

FCC RF Test Report

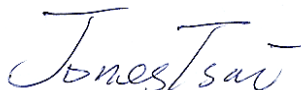
APPLICANT : Realtek Semiconductor Corp.
EQUIPMENT : 802.11b/g/n RTL8723BS Combo module
BRAND NAME : REALTEK
MODEL NAME : RTL8723BS
FCC ID : TX2-RTL8723BS
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

This is a partial report which is included the RF output power and radiated spurious emission test items. The product was received on Nov. 25, 2016 and testing was completed on Dec. 19, 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



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FCC ID : TX2-RTL8723BS

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR6N2509C	Rev. 01	Initial issue of report	Jan. 20, 2017



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 7.22 dB at 2483.550 MHz
3.3	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Realtek Semiconductor Corp.

No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

1.2 Manufacturer

Realtek Semiconductor Corp.

No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	802.11b/g/n RTL8723BS Combo module
Brand Name	REALTEK
Model Name	RTL8723BS
FCC ID	TX2-RTL8723BS
Installed into PC	Brand Name: UNICOM Model Name: U-BPCIB0, U-BPCIB1
EUT supports Radios application	WLAN 11b/g/n HT20/HT40 Bluetooth BR/EDR/LE
EUT Stage	Identical Prototype

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

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2462 MHz
Maximum (Peak) Output Power to antenna	802.11b : 18.46 dBm (0.0701 W) 802.11g : 23.98 dBm (0.2500 W) 802.11n HT20 : 23.88 dBm (0.2443 W) 802.11n HT40 : 22.98 dBm (0.1986 W)
Antenna Type / Gain	Dipole Antenna type with gain 2.26 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.5 Modification of EUT

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

1.6 Testing Location

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 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.
	03CH13-HY

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

1.7 Applicable Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

2.1 Carrier Frequency and Channel

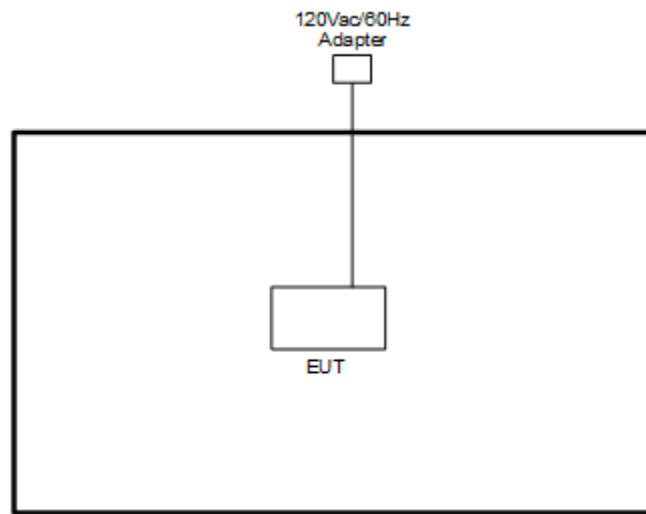
Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437	-	-

2.2 Test Mode

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

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

2.3 Connection Diagram of Test System



2.4 EUT Operation Test Setup

For WLAN function, programmed RF utility, "MP Tool" installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving 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 of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

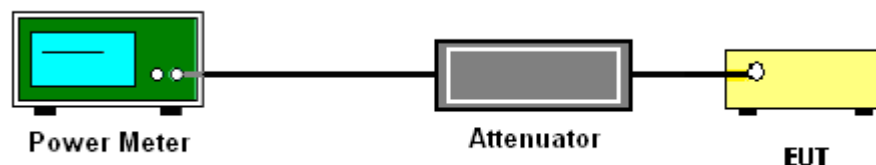
3.1.2 Measuring Instruments

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 v03r05 section 9.1.2 PKPM1 Peak power meter method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

3.1.4 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 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

3.2.2 Measuring Instruments

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



3.2.3 Test Procedures

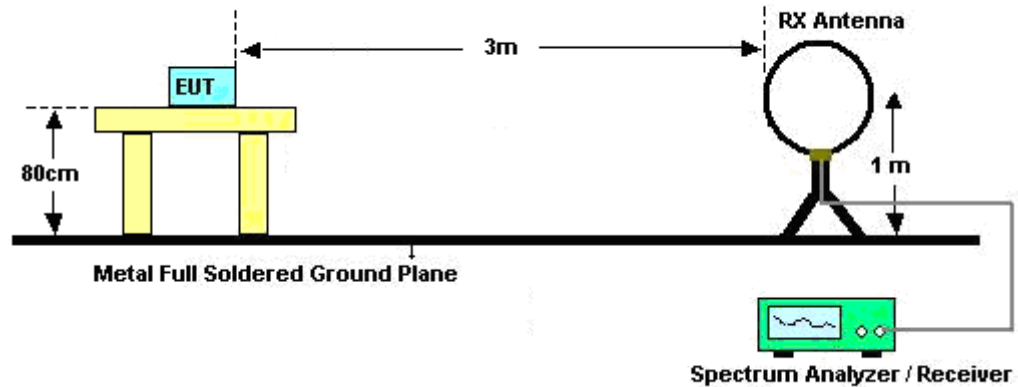
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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:

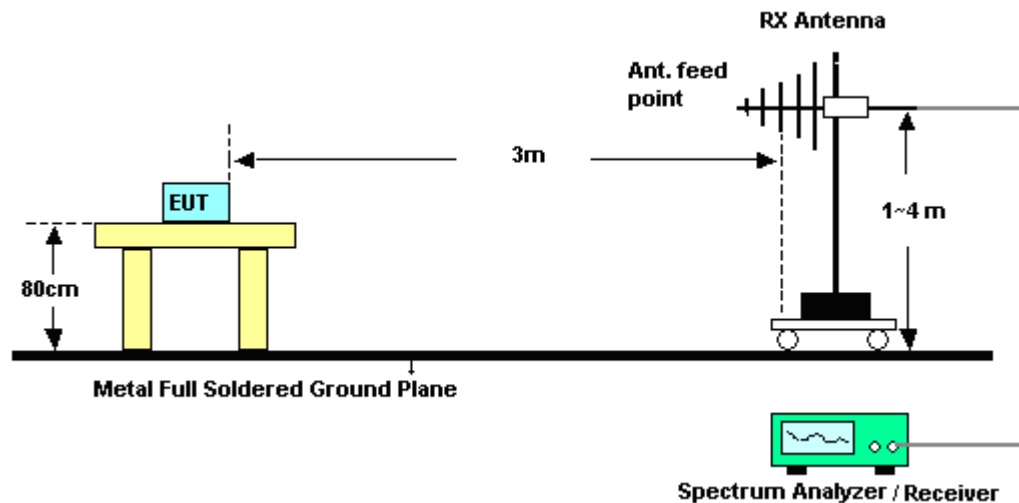
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.2.4 Test Setup

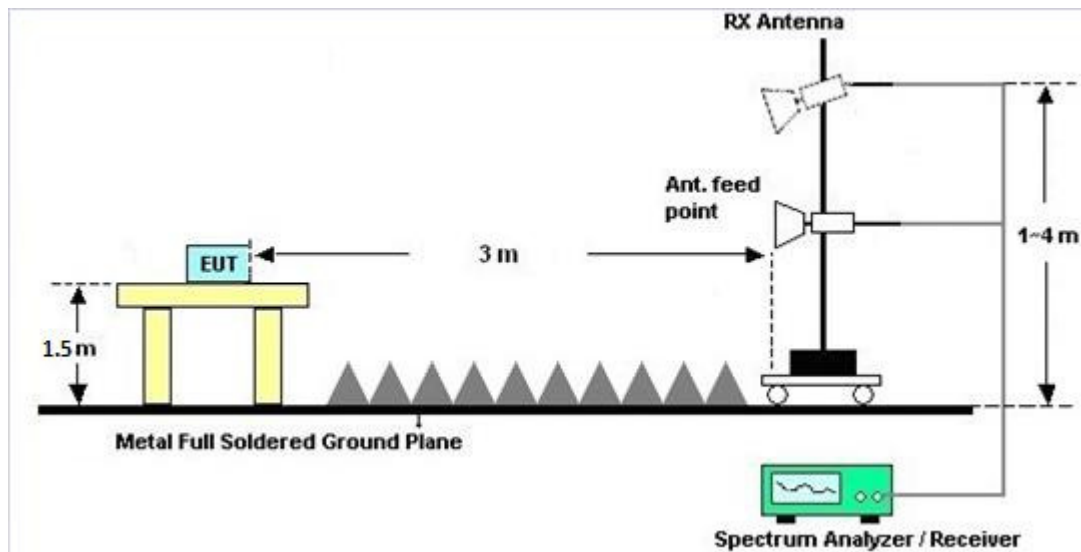
For radiated emissions below 30MHz



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 per 15.31(o) was not reported.

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. 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.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

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



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Sep. 29, 2016	Dec. 13, 2016	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Dec. 13, 2016	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jul. 17, 2016	Dec. 13, 2016	Jul. 16, 2017	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Dec. 16, 2016 ~ Dec. 19, 2016	Sep. 01, 2017	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 31, 2015	Dec. 16, 2016 ~ Dec. 19, 2016	Dec. 30, 2016	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&04	30MHz to 1GHz	Jan. 13, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Jan. 12, 2017	Radiation (03CH13-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	N/A	Mar. 10, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Mar. 09, 2017	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Apr. 25, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Apr. 24, 2017	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101 800-30-10P	1590074	1GHz~18GHz	Jun. 27, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Jun. 26, 2017	Radiation (03CH13-HY)
Preamplifier	MITEQ	JS44-1800400 0-33-8P	1840917	18GHz ~ 40GHz	Jun. 14, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Jun. 13, 2017	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Jan. 30, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Jan. 29, 2017	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	N/A	Mar. 14, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Mar. 13, 2017	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Dec. 16, 2016 ~ Dec. 19, 2016	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Dec. 16, 2016 ~ Dec. 19, 2016	N/A	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA91705 84	18GHz- 40GHz	Nov. 08, 2016	Dec. 16, 2016 ~ Dec. 19, 2016	Nov. 07, 2017	Radiation (03CH13-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.3
--	-----

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Aking chang	Temperature:	21~25	°C
Test Date:	2016/12/13	Relative Humidity:	51~54	%

TEST RESULTS DATA
Peak Power Table

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
11b	1Mbps	1	1	2412	18.46	30.00	2.26	20.72	36.00	Pass
11b	1Mbps	1	6	2437	18.38	30.00	2.26	20.64	36.00	Pass
11b	1Mbps	1	11	2462	17.98	30.00	2.26	20.24	36.00	Pass
11g	6Mbps	1	1	2412	23.03	30.00	2.26	25.29	36.00	Pass
11g	6Mbps	1	6	2437	23.98	30.00	2.26	26.24	36.00	Pass
11g	6Mbps	1	11	2462	22.88	30.00	2.26	25.14	36.00	Pass
HT20	MCS0	1	1	2412	21.98	30.00	2.26	24.24	36.00	Pass
HT20	MCS0	1	6	2437	23.88	30.00	2.26	26.14	36.00	Pass
HT20	MCS0	1	11	2462	22.03	30.00	2.26	24.29	36.00	Pass
HT40	MCS0	1	3	2422	21.98	30.00	2.26	24.24	36.00	Pass
HT40	MCS0	1	6	2437	22.98	30.00	2.26	25.24	36.00	Pass
HT40	MCS0	1	9	2452	21.73	30.00	2.26	23.99	36.00	Pass

TEST RESULTS DATA
Average Power Table
(Reporting Only)

2.4GHz Band						
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
11b	1Mbps	1	1	2412	0.00	16.33
11b	1Mbps	1	6	2437	0.00	16.23
11b	1Mbps	1	11	2462	0.00	15.73
11g	6Mbps	1	1	2412	0.00	14.23
11g	6Mbps	1	6	2437	0.00	16.11
11g	6Mbps	1	11	2462	0.00	14.08
HT20	MCS0	1	1	2412	0.00	13.23
HT20	MCS0	1	6	2437	0.00	16.23
HT20	MCS0	1	11	2462	0.00	13.24
HT40	MCS0	1	3	2422	0.00	13.18
HT40	MCS0	1	6	2437	0.00	14.63
HT40	MCS0	1	9	2452	0.00	12.93



Appendix B. Radiated Spurious Emission

Test Engineer :	Alex Jheng, Bill Chang, and Wilson Wu	Temperature :	25~26°C
		Relative Humidity :	50~52%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2362.71	53.18	-20.82	74	50.47	27.07	6.93	31.29	118	100	P	H
		2389.17	42.52	-11.48	54	39.67	27.15	6.98	31.28	118	100	A	H
	*	2412	106.51	-	-	103.59	27.19	7	31.27	118	100	P	H
	*	2412	102.87	-	-	99.95	27.19	7	31.27	118	100	A	H
													H
													H
		2344.65	52.29	-21.71	74	49.64	27.03	6.91	31.29	372	4	P	V
		2386.44	42.03	-11.97	54	39.18	27.15	6.98	31.28	372	4	A	V
	*	2412	102.88	-	-	99.96	27.19	7	31.27	372	4	P	V
	*	2412	99.34	-	-	96.42	27.19	7	31.27	372	4	A	V
													V
													V
802.11b CH 06 2437MHz		2372.44	53	-21	74	50.21	27.11	6.96	31.28	141	100	P	H
		2382.66	42.07	-11.93	54	39.28	27.11	6.96	31.28	141	100	A	H
	*	2437	105.15	-	-	102.1	27.28	7.03	31.26	141	100	P	H
	*	2437	101.6	-	-	98.55	27.28	7.03	31.26	141	100	A	H
		2494.05	53.14	-20.86	74	49.89	27.4	7.09	31.24	141	100	P	H
		2491.32	42.71	-11.29	54	39.47	27.4	7.09	31.25	141	100	A	H
		2388.12	52.46	-21.54	74	49.61	27.15	6.98	31.28	400	0	P	V
		2382.8	41.54	-12.46	54	38.75	27.11	6.96	31.28	400	0	A	V
	*	2437	101.03	-	-	97.98	27.28	7.03	31.26	400	0	P	V
	*	2437	97.58	-	-	94.53	27.28	7.03	31.26	400	0	A	V
		2491.39	53.07	-20.93	74	49.83	27.4	7.09	31.25	400	0	P	V
		2491.11	42.12	-11.88	54	38.88	27.4	7.09	31.25	400	0	A	V



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 11 2462MHz	*	2462	104.18	-	-	101.07	27.32	7.05	31.26	166	139	P	H
	*	2462	100.6	-	-	97.49	27.32	7.05	31.26	166	139	A	H
		2495.4	53.08	-20.92	74	49.83	27.4	7.09	31.24	166	139	P	H
		2488.64	43.15	-10.85	54	39.91	27.4	7.09	31.25	166	139	A	H
													H
													H
	*	2462	101.86	-	-	98.75	27.32	7.05	31.26	394	0	P	V
	*	2462	98.23	-	-	95.12	27.32	7.05	31.26	394	0	A	V
		2491.64	53.47	-20.53	74	50.23	27.4	7.09	31.25	394	0	P	V
		2488.88	42.72	-11.28	54	39.48	27.4	7.09	31.25	394	0	A	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	30.78	-43.22	74	40.67	31.22	10.07	51.18	100	0	P	H
													H
													H
													H
		4824	31.14	-42.86	74	41.03	31.22	10.07	51.18	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	29.92	-44.08	74	39.65	31.31	10.11	51.15	100	0	P	H
		7311	36.02	-37.98	74	38.02	36.27	12.53	50.8	100	0	P	H
													H
													H
		4874	30.28	-43.72	74	40.01	31.31	10.11	51.15	100	0	P	V
		7311	35.08	-38.92	74	37.08	36.27	12.53	50.8	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	31.01	-42.99	74	40.61	31.39	10.14	51.13	100	0	P	H
		7386	36.68	-37.32	74	38.24	36.51	12.73	50.8	100	0	P	H
													H
													H
		4924	29.83	-44.17	74	39.43	31.39	10.14	51.13	100	0	P	V
		7386	36.55	-37.45	74	38.11	36.51	12.73	50.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.695	57.55	-16.45	74	54.7	27.15	6.98	31.28	147	141	P	H
		2390	45.11	-8.89	54	42.25	27.15	6.98	31.27	147	141	A	H
	*	2412	104.33	-	-	101.41	27.19	7	31.27	147	141	P	H
	*	2412	96.8	-	-	93.88	27.19	7	31.27	147	141	A	H
													H
													H
		2390	54.45	-19.55	74	51.59	27.15	6.98	31.27	373	0	P	V
		2390	43.48	-10.52	54	40.62	27.15	6.98	31.27	373	0	A	V
	*	2412	101.77	-	-	98.85	27.19	7	31.27	373	0	P	V
	*	2412	94.23	-	-	91.31	27.19	7	31.27	373	0	A	V
													V
													V
802.11g CH 06 2437MHz		2375.38	53.11	-20.89	74	50.32	27.11	6.96	31.28	168	134	P	H
		2364.46	42.05	-11.95	54	39.33	27.07	6.93	31.28	168	134	A	H
	*	2437	105.63	-	-	102.58	27.28	7.03	31.26	168	134	P	H
	*	2437	97.98	-	-	94.93	27.28	7.03	31.26	168	134	A	H
		2488.73	52.63	-21.37	74	49.39	27.4	7.09	31.25	168	134	P	H
		2491.18	42.27	-11.73	54	39.03	27.4	7.09	31.25	168	134	A	H
		2364.88	52.69	-21.31	74	49.97	27.07	6.93	31.28	364	0	P	V
		2357.04	42.01	-11.99	54	39.3	27.07	6.93	31.29	364	0	A	V
	*	2437	103.72	-	-	100.67	27.28	7.03	31.26	364	0	P	V
	*	2437	96.07	-	-	93.02	27.28	7.03	31.26	364	0	A	V
		2495.59	52.43	-21.57	74	49.18	27.4	7.09	31.24	364	0	P	V
		2491.04	41.92	-12.08	54	38.68	27.4	7.09	31.25	364	0	A	V



WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 11 2462MHz	*	2462	105.03	-	-	101.92	27.32	7.05	31.26	137	135	P	H
	*	2462	97.22	-	-	94.11	27.32	7.05	31.26	137	135	A	H
		2483.92	57.82	-16.18	74	54.64	27.36	7.07	31.25	137	135	P	H
		2483.52	45.87	-8.13	54	42.69	27.36	7.07	31.25	137	135	A	H
													H
													H
	*	2462	101.58	-	-	98.47	27.32	7.05	31.26	382	0	P	V
	*	2462	93.88	-	-	90.77	27.32	7.05	31.26	382	0	A	V
		2483.8	54.56	-19.44	74	51.38	27.36	7.07	31.25	382	0	P	V
		2483.52	43.77	-10.23	54	40.59	27.36	7.07	31.25	382	0	A	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	29.9	-44.1	74	39.79	31.22	10.07	51.18	100	0	P	H
													H
													H
													H
		4824	29.16	-44.84	74	39.05	31.22	10.07	51.18	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	29.1	-44.9	74	38.83	31.31	10.11	51.15	100	0	P	H
		7311	35.41	-38.59	74	37.41	36.27	12.53	50.8	100	0	P	H
													H
													H
		4874	29.8	-44.2	74	39.53	31.31	10.11	51.15	100	0	P	V
		7311	34.4	-39.6	74	36.4	36.27	12.53	50.8	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	29.83	-44.17	74	39.43	31.39	10.14	51.13	100	0	P	H
		7386	35.57	-38.43	74	37.13	36.51	12.73	50.8	100	0	P	H
													H
													H
		4924	31.11	-42.89	74	40.71	31.39	10.14	51.13	100	0	P	V
		7386	35.61	-38.39	74	37.17	36.51	12.73	50.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.695	61.11	-12.89	74	58.26	27.15	6.98	31.28	116	106	P	H
		2390	45.36	-8.64	54	42.5	27.15	6.98	31.27	116	106	A	H
	*	2412	104.69	-	-	101.77	27.19	7	31.27	116	106	P	H
	*	2412	97.02	-	-	94.1	27.19	7	31.27	116	106	A	H
													H
													H
		2389.905	59.26	-14.74	74	56.4	27.15	6.98	31.27	400	3	P	V
		2390	43.6	-10.4	54	40.74	27.15	6.98	31.27	400	3	A	V
	*	2412	100.77	-	-	97.85	27.19	7	31.27	400	3	P	V
	*	2412	92.98	-	-	90.06	27.19	7	31.27	400	3	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2364.74	53.26	-20.74	74	50.54	27.07	6.93	31.28	170	144	P	H
		2364.32	42.5	-11.5	54	39.78	27.07	6.93	31.28	170	144	A	H
	*	2437	106.55	-	-	103.5	27.28	7.03	31.26	170	144	P	H
	*	2437	98.84	-	-	95.79	27.28	7.03	31.26	170	144	A	H
		2496.01	54.29	-19.71	74	51.04	27.4	7.09	31.24	170	144	P	H
		2491.04	42.42	-11.58	54	39.18	27.4	7.09	31.25	170	144	A	H
		2358.3	52.7	-21.3	74	49.99	27.07	6.93	31.29	400	0	P	V
		2356.9	42.26	-11.74	54	39.55	27.07	6.93	31.29	400	0	A	V
	*	2437	104.53	-	-	101.48	27.28	7.03	31.26	400	0	P	V
	*	2437	96.83	-	-	93.78	27.28	7.03	31.26	400	0	A	V
		2483.55	53.12	-20.88	74	49.94	27.36	7.07	31.25	400	0	P	V
		2491.11	42.56	-11.44	54	39.32	27.4	7.09	31.25	400	0	A	V



WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 11 2462MHz	*	2462	103.65	-	-	100.54	27.32	7.05	31.26	165	146	P	H
	*	2462	95.9	-	-	92.79	27.32	7.05	31.26	165	146	A	H
		2484.16	55.73	-18.27	74	52.55	27.36	7.07	31.25	165	146	P	H
		2483.52	44.21	-9.79	54	41.03	27.36	7.07	31.25	165	146	A	H
													H
													H
	*	2462	100.76	-	-	97.65	27.32	7.05	31.26	395	0	P	V
	*	2462	92.95	-	-	89.84	27.32	7.05	31.26	395	0	A	V
		2484.08	55.3	-18.7	74	52.12	27.36	7.07	31.25	395	0	P	V
		2483.52	43.23	-10.77	54	40.05	27.36	7.07	31.25	395	0	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	28.95	-45.05	74	38.84	31.22	10.07	51.18	100	0	P	H
													H
													H
													H
		4824	30.38	-43.62	74	40.27	31.22	10.07	51.18	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	28.26	-45.74	74	37.99	31.31	10.11	51.15	100	0	P	H
		7311	35.5	-38.5	74	37.5	36.27	12.53	50.8	100	0	P	H
													H
													H
		4874	29.37	-44.63	74	39.1	31.31	10.11	51.15	100	0	P	V
		7311	35.22	-38.78	74	37.22	36.27	12.53	50.8	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	29.44	-44.56	74	39.04	31.39	10.14	51.13	100	0	P	H
		7386	35.84	-38.16	74	37.4	36.51	12.73	50.8	100	0	P	H
													H
													H
		4924	28.93	-45.07	74	38.53	31.39	10.14	51.13	100	0	P	V
		7386	36.37	-37.63	74	37.93	36.51	12.73	50.8	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 HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2385.81	58.82	-15.18	74	55.97	27.15	6.98	31.28	124	147	P	H
		2390	45.51	-8.49	54	42.65	27.15	6.98	31.27	124	147	A	H
	*	2422	100.17	-	-	97.18	27.23	7.02	31.26	124	147	P	H
	*	2422	92.37	-	-	89.38	27.23	7.02	31.26	124	147	A	H
		2496.64	52.69	-21.31	74	49.44	27.4	7.09	31.24	124	147	P	H
		2484.88	42.42	-11.58	54	39.24	27.36	7.07	31.25	124	147	A	H
		2388.12	55.87	-18.13	74	53.02	27.15	6.98	31.28	400	0	P	V
		2388.75	43.42	-10.58	54	40.57	27.15	6.98	31.28	400	0	A	V
	*	2422	97.01	-	-	94.02	27.23	7.02	31.26	400	0	P	V
	*	2422	89.37	-	-	86.38	27.23	7.02	31.26	400	0	A	V
		2487.05	52.33	-21.67	74	49.15	27.36	7.07	31.25	400	0	P	V
		2484.46	42.22	-11.78	54	39.04	27.36	7.07	31.25	400	0	A	V
802.11n HT40 CH 06 2437MHz		2389.52	56.34	-17.66	74	53.49	27.15	6.98	31.28	117	148	P	H
		2389.94	43.93	-10.07	54	41.07	27.15	6.98	31.27	117	148	A	H
	*	2437	101.58	-	-	98.53	27.28	7.03	31.26	117	148	P	H
	*	2437	93.8	-	-	90.75	27.28	7.03	31.26	117	148	A	H
		2483.5	58.64	-15.36	74	55.46	27.36	7.07	31.25	117	148	P	H
		2483.5	46.28	-7.72	54	43.1	27.36	7.07	31.25	117	148	A	H
		2370.62	52.1	-21.9	74	49.31	27.11	6.96	31.28	400	0	P	V
		2389.94	42.54	-11.46	54	39.68	27.15	6.98	31.27	400	0	A	V
	*	2437	98.19	-	-	95.14	27.28	7.03	31.26	400	0	P	V
	*	2437	90.37	-	-	87.32	27.28	7.03	31.26	400	0	A	V
		2483.55	56.67	-17.33	74	53.49	27.36	7.07	31.25	400	0	P	V
		2483.5	44.82	-9.18	54	41.64	27.36	7.07	31.25	400	0	A	V



WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 09 2452MHz		2361.38	52.57	-21.43	74	49.86	27.07	6.93	31.29	144	149	P	H
		2372.02	42.86	-11.14	54	40.07	27.11	6.96	31.28	144	149	A	H
	*	2452	99.74	-	-	96.69	27.28	7.03	31.26	144	149	P	H
	*	2452	92.15	-	-	89.1	27.28	7.03	31.26	144	149	A	H
		2487.75	60.08	-13.92	74	56.84	27.4	7.09	31.25	144	149	P	H
		2483.55	46.78	-7.22	54	43.6	27.36	7.07	31.25	144	149	A	H
		2383.22	52.16	-21.84	74	49.37	27.11	6.96	31.28	392	0	P	V
		2372.02	41.85	-12.15	54	39.06	27.11	6.96	31.28	392	0	A	V
	*	2452	96.91	-	-	93.86	27.28	7.03	31.26	392	0	P	V
	*	2452	89.16	-	-	86.11	27.28	7.03	31.26	392	0	A	V
		2487.82	57.63	-16.37	74	54.39	27.4	7.09	31.25	392	0	P	V
		2484.46	45.06	-8.94	54	41.88	27.36	7.07	31.25	392	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		4844	28.1	-45.9	74	37.93	31.25	10.08	51.16	100	0	P	H
		7266	35.23	-38.77	74	37.4	36.17	12.46	50.8	100	0	P	H
													H
													H
		4844	28.7	-45.3	74	38.53	31.25	10.08	51.16	100	0	P	V
		7266	34.8	-39.2	74	36.97	36.17	12.46	50.8	100	0	P	V
													V
													V
802.11n HT40 CH 06 2437MHz		4874	28.58	-45.42	74	38.31	31.31	10.11	51.15	100	0	P	H
		7311	34.62	-39.38	74	36.62	36.27	12.53	50.8	100	0	P	H
													H
													H
		4874	28.49	-45.51	74	38.22	31.31	10.11	51.15	100	0	P	V
		7311	34.82	-39.18	74	36.82	36.27	12.53	50.8	100	0	P	V
													V
													V
802.11n HT40 CH 09 2452MHz		4904	29.36	-44.64	74	39.02	31.36	10.13	51.15	100	0	P	H
		7356	34.6	-39.4	74	36.34	36.41	12.65	50.8	100	0	P	H
													H
													H
		4904	28.89	-45.11	74	38.55	31.36	10.13	51.15	100	0	P	V
		7356	35.94	-38.06	74	37.68	36.41	12.65	50.8	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 HT40 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT40 LF		30	23.04	-16.96	40	28.4	25.9	0.69	31.95	-	-	P	H
		165	24.98	-18.52	43.5	39.12	16.35	1.35	31.84	-	-	P	H
		250.05	31.16	-14.84	46	42.53	18.7	1.71	31.78	-	-	P	H
		374.9	24.85	-21.15	46	32.88	21.61	2.12	31.76	-	-	P	H
		761.3	29.04	-16.96	46	30.36	27.49	3.15	31.96	-	-	P	H
		958	32.42	-13.58	46	29.88	30.13	3.46	31.05	100	6	P	H
													H
													H
													H
													H
													H
													H
		34.32	31.81	-8.19	40	39.44	23.66	0.65	31.94	100	53	P	V
		128.01	21.54	-21.96	43.5	34.56	17.66	1.19	31.87	-	-	P	V
		250.05	23.99	-22.01	46	35.36	18.7	1.71	31.78	-	-	P	V
		329.4	22.28	-23.72	46	31.71	20.39	1.93	31.75	-	-	P	V
		773.2	28.97	-17.03	46	30.15	27.58	3.19	31.95	-	-	P	V
		944.7	31.39	-14.61	46	29.13	29.98	3.44	31.16	-	-	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	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)	(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 :	Alex Jheng, Bill Chang, and Wilson Wu	Temperature :	25~26°C
		Relative Humidity :	50~52%

Note symbol

-L	Low channel location
-R	High channel location

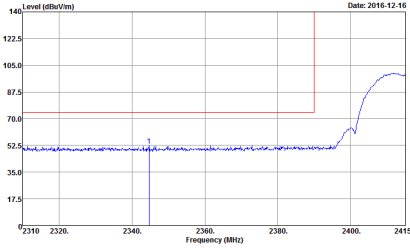
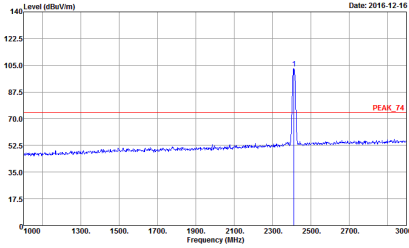
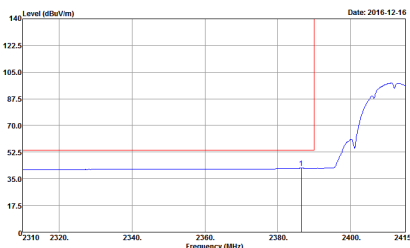
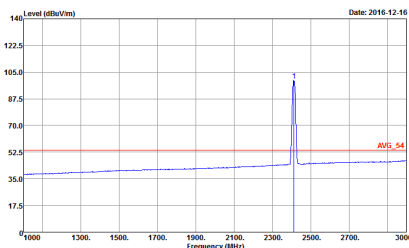


2.4GHz 2400~2483.5MHz

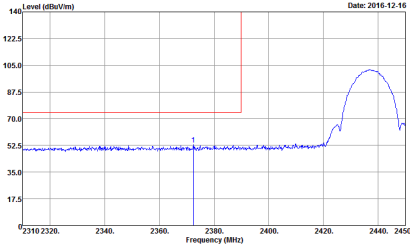
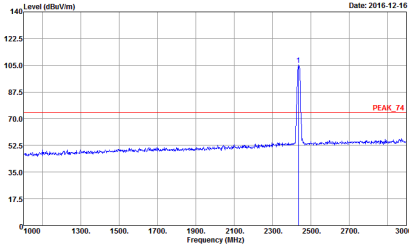
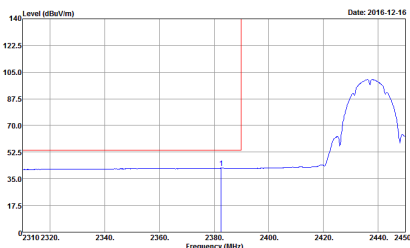
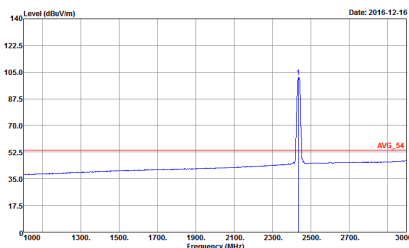
WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 7	Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 7
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 7	Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 7

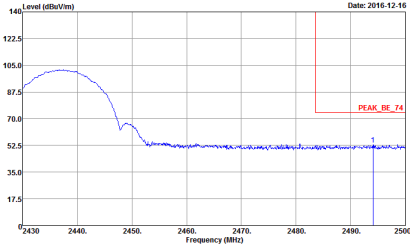
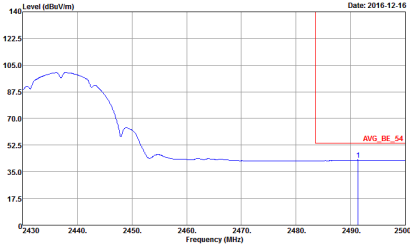


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 7	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 7
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 7	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 7

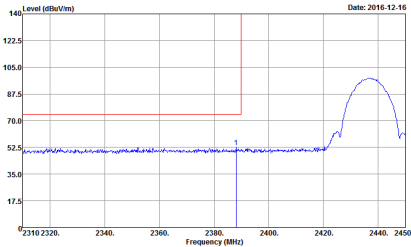
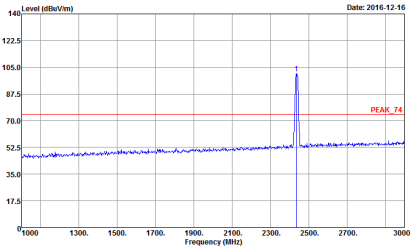
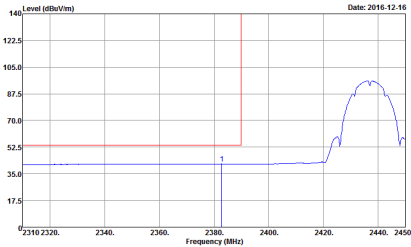
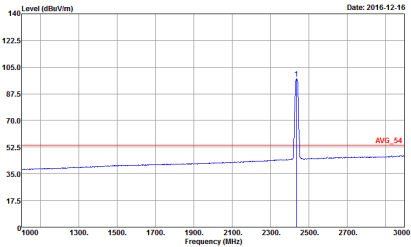


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8
Avg.	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8

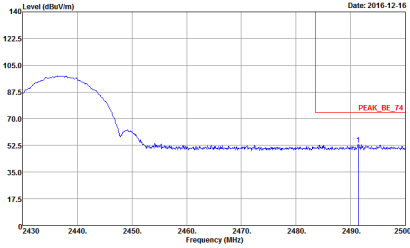
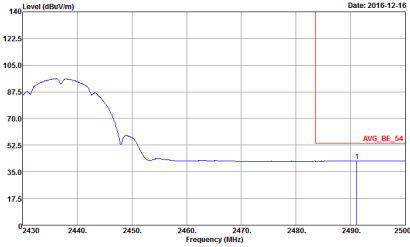


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	Left blank

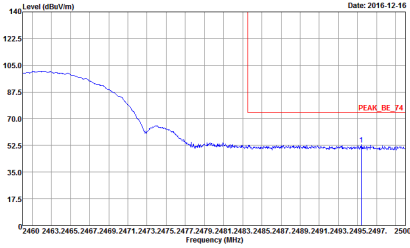
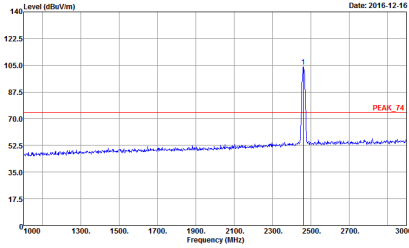
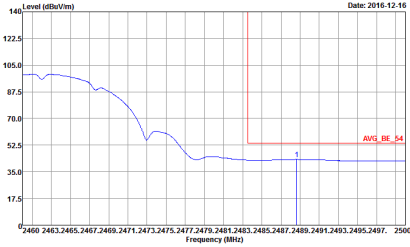
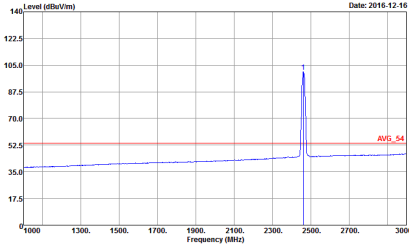


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Level (dBuV/m) vs Frequency (MHz) plot showing a peak at approximately 2437 MHz. The y-axis ranges from 17.5 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red line indicates the noise floor at approximately 52.5 dBuV/m. Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	 Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at approximately 2437 MHz. The y-axis ranges from 17.5 to 140 dBuV/m, and the x-axis ranges from 1000 to 3000 MHz. A red line indicates the noise floor at approximately 52.5 dBuV/m. Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8
Avg.	 Level (dBuV/m) vs Frequency (MHz) plot showing a peak at approximately 2437 MHz. The y-axis ranges from 17.5 to 140 dBuV/m, and the x-axis ranges from 2310 to 2450 MHz. A red line indicates the noise floor at approximately 52.5 dBuV/m. Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	 Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at approximately 2437 MHz. The y-axis ranges from 17.5 to 140 dBuV/m, and the x-axis ranges from 1000 to 3000 MHz. A red line indicates the noise floor at approximately 52.5 dBuV/m. Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8

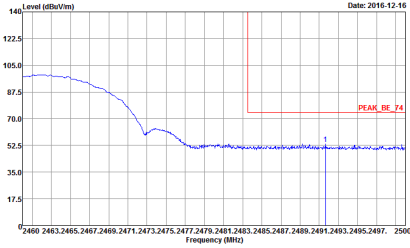
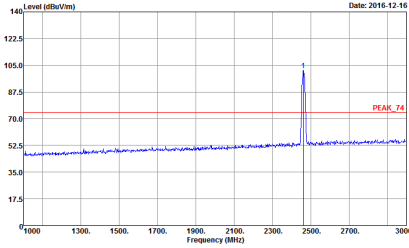
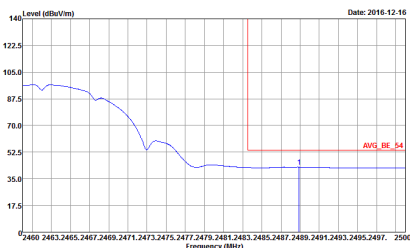
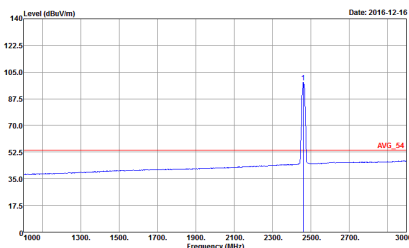


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 8	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9

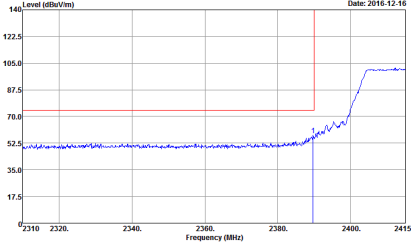
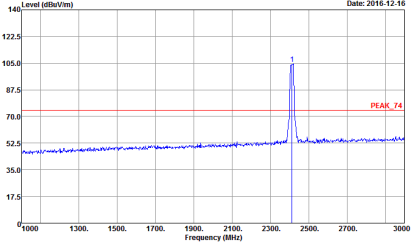
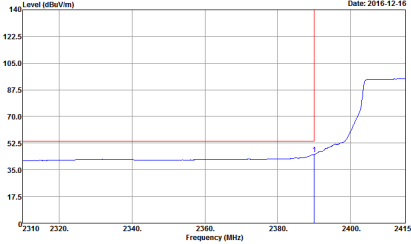
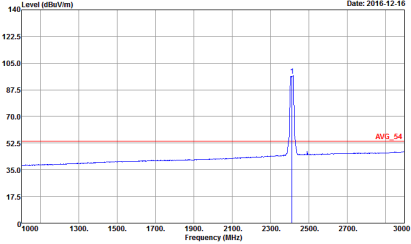


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Level (dBuV/m) Frequency (MHz) Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9	 Level (dBuV/m) Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9
Avg.	 Level (dBuV/m) Frequency (MHz) Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9	 Level (dBuV/m) Frequency (MHz) Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 9

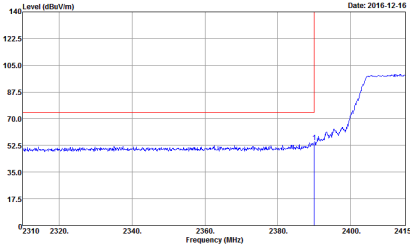
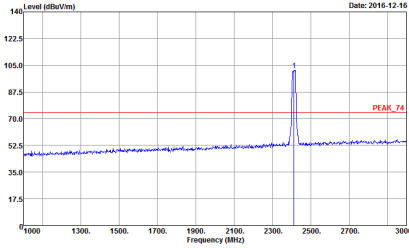
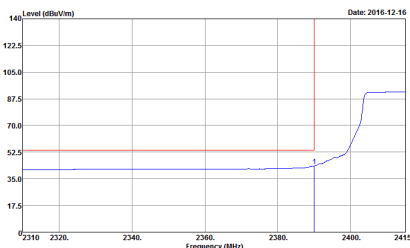
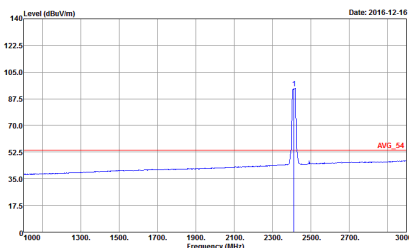


2.4GHz 2400~2483.5MHz

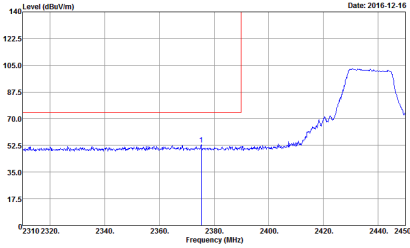
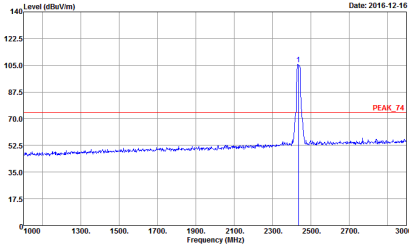
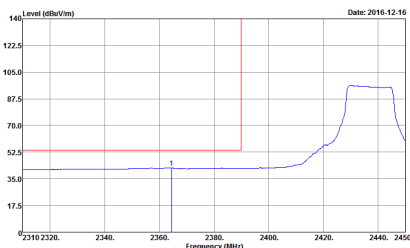
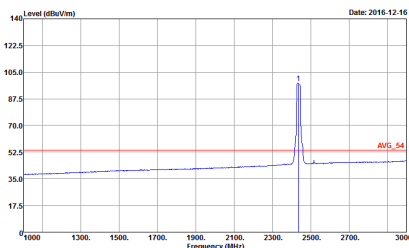
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO

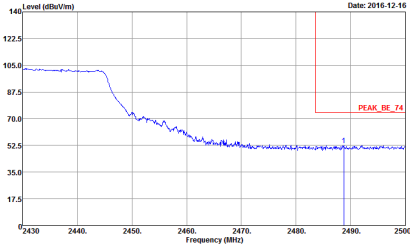
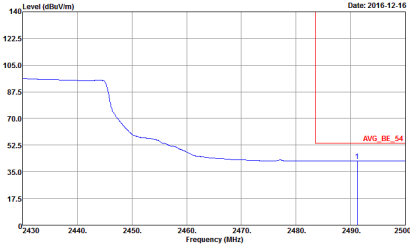


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : IO

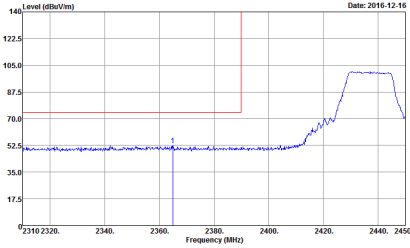
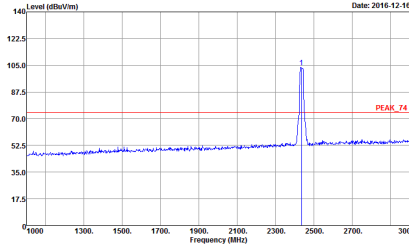
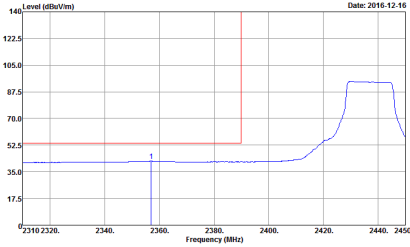
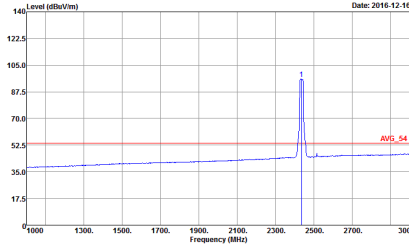


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11
Avg.	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	 Level (dBuV/m) Frequency (MHz) Date: 2016-12-16 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11

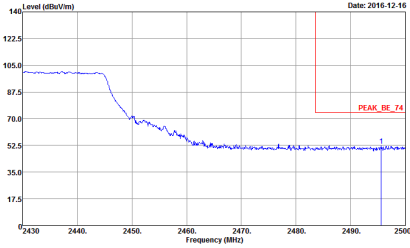
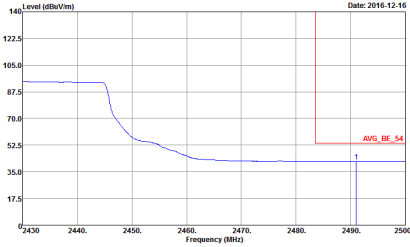


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	Left blank

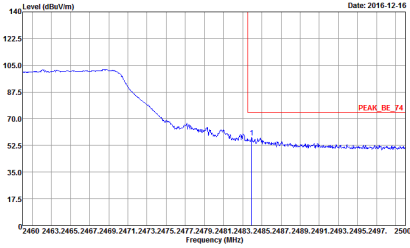
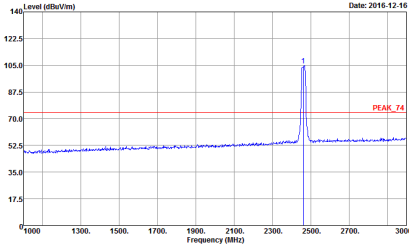
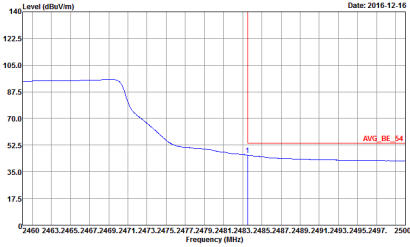
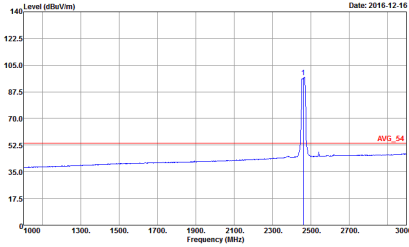


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11

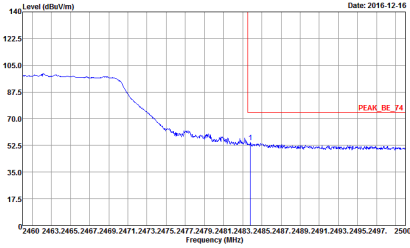
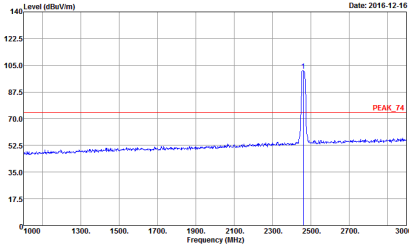
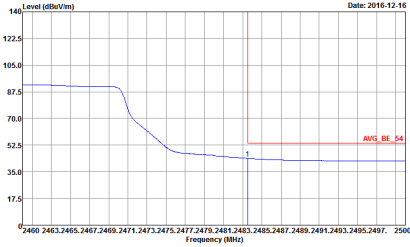
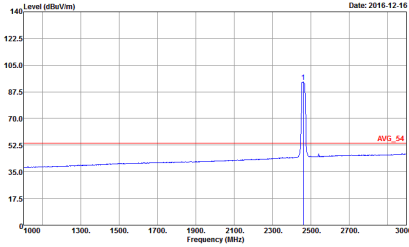


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 11	Left Blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 12	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 12
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 12	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 12

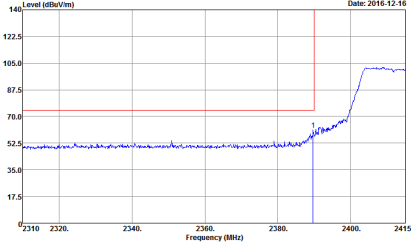
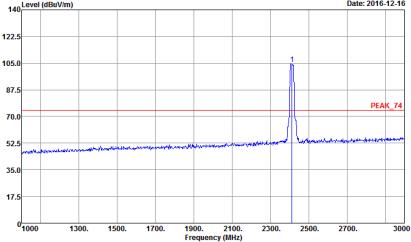
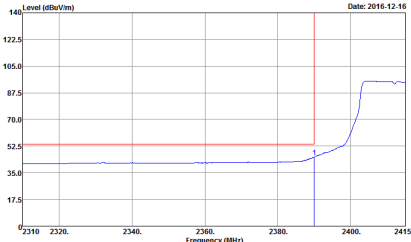
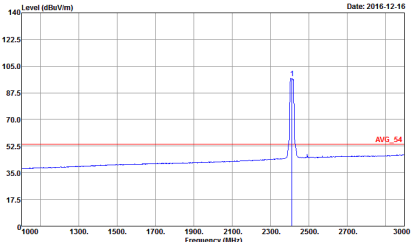


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 12	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 12
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 12	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 12

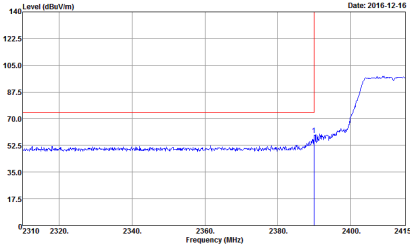
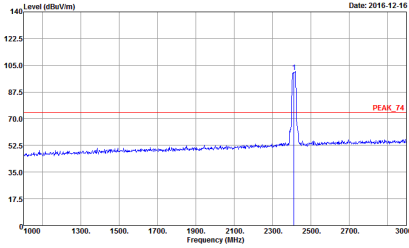
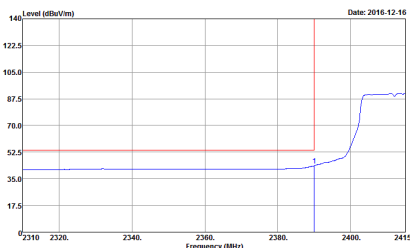
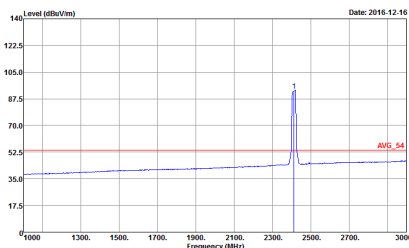


2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13

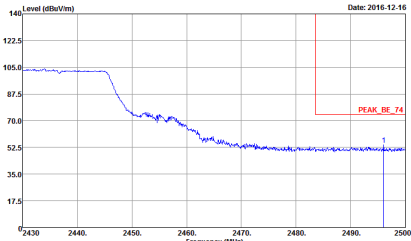
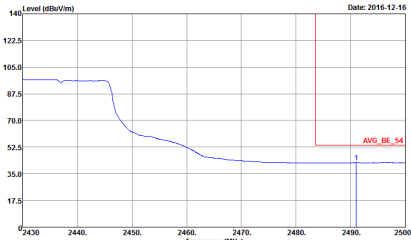


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 13

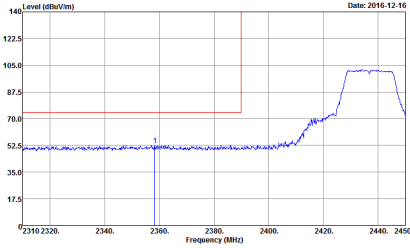
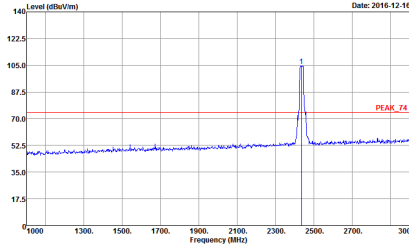
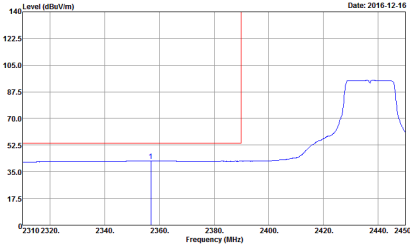
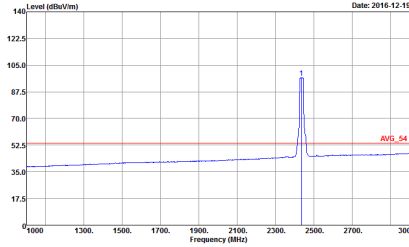


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 14	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 14
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 14	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 14

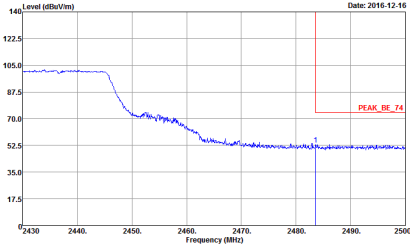
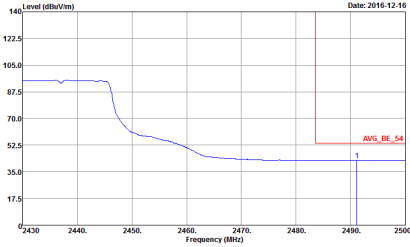


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 14	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 14	Left blank

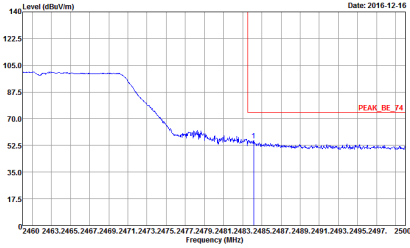
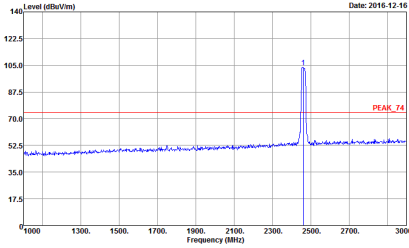
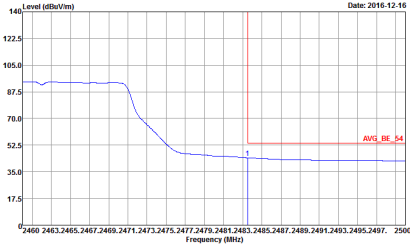
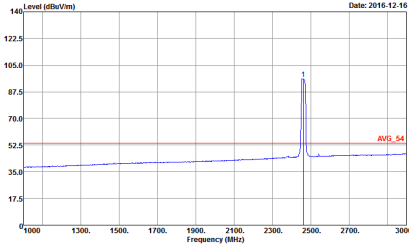


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 14	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 14
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 14	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 14

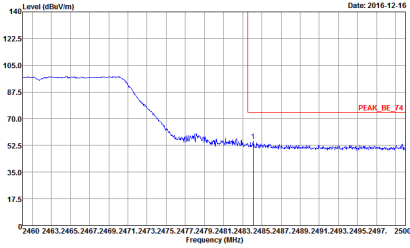
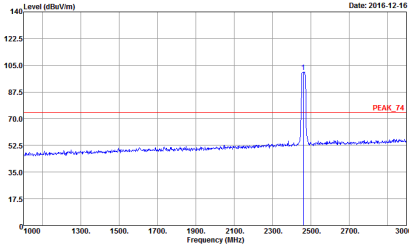
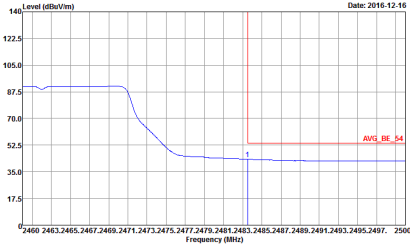
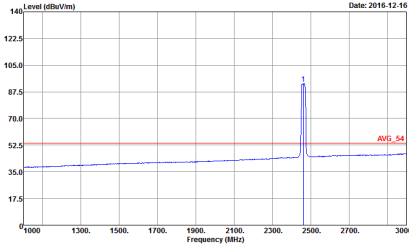


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 14	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 14	Left Blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 15	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 15
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 15	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 15

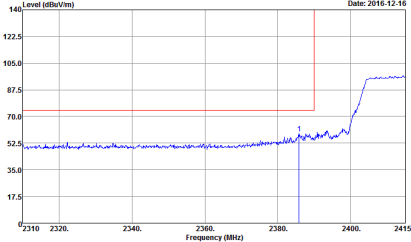
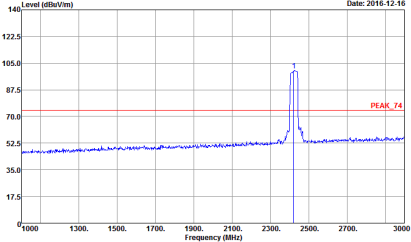
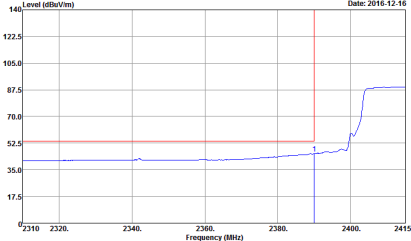
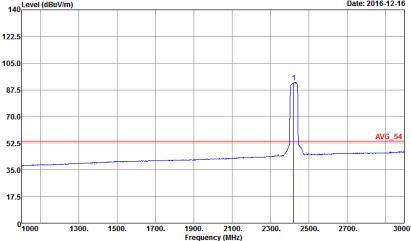


WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 15	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 15
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 15	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 15

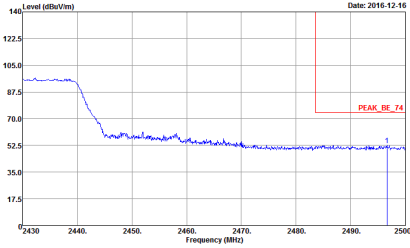
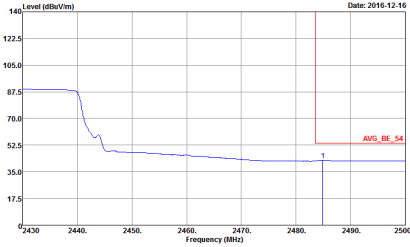


2.4GHz 2400~2483.5MHz

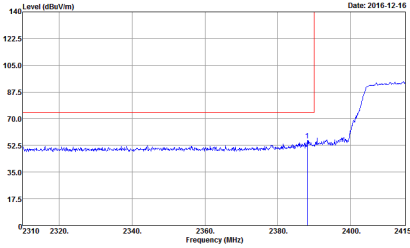
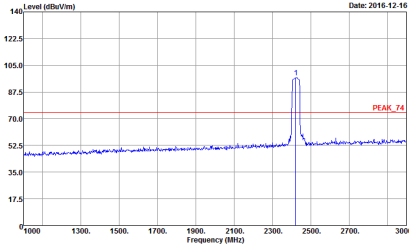
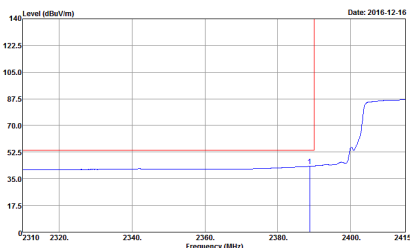
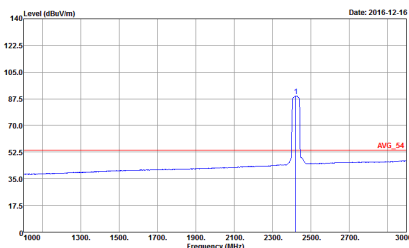
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 16	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 16
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 16	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 16

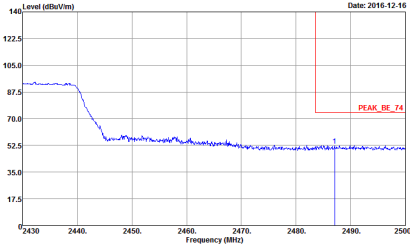
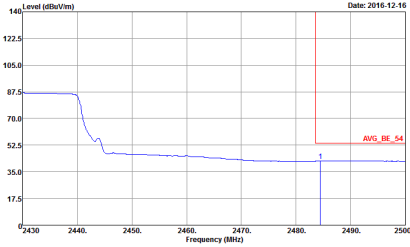


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16	Left Blank

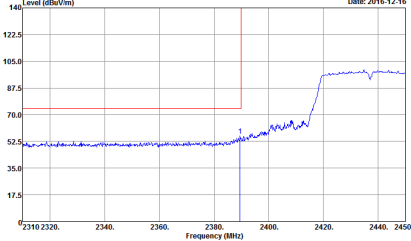
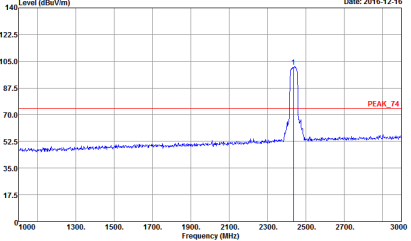
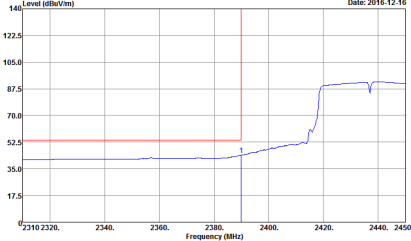
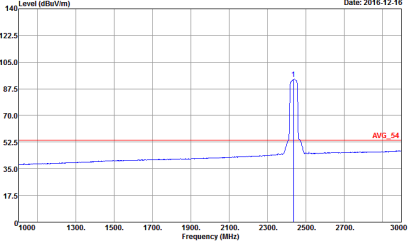


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16

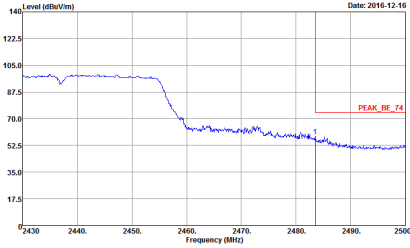
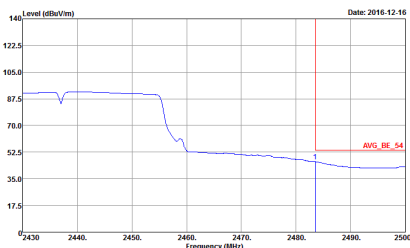


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 16	Left blank

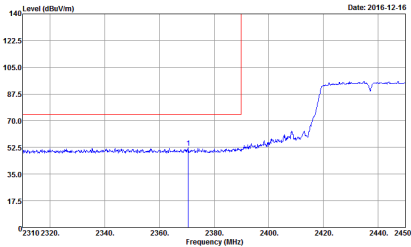
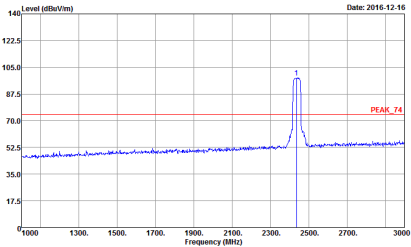
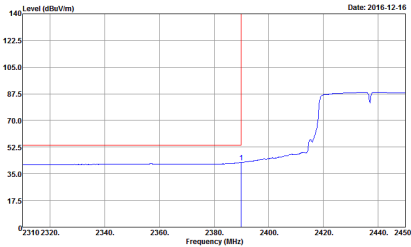
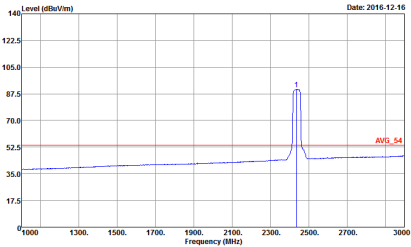


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 17	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 17
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 17	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 17

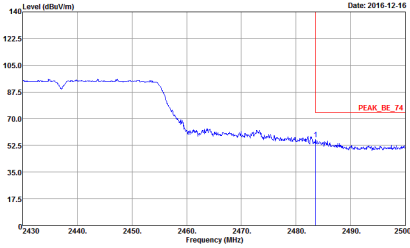
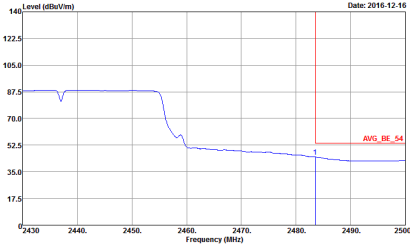


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 17	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 17	Left blank

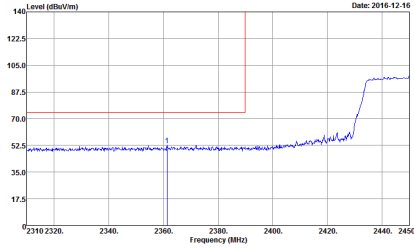
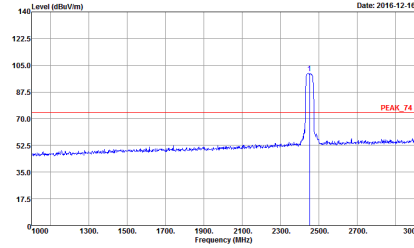
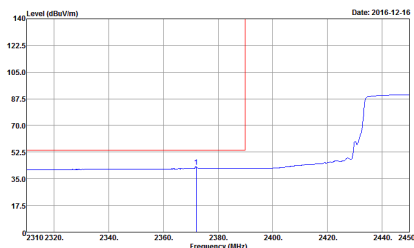
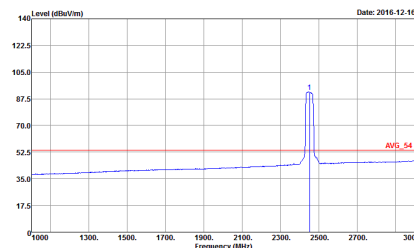


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 17	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 17
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 17	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 17

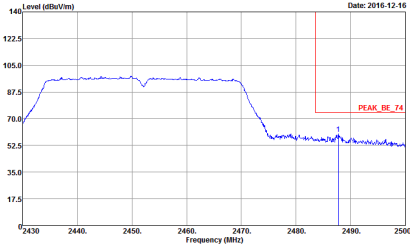
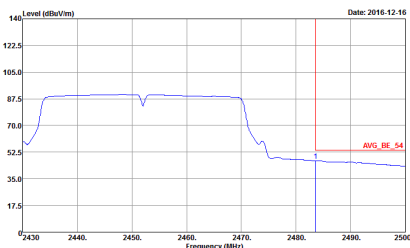


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 17	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 17	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 18	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 18
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 18	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 18

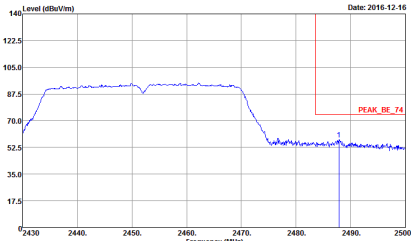
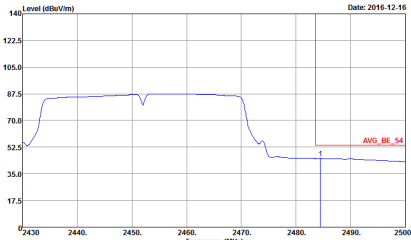


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 18	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 18	Left blank



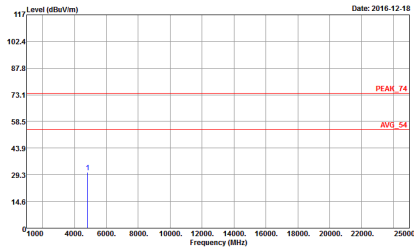
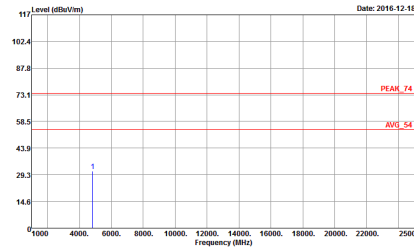
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 18	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 18
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 18	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL Detector : Peak Project : 6N2509 Mode : 18



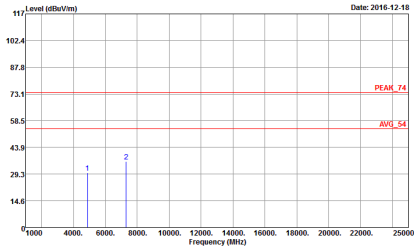
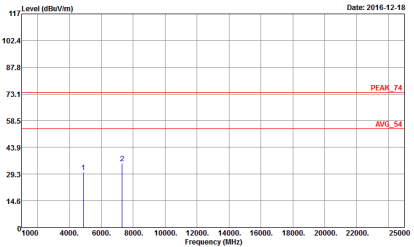
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 18	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 6N2509 Mode : 18	Left blank



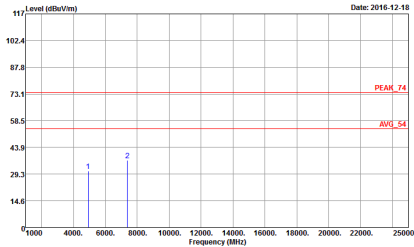
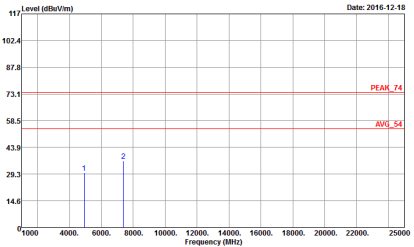
2.4GHz 2400~2483.5MHz
WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 7	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 7



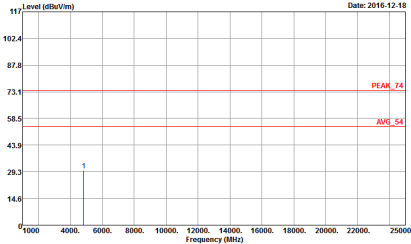
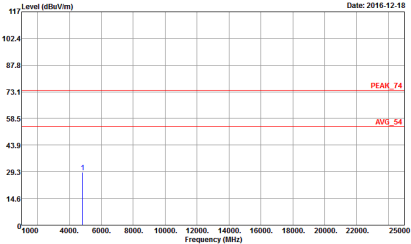
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 8	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 8



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 9	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 9



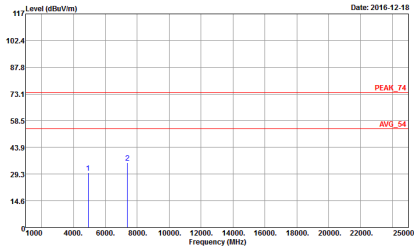
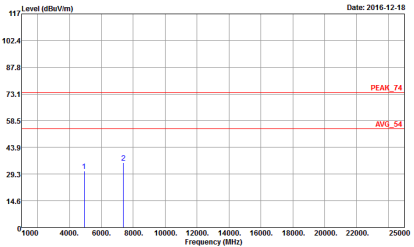
2.4GHz 2400~2483.5MHz
WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : IO	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : IO



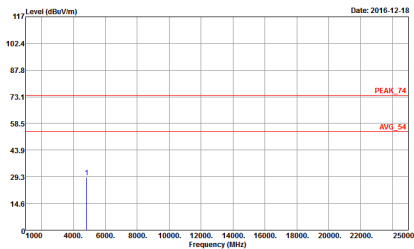
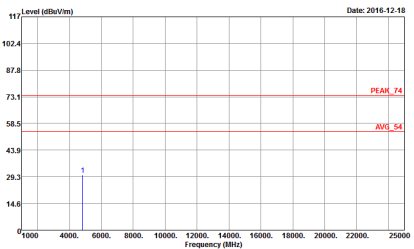
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : II	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : II



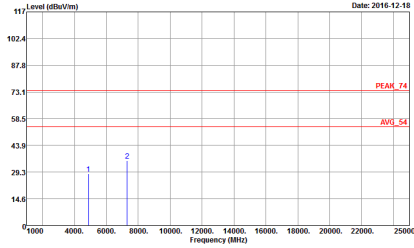
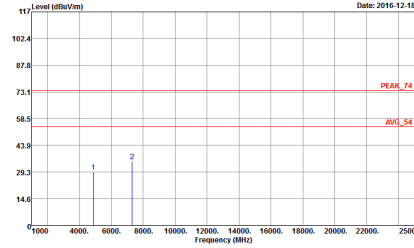
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 12	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 12



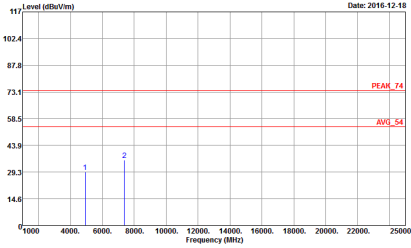
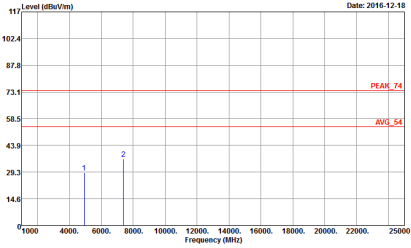
2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 13	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 13



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 14	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 14



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : IS	 Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : IS



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 16	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 16



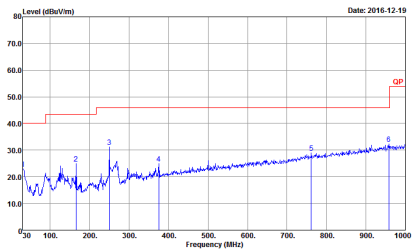
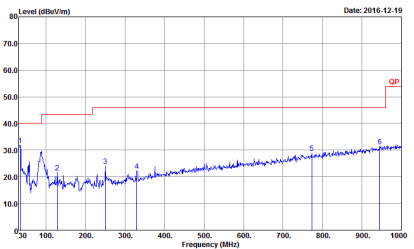
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 17	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 17



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 6N2509 Mode : 18	Site : 03CH13-HY Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 6N2509 Mode : 18



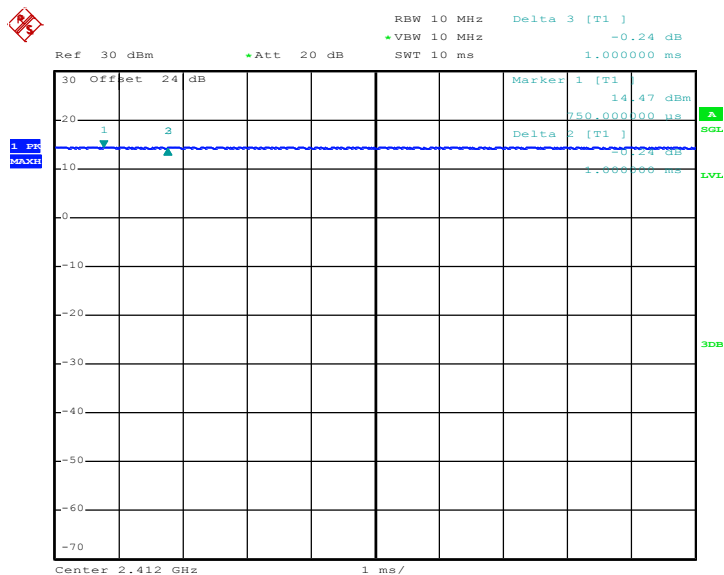
Emission below 1GHz
2.4GHz WIFI 802.11n HT40 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH13-HY Condition : QP 3m BILOG_40103 HORIZONTAL Detector : Peak Project : 6N2509 Mode : Z1	 Site : 03CH13-HY Condition : QP 3m BILOG_40103 VERTICAL Detector : Peak Project : 6N2509 Mode : Z1

Appendix D. Duty Cycle Plots

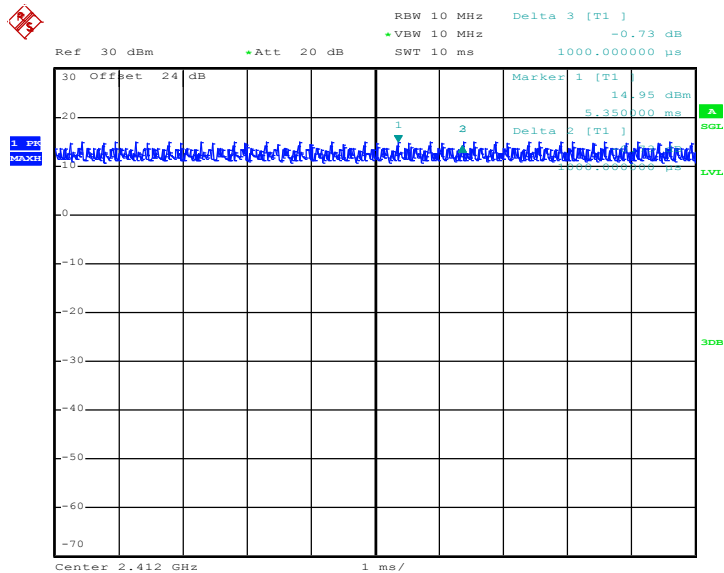
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	100	-	-	10Hz
802.11g	100	-	-	10Hz
2.4GHz 802.11n HT20	100	-	-	10Hz
2.4GHz 802.11n HT40	100	-	-	10Hz

802.11b



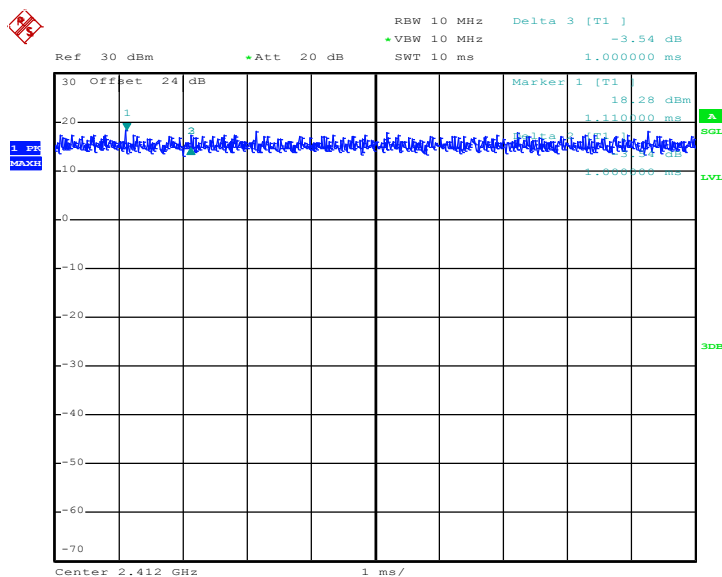
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802.11g



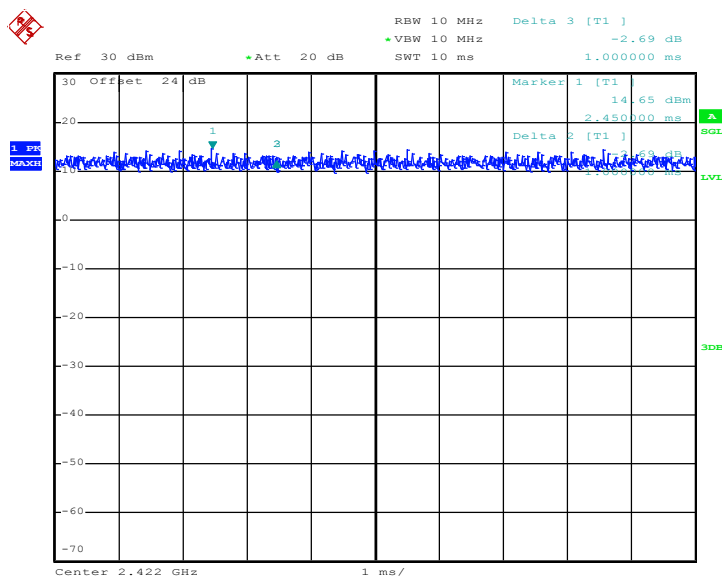
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802.11n HT20



Date: 13.DEC.2016 01:16:55

802.11n HT40



Date: 13.DEC.2016 01:22:54