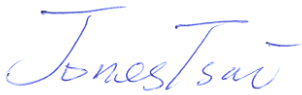
FCC RF Test Report

APPLICANT	:	JET Optoelectronics Co., LTD
EQUIPMENT	:	Monitor, Seatback 10.1 – EVO 4
BRAND NAME	:	Lincoln U554
MODEL NAME	:	620053
MARKETING NAME	:	MONITOR, SEATBACK 10.1 – EVO 4
FCC ID	:	Z3K-620053U554
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on May 08, 2017 and testing was completed on Sep. 01, 2017. 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

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR750801C	Rev. 01	Initial issue of report	Sep. 05, 2017

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	Under limit 0.24 dB at 2483.500 MHz
-	15.207	AC Conducted Emission	15.207(a)	Not Required	-
3.6	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

JET Optoelectronics Co., LTD
3F., No.300, Yangguang St., Neihu Dist., Taipei City 11491, Taiwan, R.O.C

1.2 Manufacturer

JET Optoelectronics Co., LTD
3F., No.300, Yangguang St., Neihu Dist., Taipei City 11491, Taiwan, R.O.C

1.3 Product Feature of Equipment Under Test

Bluetooth and Wi-Fi 2.4GHz 802.11b/g/n.

Product Specification subjective to this standard	
Antenna Type	WLAN: Printed Antenna Bluetooth: Printed Antenna

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. TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, 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.**
	TH05-HY

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

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

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

1.6 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 v04
- 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: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

2.1 Carrier Frequency and Channel

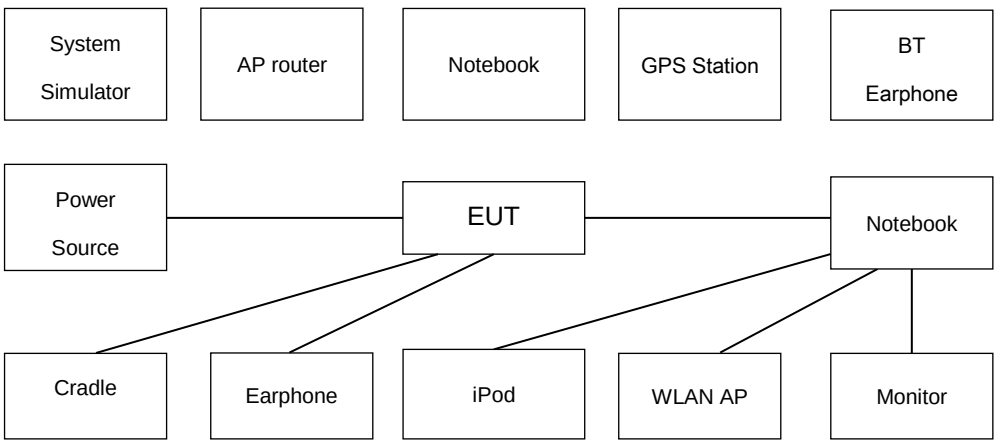
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437	-	-

2.2 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

2.3 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.2m	N/A

2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, “CMD” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

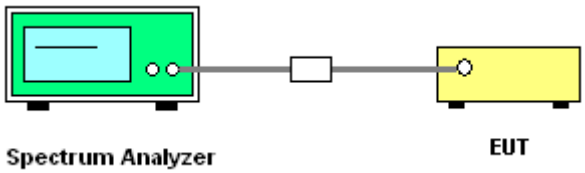
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

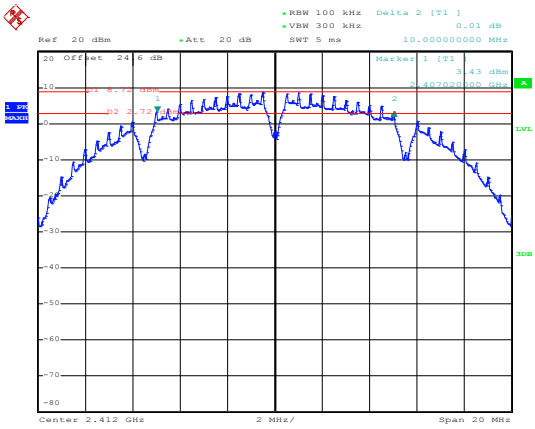
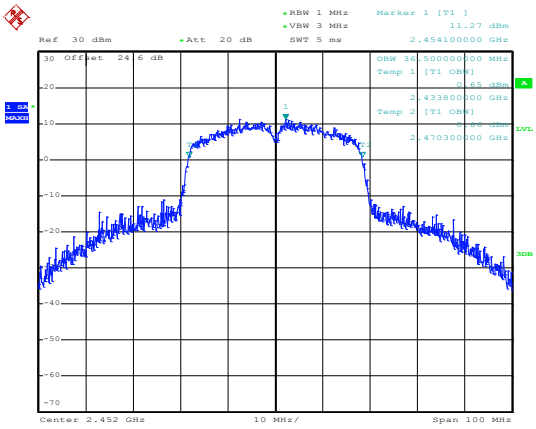
1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v04.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1MHz and set the Video bandwidth (VBW) = 3MHz.
6. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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.

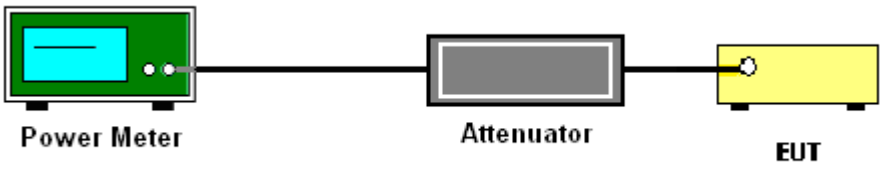
3.2.2 Measuring Instruments

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 v04 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.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

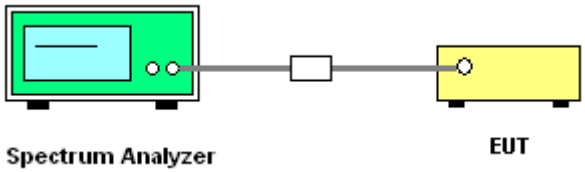
3.3.2 Measuring Instruments

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 v04
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.

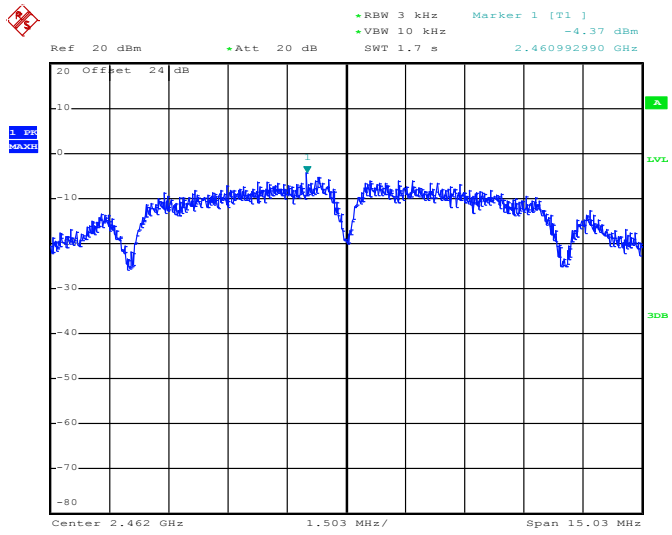
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/3kHz)



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3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

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

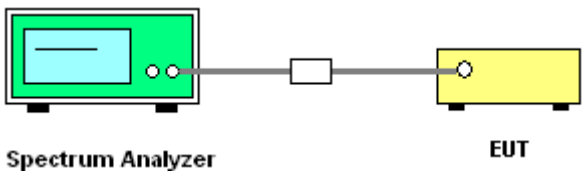
3.4.2 Measuring Instruments

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 v04.
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

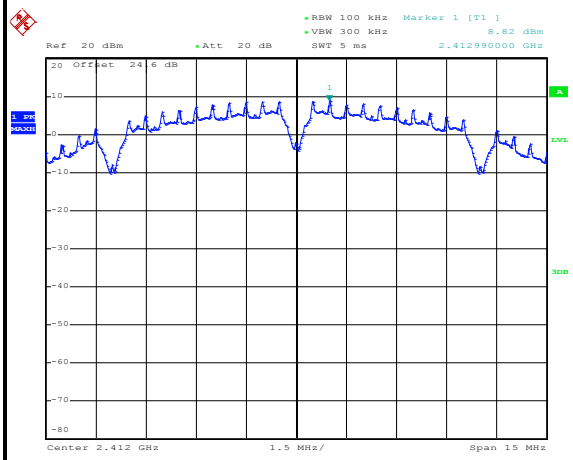


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Mode :	802.11b	**Temperature :**	21~25°C
Test Band :	2.4GHz Low	**Relative Humidity :**	51~54%
Test Channel :	01	**Test Engineer :**	Reece Lin

WLAN 802.11b Channel 01

100kHz PSD reference Level



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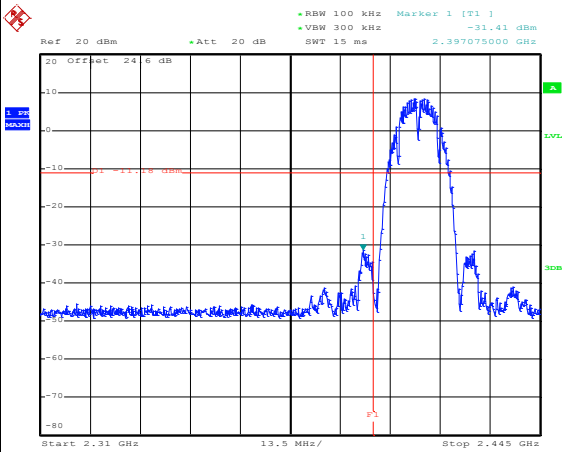
Low Channel Plot



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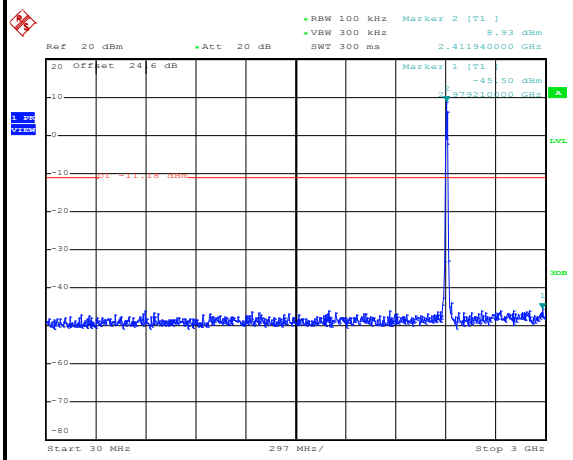
Spurious Emission 30MHz~3GHz



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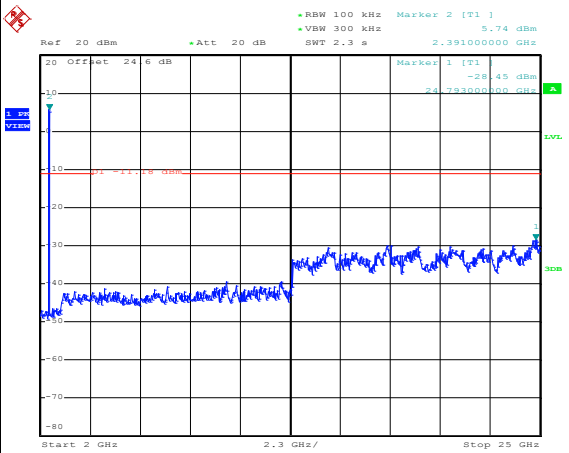
Spurious Emission 2GHz~25GHz



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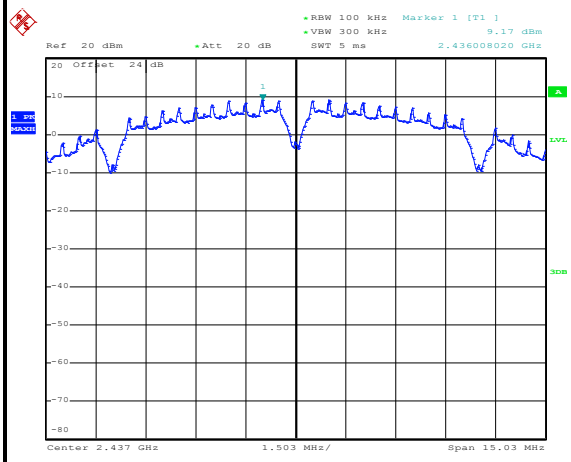
Test Mode :	802.11b	**Temperature :**	21~25°C
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	Reece Lin

WLAN 802.11b Channel 06

100kHz PSD reference Level



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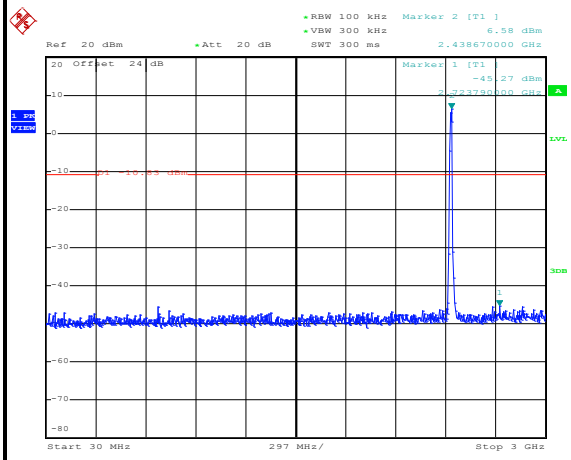
Mid Channel Plot

Spurious Emission 30MHz~3GHz



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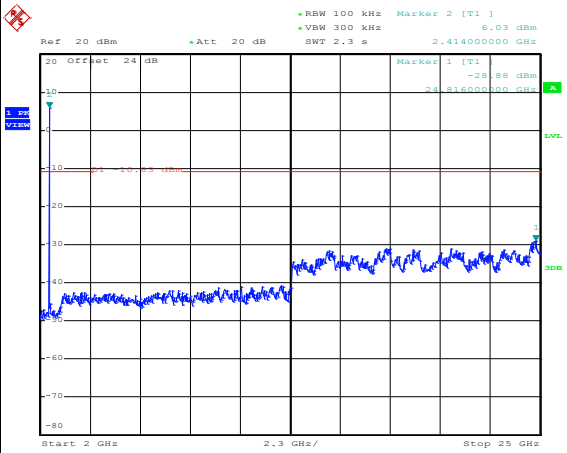
Spurious Emission 2GHz~25GHz



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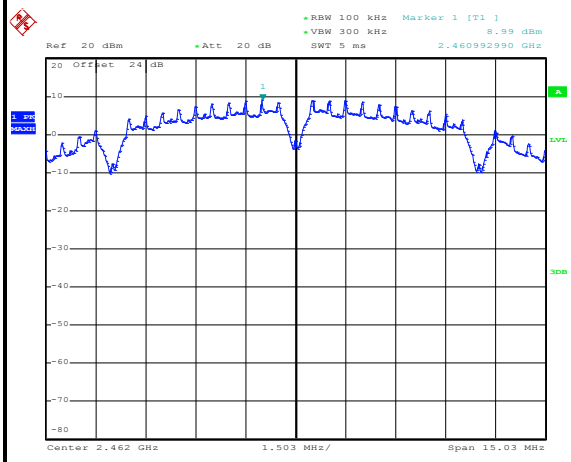
Test Mode :	802.11b	**Temperature :**	21~25°C
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	11	**Test Engineer :**	Reece Lin

WLAN 802.11b Channel 11

100kHz PSD reference Level



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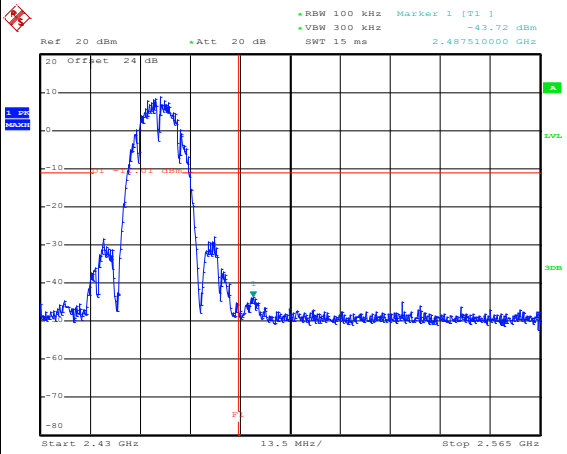
High Channel Plot



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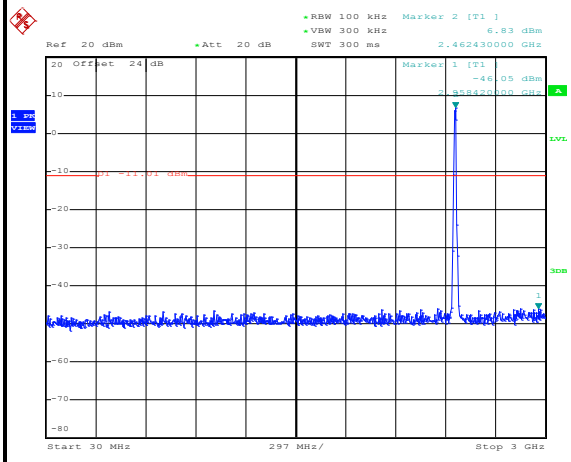
Spurious Emission 30MHz~3GHz



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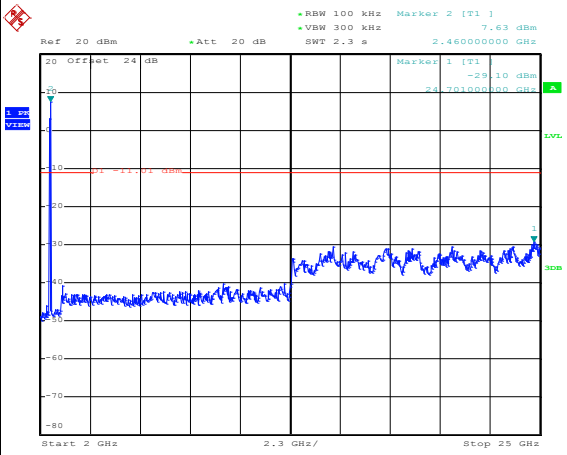
Spurious Emission 2GHz~25GHz

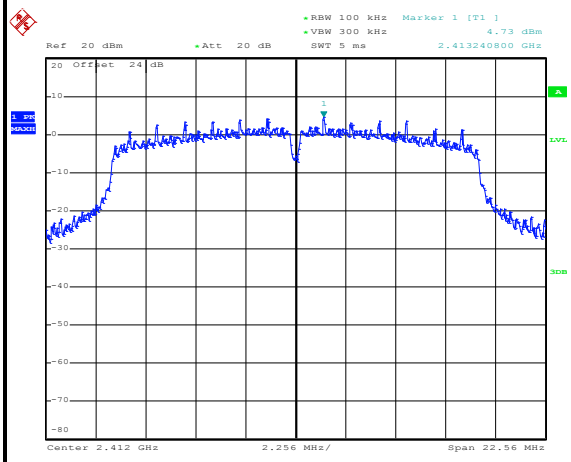


Date: 10.AUG.2017 01:08:41

Test Mode :	802.11g	**Temperature :**	21~25°C
Test Band :	2.4GHz Low	**Relative Humidity :**	51~54%
Test Channel :	01	**Test Engineer :**	Reece Lin

WLAN 802.11g Channel 01

100kHz PSD reference Level



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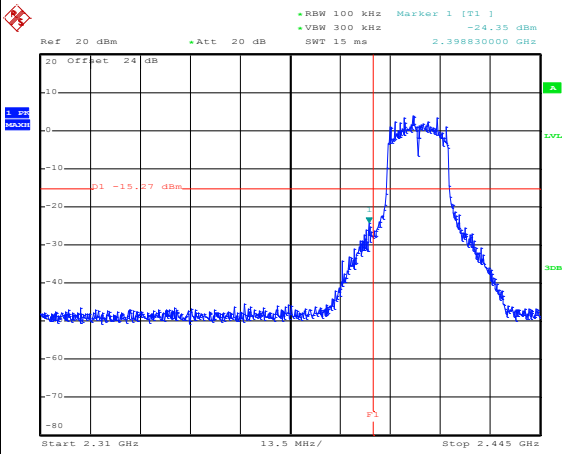
Low Channel Plot



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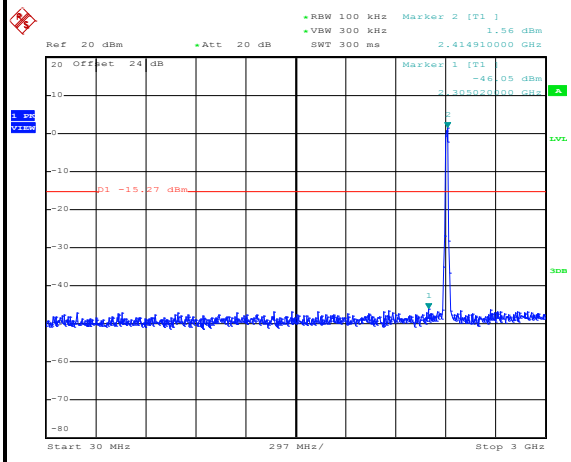
Spurious Emission 30MHz~3GHz



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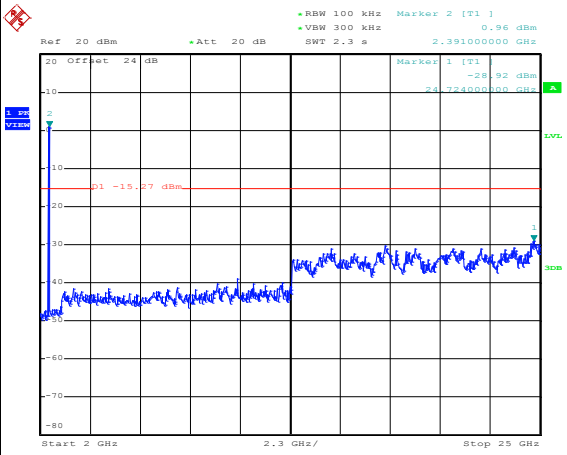
Spurious Emission 2GHz~25GHz



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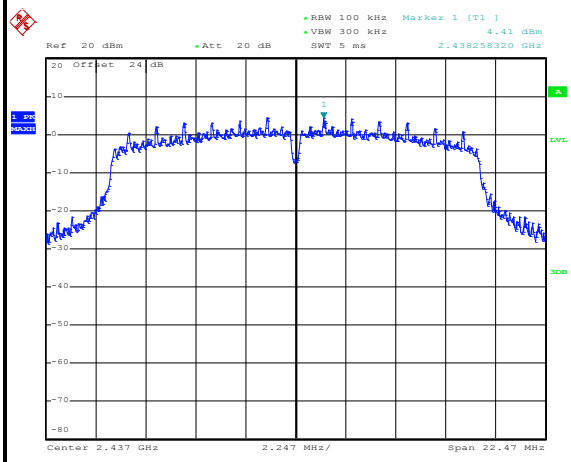
Test Mode :	802.11g	**Temperature :**	21~25°C
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	Reece Lin

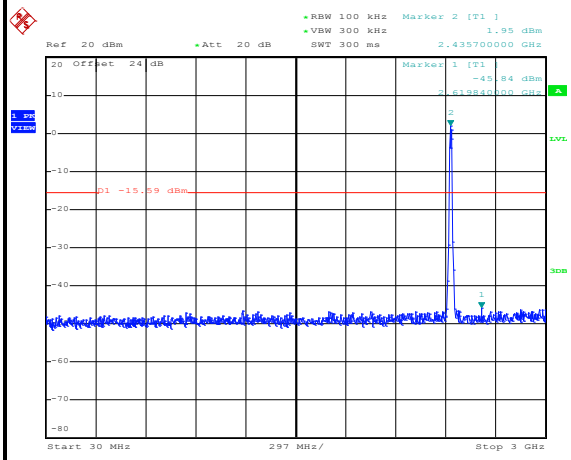
WLAN 802.11g Channel 06

100kHz PSD reference Level

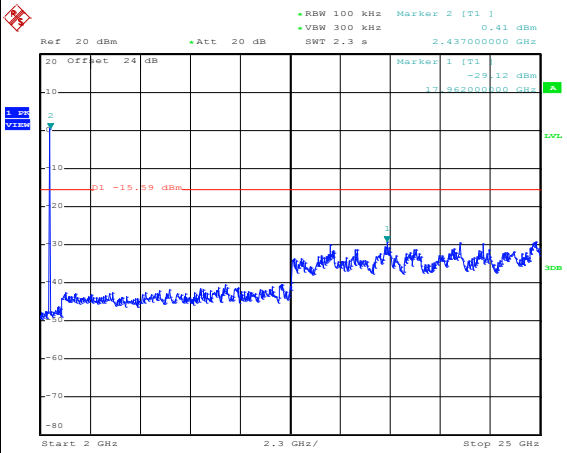


Mid Channel Plot

Spurious Emission 30MHz~3GHz



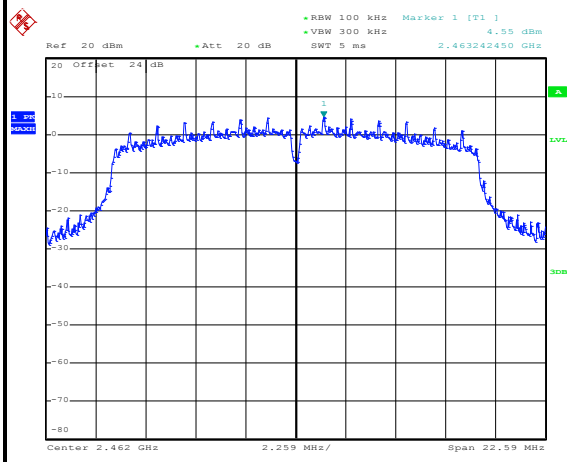
Spurious Emission 2GHz~25GHz



Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Reece Lin

WLAN 802.11g Channel 11

100kHz PSD reference Level



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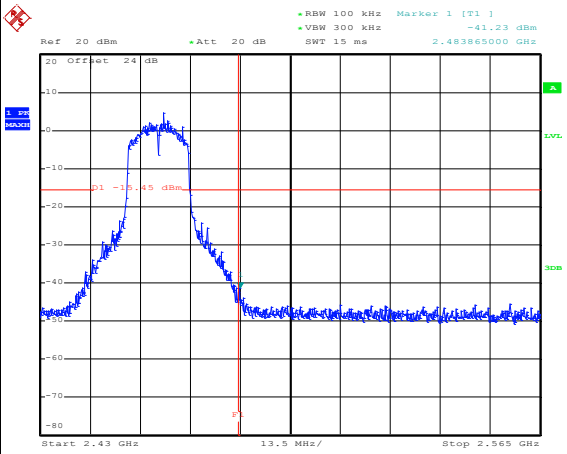
High Channel Plot



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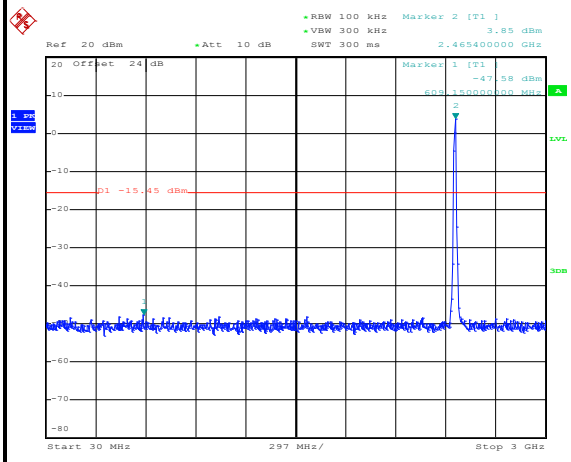
Spurious Emission 30MHz~3GHz



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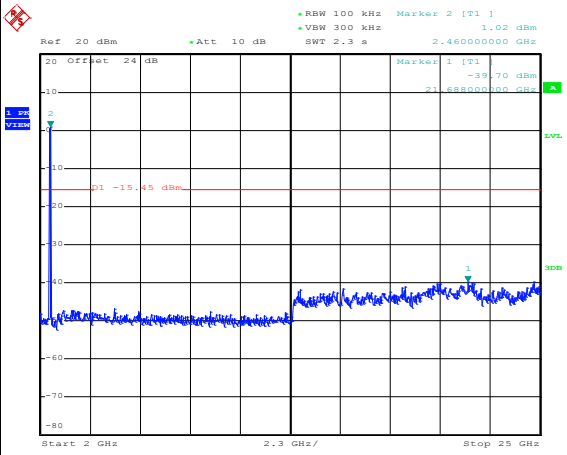
Spurious Emission 2GHz~25GHz



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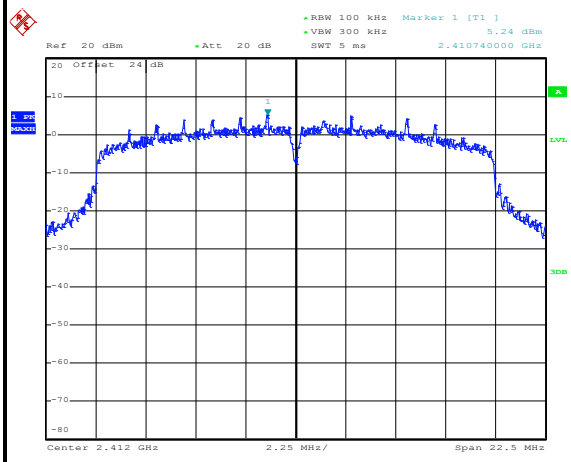
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Reece Lin

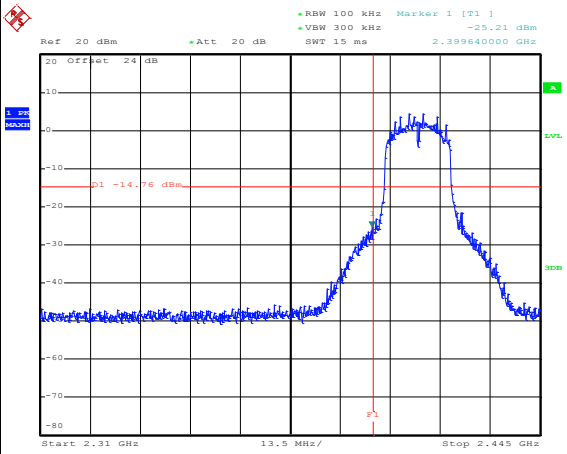
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



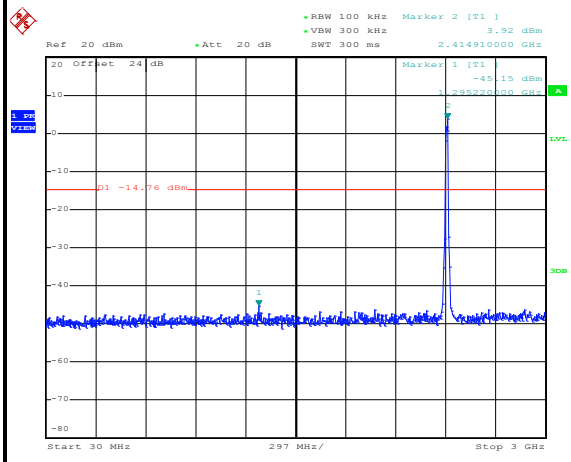
Date: 10.AUG.2017 01:35:17

Low Channel Plot



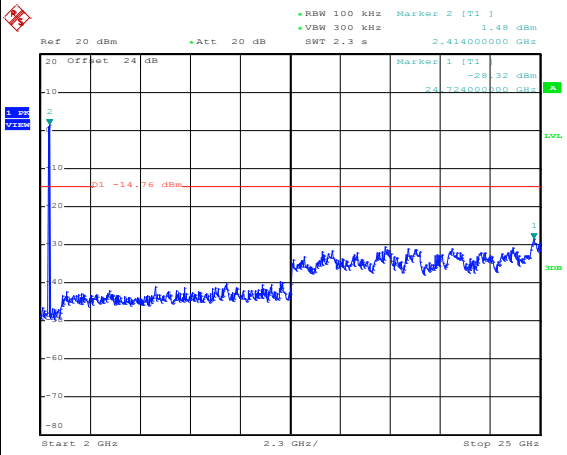
Date: 10.AUG.2017 01:35:26

Spurious Emission 30MHz~3GHz



Date: 10.AUG.2017 01:36:16

Spurious Emission 2GHz~25GHz

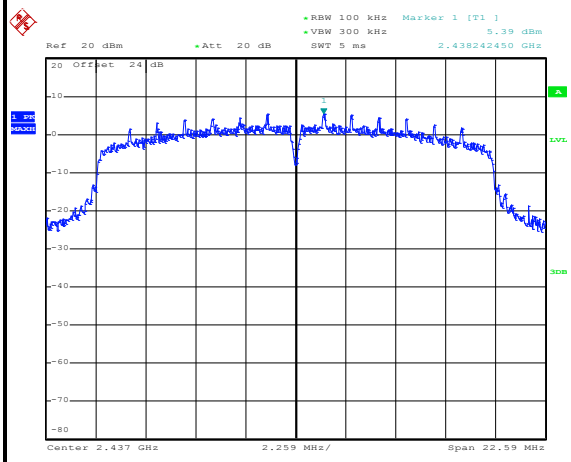


Date: 10.AUG.2017 01:36:25

Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Reece Lin

WLAN 802.11n HT20 Channel 06

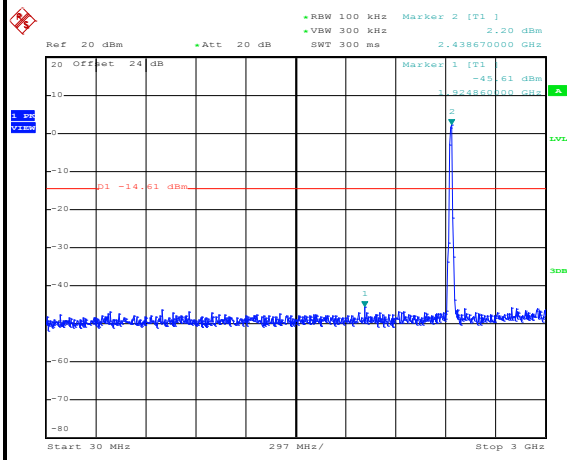
100kHz PSD reference Level



Date: 10.AUG.2017 01:38:26

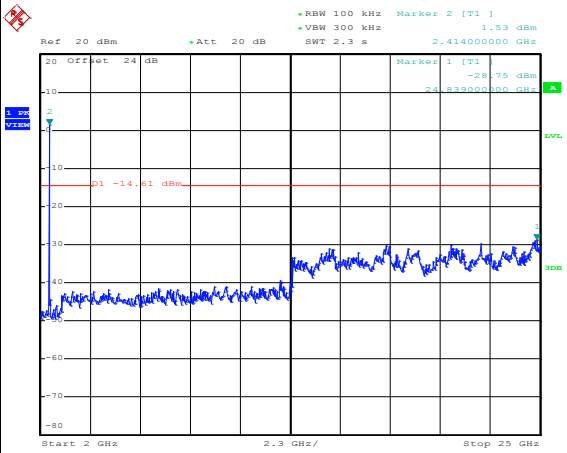
Mid Channel Plot

Spurious Emission 30MHz~3GHz



Date: 10.AUG.2017 01:38:38

Spurious Emission 2GHz~25GHz

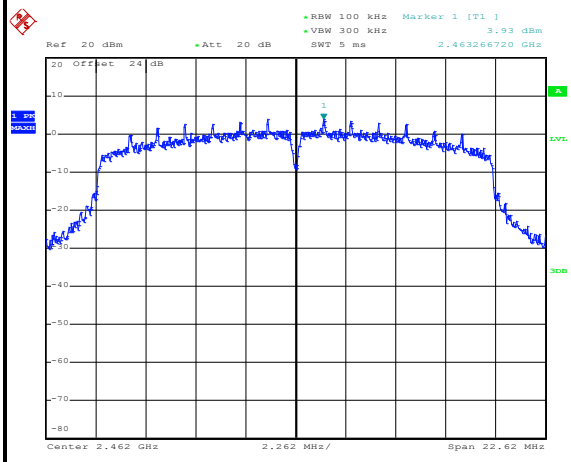


Date: 10.AUG.2017 01:38:46

Test Mode :	802.11n HT20	**Temperature :**	21~25°C
Test Band :	2.4GHz High	**Relative Humidity :**	51~54%
Test Channel :	11	**Test Engineer :**	Reece Lin

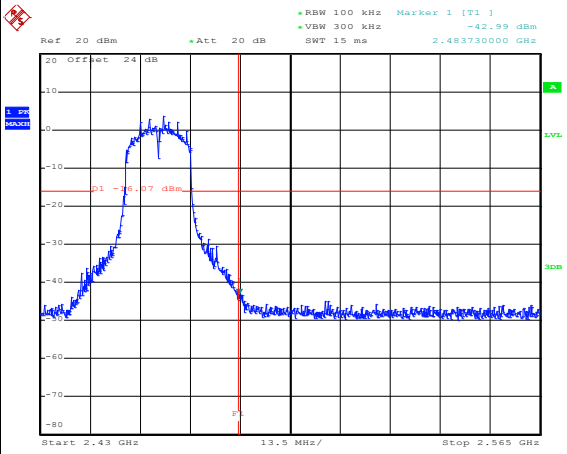
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



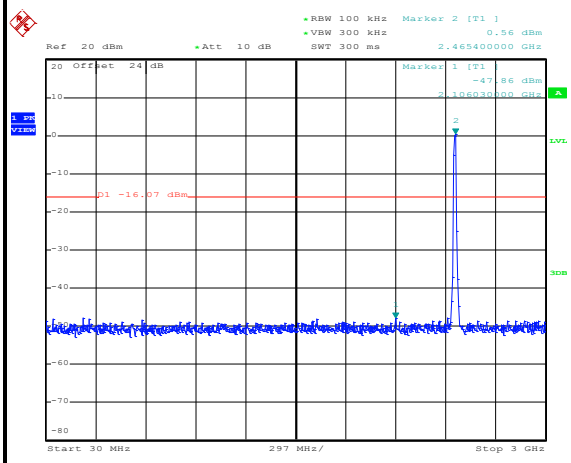
Date: 21.AUG.2017 21:03:13

High Channel Plot



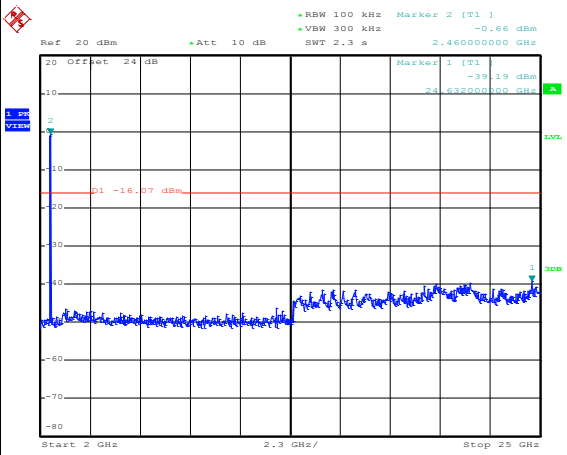
Date: 21.AUG.2017 21:03:43

Spurious Emission 30MHz~3GHz



Date: 21.AUG.2017 21:04:30

Spurious Emission 2GHz~25GHz

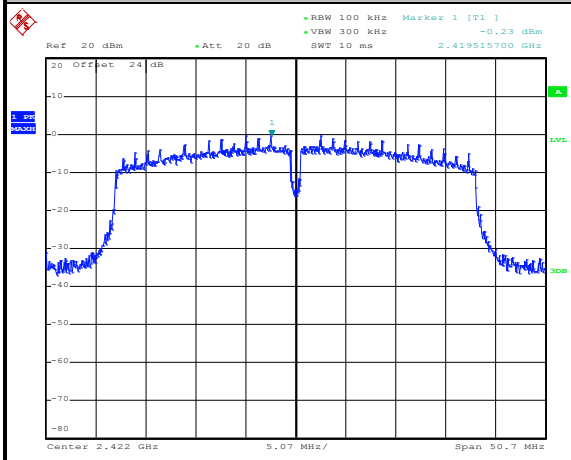


Date: 21.AUG.2017 21:04:38

Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	03	Test Engineer :	Reece Lin

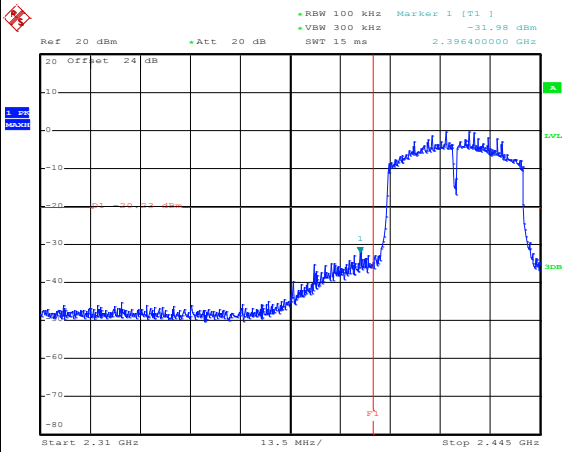
WLAN 802.11n HT40 Channel 03

100kHz PSD reference Level



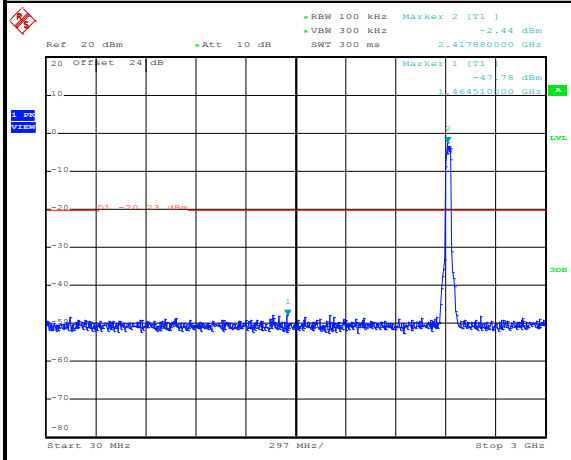
Date: 28.AUG.2017 13:51:18

Low Channel Plot



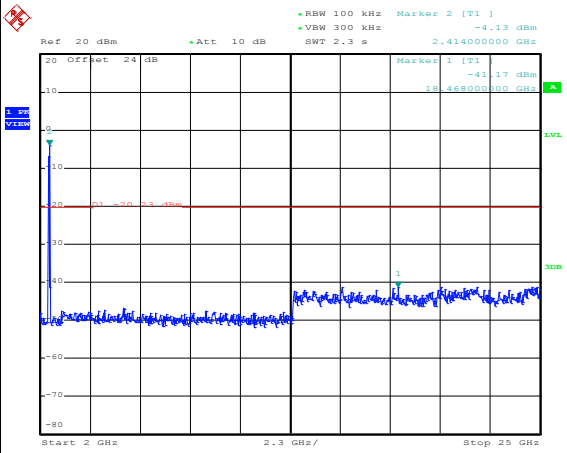
Date: 28.AUG.2017 13:51:42

Spurious Emission 30MHz~3GHz



Date: 28.AUG.2017 13:51:53

Spurious Emission 2GHz~25GHz

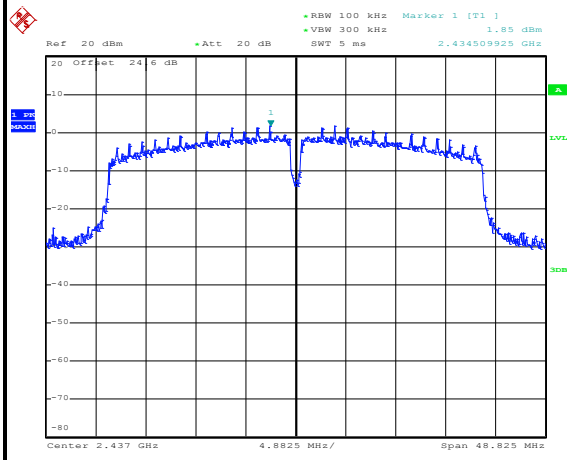


Date: 28.AUG.2017 13:52:02

Test Mode :	802.11n HT40	**Temperature :**	21~25°C
Test Band :	2.4GHz Mid	**Relative Humidity :**	51~54%
Test Channel :	06	**Test Engineer :**	Reece Lin

WLAN 802.11n HT40 Channel 06

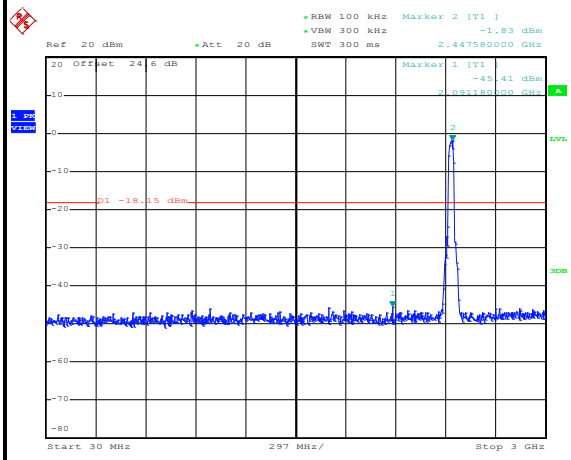
100kHz PSD reference Level



Date: 1.SEP.2017 00:31:33

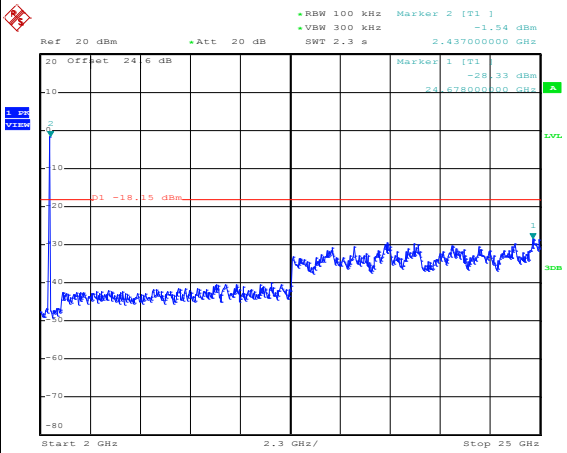
Mid Channel Plot

Spurious Emission 30MHz~3GHz



Date: 1.SEP.2017 00:31:48

Spurious Emission 2GHz~25GHz

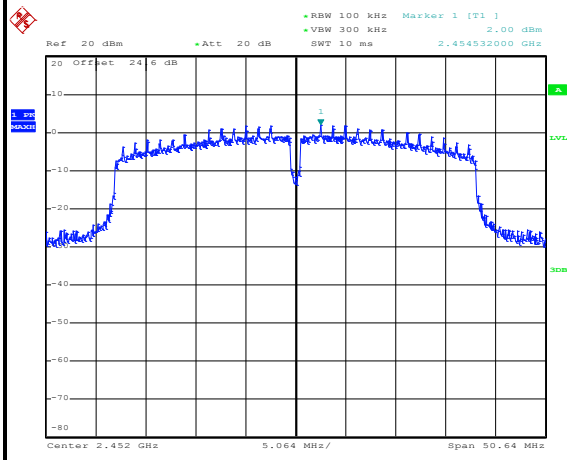


Date: 1.SEP.2017 00:31:57

Test Mode :	802.11n HT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	Reece Lin

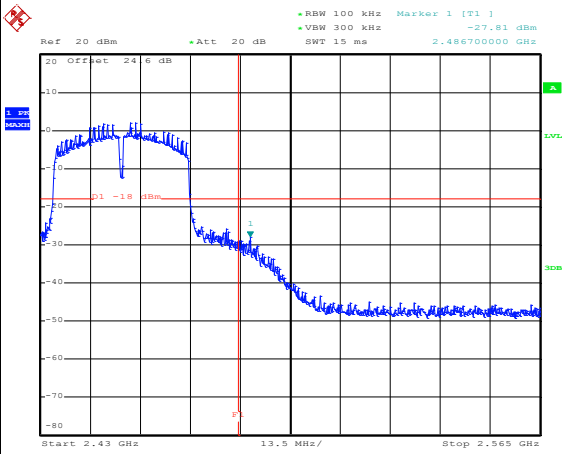
WLAN 802.11n HT40 Channel 09

100kHz PSD reference Level



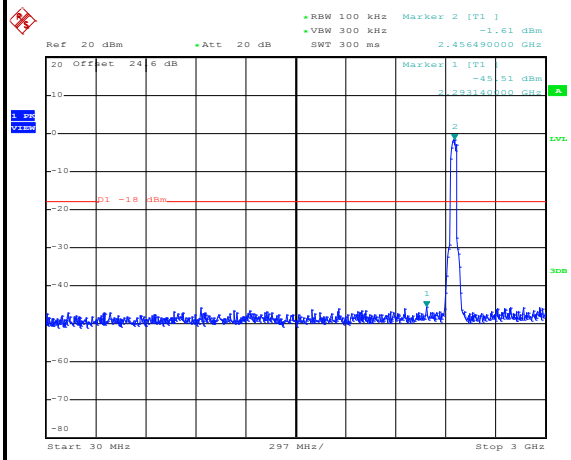
Date: 1.SEP.2017 00:37:02

High Channel Plot



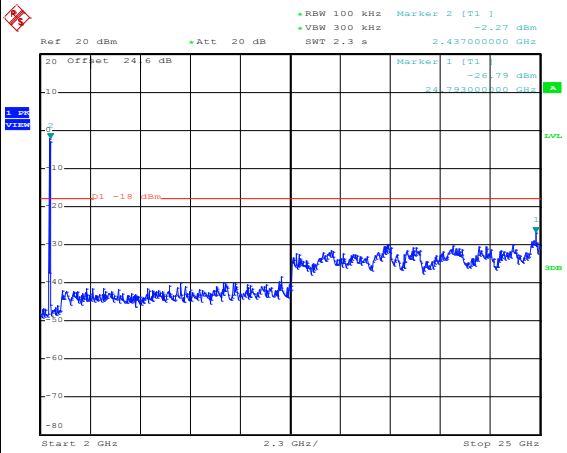
Date: 1.SEP.2017 00:37:28

Spurious Emission 30MHz~3GHz



Date: 1.SEP.2017 00:38:14

Spurious Emission 2GHz~25GHz



Date: 1.SEP.2017 00:38:22

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

3.5.2 Measuring Instruments

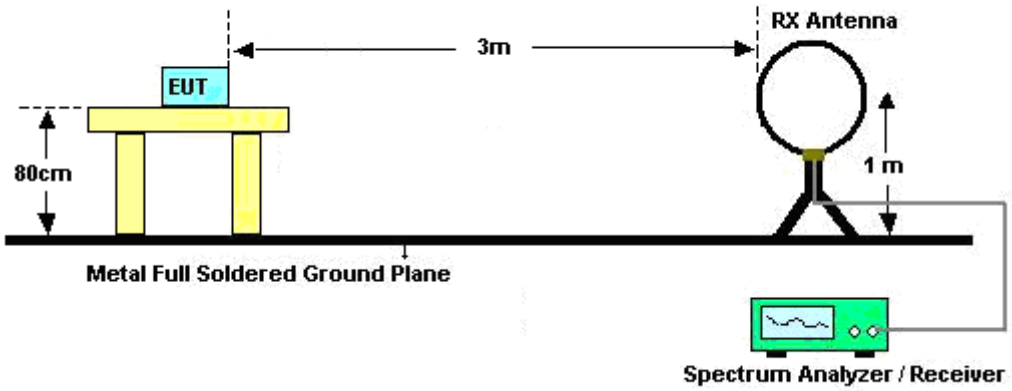
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

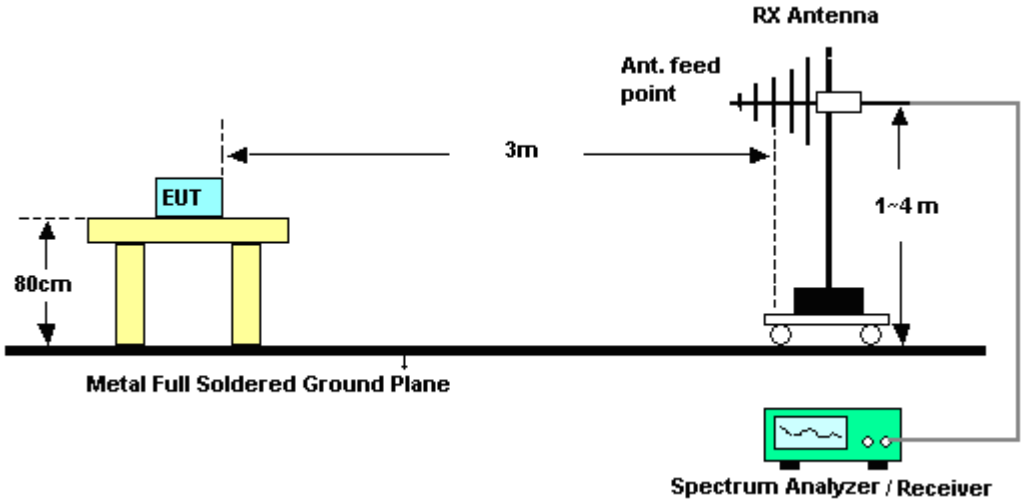
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test 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

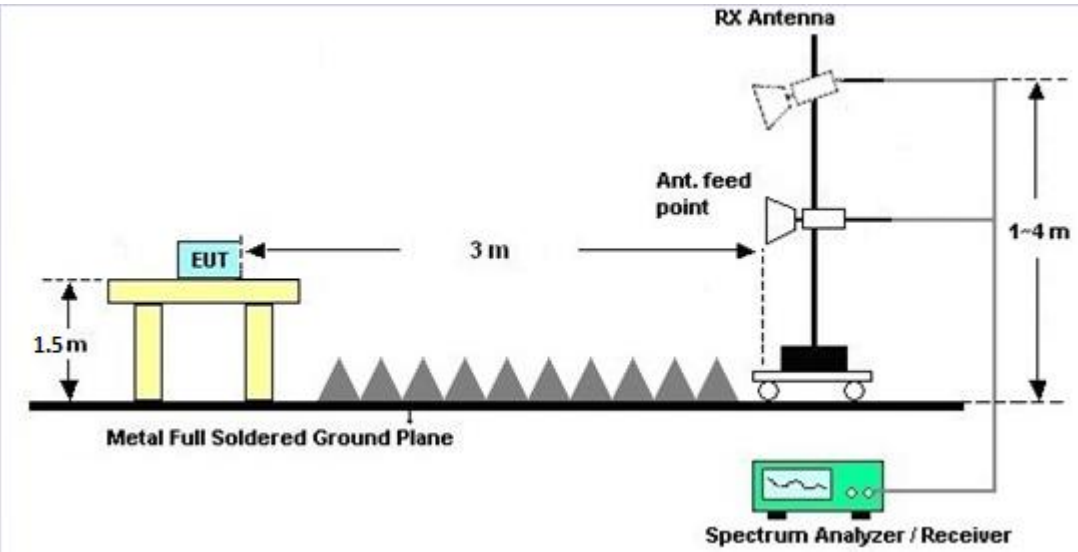
For radiated emissions below 30MHz



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 was not reported.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.6 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 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	N/A	Sep. 29, 2016	Jul. 19, 2017 ~ Sep. 01, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Jul. 19, 2017 ~ Sep. 01, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 17, 2016	Jul. 19, 2017 ~ Sep. 01, 2017	Nov. 16, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	1V~20V 0.5A~4A	Oct. 03, 2016	Jul. 19, 2017 ~ Sep. 01, 2017	Oct. 02, 2017	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Aug. 11, 2017 ~ Aug. 30, 2017	Oct. 19, 2018	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	37059&01	30MHz~1GHz	Oct. 15, 2016	Aug. 11, 2017 ~ Aug. 30, 2017	Oct. 14, 2017	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 23, 2016	Aug. 11, 2017 ~ Aug. 30, 2017	Dec. 22, 2017	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 25, 2016	Aug. 11, 2017 ~ Aug. 30, 2017	Oct. 24, 2017	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 23, 2017	Aug. 11, 2017 ~ Aug. 30, 2017	Mar. 22, 2018	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1815698	1GHz~18GHz	Dec. 01, 2016	Aug. 11, 2017 ~ Aug. 30, 2017	Nov. 30, 2017	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 12, 2017	Aug. 11, 2017 ~ Aug. 30, 2017	Jan. 11, 2018	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN2	3 GHz Highpass	Jul. 17, 2017	Aug. 11, 2017 ~ Aug. 30, 2017	Jul. 16, 2018	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2G Low Pass	Mar. 24, 2017	Aug. 11, 2017 ~ Aug. 30, 2017	Mar. 23, 2018	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Aug. 11, 2017 ~ Aug. 30, 2017	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Aug. 11, 2017 ~ Aug. 30, 2017	N/A	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 27, 2017	Aug. 11, 2017 ~ Aug. 30, 2017	Apr. 26, 2018	Radiation (03CH12-HY)
Preamplifier	MITEQ	TTA1840-35-HG	1887435	18GHz~40GHz	Oct. 13, 2016	Aug. 11, 2017 ~ Aug. 30, 2017	Oct. 12, 2017	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.70**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.10**

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Reece Lin	Temperature:	21~25	°C
Test Date:	2017/7/19~2017/9/1	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
11b	1Mbps	1	1	2412	14.90	10.00	0.50	Pass
11b	1Mbps	1	6	2437	14.95	10.02	0.50	Pass
11b	1Mbps	1	11	2462	14.95	10.02	0.50	Pass
11g	6Mbps	1	1	2412	17.25	15.04	0.50	Pass
11g	6Mbps	1	6	2437	17.15	14.98	0.50	Pass
11g	6Mbps	1	11	2462	17.05	15.06	0.50	Pass
HT20	MCS0	1	1	2412	18.30	15.00	0.50	Pass
HT20	MCS0	1	6	2437	18.25	15.06	0.50	Pass
HT20	MCS0	1	11	2462	18.20	15.08	0.50	Pass
HT40	MCS0	1	3	2422	36.10	33.80	0.50	Pass
HT40	MCS0	1	6	2437	36.40	32.55	0.50	Pass
HT40	MCS0	1	9	2452	36.50	33.76	0.50	Pass

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	19.33	30.00	3.16	22.49	36.00	Pass
11b	1Mbps	1	6	2437	19.61	30.00	3.16	22.77	36.00	Pass
11b	1Mbps	1	11	2462	19.87	30.00	3.16	23.03	36.00	Pass
11g	6Mbps	1	1	2412	21.34	30.00	3.16	24.50	36.00	Pass
11g	6Mbps	1	6	2437	21.44	30.00	3.16	24.60	36.00	Pass
11g	6Mbps	1	11	2462	21.87	30.00	3.16	25.03	36.00	Pass
HT20	MCS0	1	1	2412	21.71	30.00	3.16	24.87	36.00	Pass
HT20	MCS0	1	6	2437	21.32	30.00	3.16	24.48	36.00	Pass
HT20	MCS0	1	11	2462	21.71	30.00	3.16	24.87	36.00	Pass
HT40	MCS0	1	3	2422	21.14	30.00	3.16	24.30	36.00	Pass
HT40	MCS0	1	6	2437	21.41	30.00	3.16	24.57	36.00	Pass
HT40	MCS0	1	9	2452	21.07	30.00	3.16	24.23	36.00	Pass

TEST RESULTS DATA
Average Power Table
(Reporting Only)

2.4GHz Band						
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
11b	1Mbps	1	1	2412	0.10	17.22
11b	1Mbps	1	6	2437	0.10	17.46
11b	1Mbps	1	11	2462	0.10	17.67
11g	6Mbps	1	1	2412	0.61	15.00
11g	6Mbps	1	6	2437	0.61	14.97
11g	6Mbps	1	11	2462	0.61	15.07
HT20	MCS0	1	1	2412	0.67	14.94
HT20	MCS0	1	6	2437	0.67	14.74
HT20	MCS0	1	11	2462	0.67	15.31
HT40	MCS0	1	3	2422	0.42	13.42
HT40	MCS0	1	6	2437	0.42	15.12
HT40	MCS0	1	9	2452	0.42	14.70

TEST RESULTS DATA
Peak Power Density

2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
11b	1Mbps	1	1	2412	-5.52	3.16	8.00	Pass
11b	1Mbps	1	6	2437	-5.28	3.16	8.00	Pass
11b	1Mbps	1	11	2462	-4.37	3.16	8.00	Pass
11g	6Mbps	1	1	2412	-10.43	3.16	8.00	Pass
11g	6Mbps	1	6	2437	-10.94	3.16	8.00	Pass
11g	6Mbps	1	11	2462	-9.67	3.16	8.00	Pass
HT20	MCS0	1	1	2412	-9.64	3.16	8.00	Pass
HT20	MCS0	1	6	2437	-10.12	3.16	8.00	Pass
HT20	MCS0	1	11	2462	-10.87	3.16	8.00	Pass
HT40	MCS0	1	3	2422	-14.63	3.16	8.00	Pass
HT40	MCS0	1	6	2437	-13.36	3.16	8.00	Pass
HT40	MCS0	1	9	2452	-12.70	3.16	8.00	Pass

Appendix B. Radiated Spurious Emission

Test Engineer :	Nick Yo, Peter Liao and Ray Chen	Temperature :	23~24°C
		Relative Humidity :	59~61%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

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		2387.07	53.21	-20.79	74	43.58	27.06	4.03	31.49	100	205	P	H
		2387.175	42.21	-11.79	54	32.58	27.06	4.03	31.49	100	205	A	H
	*	2412	103.68	-	-	93.95	27.14	4.05	31.49	100	205	P	H
	*	2412	99.3	-	-	89.57	27.14	4.05	31.49	100	205	A	H
													H
													H
		2388.225	53.61	-20.39	74	43.98	27.06	4.03	31.49	120	133	P	V
		2387.07	42.5	-11.5	54	32.87	27.06	4.03	31.49	120	133	A	V
	*	2412	104.82	-	-	95.09	27.14	4.05	31.49	120	133	P	V
	*	2412	100.49	-	-	90.76	27.14	4.05	31.49	120	133	A	V
													V
													V
802.11b CH 06 2437MHz		2333.38	52.38	-21.62	74	42.98	26.9	3.98	31.51	134	208	P	H
		2389.1	40.24	-13.76	54	30.6	27.07	4.03	31.49	134	208	A	H
	*	2437	101.2	-	-	91.37	27.21	4.07	31.48	134	208	P	H
	*	2437	96.66	-	-	86.83	27.21	4.07	31.48	134	208	A	H
		2489.08	51.94	-22.06	74	41.9	27.37	4.11	31.47	134	208	P	H
		2493.49	40.38	-13.62	54	30.32	27.38	4.11	31.46	134	208	A	H
		2388.4	52.29	-21.71	74	42.65	27.07	4.03	31.49	100	134	P	V
		2388.82	40.6	-13.4	54	30.96	27.07	4.03	31.49	100	134	A	V
	*	2437	105.13	-	-	95.3	27.21	4.07	31.48	100	134	P	V
	*	2437	100.98	-	-	91.15	27.21	4.07	31.48	100	134	A	V
		2483.76	52.1	-21.9	74	42.08	27.35	4.11	31.47	100	134	P	V
		2485.23	40.56	-13.44	54	30.53	27.36	4.11	31.47	100	134	A	V

802.11b CH 11 2462MHz	*	2462	101.65	-	-	91.72	27.29	4.08	31.47	340	284	P	H
	*	2462	97.46	-	-	87.53	27.29	4.08	31.47	340	284	A	H
		2486.48	54.19	-19.81	74	44.16	27.36	4.11	31.47	340	284	P	H
		2487.68	44.9	-9.1	54	34.87	27.36	4.11	31.47	340	284	A	H
													H
													H
	*	2462	103.28	-	-	93.35	27.29	4.08	31.47	100	133	P	V
	*	2462	99.07	-	-	89.14	27.29	4.08	31.47	100	133	A	V
		2487.4	54.18	-19.82	74	44.15	27.36	4.11	31.47	100	133	P	V
		2487.4	45.49	-8.51	54	35.46	27.36	4.11	31.47	100	133	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		1584	54.6	-19.4	74	48.2	25.23	3.24	32.07	312	104	P	H
		1584	47.11	-6.89	54	40.71	25.23	3.24	32.07	312	104	A	H
		4824	45.3	-28.7	74	64.73	32.18	6.17	58.31	100	0	P	H
													H
		1584	55.82	-18.18	74	49.42	25.23	3.24	32.07	196	18	P	V
		1584	46.36	-7.64	54	39.96	25.23	3.24	32.07	196	18	A	V
		4824	42.25	-31.75	74	61.68	32.18	6.17	58.31	100	0	P	V
													V
802.11b CH 06 2437MHz		1584	54.72	-19.28	74	48.32	25.23	3.24	32.07	312	104	P	H
		1584	47.19	-6.81	54	40.79	25.23	3.24	32.07	312	104	A	H
		4874	43.98	-30.02	74	63.22	32.27	6.21	58.24	100	0	P	H
		7311	45.51	-28.49	74	59.56	36.97	7.72	59.09	100	0	P	H
		1584	55.73	-18.27	74	49.33	25.23	3.24	32.07	196	18	P	V
		1584	46.14	-7.86	54	39.74	25.23	3.24	32.07	196	18	A	V
		4874	43.12	-30.88	74	62.36	32.27	6.21	58.24	100	0	P	V
		7311	44.24	-29.76	74	58.29	36.97	7.72	59.09	100	0	P	V
802.11b CH 11 2462MHz		1584	54.96	-19.04	74	48.56	25.23	3.24	32.07	322	108	P	H
		1584	45.48	-8.52	54	39.08	25.23	3.24	32.07	322	108	A	H
		4924	45.16	-28.84	74	64.25	32.36	6.23	58.18	100	0	P	H
		7386	44.21	-29.79	74	58.16	37.18	7.72	59.14	100	0	P	H
		1584	55.02	-18.98	74	48.62	25.23	3.24	32.07	245	198	P	V
		1584	45.35	-8.65	54	38.95	25.23	3.24	32.07	245	198	A	V
		4924	45.68	-28.32	74	64.77	32.36	6.23	58.18	100	0	P	V
		7386	43.62	-30.38	74	57.57	37.18	7.72	59.14	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI 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		2389.59	62.71	-11.29	74	53.07	27.07	4.03	31.49	100	207	P	H
		2390	45.42	-8.58	54	35.78	27.07	4.03	31.49	100	207	A	H
	*	2412	103.84	-	-	94.11	27.14	4.05	31.49	100	207	P	H
	*	2412	93.95	-	-	84.22	27.14	4.05	31.49	100	207	A	H
													H
													H
		2389.59	63.44	-10.56	74	53.8	27.07	4.03	31.49	100	134	P	V
		2390	46.35	-7.65	54	36.71	27.07	4.03	31.49	100	134	A	V
	*	2412	105.44	-	-	95.71	27.14	4.05	31.49	100	134	P	V
	*	2412	95.19	-	-	85.46	27.14	4.05	31.49	100	134	A	V
													V
													V
802.11g CH 06 2437MHz		2336.18	52.37	-21.63	74	42.96	26.91	3.98	31.51	390	290	P	H
		2389.1	40.4	-13.6	54	30.76	27.07	4.03	31.49	390	290	A	H
	*	2437	102.22	-	-	92.39	27.21	4.07	31.48	390	290	P	H
	*	2437	91.91	-	-	82.08	27.21	4.07	31.48	390	290	A	H
		2496.29	52.57	-21.43	74	42.5	27.39	4.11	31.46	390	290	P	H
		2487.61	40.88	-13.12	54	30.85	27.36	4.11	31.47	390	290	A	H
		2387.98	52.62	-21.38	74	42.99	27.06	4.03	31.49	100	134	P	V
		2389.66	40.6	-13.4	54	30.96	27.07	4.03	31.49	100	134	A	V
	*	2437	105.45	-	-	95.62	27.21	4.07	31.48	100	134	P	V
	*	2437	95.48	-	-	85.65	27.21	4.07	31.48	100	134	A	V
		2484.46	53.17	-20.83	74	43.15	27.35	4.11	31.47	100	134	P	V
		2486.35	40.93	-13.07	54	30.9	27.36	4.11	31.47	100	134	A	V

802.11g CH 11 2462MHz	*	2462	103.23	-	-	93.3	27.29	4.08	31.47	341	285	P	H
	*	2462	93.25	-	-	83.32	27.29	4.08	31.47	341	285	A	H
		2484.04	61.7	-12.3	74	51.68	27.35	4.11	31.47	341	285	P	H
		2483.62	46.22	-7.78	54	36.2	27.35	4.11	31.47	341	285	A	H
													H
													H
	*	2462	104.9	-	-	94.97	27.29	4.08	31.47	100	135	P	V
	*	2462	93.86	-	-	83.93	27.29	4.08	31.47	100	135	A	V
		2483.8	64.36	-9.64	74	54.34	27.35	4.11	31.47	100	135	P	V
		2483.55	47.27	-6.73	54	37.25	27.35	4.11	31.47	100	135	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		1584	55.1	-18.9	74	48.7	25.23	3.24	32.07	322	108	P	H
		1584	47.37	-6.63	54	40.97	25.23	3.24	32.07	322	108	A	H
		4824	46.96	-27.04	74	66.39	32.18	6.17	58.31	100	0	P	H
													H
		1584	54.97	-19.03	74	48.57	25.23	3.24	32.07	245	198	P	V
		1584	47.11	-6.89	54	40.71	25.23	3.24	32.07	245	198	A	V
		4824	45.17	-28.83	74	64.6	32.18	6.17	58.31	100	0	P	V
													V
802.11g CH 06 2437MHz		1584	55.62	-18.38	74	49.22	25.23	3.24	32.07	322	108	P	H
		1584	46.62	-7.38	54	40.22	25.23	3.24	32.07	322	108	A	H
		4874	47.4	-26.6	74	66.64	32.27	6.21	58.24	100	0	P	H
		7311	43.98	-30.02	74	58.03	36.97	7.72	59.09	100	0	P	H
		1584	55.06	-18.94	74	48.66	25.23	3.24	32.07	245	198	P	V
		1584	48.31	-5.69	54	41.91	25.23	3.24	32.07	245	198	A	V
		4874	47.66	-26.34	74	66.9	32.27	6.21	58.24	100	0	P	V
		7311	44.82	-29.18	74	58.87	36.97	7.72	59.09	100	0	P	V
802.11g CH 11 2462MHz		1584	55.05	-18.95	74	48.65	25.23	3.24	32.07	322	108	P	H
		1584	46.69	-7.31	54	40.29	25.23	3.24	32.07	322	108	A	H
		4924	45.52	-28.48	74	64.61	32.36	6.23	58.18	100	0	P	H
		7386	44.28	-29.72	74	58.23	37.18	7.72	59.14	100	0	P	H
		1584	55.61	-18.39	74	49.21	25.23	3.24	32.07	245	198	P	V
		1584	46.95	-7.05	54	40.55	25.23	3.24	32.07	245	198	A	V
		4924	45.49	-28.51	74	64.58	32.36	6.23	58.18	100	0	P	V
		7386	44.01	-29.99	74	57.96	37.18	7.72	59.14	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI 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)
		2389.485	63.37	-10.63	74	53.73	27.07	4.03	31.49	100	207	P	H
		2390	47.55	-6.45	54	37.91	27.07	4.03	31.49	100	207	A	H
	*	2412	103.22	-	-	93.49	27.14	4.05	31.49	100	207	P	H
	*	2412	93.11	-	-	83.38	27.14	4.05	31.49	100	207	A	H
802.11n													H
HT20													H
CH 01		2389.905	65.03	-8.97	74	55.39	27.07	4.03	31.49	100	135	P	V
2412MHz		2390	49.08	-4.92	54	39.44	27.07	4.03	31.49	100	135	A	V
	*	2412	105.17	-	-	95.44	27.14	4.05	31.49	100	135	P	V
	*	2412	94.84	-	-	85.11	27.14	4.05	31.49	100	135	A	V
													V
													V
		2339.54	52.07	-21.93	74	42.62	26.92	4	31.5	100	129	P	H
		2387.56	40.43	-13.57	54	30.8	27.06	4.03	31.49	100	129	A	H
	*	2437	102.38	-	-	92.55	27.21	4.07	31.48	100	129	P	H
	*	2437	92.17	-	-	82.34	27.21	4.07	31.48	100	129	A	H
802.11n		2489.36	52.24	-21.76	74	42.2	27.37	4.11	31.47	100	129	P	H
HT20		2483.62	40.74	-13.26	54	30.72	27.35	4.11	31.47	100	129	A	H
CH 06		2385.18	51.58	-22.42	74	41.95	27.06	4.03	31.49	100	135	P	V
2437MHz		2389.94	40.6	-13.4	54	30.96	27.07	4.03	31.49	100	135	A	V
	*	2437	105.37	-	-	95.54	27.21	4.07	31.48	100	135	P	V
	*	2437	95.29	-	-	85.46	27.21	4.07	31.48	100	135	A	V
		2484.18	53.21	-20.79	74	43.19	27.35	4.11	31.47	100	135	P	V
		2491.95	40.93	-13.07	54	30.87	27.38	4.11	31.46	100	135	A	V

	*	2462	102.08	-	-	92.15	27.29	4.08	31.47	341	285	P	H
	*	2462	92.05	-	-	82.12	27.29	4.08	31.47	341	285	A	H
		2484.56	62.27	-11.73	74	52.25	27.35	4.11	31.47	341	285	P	H
		2483.52	46.65	-7.35	54	36.63	27.35	4.11	31.47	341	285	A	H
802.11n													H
HT20													H
CH 11	*	2462	103.2	-	-	93.27	27.29	4.08	31.47	100	133	P	V
2462MHz	*	2462	93.27	-	-	83.34	27.29	4.08	31.47	100	133	A	V
		2483.8	64.77	-9.23	74	54.75	27.35	4.11	31.47	100	133	P	V
		2483.56	47.63	-6.37	54	37.61	27.35	4.11	31.47	100	133	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)
		1584	55.41	-18.59	74	49.01	25.23	3.24	32.07	322	108	A	H
		1584	46.74	-7.26	54	40.34	25.23	3.24	32.07	322	108	A	H
802.11n		4824	46.74	-27.26	74	66.17	32.18	6.17	58.31	100	0	P	H
HT20													H
CH 01		1584	55.81	-18.19	74	49.41	25.23	3.24	32.07	245	198	P	V
2412MHz		1584	46.69	-7.31	54	40.29	25.23	3.24	32.07	245	198	A	V
		4824	46.51	-27.49	74	65.94	32.18	6.17	58.31	100	0	P	V
													V
		1584	54.83	-19.17	74	48.43	25.23	3.24	32.07	322	108	P	H
		1584	46.72	-7.28	54	40.32	25.23	3.24	32.07	322	108	A	H
802.11n		4874	46.34	-27.66	74	65.58	32.27	6.21	58.24	100	0	P	H
HT20		7311	44.16	-29.84	74	58.21	36.97	7.72	59.09	100	0	P	H
CH 06		1584	55.81	-18.19	74	49.41	25.23	3.24	32.07	245	198	P	V
2437MHz		1584	47.12	-6.88	54	40.72	25.23	3.24	32.07	245	198	A	V
		4874	46.83	-27.17	74	66.07	32.27	6.21	58.24	100	0	P	V
		7311	44	-30	74	58.05	36.97	7.72	59.09	100	0	P	V
		1584	55.76	-18.24	74	49.36	25.23	3.24	32.07	322	108	P	H
		1584	46.75	-7.25	54	40.35	25.23	3.24	32.07	322	108	A	H
802.11n		4924	44.41	-29.59	74	63.5	32.36	6.23	58.18	100	0	P	H
HT20		7386	44.04	-29.96	74	57.99	37.18	7.72	59.14	100	0	P	H
CH 11		1584	55.67	-18.33	74	49.27	25.23	3.24	32.07	245	198	P	V
2462MHz		1584	47.36	-6.64	54	40.96	25.23	3.24	32.07	245	198	A	V
		4924	46.04	-27.96	74	65.13	32.36	6.23	58.18	100	0	P	V
		7386	44.16	-29.84	74	58.11	37.18	7.72	59.14	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (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)
		2388.96	66.85	-7.15	74	57.21	27.07	4.03	31.49	103	206	P	H
		2389.66	51.24	-2.76	54	41.6	27.07	4.03	31.49	103	206	A	H
	*	2422	98.76	-	-	88.99	27.17	4.05	31.48	103	206	P	H
	*	2422	88.03	-	-	78.26	27.17	4.05	31.48	103	206	A	H
802.11n		2499.02	52.63	-21.37	74	42.55	27.4	4.11	31.46	103	206	P	H
HT40		2499.3	40.69	-13.31	54	30.61	27.4	4.11	31.46	103	206	A	H
CH 03		2389.24	69.02	-4.98	74	59.38	27.07	4.03	31.49	100	133	P	V
2422MHz		2389.66	51.95	-2.05	54	42.31	27.07	4.03	31.49	100	133	A	V
	*	2422	100.7	-	-	90.93	27.17	4.05	31.48	100	133	P	V
	*	2422	89.45	-	-	79.68	27.17	4.05	31.48	100	133	A	V
		2497.97	51.82	-22.18	74	41.75	27.39	4.11	31.46	100	133	P	V
		2497.83	40.71	-13.29	54	30.64	27.39	4.11	31.46	100	133	A	V
		2389.8	58.61	-15.39	74	48.97	27.07	4.03	31.49	333	253	P	H
		2389.94	44.89	-9.11	54	35.25	27.07	4.03	31.49	333	253	A	H
	*	2437	98.93	-	-	89.1	27.21	4.07	31.48	333	253	P	H
	*	2437	88.04	-	-	78.21	27.21	4.07	31.48	333	253	A	H
802.11n		2484.25	58.44	-15.56	74	48.42	27.35	4.11	31.47	333	253	P	H
HT40		2483.69	43.3	-10.7	54	33.28	27.35	4.11	31.47	333	253	A	H
CH 06		2388.68	58.57	-15.43	74	48.93	27.07	4.03	31.49	100	134	P	V
2437MHz		2389.8	45.16	-8.84	54	35.52	27.07	4.03	31.49	100	134	A	V
	*	2437	102.41	-	-	92.58	27.21	4.07	31.48	100	134	P	V
	*	2437	90.94	-	-	81.11	27.21	4.07	31.48	100	134	A	V
		2483.97	60.71	-13.29	74	50.69	27.35	4.11	31.47	100	134	P	V
		2483.55	43.28	-10.72	54	33.26	27.35	4.11	31.47	100	134	A	V

		2386.16	52.67	-21.33	74	43.04	27.06	4.03	31.49	342	285	P	H
		2387.56	40.49	-13.51	54	30.86	27.06	4.03	31.49	342	285	A	H
	*	2452	99.43	-	-	89.53	27.26	4.08	31.47	342	285	P	H
	*	2452	88.57	-	-	78.67	27.26	4.08	31.47	342	285	A	H
802.11n		2488.38	67.62	-6.38	74	57.58	27.37	4.11	31.47	342	285	P	H
HT40		2483.5	52.73	-1.27	54	42.71	27.35	4.11	31.47	342	285	A	H
CH 09		2387.28	54.69	-19.31	74	45.06	27.06	4.03	31.49	100	132	P	V
2452MHz		2388.96	40.64	-13.36	54	31	27.07	4.03	31.49	100	132	A	V
	*	2452	100.86	-	-	90.96	27.26	4.08	31.47	100	132	P	V
	*	2452	90.1	-	-	80.2	27.26	4.08	31.47	100	132	A	V
		2484.67	69.19	-4.81	74	59.17	27.35	4.11	31.47	100	132	P	V
		2483.5	53.76	-0.24	54	43.74	27.35	4.11	31.47	100	132	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (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)
		1584	54.83	-19.17	74	48.43	25.23	3.24	32.07	322	108	P	H
		1584	47.76	-6.24	54	41.36	25.23	3.24	32.07	322	108	A	H
802.11n		4844	46.77	-27.23	74	66.13	32.22	6.18	58.29	100	0	P	H
HT40		7266	44.23	-29.77	74	58.35	36.84	7.73	59.07	100	0	P	H
CH 03		1584	55.77	-18.23	74	49.37	25.23	3.24	32.07	245	198	P	V
2422MHz		1584	47.72	-6.28	54	41.32	25.23	3.24	32.07	245	198	A	V
		4844	45.77	-28.23	74	65.13	32.22	6.18	58.29	100	0	P	V
		7266	44.31	-29.69	74	58.43	36.84	7.73	59.07	100	0	P	V
		1584	54.74	-19.26	74	48.34	25.23	3.24	32.07	322	108	P	H
		1584	47.33	-6.67	54	40.93	25.23	3.24	32.07	322	108	A	H
802.11n		4874	45.43	-28.57	74	64.67	32.27	6.21	58.24	100	0	P	H
HT40		7311	44.19	-29.81	74	58.24	36.97	7.72	59.09	100	0	P	H
CH 06		1584	55.53	-18.47	74	49.13	25.23	3.24	32.07	245	198	P	V
2437MHz		1584	47.13	-6.87	54	40.73	25.23	3.24	32.07	245	198	A	V
		4874	47.55	-26.45	74	66.79	32.27	6.21	58.24	100	0	P	V
		7311	45.33	-28.67	74	59.38	36.97	7.72	59.09	100	0	P	V
		1584	54.84	-19.16	74	48.44	25.23	3.24	32.07	322	108	P	H
		1584	47.15	-6.85	54	40.75	25.23	3.24	32.07	322	108	A	H
802.11n		4904	45.39	-28.61	74	64.53	32.33	6.22	58.2	100	0	P	H
HT40		7356	44.36	-29.64	74	58.35	37.1	7.72	59.12	100	0	P	H
CH 09		1584	55.28	-18.72	74	48.88	25.23	3.24	32.07	245	198	P	V
2452MHz		1584	47.35	-6.65	54	40.95	25.23	3.24	32.07	245	198	A	V
		4904	44.98	-29.02	74	64.12	32.33	6.22	58.2	100	0	P	V
		7356	45.18	-28.82	74	59.17	37.1	7.72	59.12	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

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)
		30	24.33	-15.67	40	29.72	24.35	0.48	30.18			P	H
		145.56	36.44	-7.06	43.5	48.31	17.42	0.95	30.34			P	H
		264.09	37.88	-8.12	46	46.8	19.81	1.32	30.19			P	H
		528.2	45.65	-0.35	46	49.16	24.28	1.87	29.75	176	63	QP	H
	!	528.2	46.69	0.69	46	50.2	24.28	1.87	29.75	176	63	P	H
		678.7	37.57	-8.43	46	38.33	26.6	2.09	29.56			P	H
		999.3	36.16	-17.84	54	31.71	30.64	2.55	28.96			P	H
													H
													H
													H
2.4GHz													H
802.11n													H
HT40		36.75	36.1	-3.9	40	44.86	21.05	0.48	30.27	100	0	P	V
LF		128.28	34.58	-8.92	43.5	46.37	17.63	0.89	30.36			P	V
		264.09	34.64	-11.36	46	43.56	19.81	1.32	30.19			P	V
		528.2	40.18	-5.82	46	43.69	24.28	1.87	29.75			P	V
		729.8	34.78	-11.22	46	34.32	27.65	2.18	29.47			P	V
		1000	33.37	-20.63	54	28.94	30.62	2.55	28.96			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	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

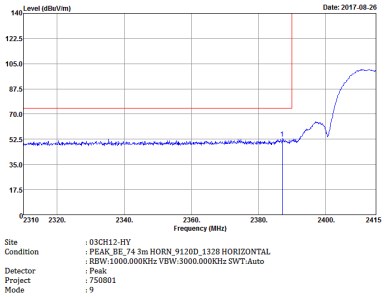
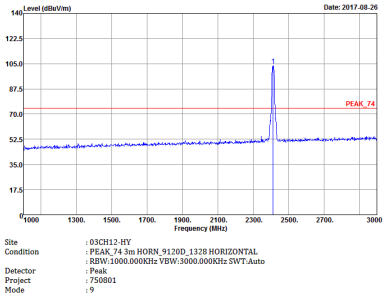
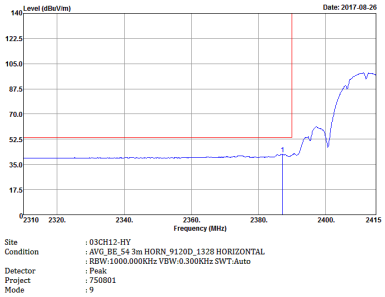
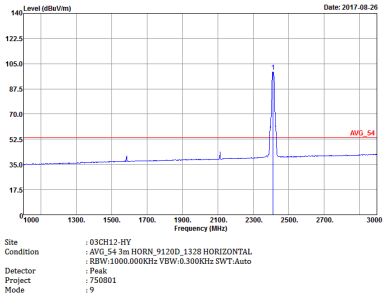
Test Engineer :	Nick Yo, Peter Liao and Ray Chen	**Temperature :**	23~24°C
		Relative Humidity :	59~61%

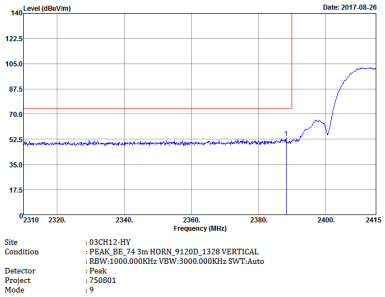
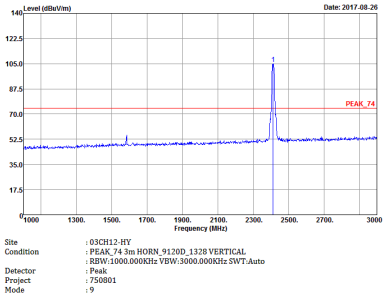
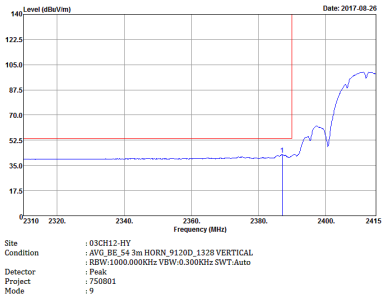
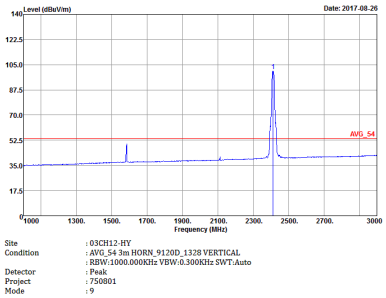
Note symbol

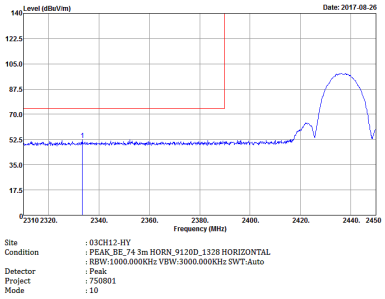
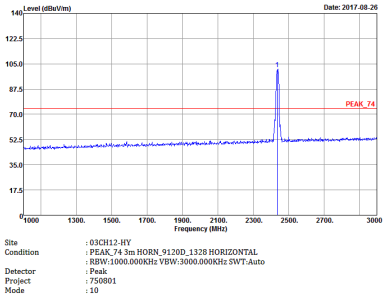
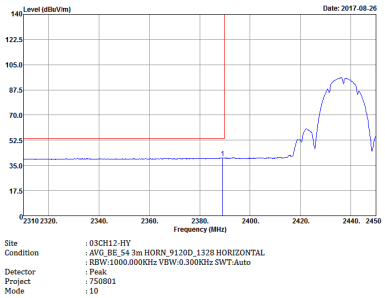
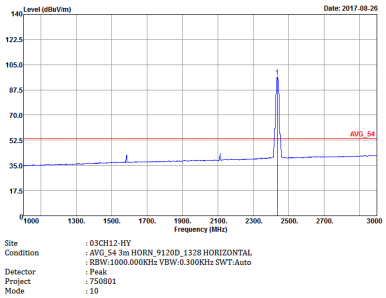
-L	**Low channel location**
-R	**High channel location**

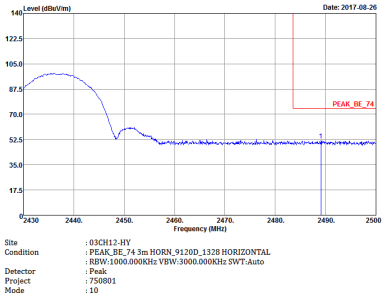
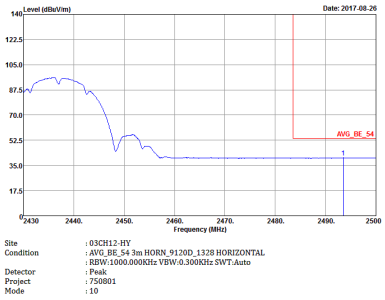
2.4GHz 2400~2483.5MHz

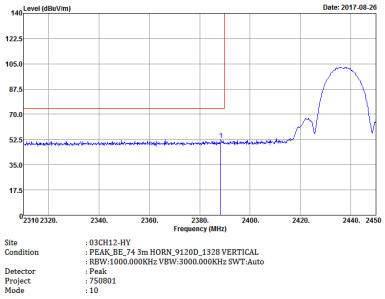
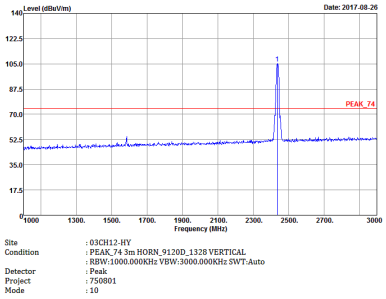
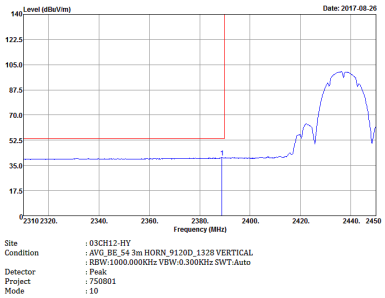
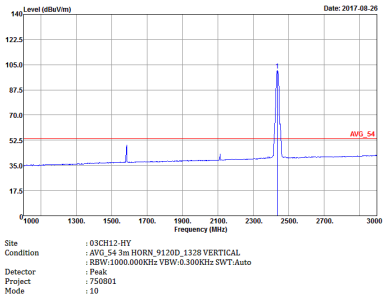
WIFI 802.11b (Band Edge @ 3m)

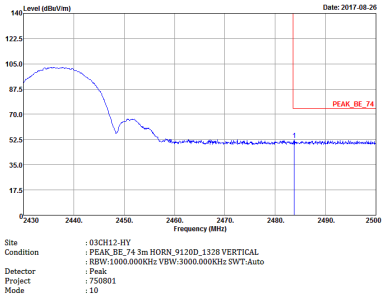
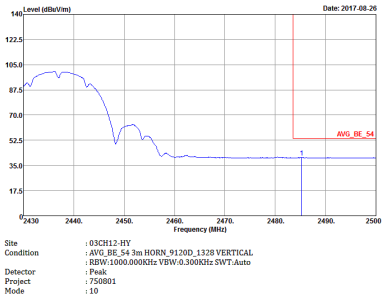
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

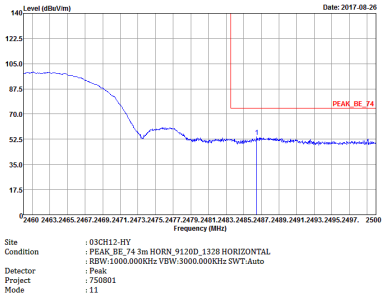
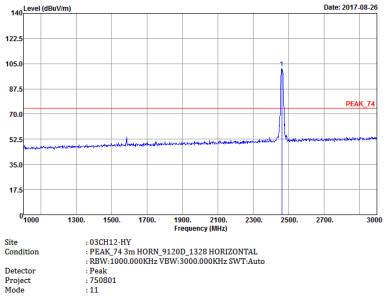
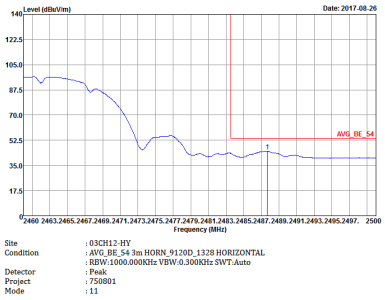
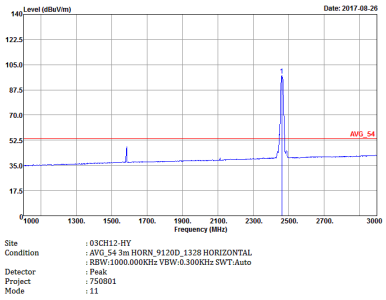
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 9	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 9
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.300KHz SWT:Auto Detector : Peak Project : 750801 Mode : 9	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:0.300KHz SWT:Auto Detector : Peak Project : 750801 Mode : 9

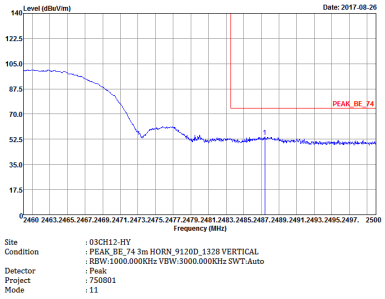
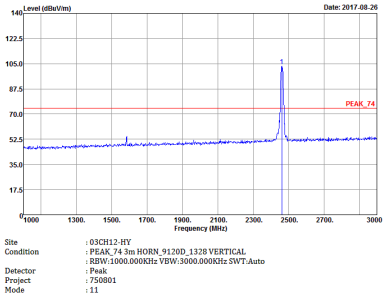
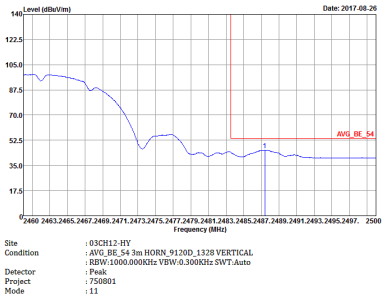
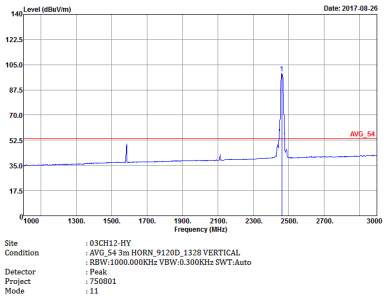
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

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

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

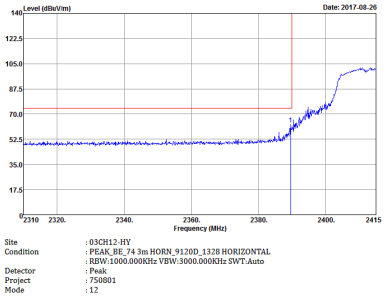
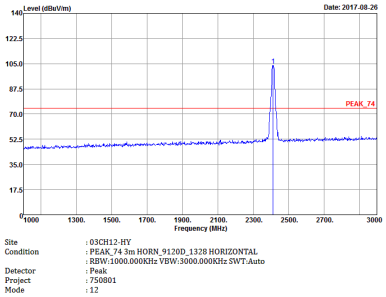
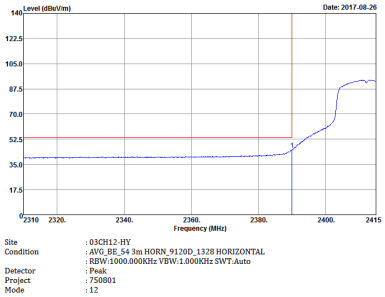
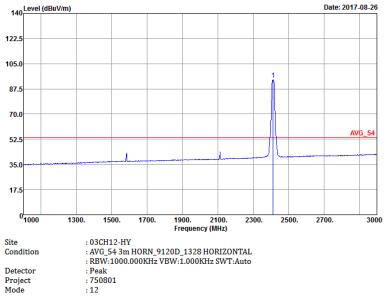
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

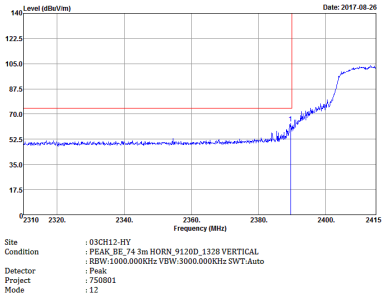
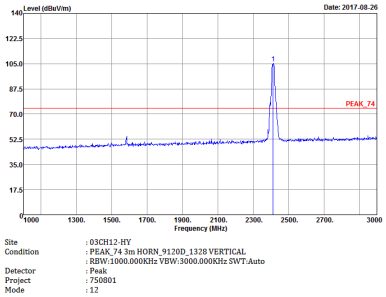
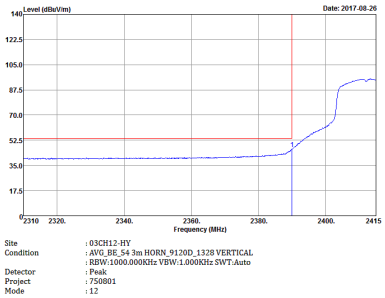
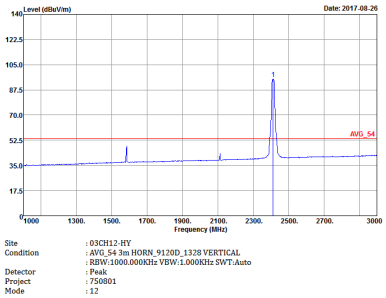
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 11	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 11
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.300KHz SWT:Auto Detector : Peak Project : 750801 Mode : 11	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.300KHz SWT:Auto Detector : Peak Project : 750801 Mode : 11

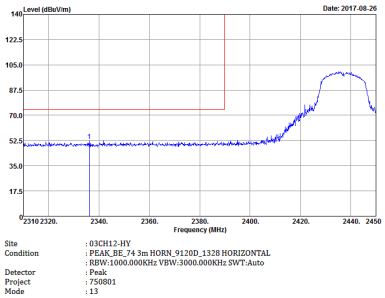
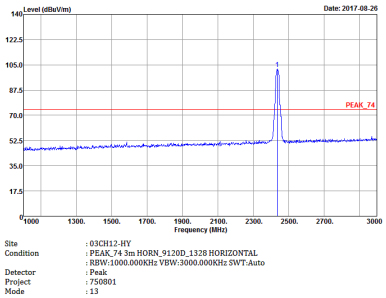
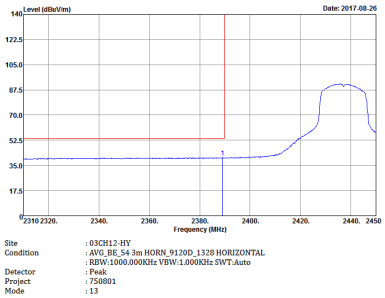
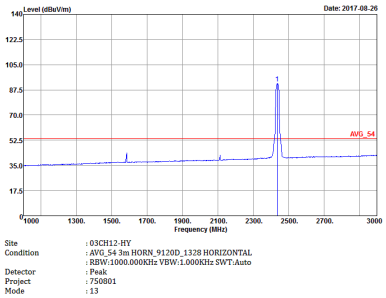
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

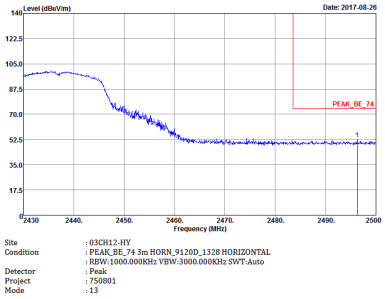
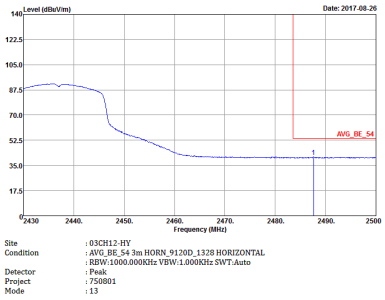
2.4GHz 2400~2483.5MHz

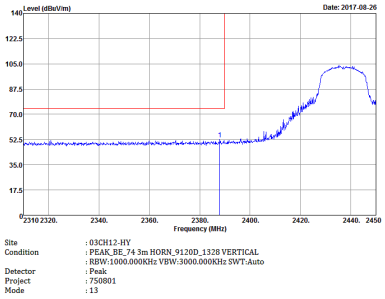
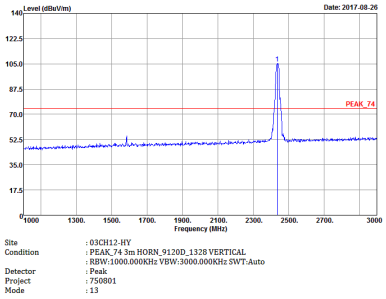
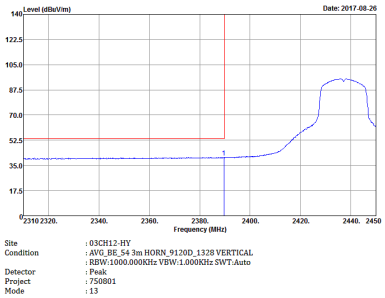
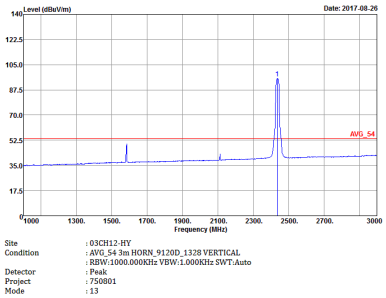
WIFI 802.11g (Band Edge @ 3m)

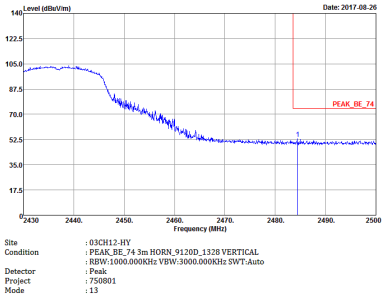
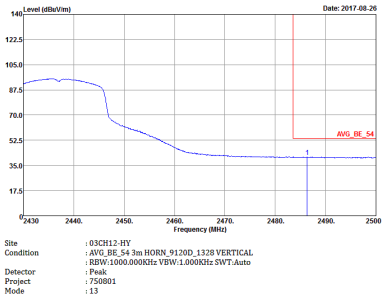
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

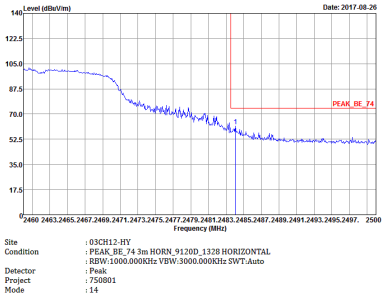
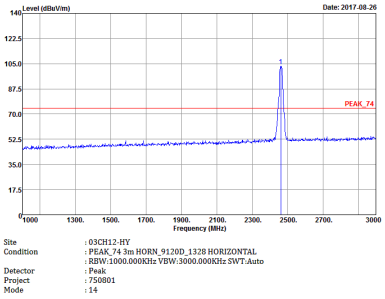
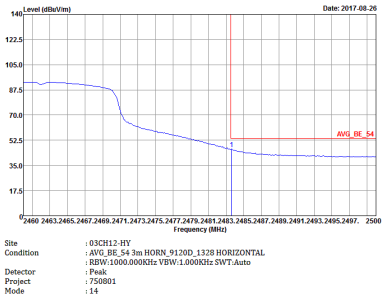
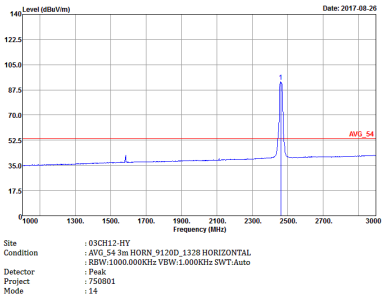
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

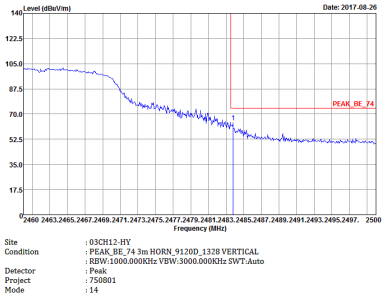
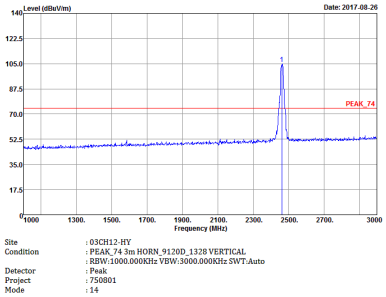
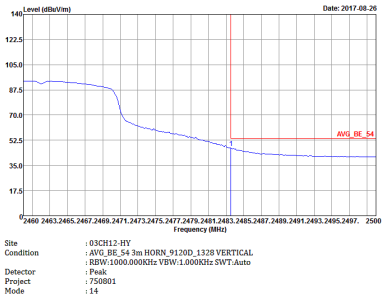
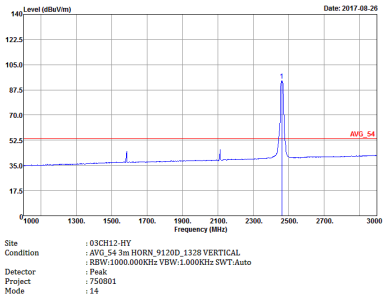
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

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

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

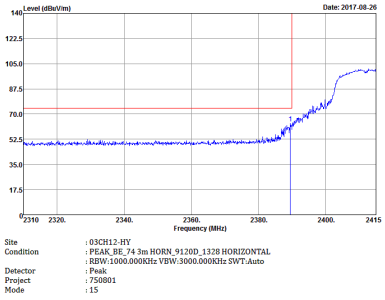
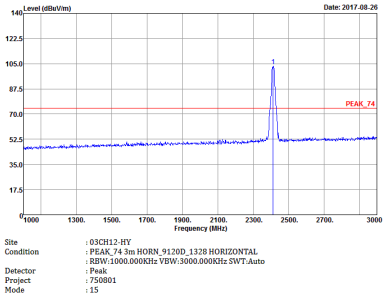
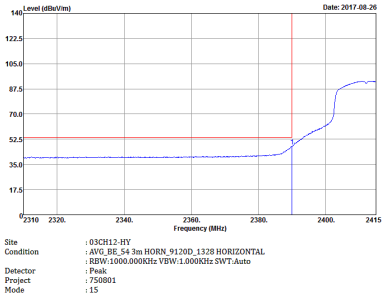
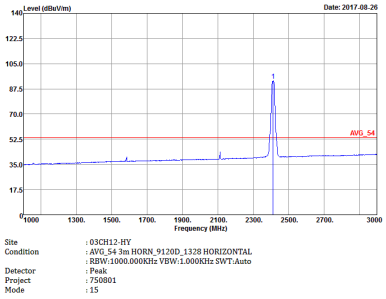
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

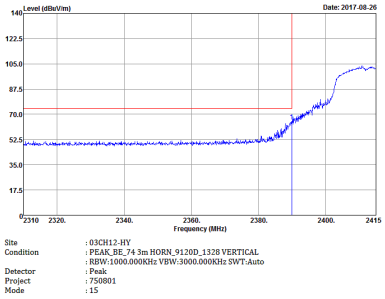
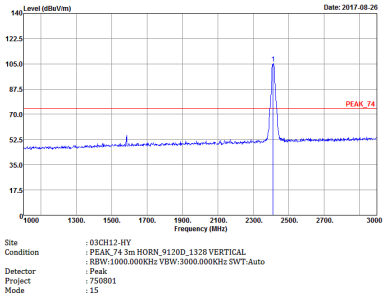
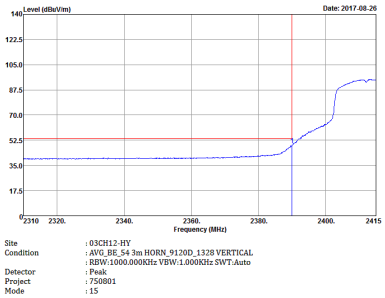
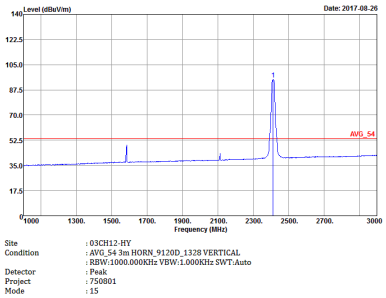
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 14	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 14
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 14	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 14

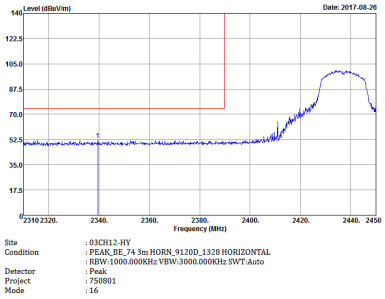
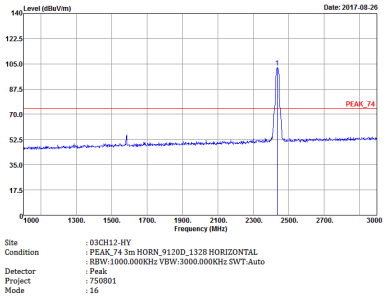
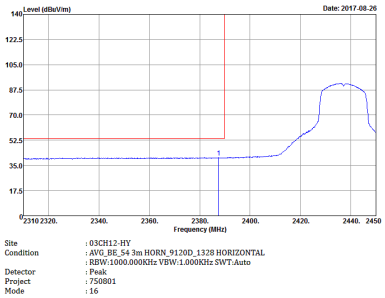
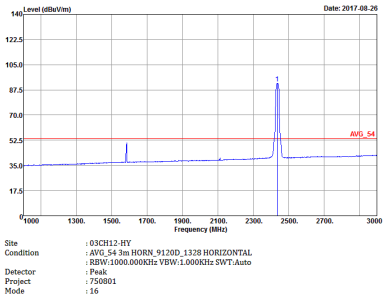
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

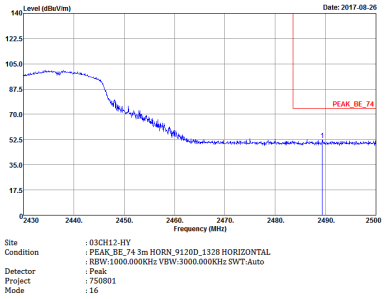
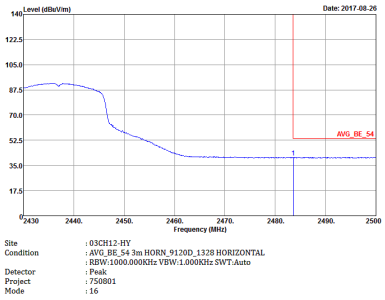
2.4GHz 2400~2483.5MHz

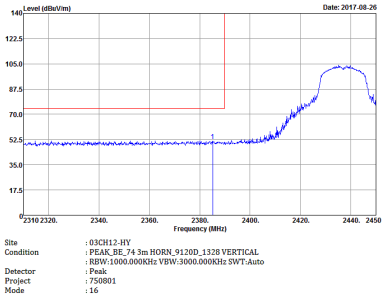
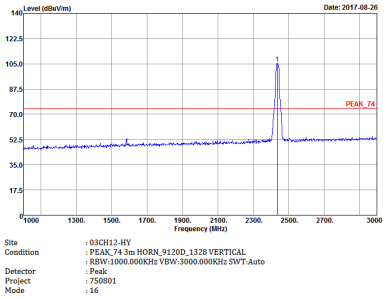
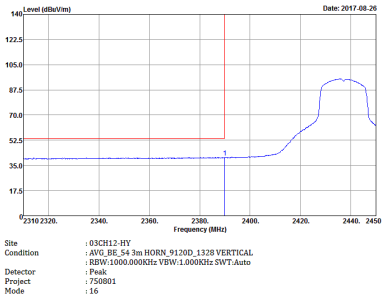
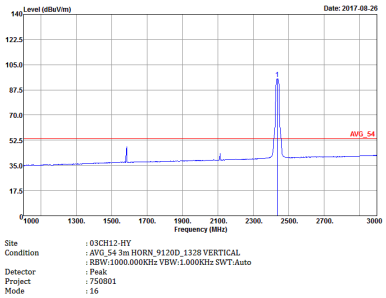
WIFI 802.11n HT20 (Band Edge @ 3m)

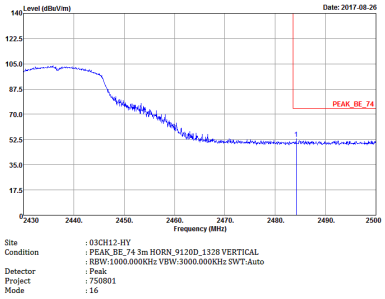
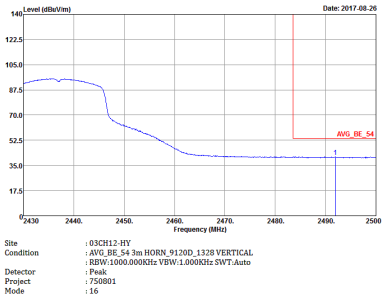
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

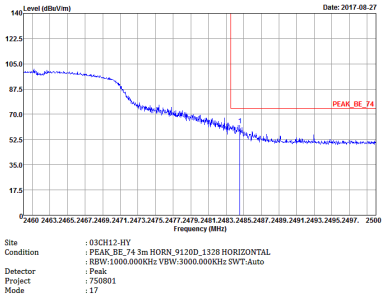
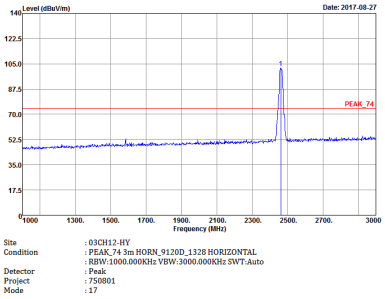
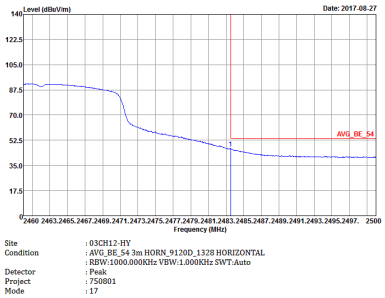
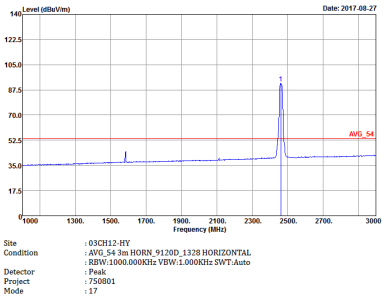
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

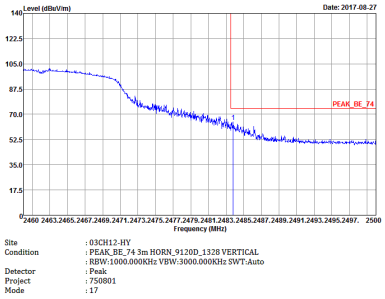
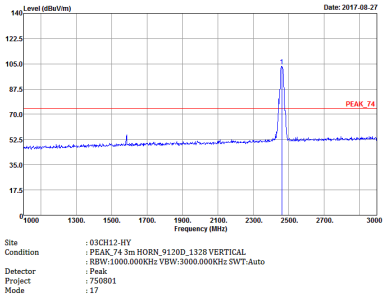
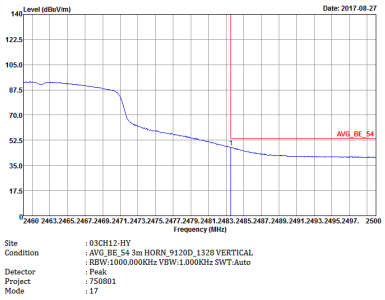
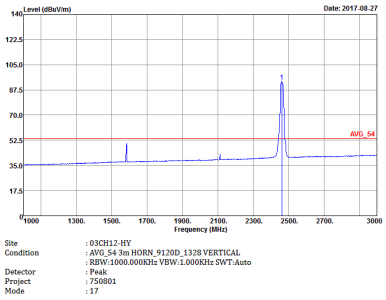
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

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

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

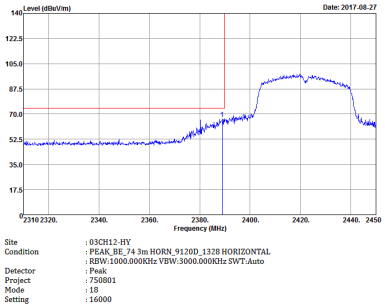
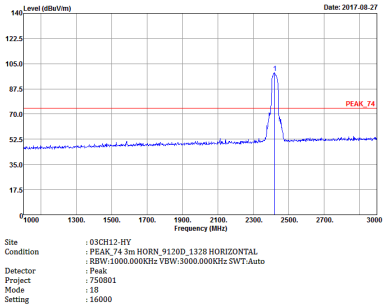
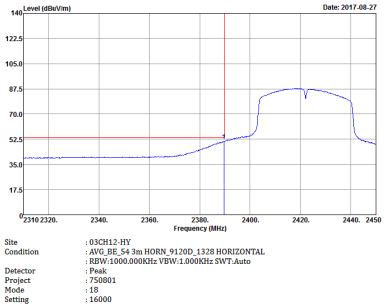
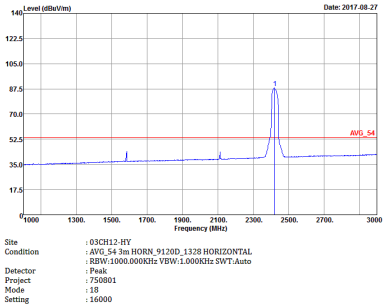
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

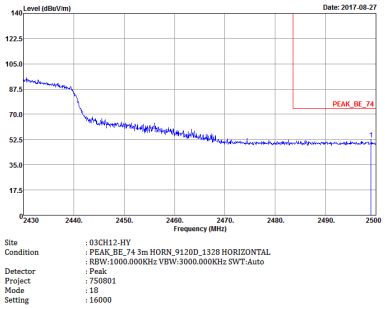
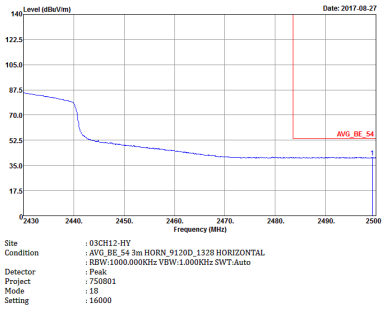
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 17
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 17	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 17

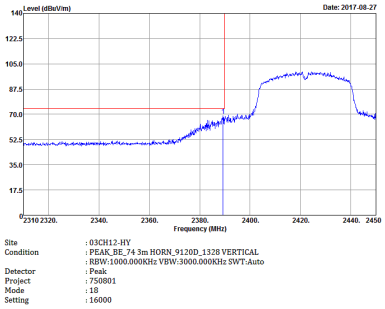
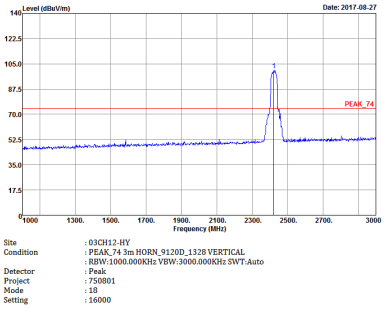
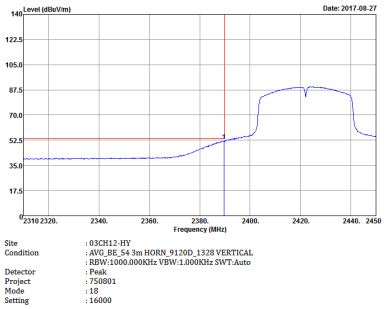
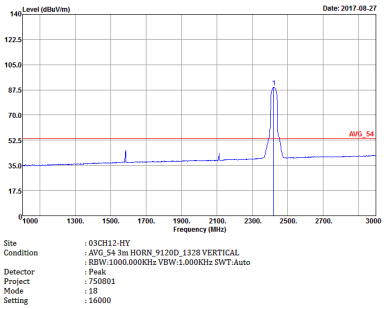
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

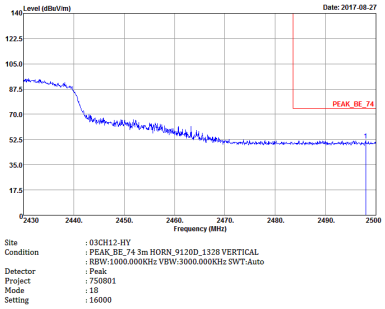
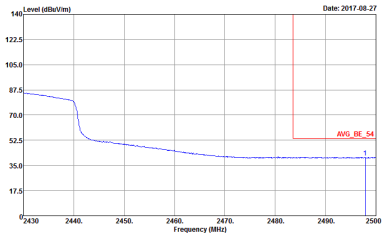
2.4GHz 2400~2483.5MHz

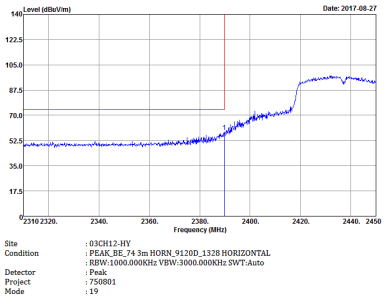
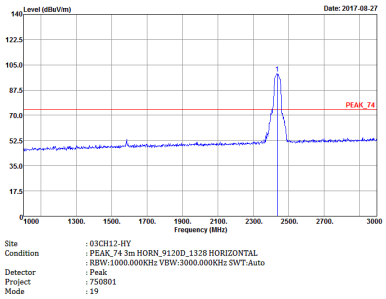
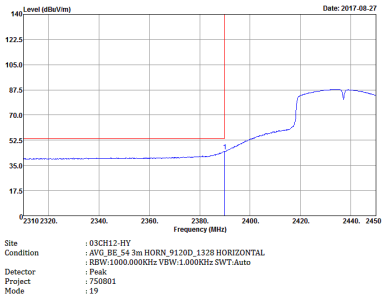
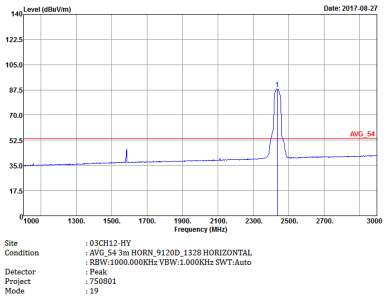
WIFI 802.11n HT40 (Band Edge @ 3m)

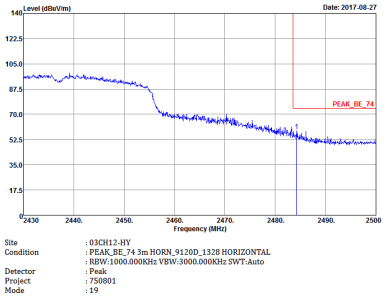
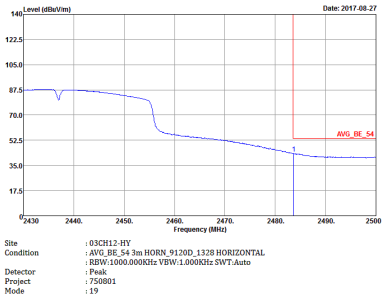
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

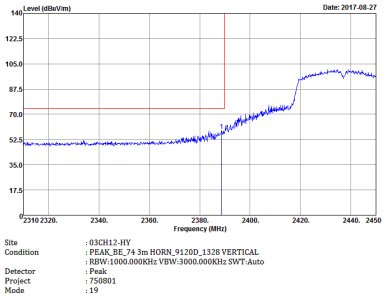
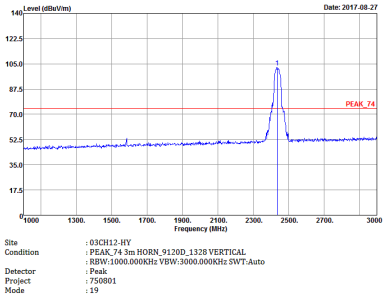
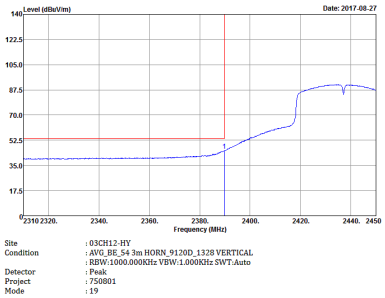
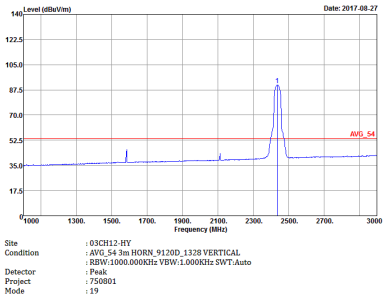
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000	Left Blank
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000	Left Blank

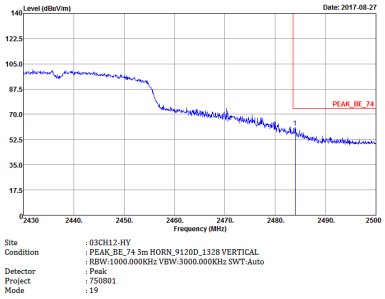
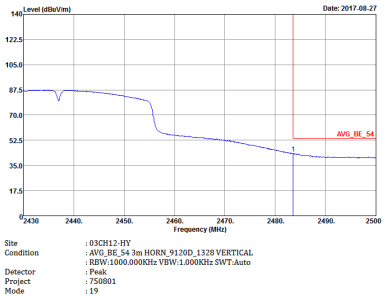
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000

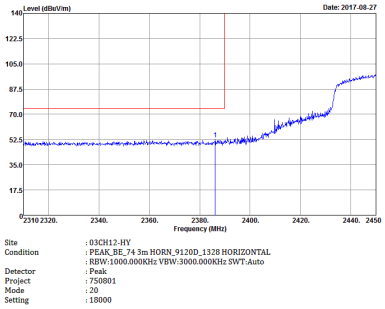
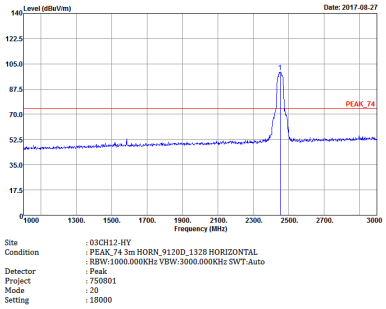
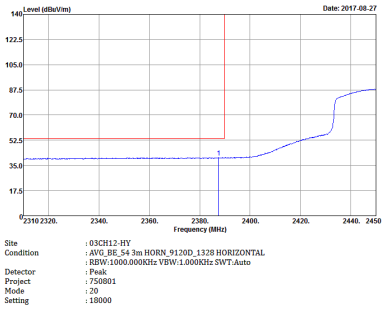
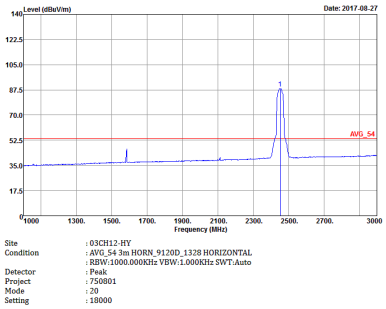
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000	Left blank
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 18 Setting : 16000	Left blank

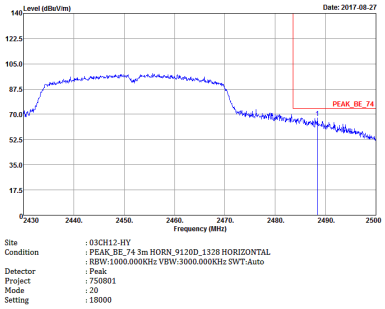
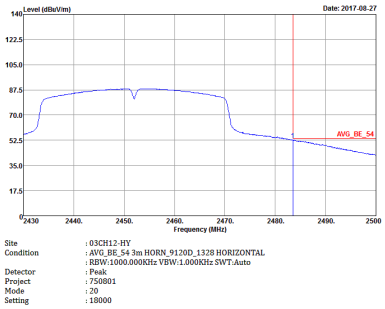
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

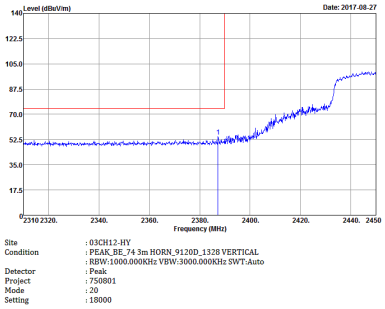
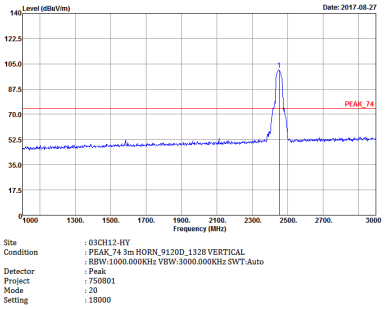
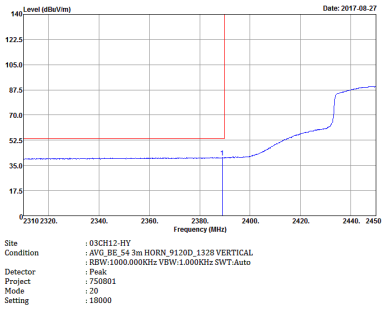
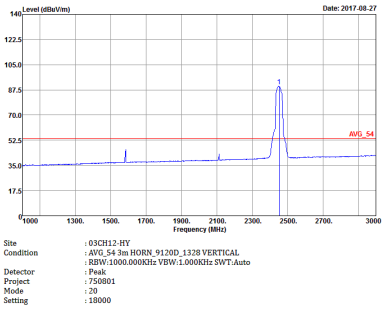
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

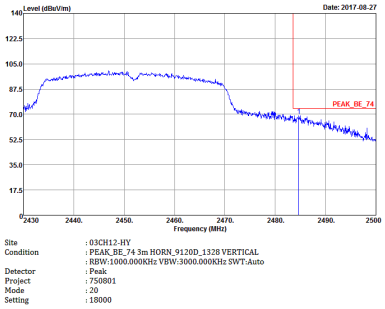
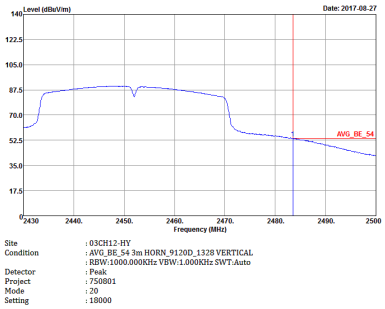
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

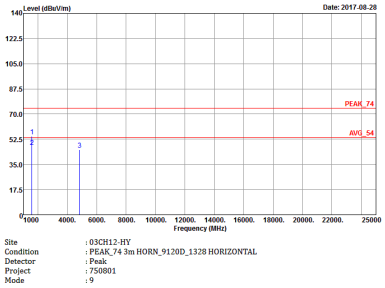
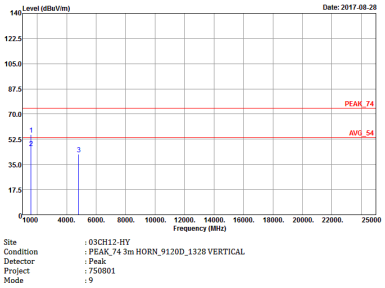
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

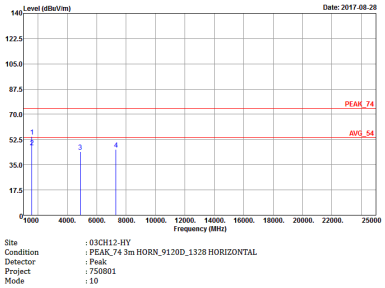
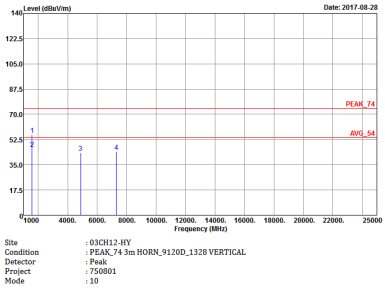
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 20 Setting : 18000	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 20 Setting : 18000
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 20 Setting : 18000	 Site : 03CH12-HY Condition : AVG_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 750801 Mode : 20 Setting : 18000

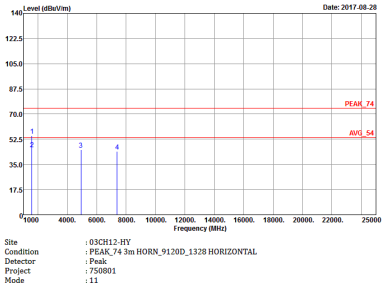
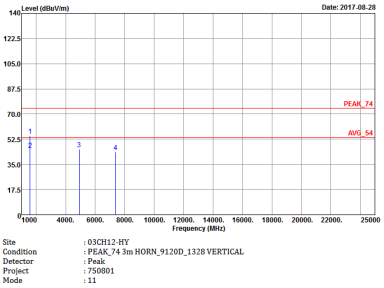
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

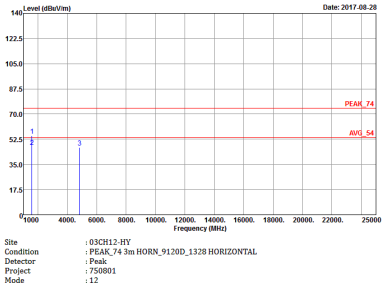
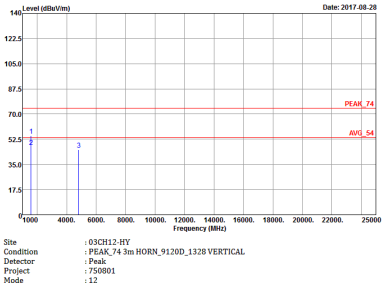
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

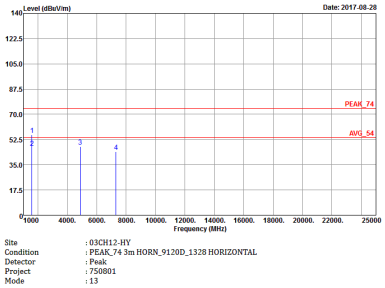
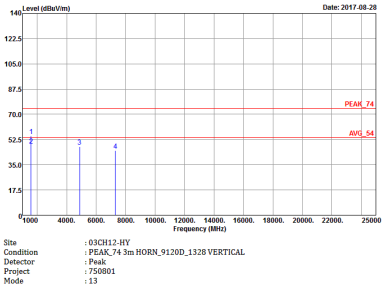
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

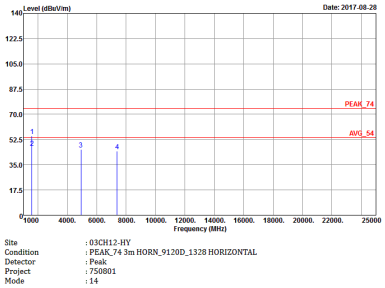
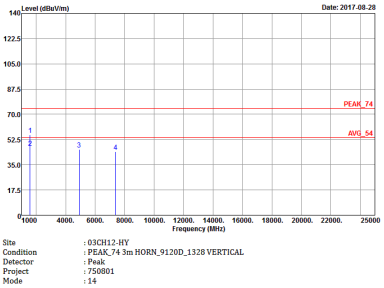
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 750801 Mode : 11	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 750801 Mode : 11

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

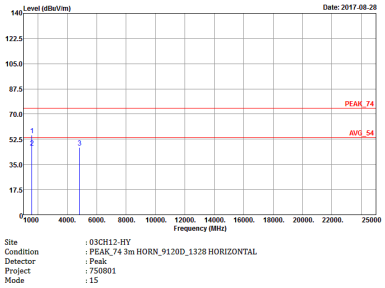
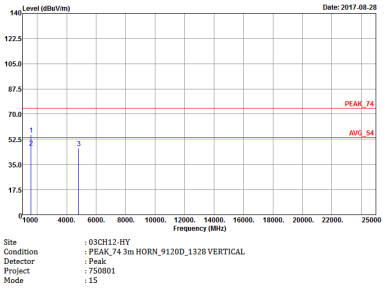
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

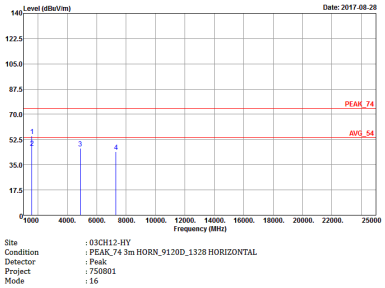
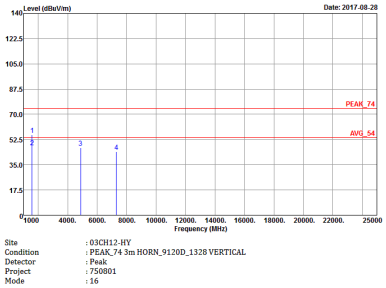
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 750801 Mode : 13	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 750801 Mode : 13

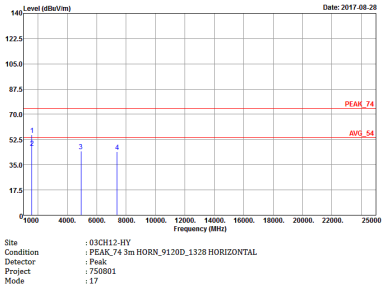
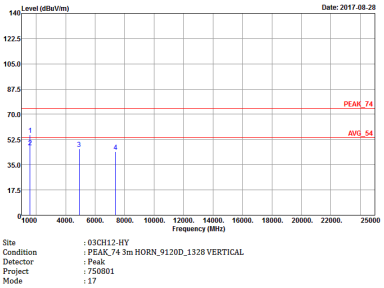
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 750801 Mode : 14	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 750801 Mode : 14

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

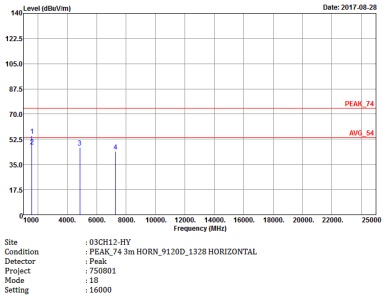
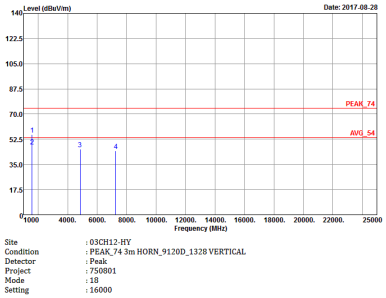
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

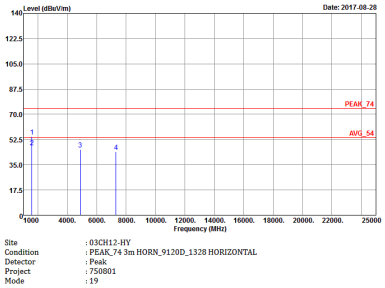
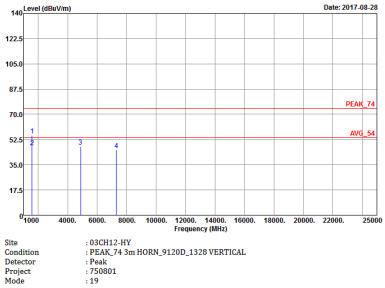
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

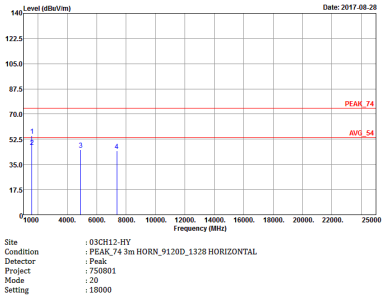
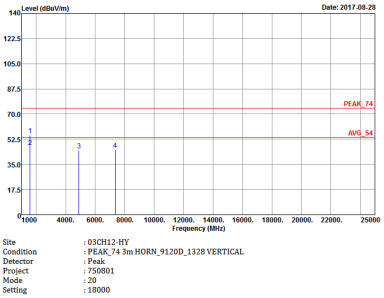
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 750801 Mode : 17	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 750801 Mode : 17

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

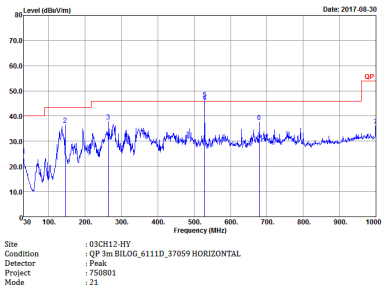
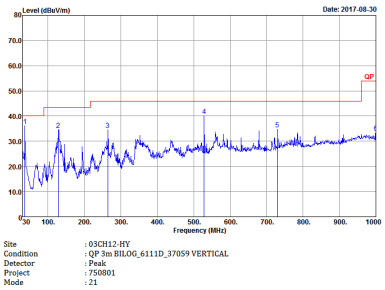
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 HORIZONTAL Detector : Peak Project : 750801 Mode : 20 Setting : 18000	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL Detector : Peak Project : 750801 Mode : 20 Setting : 18000

Emission below 1GHz

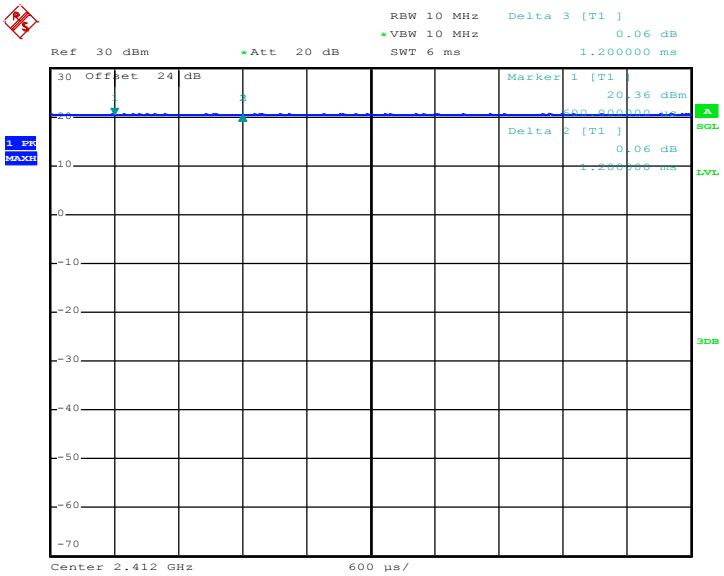
2.4GHz WIFI 802.11n HT40 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

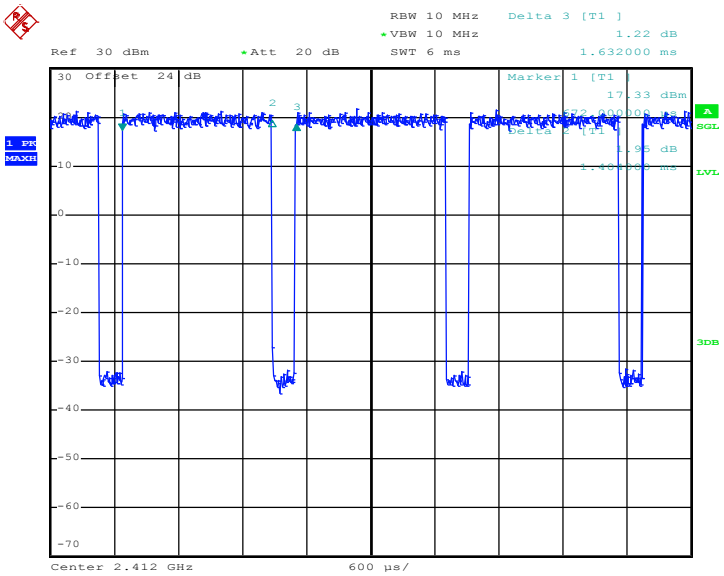
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	97.69	8440	0.12	300Hz
802.11g	86.84	1400	0.71	1kHz
2.4GHz 802.11n HT20	85.62	1308	0.76	1kHz
2.4GHz 802.11n HT40	90.86	2226	0.45	1kHz

802.11b



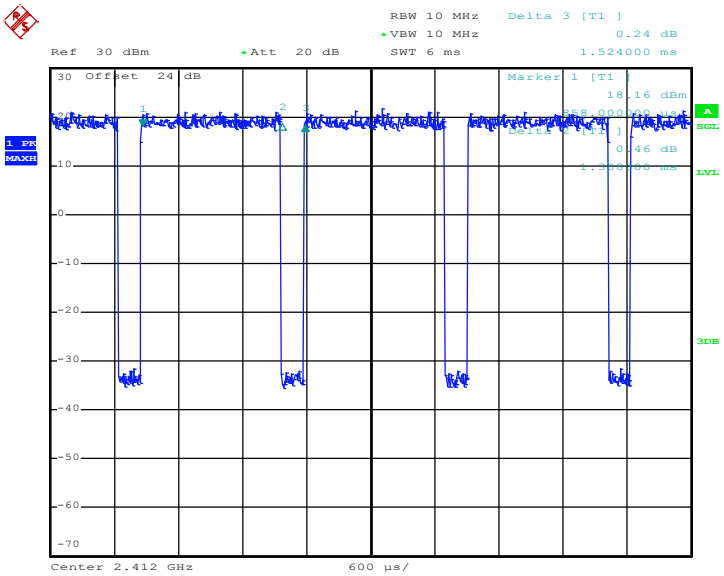
Date: 8.AUG.2017 00:16:49

802.11g



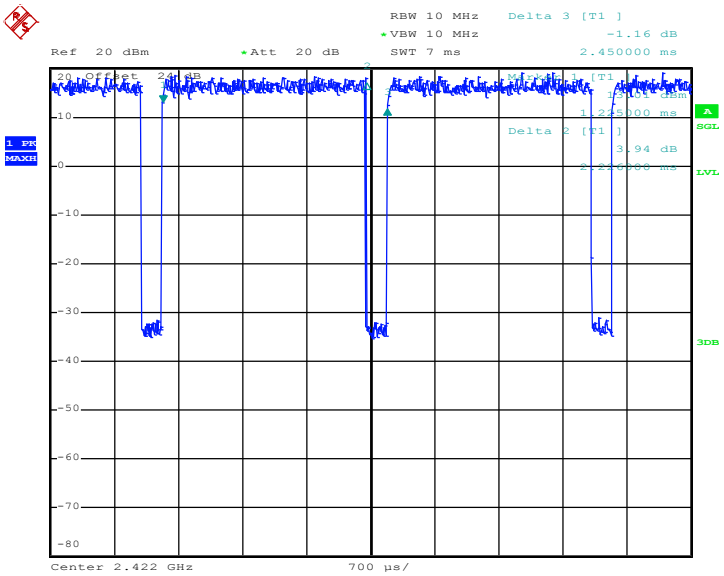
Date: 8.AUG.2017 00:19:38

802.11n HT20



Date: 8.AUG.2017 00:22:08

802.11n HT40



Date: 9.AUG.2017 11:29:23