



FCC RADIO TEST REPORT

FCC ID : 2AN7V-7678
Equipment : Digital Media Receiver
Model Name : N12T8L
Applicant : Cera-Thornton LLC
200 W. Martin Luther King Blvd. Suite 1000
Chattanooga, TN 37402
United States
Standard : FCC Part 15 Subpart C §15.247

The testing was completed on Apr. 19, 2019. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Product Specification of Equipment Under Test.....	5
1.3 Modification of EUT	5
1.4 Testing Location	5
1.5 Applicable Standards.....	6
2 Test Configuration of Equipment Under Test	7
2.1 Carrier Frequency and Channel	7
2.2 Test Mode.....	7
2.3 Connection Diagram of Test System.....	8
2.4 Support Unit used in test configuration and system	9
2.5 EUT Operation Test Setup	9
2.6 Measurement Results Explanation Example.....	9
3 Test Result	10
3.1 6dB and 99% Bandwidth Measurement	10
3.2 Output Power Measurement.....	12
3.3 Power Spectral Density Measurement	13
3.4 Conducted Band Edges and Spurious Emission Measurement	15
3.5 Radiated Band Edges and Spurious Emission Measurement	31
3.6 AC Conducted Emission Measurement.....	35
3.7 Antenna Requirements.....	37
4 List of Measuring Equipment.....	38
5 Uncertainty of Evaluation	40
Appendix A. Conducted Test Results	
Appendix B. AC Conducted Emission Test Result	
Appendix C. Radiated Spurious Emission	
Appendix D. Radiated Spurious Emission Plots	
Appendix E. Duty Cycle Plots	



History of this test report

Report No.	Version	Description	Issued Date
FR920111-01B	01	Initial issue of report	May 07, 2019
FR920111-01B	02	Revising the maximum output power of 802.11b in section 1.2	Sep. 25, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.247(a)(2)	6dB Bandwidth	Pass
3.1	2.1049	99% Occupied Bandwidth	Reporting only
3.2	15.247(b)	Power Output Measurement	Pass
3.3	15.247(e)	Power Spectral Density	Pass
3.4	15.247(d)	Conducted Band Edges	Pass
		Conducted Spurious Emission	Pass
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass
3.6	15.207	AC Conducted Emission	Pass
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Elise Chang



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	N12T8L
FCC ID	2AN7V-7678
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2472 MHz
Maximum Output Power to Antenna	802.11b : 23.22 dBm (0.2099 W) 802.11g : 23.95 dBm (0.2483 W) 802.11n HT20 : 23.65 dBm (0.2317 W)
99% Occupied Bandwidth	802.11b : 15.48 MHz 802.11g : 16.88 MHz 802.11n HT20 : 17.78 MHz
Antenna Type / Gain	Printed Inverted-F Antenna type with gain 1.20 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory		
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978		
Test Site No.	Sporton Site No.		
	TH05-HY	CO05-HY	03CH07-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW1190



1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ ANSI C63.10-2013

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	8	2447
	2	2417	9	2452
	3	2422	10	2457
	4	2427	11	2462
	5	2432	12	2467
	6	2437	13	2472
	7	2442		

2.2 Test Mode

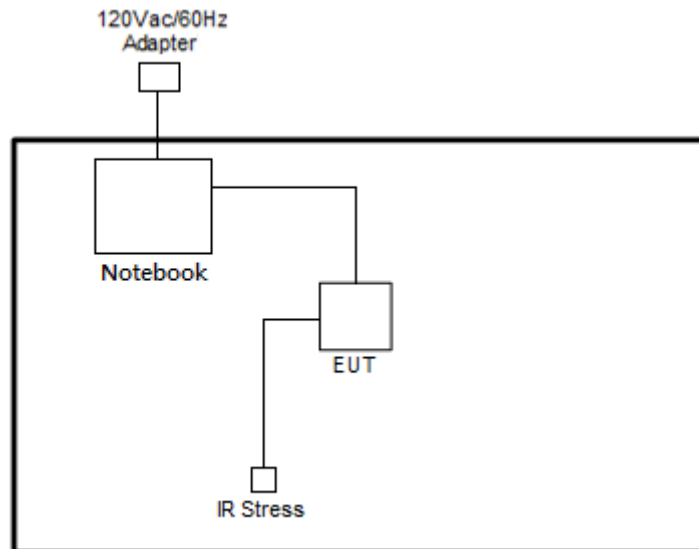
Final test modes are considering the modulation and worse data rates as below table.

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0

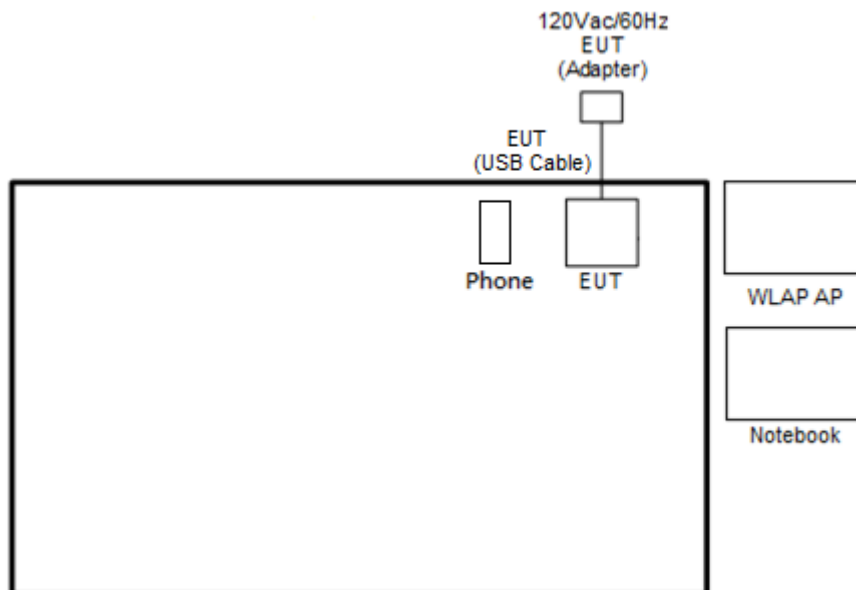
Test Cases	
AC Conducted Emission	Mode 1 :Bluetooth Link + WLAN (2.4GHz) Link + LED Stress + IR Stress + USB Cable (Charging from AC Adapter)

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Phone	ASUS	A9	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QA tool” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

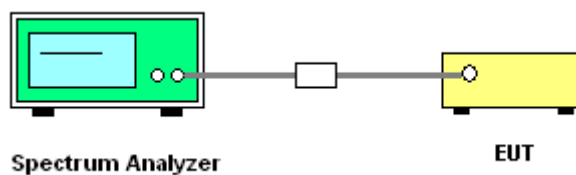
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
6. Measure and record the results in the test report.

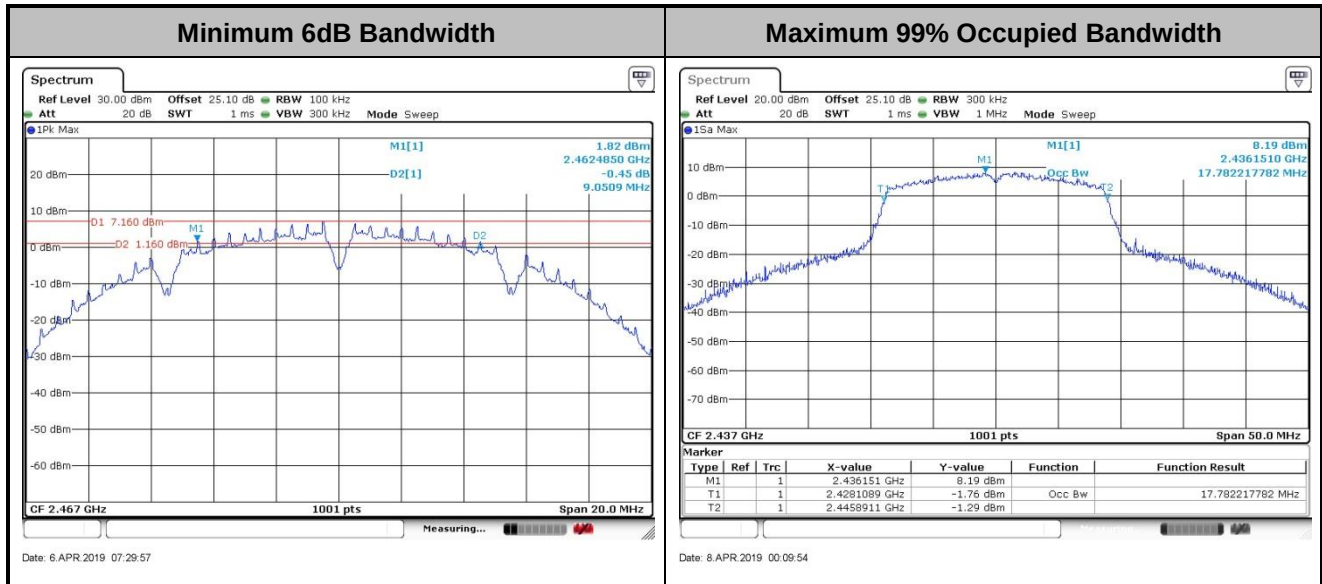
3.1.4 Test Setup





3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

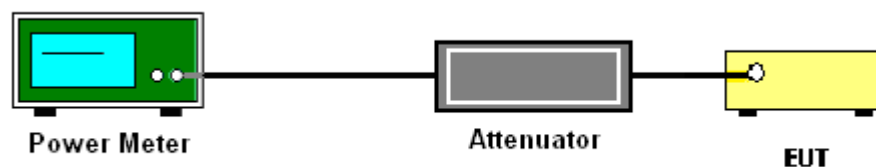
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1
2. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.1 Method AVGPM
3. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.2.6 Test Result of Average Output Power (Reporting Only)

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

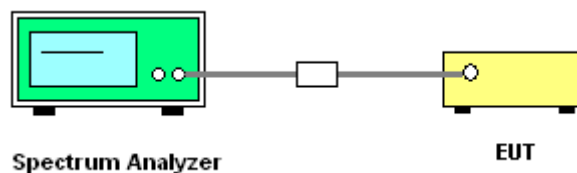
3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. 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.
6. Measure and record the results in the test report.

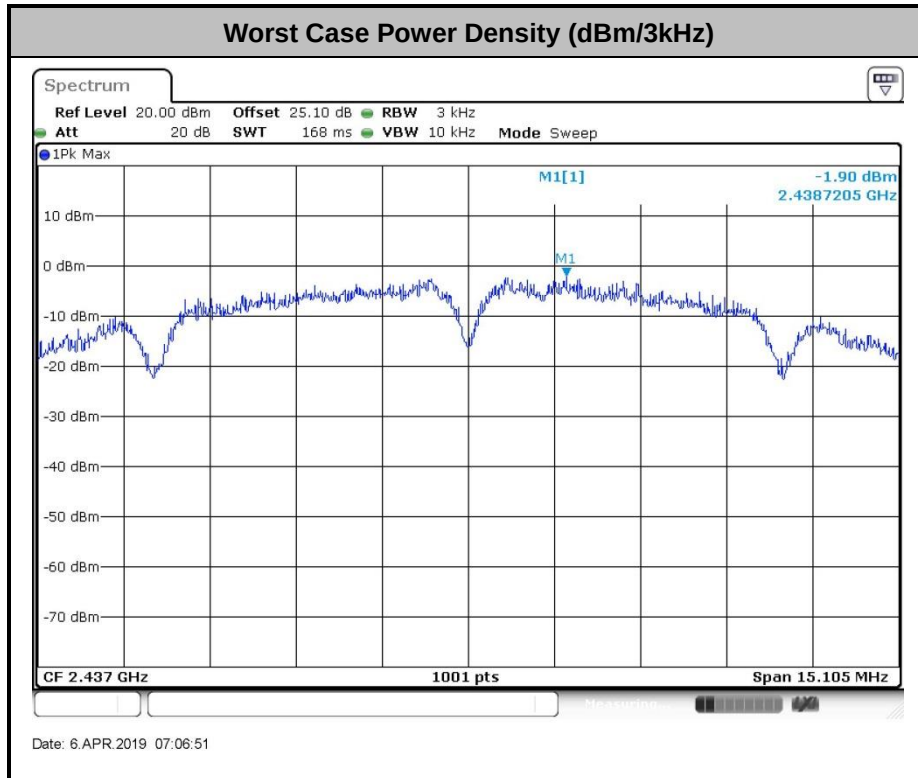
3.3.4 Test Setup





3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

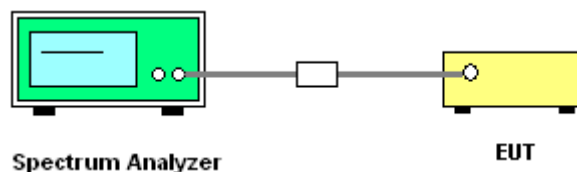
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup

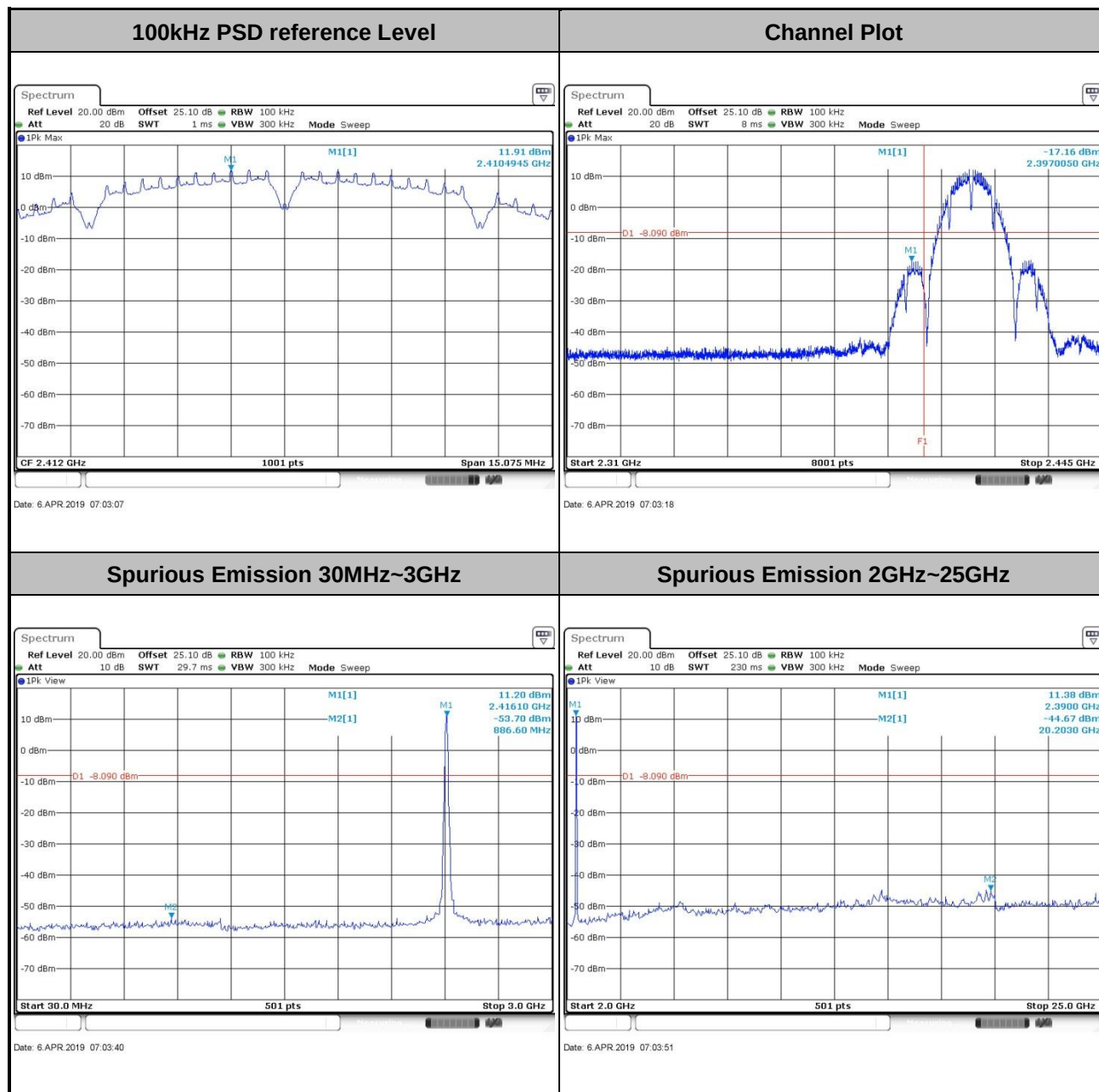


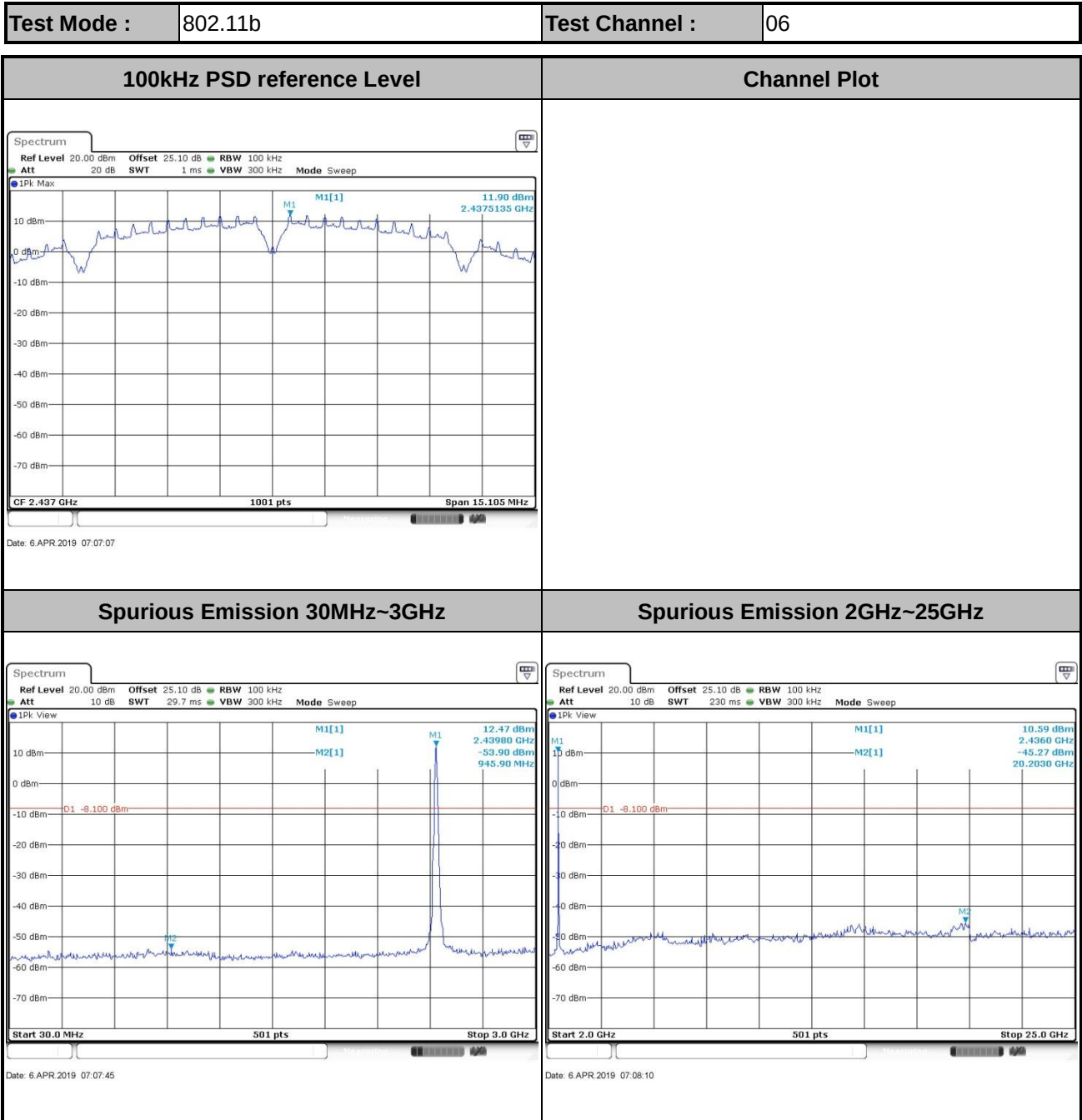


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer :	Aking Chang	Temperature :	21~25°C
		Relative Humidity :	51~54%

Test Mode :	802.11b	Test Channel :	01
-------------	---------	----------------	----

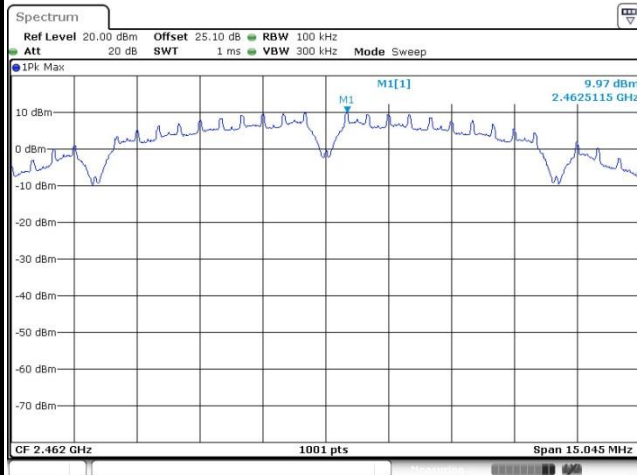






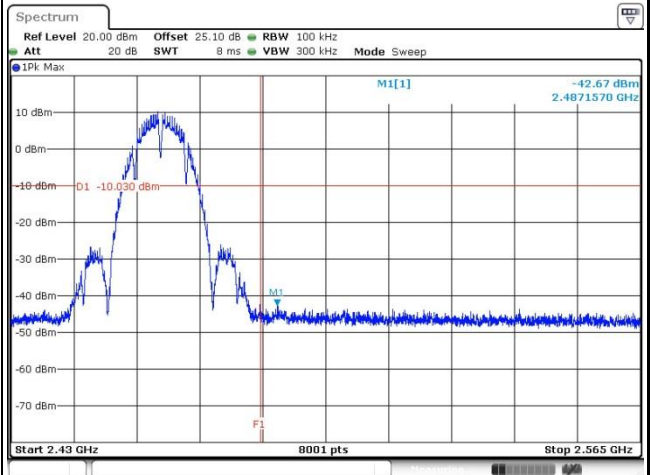
Test Mode :	802.11b	Test Channel :	11
-------------	---------	----------------	----

100kHz PSD reference Level



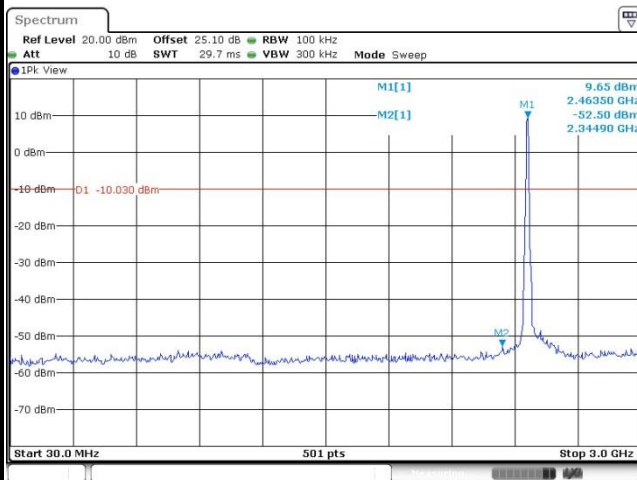
Date: 6 APR 2019 07:13:34

Channel Plot



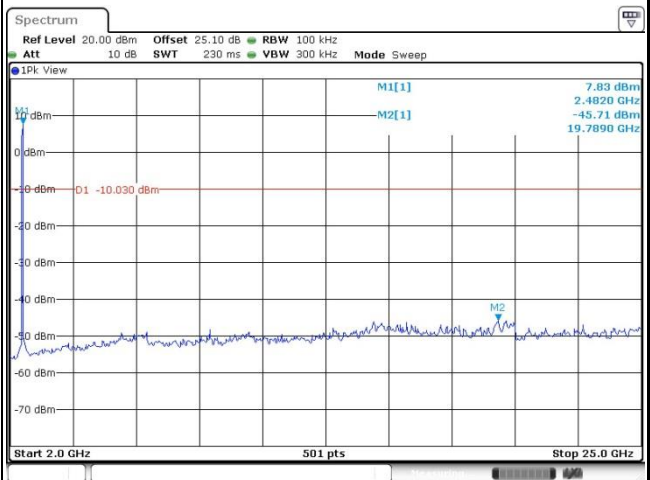
Date: 6 APR 2019 07:13:49

Spurious Emission 30MHz~3GHz



Date: 6 APR 2019 07:14:04

Spurious Emission 2GHz~25GHz

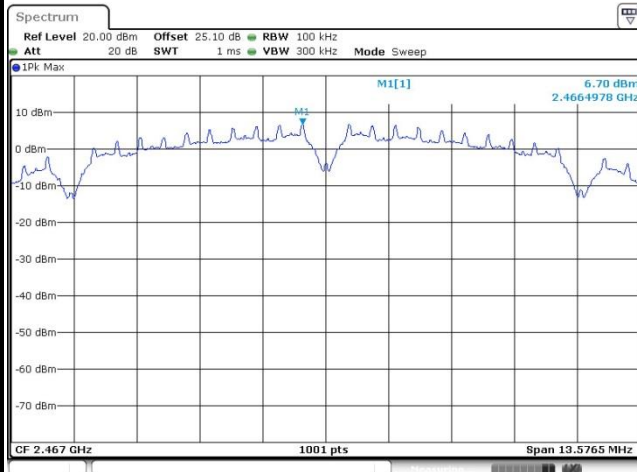


Date: 6 APR 2019 07:14:16



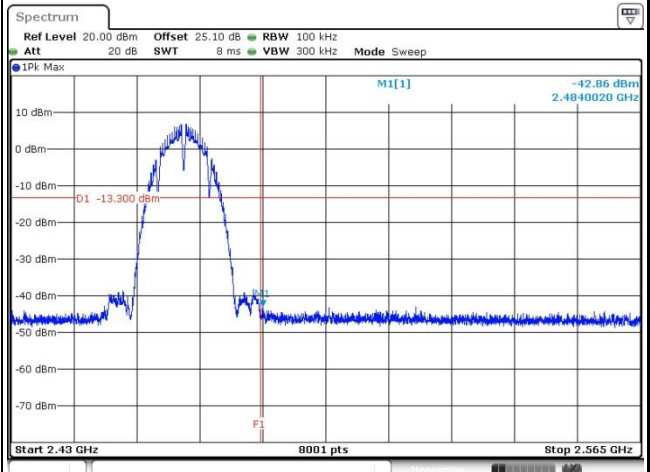
Test Mode :	802.11b	Test Channel :	12
-------------	---------	----------------	----

100kHz PSD reference Level



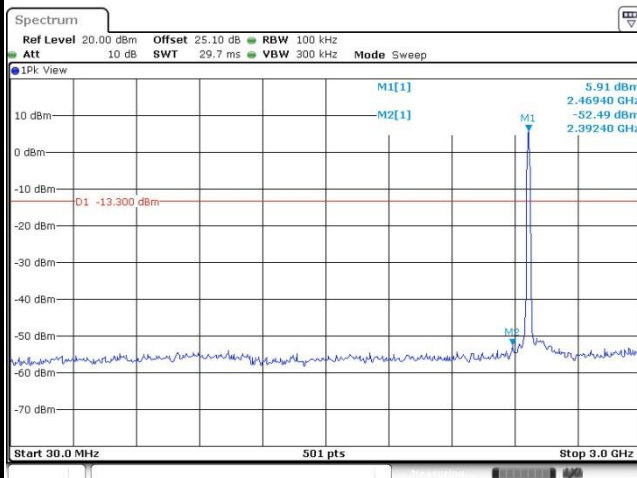
Date: 6 APR 2019 07:30:19

Channel Plot



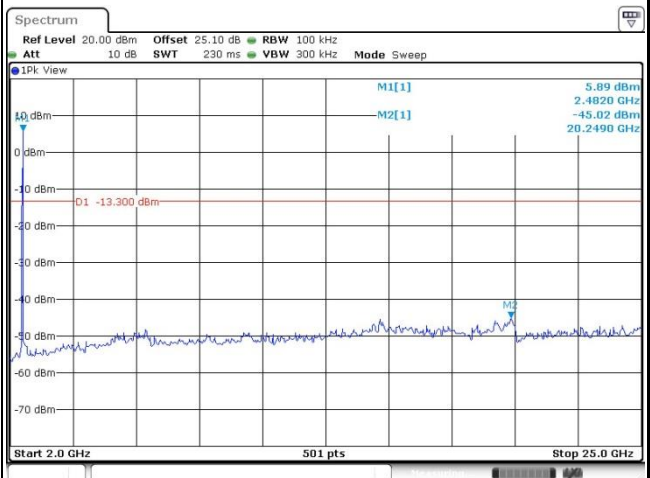
Date: 6 APR 2019 07:30:37

Spurious Emission 30MHz~3GHz



Date: 6 APR 2019 07:30:57

Spurious Emission 2GHz~25GHz

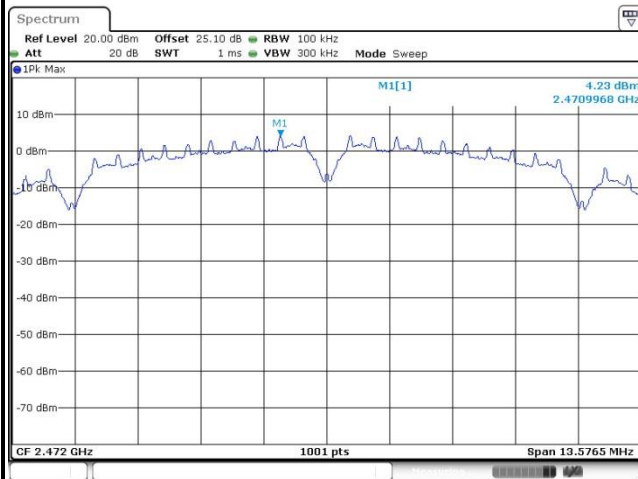


Date: 6 APR 2019 07:31:09



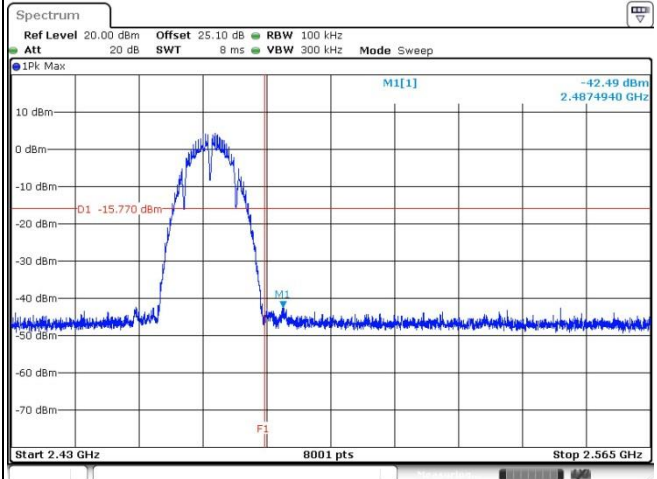
Test Mode :	802.11b	Test Channel :	13
-------------	---------	----------------	----

100kHz PSD reference Level



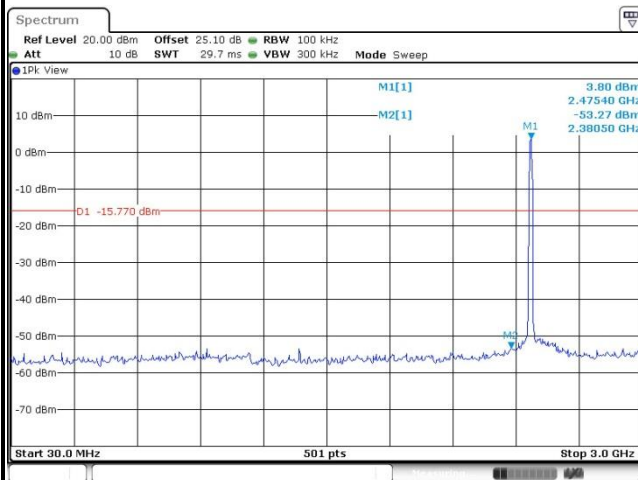
Date: 6 APR 2019 07:34:30

Channel Plot



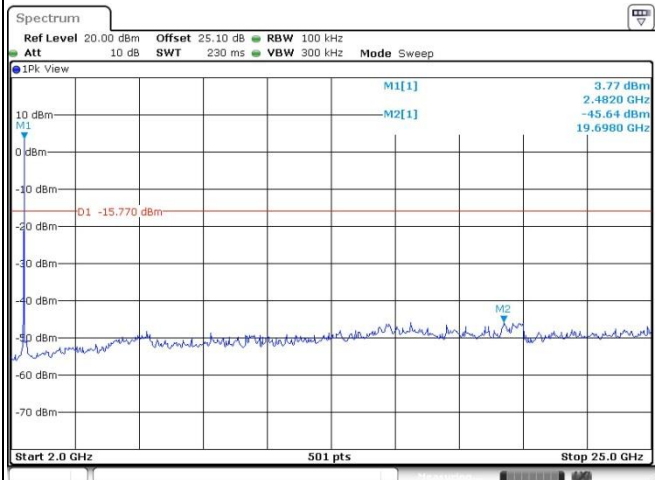
Date: 6 APR 2019 07:34:48

Spurious Emission 30MHz~3GHz



Date: 6 APR 2019 07:35:06

Spurious Emission 2GHz~25GHz

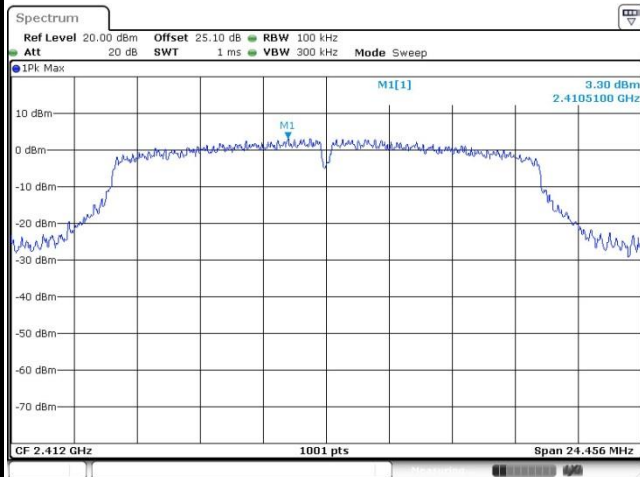


Date: 6 APR 2019 07:35:17

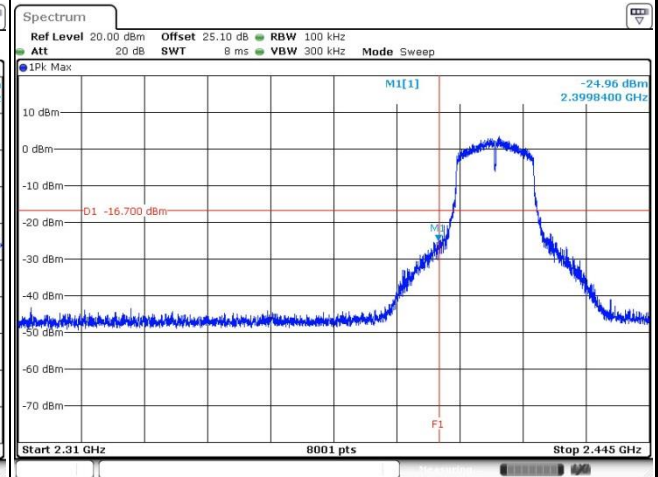


Test Mode :	802.11g	Test Channel :	01
-------------	---------	----------------	----

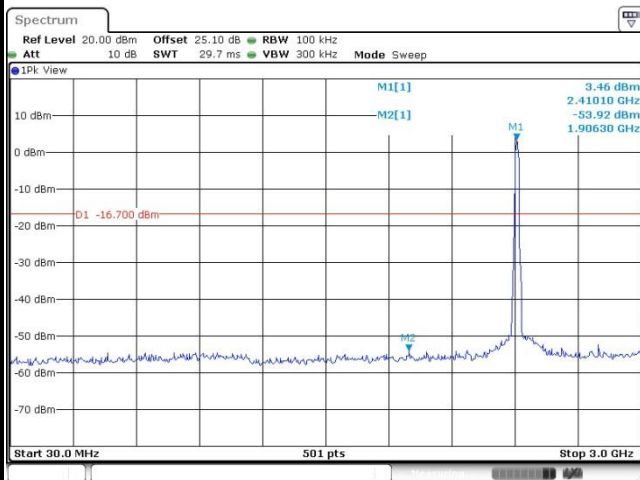
100kHz PSD reference Level



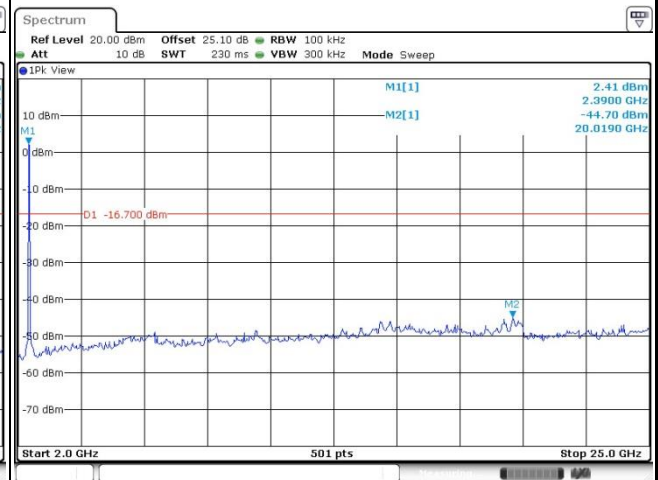
Channel Plot



Spurious Emission 30MHz~3GHz

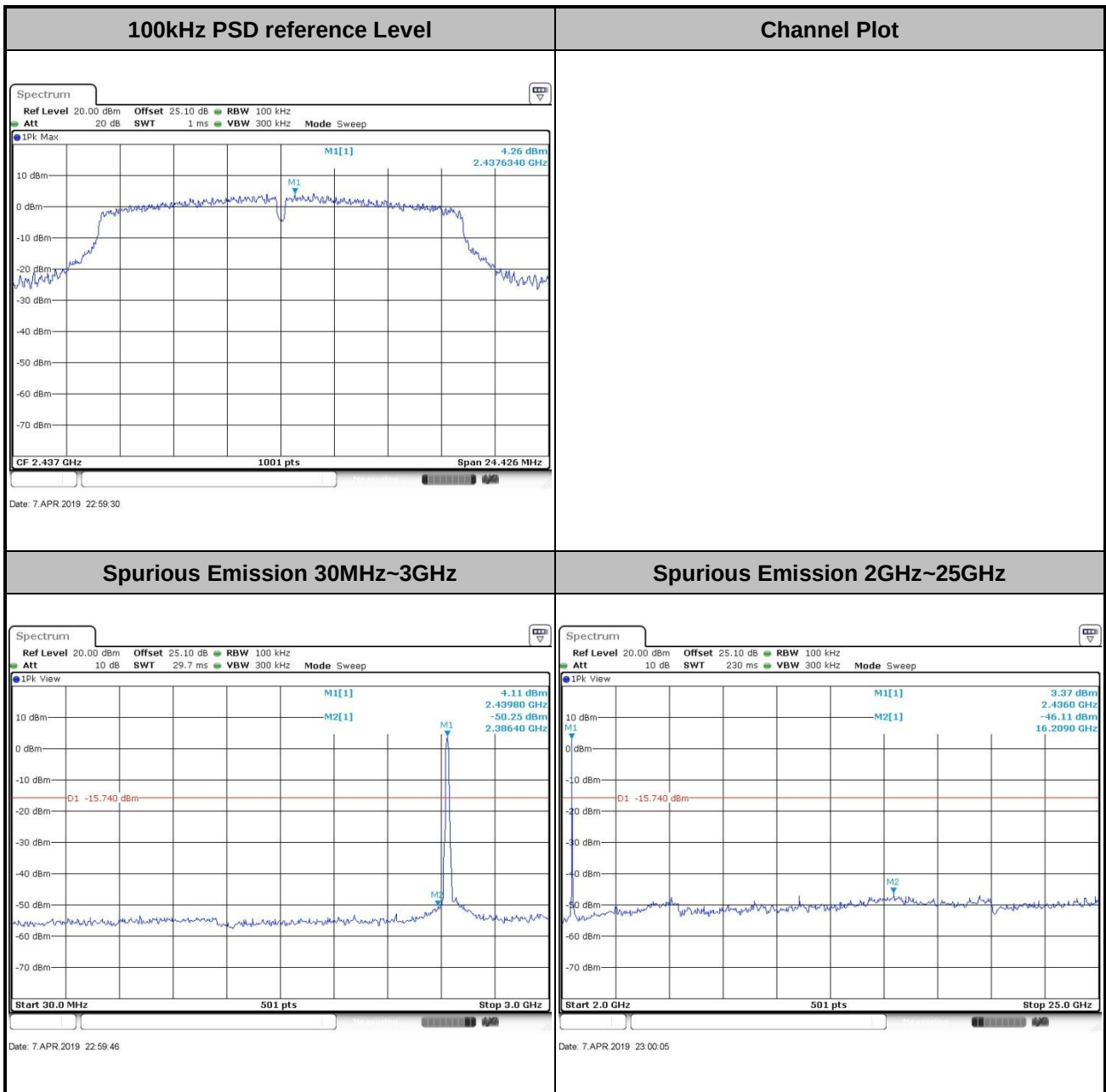


Spurious Emission 2GHz~25GHz



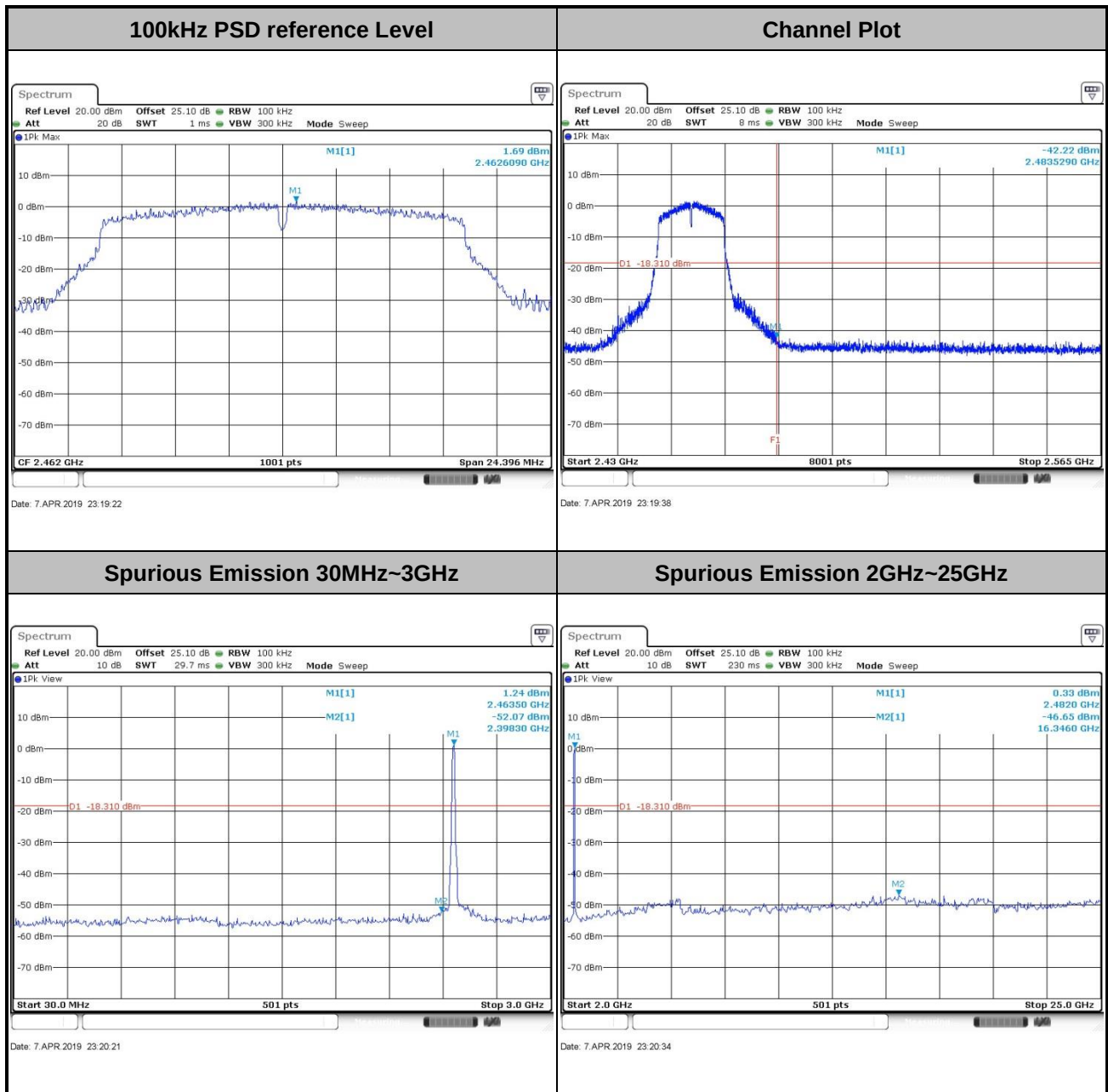


Test Mode :	802.11g	Test Channel :	06
-------------	---------	----------------	----



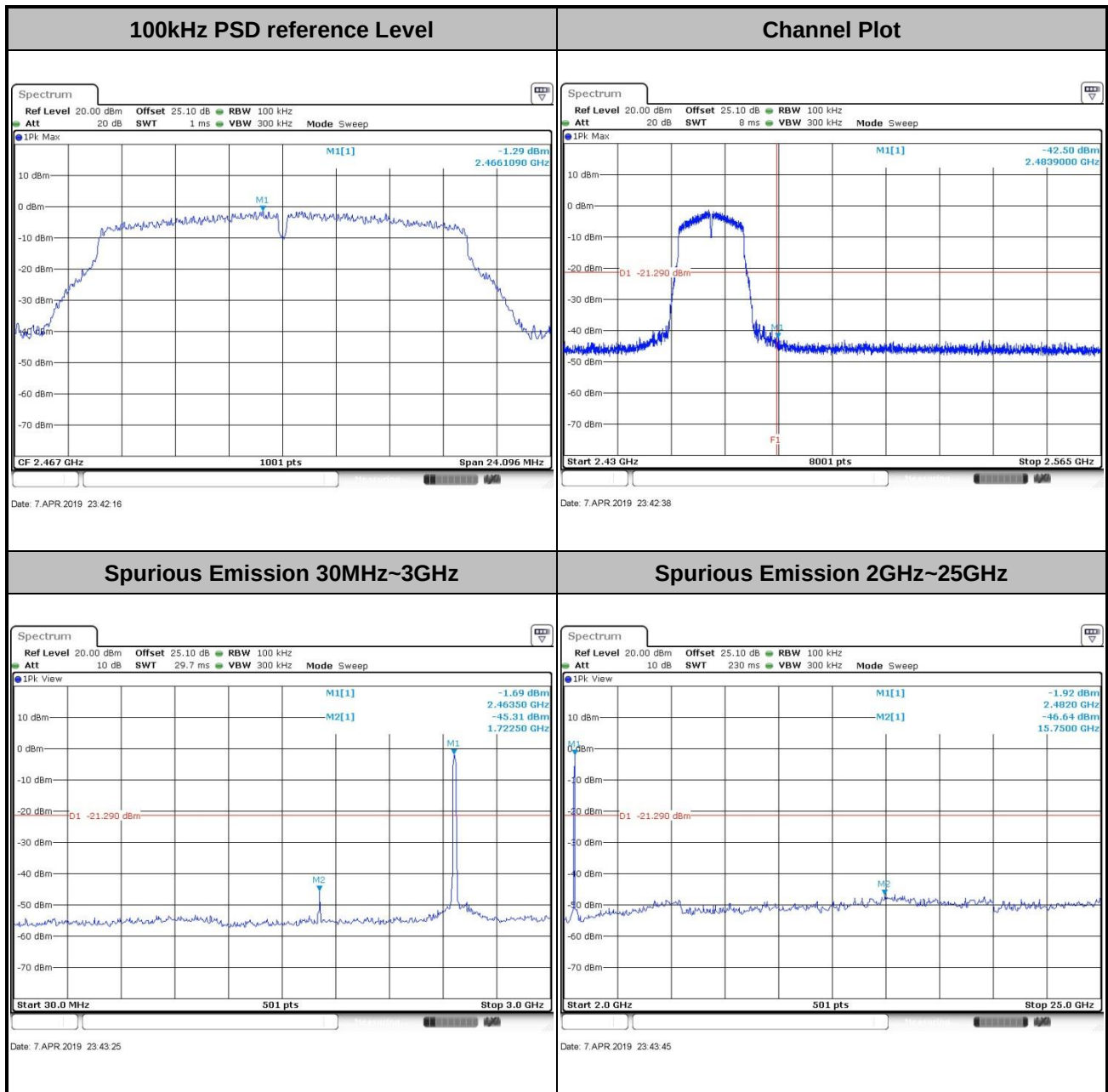


Test Mode :	802.11g	Test Channel :	11
-------------	---------	----------------	----





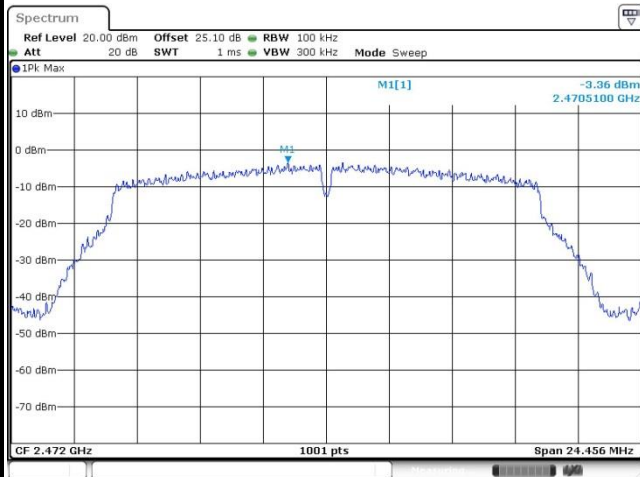
Test Mode :	802.11g	Test Channel :	12
-------------	---------	----------------	----





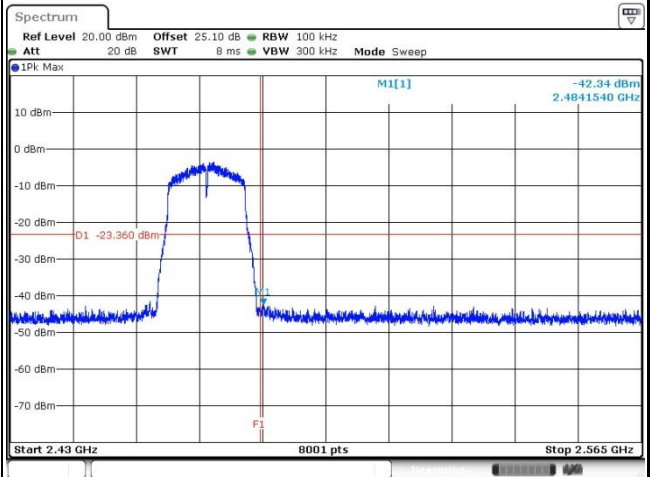
Test Mode :	802.11g	Test Channel :	13
-------------	---------	----------------	----

100kHz PSD reference Level



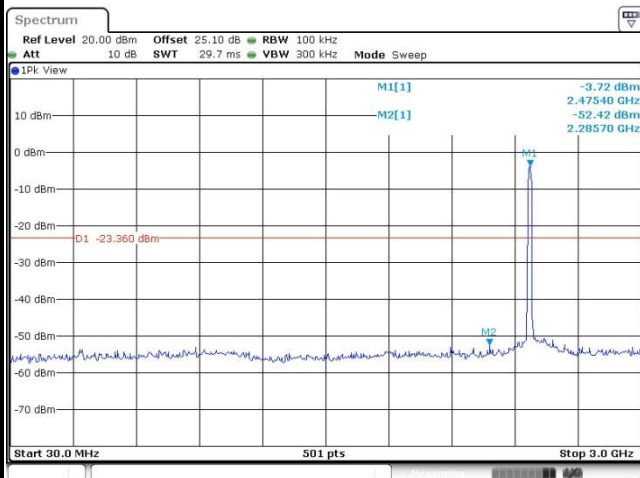
Date: 8 APR 2019 00:00:24

Channel Plot



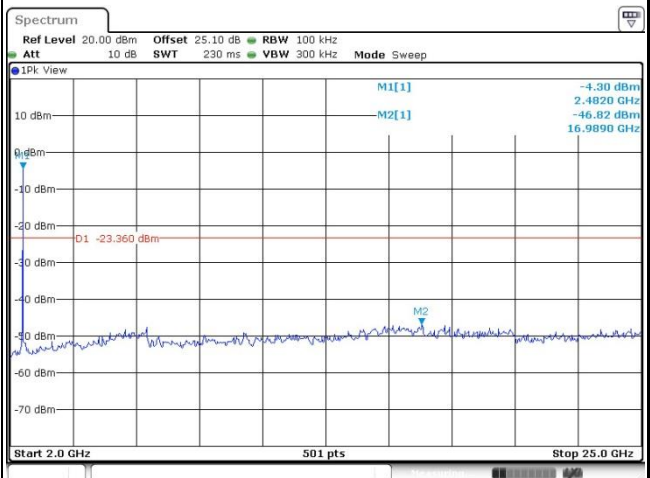
Date: 8 APR 2019 00:00:35

Spurious Emission 30MHz~3GHz



Date: 8 APR 2019 00:00:48

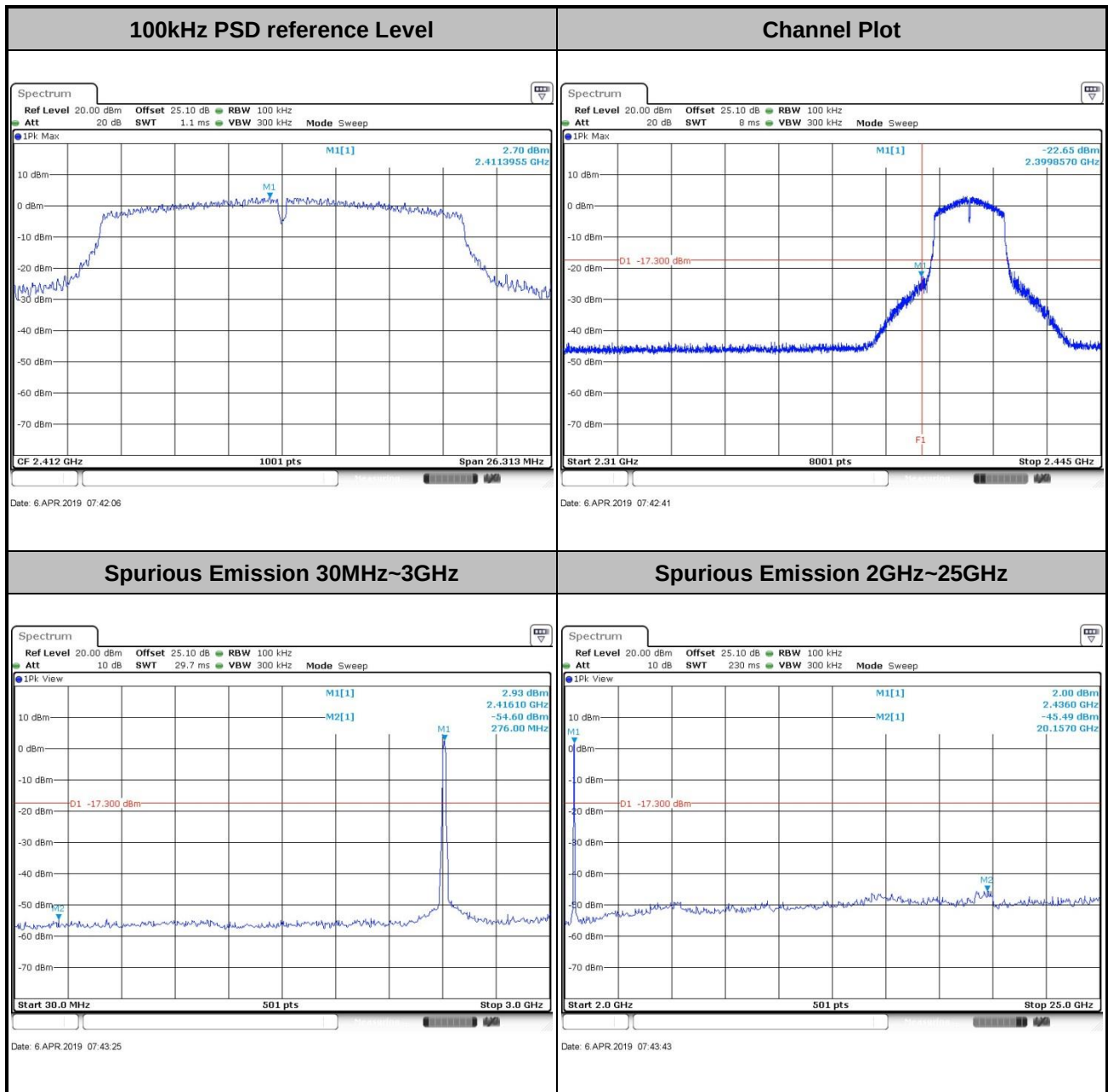
Spurious Emission 2GHz~25GHz



Date: 8 APR 2019 00:01:00



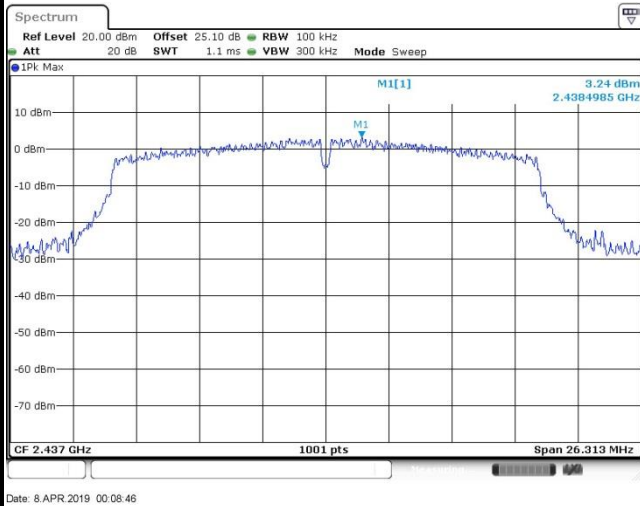
Test Mode :	802.11n HT20	Test Channel :	01
-------------	--------------	----------------	----





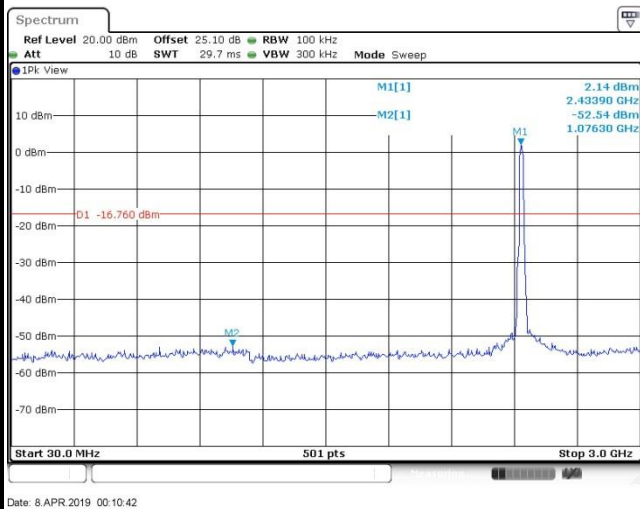
Test Mode :	802.11n HT20	Test Channel :	06
-------------	--------------	----------------	----

100kHz PSD reference Level

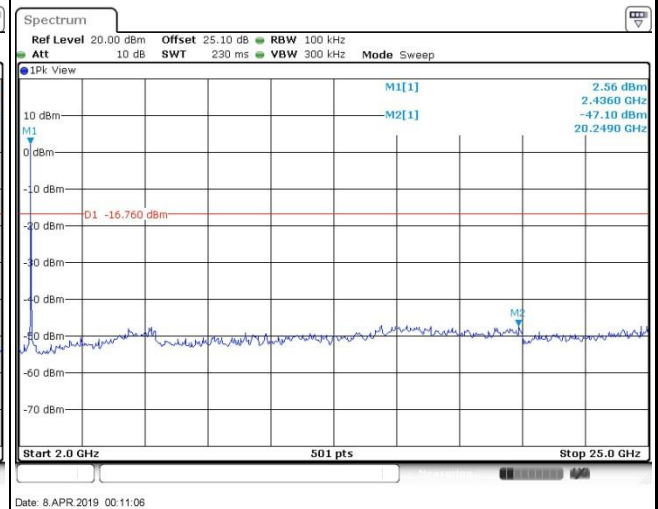


Channel Plot

Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

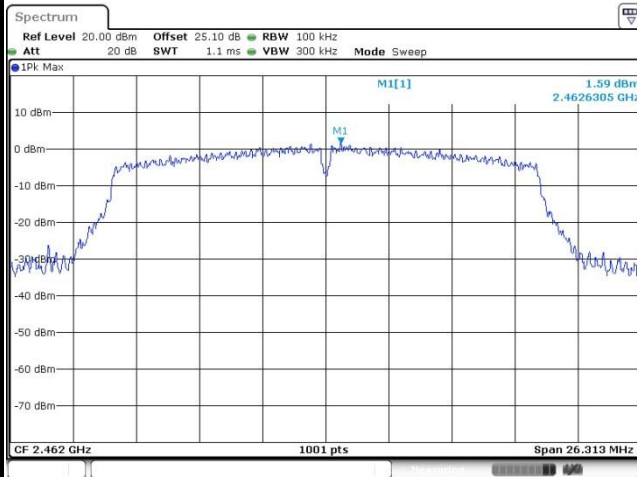




Test Mode : 802.11n HT20

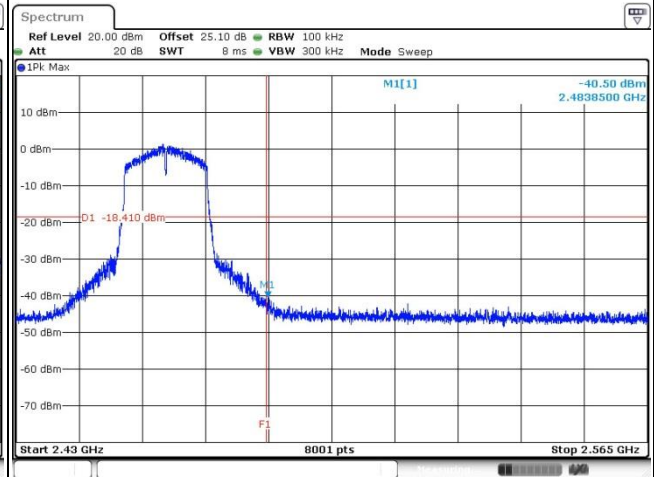
Test Channel : 11

100kHz PSD reference Level



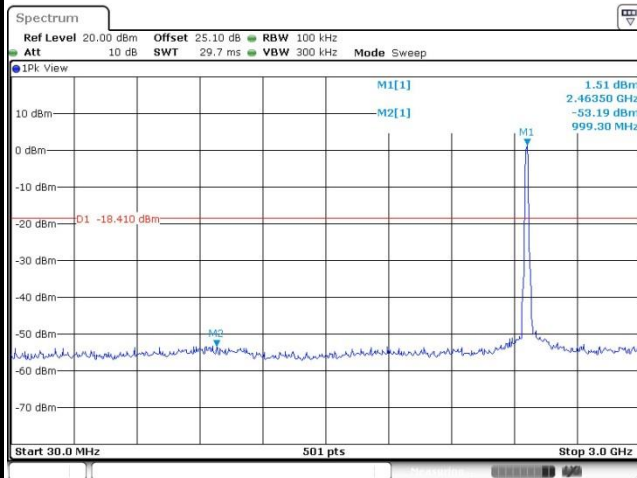
Date: 8.APR.2019 00:46:12

Channel Plot



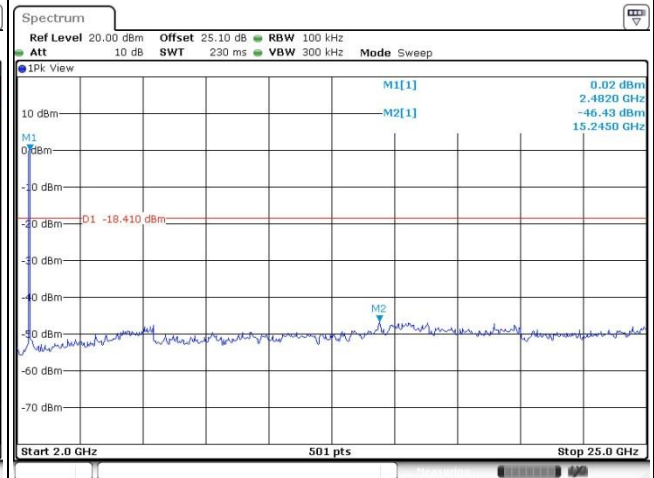
Date: 8.APR.2019 00:46:24

Spurious Emission 30MHz~3GHz



Date: 8.APR.2019 00:46:52

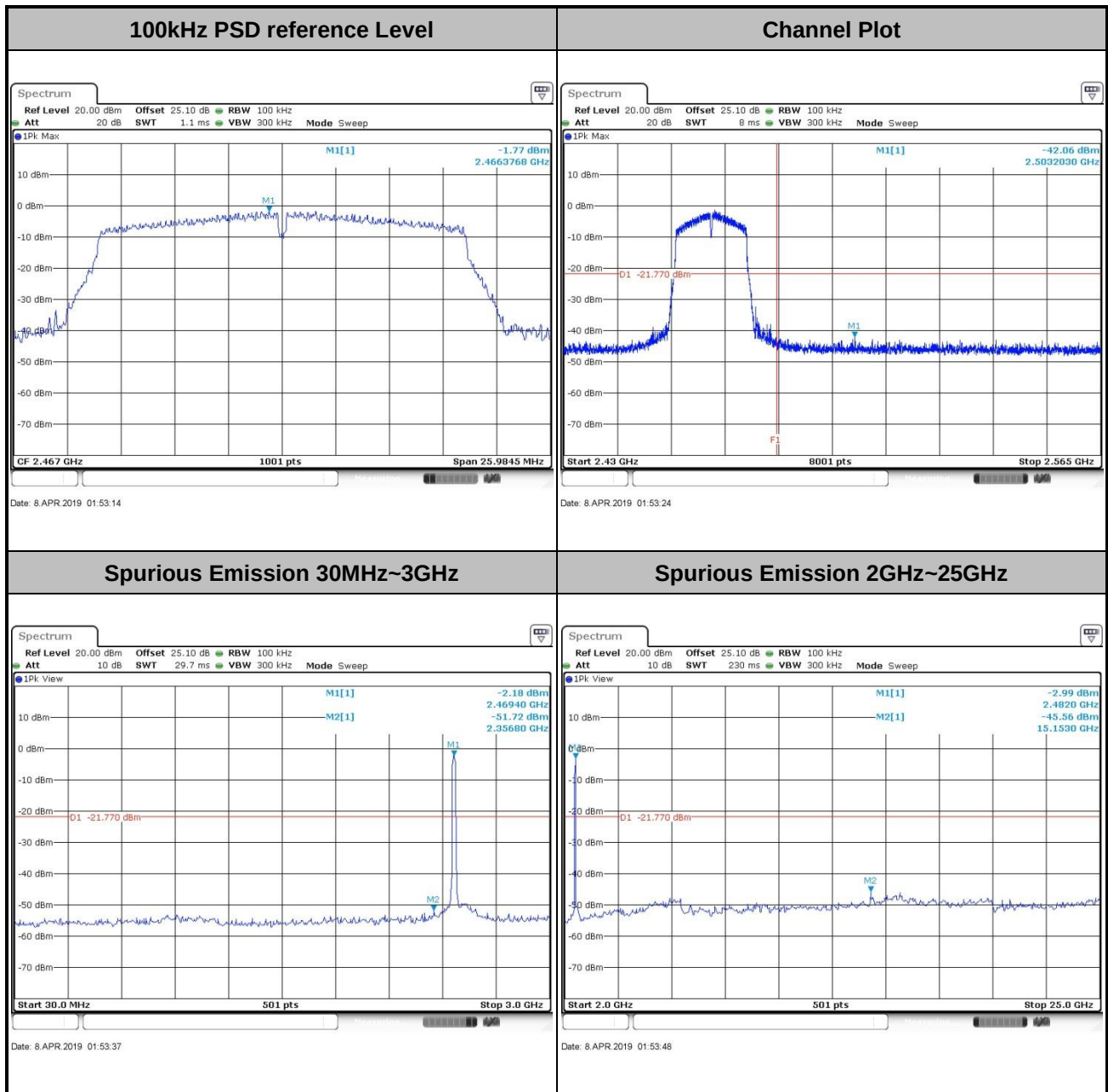
Spurious Emission 2GHz~25GHz



Date: 8.APR.2019 00:47:04

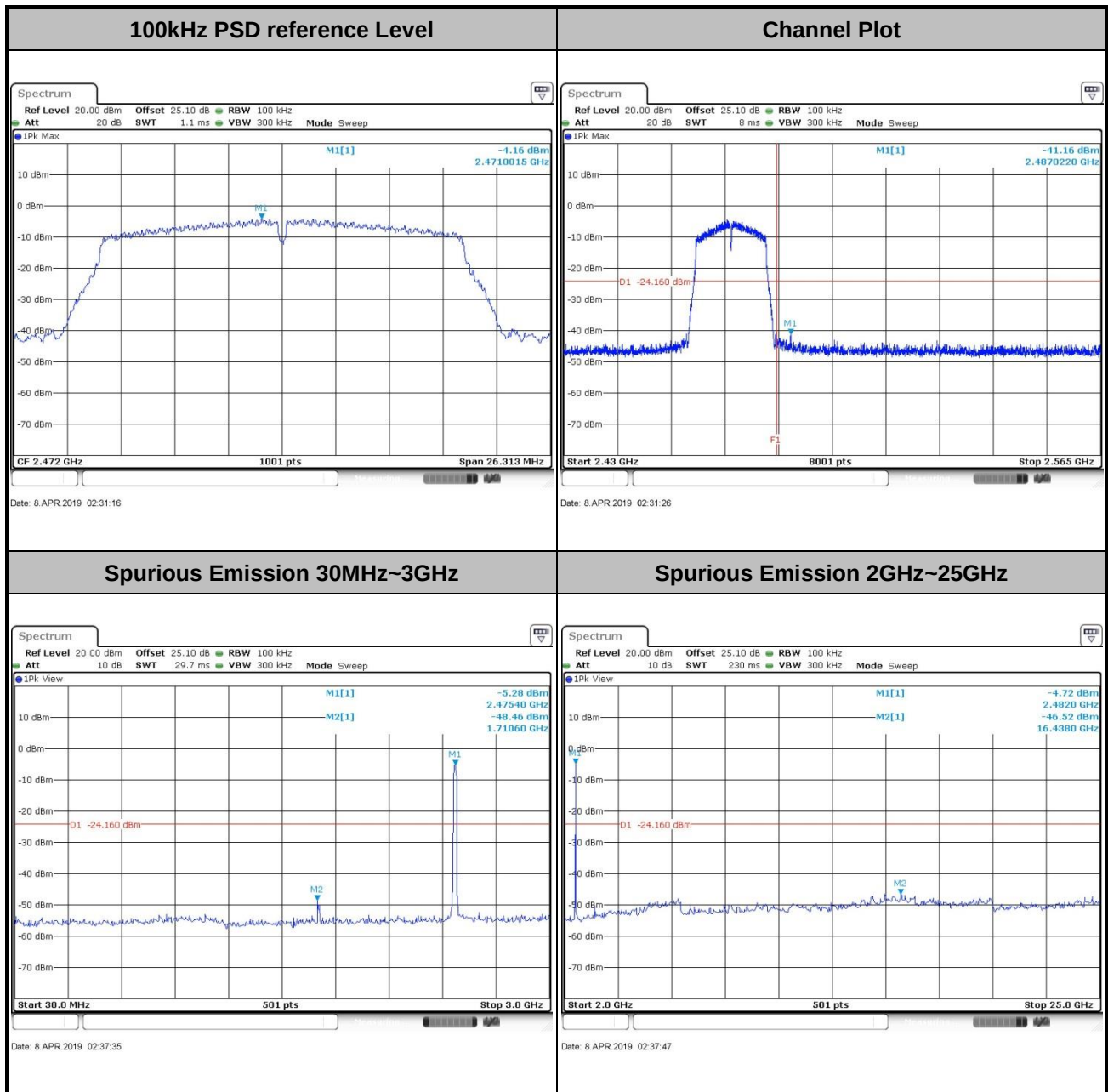


Test Mode :	802.11n HT20	Test Channel :	12
-------------	--------------	----------------	----





Test Mode :	802.11n HT20	Test Channel :	13
-------------	--------------	----------------	----



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (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

3.5.2 Measuring Instruments

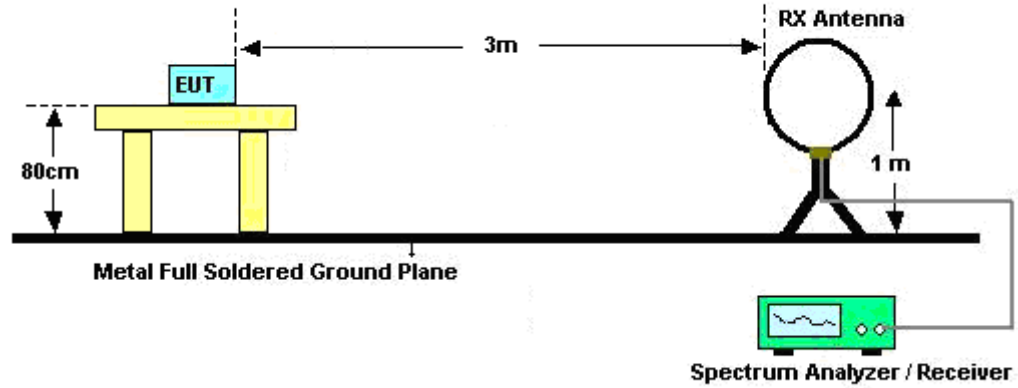
See list of measuring equipment of this test report.

3.5.3 Test Procedures

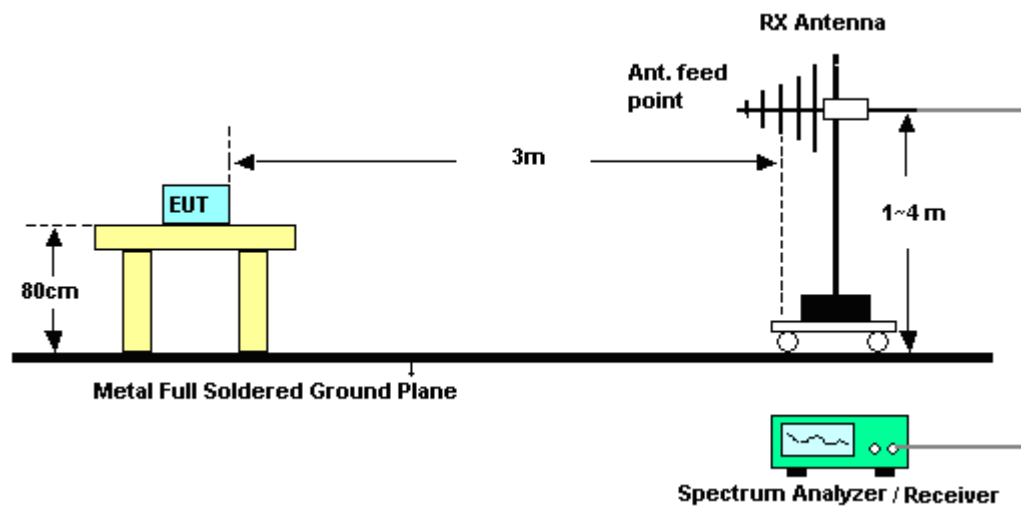
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; $VBW \geq RBW$; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - $VBW = 10$ Hz, when duty cycle is no less than 98 percent.
 - $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

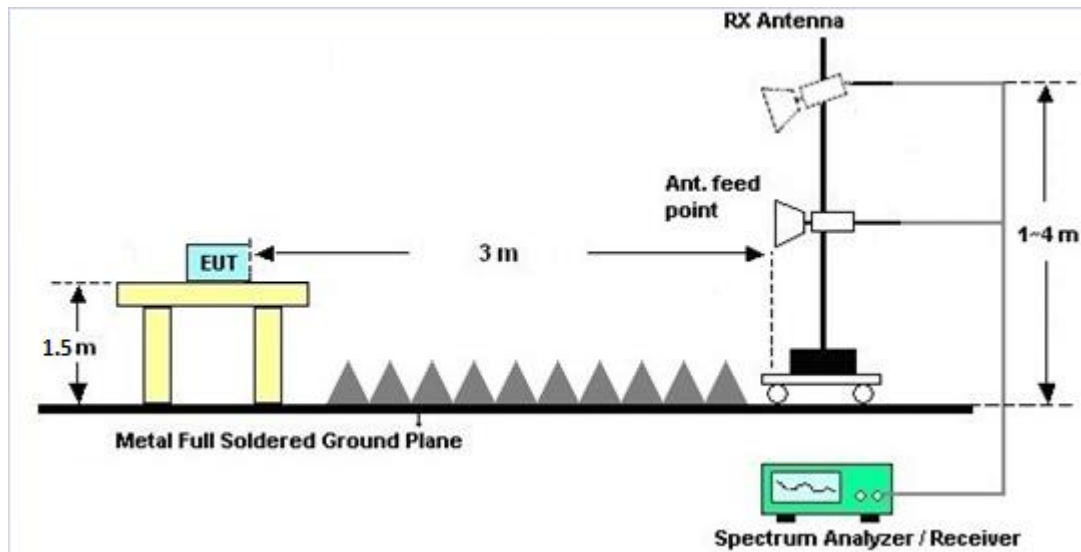
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Results of Radiated Spurious Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

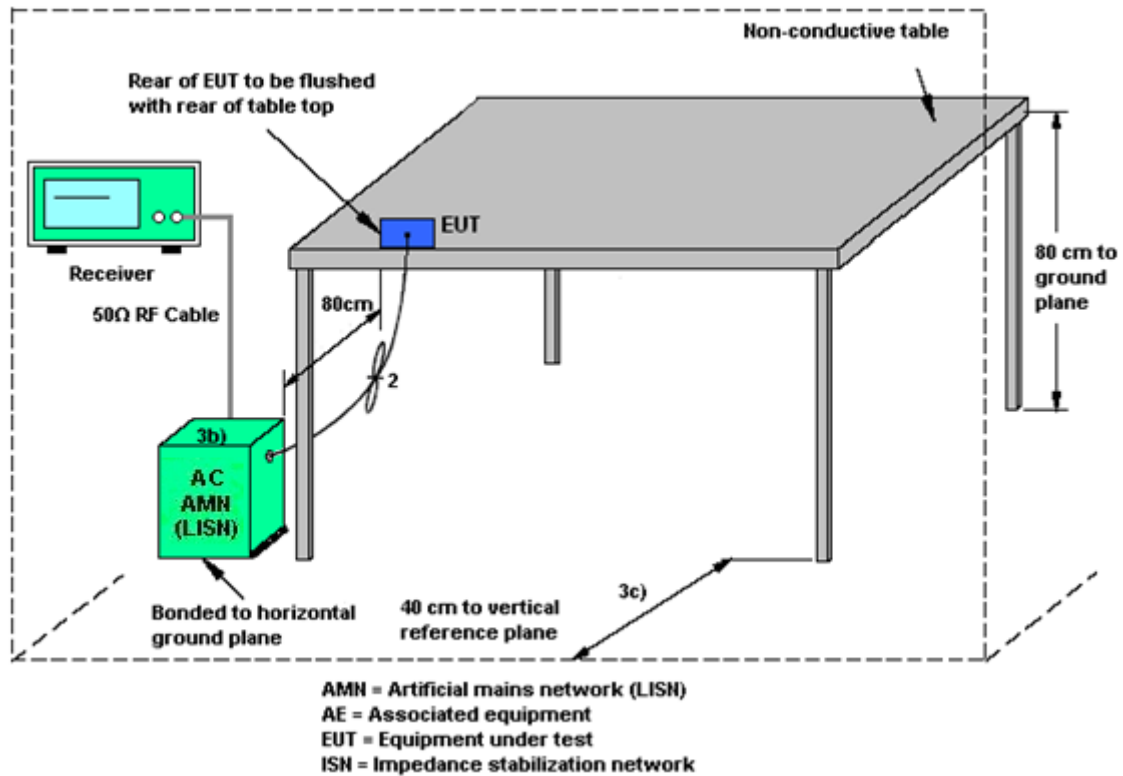
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 21, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Mar. 21, 2019	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Mar. 21, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Mar. 21, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 21, 2019	N/A	Conduction (CO05-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Sep. 14, 2018	Mar. 21, 2019	Sep. 13, 2019	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz~200MHz	Nov. 08, 2018	Mar. 21, 2019	Nov. 07, 2019	Conduction (CO05-HY)
Bilog Antenna	Schaffner	CBL6111C&N -6-06	2725&AT-N0 601	30MHz~1GHz	Jan. 10, 2019	Mar. 22, 2019~ Apr. 19, 2019	Jan. 09, 2020	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 02, 2018	Mar. 22, 2019~ Apr. 19, 2019	Dec. 03, 2019	Radiation (03CH07-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY53290053	20Hz to 26.5GHz	Jan. 23, 2019	Mar. 22, 2019~ Apr. 19, 2019	Jan. 22, 2020	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 11, 2019	Mar. 22, 2019~ Apr. 19, 2019	Jan. 10, 2020	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz ~ 18GHz	Apr. 25, 2018	Mar. 22, 2019~ Apr. 19, 2019	Apr. 24, 2019	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1GHz	May 21, 2018	Mar. 22, 2019~ Apr. 19, 2019	May 20, 2019	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Nov. 02, 2018	Mar. 22, 2019~ Apr. 19, 2019	Nov. 01, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4, MY28655/4	9KHz~30MHz	Feb. 26, 2019	Mar. 22, 2019~ Apr. 19, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 26, 2019	Mar. 22, 2019~ Apr. 19, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	1GHz~18GHz	Feb. 26, 2019	Mar. 22, 2019~ Apr. 19, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28417/4, MY24971/4, MY28655/4	26GHz~40GHz	Feb. 26, 2019	Mar. 22, 2019~ Apr. 19, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Mar. 22, 2019~ Apr. 19, 2019	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Mar. 22, 2019~ Apr. 19, 2019	N/A	Radiation (03CH07-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Mar. 22, 2019~ Apr. 19, 2019	Jul. 15, 2019	Radiation (03CH07-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200485	10Hz ~ 44GHz	Nov. 02, 2018	Mar. 22, 2019~ Apr. 19, 2019	Nov. 01, 2019	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	8050400465 6H	N/A	N/A	Mar. 22, 2019~ Apr. 19, 2019	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA91702 51	18GHz- 40GHz	Nov. 20, 2018	Mar. 22, 2019~ Apr. 19, 2019	Nov. 19, 2019	Radiation (03CH07-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1132003	N/A	Aug. 16, 2018	Apr. 05, 2019~ Apr. 08, 2019	Aug. 15, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1126017	300MHz~ 40GHz	Aug. 16, 2018	Apr. 05, 2019~ Apr. 08, 2019	Aug. 15, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Apr. 05, 2019~ Apr. 08, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV 30	100895	9kHz~30GHz	Apr. 20, 2018	Apr. 05, 2019~ Apr. 08, 2019	Apr. 19, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	EM	EMSW18	SW1070903	N/A	Dec. 19, 2018	Apr. 05, 2019~ Apr. 08, 2019	Dec. 18, 2019	Conducted (TH05-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.20
---	------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.70
---	------

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.50
---	------

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
---	------

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Aking Chang	Temperature:	21~25	°C
Test Date:	2019/4/5~2019/4/8	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 1		
11b	1Mbps	1	1	2412	15.48	10.05	0.50	Pass
11b	1Mbps	1	6	2437	15.48	10.07	0.50	Pass
11b	1Mbps	1	11	2462	14.74	10.03	0.50	Pass
11b	1Mbps	1	12	2467	14.24	9.05	0.50	Pass
11b	1Mbps	1	13	2472	14.19	9.05	0.50	Pass
11g	6Mbps	1	1	2412	16.78	16.30	0.50	Pass
11g	6Mbps	1	6	2437	16.88	16.28	0.50	Pass
11g	6Mbps	1	11	2462	16.73	16.26	0.50	Pass
11g	6Mbps	1	12	2467	16.68	16.06	0.50	Pass
11g	6Mbps	1	13	2472	16.63	16.30	0.50	Pass
HT20	MCS0	1	1	2412	17.78	17.54	0.50	Pass
HT20	MCS0	1	6	2437	17.78	17.54	0.50	Pass
HT20	MCS0	1	11	2462	17.73	17.54	0.50	Pass
HT20	MCS0	1	12	2467	17.63	17.32	0.50	Pass
HT20	MCS0	1	13	2472	17.63	17.54	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 1	Ant 1	Ant 1	Ant 1	
11b	1Mbps	1	1	2412	23.09	30.00	1.20	24.29	36.00	Pass
11b	1Mbps	1	6	2437	23.22	30.00	1.20	24.42	36.00	Pass
11b	1Mbps	1	11	2462	21.29	30.00	1.20	22.49	36.00	Pass
11b	1Mbps	1	12	2467	17.80	30.00	1.20	19.00	36.00	Pass
11b	1Mbps	1	13	2472	15.25	30.00	1.20	16.45	36.00	Pass
11g	6Mbps	1	1	2412	23.70	30.00	1.20	24.90	36.00	Pass
11g	6Mbps	1	6	2437	23.95	30.00	1.20	25.15	36.00	Pass
11g	6Mbps	1	11	2462	23.05	30.00	1.20	24.25	36.00	Pass
11g	6Mbps	1	12	2467	21.75	30.00	1.20	22.95	36.00	Pass
11g	6Mbps	1	13	2472	19.81	30.00	1.20	21.01	36.00	Pass
HT20	MCS0	1	1	2412	23.65	30.00	1.20	24.85	36.00	Pass
HT20	MCS0	1	6	2437	23.51	30.00	1.20	24.71	36.00	Pass
HT20	MCS0	1	11	2462	22.68	30.00	1.20	23.88	36.00	Pass
HT20	MCS0	1	12	2467	21.25	30.00	1.20	22.45	36.00	Pass
HT20	MCS0	1	13	2472	19.15	30.00	1.20	20.35	36.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band						
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
					Ant 1	Ant 1
11b	1Mbps	1	1	2412	0.00	21.71
11b	1Mbps	1	6	2437	0.00	21.75
11b	1Mbps	1	11	2462	0.00	19.49
11b	1Mbps	1	12	2467	0.00	15.90
11b	1Mbps	1	13	2472	0.00	13.36
11g	6Mbps	1	1	2412	0.00	17.02
11g	6Mbps	1	6	2437	0.00	17.24
11g	6Mbps	1	11	2462	0.00	14.92
11g	6Mbps	1	12	2467	0.00	11.90
11g	6Mbps	1	13	2472	0.00	9.68
HT20	MCS0	1	1	2412	0.00	16.42
HT20	MCS0	1	6	2437	0.00	16.43
HT20	MCS0	1	11	2462	0.00	14.62
HT20	MCS0	1	12	2467	0.00	11.60
HT20	MCS0	1	13	2472	0.00	8.73

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)	DG (dBi)	Peak PSD Limit (dBm/3kHz)	Pass/Fail
					Ant 1	Ant 1	Ant 1	
11b	1Mbps	1	1	2412	-1.91	1.20	8.00	Pass
11b	1Mbps	1	6	2437	-1.90	1.20	8.00	Pass
11b	1Mbps	1	11	2462	-3.78	1.20	8.00	Pass
11b	1Mbps	1	12	2467	-7.42	1.20	8.00	Pass
11b	1Mbps	1	13	2472	-9.74	1.20	8.00	Pass
11g	6Mbps	1	1	2412	-8.41	1.20	8.00	Pass
11g	6Mbps	1	6	2437	-6.91	1.20	8.00	Pass
11g	6Mbps	1	11	2462	-10.42	1.20	8.00	Pass
11g	6Mbps	1	12	2467	-12.66	1.20	8.00	Pass
11g	6Mbps	1	13	2472	-14.75	1.20	8.00	Pass
HT20	MCS0	1	1	2412	-8.72	1.20	8.00	Pass
HT20	MCS0	1	6	2437	-8.76	1.20	8.00	Pass
HT20	MCS0	1	11	2462	-10.24	1.20	8.00	Pass
HT20	MCS0	1	12	2467	-13.17	1.20	8.00	Pass
HT20	MCS0	1	13	2472	-14.48	1.20	8.00	Pass

Measured power density (dBm) has offset with cable loss.



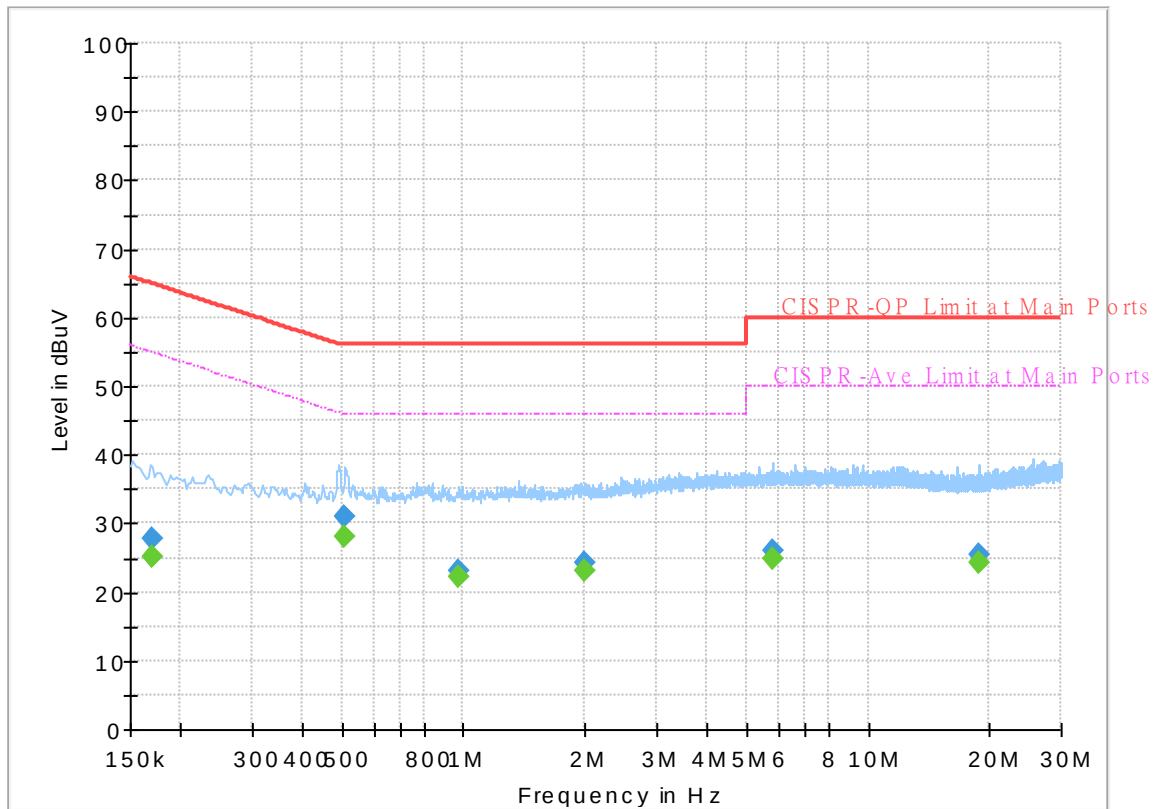
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Jimmy Chang	Temperature :	22~26℃
		Relative Humidity :	51~55%

EUT Information

Report NO : 920111-01
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



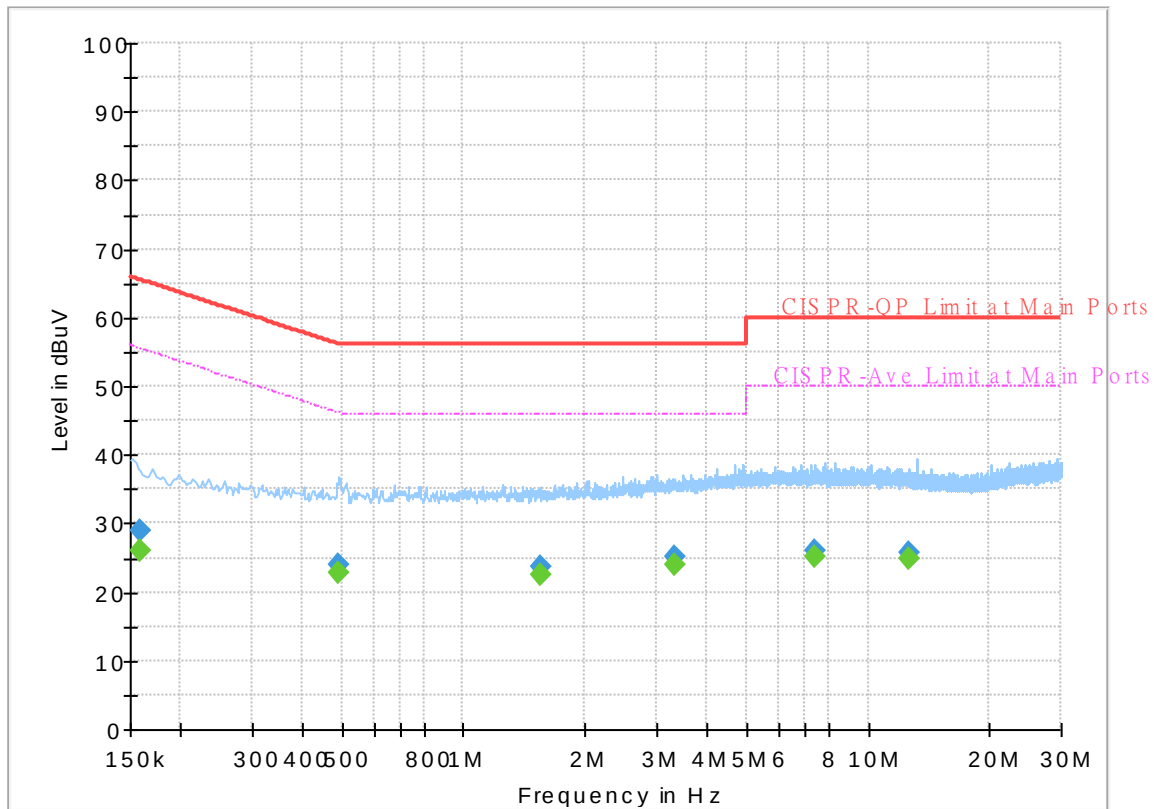
Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170250	27.80	---	64.95	37.15	L1	OFF	19.5
0.170250	---	25.29	54.95	29.66	L1	OFF	19.5
0.510000	31.07	---	56.00	24.93	L1	OFF	19.5
0.510000	---	28.20	46.00	17.80	L1	OFF	19.5
0.969000	23.15	---	56.00	32.85	L1	OFF	19.6
0.969000	---	22.31	46.00	23.69	L1	OFF	19.6
2.001750	24.34	---	56.00	31.66	L1	OFF	19.6
2.001750	---	23.20	46.00	22.80	L1	OFF	19.6
5.838000	25.97	---	60.00	34.03	L1	OFF	19.8
5.838000	---	24.99	50.00	25.01	L1	OFF	19.8
18.883500	25.30	---	60.00	34.70	L1	OFF	20.2
18.883500	---	24.13	50.00	25.87	L1	OFF	20.2

EUT Information

Report NO : 920111-01
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	---	25.99	55.52	29.53	N	OFF	19.5
0.159000	28.91	---	65.52	36.61	N	OFF	19.5
0.492000	---	22.89	46.13	23.24	N	OFF	19.5
0.492000	24.09	---	56.13	32.04	N	OFF	19.5
1.542750	---	22.64	46.00	23.36	N	OFF	19.6
1.542750	23.67	---	56.00	32.33	N	OFF	19.6
3.309000	---	23.94	46.00	22.06	N	OFF	19.7
3.309000	25.03	---	56.00	30.97	N	OFF	19.7
7.377000	---	25.04	50.00	24.96	N	OFF	19.8
7.377000	26.02	---	60.00	33.98	N	OFF	19.8
12.590250	---	24.72	50.00	25.28	N	OFF	20.0
12.590250	25.70	---	60.00	34.30	N	OFF	20.0



Appendix C. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh, Troye Hsieh	Temperature :	21~23°C
		Relative Humidity :	55~57%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenn a Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2383.71	58.83	-15.17	74	44.1	31.93	17.74	34.94	118	181	P	H
		2383.815	49.61	-4.39	54	34.88	31.93	17.74	34.94	118	181	A	H
	*	2412	114.73	-	-	99.87	32.07	17.74	34.95	118	181	P	H
	*	2412	111.75	-	-	96.89	32.07	17.74	34.95	118	181	A	H
		2383.71	56.99	-17.01	74	42.26	31.93	17.74	34.94	100	215	P	V
		2386.755	47.99	-6.01	54	33.19	32	17.74	34.94	100	215	A	V
	*	2412	111.58	-	-	96.72	32.07	17.74	34.95	100	215	P	V
	*	2412	108.49	-	-	93.63	32.07	17.74	34.95	100	215	A	V
802.11b CH 06 2437MHz		2387	56.64	-17.36	74	41.84	32	17.74	34.94	114	181	P	H
		2387.84	45.58	-8.42	54	30.78	32	17.74	34.94	114	181	A	H
	*	2437	114.83	-	-	99.8	32.2	17.79	34.96	114	181	P	H
	*	2437	111.72	-	-	96.69	32.2	17.79	34.96	114	181	A	H
		2484.95	56.74	-17.26	74	41.67	32.2	17.84	34.97	114	181	P	H
		2484.74	46.89	-7.11	54	31.82	32.2	17.84	34.97	114	181	A	H
		2375.38	55.29	-18.71	74	40.63	31.93	17.67	34.94	100	215	P	V
		2389.66	45.29	-8.71	54	30.49	32	17.74	34.94	100	215	A	V
	*	2437	109.87	-	-	94.84	32.2	17.79	34.96	100	215	P	V
	*	2437	106.88	-	-	91.85	32.2	17.79	34.96	100	215	A	V
		2496.57	56.18	-17.82	74	41.12	32.2	17.84	34.98	100	215	P	V
		2498.11	45.22	-8.78	54	30.16	32.2	17.84	34.98	100	215	A	V



802.11b CH 11 2462MHz	*	2462	111.87	-	-	96.8	32.2	17.84	34.97	108	180	P	H
	*	2462	108.85	-	-	93.78	32.2	17.84	34.97	108	180	A	H
		2487.2	60.41	-13.59	74	45.34	32.2	17.84	34.97	108	180	P	H
		2487.8	51.66	-2.34	54	36.59	32.2	17.84	34.97	108	180	A	H
	*	2462	109.62	-	-	94.55	32.2	17.84	34.97	121	214	P	V
	*	2462	106.64	-	-	91.57	32.2	17.84	34.97	121	214	A	V
		2488.16	57.02	-16.98	74	41.95	32.2	17.84	34.97	121	214	P	V
		2487.64	48.08	-5.92	54	33.01	32.2	17.84	34.97	121	214	A	V
802.11b CH 12 2467MHz	*	2467	107.95	-	-	92.88	32.2	17.84	34.97	301	8	P	H
	*	2467	104.89	-	-	89.82	32.2	17.84	34.97	301	8	A	H
		2483.52	60.21	-13.79	74	45.14	32.2	17.84	34.97	301	8	P	H
		2483.52	52.56	-1.44	54	37.49	32.2	17.84	34.97	301	8	A	H
	*	2467	106.76	-	-	91.69	32.2	17.84	34.97	268	164	P	V
	*	2467	103.75	-	-	88.68	32.2	17.84	34.97	268	164	A	V
		2485.16	59.07	-14.93	74	44	32.2	17.84	34.97	268	164	P	V
		2483.52	51.55	-2.45	54	36.48	32.2	17.84	34.97	268	164	A	V
802.11b CH 13 2472MHz	*	2472	106.12	-	-	91.05	32.2	17.84	34.97	301	9	P	H
	*	2472	103	-	-	87.93	32.2	17.84	34.97	301	9	A	H
		2484.32	60.98	-13.02	74	45.91	32.2	17.84	34.97	301	9	P	H
		2484.44	52.46	-1.54	54	37.39	32.2	17.84	34.97	301	9	A	H
	*	2472	104.9	-	-	89.83	32.2	17.84	34.97	272	162	P	V
	*	2472	101.83	-	-	86.76	32.2	17.84	34.97	272	162	A	V
		2487.44	59.63	-14.37	74	44.56	32.2	17.84	34.97	272	162	P	V
		2487.24	51.69	-2.31	54	36.62	32.2	17.84	34.97	272	162	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	49.11	-24.89	74	62.96	34.1	11.39	59.34	100	0	P	H
		4824	47.28	-26.72	74	61.13	34.1	11.39	59.34	100	0	P	V
802.11b CH 06 2437MHz		4874	46.63	-27.37	74	60.32	34.13	11.42	59.24	100	0	P	H
		7311	47.85	-26.15	74	56.31	35.7	13.97	58.13	100	0	P	H
		4874	45.61	-28.39	74	59.3	34.13	11.42	59.24	100	0	P	V
		7311	47.41	-26.59	74	55.87	35.7	13.97	58.13	100	0	P	V
802.11b CH 11 2462MHz		4924	47.57	-26.43	74	61.09	34.17	11.45	59.14	100	0	P	H
		7386	45.68	-28.32	74	54.37	35.5	14.07	58.26	100	0	P	H
		4924	47.33	-26.67	74	60.85	34.17	11.45	59.14	100	0	P	V
		7386	46.09	-27.91	74	54.78	35.5	14.07	58.26	100	0	P	V
802.11b CH 12 2467MHz		4934	48.09	-25.91	74	61.61	34.17	11.45	59.14	100	0	P	H
		7401	45.14	-28.86	74	53.85	35.5	14.07	58.28	100	0	P	H
		4934	46.09	-27.91	74	59.61	34.17	11.45	59.14	100	0	P	V
		7401	45	-29	74	53.71	35.5	14.07	58.28	100	0	P	V
802.11b CH 13 2472MHz		4944	46.15	-27.85	74	59.57	34.2	11.48	59.1	100	0	P	H
		7416	44.39	-29.61	74	53.1	35.5	14.07	58.28	100	0	P	H
		4944	44.05	-29.95	74	57.47	34.2	11.48	59.1	100	0	P	V
		7416	44.8	-29.2	74	53.51	35.5	14.07	58.28	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.59	67.81	-6.19	74	53.01	32	17.74	34.94	118	181	P	H
		2390	53.03	-0.97	54	38.24	32	17.74	34.95	118	181	A	H
	*	2412	113.27	-	-	98.41	32.07	17.74	34.95	118	181	P	H
	*	2412	106.01	-	-	91.15	32.07	17.74	34.95	118	181	A	H
		2389.905	70.28	-3.72	74	55.49	32	17.74	34.95	100	215	P	V
		2390	52.04	-1.96	54	37.25	32	17.74	34.95	100	215	A	V
	*	2412	110.18	-	-	95.32	32.07	17.74	34.95	100	215	P	V
	*	2412	102.82	-	-	87.96	32.07	17.74	34.95	100	215	A	V
802.11g CH 06 2437MHz		2379.16	56.8	-17.2	74	42.14	31.93	17.67	34.94	112	181	P	H
		2389.1	46.29	-7.71	54	31.49	32	17.74	34.94	112	181	A	H
	*	2437	113.83	-	-	98.8	32.2	17.79	34.96	112	181	P	H
	*	2437	106.15	-	-	91.12	32.2	17.79	34.96	112	181	A	H
		2484.81	58.51	-15.49	74	43.44	32.2	17.84	34.97	112	181	P	H
		2483.55	47.93	-6.07	54	32.86	32.2	17.84	34.97	112	181	A	H
		2387	56.67	-17.33	74	41.87	32	17.74	34.94	100	215	P	V
		2389.94	45.89	-8.11	54	31.1	32	17.74	34.95	100	215	A	V
	*	2437	108.82	-	-	93.79	32.2	17.79	34.96	100	215	P	V
	*	2437	101.33	-	-	86.3	32.2	17.79	34.96	100	215	A	V
		2497.55	56.88	-17.12	74	41.82	32.2	17.84	34.98	100	215	P	V
		2497.48	46.2	-7.8	54	31.14	32.2	17.84	34.98	100	215	A	V



802.11g CH 11 2462MHz	*	2462	109.07	-	-	94	32.2	17.84	34.97	110	184	P	H
	*	2462	101.83	-	-	86.76	32.2	17.84	34.97	110	184	A	H
		2483.56	69.46	-4.54	74	54.39	32.2	17.84	34.97	110	184	P	H
		2483.52	52	-2	54	36.93	32.2	17.84	34.97	110	184	A	H
	*	2462	107.65	-	-	92.58	32.2	17.84	34.97	100	214	P	V
	*	2462	100.35	-	-	85.28	32.2	17.84	34.97	100	214	A	V
		2483.76	63.83	-10.17	74	48.76	32.2	17.84	34.97	100	214	P	V
		2483.52	49.33	-4.67	54	34.26	32.2	17.84	34.97	100	214	A	V
802.11g CH 12 2467MHz	*	2467	106.97	-	-	91.9	32.2	17.84	34.97	301	9	P	H
	*	2467	99.43	-	-	84.36	32.2	17.84	34.97	301	9	A	H
		2485.08	69.77	-4.23	74	54.7	32.2	17.84	34.97	301	9	P	H
		2483.52	52.36	-1.64	54	37.29	32.2	17.84	34.97	301	9	A	H
	*	2467	105.62	-	-	90.55	32.2	17.84	34.97	269	163	P	V
	*	2467	98.16	-	-	83.09	32.2	17.84	34.97	269	163	A	V
		2483.88	68.83	-5.17	74	53.76	32.2	17.84	34.97	269	163	P	V
		2483.52	51.05	-2.95	54	35.98	32.2	17.84	34.97	269	163	A	V
802.11g CH 13 2472MHz	*	2472	104.47	-	-	89.4	32.2	17.84	34.97	302	10	P	H
	*	2472	97.11	-	-	82.04	32.2	17.84	34.97	302	10	A	H
		2483.92	66.75	-7.25	74	51.68	32.2	17.84	34.97	302	10	P	H
		2484.16	52.25	-1.75	54	37.18	32.2	17.84	34.97	302	10	A	H
	*	2472	102.31	-	-	87.24	32.2	17.84	34.97	310	163	P	V
	*	2472	94.84	-	-	79.77	32.2	17.84	34.97	310	163	A	V
		2483.76	62.62	-11.38	74	47.55	32.2	17.84	34.97	310	163	P	V
		2484.16	49.13	-4.87	54	34.06	32.2	17.84	34.97	310	163	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	42.82	-31.18	74	56.67	34.1	11.39	59.34	100	0	P	H
		4824	43.24	-30.76	74	57.09	34.1	11.39	59.34	100	0	P	V
802.11g CH 06 2437MHz		4874	45.21	-28.79	74	58.9	34.13	11.42	59.24	100	0	P	H
		7311	45.01	-28.99	74	53.47	35.7	13.97	58.13	100	0	P	H
		4874	43.93	-30.07	74	57.62	34.13	11.42	59.24	100	0	P	V
		7311	44.24	-29.76	74	52.7	35.7	13.97	58.13	100	0	P	V
802.11g CH 11 2462MHz		4924	42.68	-31.32	74	56.2	34.17	11.45	59.14	100	0	P	H
		7386	44.8	-29.2	74	53.49	35.5	14.07	58.26	100	0	P	H
		4924	43.25	-30.75	74	56.77	34.17	11.45	59.14	100	0	P	V
		7386	44.11	-29.89	74	52.8	35.5	14.07	58.26	100	0	P	V
802.11g CH 12 2467MHz		4934	43.58	-30.42	74	57.1	34.17	11.45	59.14	100	0	P	H
		7401	44.11	-29.89	74	52.82	35.5	14.07	58.28	100	0	P	H
		4934	44.01	-29.99	74	57.53	34.17	11.45	59.14	100	0	P	V
		7401	44.14	-29.86	74	52.85	35.5	14.07	58.28	100	0	P	V
802.11g CH 13 2472MHz		4944	43.33	-30.67	74	56.75	34.2	11.48	59.1	100	0	P	H
		7416	44.12	-29.88	74	52.83	35.5	14.07	58.28	100	0	P	H
		4944	43.07	-30.93	74	56.49	34.2	11.48	59.1	100	0	P	V
		7416	44.34	-29.66	74	53.05	35.5	14.07	58.28	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.065	66.65	-7.35	74	51.85	32	17.74	34.94	120	184	P	H
		2390	51.79	-2.21	54	37	32	17.74	34.95	120	184	A	H
	*	2412	111.57	-	-	96.71	32.07	17.74	34.95	120	184	P	H
	*	2412	104.19	-	-	89.33	32.07	17.74	34.95	120	184	A	H
		2389.8	62.94	-11.06	74	48.15	32	17.74	34.95	100	206	P	V
		2390	49.38	-4.62	54	34.59	32	17.74	34.95	100	206	A	V
	*	2412	108.94	-	-	94.08	32.07	17.74	34.95	100	206	P	V
	*	2412	101.54	-	-	86.68	32.07	17.74	34.95	100	206	A	V
802.11n HT20 CH 06 2437MHz		2386.16	56.66	-17.34	74	41.86	32	17.74	34.94	113	184	P	H
		2385.18	45.75	-8.25	54	31.02	31.93	17.74	34.94	113	184	A	H
	*	2437	111.59	-	-	96.56	32.2	17.79	34.96	113	184	P	H
	*	2437	104.25	-	-	89.22	32.2	17.79	34.96	113	184	A	H
		2489.99	58.37	-15.63	74	43.3	32.2	17.84	34.97	113	184	P	H
		2483.55	47.52	-6.48	54	32.45	32.2	17.84	34.97	113	184	A	H
		2379.3	56.11	-17.89	74	41.45	31.93	17.67	34.94	100	205	P	V
		2389.66	45.32	-8.68	54	30.52	32	17.74	34.94	100	205	A	V
	*	2437	108.06	-	-	93.03	32.2	17.79	34.96	100	205	P	V
	*	2437	100.57	-	-	85.54	32.2	17.79	34.96	100	205	A	V
		2483.97	57.27	-16.73	74	42.2	32.2	17.84	34.97	100	205	P	V
		2495.17	46.71	-7.29	54	31.65	32.2	17.84	34.98	100	205	A	V



802.11n HT20 CH 11 2462MHz	*	2462	108.23	-	-	93.16	32.2	17.84	34.97	107	189	P	H
	*	2462	100.94	-	-	85.87	32.2	17.84	34.97	107	189	A	H
		2484.8	67.48	-6.52	74	52.41	32.2	17.84	34.97	107	189	P	H
		2483.52	53	-1	54	37.93	32.2	17.84	34.97	107	189	A	H
	*	2462	107.59	-	-	92.52	32.2	17.84	34.97	125	204	P	V
	*	2462	100.1	-	-	85.03	32.2	17.84	34.97	125	204	A	V
		2484.32	67.38	-6.62	74	52.31	32.2	17.84	34.97	125	204	P	V
		2483.52	52.93	-1.07	54	37.86	32.2	17.84	34.97	125	204	A	V
802.11n HT20 CH 12 2467MHz	*	2467	106.33	-	-	91.26	32.2	17.84	34.97	302	9	P	H
	*	2467	98.92	-	-	83.85	32.2	17.84	34.97	302	9	A	H
		2485.28	67.7	-6.3	74	52.63	32.2	17.84	34.97	302	9	P	H
		2483.52	52.57	-1.43	54	37.5	32.2	17.84	34.97	302	9	A	H
	*	2467	105.34	-	-	90.27	32.2	17.84	34.97	266	157	P	V
	*	2467	97.9	-	-	82.83	32.2	17.84	34.97	266	157	A	V
		2484.88	66.89	-7.11	74	51.82	32.2	17.84	34.97	266	157	P	V
		2483.52	51.57	-2.43	54	36.5	32.2	17.84	34.97	266	157	A	V
802.11n HT20 CH 13 2472MHz	*	2472	103.69	-	-	88.62	32.2	17.84	34.97	302	10	P	H
	*	2472	96.26	-	-	81.19	32.2	17.84	34.97	302	10	A	H
		2483.68	66.18	-7.82	74	51.11	32.2	17.84	34.97	302	10	P	H
		2483.52	53	-1	54	37.93	32.2	17.84	34.97	302	10	A	H
	*	2472	102.94	-	-	87.87	32.2	17.84	34.97	322	156	P	V
	*	2472	95.26	-	-	80.19	32.2	17.84	34.97	322	156	A	V
		2485.32	63.61	-10.39	74	48.54	32.2	17.84	34.97	322	156	P	V
		2483.52	51.66	-2.34	54	36.59	32.2	17.84	34.97	322	156	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	46.54	-27.46	74	60.39	34.1	11.39	59.34	100	0	P	H
		4824	45.58	-28.42	74	59.43	34.1	11.39	59.34	100	0	P	V
802.11n HT20 CH 06 2437MHz		4874	44.84	-29.16	74	58.53	34.13	11.42	59.24	100	0	P	H
		7311	44.9	-29.1	74	53.36	35.7	13.97	58.13	100	0	P	H
		4874	43.87	-30.13	74	57.56	34.13	11.42	59.24	100	0	P	V
		7311	44.28	-29.72	74	52.74	35.7	13.97	58.13	100	0	P	V
802.11n HT20 CH 11 2462MHz		4924	44.31	-29.69	74	57.83	34.17	11.45	59.14	100	0	P	H
		7386	44.81	-29.19	74	53.5	35.5	14.07	58.26	100	0	P	H
		4924	44.43	-29.57	74	57.95	34.17	11.45	59.14	100	0	P	V
		7386	45.65	-28.35	74	54.34	35.5	14.07	58.26	100	0	P	V
802.11n HT20 CH 12 2467MHz		4934	44.5	-29.5	74	58.02	34.17	11.45	59.14	100	0	P	H
		7401	44.11	-29.89	74	52.82	35.5	14.07	58.28	100	0	P	H
		4934	43.17	-30.83	74	56.69	34.17	11.45	59.14	100	0	P	V
		7401	44.62	-29.38	74	53.33	35.5	14.07	58.28	100	0	P	V
802.11n HT20 CH 13 2472MHz		4944	43.62	-30.38	74	57.04	34.2	11.48	59.1	100	0	P	H
		7416	44.63	-29.37	74	53.34	35.5	14.07	58.28	100	0	P	H
		4944	43.6	-30.4	74	57.02	34.2	11.48	59.1	100	0	P	V
		7416	44.86	-29.14	74	53.57	35.5	14.07	58.28	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Emission below 1GHz****2.4GHz WIFI 802.11g (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		42.42	31.93	-8.07	40	43	17.76	1.33	30.16	-	-	P	H
		71.58	32.09	-7.91	40	48	12.5	1.71	30.12	100	0	P	H
		246.54	38.08	-7.92	46	47.49	17.91	2.63	29.95	-	-	P	H
		479.9	34.91	-11.09	46	37.63	23.53	3.65	29.9	-	-	P	H
		853.7	32.89	-13.11	46	28.36	28.86	4.77	29.1	-	-	P	H
		947.5	34.12	-11.88	46	27.39	30.23	5.08	28.58	-	-	P	H
		30	32.19	-7.81	40	36.45	24.6	1.32	30.18	100	0	P	V
		35.94	31.39	-8.61	40	38.73	21.51	1.32	30.17	-	-	P	V
		71.58	31.08	-8.92	40	46.99	12.5	1.71	30.12	-	-	P	V
		789.3	31.21	-14.79	46	28	27.97	4.61	29.37	-	-	P	V
		874.7	32.67	-13.33	46	27.82	28.93	4.93	29.01	-	-	P	V
		955.2	34.18	-11.82	46	26.98	30.64	5.08	28.52	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)

2. Level(dBμV/m) =

Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.



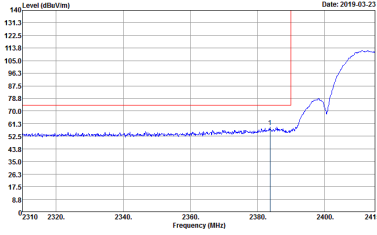
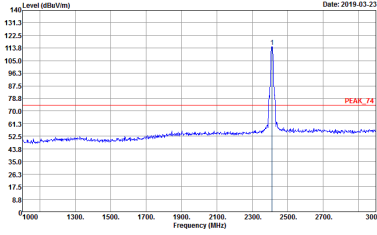
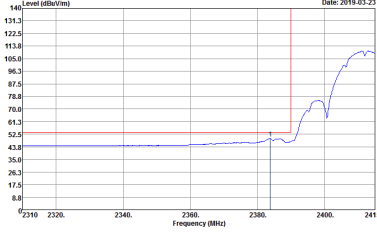
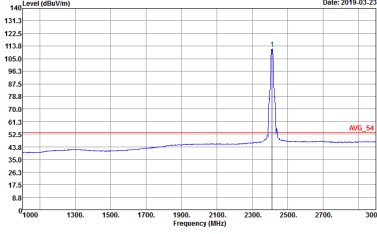
Appendix D. Radiated Spurious Emission Plots

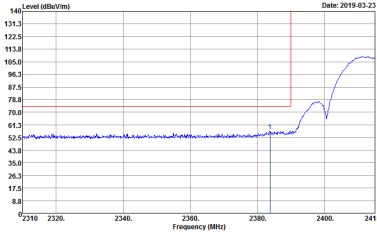
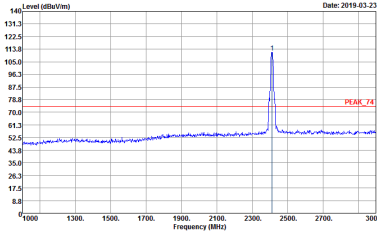
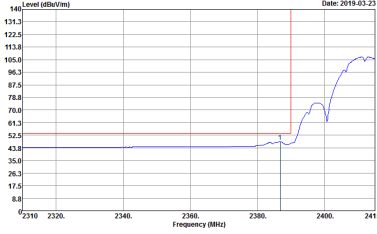
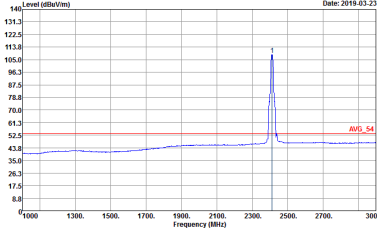
Test Engineer :	Jesse Wang, Stan Hsieh, Troye Hsieh	Temperature :	21~23°C
		Relative Humidity :	55~57%

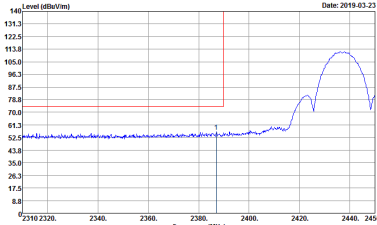
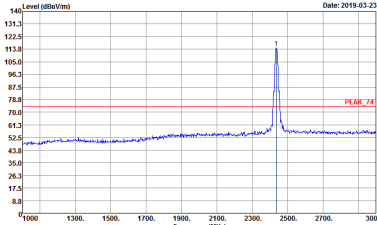
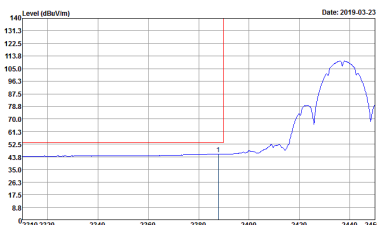
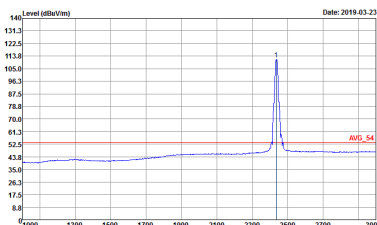
Note symbol

-L	Low channel location
-R	High channel location

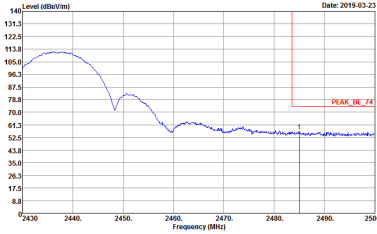
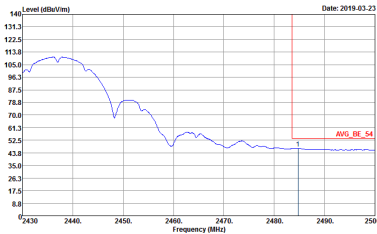
2.4GHz 2400~2483.5MHz
WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH01 2412MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 920111-01 : 4	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 920111-01 : 4
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Project : Peak Mode : 920111-01 : 4	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Project : Peak Mode : 920111-01 : 4

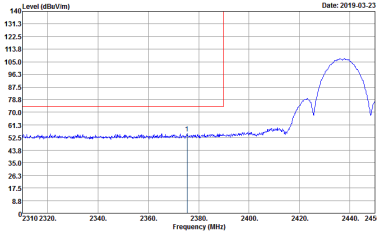
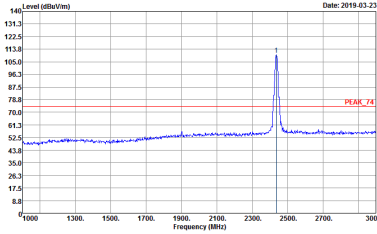
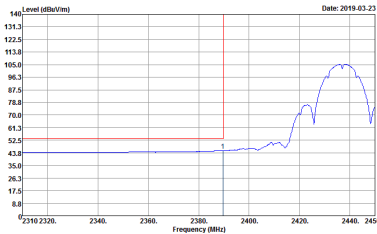
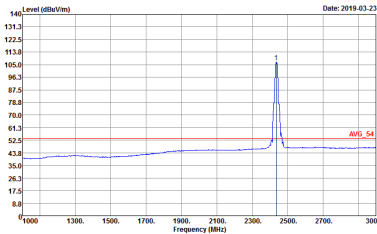
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH01 2412MHz	
	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 4	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 4
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 4	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 4

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH06 2437MHz - L	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 920111-01 Mode : 5	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 920111-01 Mode : 5
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 920111-01 Mode : 5	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 920111-01 Mode : 5

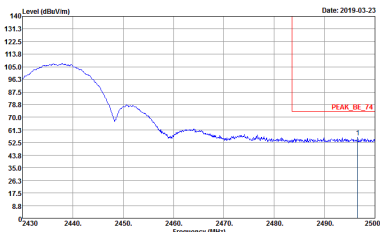
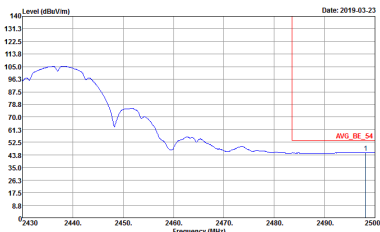


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH06 2437MHz - R	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 Date: 2019-03-23	Left blank
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 Date: 2019-03-23	Left blank

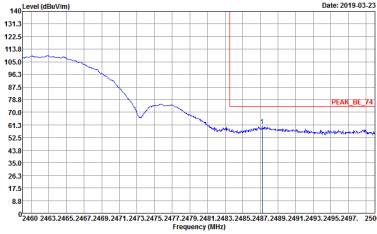
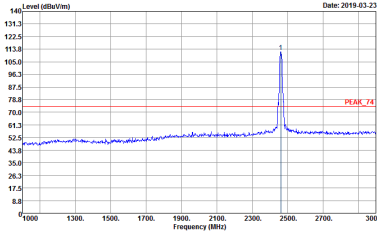
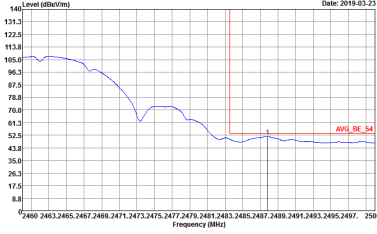
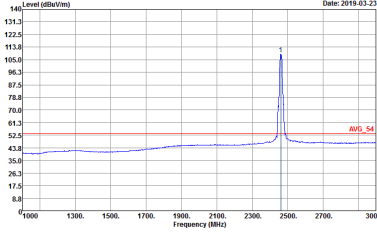


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH06 2437MHz - L	
	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 5	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 5
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 5	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 5

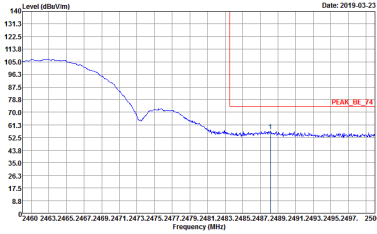
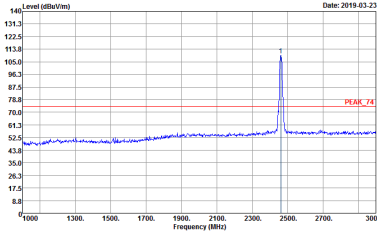
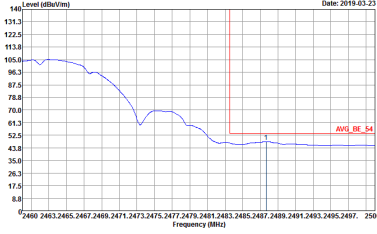
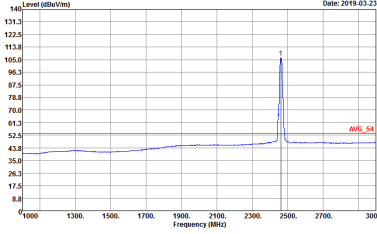


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH06 2437MHz - R	
	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : S	Left blank
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : S	Left blank

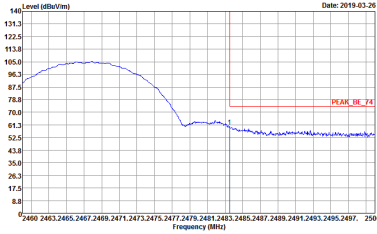
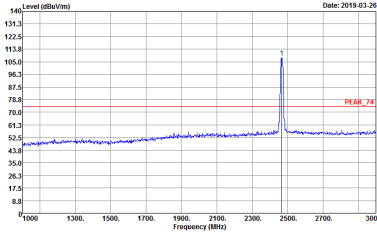
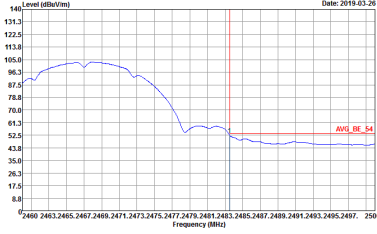
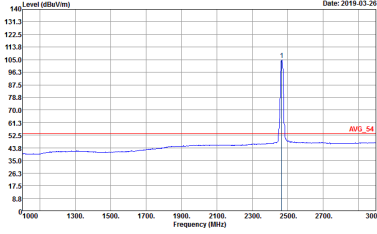


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH11 2462MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 6	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 6
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 6	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 6

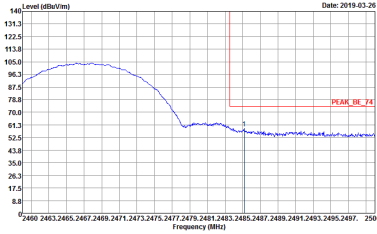
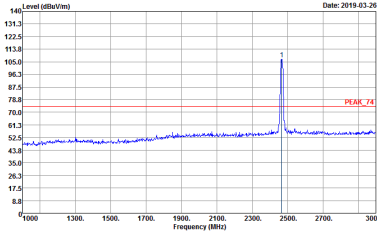
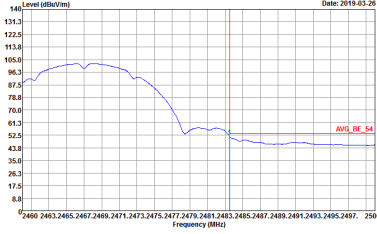
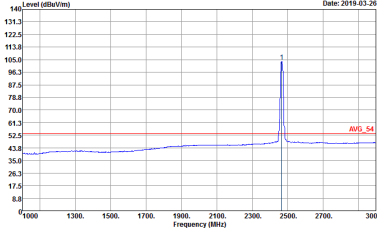


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH11 2462MHz	
	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 6	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 6
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 6	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 6

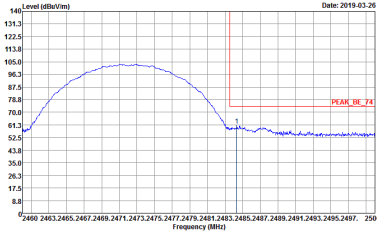
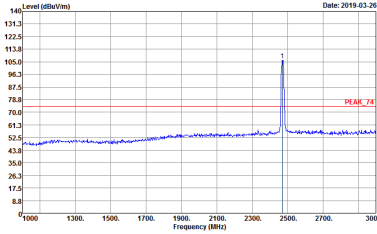
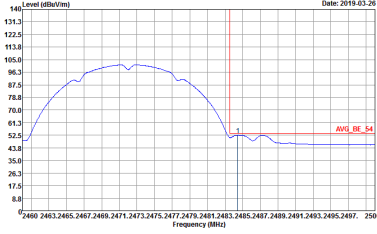
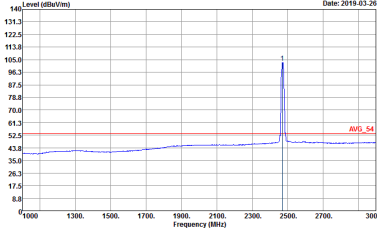


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH12 2467MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 7	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 7
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 7	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 7

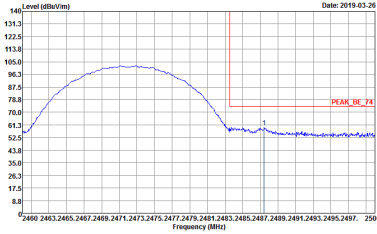
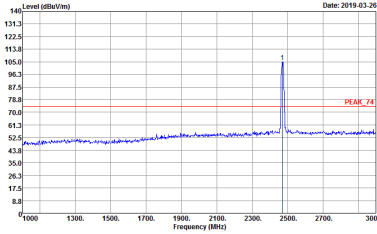
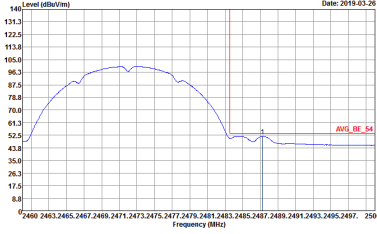
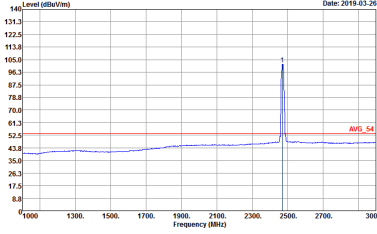


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH12 2467MHz	
	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 7	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 7
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 7	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 7



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH13 2472MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 8	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 920111-01 : 8
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 8	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 920111-01 : 8

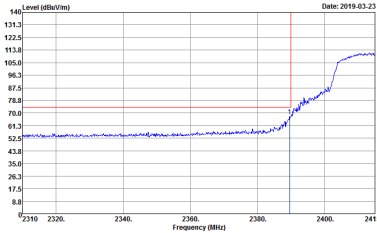
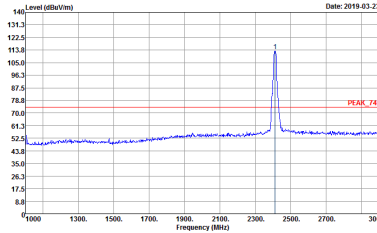
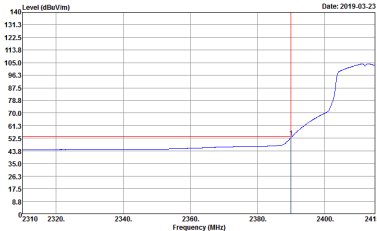
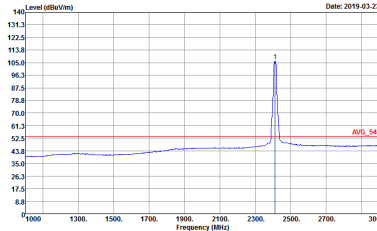


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11b CH13 2472MHz	
	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 8	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 8
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 8	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 920111-01 Mode : 8



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	802.11g CH01 2412MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 920111-01 Date: 2019-03-23	 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 920111-01 Date: 2019-03-23
Avg.	 Site : 03CH07-HY Condition : AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Project : Peak Mode : 920111-01 Date: 2019-03-23	 Site : 03CH07-HY Condition : AVG_54 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Project : Peak Mode : 920111-01 Date: 2019-03-23