FCC RF Test Report

APPLICANT	**:**	**Midnight Dawn LLC**
EQUIPMENT	**:**	**Wireless Barcode Reader**
MODEL NAME	**:**	**PL46MN**
STANDARD	**:**	**FCC Part 15 Subpart C §15.247**
CLASSIFICATION	**:**	**(DTS) Digital Transmission System**

The testing was completed on Jul. 16, 2016. 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 test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR5O2025-01B	Rev. 01	Initial issue of report	Jun. 28, 2016
FR5O2025-01B	Rev. 02	Adding the remark in summary of test result and the information in section 1.2, and revising plots on appendix C	Jul. 18, 2016

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.1	-	99% Bandwidth	-	Pass	-
3.2	15.247(b)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	Conducted Band Edges	≤ 20dBc	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	-
-	15.207	AC Conducted Emission	15.207(a)	Not Required	EUT is battery operated
3.6	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Midnight Dawn LLC
9980 South 300 West, Suite 200, Sandy, Utah, 84070

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wireless Barcode Reader
Model Name	PL46MN
EUT supports Radios application	WLAN 11b/g/n HT20 Bluetooth v4.1 LE
Power Supply	Battery

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	802.11b/g/n : 2412 MHz ~ 2472 MHz
Maximum (Peak) Output Power to Antenna	802.11b : 19.71 dBm (0.0935 W) 802.11g : 23.51 dBm (0.2244 W) 802.11n HT20 : 23.48 dBm (0.2228 W)
99% Occupied Bandwidth	802.11b : 14.40MHz 802.11g : 18.75MHz 802.11n HT20 : 19.40MHz
Antenna Type	802.11b/g/n : Fixed Internal Antenna type with gain 1.57 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Modification of EUT

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

1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH02-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.**
	03CH10-HY

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

1.6 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 v03r05
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

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: conducted emission (150 kHz to 30 MHz) and radiated 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) were recorded in this report.

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

2.1 Carrier Frequency 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 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and data rate associated with the highest power were chosen for full test shown in the following tables.

2.4GHz 802.11b mode				
Data Rate (MHz)	1M bps	2M bps	5.5M bps	11M bps
Peak Power (dBm)	19.71	19.65	19.58	19.70

2.4GHz 802.11g mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	23.51	23.38	23.45	23.45	23.50	23.45	23.47	23.46

2.4GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	23.48	23.45	23.44	23.47	23.46	23.46	23.46	23.44

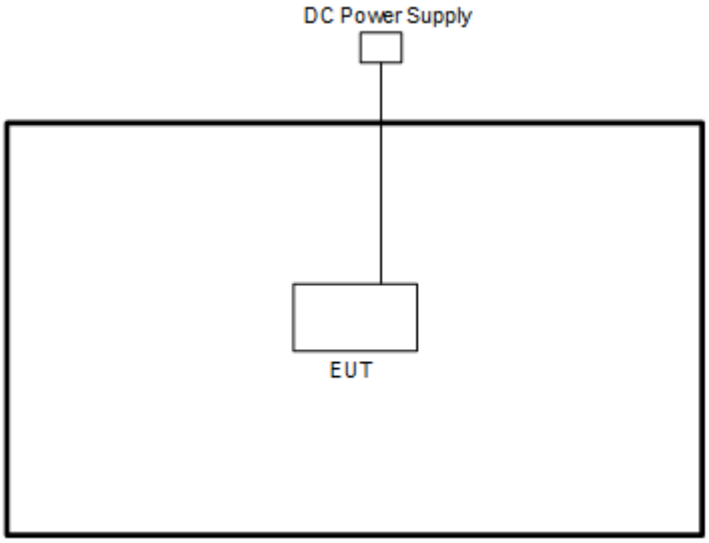
2.3 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates from the power table described in section 2.2.

<2.4GHz>

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

2.4 Connection Diagram of Test System



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	Topward	3303D	N/A	N/A	Unshielded, 1.8 m

2.6 EUT Operation Test Setup

For WLAN RF test items, an engineering test program (nmiSampleApp.exe) was provided and enabled to make EUT continuous transmit/receive.

2.7 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.

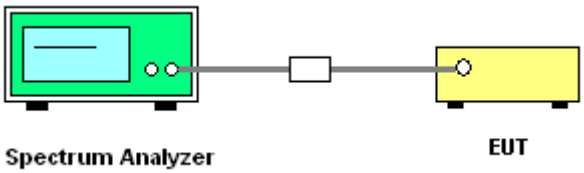
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

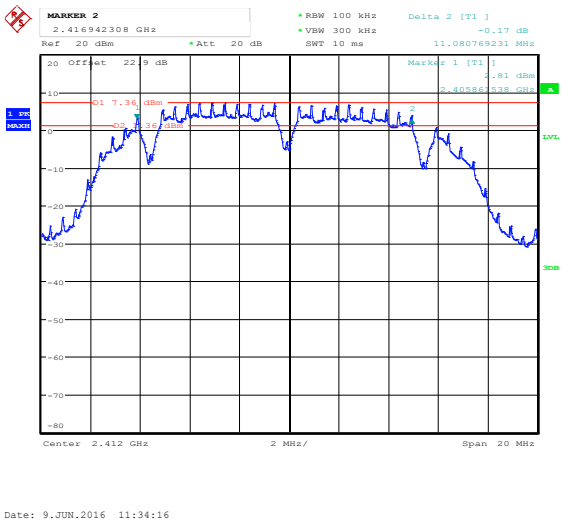
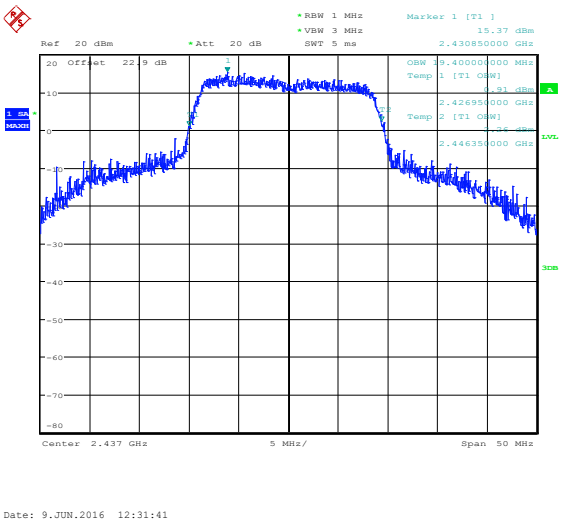
1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit 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 of this test report.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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 of directional gain greater than 6dBi are 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.

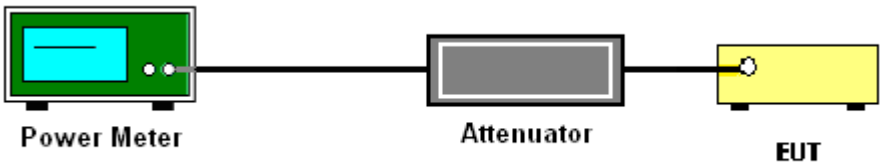
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r05 section 9.1.2 PKPM1 Peak power meter method.
2. 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.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A of this test report.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A of this test report.

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.

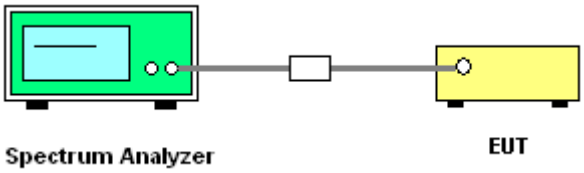
3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 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 v03r05
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

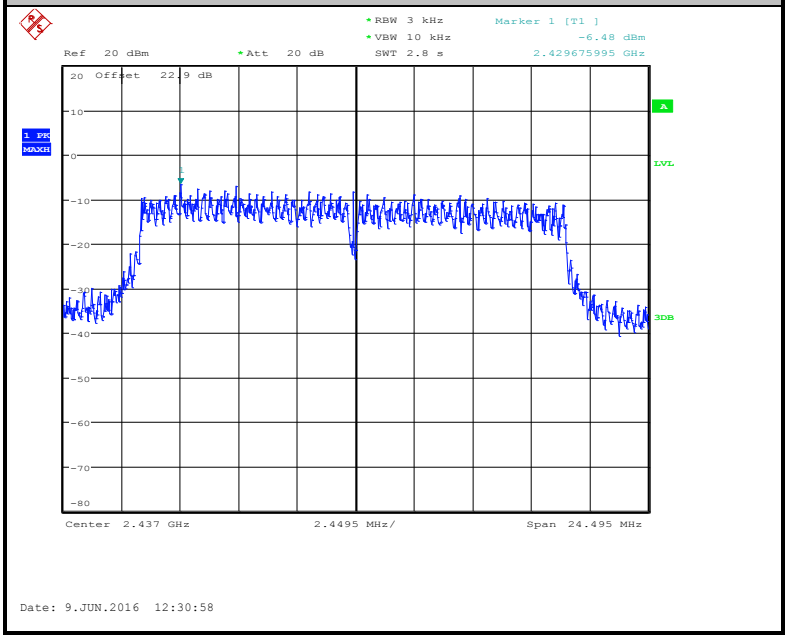
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A of this test report.

Worst Case Power Density (dBm/3kHz)



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 and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

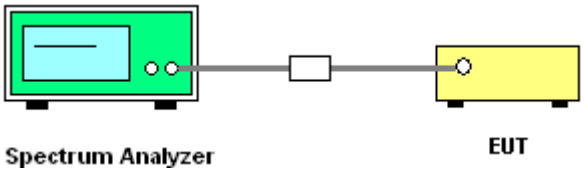
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
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

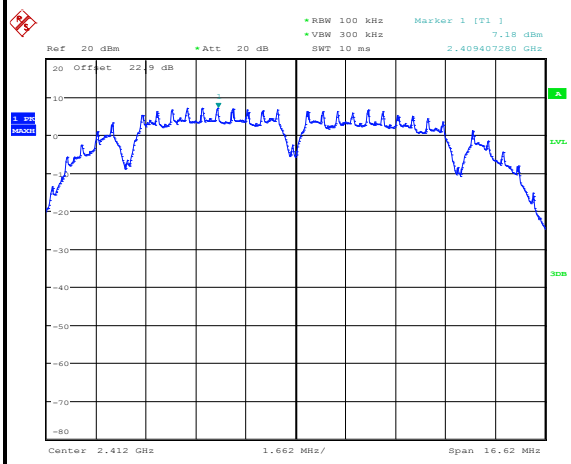


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

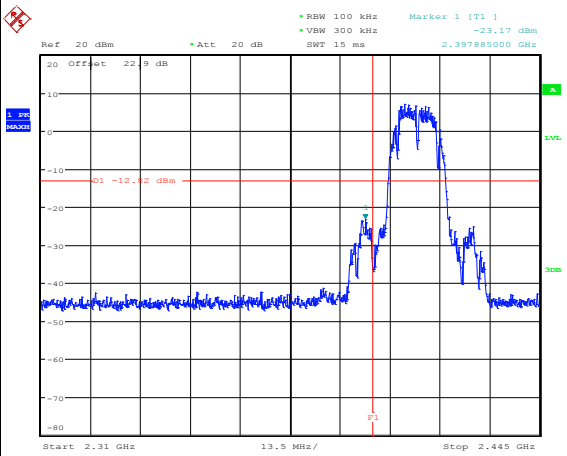
Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	51~54%
Test Channel :	01	**Test Engineer :**	Derek Hsu

WLAN 802.11b Channel 01

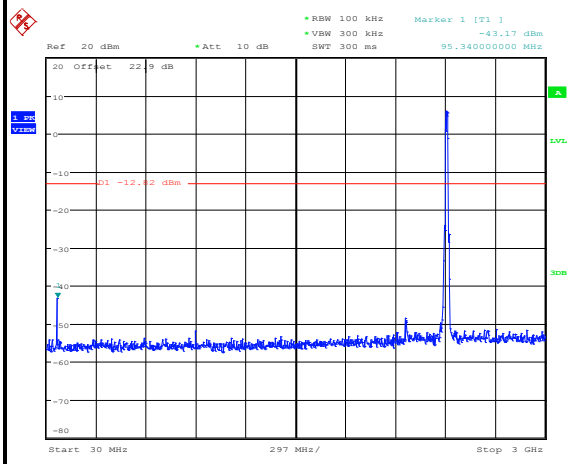
100kHz PSD reference Level



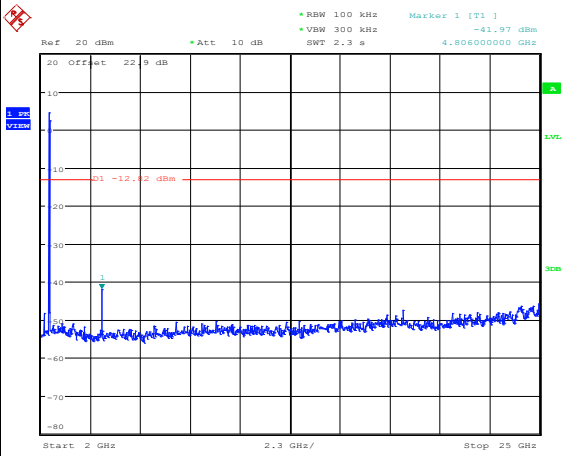
Low Channel Plot



Spurious Emission 30MHz~3GHz



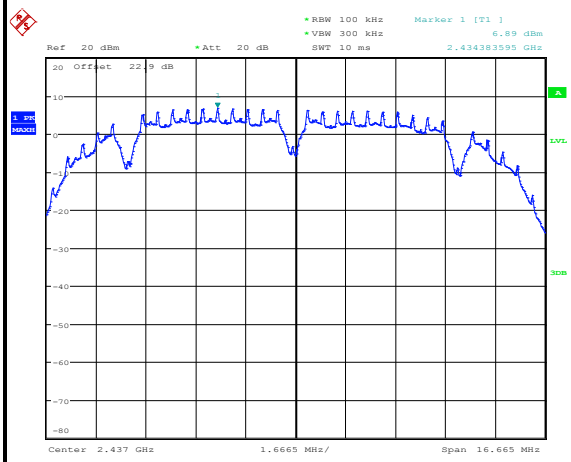
Spurious Emission 2GHz~25GHz



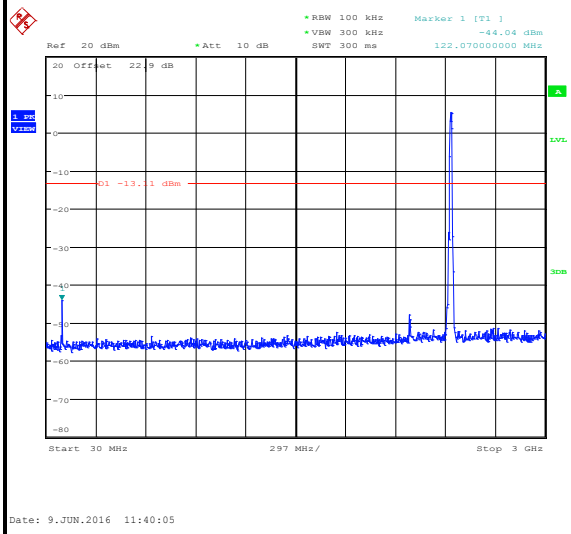
Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	Derek Hsu

WLAN 802.11b Channel 06

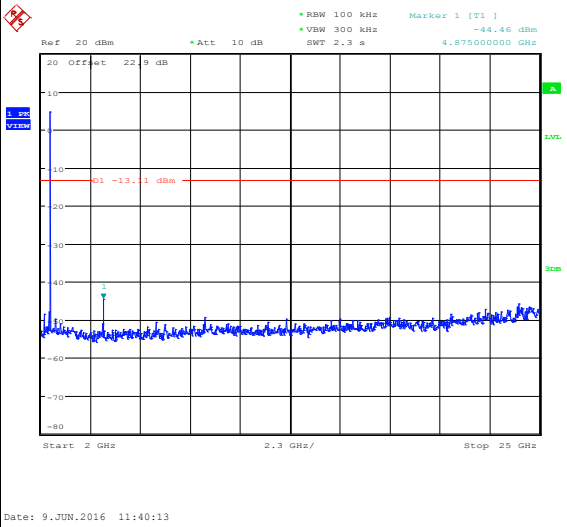
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



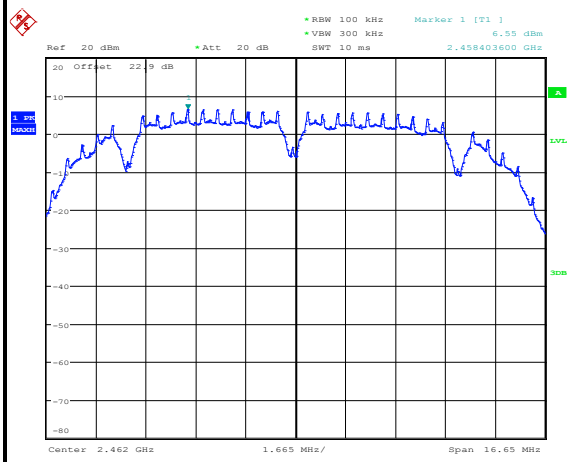
Spurious Emission 2GHz~25GHz



Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	11	**Test Engineer :**	Derek Hsu

WLAN 802.11b Channel 11

100kHz PSD reference Level



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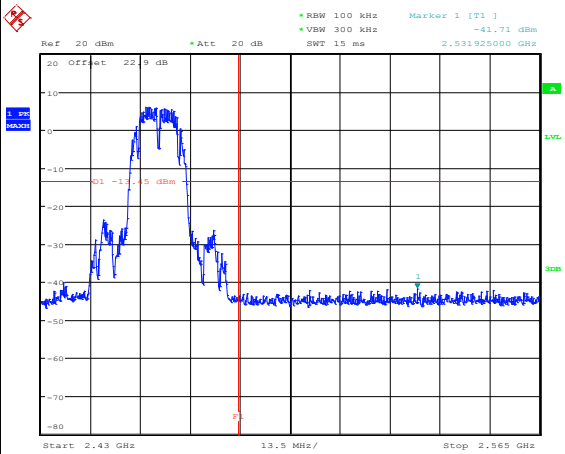
High Channel Plot



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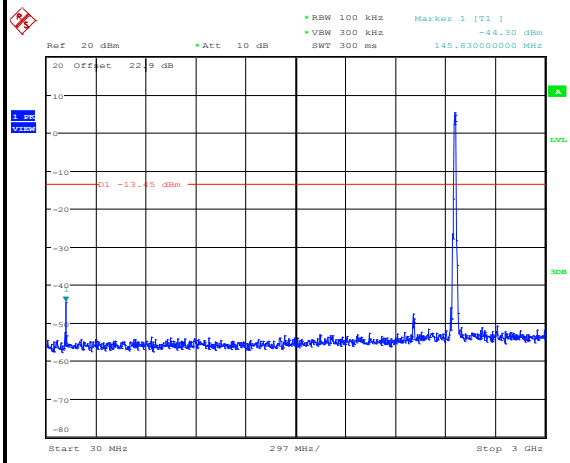
Spurious Emission 30MHz~3GHz



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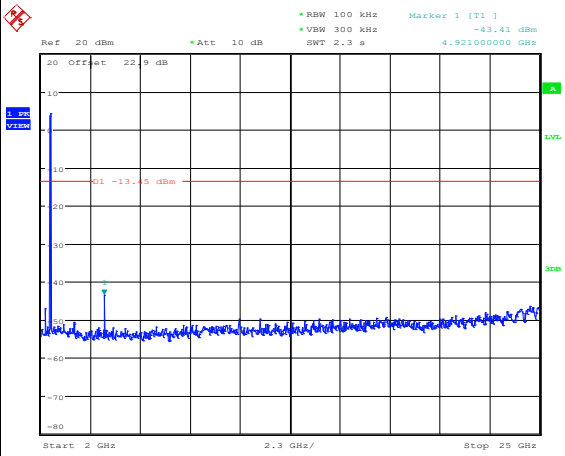
Spurious Emission 2GHz~25GHz



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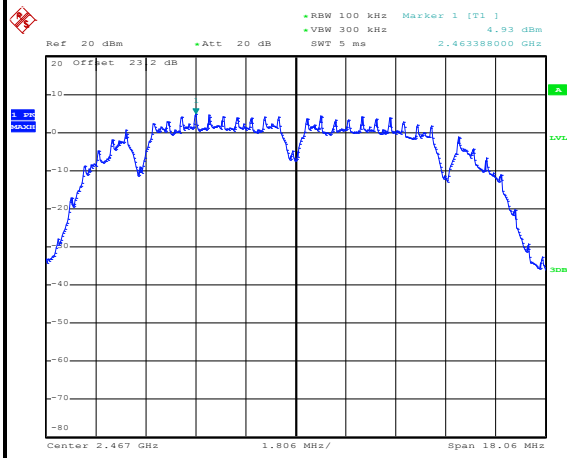
Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	12	**Test Engineer :**	Derek Hsu

WLAN 802.11b Channel 12

100kHz PSD reference Level



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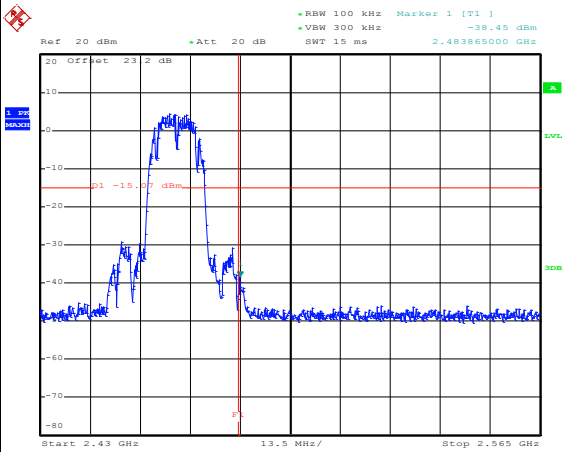
High Channel Plot



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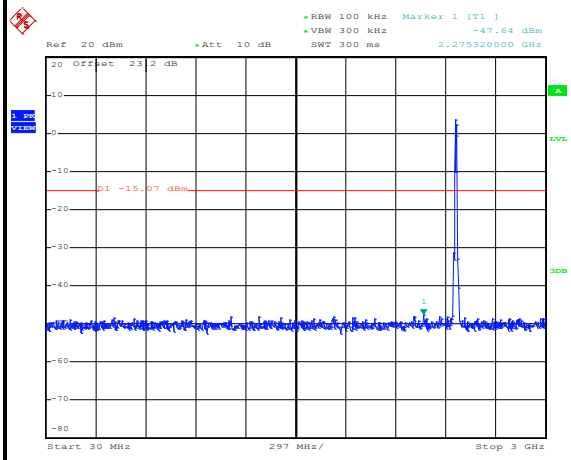
Spurious Emission 30MHz~3GHz



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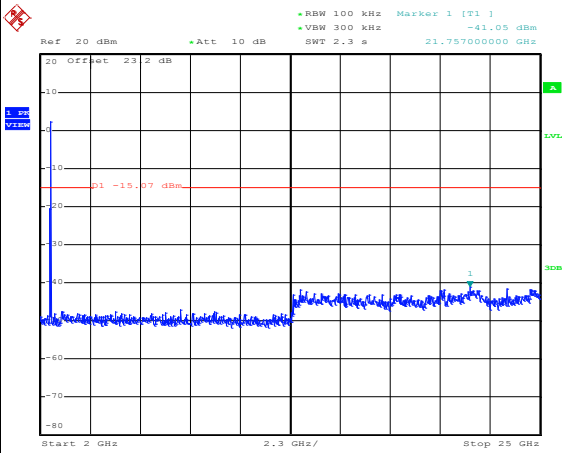
Spurious Emission 2GHz~25GHz



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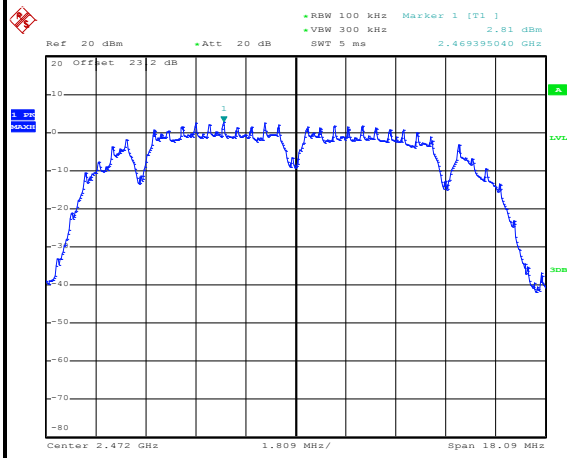
Test Mode :	802.11b	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	13	**Test Engineer :**	Derek Hsu

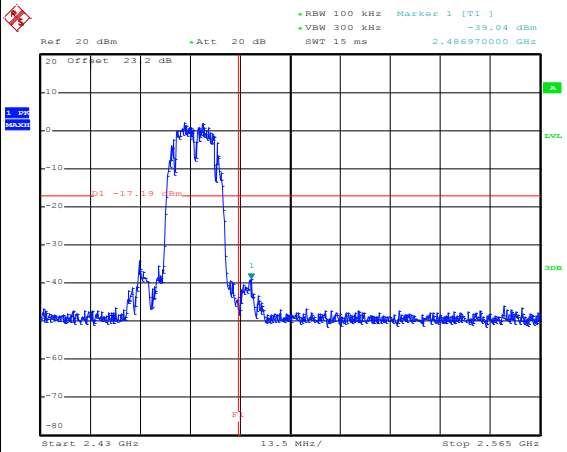
WLAN 802.11b Channel 13

100kHz PSD reference Level



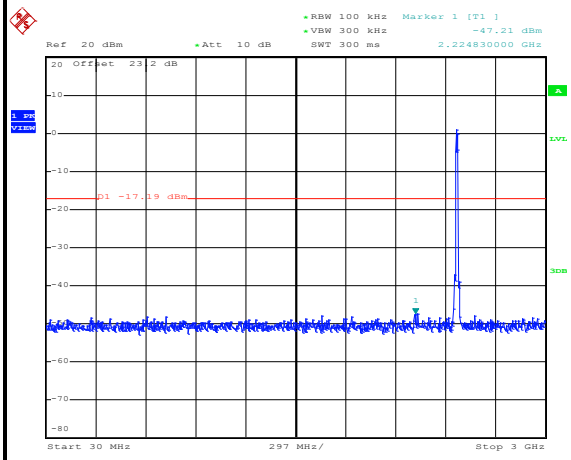
Date: 16.JUL.2016 03:17:52

High Channel Plot



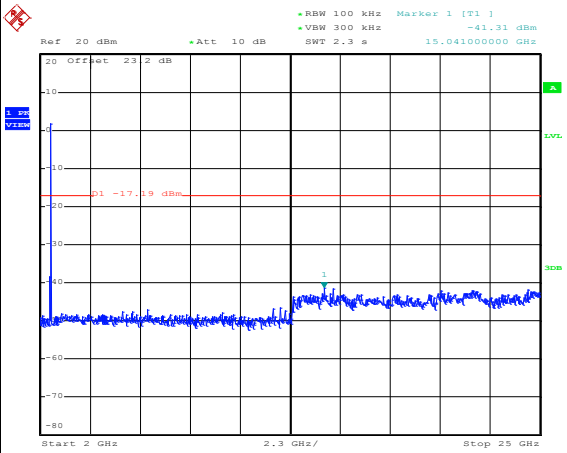
Date: 16.JUL.2016 03:18:15

Spurious Emission 30MHz~3GHz



Date: 16.JUL.2016 03:18:31

Spurious Emission 2GHz~25GHz

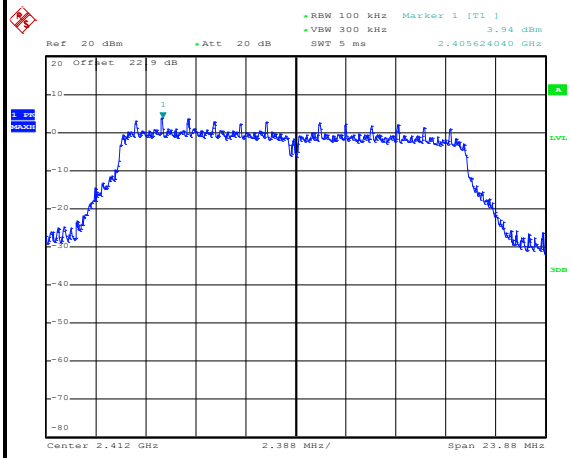


Date: 16.JUL.2016 03:18:39

Test Mode :	802.11g	**Temperature :**	21~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	51~54%
Test Channel :	01	**Test Engineer :**	Derek Hsu

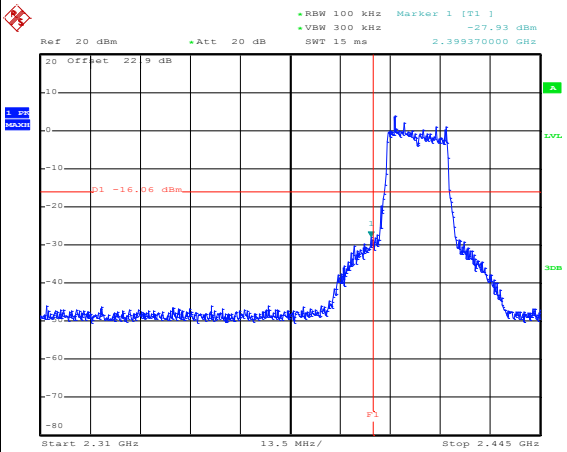
WLAN 802.11g Channel 01

100kHz PSD reference Level



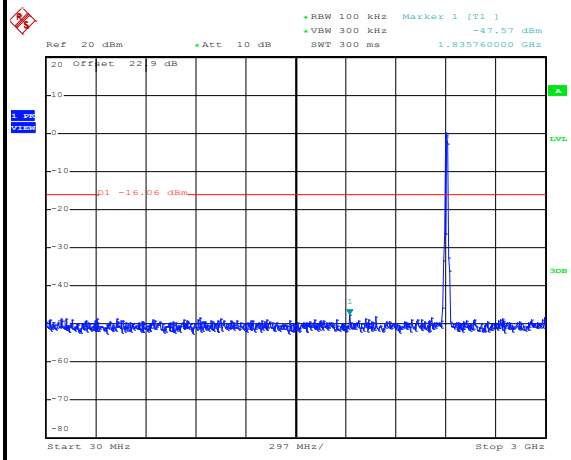
Date: 11.JUN.2016 01:16:12

Low Channel Plot



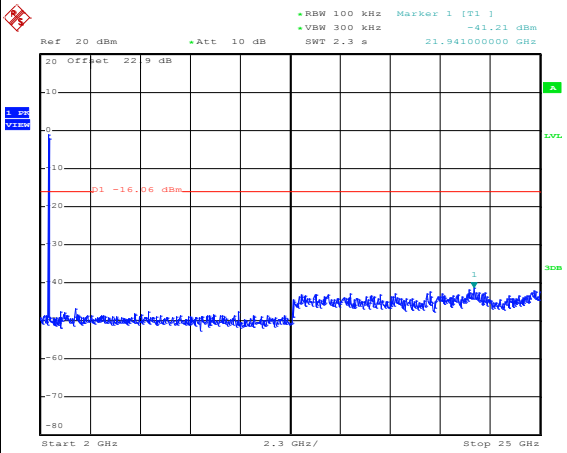
Date: 11.JUN.2016 01:16:25

Spurious Emission 30MHz~3GHz



Date: 11.JUN.2016 01:16:36

Spurious Emission 2GHz~25GHz

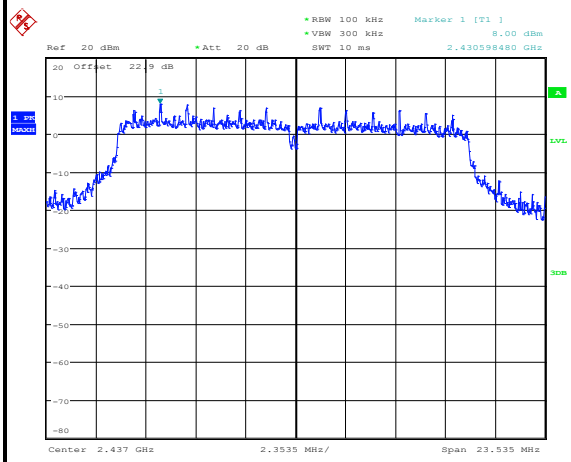


Date: 11.JUN.2016 01:16:44

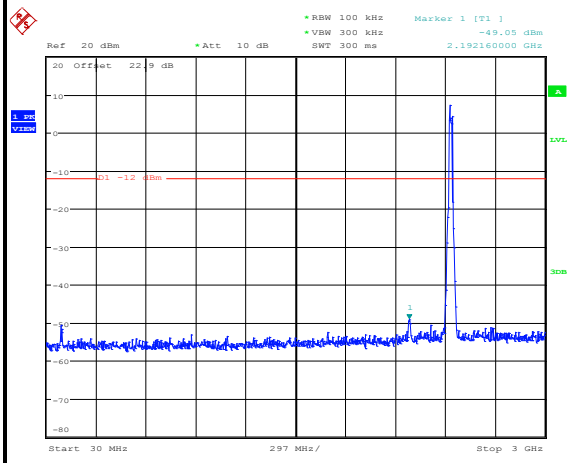
Test Mode :	802.11g	**Temperature :**	21~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	Derek Hsu

WLAN 802.11g Channel 06

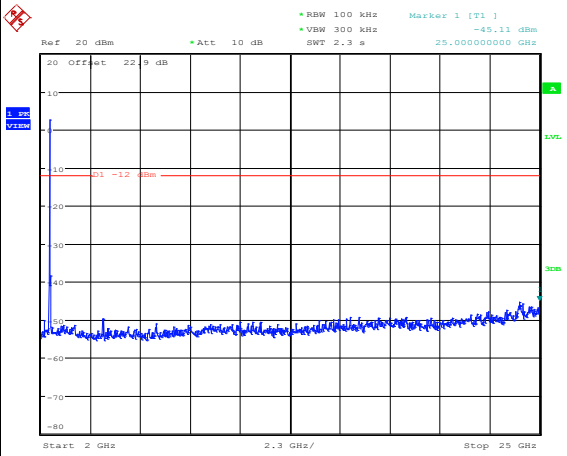
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



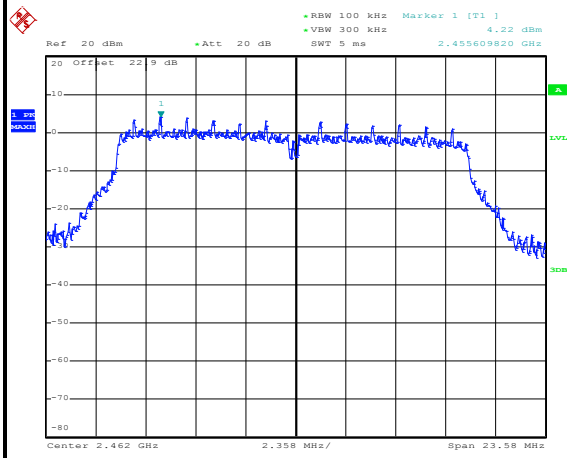
Spurious Emission 2GHz~25GHz



Test Mode :	802.11g	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	11	**Test Engineer :**	Derek Hsu

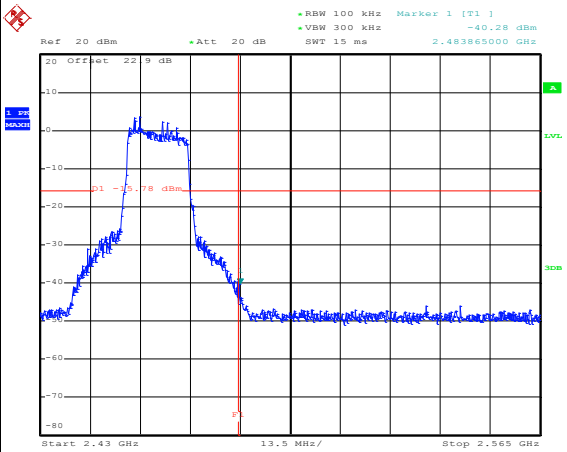
WLAN 802.11g Channel 11

100kHz PSD reference Level



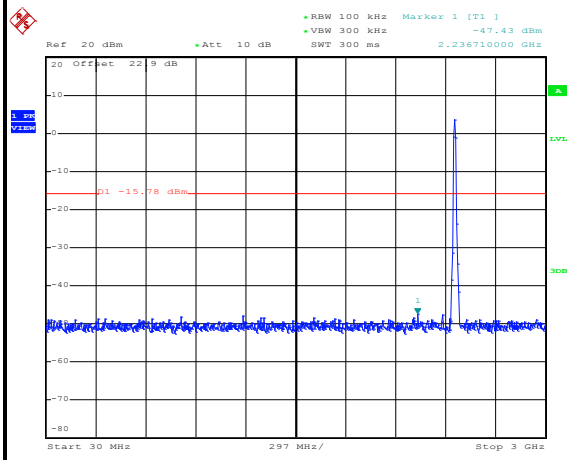
Date: 11.JUN.2016 01:20:03

High Channel Plot



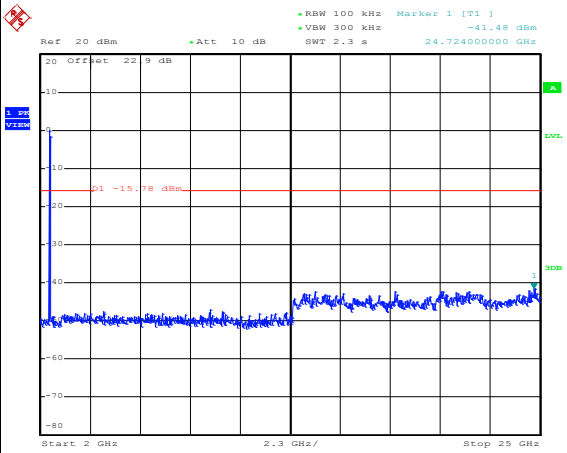
Date: 11.JUN.2016 01:20:16

Spurious Emission 30MHz~3GHz



Date: 11.JUN.2016 01:20:28

Spurious Emission 2GHz~25GHz

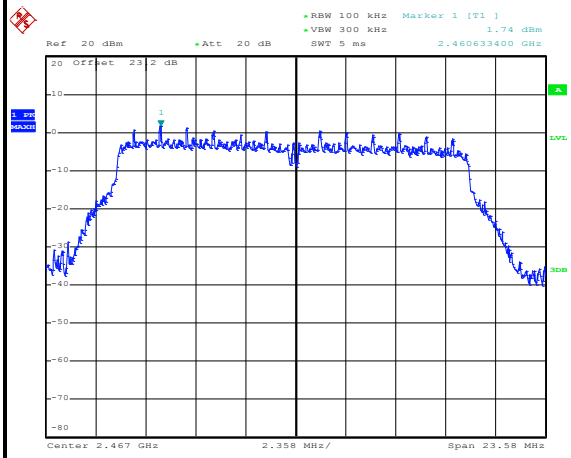


Date: 11.JUN.2016 01:20:36

Test Mode :	802.11g	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	12	**Test Engineer :**	Derek Hsu

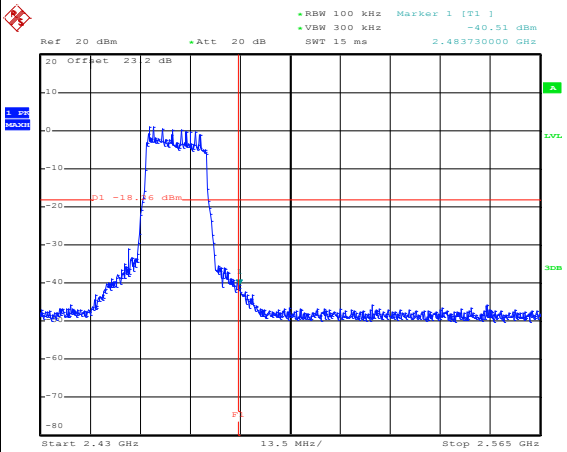
WLAN 802.11g Channel 12

100kHz PSD reference Level



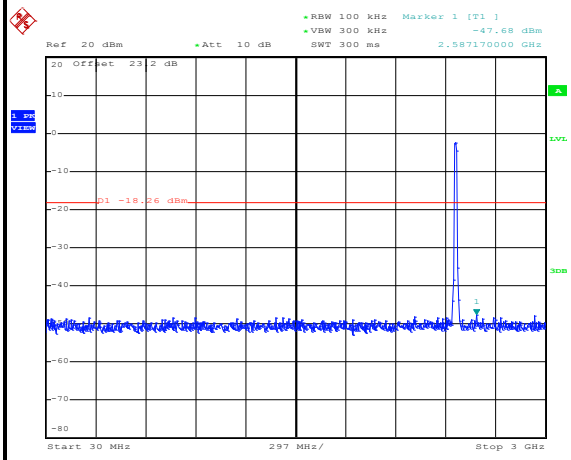
Date: 16.JUL.2016 03:22:07

High Channel Plot



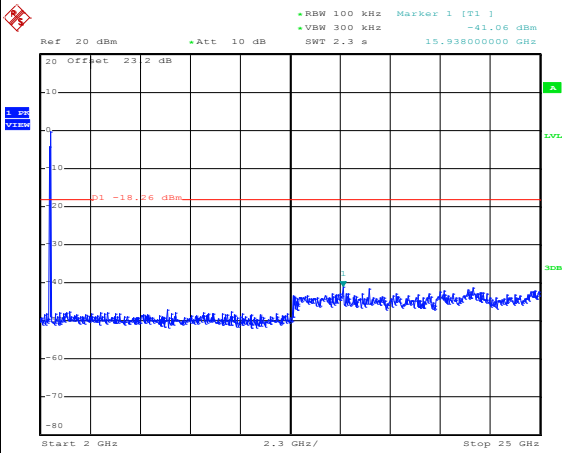
Date: 16.JUL.2016 03:22:28

Spurious Emission 30MHz~3GHz



Date: 16.JUL.2016 03:22:50

Spurious Emission 2GHz~25GHz

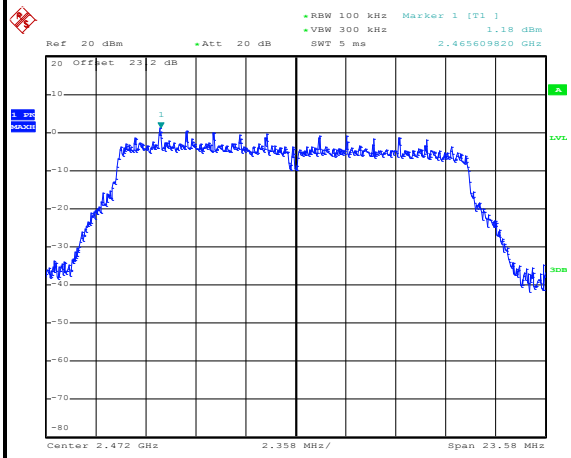


Date: 16.JUL.2016 03:22:58

Test Mode :	802.11g	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	13	**Test Engineer :**	Derek Hsu

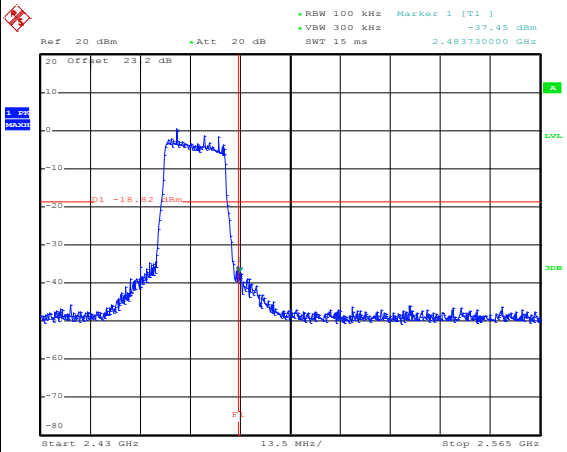
WLAN 802.11g Channel 13

100kHz PSD reference Level



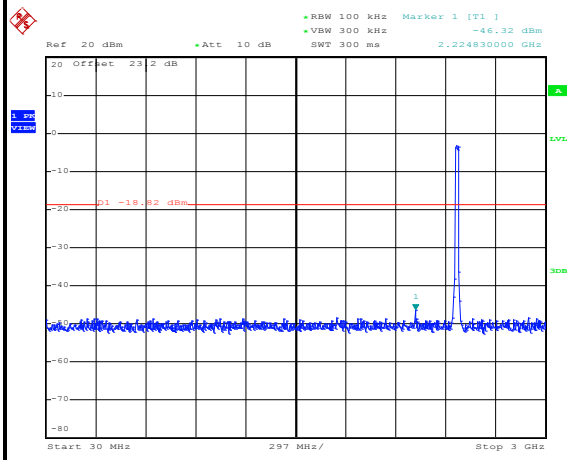
Date: 16.JUL.2016 03:25:35

High Channel Plot



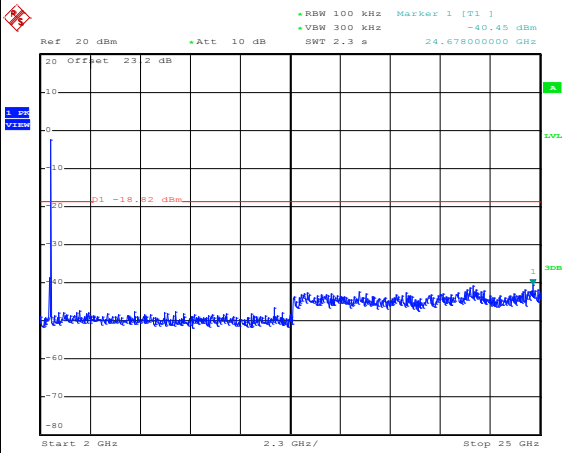
Date: 16.JUL.2016 03:25:46

Spurious Emission 30MHz~3GHz



Date: 16.JUL.2016 03:25:59

Spurious Emission 2GHz~25GHz

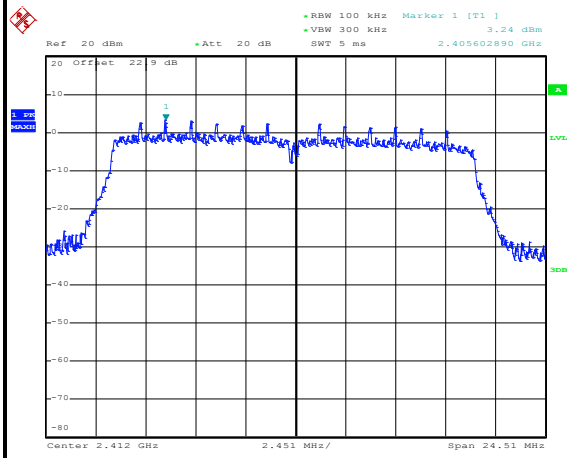


Date: 16.JUL.2016 03:26:07

Test Mode :	802.11n HT20	**Temperature :**	21~25℃
Test Band :	2.4GHz Low	**Relative Humidity :**	51~54%
Test Channel :	01	**Test Engineer :**	Derek Hsu

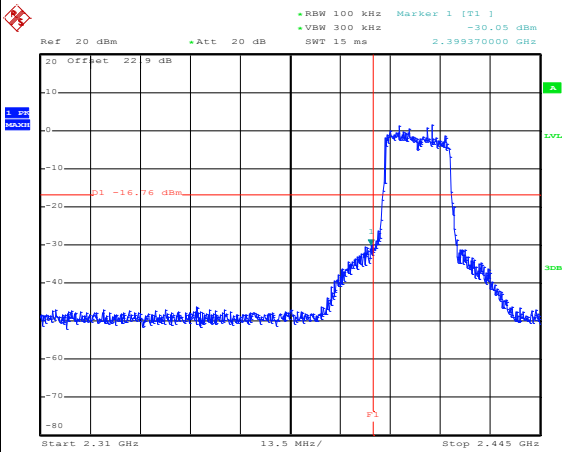
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



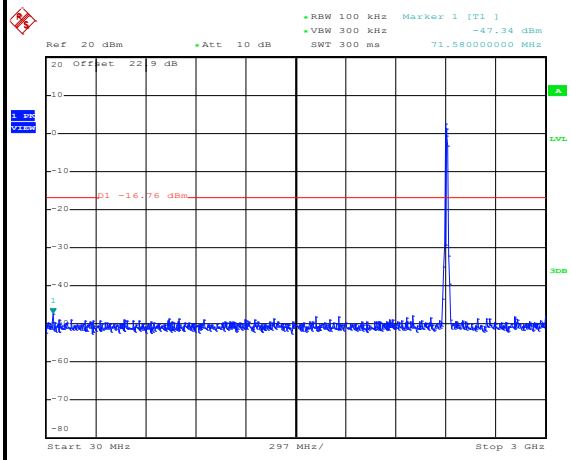
Date: 11.JUN.2016 01:25:31

Low Channel Plot



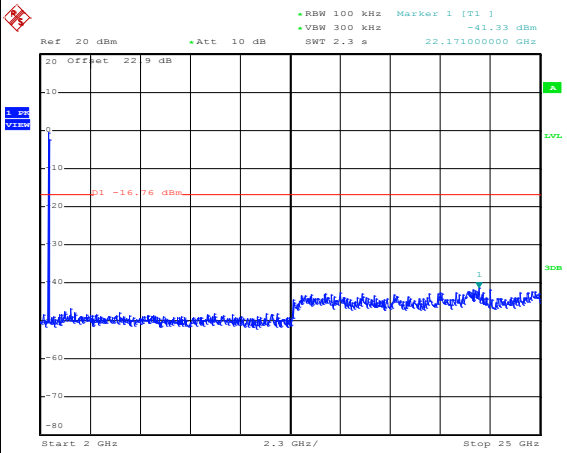
Date: 11.JUN.2016 01:26:32

Spurious Emission 30MHz~3GHz



Date: 11.JUN.2016 01:27:05

Spurious Emission 2GHz~25GHz

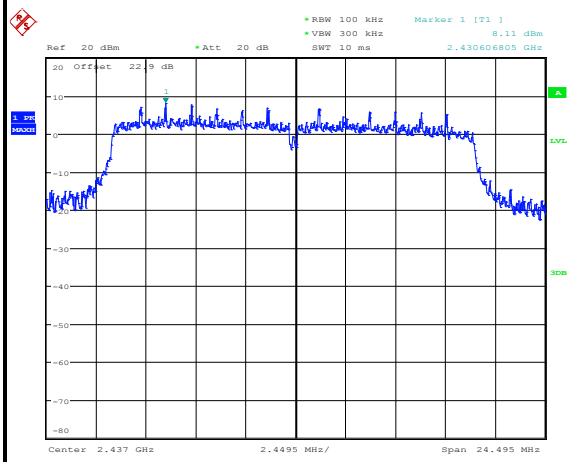


Date: 11.JUN.2016 01:27:14

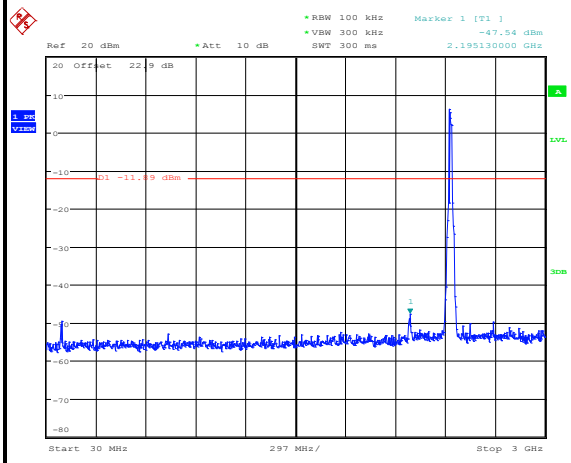
Test Mode :	802.11n HT20	**Temperature :**	21~25℃
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	Derek Hsu

WLAN 802.11n HT20 Channel 06

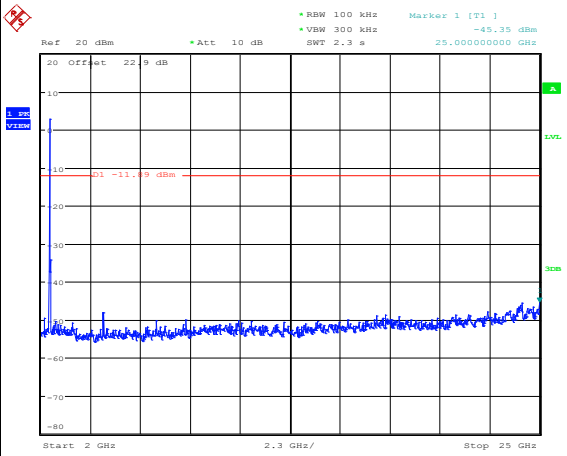
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



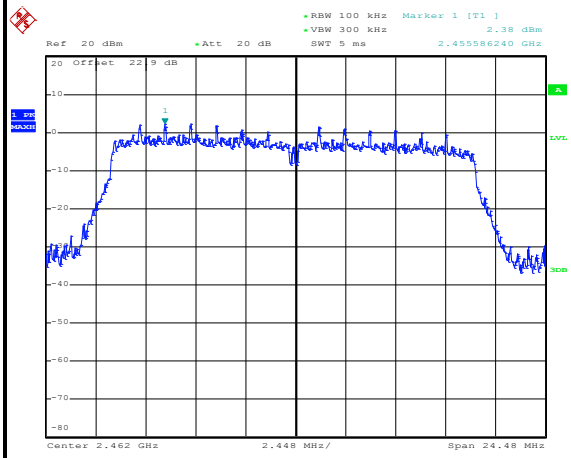
Spurious Emission 2GHz~25GHz



Test Mode :	802.11n HT20	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	11	**Test Engineer :**	Derek Hsu

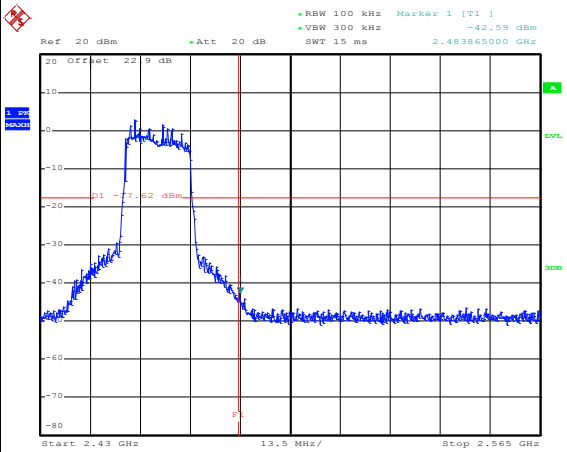
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



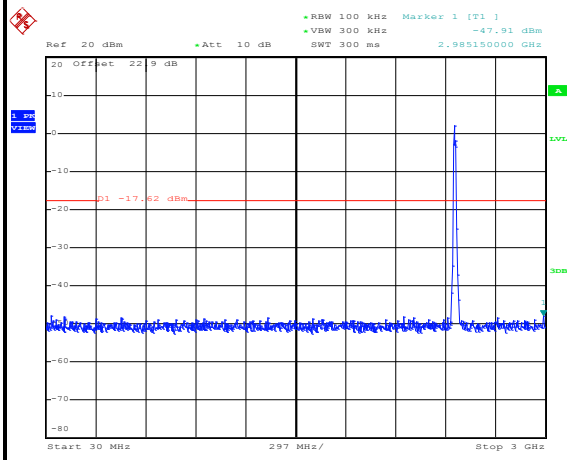
Date: 11.JUN.2016 01:29:30

High Channel Plot



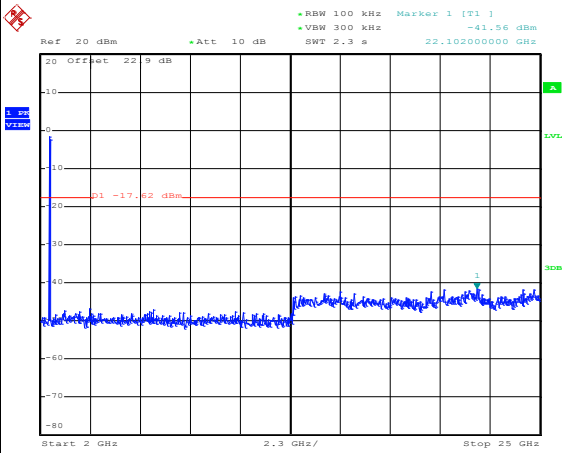
Date: 11.JUN.2016 01:29:41

Spurious Emission 30MHz~3GHz



Date: 11.JUN.2016 01:29:54

Spurious Emission 2GHz~25GHz

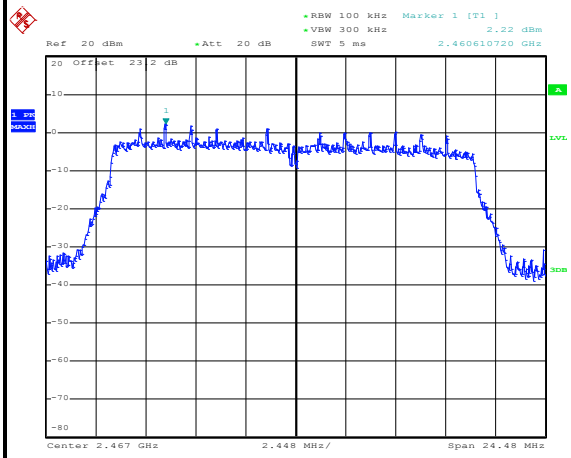


Date: 11.JUN.2016 01:30:03

Test Mode :	802.11n HT20	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	12	**Test Engineer :**	Derek Hsu

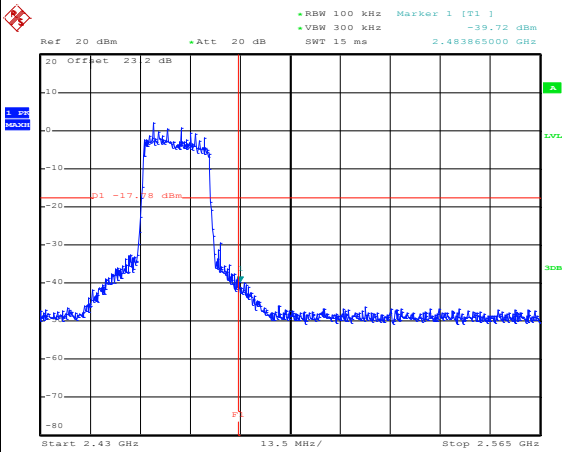
WLAN 802.11n HT20 Channel 12

100kHz PSD reference Level



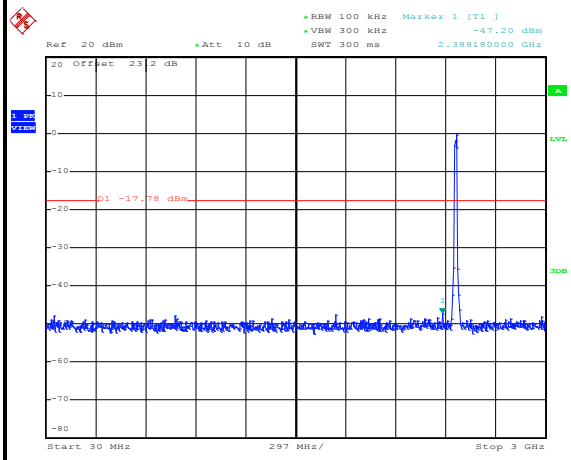
Date: 16.JUL.2016 03:29:07

High Channel Plot



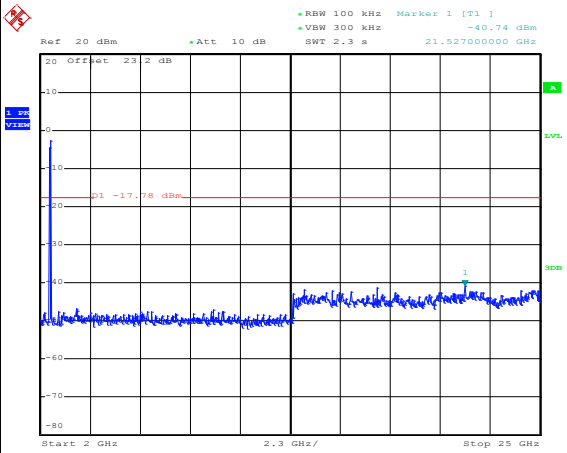
Date: 16.JUL.2016 03:29:24

Spurious Emission 30MHz~3GHz



Date: 16.JUL.2016 03:30:24

Spurious Emission 2GHz~25GHz

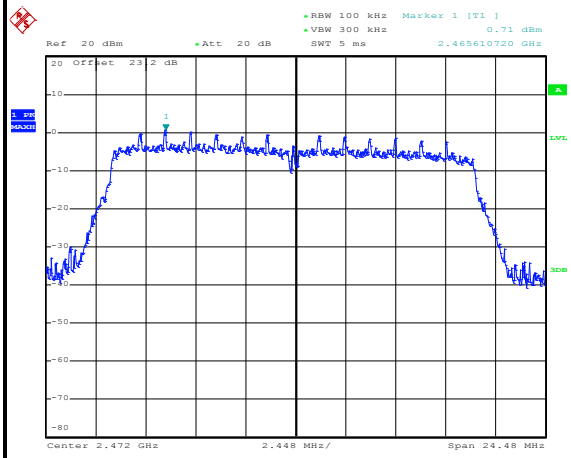


Date: 16.JUL.2016 03:30:32

Test Mode :	802.11n HT20	**Temperature :**	21~25℃
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	13	**Test Engineer :**	Derek Hsu

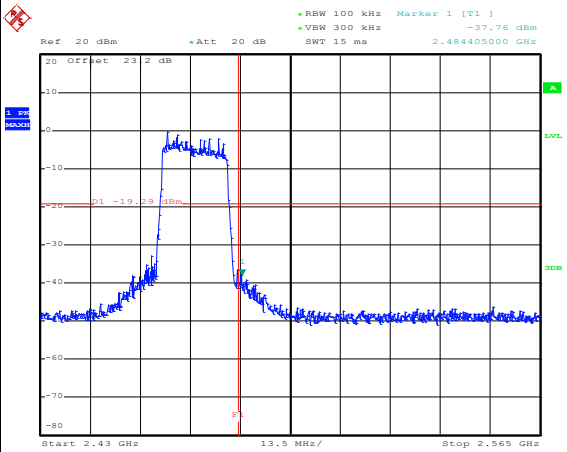
WLAN 802.11n HT20 Channel 13

100kHz PSD reference Level



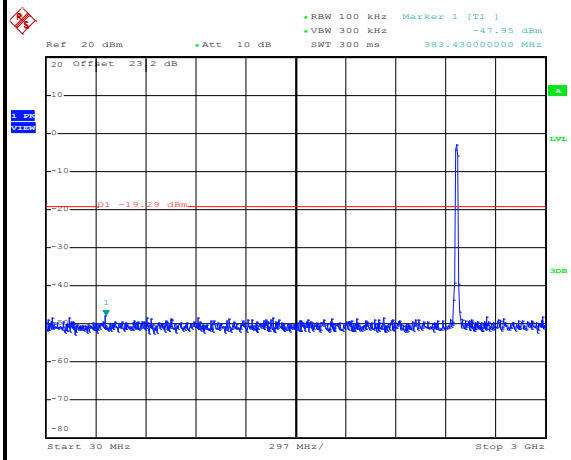
Date: 16.JUL.2016 03:33:11

High Channel Plot



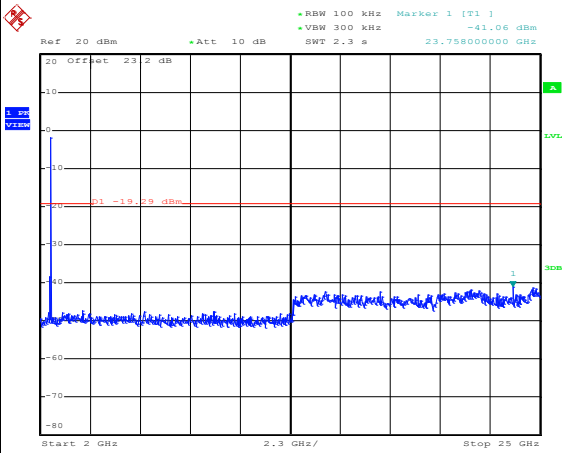
Date: 16.JUL.2016 03:33:22

Spurious Emission 30MHz~3GHz



Date: 16.JUL.2016 03:33:36

Spurious Emission 2GHz~25GHz



Date: 16.JUL.2016 03:33:44

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 FCC section 15.209 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

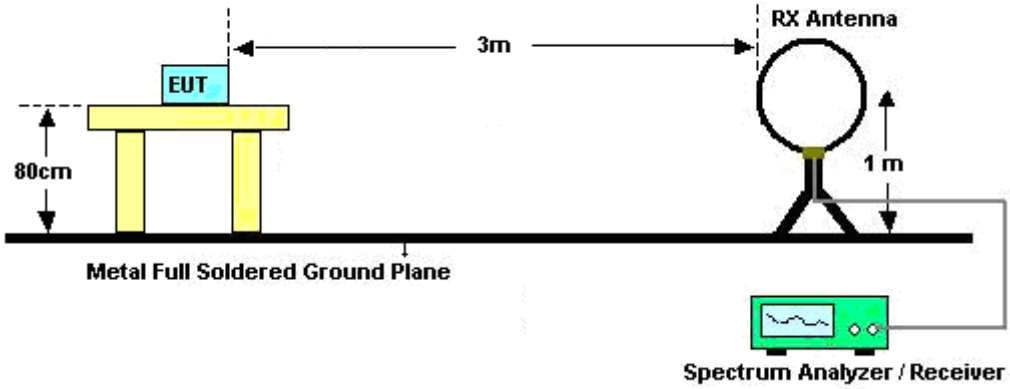
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

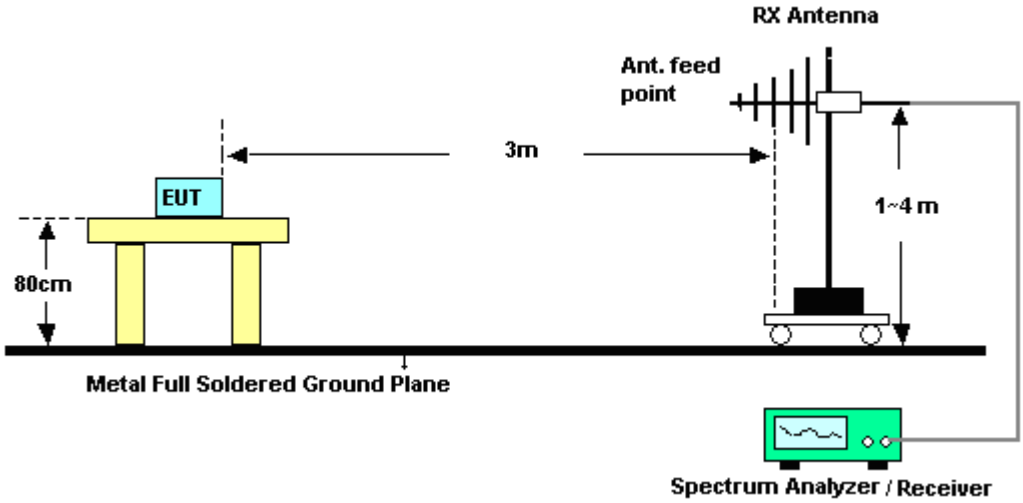
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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 measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. 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

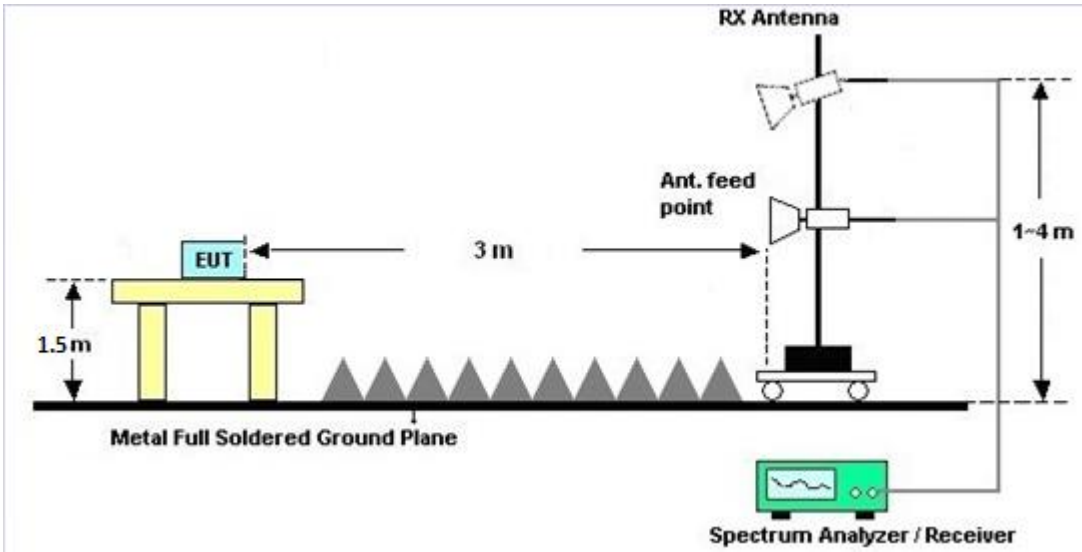
For radiated emissions below 30MHz



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 per 15.31(o) was not reported.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.5.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

3.6 Antenna Requirements

3.6.1 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. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. 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 FCC rule.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Oct. 05, 2015	Jun. 01, 2016 ~ Jul. 16, 2016	Oct. 04, 2016	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Oct. 05, 2015	Jun. 01, 2016 ~ Jul. 16, 2016	Oct. 04, 2016	Conducted (TH02-HY)
Signal Analyzer	Rohde & Schwarz	FSQ	200578/026	20Hz~26.5GHz	May 20, 2016	Jun. 01, 2016 ~ Jul. 16, 2016	May 19, 2017	Conducted (TH02-HY)
Programmable Power Supply	GW Instek	PSS-2005	GEO821763	N/A	Nov. 13, 2015	Jun. 01, 2016 ~ Jul. 16, 2016	Nov. 12, 2016	Conducted (TH02-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Jun. 09, 2016 ~ Jul. 16, 2016	Sep. 01, 2016	Radiation (03CH10-HY)
Amplifier	SONOMA	310N	187311	9kHz~1GHz	Nov. 16, 2015	Jun. 09, 2016 ~ Jul. 16, 2016	Nov. 15, 2016	Radiation (03CH10-HY)
Bilog Antenna	TESEQ	CBL 6111D	35413	30MHz~1GHz	Jan. 13, 2016	Jun. 09, 2016 ~ Jul. 16, 2016	Jan. 12, 2017	Radiation (03CH10-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1325	1GHz ~ 18GHz	Sep. 30, 2015	Jun. 09, 2016 ~ Jul. 16, 2016	Sep. 29, 2016	Radiation (03CH10-HY)
Preamplifier	Keysight	83017A	MY53270078	1GHz~26.5GHz	Nov. 13, 2015	Jun. 09, 2016 ~ Jul. 16, 2016	Nov. 12, 2016	Radiation (03CH10-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200485	10Hz ~ 44GHz	Oct. 15, 2015	Jun. 09, 2016 ~ Jul. 16, 2016	Oct. 14, 2016	Radiation (03CH10-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jun. 09, 2016 ~ Jul. 16, 2016	N/A	Radiation (03CH10-HY)
Turn Table	EMEC	TT 2200	N/A	0~360 Degree	N/A	Jun. 09, 2016 ~ Jul. 16, 2016	N/A	Radiation (03CH10-HY)
Preamplifier	MITEQ	TTA0204	1872107	2GHz~40GHz	Feb. 15, 2016	Jun. 09, 2016 ~ Jul. 16, 2016	Feb. 14, 2017	Radiation (03CH10-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 15, 2016	Jun. 09, 2016 ~ Jul. 16, 2016	Apr. 14, 2017	Radiation (03CH10-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	N/A	Mar. 10, 2016	Jun. 09, 2016 ~ Jul. 16, 2016	Mar. 09, 2017	Radiation (03CH10-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9**

Appendix A. Conducted Test Results

Report Number : FR5O2025-01B

A1 - DTS Part

Test Engineer:	Derek hsu	Temperature:	21~25	°C
Test Date:	2016/06/01~2016/07/16	Relative Humidity:	51~54	%

Report Number : FR5O2025-01B

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
11b	1Mbps	1	1	2412	14.40	11.08	0.50	Pass
11b	1Mbps	1	6	2437	14.40	11.11	0.50	Pass
11b	1Mbps	1	11	2462	14.40	11.10	0.50	Pass
11b	1Mbps	1	12	2467	14.35	12.04	0.50	Pass
11b	1Mbps	1	13	2472	14.25	12.06	0.50	Pass
11g	6Mbps	1	1	2412	17.60	15.92	0.50	Pass
11g	6Mbps	1	6	2437	18.75	15.69	0.50	Pass
11g	6Mbps	1	11	2462	17.85	15.72	0.50	Pass
11g	6Mbps	1	12	2467	17.75	15.72	0.50	Pass
11g	6Mbps	1	13	2472	17.70	15.72	0.50	Pass
HT20	MCS0	1	1	2412	18.55	16.34	0.50	Pass
HT20	MCS0	1	6	2437	19.40	16.33	0.50	Pass
HT20	MCS0	1	11	2462	18.55	16.32	0.50	Pass
HT20	MCS0	1	12	2467	18.50	16.32	0.50	Pass
HT20	MCS0	1	13	2472	18.45	16.32	0.50	Pass

Report Number : FR5O2025-01B

TEST RESULTS DATA
Peak Power Table

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
11b	1Mbps	1	1	2412	19.71	30.00	1.57	21.28	36.00	Pass
11b	1Mbps	1	6	2437	19.43	30.00	1.57	21.00	36.00	Pass
11b	1Mbps	1	11	2462	19.10	30.00	1.57	20.67	36.00	Pass
11b	1Mbps	1	12	2467	17.34	30.00	1.57	18.91	36.00	Pass
11b	1Mbps	1	13	2472	15.00	30.00	1.57	16.57	36.00	Pass
11g	6Mbps	1	1	2412	21.94	30.00	1.57	23.51	36.00	Pass
11g	6Mbps	1	6	2437	23.51	30.00	1.57	25.08	36.00	Pass
11g	6Mbps	1	11	2462	21.79	30.00	1.57	23.36	36.00	Pass
11g	6Mbps	1	12	2467	21.21	30.00	1.57	22.78	36.00	Pass
11g	6Mbps	1	13	2472	20.62	30.00	1.57	22.19	36.00	Pass
HT20	MCS0	1	1	2412	21.67	30.00	1.57	23.24	36.00	Pass
HT20	MCS0	1	6	2437	23.48	30.00	1.57	25.05	36.00	Pass
HT20	MCS0	1	11	2462	20.99	30.00	1.57	22.56	36.00	Pass
HT20	MCS0	1	12	2467	21.66	30.00	1.57	23.23	36.00	Pass
HT20	MCS0	1	13	2472	20.35	30.00	1.57	21.92	36.00	Pass

TEST RESULTS DATA
Average Power Table
(Reporting Only)

2.4GHz Band						
Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
11b	1Mbps	1	1	2412	0.00	17.39
11b	1Mbps	1	6	2437	0.00	16.86
11b	1Mbps	1	11	2462	0.00	16.57
11b	1Mbps	1	12	2467	0.00	14.41
11b	1Mbps	1	13	2472	0.00	12.18
11g	6Mbps	1	1	2412	0.18	14.23
11g	6Mbps	1	6	2437	0.18	18.24
11g	6Mbps	1	11	2462	0.18	14.46
11g	6Mbps	1	12	2467	0.18	12.03
11g	6Mbps	1	13	2472	0.18	11.48
HT20	MCS0	1	1	2412	0.16	13.66
HT20	MCS0	1	6	2437	0.16	18.22
HT20	MCS0	1	11	2462	0.16	13.07
HT20	MCS0	1	12	2467	0.16	12.34
HT20	MCS0	1	13	2472	0.16	10.87

Report Number : FR5O2025-01B

TEST RESULTS DATA
Peak Power Density

2.4GHz Band								
Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
11b	1Mbps	1	1	2412	-6.65	1.57	8.00	Pass
11b	1Mbps	1	6	2437	-7.48	1.57	8.00	Pass
11b	1Mbps	1	11	2462	-7.36	1.57	8.00	Pass
11b	1Mbps	1	12	2467	-9.90	1.57	8.00	Pass
11b	1Mbps	1	13	2472	-11.30	1.57	8.00	Pass
11g	6Mbps	1	1	2412	-7.30	1.57	8.00	Pass
11g	6Mbps	1	6	2437	-6.72	1.57	8.00	Pass
11g	6Mbps	1	11	2462	-7.67	1.57	8.00	Pass
11g	6Mbps	1	12	2467	-7.22	1.57	8.00	Pass
11g	6Mbps	1	13	2472	-7.58	1.57	8.00	Pass
HT20	MCS0	1	1	2412	-6.87	1.57	8.00	Pass
HT20	MCS0	1	6	2437	-6.48	1.57	8.00	Pass
HT20	MCS0	1	11	2462	-8.12	1.57	8.00	Pass
HT20	MCS0	1	12	2467	-7.53	1.57	8.00	Pass
HT20	MCS0	1	13	2472	-7.75	1.57	8.00	Pass

Appendix B. Radiated Spurious Emission

Test Engineer :	Tsung Lee and Wilson Wu	Temperature :	22~24°C
		Relative Humidity :	50~54%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		2389.695	53.95	-20.05	74	54.57	27.23	5.39	33.24	100	317	P	H
		2386.965	47.15	-6.85	54	47.77	27.23	5.39	33.24	100	317	A	H
	*	2410	105.21	-	-	105.73	27.28	5.42	33.22	100	317	P	H
	*	2410	101.73	-	-	102.25	27.28	5.42	33.22	100	317	A	H
													H
													H
		2385.18	53.61	-20.39	74	54.27	27.19	5.39	33.24	112	29	P	V
		2386.335	46.28	-7.72	54	46.9	27.23	5.39	33.24	112	29	A	V
	*	2410	103.08	-	-	103.6	27.28	5.42	33.22	112	29	P	V
	*	2410	99.63	-	-	100.15	27.28	5.42	33.22	112	29	A	V
													V
													V
802.11b CH 06 2437MHz		2327.92	52.19	-21.81	74	53.07	27.05	5.33	33.26	100	294	P	H
		2388.96	40.36	-13.64	54	40.98	27.23	5.39	33.24	100	294	A	H
	*	2437	103.47	-	-	103.89	27.37	5.42	33.21	100	294	P	H
	*	2437	100	-	-	100.42	27.37	5.42	33.21	100	294	A	H
		2488.94	51.3	-22.7	74	51.52	27.5	5.46	33.18	100	294	P	H
		2484.6	40.66	-13.34	54	40.92	27.46	5.46	33.18	100	294	A	H
		2365.44	51.4	-22.6	74	52.11	27.14	5.39	33.24	100	82	P	V
		2389.24	40.3	-13.7	54	40.92	27.23	5.39	33.24	100	82	A	V
	*	2437	104.73	-	-	105.15	27.37	5.42	33.21	100	82	P	V
	*	2437	101.22	-	-	101.64	27.37	5.42	33.21	100	82	A	V
		2483.9	51.44	-22.56	74	51.7	27.46	5.46	33.18	100	82	P	V
		2484.6	41.16	-12.84	54	41.42	27.46	5.46	33.18	100	82	A	V

802.11b CH 11 2462MHz	*	2462	102.81	-	-	103.16	27.41	5.44	33.2	109	204	P	H
	*	2462	99.26	-	-	99.61	27.41	5.44	33.2	109	204	A	H
		2486.72	53.05	-20.95	74	53.31	27.46	5.46	33.18	109	204	P	H
		2487.72	42.96	-11.04	54	43.18	27.5	5.46	33.18	109	204	A	H
													H
													H
	*	2462	105.89	-	-	106.24	27.41	5.44	33.2	104	137	P	V
	*	2462	102.41	-	-	102.76	27.41	5.44	33.2	104	137	A	V
		2490.76	52.64	-21.36	74	52.86	27.5	5.46	33.18	104	137	P	V
		2487.56	43.7	-10.3	54	43.92	27.5	5.46	33.18	104	137	A	V
													V
													V
802.11b CH 12 2467MHz	*	2467	101.77	-	-	102.1	27.41	5.44	33.18	100	228	P	H
	*	2467	98.25	-	-	98.58	27.41	5.44	33.18	100	228	A	H
		2483.8	58.22	-15.78	74	58.48	27.46	5.46	33.18	100	228	P	H
		2484	52.76	-1.24	54	53.02	27.46	5.46	33.18	100	228	A	H
													H
													H
	*	2467	101.55	-	-	101.88	27.41	5.44	33.18	277	11	P	V
	*	2467	98.32	-	-	98.65	27.41	5.44	33.18	277	11	A	V
		2483.84	57.62	-16.38	74	57.88	27.46	5.46	33.18	277	11	P	V
		2484.04	51.18	-2.82	54	51.44	27.46	5.46	33.18	277	11	A	V
													V
													V

802.11b CH 13 2472MHz	*	2472	98.85	-	-	99.13	27.46	5.44	33.18	100	316	P	H
	*	2472	95.36	-	-	95.64	27.46	5.44	33.18	100	316	A	H
		2486.92	58.44	-15.56	74	58.7	27.46	5.46	33.18	100	316	P	H
		2486.76	52.88	-1.12	54	53.14	27.46	5.46	33.18	100	316	A	H
													H
													H
	*	2470	98.78	-	-	99.11	27.41	5.44	33.18	278	65	P	V
	*	2470	95.36	-	-	95.69	27.41	5.44	33.18	278	65	A	V
		2487.08	58.23	-15.77	74	58.49	27.46	5.46	33.18	278	65	P	V
		2486.8	53.01	-0.99	54	53.27	27.46	5.46	33.18	278	65	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. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	50.78	-23.22	74	44.33	31.46	7.58	32.59	382	172	P	H
		4824	48.23	-5.77	54	41.78	31.46	7.58	32.59	382	172	A	H
													H
													H
		4824	51.34	-22.66	74	44.89	31.46	7.58	32.59	238	173	P	V
		4824	50.4	-3.6	54	43.95	31.46	7.58	32.59	238	173	A	V
													V
													V
802.11b CH 06 2437MHz		4872	49.27	-24.73	74	42.59	31.56	7.7	32.58	100	0	P	H
		7309	55.65	-18.35	74	43.47	36.18	9.49	33.49	200	247	P	H
		7309	51.56	-2.44	54	39.38	36.18	9.49	33.49	200	247	A	H
													H
		4872	49.49	-24.51	74	42.81	31.56	7.7	32.58	100	0	P	V
		7309	54.54	-19.46	74	42.36	36.18	9.49	33.49	391	53	P	V
		7309	50.44	-3.56	54	38.26	36.18	9.49	33.49	391	53	A	V
													V
802.11b CH 11 2462MHz		4926	48.65	-25.35	74	41.64	31.66	7.93	32.58	100	0	P	H
		7386	55.45	-18.55	74	43.08	36.37	9.53	33.53	197	248	P	H
		7386	50.72	-3.28	54	38.35	36.37	9.53	33.53	197	248	A	H
													H
		4926	49.92	-24.08	74	42.91	31.66	7.93	32.58	100	0	P	V
		7384	55.25	-18.75	74	42.88	36.37	9.53	33.53	188	211	P	V
		7384	48.69	-5.31	54	36.32	36.37	9.53	33.53	188	211	A	V
													V

802.11b CH 12 2467MHz		4934	46.8	-27.2	74	63.61	31.66	7.93	56.4	100	0	P	H
		7401	49.27	-24.73	74	60.61	36.41	9.61	57.36	100	0	P	H
													H
													H
		4934	45.26	-28.74	74	62.07	31.66	7.93	56.4	100	0	P	V
		7401	49.34	-24.66	74	60.68	36.41	9.61	57.36	100	0	P	V
													V
													V
802.11b CH 13 2472MHz		4944	45.52	-28.48	74	62.26	31.7	7.93	56.37	100	0	P	H
		7416	47.39	-26.61	74	58.73	36.41	9.61	57.36	100	0	P	H
													H
													H
		4944	43.14	-30.86	74	59.88	31.7	7.93	56.37	100	0	P	V
		7416	47.34	-26.66	74	58.68	36.41	9.61	57.36	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2390	65.86	-8.14	74	66.46	27.23	5.39	33.22	317	304	P	H
		2390	53.56	-0.44	54	54.16	27.23	5.39	33.22	317	304	A	H
	*	2412	106.25	-	-	106.77	27.28	5.42	33.22	317	304	P	H
	*	2412	98.39	-	-	98.91	27.28	5.42	33.22	317	304	A	H
													H
													H
		2389.695	66.8	-7.2	74	67.42	27.23	5.39	33.24	161	22	P	V
		2390	52.51	-1.49	54	53.11	27.23	5.39	33.22	161	22	A	V
	*	2412	104.62	-	-	105.14	27.28	5.42	33.22	161	22	P	V
	*	2412	96.17	-	-	96.69	27.28	5.42	33.22	161	22	A	V
													V
													V
802.11g CH 06 2437MHz		2386.02	52.63	-21.37	74	53.25	27.23	5.39	33.24	100	303	P	H
		2379.02	41.31	-12.69	54	41.97	27.19	5.39	33.24	100	303	A	H
	*	2437	106.7	-	-	107.12	27.37	5.42	33.21	100	303	P	H
	*	2437	99.02	-	-	99.44	27.37	5.42	33.21	100	303	A	H
		2483.62	52.94	-21.06	74	53.2	27.46	5.46	33.18	100	303	P	H
		2483.76	42.36	-11.64	54	42.62	27.46	5.46	33.18	100	303	A	H
		2388.96	52.52	-21.48	74	53.14	27.23	5.39	33.24	116	28	P	V
		2389.94	42.17	-11.83	54	42.77	27.23	5.39	33.22	116	28	A	V
	*	2437	108.6	-	-	109.02	27.37	5.42	33.21	116	28	P	V
	*	2437	101	-	-	101.42	27.37	5.42	33.21	116	28	A	V
		2485.3	53.92	-20.08	74	54.18	27.46	5.46	33.18	116	28	P	V
		2483.69	43.01	-10.99	54	43.27	27.46	5.46	33.18	116	28	A	V

802.11g CH 11 2462MHz	*	2462	102.65	-	-	103	27.41	5.44	33.2	393	8	P	H
	*	2462	95.17	-	-	95.52	27.41	5.44	33.2	393	8	A	H
		2484	60.51	-13.49	74	60.77	27.46	5.46	33.18	393	8	P	H
		2483.52	47.38	-6.62	54	47.64	27.46	5.46	33.18	393	8	A	H
													H
													H
	*	2462	106.32	-	-	106.67	27.41	5.44	33.2	197	101	P	V
	*	2462	98.68	-	-	99.03	27.41	5.44	33.2	197	101	A	V
		2483.84	67.95	-6.05	74	68.21	27.46	5.46	33.18	197	101	P	V
		2483.64	52.83	-1.17	54	53.09	27.46	5.46	33.18	197	101	A	V
													V
													V
802.11g CH 12 2467MHz	*	2467	104.38	-	-	104.71	27.41	5.44	33.18	308	193	P	H
	*	2467	96.97	-	-	97.3	27.41	5.44	33.18	308	193	A	H
		2484.6	65.51	-8.49	74	65.77	27.46	5.46	33.18	308	193	P	H
		2483.72	53.28	-0.72	54	53.54	27.46	5.46	33.18	308	193	A	H
													H
													H
	*	2467	100.01	-	-	100.34	27.41	5.44	33.18	138	32	P	V
	*	2467	92.27	-	-	92.6	27.41	5.44	33.18	138	32	A	V
		2484.4	60.79	-13.21	74	61.05	27.46	5.46	33.18	138	32	P	V
		2483.52	48.26	-5.74	54	48.52	27.46	5.46	33.18	138	32	A	V
													V
													V

802.11g CH 13 2472MHz	*	2472	100.41	-	-	100.69	27.46	5.44	33.18	100	30	P	H
	*	2472	92.49	-	-	92.77	27.46	5.44	33.18	100	30	A	H
		2483.56	68.23	-5.77	74	68.49	27.46	5.46	33.18	100	30	P	H
		2483.84	53.12	-0.88	54	53.38	27.46	5.46	33.18	100	30	A	H
													H
													H
	*	2472	99.35	-	-	99.63	27.46	5.44	33.18	110	202	P	V
	*	2472	91.64	-	-	91.92	27.46	5.44	33.18	110	202	A	V
		2485.44	66.93	-7.07	74	67.19	27.46	5.46	33.18	110	202	P	V
		2484.08	51.07	-2.93	54	51.33	27.46	5.46	33.18	110	202	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. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	45.75	-28.25	74	39.3	31.46	7.58	32.59	100	0	P	H
													H
													H
													H
		4824	47.18	-26.82	74	40.73	31.46	7.58	32.59	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4872	49.02	-24.98	74	42.34	31.56	7.7	32.58	100	0	P	H
		7311	58.48	-15.52	74	46.3	36.18	9.49	33.49	208	247	P	H
		7311	49.53	-4.47	54	37.35	36.18	9.49	33.49	208	247	A	H
													H
		4872	47.86	-26.14	74	41.18	31.56	7.7	32.58	100	0	P	V
		7311	55.29	-18.71	74	43.11	36.18	9.49	33.49	100	184	P	V
		7311	46.46	-7.54	54	34.28	36.18	9.49	33.49	100	184	A	V
													V
802.11g CH 11 2462MHz		4926	45.46	-28.54	74	38.45	31.66	7.93	32.58	100	0	P	H
		7386	54.95	-19.05	74	42.58	36.37	9.53	33.53	100	211	P	H
		7386	45.85	-8.15	54	33.48	36.37	9.53	33.53	100	211	A	H
													H
		4920	47.33	-26.67	74	40.43	31.66	7.82	32.58	100	0	P	V
		7386	53.44	-20.56	74	41.07	36.37	9.53	33.53	126	186	P	V
		7386	45.62	-8.38	54	33.25	36.37	9.53	33.53	126	186	A	V
													V

802.11g CH 12 2467MHz		4934	43.81	-30.19	74	60.62	31.66	7.93	56.4	100	0	P	H
		7401	47.3	-26.7	74	58.64	36.41	9.61	57.36	100	0	P	H
													H
													H
		4934	46.93	-27.07	74	63.74	31.66	7.93	56.4	100	0	P	V
		7401	48.63	-25.37	74	59.97	36.41	9.61	57.36	100	0	P	V
													V
													V
802.11g CH 13 2472MHz		4944	42.92	-31.08	74	59.66	31.7	7.93	56.37	100	0	P	H
		7416	45.17	-28.83	74	56.51	36.41	9.61	57.36	100	0	P	H
													H
													H
		4944	44.39	-29.61	74	61.13	31.7	7.93	56.37	100	0	P	V
		7416	46.43	-27.57	74	57.77	36.41	9.61	57.36	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.8	67.29	-6.71	74	67.89	27.23	5.39	33.22	100	291	P	H
		2389.905	53.42	-0.58	54	54.02	27.23	5.39	33.22	100	291	A	H
	*	2412	103.53	-	-	104.05	27.28	5.42	33.22	100	291	P	H
	*	2412	95.79	-	-	96.31	27.28	5.42	33.22	100	291	A	H
													H
													H
		2389.485	65.51	-8.49	74	66.13	27.23	5.39	33.24	110	31	P	V
		2390	51.71	-2.29	54	52.31	27.23	5.39	33.22	110	31	A	V
	*	2412	102.15	-	-	102.67	27.28	5.42	33.22	110	31	P	V
	*	2412	94.63	-	-	95.15	27.28	5.42	33.22	110	31	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2379.3	52.36	-21.64	74	53.02	27.19	5.39	33.24	100	289	P	H
		2389.24	41.53	-12.47	54	42.15	27.23	5.39	33.24	100	289	A	H
	*	2437	106.99	-	-	107.41	27.37	5.42	33.21	100	289	P	H
	*	2437	98.54	-	-	98.96	27.37	5.42	33.21	100	289	A	H
		2486.42	51.85	-22.15	74	52.11	27.46	5.46	33.18	100	289	P	H
		2484.74	41.61	-12.39	54	41.87	27.46	5.46	33.18	100	289	A	H
		2387	51.12	-22.88	74	51.74	27.23	5.39	33.24	111	28	P	V
		2389.52	42.41	-11.59	54	43.03	27.23	5.39	33.24	111	28	A	V
	*	2437	108.28	-	-	108.7	27.37	5.42	33.21	111	28	P	V
	*	2437	100.71	-	-	101.13	27.37	5.42	33.21	111	28	A	V
		2484.67	54.24	-19.76	74	54.5	27.46	5.46	33.18	111	28	P	V
		2484.81	42.73	-11.27	54	42.99	27.46	5.46	33.18	111	28	A	V

	*	2462	101.64	-	-	101.99	27.41	5.44	33.2	113	204	P	H
	*	2462	93.73	-	-	94.08	27.41	5.44	33.2	113	204	A	H
		2483.52	61.04	-12.96	74	61.3	27.46	5.46	33.18	113	204	P	H
		2483.68	47.79	-6.21	54	48.05	27.46	5.46	33.18	113	204	A	H
802.11n													H
HT20													H
CH 11	*	2462	106.16	-	-	106.51	27.41	5.44	33.2	100	133	P	V
2462MHz	*	2462	97.26	-	-	97.61	27.41	5.44	33.2	100	133	A	V
		2483.84	65.09	-8.91	74	65.35	27.46	5.46	33.18	100	133	P	V
		2483.56	52.06	-1.94	54	52.32	27.46	5.46	33.18	100	133	A	V
													V
													V
		2467	101.83	-	-	102.16	27.41	5.44	33.18	100	229	P	H
		2467	94.11	-	-	94.44	27.41	5.44	33.18	100	229	A	H
		2483.56	64.84	-9.16	74	65.1	27.46	5.46	33.18	100	229	P	H
		2483.52	52.78	-1.22	54	53.04	27.46	5.46	33.18	100	229	A	H
802.11n													H
HT20													H
CH 12		2467	101.37	-	-	101.7	27.41	5.44	33.18	277	11	P	V
2467MHz		2467	93.95	-	-	94.28	27.41	5.44	33.18	277	11	A	V
		2484.36	62.76	-11.24	74	63.02	27.46	5.46	33.18	277	11	P	V
		2483.52	50.71	-3.29	54	50.97	27.46	5.46	33.18	277	11	A	V
													V
													V

802.11n HT20 CH 13 2472MHz	*	2472	99.81	-	-	100.09	27.46	5.44	33.18	100	316	P	H
	*	2472	92.16	-	-	92.44	27.46	5.44	33.18	100	316	A	H
		2485.12	69.24	-4.76	74	69.5	27.46	5.46	33.18	100	316	P	H
		2483.72	52.89	-1.11	54	53.15	27.46	5.46	33.18	100	316	A	H
													H
													H
	*	2472	99.65	-	-	99.93	27.46	5.44	33.18	281	65	P	V
	*	2472	92.11	-	-	92.39	27.46	5.44	33.18	281	65	A	V
		2483.64	67.04	-6.96	74	67.3	27.46	5.46	33.18	281	65	P	V
		2483.84	53.23	-0.77	54	53.49	27.46	5.46	33.18	281	65	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. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	45.03	-28.97	74	38.58	31.46	7.58	32.59	100	0	P	H
													H
													H
													H
		4824	46.69	-27.31	74	40.24	31.46	7.58	32.59	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4872	48.22	-25.78	74	41.54	31.56	7.7	32.58	100	0	P	H
		7314	56.71	-17.29	74	44.54	36.18	9.49	33.5	100	208	P	H
		7314	48.15	-5.85	54	35.98	36.18	9.49	33.5	100	208	A	H
													H
		4872	49.86	-24.14	74	43.18	31.56	7.7	32.58	100	0	P	V
		7308	55.68	-18.32	74	43.5	36.18	9.49	33.49	126	185	P	V
		7308	46.49	-7.51	54	34.31	36.18	9.49	33.49	126	185	A	V
													V
802.11n HT20 CH 11 2462MHz		4926	44.13	-29.87	74	37.12	31.66	7.93	32.58	100	0	P	H
		7386	49.66	-24.34	74	37.29	36.37	9.53	33.53	100	0	P	H
													H
													H
		4926	45.78	-28.22	74	38.77	31.66	7.93	32.58	100	0	P	V
		7386	49.46	-24.54	74	37.09	36.37	9.53	33.53	100	0	P	V
													V
													V

802.11n HT20 CH 12 2467MHz		4934	41.69	-32.31	74	58.5	31.66	7.93	56.4	100	0	P	H
		7401	46.55	-27.45	74	57.89	36.41	9.61	57.36	100	0	P	H
													H
													H
		4934	44.86	-29.14	74	61.67	31.66	7.93	56.4	100	0	P	V
		7401	47.98	-26.02	74	59.32	36.41	9.61	57.36	100	0	P	V
													V
													V
802.11n HT20 CH 13 2472MHz		4944	43.22	-30.78	74	59.96	31.7	7.93	56.37	100	0	P	H
		7416	45.11	-28.89	74	56.45	36.41	9.61	57.36	100	0	P	H
													H
													H
		4944	44.15	-29.85	74	60.89	31.7	7.93	56.37	100	0	P	V
		7416	46.53	-27.47	74	57.87	36.41	9.61	57.36	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

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		30	23.15	-16.85	40	29.22	26.1	0.65	32.82			P	H
		99.39	27.2	-16.3	43.5	42.29	16.4	1.14	32.63			P	H
		261.39	25.41	-20.59	46	36.66	19.72	1.76	32.73			P	H
		764.1	41.03	-4.97	46	43.42	27.62	2.91	32.92			P	H
		794.2	41.84	-4.16	46	43.91	27.85	2.97	32.89	100	0	P	H
		813.8	40.18	-5.82	46	41.79	28.12	3.07	32.8			P	H
													H
													H
													H
													H
													H
													H
		43.77	35.36	-4.64	40	49.24	18.26	0.65	32.79	100	0	P	V
		170.94	18.83	-24.67	43.5	33.91	16.14	1.48	32.7			P	V
		261.39	21.88	-24.12	46	33.13	19.72	1.76	32.73			P	V
		753.6	39.04	-6.96	46	41.53	27.53	2.91	32.93			P	V
		773.9	39.6	-6.4	46	41.85	27.69	2.97	32.91			P	V
		804	39	-7	46	40.93	27.96	2.97	32.86			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	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b 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. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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 C. Radiated Spurious Emission Plots

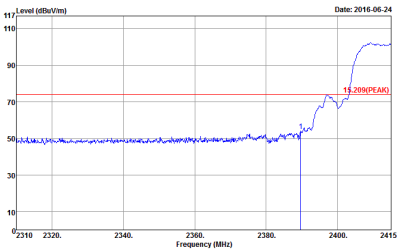
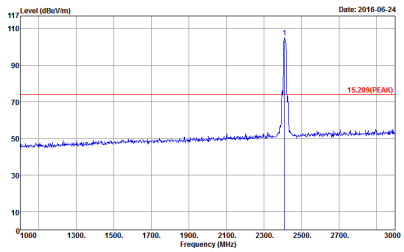
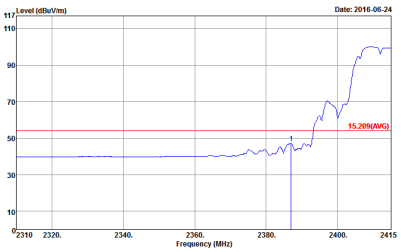
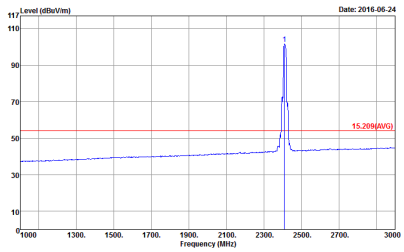
Test Engineer :	Tsung Lee and Wilson Wu	**Temperature :**	22~24°C
		Relative Humidity :	50~54%

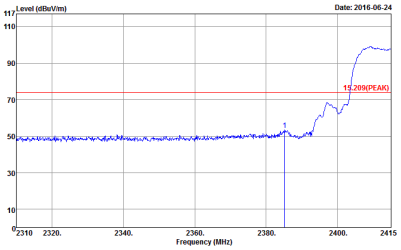
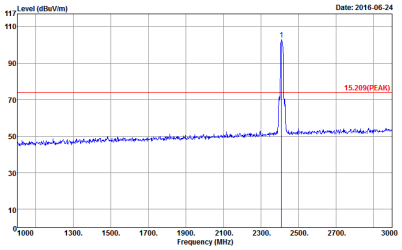
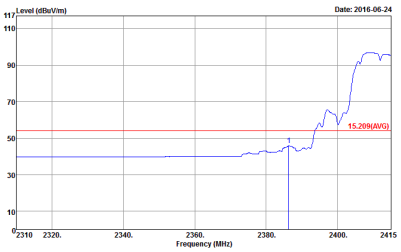
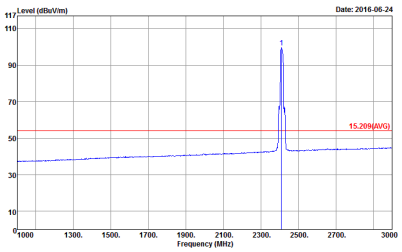
Note symbol

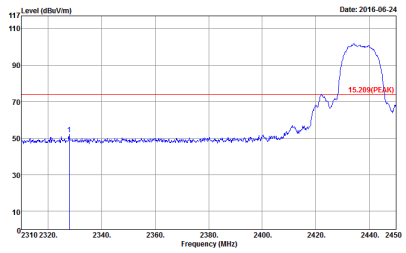
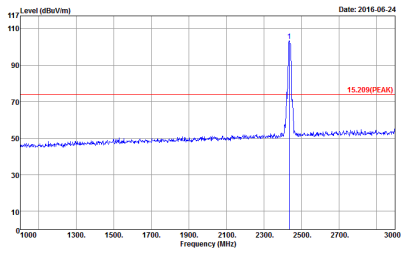
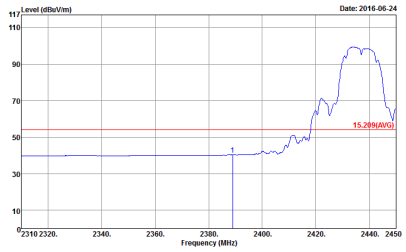
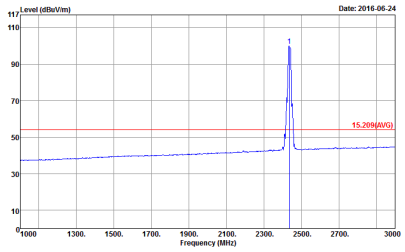
-L	**Low channel location**
-R	**High channel location**

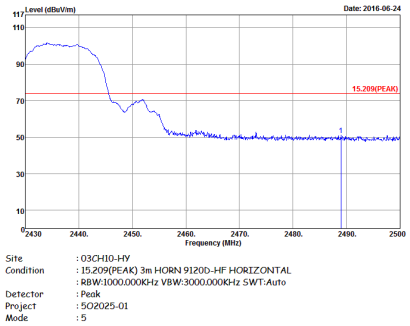
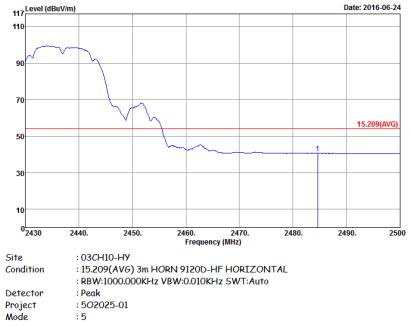
2.4GHz 2400~2483.5MHz

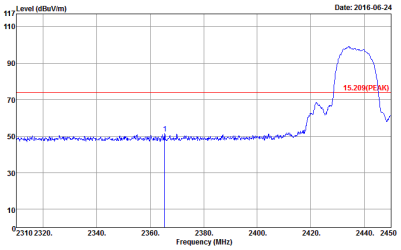
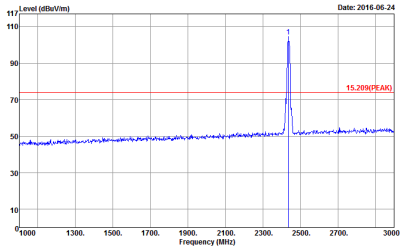
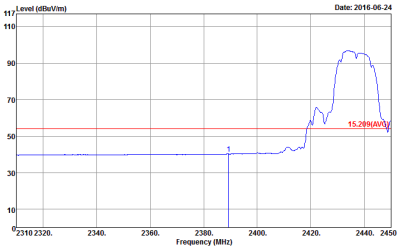
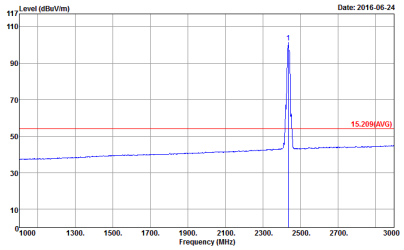
WIFI 802.11b (Band Edge and Fundamental @ 3m)

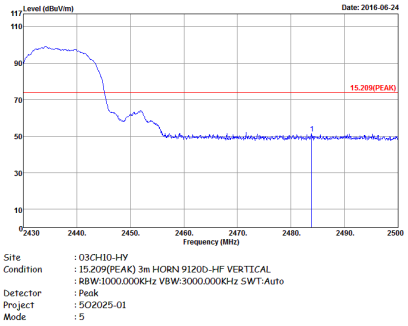
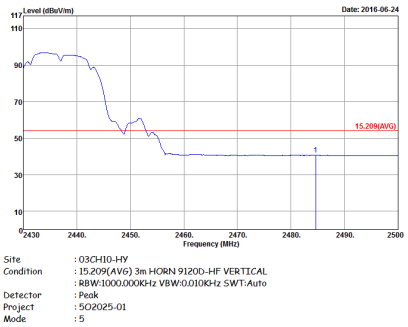
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4

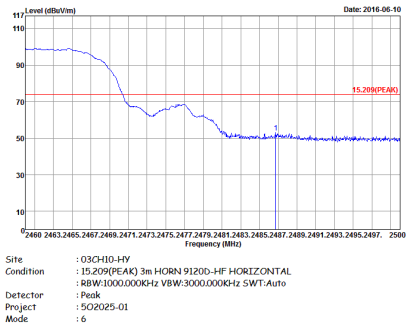
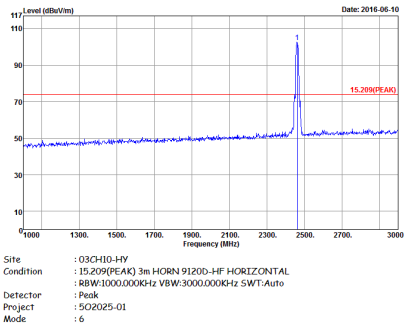
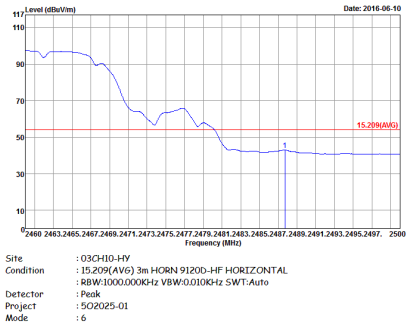
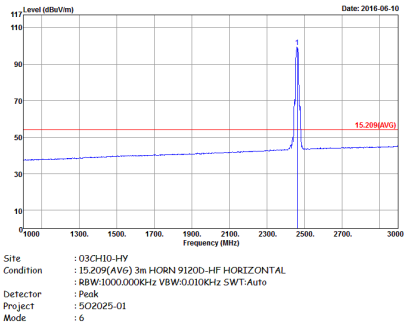
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 4

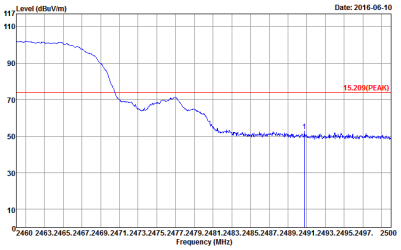
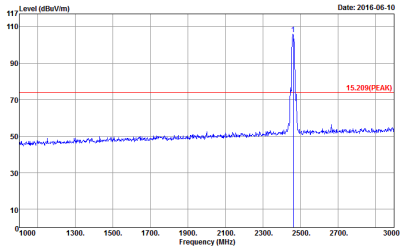
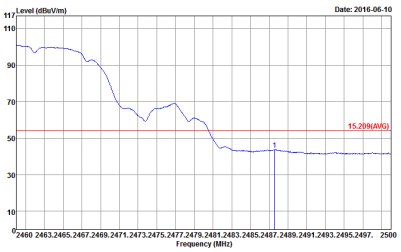
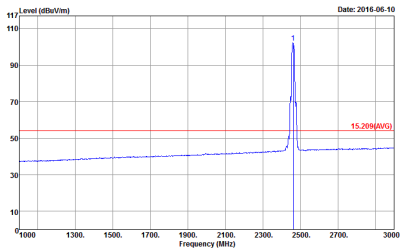
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5

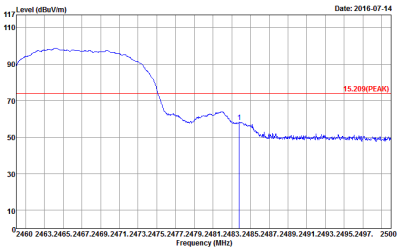
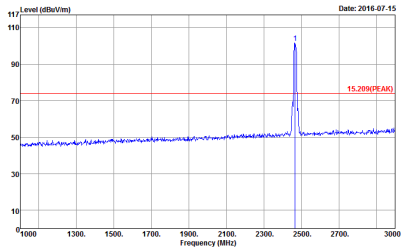
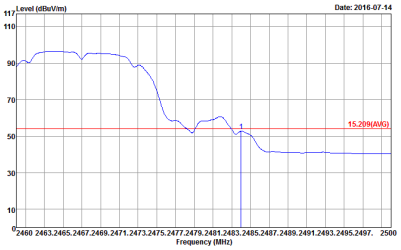
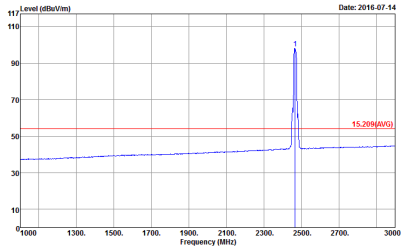
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	
Peak		
Avg.		

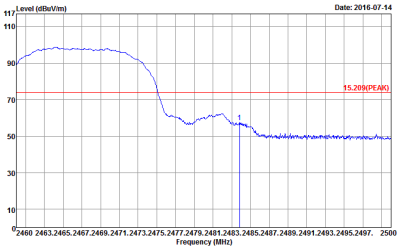
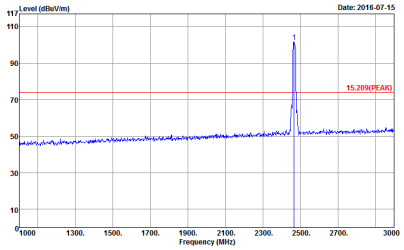
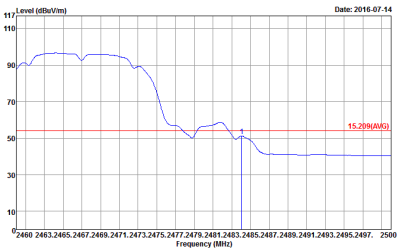
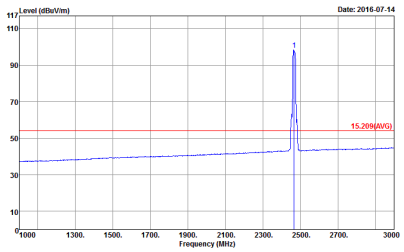
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 5

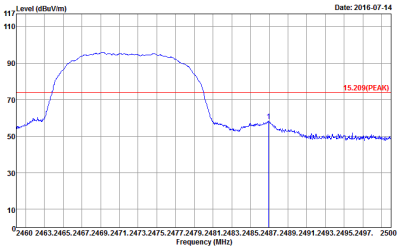
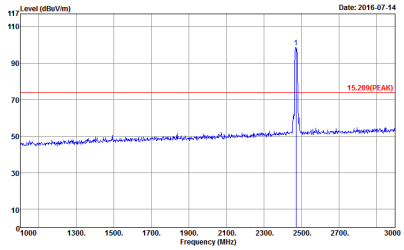
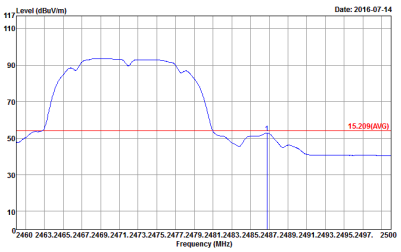
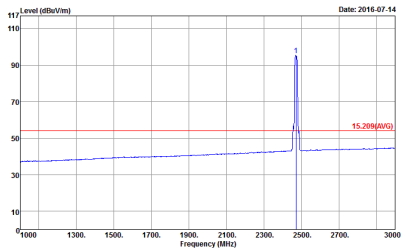
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	
Peak		
Avg.		

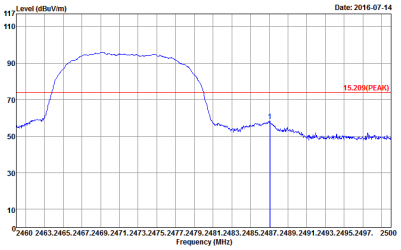
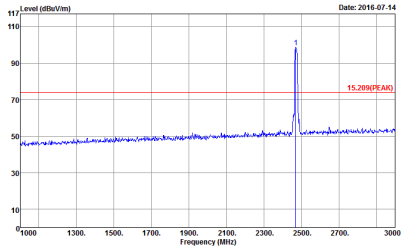
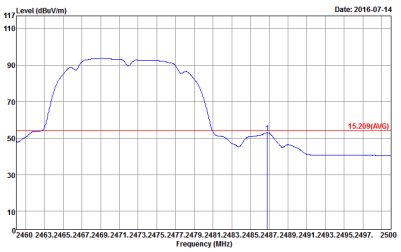
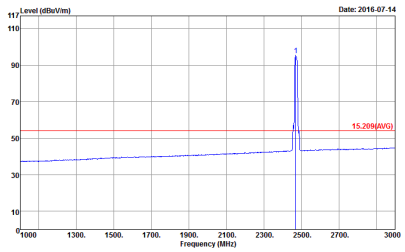
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 6	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 6
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 6	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 6

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2

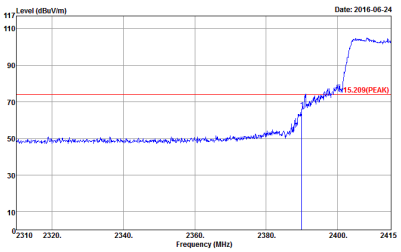
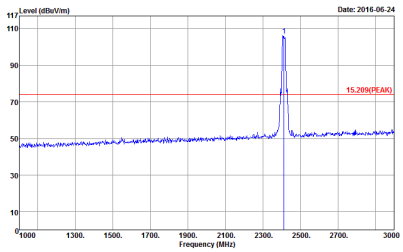
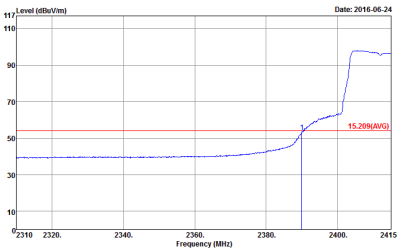
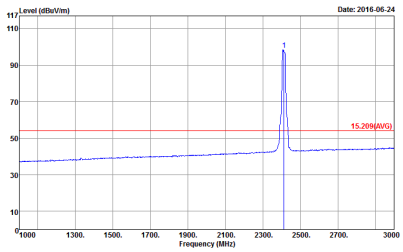
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH12 2467MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 15 Setting : 3/18/-2

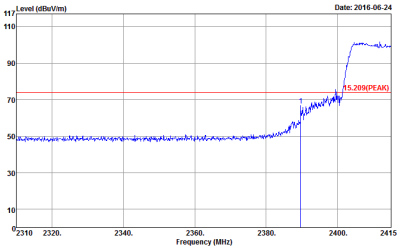
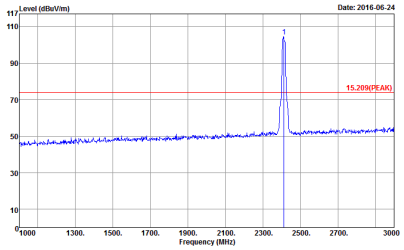
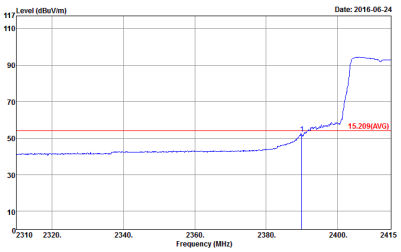
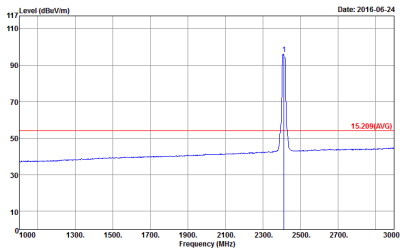
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5

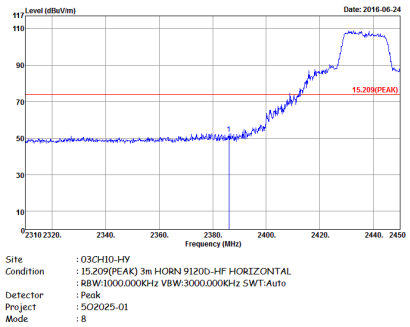
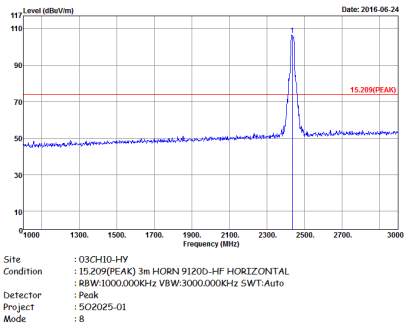
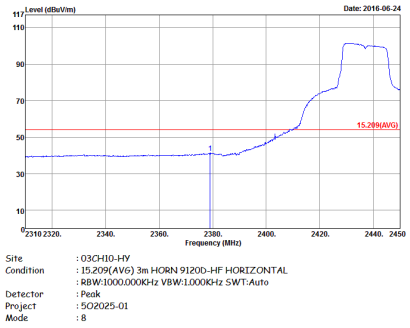
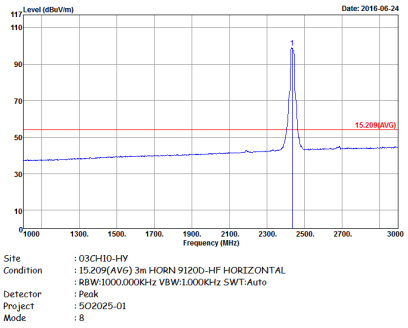
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 16 Setting : 3/18/-4.5

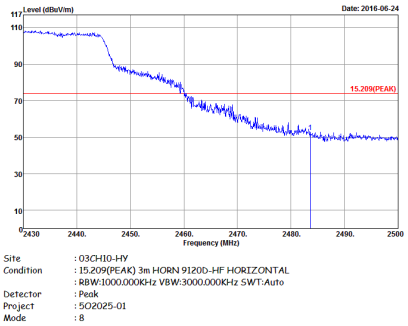
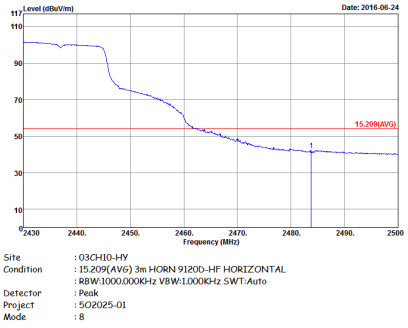
2.4GHz 2400~2483.5MHz

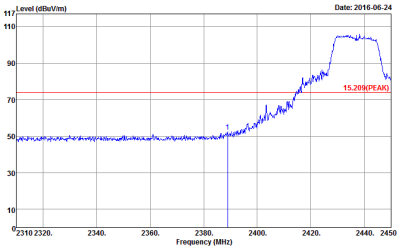
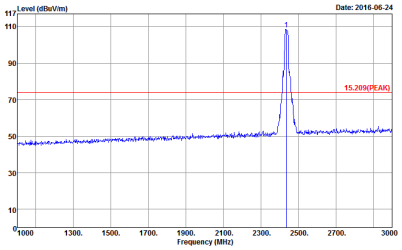
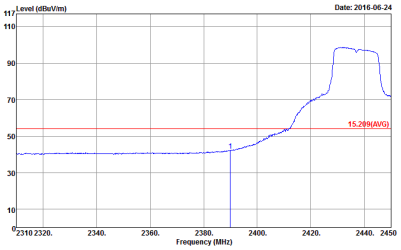
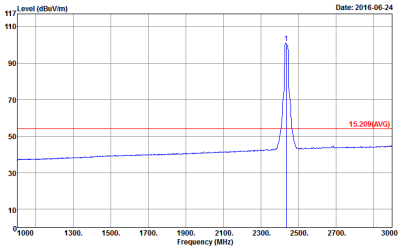
WIFI 802.11g (Band Edge and Fundamental @ 3m)

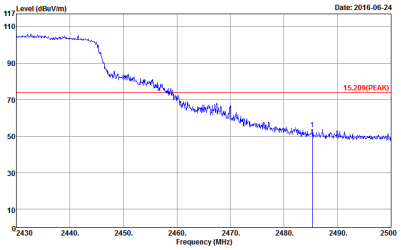
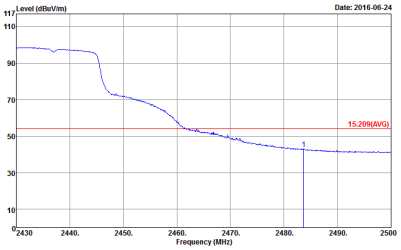
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7

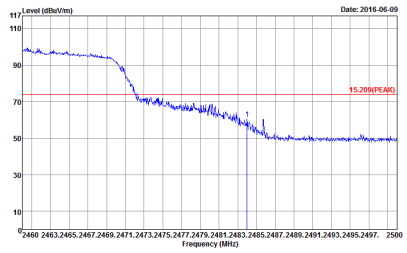
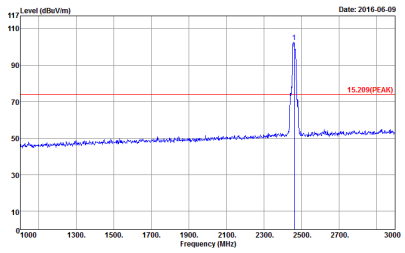
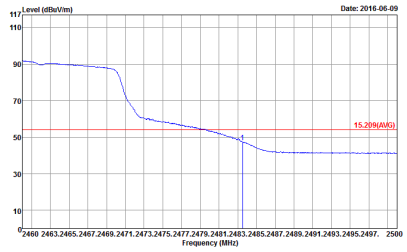
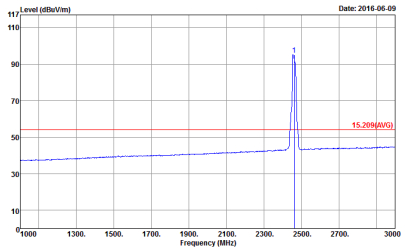
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 7

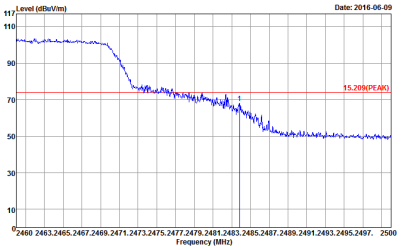
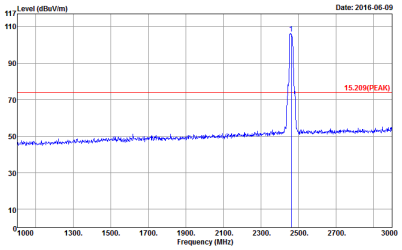
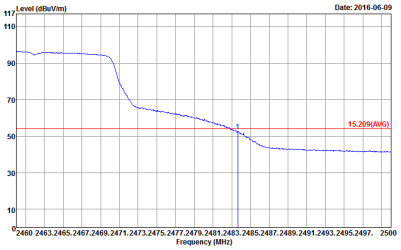
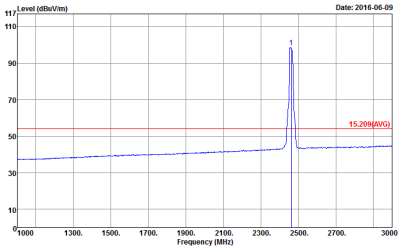
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

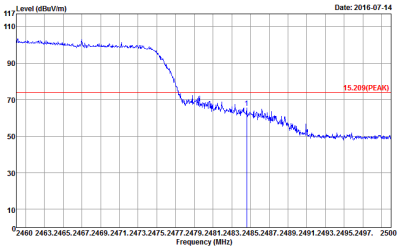
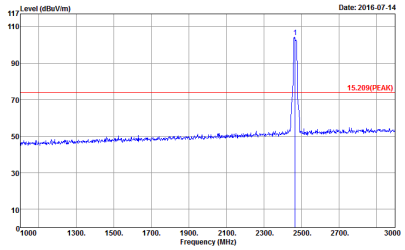
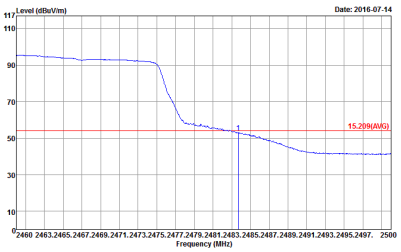
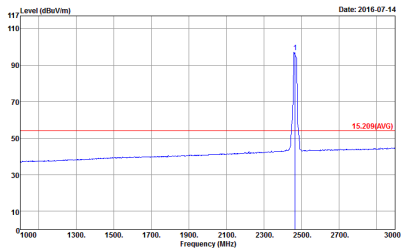
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	
Peak		
Avg.		

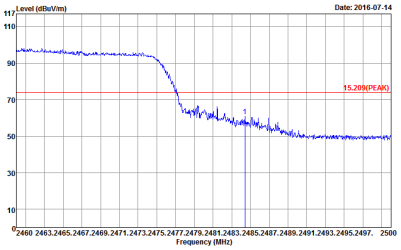
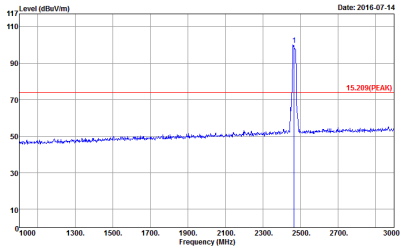
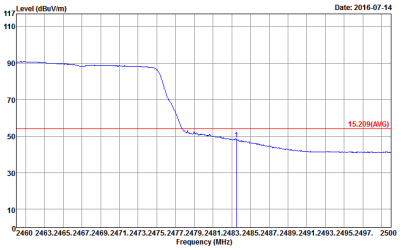
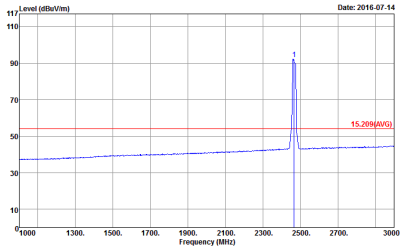
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 8	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Q Project : 5O2025-01 Mode : 8
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 8	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 8

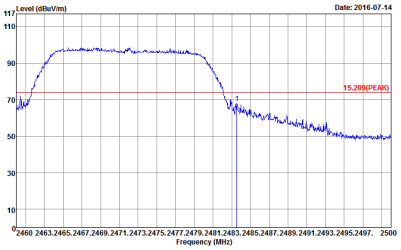
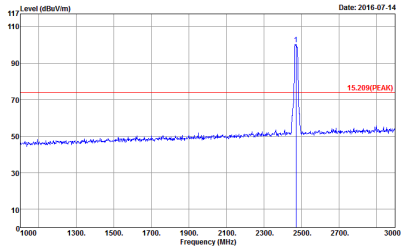
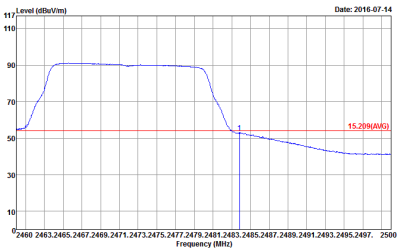
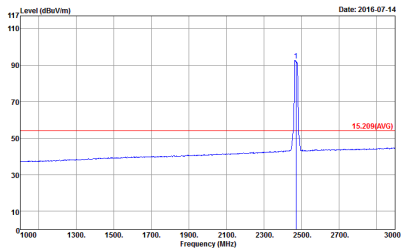
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 8	
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 8	

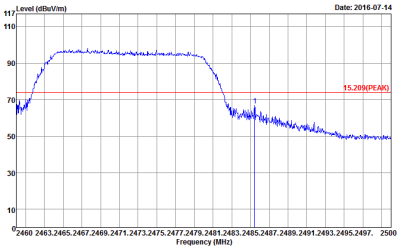
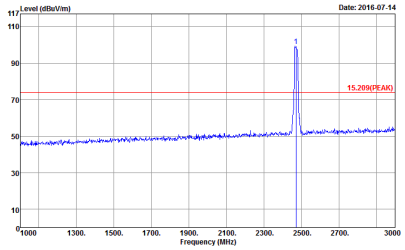
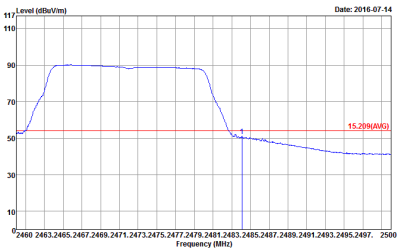
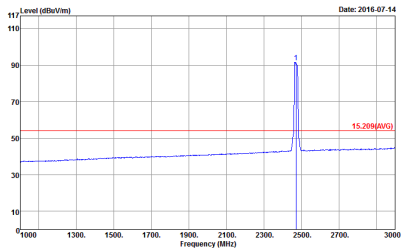
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 9

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17

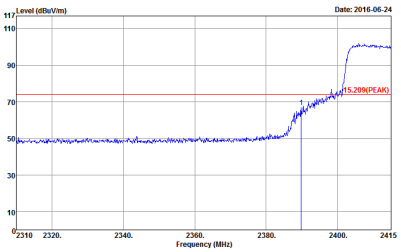
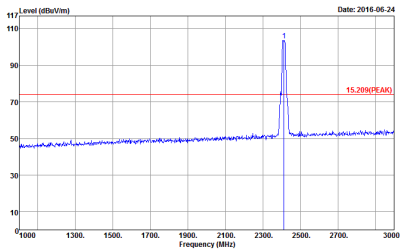
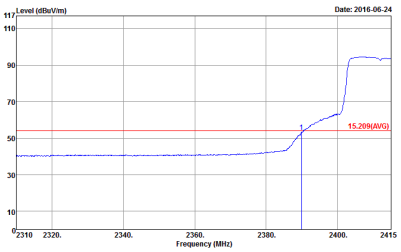
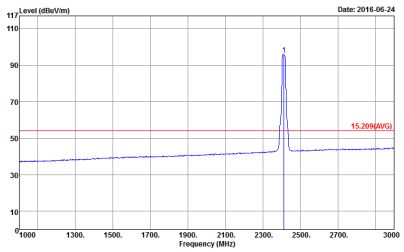
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH12 2467MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 17

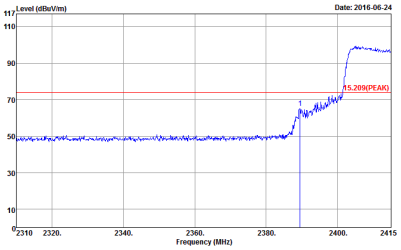
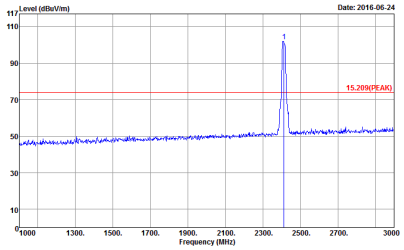
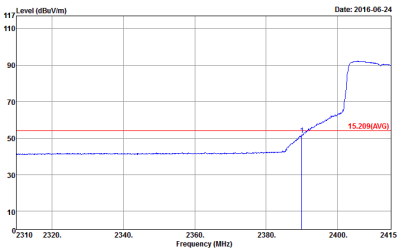
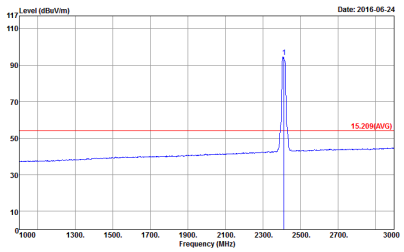
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5

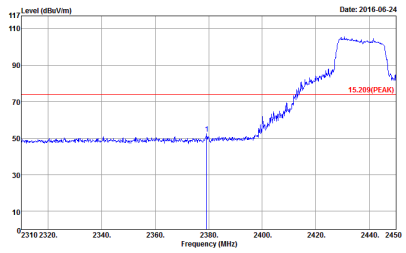
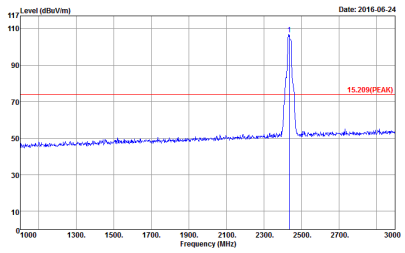
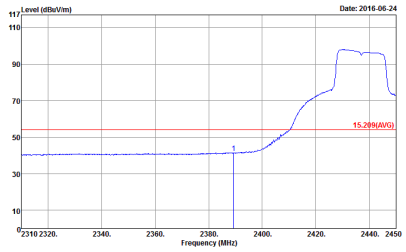
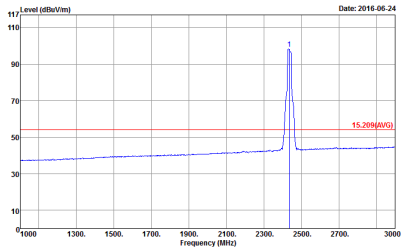
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 18 Setting : 6/18/-11.5

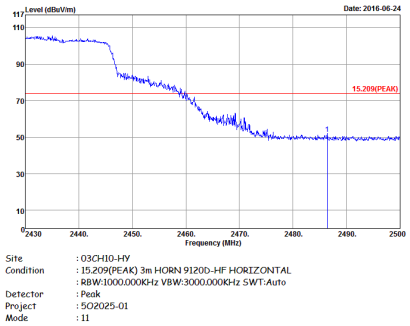
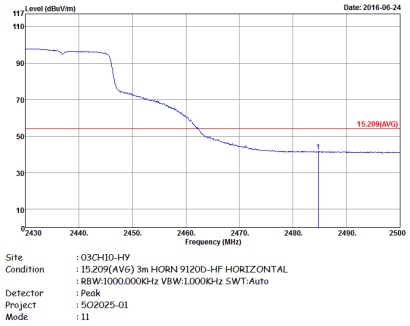
2.4GHz 2400~2483.5MHz

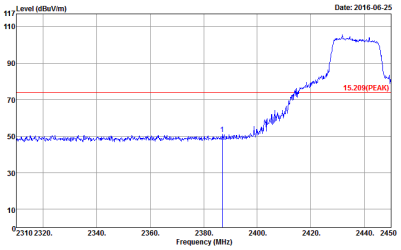
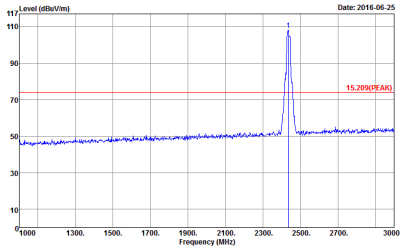
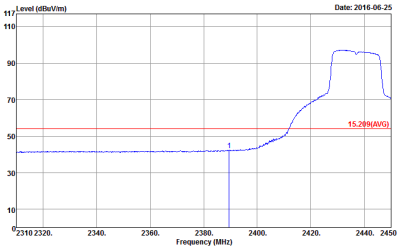
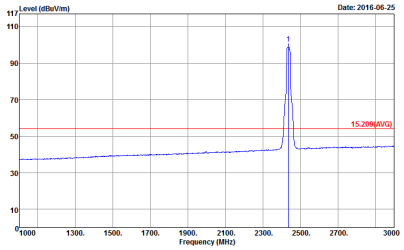
WIFI 802.11n HT20 (Band Edge and Fundamental @ 3m)

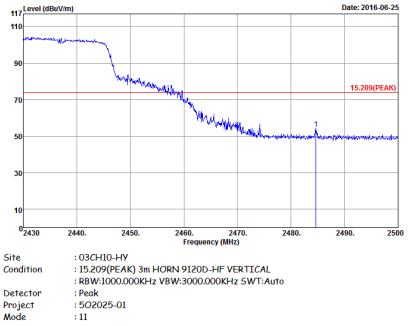
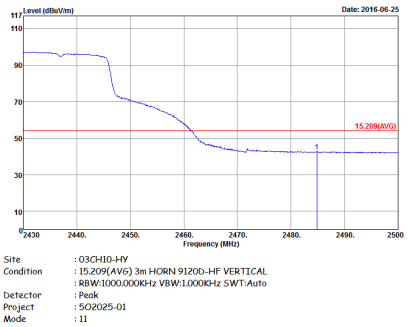
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10

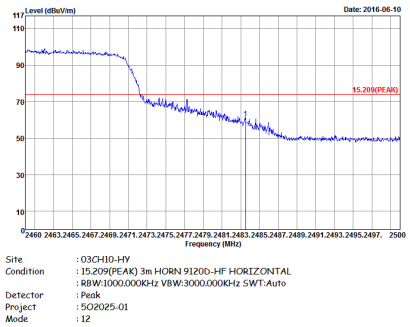
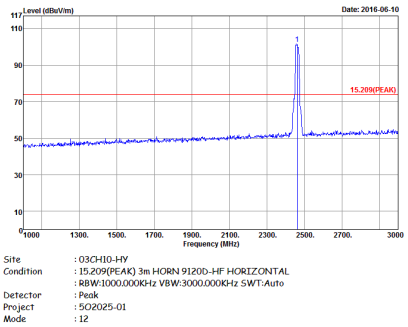
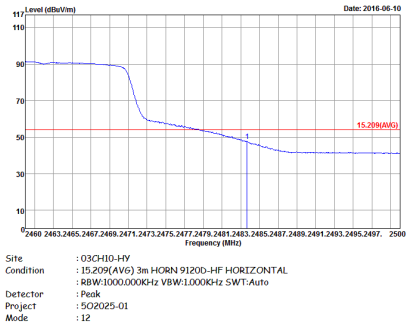
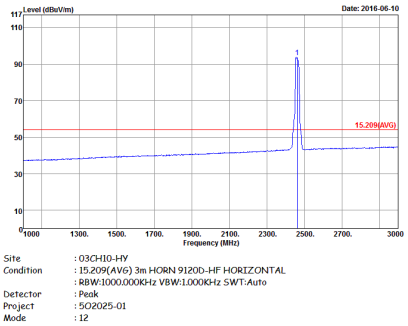
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 10

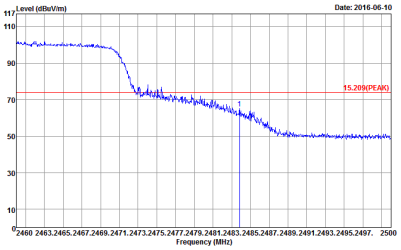
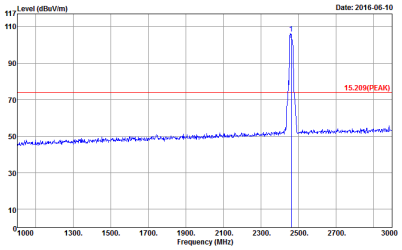
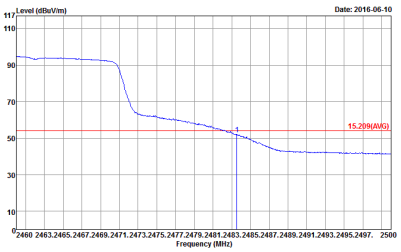
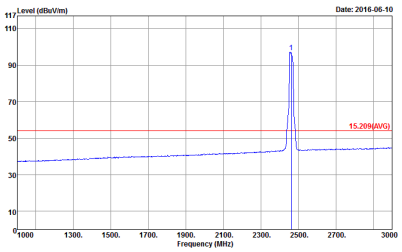
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11

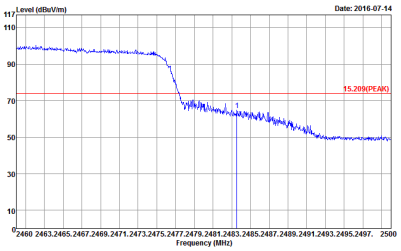
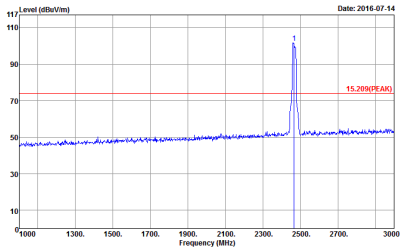
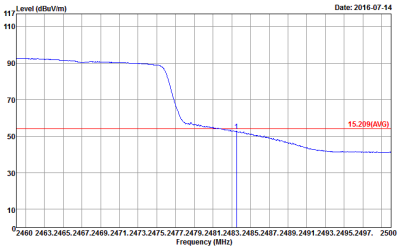
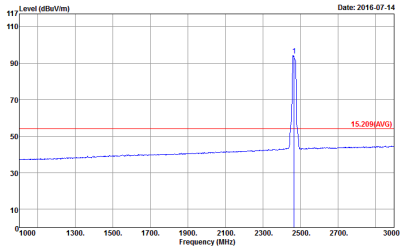
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	
Peak		
Avg.		

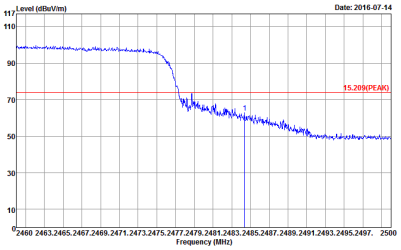
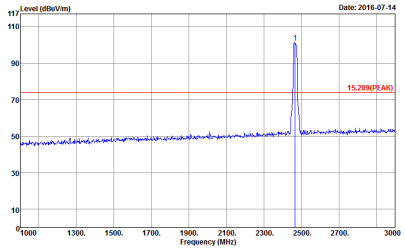
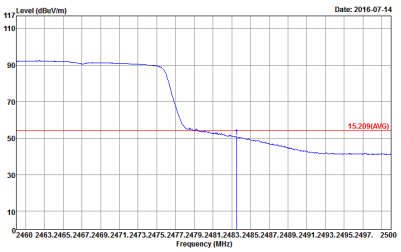
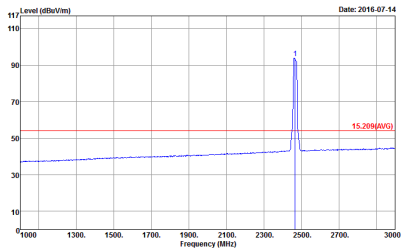
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 11

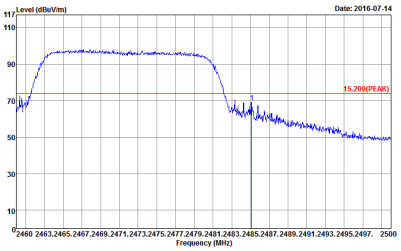
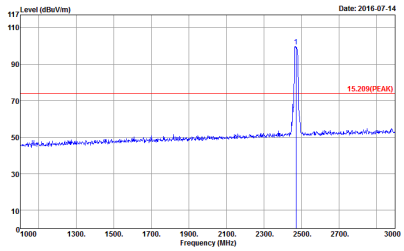
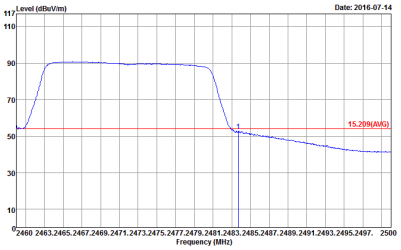
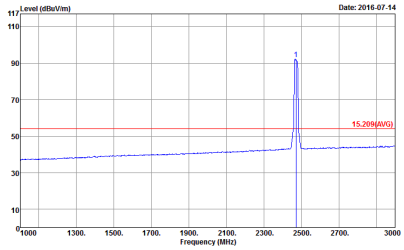
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	
Peak		
Avg.		

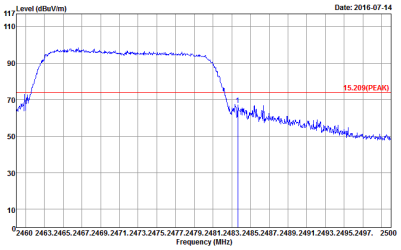
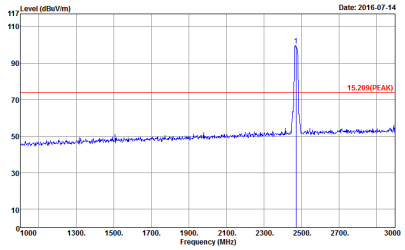
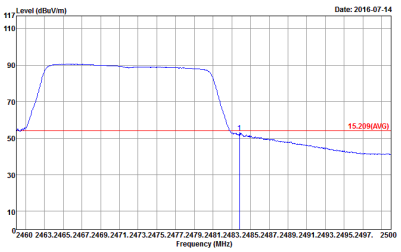
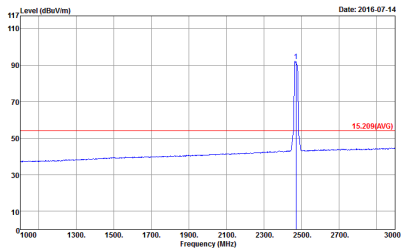
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 12	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 12
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 12	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 12

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5

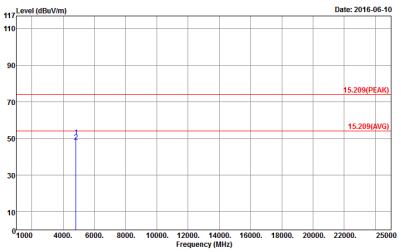
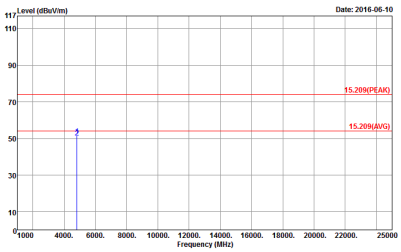
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 19 Setting : 6/18/-10.5

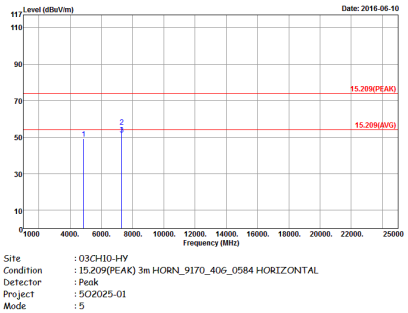
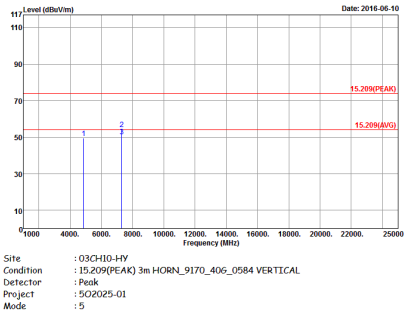
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12

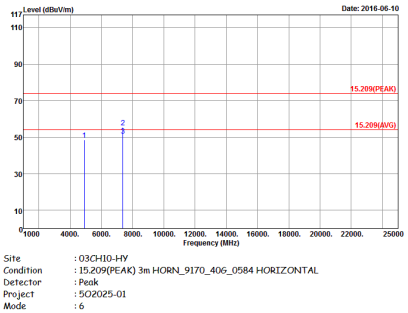
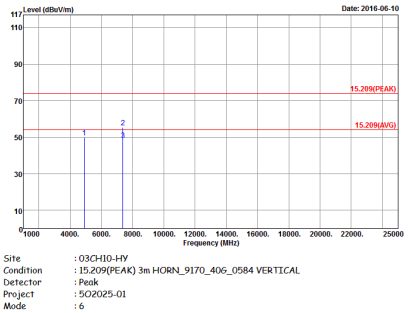
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12
Avg.	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12	 Site : 03CH10-HY Condition : 15.209(AVG) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 5O2025-01 Mode : 20 Setting : 6/18/-12

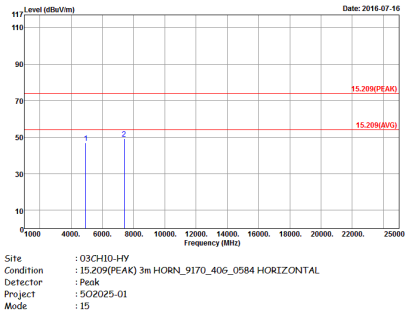
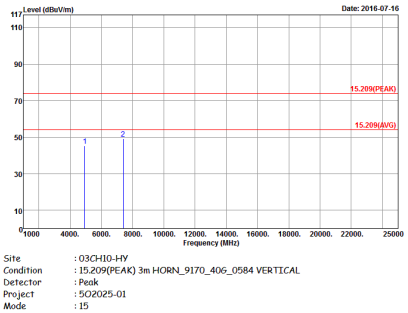
2.4GHz 2400~2483.5MHz

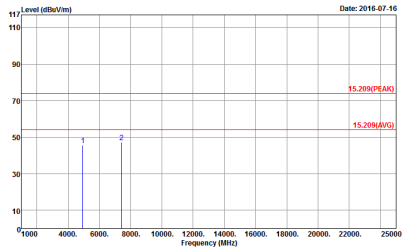
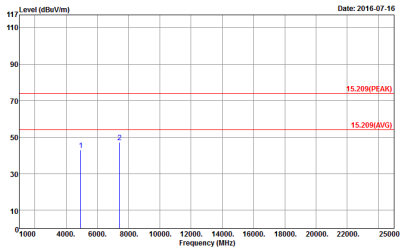
WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 4	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 4

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 	

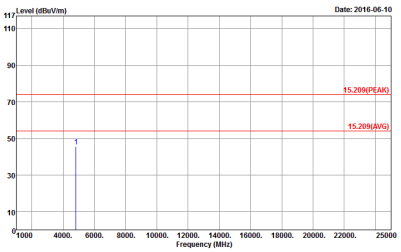
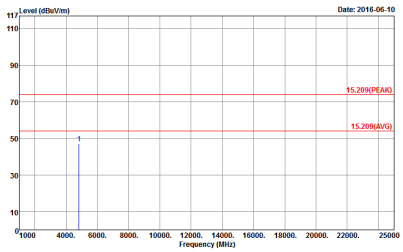
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 6	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 6

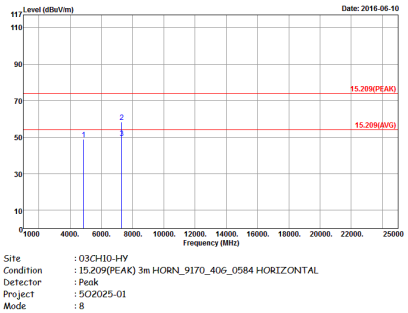
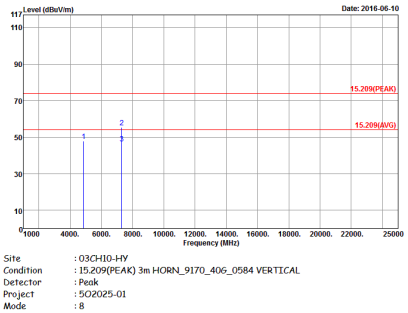
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Vertical
Peak Avg.	 	

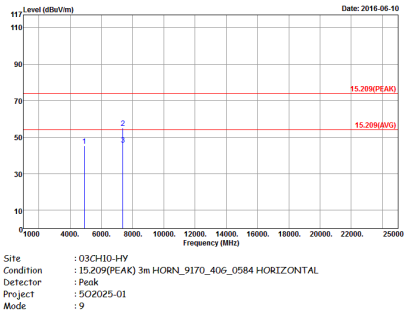
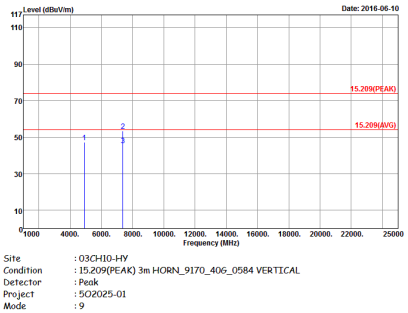
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 16	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 16

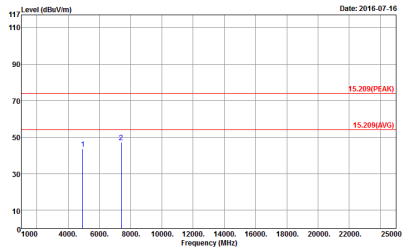
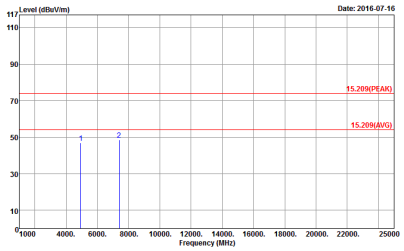
2.4GHz 2400~2483.5MHz

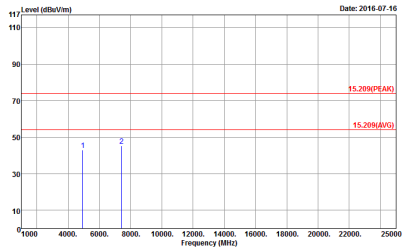
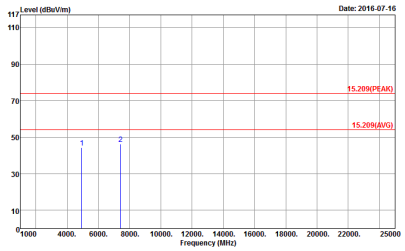
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 7	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 7

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 	

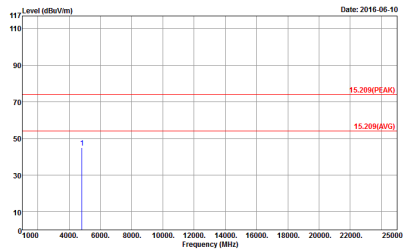
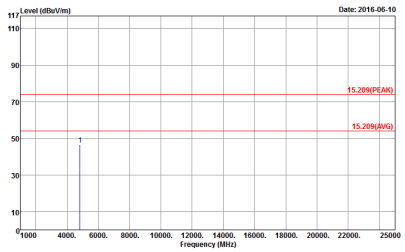
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 9	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 9

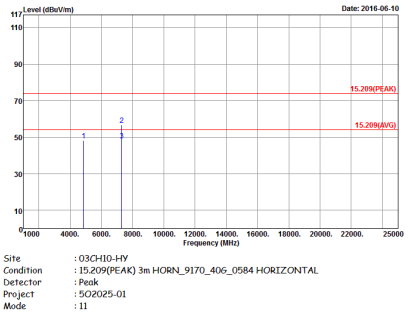
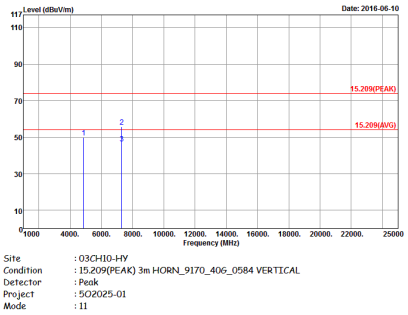
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH12 2467MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 17	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 17

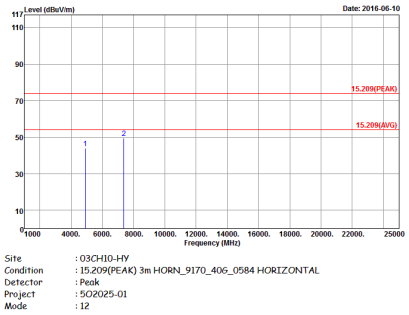
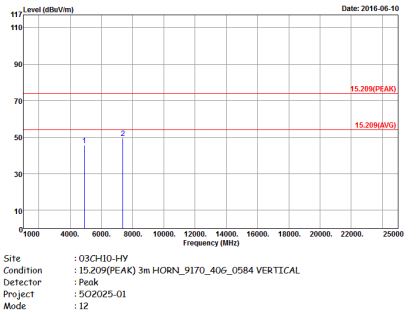
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH13 2472MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 18	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 18

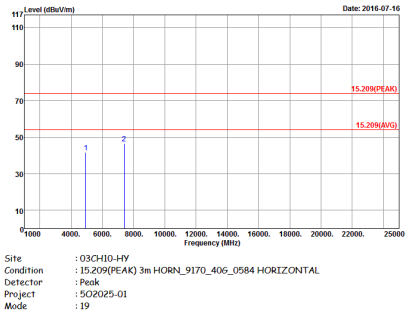
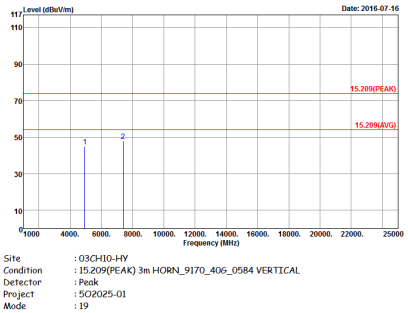
2.4GHz 2400~2483.5MHz

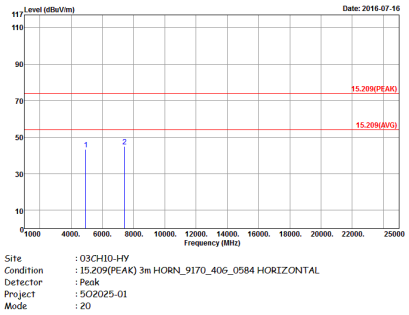
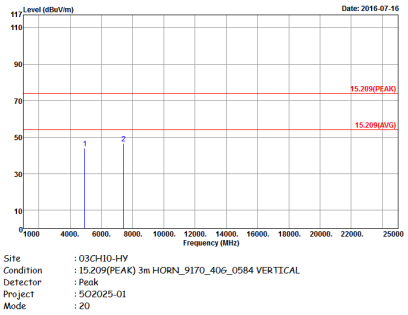
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 10	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m HORN_9170_406_0584 VERTICAL Detector : Peak Project : 5O2025-01 Mode : 10

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

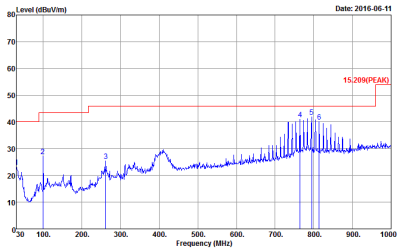
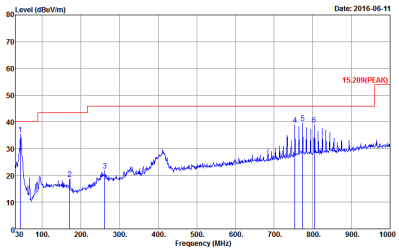
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Horizontal	Vertical
Peak Avg.		

2.4GHz 2400~2483.5MHz

Emission below 1GHz

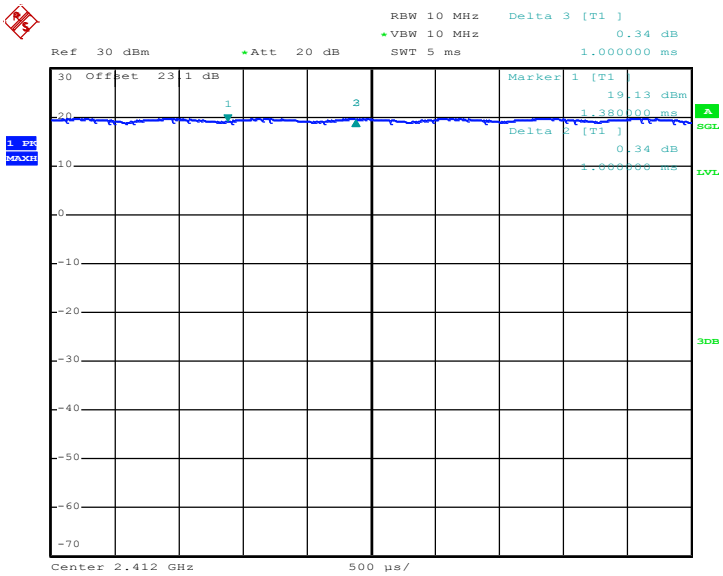
2.4GHz WIFI 802.11g (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m BI-LOG 6111D-LF HORIZONTAL Detector : Peak Project : 5O2025-01 Mode : 14	 Site : 03CH10-HY Condition : 15.209(PEAK) 3m BI-LOG 6111D-LF VERTICAL Detector : Peak Project : 5O2025-01 Mode : 14

Appendix D. Duty Cycle Plots

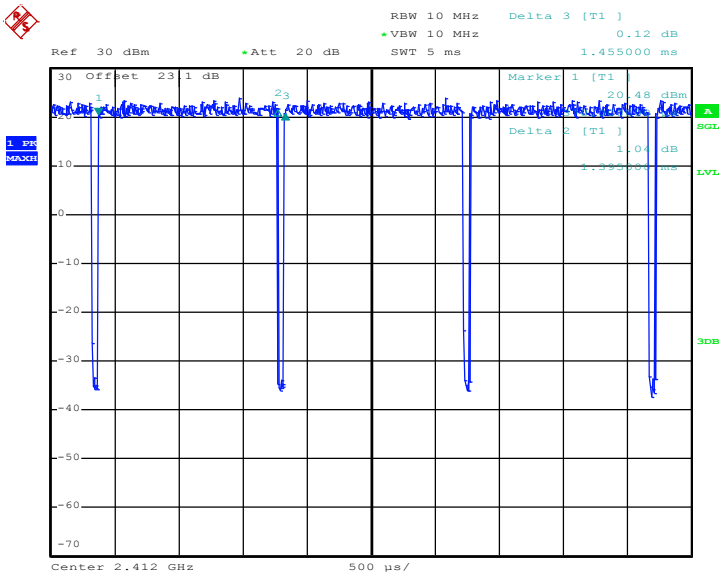
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	100	-	-	10Hz	10Hz
1	95.88	1395	0.716845878	1kHz	1kHz
1	96.3	1300	0.769230769	1kHz	1kHz

802.11b



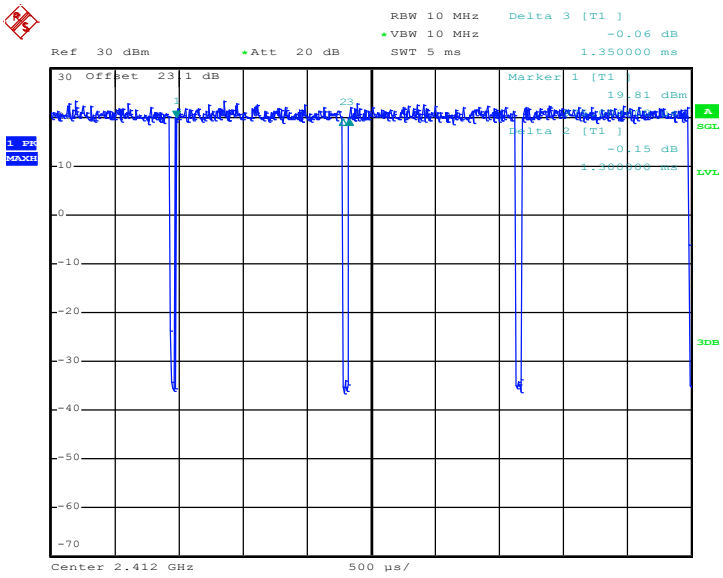
Date: 1.JUN.2016 23:43:36

802.11g



Date: 2.JUN.2016 00:01:33

802.11n HT20



Date: 2.JUN.2016 00:10:29