

FCC RF Test Report

APPLICANT : Getac Technology Corporation.
EQUIPMENT : WLAN module
BRAND NAME : Getac
MODEL NAME : 8265NGW
FCC ID : QYL8265NG
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

This is a partial report. The product was received on Dec. 13, 2017 and testing was completed on Jan. 02, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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



Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR391803-34C	Rev. 01	Initial issue of report	Feb. 12, 2018



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(b)	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
3.2	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.83 dB at 311.900 MHz
3.3	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-
Remark: Except Radiated Band Edges and Spurious Emission is carrying out, FR391803-34C report reuses test data from the FR391803-21C report.					



1 General Description

1.1 Applicant

Getac Technology Corporation.

5F., Building A, No. 209, Sec.1, Nangang Rd.,Nangang Dist., Taipei City 11568, Taiwan, R.O.C.

1.2 Product Feature of Equipment Under Test

WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, NFC, GNSS and Digitizer.

Product Specification subjective to this standard	
Antenna Type	WWAN:PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS : PATCH Antenna NFC: Loop Antenna Digitizer: Loop Antenna



The product was installed into Tablet (Brand Name: Getac, Model Name: RC11) during test, and all tests were performed with Sample 1.

Sample 1	Tablet with SKU A
Sample 2	Tablet with SKU B

SKU Table		
RC11 SKU		
	SKU A	SKU B
CPU	i3-7100U	i3-7100U
DDR	8G	8G
SSD	64GB	256GB
Panel	AUO HD B116XAN05.0	AUO HD B116XAN05.0
Digitizer	Getac	Not Support
Option Bay	BCR	NA(MSR)
Expansion Bay	RFID	NA
WLAN/BT	Support	Support
WWAN	Support	Support
GPS	Support	Support
Webcam FHD	Support	Support
IR Webcam	Support	Support
RFID	Support	Not Support

1.3 Modification of EUT

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

1.4 Testing Location

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

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

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No.
	03CH11-HY

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

1.5 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark:

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

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated:, radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane for Ant. 1, Y plane for Ant. 2 and MIMO) were recorded in this report.

2.1 Carrier Frequency and Channel

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

2.2 Test Mode

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

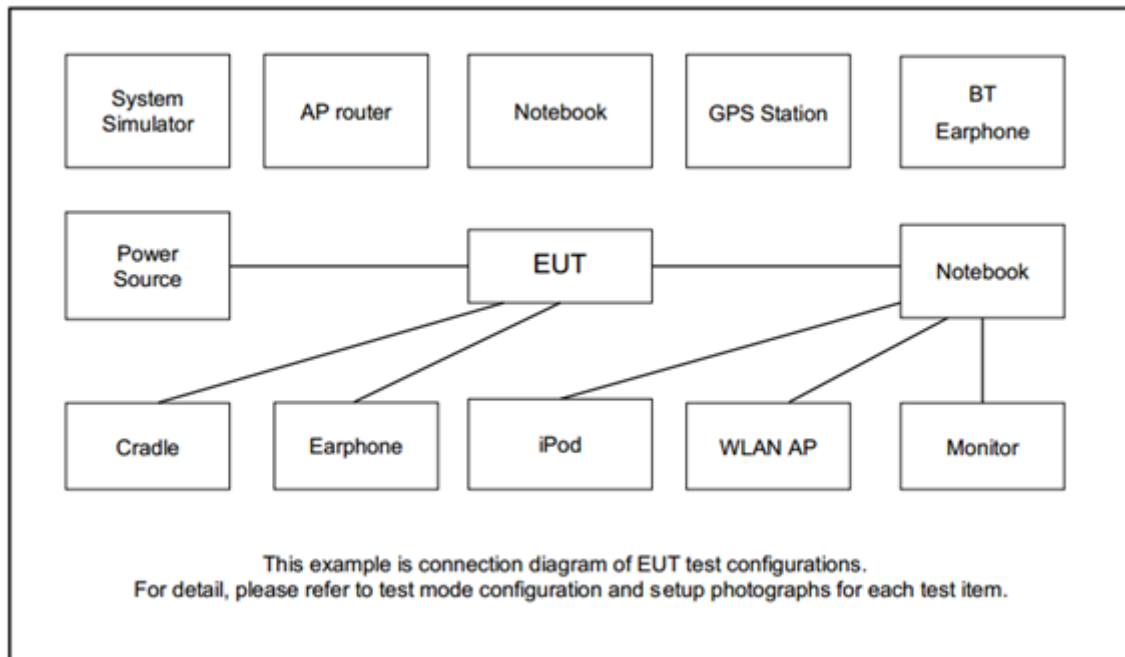
Single Antenna

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps

MIMO Antenna

Modulation	Data Rate
802.11n HT20	MCS0

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

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

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

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

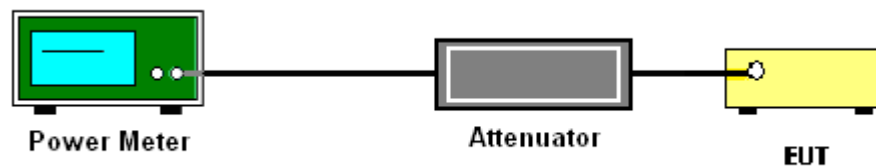
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v04 section 9.1.3 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.

3.1.4 Test Setup



3.1.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.1.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A.

3.2 Radiated Band Edges and Spurious Emission Measurement

3.2.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

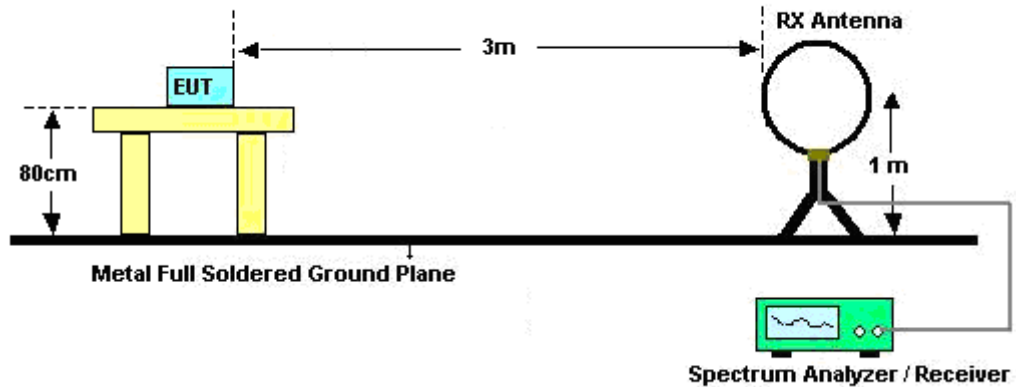
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.

For average measurement:

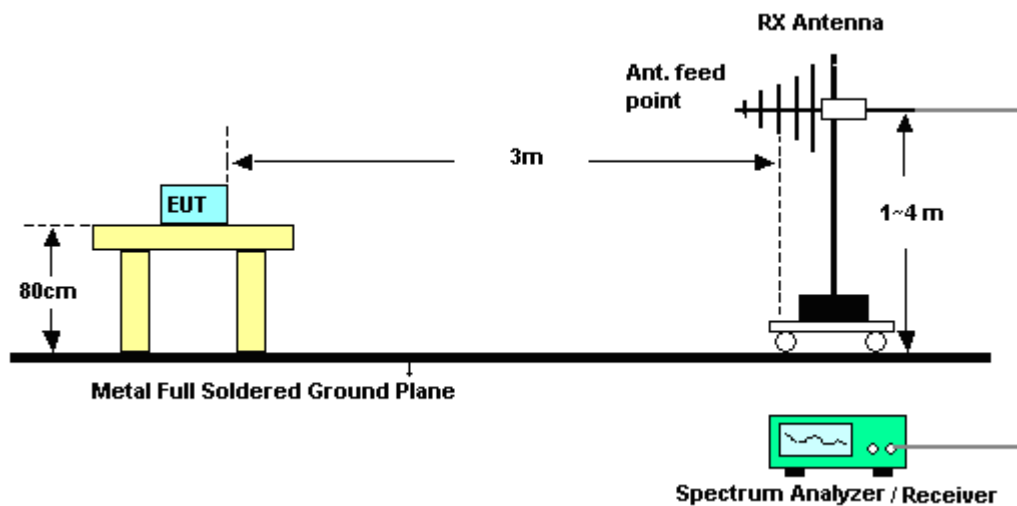
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.2.4 Test Setup

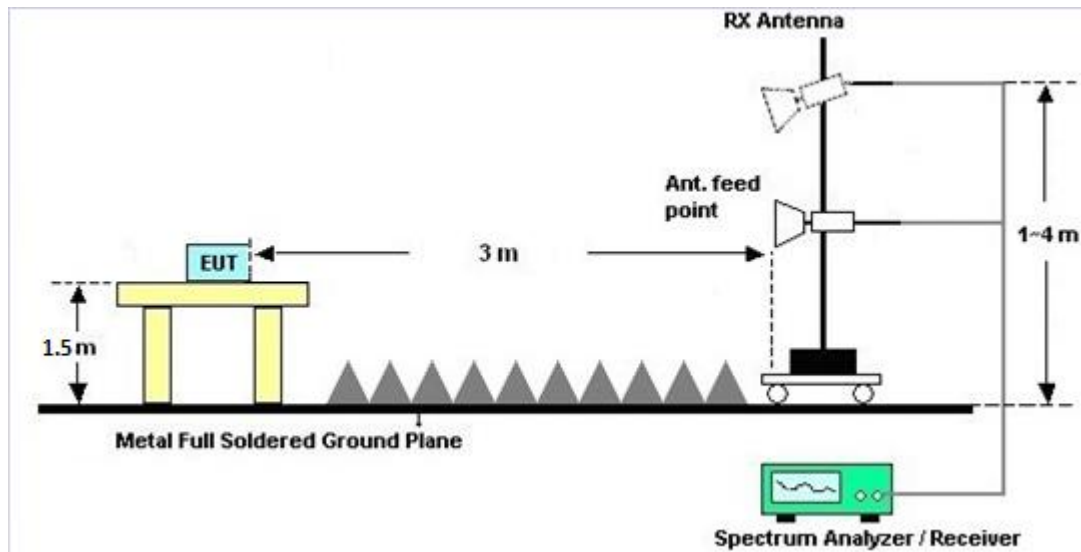
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.2.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.2.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

3.3 Antenna Requirements

3.3.1 Standard Applicable

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

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

The directional gain "DG" is calculated as following table.

<CDD Modes>						
			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Ant. 1 (dBi)	Ant. 2 (dBi)					
2.4 GHz	2.96	1.83	2.96	5.42	0.00	0.00

$\text{Power Limit Reduction} = DG(\text{Power}) - 6\text{dBi}, (\text{min} = 0)$

$\text{PSD Limit Reduction} = DG(\text{PSD}) - 6\text{dBi}, (\text{min} = 0)$



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1240001	N/A	Aug. 04, 2016	Jun. 13, 2017~ Jun. 15, 2017	Aug. 03, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Aug. 04, 2016	Jun. 13, 2017~ Jun. 15, 2017	Aug. 03, 2017	Conducted (TH05-HY)
AC Power Source	AC POWER	AFC-500W	F10407001 1	50Hz~60Hz	Dec. 01, 2016	Jun. 13, 2017~ Jun. 15, 2017	Nov. 30, 2018	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Dec. 28, 2017~ Jan. 02, 2018	Nov. 22, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-0 6	35414&AT- N0602	30MHz~1GHz	Oct. 14, 2017	Dec. 28, 2017~ Jan. 02, 2018	Oct. 13, 2018	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-132 6	1GHz ~ 18GHz	Oct. 16, 2017	Dec. 28, 2017~ Jan. 02, 2018	Oct. 15, 2018	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 584	18GHz- 40GHz	Nov. 27, 2017	Dec. 28, 2017~ Jan. 02, 2018	Nov. 26, 2018	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Dec. 28, 2017~ Jan. 02, 2018	Nov. 09, 2018	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03	171000180 0054001	1GHz~18GHz	Dec. 07, 2017	Dec. 28, 2017~ Jan. 02, 2018	Dec. 06, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY532700 80	1GHz~26.5GHz	Nov. 10, 2016	Dec. 28, 2017~ Jan. 02, 2018	Nov. 09, 2018	Radiation (03CH11-HY)
Amplifier	MITEQ	TTA1840-35- HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Dec. 28, 2017~ Jan. 02, 2018	Jul. 17, 2018	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY542004 86	10Hz ~ 44GHz	Oct. 19, 2017	Dec. 28, 2017~ Jan. 02, 2018	Oct. 18, 2018	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500- B	N/A	1~4m	N/A	Dec. 28, 2017~ Jan. 02, 2018	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Dec. 28, 2017~ Jan. 02, 2018	N/A	Radiation (03CH11-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.50
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	White lin	Temperature:	21~25	°C
Test Date:	2017/6/13 ~ 2017/6/15	Relative Humidity:	51~54	%

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	17.57	17.88		30.00	30.00	2.96	1.83	20.53	19.71	36.00	36.00	Pass
11b	1Mbps	1	6	2437	17.54	17.74		30.00	30.00	2.96	1.83	20.50	19.57	36.00	36.00	Pass
11b	1Mbps	1	11	2462	17.67	17.78		30.00	30.00	2.96	1.83	20.63	19.61	36.00	36.00	Pass
11g	6Mbps	1	1	2412	20.01	20.17		30.00	30.00	2.96	1.83	22.97	22.00	36.00	36.00	Pass
11g	6Mbps	1	6	2437	20.04	20.22		30.00	30.00	2.96	1.83	23.00	22.05	36.00	36.00	Pass
11g	6Mbps	1	11	2462	19.96	20.24		30.00	30.00	2.96	1.83	22.92	22.07	36.00	36.00	Pass
HT20	MCS0	1	1	2412	20.29	20.22		30.00	30.00	2.96	1.83	23.25	22.05	36.00	36.00	Pass
HT20	MCS0	1	6	2437	20.20	20.42		30.00	30.00	2.96	1.83	23.16	22.25	36.00	36.00	Pass
HT20	MCS0	1	11	2462	20.31	20.35		30.00	30.00	2.96	1.83	23.27	22.18	36.00	36.00	Pass
HT40	MCS0	1	3	2422	19.36	19.24		30.00	30.00	2.96	1.83	22.32	21.07	36.00	36.00	Pass
HT40	MCS0	1	6	2437	19.27	19.31		30.00	30.00	2.96	1.83	22.23	21.14	36.00	36.00	Pass
HT40	MCS0	1	9	2452	19.24	19.33		30.00	30.00	2.96	1.83	22.20	21.16	36.00	36.00	Pass
HT20	MCS0	2	1	2412	17.54	16.78	20.19	30.00		2.96		23.15		36.00		Pass
HT20	MCS0	2	6	2437	17.46	16.54	20.03	30.00		2.96		22.99		36.00		Pass
HT20	MCS0	2	11	2462	16.83	16.44	19.65	30.00		2.96		22.61		36.00		Pass
HT40	MCS0	2	3	2422	15.72	15.04	18.40	30.00		2.96		21.36		36.00		Pass
HT40	MCS0	2	6	2437	15.70	15.14	18.44	30.00		2.96		21.40		36.00		Pass
HT40	MCS0	2	9	2452	15.69	15.11	18.42	30.00		2.96		21.38		36.00		Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
11b	1Mbps	1	1	2412	0.04	0.05	14.87	14.97	
11b	1Mbps	1	6	2437	0.04	0.05	14.83	14.96	
11b	1Mbps	1	11	2462	0.04	0.05	14.86	14.78	
11g	6Mbps	1	1	2412	0.08	0.08	14.91	14.91	
11g	6Mbps	1	6	2437	0.08	0.08	14.87	14.89	
11g	6Mbps	1	11	2462	0.08	0.08	14.73	14.93	
HT20	MCS0	1	1	2412	0.09	0.07	14.82	14.91	
HT20	MCS0	1	6	2437	0.09	0.07	14.88	14.98	
HT20	MCS0	1	11	2462	0.09	0.07	14.97	14.92	
HT40	MCS0	1	3	2422	0.14	0.14	14.90	14.90	
HT40	MCS0	1	6	2437	0.14	0.14	14.98	14.83	
HT40	MCS0	1	9	2452	0.14	0.14	14.89	14.86	
HT20	MCS0	2	1	2412	0.18	0.16	12.28	11.54	14.94
HT20	MCS0	2	6	2437	0.18	0.16	12.22	11.25	14.77
HT20	MCS0	2	11	2462	0.18	0.16	11.80	11.25	14.54
HT40	MCS0	2	3	2422	0.34	0.34	12.11	11.35	14.76
HT40	MCS0	2	6	2437	0.34	0.34	12.04	11.41	14.75
HT40	MCS0	2	9	2452	0.34	0.34	12.00	11.36	14.70

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



Appendix B. Radiated Spurious Emission

Test Engineer :	Hao Hsu, Jacky Hung, and Ken Wu	Temperature :	25~27°C
		Relative Humidity :	53~58%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 06 2437MHz		2375.44	52.14	-21.86	74	42.43	27.09	6.29	33.6	103	4	P	H
		2372.56	42.05	-11.95	54	32.34	27.09	6.29	33.6	103	4	A	H
	*	2437	104.11	-	-	94.12	27.27	6.38	33.59	103	4	P	H
	*	2437	100.64	-	-	90.65	27.27	6.38	33.59	103	4	A	H
		2496.96	53.24	-20.76	74	43.09	27.4	6.39	33.57	103	4	P	H
		2488	43.87	-10.13	54	33.73	27.4	6.39	33.58	103	4	A	H
		2377.68	52.45	-21.55	74	42.74	27.09	6.29	33.6	367	330	P	V
		2386.96	41.28	-12.72	54	31.46	27.13	6.36	33.6	367	330	A	V
	*	2437	102.71	-	-	92.72	27.27	6.38	33.59	367	330	P	V
	*	2437	99.5	-	-	89.51	27.27	6.38	33.59	367	330	A	V
		2490.96	52.43	-21.57	74	42.29	27.4	6.39	33.58	367	330	P	V
		2485.6	43.84	-10.16	54	33.74	27.36	6.39	33.58	367	330	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**2.4GHz 2400~2483.5MHz****WIFI 802.11b (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 06 2437MHz		4874	38.87	-35.13	74	56.02	31.38	9.56	58.52	100	0	P	H
		7311	46.37	-27.63	74	57.27	36.28	11.31	58.95	100	0	P	H
													H
													H
		4874	42.89	-31.11	74	60.04	31.38	9.56	58.52	100	0	P	V
		7311	46.2	-27.8	74	57.1	36.28	11.31	58.95	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 802.11b (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11b LF		48.36	20.06	-19.94	40	36.62	14.9	1.02	32.49	-	-	P	H
		135.84	17.29	-26.21	43.5	31.01	17.16	1.51	32.45	-	-	P	H
		258.15	21.81	-24.19	46	32.51	19.52	2.09	32.38	-	-	P	H
		456.1	26.56	-19.44	46	33.1	23.08	2.7	32.36	-	-	P	H
		532.4	32.9	-13.1	46	38.4	23.92	2.91	32.41	-	-	P	H
		739.6	33.11	-12.89	46	34.21	27.72	3.4	32.35	100	0	P	H
													H
													H
													H
													H
													H
													H
		40.8	31.98	-8.02	40	44.96	18.68	0.82	32.49	100	0	P	V
		98.31	25.05	-18.45	43.5	40.57	15.55	1.39	32.48	-	-	P	V
		261.39	19.17	-26.83	46	29.7	19.68	2.09	32.38	-	-	P	V
		443.5	24.07	-21.93	46	30.84	22.84	2.7	32.35	-	-	P	V
		532.4	30.7	-15.3	46	36.2	23.92	2.91	32.41	-	-	P	V
		890.8	32.8	-13.2	46	31.58	29.04	3.73	31.71	-	-	P	V
													V
													V
												V	
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 11 2462MHz	*	2462	105.12	-	-	95.08	27.31	6.38	33.58	201	121	P	H
	*	2462	97.25	-	-	87.21	27.31	6.38	33.58	201	121	A	H
		2485.32	56.55	-17.45	74	46.45	27.36	6.39	33.58	201	121	P	H
		2483.68	46.06	-7.94	54	35.97	27.36	6.38	33.58	201	121	A	H
													H
													H
	*	2462	102.86	-	-	92.82	27.31	6.38	33.58	117	279	P	V
	*	2462	94.67	-	-	84.63	27.31	6.38	33.58	117	279	A	V
		2485.24	53.89	-20.11	74	43.79	27.36	6.39	33.58	117	279	P	V
		2483.52	43.62	-10.38	54	33.53	27.36	6.38	33.58	117	279	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. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 11 2462MHz		4924	39.01	-34.99	74	56.05	31.48	9.55	58.51	100	0	P	H
		7386	41.56	-32.44	74	52.29	36.47	11.3	58.88	100	0	P	H
													H
													H
		4924	39.25	-34.75	74	56.29	31.48	9.55	58.51	100	0	P	V
		7386	41.8	-32.2	74	52.53	36.47	11.3	58.88	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g LF		71.85	22.02	-17.98	40	41.11	12.16	1.22	32.49	-	-	P	H
		145.56	30.35	-13.15	43.5	44.32	16.89	1.51	32.44	-	-	P	H
		264.09	26.29	-19.71	46	36.93	19.57	2.09	32.38	-	-	P	H
		311.9	42.17	-3.83	46	52.97	19.17	2.31	32.37	100	0	P	H
		531.7	29.81	-16.19	46	35.32	23.91	2.91	32.41	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		40.8	32.37	-7.63	40	45.35	18.68	0.82	32.49	100	0	P	V
		98.31	25.37	-18.13	43.5	40.89	15.55	1.39	32.48	-	-	P	V
		226.83	20.89	-25.11	46	35.5	15.75	1.95	32.38	-	-	P	V
		311.9	32.84	-13.16	46	43.64	19.17	2.31	32.37	-	-	P	V
		531.7	34.05	-11.95	46	39.56	23.91	2.91	32.41	-	-	P	V
		862.8	31.53	-14.47	46	30.51	29.05	3.67	31.85	-	-	P	V
													V
													V
												V	
												V	
												V	
												V	
												V	
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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 01 2412MHz		2387.28	56.13	-17.87	74	46.31	27.13	6.36	33.6	298	307	P	H
		2387.28	47.77	-6.23	54	37.95	27.13	6.36	33.6	298	307	A	H
	*	2412	105.87	-	-	95.98	27.18	6.37	33.59	298	307	P	H
	*	2412	98.16	-	-	88.27	27.18	6.37	33.59	298	307	A	H
													H
													H
		2388.75	54.15	-19.85	74	44.33	27.13	6.36	33.6	219	113	P	V
		2389.38	44.3	-9.7	54	34.48	27.13	6.36	33.6	219	113	A	V
	*	2412	105.72	-	-	95.83	27.18	6.37	33.59	219	113	P	V
	*	2412	97.95	-	-	88.06	27.18	6.37	33.59	219	113	A	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	38.75	-35.25	74	55.97	31.29	9.59	58.53	100	0	P	H
													H
													H
													H
		4824	38.81	-35.19	74	56.03	31.29	9.59	58.53	100	0	P	V
													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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		72.12	23.14	-16.86	40	42.23	12.16	1.22	32.49	-	-	P	H
		141.78	31.54	-11.96	43.5	45.29	17.12	1.51	32.44	-	-	P	H
		271.11	25.26	-20.74	46	36.34	19.13	2.09	32.38	-	-	P	H
		311.9	42.02	-3.98	46	52.82	19.17	2.31	32.37	100	0	P	H
		407.8	30.16	-15.84	46	37.8	22	2.63	32.33	-	-	P	H
		738.9	31.53	-14.47	46	32.68	27.68	3.4	32.36	-	-	P	H
													H
													H
													H
													H
													H
													H
		40.8	32.3	-7.7	40	45.28	18.68	0.82	32.49	100	0	P	V
		98.31	25.22	-18.28	43.5	40.74	15.55	1.39	32.48	-	-	P	V
		243.03	21.5	-24.5	46	34.34	17.52	1.95	32.38	-	-	P	V
		311.9	33.36	-12.64	46	44.16	19.17	2.31	32.37	-	-	P	V
		532.4	31.4	-14.6	46	36.9	23.92	2.91	32.41	-	-	P	V
		829.9	30.28	-15.72	46	30.39	28.16	3.6	32.02	-	-	P	V
													V
													V
												V	
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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



Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Hao Hsu, Jacky Hung, and Ken Wu	Temperature :	25~27°C
		Relative Humidity :	53~58%

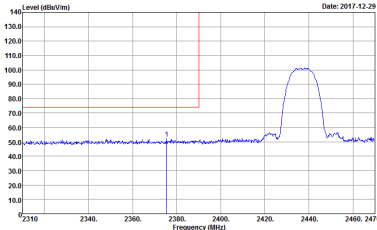
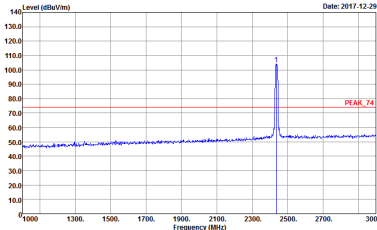
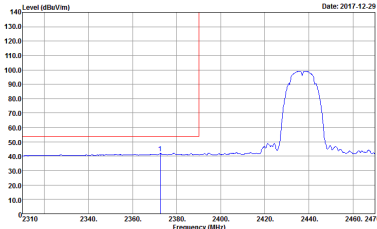
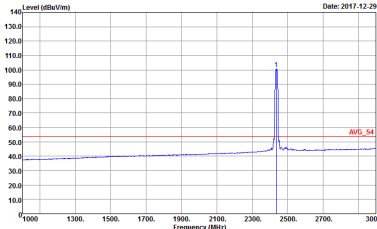
Note symbol

-L	Low channel location
-R	High channel location

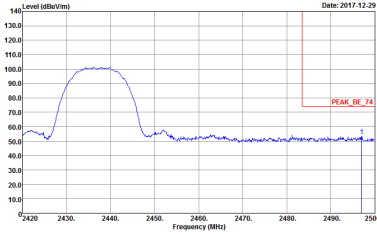
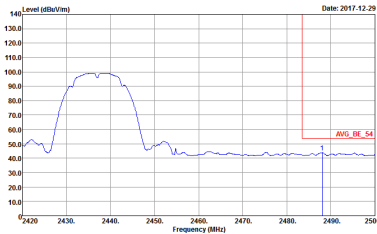


2.4GHz 2400~2483.5MHz

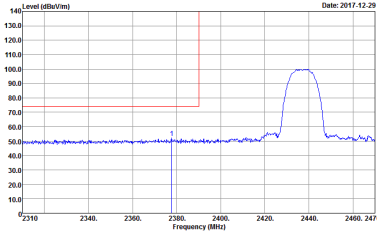
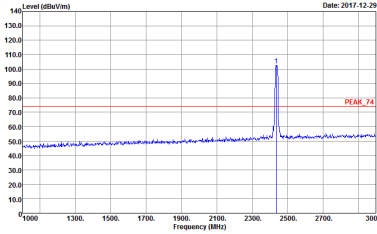
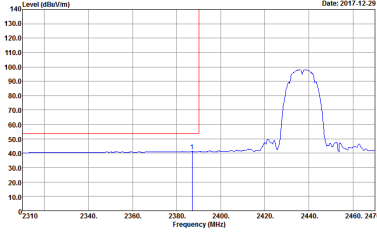
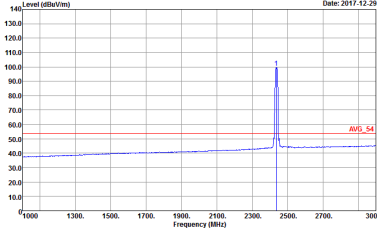
WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 391803-34
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : AVG_54 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 391803-34

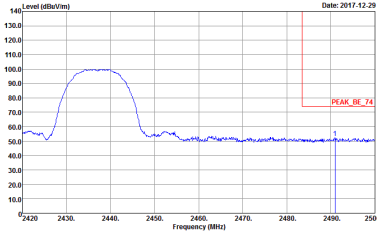
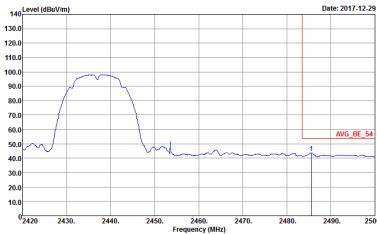


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 391803-34

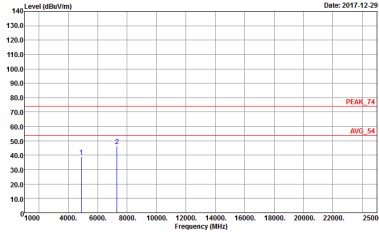
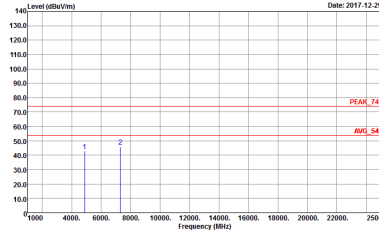


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank

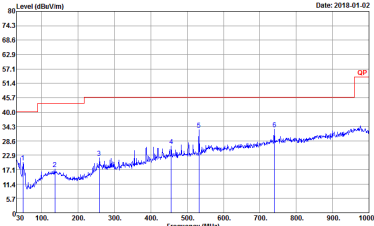
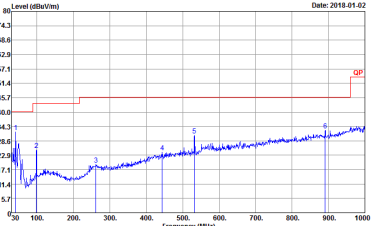


2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 391803-34

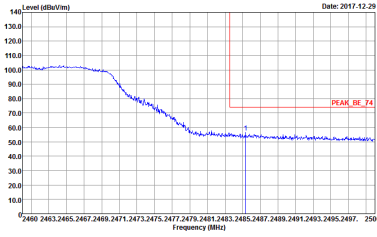
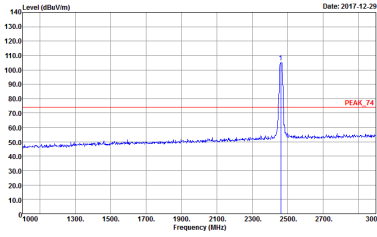
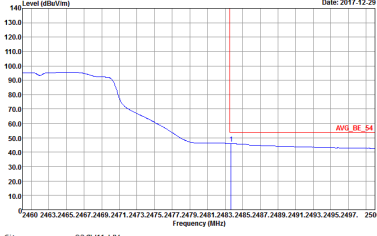
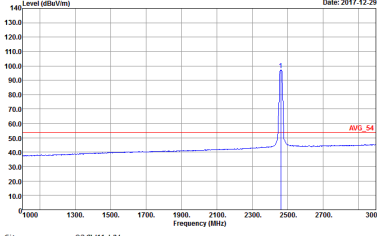
Emission below 1GHz
2.4GHz WIFI 802.11b (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11b LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH11-4-FY Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4-FY Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL Detector : Peak Project : 391803-34

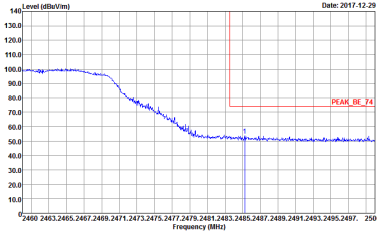
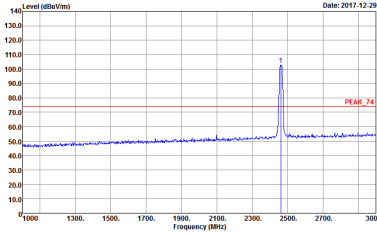
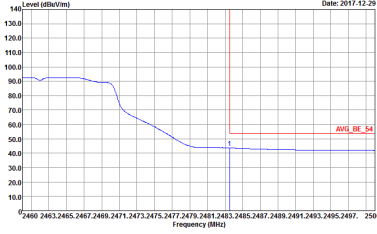
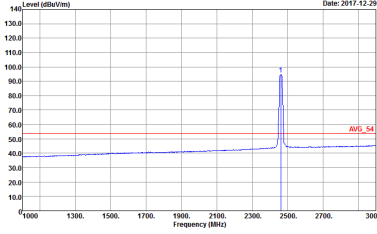


2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

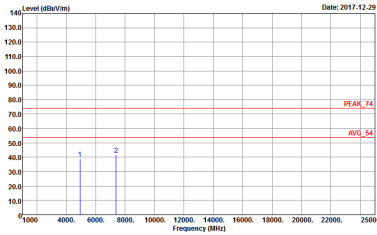
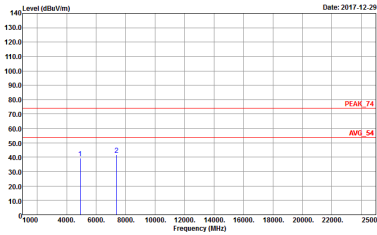
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34	 Site : 03CH11-HY Condition : AVG_54 3m HORN 9120D-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34



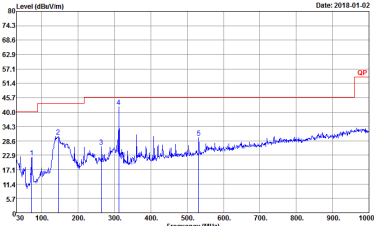
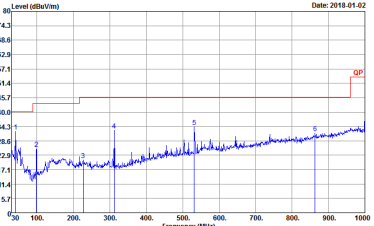
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HV Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34
Avg.	 Site : 03CH11-HV Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HV Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 391803-34



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

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 391803-34

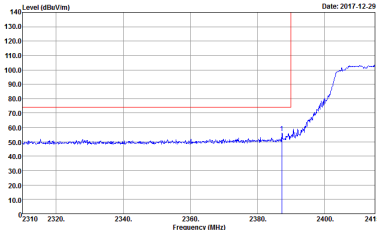
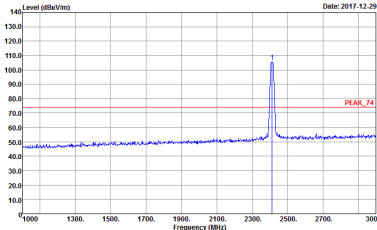
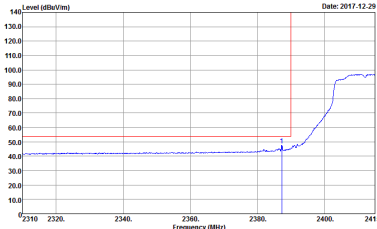
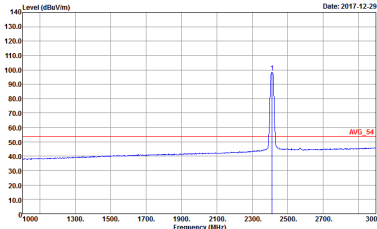
Emission below 1GHz
2.4GHz WIFI 802.11g (LF)

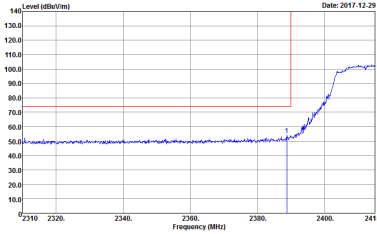
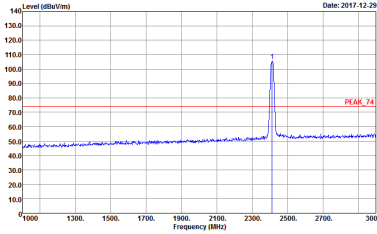
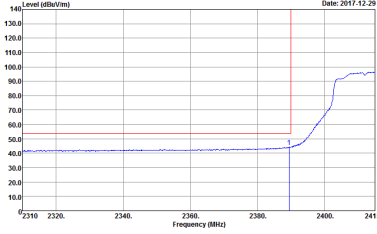
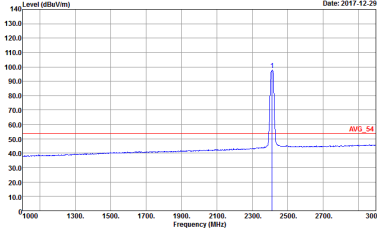
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
2	Horizontal	Vertical
QP / Peak	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL Detector : Peak Project : 391803-34



2.4GHz 2400~2483.5MHz

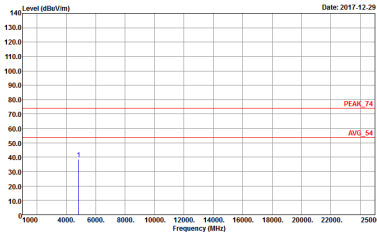
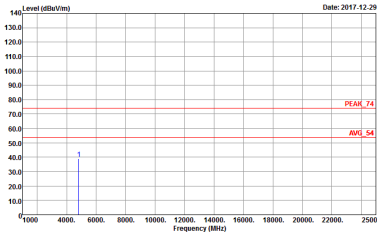
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34	 Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : AVG_54 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 391803-34

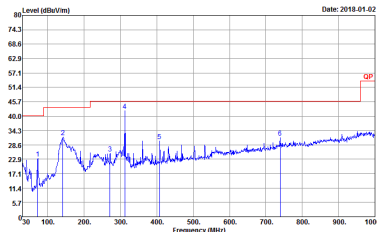
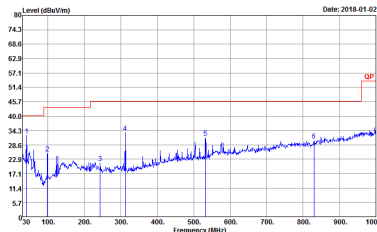


2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : PEAK_74 3m HORN 91200-HF VERTICAL Detector : Peak Project : 391803-34

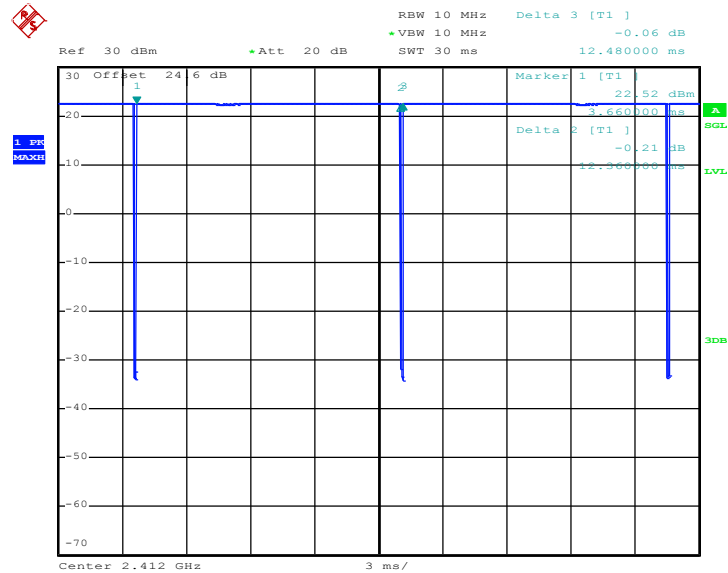


Emission below 1GHz
2.4GHz WIFI 802.11n HT20 (LF)

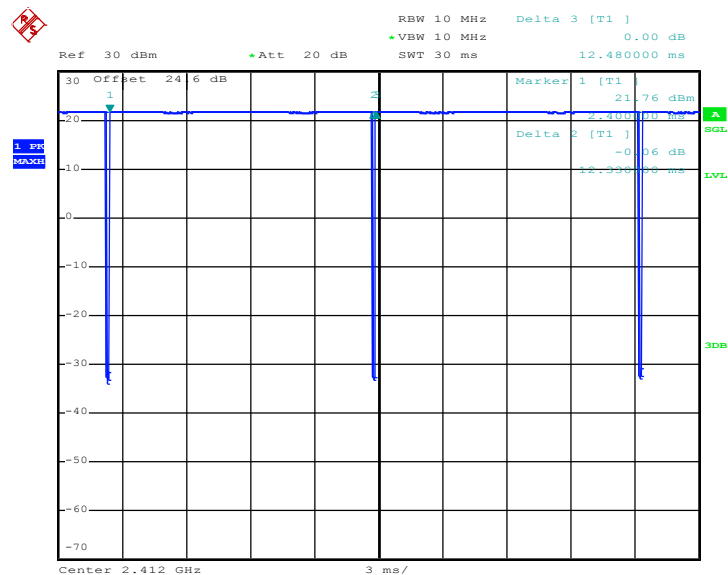
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT20 LF	
1+2	Horizontal	Vertical
QP / Peak	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL Detector : Peak Project : 391803-34

Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11b	99.04	-	-	-	0.04
2	802.11g	98.09	-	-	-	0.08
1+2	2.4GHz 802.11n HT20 for Ant. 1	95.86	972	1.03	972	0.18
1+2	2.4GHz 802.11n HT20 for Ant. 2	96.45	978	1.02	978	0.16

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802.11b


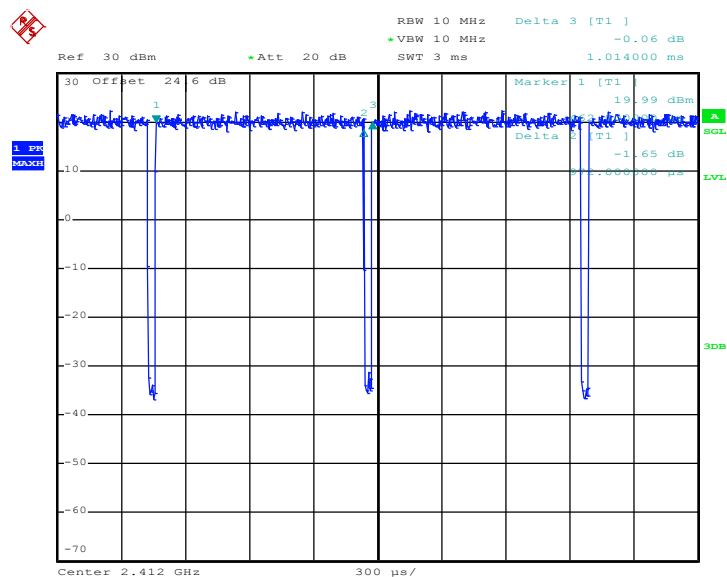
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802.11b


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MIMO <Ant. 1>

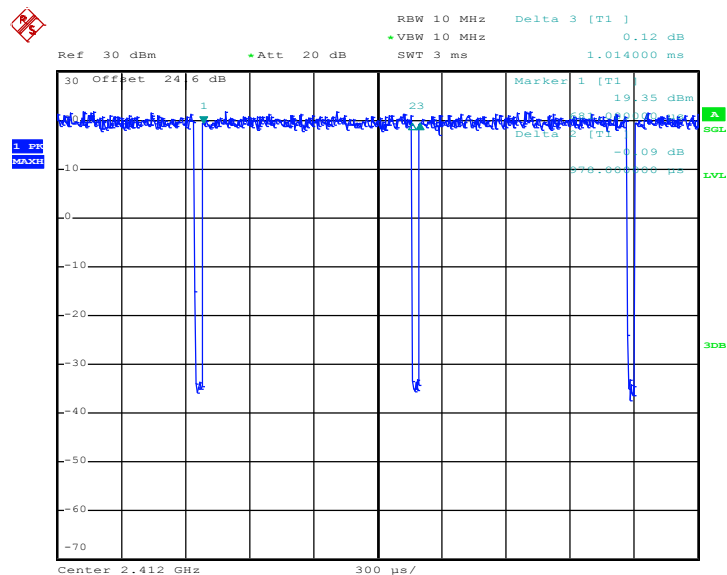
802.11n HT20



Date: 13.JUN.2017 12:00:33

MIMO <Ant. 2>

802.11n HT20



Date: 13.JUN.2017 12:01:29