FCC RADIO TEST REPORT

FCC ID	:	**A4RG020D**
Equipment	:	**Smartphone**
Model Name	:	**G020D**
Applicant	:	**Google LLC** **1600 Amphitheatre Parkway,** **Mountain View, CA 94043, USA**
Standard	:	**FCC Part 15 Subpart C §15.247**

The test was completed on Dec. 17, 2018. We, SPORTON INTERNATIONAL INC., 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 INTERTIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Jones Tsai

Approved by: Jones Tsai

SPORTON INTERTIONAL INC. EMC & Wireless Communications Laboratory

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

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History of this test report

Report No.	Version	Description	Issued Date
FR891147-01C	01	Initial issue of report	Dec. 26, 2018
FR891147-01C	02	Revising the description.	Jan. 28, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
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	Under limit 1.59 dB at 2483.600 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 9.40 dB at 0.184 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass	-

Reviewed by: Wii Chang

Report Producer: Natasha Hsieh

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smartphone
Model Name	G020D
Sample 1	The device with 1st battery
Sample 2	The device with 2nd battery
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/NFC/GNSS WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2472 MHz
Maximum (Peak) Output Power to antenna	**<Ant. 1>** 802.11b : 20.20 dBm (0.1047 W) 802.11g : 22.18 dBm (0.1652 W) 802.11n HT20 : 22.17 dBm (0.1648 W) **<Ant. 2>** 802.11b : 19.81 dBm (0.0957 W) 802.11g : 21.75 dBm (0.1496 W) 802.11n HT20 : 21.84 dBm (0.1528 W) **MIMO <Ant. 1+2>** 802.11b : 23.25 dBm (0.2133 W) 802.11g : 25.20 dBm (0.3311 W) 802.11n HT20 : 25.24 dBm (0.3342 W)
99% Occupied Bandwidth	**<Ant. 1>** 802.11b : 14.05MHz 802.11g : 16.95MHz 802.11n HT20 : 18.15MHz **<Ant. 2>** 802.11b : 14.05MHz 802.11g : 16.80MHz 802.11n HT20 : 18.30MHz

<table>
<tr><th colspan="2">Standards-related Product Specification</th></tr>
<tr><td>Antenna Type / Gain</td><td><Ant. 1>
PIFA Antenna type with gain -0.50 dBi
<Ant. 2>
PIFA Antenna type with gain 0.10 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11b : DSSS (DBPSK / DQPSK / CCK)
802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)</td></tr>
<tr><td>Antenna Function for Transmitter</td><td><table><tr><th></th><th>Ant. 1</th><th>Ant. 2</th></tr><tr><td>802.11 b/g/n</td><td>V</td><td>V</td></tr><tr><td>802.11 b/g/n MIMO</td><td>V</td><td>V</td></tr></table></td></tr>
</table>

Remark: MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.

1.3 Modification of EUT

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

1.4 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
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

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH12-HY

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

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 v05
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

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 (Z Plane for Sample 1 with Adapter 1 and Sample 1 with Adapter 2, and Y Plane for Sample 2 with Adapter 1) 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.

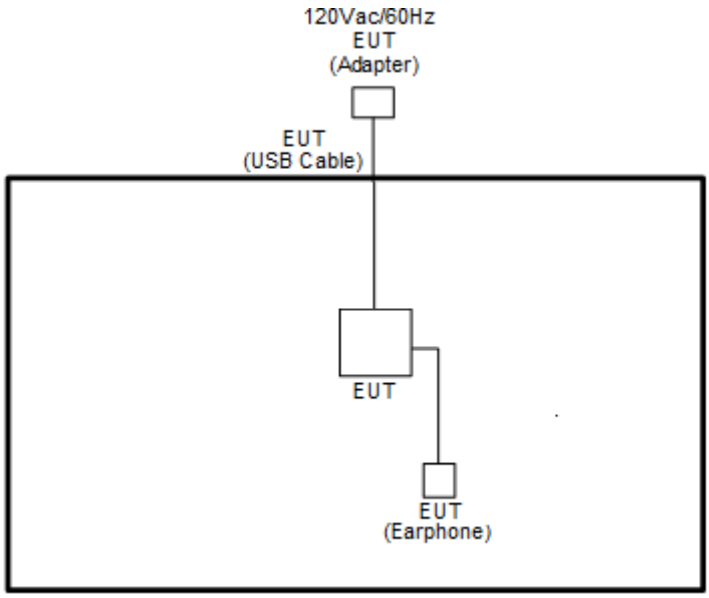
MIMO Antenna

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

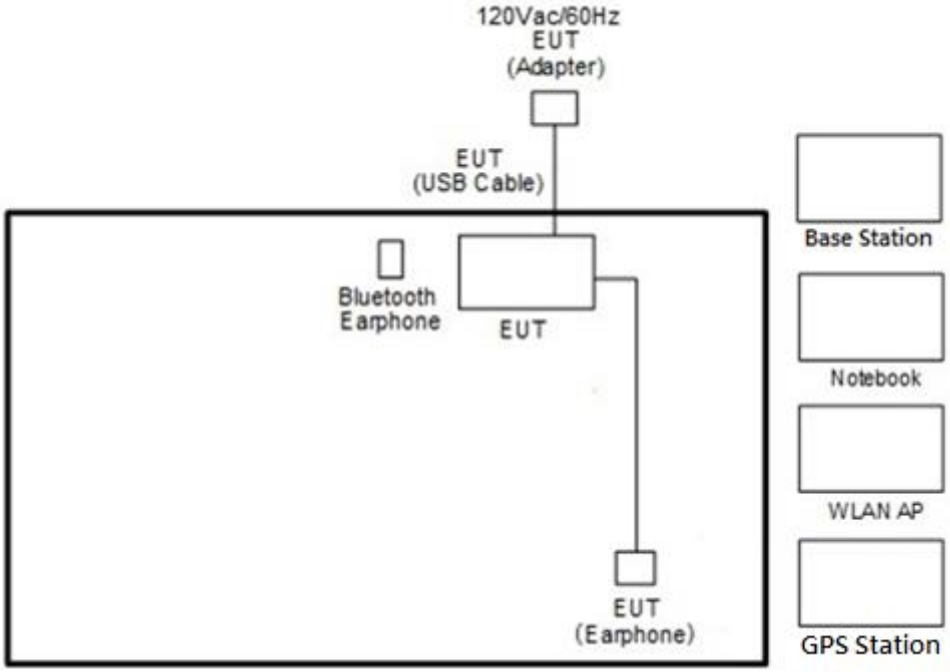
Test Cases	
AC Conducted Emission	Mode 1: GSM850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + GPS Rx + Earphone + USB Type C Cable 1 (Charging form Adapter 1) + Battery<10% for Sample 1
Remark: For Radiated Test Cases, the tests were performed with USB Type C Cable 1.	

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emissions Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded,1.8m
3.	Bluetooth Earphone	Sony	SBH20	PY7-RD0010	N/A	N/A
4.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
5.	Notebook	DELL	P20G	FCC DoC/ Contains FCC ID: QDS-BRCM1051	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT” 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.

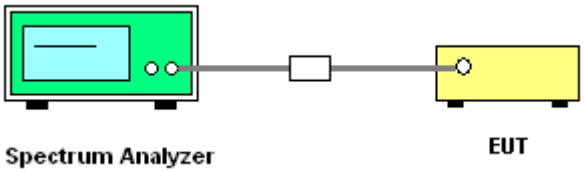
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

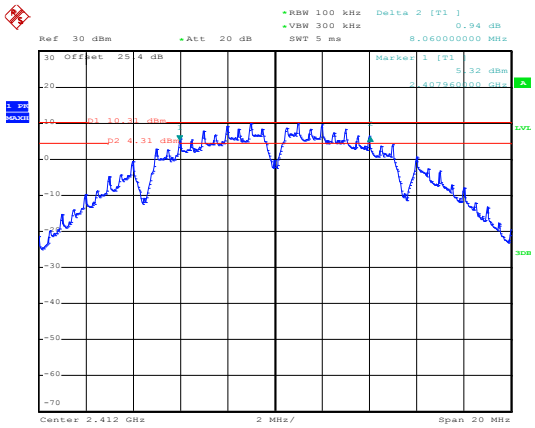
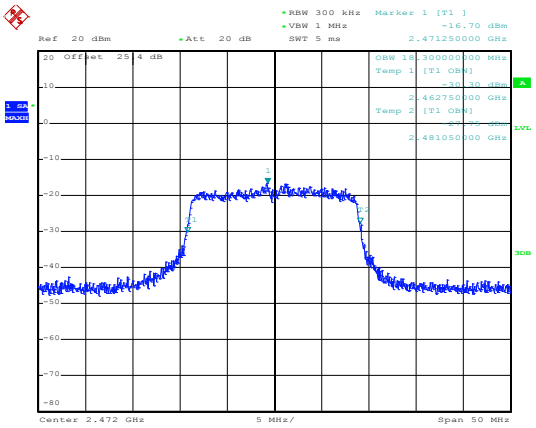
1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit 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) = 1MHz and set the Video bandwidth (VBW) = 3MHz.
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.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	
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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.

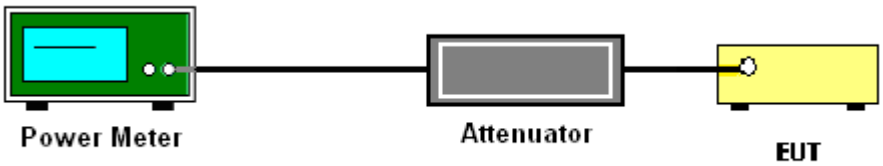
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

1. For Peak Power, the testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v05 section 9.1.3 PKPM1 Peak power meter method.
2. For Average Power, the testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v05 section 9.2.3.2 Method AVGPM-G.
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.
6. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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 Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05
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.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

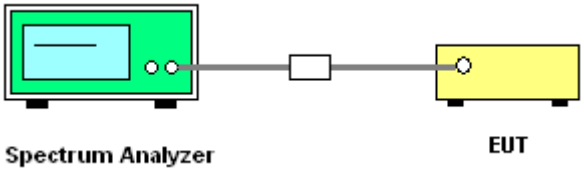
   If measurements performed using method (2) plus 10 log (N) exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

   Method (1): Measure and sum the spectra across the outputs.

   The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

   Method (2): Measure and add 10 log (N) dB, where N is the number of outputs. (N=2)

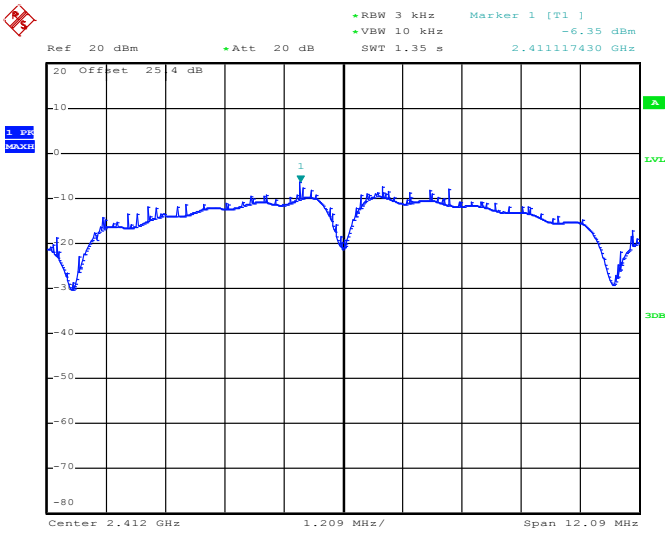
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/3kHz) for MIMO Ant. 1



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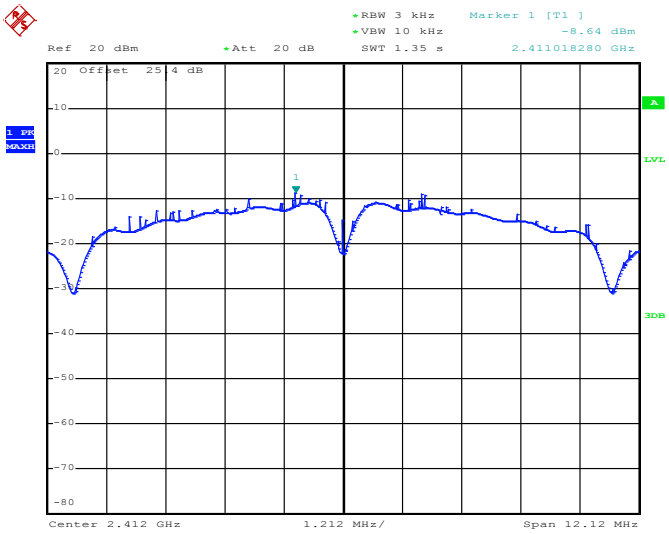
Worst Case Power Density (dBm/3kHz) for MIMO Ant. 2



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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.

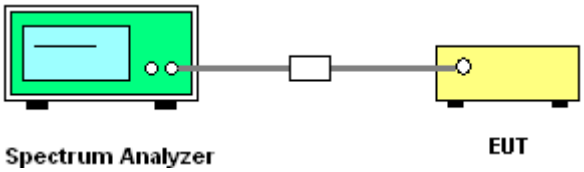
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05.
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



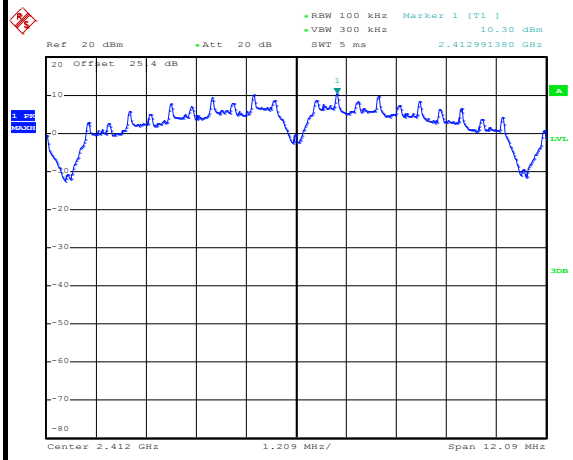
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer :	Eason Huang and Kai Liao	**Temperature :**	21~25℃
		Relative Humidity :	51~54%

Number of TX = 2, Ant. 1 (Measured)

Test Mode :	802.11b	**Test Channel :**	01

100kHz PSD reference Level



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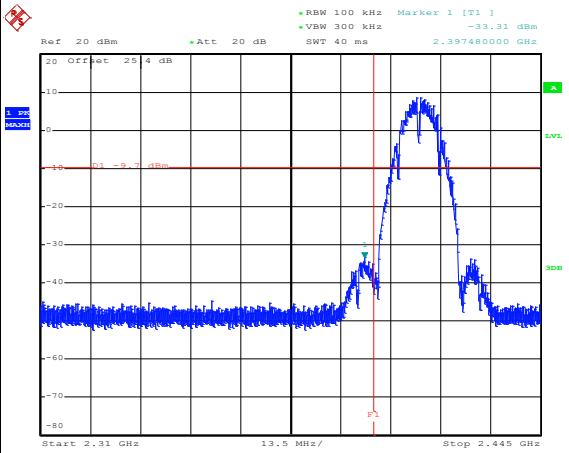
Channel Plot



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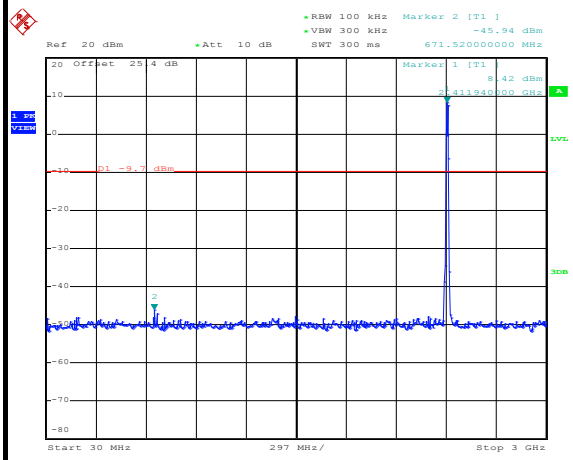
Spurious Emission 30MHz~3GHz



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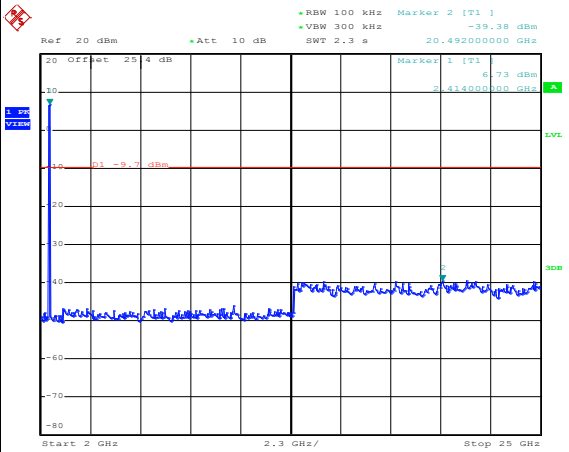
Spurious Emission 2GHz~25GHz



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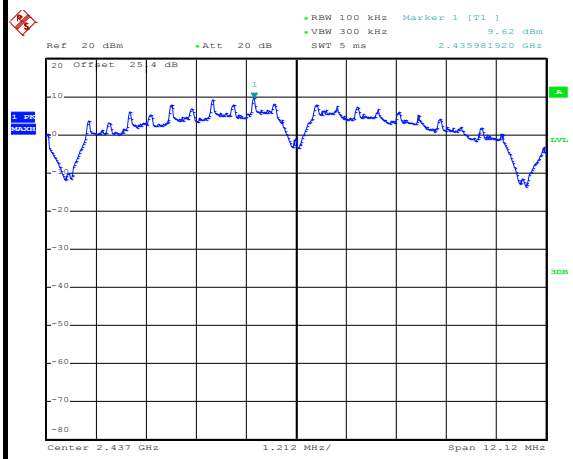
Test Mode :	802.11b	Test Channel :	06

100kHz PSD reference Level	Channel Plot
	

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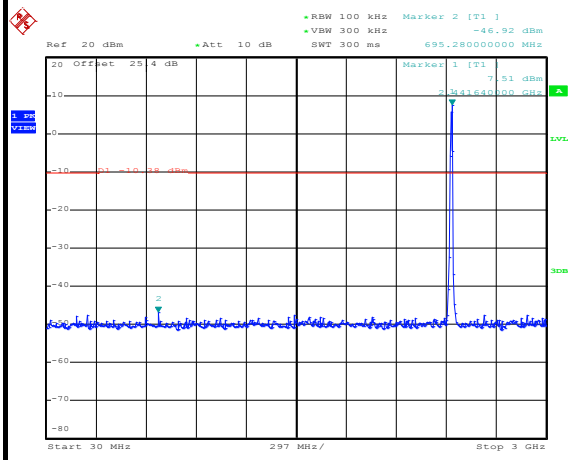
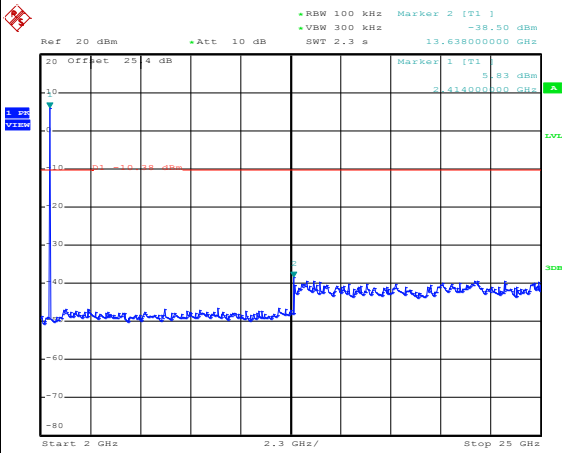
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

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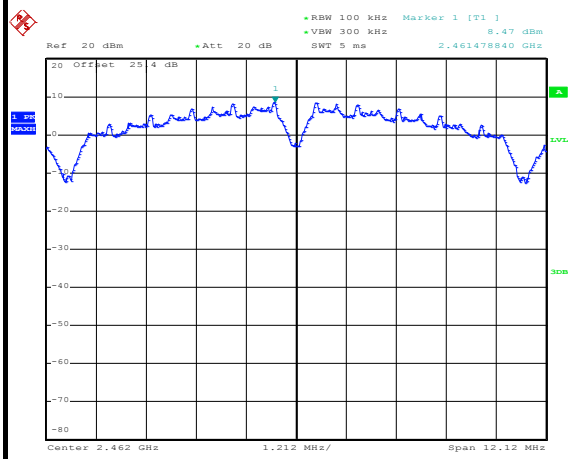
Date: 15.NOV.2018 15:19:43

Test Mode :	802.11b	Test Channel :	11

100kHz PSD reference Level



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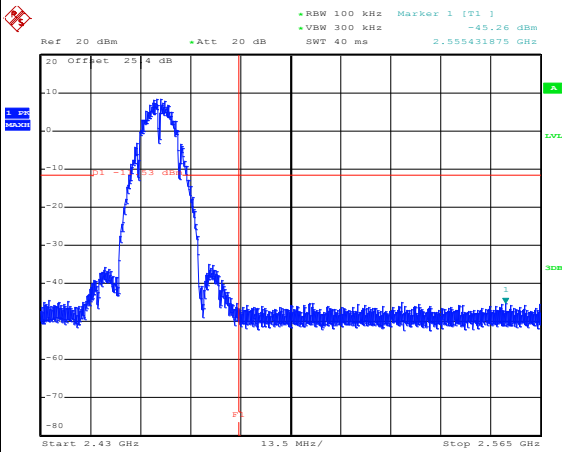
Channel Plot



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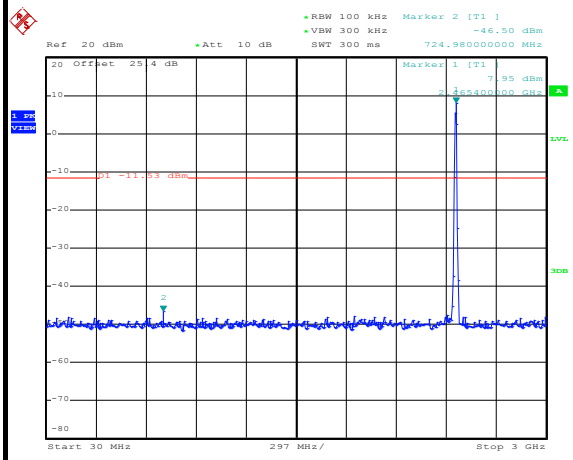
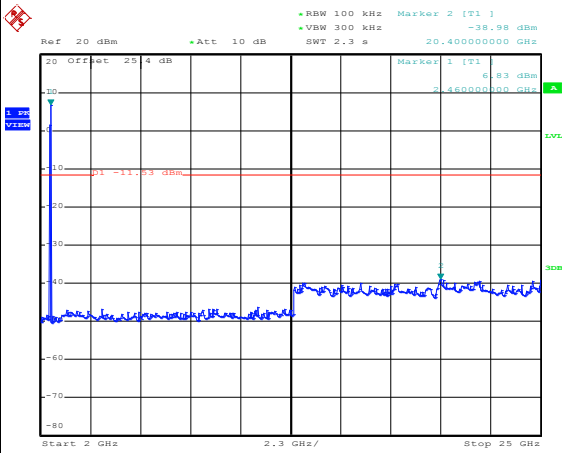
Spurious Emission 30MHz~3GHz



Date: 15.NOV.2018 15:26:04

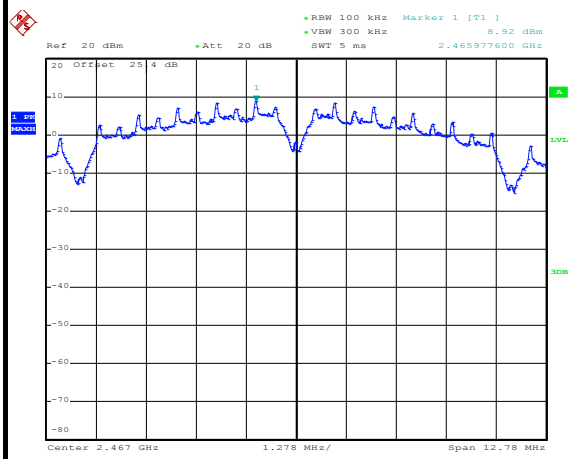
Spurious Emission 2GHz~25GHz



Date: 15.NOV.2018 15:26:20

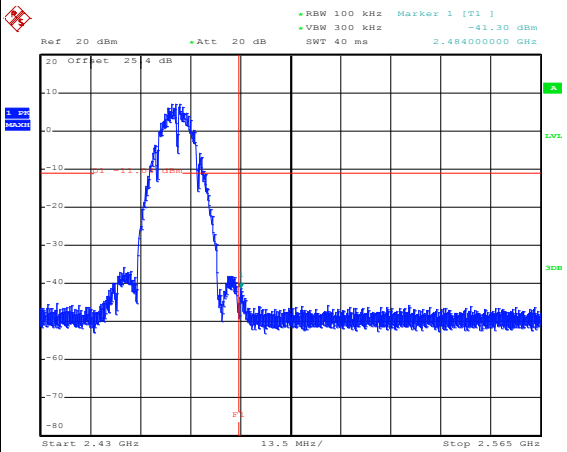
Test Mode :	802.11b	Test Channel :	12

100kHz PSD reference Level



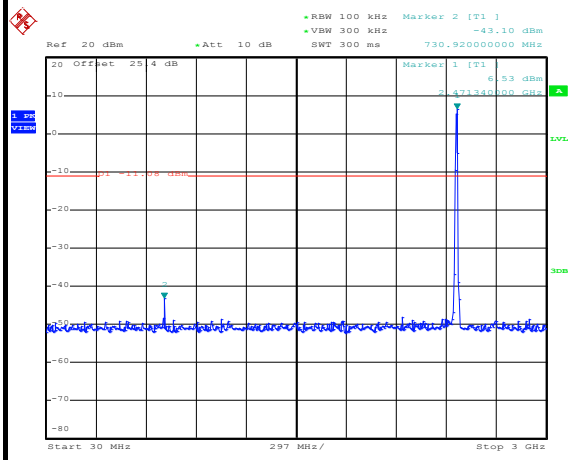
Date: 20.NOV.2018 00:38:56

Channel Plot



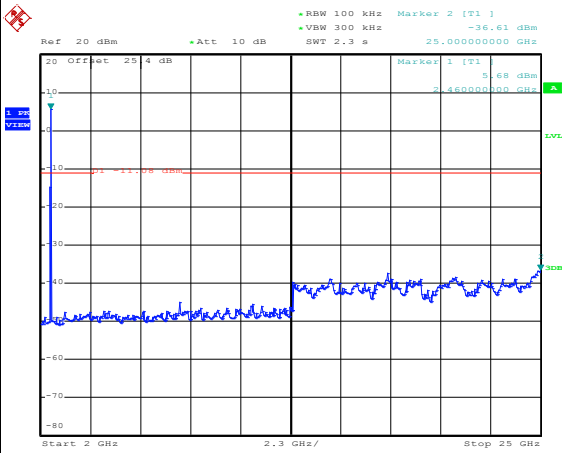
Date: 20.NOV.2018 00:39:24

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 00:41:33

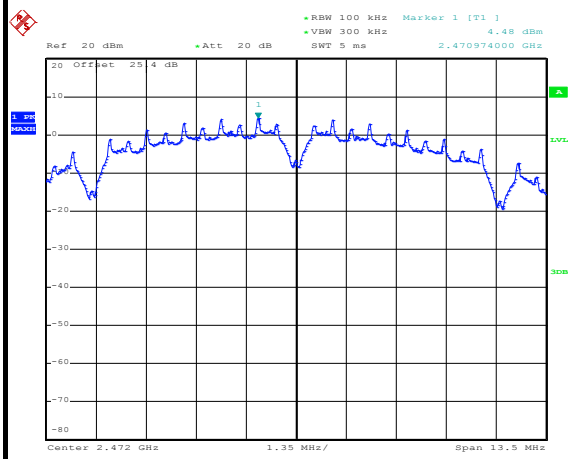
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 00:41:48

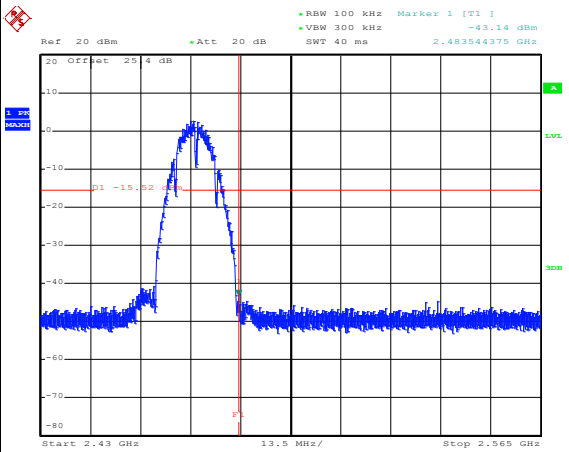
Test Mode :	802.11b	Test Channel :	13

100kHz PSD reference Level



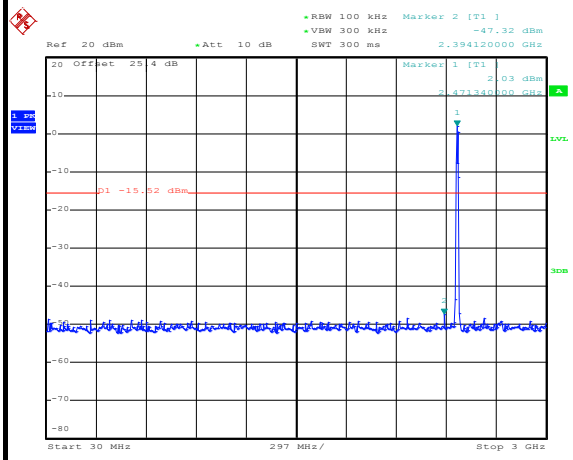
Date: 20.NOV.2018 00:45:45

Channel Plot



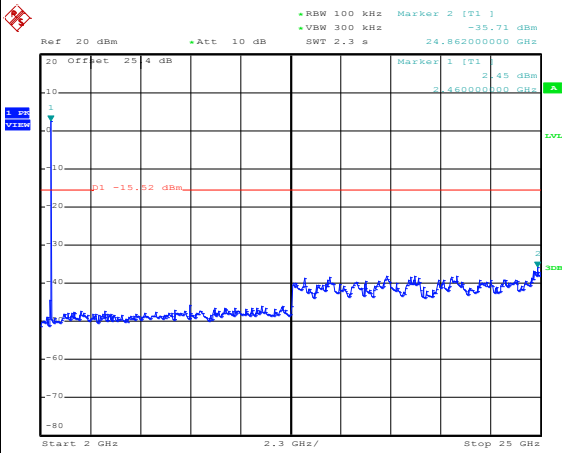
Date: 20.NOV.2018 00:46:30

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 00:47:08

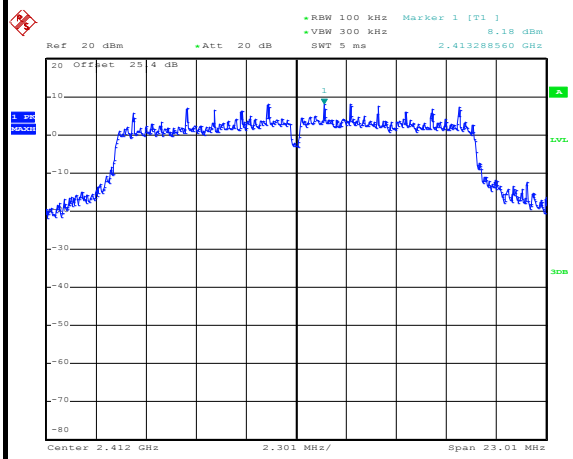
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 00:47:23

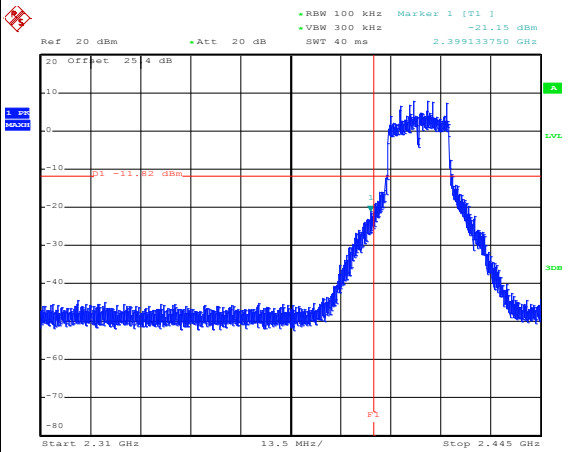
Test Mode :	802.11g	Test Channel :	01

100kHz PSD reference Level



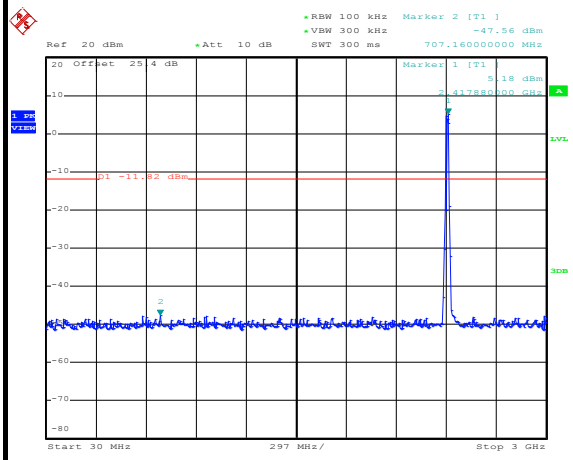
Date: 15.NOV.2018 15:58:22

Channel Plot



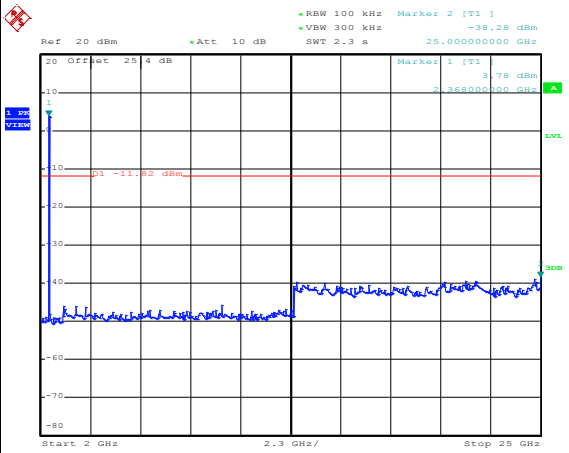
Date: 15.NOV.2018 15:58:38

Spurious Emission 30MHz~3GHz



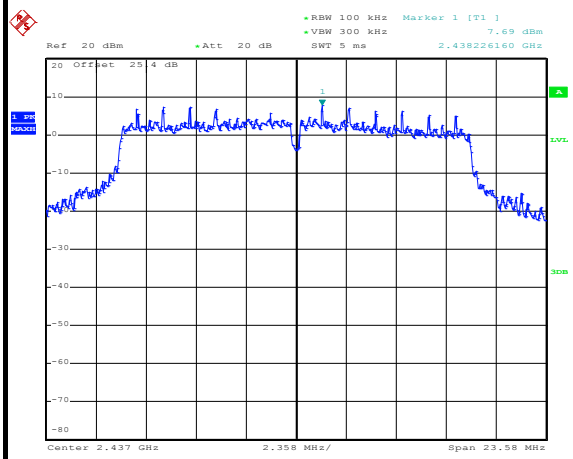
Date: 15.NOV.2018 15:59:03

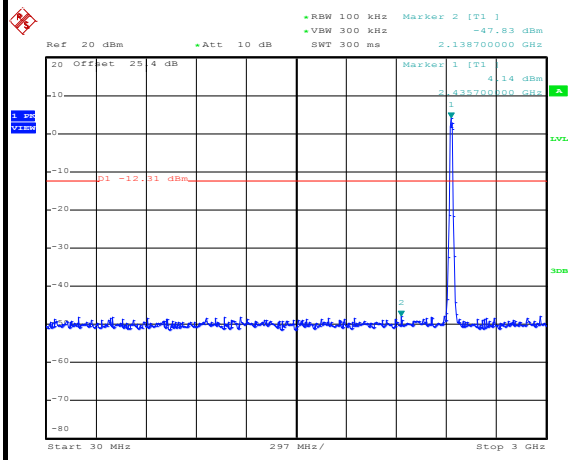
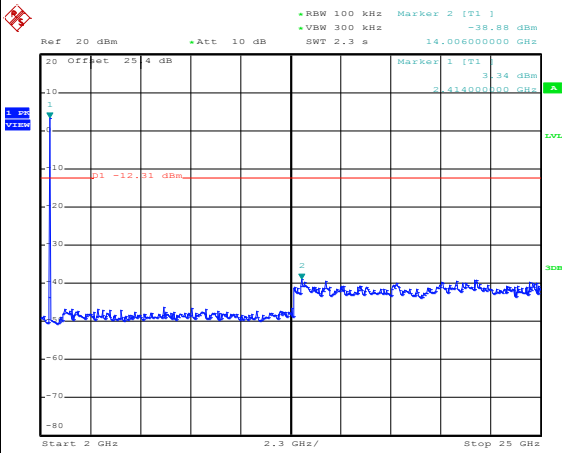
Spurious Emission 2GHz~25GHz



Date: 15.NOV.2018 15:59:18

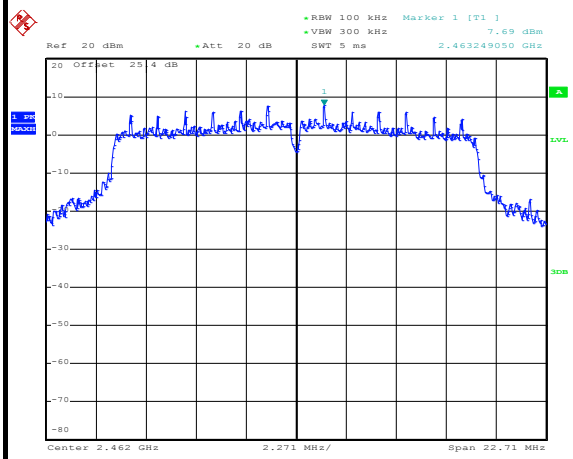
Test Mode :	802.11g	Test Channel :	06

100kHz PSD reference Level	Channel Plot
 Date: 15.NOV.2018 16:06:05	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
 Date: 15.NOV.2018 16:06:23	 Date: 15.NOV.2018 16:06:38

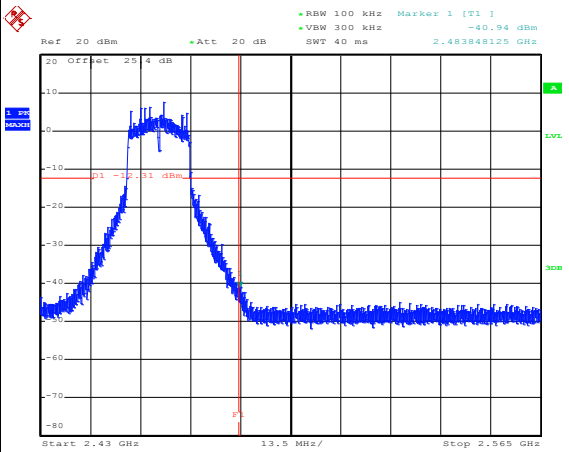
Test Mode :	802.11g	Test Channel :	11

100kHz PSD reference Level



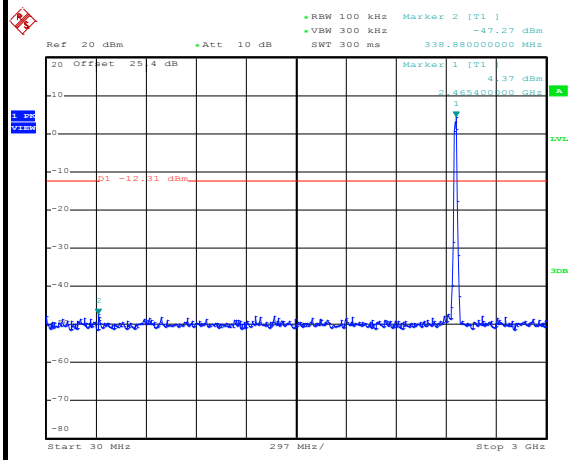
Date: 15.NOV.2018 16:19:19

Channel Plot



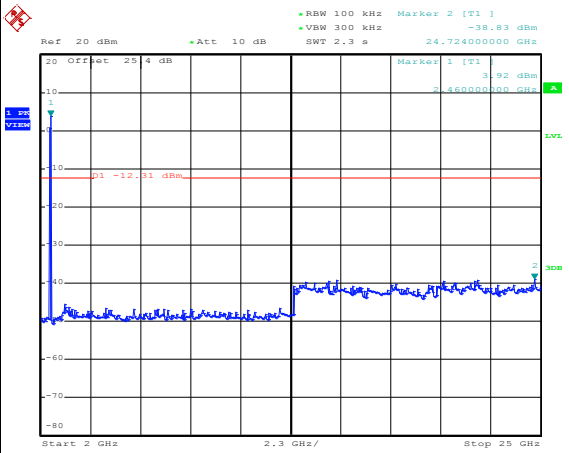
Date: 15.NOV.2018 16:19:44

Spurious Emission 30MHz~3GHz



Date: 15.NOV.2018 16:20:10

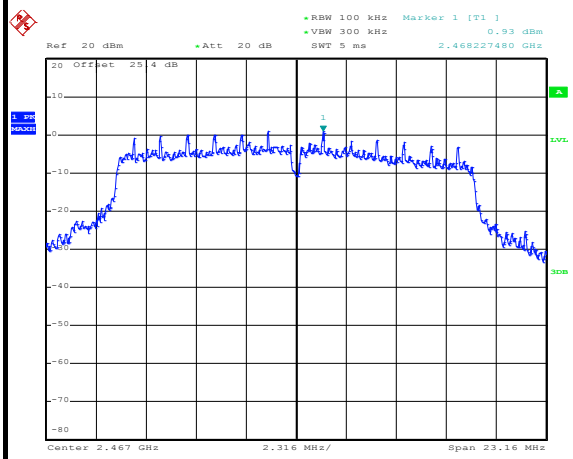
Spurious Emission 2GHz~25GHz



Date: 15.NOV.2018 16:20:24

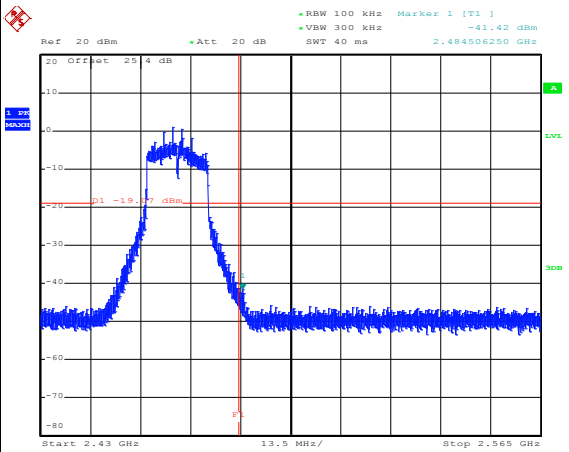
Test Mode :	802.11g	Test Channel :	12

100kHz PSD reference Level



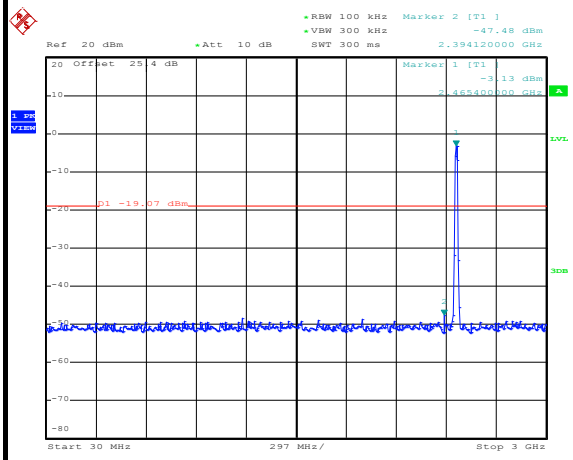
Date: 20.NOV.2018 00:56:06

Channel Plot



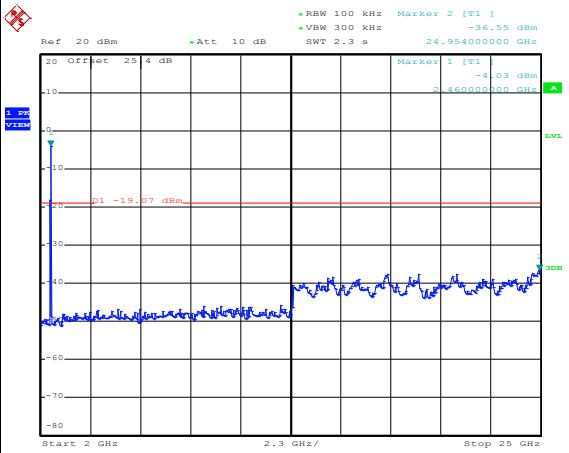
Date: 20.NOV.2018 00:56:31

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 00:57:08

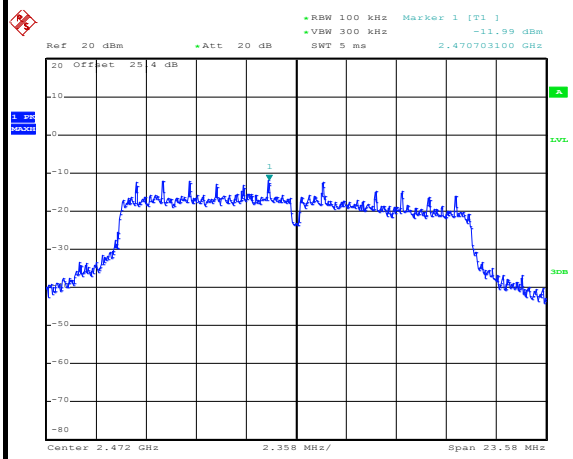
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 00:57:28

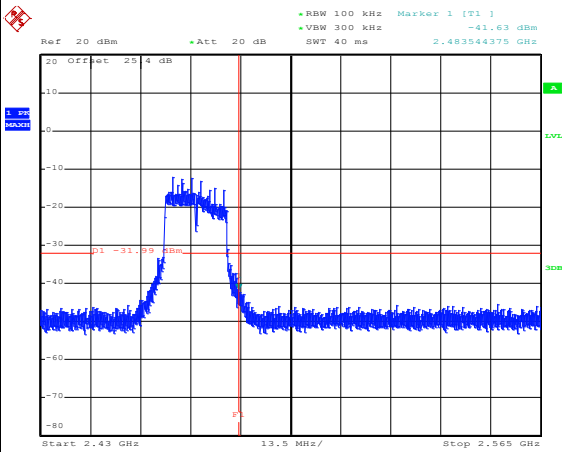
Test Mode :	802.11g	Test Channel :	13

100kHz PSD reference Level



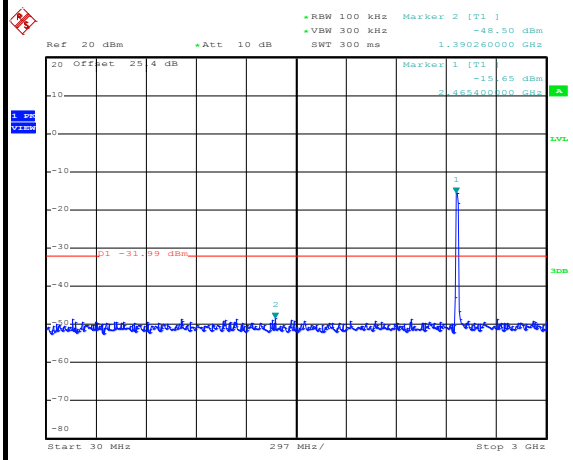
Date: 20.NOV.2018 01:07:37

Channel Plot



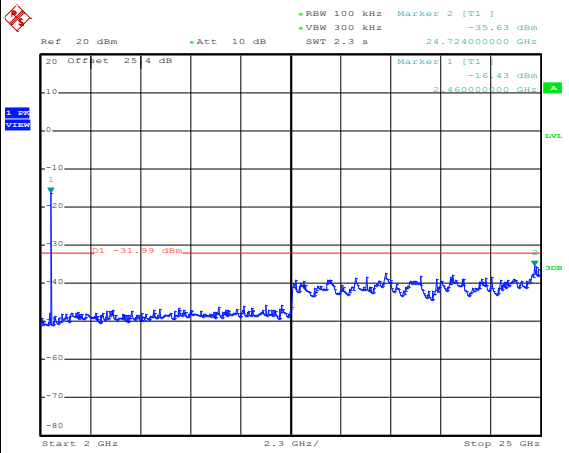
Date: 20.NOV.2018 01:07:53

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:08:26

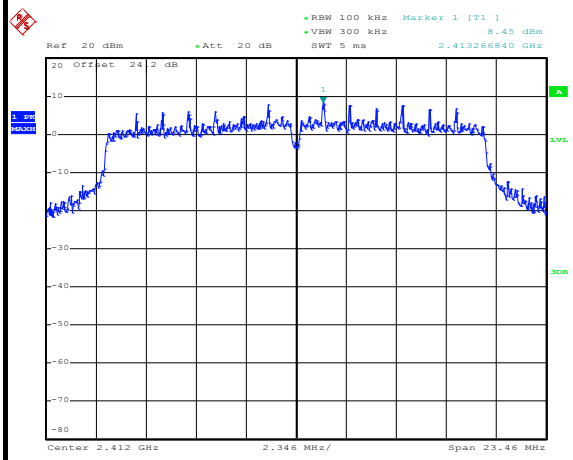
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 01:08:40

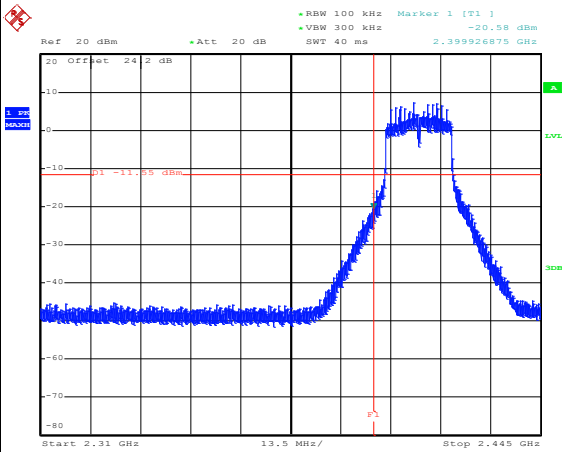
Test Mode :	802.11n HT20	Test Channel :	01

100kHz PSD reference Level



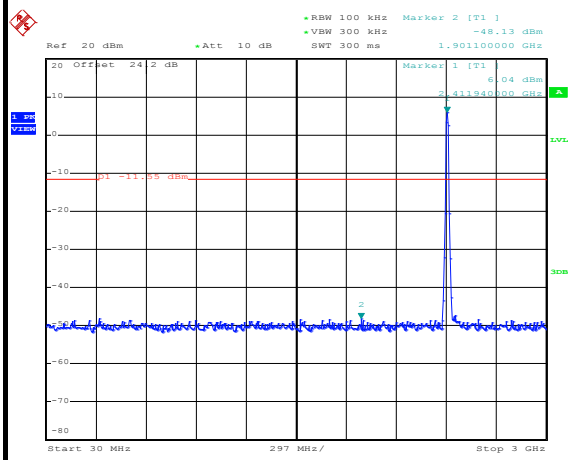
Date: 16.NOV.2018 00:03:33

Channel Plot



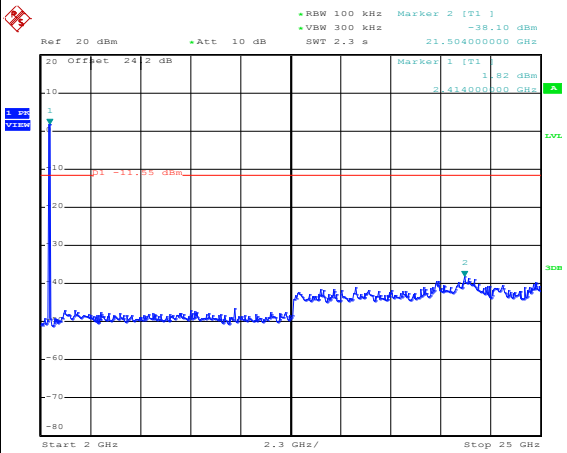
Date: 16.NOV.2018 00:03:57

Spurious Emission 30MHz~3GHz



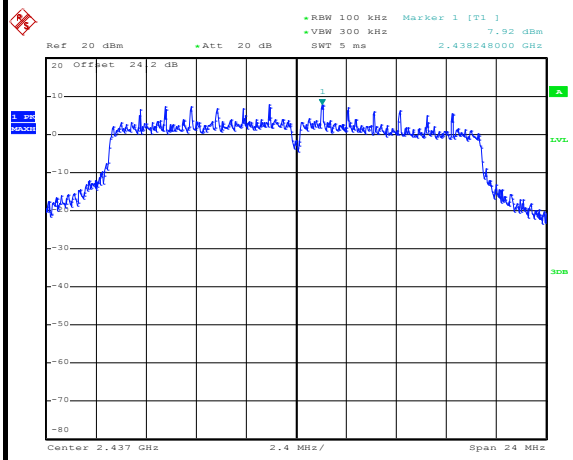
Date: 16.NOV.2018 00:04:27

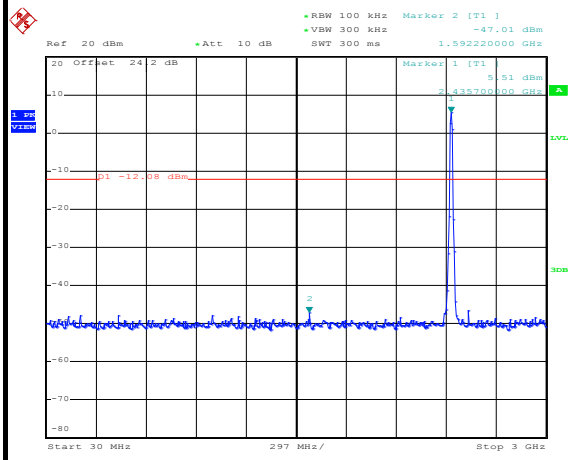
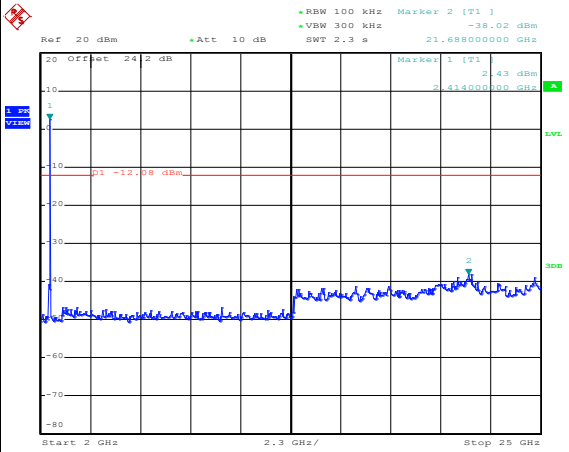
Spurious Emission 2GHz~25GHz



Date: 16.NOV.2018 00:04:41

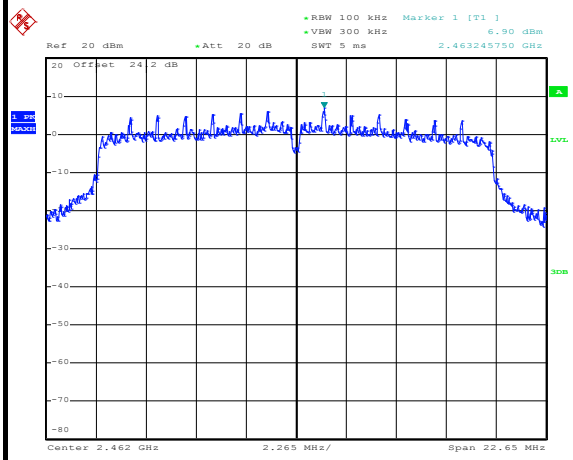
Test Mode :	802.11n HT20	Test Channel :	06

100kHz PSD reference Level	Channel Plot
 Date: 16.NOV.2018 00:15:18	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
 Date: 16.NOV.2018 00:18:56	 Date: 16.NOV.2018 00:19:12

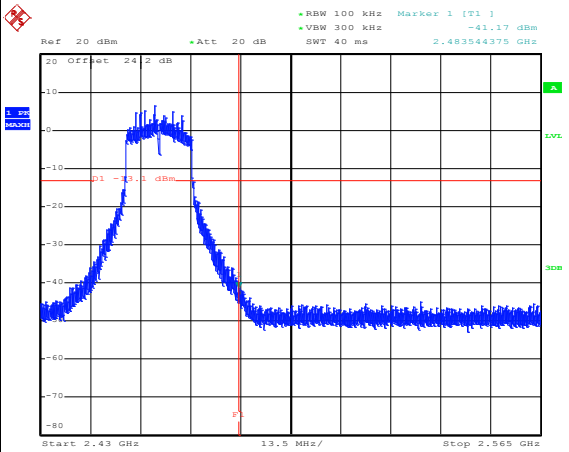
Test Mode :	802.11n HT20	Test Channel :	11

100kHz PSD reference Level



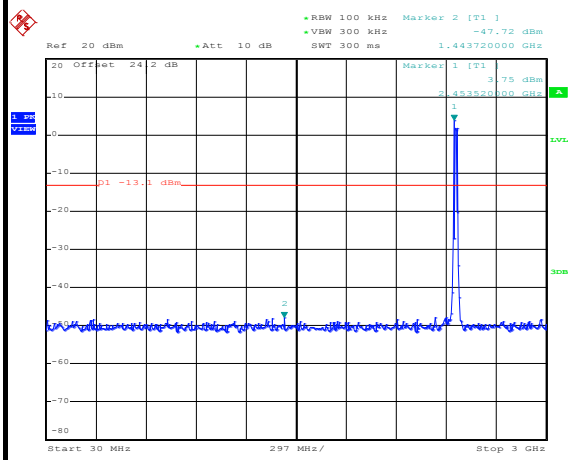
Date: 16.NOV.2018 00:38:45

Channel Plot



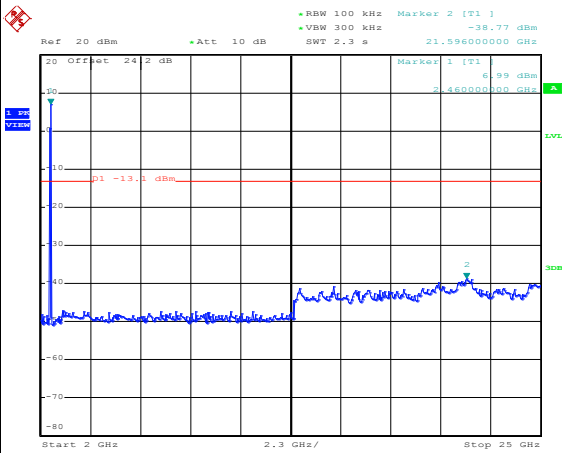
Date: 16.NOV.2018 00:39:02

Spurious Emission 30MHz~3GHz



Date: 16.NOV.2018 00:39:19

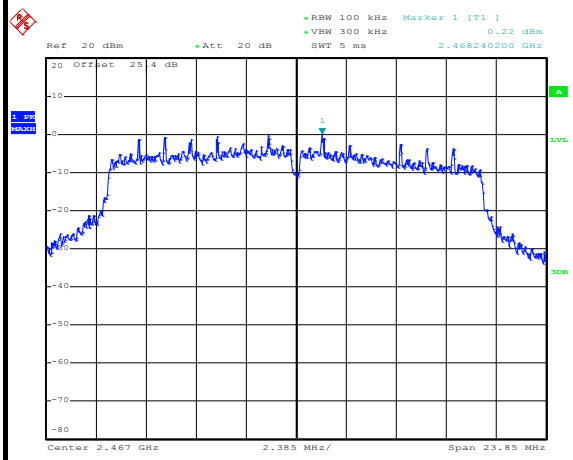
Spurious Emission 2GHz~25GHz



Date: 16.NOV.2018 00:39:39

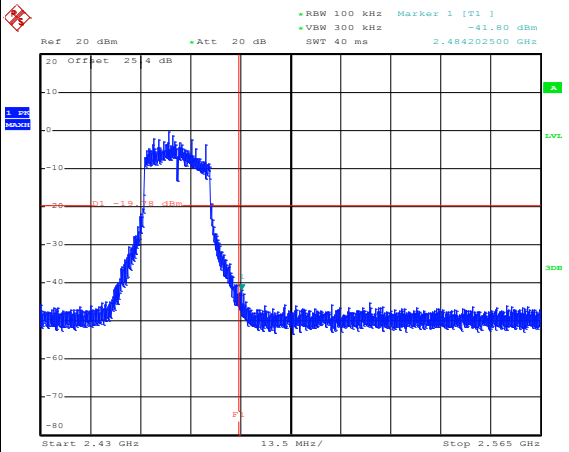
Test Mode :	802.11n HT20	Test Channel :	12

100kHz PSD reference Level



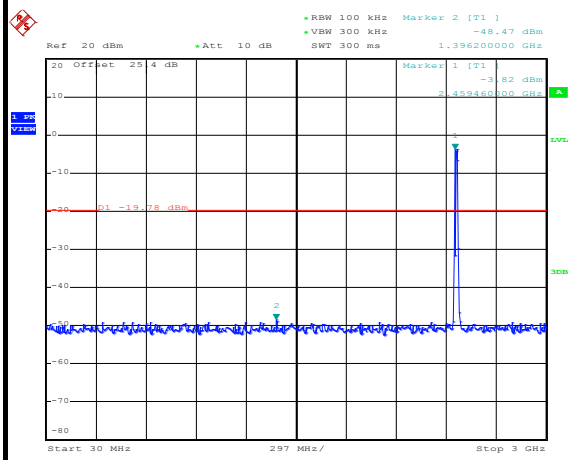
Date: 20.NOV.2018 01:17:45

Channel Plot



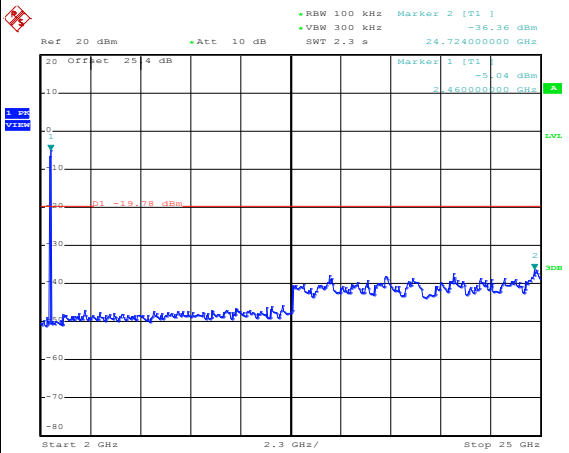
Date: 20.NOV.2018 01:18:00

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:18:31

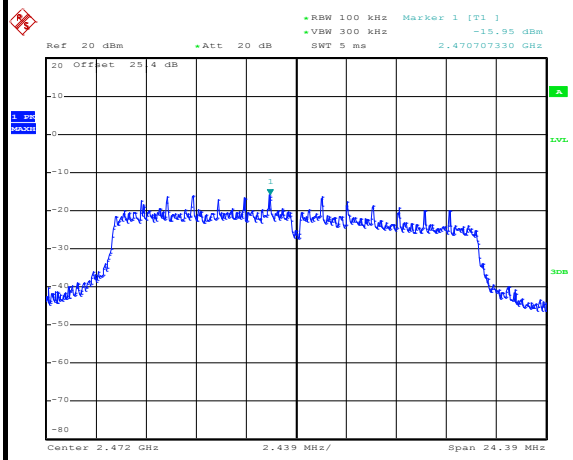
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 01:18:45

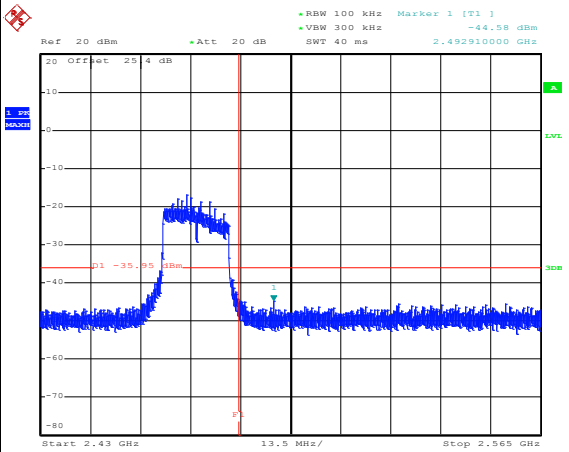
Test Mode :	802.11n HT20	Test Channel :	13

100kHz PSD reference Level



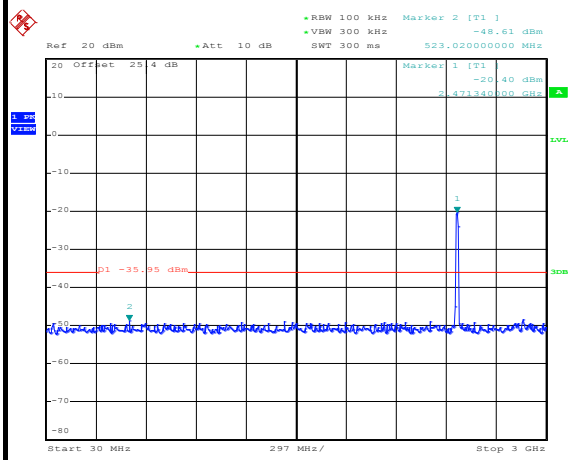
Date: 20.NOV.2018 01:26:33

Channel Plot



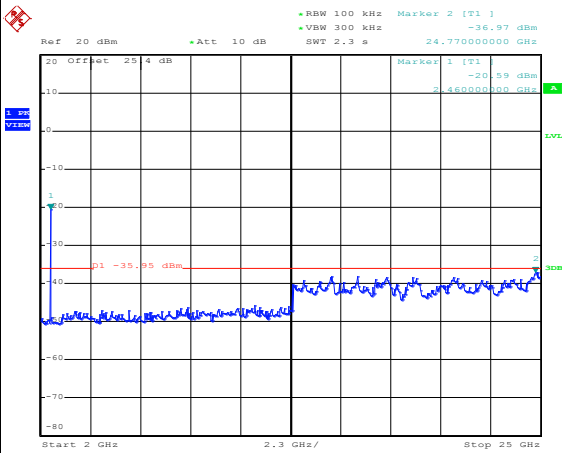
Date: 20.NOV.2018 01:26:48

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:27:13

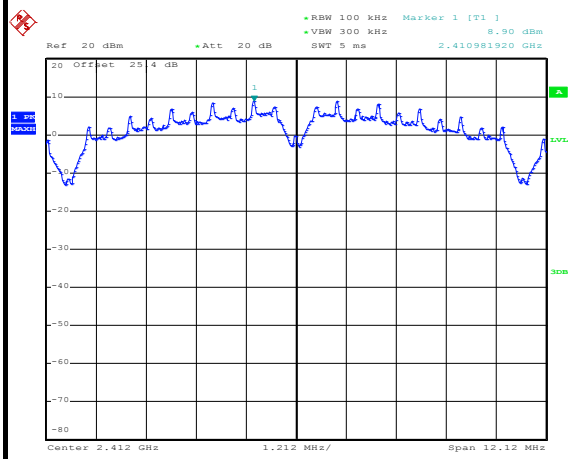
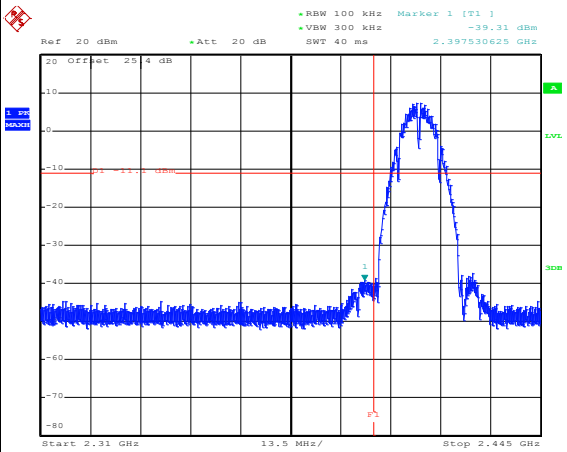
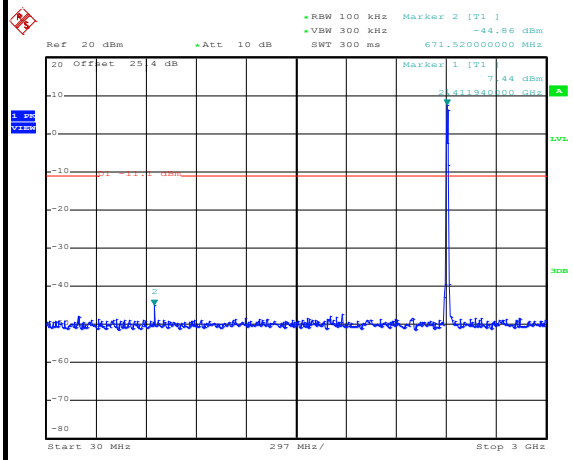
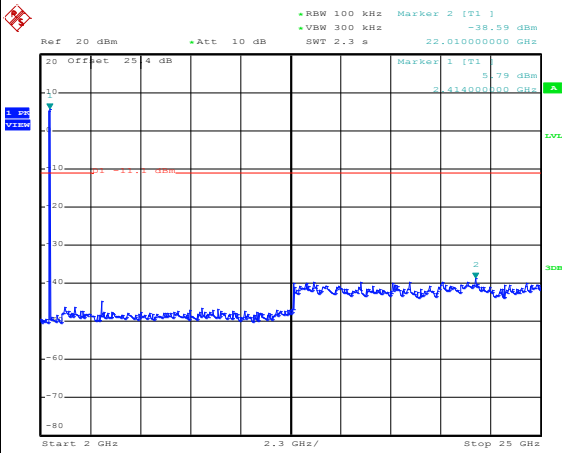
Spurious Emission 2GHz~25GHz



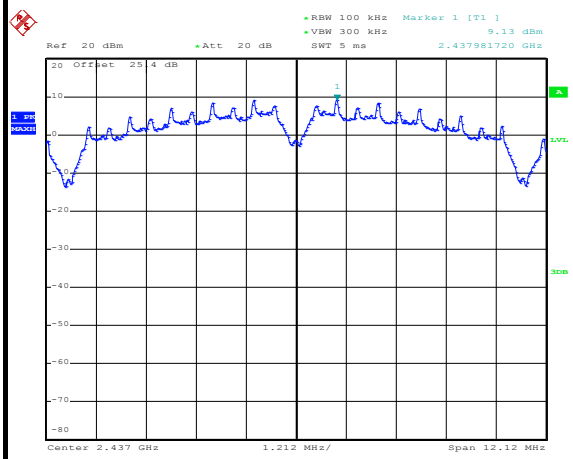
Date: 20.NOV.2018 01:27:28

Number of TX = 2, Ant. 2 (Measured)

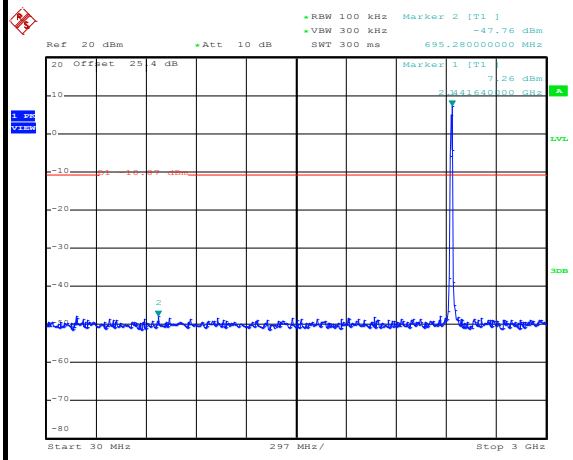
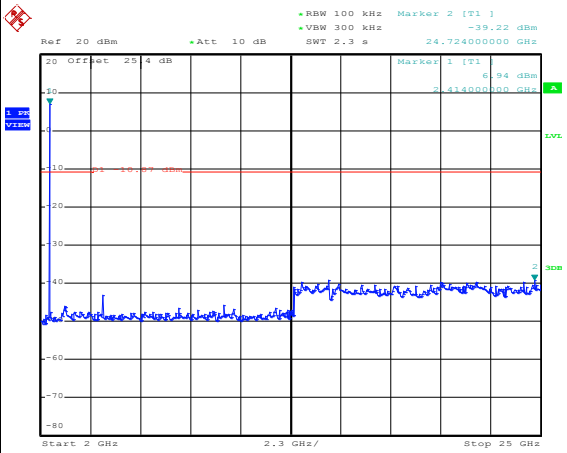
Test Mode :	802.11b	Test Channel :	01

100kHz PSD reference Level	Channel Plot
	
Date: 15.NOV.2018 15:13:33	Date: 15.NOV.2018 15:13:53
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	
Date: 15.NOV.2018 15:14:22	Date: 15.NOV.2018 15:14:55

Test Mode :	802.11b	Test Channel :	06

100kHz PSD reference Level	Channel Plot
	

Date: 15.NOV.2018 15:22:01

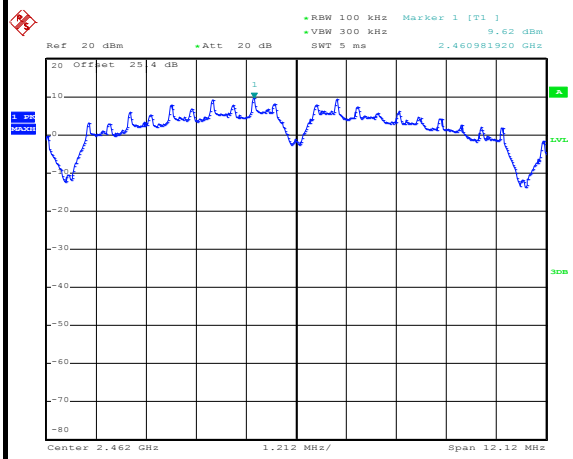
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Date: 15.NOV.2018 15:22:17

Date: 15.NOV.2018 15:22:31

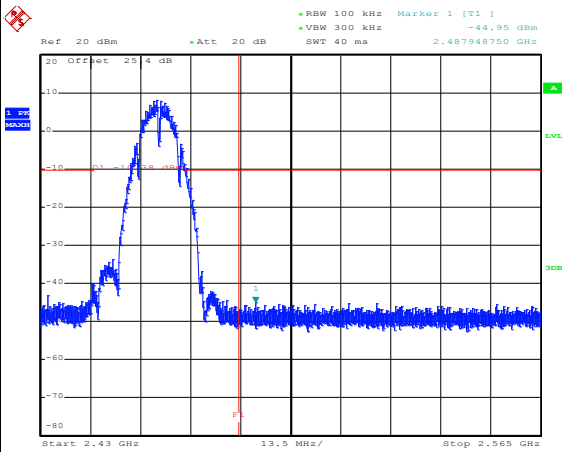
Test Mode :	802.11b	Test Channel :	11

100kHz PSD reference Level



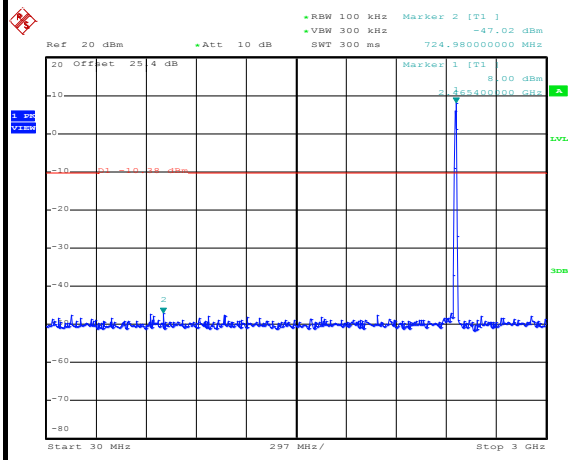
Date: 15.NOV.2018 15:28:59

Channel Plot



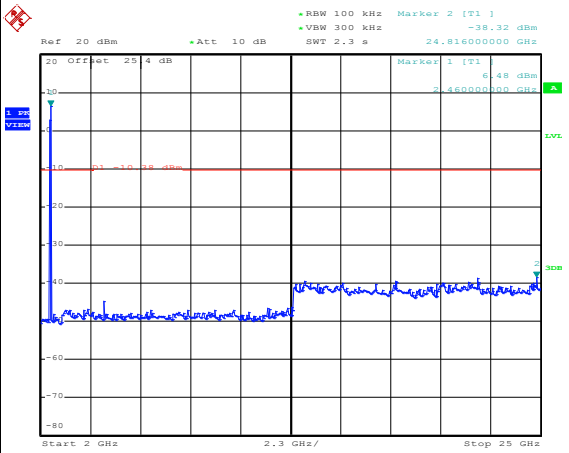
Date: 15.NOV.2018 15:29:15

Spurious Emission 30MHz~3GHz



Date: 15.NOV.2018 15:29:41

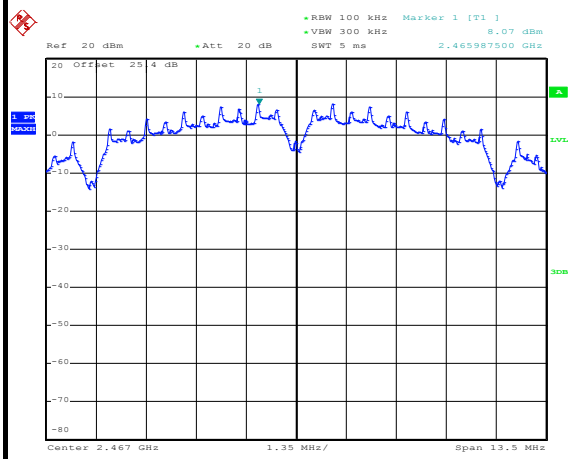
Spurious Emission 2GHz~25GHz



Date: 15.NOV.2018 15:29:57

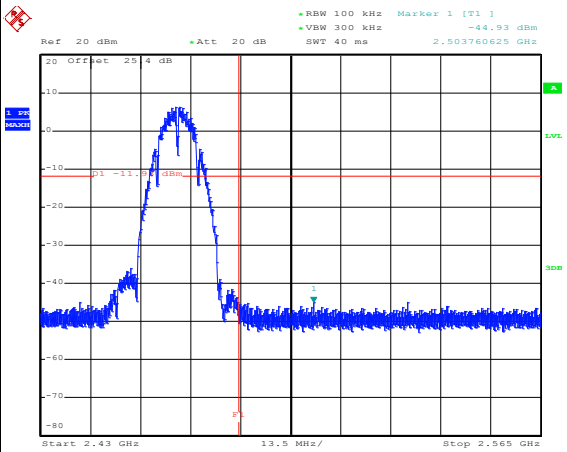
Test Mode :	802.11b	Test Channel :	12

100kHz PSD reference Level



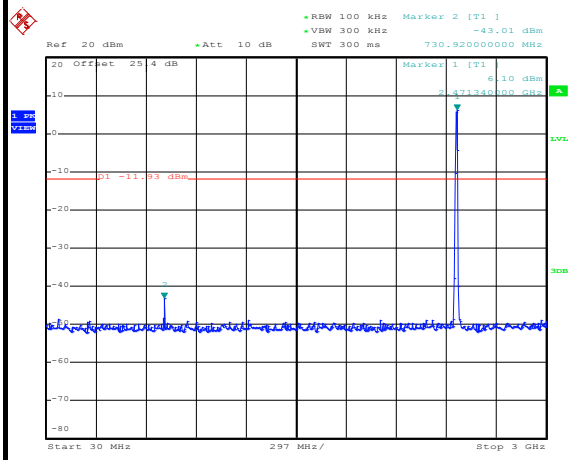
Date: 20.NOV.2018 00:33:27

Channel Plot



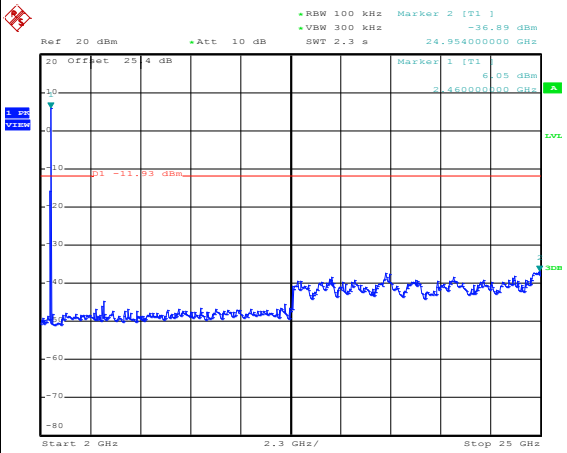
Date: 20.NOV.2018 00:34:11

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 00:35:18

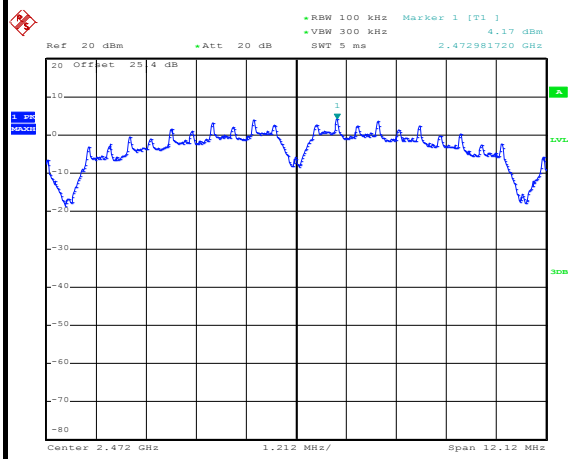
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 00:35:35

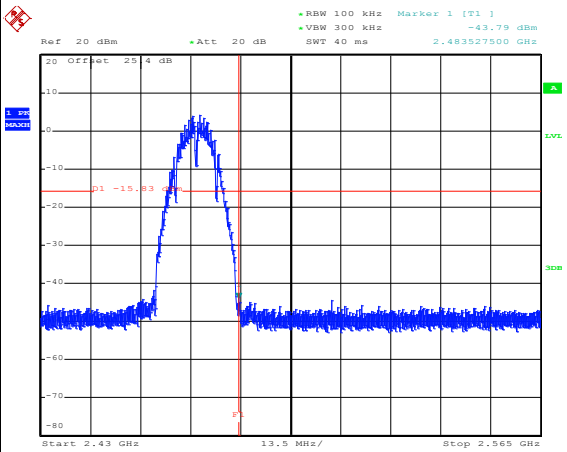
Test Mode :	802.11b	Test Channel :	13

100kHz PSD reference Level



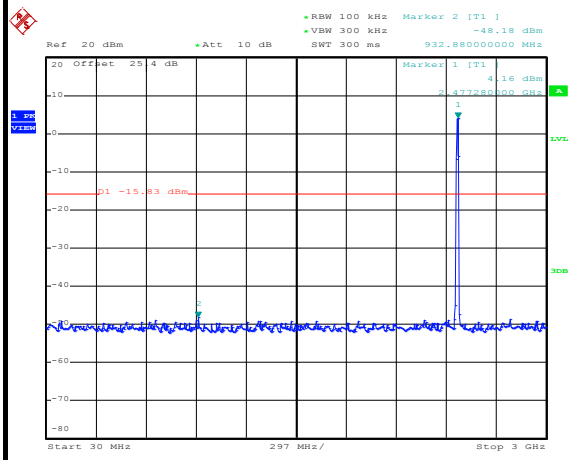
Date: 20.NOV.2018 00:50:59

Channel Plot



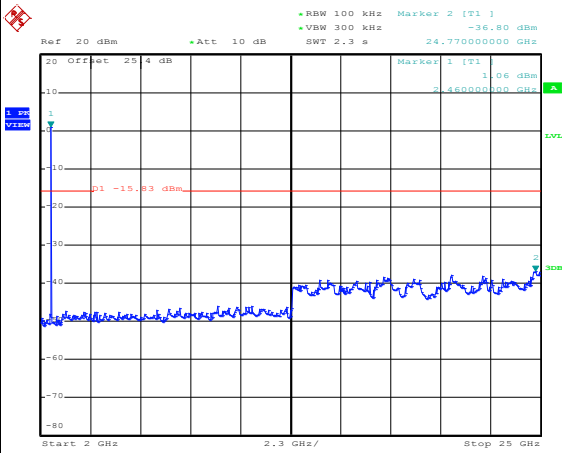
Date: 20.NOV.2018 00:51:29

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 00:52:09

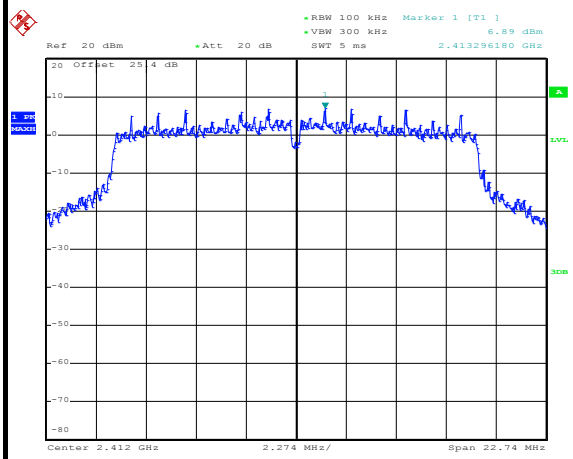
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 00:52:23

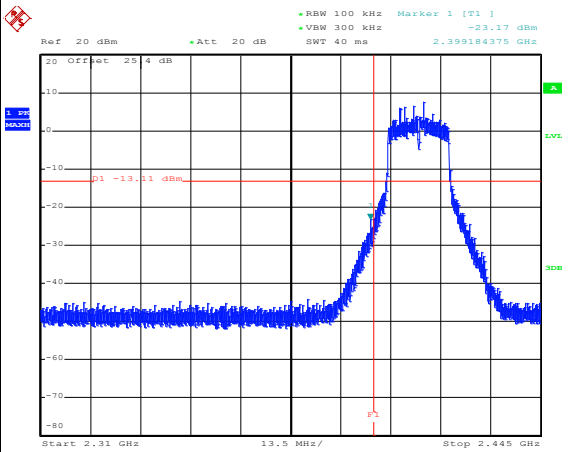
Test Mode :	802.11g	Test Channel :	01

100kHz PSD reference Level



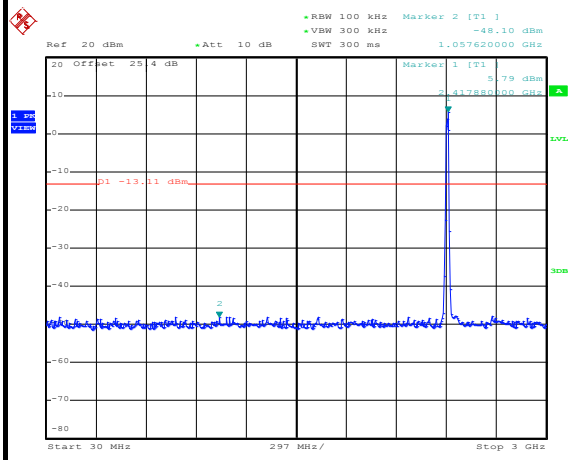
Date: 15.NOV.2018 16:02:46

Channel Plot



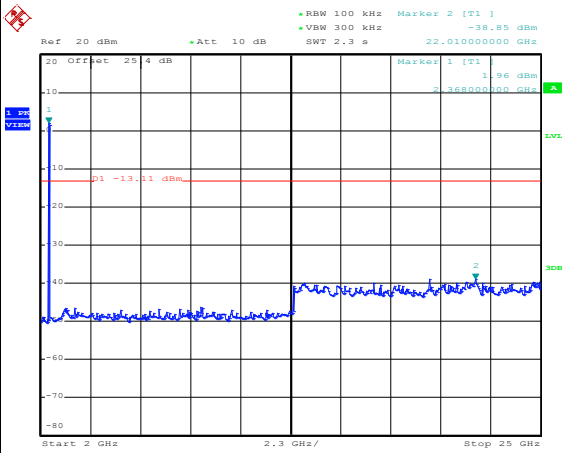
Date: 15.NOV.2018 16:03:00

Spurious Emission 30MHz~3GHz



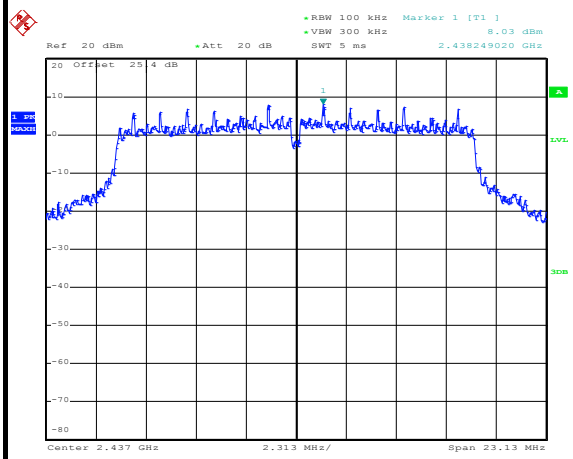
Date: 15.NOV.2018 16:03:24

Spurious Emission 2GHz~25GHz

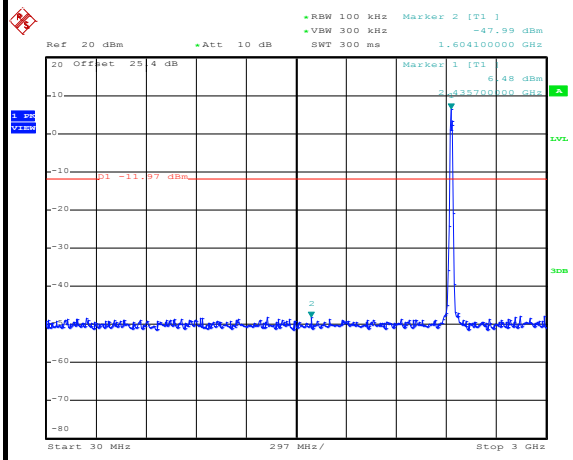
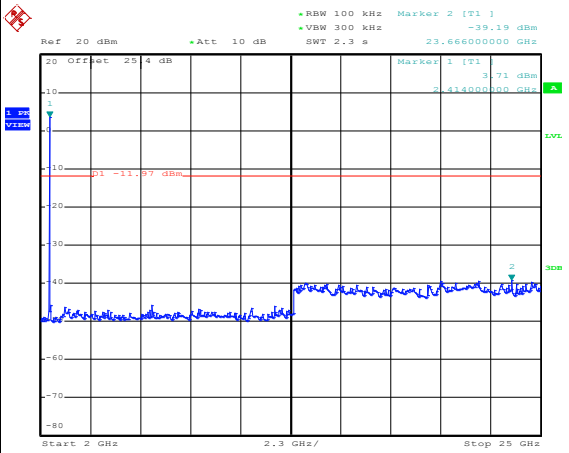


Date: 15.NOV.2018 16:03:39

Test Mode :	802.11g	Test Channel :	06

100kHz PSD reference Level	Channel Plot
	

Date: 15.NOV.2018 16:10:02

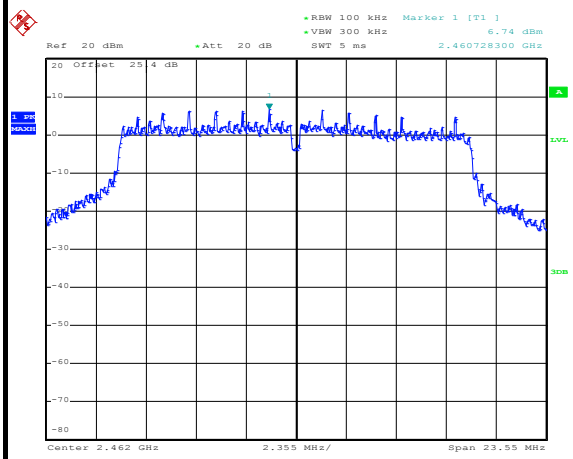
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Date: 15.NOV.2018 16:10:56

Date: 15.NOV.2018 16:11:11

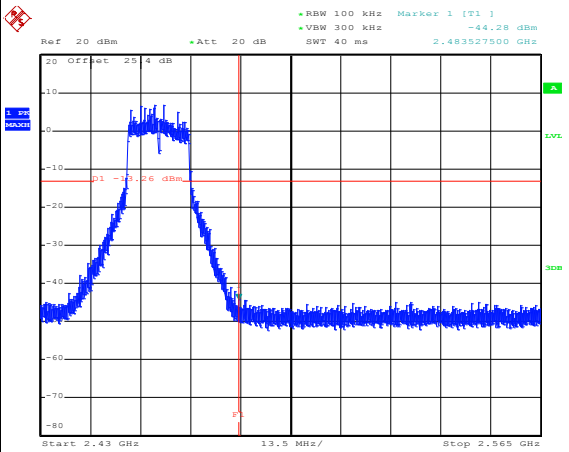
Test Mode :	802.11g	Test Channel :	11

100kHz PSD reference Level



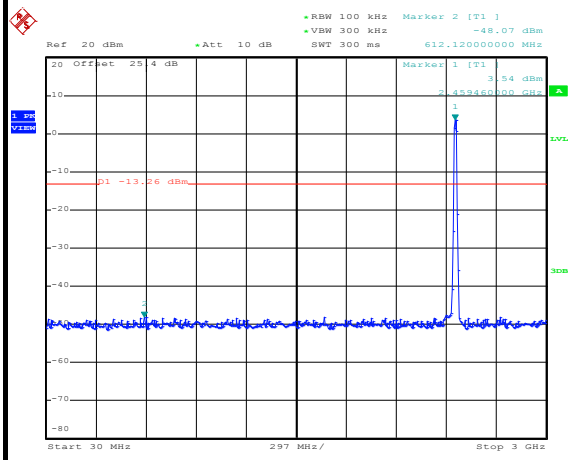
Date: 15.NOV.2018 16:27:16

Channel Plot



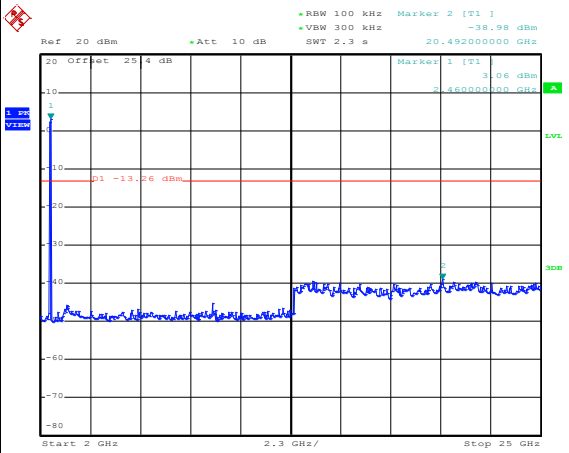
Date: 15.NOV.2018 16:27:32

Spurious Emission 30MHz~3GHz



Date: 15.NOV.2018 16:27:50

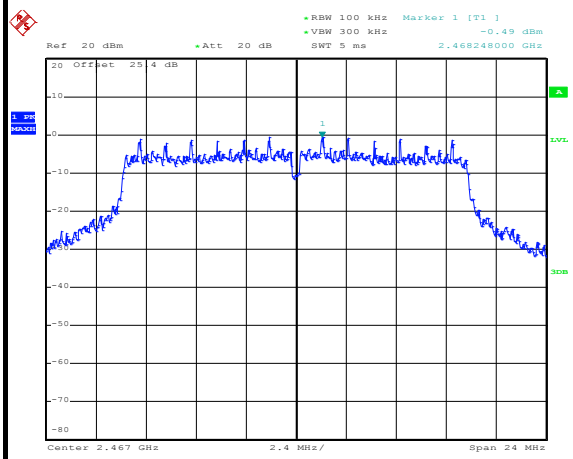
Spurious Emission 2GHz~25GHz



Date: 15.NOV.2018 16:28:05

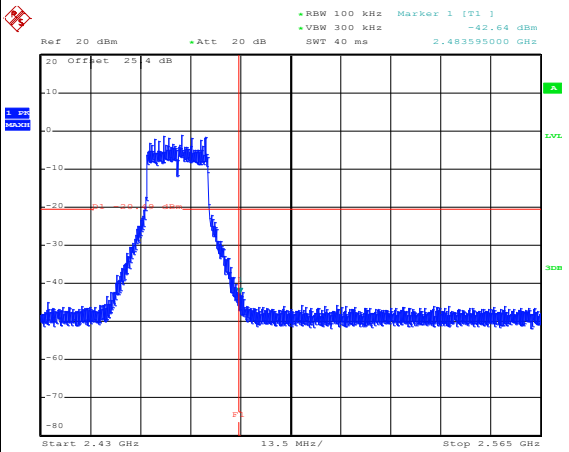
Test Mode :	802.11g	Test Channel :	12

100kHz PSD reference Level



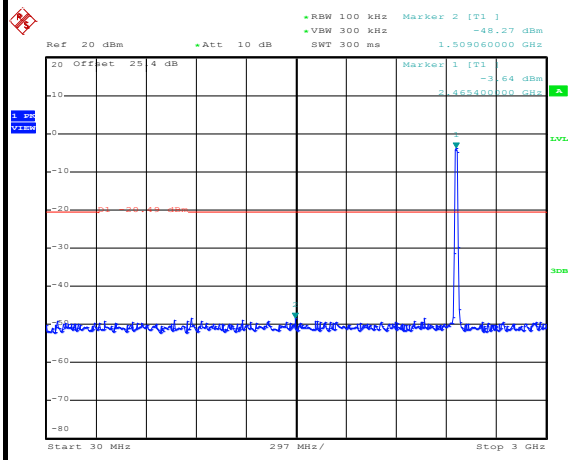
Date: 20.NOV.2018 01:00:46

Channel Plot



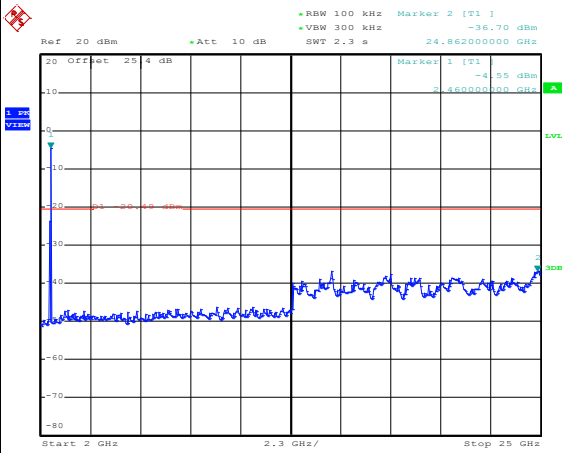
Date: 20.NOV.2018 01:01:21

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:02:04

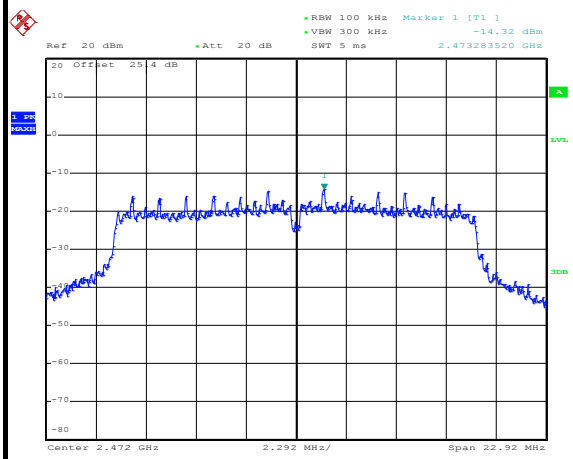
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 01:02:20

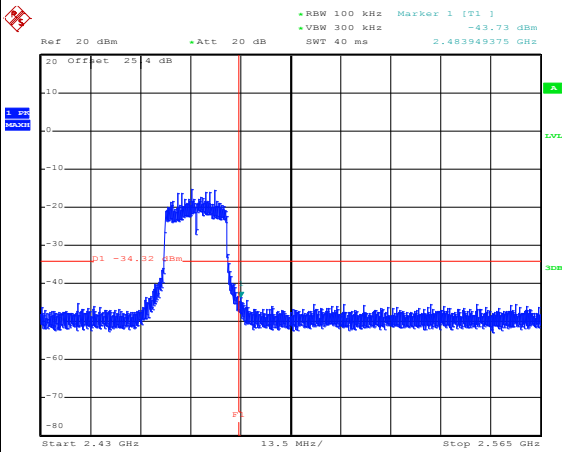
Test Mode :	802.11g	Test Channel :	13

100kHz PSD reference Level



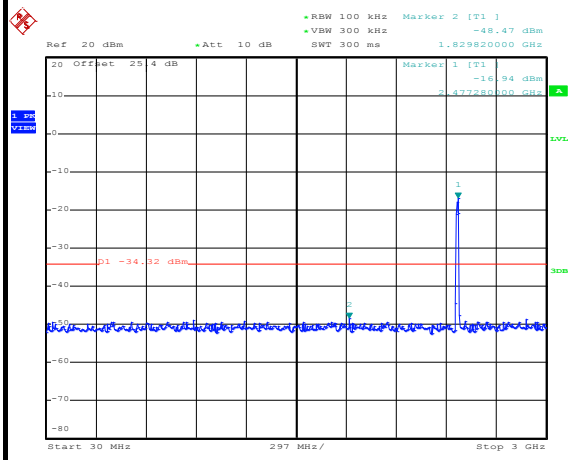
Date: 20.NOV.2018 01:11:37

Channel Plot



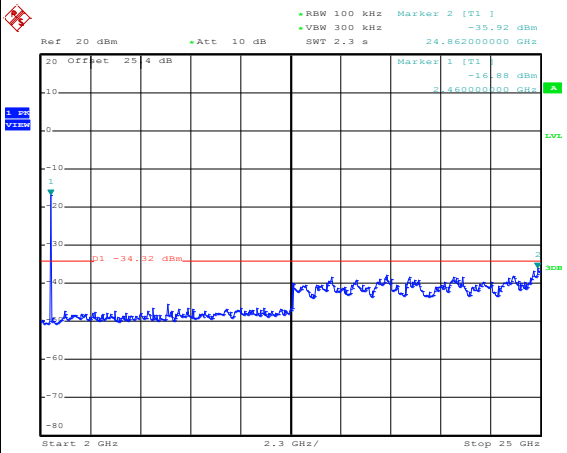
Date: 20.NOV.2018 01:12:11

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:12:45

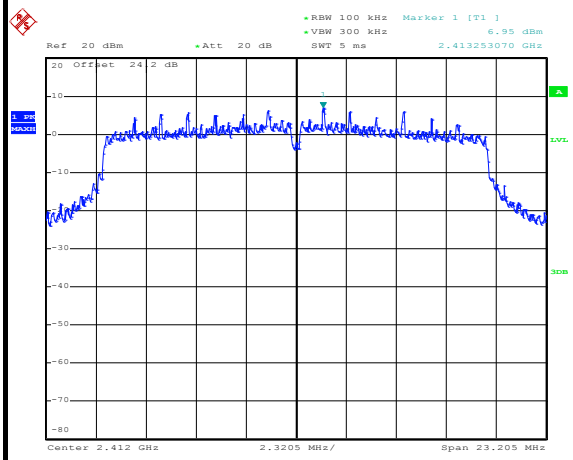
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 01:13:00

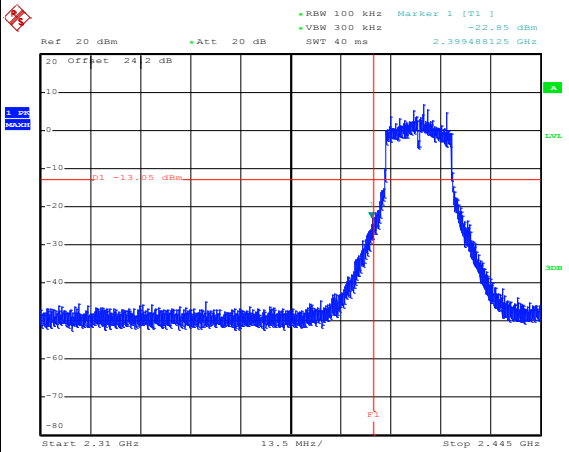
Test Mode :	802.11n HT20	Test Channel :	01

100kHz PSD reference Level



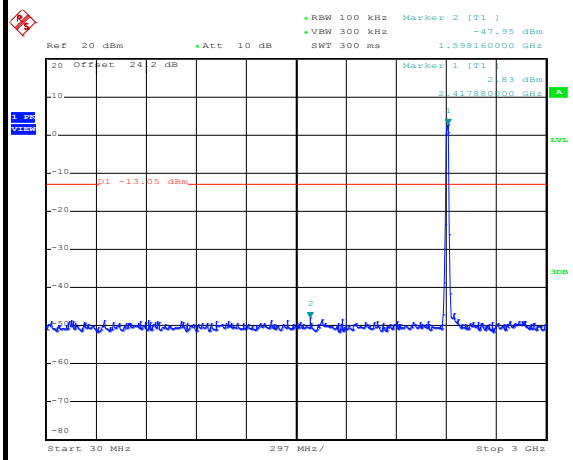
Date: 16.NOV.2018 00:09:11

Channel Plot



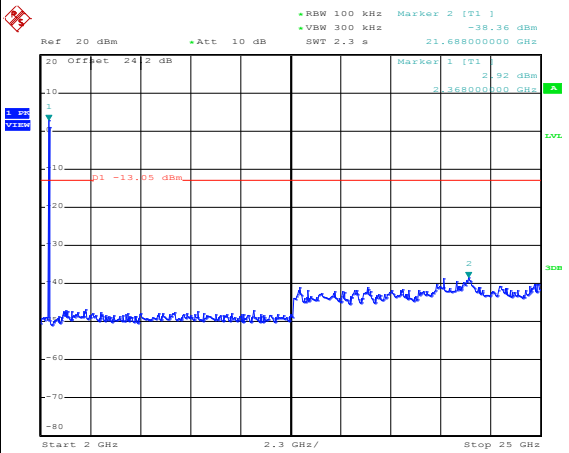
Date: 16.NOV.2018 00:09:43

Spurious Emission 30MHz~3GHz



Date: 16.NOV.2018 00:10:18

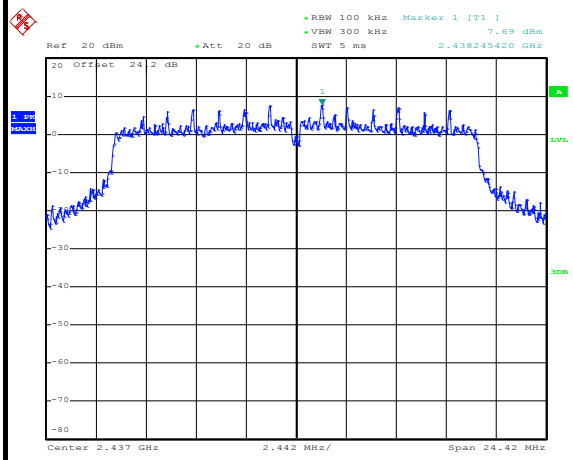
Spurious Emission 2GHz~25GHz



Date: 16.NOV.2018 00:10:39

Test Mode :	802.11n HT20	Test Channel :	06

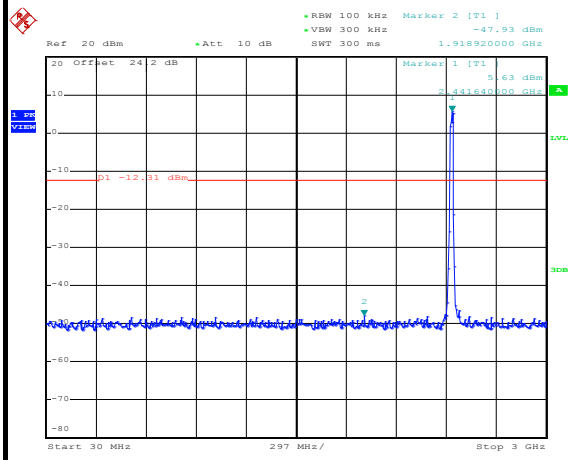
100kHz PSD reference Level



Date: 16.NOV.2018 00:27:23

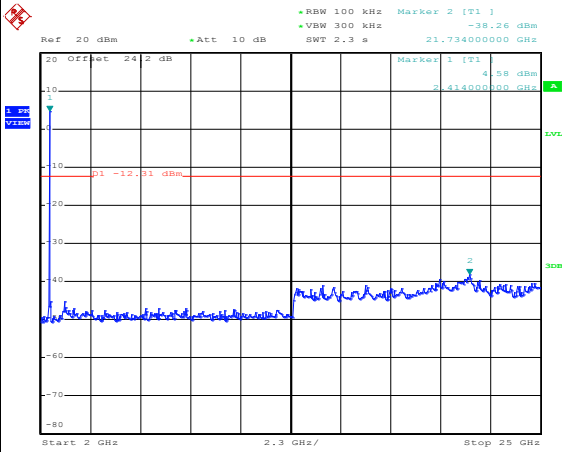
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 16.NOV.2018 00:28:23

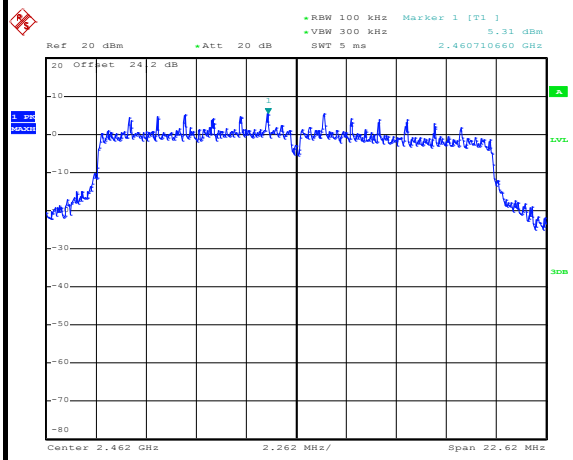
Spurious Emission 2GHz~25GHz



Date: 16.NOV.2018 00:28:51

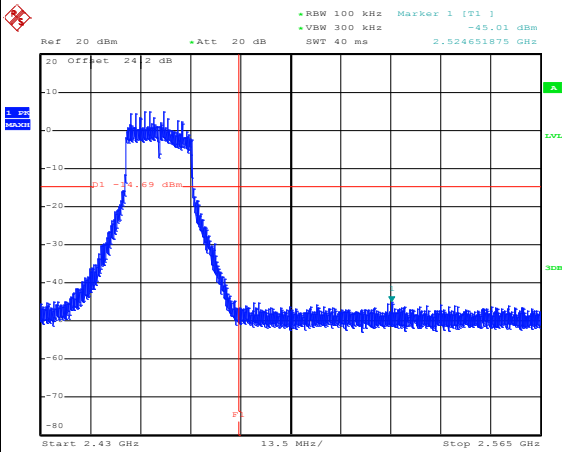
Test Mode :	802.11n HT20	Test Channel :	11

100kHz PSD reference Level



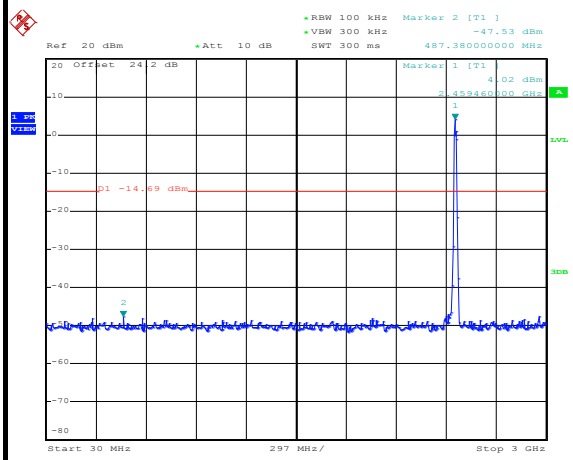
Date: 16.NOV.2018 00:34:54

Channel Plot



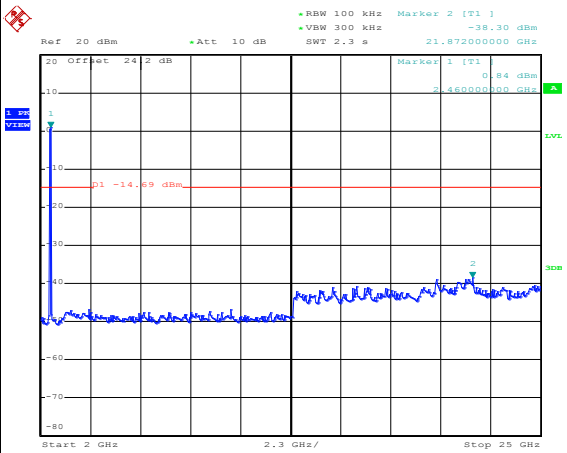
Date: 16.NOV.2018 00:35:09

Spurious Emission 30MHz~3GHz



Date: 16.NOV.2018 00:35:29

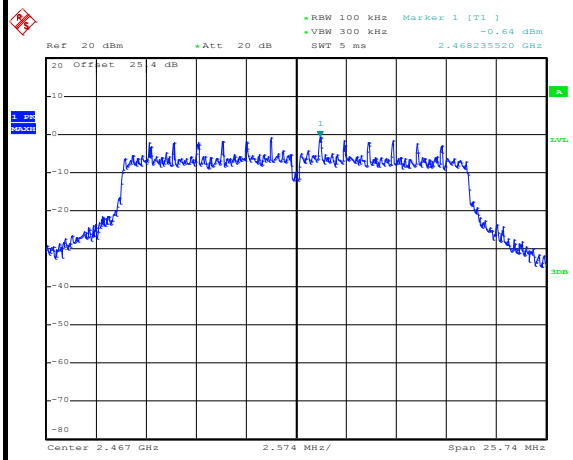
Spurious Emission 2GHz~25GHz



Date: 16.NOV.2018 00:35:48

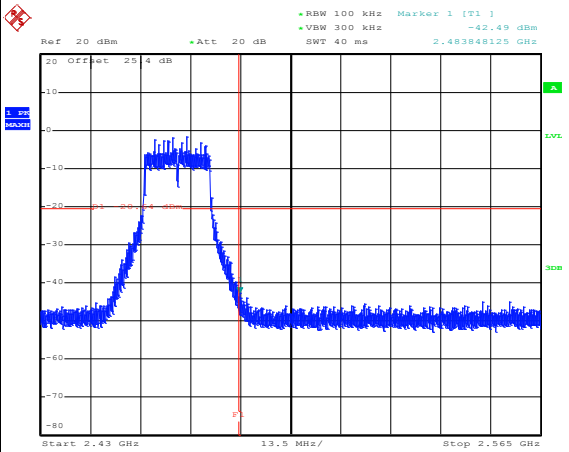
Test Mode :	802.11n HT20	Test Channel :	12

100kHz PSD reference Level



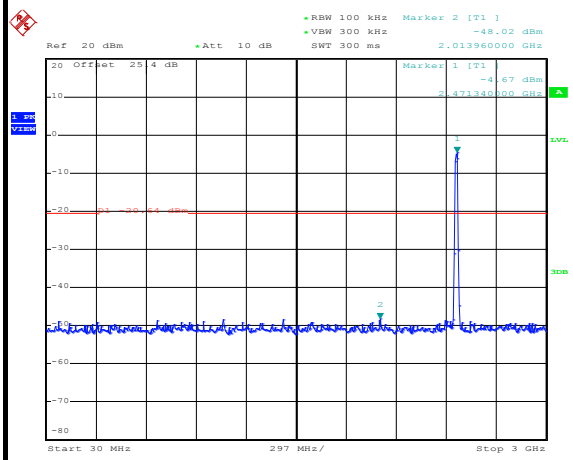
Date: 20.NOV.2018 01:21:08

Channel Plot



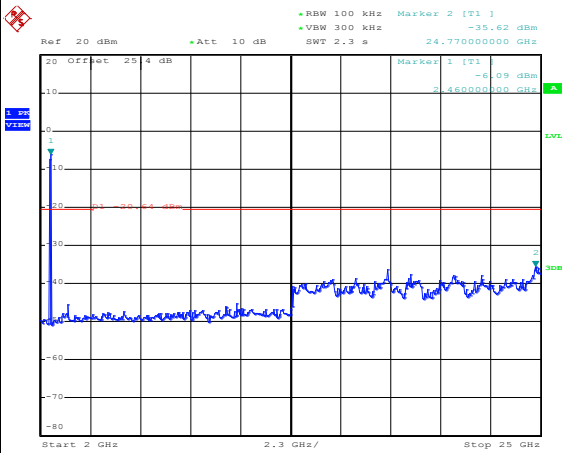
Date: 20.NOV.2018 01:21:27

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:21:59

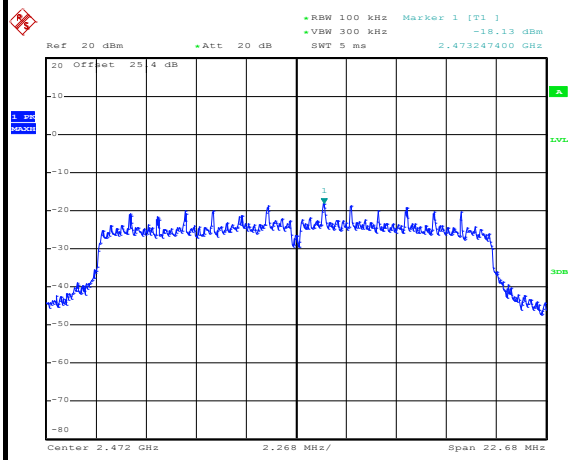
Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 01:22:14

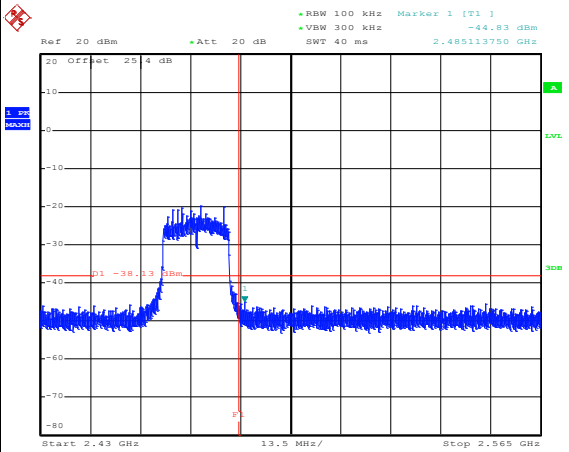
Test Mode :	802.11n HT20	Test Channel :	13

100kHz PSD reference Level



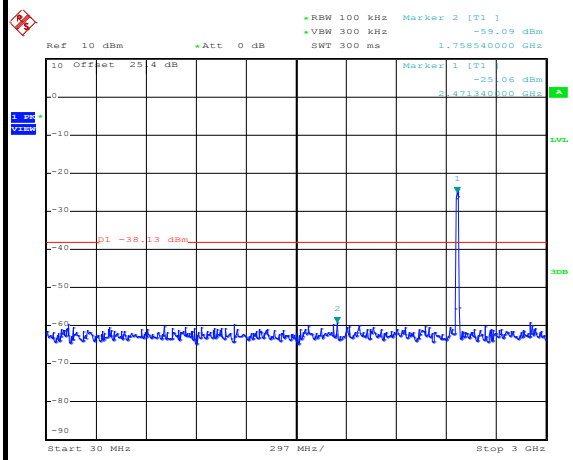
Date: 20.NOV.2018 01:31:06

Channel Plot



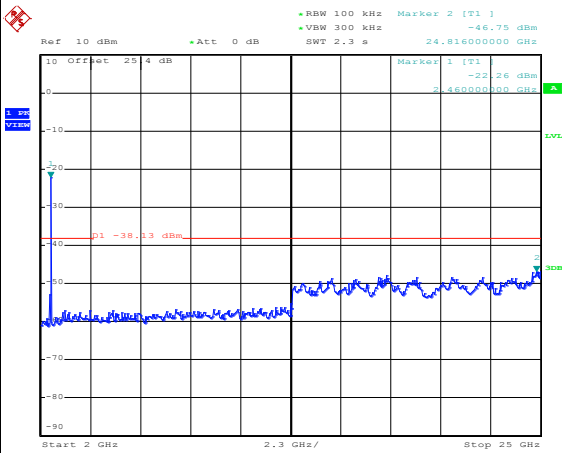
Date: 20.NOV.2018 01:31:56

Spurious Emission 30MHz~3GHz



Date: 20.NOV.2018 01:35:58

Spurious Emission 2GHz~25GHz



Date: 20.NOV.2018 01:36:27

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

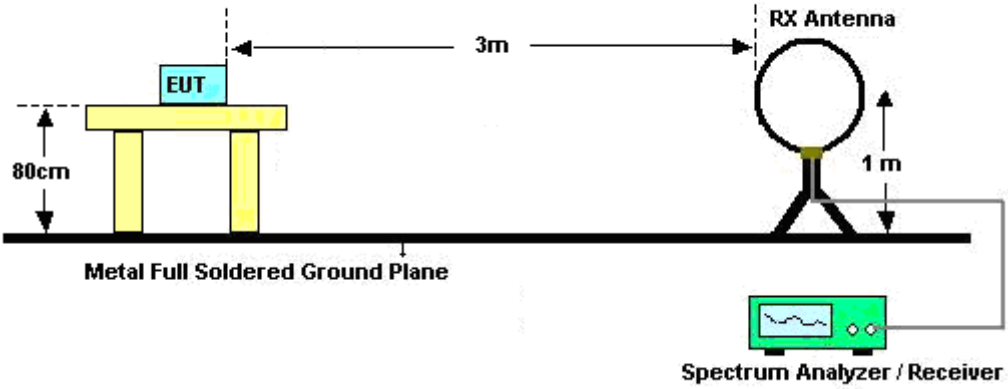
See list of measuring equipment of this test report.

3.5.3 Test Procedures

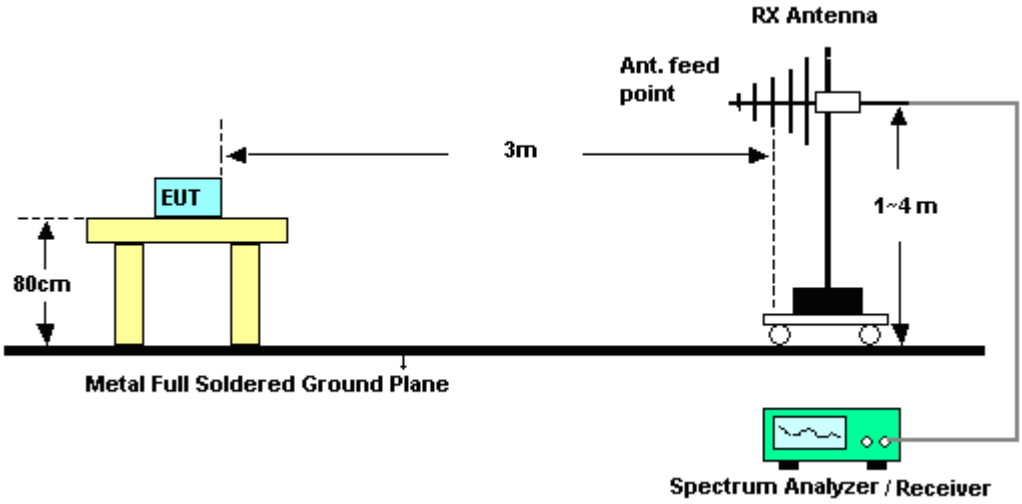
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test 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 ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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

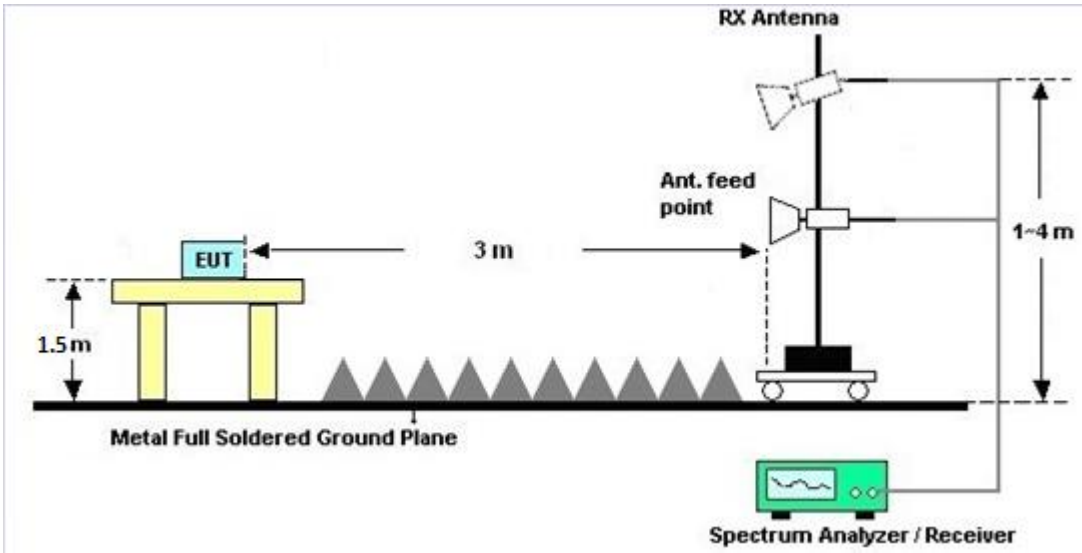
For radiated emissions below 30MHz



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 semi-Anechoic chamber, 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 (dBμV)	
	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.

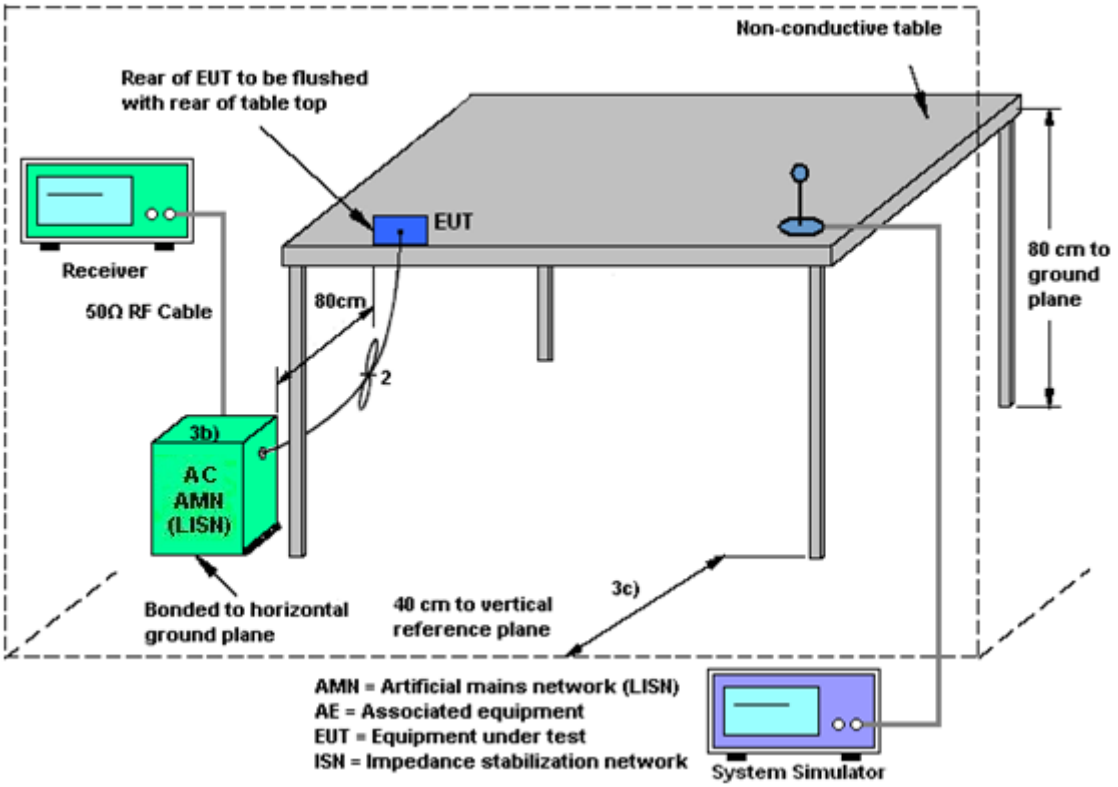
3.6.2 Measuring Instruments

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

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain “DG” is calculated as following table.

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	-0.50	0.10	0.10	2.82	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 28, 2018	Oct. 04, 2018~ Nov. 20, 2018	Sep. 27, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 28, 2018	Oct. 04, 2018~ Nov. 20, 2018	Sep. 27, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 22, 2017	Oct. 04, 2018~ Nov. 20, 2018	Nov. 21, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV 30	100895	9kHz~30GHz	Apr. 20, 2018	Oct. 04, 2018~ Nov. 20, 2018	Apr. 19, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Oct. 04, 2018~ Nov. 20, 2018	Feb. 28, 2019	Conducted (TH05-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 06, 2018	Oct. 04, 2018~ Nov. 20, 2018	Mar. 05, 2019	Conducted (TH05-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY84209521	1GHz~26GHz	Dec. 01, 2017	Oct. 04, 2018~ Nov. 20, 2018	Nov. 30, 2018	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 04, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Dec. 04, 2018	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Dec. 04, 2018	Nov. 13, 2019	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Dec. 04, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Test Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Dec. 04, 2018	N/A	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Dec. 04, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 06, 2018	Dec. 04, 2018	Mar. 05, 2019	Conduction (CO05-HY)
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	Mar. 29, 2018	Nov. 30, 2018~ Dec. 17, 2018	Mar. 28, 2019	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	37059&01	30MHz~1GHz	Oct. 13, 2018	Nov. 30, 2018~ Dec. 17, 2018	Oct. 12, 2019	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 19, 2018	Nov. 30, 2018~ Dec. 17, 2018	Oct. 18, 2019	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	May 08, 2018	Nov. 30, 2018~ Dec. 17, 2018	May 07, 2019	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 25, 2017	Nov. 30, 2018~ Dec. 17, 2018	Dec. 24, 2018	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 15, 2018	Nov. 30, 2018~ Dec. 17, 2018	Mar. 14, 2019	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 26, 2018	Nov. 30, 2018~ Dec. 17, 2018	Mar. 25, 2019	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 15, 2018	Nov. 30, 2018~ Dec. 17, 2018	Jan. 14, 2019	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-303K	1710001800054002	1GHz~18GHz	Apr. 17, 2018	Nov. 30, 2018~ Dec. 17, 2018	Apr. 16, 2019	Radiation (03CH12-HY)
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	Aug. 24, 2018	Nov. 30, 2018~ Dec. 17, 2018	Aug. 23, 2019	Radiation (03CH12-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303B	TP161243	N/A	May 12, 2018	Nov. 30, 2018~ Dec. 17, 2018	May 11, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 14, 2018	Nov. 30, 2018~ Dec. 17, 2018	Mar. 13, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Oct. 16, 2018	Nov. 30, 2018~ Dec. 17, 2018	Oct. 15, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Oct. 16, 2018	Nov. 30, 2018~ Dec. 17, 2018	Oct. 15, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass	Mar. 21, 2018	Nov. 30, 2018~ Dec. 17, 2018	Mar. 20, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN2	3GHz High Pass	Mar. 21, 2018	Nov. 30, 2018~ Dec. 17, 2018	Mar. 20, 2019	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Nov. 30, 2018~ Dec. 17, 2018	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Nov. 30, 2018~ Dec. 17, 2018	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Nov. 30, 2018~ Dec. 17, 2018	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Nov. 30, 2018~ Dec. 17, 2018	N/A	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

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))	5.10

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.70

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Kai Liao / Luffy Lin / Allen Lin	Temperature:	21~25	°C
Test Date:	2018/10/4 ~ 2018/11/20	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 2	Ant 1	Ant 2		
11b	1Mbps	2	1	2412	14.00	13.95	8.06	8.08	0.50	Pass
11b	1Mbps	2	6	2437	14.05	13.85	8.08	8.08	0.50	Pass
11b	1Mbps	2	11	2462	13.75	13.75	8.08	8.08	0.50	Pass
11b	1Mbps	2	12	2467	13.65	14.05	8.52	9.00	0.50	Pass
11b	1Mbps	2	13	2472	13.95	13.85	9.00	8.08	0.50	Pass
11g	6Mbps	2	1	2412	16.95	16.65	15.34	15.16	0.50	Pass
11g	6Mbps	2	6	2437	16.90	16.75	15.72	15.42	0.50	Pass
11g	6Mbps	2	11	2462	16.65	16.75	15.14	15.70	0.50	Pass
11g	6Mbps	2	12	2467	16.55	16.70	15.44	16.00	0.50	Pass
11g	6Mbps	2	13	2472	16.80	16.80	15.72	15.28	0.50	Pass
HT20	MCS0	2	1	2412	18.05	17.80	15.64	15.47	0.50	Pass
HT20	MCS0	2	6	2437	18.15	17.95	16.00	16.28	0.50	Pass
HT20	MCS0	2	11	2462	17.80	17.95	15.10	15.08	0.50	Pass
HT20	MCS0	2	12	2467	17.75	17.95	15.90	17.16	0.50	Pass
HT20	MCS0	2	13	2472	18.15	18.30	16.34	15.48	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 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	20.01	19.37	-	30.00	30.00	-0.50	0.10	19.51	19.47	36.00	36.00	Pass
11b	1Mbps	1	6	2437	20.16	19.28	-	30.00	30.00	-0.50	0.10	19.66	19.38	36.00	36.00	Pass
11b	1Mbps	1	11	2462	20.20	19.81	-	30.00	30.00	-0.50	0.10	19.70	19.91	36.00	36.00	Pass
11b	1Mbps	1	12	2467	19.48	18.88	-	30.00	30.00	-0.50	0.10	18.98	18.98	36.00	36.00	Pass
11b	1Mbps	1	13	2472	14.87	14.45	-	30.00	30.00	-0.50	0.10	14.37	14.55	36.00	36.00	Pass
11g	6Mbps	1	1	2412	22.18	21.36	-	30.00	30.00	-0.50	0.10	21.68	21.46	36.00	36.00	Pass
11g	6Mbps	1	6	2437	22.10	21.75	-	30.00	30.00	-0.50	0.10	21.60	21.85	36.00	36.00	Pass
11g	6Mbps	1	11	2462	21.60	21.06	-	30.00	30.00	-0.50	0.10	21.10	21.16	36.00	36.00	Pass
11g	6Mbps	1	12	2467	15.11	14.11	-	30.00	30.00	-0.50	0.10	14.61	14.21	36.00	36.00	Pass
11g	6Mbps	1	13	2472	3.00	1.10	-	30.00	30.00	-0.50	0.10	2.50	1.20	36.00	36.00	Pass
HT20	MCS0	1	1	2412	21.87	21.48	-	30.00	30.00	-0.50	0.10	21.37	21.58	36.00	36.00	Pass
HT20	MCS0	1	6	2437	22.17	21.84	-	30.00	30.00	-0.50	0.10	21.67	21.94	36.00	36.00	Pass
HT20	MCS0	1	11	2462	20.90	20.22	-	30.00	30.00	-0.50	0.10	20.40	20.32	36.00	36.00	Pass
HT20	MCS0	1	12	2467	15.01	13.97	-	30.00	30.00	-0.50	0.10	14.51	14.07	36.00	36.00	Pass
HT20	MCS0	1	13	2472	-1.03	-2.91	-	30.00	30.00	-0.50	0.10	-1.53	-2.81	36.00	36.00	Pass
11b	1Mbps	2	1	2412	20.81	19.54	23.23	30.00		0.10		23.33		36.00		Pass
11b	1Mbps	2	6	2437	20.18	19.82	23.01	30.00		0.10		23.11		36.00		Pass
11b	1Mbps	2	11	2462	20.33	20.15	23.25	30.00		0.10		23.35		36.00		Pass
11b	1Mbps	2	12	2467	19.52	19.11	22.33	30.00		0.10		22.43		36.00		Pass
11b	1Mbps	2	13	2472	15.01	14.87	17.95	30.00		0.10		18.05		36.00		Pass
11g	6Mbps	2	1	2412	22.36	21.77	25.09	30.00		0.10		25.19		36.00		Pass
11g	6Mbps	2	6	2437	22.14	22.23	25.20	30.00		0.10		25.30		36.00		Pass
11g	6Mbps	2	11	2462	21.79	21.26	24.54	30.00		0.10		24.64		36.00		Pass
11g	6Mbps	2	12	2467	15.35	14.42	17.92	30.00		0.10		18.02		36.00		Pass
11g	6Mbps	2	13	2472	3.01	1.11	5.17	30.00		0.10		5.27		36.00		Pass
HT20	MCS0	2	1	2412	22.06	21.53	24.81	30.00		0.10		24.91		36.00		Pass
HT20	MCS0	2	6	2437	22.20	22.26	25.24	30.00		0.10		25.34		36.00		Pass
HT20	MCS0	2	11	2462	21.12	20.44	23.80	30.00		0.10		23.90		36.00		Pass
HT20	MCS0	2	12	2467	15.03	14.01	17.56	30.00		0.10		17.66		36.00		Pass
HT20	MCS0	2	13	2472	-1.02	-2.90	1.15	30.00		0.10		1.25		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 2	Ant 1	Ant 2	SUM
11b	1Mbps	1	1	2412	0.03	0.04	17.69	17.01	-
11b	1Mbps	1	6	2437	0.03	0.04	18.00	16.92	
11b	1Mbps	1	11	2462	0.03	0.04	17.93	17.50	
11b	1Mbps	1	12	2467	0.03	0.04	17.02	16.33	
11b	1Mbps	1	13	2472	0.03	0.04	12.62	12.02	
11g	6Mbps	1	1	2412	0.07	0.10	17.87	16.88	
11g	6Mbps	1	6	2437	0.07	0.10	17.85	17.20	
11g	6Mbps	1	11	2462	0.07	0.10	16.82	16.48	
11g	6Mbps	1	12	2467	0.07	0.10	10.26	9.62	
11g	6Mbps	1	13	2472	0.07	0.10	-1.87	-4.15	
HT20	MCS0	1	1	2412	0.07	0.09	17.43	16.59	
HT20	MCS0	1	6	2437	0.07	0.09	17.64	17.06	
HT20	MCS0	1	11	2462	0.07	0.09	15.72	15.40	
HT20	MCS0	1	12	2467	0.07	0.09	9.92	9.39	
HT20	MCS0	1	13	2472	0.07	0.09	-6.01	-8.42	
11b	1Mbps	2	1	2412	0.05	0.05	18.00	17.96	20.99
11b	1Mbps	2	6	2437	0.05	0.05	17.98	17.48	20.75
11b	1Mbps	2	11	2462	0.05	0.05	17.95	17.96	20.97
11b	1Mbps	2	12	2467	0.05	0.05	17.17	16.58	19.90
11b	1Mbps	2	13	2472	0.05	0.05	12.73	12.36	15.56
11g	6Mbps	2	1	2412	0.07	0.10	17.97	17.53	20.77
11g	6Mbps	2	6	2437	0.07	0.10	17.88	17.59	20.75
11g	6Mbps	2	11	2462	0.07	0.10	16.99	16.68	19.85
11g	6Mbps	2	12	2467	0.07	0.10	10.50	10.05	13.29
11g	6Mbps	2	13	2472	0.07	0.10	-1.86	-4.14	0.16
HT20	MCS0	2	1	2412	0.09	0.07	17.73	16.61	20.22
HT20	MCS0	2	6	2437	0.09	0.07	17.73	17.55	20.65
HT20	MCS0	2	11	2462	0.09	0.07	15.99	15.56	18.79
HT20	MCS0	2	12	2467	0.09	0.07	9.94	9.41	12.69
HT20	MCS0	2	13	2472	0.09	0.07	-6.00	-8.41	-4.03

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 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	2	1	2412	-6.35	-8.64	-3.34	2.82		8.00		Pass
11b	1Mbps	2	6	2437	-8.06	-7.44	-4.43	2.82		8.00		Pass
11b	1Mbps	2	11	2462	-7.17	-7.52	-4.16	2.82		8.00		Pass
11b	1Mbps	2	12	2467	-8.72	-9.52	-5.71	2.82		8.00		Pass
11b	1Mbps	2	13	2472	-12.83	-13.27	-9.82	2.82		8.00		Pass
11g	6Mbps	2	1	2412	-8.57	-9.56	-5.56	2.82		8.00		Pass
11g	6Mbps	2	6	2437	-9.91	-9.39	-6.38	2.82		8.00		Pass
11g	6Mbps	2	11	2462	-9.98	-9.67	-6.66	2.82		8.00		Pass
11g	6Mbps	2	12	2467	-16.19	-16.83	-13.18	2.82		8.00		Pass
11g	6Mbps	2	13	2472	-28.82	-31.68	-25.81	2.82		8.00		Pass
HT20	MCS0	2	1	2412	-8.36	-9.63	-5.35	2.82		8.00		Pass
HT20	MCS0	2	6	2437	-9.04	-7.55	-4.54	2.82		8.00		Pass
HT20	MCS0	2	11	2462	-9.38	-8.96	-5.95	2.82		8.00		Pass
HT20	MCS0	2	12	2467	-16.60	-17.29	-13.59	2.82		8.00		Pass
HT20	MCS0	2	13	2472	-31.98	-33.99	-28.97	2.82		8.00		Pass

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

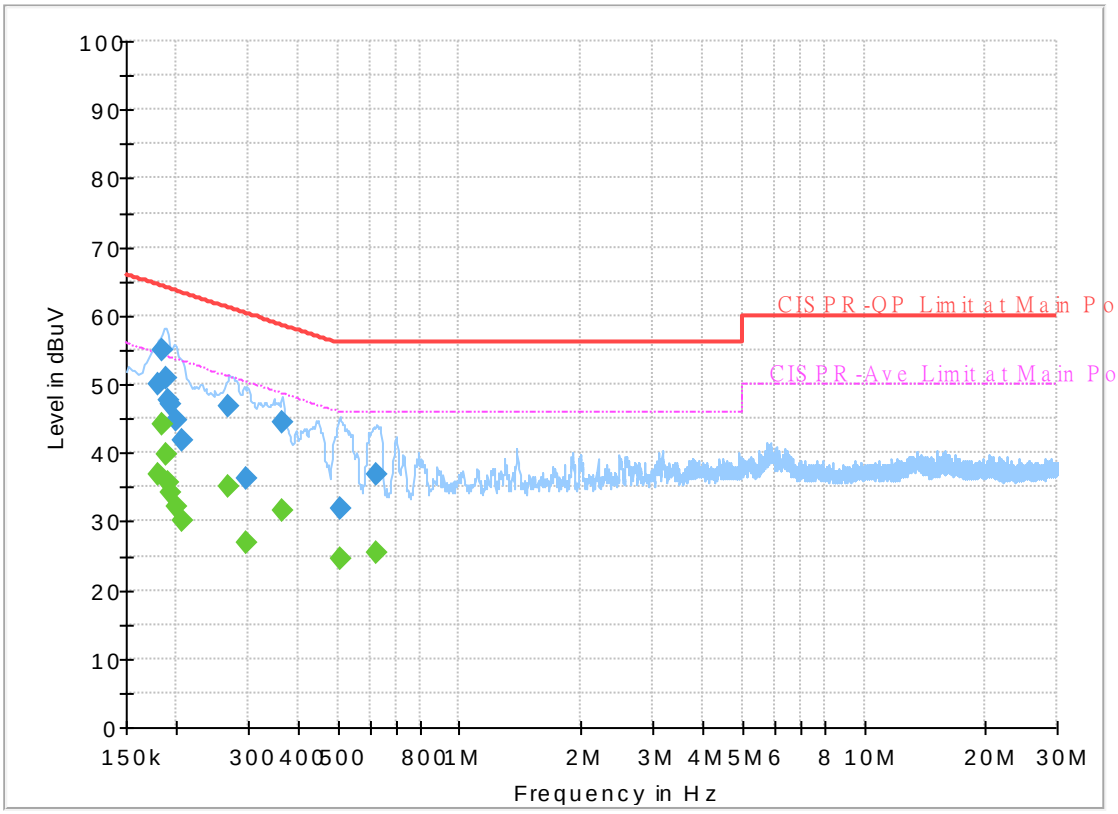
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Rick Lin	**Temperature :**	23~25℃
		Relative Humidity :	55~58%

EUT Information

Report NO :	891147-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



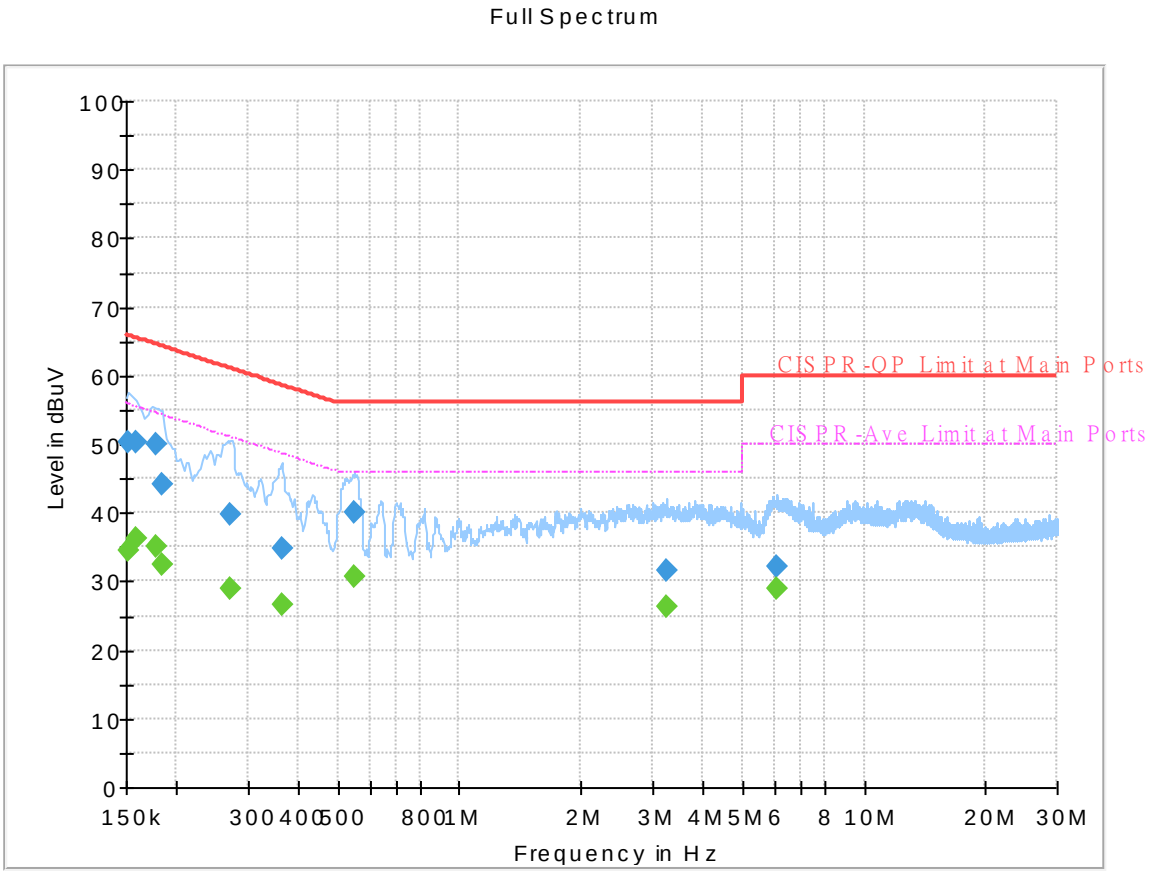
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.179250	---	36.74	54.52	17.78	L1	OFF	19.5
0.179250	50.00	---	64.52	14.52	L1	OFF	19.5
0.183750	---	44.13	54.31	10.18	L1	OFF	19.5
0.183750	54.91	---	64.31	9.40	L1	OFF	19.5
0.188250	---	39.81	54.11	14.30	L1	OFF	19.5
0.188250	50.80	---	64.11	13.31	L1	OFF	19.5
0.190500	---	35.65	54.02	18.37	L1	OFF	19.5
0.190500	47.55	---	64.02	16.47	L1	OFF	19.5
0.192750	---	34.32	53.92	19.60	L1	OFF	19.5
0.192750	47.02	---	63.92	16.90	L1	OFF	19.5
0.199500	---	32.11	53.63	21.52	L1	OFF	19.5
0.199500	44.62	---	63.63	19.01	L1	OFF	19.5
0.206250	---	30.07	53.36	23.29	L1	OFF	19.5
0.206250	41.83	---	63.36	21.53	L1	OFF	19.5
0.269250	---	35.23	51.14	15.91	L1	OFF	19.5
0.269250	46.79	---	61.14	14.35	L1	OFF	19.5
0.298500	---	26.79	50.28	23.49	L1	OFF	19.5
0.298500	36.36	---	60.28	23.92	L1	OFF	19.5
0.363750	---	31.71	48.64	16.93	L1	OFF	19.5
0.363750	44.56	---	58.64	14.08	L1	OFF	19.5
0.505500	---	24.63	46.00	21.37	L1	OFF	19.5

0.505500	**31.94**	**---**	**56.00**	**24.06**	**L1**	**OFF**	**19.5**
0.624750	**---**	**25.49**	**46.00**	**20.51**	**L1**	**OFF**	**19.6**
0.624750	**36.91**	**---**	**56.00**	**19.09**	**L1**	**OFF**	**19.6**

EUT Information

Report NO :	891147-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	34.47	55.88	21.41	N	OFF	19.5
0.152250	50.43	---	65.88	15.45	N	OFF	19.5
0.159000	---	36.20	55.52	19.32	N	OFF	19.5
0.159000	50.42	---	65.52	15.10	N	OFF	19.5
0.177000	---	35.19	54.63	19.44	N	OFF	19.5
0.177000	49.90	---	64.63	14.73	N	OFF	19.5
0.183750	---	32.36	54.31	21.95	N	OFF	19.5
0.183750	44.23	---	64.31	20.08	N	OFF	19.5
0.271500	---	28.85	51.07	22.22	N	OFF	19.5
0.271500	39.82	---	61.07	21.25	N	OFF	19.5
0.363750	---	26.54	48.64	22.10	N	OFF	19.5
0.363750	34.76	---	58.64	23.88	N	OFF	19.5
0.550500	---	30.81	46.00	15.19	N	OFF	19.5
0.550500	40.17	---	56.00	15.83	N	OFF	19.5
3.259500	---	26.46	46.00	19.54	N	OFF	19.6
3.259500	31.69	---	56.00	24.31	N	OFF	19.6
6.065250	---	28.81	50.00	21.19	N	OFF	19.8
6.065250	32.20	---	60.00	27.80	N	OFF	19.8

Appendix C. Radiated Spurious Emission

Test Engineer :	Jack Cheng, Lance Chiang, and Peter Liao	Temperature :	22~24°C
		Relative Humidity :	52~60%

<For Sample 1>

<Adapter 1>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2387.385	57.04	-16.96	74	44.41	27.53	16.68	31.58	355	51	P	H
		2387.28	45.08	-8.92	54	32.45	27.53	16.68	31.58	355	51	A	H
	*	2412	109.64	-	-	97.01	27.48	16.72	31.57	355	51	P	H
	*	2412	104.83	-	-	92.2	27.48	16.72	31.57	355	51	A	H
													H
													H
		2386.86	57.88	-16.12	74	45.25	27.53	16.68	31.58	108	65	P	V
		2387.385	46.34	-7.66	54	33.71	27.53	16.68	31.58	108	65	A	V
	*	2412	112.43	-	-	99.8	27.48	16.72	31.57	108	65	P	V
	*	2412	107.87	-	-	95.24	27.48	16.72	31.57	108	65	A	V
													V
													V

802.11b CH 06 2437MHz		2359.84	57.23	-16.77	74	44.59	27.58	16.64	31.58	351	47	P	H
		2388.96	44.21	-9.79	54	31.59	27.52	16.68	31.58	351	47	A	H
	*	2437	108.63	-	-	96.02	27.43	16.75	31.57	351	47	P	H
	*	2437	104.36	-	-	91.75	27.43	16.75	31.57	351	47	A	H
		2484.18	56.7	-17.3	74	44.11	27.33	16.82	31.56	351	47	P	H
		2485.3	43.95	-10.05	54	31.36	27.33	16.82	31.56	351	47	A	H
		2386.02	57.6	-16.4	74	44.97	27.53	16.68	31.58	102	65	P	V
		2389.24	44.52	-9.48	54	31.9	27.52	16.68	31.58	102	65	A	V
	*	2437	111.24	-	-	98.63	27.43	16.75	31.57	102	65	P	V
	*	2437	106.51	-	-	93.9	27.43	16.75	31.57	102	65	A	V
		2489.43	56.94	-17.06	74	44.35	27.32	16.83	31.56	102	65	P	V
		2483.83	44.1	-9.9	54	31.51	27.33	16.82	31.56	102	65	A	V
802.11b CH 11 2462MHz	*	2462	110.58	-	-	97.97	27.38	16.79	31.56	390	46	P	H
	*	2462	105.83	-	-	93.22	27.38	16.79	31.56	390	46	A	H
		2494.16	56.69	-17.31	74	44.09	27.31	16.84	31.55	390	46	P	H
		2484.64	44.35	-9.65	54	31.76	27.33	16.82	31.56	390	46	A	H
													H
													H
	*	2462	107.53	-	-	94.92	27.38	16.79	31.56	107	65	P	V
	*	2462	103.71	-	-	91.1	27.38	16.79	31.56	107	65	A	V
		2492.44	57.02	-16.98	74	44.42	27.32	16.83	31.55	107	65	P	V
		2484.68	44.49	-9.51	54	31.9	27.33	16.82	31.56	107	65	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1+2	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 12 2467MHz	*	2467	106.21	-	-	93.6	27.37	16.8	31.56	389	46	P	H
	*	2467	102.3	-	-	89.69	27.37	16.8	31.56	389	46	A	H
		2483.96	58.72	-15.28	74	46.13	27.33	16.82	31.56	389	46	P	H
		2484.16	48.49	-5.51	54	35.9	27.33	16.82	31.56	389	46	A	H
													H
													H
	*	2467	110.44	-	-	97.83	27.37	16.8	31.56	108	102	P	V
	*	2467	106.27	-	-	93.66	27.37	16.8	31.56	108	102	A	V
		2483.76	59.19	-14.81	74	46.6	27.33	16.82	31.56	108	102	P	V
		2483.92	49.25	-4.75	54	36.66	27.33	16.82	31.56	108	102	A	V
													V
													V
802.11b CH 13 2472MHz	*	2472	103.37	-	-	90.77	27.36	16.8	31.56	145	349	P	H
	*	2472	98.67	-	-	86.07	27.36	16.8	31.56	145	349	A	H
		2483.52	59.09	-14.91	74	46.5	27.33	16.82	31.56	145	349	P	H
		2483.52	48.7	-5.3	54	36.11	27.33	16.82	31.56	145	349	A	H
													H
													H
	*	2472	100.7	-	-	88.1	27.36	16.8	31.56	107	63	P	V
	*	2472	96.72	-	-	84.12	27.36	16.8	31.56	107	63	A	V
		2483.52	59.51	-14.49	74	46.92	27.33	16.82	31.56	107	63	P	V
		2483.52	49.34	-4.66	54	36.75	27.33	16.82	31.56	107	63	A	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		4824	44.41	-29.59	74	59.45	31.1	10.43	56.57	100	0	P	H
													H
													H
													H
		4824	43.41	-30.59	74	58.45	31.1	10.43	56.57	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	45.9	-28.1	74	60.88	31.1	10.47	56.55	100	0	P	H
		7311	44.65	-29.35	74	51.5	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	43.83	-30.17	74	58.81	31.1	10.47	56.55	100	0	P	V
		7311	44.91	-29.09	74	51.76	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	51.22	-22.78	74	66.06	31.2	10.49	56.53	311	338	P	H
		4924	47.28	-6.72	54	62.12	31.2	10.49	56.53	311	338	A	H
		7386	44.26	-29.74	74	51.33	36.36	12.71	56.14	100	0	P	H
													H
		4924	47.45	-26.55	74	62.29	31.2	10.49	56.53	100	0	P	V
		7386	44.59	-29.41	74	51.66	36.36	12.71	56.14	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1+2	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 12 2467MHz		4934	48.33	-25.67	74	63.12	31.24	10.5	56.53	100	0	P	H
		7401	43.77	-30.23	74	50.89	36.3	12.7	56.12	100	0	P	H
													H
													H
		4934	44.79	-29.21	74	59.58	31.24	10.5	56.53	100	0	P	V
		7401	44.37	-29.63	74	51.49	36.3	12.7	56.12	100	0	P	V
													V
													V
802.11b CH 13 2472MHz		4944	43.84	-30.16	74	58.58	31.28	10.5	56.52	100	0	P	H
		7416	45.85	-28.15	74	52.89	36.33	12.73	56.1	100	0	P	H
													H
													H
		4944	42.2	-31.8	74	56.94	31.28	10.5	56.52	100	0	P	V
		7416	44.88	-29.12	74	51.92	36.33	12.73	56.1	100	0	P	V
													V
													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 Ant. 1+2	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		2389.17	64.78	-9.22	74	52.16	27.52	16.68	31.58	152	62	P	H
		2389.59	50.26	-3.74	54	37.64	27.52	16.68	31.58	152	62	A	H
	*	2412	110.94	-	-	98.31	27.48	16.72	31.57	152	62	P	H
	*	2412	101.64	-	-	89.01	27.48	16.72	31.57	152	62	A	H
													H
													H
		2389.065	66.45	-7.55	74	53.83	27.52	16.68	31.58	110	65	P	V
		2389.695	52.28	-1.72	54	39.66	27.52	16.68	31.58	110	65	A	V
	*	2412	113.41	-	-	100.78	27.48	16.72	31.57	110	65	P	V
	*	2412	103.8	-	-	91.17	27.48	16.72	31.57	110	65	A	V
													V
													V
802.11g CH 06 2437MHz		2385.46	57.34	-16.66	74	44.71	27.53	16.68	31.58	100	35	P	H
		2389.94	45.57	-8.43	54	32.94	27.52	16.68	31.57	100	35	A	H
	*	2437	110.2	-	-	97.59	27.43	16.75	31.57	100	35	P	H
	*	2437	100.17	-	-	87.56	27.43	16.75	31.57	100	35	A	H
		2483.97	57.49	-16.51	74	44.9	27.33	16.82	31.56	100	35	P	H
		2483.5	45.17	-8.83	54	32.58	27.33	16.82	31.56	100	35	A	H
		2386.58	57.37	-16.63	74	44.74	27.53	16.68	31.58	100	66	P	V
		2388.82	46.08	-7.92	54	33.46	27.52	16.68	31.58	100	66	A	V
	*	2437	112.19	-	-	99.58	27.43	16.75	31.57	100	66	P	V
	*	2437	101.98	-	-	89.37	27.43	16.75	31.57	100	66	A	V
		2497.48	56.81	-17.19	74	44.21	27.31	16.84	31.55	100	66	P	V
		2483.69	45.27	-8.73	54	32.68	27.33	16.82	31.56	100	66	A	V

802.11g CH 11 2462MHz	*	2462	112.45	-	-	99.84	27.38	16.79	31.56	178	44	P	H
	*	2462	102.73	-	-	90.12	27.38	16.79	31.56	178	44	A	H
		2483.52	61.48	-12.52	74	48.89	27.33	16.82	31.56	178	44	P	H
		2483.52	50.59	-3.41	54	38	27.33	16.82	31.56	178	44	A	H
													H
													H
	*	2462	113.46	-	-	100.85	27.38	16.79	31.56	105	63	P	V
	*	2462	103.7	-	-	91.09	27.38	16.79	31.56	105	63	A	V
		2483.56	63.02	-10.98	74	50.43	27.33	16.82	31.56	105	63	P	V
		2483.52	50.79	-3.21	54	38.2	27.33	16.82	31.56	105	63	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1+2	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 12 2467MHz	*	2467	104.76	-	-	92.15	27.37	16.8	31.56	112	351	P	H
	*	2467	94.63	-	-	82.02	27.37	16.8	31.56	112	351	A	H
		2483.52	63.98	-10.02	74	51.39	27.33	16.82	31.56	112	351	P	H
		2483.52	51.38	-2.62	54	38.79	27.33	16.82	31.56	112	351	A	H
													H
													H
	*	2467	106.53	-	-	93.92	27.37	16.8	31.56	107	62	P	V
	*	2467	96.36	-	-	83.75	27.37	16.8	31.56	107	62	A	V
		2483.8	64.58	-9.42	74	51.99	27.33	16.82	31.56	107	62	P	V
		2483.64	51.28	-2.72	54	38.69	27.33	16.82	31.56	107	62	A	V
													V
													V
802.11g CH 13 2472MHz	*	2472	91.58	-	-	78.98	27.36	16.8	31.56	115	1	P	H
	*	2472	81.3	-	-	68.7	27.36	16.8	31.56	115	1	A	H
		2483.52	62.64	-11.36	74	50.05	27.33	16.82	31.56	115	1	P	H
		2483.6	50.97	-3.03	54	38.38	27.33	16.82	31.56	115	1	A	H
													H
													H
	*	2472	92.32	-	-	79.72	27.36	16.8	31.56	107	113	P	V
	*	2472	82.81	-	-	70.21	27.36	16.8	31.56	107	113	A	V
		2483.52	64.53	-9.47	74	51.94	27.33	16.82	31.56	107	113	P	V
		2483.6	52.41	-1.59	54	39.82	27.33	16.82	31.56	107	113	A	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		4824	43.2	-30.8	74	58.24	31.1	10.43	56.57	100	0	P	H
													H
													H
													H
		4824	40.08	-33.92	74	55.12	31.1	10.43	56.57	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	45.42	-28.58	74	60.4	31.1	10.47	56.55	100	0	P	H
		7311	45.43	-28.57	74	52.28	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	42.83	-31.17	74	57.81	31.1	10.47	56.55	100	0	P	V
		7311	45.05	-28.95	74	51.9	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	46.95	-27.05	74	61.79	31.2	10.49	56.53	100	0	P	H
		7386	45.25	-28.75	74	52.32	36.36	12.71	56.14	100	0	P	H
													H
													H
		4924	42.66	-31.34	74	57.5	31.2	10.49	56.53	100	0	P	V
		7386	46.37	-27.63	74	53.44	36.36	12.71	56.14	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11g CH 12 2467MHz		4934	39.65	-34.35	74	54.44	31.24	10.5	56.53	100	0	P	H
		7401	44.98	-29.02	74	52.1	36.3	12.7	56.12	100	0	P	H
													H
													H
		4934	39.4	-34.6	74	54.19	31.24	10.5	56.53	100	0	P	V
		7401	44.38	-29.62	74	51.5	36.3	12.7	56.12	100	0	P	V
													V
													V
802.11g CH 13 2472MHz		4944	39.16	-34.84	74	53.9	31.28	10.5	56.52	100	0	P	H
		7416	44.12	-29.88	74	51.16	36.33	12.73	56.1	100	0	P	H
													H
													H
		4944	39.48	-34.52	74	54.22	31.28	10.5	56.52	100	0	P	V
		7416	44.78	-29.22	74	51.82	36.33	12.73	56.1	100	0	P	V
													V
													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 Ant. 1+2	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		2389.485	65.54	-8.46	74	52.92	27.52	16.68	31.58	120	357	P	H
		2390	52.23	-1.77	54	39.59	27.52	16.69	31.57	120	357	P	H
	*	2412	110.69	-	-	98.06	27.48	16.72	31.57	120	357	P	H
	*	2412	100.35	-	-	87.72	27.48	16.72	31.57	120	357	A	H
													H
													H
		2389.8	66.87	-7.13	74	54.24	27.52	16.68	31.57	100	67	P	V
		2390	51.84	-2.16	54	39.2	27.52	16.69	31.57	100	67	P	V
	*	2412	111.87	-	-	99.24	27.48	16.72	31.57	100	67	P	V
	*	2412	101.08	-	-	88.45	27.48	16.72	31.57	100	67	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2366.14	56.7	-17.3	74	44.06	27.57	16.65	31.58	100	25	P	H
		2389.66	45.7	-8.3	54	33.08	27.52	16.68	31.58	100	25	A	H
	*	2437	111.16	-	-	98.55	27.43	16.75	31.57	100	25	P	H
	*	2437	101.24	-	-	88.63	27.43	16.75	31.57	100	25	A	H
		2484.6	56.65	-17.35	74	44.06	27.33	16.82	31.56	100	25	P	H
		2484.74	45.23	-8.77	54	32.64	27.33	16.82	31.56	100	25	A	H
		2359.56	57.53	-16.47	74	44.89	27.58	16.64	31.58	108	113	P	V
		2389.8	46.18	-7.82	54	33.55	27.52	16.68	31.57	108	113	A	V
	*	2437	112.49	-	-	99.88	27.43	16.75	31.57	108	113	P	V
	*	2437	102.37	-	-	89.76	27.43	16.75	31.57	108	113	A	V
		2495.73	56.8	-17.2	74	44.2	27.31	16.84	31.55	108	113	P	V
		2483.62	45.36	-8.64	54	32.77	27.33	16.82	31.56	108	113	A	V

	*	2462	110.02	-	-	97.41	27.38	16.79	31.56	178	62	P	H
	*	2462	99.52	-	-	86.91	27.38	16.79	31.56	178	62	A	H
		2484.16	62.28	-11.72	74	49.69	27.33	16.82	31.56	178	62	P	H
		2483.56	49.61	-4.39	54	37.02	27.33	16.82	31.56	178	62	A	H
802.11n													H
HT20													H
CH 11	*	2462	110.94	-	-	98.33	27.38	16.79	31.56	104	93	P	V
2462MHz	*	2462	101.13	-	-	88.52	27.38	16.79	31.56	104	93	A	V
		2483.68	62.76	-11.24	74	50.17	27.33	16.82	31.56	104	93	P	V
		2483.52	50.62	-3.38	54	38.03	27.33	16.82	31.56	104	93	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT20 CH 12 2467MHz	*	2467	103.51	-	-	90.9	27.37	16.8	31.56	343	46	P	H
	*	2467	93.69	-	-	81.08	27.37	16.8	31.56	343	46	A	H
		2483.76	62.69	-11.31	74	50.1	27.33	16.82	31.56	343	46	P	H
		2483.52	49.88	-4.12	54	37.29	27.33	16.82	31.56	343	46	A	H
													H
													H
	*	2467	104.7	-	-	92.09	27.37	16.8	31.56	110	67	P	V
	*	2467	94.48	-	-	81.87	27.37	16.8	31.56	110	67	A	V
		2483.52	64.05	-9.95	74	51.46	27.33	16.82	31.56	110	67	P	V
		2483.56	51.2	-2.8	54	38.61	27.33	16.82	31.56	110	67	A	V
													V
													V
802.11n HT20 CH 13 2472MHz	*	2472	88.25	-	-	75.65	27.36	16.8	31.56	154	54	P	H
	*	2472	78.09	-	-	65.49	27.36	16.8	31.56	154	54	A	H
		2483.68	62.66	-11.34	74	50.07	27.33	16.82	31.56	154	54	P	H
		2483.56	49.82	-4.18	54	37.23	27.33	16.82	31.56	154	54	A	H
													H
													H
	*	2472	88.96	-	-	76.36	27.36	16.8	31.56	106	113	P	V
	*	2472	78.87	-	-	66.27	27.36	16.8	31.56	106	113	A	V
		2483.56	62.97	-11.03	74	50.38	27.33	16.82	31.56	106	113	P	V
		2483.52	50.49	-3.51	54	37.9	27.33	16.82	31.56	106	113	A	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		4824	44.69	-29.31	74	59.73	31.1	10.43	56.57	100	0	P	H
													H
													H
													H
		4824	39.69	-34.31	74	54.73	31.1	10.43	56.57	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	46.72	-27.28	74	61.7	31.1	10.47	56.55	100	0	P	H
		7311	44.87	-29.13	74	51.72	36.58	12.8	56.23	100	0	P	H
													H
													H
		4874	40.94	-33.06	74	55.92	31.1	10.47	56.55	100	0	P	V
		7311	45.86	-28.14	74	52.71	36.58	12.8	56.23	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	47.17	-26.83	74	62.01	31.2	10.49	56.53	100	0	P	H
		7386	46.14	-27.86	74	53.21	36.36	12.71	56.14	100	0	P	H
													H
													H
		4924	42.28	-31.72	74	57.12	31.2	10.49	56.53	100	0	P	V
		7386	44.73	-29.27	74	51.8	36.36	12.71	56.14	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT20 CH 12 2467MHz		4934	39.09	-34.91	74	53.88	31.24	10.5	56.53	100	0	P	H
		7401	45.04	-28.96	74	52.16	36.3	12.7	56.12	100	0	P	H
													H
													H
		4934	39.38	-34.62	74	54.17	31.24	10.5	56.53	100	0	P	V
		7401	45.52	-28.48	74	52.64	36.3	12.7	56.12	100	0	P	V
													V
													V
802.11n HT20 CH 13 2472MHz		4944	39.94	-34.06	74	54.68	31.28	10.5	56.52	100	0	P	H
		7416	45.93	-28.07	74	52.97	36.33	12.73	56.1	100	0	P	H
													H
													H
		4944	39.1	-34.9	74	53.84	31.28	10.5	56.52	100	0	P	V
		7416	45.54	-28.46	74	52.58	36.33	12.73	56.1	100	0	P	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		30.81	24.73	-15.27	40	30.17	24.05	0.71	30.2	-	-	P	H
		155.01	28.89	-14.61	43.5	40.74	16.68	1.84	30.37	100	0	P	H
		227.1	27.09	-18.91	46	39.38	15.77	2.21	30.27	-	-	P	H
		332.2	27.08	-18.92	46	34.89	19.69	2.59	30.09	-	-	P	H
		664.7	29.83	-16.17	46	29.55	26.22	3.62	29.56	-	-	P	H
		984.6	36.3	-17.7	54	30.16	30.55	4.49	28.9	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.86	31.42	-8.58	40	38.94	21.97	0.77	30.26	100	0	P	V
		79.95	24.76	-15.24	40	40.73	13.2	1.28	30.45	-	-	P	V
		162.84	26.61	-16.89	43.5	38.91	16.15	1.91	30.36	-	-	P	V
		568.8	29.59	-16.41	46	30.02	25.89	3.36	29.68	-	-	P	V
		844.6	36.8	-9.2	46	33.27	28.67	4.08	29.22	-	-	P	V
		988.8	36.17	-17.83	54	30.1	30.46	4.49	28.88	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<For Sample 1>

<Adapter 2>

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1+2	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 13 2472MHz	*	2472	90.48	-	-	77.88	27.36	16.8	31.56	113	9	P	H
	*	2472	80.15	-	-	67.55	27.36	16.8	31.56	113	9	A	H
		2483.76	60.72	-13.28	74	48.13	27.33	16.82	31.56	113	9	P	H
		2483.52	49.66	-4.34	54	37.07	27.33	16.82	31.56	113	9	A	H
													H
													H
	*	2472	93.14	-	-	80.54	27.36	16.8	31.56	108	97	P	V
	*	2472	83.07	-	-	70.47	27.36	16.8	31.56	108	97	A	V
		2483.52	63.06	-10.94	74	50.47	27.33	16.82	31.56	108	97	P	V
		2483.52	50.73	-3.27	54	38.14	27.33	16.82	31.56	108	97	A	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 13 2472MHz		4944	38.68	-35.32	74	53.42	31.28	10.5	56.52	100	0	P	H
		7416	44.63	-29.37	74	51.67	36.33	12.73	56.1	100	0	P	H
													H
													H
		4944	38.94	-35.06	74	53.68	31.28	10.5	56.52	100	0	P	V
		7416	44.44	-29.56	74	51.48	36.33	12.73	56.1	100	0	P	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		105.6	23.48	-20.02	43.5	35.99	16.47	1.44	30.42	-	-	P	H
		154.47	25.47	-18.03	43.5	37.28	16.73	1.83	30.37	-	-	P	H
		185.79	26.21	-17.29	43.5	39.75	14.77	2.03	30.34	-	-	P	H
		832.7	33.35	-12.65	46	30.51	28.03	4.05	29.24	-	-	P	H
		894.3	35.15	-10.85	46	31.14	28.93	4.23	29.15	-	-	P	H
		953.1	35.74	-10.26	46	29.58	30.7	4.44	28.98	100	0	P	H
													H
													H
													H
													H
													H
													H
		30	31.43	-8.57	40	36.34	24.57	0.7	30.18	100	0	P	V
		107.49	31.3	-12.2	43.5	43.66	16.61	1.45	30.42	-	-	P	V
		161.76	29.46	-14.04	43.5	41.67	16.25	1.9	30.36	-	-	P	V
		718.6	34.18	-11.82	46	33.02	26.9	3.74	29.48	-	-	P	V
		857.2	34.27	-11.73	46	30.39	28.96	4.12	29.2	-	-	P	V
		959.4	36.35	-9.65	46	29.96	30.91	4.45	28.97	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<For Sample 2>

<Adapter 1>

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1+2	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 13 2472MHz	*	2472	88.72	-	-	76.12	27.36	16.8	31.56	164	39	P	H
	*	2472	78.15	-	-	65.55	27.36	16.8	31.56	164	39	A	H
		2483.68	62.55	-11.45	74	49.96	27.33	16.82	31.56	164	39	P	H
		2483.64	50.48	-3.52	54	37.89	27.33	16.82	31.56	164	39	A	H
													H
													H
	*	2472	91.59	-	-	78.99	27.36	16.8	31.56	100	338	P	V
	*	2472	80.47	-	-	67.87	27.36	16.8	31.56	100	338	A	V
		2483.6	64.1	-9.9	74	51.51	27.33	16.82	31.56	100	338	P	V
		2483.64	51.82	-2.18	54	39.23	27.33	16.82	31.56	100	338	A	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 13 2472MHz		4944	37.03	-36.97	74	51.77	31.28	10.5	56.52	100	0	P	H
		7416	43.21	-30.79	74	50.25	36.33	12.73	56.1	100	0	P	H
													H
													H
		4944	36.88	-37.12	74	51.62	31.28	10.5	56.52	100	0	P	V
		7416	43.02	-30.98	74	50.06	36.33	12.73	56.1	100	0	P	V
													V
													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 Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		35.94	26.79	-13.21	40	34.85	21.43	0.78	30.27	-	-	P	H
		109.11	24.6	-18.9	43.5	36.81	16.75	1.46	30.42	-	-	P	H
		166.62	28.44	-15.06	43.5	41.11	15.76	1.93	30.36	-	-	P	H
		837.6	33.25	-12.75	46	30.08	28.34	4.06	29.23	-	-	P	H
		895	36.48	-9.52	46	32.47	28.92	4.24	29.15	100	0	P	H
		957.3	35.13	-10.87	46	28.82	30.84	4.44	28.97	-	-	P	H
													H
													H
													H
													H
													H
													H
		35.94	35.59	-4.41	40	43.65	21.43	0.78	30.27	100	0	P	V
		73.74	26.47	-13.53	40	43.06	12.65	1.21	30.45	-	-	P	V
		166.62	29.61	-13.89	43.5	42.28	15.76	1.93	30.36	-	-	P	V
		719.3	32.47	-13.53	46	31.27	26.94	3.74	29.48	-	-	P	V
		895	36.28	-9.72	46	32.27	28.92	4.24	29.15	-	-	P	V
		960.1	35.94	-18.06	54	29.5	30.95	4.45	28.96	-	-	P	V
													V
													V
													V
													V
													V
													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	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		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 :	Jack Cheng, Lance Chiang, and Peter Liao	**Temperature :**	22~24°C
		Relative Humidity :	52~60%

Note symbol

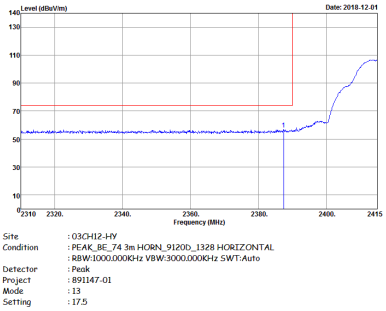
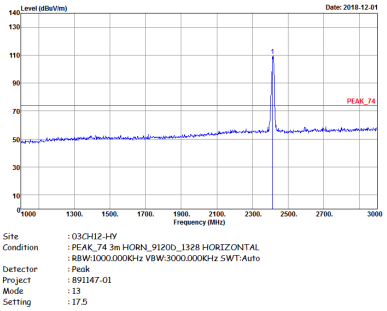
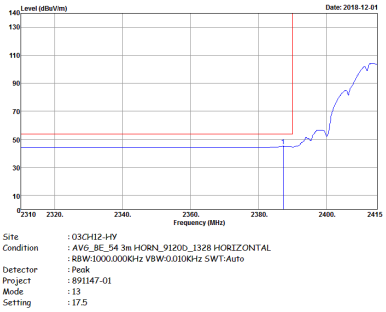
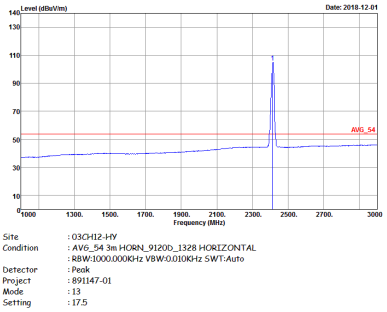
-L	**Low channel location**
-R	**High channel location**

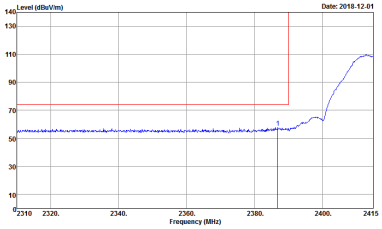
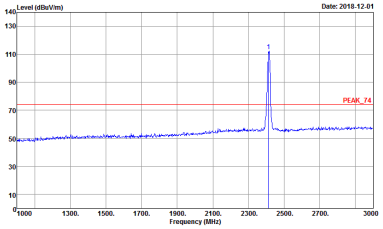
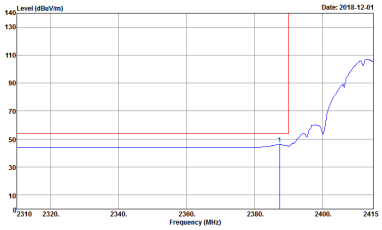
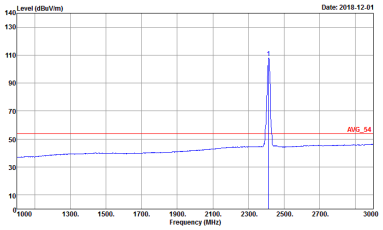
<For Sample 1>

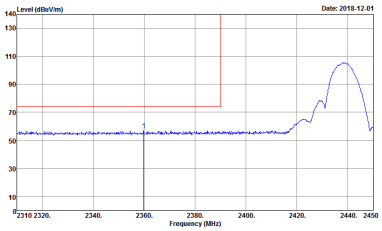
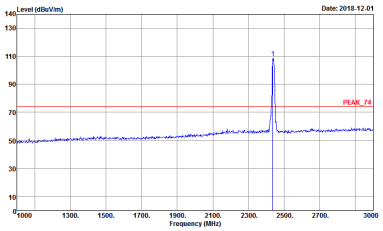
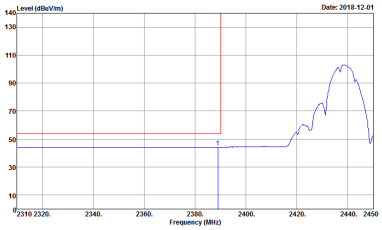
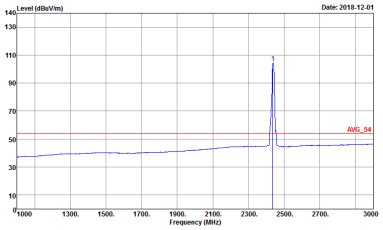
<Adapter 1>

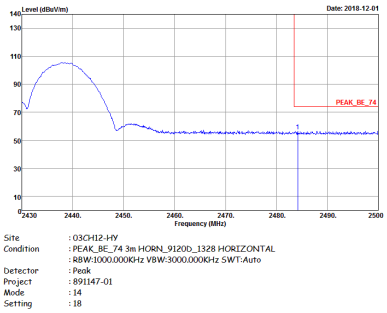
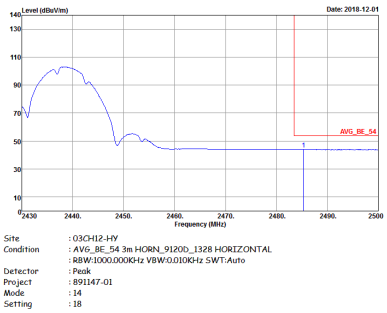
2.4GHz 2400~2483.5MHz

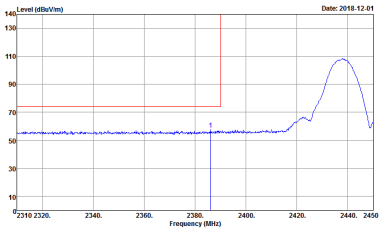
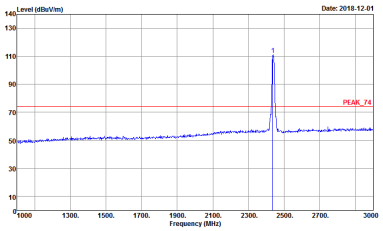
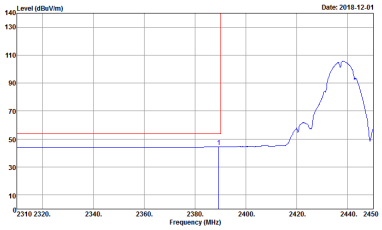
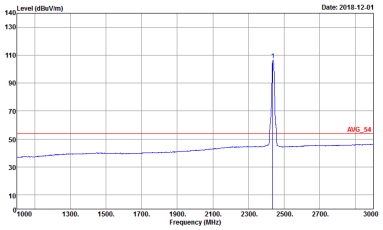
WIFI 802.11b (Band Edge @ 3m)

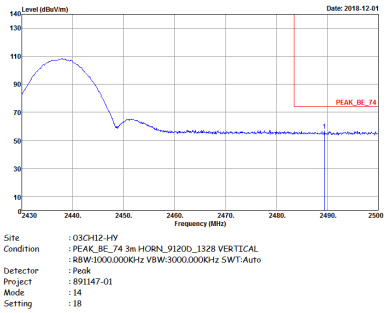
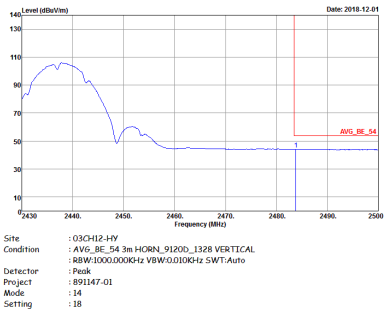
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		

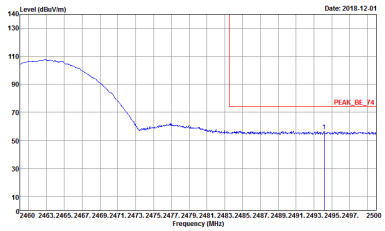
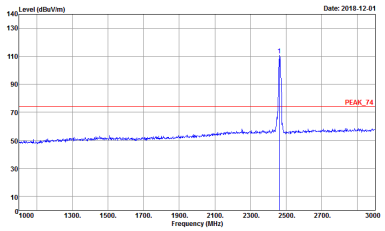
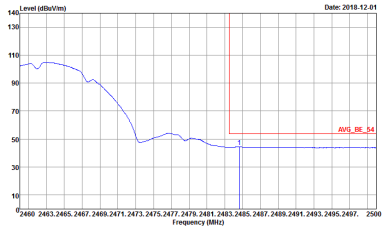
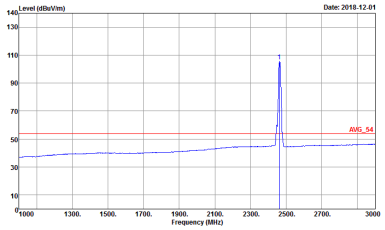
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 13 Setting : 17.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 13 Setting : 17.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 13 Setting : 17.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 13 Setting : 17.5

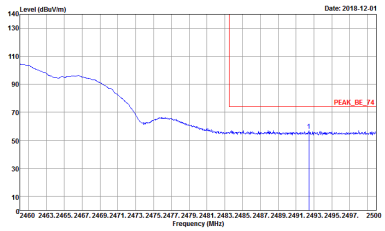
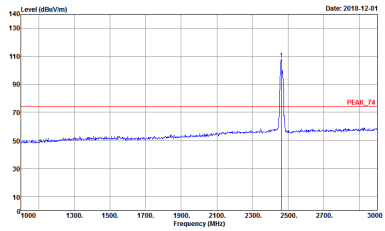
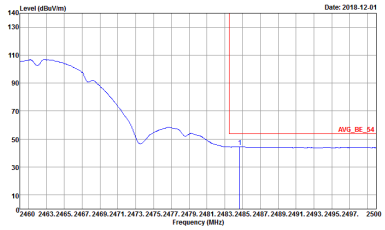
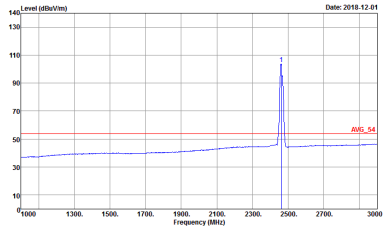
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18

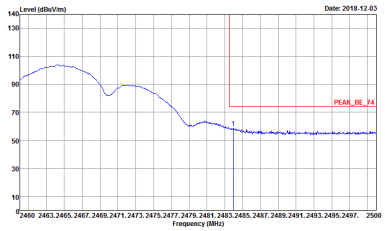
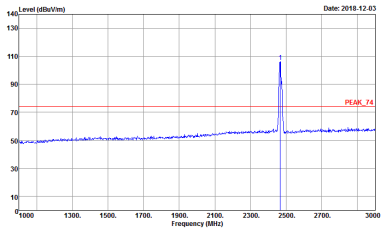
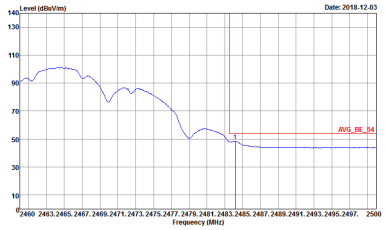
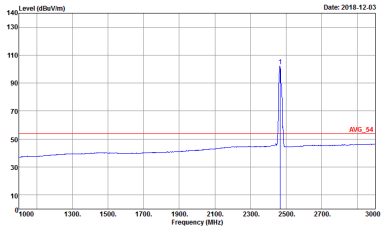
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

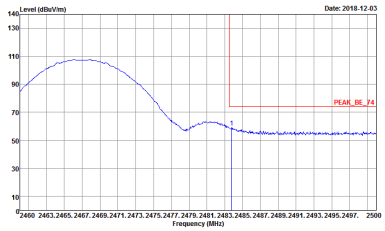
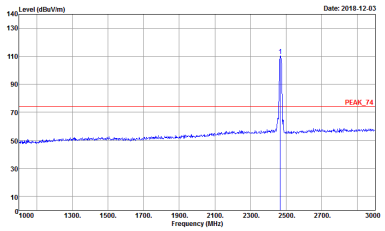
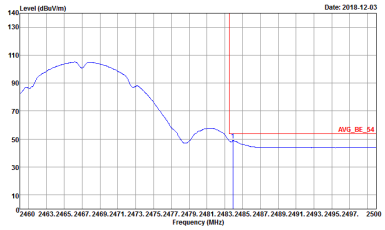
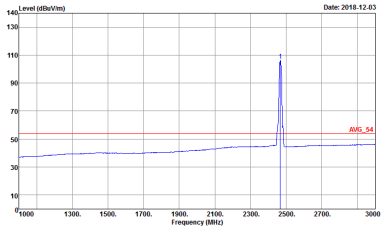
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 14 Setting : 18

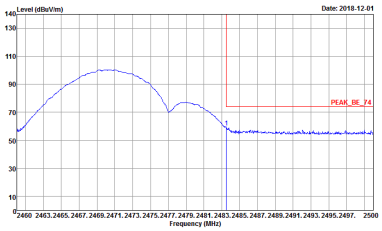
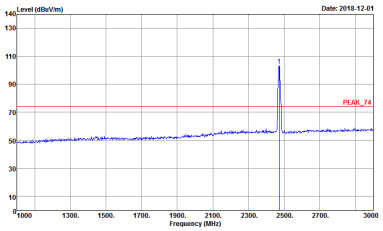
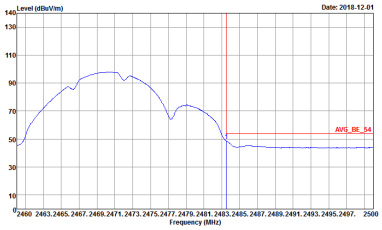
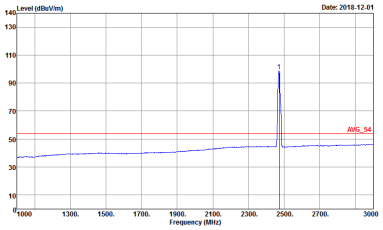
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

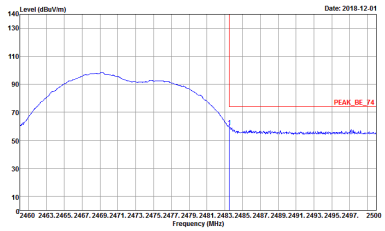
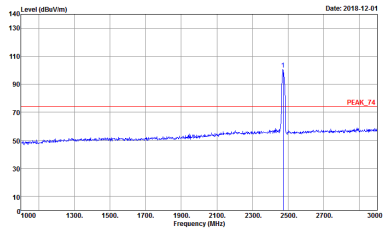
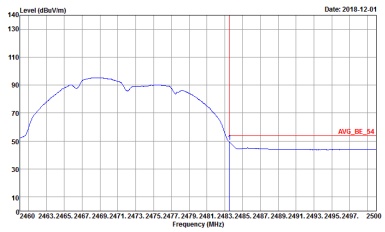
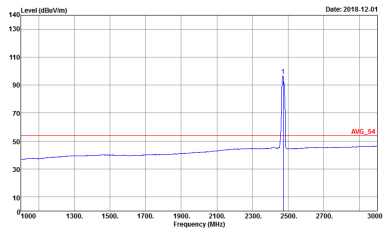
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 15 Setting : 18

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17

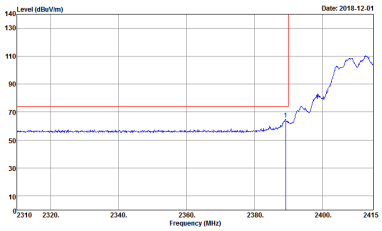
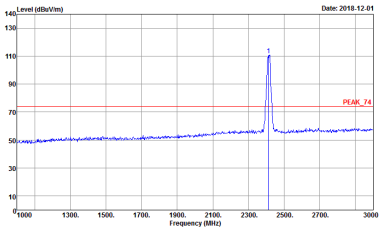
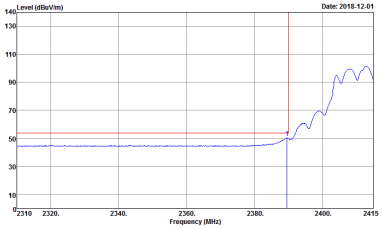
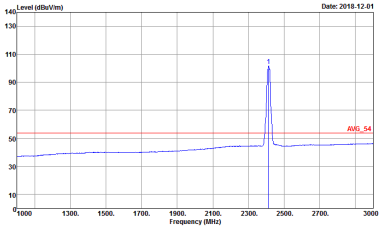
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 16 Setting : 17

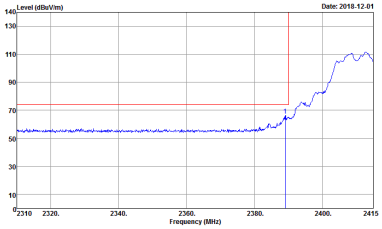
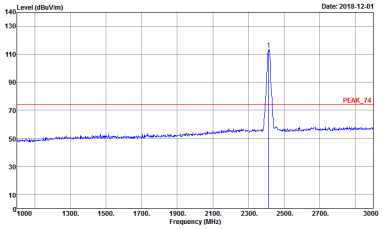
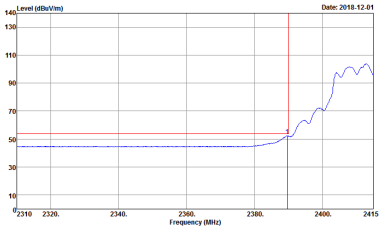
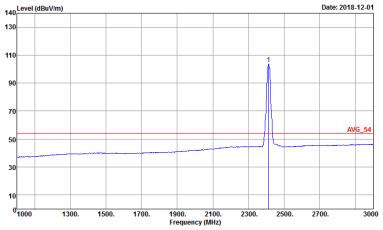
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5

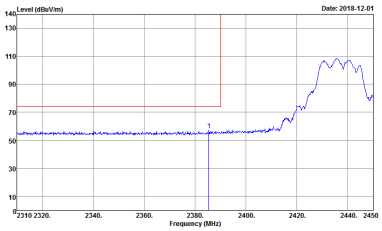
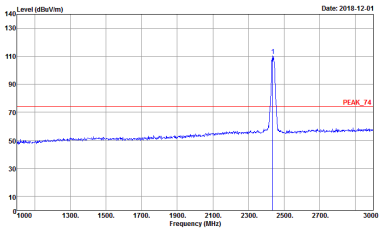
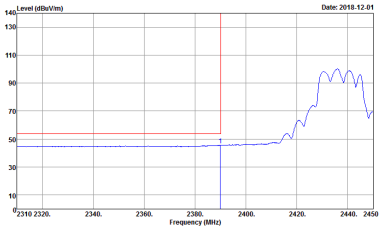
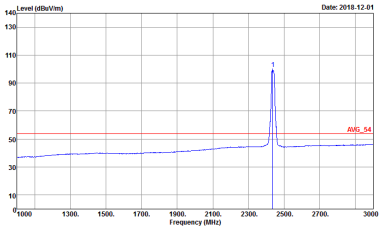
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5

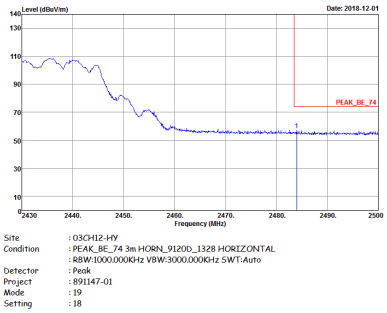
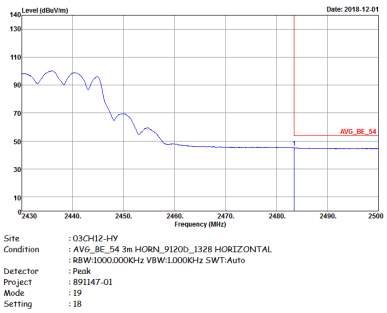
2.4GHz 2400~2483.5MHz

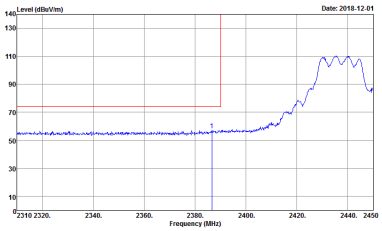
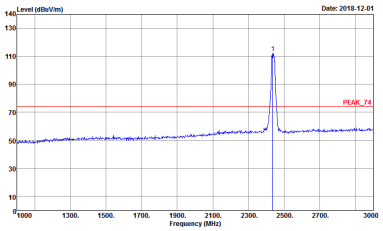
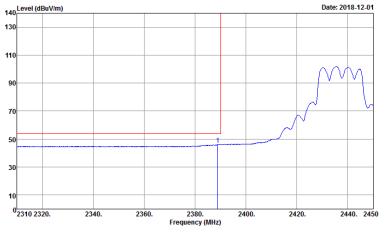
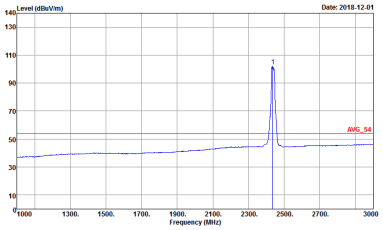
WIFI 802.11g (Band Edge @ 3m)

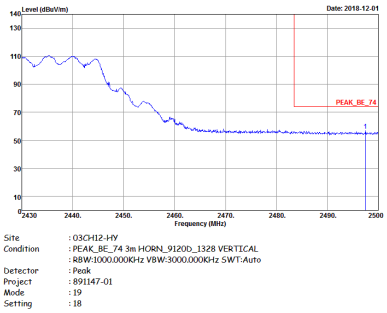
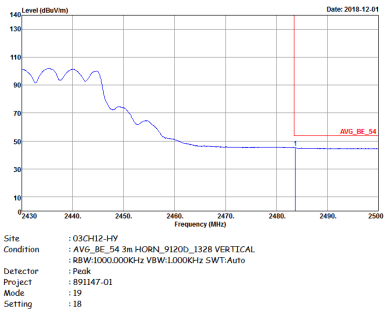
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5

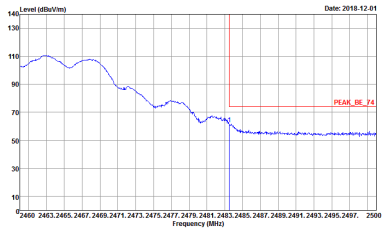
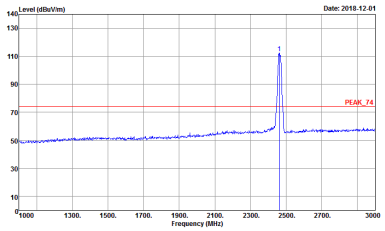
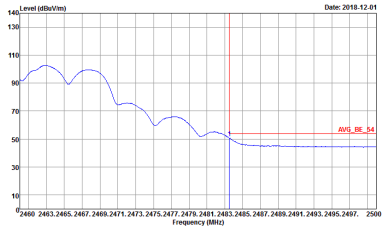
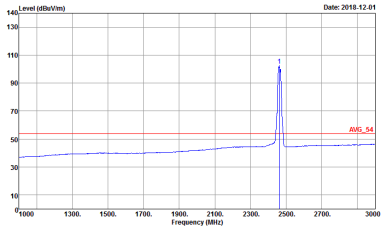
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 18 Setting : 17.5

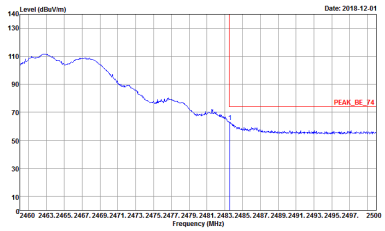
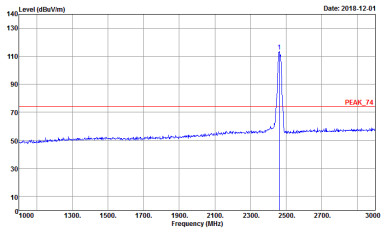
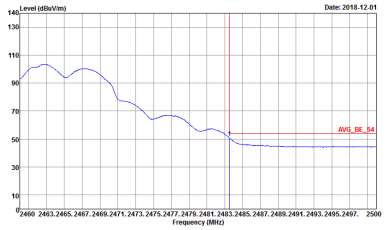
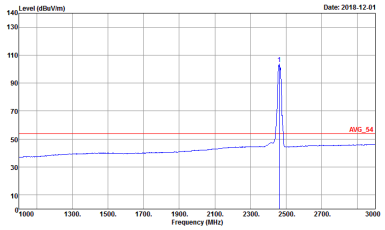
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18

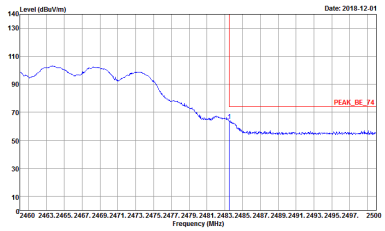
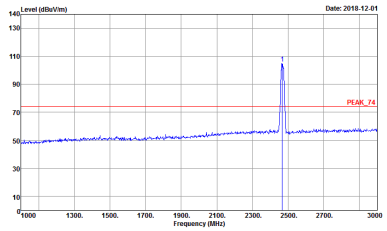
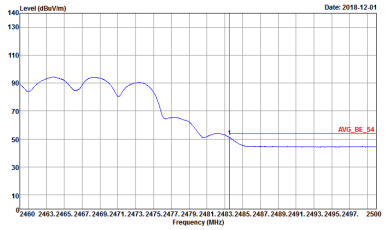
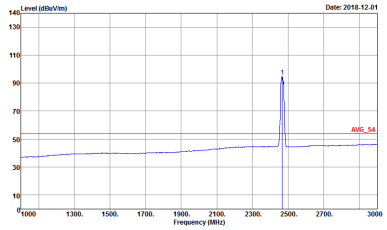
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

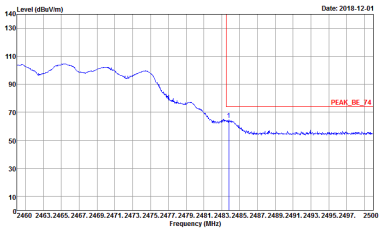
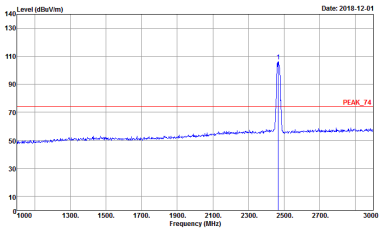
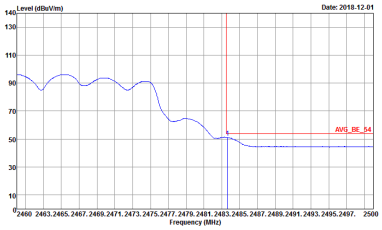
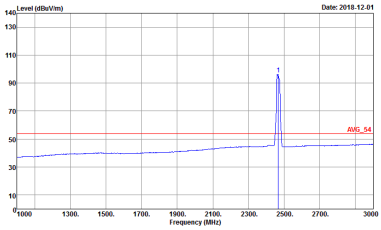
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 19 Setting : 18

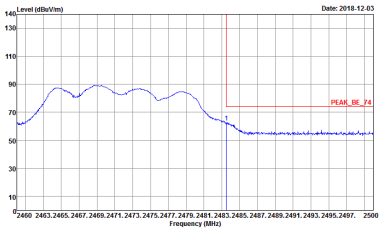
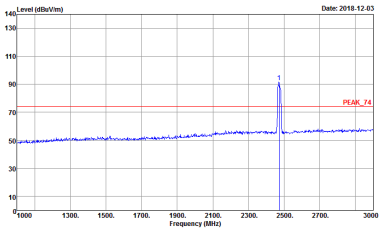
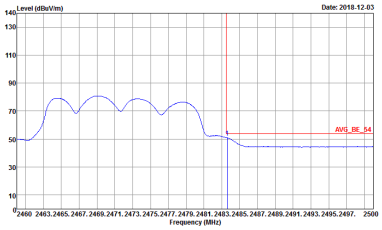
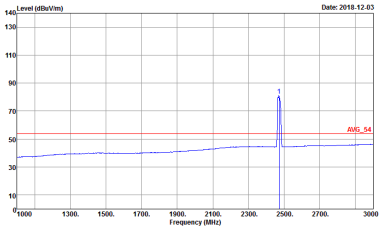
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

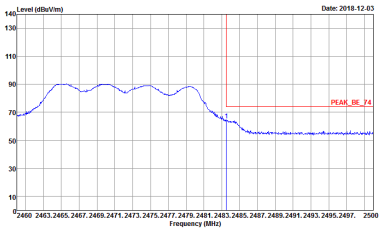
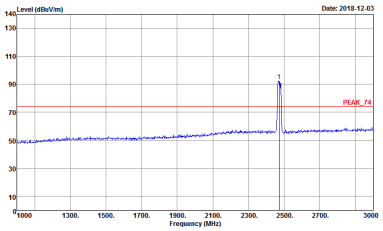
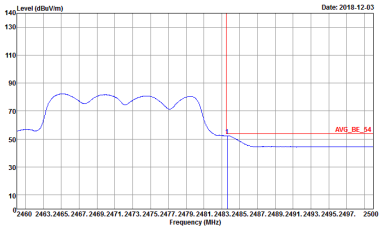
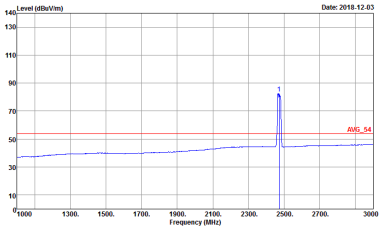
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 20 Setting : 17

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5

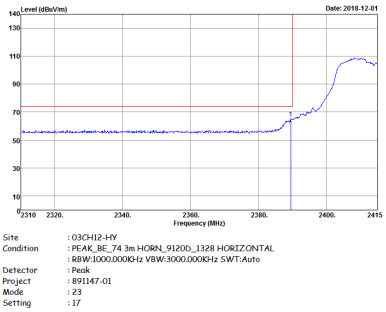
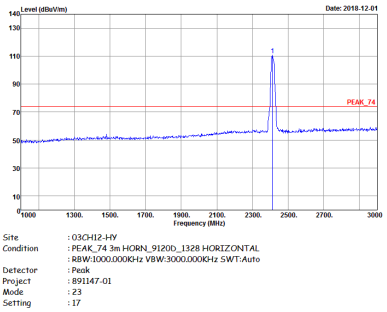
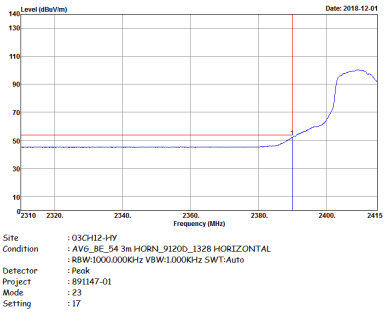
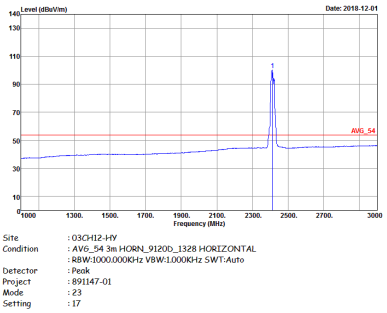
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 21 Setting : 10.5

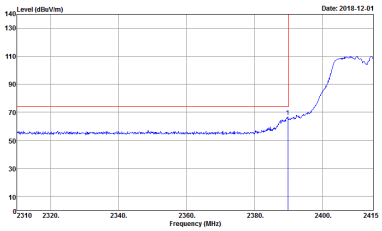
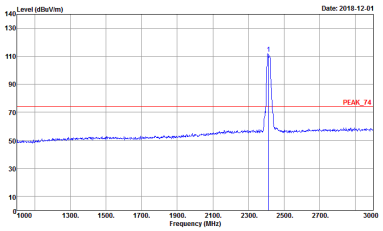
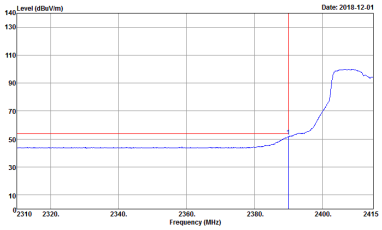
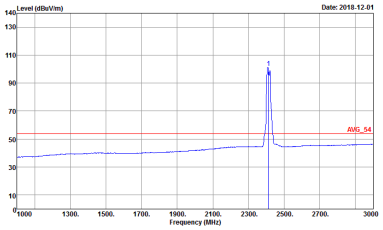
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16

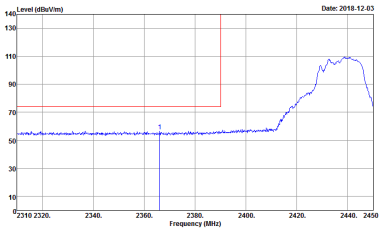
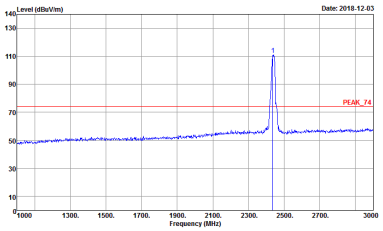
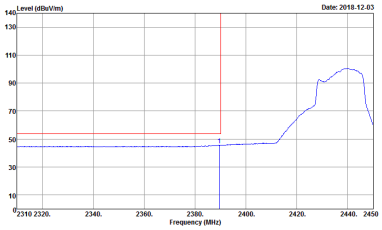
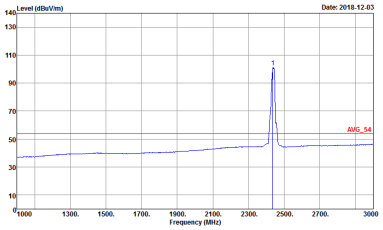
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 22 Setting : 0 Gain Index : 0 Dac Gain : -16

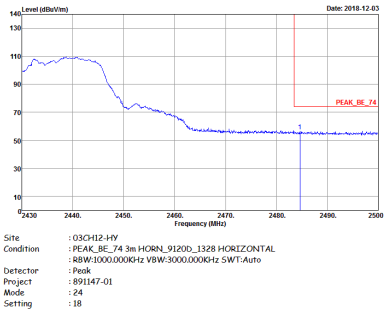
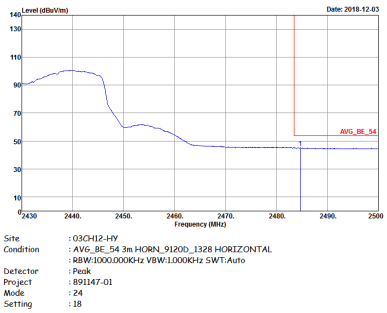
2.4GHz 2400~2483.5MHz

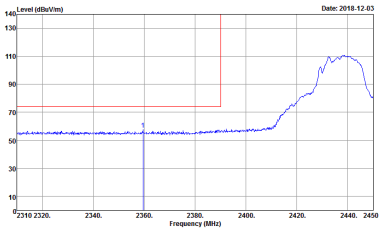
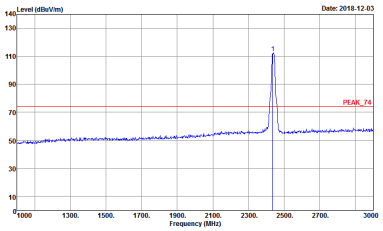
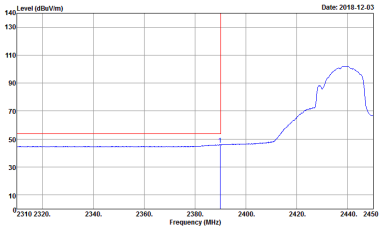
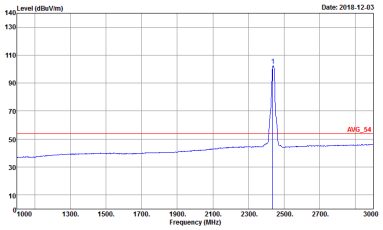
WIFI 802.11n HT20 (Band Edge @ 3m)

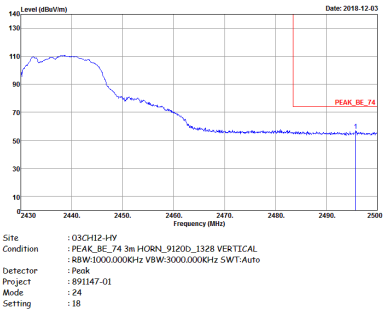
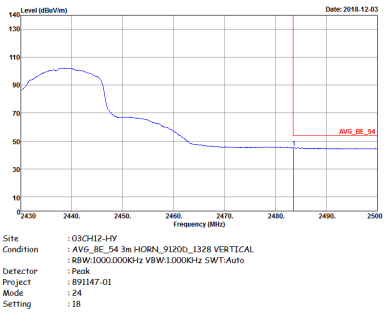
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		

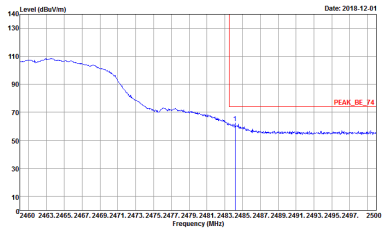
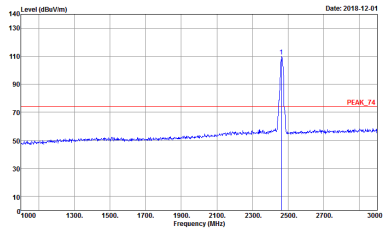
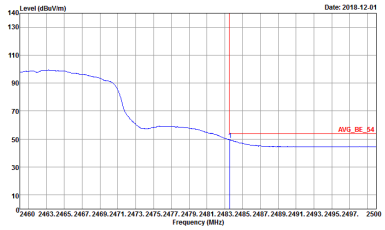
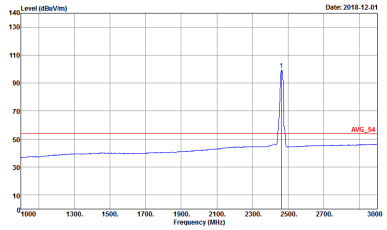
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 23 Setting : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 23 Setting : 17
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 23 Setting : 17	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 23 Setting : 17

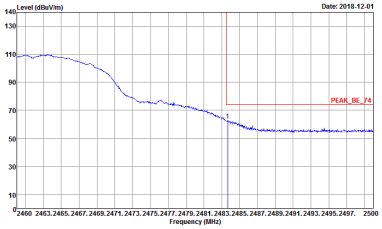
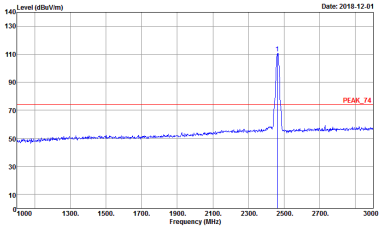
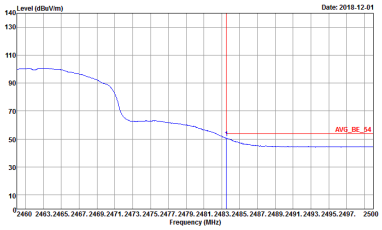
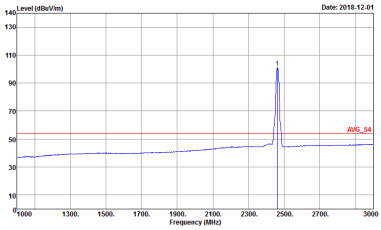
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18

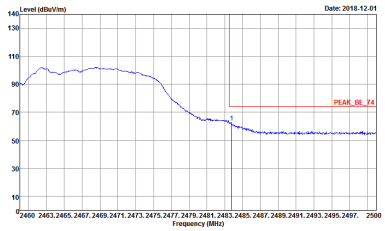
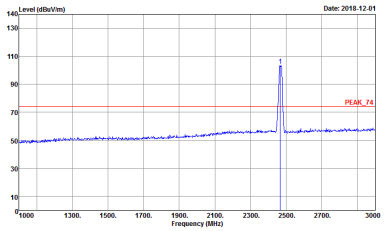
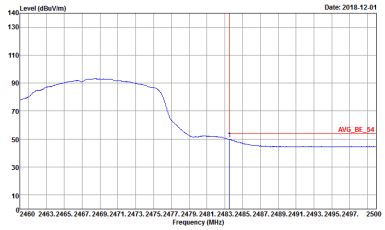
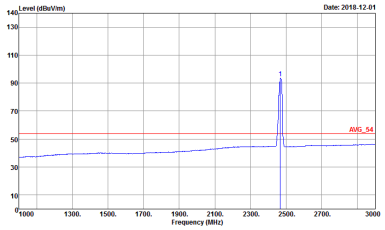
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

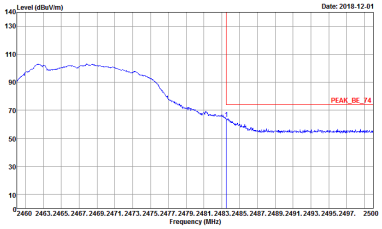
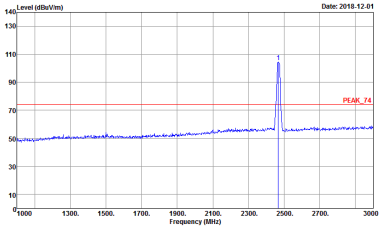
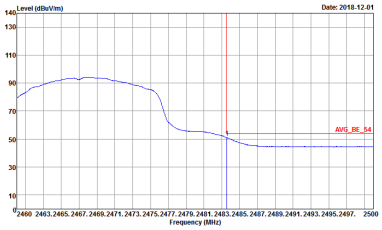
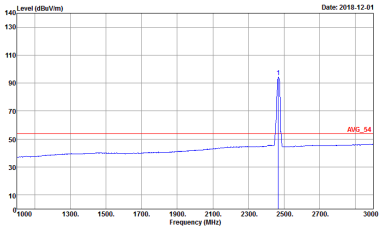
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 24 Setting : 18

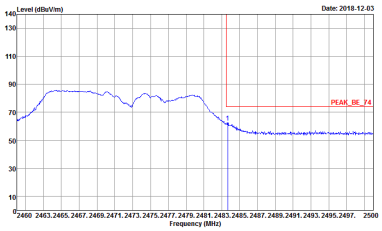
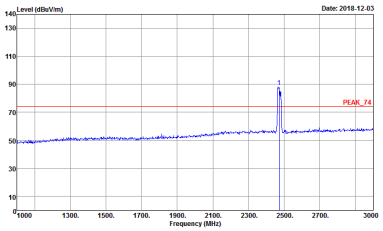
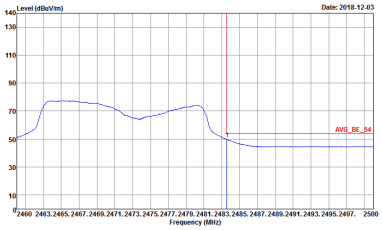
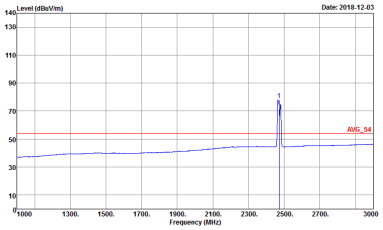
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

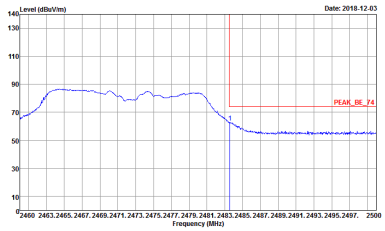
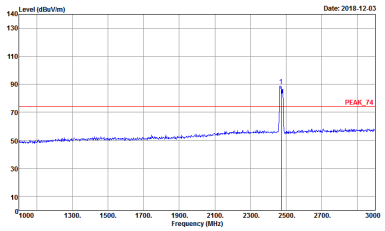
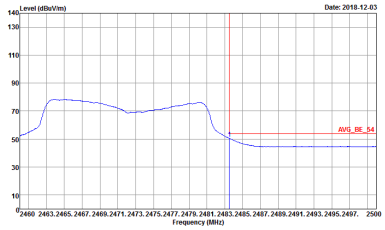
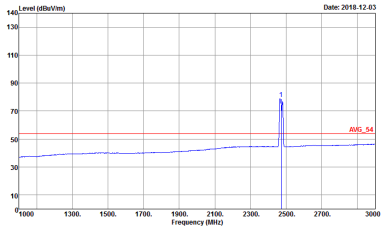
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16

WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 25 Setting : 16

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10

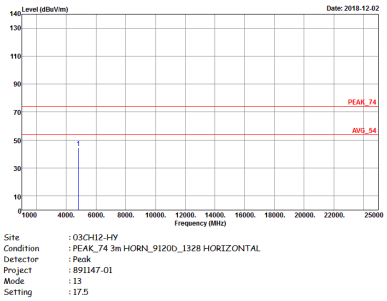
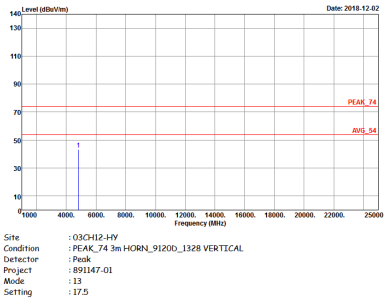
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 26 Setting : 10

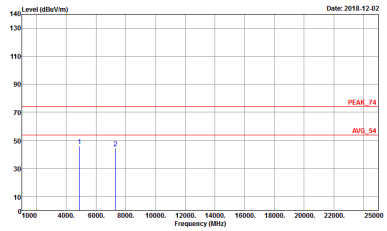
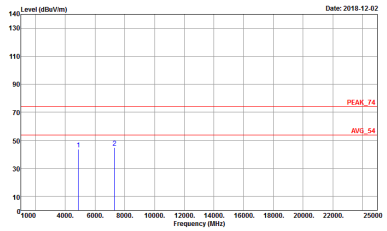
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48

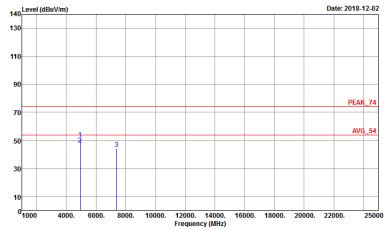
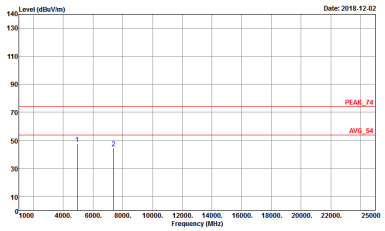
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 891147-01 Mode : 27 Setting : 0 Gain Index : 0 Dac Gain : -48

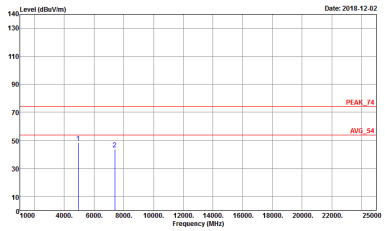
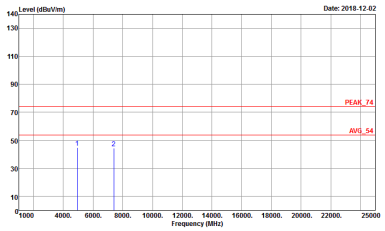
2.4GHz 2400~2483.5MHz

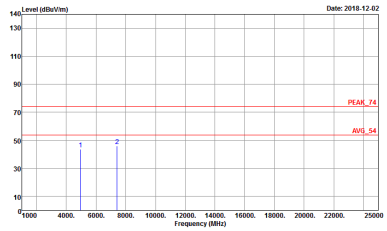
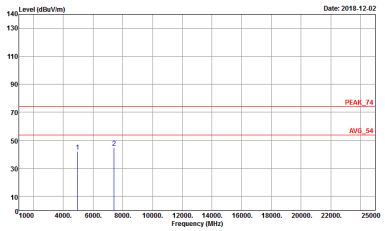
WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.		

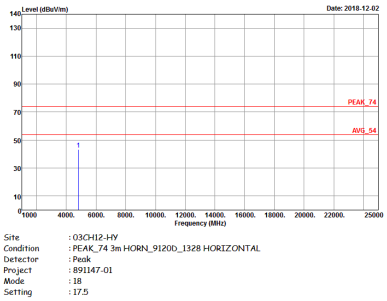
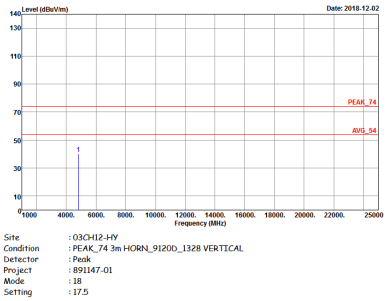
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 891147-01 Mode : 14 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 891147-01 Mode : 14 Setting : 18

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 891147-01 Mode : 15 Setting : 18	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 891147-01 Mode : 15 Setting : 18

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 891147-01 Mode : 16 Setting : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 891147-01 Mode : 16 Setting : 17

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 891147-01 Mode : 17 Setting : 12.5

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.