



FCC RF Test Report

APPLICANT : Vlado L.L.C.
EQUIPMENT : HDMI Digital Media Receiver
MODEL NAME : LY73PR
FCC ID : 2AE6S-0948
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

The testing was completed on Jul. 21, 2016. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



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



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.1	-	99% Bandwidth	-	Pass	-
3.2	15.247(b)	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$	Pass	-
3.4	15.247(d)	Conducted Band Edges	$\leq 20\text{dBc}$	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 0.60 dB at 2485.600 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 8.40 dB at 0.158 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

Vlado L.L.C.

101 Eisenhower Pkwy, Suite 300, Roseland, NJ, 07068, US 07068

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	HDMI Digital Media Receiver
Model Name	LY73PR
FCC ID	2AE6S-0948
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth v4.1 EDR/LE

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification			
Tx/Rx Channel Frequency Range	2412 MHz ~ 2472 MHz		
Maximum (Peak) Output Power to antenna	SISO <Ant. 1> 802.11b : 22.83 dBm (0.1919 W) 802.11g : 23.63 dBm (0.2307 W) 802.11n HT20 : 24.40 dBm (0.2754 W) MIMO <Ant. 1+2> 802.11n HT20 : 27.26 dBm (0.5321 W)		
Antenna Type	Ant. 1 : Fixed Internal Antenna Ant. 2 : Fixed Internal Antenna		
Antenna Gain	Ant. 1 : 3.19 dBi Ant. 2 : 0.51 dBi		
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)		
Antenna Function for Transmitter	802.11 b/g/n SISO	Ant. 1	Ant. 2
	802.11 n MIMO	V	-
		V	V



1.4 Modification of EUT

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

1.5 Testing Location

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

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st 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.	Sportun Site No.		
	TH02-HY	CO05-HY	03CH07-HY

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

1.6 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark:

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



2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz) and radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane for SISO Mode and X plane for MIMO Mode) were recorded in this report.

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

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

2.1 Carrier Frequency and Channel

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



2.2 Pre-Scanned RF Power

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

SISO <Ant. 1>

802.11b				
Data Rate (MHz)	1M bps	2M bps	5.5M bps	11M bps
Peak Power (dBm)	22.83	22.82	22.21	22.33

802.11g								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	23.63	23.62	23.61	23.62	23.48	23.44	23.60	23.00

2.4GHz 802.11n HT20								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	24.40	24.37	24.38	24.37	24.11	24.05	24.07	24.11

MIMO <Ant. 1+2>

2.4GHz 802.11n HT20								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	27.26	27.13	27.01	26.90	26.91	27.01	26.98	26.96

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



2.3 Test Mode

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

Single Antenna

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

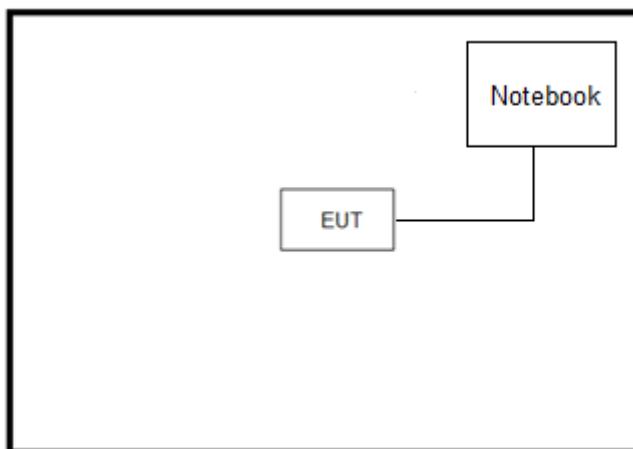
MIMO Antenna

Modulation	Data Rate
802.11n HT20	MCS0

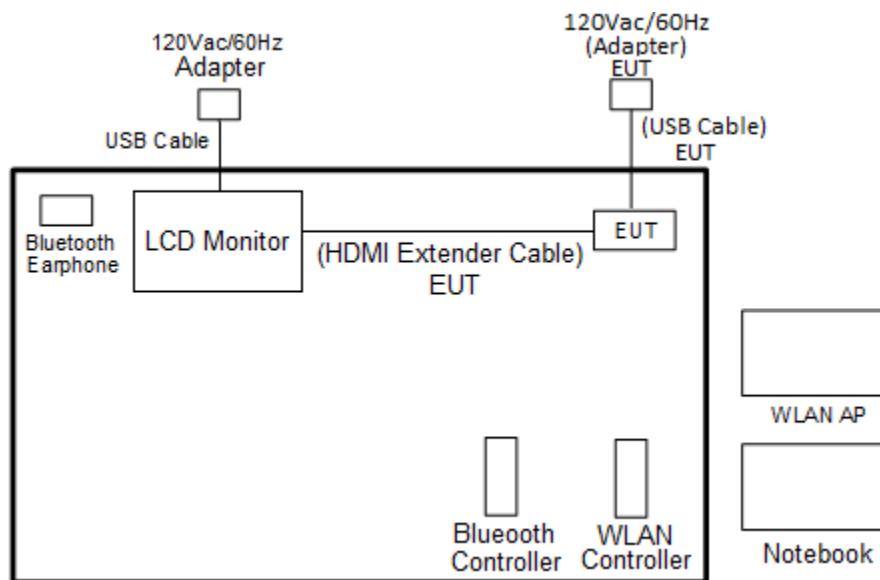
Test Cases	
AC Conducted Emission	Mode 1 : WLAN Link with WLAN Controller + Bluetooth Link with Bluetooth Controller + MPEG4 (720P) + HDMI Extender Cable + USB Cable (Charging from Adapter) + Bluetooth Link with Bluetooth Earphone + WLAN (2.4GHz) Link with AP

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>





2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
2.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	LCD Monitor	DELL	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Notebook	DELL	P20G	FCC DoC/ Contains FCC ID: QDS-BRCM1051	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.6 EUT Operation Test Setup

For WLAN function, programmed RF utility, “ADB” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example:

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)



3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

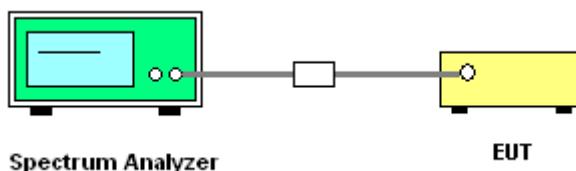
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz.
Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1MHz and set the Video bandwidth (VBW) = 3MHz.
6. Measure and record the results in the test report.

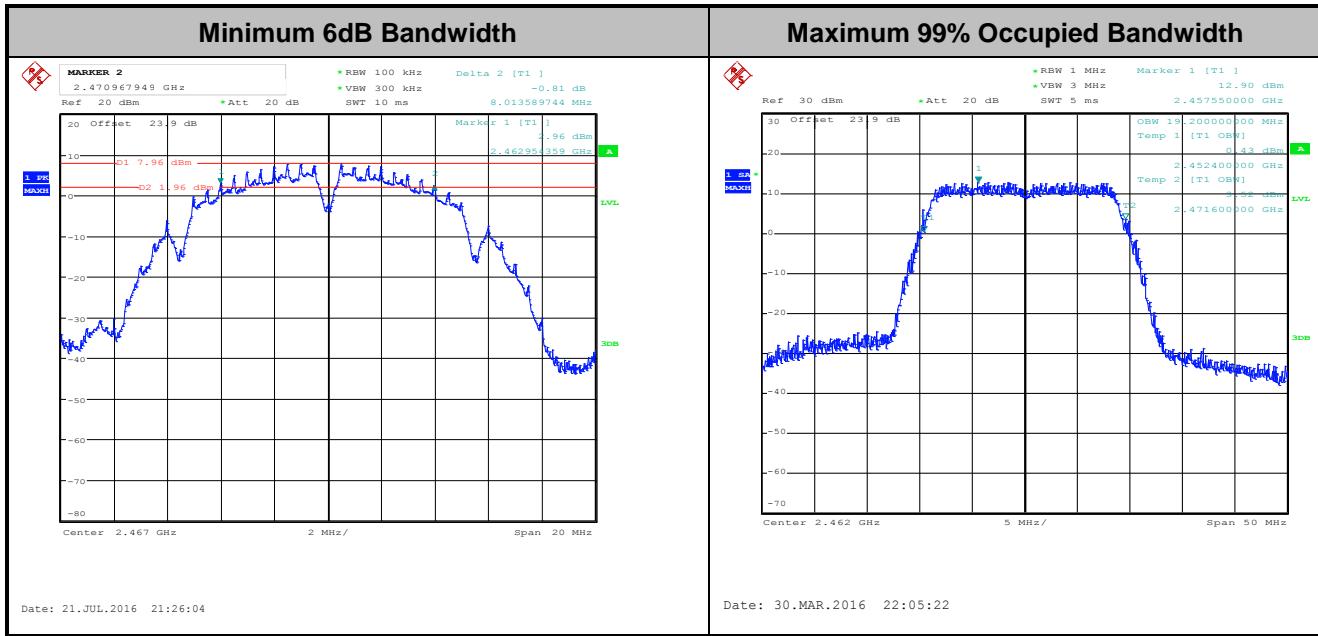
3.1.4 Test Setup





3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A of this report.



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



3.2 Peak Output Power Measurement

3.2.1 Limit of Peak Output Power

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

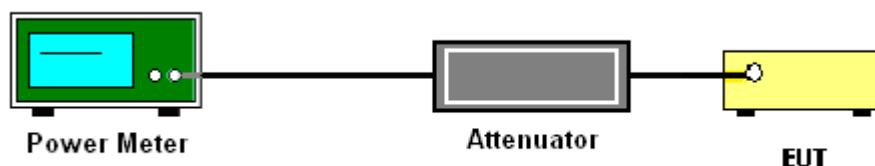
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r05 section 9.1.2 PKPM1 Peak power meter method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A of this report.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A of this report.



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

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

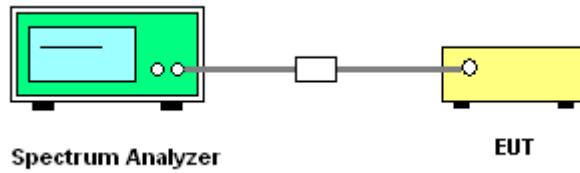
Method (1): Measure and sum the spectra across the outputs.

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

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

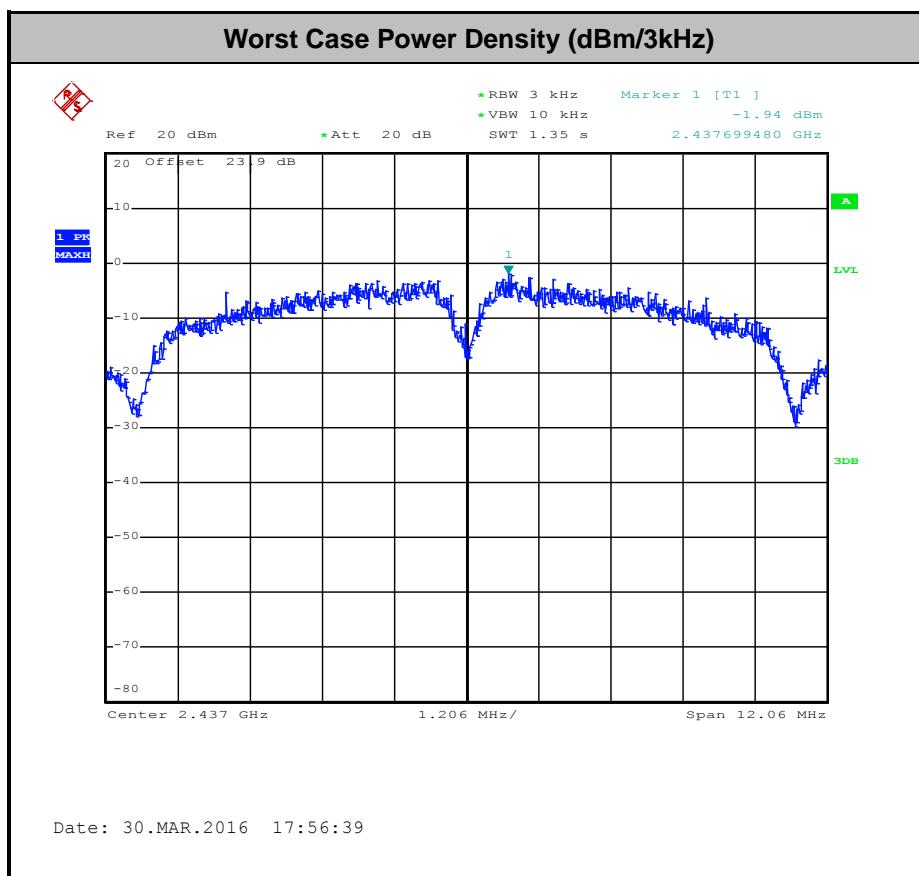


3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A of this report.





3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

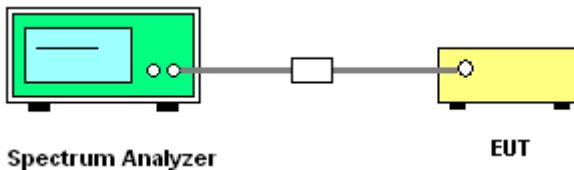
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup

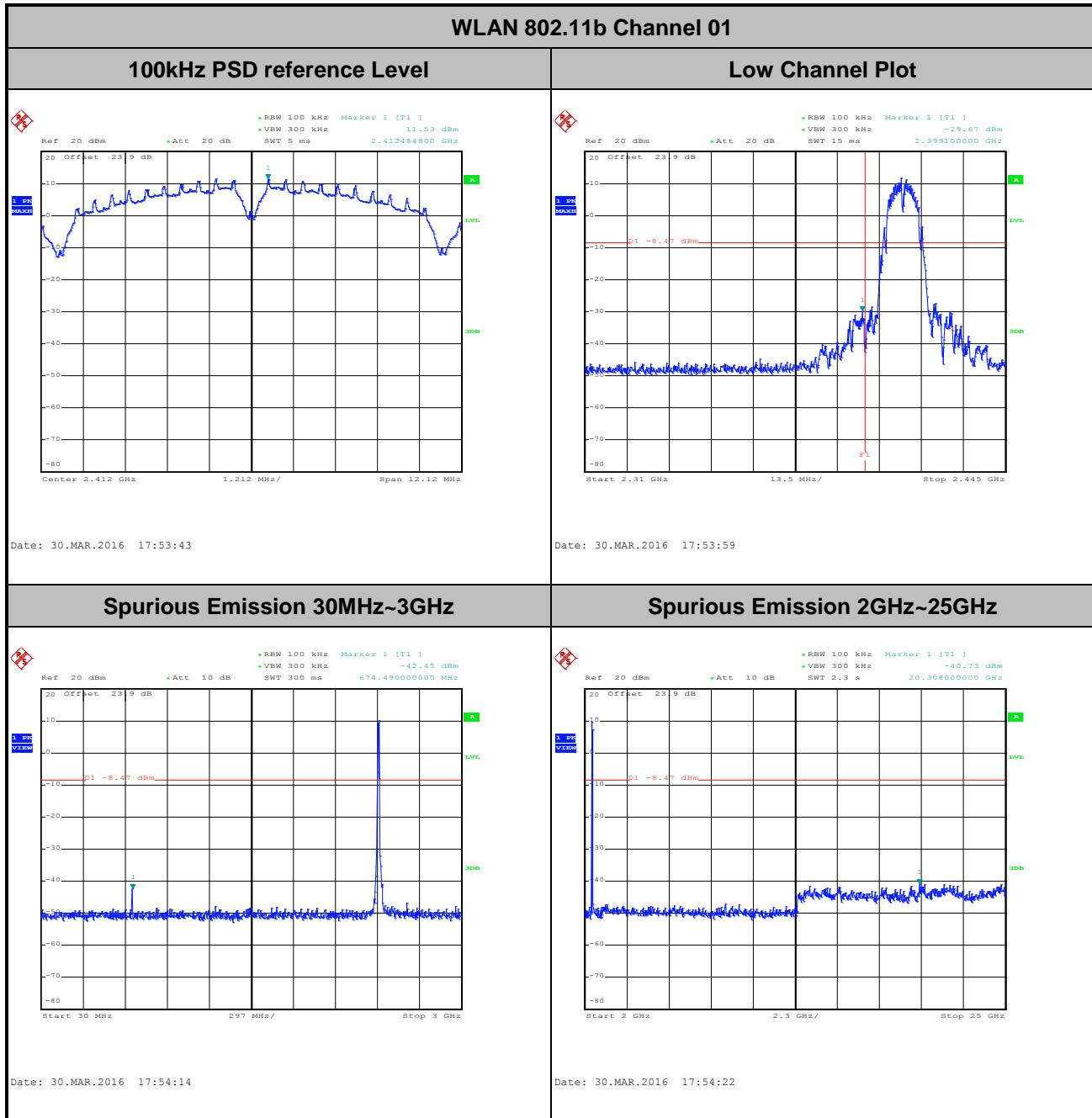




3.4.5 Test Result of Conducted Band Edges and Spurious Emission

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

Number of TX	1	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	An Wu and Derek Hsu



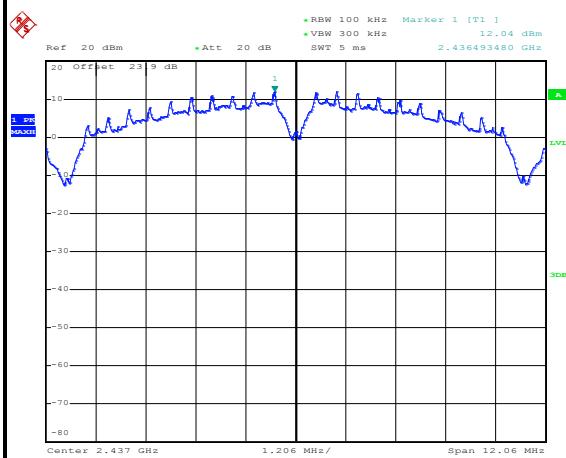


Number of TX :	1	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	An Wu and Derek Hsu

WLAN 802.11b Channel 06

100kHz PSD reference Level

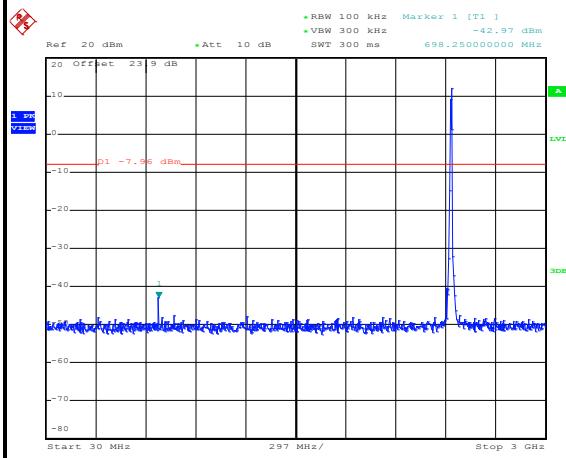
Mid Channel Plot



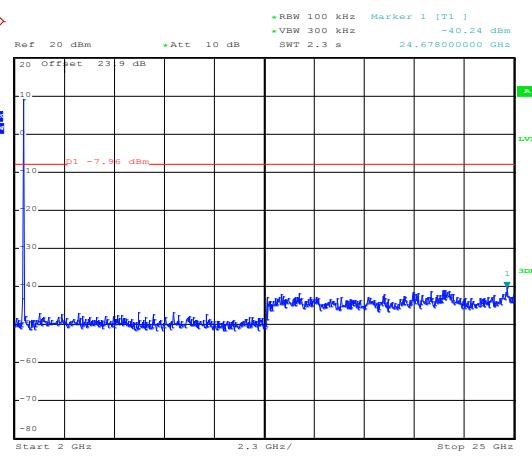
Date: 30.MAR.2016 17:57:33

Spurious Emission 30MHz~3GHz

Spurious Emission 2GHz~25GHz



Date: 30.MAR.2016 17:58:00



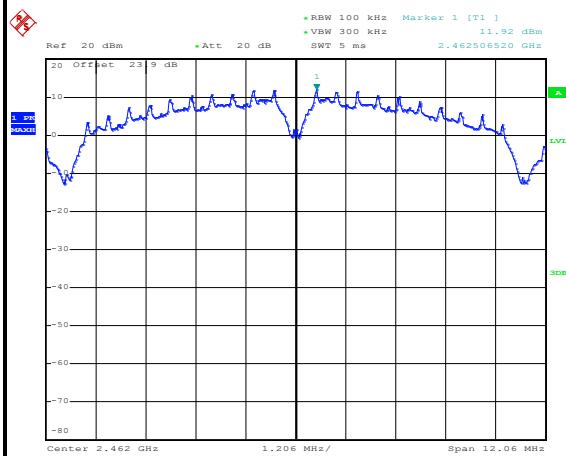
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Number of TX :	1	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	An Wu and Derek Hsu

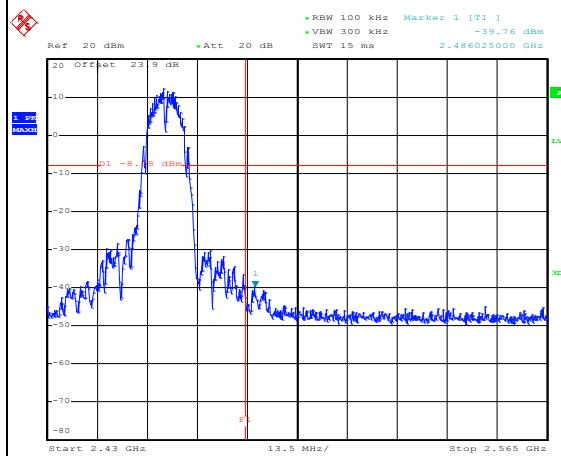
WLAN 802.11b Channel 11

100kHz PSD reference Level



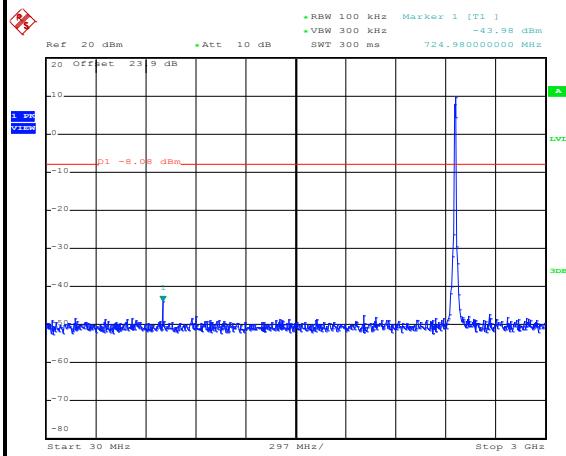
Date: 30.MAR.2016 18:01:29

High Channel Plot



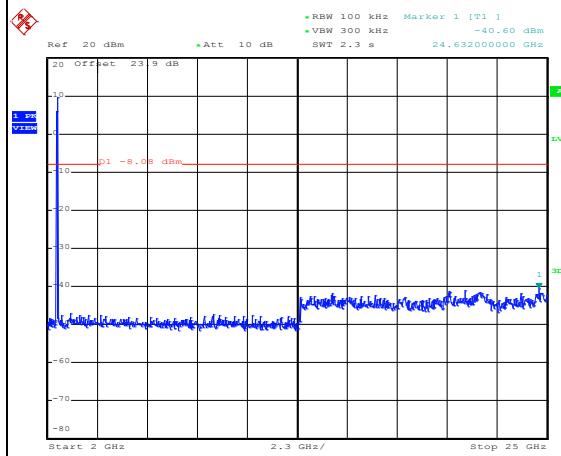
Date: 30.MAR.2016 18:02:00

Spurious Emission 30MHz~3GHz



Date: 30.MAR.2016 18:02:13

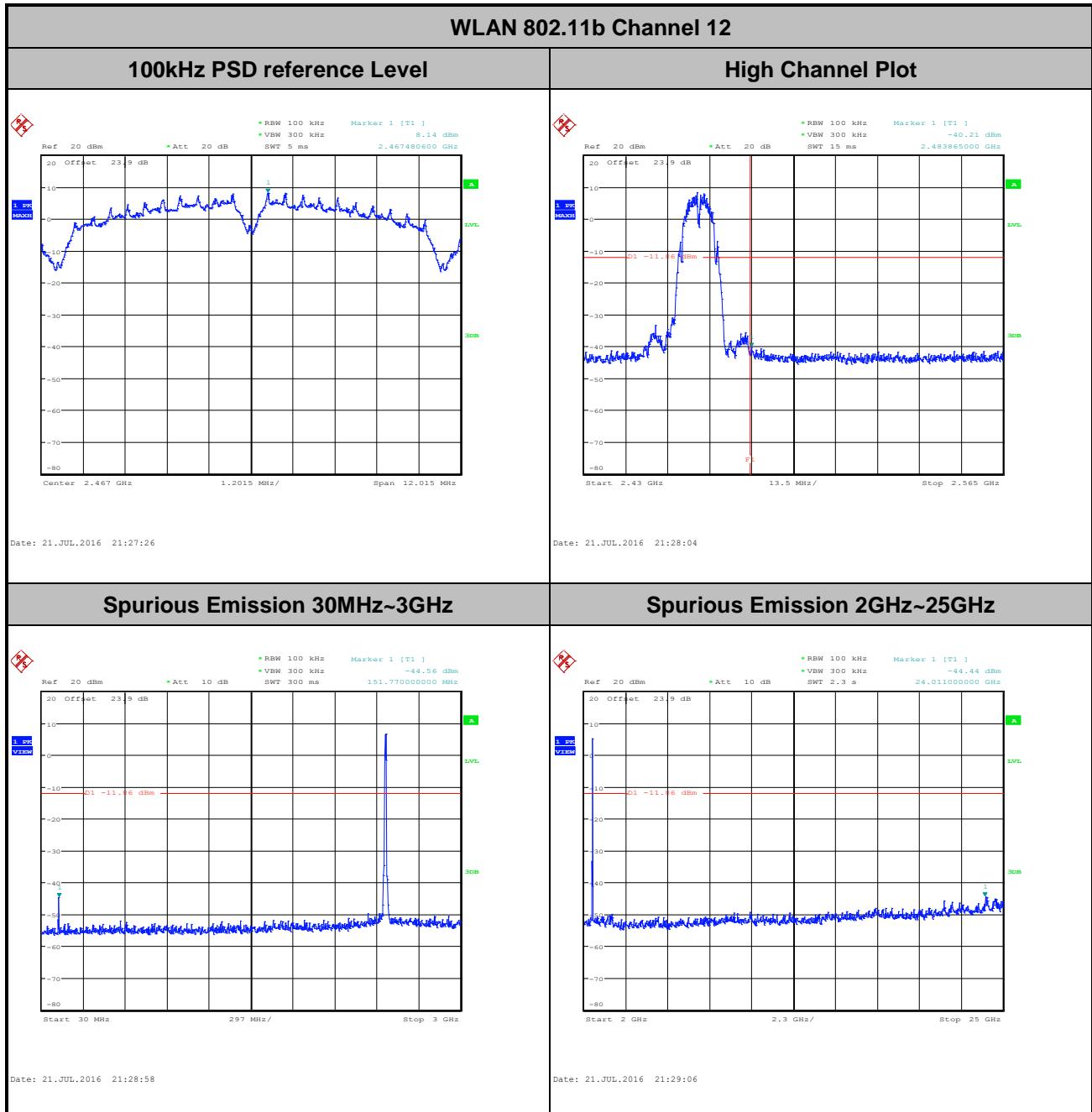
Spurious Emission 2GHz~25GHz



Date: 30.MAR.2016 18:02:21

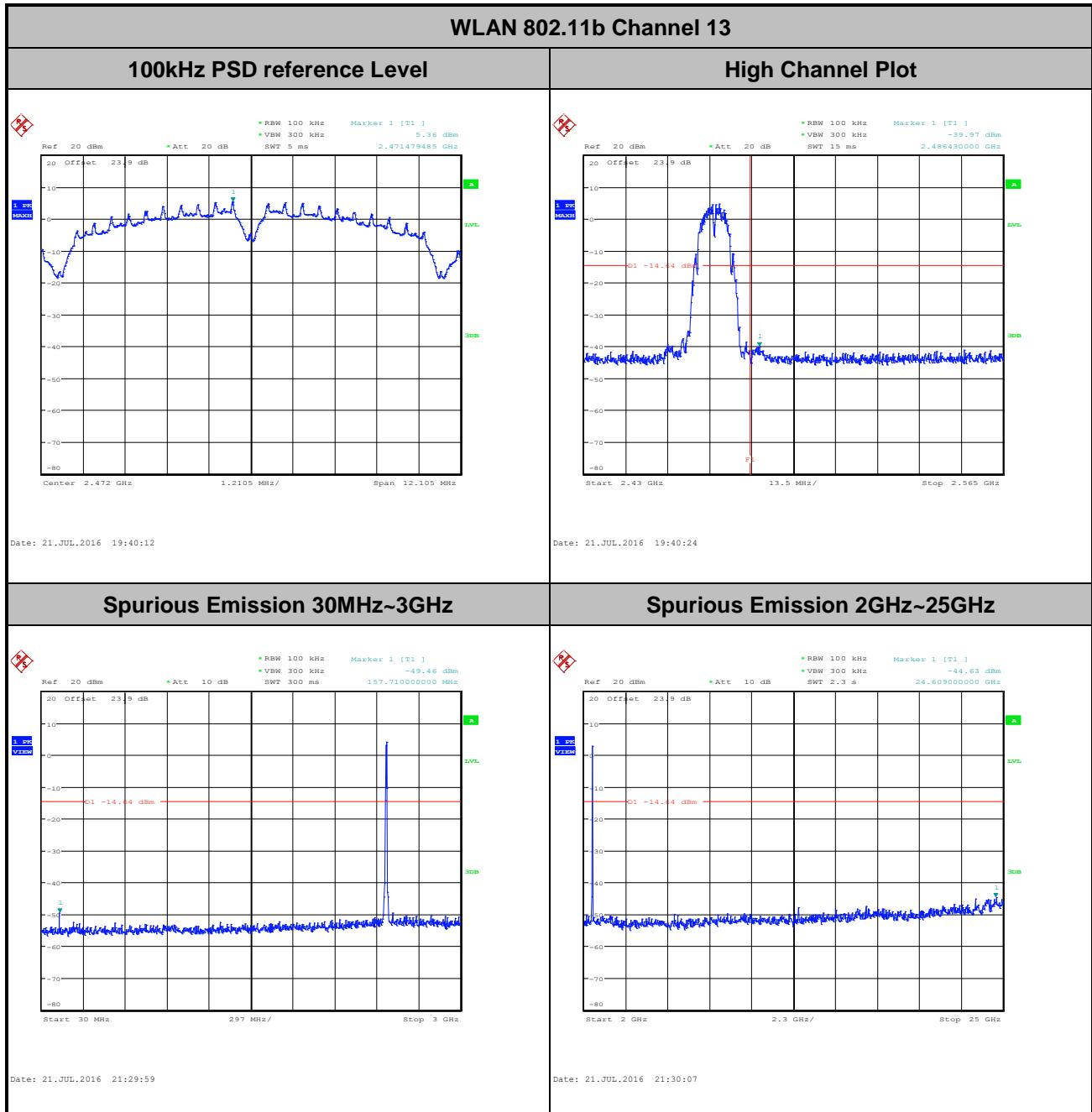


Number of TX :	1	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	12	Test Engineer :	An Wu and Derek Hsu





Number of TX :	1	Ant. :	1
Test Mode :	802.11b	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	13	Test Engineer :	An Wu and Derek Hsu

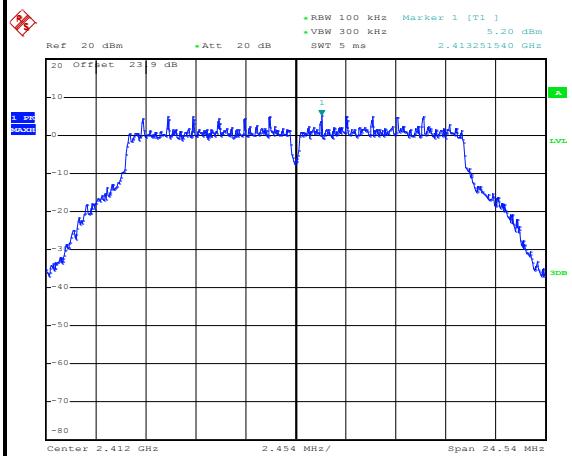




Number of TX :	1	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	An Wu and Derek Hsu

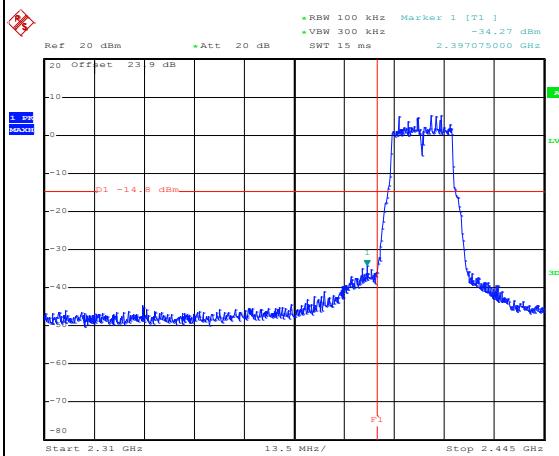
WLAN 802.11g Channel 01

100kHz PSD reference Level



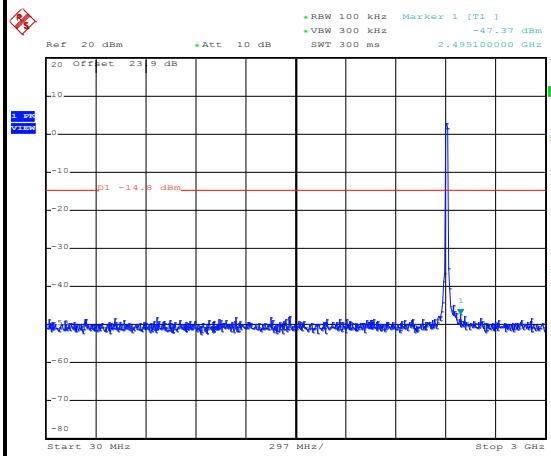
Date: 30.MAR.2016 18:06:04

Low Channel Plot



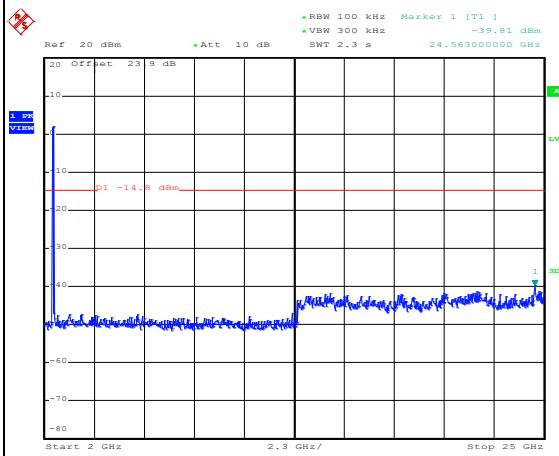
Date: 30.MAR.2016 18:06:17

Spurious Emission 30MHz~3GHz



Date: 30.MAR.2016 18:06:29

Spurious Emission 2GHz~25GHz



Date: 30.MAR.2016 18:06:37

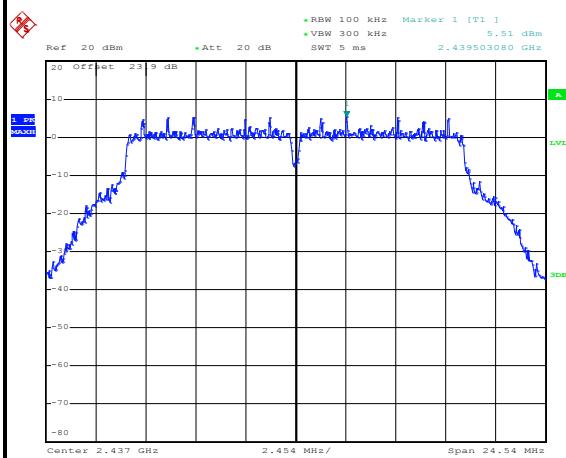


Number of TX :	1	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	An Wu and Derek Hsu

WLAN 802.11g Channel 06

100kHz PSD reference Level

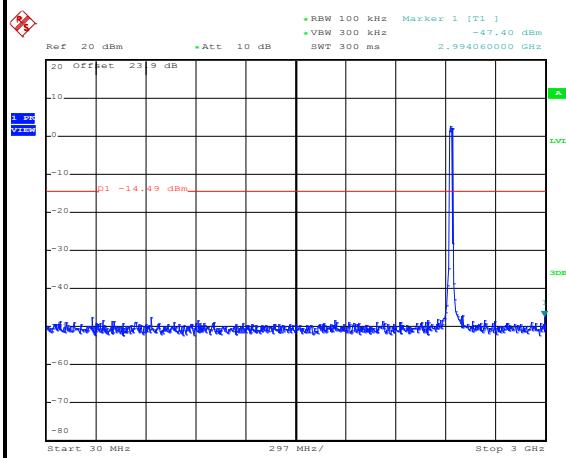
Mid Channel Plot



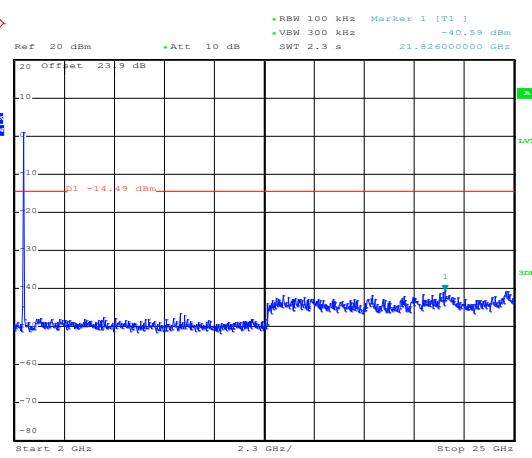
Date: 30.MAR.2016 18:10:15

Spurious Emission 30MHz~3GHz

Spurious Emission 2GHz~25GHz



Date: 30.MAR.2016 18:45:08



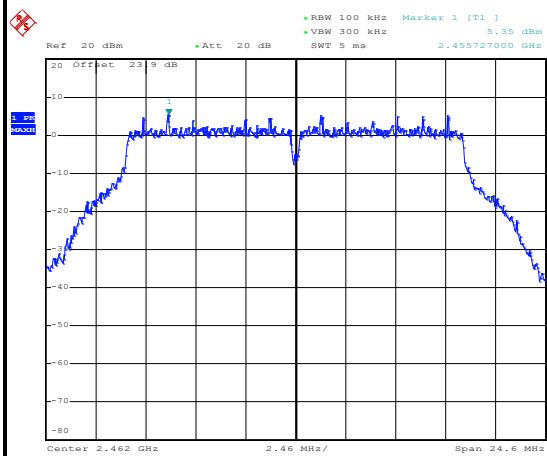
Date: 30.MAR.2016 18:45:17



Number of TX :	1	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	An Wu and Derek Hsu

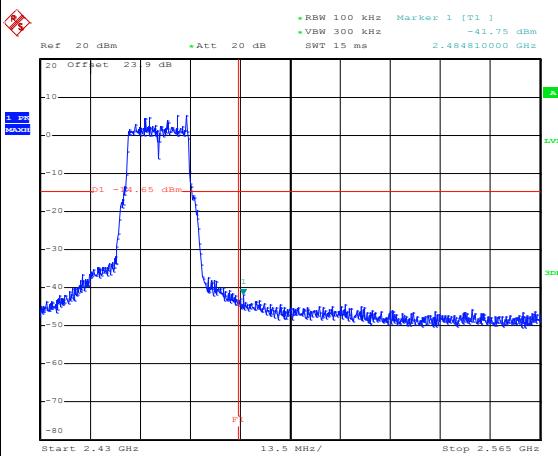
WLAN 802.11g Channel 11

100kHz PSD reference Level



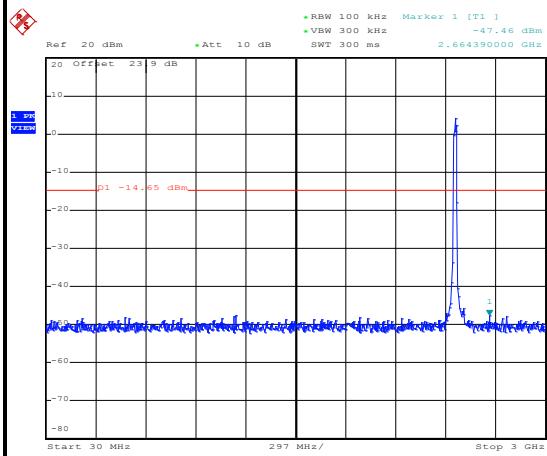
Date: 30.MAR.2016 18:13:31

High Channel Plot



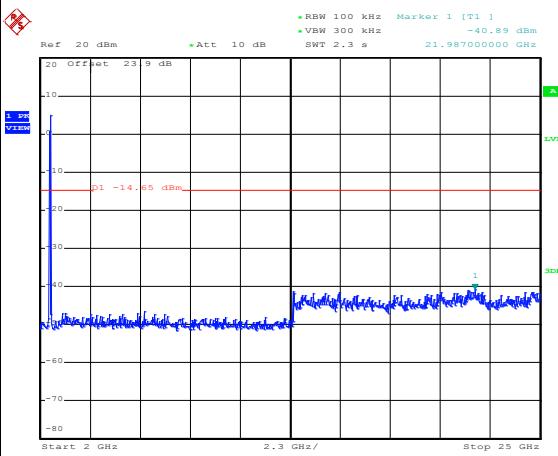
Date: 30.MAR.2016 18:13:41

Spurious Emission 30MHz~3GHz



Date: 30.MAR.2016 18:13:54

Spurious Emission 2GHz~25GHz

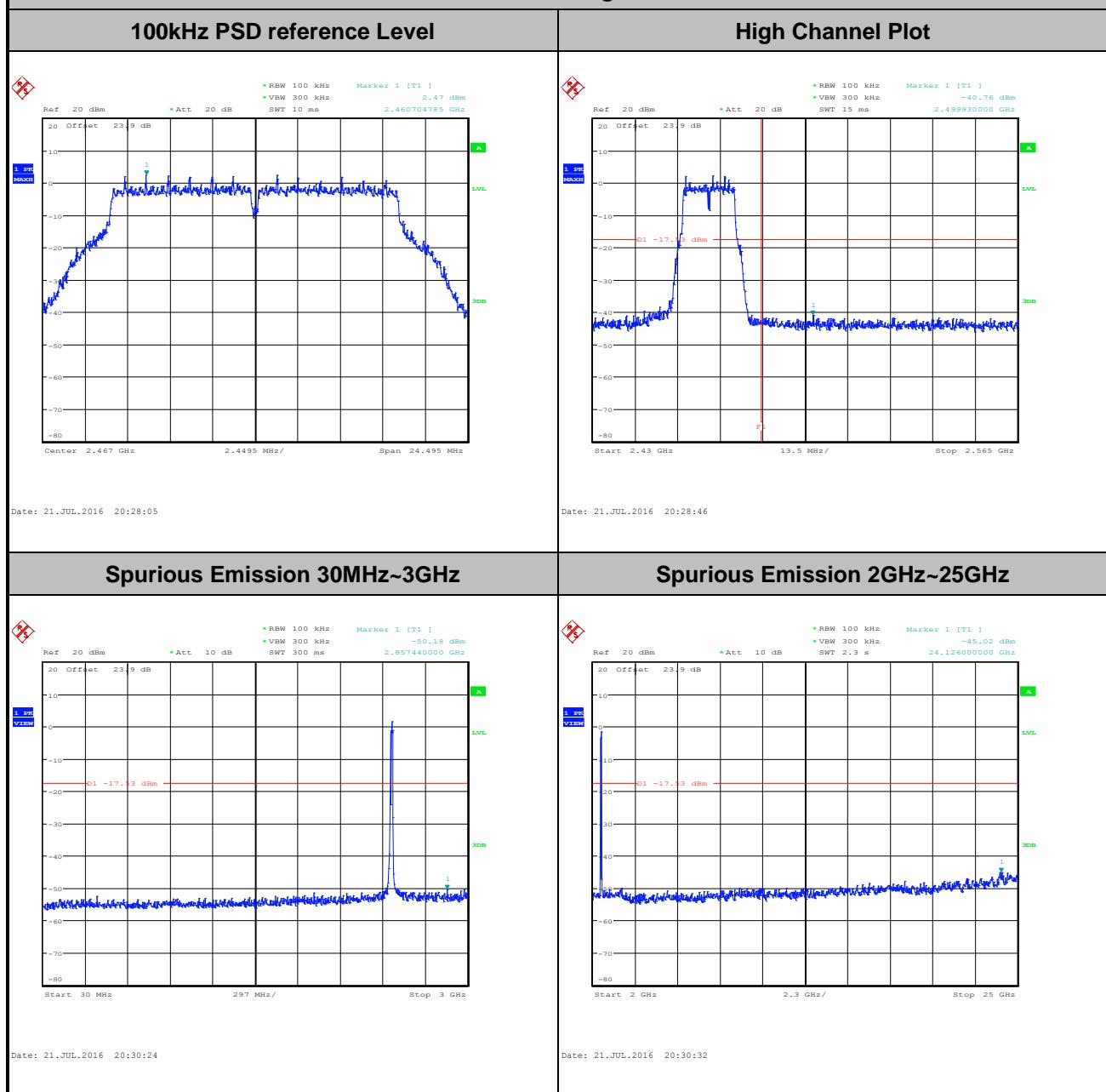


Date: 30.MAR.2016 18:14:02



Number of TX :	1	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	12	Test Engineer :	An Wu and Derek Hsu

WLAN 802.11g Channel 12

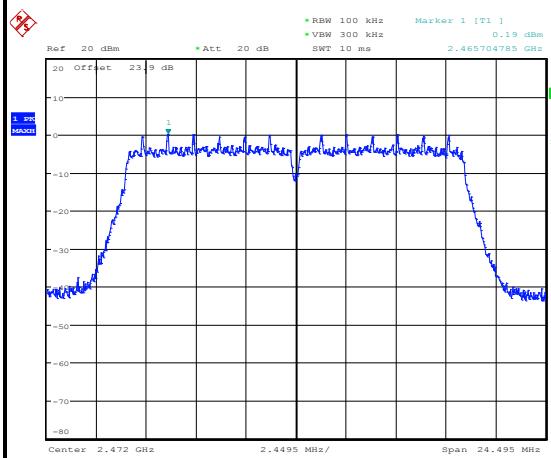




Number of TX :	1	Ant. :	1
Test Mode :	802.11g	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	13	Test Engineer :	An Wu and Derek Hsu

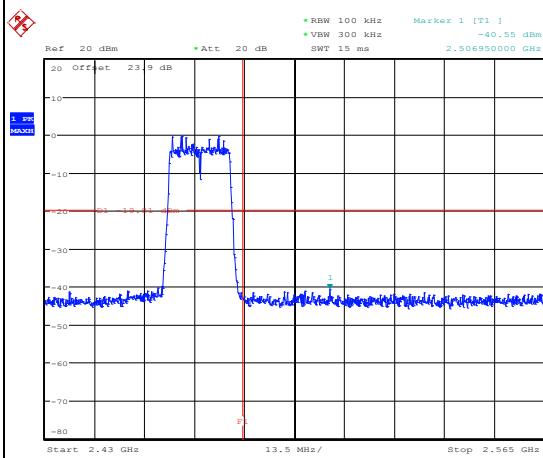
WLAN 802.11g Channel 13

100kHz PSD reference Level



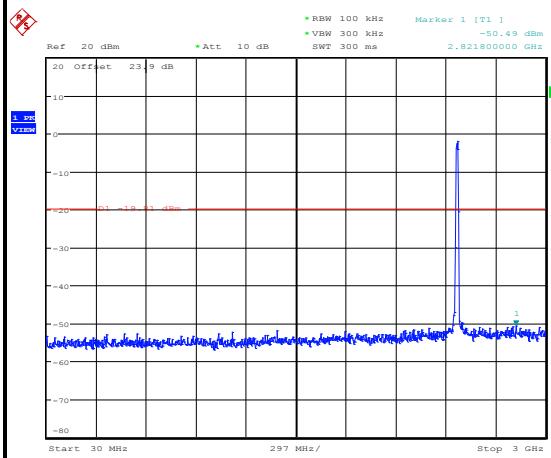
Date: 21.JUL.2016 20:10:40

High Channel Plot



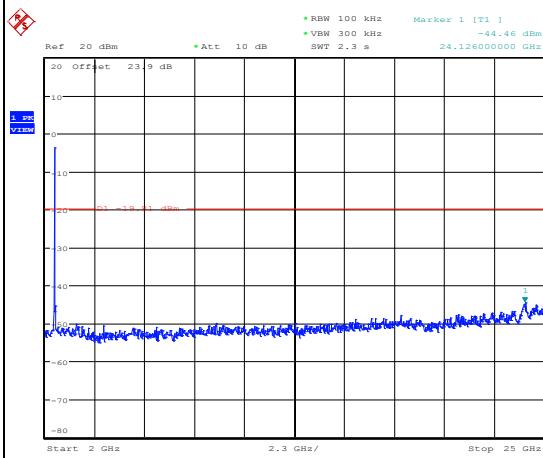
Date: 21.JUL.2016 20:31:48

Spurious Emission 30MHz~3GHz



Date: 21.JUL.2016 20:31:59

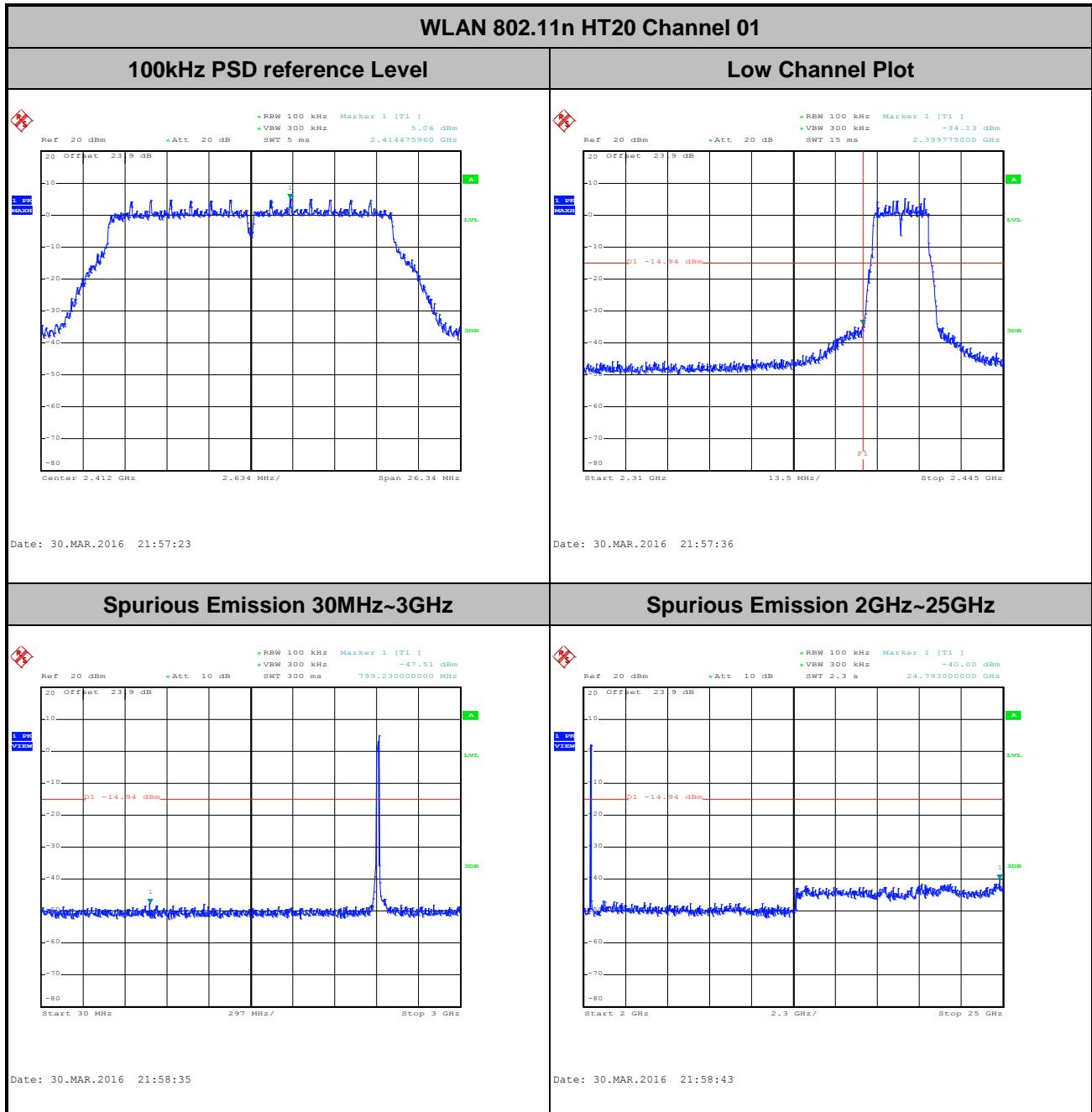
Spurious Emission 2GHz~25GHz



Date: 21.JUL.2016 20:32:07

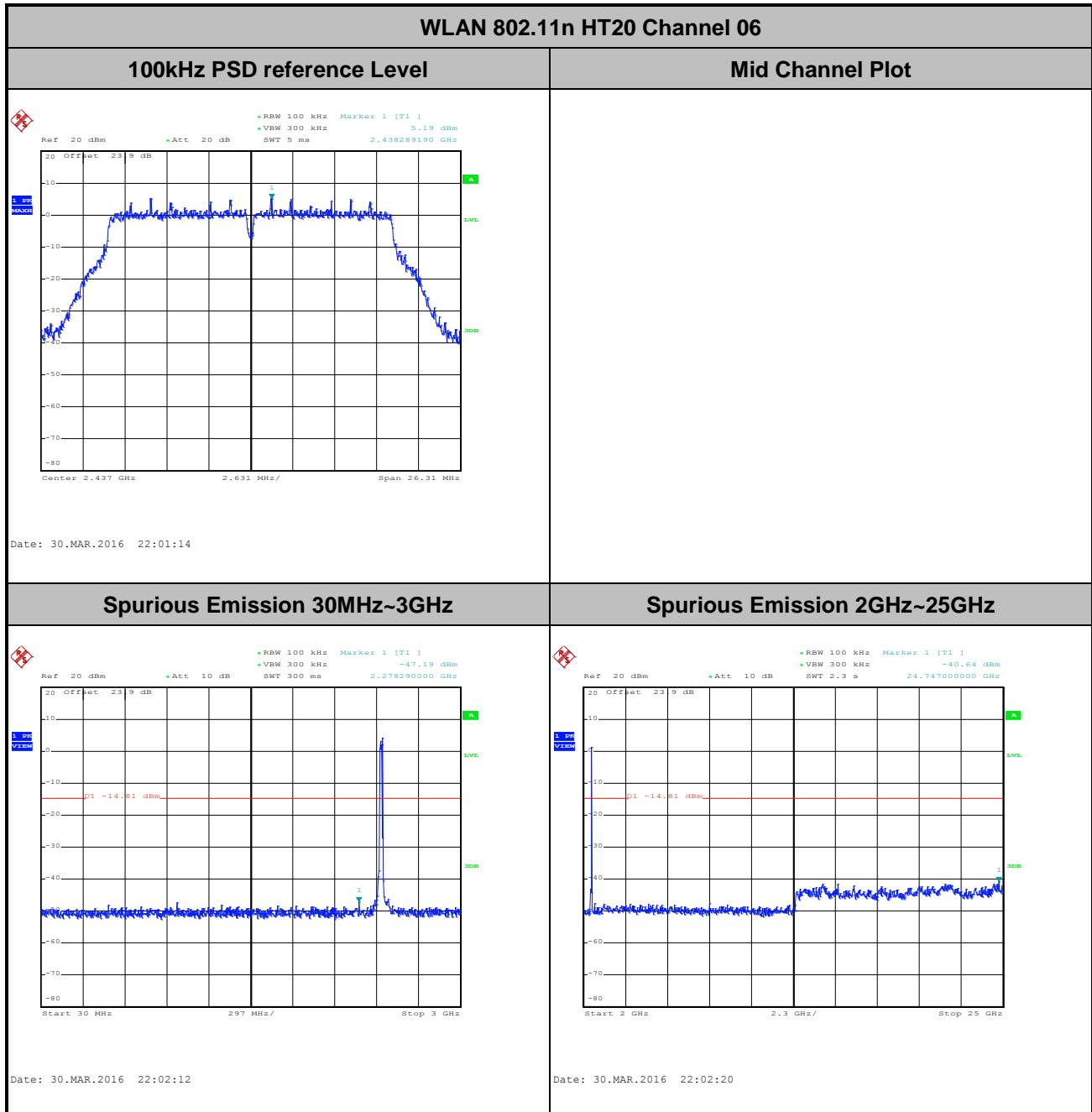


Number of TX :	1	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	An Wu and Derek Hsu



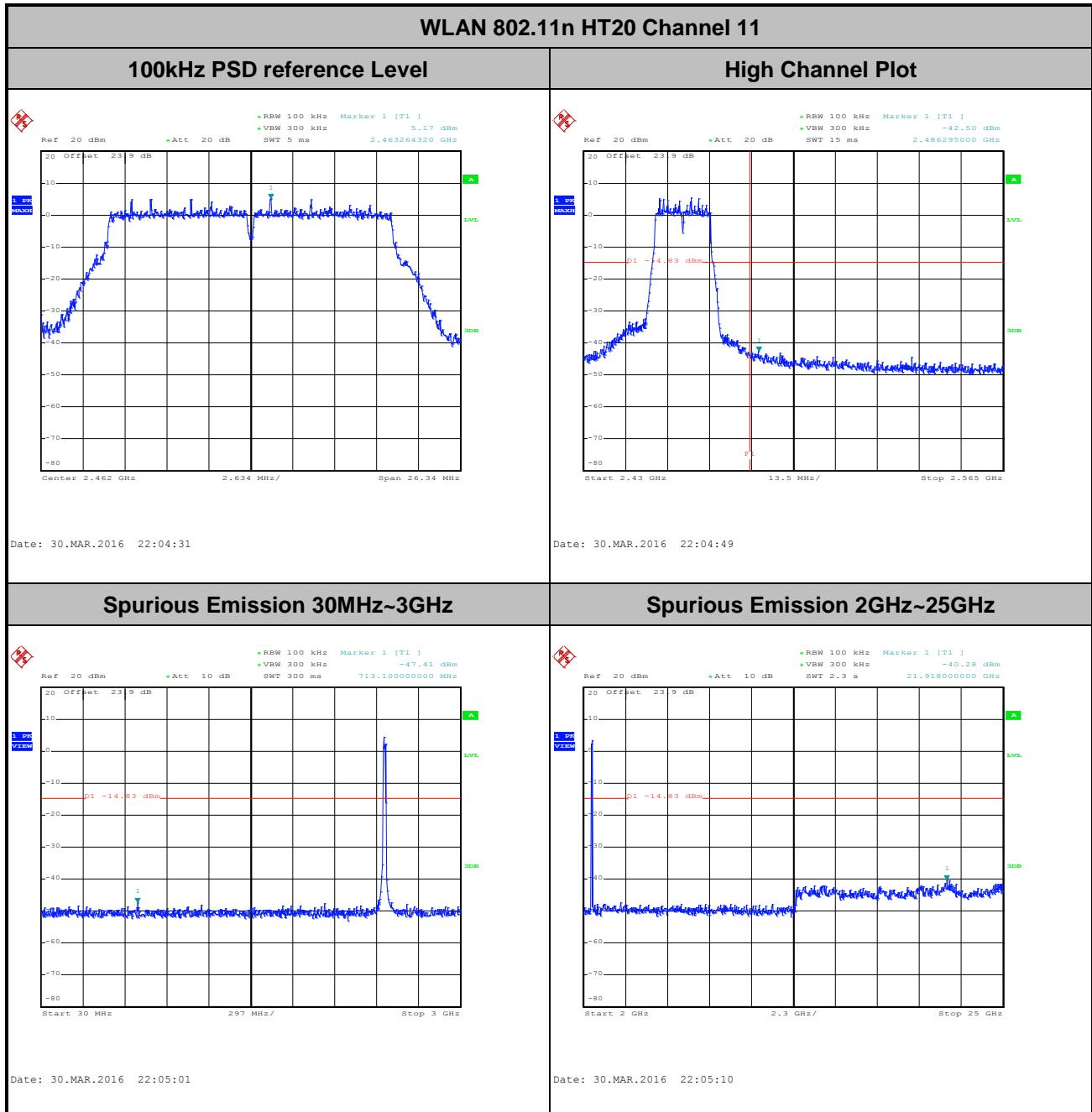


Number of TX :	1	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	An Wu and Derek Hsu



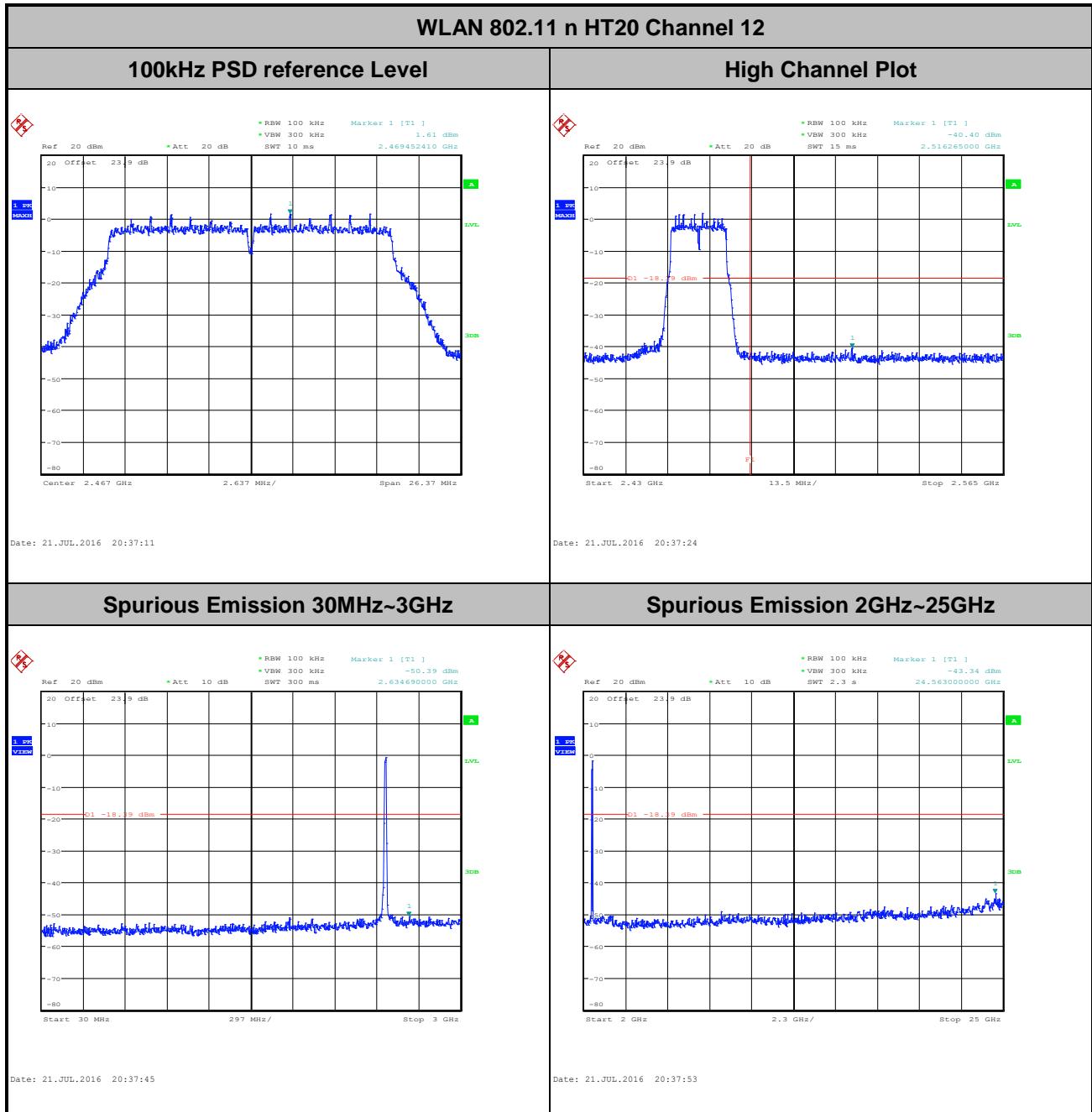


Number of TX :	1	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	An Wu and Derek Hsu



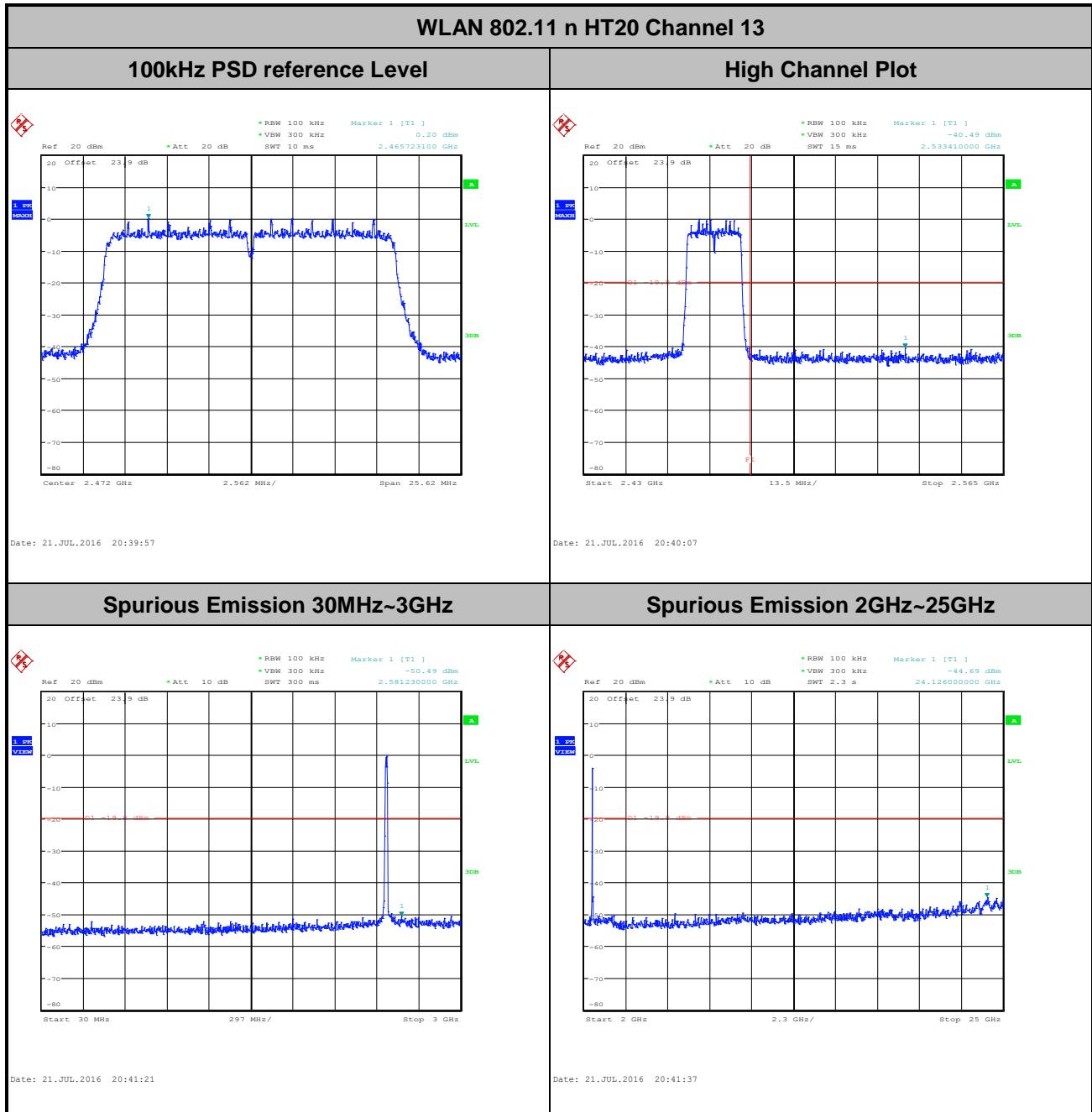


Number of TX :	1	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	12	Test Engineer :	An Wu and Derek Hsu





Number of TX :	1	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	13	Test Engineer :	An Wu and Derek Hsu

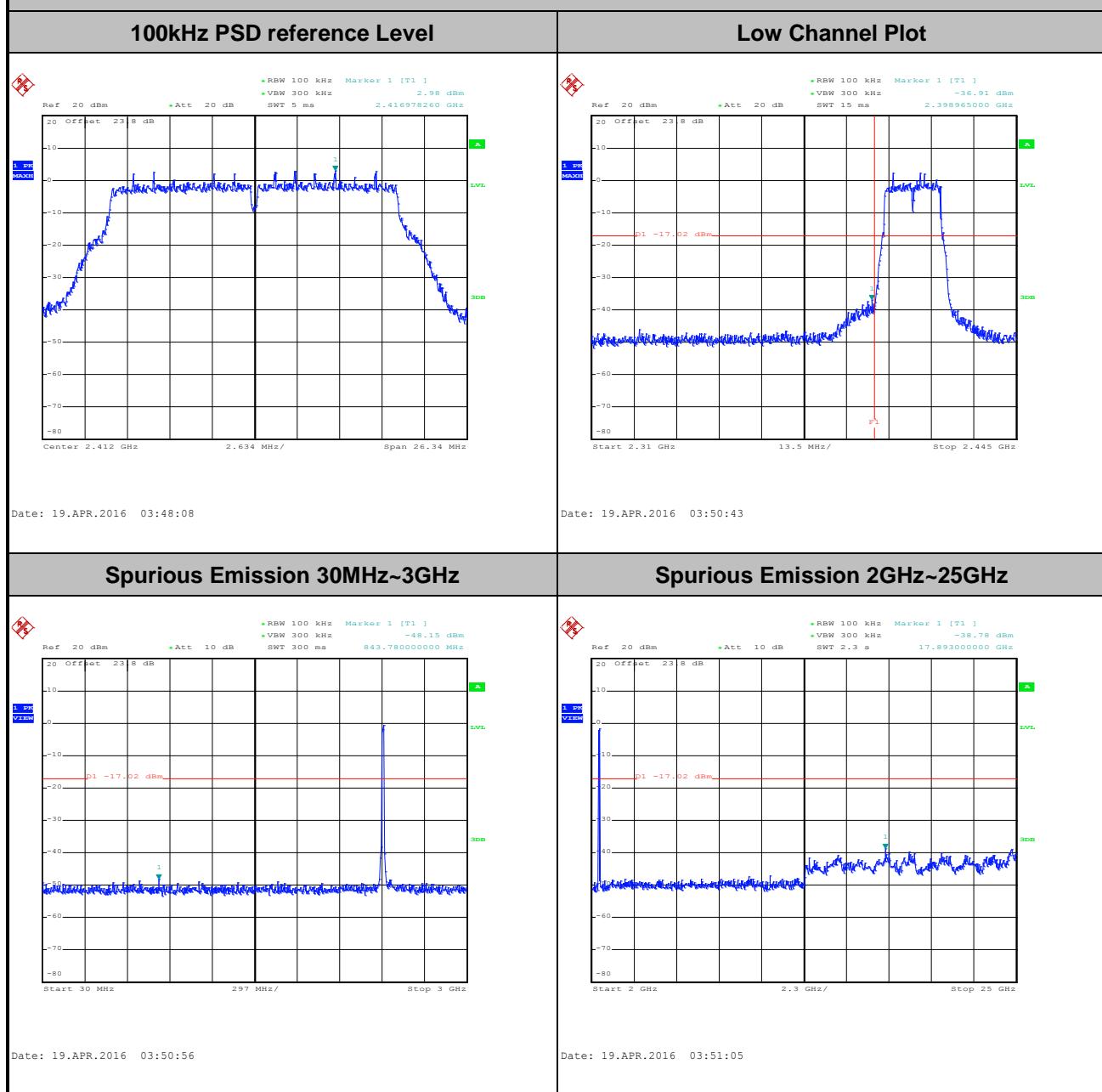




Number of TX = 2, Ant. 1 (Measured)

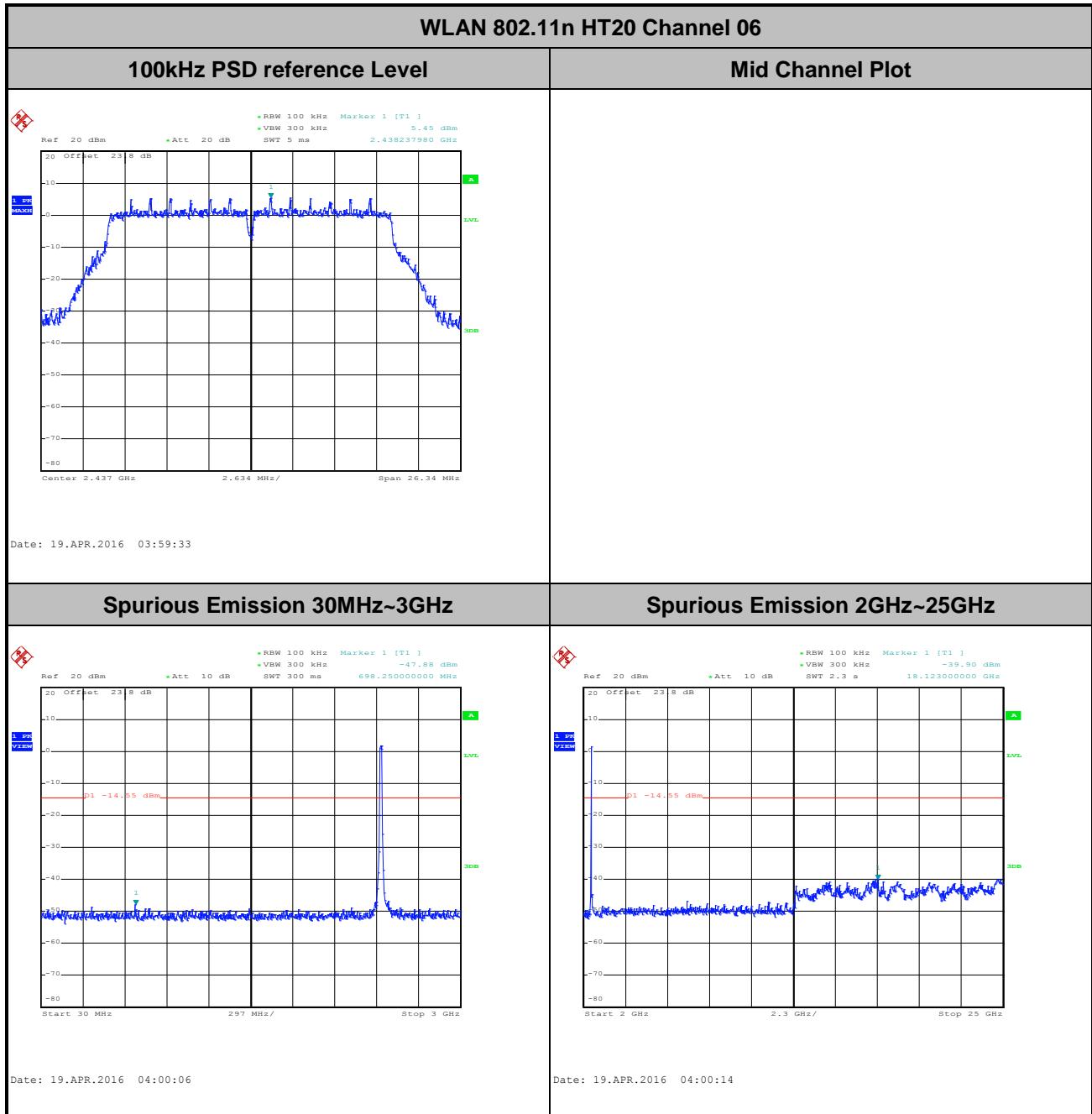
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	An Wu and Derek Hsu

WLAN 802.11n HT20 Channel 01



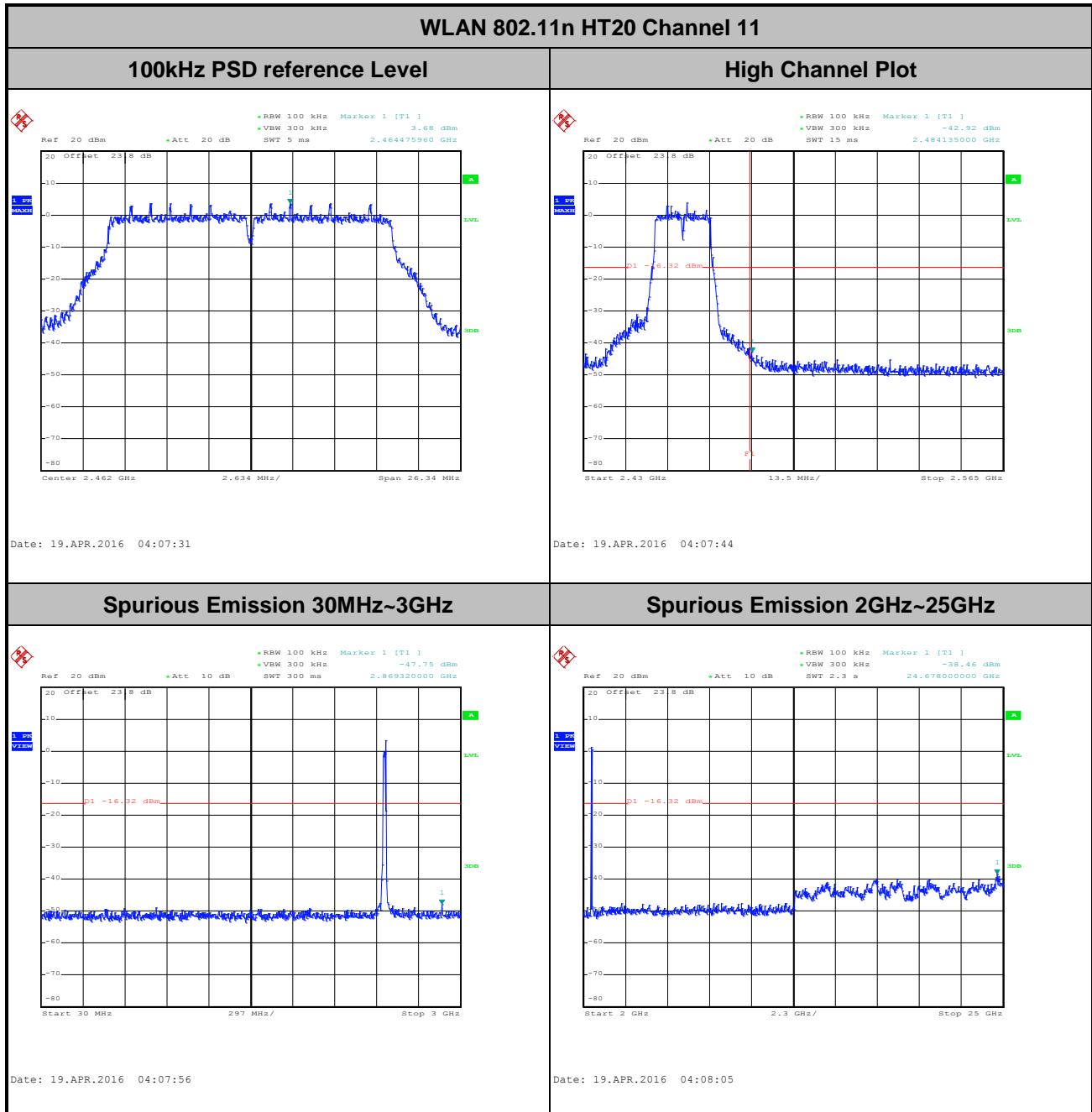


Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	An Wu and Derek Hsu



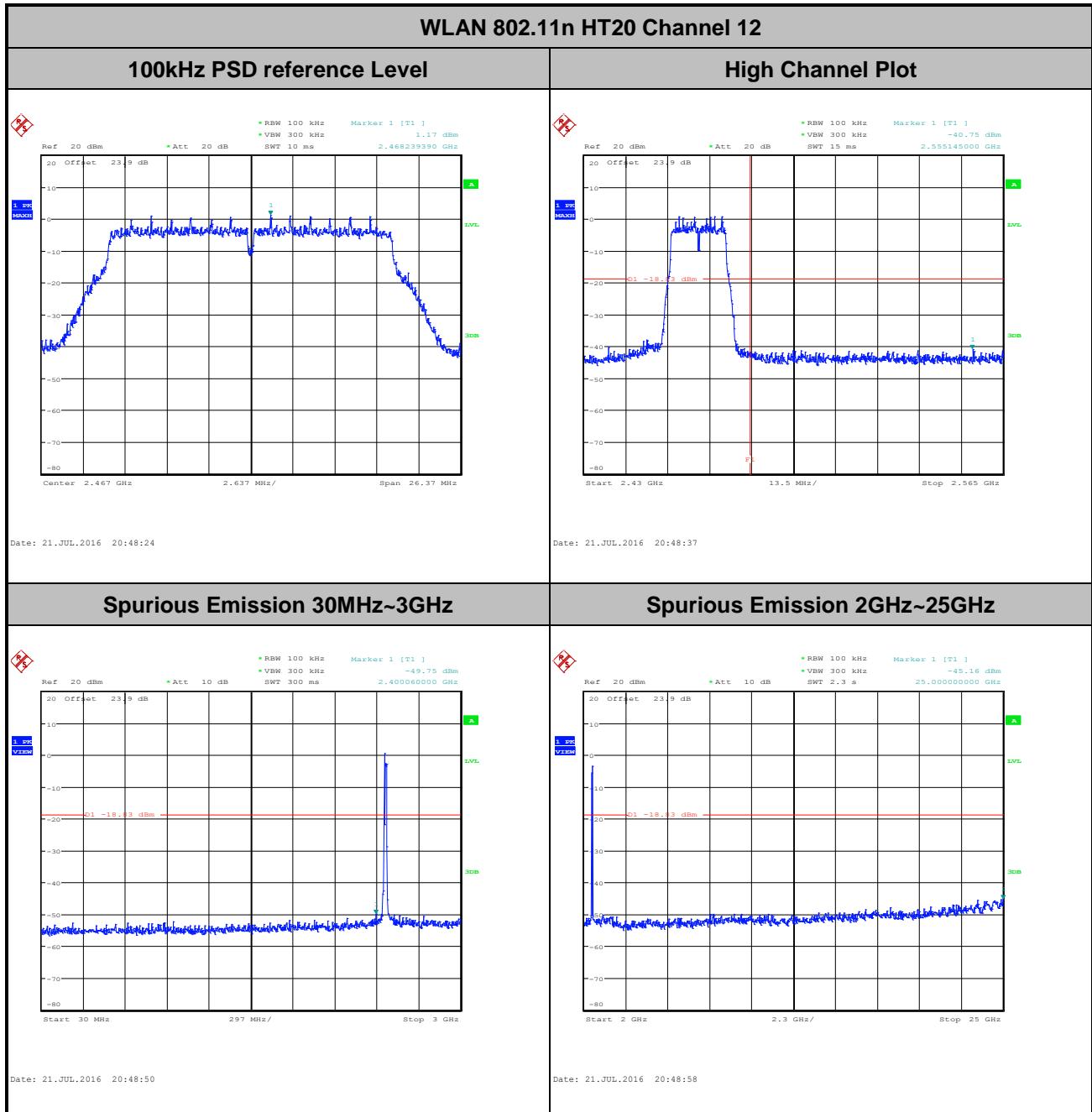


Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	An Wu and Derek Hsu



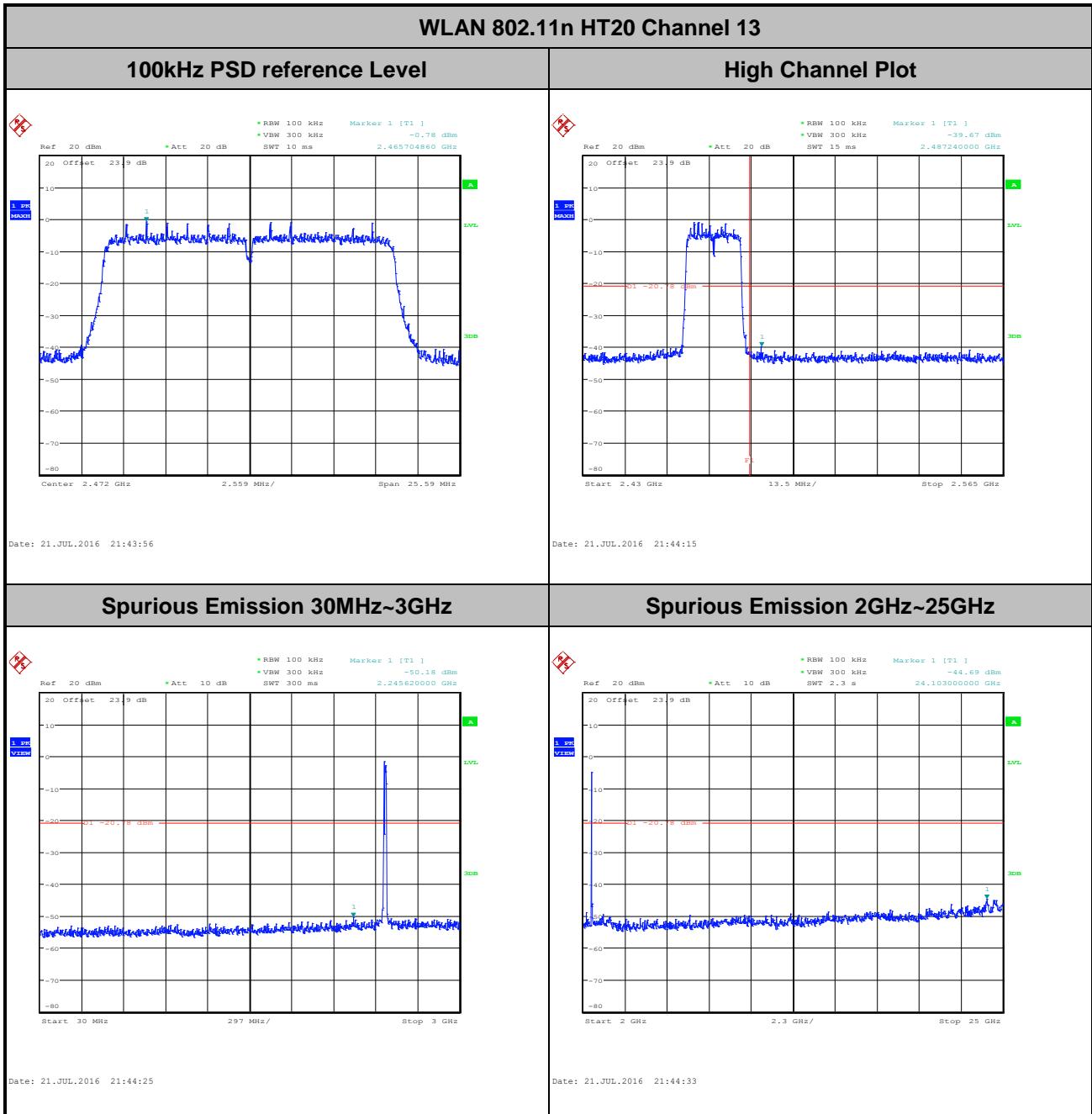


Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	12	Test Engineer :	An Wu and Derek Hsu





Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	13	Test Engineer :	An Wu and Derek Hsu



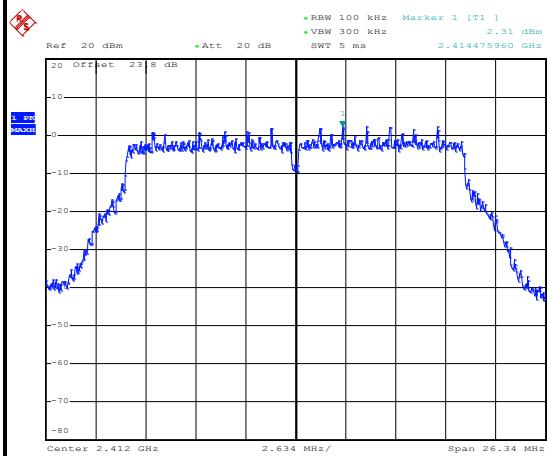


Number of TX = 2, Ant. 2 (Measured)

Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	An Wu and Derek Hsu

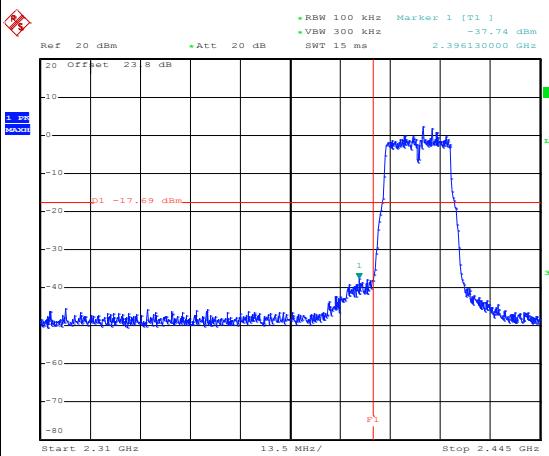
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



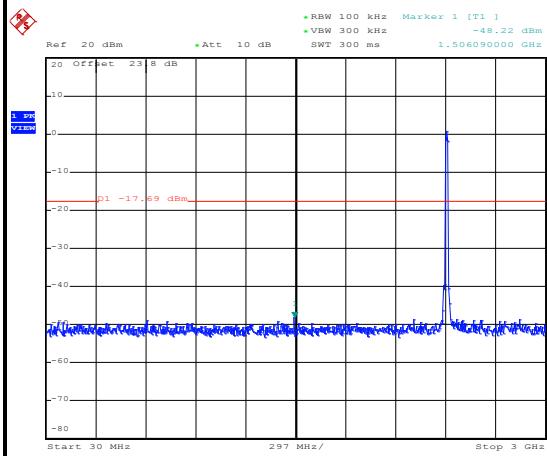
Date: 19.APR.2016 03:54:35

Low Channel Plot



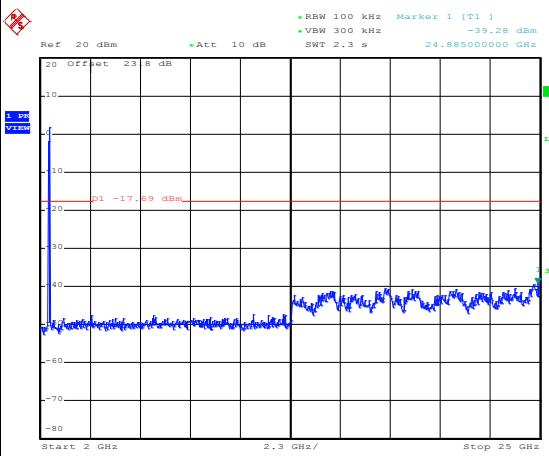
Date: 19.APR.2016 03:54:45

Spurious Emission 30MHz~3GHz



Date: 19.APR.2016 03:55:13

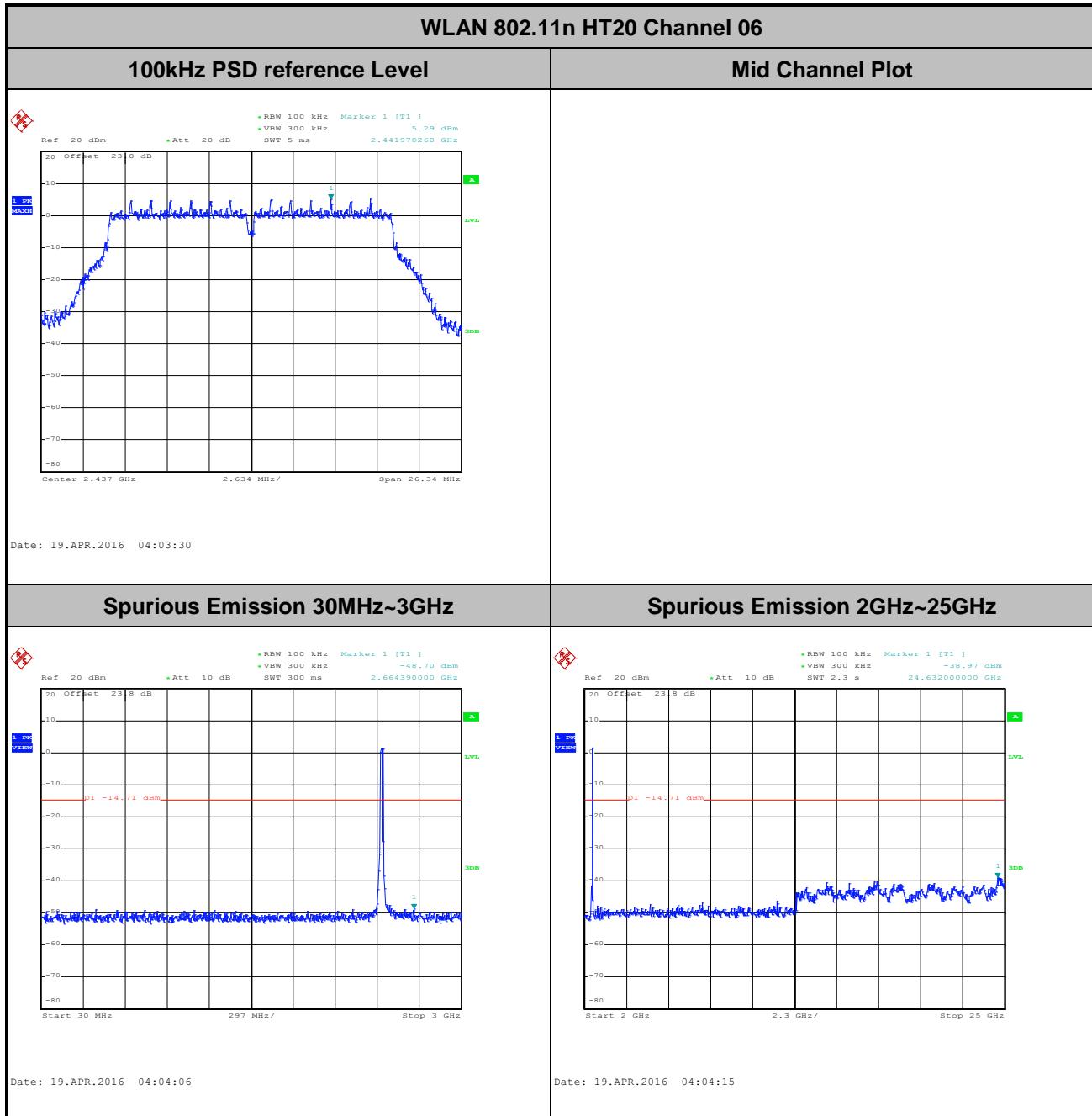
Spurious Emission 2GHz~25GHz



Date: 19.APR.2016 03:55:21

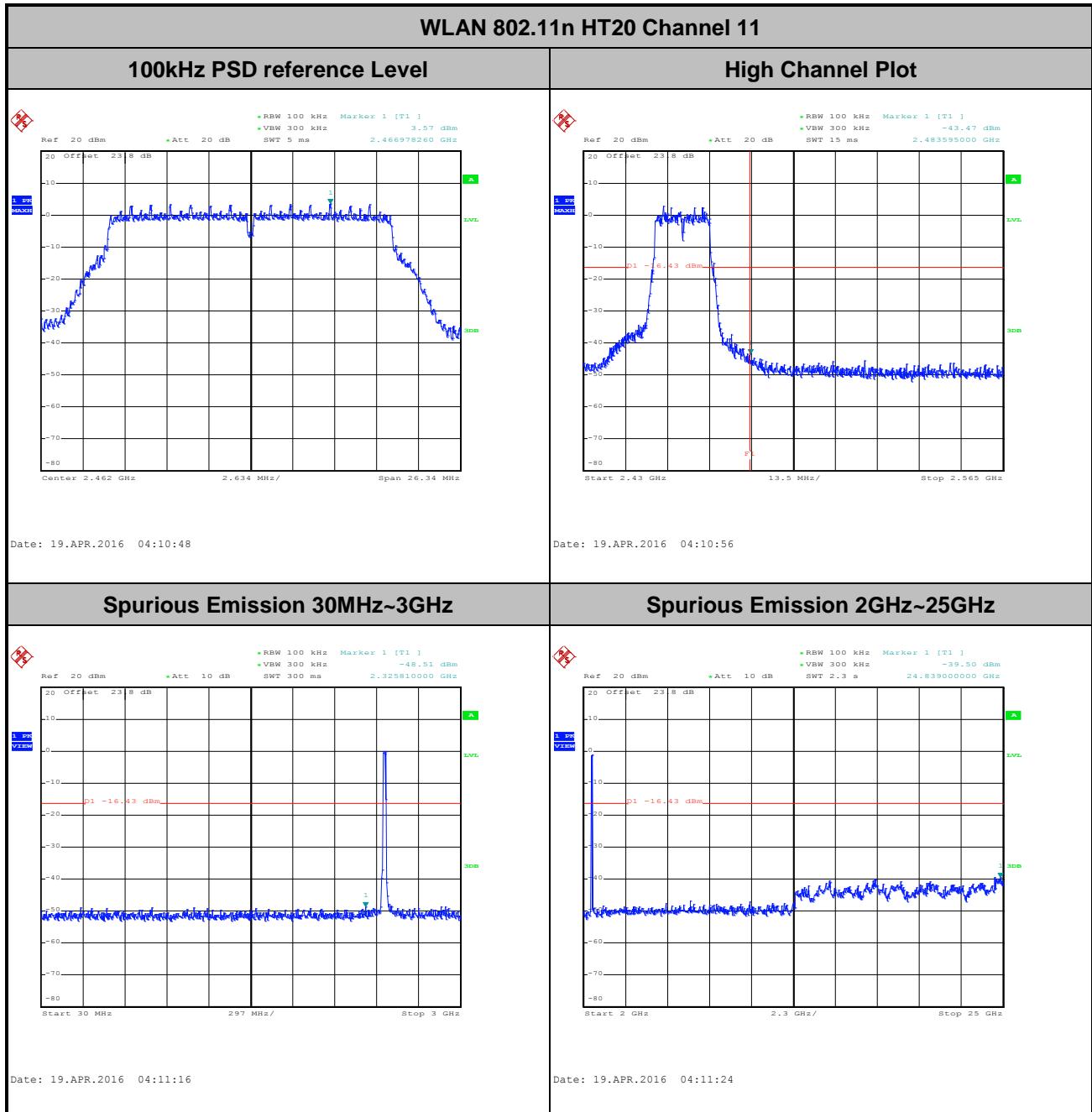


Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	An Wu and Derek Hsu



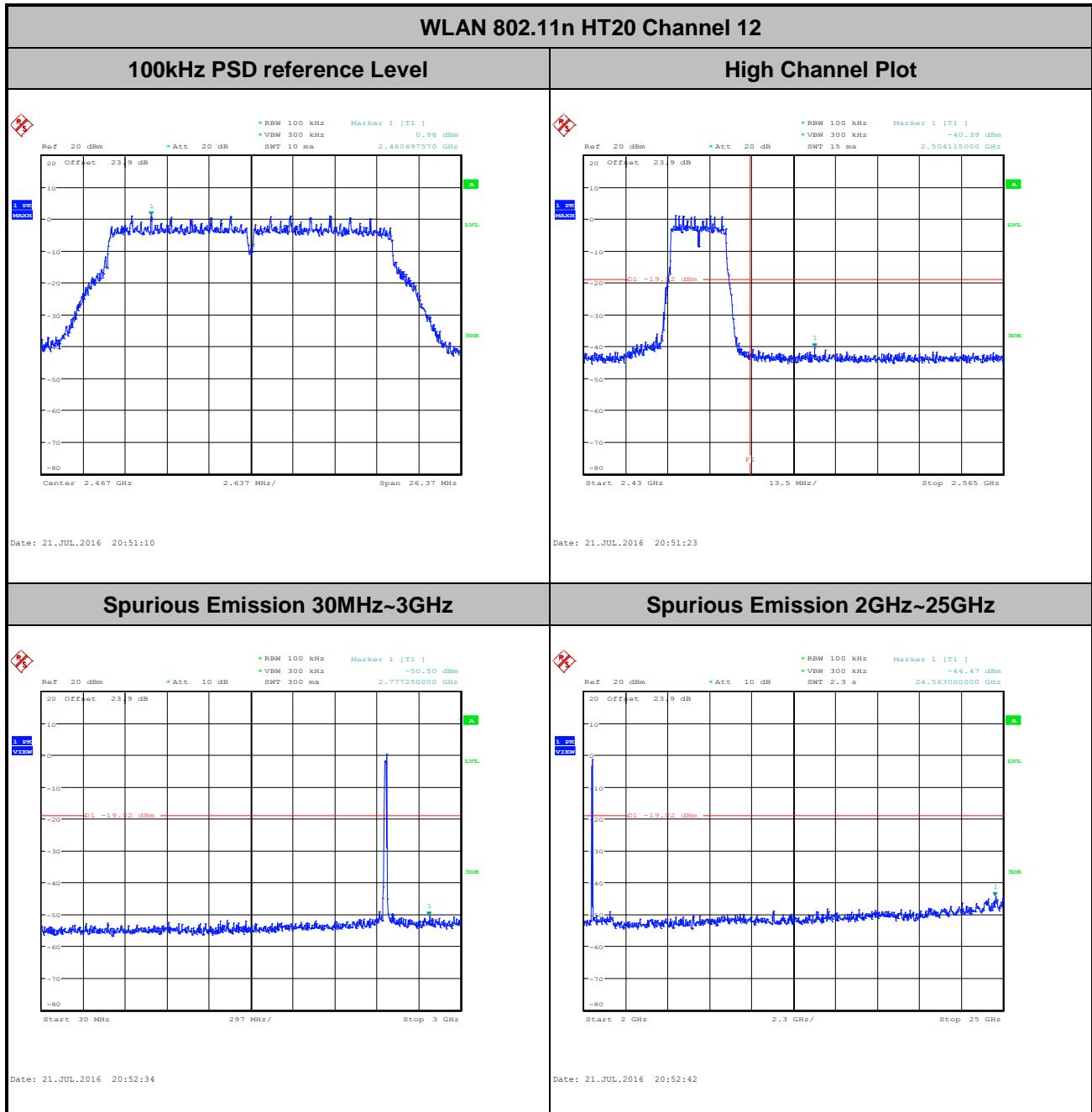


Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	An Wu and Derek Hsu



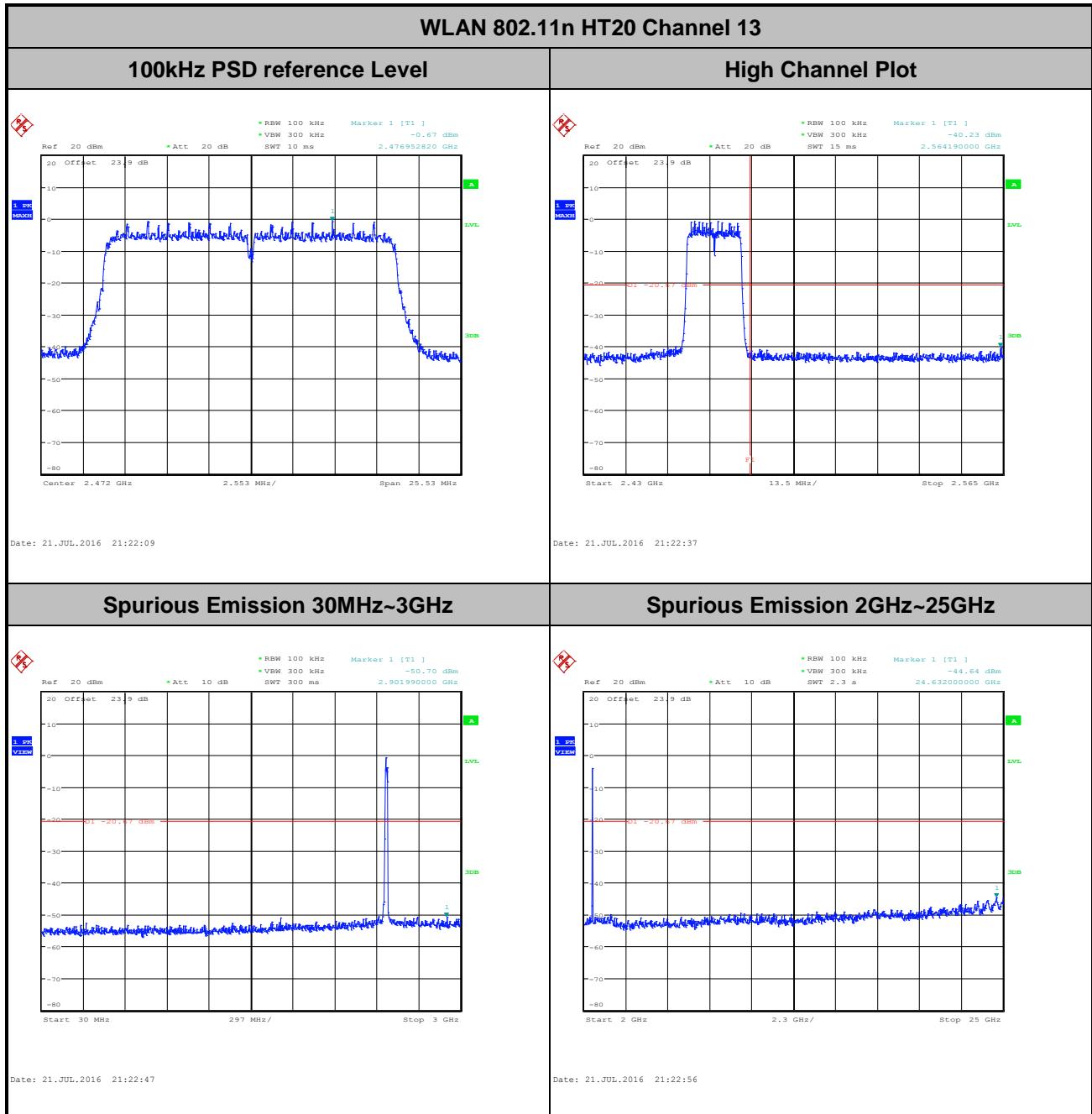


Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	12	Test Engineer :	An Wu and Derek Hsu





Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	13	Test Engineer :	An Wu and Derek Hsu





3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

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

3.5.2 Measuring Instruments

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

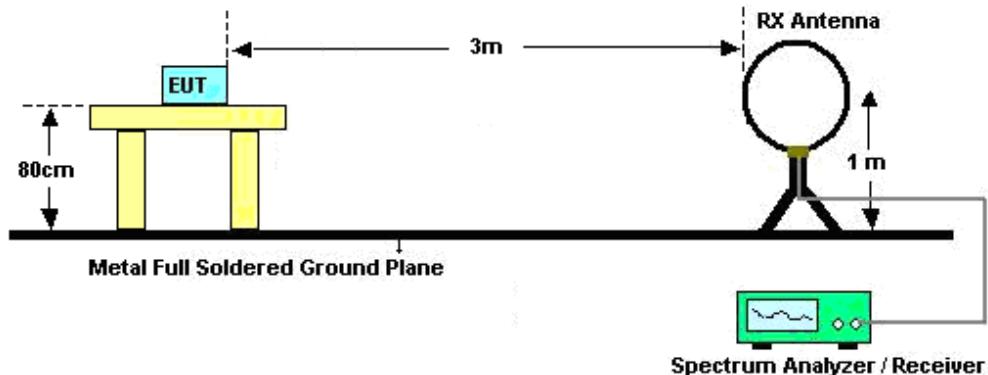


3.5.3 Test Procedure

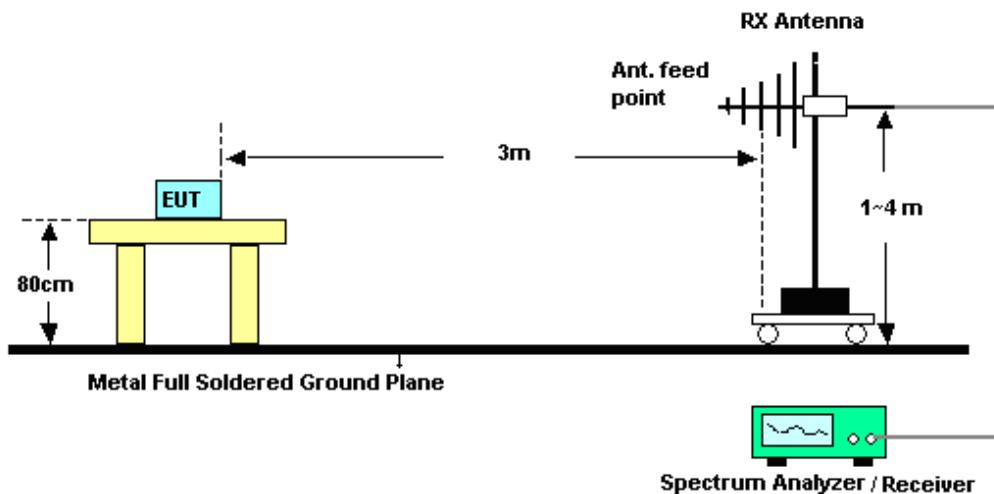
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
 3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
 5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
 6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
- For average measurement:
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

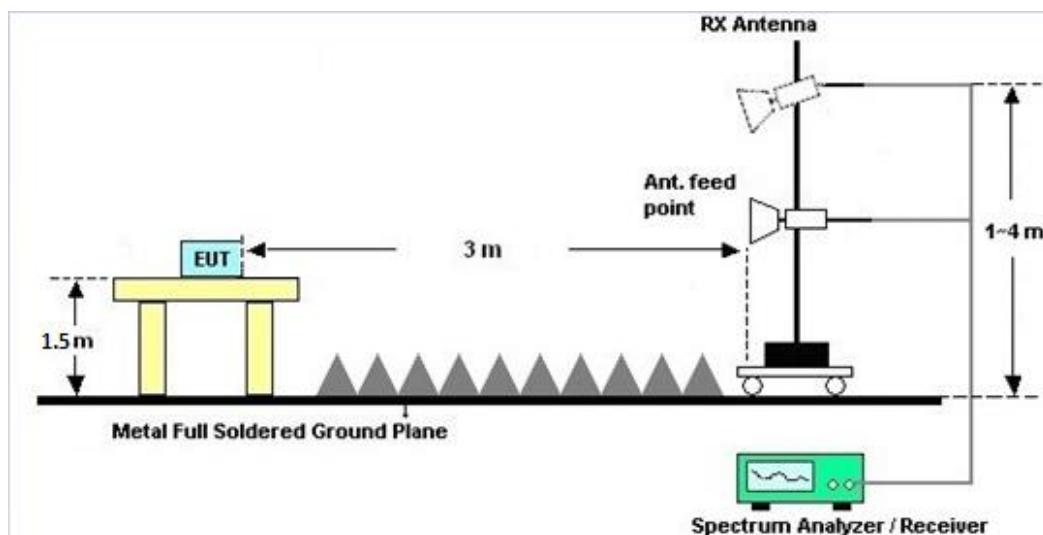
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





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

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C of this test report.

3.5.7 Duty Cycle

Please refer to Appendix D of this test report.

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

Please refer to Appendix B and C of this test report.



3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

3.6.2 Measuring Instruments

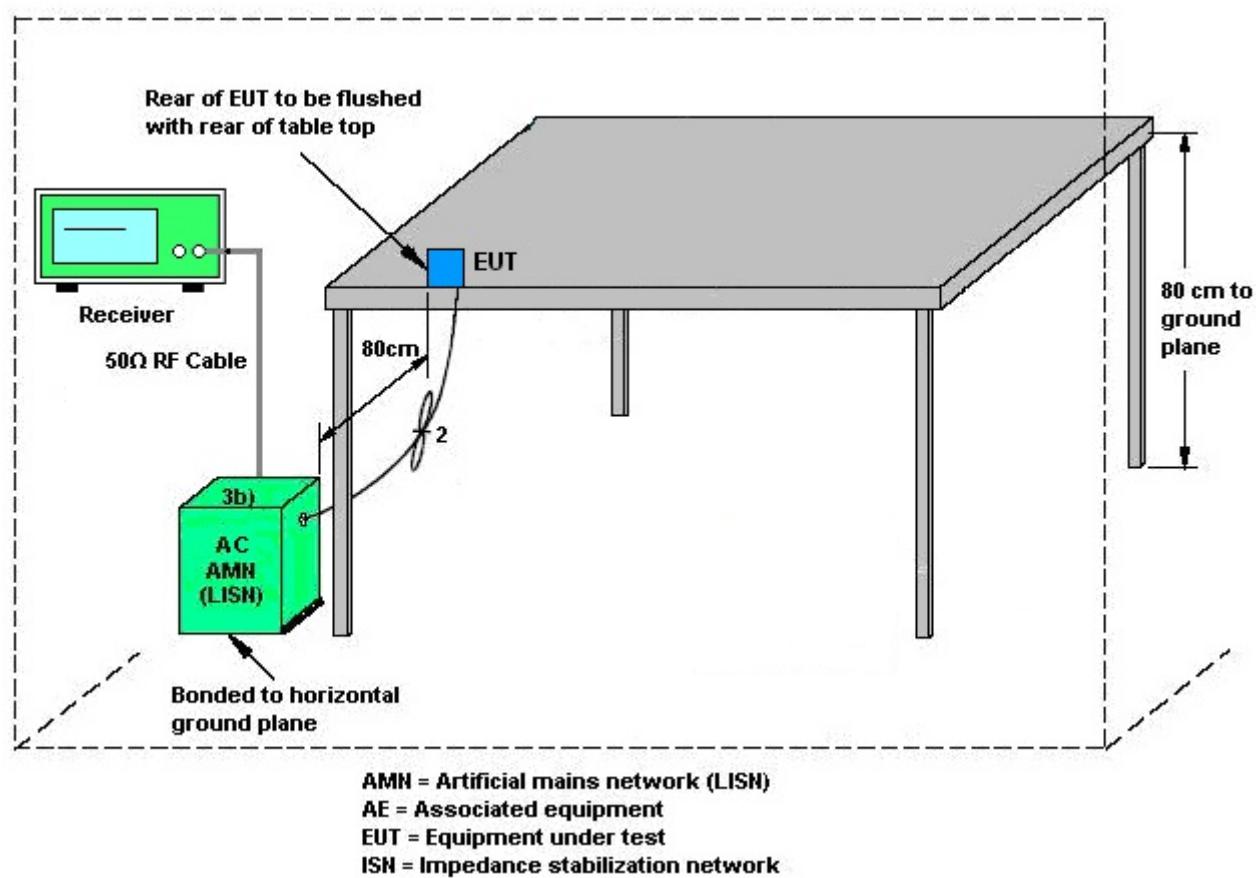
The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

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

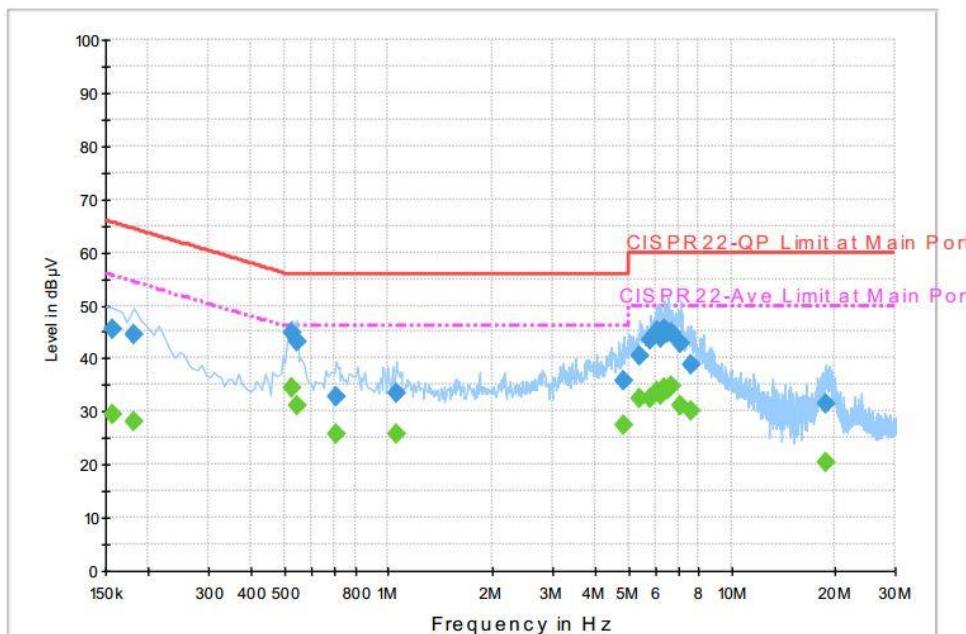


3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	24~25°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	45~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN Link with WLAN Controller + Bluetooth Link with Bluetooth Controller + MPEG4 (720P) + HDMI Extender Cable + USB Cable (Charging from Adapter) + Bluetooth Link with Bluetooth Earphone + WLAN (2.4GHz) Link with AP		

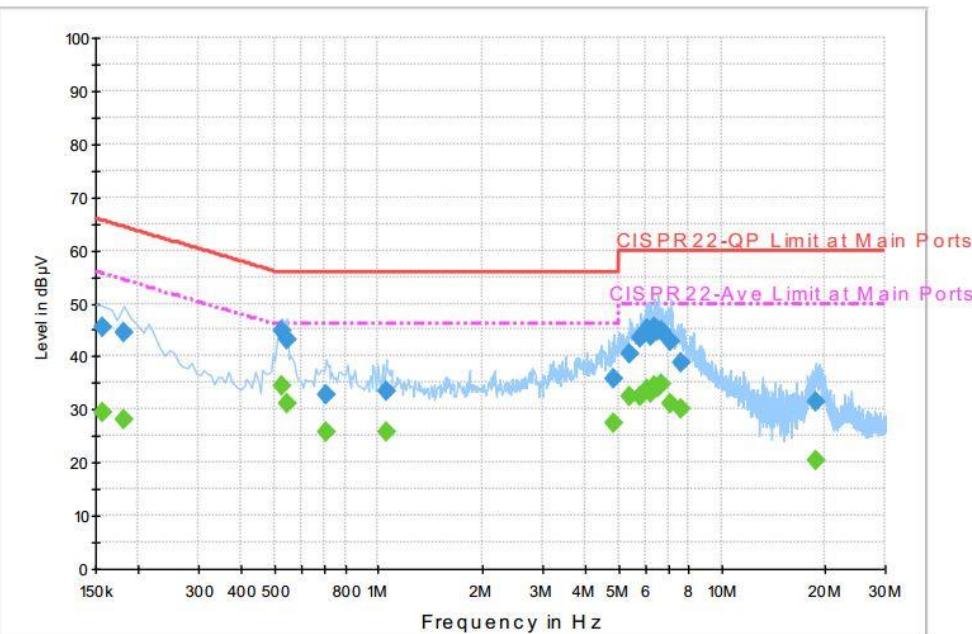


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.158000	45.6	Off	L1	19.6	20.0	65.6
0.182000	44.3	Off	L1	19.6	20.1	64.4
0.526000	44.8	Off	L1	19.6	11.2	56.0
0.542000	43.1	Off	L1	19.6	12.9	56.0
0.702000	32.8	Off	L1	19.6	23.2	56.0
1.054000	33.4	Off	L1	19.7	22.6	56.0
4.862000	35.9	Off	L1	19.8	20.1	56.0
5.398000	40.3	Off	L1	19.9	19.7	60.0
5.790000	43.5	Off	L1	19.9	16.5	60.0
6.062000	45.1	Off	L1	19.9	14.9	60.0
6.206000	43.9	Off	L1	19.9	16.1	60.0
6.406000	45.4	Off	L1	19.9	14.6	60.0
6.526000	44.7	Off	L1	19.9	15.3	60.0
6.718000	44.7	Off	L1	19.9	15.3	60.0
7.110000	42.7	Off	L1	19.9	17.3	60.0
7.646000	38.8	Off	L1	20.0	21.2	60.0
18.774000	31.4	Off	L1	20.6	28.6	60.0



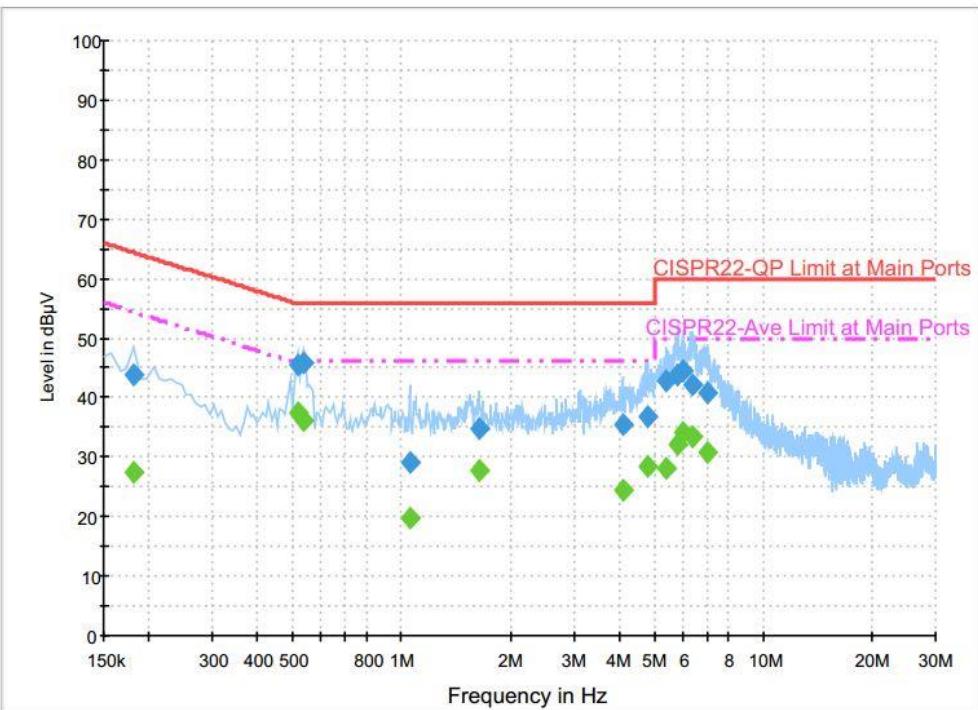
Test Mode :	Mode 1	Temperature :	24~25°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	45~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN Link with WLAN Controller + Bluetooth Link with Bluetooth Controller + MPEG4 (720P) + HDMI Extender Cable + USB Cable (Charging from Adapter) + Bluetooth Link with Bluetooth Earphone + WLAN (2.4GHz) Link with AP		

**Final Result : Average**

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	29.6	Off	L1	19.6	26.0	55.6
0.182000	28.1	Off	L1	19.6	26.3	54.4
0.526000	34.6	Off	L1	19.6	11.4	46.0
0.542000	31.1	Off	L1	19.6	14.9	46.0
0.702000	25.6	Off	L1	19.6	20.4	46.0
1.054000	25.7	Off	L1	19.7	20.3	46.0
4.862000	27.3	Off	L1	19.8	18.7	46.0
5.398000	32.4	Off	L1	19.9	17.6	50.0
5.790000	32.5	Off	L1	19.9	17.5	50.0
6.062000	33.7	Off	L1	19.9	16.3	50.0
6.206000	33.3	Off	L1	19.9	16.7	50.0
6.406000	34.4	Off	L1	19.9	15.6	50.0
6.526000	34.1	Off	L1	19.9	15.9	50.0
6.718000	34.8	Off	L1	19.9	15.2	50.0
7.110000	31.2	Off	L1	19.9	18.8	50.0
7.646000	30.0	Off	L1	20.0	20.0	50.0
18.774000	20.3	Off	L1	20.6	29.7	50.0



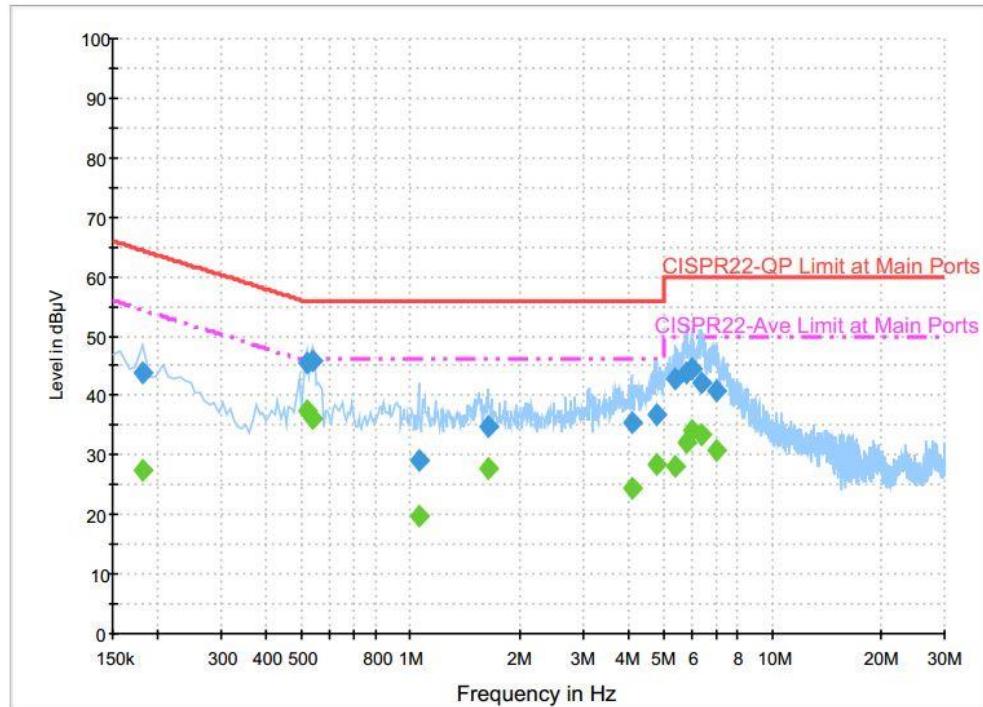
Test Mode :	Mode 1	Temperature :	24~25°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	45~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link with WLAN Controller + Bluetooth Link with Bluetooth Controller + MPEG4 (720P) + HDMI Extender Cable + USB Cable (Charging from Adapter) + Bluetooth Link with Bluetooth Earphone + WLAN (2.4GHz) Link with AP		

**Final Result : Quasi-Peak**

Frequency (MHz)	Quasi-Peak (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.182000	43.8	Off	N	19.6	20.6	64.4
0.518000	45.5	Off	N	19.6	10.5	56.0
0.534000	45.8	Off	N	19.6	10.2	56.0
1.054000	29.2	Off	N	19.6	26.8	56.0
1.638000	34.7	Off	N	19.7	21.3	56.0
4.086000	35.4	Off	N	19.7	20.6	56.0
4.798000	36.7	Off	N	19.8	19.3	56.0
5.406000	42.9	Off	N	19.8	17.1	60.0
5.830000	43.9	Off	N	19.9	16.1	60.0
5.982000	44.5	Off	N	19.9	15.5	60.0
6.390000	42.0	Off	N	19.9	18.0	60.0
6.998000	40.8	Off	N	19.9	19.2	60.0



Test Mode :	Mode 1	Temperature :	24~25°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	45~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link with WLAN Controller + Bluetooth Link with Bluetooth Controller + MPEG4 (720P) + HDMI Extender Cable + USB Cable (Charging from Adapter) + Bluetooth Link with Bluetooth Earphone + WLAN (2.4GHz) Link with AP		

**Final Result : Average**

Frequency (MHz)	Average (dB μ V)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.182000	27.3	Off	N	19.6	27.1	54.4
0.518000	37.6	Off	N	19.6	8.4	46.0
0.534000	36.0	Off	N	19.6	10.0	46.0
1.054000	19.8	Off	N	19.6	26.2	46.0
1.638000	27.8	Off	N	19.7	18.2	46.0
4.086000	24.4	Off	N	19.7	21.6	46.0
4.798000	28.3	Off	N	19.8	17.7	46.0
5.406000	28.1	Off	N	19.8	21.9	50.0
5.830000	32.1	Off	N	19.9	17.9	50.0
5.982000	34.0	Off	N	19.9	16.0	50.0
6.390000	33.4	Off	N	19.9	16.6	50.0
6.998000	30.7	Off	N	19.9	19.3	50.0



3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the Antenna exceeds 6 dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

			DG for Power	DG for PSD	Power Limit	PSD Limit
	Ant. 1 (dBi)	Ant. 2 (dBi)	Power (dBi)	PSD (dBi)	Reduction (dB)	Reduction (dB)
2.4 GHz	3.19	0.51	3.19	4.96	0.00	0.00

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

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



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1132003	300MHz~40GHz	Aug. 12, 2015	Mar. 28, 2016 ~ Jul. 21, 2016	Aug. 11, 2016	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1126017	300MHz~40GHz	Aug. 12, 2015	Mar. 28, 2016 ~ Jul. 21, 2016	Aug. 11, 2016	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 23, 2015	Mar. 28, 2016 ~ Jul. 21, 2016	Nov. 22, 2016	Conducted (TH02-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 03, 2016	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 26, 2015	Jun. 03, 2016	Aug. 25, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2015	Jun. 03, 2016	Dec. 01, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 14, 2015	Jun. 03, 2016	Dec. 13, 2016	Conduction (CO05-HY)
Bilog Antenna	TESEQ	CBL 6111D	35419	30MHz to 1GHz	Jan. 13, 2016	Mar. 31, 2016 ~ Jul. 20, 2016	Jan. 12, 2017	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 21, 2015	Mar. 31, 2016 ~ Jul. 20, 2016	Aug. 20, 2016	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Mar. 31, 2016 ~ Jul. 20, 2016	Sep. 01, 2016	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-00101 800-30-10P	1590075	1GHz ~ 18GHz	Apr. 20, 2015	Mar. 30, 2016 ~ Apr. 13, 2016	Apr. 19, 2016	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-00101 800-30-10P	1590075	1GHz ~ 18GHz	Apr. 15, 2016	Jun. 23, 2016 ~ Jul. 20, 2016	Apr. 14, 2017	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1000MHz	Mar. 18, 2016	Mar. 31, 2016 ~ Jul. 20, 2016	Mar. 17, 2017	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Oct. 19, 2015	Mar. 31, 2016 ~ Jul. 20, 2016	Oct. 18, 2016	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Feb. 27, 2016	Mar. 31, 2016 ~ Jun. 24, 2016	Feb. 26, 2017	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Mar. 31, 2016 ~ Jul. 20, 2016	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 degree	N/A	Mar. 31, 2016 ~ Jul. 20, 2016	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz- 40GHz	Oct. 12, 2015	Mar. 31, 2016 ~ Jul. 20, 2016	Oct. 11, 2016	Radiation (03CH07-HY)
Preamplifier	MITEQ	JS44-18004000 -33-8P	1840917	18GHz ~ 40GHz	Jun. 02, 2015	Mar. 31, 2016 ~ Apr. 13, 2016	Jun. 01, 2016	Radiation (03CH07-HY)
Preamplifier	MITEQ	JS44-18004000 -33-8P	1840917	18GHz ~ 40GHz	Jun. 14, 2016	Jun. 23, 2016 ~ Jul. 20, 2016	Jun. 13, 2017	Radiation (03CH07-HY)
EMI Test Receiver	Agilent Technologies	N9038A (MXE)	MY53290045	20MHz~8.4GHz	Feb. 01, 2016	Mar. 31, 2016 ~ Jul. 20, 2016	Jan. 31, 2017	Radiation (03CH07-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{c(y)}$)	2.26
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_{c(y)}$)	5.60
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Appendix A. Conducted Test Results

Test Engineer:	AnAn Wu/Derek Hsu	Temperature:	21~25	°C
Test Date:	2016/3/28~2016/07/21	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	N _{Tx}	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	1	1	2412	11.70		8.08		0.50	Pass
11b	1Mbps	1	6	2437	11.65		8.04		0.50	Pass
11b	1Mbps	1	11	2462	11.55		8.04		0.50	Pass
11b	1Mbps	1	12	2467	11.55		8.01		0.50	Pass
11b	1Mbps	1	13	2472	11.60		8.07		0.50	Pass
11g	6Mbps	1	1	2412	18.45		16.36		0.50	Pass
11g	6Mbps	1	6	2437	18.30		16.36		0.50	Pass
11g	6Mbps	1	11	2462	18.40		16.40		0.50	Pass
11g	6Mbps	1	12	2467	18.10		16.33		0.50	Pass
11g	6Mbps	1	13	2472	17.15		16.33		0.50	Pass
HT20	MCS0	1	1	2412	18.90		17.56		0.50	Pass
HT20	MCS0	1	6	2437	19.00		17.54		0.50	Pass
HT20	MCS0	1	11	2462	19.20		17.56		0.50	Pass
HT20	MCS0	1	12	2467	18.85		17.58		0.50	Pass
HT20	MCS0	1	13	2472	17.95		17.08		0.50	Pass
HT20	MCS0	2	1	2412	19.00	18.80	17.56	17.56	0.50	Pass
HT20	MCS0	2	6	2437	18.85	18.80	17.56	17.56	0.50	Pass
HT20	MCS0	2	11	2462	18.95	18.85	17.56	17.56	0.50	Pass
HT20	MCS0	2	12	2467	19.00	18.75	17.58	17.58	0.50	Pass
HT20	MCS0	2	13	2472	17.95	18.00	17.06	17.02	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	Ntx	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	22.67			30.00	30.00	3.19	0.51	25.86		36.00	36.00	Pass
11b	1Mbps	1	6	2437	22.83			30.00	30.00	3.19	0.51	26.02		36.00	36.00	Pass
11b	1Mbps	1	11	2462	21.71			30.00	30.00	3.19	0.51	24.90		36.00	36.00	Pass
11b	1Mbps	1	12	2467	19.32			30.00	30.00	3.19	0.51	22.51		36.00	36.00	Pass
11b	1Mbps	1	13	2472	16.66			30.00	30.00	3.19	0.51	19.85		36.00	36.00	Pass
11g	6Mbps	1	1	2412	22.35			30.00	30.00	3.19	0.51	25.54		36.00	36.00	Pass
11g	6Mbps	1	6	2437	23.63			30.00	30.00	3.19	0.51	26.82		36.00	36.00	Pass
11g	6Mbps	1	11	2462	22.68			30.00	30.00	3.19	0.51	25.87		36.00	36.00	Pass
11g	6Mbps	1	12	2467	20.55			30.00	30.00	3.19	0.51	23.74		36.00	36.00	Pass
11g	6Mbps	1	13	2472	19.05			30.00	30.00	3.19	0.51	22.24		36.00	36.00	Pass
HT20	MCS0	1	1	2412	24.14			30.00	30.00	3.19	0.51	27.33		36.00	36.00	Pass
HT20	MCS0	1	6	2437	24.40			30.00	30.00	3.19	0.51	27.59		36.00	36.00	Pass
HT20	MCS0	1	11	2462	21.79			30.00	30.00	3.19	0.51	24.98		36.00	36.00	Pass
HT20	MCS0	1	12	2467	20.03			30.00	30.00	3.19	0.51	23.22		36.00	36.00	Pass
HT20	MCS0	1	13	2472	19.10			30.00	30.00	3.19	0.51	22.29		36.00	36.00	Pass
HT20	MCS0	2	1	2412	21.41	21.11	24.27	30.00		3.19		27.46		36.00		Pass
HT20	MCS0	2	6	2437	24.42	24.07	27.26	30.00		3.19		30.45		36.00		Pass
HT20	MCS0	2	11	2462	22.82	21.91	25.40	30.00		3.19		28.59		36.00		Pass
HT20	MCS0	2	12	2467	19.40	19.33	22.38	30.00		3.19		25.57		36.00		Pass
HT20	MCS0	2	13	2472	18.28	18.52	21.41	30.00		3.19		24.60		36.00		Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band								
Mod.	Data Rate	N _{Tx}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2
								SUM
11b	1Mbps	1	1	2412	0.06		19.68	
11b	1Mbps	1	6	2437	0.06		19.85	
11b	1Mbps	1	11	2462	0.06		18.60	
11b	1Mbps	1	12	2467	0.06		16.13	
11b	1Mbps	1	13	2472	0.06		13.57	
11g	6Mbps	1	1	2412	0.30		15.60	
11g	6Mbps	1	6	2437	0.30		16.90	
11g	6Mbps	1	11	2462	0.30		15.77	
11g	6Mbps	1	12	2467	0.30		13.59	
11g	6Mbps	1	13	2472	0.30		11.21	
HT20	MCS0	1	1	2412	0.31		16.57	
HT20	MCS0	1	6	2437	0.31		16.82	
HT20	MCS0	1	11	2462	0.31		14.57	
HT20	MCS0	1	12	2467	0.31		12.77	
HT20	MCS0	1	13	2472	0.31		11.04	
HT20	MCS0	2	1	2412	0.31	0.34	14.05	13.90
HT20	MCS0	2	6	2437	0.31	0.34	16.66	16.84
HT20	MCS0	2	11	2462	0.31	0.34	15.14	14.85
HT20	MCS0	2	12	2467	0.31	0.34	11.87	12.06
HT20	MCS0	2	13	2472	0.31	0.34	10.22	9.97
								13.11

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	N _{Tx}	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	-3.51			3.19	0.51	8.00	8.00	Pass
11b	1Mbps	1	6	2437	-1.94			3.19	0.51	8.00	8.00	Pass
11b	1Mbps	1	11	2462	-2.08			3.19	0.51	8.00	8.00	Pass
11b	1Mbps	1	12	2467	-5.47			3.19	0.51	8.00	8.00	Pass
11b	1Mbps	1	13	2472	-8.69			3.19	0.51	8.00	8.00	Pass
11g	6Mbps	1	1	2412	-9.48			3.19	0.51	8.00	8.00	Pass
11g	6Mbps	1	6	2437	-8.56			3.19	0.51	8.00	8.00	Pass
11g	6Mbps	1	11	2462	-8.02			3.19	0.51	8.00	8.00	Pass
11g	6Mbps	1	12	2467	-11.22			3.19	0.51	8.00	8.00	Pass
11g	6Mbps	1	13	2472	-13.84			3.19	0.51	8.00	8.00	Pass
HT20	MCS0	1	1	2412	-9.14			3.19	0.51	8.00	8.00	Pass
HT20	MCS0	1	6	2437	-8.87			3.19	0.51	8.00	8.00	Pass
HT20	MCS0	1	11	2462	-7.97			3.19	0.51	8.00	8.00	Pass
HT20	MCS0	1	12	2467	-11.78			3.19	0.51	8.00	8.00	Pass
HT20	MCS0	1	13	2472	-13.87			3.19	0.51	8.00	8.00	Pass
HT20	MCS0	2	1	2412	-11.23	-12.38	-8.22	4.96		8.00		Pass
HT20	MCS0	2	6	2437	-8.83	-8.56	-5.55	4.96		8.00		Pass
HT20	MCS0	2	11	2462	-10.68	-10.84	-7.67	4.96		8.00		Pass
HT20	MCS0	2	12	2467	-13.61	-13.53	-10.52	4.96		8.00		Pass
HT20	MCS0	2	13	2472	-14.67	-15.54	-11.66	4.96		8.00		Pass

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



Appendix B. Radiated Spurious Emission

Test Engineer :	Jesse Wang and James Chiu	Temperature :	21~24°C
		Relative Humidity :	50~54%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol.
802.11b CH 01 2412MHz		2387.595	60.88	-13.12	74	55.98	31.93	7.31	34.34	169	44	P	H
		2387.175	51.48	-2.52	54	46.58	31.93	7.31	34.34	169	44	A	H
	*	2412	112.81	-	-	107.82	31.98	7.31	34.3	169	44	P	H
	*	2412	109.74	-	-	104.75	31.98	7.31	34.3	169	44	A	H
													H
													H
		2384.025	58.74	-15.26	74	53.88	31.89	7.31	34.34	200	4	P	V
		2387.175	50.64	-3.36	54	45.74	31.93	7.31	34.34	200	4	A	V
	*	2412	111.25	-	-	106.26	31.98	7.31	34.3	200	4	P	V
	*	2412	108.12	-	-	103.13	31.98	7.31	34.3	200	4	A	V
802.11b CH 06 2437MHz		2386.58	57.08	-16.92	74	52.18	31.93	7.31	34.34	192	43	P	H
		2388.96	45.32	-8.68	54	40.41	31.93	7.31	34.33	192	43	A	H
	*	2437	113.4	-	-	108.22	32.07	7.36	34.25	192	43	P	H
	*	2437	110.28	-	-	105.1	32.07	7.36	34.25	192	43	A	H
		2498.18	57.08	-16.92	74	51.63	32.2	7.4	34.15	192	43	P	H
		2488.52	46.18	-7.82	54	40.75	32.2	7.4	34.17	192	43	A	H
		2373.7	55.43	-18.57	74	50.66	31.89	7.24	34.36	200	0	P	V
		2389.1	44.99	-9.01	54	40.08	31.93	7.31	34.33	200	0	A	V
	*	2437	109.06	-	-	103.88	32.07	7.36	34.25	200	0	P	V
	*	2437	106.05	-	-	100.87	32.07	7.36	34.25	200	0	A	V
		2487.19	56.22	-17.78	74	50.83	32.16	7.4	34.17	200	0	P	V
		2483.69	46.21	-7.79	54	40.83	32.16	7.4	34.18	200	0	A	V



802.11b CH 11 2462MHz	*	2462	112.74	-	-	107.44	32.11	7.4	34.21	187	25	P	H
	*	2462	109.8	-	-	104.5	32.11	7.4	34.21	187	25	A	H
		2484.2	62.02	-11.98	74	56.64	32.16	7.4	34.18	187	25	P	H
		2483.52	52.73	-1.27	54	47.35	32.16	7.4	34.18	187	25	P	H
													H
													H
	*	2462	108.44	-	-	103.14	32.11	7.4	34.21	200	0	P	V
	*	2462	103.71	-	-	98.41	32.11	7.4	34.21	200	0	A	V
		2484.76	57.73	-16.27	74	52.35	32.16	7.4	34.18	200	0	P	V
		2483.52	49.64	-4.36	54	44.26	32.16	7.4	34.18	200	0	A	V
													V
													V
802.11b CH 12 2467MHz	*	2467	111.01	-	-	105.7	32.11	7.4	34.2	241	228	P	H
	*	2467	107.81	-	-	102.5	32.11	7.4	34.2	241	228	A	H
		2483.52	63.95	-10.05	74	58.57	32.16	7.4	34.18	241	228	P	H
		2483.52	53.26	-0.74	54	47.88	32.16	7.4	34.18	241	228	A	H
													H
													H
	*	2467	108.78	-	-	103.47	32.11	7.4	34.2	100	163	P	V
	*	2467	105.77	-	-	100.46	32.11	7.4	34.2	100	163	A	V
		2484.12	62.62	-11.38	74	57.24	32.16	7.4	34.18	100	163	P	V
		2484.04	53.08	-0.92	54	47.7	32.16	7.4	34.18	100	163	A	V
													V
													V



802.11b CH 13 2472MHz	*	2472	108.72	-	-	103.36	32.16	7.4	34.2	239	228	P	H
	*	2472	105.01	-	-	99.65	32.16	7.4	34.2	239	228	A	H
		2486.24	63.11	-10.89	74	57.72	32.16	7.4	34.17	239	228	P	H
		2485.68	53.26	-0.74	54	47.87	32.16	7.4	34.17	239	228	A	H
													H
													H
	*	2472	106.8	-	-	101.44	32.16	7.4	34.2	100	163	P	V
	*	2472	103.77	-	-	98.41	32.16	7.4	34.2	100	163	A	V
		2485.08	63.96	-10.04	74	58.57	32.16	7.4	34.17	100	163	P	V
		2485.6	53.4	-0.6	54	48.01	32.16	7.4	34.17	100	163	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 (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	39.57	-34.43	74	53.33	34.2	11.68	59.64	100	0	P	H
													H
													H
													H
		4824	39.99	-34.01	74	53.75	34.2	11.68	59.64	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4872	39.17	-34.83	74	52.98	34.23	11.53	59.57	100	0	P	H
		7308	43.9	-30.1	74	52.96	35.6	13.81	58.47	100	0	P	H
													H
		4872	39.01	-34.99	74	52.82	34.23	11.53	59.57	100	0	P	V
		7308	45.61	-28.39	74	54.67	35.6	13.81	58.47	100	0	P	V
													V
													V
													V
802.11b CH 11 2462MHz		4926	38.89	-35.11	74	52.76	34.26	11.37	59.5	100	0	P	H
		7386	43.85	-30.15	74	52.88	35.6	13.95	58.58	100	0	P	H
													H
		4926	38.85	-35.15	74	52.72	34.26	11.37	59.5	100	0	P	V
		7386	45.04	-28.96	74	54.07	35.6	13.95	58.58	100	0	P	V
													V
													V
													V



802.11b CH 12 2467MHz		4932	41.05	-32.95	74	54.26	34.26	11.37	58.84	100	0	P	H
		7404	46.3	-27.7	74	54.83	35.6	13.95	58.08	100	0	P	H
													H
													H
		4932	42.1	-31.9	74	55.31	34.26	11.37	58.84	100	0	P	V
		7404	49	-25	74	57.53	35.6	13.95	58.08	100	0	P	V
													V
													V
802.11b CH 13 2472MHz		4944	41.55	-32.45	74	54.86	34.27	11.22	58.8	100	0	P	H
		7416	44.45	-29.55	74	52.98	35.6	13.95	58.08	100	0	P	H
													H
													H
		4944	41.38	-32.62	74	54.69	34.27	11.22	58.8	100	0	P	V
		7416	45.61	-28.39	74	54.14	35.6	13.95	58.08	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	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		2388.015	59.5	-14.5	74	54.6	31.93	7.31	34.34	350	29	P	H
		2390	50.04	-3.96	54	45.13	31.93	7.31	34.33	350	29	A	H
	*	2412	110.23	-	-	105.24	31.98	7.31	34.3	350	29	P	H
	*	2412	102.43	-	-	97.44	31.98	7.31	34.3	350	29	A	H
													H
													H
		2389.59	57.26	-16.74	74	52.35	31.93	7.31	34.33	228	0	P	V
		2389.485	48.13	-5.87	54	43.22	31.93	7.31	34.33	228	0	A	V
	*	2412	105.44	-	-	100.45	31.98	7.31	34.3	228	0	P	V
	*	2412	98.14	-	-	93.15	31.98	7.31	34.3	228	0	A	V
													V
													V
802.11g CH 06 2437MHz		2383.36	56.33	-17.67	74	51.47	31.89	7.31	34.34	306	24	P	H
		2389.94	47.06	-6.94	54	42.15	31.93	7.31	34.33	306	24	A	H
	*	2437	111.27	-	-	106.09	32.07	7.36	34.25	306	24	P	H
	*	2437	103.36	-	-	98.18	32.07	7.36	34.25	306	24	A	H
		2491.04	57.62	-16.38	74	52.18	32.2	7.4	34.16	306	24	P	H
		2483.76	48.29	-5.71	54	42.91	32.16	7.4	34.18	306	24	A	H
		2388.26	56.4	-17.6	74	51.5	31.93	7.31	34.34	231	351	P	V
		2389.24	46.55	-7.45	54	41.64	31.93	7.31	34.33	231	351	A	V
	*	2437	108.41	-	-	103.23	32.07	7.36	34.25	231	351	P	V
	*	2437	100.31	-	-	95.13	32.07	7.36	34.25	231	351	A	V
		2488.87	57.14	-16.86	74	51.71	32.2	7.4	34.17	231	351	P	V
		2485.3	47.75	-6.25	54	42.36	32.16	7.4	34.17	231	351	A	V



802.11g CH 11 2462MHz	*	2462	110.89	-	-	105.59	32.11	7.4	34.21	296	24	P	H
	*	2462	103.29	-	-	97.99	32.11	7.4	34.21	296	24	A	H
		2483.6	61.51	-12.49	74	56.13	32.16	7.4	34.18	296	24	P	H
		2484.24	52.33	-1.67	54	46.95	32.16	7.4	34.18	296	24	A	H
													H
													H
	*	2462	107.69	-	-	102.39	32.11	7.4	34.21	252	353	P	V
	*	2462	99.44	-	-	94.14	32.11	7.4	34.21	252	353	A	V
		2483.92	59.42	-14.58	74	54.04	32.16	7.4	34.18	252	353	P	V
		2484	49.8	-4.2	54	44.42	32.16	7.4	34.18	252	353	A	V
													V
													V
802.11g CH 12 2467MHz	*	2467	109.18	-	-	103.87	32.11	7.4	34.2	241	228	P	H
	*	2467	101.41	-	-	96.1	32.11	7.4	34.2	241	228	A	H
		2484.32	62.41	-11.59	74	57.03	32.16	7.4	34.18	241	228	P	H
		2483.52	53.28	-0.72	54	47.9	32.16	7.4	34.18	241	228	A	H
													H
													H
	*	2467	108.45	-	-	103.14	32.11	7.4	34.2	106	163	P	V
	*	2467	100.4	-	-	95.09	32.11	7.4	34.2	106	163	A	V
		2484	62.59	-11.41	74	57.21	32.16	7.4	34.18	106	163	P	V
		2483.68	52.35	-1.65	54	46.97	32.16	7.4	34.18	106	163	A	V
													V
													V



802.11g CH 13 2472MHz	*	2472	107.1	-	-	101.74	32.16	7.4	34.2	241	228	P	H
	*	2472	99.24	-	-	93.88	32.16	7.4	34.2	241	228	A	H
		2483.52	62.23	-11.77	74	56.85	32.16	7.4	34.18	241	228	P	H
		2483.52	52.97	-1.03	54	47.59	32.16	7.4	34.18	241	228	A	H
													H
													H
	*	2472	105.79	-	-	100.43	32.16	7.4	34.2	100	163	P	V
	*	2472	97.94	-	-	92.58	32.16	7.4	34.2	100	163	A	V
		2484.4	61.47	-12.53	74	56.09	32.16	7.4	34.18	100	163	P	V
		2483.56	52.46	-1.54	54	47.08	32.16	7.4	34.18	100	163	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 (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	39.63	-34.37	74	53.39	34.2	11.68	59.64	100	0	P	H
													H
													H
													H
		4824	39.79	-34.21	74	53.55	34.2	11.68	59.64	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4872	38.04	-35.96	74	51.85	34.23	11.53	59.57	100	0	P	H
		7308	40.35	-33.65	74	49.41	35.6	13.81	58.47	100	0	P	H
													H
		4872	39.18	-34.82	74	52.99	34.23	11.53	59.57	100	0	P	V
		7308	40.34	-33.66	74	49.4	35.6	13.81	58.47	100	0	P	V
													V
													V
													V
802.11g CH 11 2462MHz		4926	37.87	-36.13	74	51.74	34.26	11.37	59.5	100	0	P	H
		7386	39.38	-34.62	74	48.41	35.6	13.95	58.58	100	0	P	H
													H
		4926	38.65	-35.35	74	52.52	34.26	11.37	59.5	100	0	P	V
		7386	40.64	-33.36	74	49.67	35.6	13.95	58.58	100	0	P	V
													V
													V
													V



802.11g CH 12 2467MHz		4932	42.01	-31.99	74	55.22	34.26	11.37	58.84	100	0	P	H
		7404	43.19	-30.81	74	51.72	35.6	13.95	58.08	100	0	P	H
													H
													H
		4932	42.51	-31.49	74	55.72	34.26	11.37	58.84	100	0	P	V
		7404	44.55	-29.45	74	53.08	35.6	13.95	58.08	100	0	P	V
													V
													V
802.11g CH 13 2472MHz		4944	42.23	-31.77	74	55.54	34.27	11.22	58.8	100	0	P	H
		7416	42.06	-31.94	74	50.59	35.6	13.95	58.08	100	0	P	H
													H
													H
		4944	42.11	-31.89	74	55.42	34.27	11.22	58.8	100	0	P	V
		7416	42.43	-31.57	74	50.96	35.6	13.95	58.08	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.905	61.61	-12.39	74	56.7	31.93	7.31	34.33	347	42	P	H
		2389.905	51.77	-2.23	54	46.86	31.93	7.31	34.33	347	42	A	H
	*	2412	110.61	-	-	105.62	31.98	7.31	34.3	347	42	P	H
	*	2412	102.64	-	-	97.65	31.98	7.31	34.3	347	42	A	H
													H
													H
		2387.91	60.85	-13.15	74	55.95	31.93	7.31	34.34	184	349	P	V
		2390	50.96	-3.04	54	46.05	31.93	7.31	34.33	184	349	A	V
	*	2412	106.94	-	-	101.95	31.98	7.31	34.3	184	349	P	V
	*	2412	99.06	-	-	94.07	31.98	7.31	34.3	184	349	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2389.38	55.81	-18.19	74	50.9	31.93	7.31	34.33	349	29	P	H
		2387.84	46.71	-7.29	54	41.81	31.93	7.31	34.34	349	29	A	H
	*	2437	110.24	-	-	105.06	32.07	7.36	34.25	349	29	P	H
	*	2437	102.45	-	-	97.27	32.07	7.36	34.25	349	29	A	H
		2484.81	56.33	-17.67	74	50.95	32.16	7.4	34.18	349	29	P	H
		2488.31	46.81	-7.19	54	41.38	32.2	7.4	34.17	349	29	A	H
		2389.66	56.73	-17.27	74	51.82	31.93	7.31	34.33	220	351	P	V
		2389.8	46.22	-7.78	54	41.31	31.93	7.31	34.33	220	351	A	V
	*	2437	107.74	-	-	102.56	32.07	7.36	34.25	220	351	P	V
	*	2437	99.79	-	-	94.61	32.07	7.36	34.25	220	351	A	V
		2484.6	57.69	-16.31	74	52.31	32.16	7.4	34.18	220	351	P	V
		2486	48.16	-5.84	54	42.77	32.16	7.4	34.17	220	351	A	V



802.11n HT20 CH 11 2462MHz	*	2462	109.6	-	-	104.3	32.11	7.4	34.21	297	26	P	H
	*	2462	101.89	-	-	96.59	32.11	7.4	34.21	297	26	A	H
		2483.72	61.08	-12.92	74	55.7	32.16	7.4	34.18	297	26	P	H
		2483.68	50.99	-3.01	54	45.61	32.16	7.4	34.18	297	26	A	H
													H
													H
													V
	*	2462	107.01	-	-	101.71	32.11	7.4	34.21	228	354	P	V
	*	2462	98.31	-	-	93.01	32.11	7.4	34.21	228	354	A	V
		2484.16	59.58	-14.42	74	54.2	32.16	7.4	34.18	228	354	P	V
		2483.64	49.59	-4.41	54	44.21	32.16	7.4	34.18	228	354	A	V
													V
													V
802.11n HT20 CH 12 2467MHz	*	2467	108.28	-	-	102.97	32.11	7.4	34.2	241	227	P	H
	*	2467	100.48	-	-	95.17	32.11	7.4	34.2	241	227	A	H
		2483.6	62.48	-11.52	74	57.1	32.16	7.4	34.18	241	227	P	H
		2484	52.46	-1.54	54	47.08	32.16	7.4	34.18	241	227	A	H
													H
													H
	*	2467	106.89	-	-	101.53	32.16	7.4	34.2	100	163	P	V
	*	2467	99.03	-	-	93.67	32.16	7.4	34.2	100	163	A	V
		2483.8	62.86	-11.14	74	57.48	32.16	7.4	34.18	100	163	P	V
		2483.56	52.07	-1.93	54	46.69	32.16	7.4	34.18	100	163	A	V
													V
													V



802.11n HT20 CH 13 2472MHz	*	2472	106.43	-	-	101.07	32.16	7.4	34.2	241	228	P	H
	*	2472	98.75	-	-	93.39	32.16	7.4	34.2	241	228	A	H
		2483.64	60.97	-13.03	74	55.59	32.16	7.4	34.18	241	228	P	H
		2483.52	52.22	-1.78	54	46.84	32.16	7.4	34.18	241	228	A	H
													H
													H
	*	2472	105.38	-	-	100.02	32.16	7.4	34.2	100	163	P	V
	*	2472	97.36	-	-	92	32.16	7.4	34.2	100	163	A	V
		2483.96	61.31	-12.69	74	55.93	32.16	7.4	34.18	100	163	P	V
		2483.52	52.11	-1.89	54	46.73	32.16	7.4	34.18	100	163	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 (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	38.32	-35.68	74	52.08	34.2	11.68	59.64	100	0	P	H
													H
													H
													H
		4824	38.79	-35.21	74	52.55	34.2	11.68	59.64	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4872	38.47	-35.53	74	52.28	34.23	11.53	59.57	100	0	P	H
		7308	42.5	-31.5	74	51.56	35.6	13.81	58.47	100	0	P	H
													H
													H
		4872	37.95	-36.05	74	51.76	34.23	11.53	59.57	100	0	P	V
		7308	42.92	-31.08	74	51.98	35.6	13.81	58.47	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4926	38.11	-35.89	74	51.98	34.26	11.37	59.5	100	0	P	H
		7386	40.06	-33.94	74	49.09	35.6	13.95	58.58	100	0	P	H
													H
													H
		4926	38.82	-35.18	74	52.69	34.26	11.37	59.5	100	0	P	V
		7386	39.45	-34.55	74	48.48	35.6	13.95	58.58	100	0	P	V
													V
													V



		4932	41.63	-32.37	74	54.84	34.26	11.37	58.84	100	0	P	H
		7404	43.2	-30.8	74	51.73	35.6	13.95	58.08	100	0	P	H
802.11n													H
HT20													H
CH 12		4932	40.86	-33.14	74	54.07	34.26	11.37	58.84	100	0	P	V
2467MHz		7404	43.83	-30.17	74	52.36	35.6	13.95	58.08	100	0	P	V
													V
													V
802.11n		4944	41.62	-32.38	74	54.93	34.27	11.22	58.8	100	0	P	H
HT20		7416	42.35	-31.65	74	50.88	35.6	13.95	58.08	100	0	P	H
CH 13													H
2472MHz		4944	41.53	-32.47	74	54.84	34.27	11.22	58.8	100	0	P	V
		7416	43.09	-30.91	74	51.62	35.6	13.95	58.08	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (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)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		30	27.65	-12.35	40	31.93	26	1.07	31.35			P	H
		132.87	30.67	-12.83	43.5	42.42	18.21	1.55	31.51			P	H
		230.61	39.07	-6.93	46	51.14	17.28	2.07	31.42	100	0	P	H
		480.6	32.92	-13.08	46	37.15	23.78	3.04	31.05			P	H
		716.5	32.52	-13.48	46	32.81	26.67	3.74	30.7			P	H
		958.7	34.38	-11.62	46	30.62	30.22	4.07	30.53			P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
Remark	1.	No other spurious found.											
	2.	All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol.
802.11n HT20 CH 01 2412MHz		2386.965	63.34	-10.66	74	58.44	31.93	7.31	34.34	311	218	P	H
		2389.485	52.43	-1.57	54	47.52	31.93	7.31	34.33	311	218	P	H
	*	2412	110.62	-	-	105.63	31.98	7.31	34.3	311	218	P	H
	*	2412	103.3	-	-	98.31	31.98	7.31	34.3	311	218	A	H
													H
													H
		2389.8	60.33	-13.67	74	55.42	31.93	7.31	34.33	337	320	P	V
		2389.695	51.91	-2.09	54	47	31.93	7.31	34.33	337	320	P	V
	*	2412	107.92	-	-	102.93	31.98	7.31	34.3	337	320	P	V
	*	2412	100.91	-	-	95.92	31.98	7.31	34.3	337	320	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2387.84	60.19	-13.81	74	55.29	31.93	7.31	34.34	103	209	P	H
		2389.66	50.41	-3.59	54	45.5	31.93	7.31	34.33	103	209	P	H
	*	2437	113.77	-	-	108.59	32.07	7.36	34.25	103	209	P	H
	*	2437	106.37	-	-	101.19	32.07	7.36	34.25	103	209	A	H
		2492.58	62.07	-11.93	74	56.63	32.2	7.4	34.16	103	209	P	H
		2483.69	46.75	-7.25	54	41.37	32.16	7.4	34.18	103	209	P	H
		2389.52	58.48	-15.52	74	53.57	31.93	7.31	34.33	380	214	P	V
		2389.94	47.78	-6.22	54	42.87	31.93	7.31	34.33	380	214	A	V
	*	2437	111.2	-	-	106.02	32.07	7.36	34.25	380	214	P	V
	*	2437	104.56	-	-	99.38	32.07	7.36	34.25	380	214	P	V
		2490.69	59.61	-14.39	74	54.18	32.2	7.4	34.17	380	214	P	V
		2491.53	49.12	-4.88	54	43.68	32.2	7.4	34.16	380	214	A	V



802.11n HT20 CH 11 2462MHz	*	2460	112.54	-	-	107.29	32.11	7.36	34.22	118	18	P	H
	*	2458	105.1	-	-	99.85	32.11	7.36	34.22	118	18	A	H
		2483.68	63.59	-10.41	74	58.21	32.16	7.4	34.18	118	18	P	H
		2483.56	52.37	-1.63	54	46.99	32.16	7.4	34.18	118	18	P	H
													H
													H
													V
													V
	*	2462	112.31	-	-	107.01	32.11	7.4	34.21	374	283	P	V
	*	2462	105.03	-	-	99.73	32.11	7.4	34.21	374	283	A	V
		2486.36	65.02	-8.98	74	59.63	32.16	7.4	34.17	374	283	P	V
		2483.64	50.68	-3.32	54	45.3	32.16	7.4	34.18	374	283	P	V
802.11n HT20 CH 12 2467MHz													V
	*	2467	108.66	-	-	103.35	32.11	7.4	34.2	380	321	P	H
	*	2467	101.39	-	-	96.08	32.11	7.4	34.2	380	321	A	H
		2484.28	60.91	-13.09	74	55.53	32.16	7.4	34.18	380	321	P	H
		2483.92	51.76	-2.24	54	46.38	32.16	7.4	34.18	380	321	A	H
													H
													H
	*	2467	106.86	-	-	101.55	32.11	7.4	34.2	376	230	P	V
	*	2467	100.2	-	-	94.89	32.11	7.4	34.2	376	230	A	V
		2484.28	61.61	-12.39	74	56.23	32.16	7.4	34.18	376	230	P	V
		2483.96	51.65	-2.35	54	46.27	32.16	7.4	34.18	376	230	A	V
													V
													V



802.11n HT20 CH 13 2472MHz	*	2472	107.04	-	-	101.68	32.16	7.4	34.2	380	321	P	H
	*	2472	99.49	-	-	94.13	32.16	7.4	34.2	380	321	A	H
		2484.12	60	-14	74	54.62	32.16	7.4	34.18	380	321	P	H
		2483.52	50.1	-3.9	54	44.72	32.16	7.4	34.18	380	321	A	H
													H
													H
	*	2472	106.04	-	-	100.68	32.16	7.4	34.2	376	230	P	V
	*	2472	98.65	-	-	93.29	32.16	7.4	34.2	376	230	A	V
		2484.2	60.91	-13.09	74	55.53	32.16	7.4	34.18	376	230	P	V
		2483.72	50.54	-3.46	54	45.16	32.16	7.4	34.18	376	230	A	V
													V
													V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	39.57	-34.43	74	53.33	34.2	11.68	59.64	100	0	P	H
													H
													H
													H
		4824	40.69	-33.31	74	54.45	34.2	11.68	59.64	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4872	39.53	-34.47	74	53.34	34.23	11.53	59.57	100	0	P	H
		7308	43.92	-30.08	74	52.98	35.6	13.81	58.47	100	0	P	H
													H
													H
		4872	40.16	-33.84	74	53.97	34.23	11.53	59.57	100	0	P	V
		7308	41.06	-32.94	74	50.12	35.6	13.81	58.47	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4926	39.56	-34.44	74	53.43	34.26	11.37	59.5	100	0	P	H
		7386	41.89	-32.11	74	50.92	35.6	13.95	58.58	100	0	P	H
													H
													H
		4926	39.67	-34.33	74	53.54	34.26	11.37	59.5	100	0	P	V
		7386	40.85	-33.15	74	49.88	35.6	13.95	58.58	100	0	P	V
													V
													V



		4932	41.61	-32.39	74	54.82	34.26	11.37	58.84	100	0	P	H
		7404	42.42	-31.58	74	50.95	35.6	13.95	58.08	100	0	P	H
802.11n													H
HT20													H
CH 12		4932	41.43	-32.57	74	54.64	34.26	11.37	58.84	100	0	P	V
2467MHz		7404	43.52	-30.48	74	52.05	35.6	13.95	58.08	100	0	P	V
													V
													V
		4944	41.46	-32.54	74	54.77	34.27	11.22	58.8	100	0	P	H
		7416	43.45	-30.55	74	51.98	35.6	13.95	58.08	100	0	P	H
802.11n													H
HT20													H
CH 13		4944	42.45	-31.55	74	55.76	34.27	11.22	58.8	100	0	P	V
2472MHz		7416	43.82	-30.18	74	52.35	35.6	13.95	58.08	100	0	P	V
													V
													V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		31.35	31.95	-8.05	40	36.8	25.46	1.07	31.38	100	0	P	H
		57.54	28.32	-11.68	40	45.91	12.93	1.07	31.59			P	H
		233.31	38.3	-7.7	46	50.12	17.52	2.07	31.41			P	H
		307	30.64	-15.36	46	39.47	20.02	2.41	31.26			P	H
		482	32.17	-13.83	46	36.38	23.8	3.04	31.05			P	H
		720	33.15	-12.85	46	33.39	26.71	3.74	30.69			P	H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT20													H
LF		30.54	28.27	-11.73	40	33.1	25.46	1.07	31.36	100	0	P	V
		57.54	25.85	-14.15	40	43.44	12.93	1.07	31.59			P	V
		233.31	33.87	-12.13	46	45.69	17.52	2.07	31.41			P	V
		345.5	29.72	-16.28	46	37.37	21.07	2.5	31.22			P	V
		518.4	30.43	-15.57	46	33.92	24.35	3.14	30.98			P	V
		981.8	34.06	-19.94	54	30.34	30.26	3.98	30.52			P	V
													V
													V
													V
													V
													V
Remark		3. No other spurious found. 4. All results are PASS against limit line.											

**Note symbol**

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(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

$$1. \text{ Level(dB}\mu\text{V/m)} =$$

$$= \text{Antenna Factor(dB/m)} + \text{Cable Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$2. \text{ Over Limit(dB)} = \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

For Peak Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Cable Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$$

$$= 55.45 (\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 55.45(\text{dB}\mu\text{V/m}) - 74(\text{dB}\mu\text{V/m})$$

$$= -18.55(\text{dB})$$

For Average Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Cable Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86 (\text{dB})$$

$$= 43.54 (\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 43.54(\text{dB}\mu\text{V/m}) - 54(\text{dB}\mu\text{V/m})$$

$$= -10.46(\text{dB})$$

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



Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Jesse Wang and James Chiu	Temperature :	21~24°C
		Relative Humidity :	50~54%

Note symbol

-L	Low channel location
-R	High channel location

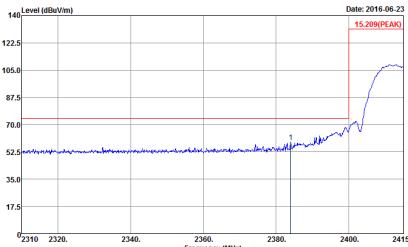
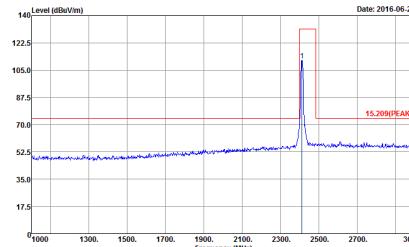


2.4GHz 2400~2483.5MHz

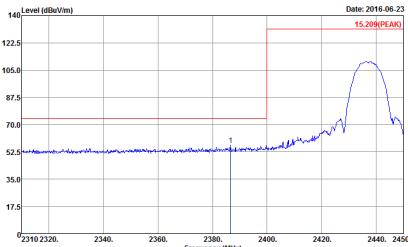
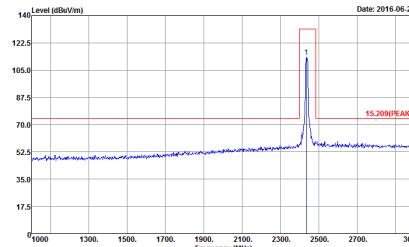
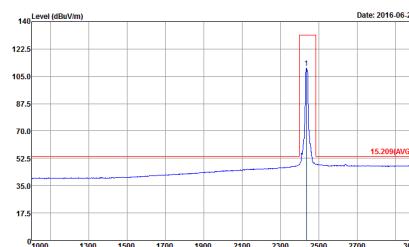
WIFI 802.11b (Band Edge and Fundamental @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SW:Auto Project : 632203 Mode : 7 Setting : 19	 Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 7 Setting : 19
Avg.	 Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 7 Setting : 19	 Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 7 Setting : 19

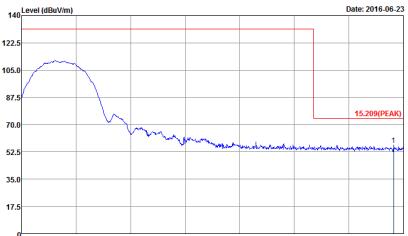


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH074-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 7 Setting : 19</p>	 <p>Site : 03CH074-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 7 Setting : 19</p>
Avg.	 <p>Site : 03CH074-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 7 Setting : 19</p>	 <p>Site : 03CH074-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 7 Setting : 19</p>

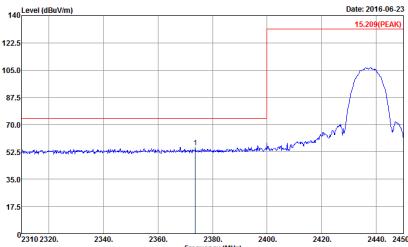
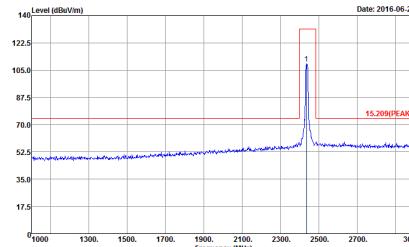
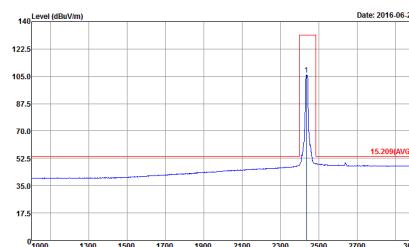


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2450. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a small rise near 2437MHz.</p> <p>Date: 2016-06-23</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>  <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a small rise near 2437MHz.</p> <p>Date: 2016-06-23</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2450. A sharp peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a small rise near 2437MHz.</p> <p>Date: 2016-06-23</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>  <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a small rise near 2437MHz.</p> <p>Date: 2016-06-23</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>

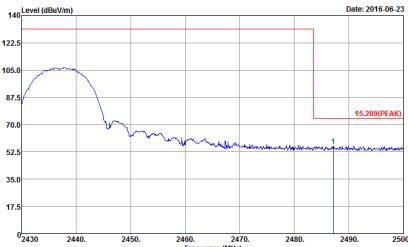


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-23</p> <p>Frequency (MHz)</p> <p>Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VSWR:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 8 Setting: 19</p>	Left blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-23</p> <p>Frequency (MHz)</p> <p>Site: 03CH07-HY Condition: 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VSWR:0.010KHz SWT:Auto Detector: Peak Project: 632203 Mode: 8 Setting: 19</p>	Left blank

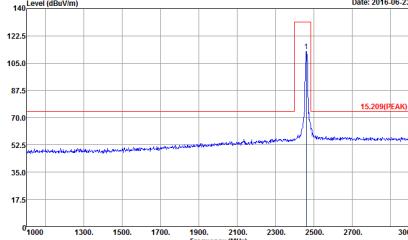
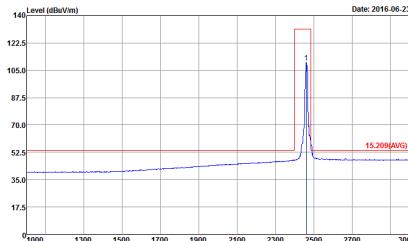


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 2310 to 2450. A sharp peak is labeled 15.209(Peak) at approximately 2437MHz.</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>	 <p>Level (dBuV/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(Peak) at approximately 2437MHz.</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 2310 to 2450. A broad peak is labeled 15.209(AVG) at approximately 2437MHz.</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>	 <p>Level (dBuV/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(AVG) at approximately 2437MHz.</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 8 Setting : 19</p>

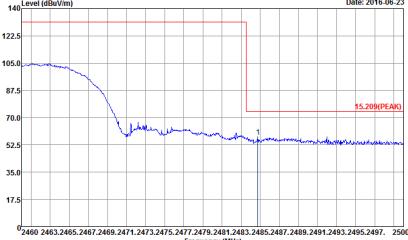
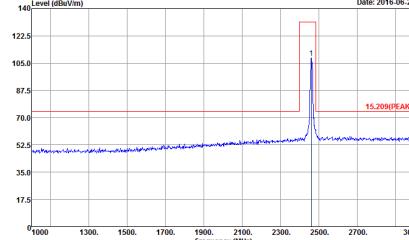
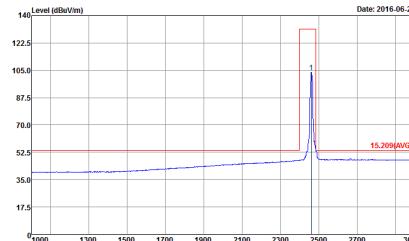


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-23</p> <p>Frequency (MHz)</p> <p>Site : 03CH074-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000KHz VSWR:3000.000KHz SWT:Auto Project : P00000 Model : 632203 Mode : 8 Setting : 19</p>	Left blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-23</p> <p>Frequency (MHz)</p> <p>Site : 03CH074-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000KHz VSWR:0.010KHz SWT:Auto Project : P00000 Model : 632203 Mode : 8 Setting : 19</p>	Left blank

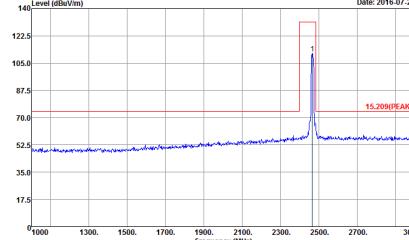
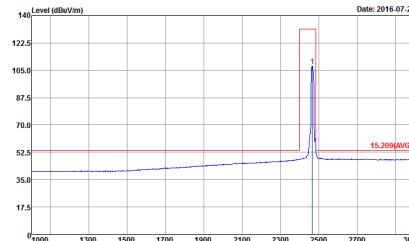


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) from 2460 to 2500. A red step function shows a peak at 15.209 dBm. The plot includes a blue noise floor line and a red reference line at 122.5 dBm.</p> <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A red step function shows a peak at 15.209 dBm. The plot includes a blue noise floor line and a red reference line at 70.0 dBm.</p> <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) from 2460 to 2500. A red step function shows a peak at 15.209 dBm. The plot includes a blue noise floor line and a red reference line at 122.5 dBm.</p> <p>Site : 03CH074Y Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A red step function shows a peak at 15.209 dBm. The plot includes a blue noise floor line and a red reference line at 52.5 dBm.</p> <p>Site : 03CH074Y Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>

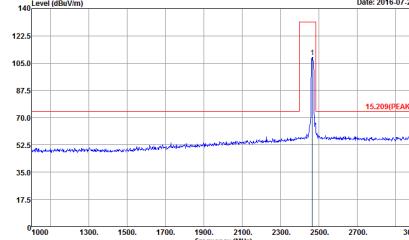
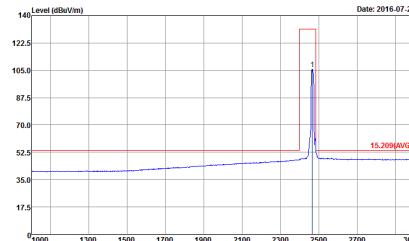


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>	 <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>
Avg.	 <p>Site : 03CH074Y Condition : 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>	 <p>Site : 03CH074Y Condition : 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203 Mode : 9 Setting : 18</p>

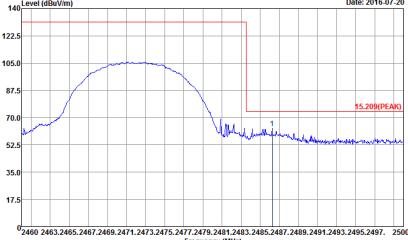
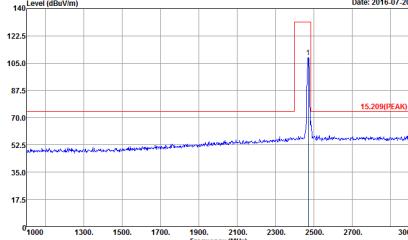
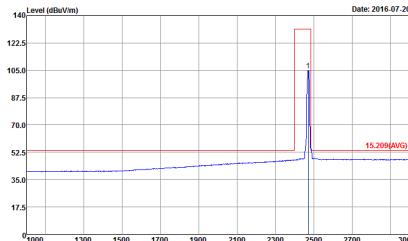


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>

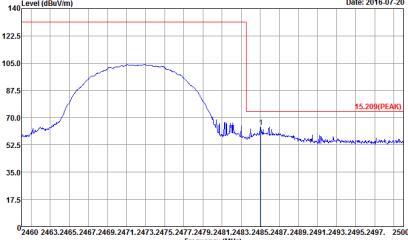
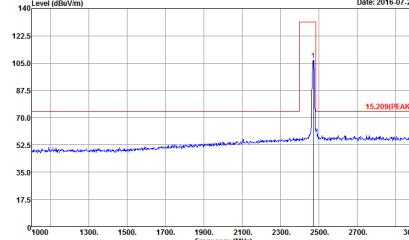


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH12 2467MHz	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) plot from 2400 to 2500 MHz. The red step function shows a sharp peak reaching approximately 122.5 dBuV/m at 2467 MHz, labeled '15.209(Peak)'. The blue line shows the noise floor.</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot from 1000 to 3000 MHz. The red step function shows a sharp peak reaching approximately 122.5 dBuV/m at 2467 MHz, labeled '15.209(Peak)'. The blue line shows the noise floor.</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) plot from 2400 to 2500 MHz. The red step function shows a broad emission band peaking around 122.5 dBuV/m at 2467 MHz, labeled '15.209(Avg)'. The blue line shows the noise floor.</p> <p>Site : 03CH07-HY Condition : 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot from 1000 to 3000 MHz. The red step function shows a sharp peak reaching approximately 122.5 dBuV/m at 2467 MHz, labeled '15.209(Avg)'. The blue line shows the noise floor.</p> <p>Site : 03CH07-HY Condition : 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 23 : 16</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11b CH13 2472MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 24 13</p>

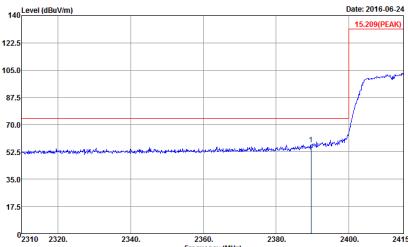
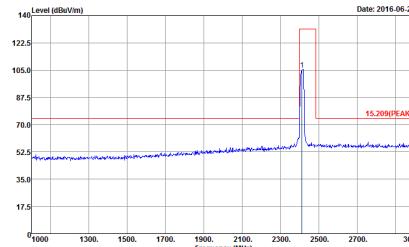
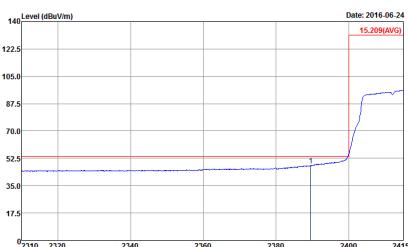


2.4GHz 2400~2483.5MHz

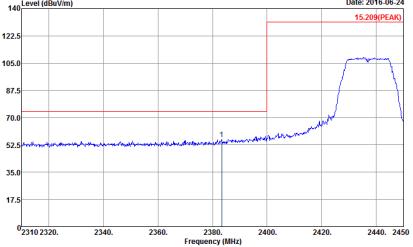
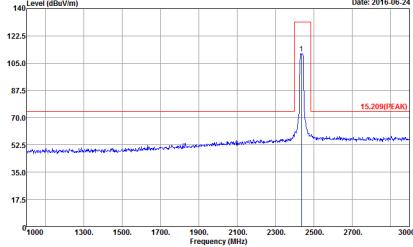
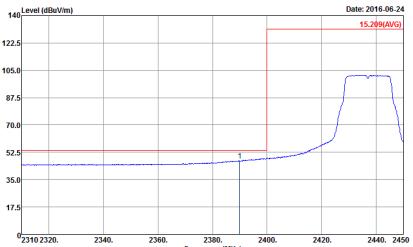
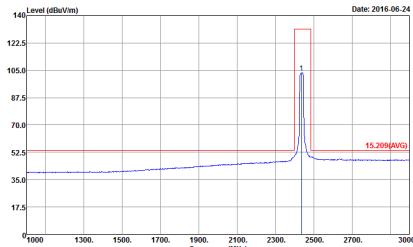
WIFI 802.11g (Band Edge and Fundamental @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 10 Setting : 16	 Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 10 Setting : 16
Avg.	 Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 10 Setting : 16	 Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL Detector : Peak Project : 632203 Mode : 10 Setting : 16

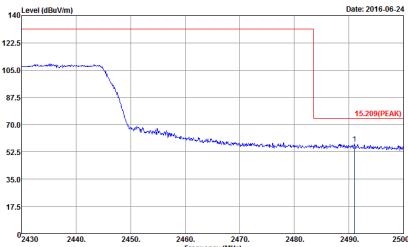


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2415. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a rise starting at 2380 MHz.</p> <p>Site : 03CH074-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 10 Setting : 16</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a rise starting at 2380 MHz.</p> <p>Site : 03CH074-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 10 Setting : 16</p>
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2415. A broad peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a rise starting at 2380 MHz.</p> <p>Site : 03CH074-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 10 Setting : 16</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A broad peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a rise starting at 2380 MHz.</p> <p>Site : 03CH074-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 10 Setting : 16</p>

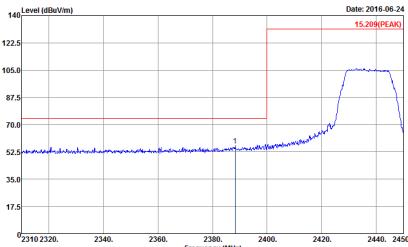
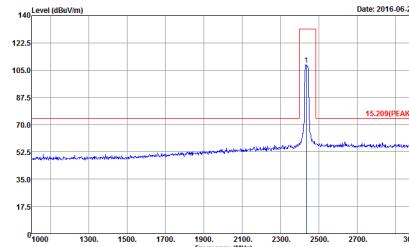
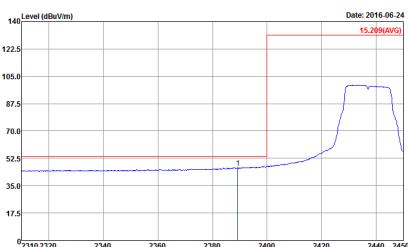
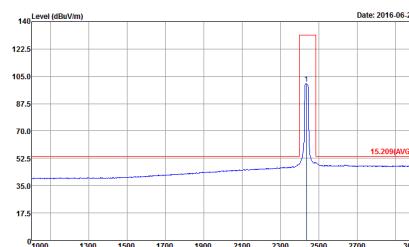


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>

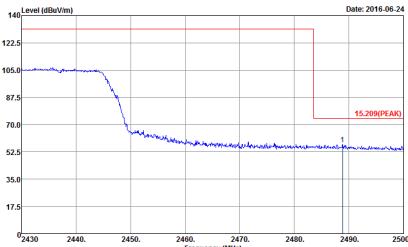
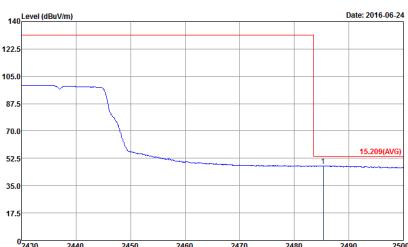


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000KHz VSWR:3000.000KHz SWT:Auto Project : P00000 Model : 632203 Mode : 11 Setting : 17</p>	Left blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL Detector : RBW:1000.000KHz VSWR:1.000KHz SWT:Auto Project : P00000 Model : 632203 Mode : 11 Setting : 17</p>	Left blank

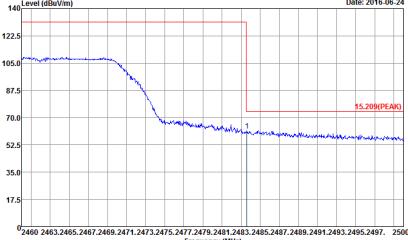
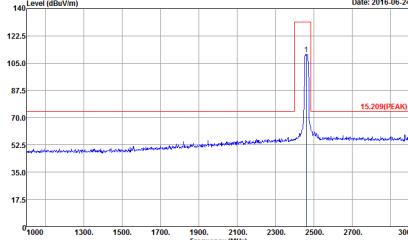
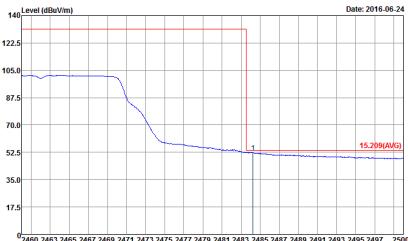
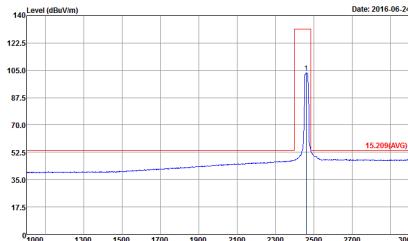


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2016-06-24</p> <p>15.209(PEAK)</p> <p>Site : 03CH07-HY Condition : 15.209(PEAK) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>	 <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2016-06-24</p> <p>15.209(PEAK)</p> <p>Site : 03CH07-HY Condition : 15.209(PEAK) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>
Avg.	 <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2016-06-24</p> <p>15.209(AVG)</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>	 <p>Level (dBuV/m)</p> <p>Frequency (MHz)</p> <p>Date: 2016-06-24</p> <p>15.209(AVG)</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 11 Setting : 17</p>

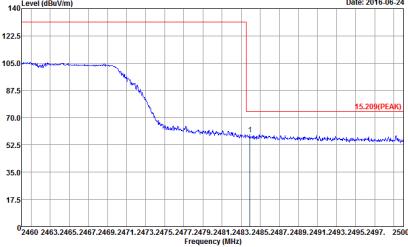
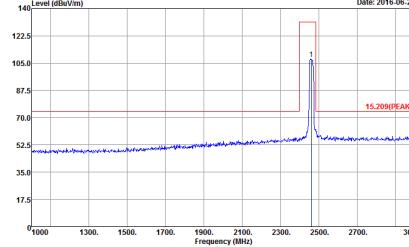
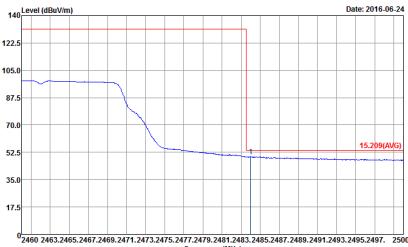
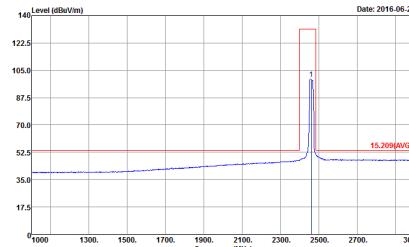


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>Frequency (MHz)</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000KHz VSWR:3000.000KHz SWT:Auto Project : P00000 Model : 632203 Mode : 11 Setting : 17</p>	Left Blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>Frequency (MHz)</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL Detector : RBW:1000.000KHz VSWR:1.000KHz SWT:Auto Project : P00000 Model : 632203 Mode : 11 Setting : 17</p>	Left Blank

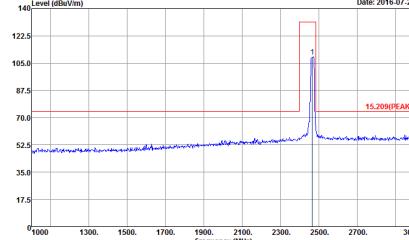
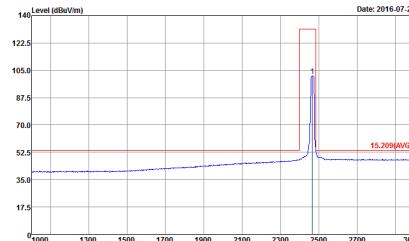


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>

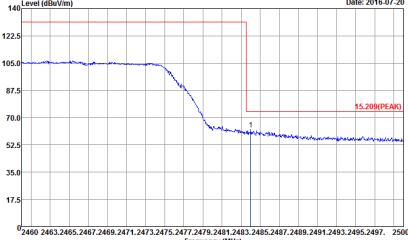
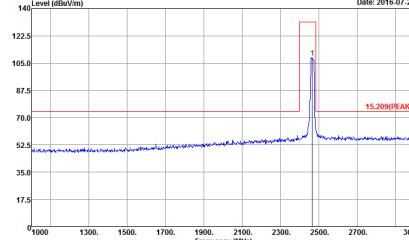
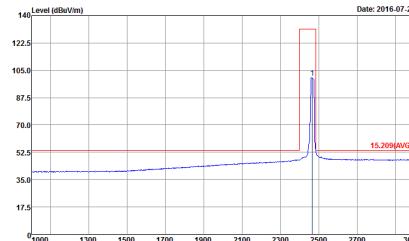


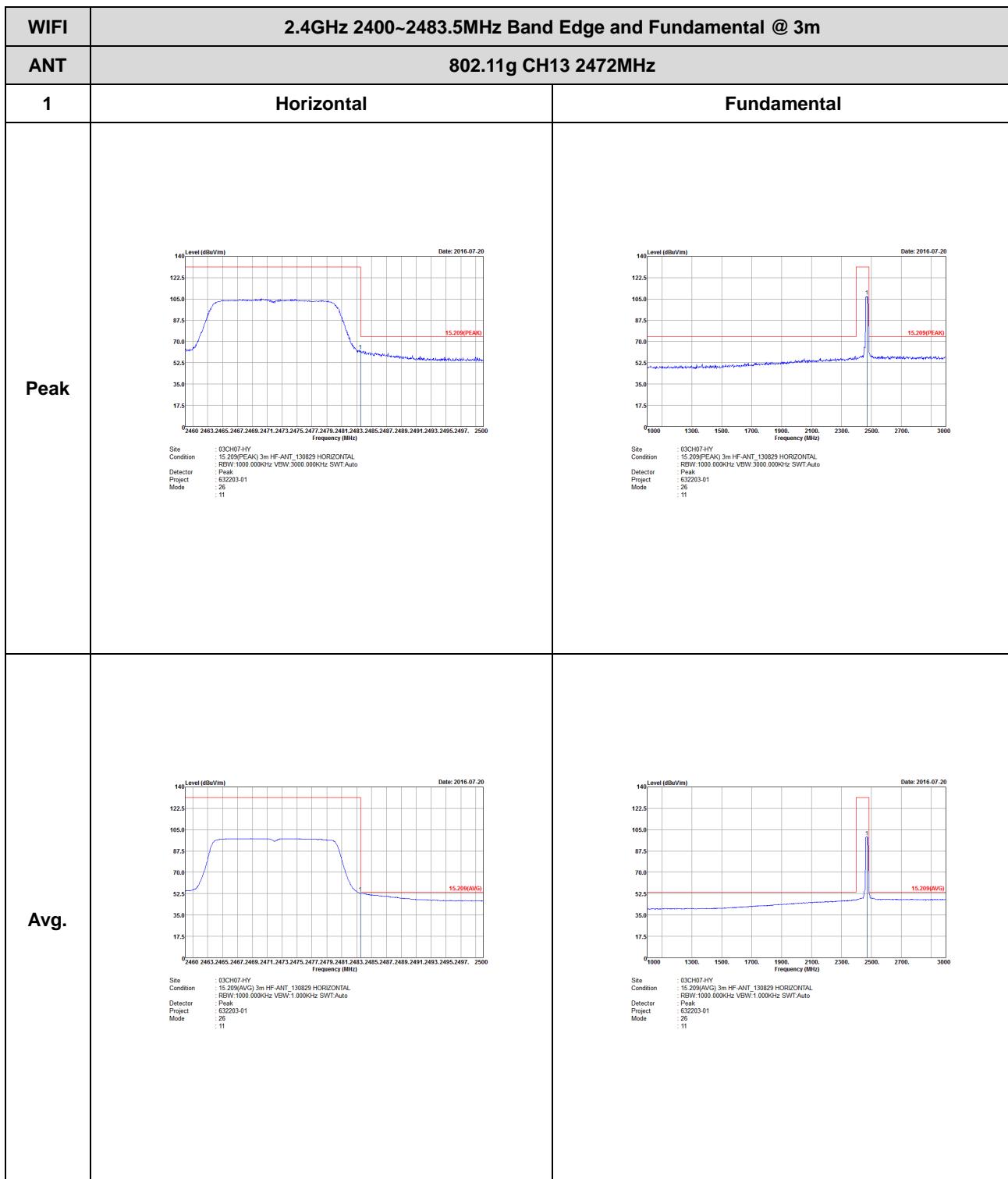
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>	 <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>
Avg.	 <p>Site : 03CH074Y Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>	 <p>Site : 03CH074Y Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 12 Setting : 16</p>



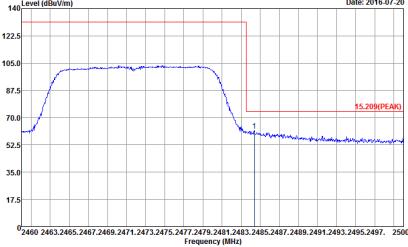
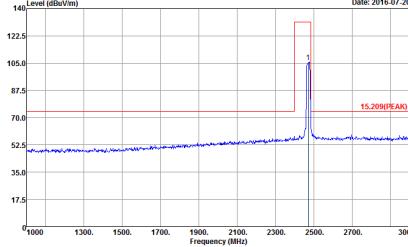
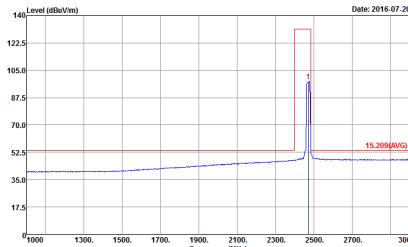
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH12 2467MHz	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) plot for Peak Vertical measurement. The plot shows a sharp peak at approximately 2467 MHz with a value of 15.209 dBm. The x-axis ranges from 2460 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m.</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>	 <p>Level (dBm/m) vs Frequency (MHz) plot for Peak Fundamental measurement. The plot shows a sharp peak at approximately 2467 MHz with a value of 15.209 dBm. The x-axis ranges from 1000 to 3000 MHz, and the y-axis ranges from 17.5 to 140 dBm/m.</p> <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) plot for Avg Vertical measurement. The plot shows a sharp peak at approximately 2467 MHz with a value of 15.209 dBm. The x-axis ranges from 2460 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m.</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>	 <p>Level (dBm/m) vs Frequency (MHz) plot for Avg Fundamental measurement. The plot shows a sharp peak at approximately 2467 MHz with a value of 15.209 dBm. The x-axis ranges from 1000 to 3000 MHz, and the y-axis ranges from 17.5 to 140 dBm/m.</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203-01 Mode : 25 : 13.5</p>



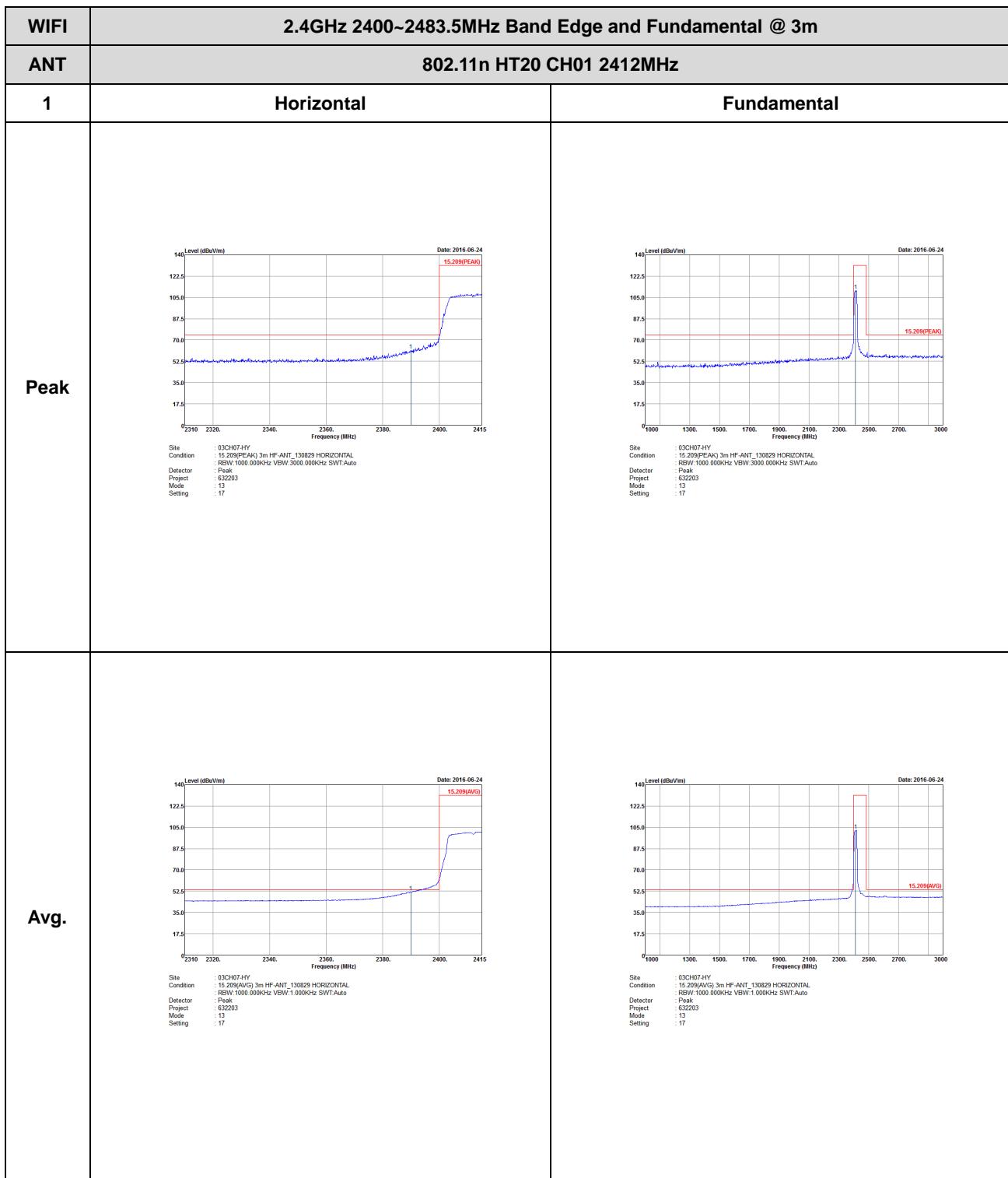


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11g CH13 2472MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 26 11</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 26 11</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 26 11</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 26 11</p>

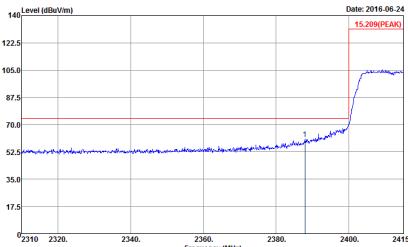
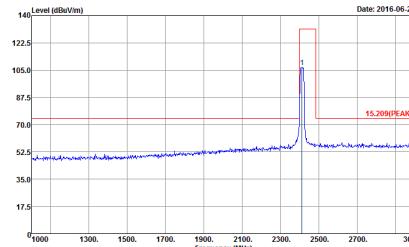
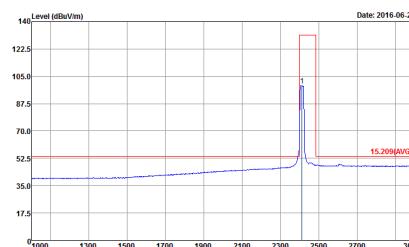


2.4GHz 2400~2483.5MHz

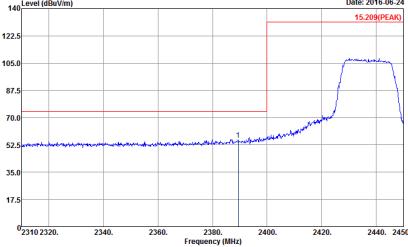
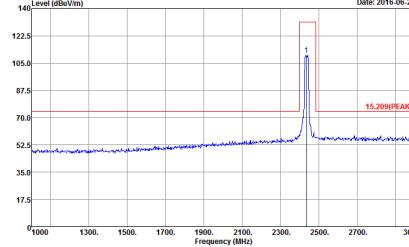
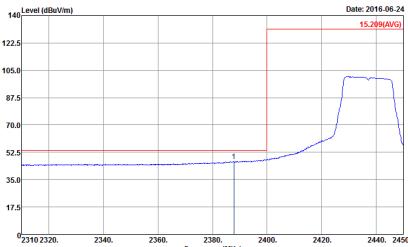
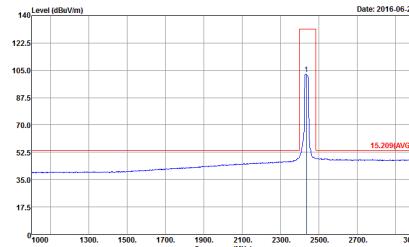
WIFI 802.11n HT20 (Band Edge and Fundamental @ 3m)



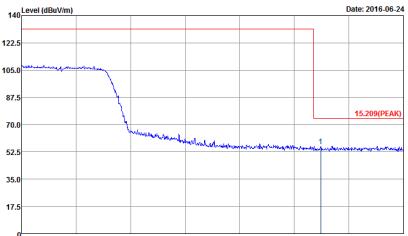


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2415. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a rise starting at approximately 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 13 Setting: 17</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a rise starting at approximately 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 13 Setting: 17</p>
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2415. A sharp peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a rise starting at approximately 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 13 Setting: 17</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a rise starting at approximately 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 13 Setting: 17</p>

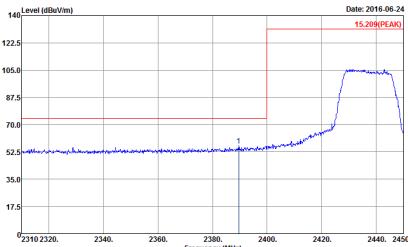
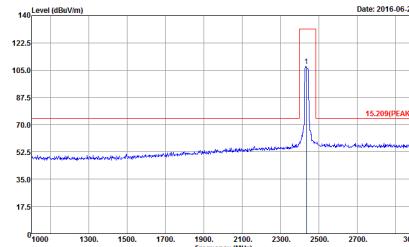
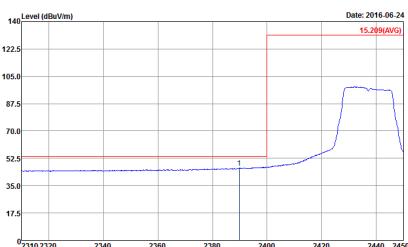
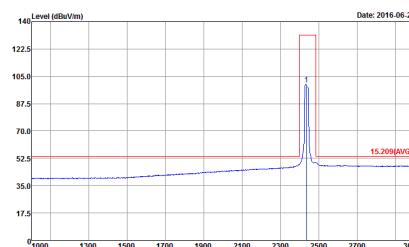


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2450. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a rise starting around 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>  <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(Peak). The plot shows a flat baseline around 52.5 dBm with a rise starting around 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>	 <p>Level (dBm/m) vs Frequency (MHz) from 2310 to 2450. A sharp peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a rise starting around 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>  <p>Level (dBm/m) vs Frequency (MHz) from 1000 to 3000. A sharp peak is labeled 15.209(AVG). The plot shows a flat baseline around 52.5 dBm with a rise starting around 2380 MHz.</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>

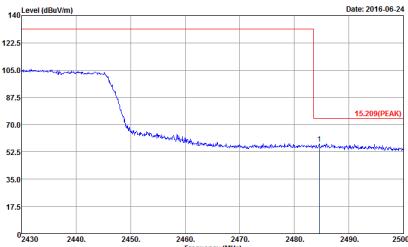
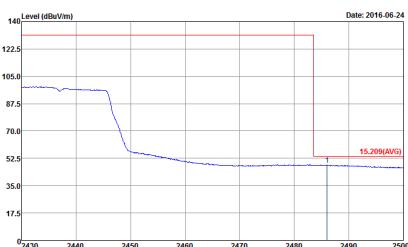


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) plot. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m. A red step function shows a sharp drop from approximately 105 dBm at 2483.5 MHz to about 52 dBm. A blue line shows the noise floor. A red box highlights the peak value of 15.209(Peak). Technical parameters listed below:</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VSW:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>	Left blank
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) plot. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m. A red step function shows a smooth transition from approximately 105 dBm at 2483.5 MHz to about 52 dBm. A blue line shows the noise floor. A red box highlights the average value of 15.209(Avg). Technical parameters listed below:</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Avg) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VSW:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>	Left blank

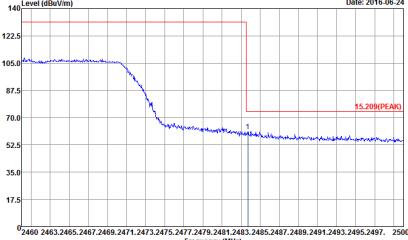
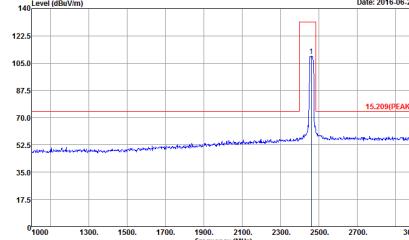
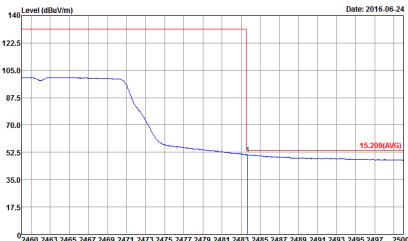


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(PEAK)</p> <p>Frequency (MHz)</p> <p>Site : 03CH07-HY Condition : 15.209(PEAK) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 14 Setting : 17</p>	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(PEAK)</p> <p>Frequency (MHz)</p> <p>Site : 03CH07-HY Condition : 15.209(PEAK) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 14 Setting : 17</p>
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(AVG)</p> <p>Frequency (MHz)</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 14 Setting : 17</p>	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(AVG)</p> <p>Frequency (MHz)</p> <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 14 Setting : 17</p>

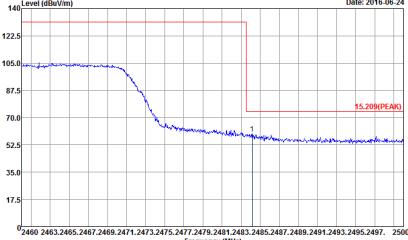
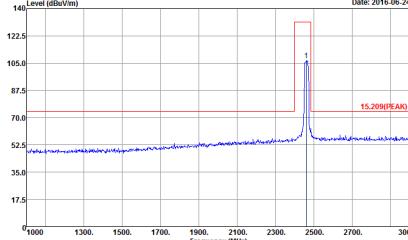
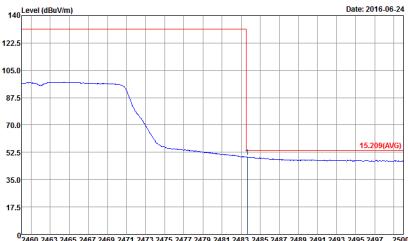
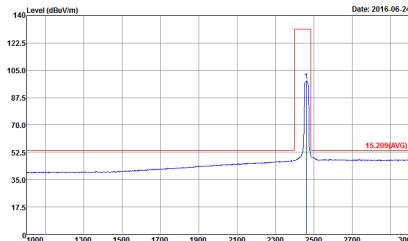


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) plot. The plot shows a sharp drop in signal level from approximately 105 dBm to 52 dBm at 2483.5 MHz. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m. A red step function indicates the band edge, and a blue line shows the measured signal. A red box highlights the peak value of 15.209(Peak). Technical parameters listed below:</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VSWR:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>	Left Blank
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) plot. The plot shows a smooth transition from approximately 105 dBm to 52 dBm at 2483.5 MHz. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m. A red step function indicates the band edge, and a blue line shows the measured signal. A red box highlights the average value of 15.209(Avg). Technical parameters listed below:</p> <p>Date: 2016-06-24 Site: 03CH07-HY Condition: 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VSWR:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 14 Setting: 17</p>	Left Blank

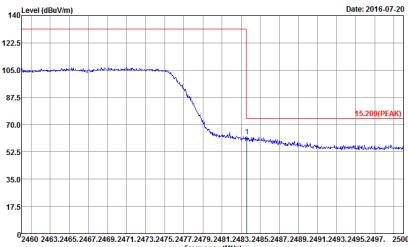
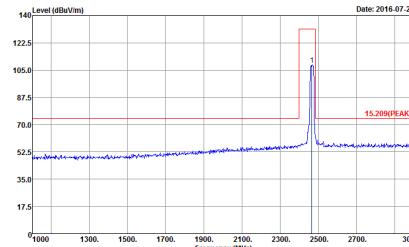
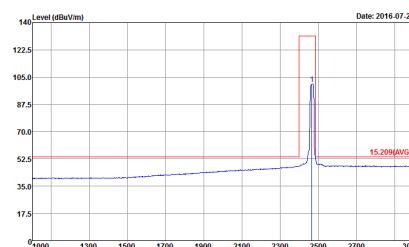


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24 2460 2463 2465 2467 2469 2471 2473 2475 2477 2479 2481 2483 2485 2487 2489 2491 2493 2495 2497. 2500 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>  <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24 12000 13000 14000 15000 16000 17000 18000 19000 20000 21000 22000 23000 24000 25000 26000 27000 28000 29000 30000 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>	
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24 2460 2463 2465 2467 2469 2471 2473 2475 2477 2479 2481 2483 2485 2487 2489 2491 2493 2495 2497. 2500 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>  <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-06-24 12000 13000 14000 15000 16000 17000 18000 19000 20000 21000 22000 23000 24000 25000 26000 27000 28000 29000 30000 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>	

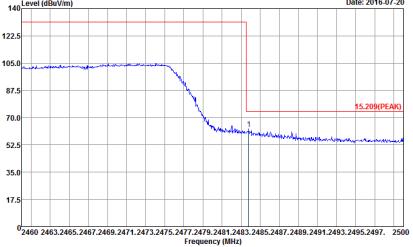
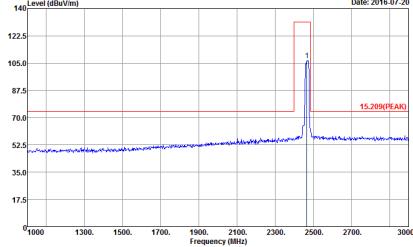
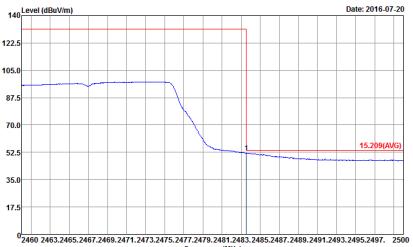
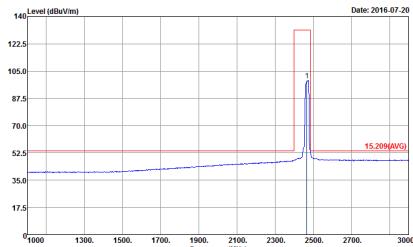


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 2400 to 2500. A red step function shows a sharp drop from ~125 dBuV/m to ~55 dBuV/m at 2462MHz, labeled '15.209(Peak)'.</p> <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>	 <p>Level (dBuV/m) vs Frequency (MHz) from 1000 to 3000. A red step function shows a sharp peak at 2462MHz, labeled '15.209(Peak)'.</p> <p>Site : 03CH074Y Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 2400 to 2500. A red step function shows a smooth transition at 2462MHz, labeled '15.209(Avg)'.</p> <p>Site : 03CH074Y Condition : 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>	 <p>Level (dBuV/m) vs Frequency (MHz) from 1000 to 3000. A red step function shows a sharp peak at 2462MHz, labeled '15.209(Avg)'.</p> <p>Site : 03CH074Y Condition : 15.209(Avg) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203 Mode : 15 Setting : 15</p>

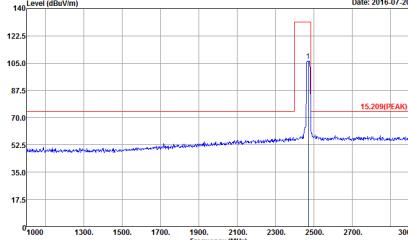
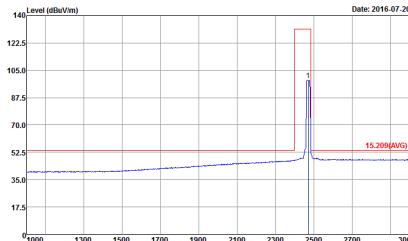


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>

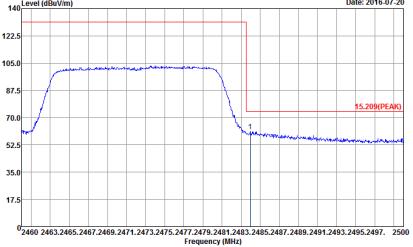
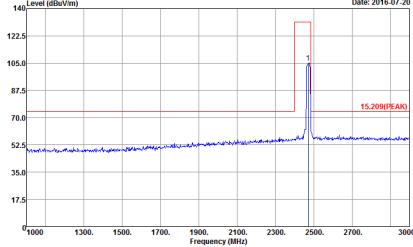
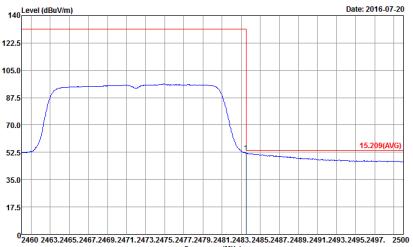
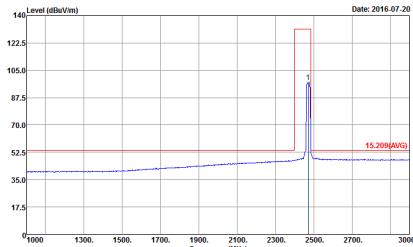


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-07-20 2460 2463 2465 2467 2469 2471 2473 2475 2477 2479 2481 2483 2485 2487 2489 2491 2493 2495 2497. 2500 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>  <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-07-20 1000 1300 1500 1700 1900. 2100. 2300. 2500. 2700. 3000 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>	
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-07-20 2460 2463 2465 2467 2469 2471 2473 2475 2477 2479 2481 2483 2485 2487 2489 2491 2493 2495 2497. 2500 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>  <p>Level (dBm/m) vs Frequency (MHz) Date: 2016-07-20 1000 1300 1500 1700 1900. 2100. 2300. 2500. 2700. 3000 Frequency (MHz) Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 27 13</p>	



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>

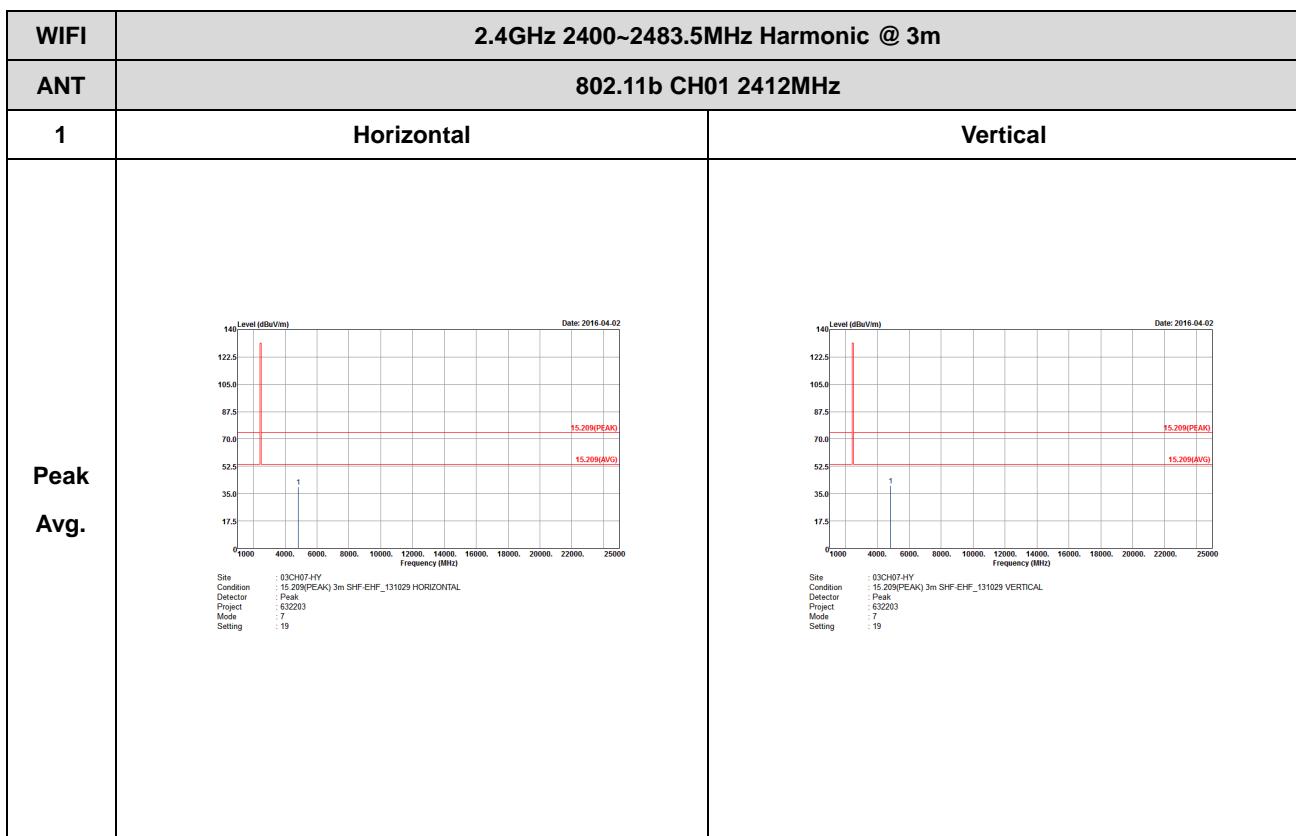


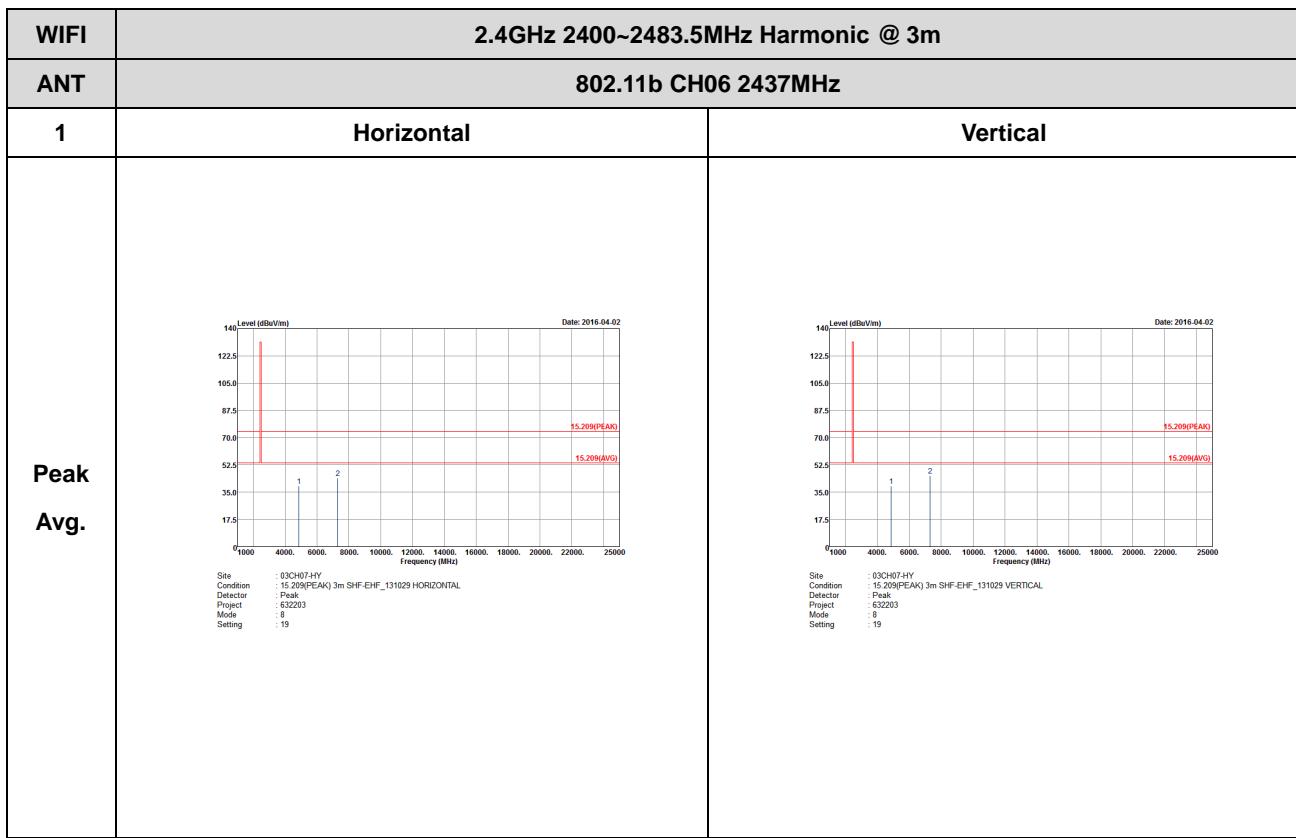
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 28 11</p>

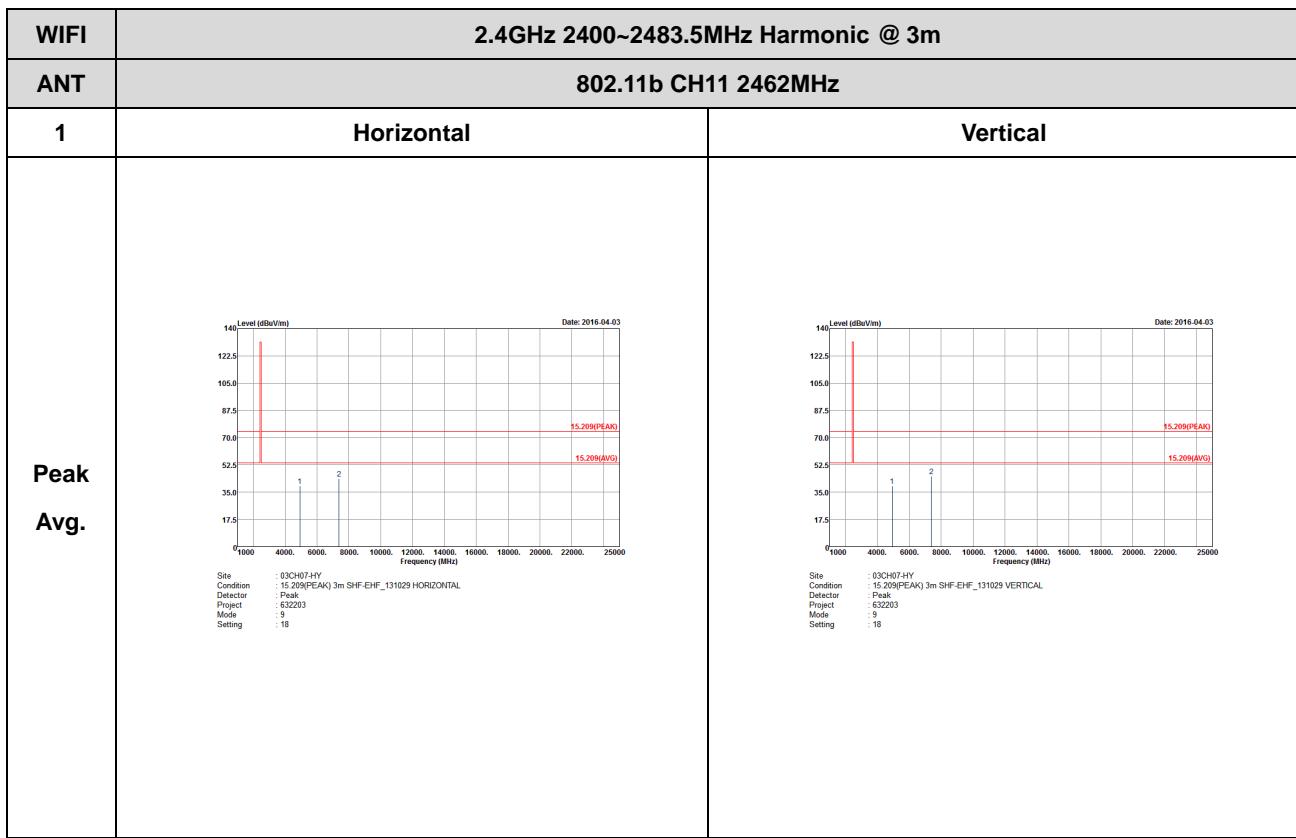


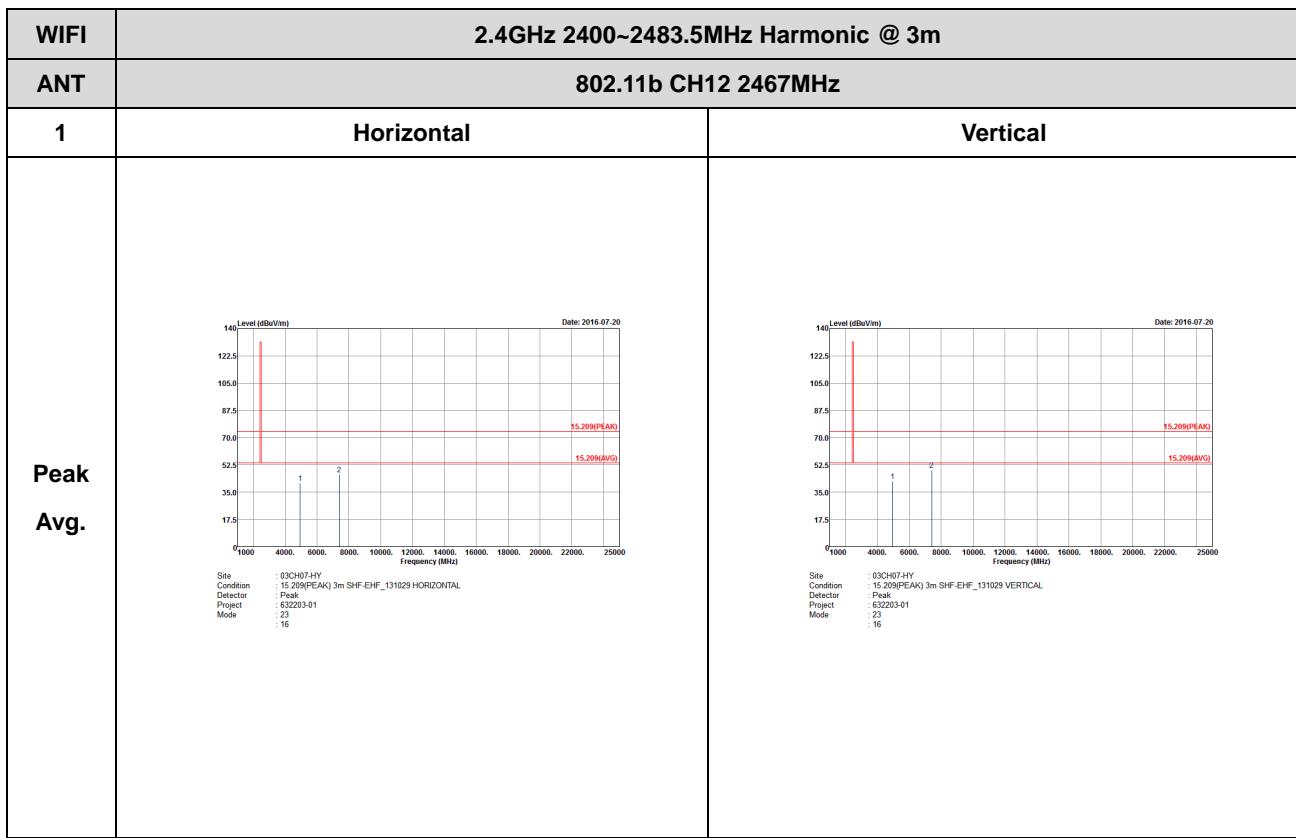
2.4GHz 2400~2483.5MHz

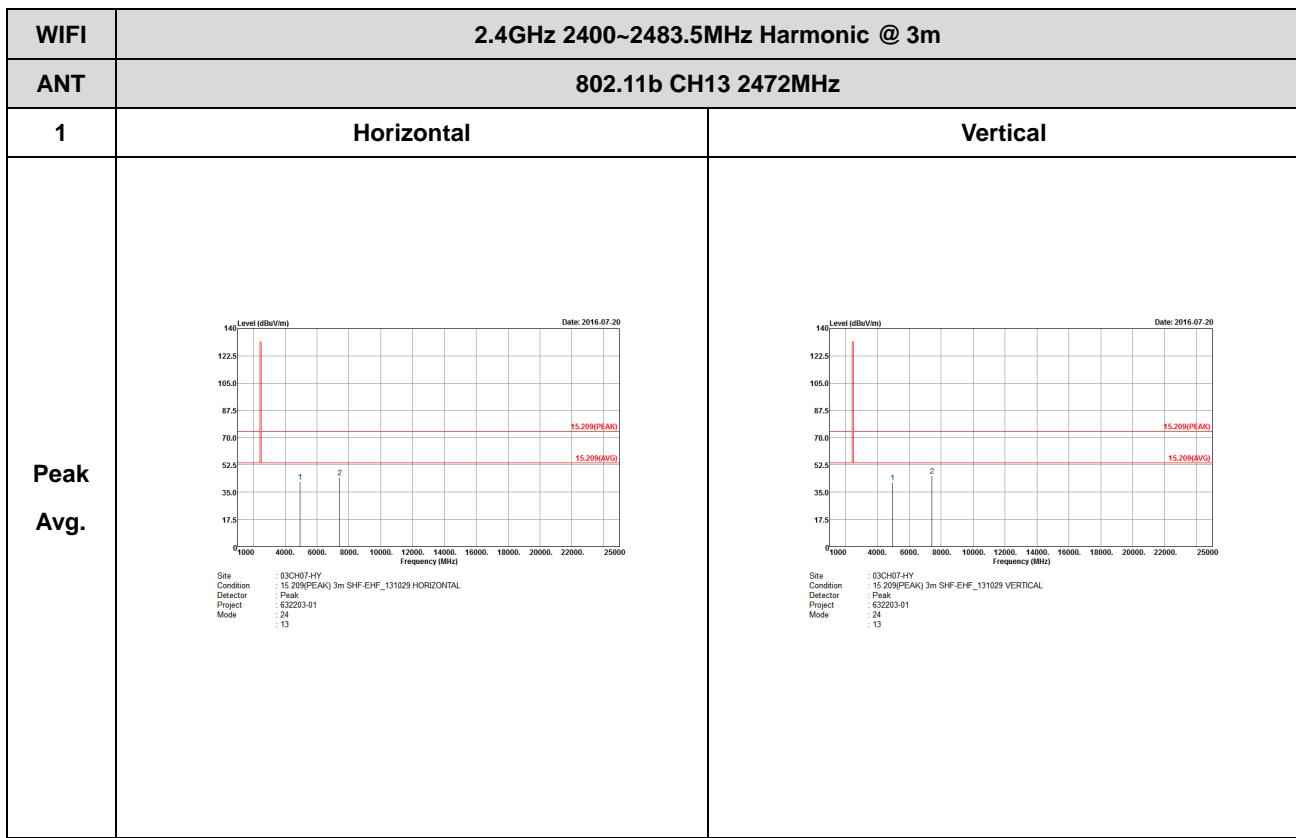
WIFI 802.11b (Harmonic @ 3m)







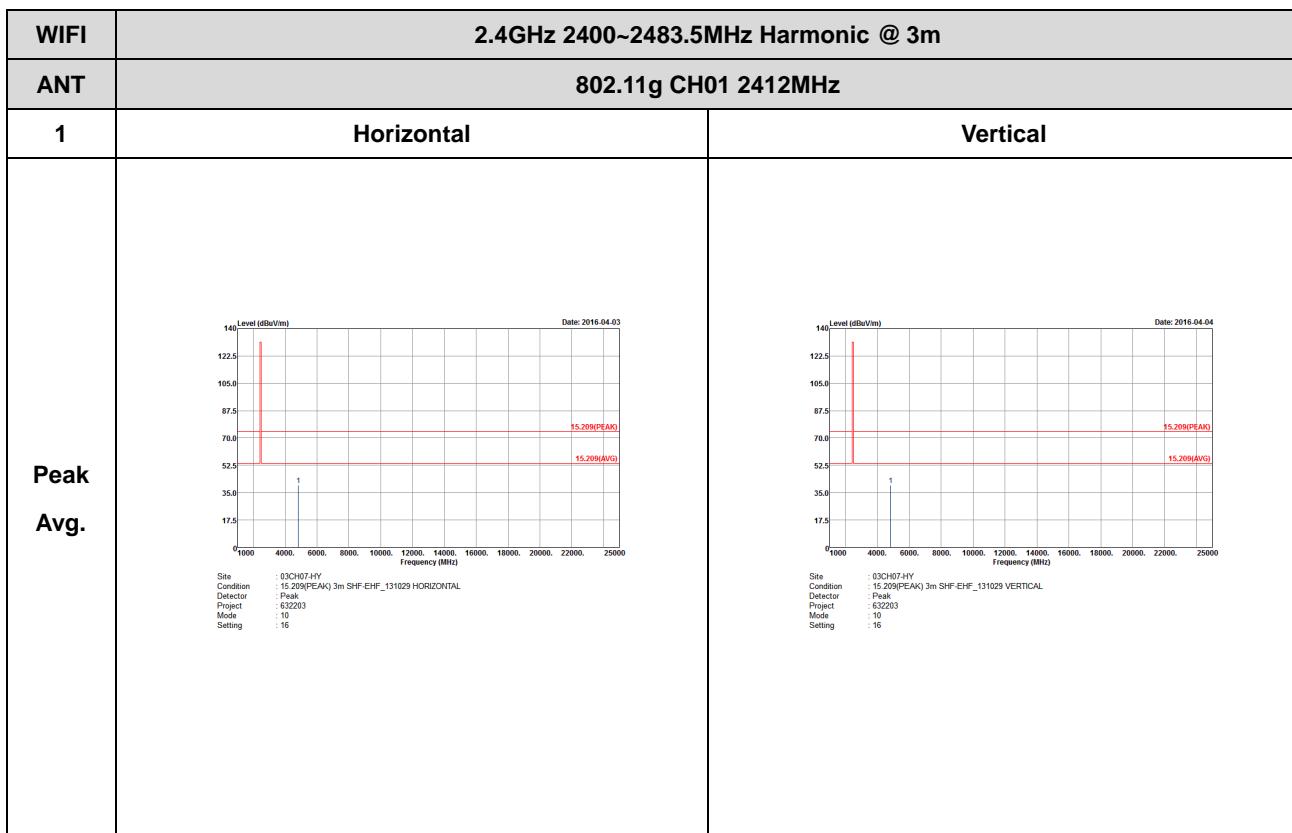


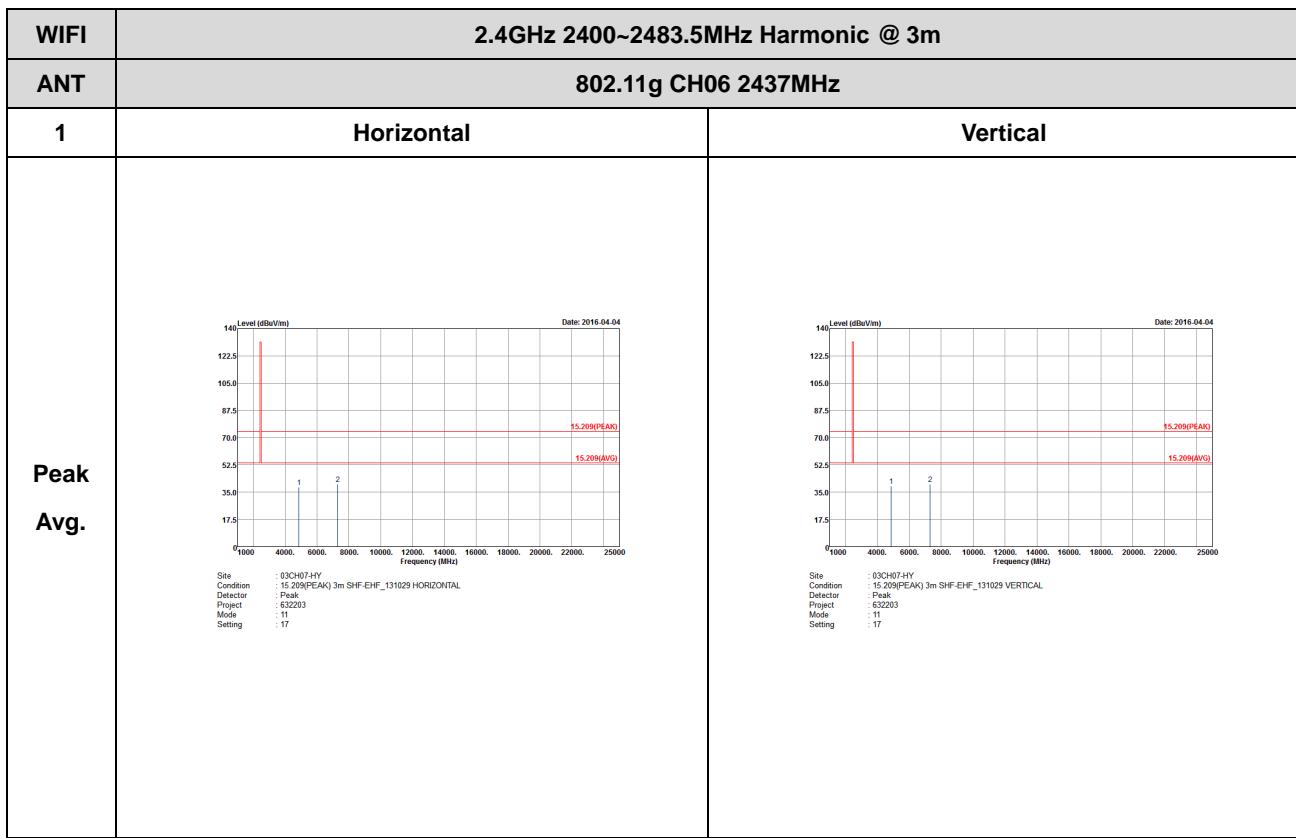


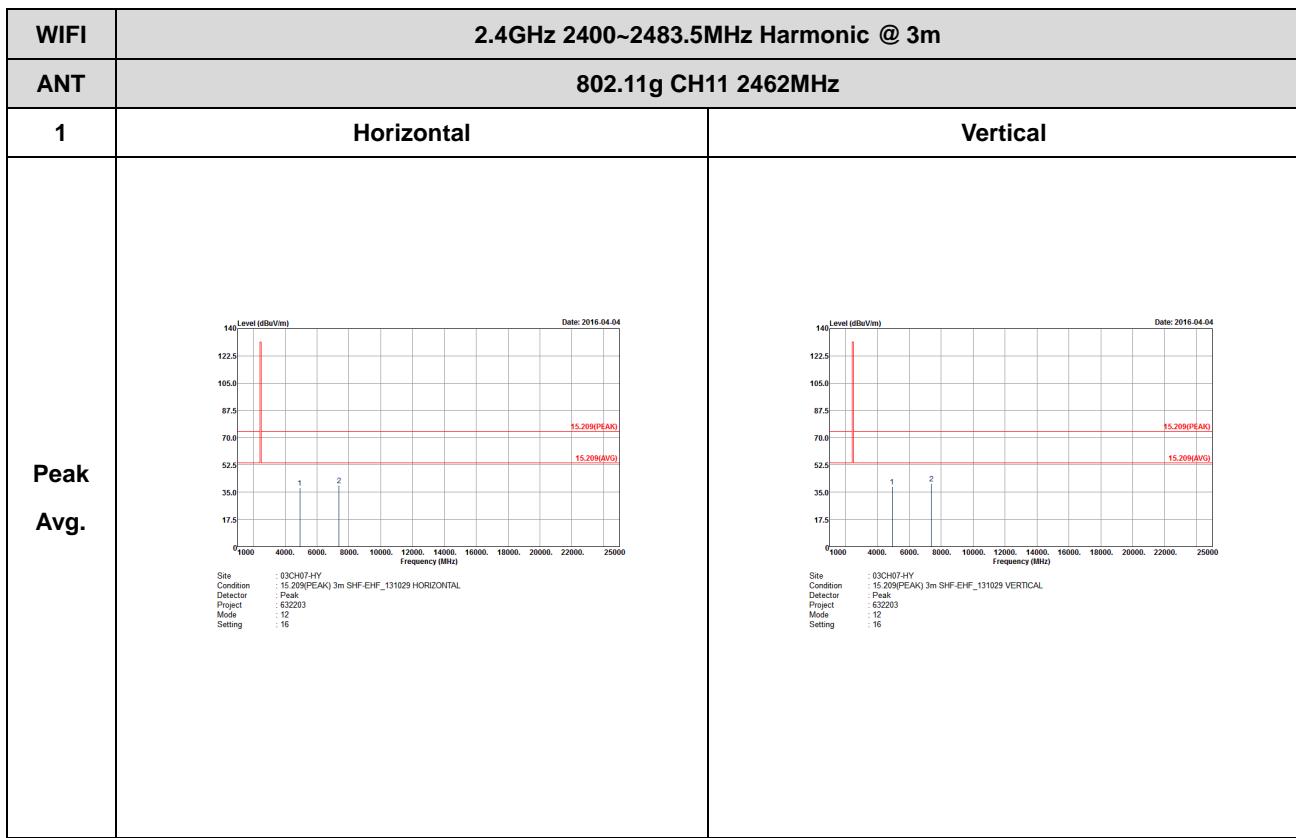


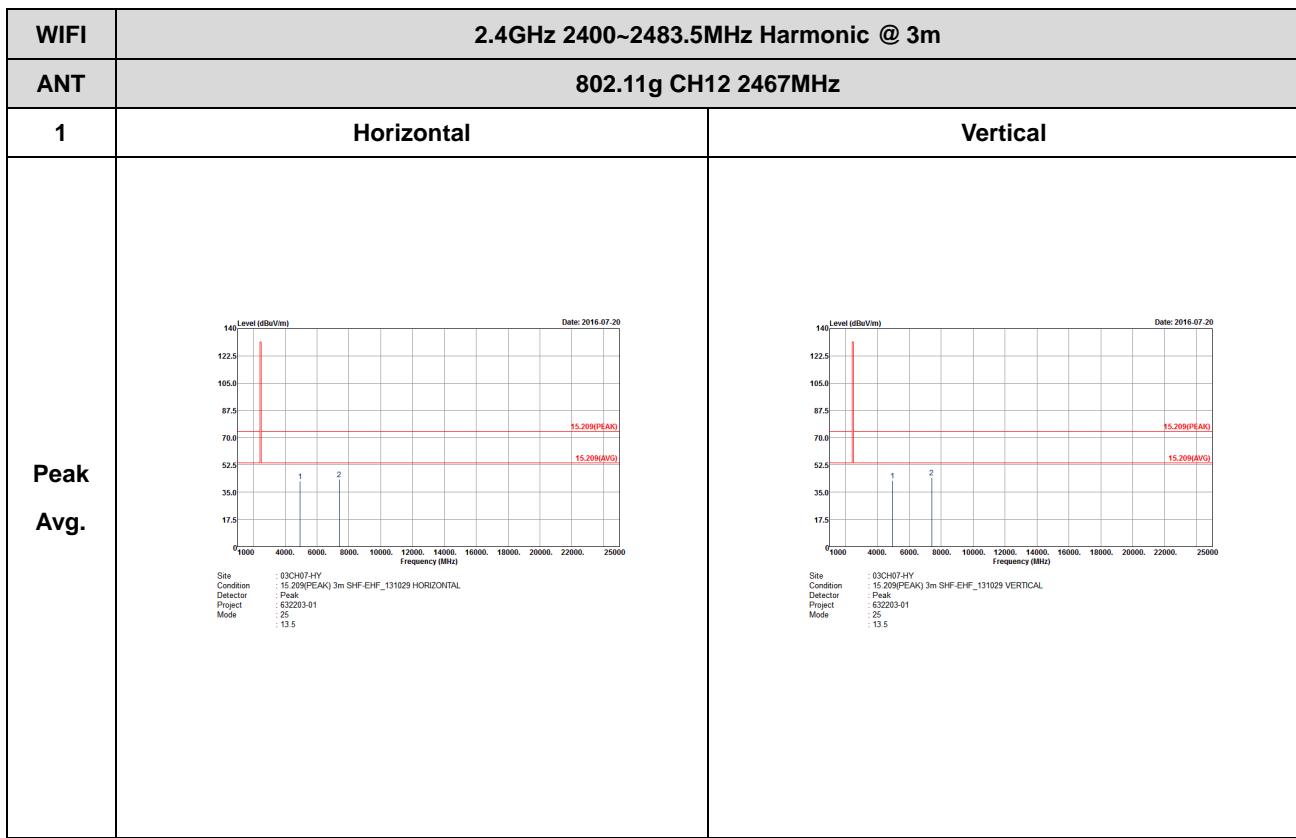
2.4GHz 2400~2483.5MHz

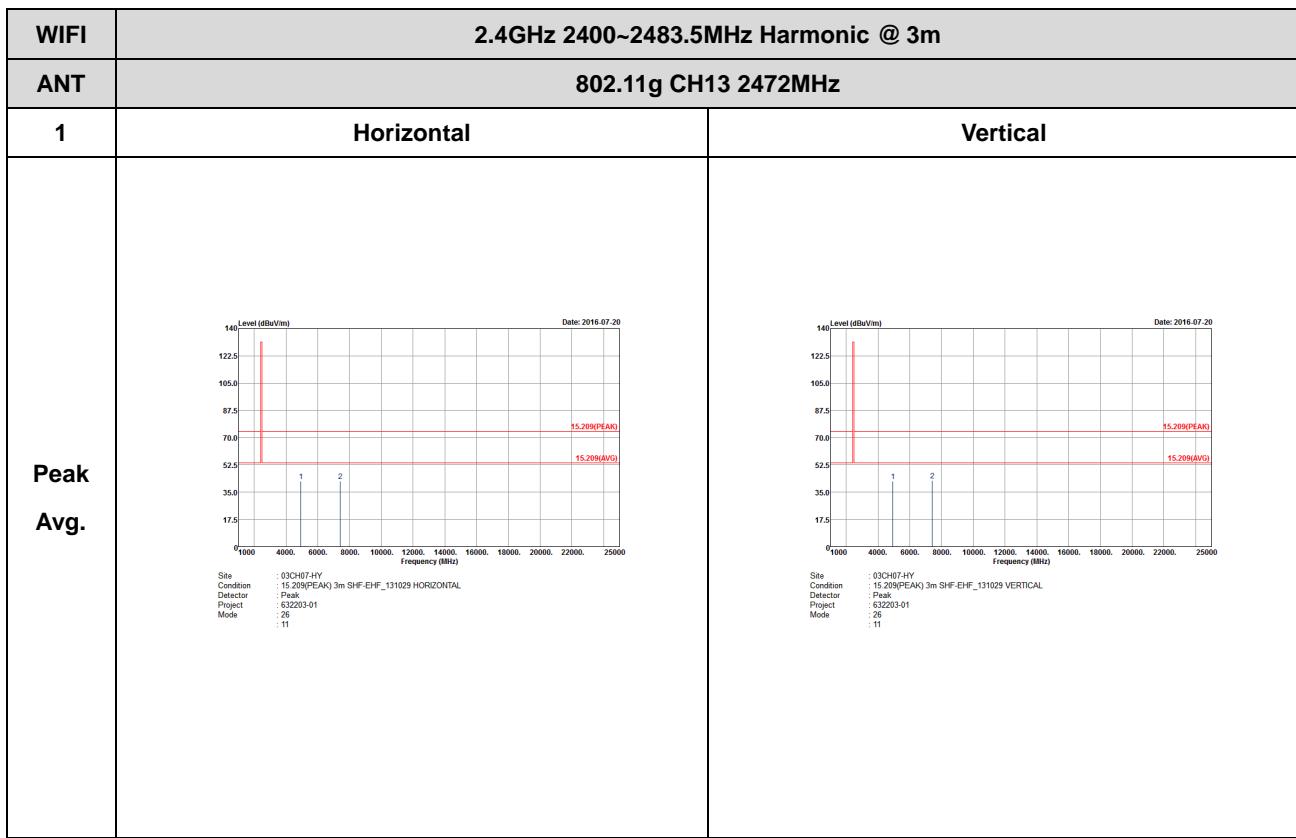
WIFI 802.11g (Harmonic @ 3m)







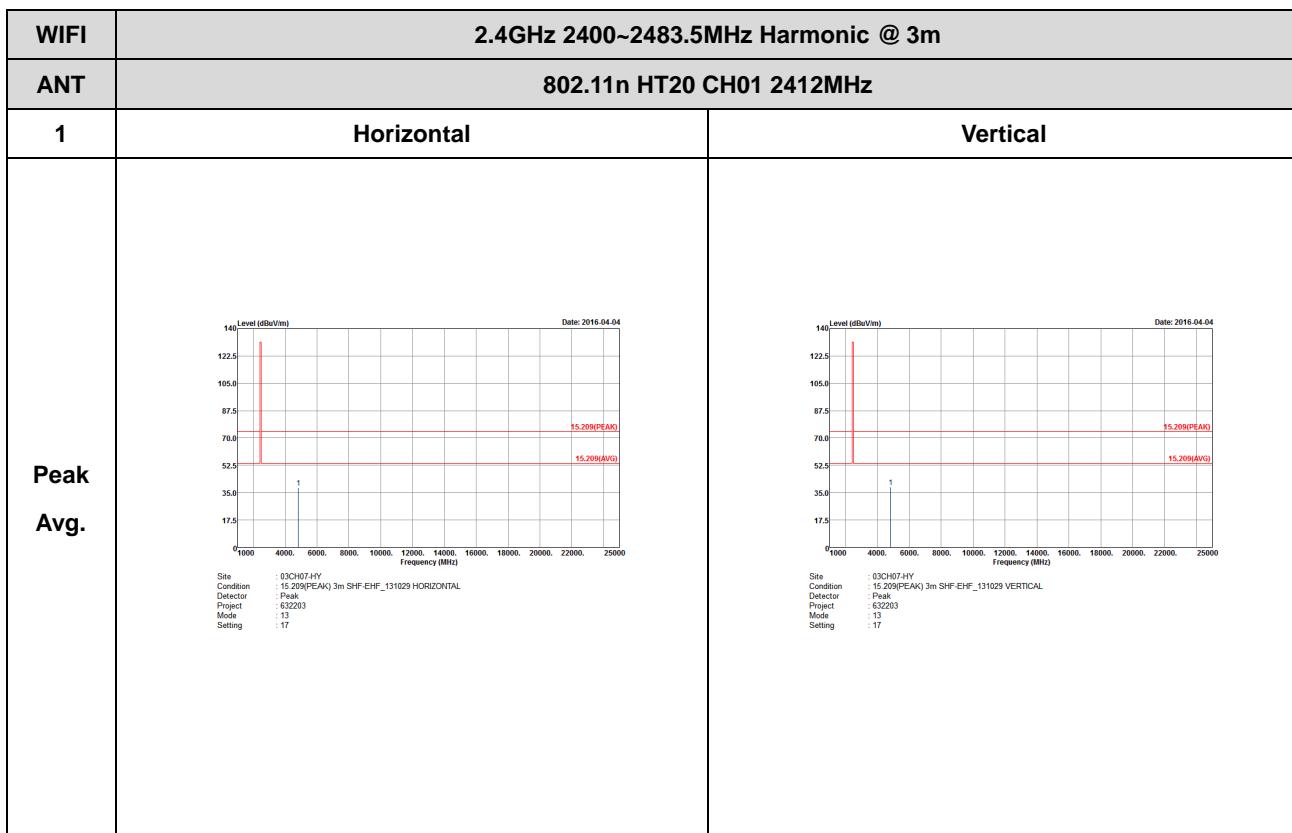


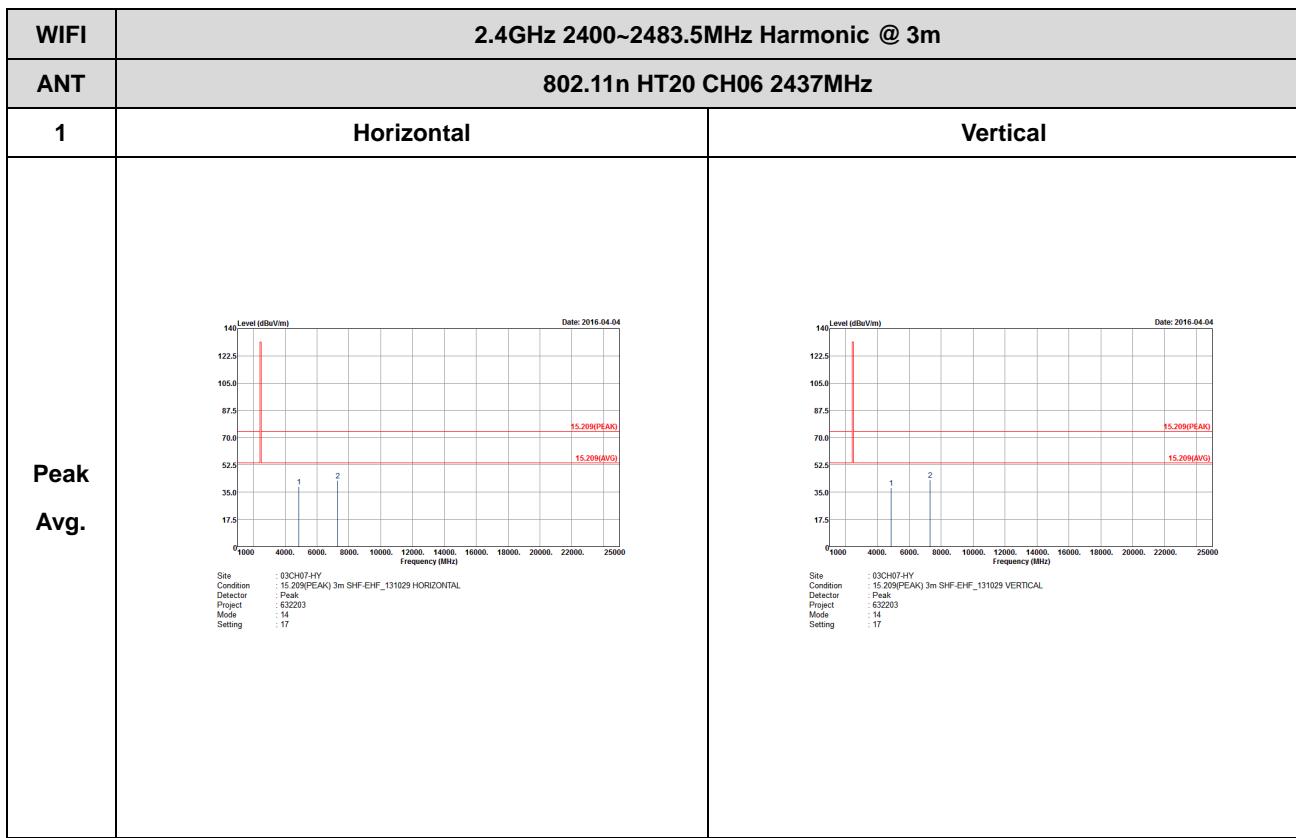


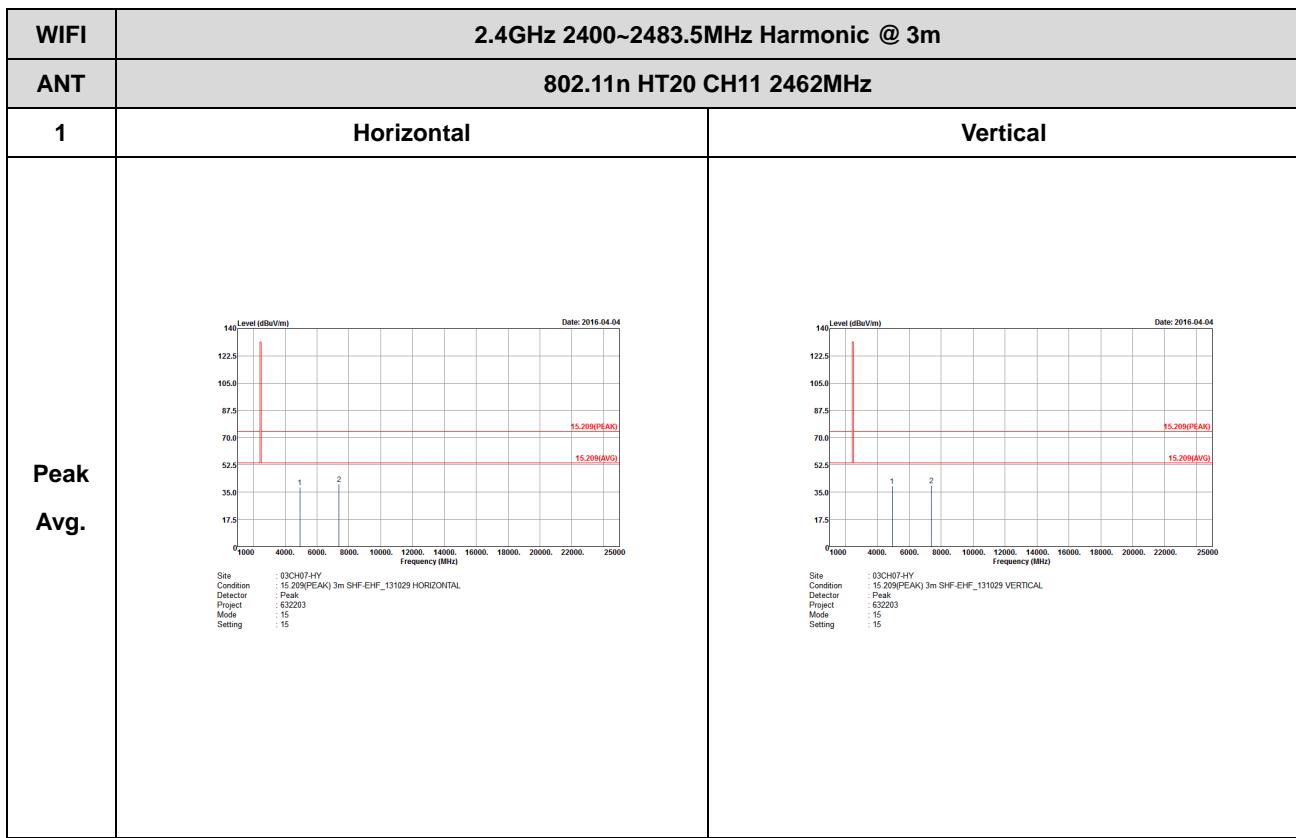


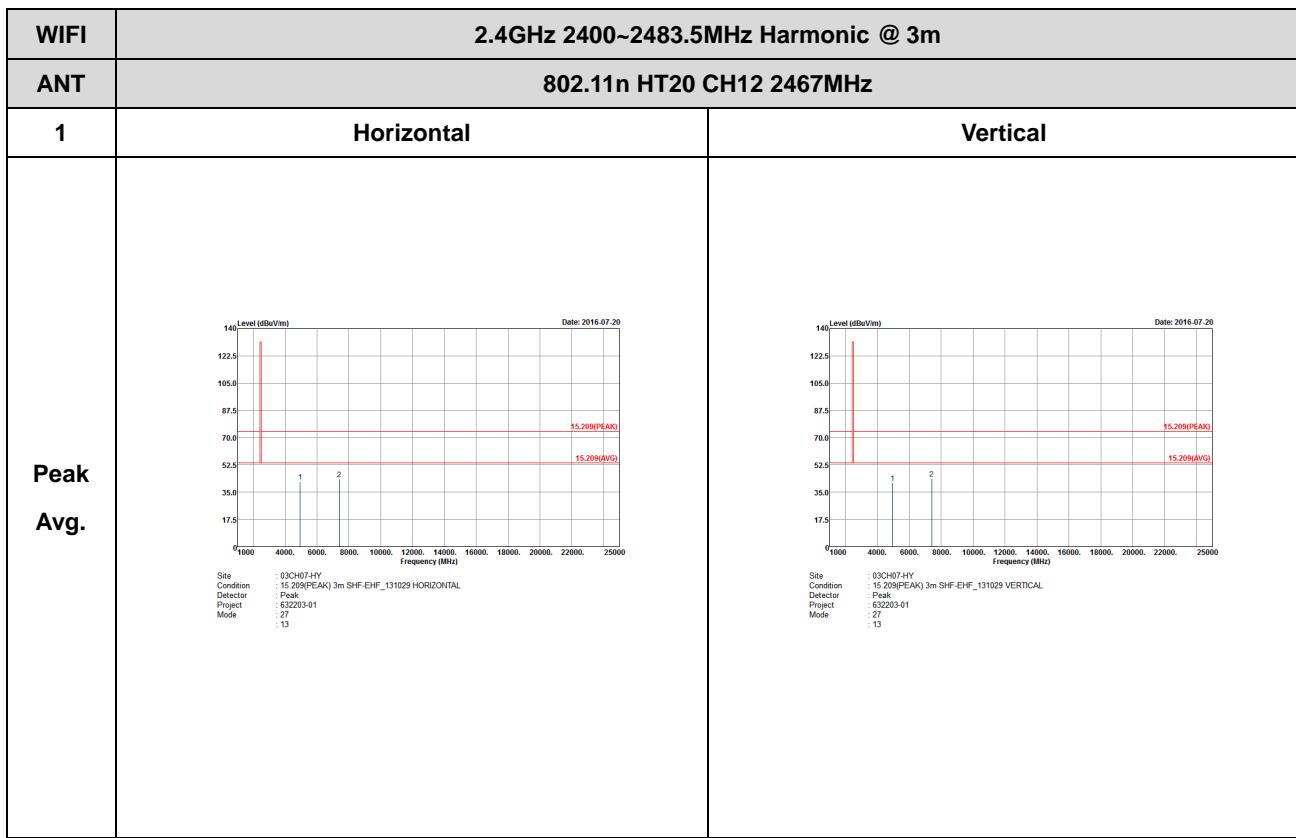
2.4GHz 2400~2483.5MHz

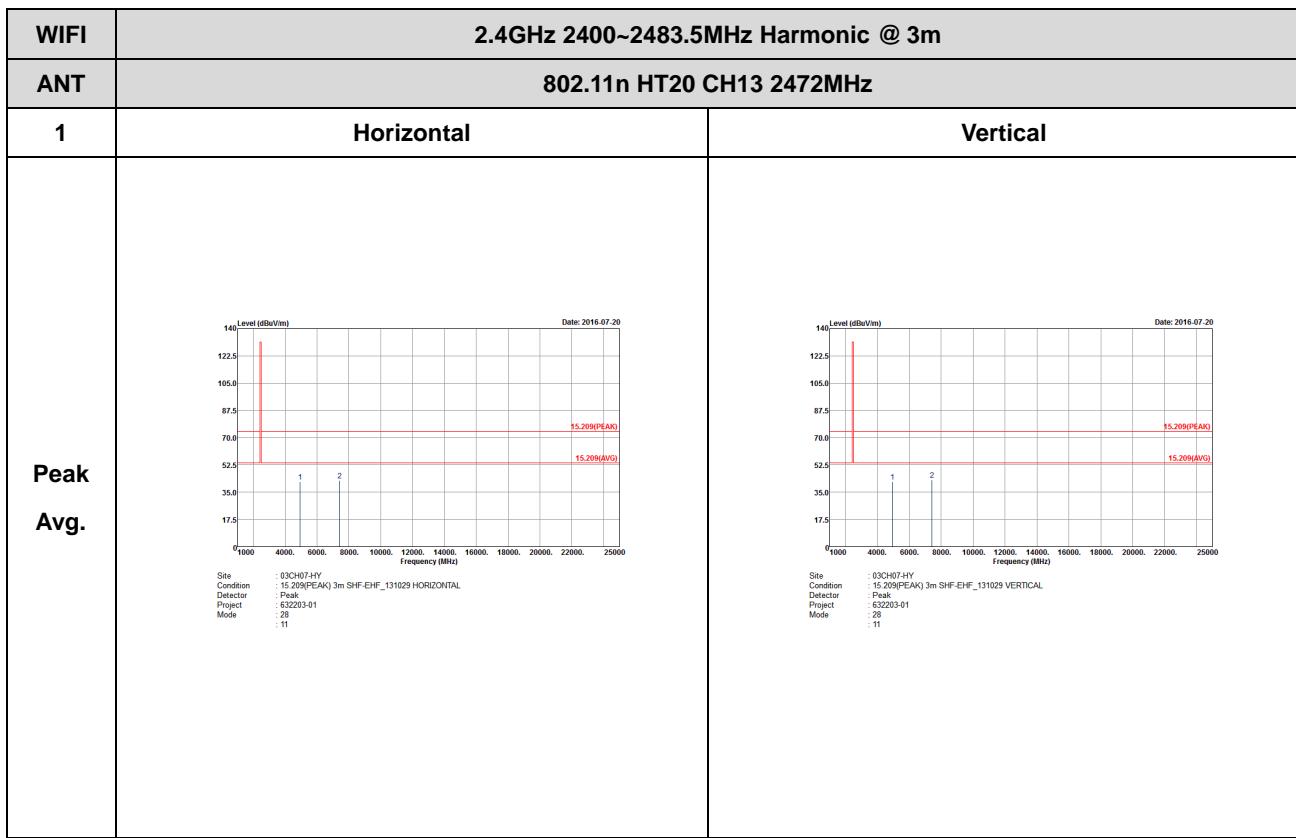
WIFI 802.11n HT20 (Harmonic @ 3m)

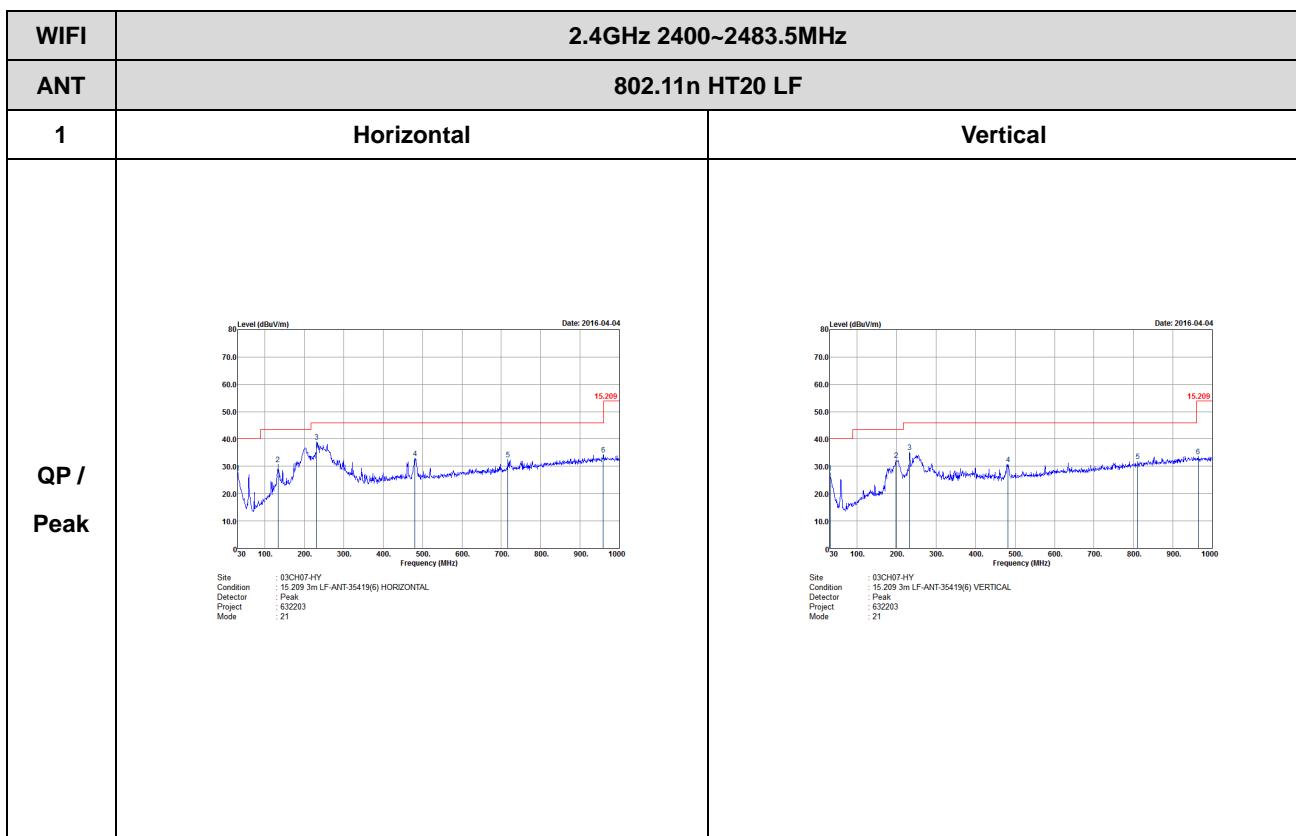










**2.4GHz 2400~2483.5MHz****Emission below 1GHz****2.4GHz WIFI 802.11n HT20 (LF)**

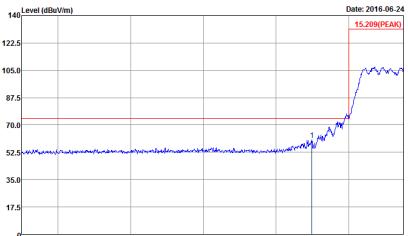
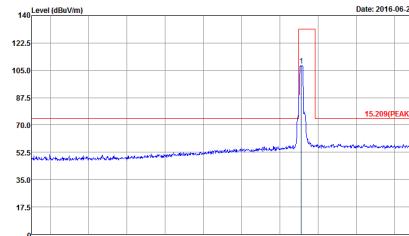
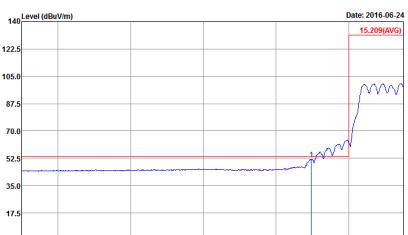
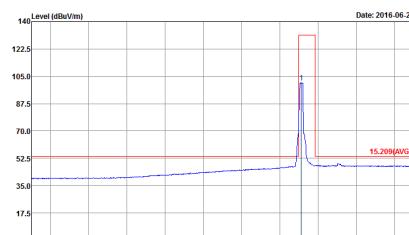


2.4GHz 2400~2483.5MHz

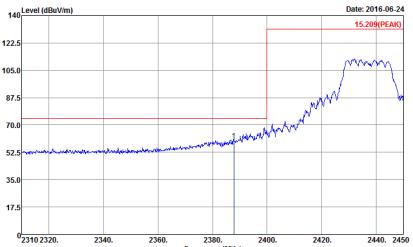
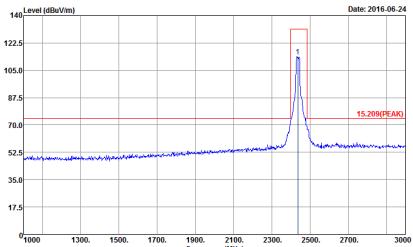
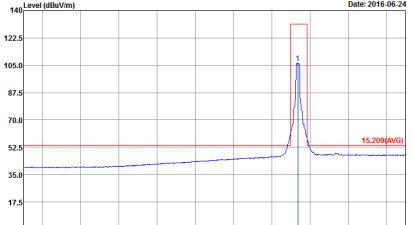
WIFI 802.11n HT20 (Band Edge and Fundamental @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SW:Auto Detector : Peak Project : 632203 Mode : 16 : 14	 Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SW:Auto Detector : Peak Project : 632203 Mode : 16 : 14
Avg.	 Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000kHz VBW:1.000kHz SW:Auto Detector : Peak Project : 632203 Mode : 16 : 14	 Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000kHz VBW:1.000kHz SW:Auto Detector : Peak Project : 632203 Mode : 16 : 14



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(PEAK)</p> <p>2310 2320 2340. 2360. 2380. 2400. 2415 Frequency (MHz)</p> <p>Site : 03CH074HY Condition : 15.209(PEAK) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 16 : 14</p>	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(PEAK)</p> <p>122.5 105.0 87.5 70.0 52.5 35.0 17.5 Level (dBuV/m)</p> <p>140 122.5 105.0 87.5 70.0 52.5 35.0 17.5</p> <p>1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 Frequency (MHz)</p> <p>Site : 03CH074HY Condition : 15.209(PEAK) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 16 : 14</p>
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(AVG)</p> <p>2310 2320 2340. 2360. 2380. 2400. 2415 Frequency (MHz)</p> <p>Site : 03CH074HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 16 : 14</p>	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>15.209(AVG)</p> <p>122.5 105.0 87.5 70.0 52.5 35.0 17.5 Level (dBuV/m)</p> <p>140 122.5 105.0 87.5 70.0 52.5 35.0 17.5</p> <p>1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 Frequency (MHz)</p> <p>Site : 03CH074HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 16 : 14</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector: Peak Project: 632203 Mode: 17	 Site: 03CH07-HY Condition: 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector: Peak Project: 632203 Mode: 17
Avg.	 Site: 03CH07-HY Condition: 15.209(Avg) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector: Peak Project: 632203 Mode: 17	 Site: 03CH07-HY Condition: 15.209(Avg) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector: Peak Project: 632203 Mode: 17

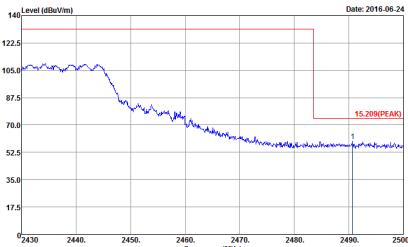


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak	 <p>Level (dBm/m) vs Frequency (MHz) plot. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m. A red step function highlights the band edge. A red box indicates a peak at 2483.5 MHz with a value of 15.209 (PEAK). Below the plot are test parameters:</p> <p>Site: 03CH07-HY Condition: 15.209(PEAK) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VSWR:3.000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 17</p>	Left blank
Avg.	 <p>Level (dBm/m) vs Frequency (MHz) plot. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 17.5 to 140 dBm/m. A red step function highlights the band edge. A red box indicates an average value of 15.209 (AVG) at 2483.5 MHz. Below the plot are test parameters:</p> <p>Site: 03CH07-HY Condition: 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VSWR:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 17</p>	Left blank

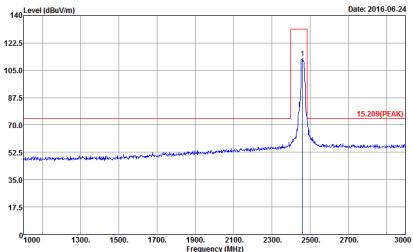
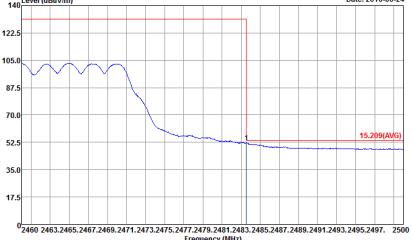
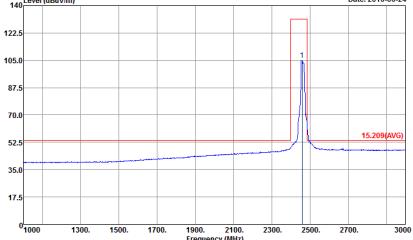


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak	<p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 17</p>	<p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 17</p>
Avg.	<p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 17</p>	<p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 17</p>

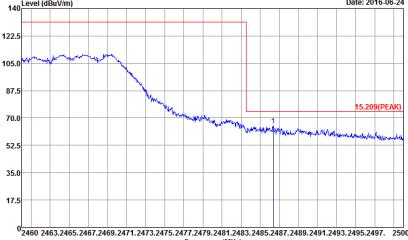
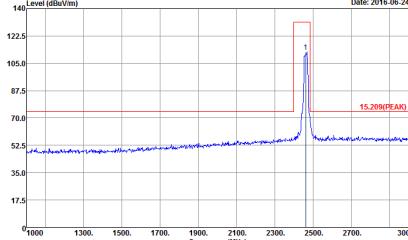
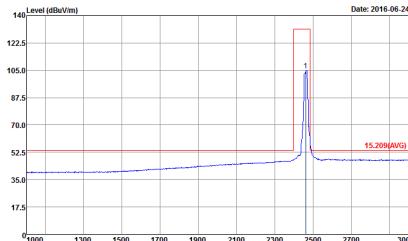


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>Frequency (MHz)</p> <p>Site Condition: 03CH07-HY 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 17</p>	Left Blank
Avg.	 <p>Level (dBuV/m)</p> <p>Date: 2016-06-24</p> <p>Frequency (MHz)</p> <p>Site Condition: 03CH07-HY 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector: Peak Project: 632203 Mode: 17</p>	Left Blank

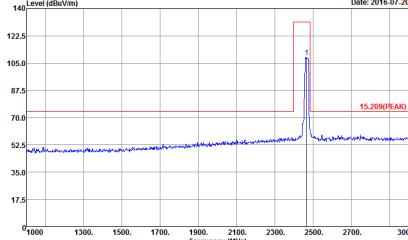
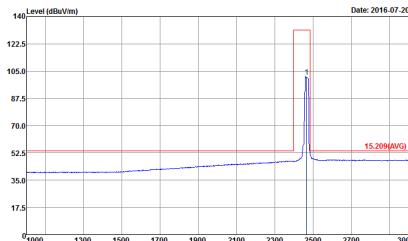


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>

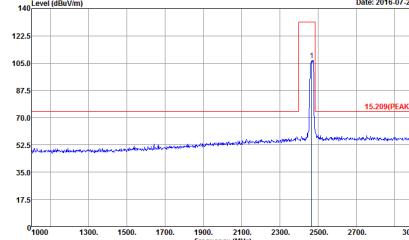


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 <p>Site : 03CH07HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>	 <p>Site : 03CH07HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>
Avg.	 <p>Site : 03CH07HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>	 <p>Site : 03CH07HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWF:Auto Detector : Peak Project : 632203 Mode : 18 : 15</p>

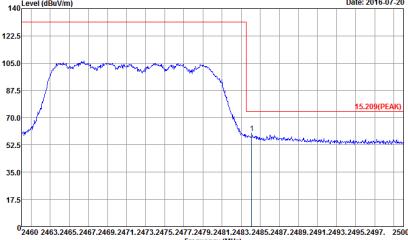
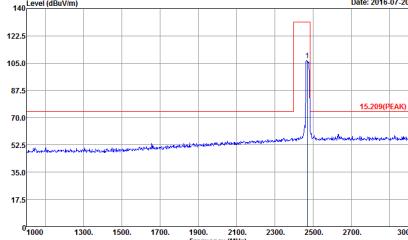
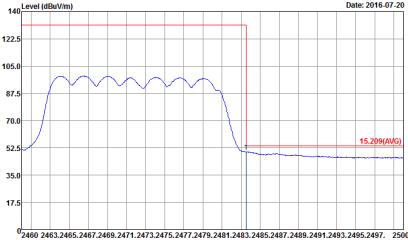
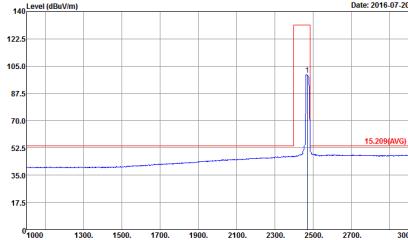


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000 000KHz VBW:3000 000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 29 12</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000 000KHz VBW:3000 000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 29 12</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000 000KHz VBW:1 000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 29 12</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000 000KHz VBW:1 000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 29 12</p>

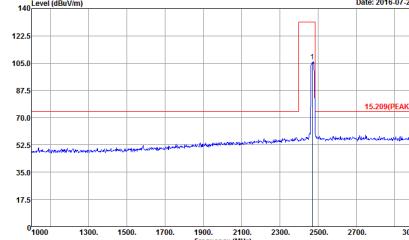


WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Vertical	Fundamental
Peak	 <p>Level (dBuV/m) vs Frequency (MHz) from 2460 to 2500. A red step function shows a peak at 15.209 dBm. The plot includes project details: Site: 03CH07-HY, Condition: 15.209(Peak), 3m HF-ANT_130829 VERTICAL, RBW:1000.000KHz VBW:3000.000KHz SWT:Auto, Detector: Peak, Project: 632203-01, Mode: 29, 12.</p>	 <p>Level (dBuV/m) vs Frequency (MHz) from 1600 to 3000. A red step function shows a peak at 15.209 dBm. The plot includes project details: Site: 03CH07-HY, Condition: 15.209(Peak), 3m HF-ANT_130829 VERTICAL, RBW:1000.000KHz VBW:3000.000KHz SWT:Auto, Detector: Peak, Project: 632203-01, Mode: 29, 12.</p>
Avg.	 <p>Level (dBuV/m) vs Frequency (MHz) from 2460 to 2500. A red step function shows a broad emission peaking at 15.209 dBm. The plot includes project details: Site: 03CH07-HY, Condition: 15.209(AVG), 3m HF-ANT_130829 VERTICAL, RBW:1000.000KHz VBW:1.000KHz SWT:Auto, Detector: Peak, Project: 632203-01, Mode: 29, 12.</p>	 <p>Level (dBuV/m) vs Frequency (MHz) from 1600 to 3000. A red step function shows a sharp peak at 15.209 dBm. The plot includes project details: Site: 03CH07-HY, Condition: 15.209(AVG), 3m HF-ANT_130829 VERTICAL, RBW:1000.000KHz VBW:1.000KHz SWT:Auto, Detector: Peak, Project: 632203-01, Mode: 29, 12.</p>



WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Horizontal	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000_000KHz VBW:3000_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 HORIZONTAL RBW:1000_000KHz VBW:3000_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000_000KHz VBW:1_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 HORIZONTAL RBW:1000_000KHz VBW:1_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>

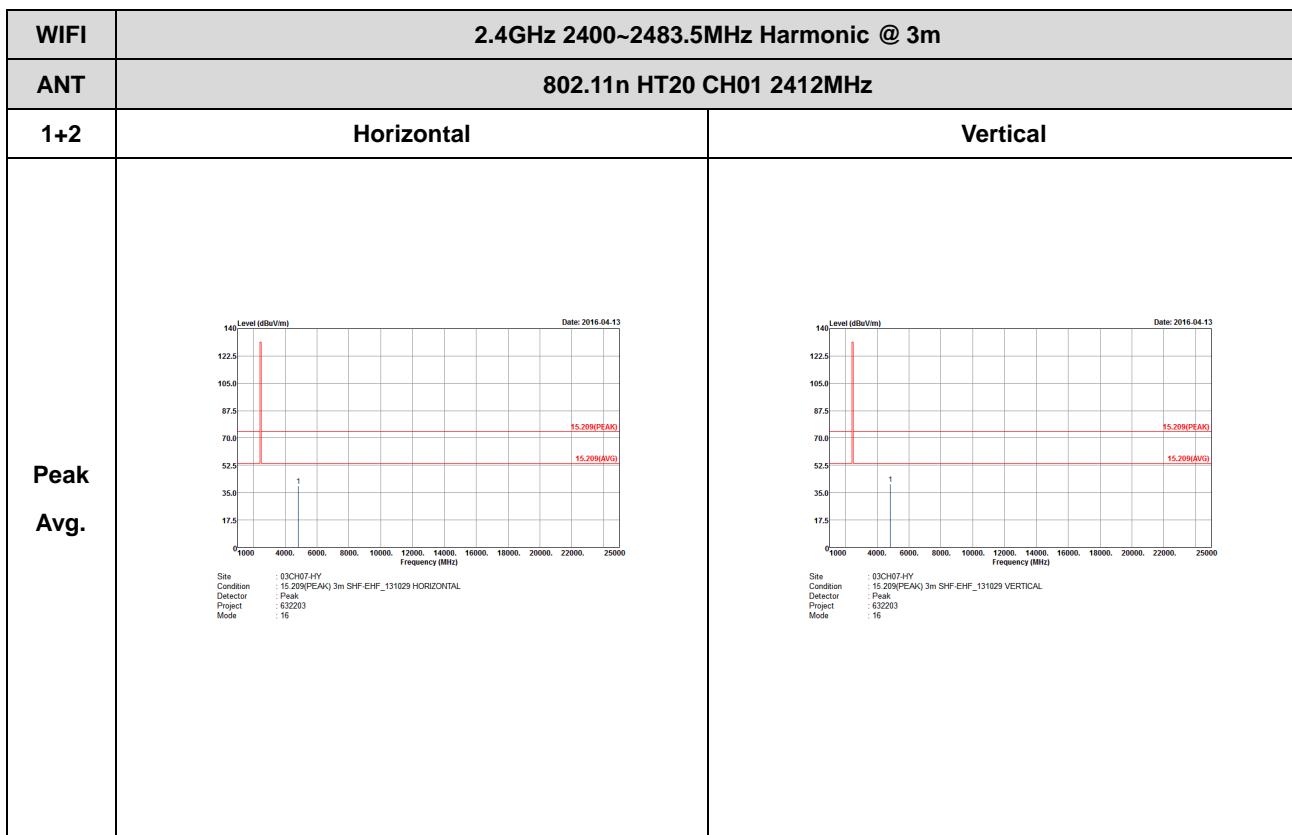


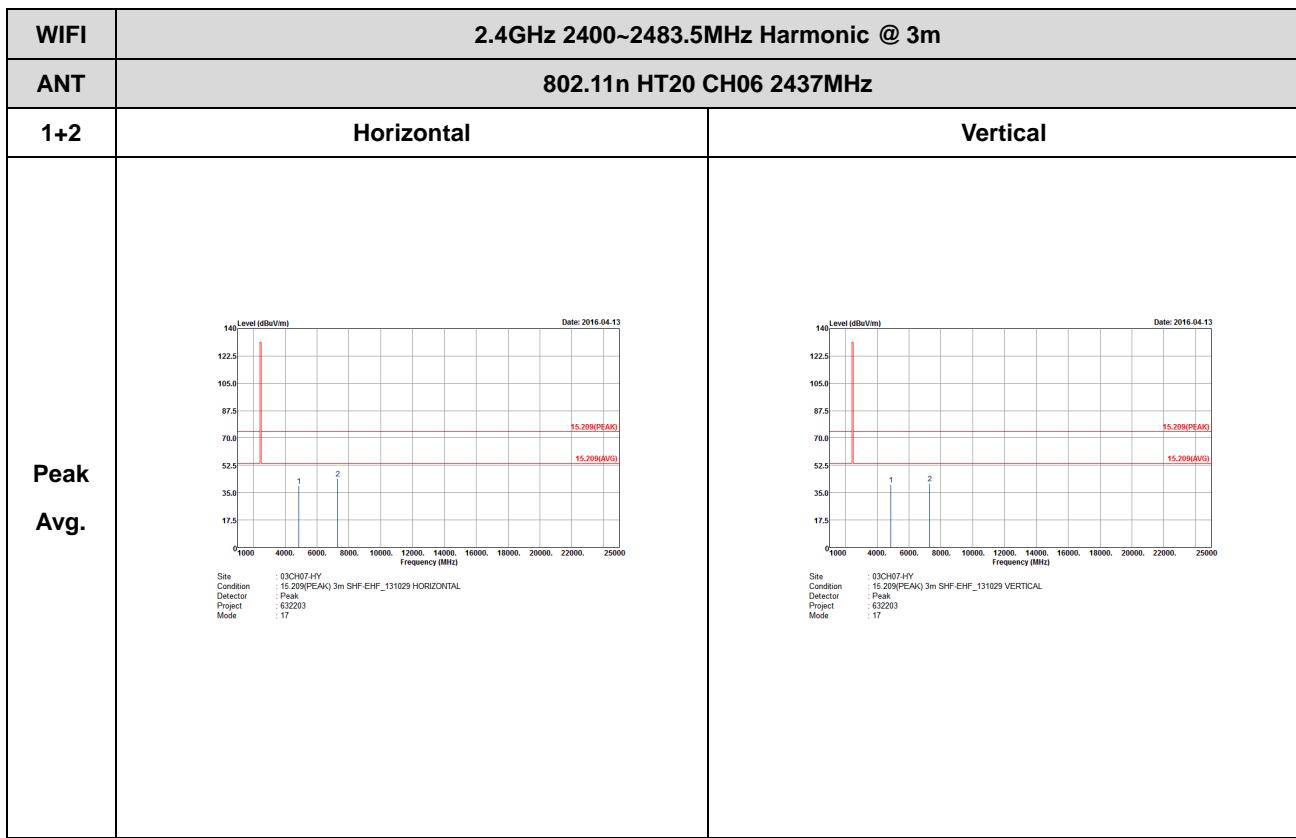
WIFI	2.4GHz 2400~2483.5MHz Band Edge and Fundamental @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1+2	Vertical	Fundamental
Peak	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000_000KHz VBW:3000_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>	 <p>Site : 03CH07-HY Condition : 15.209(Peak) 3m HF-ANT_130829 VERTICAL RBW:1000_000KHz VBW:3000_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>
Avg.	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000_000KHz VBW:1_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>	 <p>Site : 03CH07-HY Condition : 15.209(AVG) 3m HF-ANT_130829 VERTICAL RBW:1000_000KHz VBW:1_000KHz SWT:Auto Detector : Peak Project : 632203-01 Mode : 30 : 10</p>

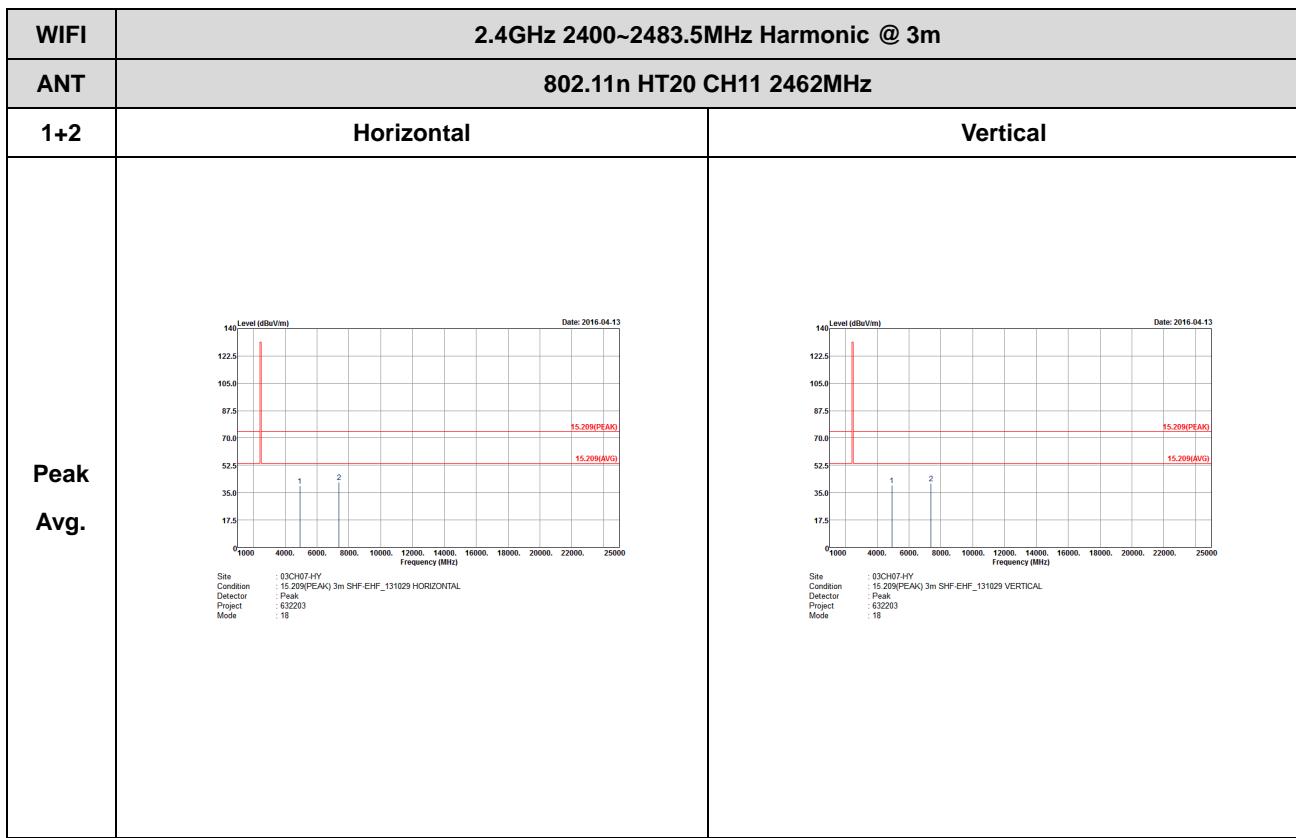


2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

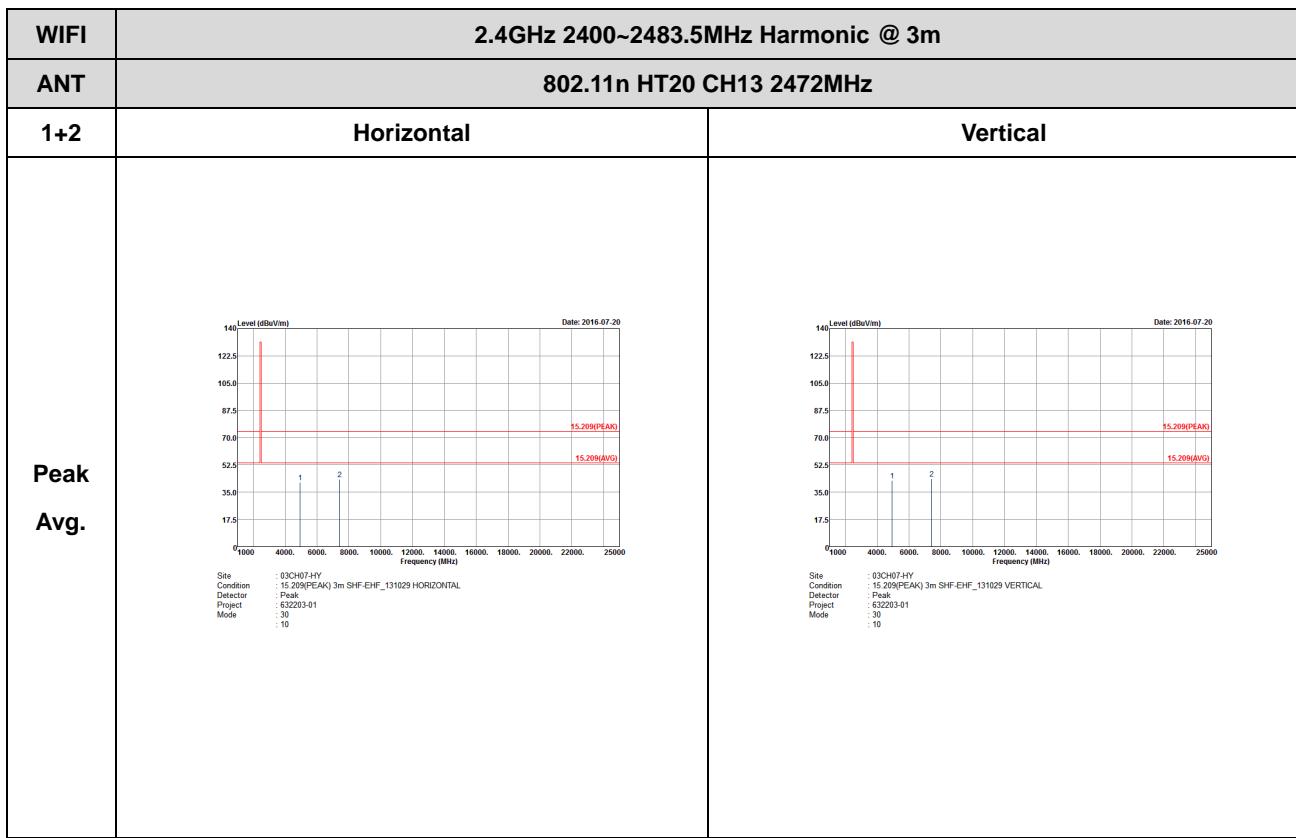








WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1+2	Horizontal	Vertical
Peak Avg.	<p>Level (dBuV/m) vs Frequency (MHz) plot. The y-axis ranges from 17.5 to 140 dBuV/m. The x-axis ranges from 1000 to 25000 MHz. A red vertical line marks the peak at 2.467 GHz with a value of 15.209(Peak). Two blue vertical lines mark the average levels at approximately 3.5 GHz and 7.5 GHz, both labeled 15.209(Avg). The plot is dated 2016-07-20. Site information: 03CH07-HY, Condition: 15.209(Peak), 3m SHF-EHF_131029 HORIZONTAL, Detector: Peak, Project: 632203-01, Mode: 29, 12.</p>	<p>Level (dBuV/m) vs Frequency (MHz) plot. The y-axis ranges from 17.5 to 140 dBuV/m. The x-axis ranges from 1000 to 25000 MHz. A red vertical line marks the peak at 2.467 GHz with a value of 15.209(Peak). Two blue vertical lines mark the average levels at approximately 3.5 GHz and 7.5 GHz, both labeled 15.209(Avg). The plot is dated 2016-07-20. Site information: 03CH07-HY, Condition: 15.209(Peak), 3m SHF-EHF_131029 VERTICAL, Detector: Peak, Project: 632203-01, Mode: 29, 12.</p>

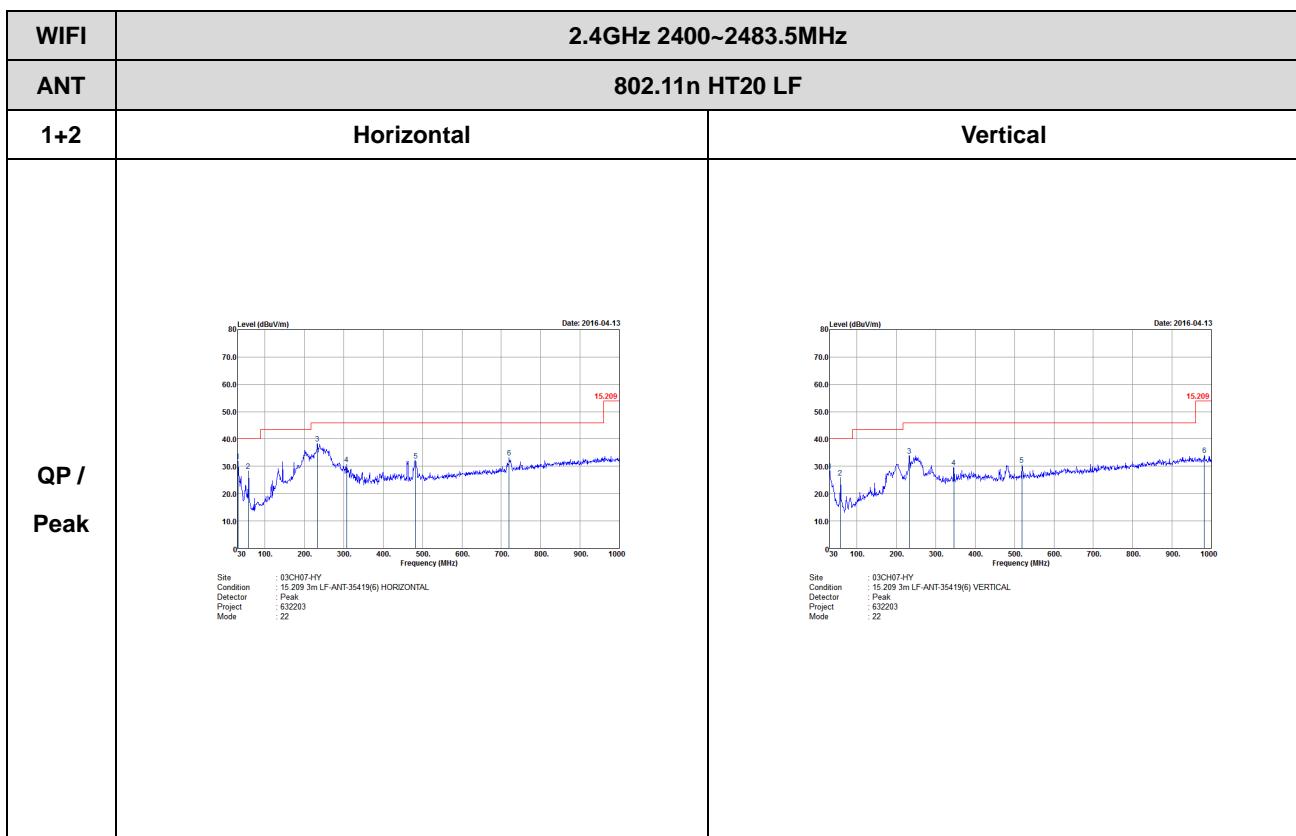




2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

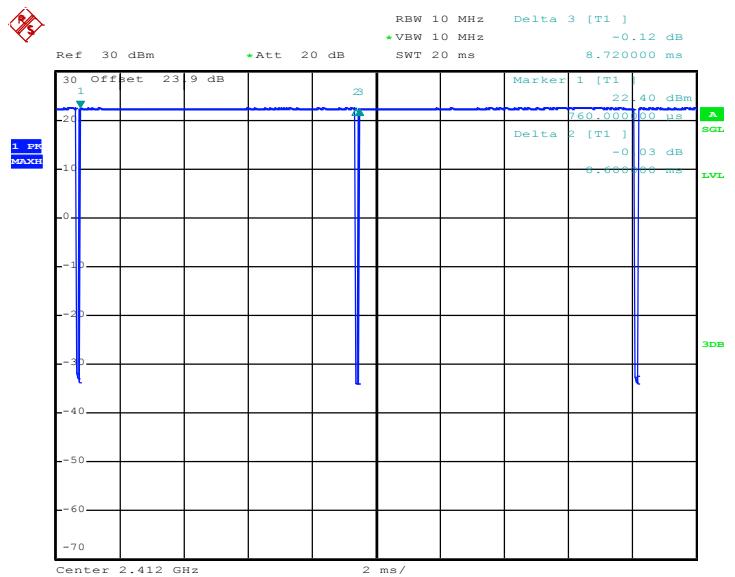


Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11b	98.62	-	-	10Hz
1	802.11g	93.42	1420	0.70	1kHz
1	2.4GHz 802.11n HT20	98.62	1340	0.75	1kHz
1+2	2.4GHz 802.11n HT20 for Ant 1	93.06	1340	0.75	1kHz
1+2	2.4GHz 802.11n HT20 for Ant 2	92.41	1340	0.75	1kHz

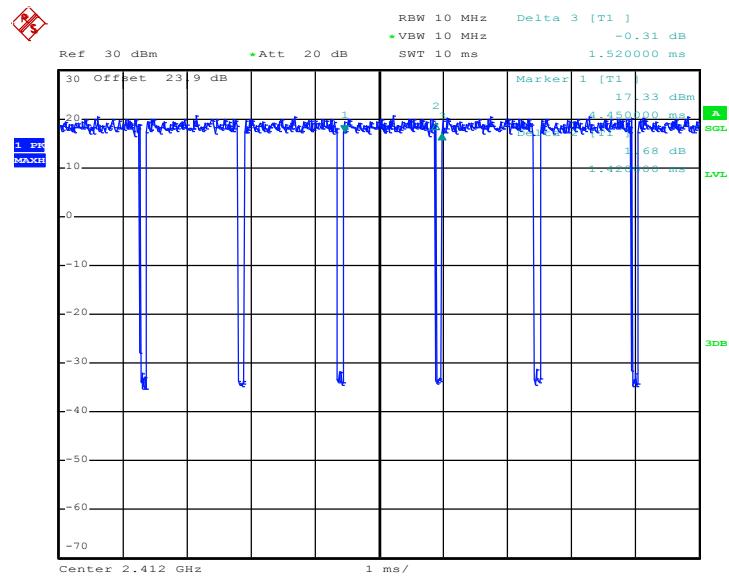
SISO <Ant. 1>

802.11b



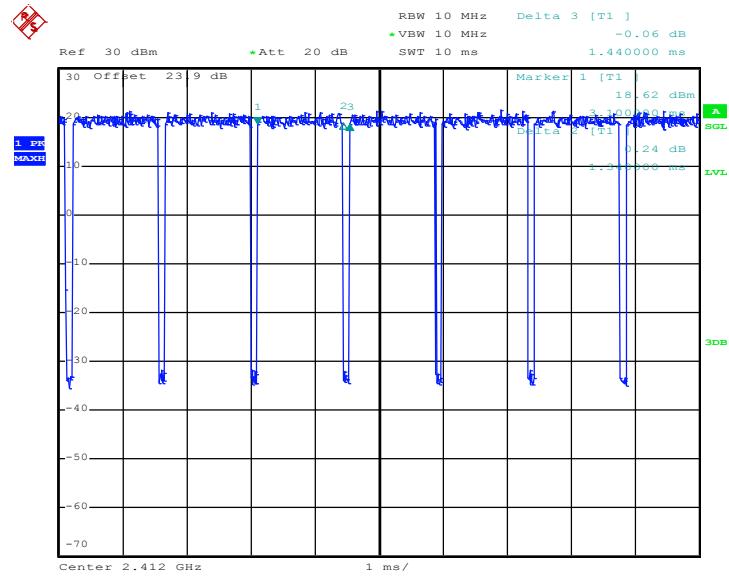


802.11g



Date: 28.MAR.2016 23:56:05

802.11n HT20

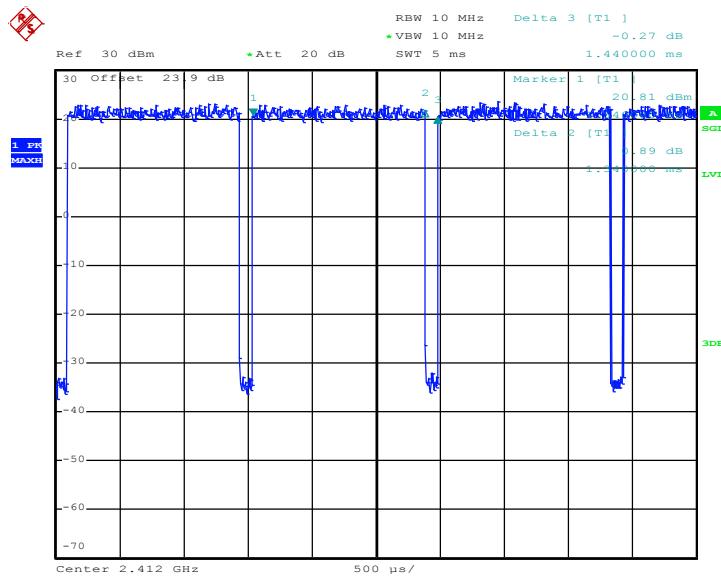


Date: 29.MAR.2016 00:00:24



MIMO <Ant. 1+2(1)>

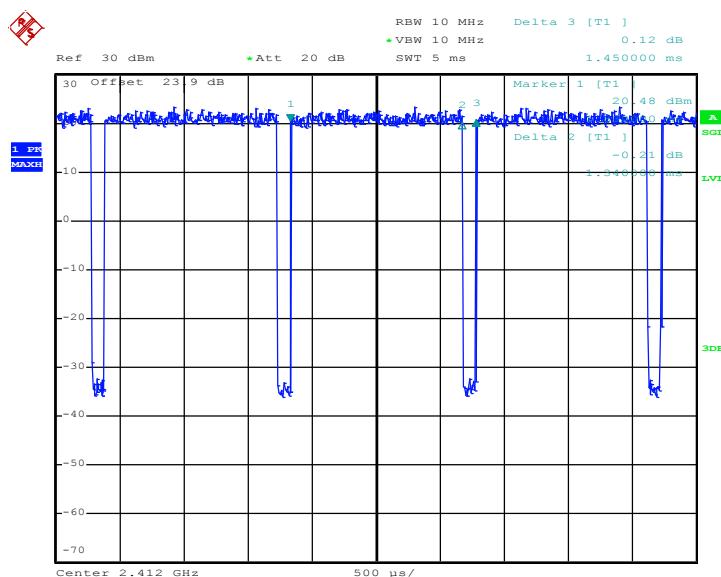
802.11n HT20



Date: 29.MAR.2016 00:07:41

MIMO <Ant. 1+2(2)>

802.11n HT20



Date: 29.MAR.2016 00:08:29