

TEST REPORT

CERTIFICATE OF CONFORMITY

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

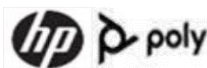
Report No.: RFBIDGE-WTW-P24100076-2

FCC ID: PU5-STV12R

Product: POLY STUDIO V12 (Video Conference Equipment)

Brand:

hp, HP, HP Inc.,



Model No.: PATX-STV-12R

Received Date: 2024/8/7

Test Date: 2024/8/7 ~ 2024/11/7

Issued Date: 2024/12/4

Applicant: Wistron Corporation

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 788550 / TW0003

Designation Number: 281270 / TW0032

Approved by:

Jeremy Lin

, **Date:**

2024/12/4

Jeremy Lin / Project Engineer

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Prepared by : Lena Wang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBDGE-WTW-P24100076-2	Original release.	2024/12/4

1 Certificate

Product: POLY STUDIO V12 (Video Conference Equipment)

Brand:

hp, HP, HP Inc.,



Test Model: PATX-STV-12R

Sample Status: Engineering sample

Applicant: Wistron Corporation

Test Date: 2024/8/7 ~ 2024/11/7

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

Measurement ANSI C63.10-2013

procedure: KDB 558074 D01 15.247 Meas Guidance v05r02

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
Standard / Clause	Test Item	Result	Remark
15.247(b)	RF Output Power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.247(a)(2)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -18.17 dB at 0.16200 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -0.3 dB at 288.99 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.4 dB at 2390.00, 4824.00 and 4874.00 MHz
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.371 dB
Power Spectral Density	-	1.017 dB
6 dB Bandwidth	-	206.5 Hz
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.79 dB
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 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	POLY STUDIO V12 (Video Conference Equipment)
Brand	hp, HP, HP Inc., 
Test Model	PATX-STV-12R
Status of EUT	Engineering sample
Power Supply Rating	Refer to note
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in VHT mode
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to 150 Mbps VHT: up to 200 Mbps
Operating Frequency	2.412 GHz ~ 2.462 GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20), VHT20:11 802.11n (HT40), VHT40:7
Output Power	23.933 mW (13.79 dBm)

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Part Number	Specification
AC Adapter (Support unit)	HP	TPN-DA20	L6550-003	AC Input : 100-240V~1.7A 50-60Hz DC Output : 5.0V=3.0A,15.0W or 9.0V=3.0A or 12.0V=5.0A or 15.0V=4.33A or 20.0V=3.25A,65.0W DC Output Cable : 1.75M / without core power cord : 1.75M BSMI ID : R33030 Manufacturer : Delta Electronics, Inc.
RJ-45 cable	-	-	-	Signal Line : 2M
Type C cable	-	-	-	Signal Line : 2M

- There are Bluetooth and WLAN (2.4 GHz & 5 GHz) technology used for the EUT.
- Bluetooth & WLAN technology cannot transmit at same time.
- The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna Type	PCB				
Antenna Connector	i-pex(MHF)				
Antenna No.	Gain (dBi)				
	2.4~2.4835GHz	5.15~5.25GHz	5.25~5.35GHz	5.47~5.725GHz	5.725~5.85GHz
Main	2.84	4.42	4.39	4.8	4.8
Aux	2.62	4.78	4.78	4.79	4.79

*For BT: during testing to set aux antenna.

*For WLAN 2.4G and 5G: during testing to set main antenna.

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

*BT and WLAN does not support diversity function.

2. The EUT incorporates a SISO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	1TX	1RX
802.11g	1TX	1RX
802.11n (HT20)	1TX	1RX
802.11n (HT40)	1TX	1RX
VHT20	1TX	1RX
VHT40	1TX	1RX

Note: The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), and VHT mode for 20 MHz (40 MHz). Therefore, the investigated worst case is the representative mode in test report.

3.3 Channel List

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

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

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

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

3.4 Test Mode Applicability and Tested Channel Detail

Worst Case:	X-AXIS, Adapter
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Following channel(s) was (were) selected for the final test as listed below:

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 6, 11	BPSK	6Mb/s
	802.11n (HT20)	1, 6, 11	BPSK	MCS0
	802.11n (HT40)	3, 6, 9	BPSK	MCS0
	VHT20	1, 6, 11	BPSK	MCS0
	VHT40	3, 6, 9	BPSK	MCS0
Power Spectral Density	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 6, 11	BPSK	6Mb/s
	VHT20	1, 6, 11	BPSK	MCS0
	VHT40	3, 6, 9	BPSK	MCS0
6 dB Bandwidth / Conducted Out of Band Emissions	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 6, 11	BPSK	6Mb/s
	VHT20	1, 6, 11	BPSK	MCS0
	VHT40	3, 6, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11g	11	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11g	11	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 6, 11	BPSK	6Mb/s
	VHT20	1, 6, 11	BPSK	MCS0
	VHT40	3, 6, 9	BPSK	MCS0

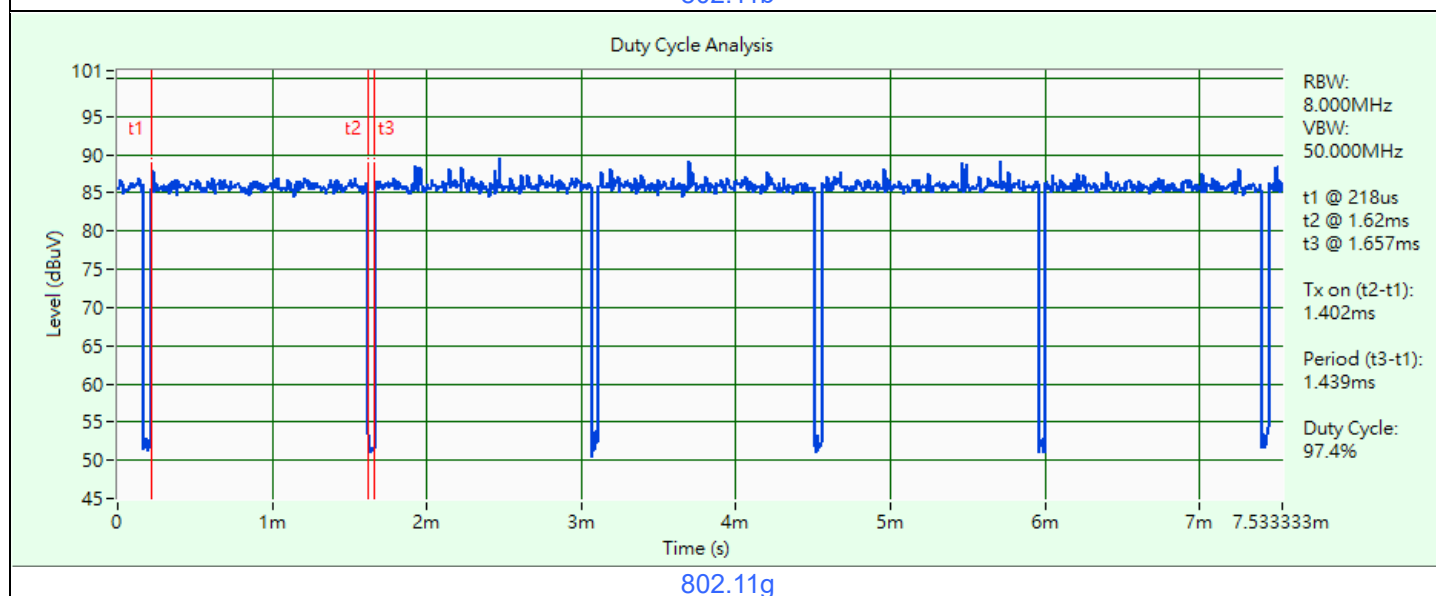
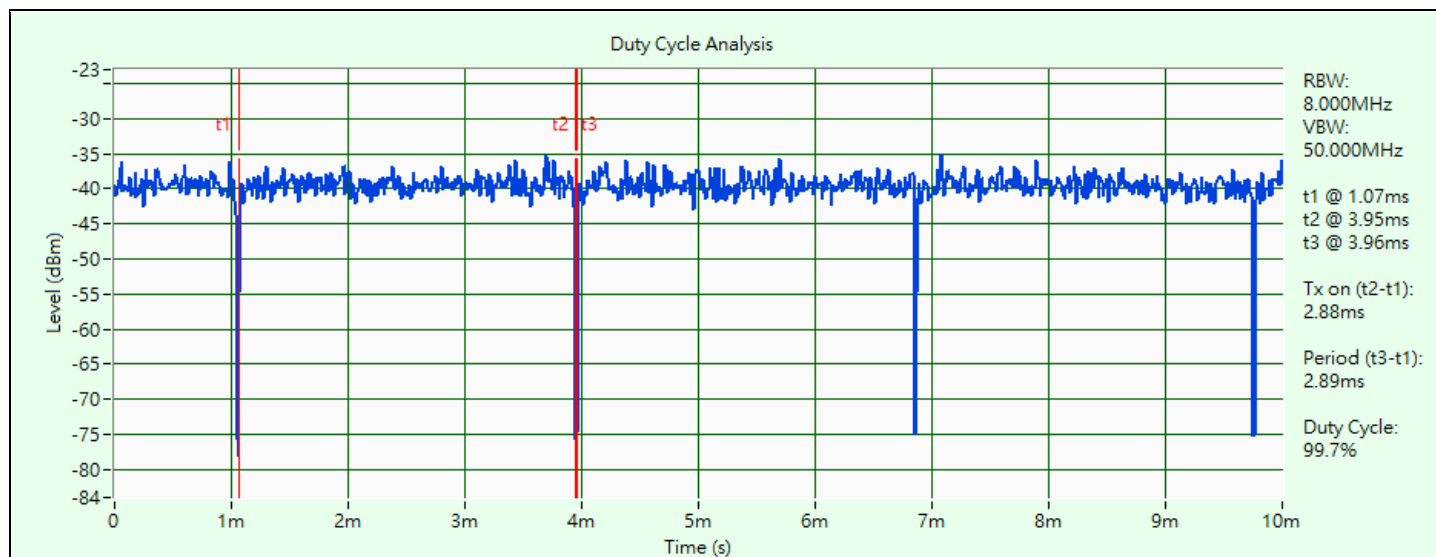
3.5 Duty Cycle of Test Signal

802.11b: Duty cycle = 2.88 ms / 2.89 ms x 100% = 99.7%

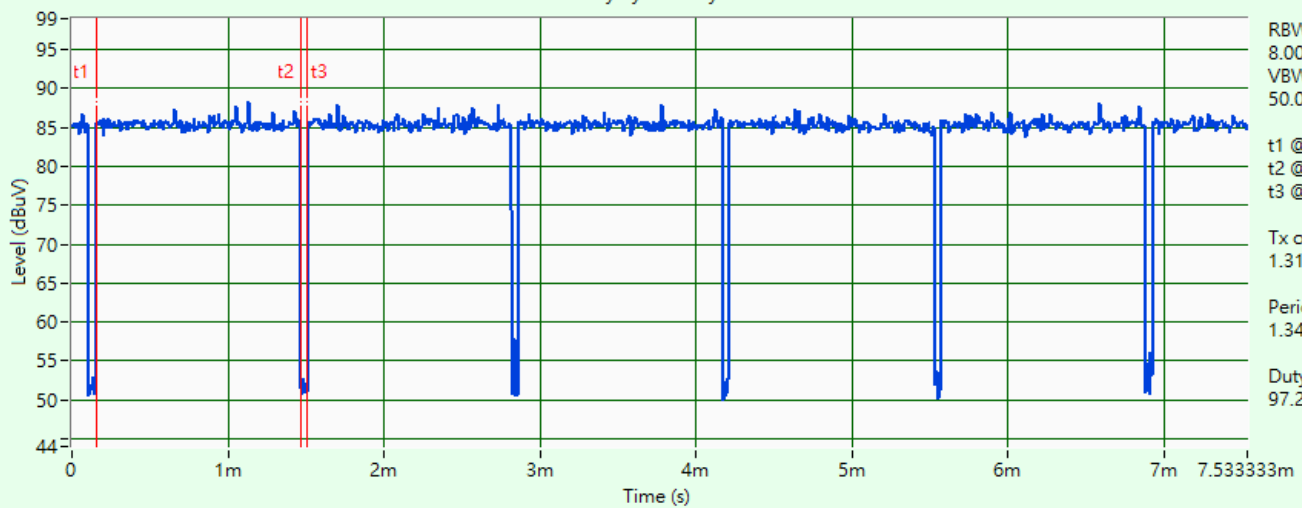
802.11g: Duty cycle = 1.402 ms / 1.439 ms x 100% = 97.4%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.11 \text{ dB}$

VHT20: Duty cycle = 1.311 ms / 1.349 ms x 100% = 97.2%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.12 \text{ dB}$

VHT40: Duty cycle = 0.651 ms / 0.696 ms x 100% = 93.5%, duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.29 \text{ dB}$

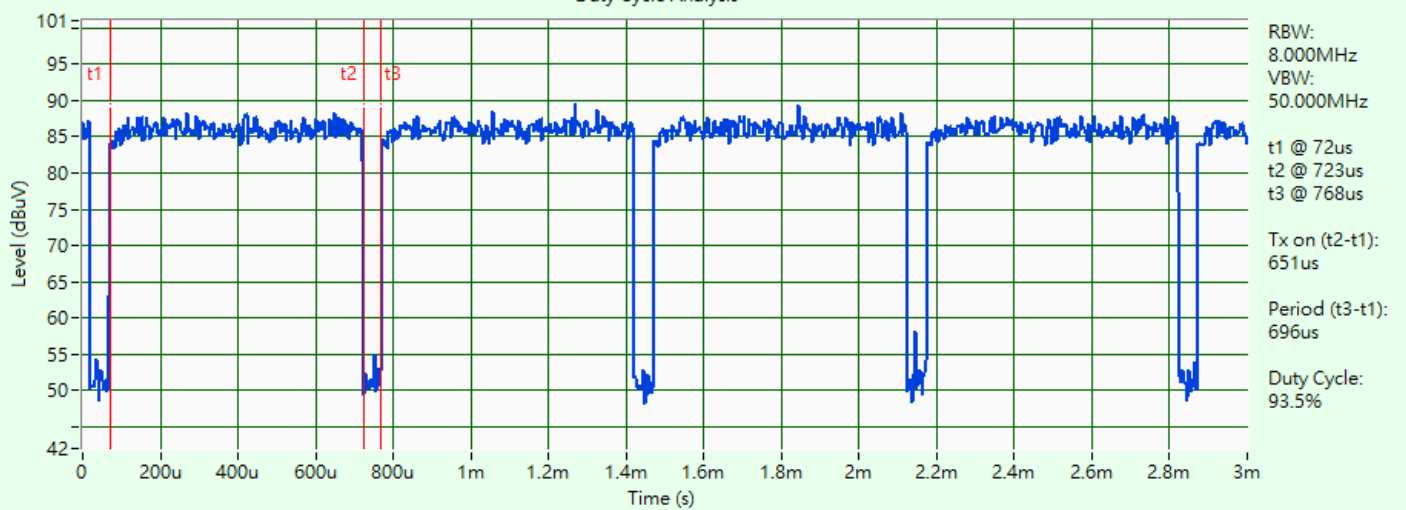


Duty Cycle Analysis



VHT20

Duty Cycle Analysis

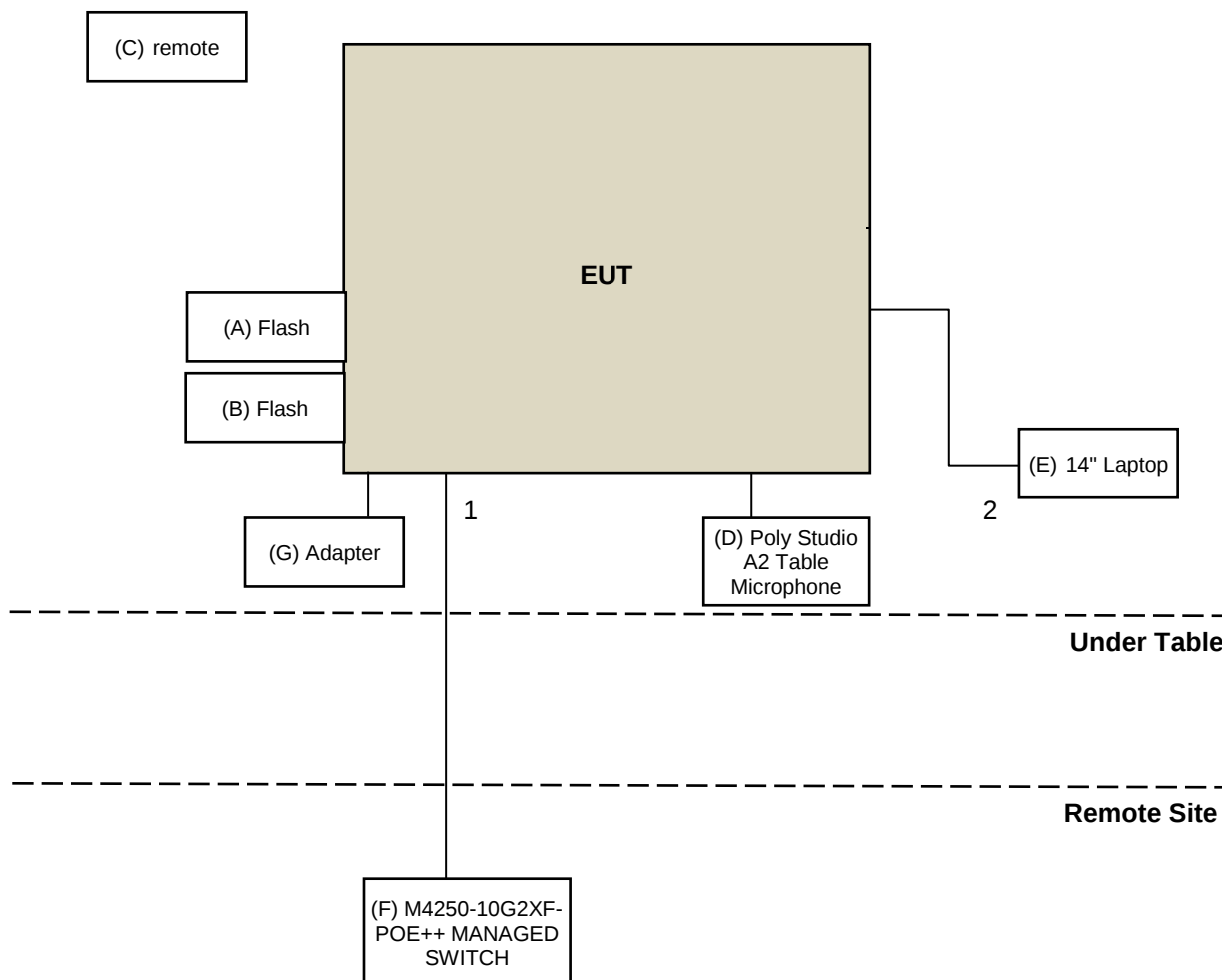


VHT40

3.6 Test Program Used and Operation Descriptions

Controlling software adb_4.2.2 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	USB Flash	SanDisk	SDDDC3-032G	N/A	N/A	Provided by Lab
B	USB Flash	SanDisk	SDDDC3-032G	N/A	N/A	Provided by Lab
C	remote	poly	R30/USB BRC	N/A	N/A	Supplied by applicant
D	Poly Studio A2 Table Microphone	poly	PATX-STA-2TM	N/A	N/A	Supplied by applicant
E	14" Laptop	Lenovo	L440	R9-0GFJKK	N/A	Provided by Lab
F	M4250-10G2XF-POE++ MANAGED SWITCH	NETGEAR	GSM4212YX-100EUS	N/A	N/A	Supplied by applicant
G	Adapter	HP	TPN-DA20	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	2	N	0	Accessory of the EUT
2	typeC Cable	1	2	N	0	Accessory of the EUT

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer Keysight	8990B	MY51000485	2024/1/21	2025/1/20
Wideband Power Sensor Keysight	N1923A	MY58020002	2024/1/18	2025/1/17
		MY58140009	2024/1/18	2025/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/10/29

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal & Spectrum Analyzer R&S	FSV3044	101105	2024/2/27	2025/2/26
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/10/29

4.3 6 dB Bandwidth

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

4.4 Conducted Out of Band Emissions

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

4.5 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011315	13	2023/11/22	2024/11/21
50 ohm terminal resistance	E1-011279	04	2023/11/22	2024/11/21
	E1-011280	05	2023/11/22	2024/11/21
DC-LISN Schwarzbeck	NNBM 8126G	8126G-069	2023/11/7	2024/11/6
EMI Test Receiver R&S	ESR3	102783	2023/12/13	2024/12/12
Fixed Attenuator STI	BNC5W10dB	PAD-COND2-01	2024/8/25	2025/8/24
LISN R&S	ESH2-Z5	100100	2024/3/6	2025/3/5
	ESH3-Z5	100312	2024/9/9	2025/9/8
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2024/8/25	2025/8/24
Software BVADT	BVADT_Cond_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2024/8/28	2025/8/27

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2024/10/29

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1214	2024/10/15	2025/10/14
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/12/28	2024/12/27
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier EMCI	EMC330N	980798	2024/1/15	2025/1/14
	EMC001340	980201	2024/9/24	2025/9/23
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201248	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-3000	201249	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-9000	201251(with PAD)	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2024/10/29 ~ 2024/11/7

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/12/28	2024/12/27
Horn Antenna RFSPIN	DRH18-E	210104A18E	2023/11/12	2024/11/11
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2023/11/12	2024/11/11
MXE EMI Receiver Agilent	N9038A	MY52260177	2023/9/15	2024/9/14
Preamplifier Agilent	83017A	MY39501357	2024/6/12	2025/6/11
Preamplifier EMCI	EMC184045SE	980788	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2024/1/15	2025/1/14
	EMC101G-KM-KM-3000	201258	2024/1/15	2025/1/14
	EMC101G-KM-KM-5000	201261	2024/1/15	2025/1/14
	EMC104-SM-SM-1000	210103	2024/1/15	2025/1/14
	EMC104-SM-SM-3000	201241	2024/1/15	2025/1/14
	EMC104-SM-SM-9000	201244	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2024/8/7

5 Limits of Test Items

5.1 RF Output Power

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

5.2 Power Spectral Density

The Maximum of Power Spectral Density Measurement is 8 dBm in any 3 kHz.

5.3 6 dB Bandwidth

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

5.4 Conducted Out of Band Emissions

Below 30 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

5.5 AC Power Conducted Emissions

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

Notes:

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

5.6 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

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

Notes:

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

5.7 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

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

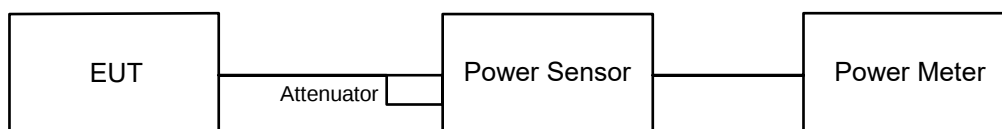
Notes:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



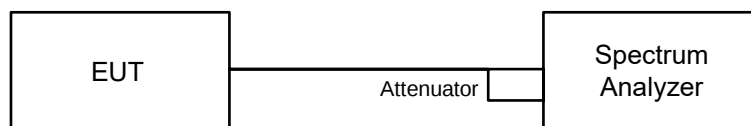
6.1.2 Test Procedure

Average Power:

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

6.2 Power Spectral Density

6.2.1 Test Setup



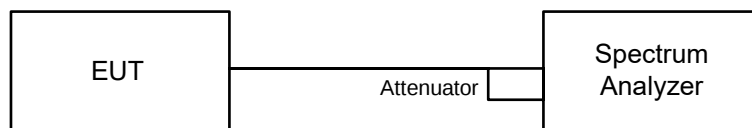
6.2.2 Test Procedure

- Measure the duty cycle (x).
- Set instrument center frequency to DTS channel center frequency.
- Set span to at least 1.5 times the OBW.
- Set RBW to: 3 kHz.
- Set VBW $\geq 3 \times$ RBW.
- Detector = power averaging (RMS) or sample detector (when RMS not available).
- Ensure that the number of measurement points in the sweep $\geq 2 \times$ span/RBW.
- Sweep time = auto couple.
- Do not use sweep triggering. Allow sweep to "free run".
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level.

Note: If Duty cycle < 98%, Add $10 \log (1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time.

6.3 6 dB Bandwidth

6.3.1 Test Setup

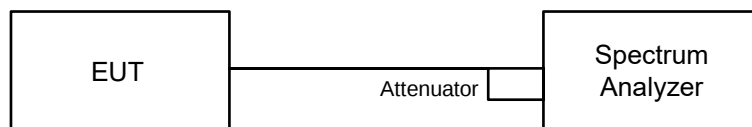


6.3.2 Test Procedure

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

6.4 Conducted Out of Band Emissions

6.4.1 Test Setup



6.4.2 Test Procedure

MEASUREMENT PROCEDURE REF

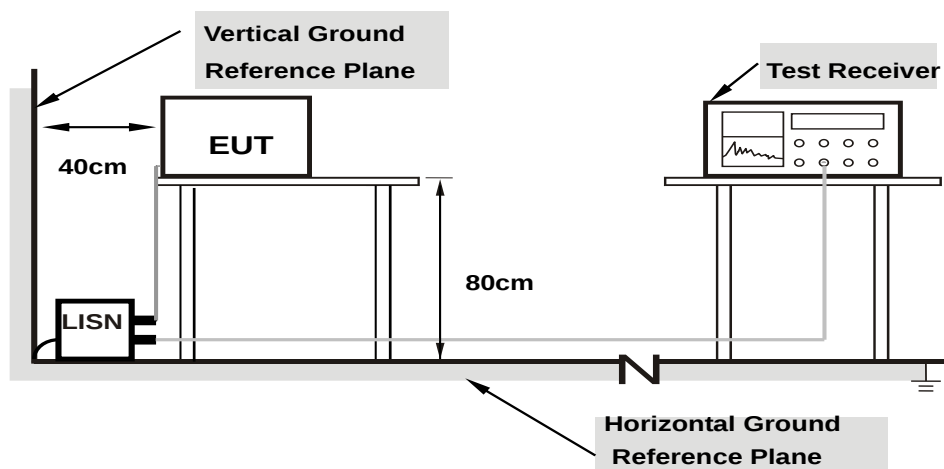
- Set the RBW = 100 kHz.
- Set the VBW ≥ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level.

6.5 AC Power Conducted Emissions

6.5.1 Test Setup



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

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

6.5.2 Test Procedure

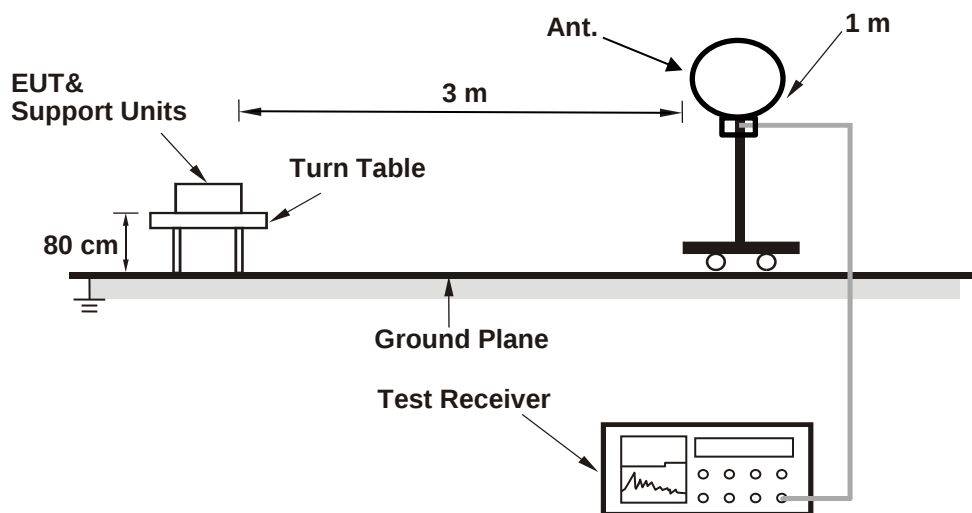
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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

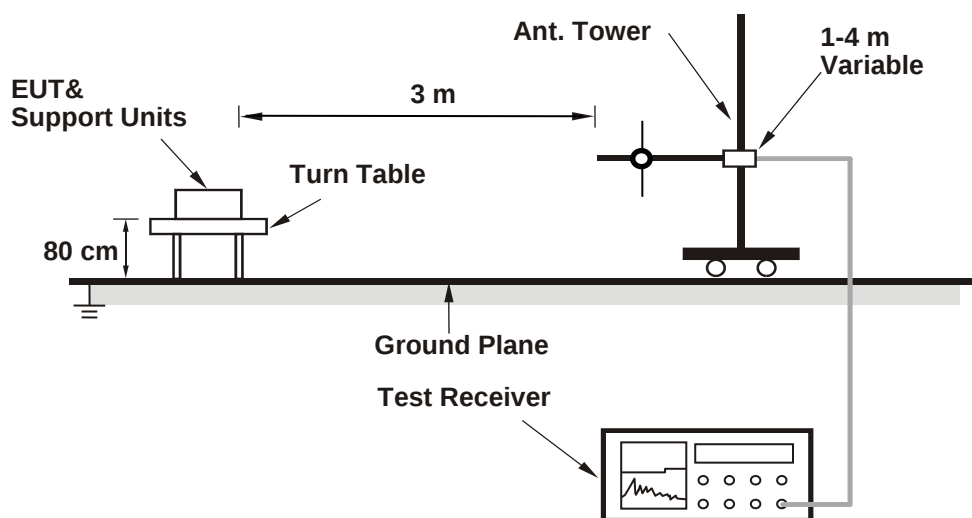
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.6.2 Test Procedure

For Radiated emission below 30 MHz

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

Notes:

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

For Radiated emission above 30 MHz

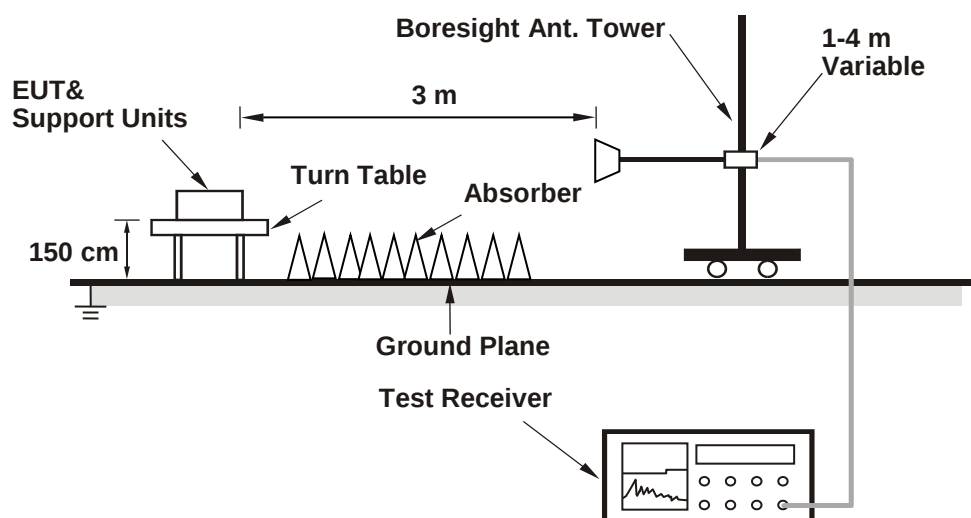
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver 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.

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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802.11b

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
1	2412	21.281	13.28	30	Pass
6	2437	21.727	13.37	30	Pass
11	2462	21.777	13.38	30	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
1	2412	22.961	13.61	30	Pass
6	2437	22.909	13.60	30	Pass
11	2462	23.933	13.79	30	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
1	2412	17.865	12.52	30	Pass
6	2437	17.14	12.34	30	Pass
11	2462	17.824	12.51	30	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
3	2422	18.239	12.61	30	Pass
6	2437	17.947	12.54	30	Pass
9	2452	18.113	12.58	30	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT20

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
1	2412	18.113	12.58	30	Pass
6	2437	17.219	12.36	30	Pass
11	2462	17.947	12.54	30	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the output power limit shall not be reduced.

VHT40

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Power Limit (dBm)	Test Result
3	2422	18.45	12.66	30	Pass
6	2437	18.113	12.58	30	Pass
9	2452	18.493	12.67	30	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the output power limit shall not be reduced.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyoung Wang
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802.11b

Chan.	Chan. Freq. (MHz)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
1	2412	-18.74	8	Pass
6	2437	-18.66	8	Pass
11	2462	-18.39	8	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)	Duty Factor (dB)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
1	2412	-18.98	0.11	-18.87	8	Pass
6	2437	-19.04	0.11	-18.93	8	Pass
11	2462	-18.88	0.11	-18.77	8	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the power density limit shall not be reduced.

VHT20

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)	Duty Factor (dB)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
1	2412	-20.89	0.12	-20.77	8	Pass
6	2437	-21.15	0.12	-21.03	8	Pass
11	2462	-21.08	0.12	-20.96	8	Pass

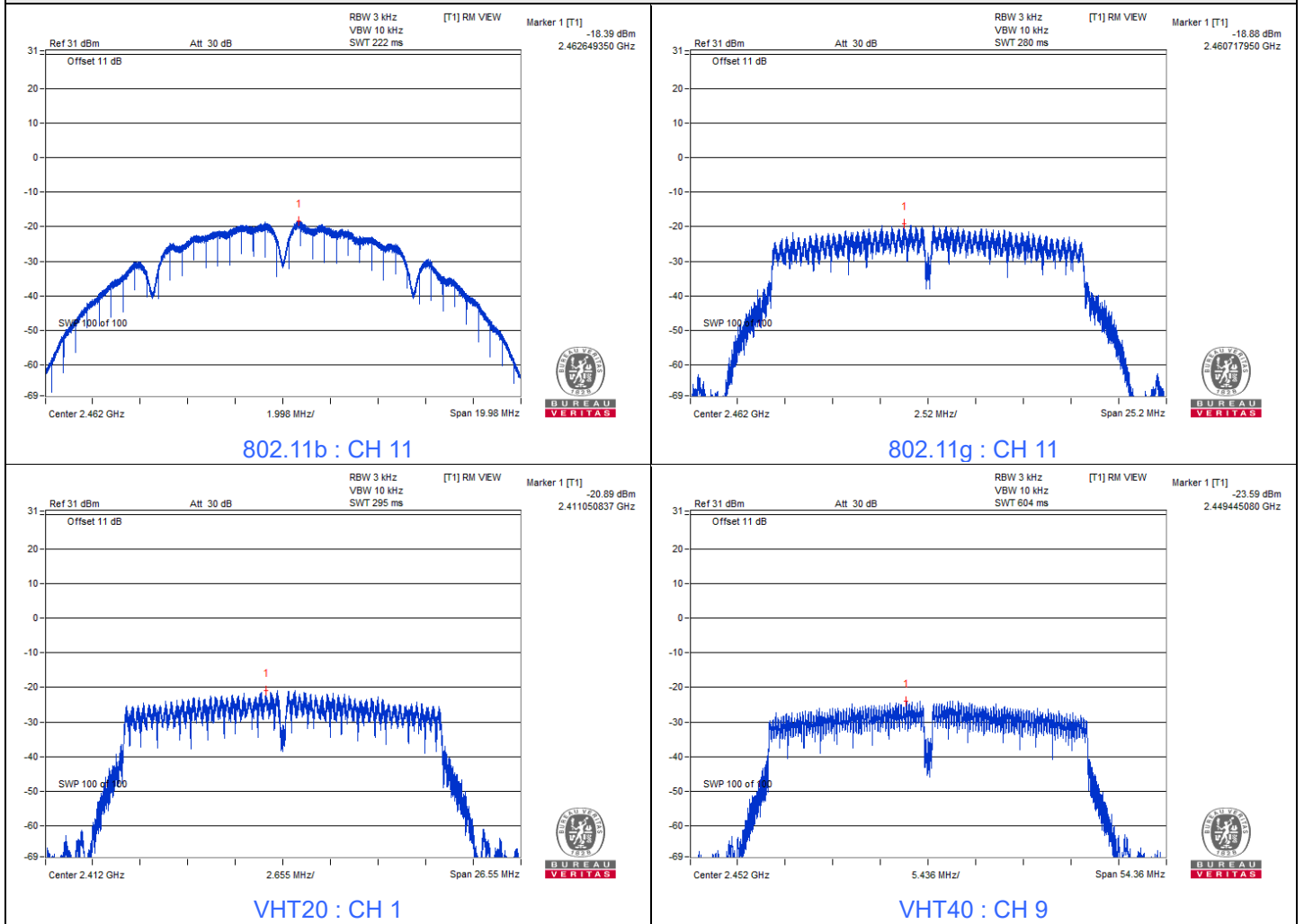
Note: The antenna gain is 2.84 dBi < 6 dBi, so the power density limit shall not be reduced.

VHT40

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/3kHz)	Duty Factor (dB)	PSD (dBm/3kHz)	PSD Limit (dBm/3kHz)	Test Result
3	2422	-23.68	0.29	-23.39	8	Pass
6	2437	-23.7	0.29	-23.41	8	Pass
9	2452	-23.59	0.29	-23.30	8	Pass

Note: The antenna gain is 2.84 dBi < 6 dBi, so the power density limit shall not be reduced.

Spectrum Plot of Maximum Value



7.3 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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802.11b

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
1	2412	9.09	0.5	Pass
6	2437	8.11	0.5	Pass
11	2462	9.1	0.5	Pass

802.11g

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
1	2412	15.18	0.5	Pass
6	2437	15.2	0.5	Pass
11	2462	15.21	0.5	Pass

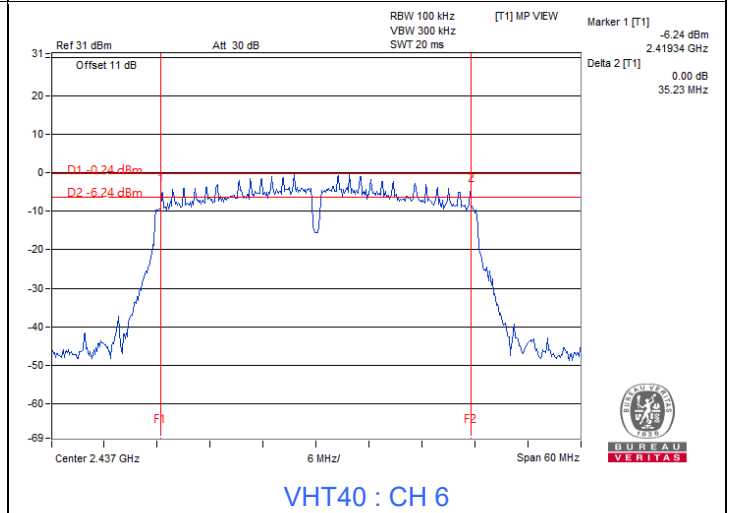
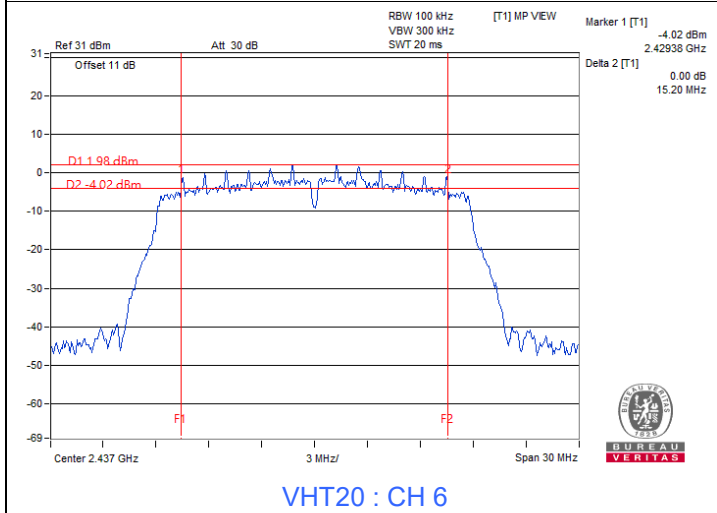
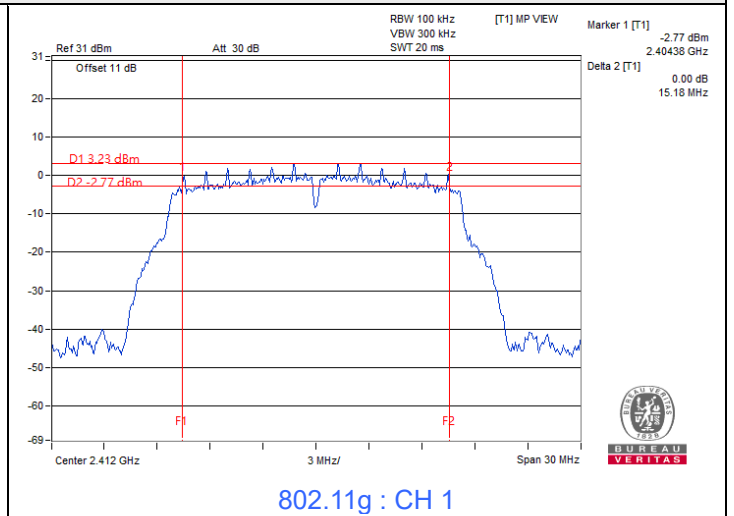
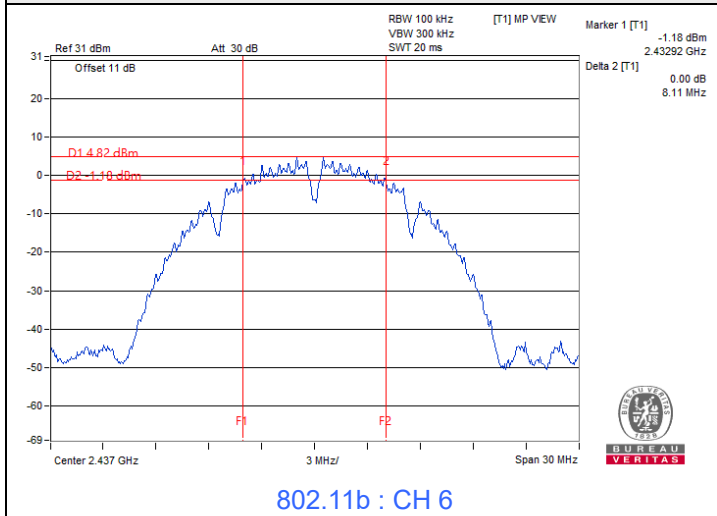
VHT20

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
1	2412	15.21	0.5	Pass
6	2437	15.2	0.5	Pass
11	2462	15.2	0.5	Pass

VHT40

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Test Result
3	2422	35.28	0.5	Pass
6	2437	35.23	0.5	Pass
9	2452	35.27	0.5	Pass

Spectrum Plot of Minimum Value



7.4 Conducted Out of Band Emissions

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyoung Wang
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802.11b



802.11g



VHT20



VHT40



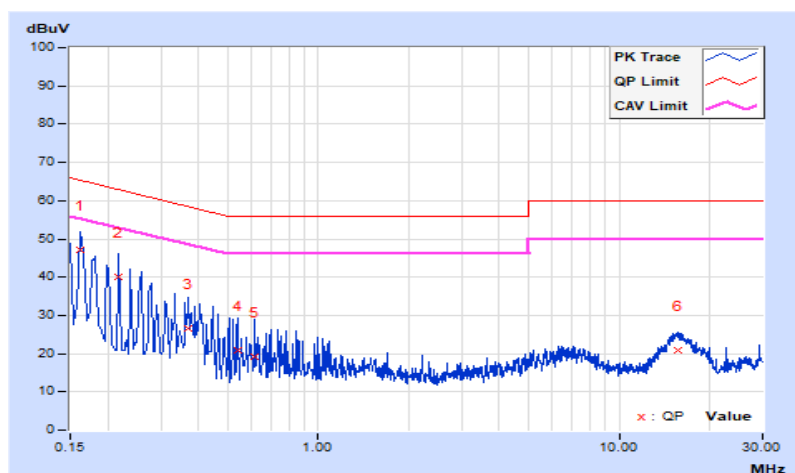
7.5 AC Power Conducted Emissions

RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Tank Wu		

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	0.16200	10.15	37.04	19.17	47.19	29.32	65.36	55.36	-18.17	-26.04
2	0.21800	10.17	29.88	12.36	40.05	22.53	62.89	52.89	-22.84	-30.36
3	0.37000	10.18	16.31	5.93	26.49	16.11	58.50	48.50	-32.01	-32.39
4	0.53800	10.19	10.52	3.83	20.71	14.02	56.00	46.00	-35.29	-31.98
5	0.61800	10.20	9.04	2.89	19.24	13.09	56.00	46.00	-36.76	-32.91
6	15.63000	10.64	10.07	4.11	20.71	14.75	60.00	50.00	-39.29	-35.25

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

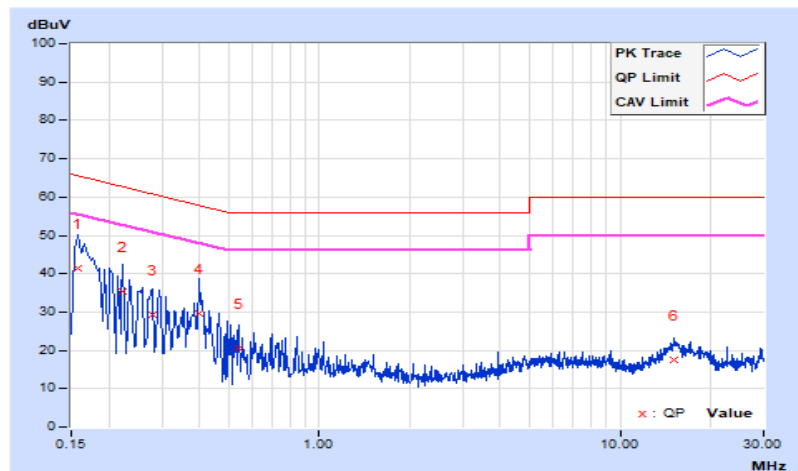


RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Tank Wu		

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	0.15800	10.18	31.23	11.68	41.41	21.86	65.57	55.57	-24.16	-33.71
2	0.22200	10.20	25.25	7.28	35.45	17.48	62.74	52.74	-27.29	-35.26
3	0.27786	10.20	19.23	3.20	29.43	13.40	60.88	50.88	-31.45	-37.48
4	0.39800	10.21	19.50	6.73	29.71	16.94	57.90	47.90	-28.19	-30.96
5	0.53800	10.23	10.29	4.70	20.52	14.93	56.00	46.00	-35.48	-31.07
6	15.17400	10.74	6.68	2.53	17.42	13.27	60.00	50.00	-42.58	-36.73

Remarks:

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



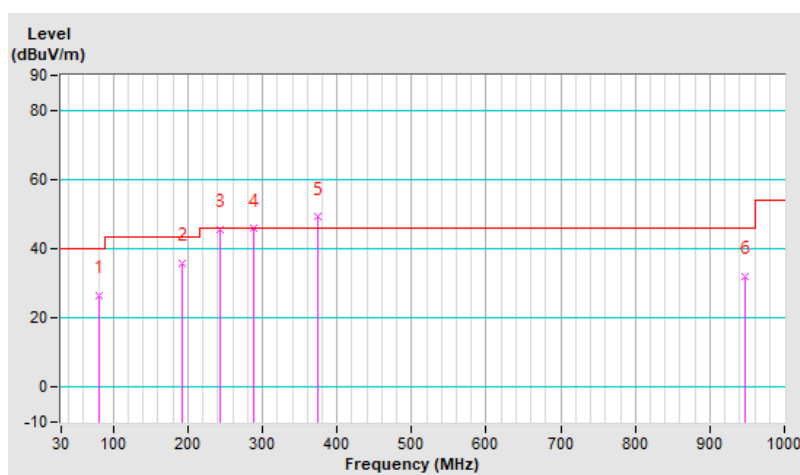
7.6 Unwanted Emissions below 1 GHz

RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 65 % RH
Tested By	Tank Wu		

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	81.41	26.6 QP	40.0	-13.4	1.49 H	41	43.9	-17.3
2	191.99	35.7 QP	43.5	-7.8	2.00 H	72	50.8	-15.1
3	243.40	45.4 QP	46.0	-0.6	1.24 H	136	59.1	-13.7
4	288.99	45.7 QP	46.0	-0.3	1.00 H	115	57.6	-11.9
*5	373.38	49.1 QP	46.0	3.1	1.00 H	18	59.0	-9.9
6	947.62	31.8 QP	46.0	-14.2	2.99 H	142	31.2	0.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
 3. Margin value = Emission Level – Limit value
 4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
 5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.
- * Radiated emissions were evaluated with RF module off to determine whether failing results were originating from the RF module (See RF module off Mode data). After verification, frequencies denoted by the * These are failing have been identified as coming from unintentional emission signal brought out by the power supply. All unintentional emissions are addressed in the test report no. FDBDGE-WTW-P24100076.

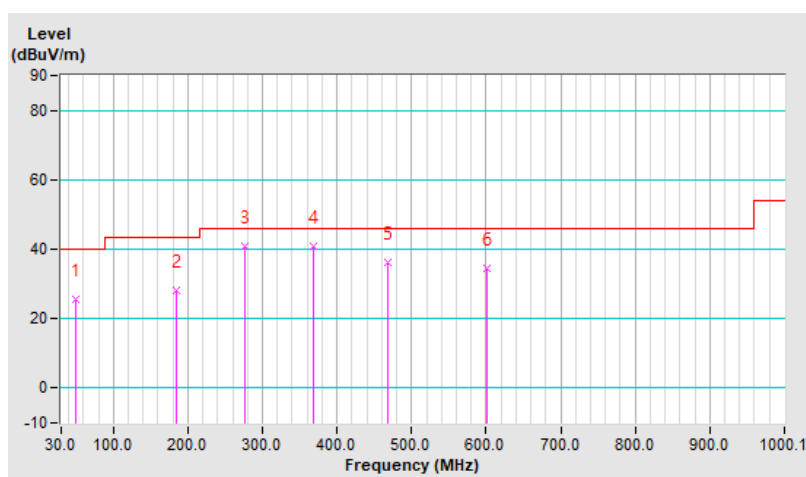


RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 65 % RH
Tested By	Tank Wu		

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	49.40	25.5 QP	40.0	-14.5	1.25 V	146	37.8	-12.3
2	185.20	28.2 QP	43.5	-15.3	1.00 V	215	42.7	-14.5
3	276.38	41.0 QP	46.0	-5.0	2.00 V	191	53.3	-12.3
4	367.56	40.7 QP	46.0	-5.3	1.50 V	301	50.9	-10.2
5	468.44	36.0 QP	46.0	-10.0	1.50 V	269	43.3	-7.3
6	600.36	34.4 QP	46.0	-11.6	2.00 V	199	39.2	-4.8

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.
- * Radiated emissions were evaluated with RF module off to determine whether failing results were originating from the RF module (See RF module off Mode data). After verification, frequencies denoted by the * These are failing have been identified as coming from unintentional emission signal brought out by the power supply. All unintentional emissions are addressed in the test report no. FBDGE-WTW-P24100076.

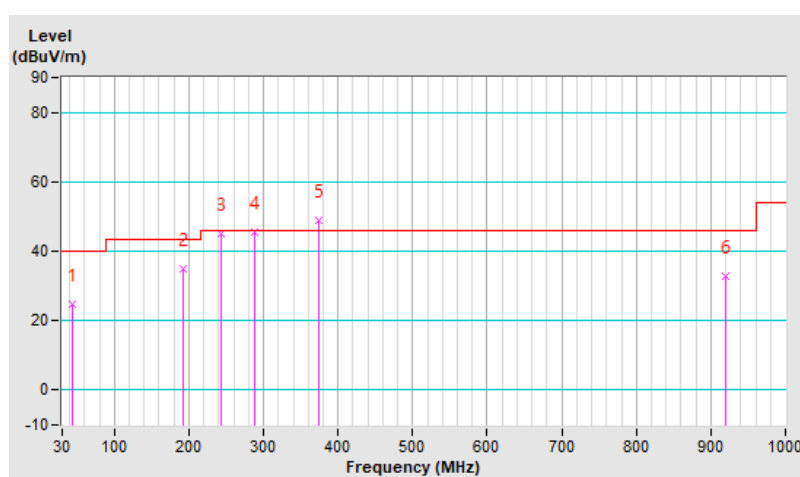


RF Mode	TX off		
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 65 % RH
Tested By	Tank Wu		

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	43.66	24.6 QP	40.0	-15.4	2.00 H	120	36.9	-12.3
2	191.99	35.0 QP	43.5	-8.5	1.24 H	250	50.1	-15.1
3	243.20	45.0 QP	46.0	-1.0	1.25 H	142	58.7	-13.7
4	288.45	45.7 QP	46.0	-0.3	1.00 H	154	57.6	-11.9
*5	373.38	48.7 QP	46.0	2.7	1.00 H	21	58.6	-9.9
6	920.46	32.9 QP	46.0	-13.1	1.00 H	13	32.8	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 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.
- * Radiated emissions were evaluated with RF module off to determine whether failing results were originating from the RF module (See RF module off Mode data). After verification, frequencies denoted by the * These are failing have been identified as coming from unintentional emission signal brought out by the power supply. All unintentional emissions are addressed in the test report no. FBDGE-WTW-P24100076.

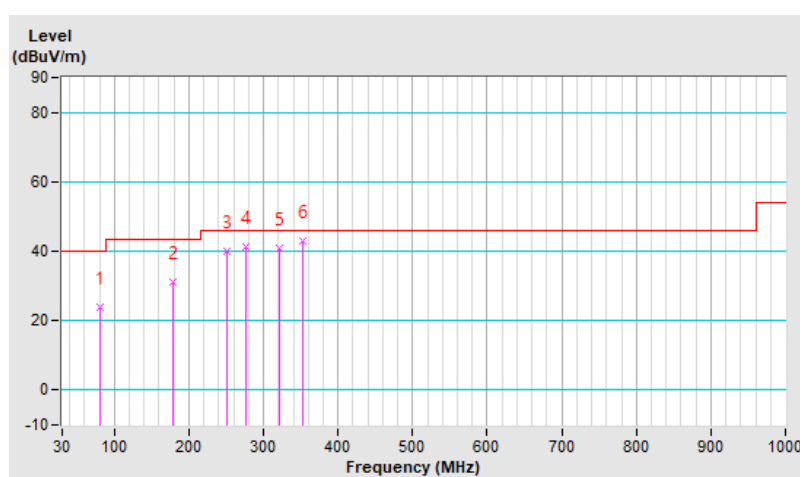


RF Mode	TX off		
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 65 % RH
Tested By	Tank Wu		

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	81.32	24.1 QP	40.0	-15.9	1.00 V	166	41.4	-17.3
2	178.15	31.0 QP	43.5	-12.5	1.25 V	142	44.5	-13.5
3	250.19	40.0 QP	46.0	-6.0	1.50 V	217	53.6	-13.6
4	276.44	41.3 QP	46.0	-4.7	1.50 V	231	53.6	-12.3
5	321.23	41.0 QP	46.0	-5.0	2.00 V	224	51.9	-10.9
6	353.02	42.8 QP	46.0	-3.2	1.00 V	178	53.4	-10.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
 3. Margin value = Emission Level – Limit value
 4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
 5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.
- * Radiated emissions were evaluated with RF module off to determine whether failing results were originating from the RF module (See RF module off Mode data). After verification, frequencies denoted by the * These are failing have been identified as coming from unintentional emission signal brought out by the power supply. All unintentional emissions are addressed in the test report no. FBDGE-WTW-P24100076.



7.7 Unwanted Emissions above 1 GHz

RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	60.3 PK	74.0	-13.7	1.08 H	284	28.0	32.3
2	2390.00	50.0 AV	54.0	-4.0	1.08 H	284	17.7	32.3
3	*2412.00	109.5 PK			1.08 H	284	77.1	32.4
4	*2412.00	107.8 AV			1.08 H	284	75.4	32.4
5	4824.00	55.8 PK	74.0	-18.2	1.00 H	289	45.6	10.2
6	4824.00	53.6 AV	54.0	-0.4	1.00 H	289	43.4	10.2
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	59.5 PK	74.0	-14.5	1.68 V	82	27.2	32.3
2	2390.00	49.8 AV	54.0	-4.2	1.68 V	82	17.5	32.3
3	*2412.00	108.5 PK			1.68 V	82	76.1	32.4
4	*2412.00	106.8 AV			1.68 V	82	74.4	32.4
5	4824.00	54.3 PK	74.0	-19.7	3.65 V	106	44.1	10.2
6	4824.00	51.0 AV	54.0	-3.0	3.65 V	106	40.8	10.2

Remarks:

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

RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	110.6 PK			1.04 H	286	78.2	32.4
2	*2437.00	109.1 AV			1.04 H	286	76.7	32.4
3	4874.00	56.2 PK	74.0	-17.8	1.00 H	290	45.9	10.3
4	4874.00	53.6 AV	54.0	-0.4	1.00 H	290	43.3	10.3
5	7311.00	58.6 PK	74.0	-15.4	1.82 H	198	43.0	15.6
6	7311.00	52.7 AV	54.0	-1.3	1.82 H	198	37.1	15.6
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	*2437.00	108.2 PK			1.95 V	82	75.8	32.4
2	*2437.00	106.4 AV			1.95 V	82	74.0	32.4
3	4874.00	54.8 PK	74.0	-19.2	3.78 V	108	44.5	10.3
4	4874.00	52.4 AV	54.0	-1.6	3.78 V	108	42.1	10.3
5	7311.00	57.6 PK	74.0	-16.4	1.68 V	9	42.0	15.6
6	7311.00	51.1 AV	54.0	-2.9	1.68 V	9	35.5	15.6

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, the limit was restricted at the RF Output Power.

RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	110.1 PK			1.16 H	286	77.6	32.5
2	*2462.00	108.5 AV			1.16 H	286	76.0	32.5
3	2483.50	60.8 PK	74.0	-13.2	1.16 H	286	28.2	32.6
4	2483.50	51.4 AV	54.0	-2.6	1.16 H	286	18.8	32.6
5	4924.00	54.8 PK	74.0	-19.2	1.00 H	305	44.4	10.4
6	4924.00	53.4 AV	54.0	-0.6	1.00 H	305	43.0	10.4
7	7386.00	59.5 PK	74.0	-14.5	1.74 H	197	44.0	15.5
8	7386.00	53.2 AV	54.0	-0.8	1.74 H	197	37.7	15.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	108.2 PK			2.01 V	85	75.7	32.5
2	*2462.00	106.8 AV			2.01 V	85	74.3	32.5
3	2483.50	60.2 PK	74.0	-13.8	2.01 V	85	27.6	32.6
4	2483.50	50.6 AV	54.0	-3.4	2.01 V	85	18.0	32.6
5	4924.00	56.1 PK	74.0	-17.9	3.76 V	109	45.7	10.4
6	4924.00	53.1 AV	54.0	-0.9	3.76 V	109	42.7	10.4
7	7386.00	57.9 PK	74.0	-16.1	1.66 V	11	42.4	15.5
8	7386.00	50.7 AV	54.0	-3.3	1.66 V	11	35.2	15.5

Remarks:

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

RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.7 PK	74.0	-11.3	1.07 H	286	30.4	32.3
2	2390.00	53.0 AV	54.0	-1.0	1.07 H	286	20.7	32.3
3	*2412.00	110.9 PK			1.07 H	286	78.5	32.4
4	*2412.00	103.8 AV			1.07 H	286	71.4	32.4
5	4824.00	52.3 PK	74.0	-21.7	1.00 H	305	42.1	10.2
6	4824.00	43.5 AV	54.0	-10.5	1.00 H	305	33.3	10.2
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	61.2 PK	74.0	-12.8	2.03 V	85	28.9	32.3
2	2390.00	51.6 AV	54.0	-2.4	2.03 V	85	19.3	32.3
3	*2412.00	108.9 PK			2.03 V	85	76.5	32.4
4	*2412.00	102.0 AV			2.03 V	85	69.6	32.4
5	4824.00	52.0 PK	74.0	-22.0	3.77 V	106	41.8	10.2
6	4824.00	42.4 AV	54.0	-11.6	3.77 V	106	32.2	10.2

Remarks:

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

RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	63.3 PK	74.0	-10.7	1.06 H	289	31.0	32.3
2	2390.00	52.4 AV	54.0	-1.6	1.06 H	289	20.1	32.3
3	*2437.00	115.3 PK			1.06 H	289	82.9	32.4
4	*2437.00	108.4 AV			1.06 H	289	76.0	32.4
5	2483.50	63.9 PK	74.0	-10.1	1.06 H	289	31.3	32.6
6	2483.50	53.1 AV	54.0	-0.9	1.06 H	289	20.5	32.6
7	4874.00	55.5 PK	74.0	-18.5	1.00 H	306	45.2	10.3
8	4874.00	44.3 AV	54.0	-9.7	1.00 H	306	34.0	10.3
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	62.8 PK	74.0	-11.2	1.98 V	84	30.5	32.3
2	2390.00	52.3 AV	54.0	-1.7	1.98 V	84	20.0	32.3
3	*2437.00	113.2 PK			1.98 V	84	80.8	32.4
4	*2437.00	106.3 AV			1.98 V	84	73.9	32.4
5	2483.50	61.6 PK	74.0	-12.4	1.98 V	84	29.0	32.6
6	2483.50	51.7 AV	54.0	-2.3	1.98 V	84	19.1	32.6
7	4874.00	54.5 PK	74.0	-19.5	3.77 V	110	44.2	10.3
8	4874.00	43.3 AV	54.0	-10.7	3.77 V	110	33.0	10.3

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, the limit was restricted at the RF Output Power.

RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	111.0 PK			1.36 H	290	78.5	32.5
2	*2462.00	103.9 AV			1.36 H	290	71.4	32.5
3	2483.50	62.0 PK	74.0	-12.0	1.36 H	290	29.4	32.6
4	2483.50	52.6 AV	54.0	-1.4	1.36 H	290	20.0	32.6
5	4924.00	52.6 PK	74.0	-21.4	1.02 H	304	42.2	10.4
6	4924.00	43.5 AV	54.0	-10.5	1.02 H	304	33.1	10.4
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	*2462.00	108.6 PK			2.00 V	86	76.1	32.5
2	*2462.00	101.4 AV			2.00 V	86	68.9	32.5
3	2483.50	61.6 PK	74.0	-12.4	2.00 V	86	29.0	32.6
4	2483.50	51.5 AV	54.0	-2.5	2.00 V	86	18.9	32.6
5	4924.00	54.1 PK	74.0	-19.9	3.80 V	106	43.7	10.4
6	4924.00	42.5 AV	54.0	-11.5	3.80 V	106	32.1	10.4

Remarks:

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

RF Mode	VHT20	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.8 PK	74.0	-11.2	1.08 H	287	30.5	32.3
2	2390.00	52.3 AV	54.0	-1.7	1.08 H	287	20.0	32.3
3	*2412.00	108.9 PK			1.08 H	287	76.5	32.4
4	*2412.00	102.5 AV			1.08 H	287	70.1	32.4
5	4824.00	52.4 PK	74.0	-21.6	1.00 H	300	42.2	10.2
6	4824.00	43.4 AV	54.0	-10.6	1.00 H	300	33.2	10.2
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	62.3 PK	74.0	-11.7	2.05 V	84	30.0	32.3
2	2390.00	51.3 AV	54.0	-2.7	2.05 V	84	19.0	32.3
3	*2412.00	107.4 PK			2.05 V	84	75.0	32.4
4	*2412.00	101.0 AV			2.05 V	84	68.6	32.4
5	4824.00	52.0 PK	74.0	-22.0	3.80 V	112	41.8	10.2
6	4824.00	41.3 AV	54.0	-12.7	3.80 V	112	31.1	10.2

Remarks:

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

RF Mode	VHT20	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	62.8 PK	74.0	-11.2	1.10 H	283	30.5	32.3
2	2390.00	52.4 AV	54.0	-1.6	1.10 H	283	20.1	32.3
3	*2437.00	114.5 PK			1.10 H	283	82.1	32.4
4	*2437.00	107.5 AV			1.10 H	283	75.1	32.4
5	2483.50	64.0 PK	74.0	-10.0	1.10 H	283	31.4	32.6
6	2483.50	52.6 AV	54.0	-1.4	1.10 H	283	20.0	32.6
7	4874.00	53.6 PK	74.0	-20.4	1.01 H	302	43.3	10.3
8	4874.00	44.3 AV	54.0	-9.7	1.01 H	302	34.0	10.3
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	61.8 PK	74.0	-12.2	1.95 V	84	29.5	32.3
2	2390.00	51.7 AV	54.0	-2.3	1.95 V	84	19.4	32.3
3	*2437.00	111.7 PK			1.95 V	84	79.3	32.4
4	*2437.00	105.2 AV			1.95 V	84	72.8	32.4
5	2483.50	62.8 PK	74.0	-11.2	1.95 V	84	30.2	32.6
6	2483.50	51.9 AV	54.0	-2.1	1.95 V	84	19.3	32.6
7	4874.00	52.3 PK	74.0	-21.7	3.71 V	108	42.0	10.3
8	4874.00	41.5 AV	54.0	-12.5	3.71 V	108	31.2	10.3

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, the limit was restricted at the RF Output Power.

RF Mode	VHT20	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Edison Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	109.5 PK			1.35 H	188	77.0	32.5
2	*2462.00	102.6 AV			1.35 H	188	70.1	32.5
3	2483.50	64.5 PK	74.0	-9.5	1.35 H	288	31.9	32.6
4	2483.50	52.1 AV	54.0	-1.9	1.35 H	288	19.5	32.6
5	4924.00	52.9 PK	74.0	-21.1	1.03 H	298	42.5	10.4
6	4924.00	43.4 AV	54.0	-10.6	1.03 H	298	33.0	10.4
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	*2462.00	106.3 PK			2.20 V	89	73.8	32.5
2	*2462.00	99.8 AV			2.20 V	89	67.3	32.5
3	2483.50	62.2 PK	74.0	-11.8	2.20 V	89	29.6	32.6
4	2483.50	50.7 AV	54.0	-3.3	2.20 V	89	18.1	32.6
5	4924.00	51.5 PK	74.0	-22.5	3.77 V	101	41.1	10.4
6	4924.00	42.3 AV	54.0	-11.7	3.77 V	101	31.9	10.4

Remarks:

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

RF Mode	VHT40	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	TitanHSU		

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	61.3 PK	74.0	-12.7	1.00 H	288	29.0	32.3
2	2390.00	52.3 AV	54.0	-1.7	1.00 H	288	20.0	32.3
3	*2422.00	106.9 PK			1.00 H	288	74.5	32.4
4	*2422.00	99.6 AV			1.00 H	288	67.2	32.4
5	4844.00	52.3 PK	74.0	-21.7	1.05 H	309	42.0	10.3
6	4844.00	43.1 AV	54.0	-10.9	1.05 H	309	32.8	10.3
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	60.8 PK	74.0	-13.2	2.01 V	85	28.5	32.3
2	2390.00	51.4 AV	54.0	-2.6	2.01 V	85	19.1	32.3
3	*2422.00	105.0 PK			2.01 V	85	72.6	32.4
4	*2422.00	97.6 AV			2.01 V	85	65.2	32.4
5	4844.00	52.1 PK	74.0	-21.9	3.75 V	110	41.8	10.3
6	4844.00	41.8 AV	54.0	-12.2	3.75 V	110	31.5	10.3

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, the limit was restricted at the RF Output Power.

RF Mode	VHT40	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	TitanHSU		

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	64.8 PK	74.0	-9.2	1.01 H	288	32.5	32.3
2	2390.00	53.6 AV	54.0	-0.4	1.01 H	288	21.3	32.3
3	*2437.00	108.7 PK			1.01 H	288	76.3	32.4
4	*2437.00	101.7 AV			1.01 H	288	69.3	32.4
5	2483.50	65.3 PK	74.0	-8.7	1.01 H	288	32.7	32.6
6	2483.50	53.4 AV	54.0	-0.6	1.01 H	288	20.8	32.6
7	4874.00	53.3 PK	74.0	-20.7	1.05 H	308	43.0	10.3
8	4874.00	43.8 AV	54.0	-10.2	1.05 H	308	33.5	10.3
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	63.8 PK	74.0	-10.2	1.99 V	85	31.5	32.3
2	2390.00	52.9 AV	54.0	-1.1	1.99 V	85	20.6	32.3
3	*2437.00	106.3 PK			1.99 V	85	73.9	32.4
4	*2437.00	99.5 AV			1.99 V	85	67.1	32.4
5	2483.50	63.1 PK	74.0	-10.9	1.99 V	85	30.5	32.6
6	2483.50	52.4 AV	54.0	-1.6	1.99 V	85	19.8	32.6
7	4874.00	52.1 PK	74.0	-21.9	3.68 V	115	41.8	10.3
8	4874.00	41.7 AV	54.0	-12.3	3.68 V	115	31.4	10.3

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, the limit was restricted at the RF Output Power.

RF Mode	VHT40	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	TitanHSU		

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	106.5 PK			1.00 H	287	74.0	32.5
2	*2452.00	99.4 AV			1.00 H	287	66.9	32.5
3	2483.50	62.1 PK	74.0	-11.9	1.00 H	287	29.5	32.6
4	2483.50	52.4 AV	54.0	-1.6	1.00 H	287	19.8	32.6
5	4904.00	53.3 PK	74.0	-20.7	1.02 H	305	43.0	10.3
6	4904.00	43.7 AV	54.0	-10.3	1.02 H	305	33.4	10.3
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	*2452.00	103.6 PK			1.87 V	84	71.1	32.5
2	*2452.00	96.7 AV			1.87 V	84	64.2	32.5
3	2483.50	60.6 PK	74.0	-13.4	1.87 V	84	28.0	32.6
4	2483.50	50.6 AV	54.0	-3.4	1.87 V	84	18.0	32.6
5	4904.00	52.5 PK	74.0	-21.5	3.55 V	112	42.2	10.3
6	4904.00	41.8 AV	54.0	-12.2	3.55 V	112	31.5	10.3

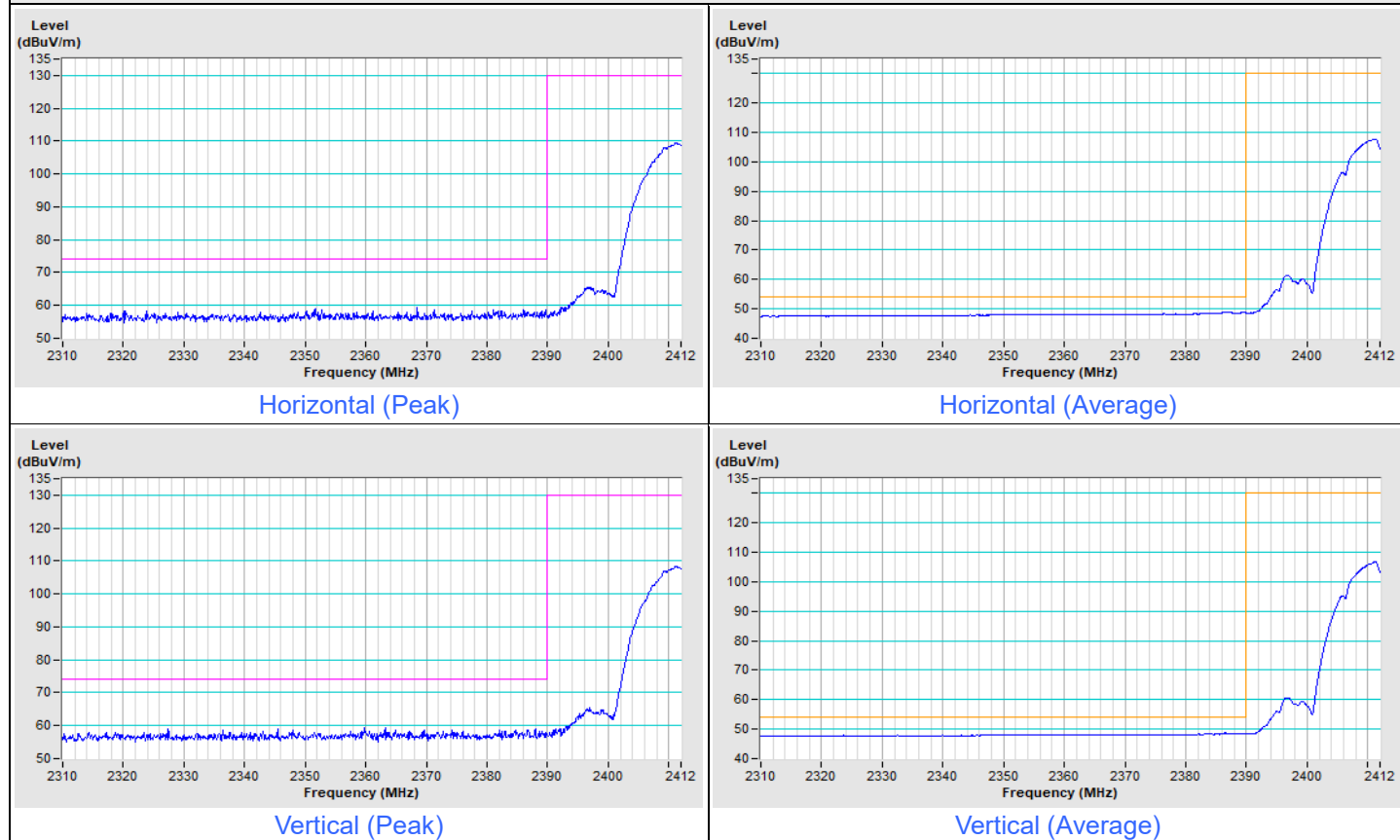
Remarks:

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, the limit was restricted at the RF Output Power.

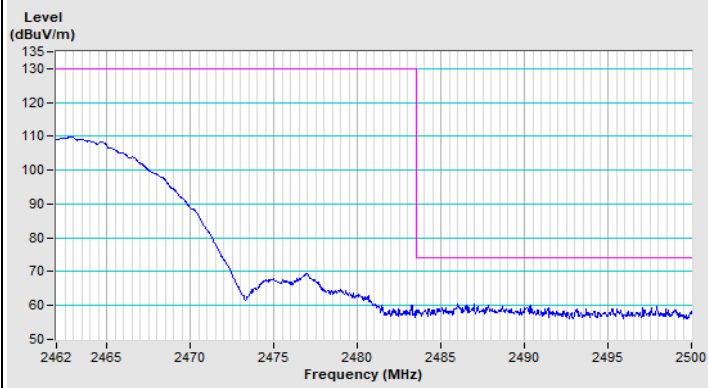
Plot of Band Edge

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
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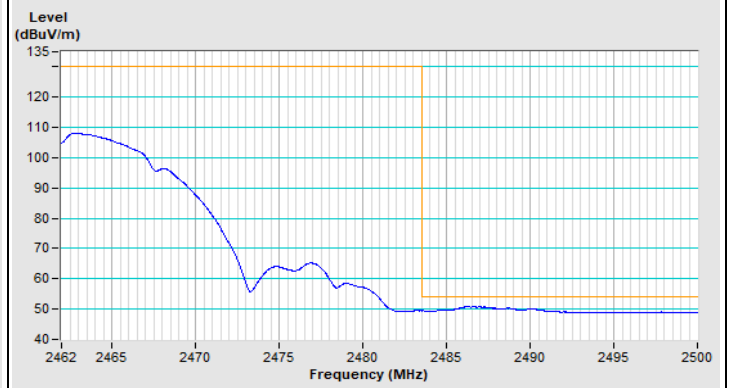
802.11b Channel 1



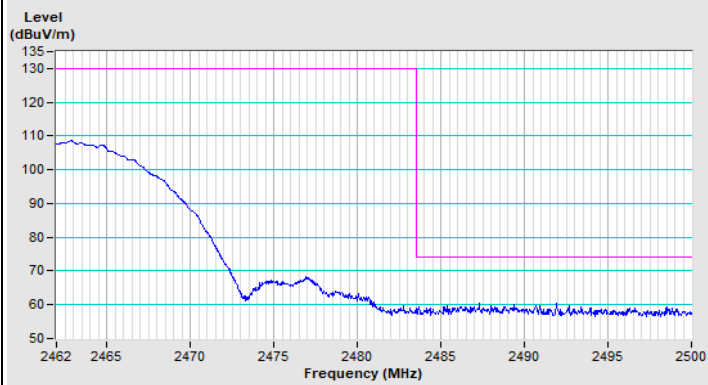
802.11b Channel 11



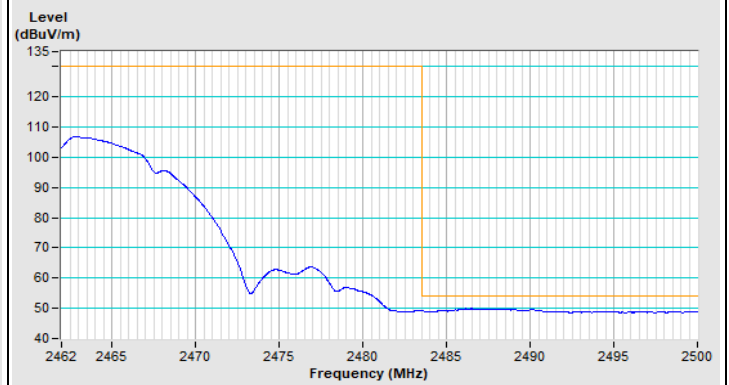
Horizontal (Peak)



Horizontal (Average)



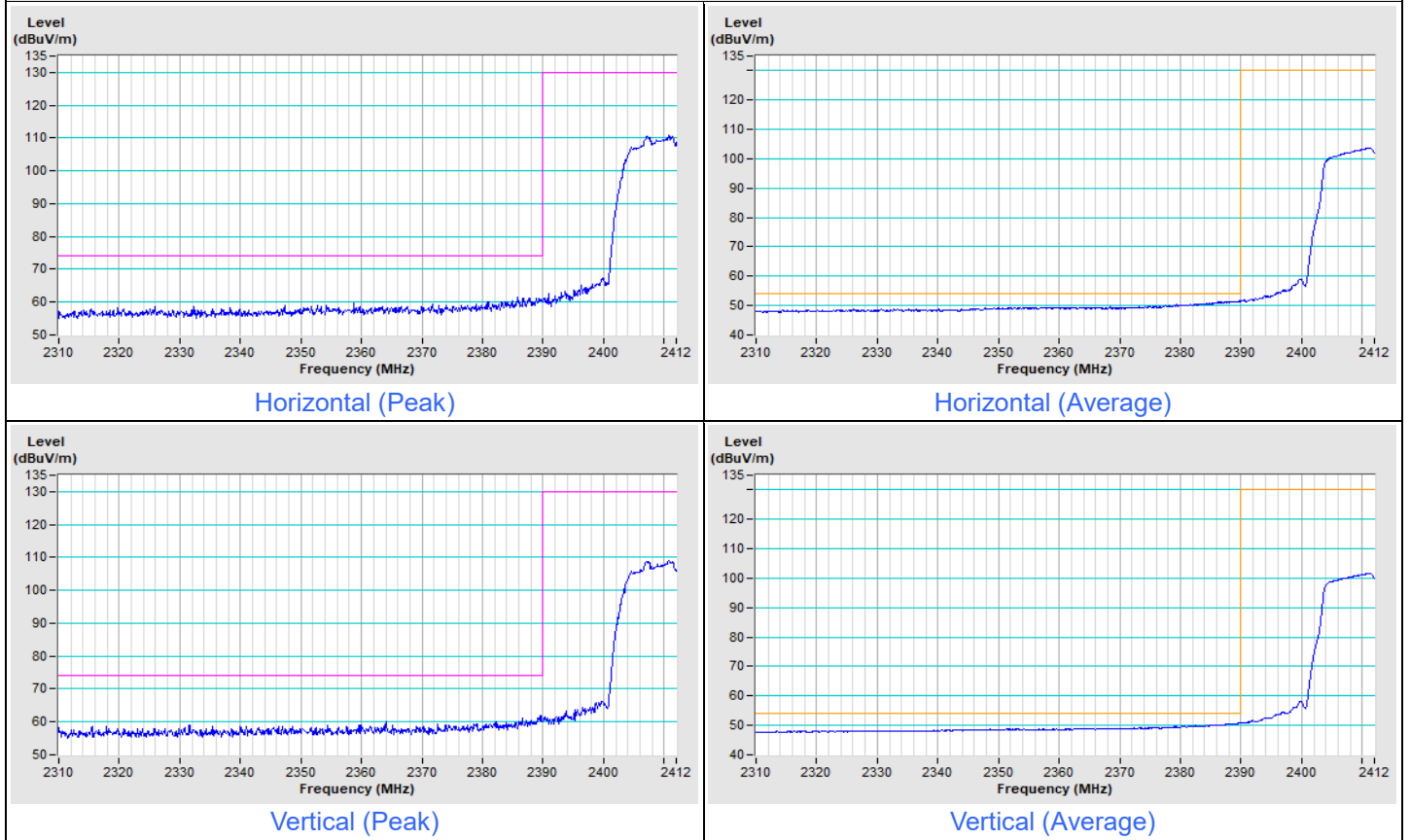
Vertical (Peak)



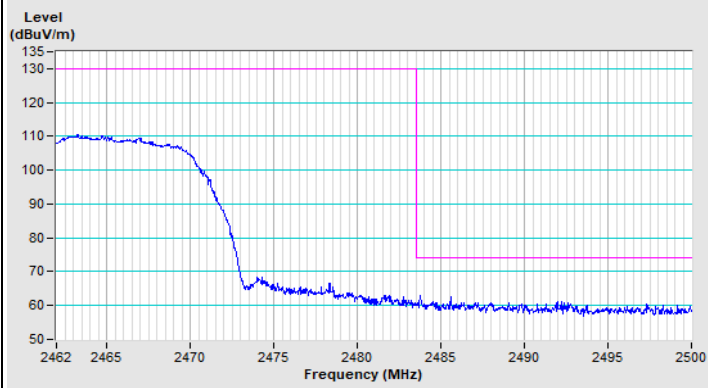
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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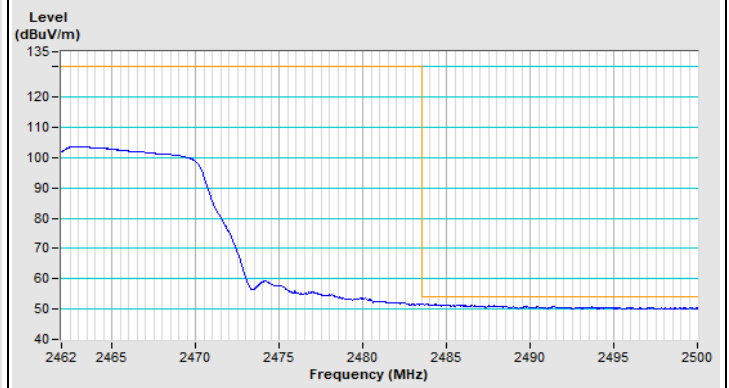
802.11g Channel 1



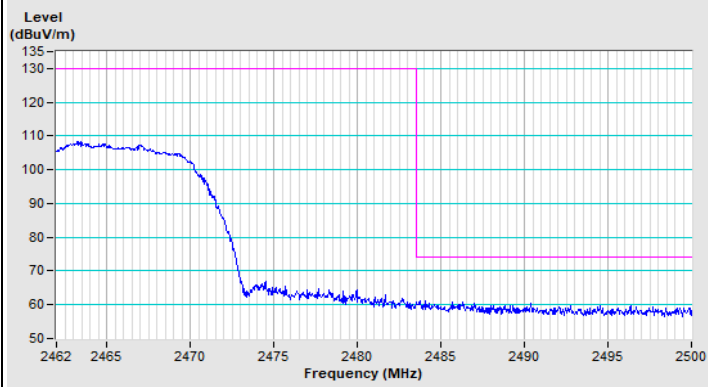
802.11g Channel 11



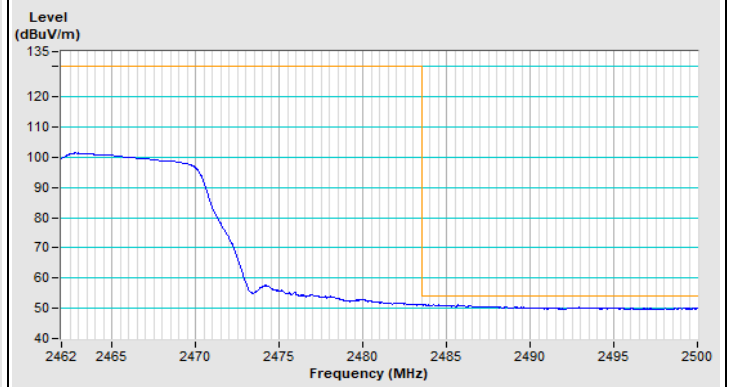
Horizontal (Peak)



Horizontal (Average)



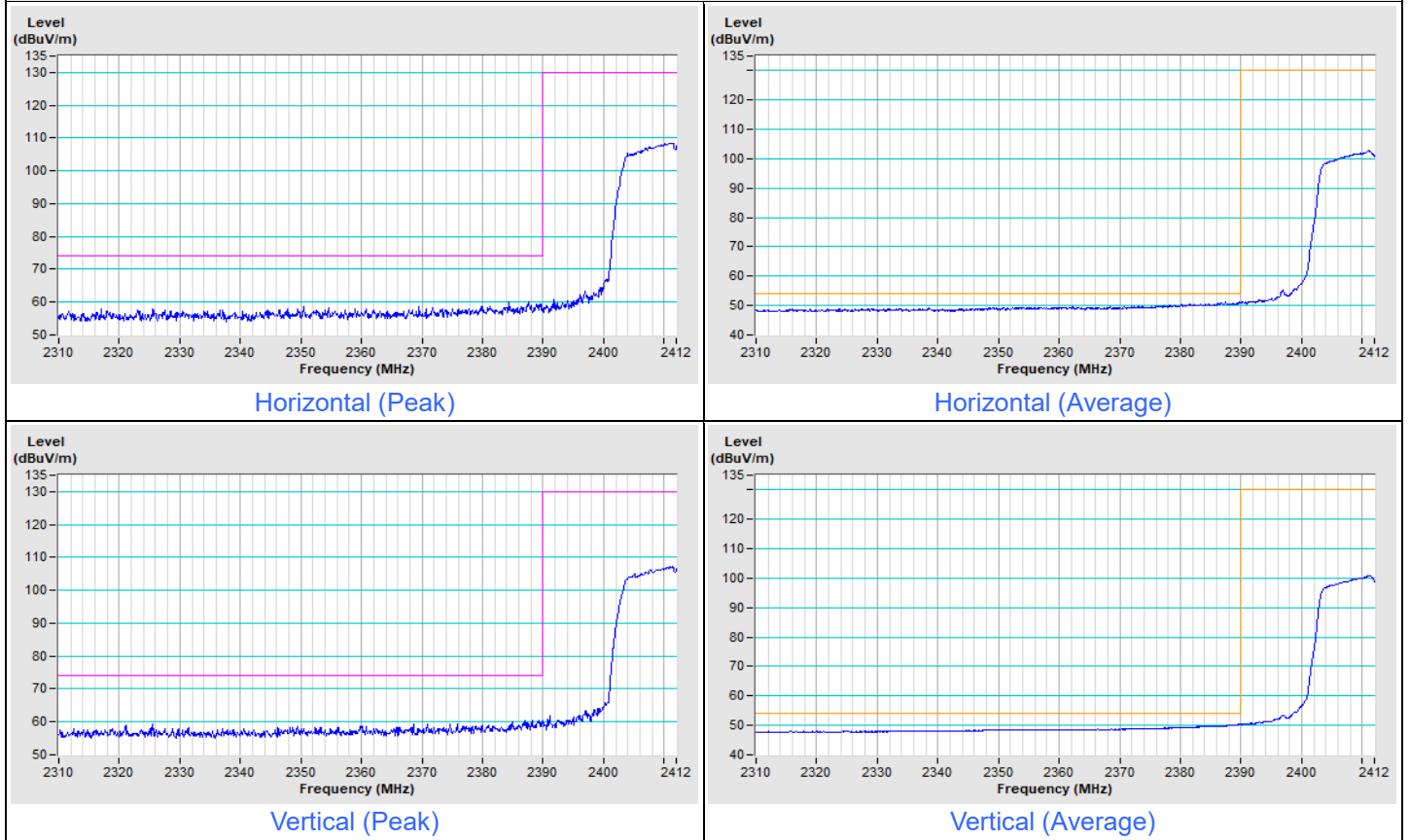
Vertical (Peak)

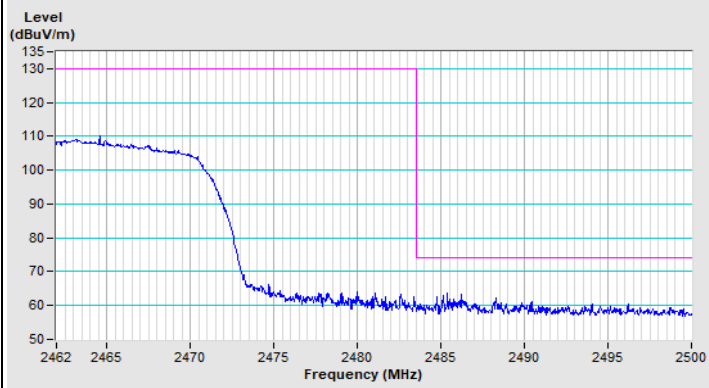


Vertical (Average)

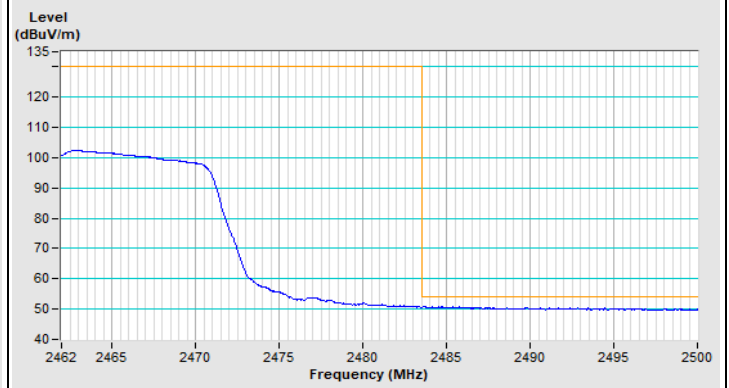
Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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VHT20 Channel 1

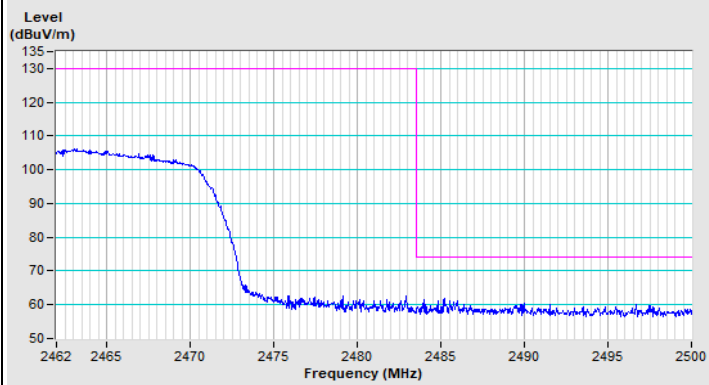


VHT20 Channel 11

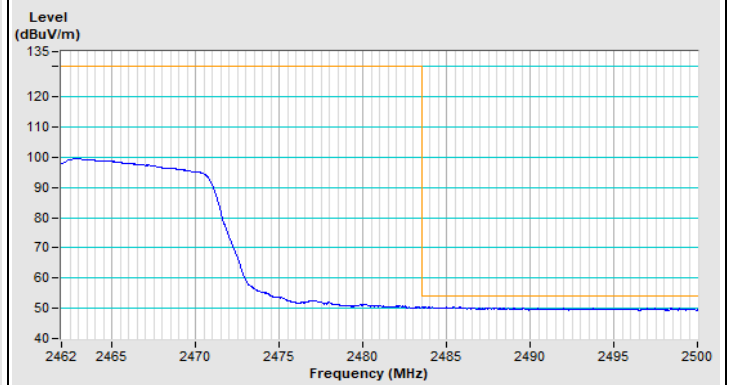
Horizontal (Peak)



Horizontal (Average)



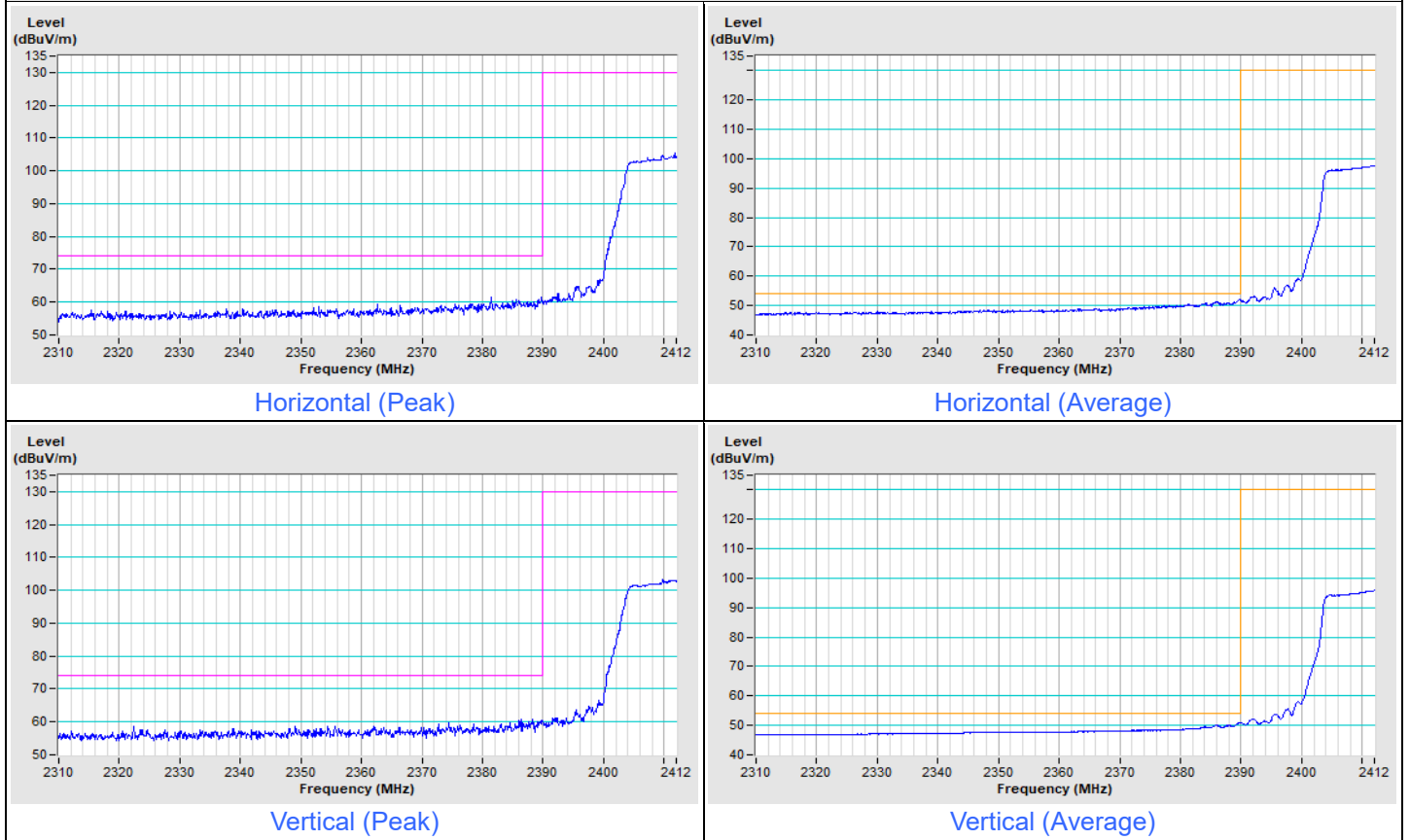
Vertical (Peak)



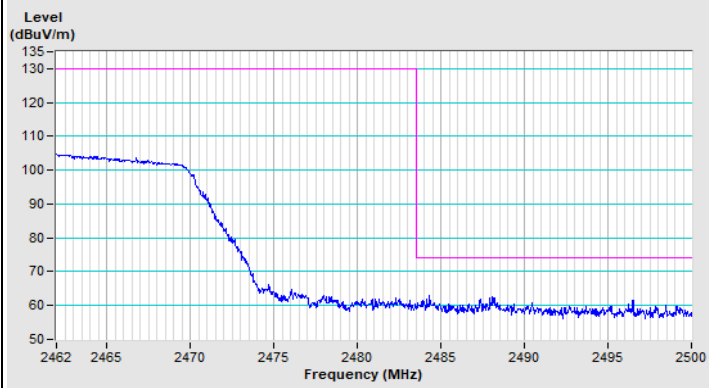
Vertical (Average)

Frequency Range	2.31 GHz ~ 2.5 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=2 kHz, DET=Peak
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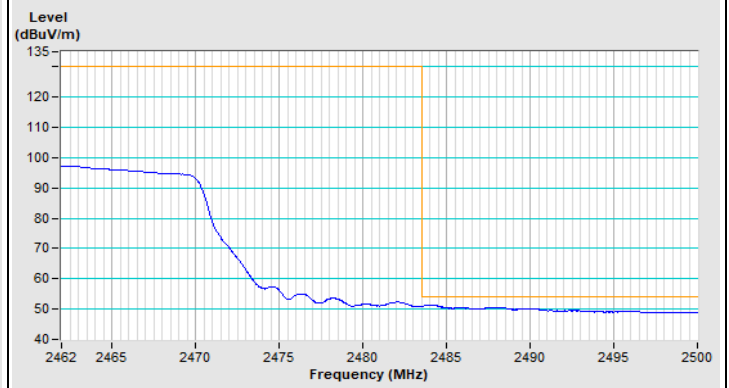
VHT40 Channel 3



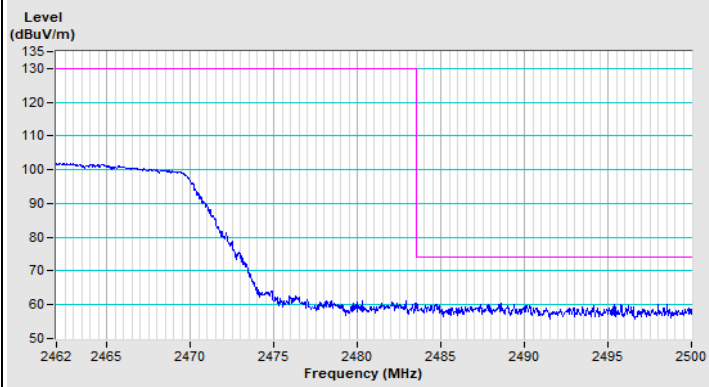
VHT40 Channel 9



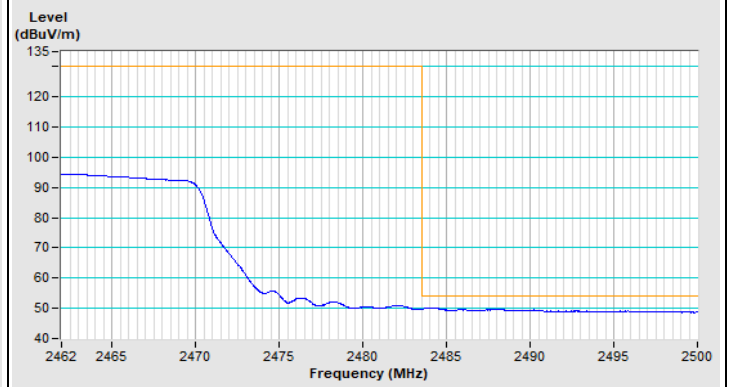
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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

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