.43	21.97	14.07	60.00	50.00	-38.03	-35.93

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



4.3 Conducted Output Power Measurement

4.3.1 Limits of Conducted Output Power Measurement

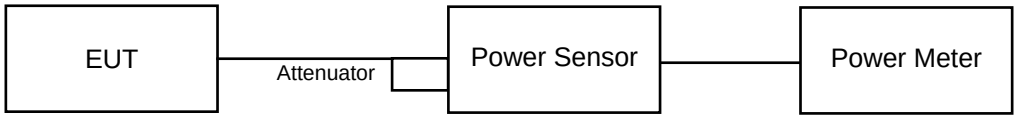
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedures

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.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

Same as Item 4.3.6.

4.3.7 Test Results

Non-Beamforming Mode

802.11b

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.81	24.02	23.58	23.68	954.164	29.80	30	Pass
6	2437	23.61	23.60	23.91	24.02	957.086	29.81	30	Pass
11	2462	21.40	21.76	21.19	22.00	578.019	27.62	30	Pass

802.11g

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.58	23.82	23.52	23.85	936.591	29.72	30	Pass
6	2437	23.45	23.42	23.68	23.61	904.056	29.56	30	Pass
11	2462	22.34	22.55	22.34	22.48	699.689	28.45	30	Pass

VHT20

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.55	24.02	23.31	24.20	956.128	29.81	30	Pass
6	2437	23.42	23.51	23.35	23.65	892.185	29.50	30	Pass
11	2462	21.55	22.08	21.82	21.80	607.736	27.84	30	Pass

VHT40

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	20.92	21.82	21.52	22.08	578.991	27.63	30	Pass
6	2437	19.21	19.38	19.50	19.48	347.905	25.41	30	Pass
9	2452	15.22	15.30	14.91	15.39	132.719	21.23	30	Pass

802.11ax (HE20)

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.57	23.99	23.34	24.23	958.745	29.82	30	Pass
6	2437	23.40	23.52	23.59	23.66	904.515	29.56	30	Pass
11	2462	21.58	22.10	21.85	21.81	610.875	27.86	30	Pass

802.11ax (HE40)

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	20.92	21.85	21.51	22.10	580.464	27.64	30	Pass
6	2437	19.22	19.38	19.51	19.48	348.303	25.42	30	Pass
9	2452	15.24	15.35	14.96	15.34	133.227	21.25	30	Pass

Beamforming Mode

VHT20

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.55	24.02	23.31	24.20	956.128	29.81	29.99	Pass
6	2437	23.42	23.51	23.35	23.65	892.185	29.50	29.99	Pass
11	2462	21.55	22.08	21.82	21.80	607.736	27.84	29.99	Pass

Note: 1. The directional gain = 6.01dBi > 6dBi, so the power limit shall be reduced to 30.00-(6.01-6) = 29.99dBm.

VHT40

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	20.92	21.82	21.52	22.08	578.991	27.63	29.99	Pass
6	2437	19.21	19.38	19.50	19.48	347.905	25.41	29.99	Pass
9	2452	15.22	15.30	14.91	15.39	132.719	21.23	29.99	Pass

Note: 1. The directional gain = 6.01dBi > 6dBi, so the power limit shall be reduced to 30.00-(6.01-6) = 29.99dBm.

802.11ax (HE20)

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
1	2412	23.57	23.99	23.34	24.23	958.745	29.82	29.99	Pass
6	2437	23.40	23.52	23.59	23.66	904.515	29.56	29.99	Pass
11	2462	21.58	22.10	21.85	21.81	610.875	27.86	29.99	Pass

Note: 1. The directional gain = 6.01dBi > 6dBi, so the power limit shall be reduced to 30.00-(6.01-6) = 29.99dBm.

802.11ax (HE40)

Chan.	Frequency (MHz)	Avg. Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
3	2422	20.92	21.85	21.51	22.10	580.464	27.64	29.99	Pass
6	2437	19.22	19.38	19.51	19.48	348.303	25.42	29.99	Pass
9	2452	15.24	15.35	14.96	15.34	133.227	21.25	29.99	Pass

Note: 1. The directional gain = 6.01dBi > 6dBi, so the power limit shall be reduced to 30.00-(6.01-6) = 29.99dBm.

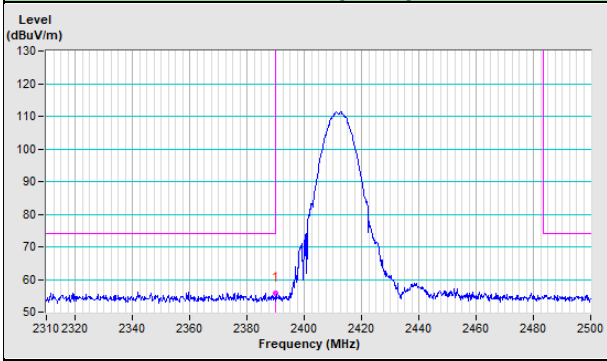
5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

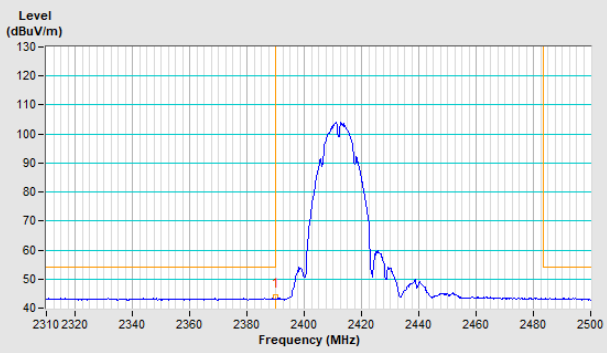
Annex A - Band-Edge Measurement

802.11b Channel 1

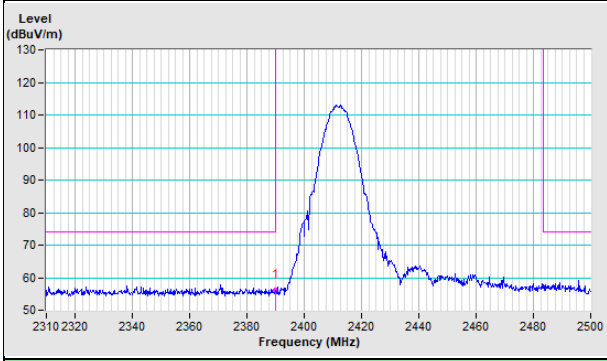
Horizontal (Peak)



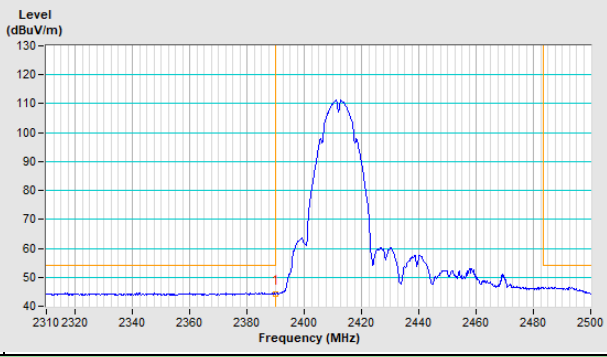
Horizontal (Average)



Vertical (Peak)

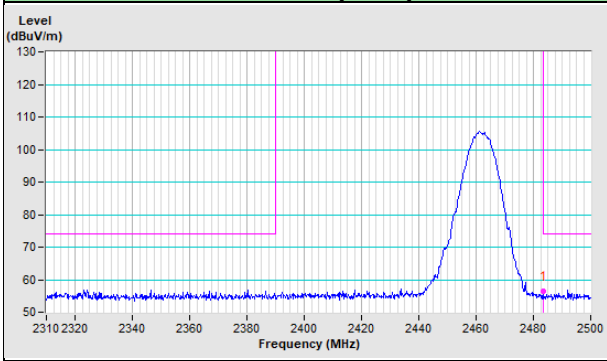


Vertical (Average)

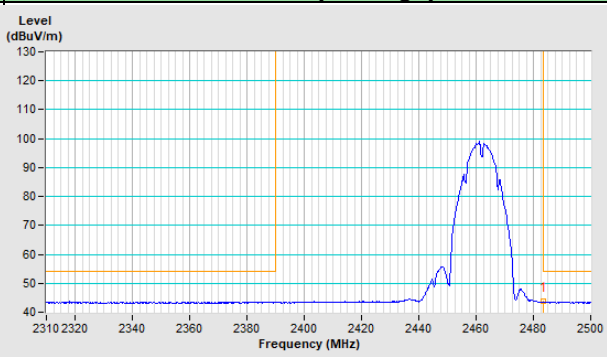


802.11b Channel 11

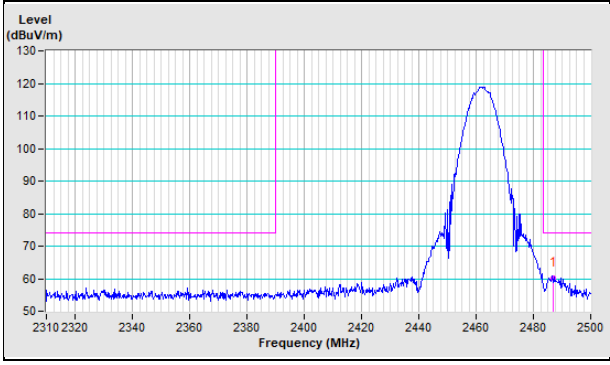
Horizontal (Peak)



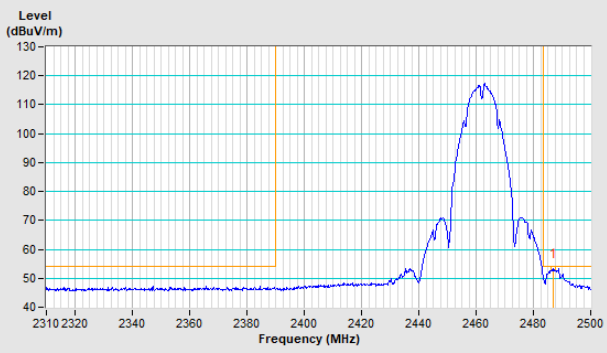
Horizontal (Average)



Vertical (Peak)

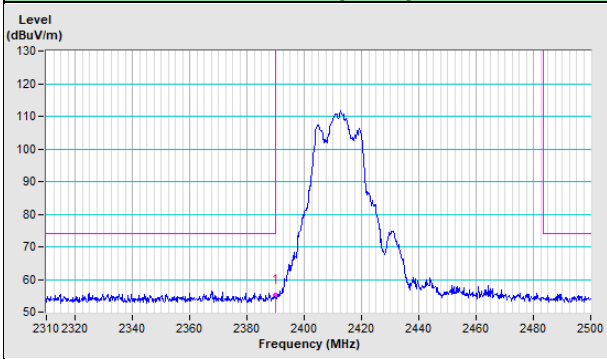


Vertical (Average)

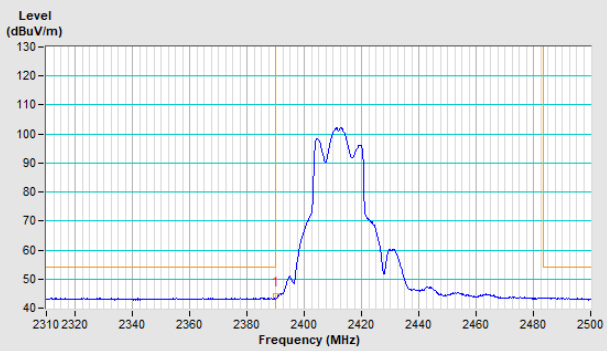


802.11g Channel 1

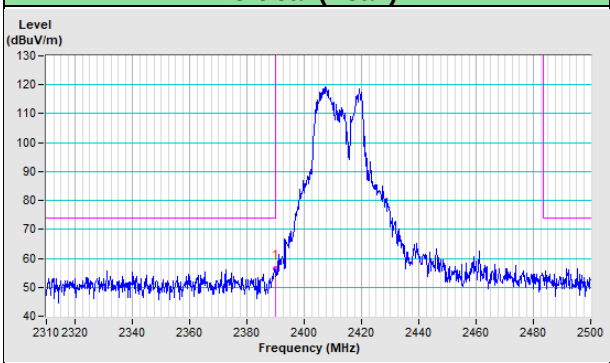
Horizontal (Peak)



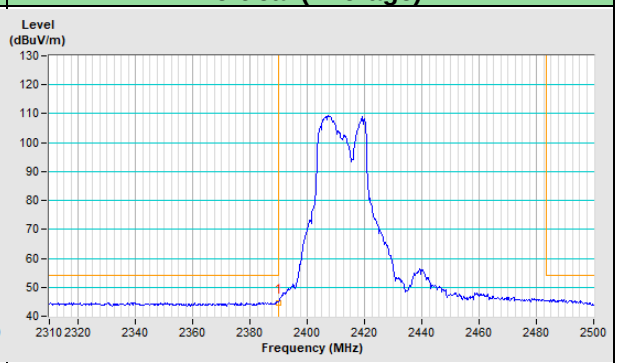
Horizontal (Average)



Vertical (Peak)

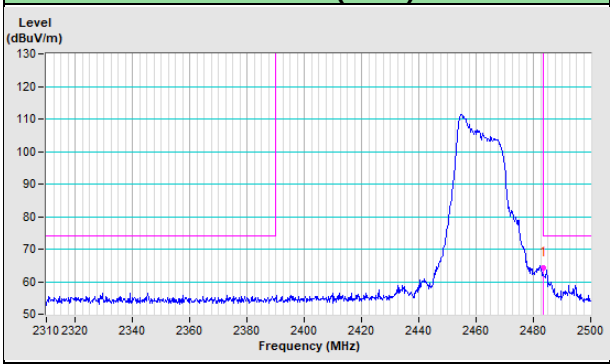


Vertical (Average)

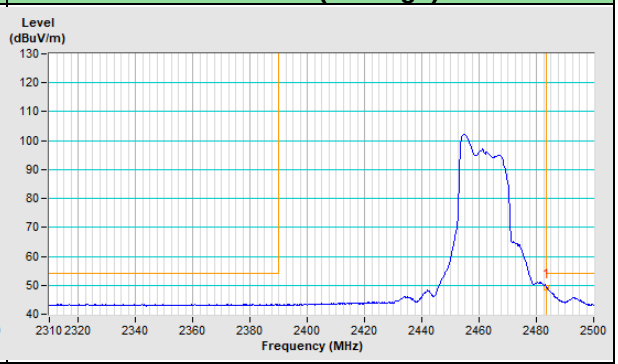


802.11g Channel 11

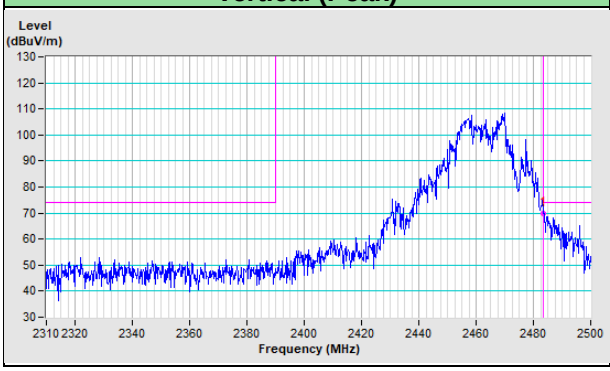
Horizontal (Peak)



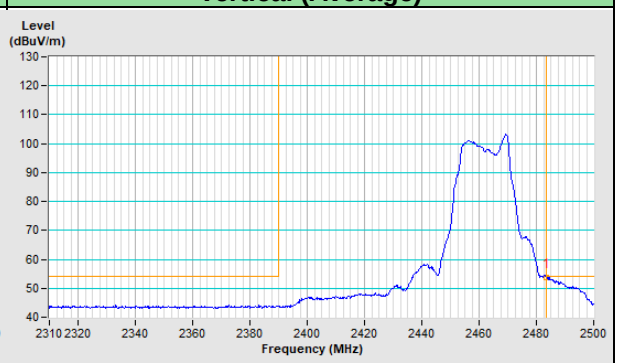
Horizontal (Average)



Vertical (Peak)

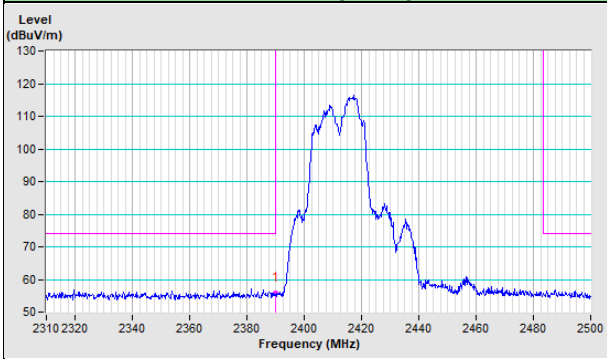


Vertical (Average)

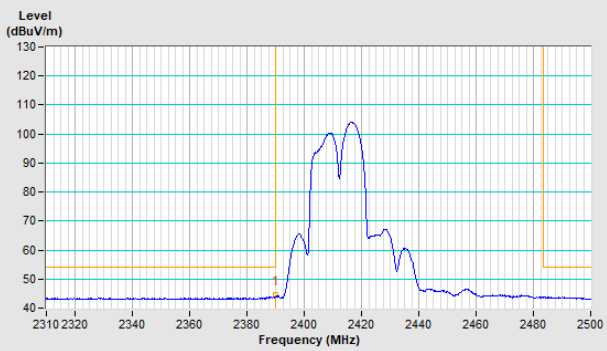


802.11ax (HE20) Channel 1

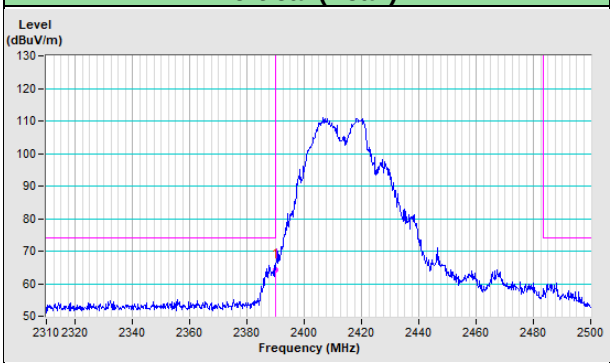
Horizontal (Peak)



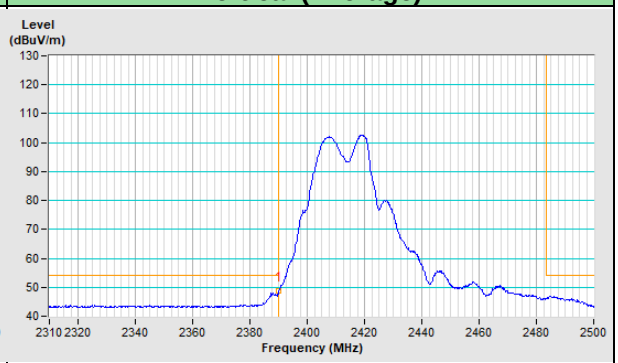
Horizontal (Average)



Vertical (Peak)

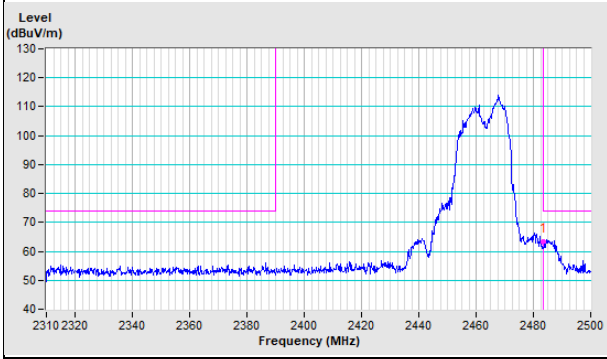


Vertical (Average)

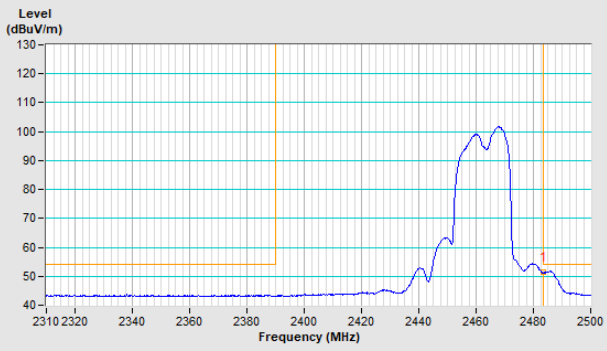


802.11ax (HE20) Channel 11

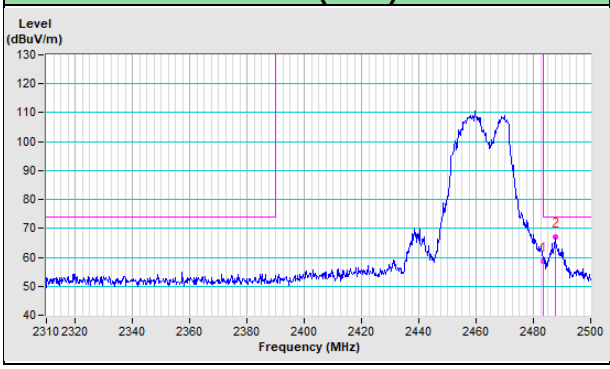
Horizontal (Peak)



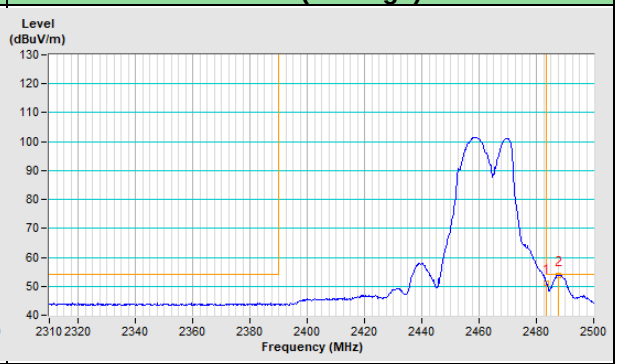
Horizontal (Average)



Vertical (Peak)

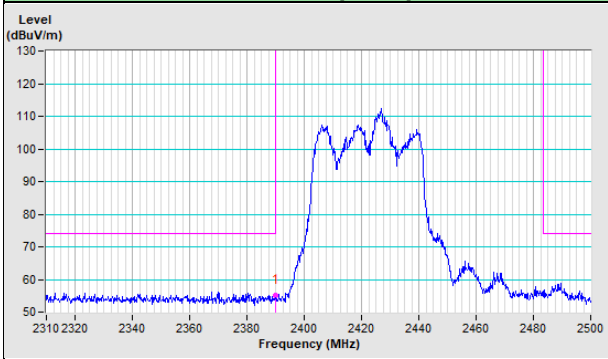


Vertical (Average)

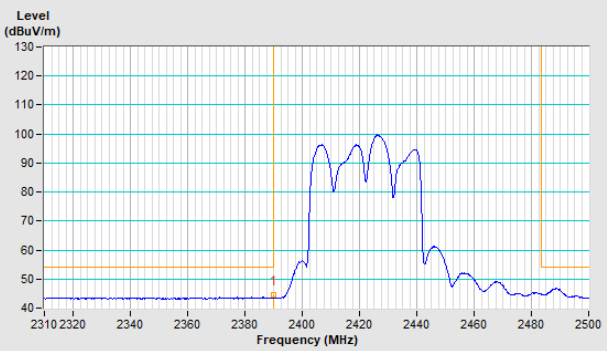


802.11ax (HE40) Channel 3

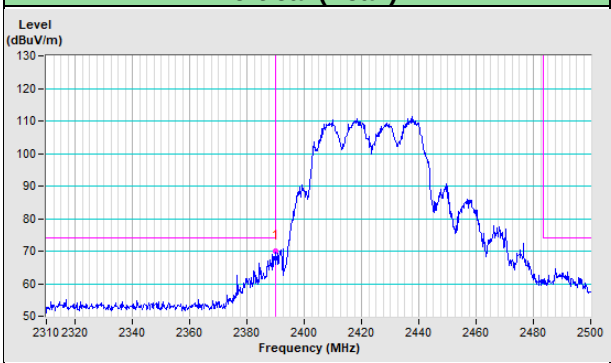
Horizontal (Peak)



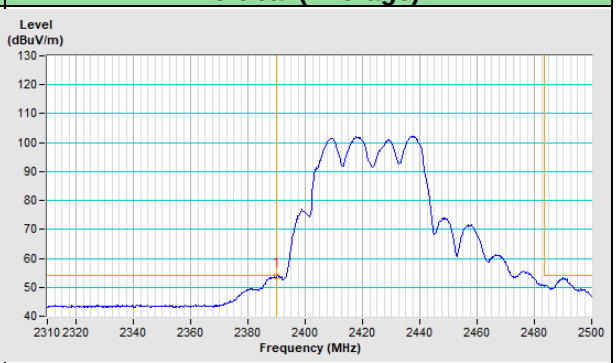
Horizontal (Average)



Vertical (Peak)

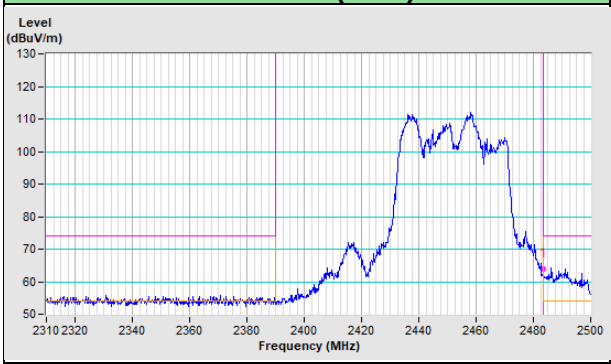


Vertical (Average)

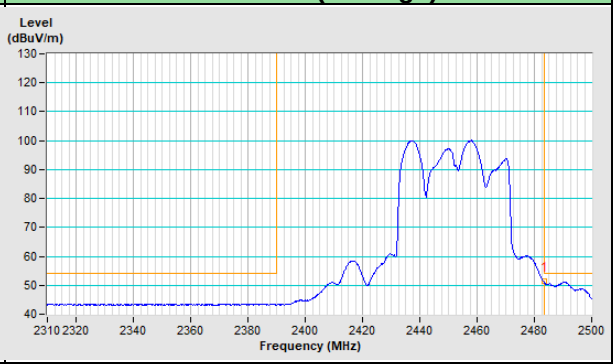


802.11ax (HE40) Channel 9

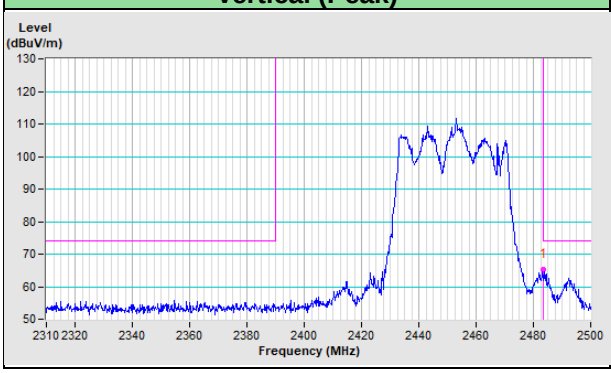
Horizontal (Peak)



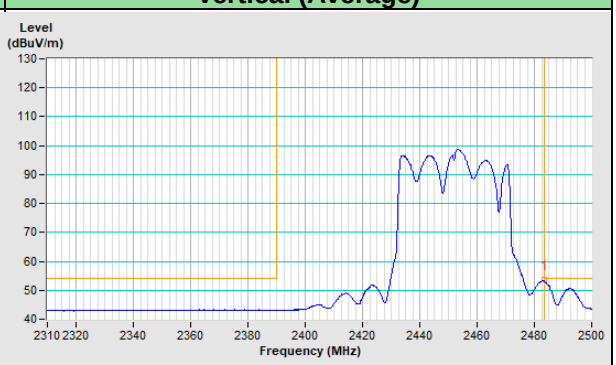
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



Appendix – 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@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

--- END ---