

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247)
Report No.: RFBECO-WTW-P20100054G
FCC ID: TLZ-CM276NF
Product: IEEE 802.11 2X2 MU-MIMO ac/a/b/g/n Wireless LAN + Bluetooth NGFF Module
Brand: AzureWave
Model No.: AW-CM276NF
Received Date: 2022/9/19
Test Date: 2022/10/3 ~ 2022/11/2
Issued Date: 2022/11/11

Applicant: AzureWave Technologies, Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____, **Date:** 2022/11/11
May Chen / Manager

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Prepared by : Luna Yu / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBECO-WTW-P20100054G	Original release.	2022/11/11

1 Certificate

Product: IEEE 802.11 2X2 MU-MIMO ac/a/b/g/n Wireless LAN + Bluetooth NGFF Module

Brand: AzureWave

Test Model: AW-CM276NF

Sample Status: Engineering sample

Applicant: AzureWave Technologies, Inc.

Test Date: 2022/10/3 ~ 2022/11/2

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

KDB 662911 D01 Multiple Transmitter Output v02r01

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	NA	Refer to Note 1
15.247(a)(2)	6 dB Bandwidth	NA	Refer to Note 1
15.247(d)	Conducted Out of Band Emissions	NA	Refer to Note 1
15.207	AC Power Conducted Emissions	Pass	Minimum passing margin is -16.76 dB at 24.00391 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -8.2 dB at 30.44 MHz
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -1.1 dB at 2387.26 MHz
15.203	Antenna Requirement	Pass	Antenna connector is I-PEX not a standard connector.

Notes:

1. RF Output Power & AC Power Conducted Emissions & Unwanted Emissions Measurement were performed for this addendum. The others testing data refer to original test report.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.4 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description

Product	IEEE 802.11 2X2 MU-MIMO ac/a/b/g/n Wireless LAN + Bluetooth NGFF Module
Brand	AzureWave
Test Model	AW-CM276NF
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 300Mbps
Operating Frequency	2.412 ~ 2.462GHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20): 11 802.11n (HT40): 7
Output Power	855.86 mW (29.32 dBm)

Note:

1. This is a supplementary report of Report No.: RFBECO-WTW-P20100054F. The differences between them are as below information:
 ◆ Add PCB Antenna "FML2.4W45A-160-MHF4L". (Refer to section 3.2)
2. According to above condition, there are RF Output Power & AC Power Conducted Emissions & Unwanted Emissions Measurement need to be performed. All data for meeting the requirement is verified.
3. There are WLAN, BT technology used for the EUT.
4. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	Bluetooth
2	WLAN (5GHz)	Bluetooth

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

5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
6. Lynwave (5-PP005049), Unictron (PC-W09-01) antenna was added. According to the judgment on the EUT specification, the new antenna has the same characteristics and type under the same frequency band except the gain is smaller than the original application, so the highest gain evaluated in the original reports was for the final test.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Original								
Antenna Set	Brand	Model	Chain No.	Antenna Net. Gain (dBi)	Frequency Range (MHz)	Antenna Type	Connector Type	Cable Length
1	MAG.LAYERS	MSA-4008-25GC1-A1	Chain 0(Aux)	2.98	2400~2500	PIFA	i-pex(MHF)	15cm
				5.16	4900~5900			
			Chain 1(Main)	2.98	2400~2500			15cm
				5.16	4900~5900			
2	Bondale	G-RA0K10090176-1436B	Chain 0(Aux)	1.9	2400~2500	Dipole	RP-SMA	120mm
				3.6	4900~5800			
			Chain 1(Main)	1.9	2400~2500			120mm
				3.6	4900~5800			
3	San Jose	UEN-201	Chain 0(Aux)	2.4	2400~2500	Dipole	RP-SMA	120mm
				4.4	4900~5800			
			Chain 1(Main)	2.4	2400~2500			120mm
				4.4	4900~5800			
4	Unictron	H2B1PC1A1C175L	Chain 0(Aux)	1.6	2400-2500	PCB	I-pex	100±5mm
				4.8	5150~5850			
			Chain 1(Main)	1.6	2400-2500	PCB	I-pex	100±5mm
				4.8	5150~5850			
5	LSR	001-0012	Chain 0(Aux)	2	2400-2500	Dipole	RP-SMA	100mm
				2	5150~5850			
			Chain 1(Main)	2	2400-2500	Dipole	RP-SMA	100mm
				2	5150~5850			
6	Laird	MAF94051	Chain 0(Aux)	2.4	2400-2500	Dipole	RP-SMA	100mm
				3.4	5150~5850			
			Chain 1(Main)	2.4	2400-2500	Dipole	RP-SMA	100mm
				3.4	5150~5850			
7	Taoglas	GW.59.3153	Chain 0(Aux)	2.86	2400-2500	Dipole	RP-SMA	100mm
				4.74	5150~5850			
			Chain 1(Main)	2.86	2400-2500	Dipole	RP-SMA	100mm
				4.74	5150~5850			
8	Chang Hong	DA-2458-02-SMR	Chain 0(Aux)	2.85	2400-2500	Dipole	RP-SMA	100mm
				2.17	5150~5850			
			Chain 1(Main)	2.85	2400-2500	Dipole	RP-SMA	100mm
				3.13	5150~5850			
9	Unictron	H2B1PD1A1C385L	Chain 0(Aux)	2.8	2400-2500	PCB	I-pex	100mm
				4.2	5150~5850			
			Chain 1(Main)	2.8	2400-2500	PCB	I-pex	100mm
				4.2	5150~5850			
10	Molex	2042811100	Chain 0(Aux)	2.562	2400-2500	PCB	I-pex	100mm
				3.094	5150~5850			
			Chain 1(Main)	2.562	2400-2500	PCB	I-pex	100mm
				3.094	5150~5850			

Antenna Set	Brand	Model	Chain No.	Antenna Net. Gain (dBi)	Frequency Range (MHz)	Antenna Type	Connector Type	Cable Length
11	Molex	1461531100	Chain 0(Aux)	1.829	2400-2500	PCB	I-pex	100mm
				2.485	5150~5850			
			Chain 1(Main)	1.829	2400-2500	PCB	I-pex	100mm
				2.485	5150~5850			
12	MAG.LAYERS	MSA-4008-25GC1-A2	Chain 0(Aux)	2.98	2400-2500	PIFA	i-pex(MHF)	NA
				5.16	5150~5850			
			Chain 1(Main)	2.98	2400-2500	PIFA	i-pex(MHF)	
				5.16	5150~5850			
13	lynwave	5-PP005049	Chain 0(Aux)	2.7	2400-2500	PCB	IPEX 4L	30mm
				4.4	5150~5850			
			Chain 1(Main)	2.7	2400-2500	PCB	IPEX 4L	30mm
				4.5	5150~5850			
14	Unictron	PC-W09-01	Chain 0(Aux)	1.41	2400~2500	Dipole	ipex 4L	110 mm
				2.89	5150~5850			
		PC-W09-01	Chain 1(Main)	1.31	2400~2500	Dipole	ipex 4L	110 mm
				2.92	5150~5850			
15	INPAQ	WA-M-LB-01-128	Chain 0(Aux)	2.68	2400-2500	PIFA	ipex(MHF)	145 mm
				4.19	5150-5850			
		WA-M-LB-02-262	Chain 1(Main)	2.44	2400-2500	PIFA	ipex(MHF)	215 mm
				4.08	5150-5850			

Newly

Antenna Set	Brand	Model	Chain No.	Antenna Net. Gain (dBi)	Frequency Range (MHz)	Antenna Type	Connector Type	Cable Length
16	Nissei Limited	FML2.4W45A-160-MHF4L	Chain 0(Aux)	3.13	2400-2500	PCB	ipex(MHF)	160 mm
				4.94	5150~5850			
			Chain 1(Main)	3.13	2400-2500	PCB	ipex(MHF)	160 mm
				4.94	5150~5850			

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

2. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	2TX	2RX
802.11g	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX

3.3 Channel List

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

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):

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

Pre-Scan:	1. PCB Ant. can be used in the following ways: X-axis/ Y-axis/ Z-axis/. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	1. PCB Ant. Worst Condition: For Unwanted Emission below 1 GHz: Y-axis, For Unwanted Emission above 1 GHz: Y-axis 2. 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:

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 2, 6, 10, 11	BPSK	6Mb/s
	802.11n (HT20)	1, 2, 6, 10, 11	BPSK	MCS0
	802.11n (HT40)	3, 4, 6, 8, 9	BPSK	MCS0
AC Power Conducted Emissions	802.11n (HT20)	6	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11n (HT20)	6	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11b	1, 6, 11	DBPSK	1Mb/s
	802.11g	1, 2, 6, 10, 11	BPSK	6Mb/s
	802.11n (HT20)	1, 2, 6, 10, 11	BPSK	MCS0
	802.11n (HT40)	3, 4, 6, 8, 9	BPSK	MCS0

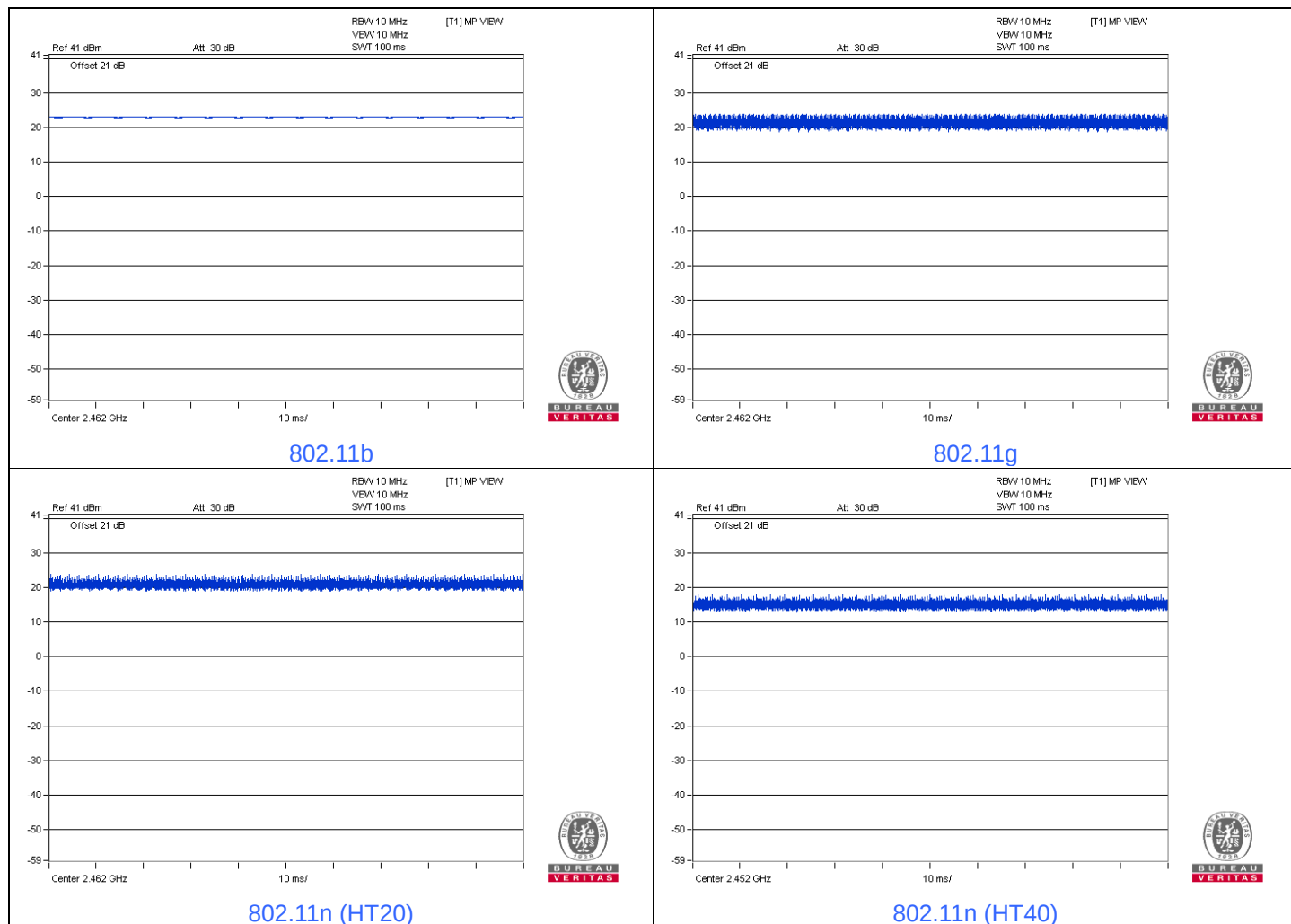
3.5 Duty Cycle of Test Signal

802.11b: Duty cycle = 100 ms / 100 ms x 100% = 100.0%

802.11g: Duty cycle = 100 ms / 100 ms x 100% = 100.0%

802.11n (HT20): Duty cycle = 100 ms / 100 ms x 100% = 100.0%

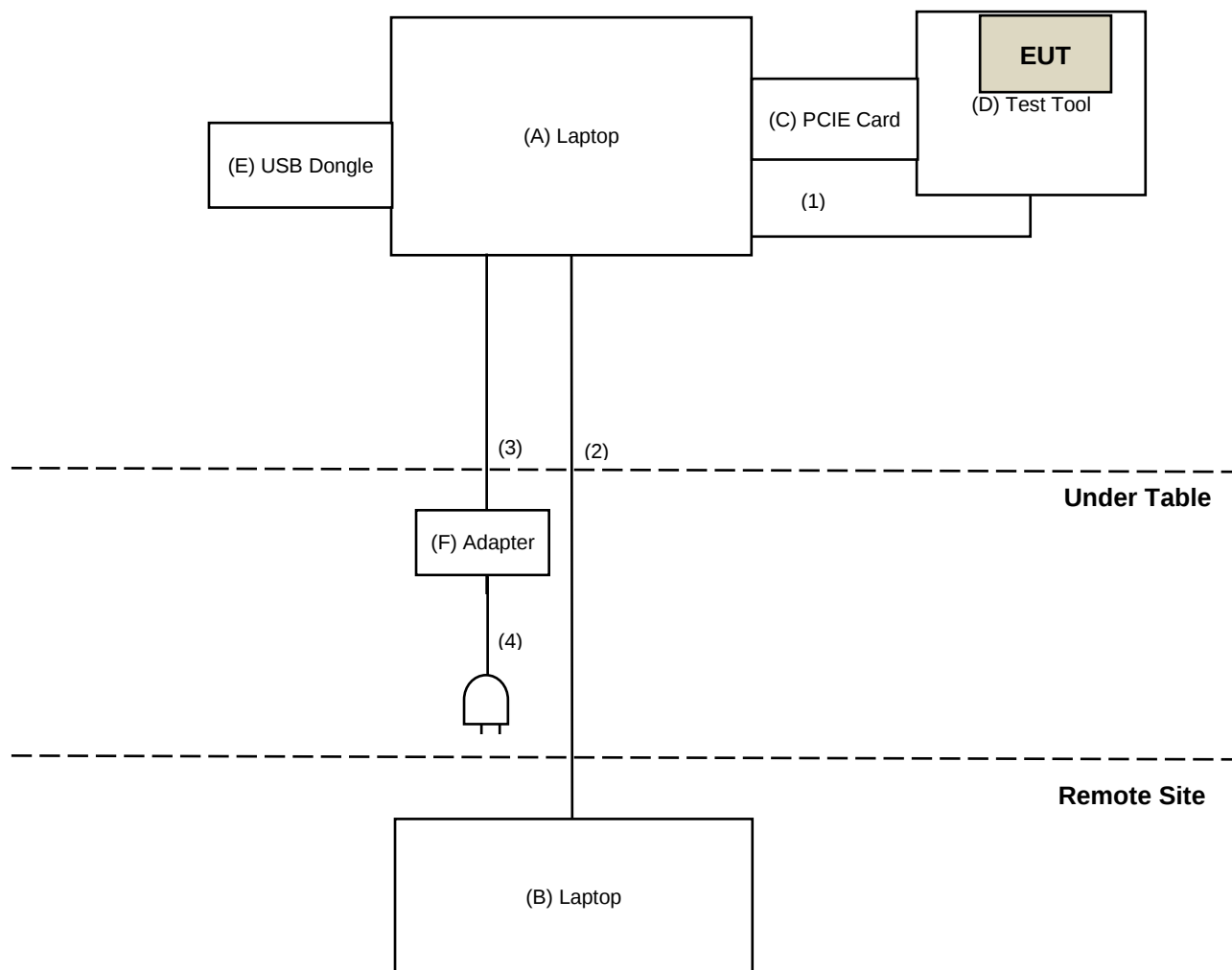
802.11n (HT40): Duty cycle = 100 ms / 100 ms x 100% = 100.0%



3.6 Test Program Used and Operation Descriptions

Controlling software (DUT labtool (1.0.0.109)) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	DELL	E6420	482T3R1	DoC	Provided by Lab
B	Laptop	DELL	P88G	G1WJL42	PD93165NG	Provided by Lab
C	PCIE Card	AzureWave	N/A	N/A	N/A	Supplied by applicant
D	Test Tool	AzureWave	N/A	N/A	N/A	Supplied by applicant
E	USB Dongle	Transcend	N/A	N/A	N/A	Supplied by applicant
F	Adapter	DELL	LA90PM111	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB Cable	1	1.4	Yes	0	Provided by Lab
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	DC Cable	1	1.8	No	0	Provided by Lab
4	AC Cable	1	1.5	No	0	Provided by Lab

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/11/2

4.2 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohms Terminator	50	3	2021/10/27	2022/10/26
Fixed attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2022/8/24	2023/8/23
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A
TEST RECEIVER R&S	ESCS 30	847124/029	2021/10/13	2022/10/12

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2022/10/3

4.3 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	2022/9/14	2023/9/13
LOOP ANTENNA Electro-Metrics	EM-6879	264	2022/3/18	2023/3/17
Pre_Amplifier Agilent	8447D	2944A10636	2022/3/19	2023/3/18
Pre_Amplifier Mini-Circuits	ZFL-1000VH2	QA0838008	2022/10/4	2023/10/3
RF Coaxial Cable COMMATE/PEWC	8D	966-3-2	2022/2/26	2023/2/25
		966-3-3	2022/2/26	2023/2/25
		966-4-1	2022/3/8	2023/3/7
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/1/6	2023/1/5
		LOOPCAB-002	2022/1/6	2023/1/5
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-361	2022/10/21	2023/10/20

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/11/1

4.4 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9170	9170-739	2021/11/14	2022/11/13
	BBHA9120-D	9120D-406	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC12630SE	980384	2022/1/10	2023/1/9
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable EMCI	EMC104-SM-SM-6000	210201	2022/5/10	2023/5/9
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
	EMC104-SM-SM-1500	180504	2022/4/25	2023/4/24
	EMC104-SM-SM-2000	180601	2022/6/6	2023/6/5
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/10/11 ~ 2022/10/22

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)

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.

5.2 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.

5.3 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

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

Notes:

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

5.4 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

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

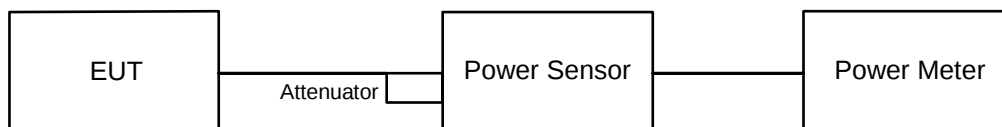
Notes:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



6.1.2 Test Procedure

Peak Power:

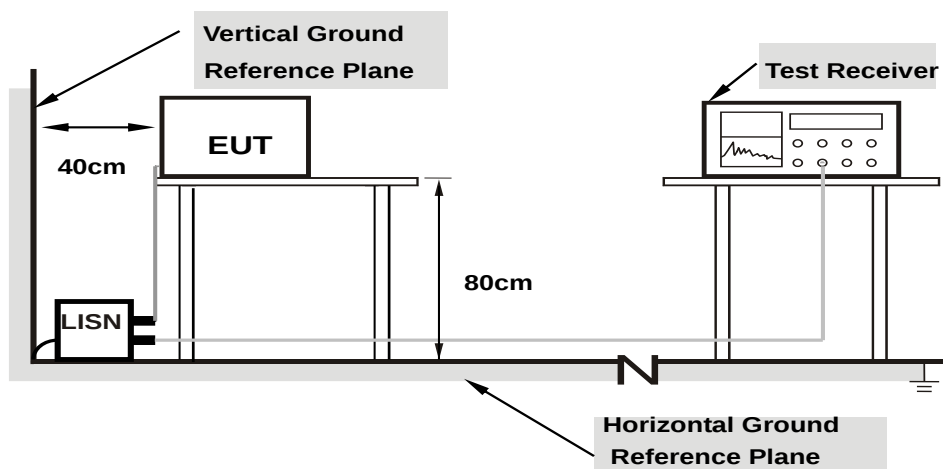
A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

Average Power:

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

6.2 AC Power Conducted Emissions

6.2.1 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).

6.2.2 Test Procedure

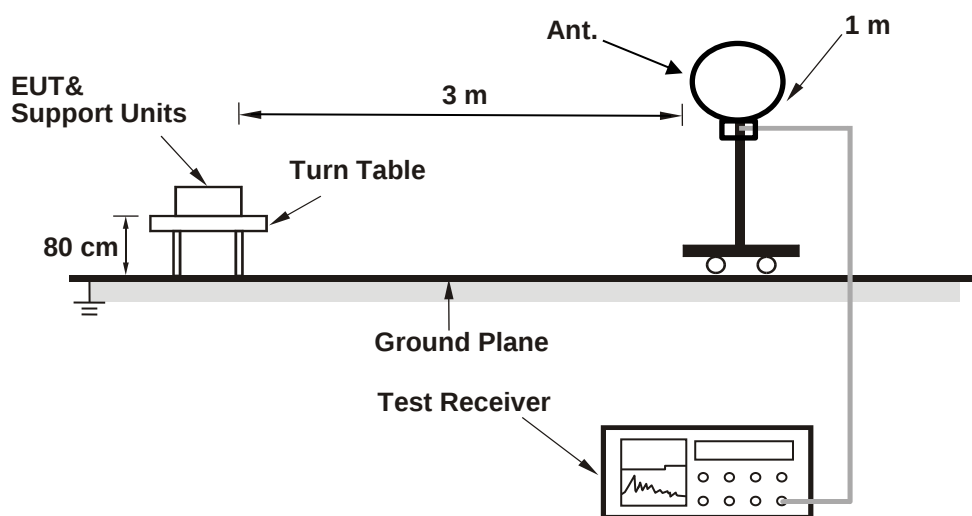
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

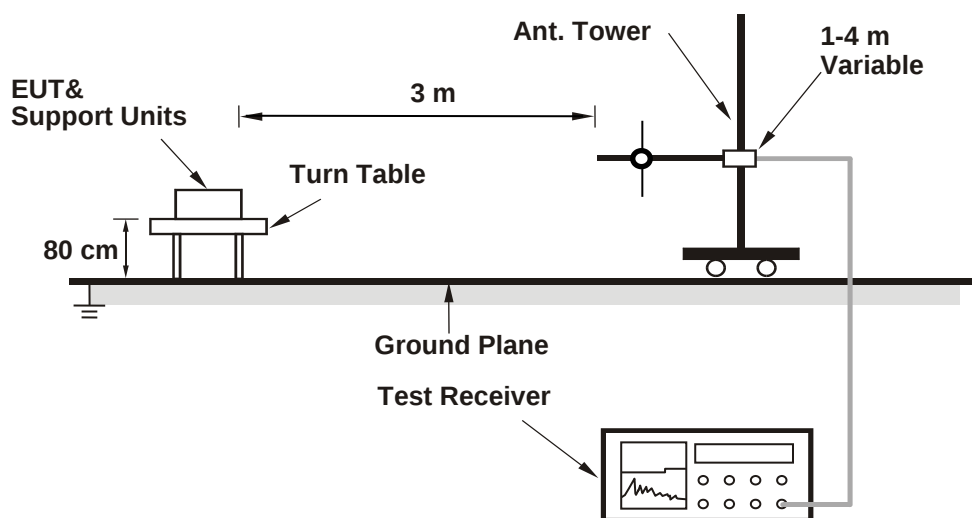
6.3 Unwanted Emissions below 1 GHz

6.3.1 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).

6.3.2 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

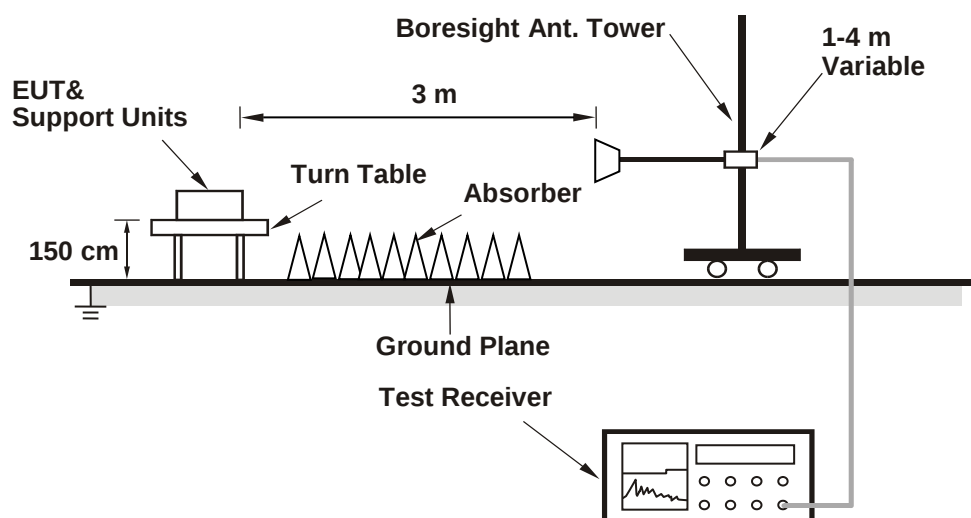
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

6.4 Unwanted Emissions above 1 GHz

6.4.1 Test Setup



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

6.4.2 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:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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For Peak Power

802.11b

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	20.03	20.22	205.889	23.14	30	Pass
6	2437	19.34	20.20	190.614	22.80	30	Pass
11	2462	19.95	20.16	202.608	23.07	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.13 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11g

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	21.04	21.47	267.339	24.27	30	Pass
2	2417	22.78	22.89	384.207	25.85	30	Pass
6	2437	26.49	26.13	855.86	29.32	30	Pass
10	2457	23.37	23.53	442.694	26.46	30	Pass
11	2462	21.56	21.92	298.815	24.75	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.13 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
1	2412	20.29	20.40	216.553	23.36	30	Pass
2	2417	22.95	22.55	377.129	25.76	30	Pass
6	2437	26.25	25.27	758.208	28.80	30	Pass
10	2457	21.57	21.59	287.76	24.59	30	Pass
11	2462	21.30	21.65	281.114	24.49	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.13 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
3	2422	18.08	18.13	129.282	21.12	30	Pass
4	2427	19.28	19.86	181.551	22.59	30	Pass
6	2437	22.94	22.93	393.125	25.95	30	Pass
8	2447	20.33	20.56	221.657	23.46	30	Pass
9	2452	18.92	18.88	155.251	21.91	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 3.13 dBi < 6 dBi, so the output power limit shall not be reduced.

For Average Power

802.11b

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	17.76	17.68	118.317	20.73
6	2437	17.58	17.57	114.427	20.59
11	2462	17.56	17.59	114.428	20.59

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	11.77	11.93	30.627	14.86
2	2417	13.69	13.72	46.939	16.72
6	2437	17.50	17.45	111.825	20.49
10	2457	13.76	14.71	53.349	17.27
11	2462	12.66	12.72	37.157	15.70

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
1	2412	11.97	12.08	31.883	15.04
2	2417	12.91	13.74	43.203	16.36
6	2437	17.78	17.75	119.545	20.78
10	2457	13.85	13.81	48.31	16.84
11	2462	12.85	12.90	38.774	15.89

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Average Power (mW)	Total Average Power (dBm)
		Chain 0	Chain 1		
3	2422	10.03	10.00	20.069	13.03
4	2427	11.65	11.81	29.792	14.74
6	2437	14.86	14.81	60.889	17.85
8	2447	12.57	12.63	36.395	15.61
9	2452	10.84	10.79	24.129	13.83

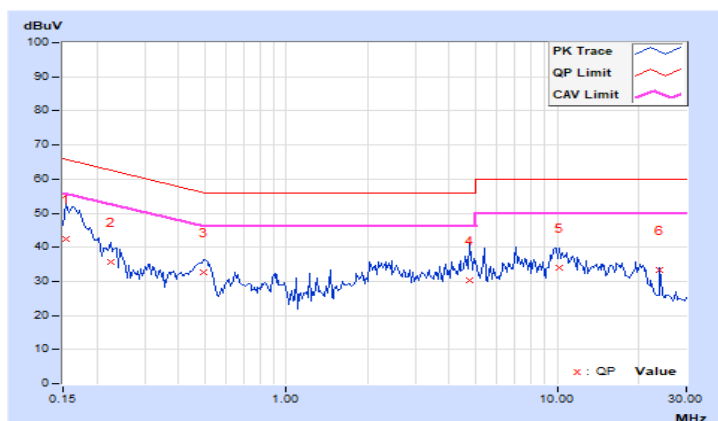
7.2 AC Power Conducted Emissions

RF Mode	802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Carter Lin		

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	32.62	19.29	42.58	29.25	65.79	55.79	-23.21	-26.54
2	0.22422	9.96	25.75	12.86	35.71	22.82	62.66	52.66	-26.95	-29.84
3	0.49375	9.97	22.53	14.53	32.50	24.50	56.10	46.10	-23.60	-21.60
4	4.74609	10.19	20.24	13.18	30.43	23.37	56.00	46.00	-25.57	-22.63
5	10.17188	10.50	23.66	18.16	34.16	28.66	60.00	50.00	-25.84	-21.34
6	24.00391	11.16	22.17	22.08	33.33	33.24	60.00	50.00	-26.67	-16.76

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

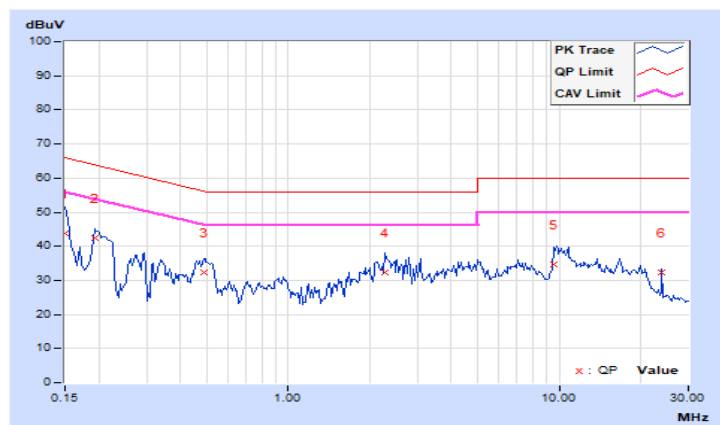


RF Mode	802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Carter Lin		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.93	33.71	6.47	43.64	16.40	66.00	56.00	-22.36	-39.60
2	0.19297	9.94	32.64	18.35	42.58	28.29	63.91	53.91	-21.33	-25.62
3	0.48594	9.94	22.28	9.02	32.22	18.96	56.24	46.24	-24.02	-27.28
4	2.27344	10.03	22.46	14.41	32.49	24.44	56.00	46.00	-23.51	-21.56
5	9.60156	10.35	24.25	17.81	34.60	28.16	60.00	50.00	-25.40	-21.84
6	24.00000	10.85	21.46	21.07	32.31	31.92	60.00	50.00	-27.69	-18.08

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



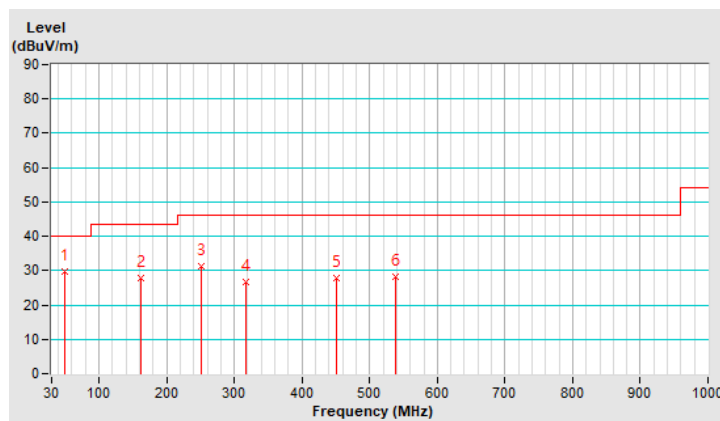
7.3 Unwanted Emissions below 1 GHz

RF Mode	802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nelson Teng		

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	49.00	29.8 QP	40.0	-10.2	1.46 H	258	38.0	-8.2
2	161.42	27.7 QP	43.5	-15.8	1.03 H	295	36.0	-8.3
3	250.77	31.1 QP	46.0	-14.9	1.53 H	249	40.6	-9.5
4	317.04	26.8 QP	46.0	-19.2	1.01 H	179	33.7	-6.9
5	451.90	27.8 QP	46.0	-18.2	1.00 H	329	31.5	-3.7
6	537.95	28.1 QP	46.0	-17.9	1.06 H	343	30.3	-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 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

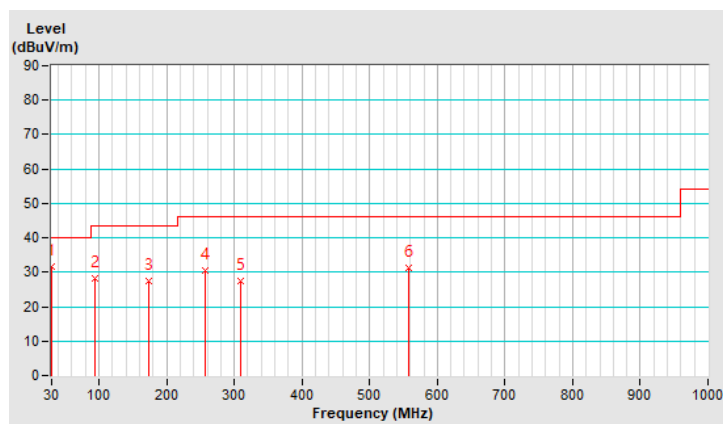


RF Mode	802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nelson Teng		

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	30.44	31.8 QP	40.0	-8.2	1.06 V	331	41.1	-9.3
2	93.80	28.3 QP	43.5	-15.2	1.48 V	291	41.8	-13.5
3	173.00	27.4 QP	43.5	-16.1	1.07 V	176	36.5	-9.1
4	256.71	30.4 QP	46.0	-15.6	1.52 V	190	39.7	-9.3
5	308.79	27.4 QP	46.0	-18.6	1.05 V	360	34.7	-7.3
6	558.28	31.3 QP	46.0	-14.7	1.49 V	241	33.0	-1.7

Remarks:

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



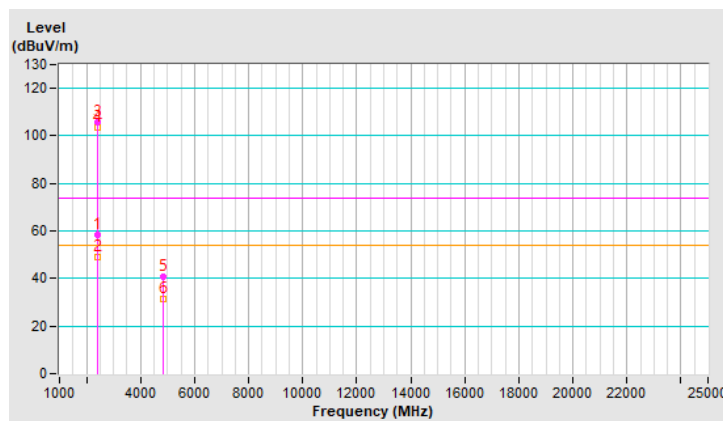
7.4 Unwanted Emissions above 1 GHz

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 (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	2386.16	58.2 PK	74.0	-15.8	1.78 H	17	59.0	-0.8
2	2386.16	48.9 AV	54.0	-5.1	1.78 H	17	49.7	-0.8
3	*2412.00	105.6 PK			1.78 H	17	106.4	-0.8
4	*2412.00	103.5 AV			1.78 H	17	104.3	-0.8
5	4824.00	40.6 PK	74.0	-33.4	1.66 H	149	36.6	4.0
6	4824.00	31.6 AV	54.0	-22.4	1.66 H	149	27.6	4.0

Remarks:

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

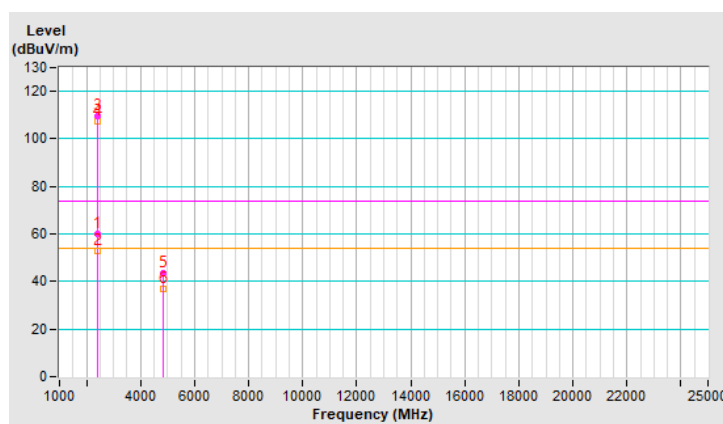


RF Mode	802.11b	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	2387.26	60.2 PK	74.0	-13.8	1.32 V	289	61.0	-0.8
2	2387.26	52.9 AV	54.0	-1.1	1.32 V	289	53.7	-0.8
3	*2412.00	109.7 PK			1.32 V	289	110.5	-0.8
4	*2412.00	107.4 AV			1.32 V	289	108.2	-0.8
5	4824.00	43.6 PK	74.0	-30.4	2.46 V	247	39.6	4.0
6	4824.00	37.0 AV	54.0	-17.0	2.46 V	247	33.0	4.0

Remarks:

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

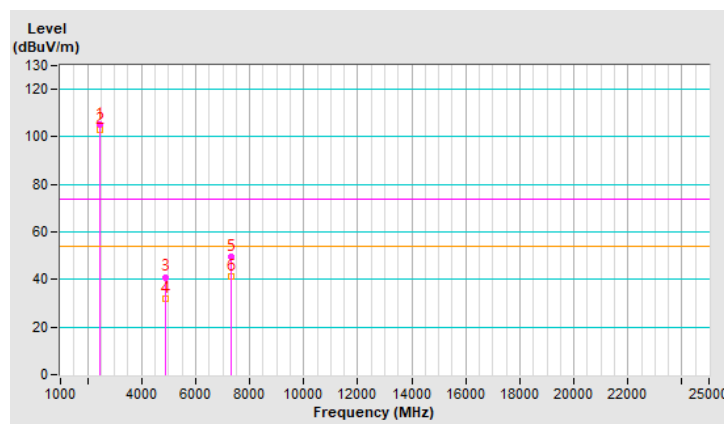


RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	105.2 PK			1.22 H	8	106.0	-0.8
2	*2437.00	102.8 AV			1.22 H	8	103.6	-0.8
3	4874.00	41.0 PK	74.0	-33.0	1.65 H	155	37.0	4.0
4	4874.00	32.0 AV	54.0	-22.0	1.65 H	155	28.0	4.0
5	7311.00	49.4 PK	74.0	-24.6	2.99 H	279	39.2	10.2
6	7311.00	41.5 AV	54.0	-12.5	2.99 H	279	31.3	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.

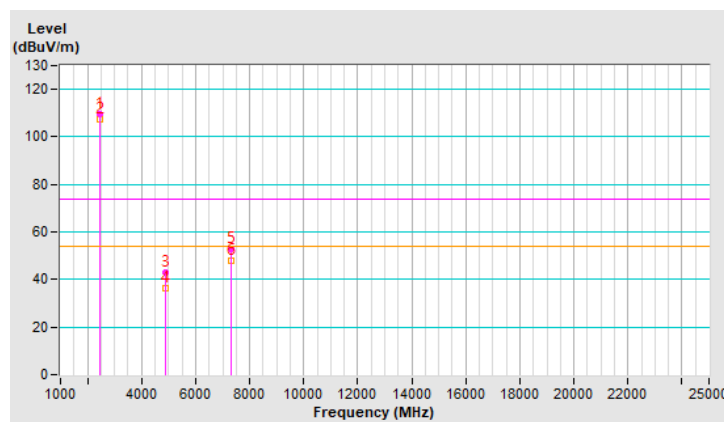


RF Mode	802.11b	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	109.5 PK			1.57 V	274	110.3	-0.8
2	*2437.00	107.6 AV			1.57 V	274	108.4	-0.8
3	4874.00	42.8 PK	74.0	-31.2	2.48 V	264	38.8	4.0
4	4874.00	36.2 AV	54.0	-17.8	2.48 V	264	32.2	4.0
5	7311.00	52.8 PK	74.0	-21.2	2.40 V	21	42.6	10.2
6	7311.00	48.1 AV	54.0	-5.9	2.40 V	21	37.9	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.

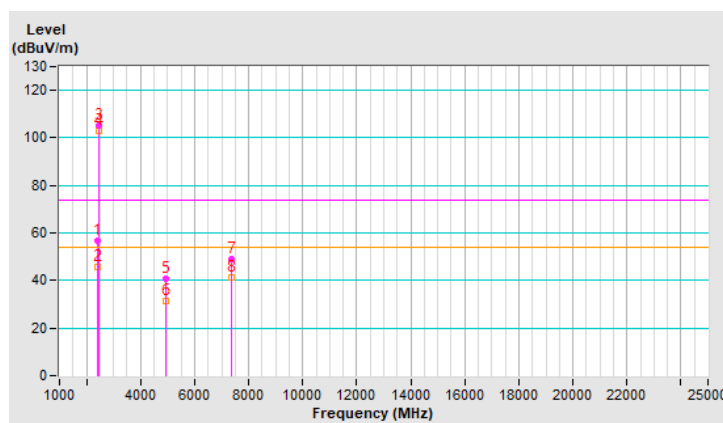


RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	2386.69	56.5 PK	74.0	-17.5	1.26 H	22	57.3	-0.8
2	2386.69	45.5 AV	54.0	-8.5	1.26 H	22	46.3	-0.8
3	*2462.00	105.0 PK			1.26 H	22	105.9	-0.9
4	*2462.00	102.8 AV			1.26 H	22	103.7	-0.9
5	4924.00	40.7 PK	74.0	-33.3	1.68 H	143	36.7	4.0
6	4924.00	31.6 AV	54.0	-22.4	1.68 H	143	27.6	4.0
7	7386.00	49.2 PK	74.0	-24.8	3.00 H	263	38.9	10.3
8	7386.00	41.3 AV	54.0	-12.7	3.00 H	263	31.0	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.

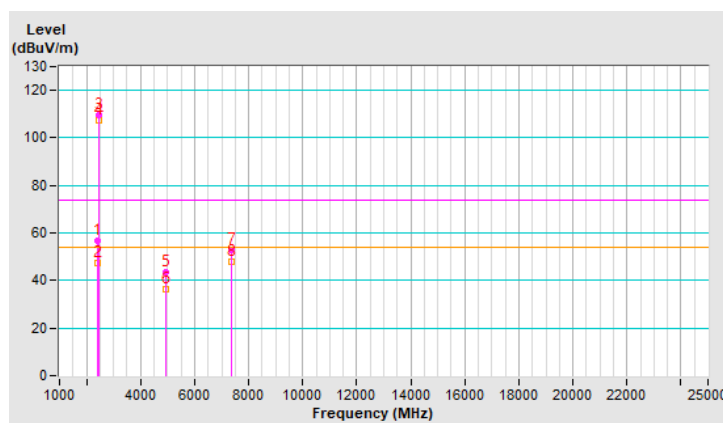


RF Mode	802.11b	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	2386.70	56.5 PK	74.0	-17.5	1.61 V	288	57.3	-0.8
2	2386.70	47.5 AV	54.0	-6.5	1.61 V	288	48.3	-0.8
3	*2462.00	109.6 PK			1.61 V	288	110.5	-0.9
4	*2462.00	107.4 AV			1.61 V	288	108.3	-0.9
5	4924.00	43.4 PK	74.0	-30.6	2.51 V	260	39.4	4.0
6	4924.00	36.5 AV	54.0	-17.5	2.51 V	260	32.5	4.0
7	7386.00	53.1 PK	74.0	-20.9	2.39 V	13	42.8	10.3
8	7386.00	48.1 AV	54.0	-5.9	2.39 V	13	37.8	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.

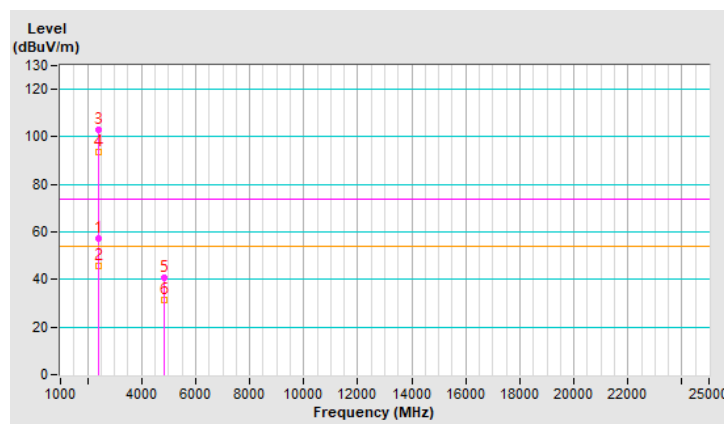


RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.3 PK	74.0	-16.7	1.53 H	15	58.1	-0.8
2	2390.00	45.6 AV	54.0	-8.4	1.53 H	15	46.4	-0.8
3	*2412.00	103.0 PK			1.53 H	15	103.8	-0.8
4	*2412.00	93.8 AV			1.53 H	15	94.6	-0.8
5	4824.00	40.7 PK	74.0	-33.3	1.64 H	155	36.7	4.0
6	4824.00	31.6 AV	54.0	-22.4	1.64 H	155	27.6	4.0

Remarks:

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

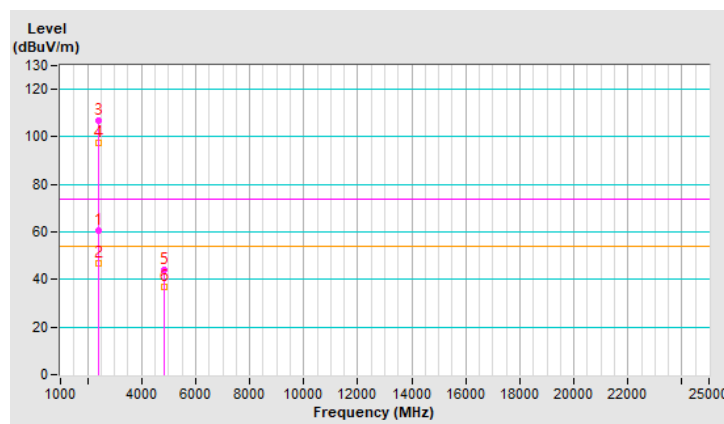


RF Mode	802.11g	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	60.5 PK	74.0	-13.5	1.26 V	288	61.3	-0.8
2	2390.00	46.9 AV	54.0	-7.1	1.26 V	288	47.7	-0.8
3	*2412.00	107.0 PK			1.26 V	288	107.8	-0.8
4	*2412.00	97.3 AV			1.26 V	288	98.1	-0.8
5	4824.00	43.9 PK	74.0	-30.1	2.51 V	239	39.9	4.0
6	4824.00	37.0 AV	54.0	-17.0	2.51 V	239	33.0	4.0

Remarks:

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

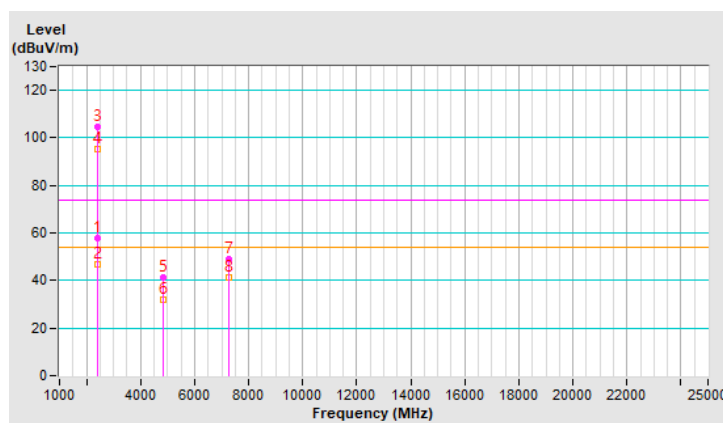


RF Mode	802.11g	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	58.0 PK	74.0	-16.0	1.57 H	21	58.8	-0.8
2	2390.00	46.8 AV	54.0	-7.2	1.57 H	21	47.6	-0.8
3	*2417.00	104.8 PK			1.57 H	21	105.6	-0.8
4	*2417.00	95.1 AV			1.57 H	21	95.9	-0.8
5	4834.00	41.1 PK	74.0	-32.9	1.63 H	143	37.1	4.0
6	4834.00	32.0 AV	54.0	-22.0	1.63 H	143	28.0	4.0
7	7251.00	49.1 PK	74.0	-24.9	2.98 H	253	39.0	10.1
8	7251.00	41.3 AV	54.0	-12.7	2.98 H	253	31.2	10.1

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, the limit was restricted at the RF Output Power.

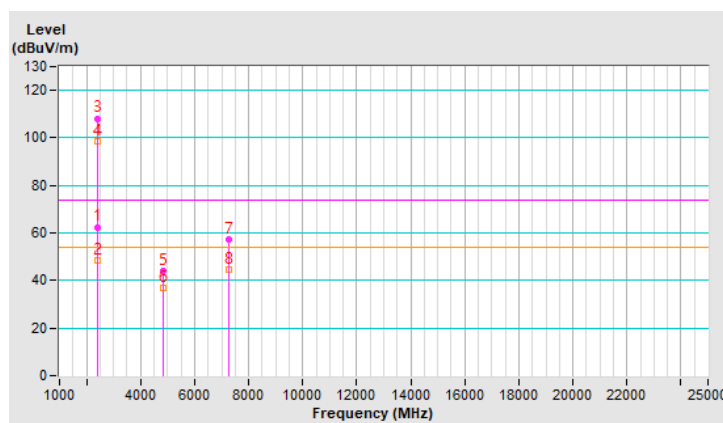


RF Mode	802.11g	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	62.5 PK	74.0	-11.5	1.31 V	285	63.3	-0.8
2	2390.00	48.5 AV	54.0	-5.5	1.31 V	285	49.3	-0.8
3	*2417.00	108.2 PK			1.31 V	285	109.0	-0.8
4	*2417.00	98.8 AV			1.31 V	285	99.6	-0.8
5	4834.00	44.1 PK	74.0	-29.9	2.52 V	234	40.1	4.0
6	4834.00	37.0 AV	54.0	-17.0	2.52 V	234	33.0	4.0
7	7251.00	57.2 PK	74.0	-16.8	2.47 V	14	47.1	10.1
8	7251.00	44.5 AV	54.0	-9.5	2.47 V	14	34.4	10.1

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, the limit was restricted at the RF Output Power.

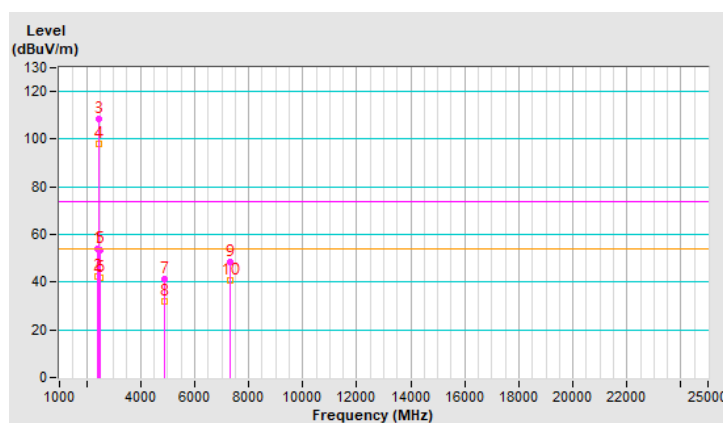


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	54.2 PK	74.0	-19.8	1.57 H	26	55.0	-0.8
2	2390.00	42.2 AV	54.0	-11.8	1.57 H	26	43.0	-0.8
3	*2437.00	108.5 PK			1.57 H	26	109.3	-0.8
4	*2437.00	98.1 AV			1.57 H	26	98.9	-0.8
5	2483.50	53.7 PK	74.0	-20.3	1.57 H	26	54.7	-1.0
6	2483.50	41.8 AV	54.0	-12.2	1.57 H	26	42.8	-1.0
7	4874.00	41.1 PK	74.0	-32.9	1.67 H	131	37.1	4.0
8	4874.00	31.9 AV	54.0	-22.1	1.67 H	131	27.9	4.0
9	7311.00	48.7 PK	74.0	-25.3	3.02 H	259	38.5	10.2
10	7311.00	40.9 AV	54.0	-13.1	3.02 H	259	30.7	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.

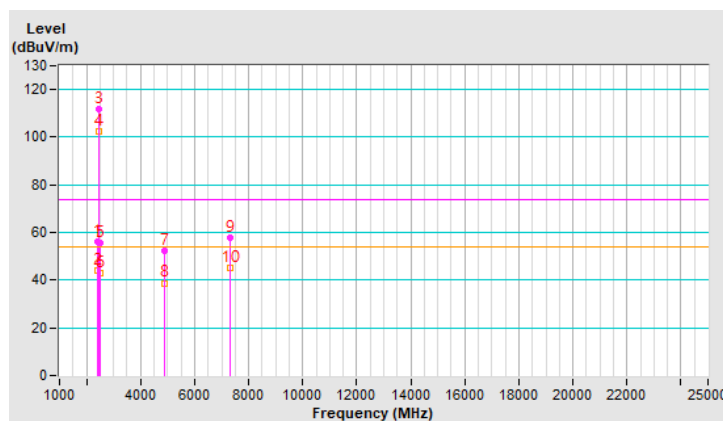


RF Mode	802.11g	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	56.0 PK	74.0	-18.0	1.25 V	297	56.8	-0.8
2	2390.00	44.1 AV	54.0	-9.9	1.25 V	297	44.9	-0.8
3	*2437.00	112.0 PK			1.25 V	297	112.8	-0.8
4	*2437.00	102.6 AV			1.25 V	297	103.4	-0.8
5	2483.50	55.4 PK	74.0	-18.6	1.25 V	297	56.4	-1.0
6	2483.50	43.0 AV	54.0	-11.0	1.25 V	297	44.0	-1.0
7	4874.00	52.4 PK	74.0	-21.6	2.56 V	224	48.4	4.0
8	4874.00	38.8 AV	54.0	-15.2	2.56 V	224	34.8	4.0
9	7311.00	57.6 PK	74.0	-16.4	2.43 V	23	47.4	10.2
10	7311.00	45.1 AV	54.0	-8.9	2.43 V	23	34.9	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.

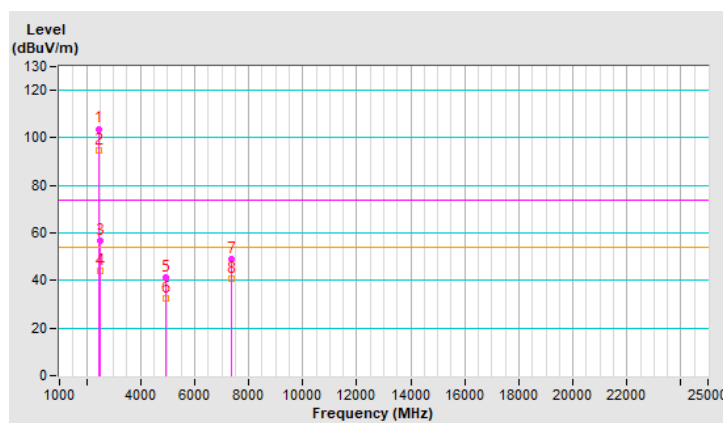


RF Mode	802.11g	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	*2457.00	103.8 PK			1.61 H	23	104.7	-0.9
2	*2457.00	94.5 AV			1.61 H	23	95.4	-0.9
3	2483.50	56.7 PK	74.0	-17.3	1.61 H	23	57.7	-1.0
4	2483.50	44.3 AV	54.0	-9.7	1.61 H	23	45.3	-1.0
5	4914.00	41.2 PK	74.0	-32.8	1.64 H	140	37.3	3.9
6	4914.00	32.3 AV	54.0	-21.7	1.64 H	140	28.4	3.9
7	7371.00	48.8 PK	74.0	-25.2	2.97 H	262	38.6	10.2
8	7371.00	40.7 AV	54.0	-13.3	2.97 H	262	30.5	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.

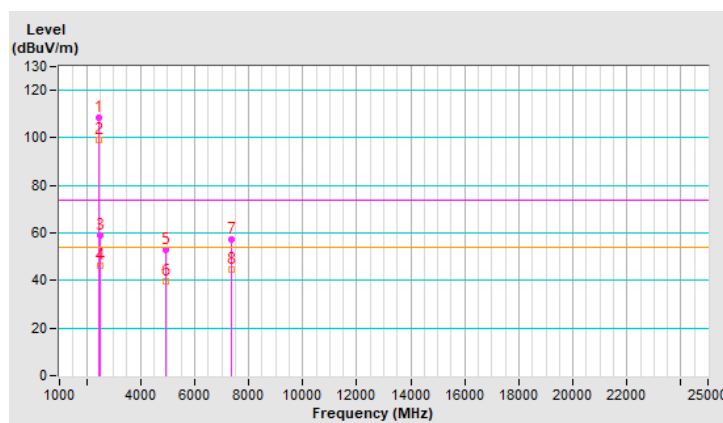


RF Mode	802.11g	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	*2457.00	108.7 PK			1.27 V	304	109.6	-0.9
2	*2457.00	99.1 AV			1.27 V	304	100.0	-0.9
3	2483.50	58.7 PK	74.0	-15.3	1.27 V	304	59.7	-1.0
4	2483.50	46.4 AV	54.0	-7.6	1.27 V	304	47.4	-1.0
5	4914.00	53.0 PK	74.0	-21.0	2.54 V	213	49.1	3.9
6	4914.00	39.5 AV	54.0	-14.5	2.54 V	213	35.6	3.9
7	7371.00	57.3 PK	74.0	-16.7	2.41 V	21	47.1	10.2
8	7371.00	44.6 AV	54.0	-9.4	2.41 V	21	34.4	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.

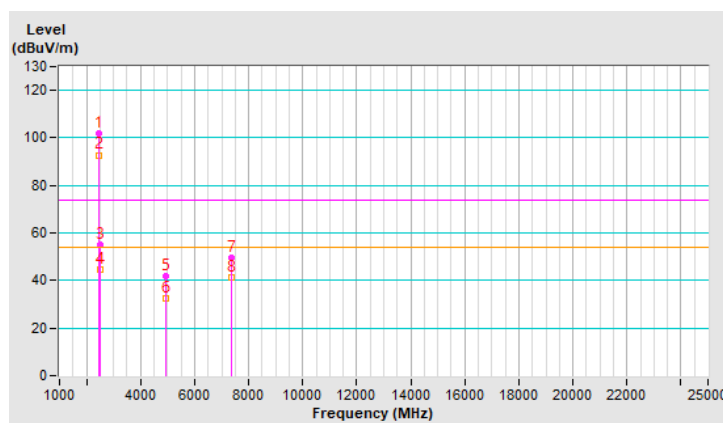


RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	101.9 PK			1.56 H	21	102.8	-0.9
2	*2462.00	92.8 AV			1.56 H	21	93.7	-0.9
3	2483.50	55.3 PK	74.0	-18.7	1.56 H	21	56.3	-1.0
4	2483.50	44.5 AV	54.0	-9.5	1.56 H	21	45.5	-1.0
5	4924.00	41.7 PK	74.0	-32.3	1.72 H	152	37.7	4.0
6	4924.00	32.3 AV	54.0	-21.7	1.72 H	152	28.3	4.0
7	7386.00	49.5 PK	74.0	-24.5	2.99 H	269	39.2	10.3
8	7386.00	41.4 AV	54.0	-12.6	2.99 H	269	31.1	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.

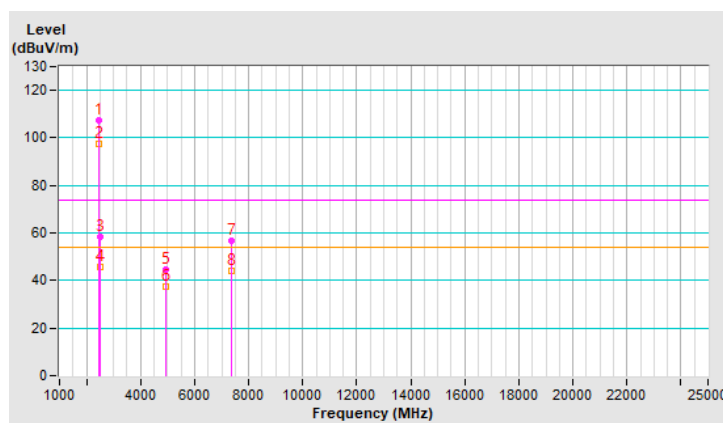


RF Mode	802.11g	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	107.2 PK			1.31 V	290	108.1	-0.9
2	*2462.00	97.7 AV			1.31 V	290	98.6	-0.9
3	2483.50	58.3 PK	74.0	-15.7	1.31 V	290	59.3	-1.0
4	2483.50	45.9 AV	54.0	-8.1	1.31 V	290	46.9	-1.0
5	4924.00	44.6 PK	74.0	-29.4	2.52 V	204	40.6	4.0
6	4924.00	37.4 AV	54.0	-16.6	2.52 V	204	33.4	4.0
7	7386.00	56.8 PK	74.0	-17.2	2.37 V	17	46.5	10.3
8	7386.00	44.1 AV	54.0	-9.9	2.37 V	17	33.8	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.

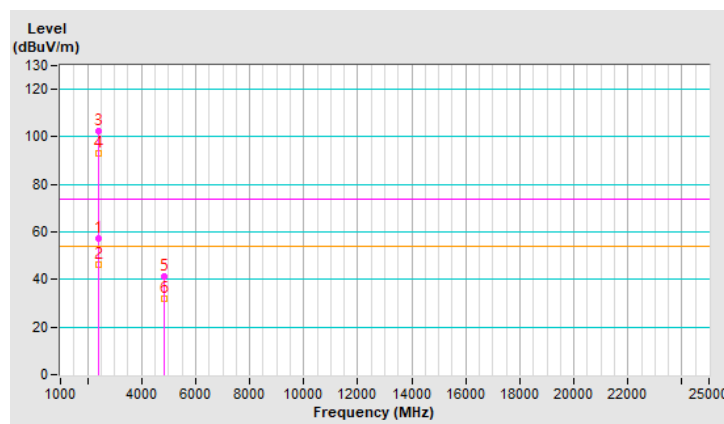


RF Mode	802.11n (HT20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.5 PK	74.0	-16.5	1.53 H	15	58.3	-0.8
2	2390.00	46.4 AV	54.0	-7.6	1.53 H	15	47.2	-0.8
3	*2412.00	102.2 PK			1.53 H	15	103.0	-0.8
4	*2412.00	93.1 AV			1.53 H	15	93.9	-0.8
5	4824.00	41.1 PK	74.0	-32.9	1.72 H	142	37.1	4.0
6	4824.00	31.9 AV	54.0	-22.1	1.72 H	142	27.9	4.0

Remarks:

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

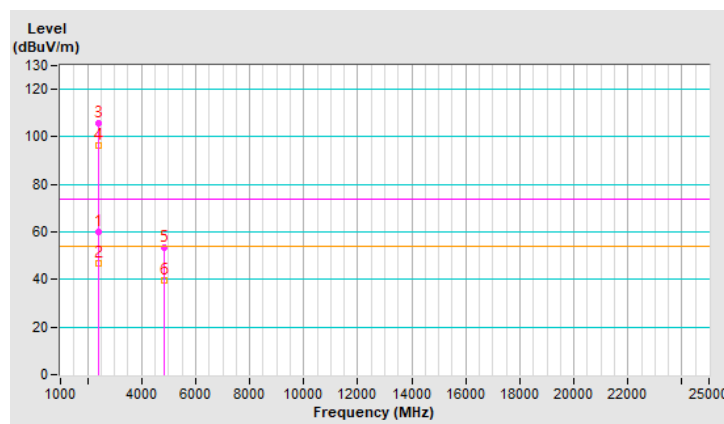


RF Mode	802.11n (HT20)	Channel	CH 1 : 2412 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	60.1 PK	74.0	-13.9	1.30 V	290	60.9	-0.8
2	2390.00	47.0 AV	54.0	-7.0	1.30 V	290	47.8	-0.8
3	*2412.00	105.8 PK			1.30 V	290	106.6	-0.8
4	*2412.00	96.3 AV			1.30 V	290	97.1	-0.8
5	4824.00	53.5 PK	74.0	-20.5	2.51 V	216	49.5	4.0
6	4824.00	39.4 AV	54.0	-14.6	2.51 V	216	35.4	4.0

Remarks:

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

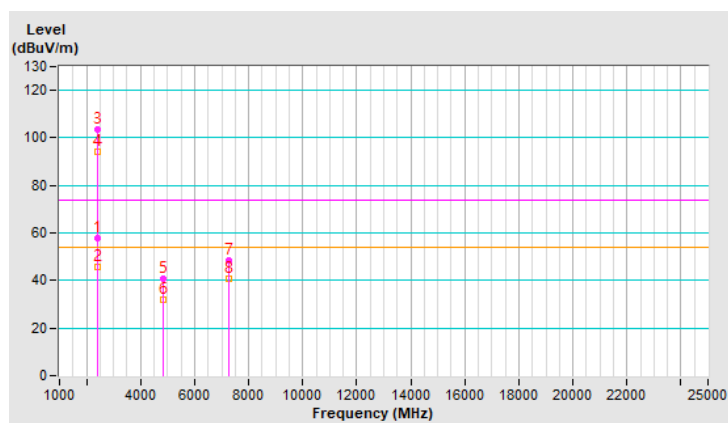


RF Mode	802.11n (HT20)	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	57.8 PK	74.0	-16.2	1.47 H	16	58.6	-0.8
2	2390.00	45.6 AV	54.0	-8.4	1.47 H	16	46.4	-0.8
3	*2417.00	103.6 PK			1.47 H	16	104.4	-0.8
4	*2417.00	94.3 AV			1.47 H	16	95.1	-0.8
5	4834.00	40.6 PK	74.0	-33.4	1.63 H	155	36.6	4.0
6	4834.00	31.7 AV	54.0	-22.3	1.63 H	155	27.7	4.0
7	7251.00	48.6 PK	74.0	-25.4	3.03 H	275	38.5	10.1
8	7251.00	40.5 AV	54.0	-13.5	3.03 H	275	30.4	10.1

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, the limit was restricted at the RF Output Power.

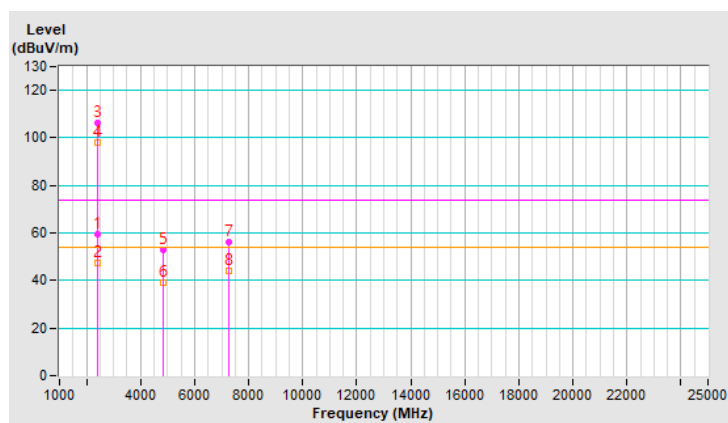


RF Mode	802.11n (HT20)	Channel	CH 2 : 2417 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	59.3 PK	74.0	-14.7	1.32 V	301	60.1	-0.8
2	2390.00	47.2 AV	54.0	-6.8	1.32 V	301	48.0	-0.8
3	*2417.00	106.3 PK			1.32 V	301	107.1	-0.8
4	*2417.00	97.8 AV			1.32 V	301	98.6	-0.8
5	4834.00	52.7 PK	74.0	-21.3	2.53 V	209	48.7	4.0
6	4834.00	39.3 AV	54.0	-14.7	2.53 V	209	35.3	4.0
7	7251.00	56.2 PK	74.0	-17.8	2.42 V	19	46.1	10.1
8	7251.00	43.9 AV	54.0	-10.1	2.42 V	19	33.8	10.1

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, the limit was restricted at the RF Output Power.

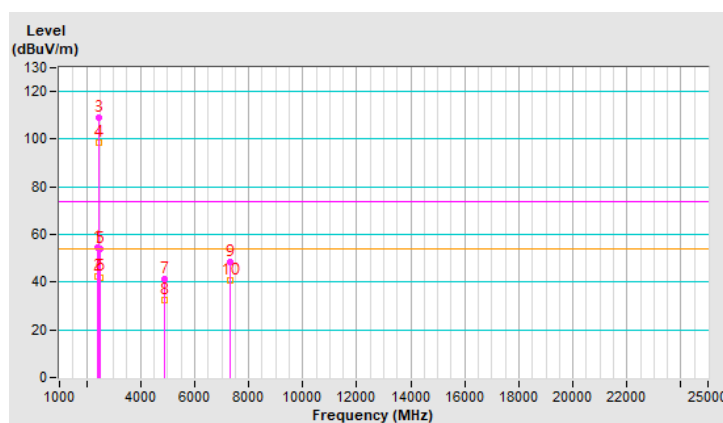


RF Mode	802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	54.3 PK	74.0	-19.7	1.43 H	26	55.1	-0.8
2	2390.00	42.2 AV	54.0	-11.8	1.43 H	26	43.0	-0.8
3	*2437.00	109.0 PK			1.43 H	26	109.8	-0.8
4	*2437.00	98.6 AV			1.43 H	26	99.4	-0.8
5	2483.50	53.8 PK	74.0	-20.2	1.43 H	26	54.8	-1.0
6	2483.50	42.1 AV	54.0	-11.9	1.43 H	26	43.1	-1.0
7	4874.00	41.3 PK	74.0	-32.7	1.66 H	155	37.3	4.0
8	4874.00	32.3 AV	54.0	-21.7	1.66 H	155	28.3	4.0
9	7311.00	48.7 PK	74.0	-25.3	3.05 H	270	38.5	10.2
10	7311.00	40.6 AV	54.0	-13.4	3.05 H	270	30.4	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.

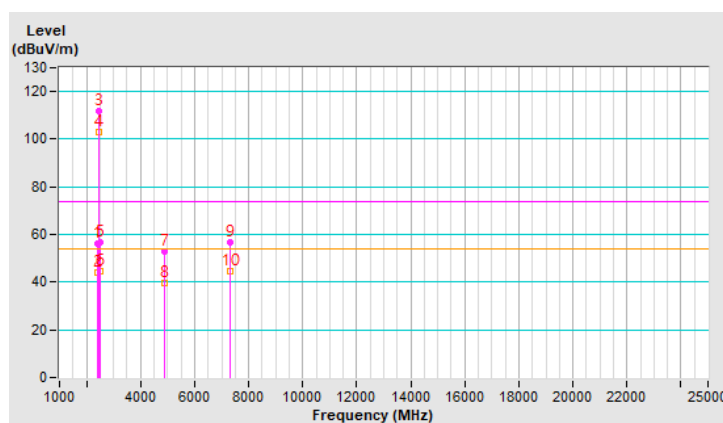


RF Mode	802.11n (HT20)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	1.32 V	292	57.0	-0.8
2	2390.00	44.2 AV	54.0	-9.8	1.32 V	292	45.0	-0.8
3	*2437.00	112.0 PK			1.32 V	292	112.8	-0.8
4	*2437.00	102.8 AV			1.32 V	292	103.6	-0.8
5	2483.50	56.5 PK	74.0	-17.5	1.32 V	292	57.5	-1.0
6	2483.50	44.5 AV	54.0	-9.5	1.32 V	292	45.5	-1.0
7	4874.00	53.1 PK	74.0	-20.9	2.49 V	197	49.1	4.0
8	4874.00	39.4 AV	54.0	-14.6	2.49 V	197	35.4	4.0
9	7311.00	56.8 PK	74.0	-17.2	2.37 V	30	46.6	10.2
10	7311.00	44.6 AV	54.0	-9.4	2.37 V	30	34.4	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.

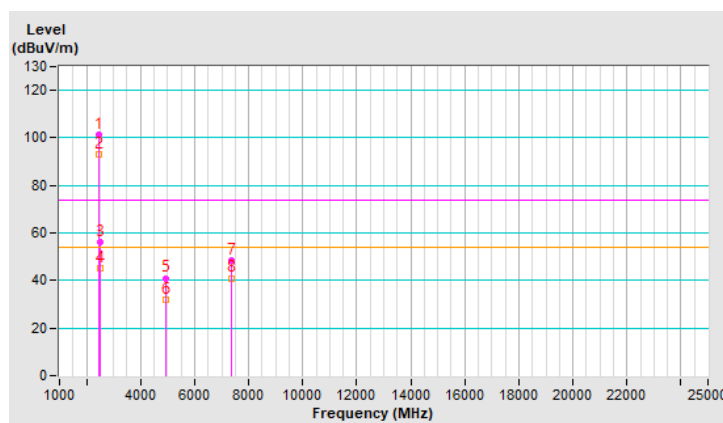


RF Mode	802.11n (HT20)	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	*2457.00	101.4 PK			1.42 H	32	102.3	-0.9
2	*2457.00	93.2 AV			1.42 H	32	94.1	-0.9
3	2483.50	56.3 PK	74.0	-17.7	1.42 H	32	57.3	-1.0
4	2483.50	44.9 AV	54.0	-9.1	1.42 H	32	45.9	-1.0
5	4914.00	41.0 PK	74.0	-33.0	1.66 H	138	37.1	3.9
6	4914.00	31.8 AV	54.0	-22.2	1.66 H	138	27.9	3.9
7	7371.00	48.7 PK	74.0	-25.3	3.02 H	264	38.5	10.2
8	7371.00	41.0 AV	54.0	-13.0	3.02 H	264	30.8	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.

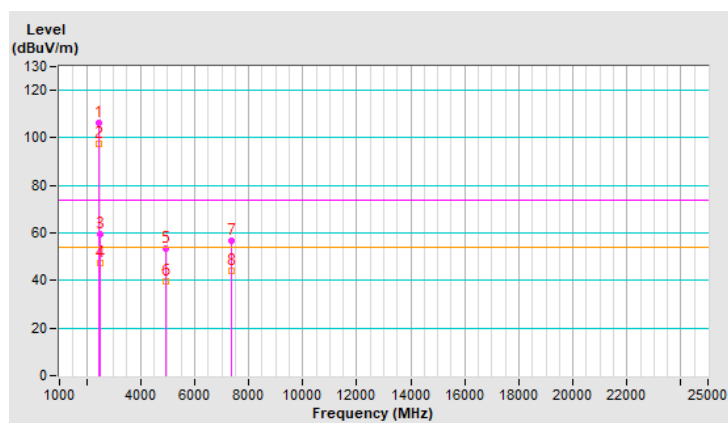


RF Mode	802.11n (HT20)	Channel	CH 10 : 2457 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	*2457.00	106.2 PK			1.34 V	284	107.1	-0.9
2	*2457.00	97.5 AV			1.34 V	284	98.4	-0.9
3	2483.50	59.3 PK	74.0	-14.7	1.34 V	284	60.3	-1.0
4	2483.50	47.5 AV	54.0	-6.5	1.34 V	284	48.5	-1.0
5	4914.00	53.2 PK	74.0	-20.8	2.45 V	198	49.3	3.9
6	4914.00	39.4 AV	54.0	-14.6	2.45 V	198	35.5	3.9
7	7371.00	56.6 PK	74.0	-17.4	2.41 V	17	46.4	10.2
8	7371.00	44.0 AV	54.0	-10.0	2.41 V	17	33.8	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.

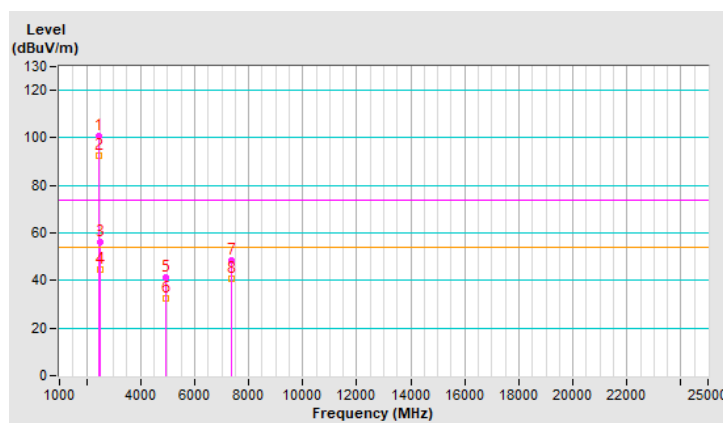


RF Mode	802.11n (HT20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	100.9 PK			1.57 H	21	101.8	-0.9
2	*2462.00	92.7 AV			1.57 H	21	93.6	-0.9
3	2483.50	56.2 PK	74.0	-17.8	1.57 H	21	57.2	-1.0
4	2483.50	44.5 AV	54.0	-9.5	1.57 H	21	45.5	-1.0
5	4924.00	41.4 PK	74.0	-32.6	1.65 H	134	37.4	4.0
6	4924.00	32.4 AV	54.0	-21.6	1.65 H	134	28.4	4.0
7	7386.00	48.7 PK	74.0	-25.3	2.95 H	248	38.4	10.3
8	7386.00	40.8 AV	54.0	-13.2	2.95 H	248	30.5	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.

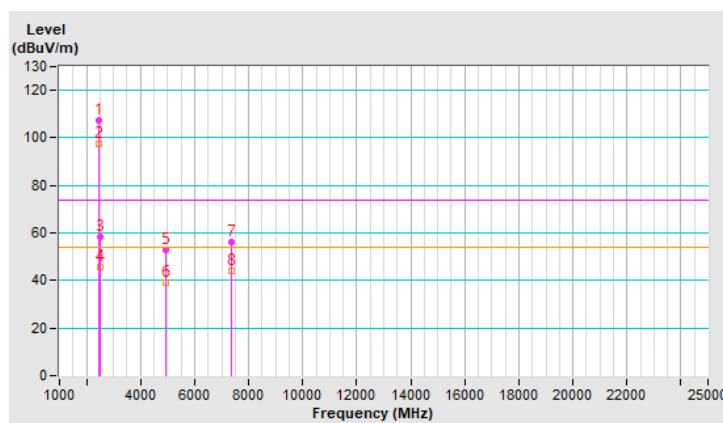


RF Mode	802.11n (HT20)	Channel	CH 11 : 2462 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	107.3 PK			1.29 V	289	108.2	-0.9
2	*2462.00	97.5 AV			1.29 V	289	98.4	-0.9
3	2483.50	58.3 PK	74.0	-15.7	1.29 V	289	59.3	-1.0
4	2483.50	45.9 AV	54.0	-8.1	1.29 V	289	46.9	-1.0
5	4924.00	53.0 PK	74.0	-21.0	2.44 V	191	49.0	4.0
6	4924.00	39.2 AV	54.0	-14.8	2.44 V	191	35.2	4.0
7	7386.00	56.4 PK	74.0	-17.6	2.36 V	34	46.1	10.3
8	7386.00	43.9 AV	54.0	-10.1	2.36 V	34	33.6	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.

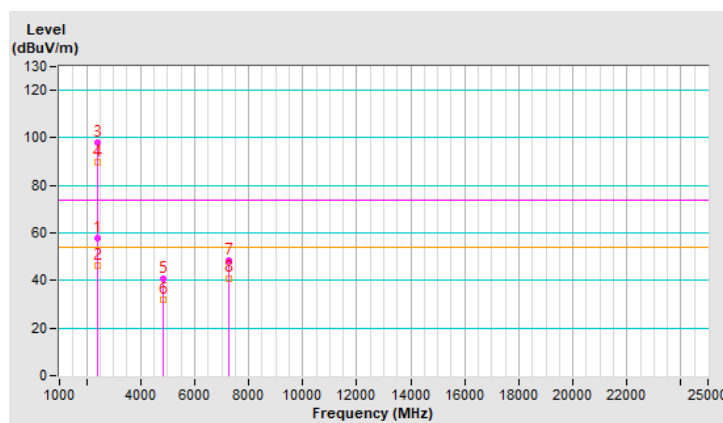


RF Mode	802.11n (HT40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	2386.23	57.9 PK	74.0	-16.1	1.52 H	15	58.7	-0.8
2	2386.23	46.2 AV	54.0	-7.8	1.52 H	15	47.0	-0.8
3	*2422.00	97.8 PK			1.52 H	15	98.6	-0.8
4	*2422.00	89.6 AV			1.52 H	15	90.4	-0.8
5	4844.00	40.7 PK	74.0	-33.3	1.73 H	132	36.7	4.0
6	4844.00	31.7 AV	54.0	-22.3	1.73 H	132	27.7	4.0
7	7266.00	48.7 PK	74.0	-25.3	3.06 H	264	38.6	10.1
8	7266.00	41.0 AV	54.0	-13.0	3.06 H	264	30.9	10.1

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, the limit was restricted at the RF Output Power.

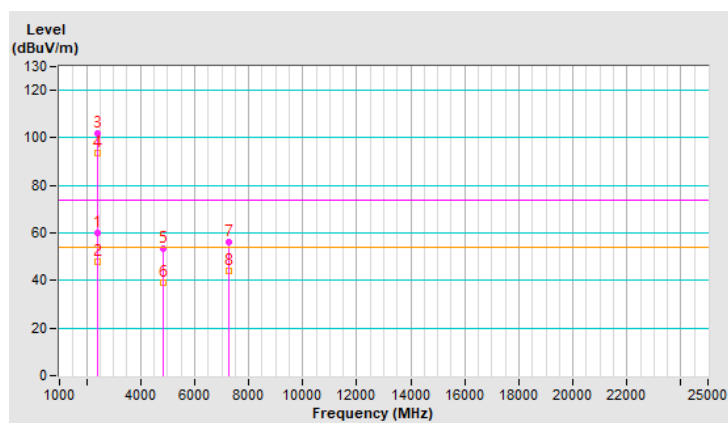


RF Mode	802.11n (HT40)	Channel	CH 3 : 2422 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	2387.53	59.9 PK	74.0	-14.1	1.17 V	289	60.7	-0.8
2	2387.53	47.7 AV	54.0	-6.3	1.17 V	289	48.5	-0.8
3	*2422.00	102.1 PK			1.17 V	289	102.9	-0.8
4	*2422.00	93.6 AV			1.17 V	289	94.4	-0.8
5	4844.00	53.2 PK	74.0	-20.8	2.53 V	200	49.2	4.0
6	4844.00	39.1 AV	54.0	-14.9	2.53 V	200	35.1	4.0
7	7266.00	56.2 PK	74.0	-17.8	2.33 V	30	46.1	10.1
8	7266.00	44.0 AV	54.0	-10.0	2.33 V	30	33.9	10.1

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, the limit was restricted at the RF Output Power.

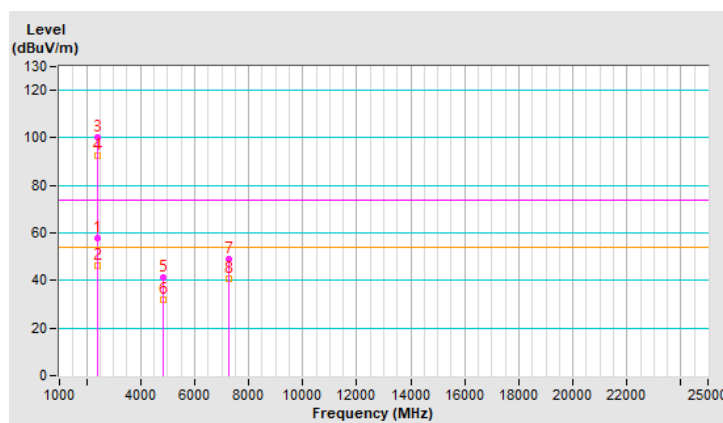


RF Mode	802.11n (HT40)	Channel	CH 4 : 2427 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	58.0 PK	74.0	-16.0	1.48 H	31	58.8	-0.8
2	2390.00	46.3 AV	54.0	-7.7	1.48 H	31	47.1	-0.8
3	*2427.00	100.1 PK			1.48 H	31	100.9	-0.8
4	*2427.00	92.3 AV			1.48 H	31	93.1	-0.8
5	4854.00	41.3 PK	74.0	-32.7	1.65 H	141	37.3	4.0
6	4854.00	32.0 AV	54.0	-22.0	1.65 H	141	28.0	4.0
7	7281.00	48.9 PK	74.0	-25.1	3.02 H	271	38.8	10.1
8	7281.00	40.8 AV	54.0	-13.2	3.02 H	271	30.7	10.1

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, the limit was restricted at the RF Output Power.

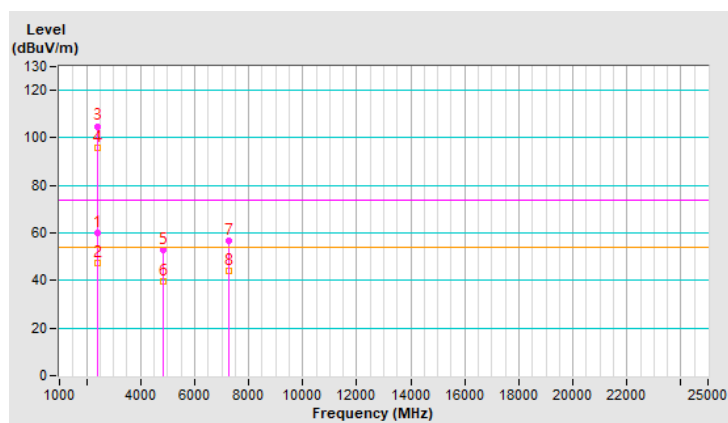


RF Mode	802.11n (HT40)	Channel	CH 4 : 2427 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	60.2 PK	74.0	-13.8	1.23 V	296	61.0	-0.8
2	2390.00	47.4 AV	54.0	-6.6	1.23 V	296	48.2	-0.8
3	*2427.00	104.9 PK			1.23 V	296	105.7	-0.8
4	*2427.00	95.8 AV			1.23 V	296	96.6	-0.8
5	4854.00	53.1 PK	74.0	-20.9	2.47 V	205	49.1	4.0
6	4854.00	39.6 AV	54.0	-14.4	2.47 V	205	35.6	4.0
7	7281.00	56.8 PK	74.0	-17.2	2.31 V	31	46.7	10.1
8	7281.00	44.3 AV	54.0	-9.7	2.31 V	31	34.2	10.1

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, the limit was restricted at the RF Output Power.

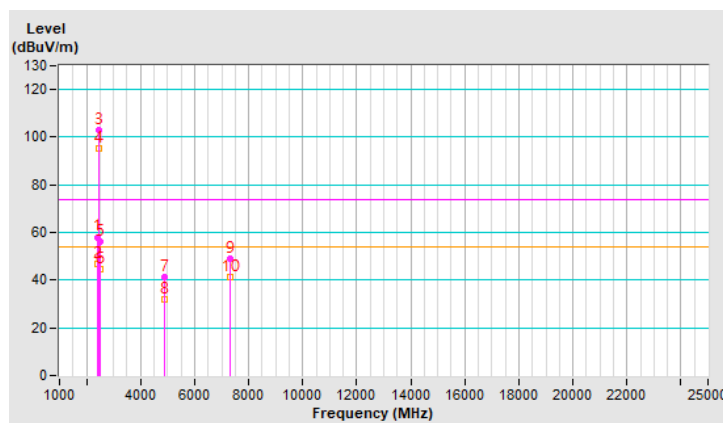


RF Mode	802.11n (HT40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	58.1 PK	74.0	-15.9	1.57 H	22	58.9	-0.8
2	2390.00	46.7 AV	54.0	-7.3	1.57 H	22	47.5	-0.8
3	*2437.00	102.9 PK			1.57 H	22	103.7	-0.8
4	*2437.00	95.2 AV			1.57 H	22	96.0	-0.8
5	2483.50	56.3 PK	74.0	-17.7	1.57 H	22	57.3	-1.0
6	2483.50	44.7 AV	54.0	-9.3	1.57 H	22	45.7	-1.0
7	4874.00	41.3 PK	74.0	-32.7	1.72 H	150	37.3	4.0
8	4874.00	31.8 AV	54.0	-22.2	1.72 H	150	27.8	4.0
9	7311.00	49.2 PK	74.0	-24.8	3.02 H	276	39.0	10.2
10	7311.00	41.3 AV	54.0	-12.7	3.02 H	276	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.

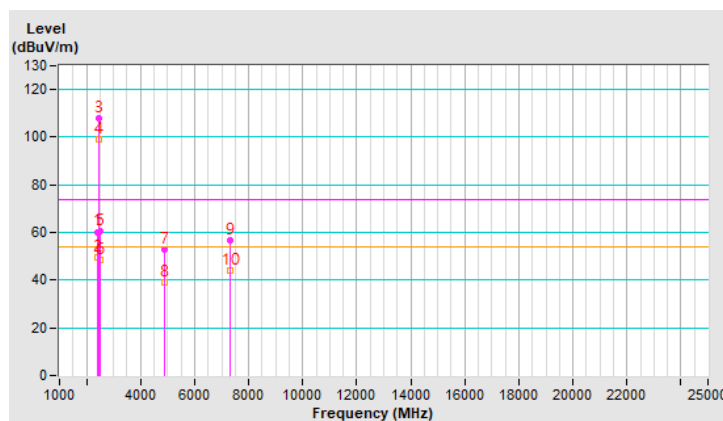


RF Mode	802.11n (HT40)	Channel	CH 6 : 2437 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	60.3 PK	74.0	-13.7	1.22 V	277	61.1	-0.8
2	2390.00	49.4 AV	54.0	-4.6	1.22 V	277	50.2	-0.8
3	*2437.00	107.8 PK			1.22 V	277	108.6	-0.8
4	*2437.00	99.1 AV			1.22 V	277	99.9	-0.8
5	2483.50	60.5 PK	74.0	-13.5	1.22 V	277	61.5	-1.0
6	2483.50	48.4 AV	54.0	-5.6	1.22 V	277	49.4	-1.0
7	4874.00	52.7 PK	74.0	-21.3	2.47 V	194	48.7	4.0
8	4874.00	39.1 AV	54.0	-14.9	2.47 V	194	35.1	4.0
9	7311.00	56.6 PK	74.0	-17.4	2.32 V	26	46.4	10.2
10	7311.00	44.3 AV	54.0	-9.7	2.32 V	26	34.1	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.

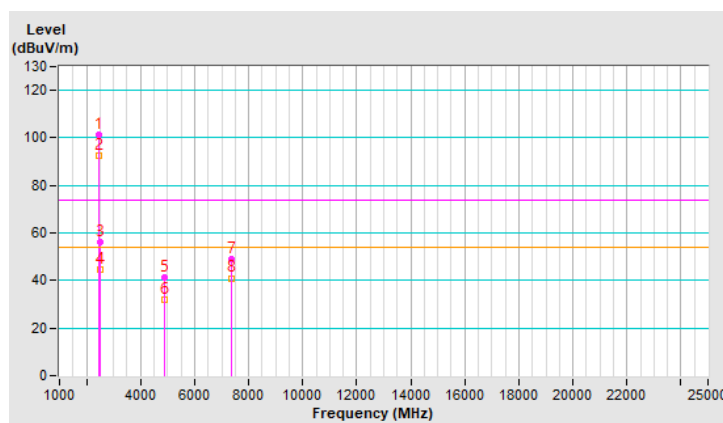


RF Mode	802.11n (HT40)	Channel	CH 8 : 2447 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	*2447.00	101.4 PK			1.53 H	24	102.3	-0.9
2	*2447.00	92.4 AV			1.53 H	24	93.3	-0.9
3	2483.50	56.1 PK	74.0	-17.9	1.53 H	24	57.1	-1.0
4	2483.50	44.7 AV	54.0	-9.3	1.53 H	24	45.7	-1.0
5	4894.00	41.3 PK	74.0	-32.7	1.68 H	139	37.4	3.9
6	4894.00	32.1 AV	54.0	-21.9	1.68 H	139	28.2	3.9
7	7341.00	49.1 PK	74.0	-24.9	2.96 H	264	38.9	10.2
8	7341.00	41.0 AV	54.0	-13.0	2.96 H	264	30.8	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.

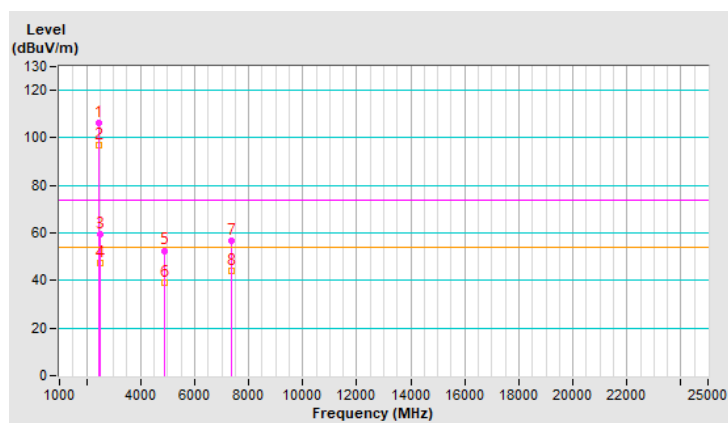


RF Mode	802.11n (HT40)	Channel	CH 8 : 2447 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	*2447.00	106.1 PK			1.15 V	292	107.0	-0.9
2	*2447.00	97.1 AV			1.15 V	292	98.0	-0.9
3	2483.50	59.7 PK	74.0	-14.3	1.15 V	292	60.7	-1.0
4	2483.50	47.1 AV	54.0	-6.9	1.15 V	292	48.1	-1.0
5	4894.00	52.6 PK	74.0	-21.4	2.51 V	192	48.7	3.9
6	4894.00	39.0 AV	54.0	-15.0	2.51 V	192	35.1	3.9
7	7341.00	56.9 PK	74.0	-17.1	2.43 V	17	46.7	10.2
8	7341.00	44.2 AV	54.0	-9.8	2.43 V	17	34.0	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.

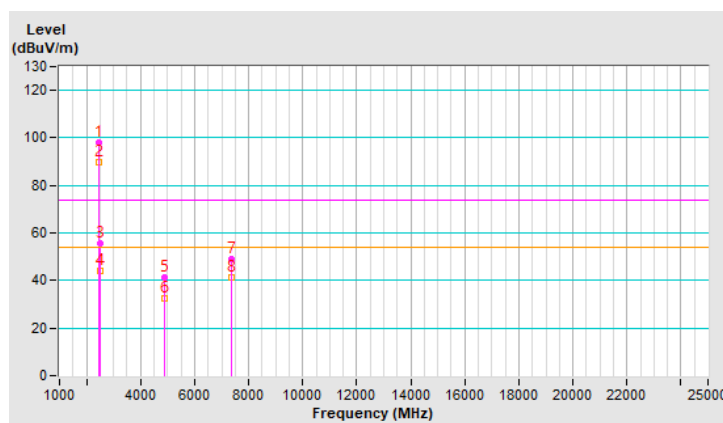


RF Mode	802.11n (HT40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

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	97.9 PK			2.25 H	16	98.8	-0.9
2	*2452.00	89.8 AV			2.25 H	16	90.7	-0.9
3	2487.56	55.5 PK	74.0	-18.5	2.25 H	16	56.5	-1.0
4	2487.56	44.3 AV	54.0	-9.7	2.25 H	16	45.3	-1.0
5	4904.00	41.3 PK	74.0	-32.7	1.70 H	130	37.4	3.9
6	4904.00	32.3 AV	54.0	-21.7	1.70 H	130	28.4	3.9
7	7356.00	48.8 PK	74.0	-25.2	3.01 H	277	38.6	10.2
8	7356.00	41.1 AV	54.0	-12.9	3.01 H	277	30.9	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.

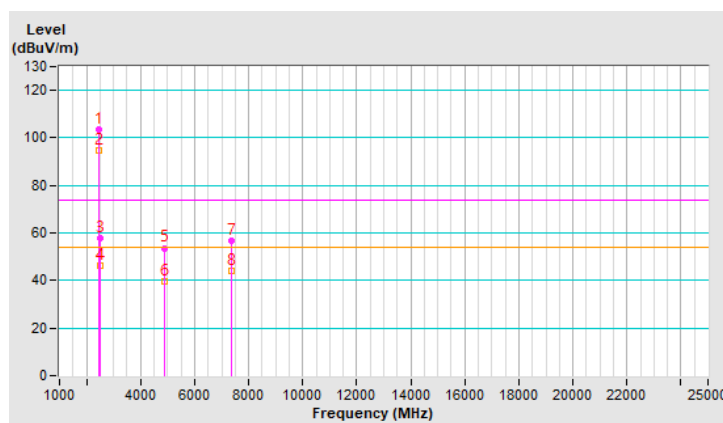


RF Mode	802.11n (HT40)	Channel	CH 9 : 2452 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Ryan Du		

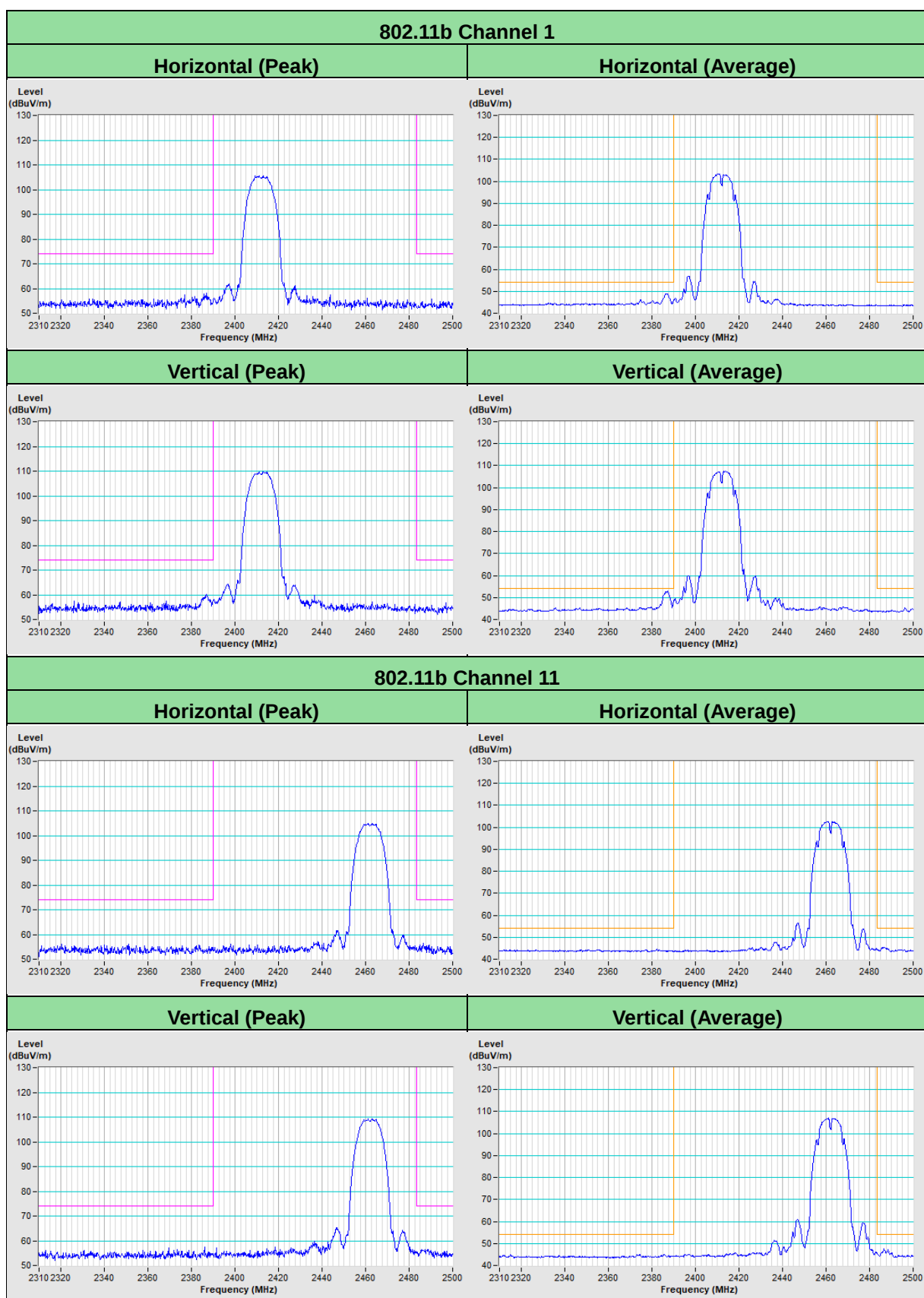
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2452.00	103.5 PK			1.17 V	289	104.4	-0.9
2	*2452.00	94.6 AV			1.17 V	289	95.5	-0.9
3	2486.48	58.0 PK	74.0	-16.0	1.17 V	289	59.0	-1.0
4	2486.48	46.4 AV	54.0	-7.6	1.17 V	289	47.4	-1.0
5	4904.00	53.7 PK	74.0	-20.3	2.44 V	187	49.8	3.9
6	4904.00	39.6 AV	54.0	-14.4	2.44 V	187	35.7	3.9
7	7356.00	56.8 PK	74.0	-17.2	2.40 V	25	46.6	10.2
8	7356.00	44.1 AV	54.0	-9.9	2.40 V	25	33.9	10.2

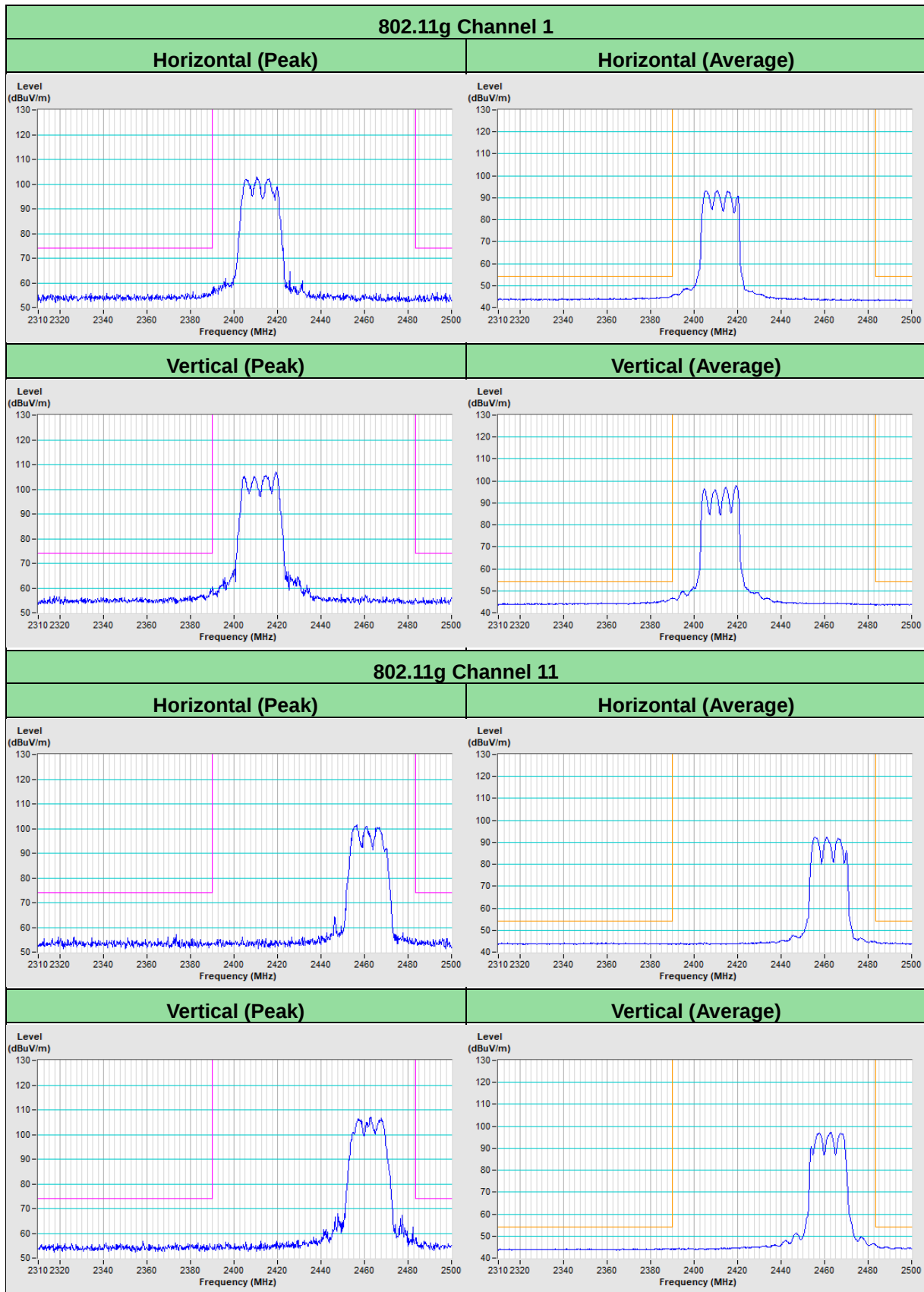
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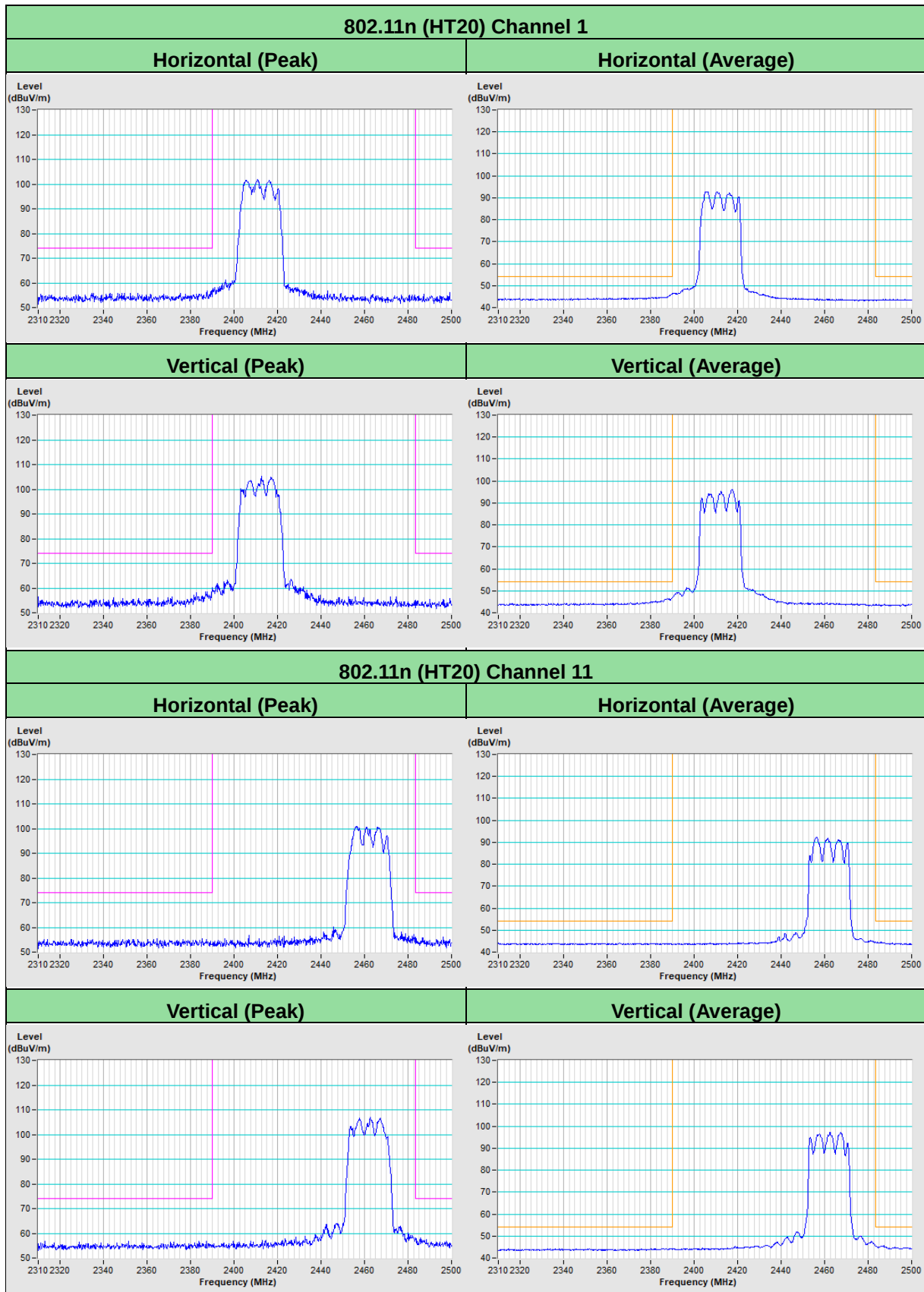
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

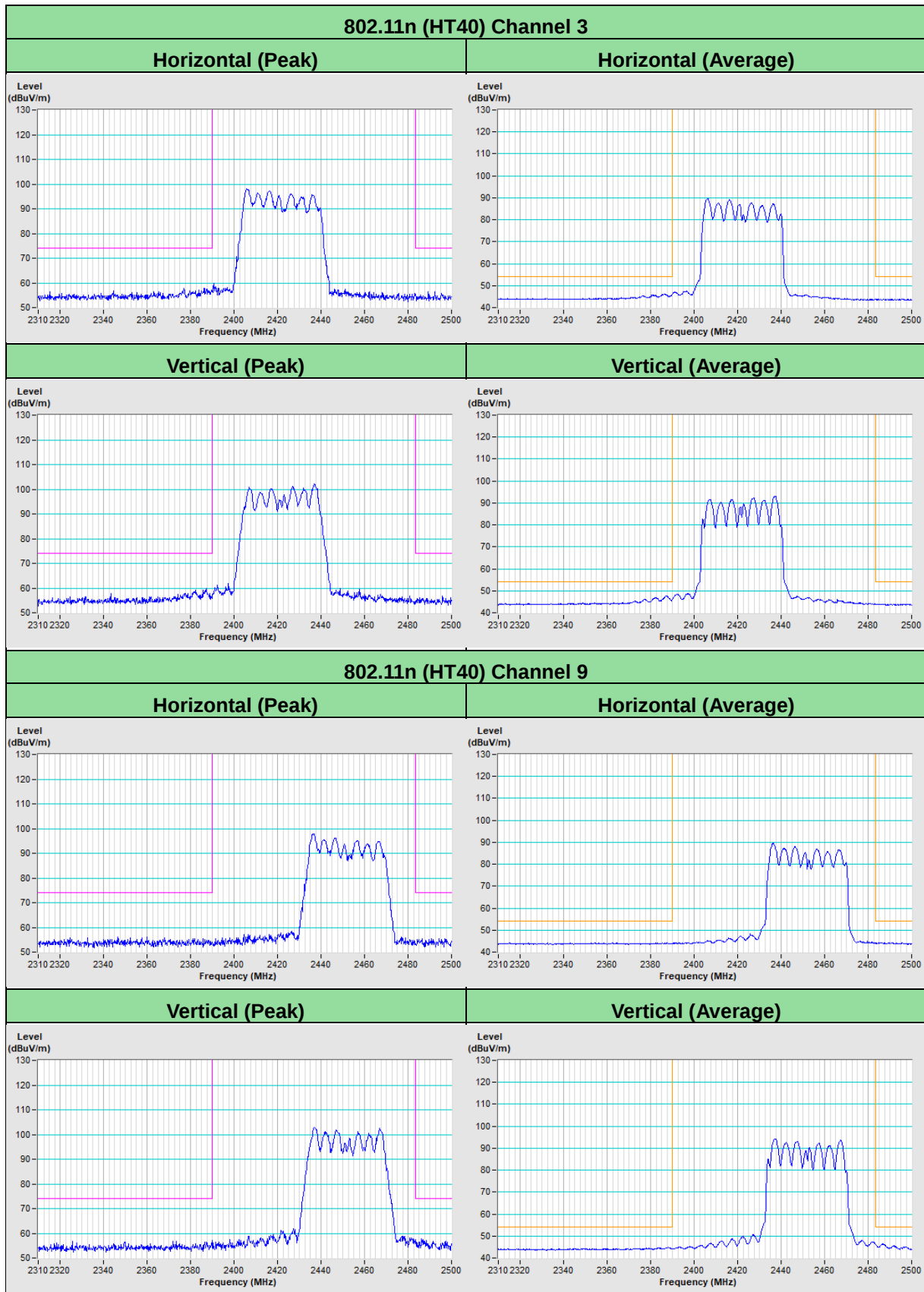


Plot of Band Edge









8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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Email: service.adt@bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

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

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