



FCC RADIO TEST REPORT

FCC ID : 2ARIW-2778
Equipment : Digital Media Receiver
Model Name : C78MP8
Applicant : L Laury LLC
3340 Peachtree Rd, Suite 1800 Atlanta, Georgia, 30326
Standard : FCC Part 15 Subpart C §15.247

The testing was completed on Feb. 21, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR8O2938-01C	01	Initial issue of report	Mar. 12, 2019



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.247(a)(2)	6dB Bandwidth	Pass
3.1	2.1049	99% Occupied Bandwidth	Reporting only
3.2	15.247(b)	Power Output Measurement	Pass
3.3	15.247(e)	Power Spectral Density	Pass
3.4	15.247(d)	Conducted Band Edges	Pass
		Conducted Spurious Emission	Pass
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass
3.6	15.207	AC Conducted Emission	Pass
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Polly Tsai

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	C78MP8
FCC ID	2ARIW-2778
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN a/n HT20/HT40 WLAN ac VHT20/VTH40/VTH80 Bluetooth BR/EDR/LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2472 MHz
Maximum Output Power to antenna	802.11b : 23.25 dBm (0.2113 W) 802.11g : 24.75 dBm (0.2985 W) 802.11n HT20 : 24.34 dBm (0.2716 W)
99% Occupied Bandwidth	802.11b : 14.40 MHz 802.11g : 16.95 MHz 802.11n HT20 : 17.85 MHz
Antenna Type / Gain	Printed Inverted-F Antenna with gain 3.0 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH16-HY	

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

FCC Designation No.: TW1190 and TW0007

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 v05r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ 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

- 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: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

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

2.2 Test Mode

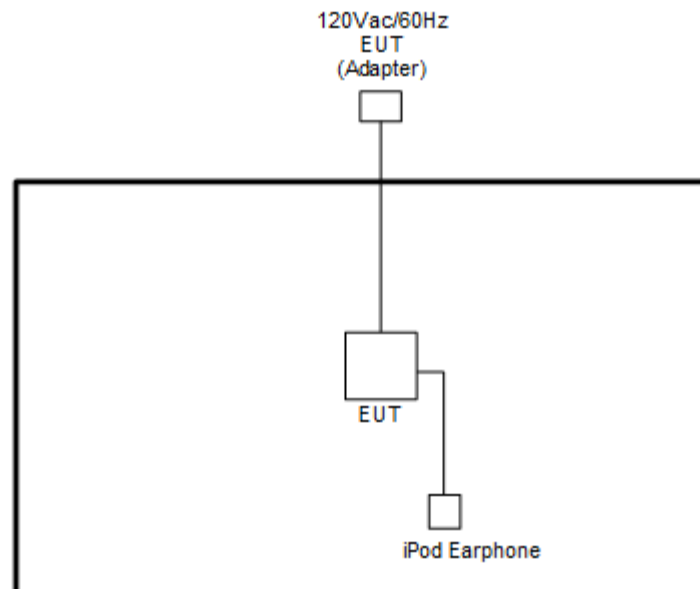
Final test modes are considering the modulation and worse data rates as below table.

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

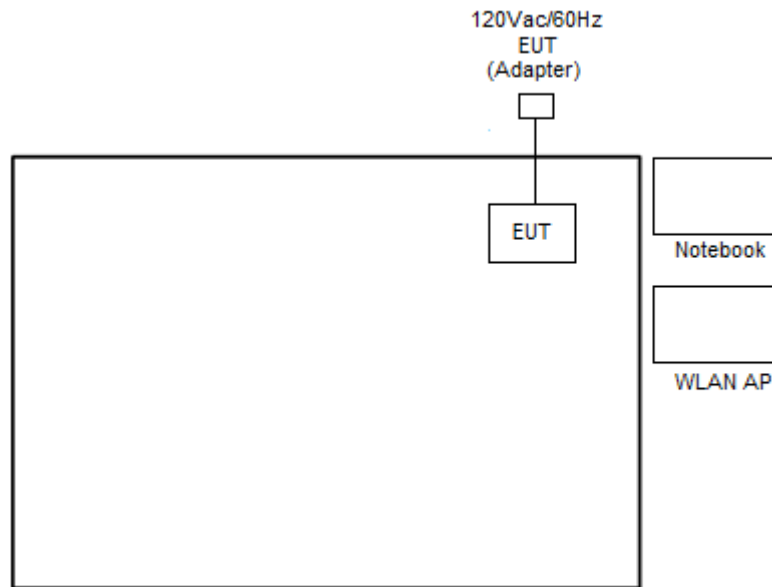
Test Cases	
AC Conducted Emission	Mode 1 :WLAN (2.4GHz) Link + Play News + Charging from Adapter
	Mode 2 :Bluetooth Link + Play MP3 + Charging from Adapter
Remark: The worst case of conducted emission is mode 1; only the test data of it was reported.	

2.3 Connection Diagram of Test System

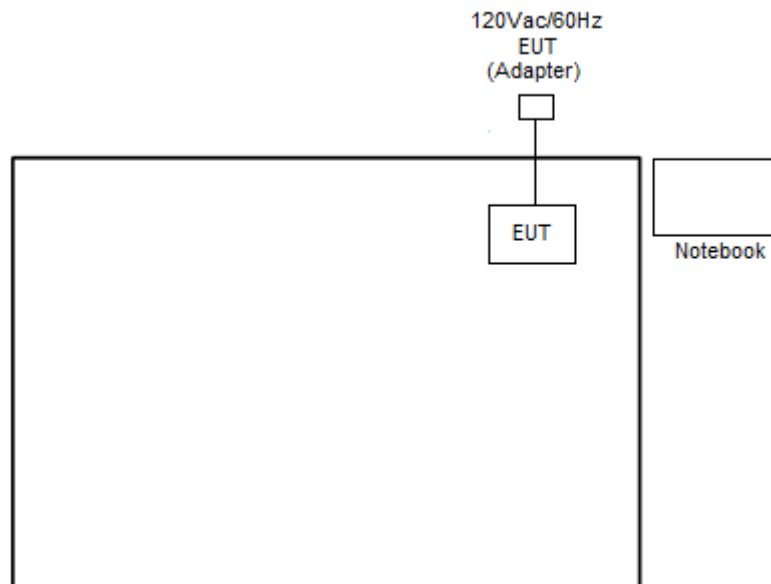
<WLAN Tx Mode>



<AC Conducted Emission for WLAN Link Mode>



<AC Conducted Emission for Bluetooth Link Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude E5570	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “Compliance” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example:

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

Offset = RF cable loss + attenuator factor.

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

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

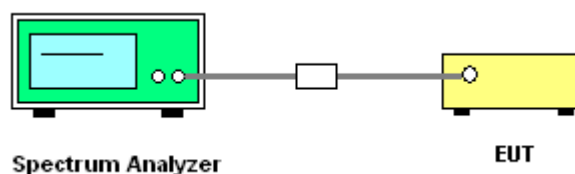
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) $\geq 3 * RBW$.
6. Measure and record the results in the test report.

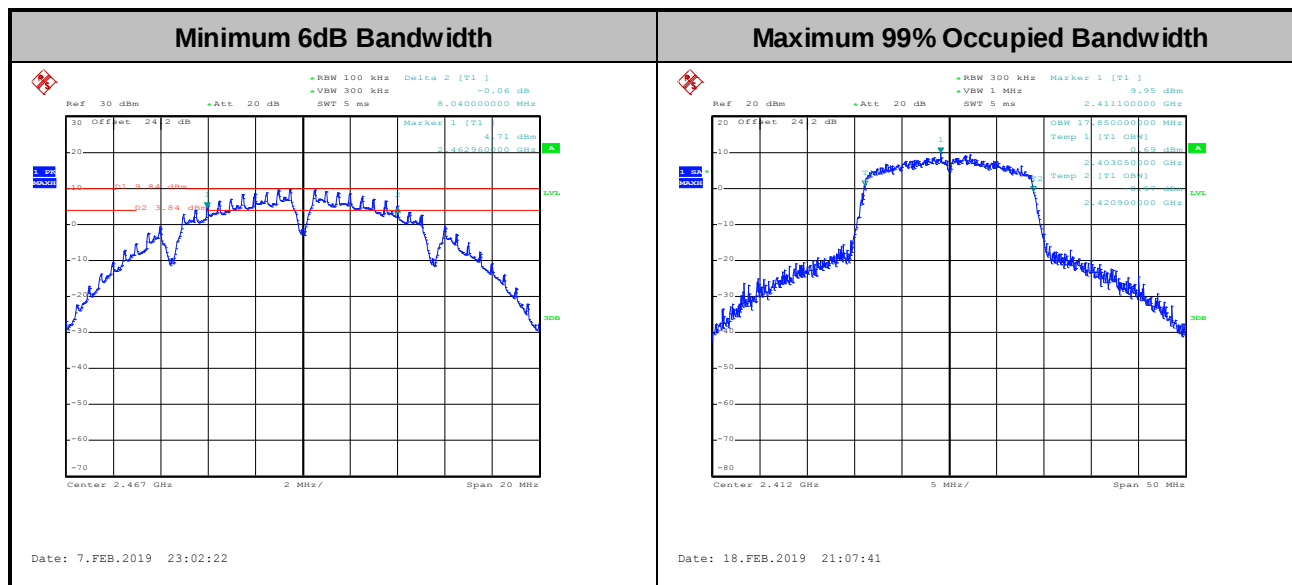
3.1.4 Test Setup





3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.



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

3.2 Output Power Measurement

3.2.1 Limit of Output Power

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

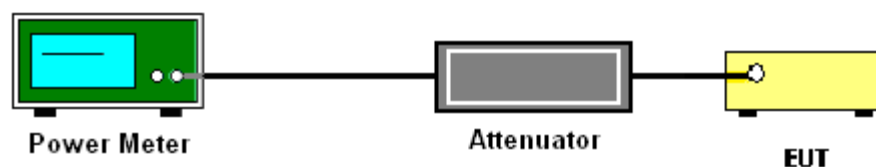
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1
2. For Average Power, the testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v05r01 section 9.2.3.2 Method AVGPM-G.
3. 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.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.2.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

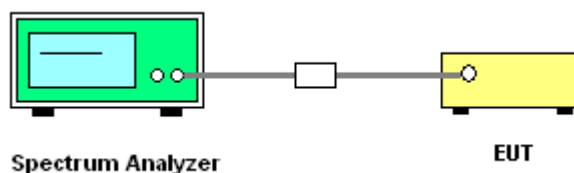
3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

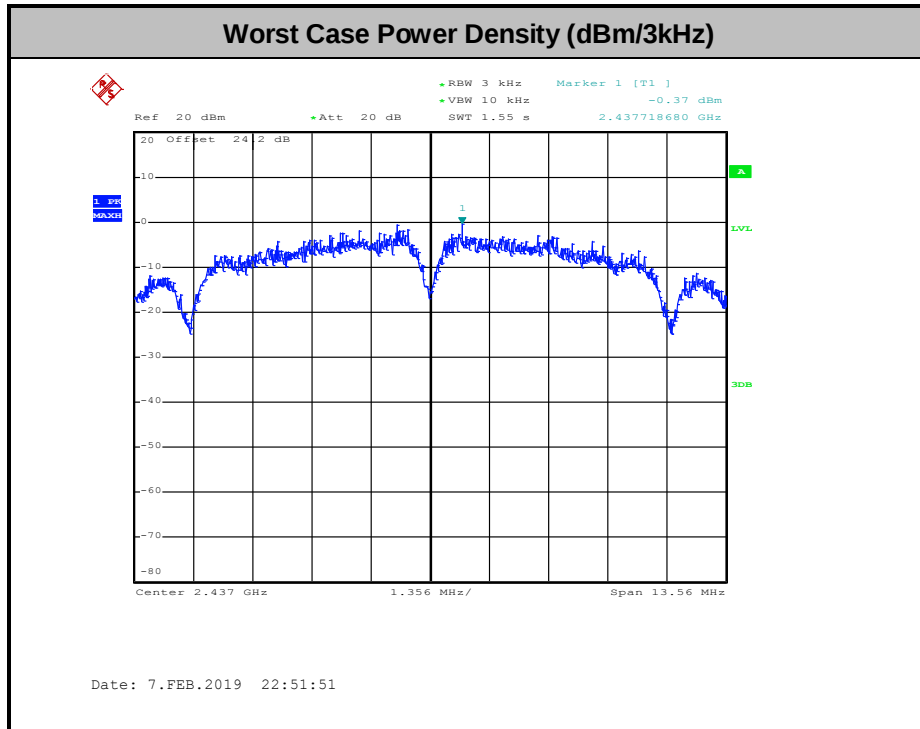
3.3.4 Test Setup





3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

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

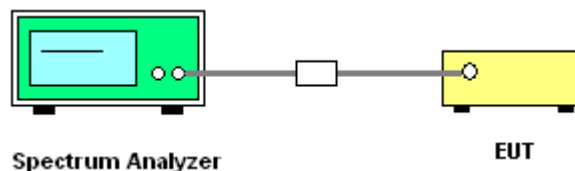
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup



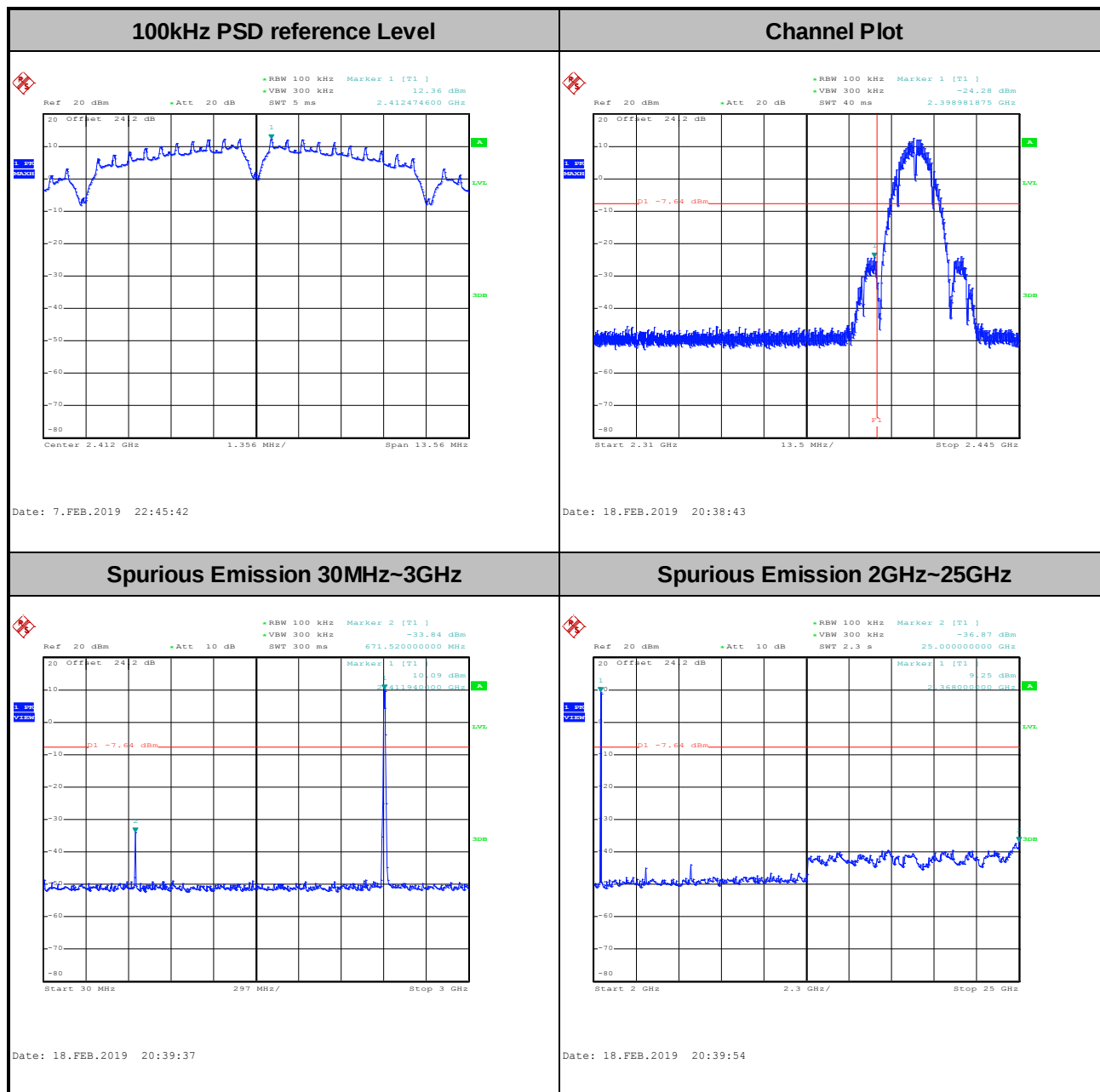


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer :	Richard Qiu	Temperature :	21~25°C
		Relative Humidity :	51~54%

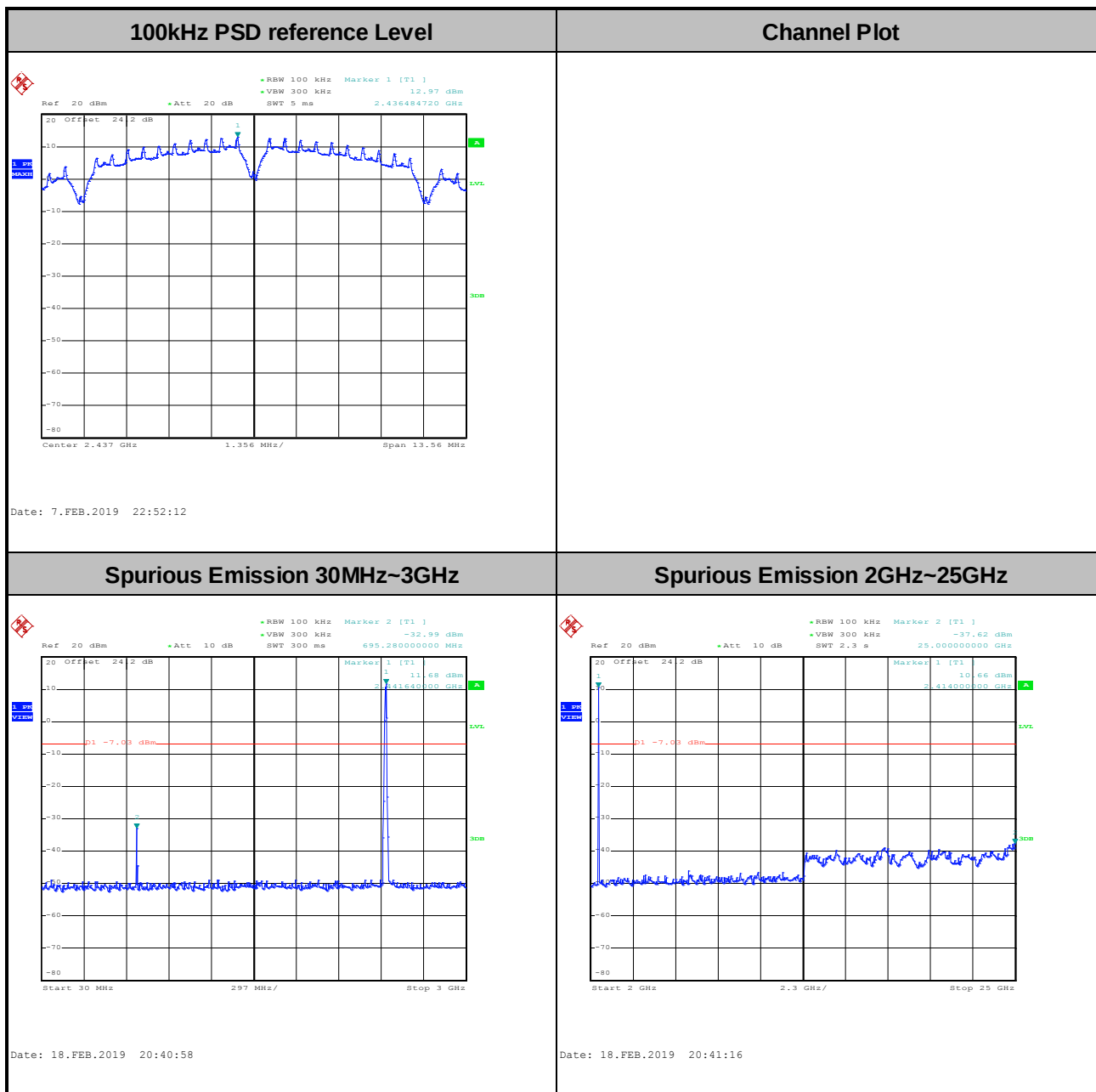
Number of TX = 1, Ant. 2 (Measured)

Test Mode :	802.11b	Test Channel :	01
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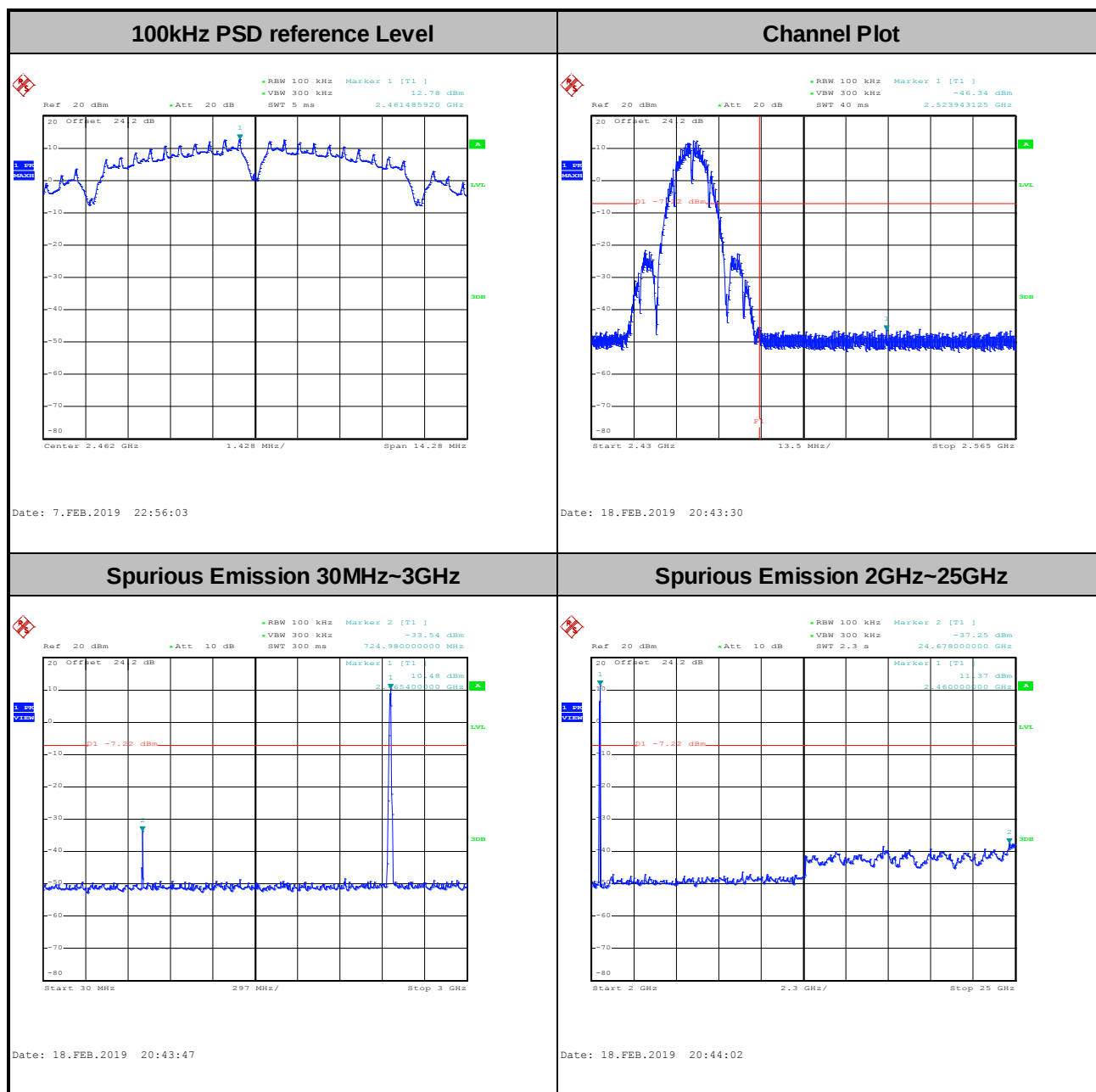


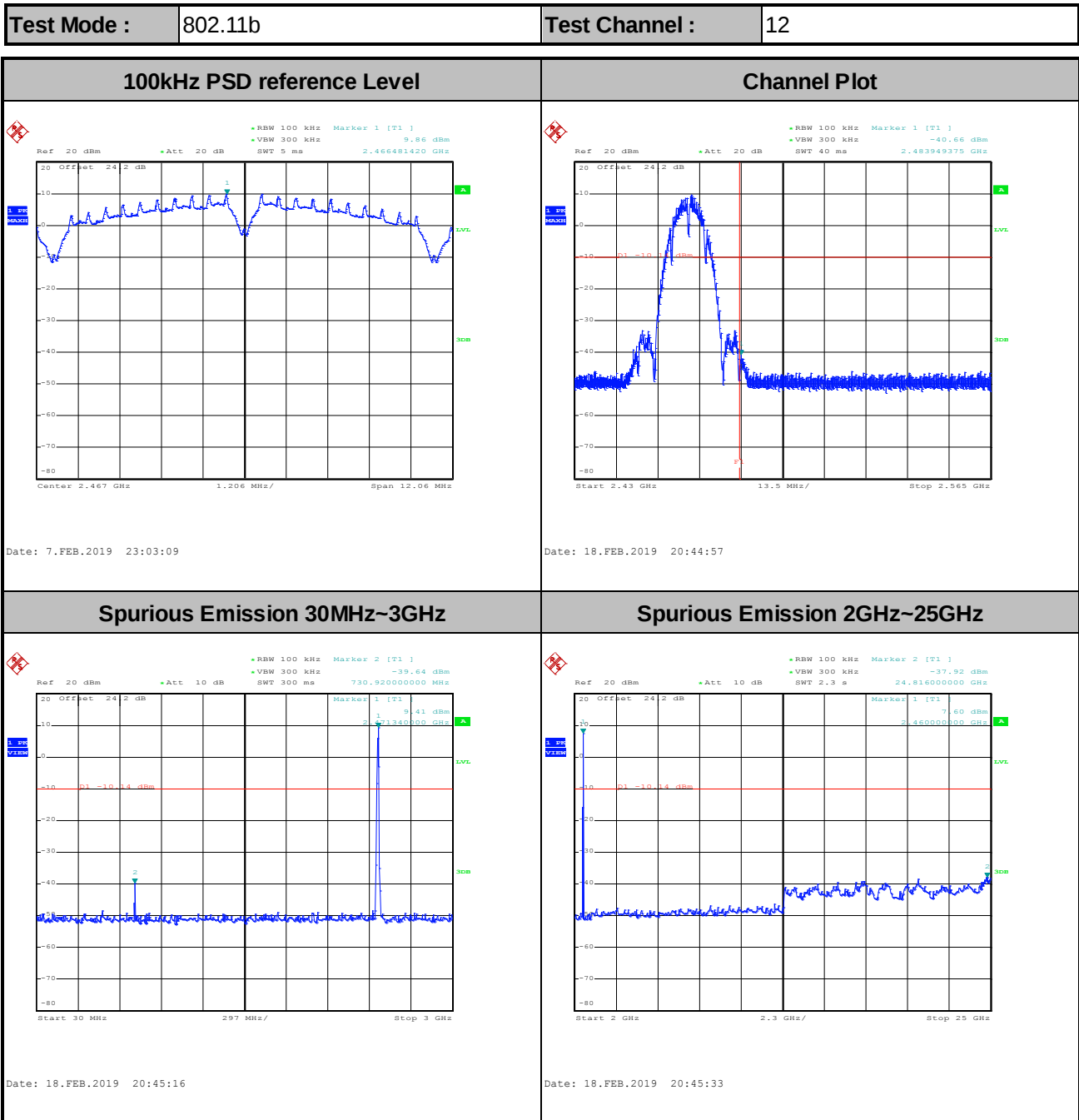
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Test Mode :	802.11b	Test Channel :	11
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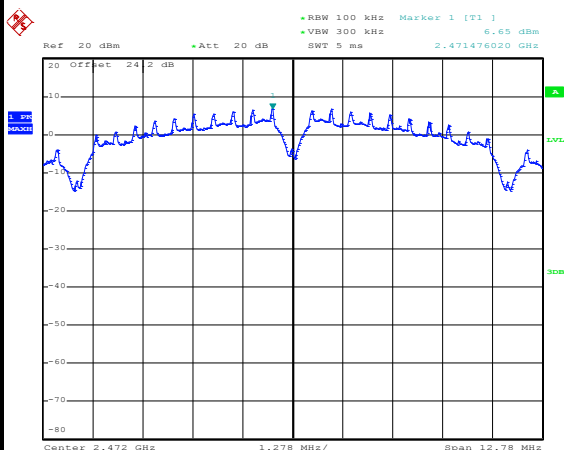






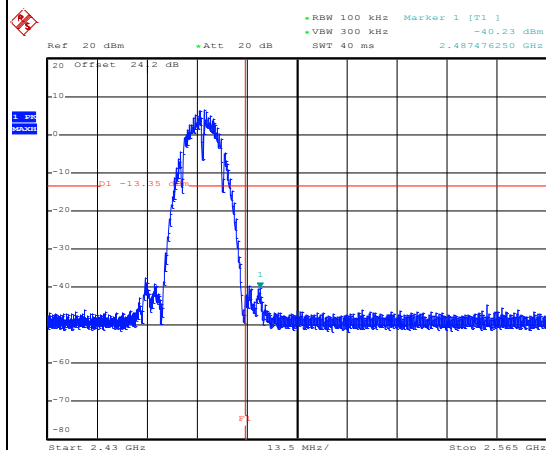
Test Mode :	802.11b	Test Channel :	13
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100kHz PSD reference Level



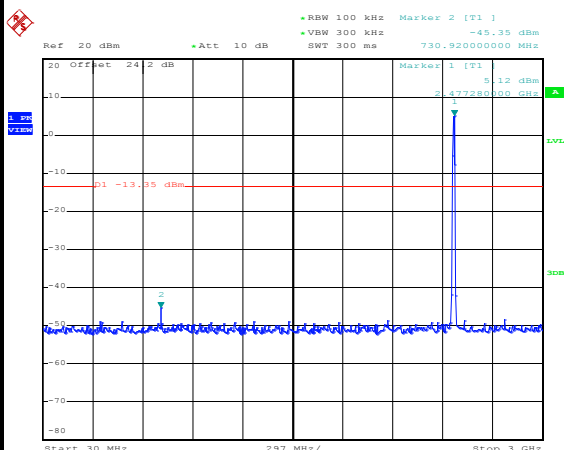
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Channel Plot



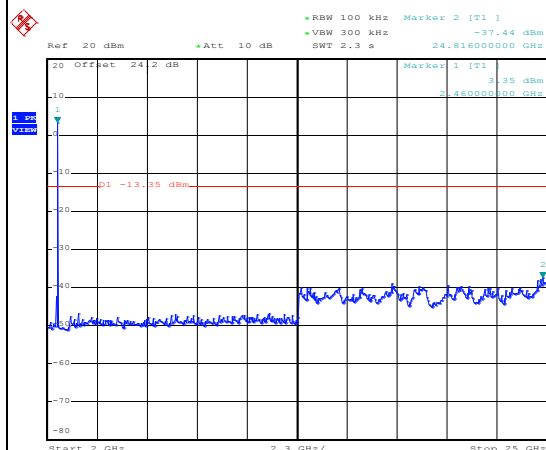
Date: 18.FEB.2019 20:48:15

Spurious Emission 30MHz~3GHz



Date: 18.FEB.2019 20:48:43

Spurious Emission 2GHz~25GHz

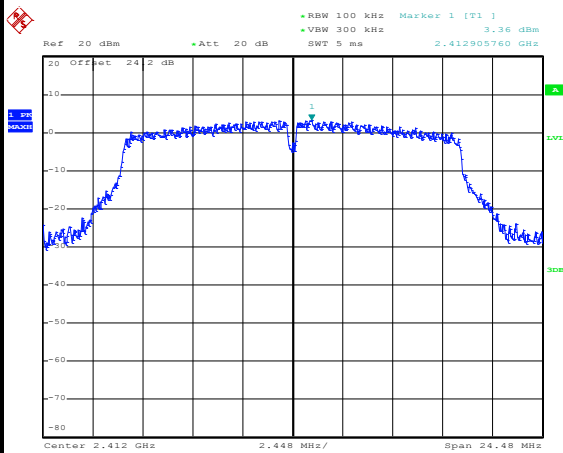


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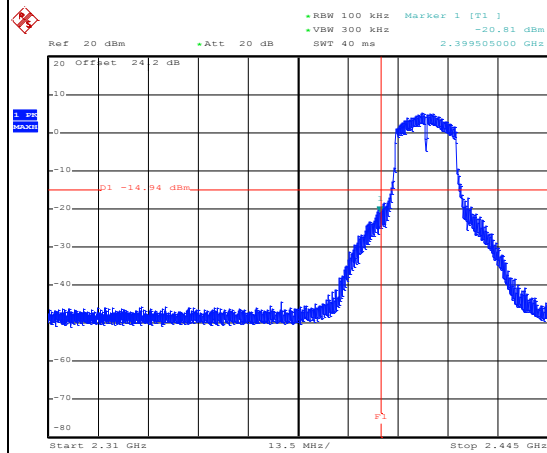
Test Mode :	802.11g	Test Channel :	01
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100kHz PSD reference Level



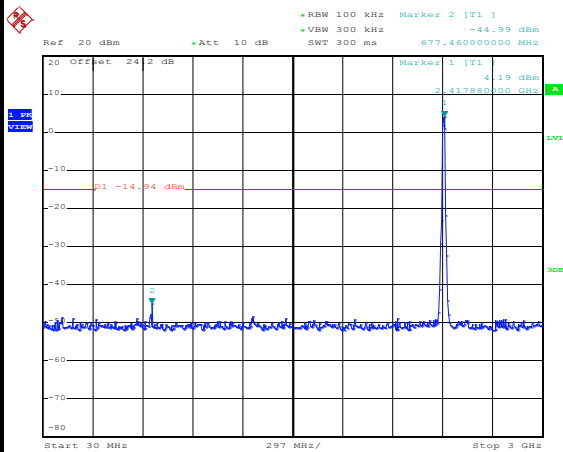
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Channel Plot



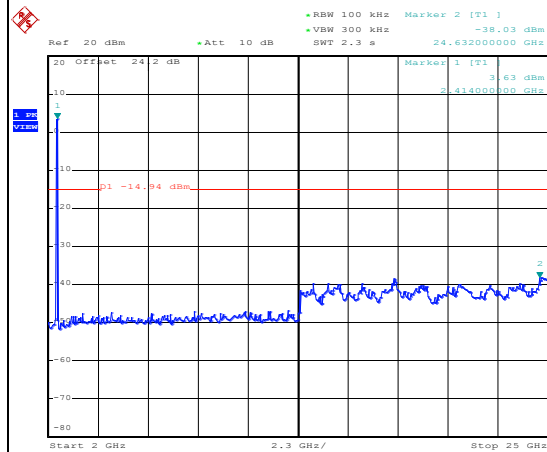
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Spurious Emission 30MHz~3GHz



Date: 18.FEB.2019 20:51:56

Spurious Emission 2GHz~25GHz

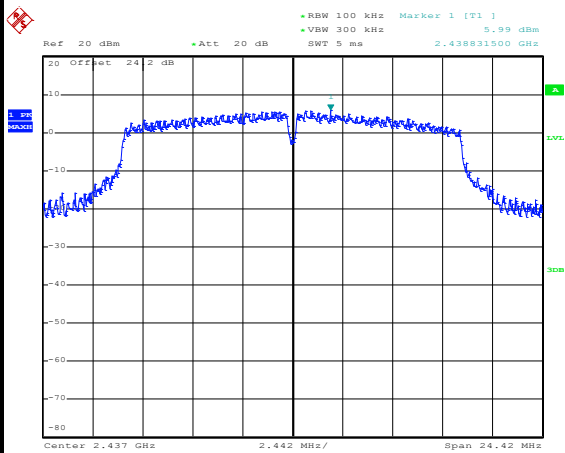


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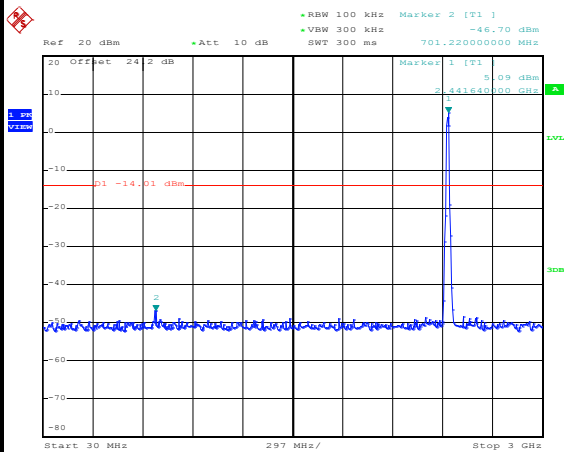
100kHz PSD reference Level



Date: 8.FEB.2019 00:19:39

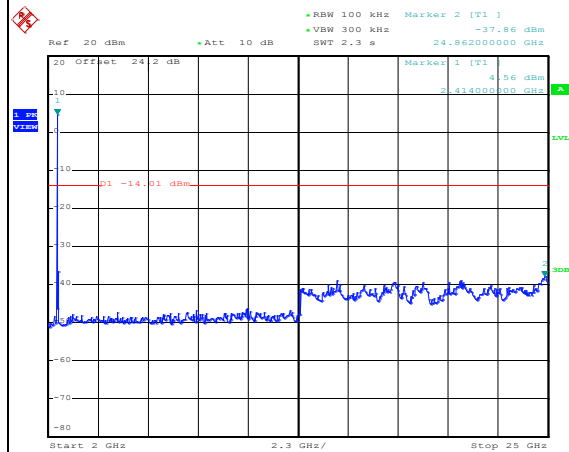
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 18.FEB.2019 20:53:30

Spurious Emission 2GHz~25GHz

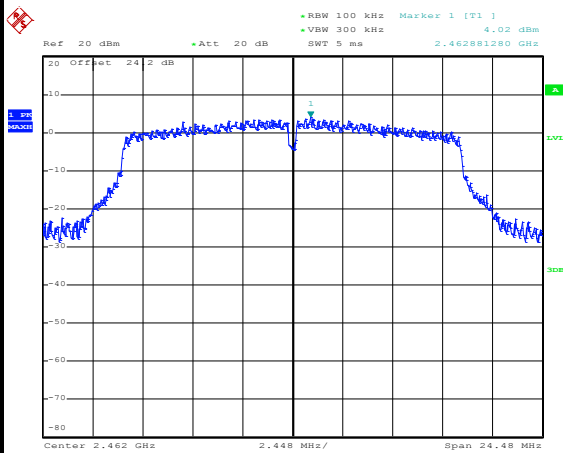


Date: 18.FEB.2019 20:53:45

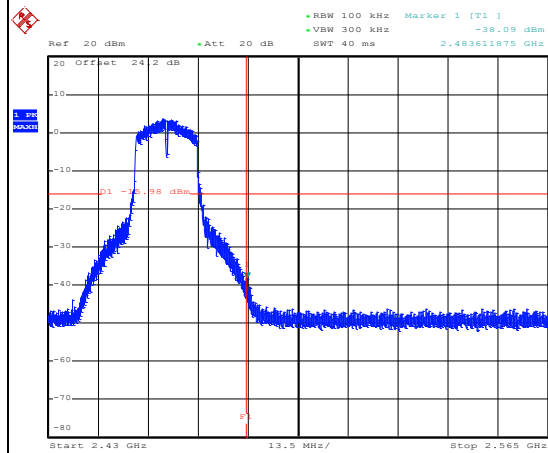


Test Mode :	802.11g	Test Channel :	11
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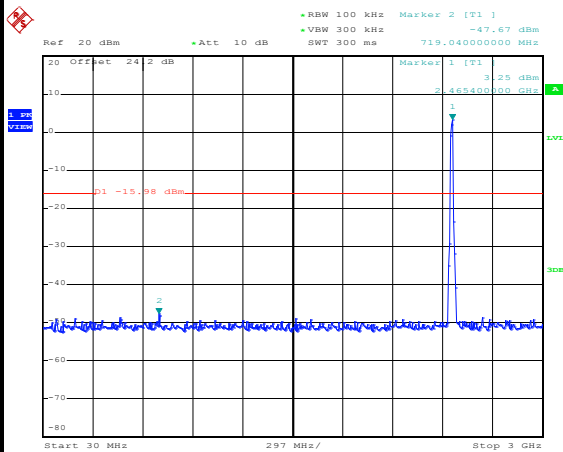
100kHz PSD reference Level



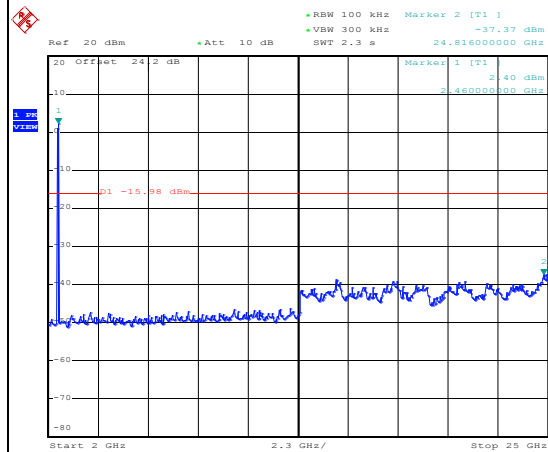
Channel Plot



Spurious Emission 30MHz~3GHz



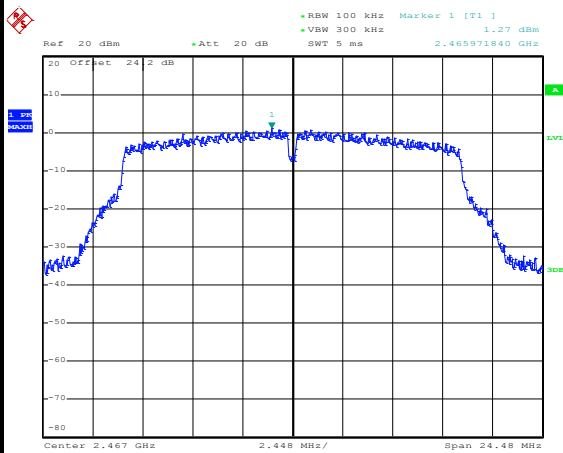
Spurious Emission 2GHz~25GHz





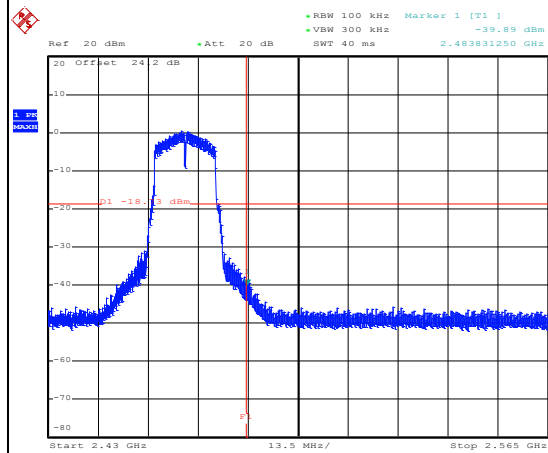
Test Mode :	802.11g	Test Channel :	12
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100kHz PSD reference Level



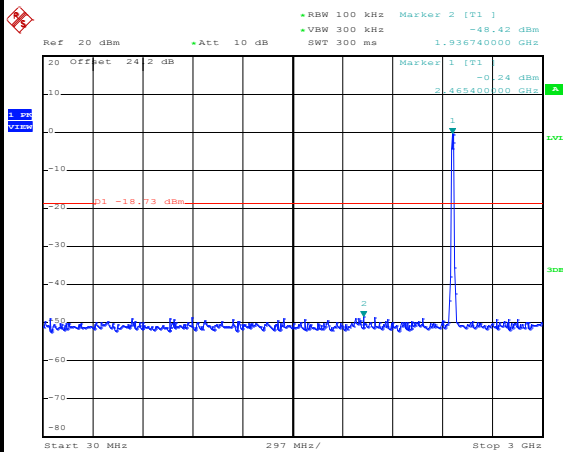
Date: 8.FEB.2019 00:26:14

Channel Plot



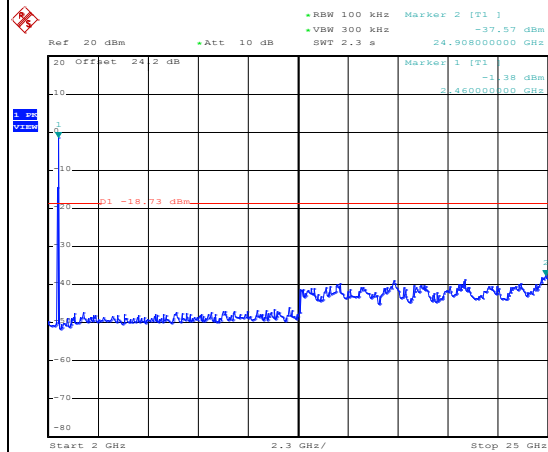
Date: 18.FEB.2019 20:57:30

Spurious Emission 30MHz~3GHz



Date: 18.FEB.2019 20:57:50

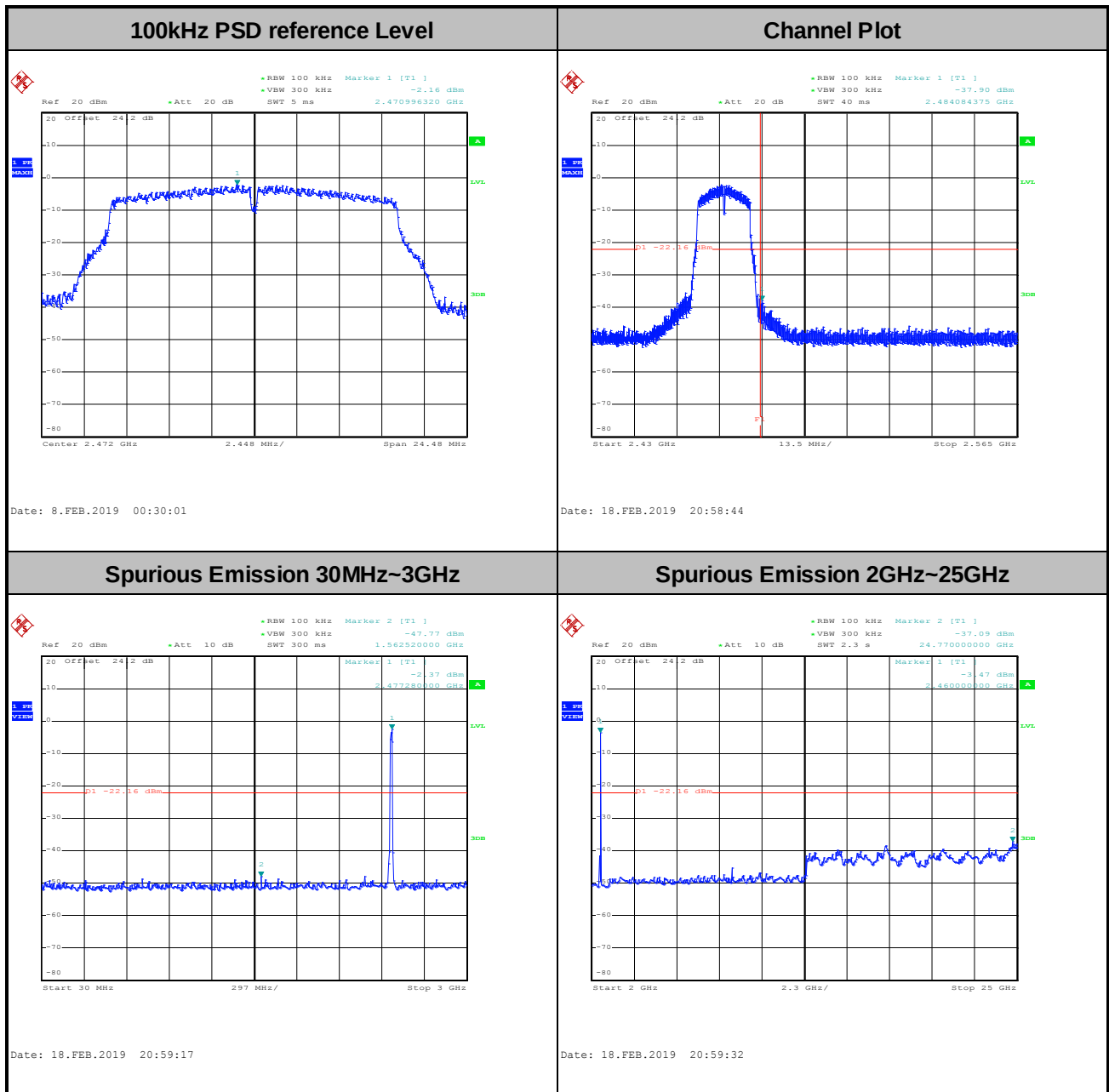
Spurious Emission 2GHz~25GHz



Date: 18.FEB.2019 20:58:06



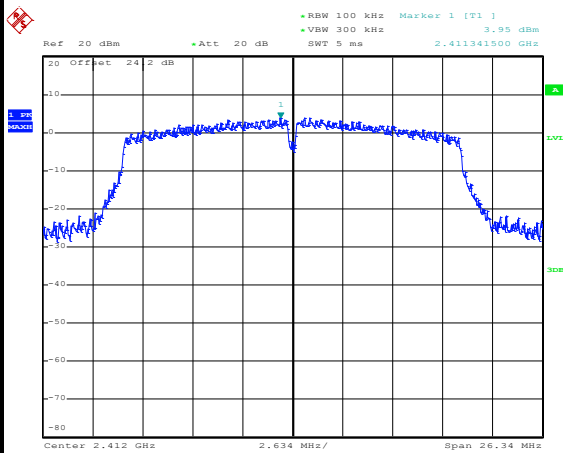
Test Mode :	802.11g	Test Channel :	13
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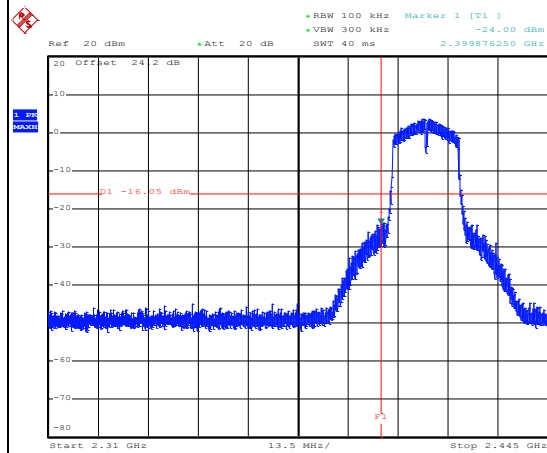
Test Mode :	802.11n HT20	Test Channel :	01
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100kHz PSD reference Level



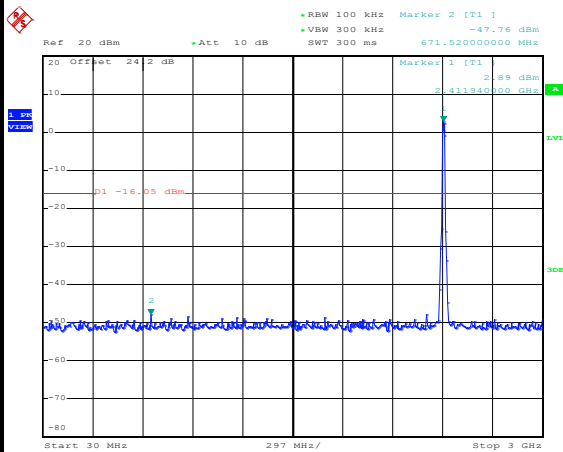
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Channel Plot



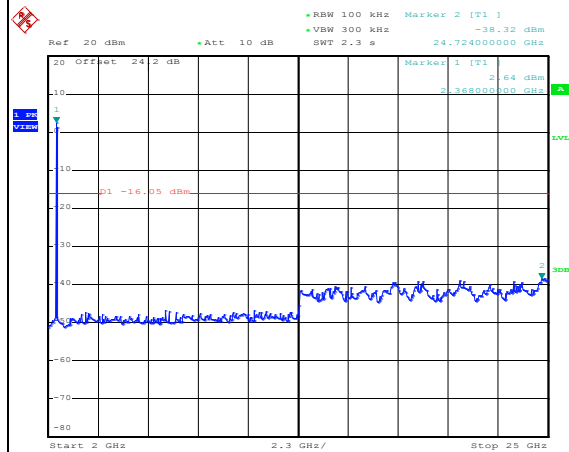
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Spurious Emission 30MHz~3GHz

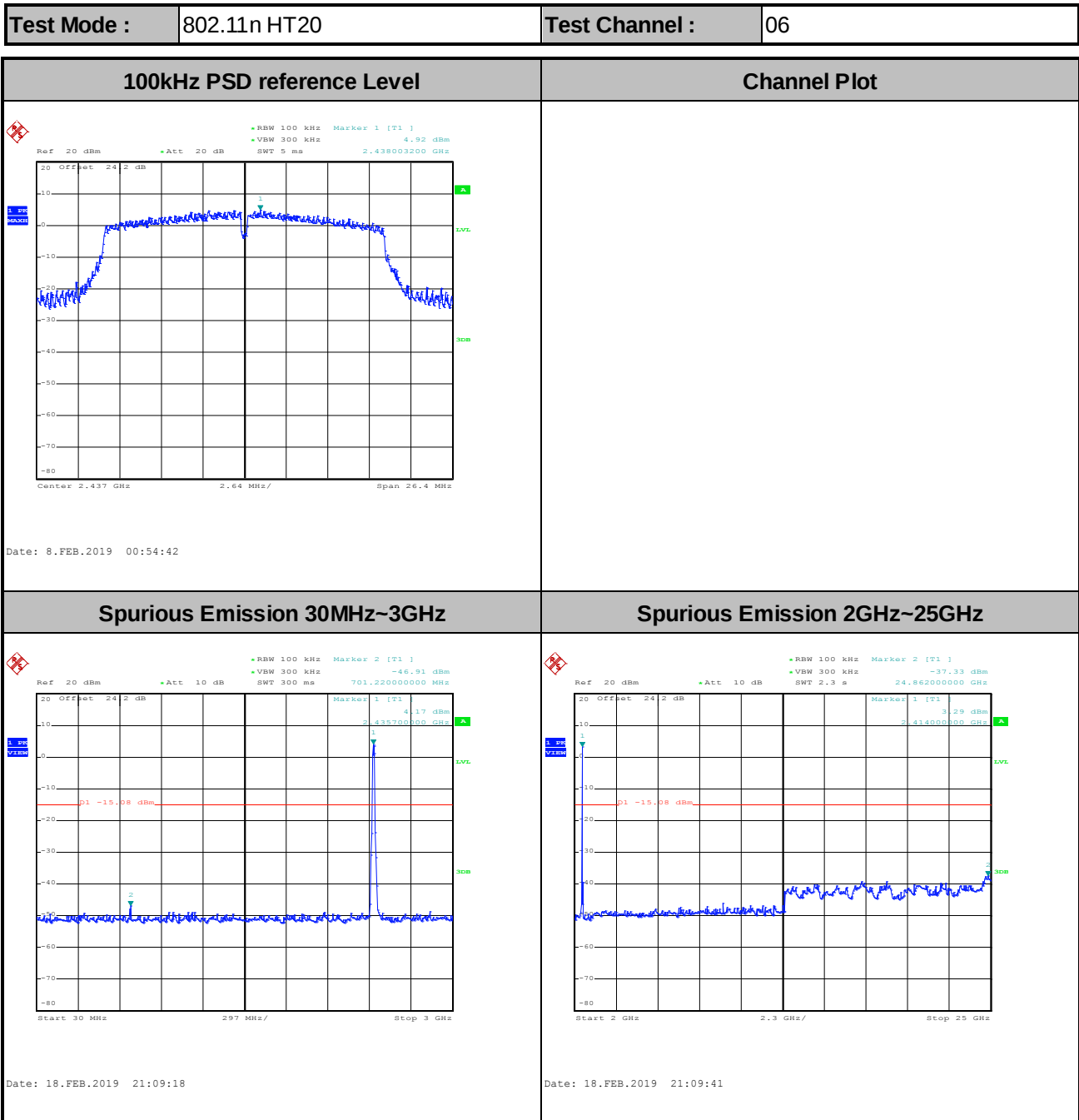


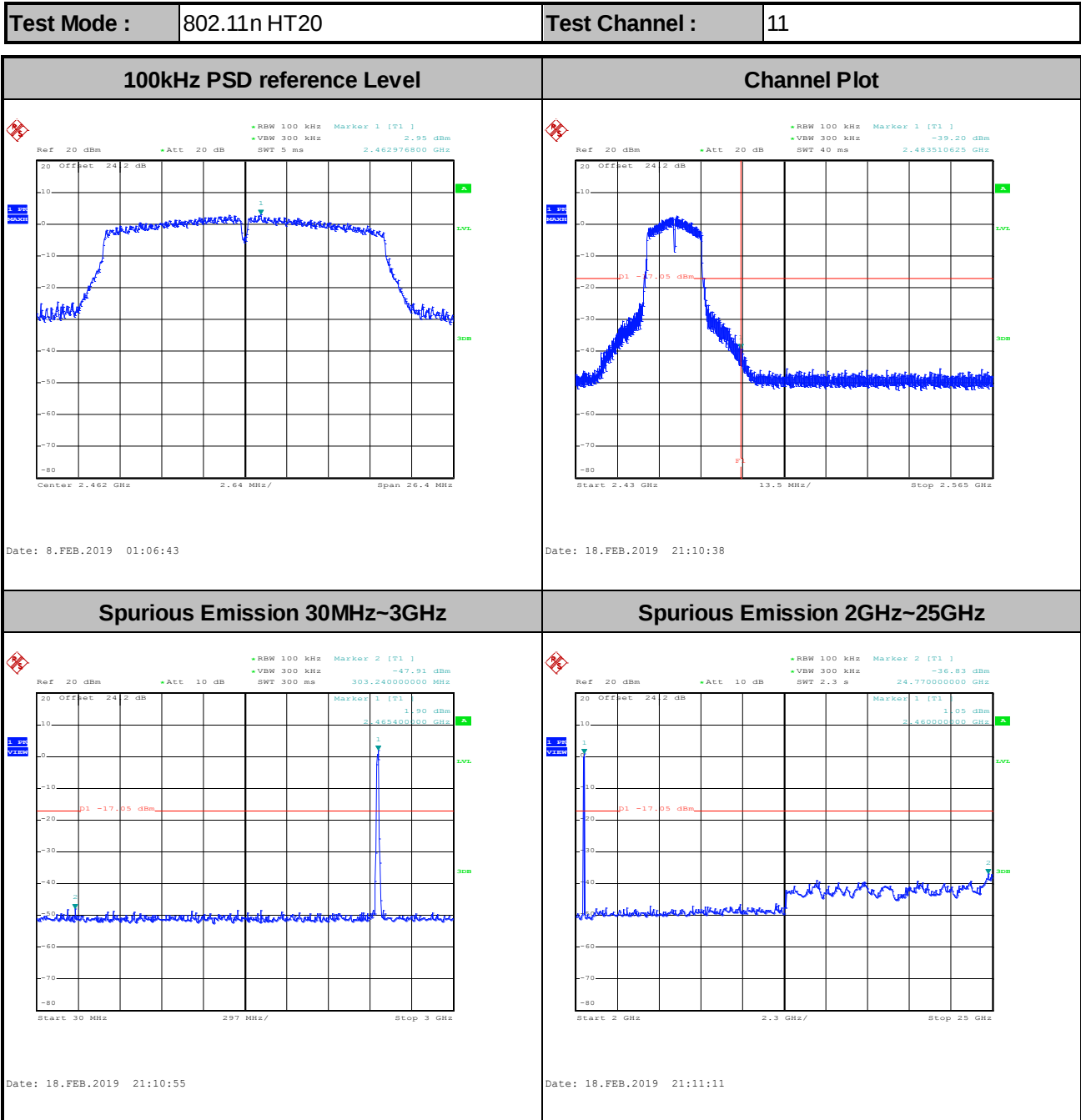
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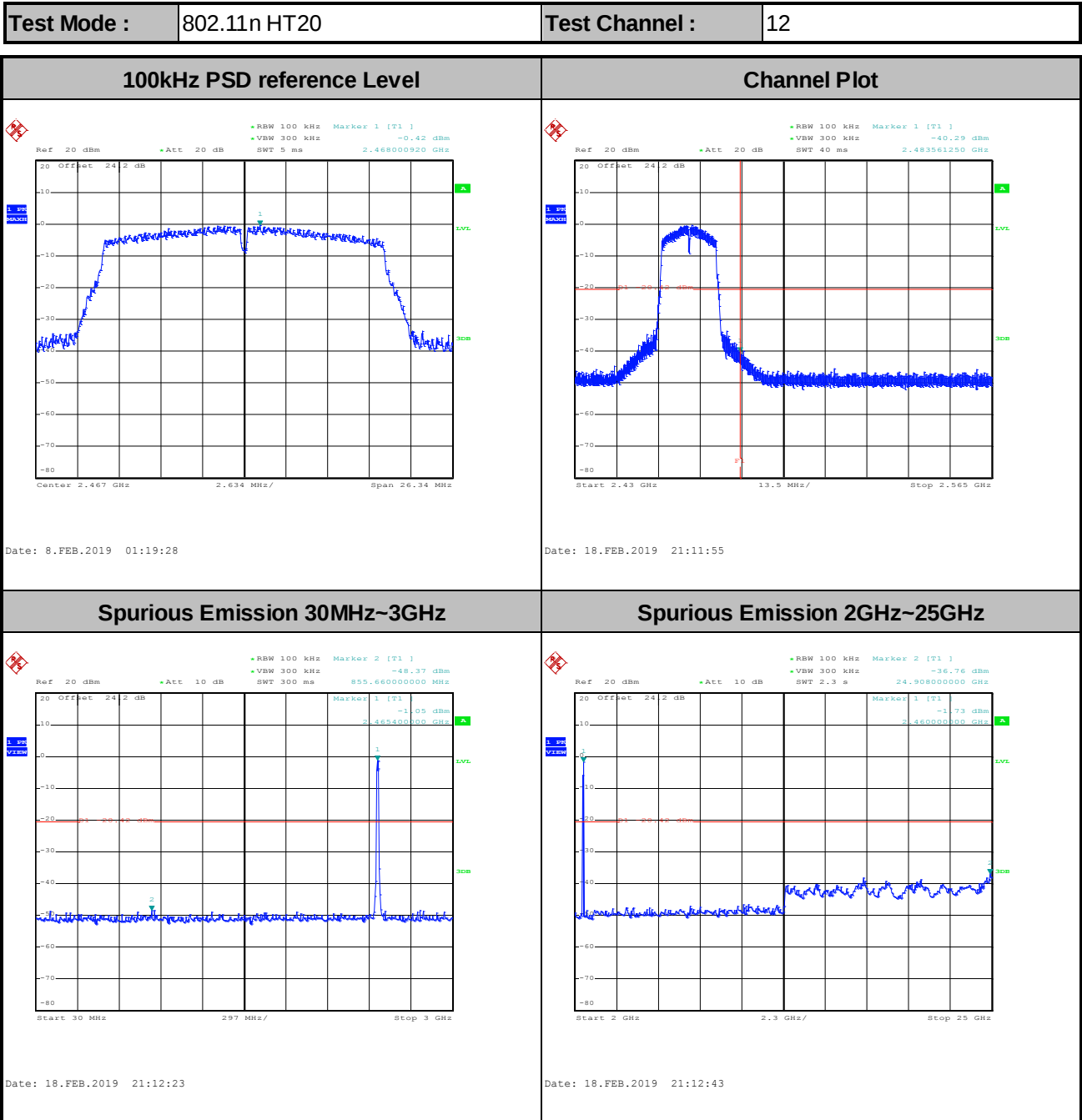
Spurious Emission 2GHz~25GHz



Date: 18.FEB.2019 21:07:18



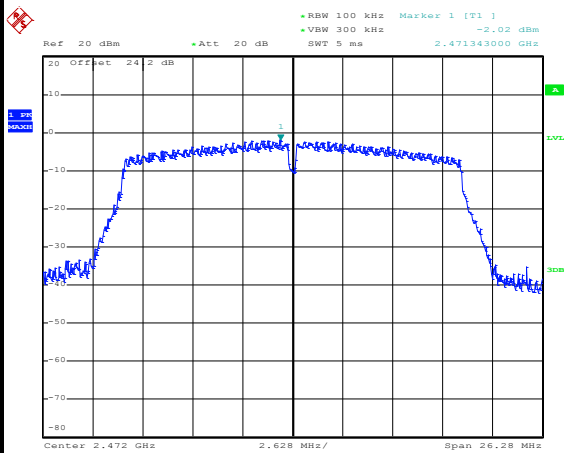






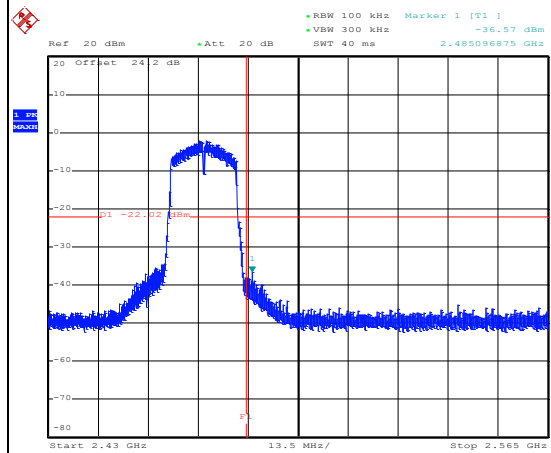
Test Mode :	802.11n HT20	Test Channel :	13
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100kHz PSD reference Level



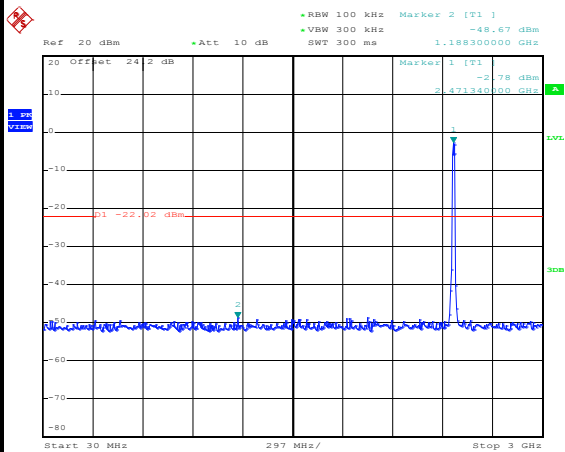
Date: 18.FEB.2019 21:14:41

Channel Plot



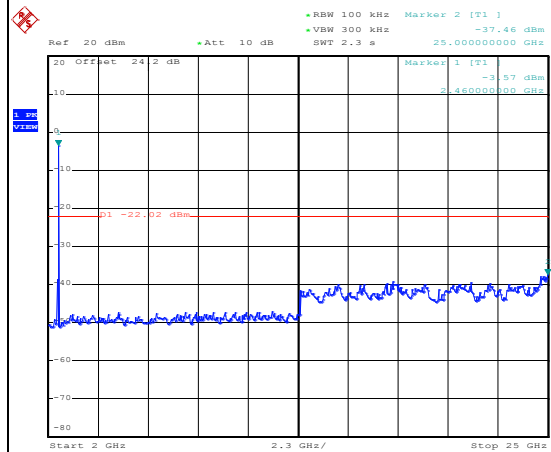
Date: 18.FEB.2019 21:15:09

Spurious Emission 30MHz~3GHz



Date: 18.FEB.2019 21:15:27

Spurious Emission 2GHz~25GHz



Date: 18.FEB.2019 21:15:42

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

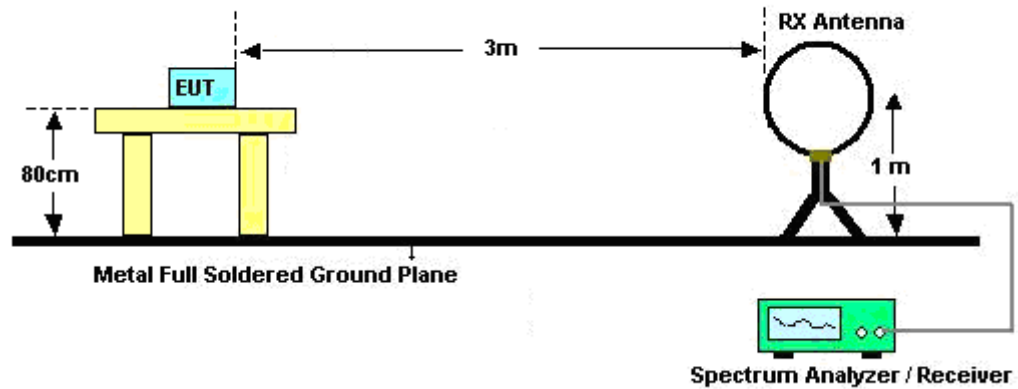
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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:

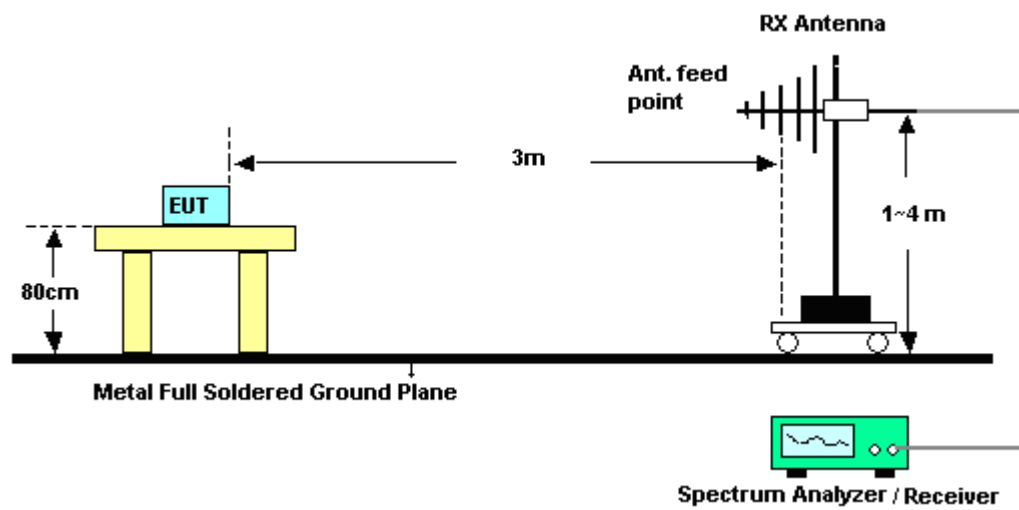
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

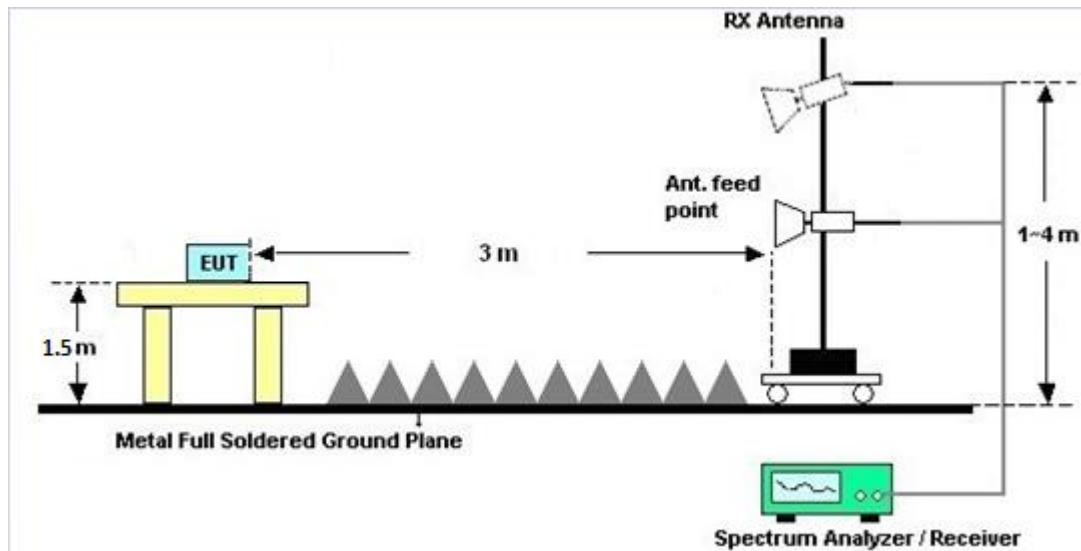
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

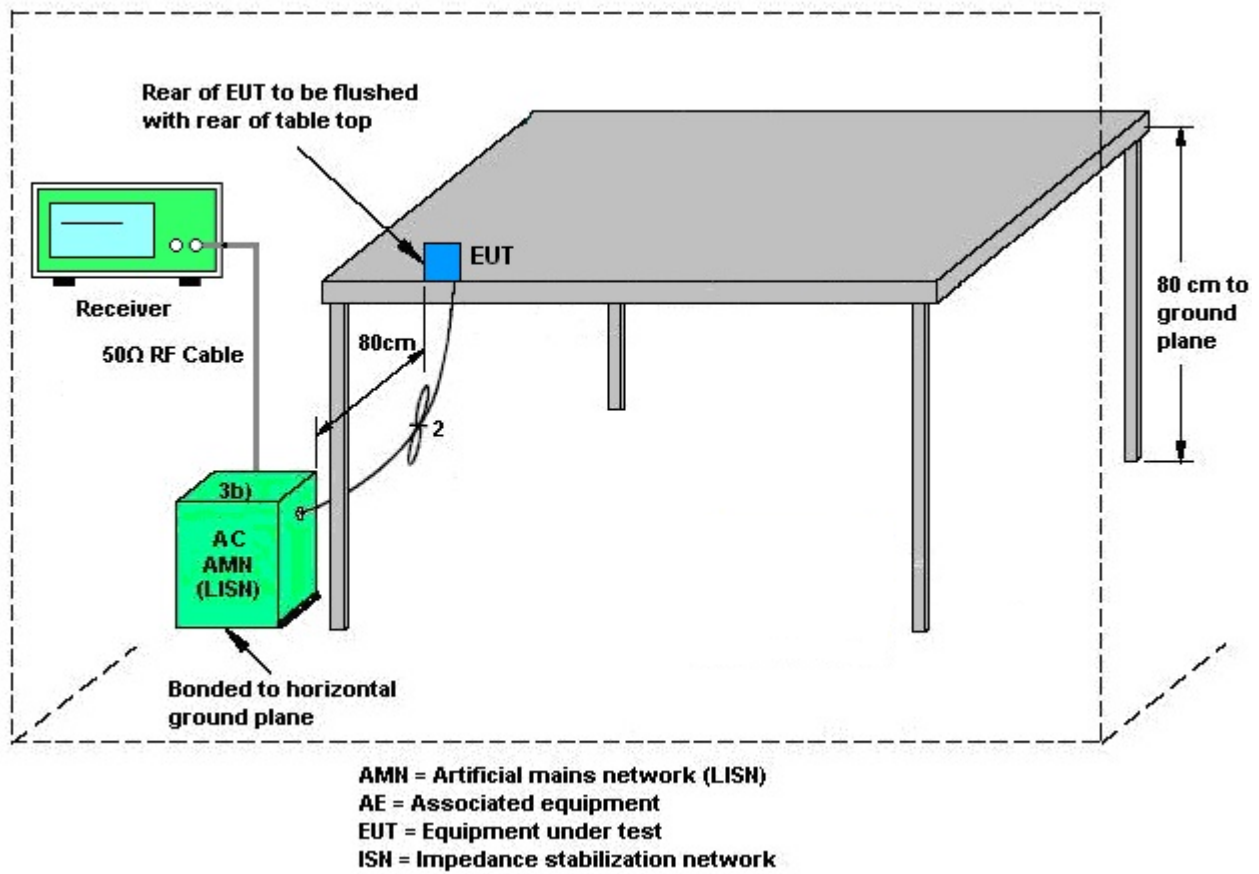
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 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
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 06, 2018	Jan. 29, 2019~ Feb. 18, 2019	Mar. 05, 2019	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1218006	N/A	Oct. 08, 2018	Jan. 29, 2019~ Feb. 18, 2019	Oct. 07, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207363	300MHz~40GHz	Oct. 08, 2018	Jan. 29, 2019~ Feb. 18, 2019	Oct. 07, 2019	Conducted (TH05-HY)
Power Sensor	DARE	RadiPower	15100041S NO09	10MHz~6GHz	May 07, 2018	Jan. 29, 2019~ Feb. 18, 2019	May 06, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Jan. 29, 2019~ Feb. 18, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC130048 4	N/A	Apr. 17, 2018	Jan. 29, 2019~ Feb. 18, 2019	Apr. 16, 2019	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Feb. 13, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Feb. 13, 2019	Nov. 11, 2019	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 06, 2018	Feb. 13, 2019	Mar. 05, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Feb. 13, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Feb. 13, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Feb. 13, 2019	N/A	Conduction (CO05-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Sep. 14, 2018	Feb. 13, 2019	Sep. 13, 2019	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 08, 2018	Feb. 13, 2019	Nov. 07, 2019	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Nov. 23, 2017	Jan. 30, 2019~ Feb. 21, 2019	Nov. 22, 2019	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL6111D&0 0802N1D01N- 06	47020&06	30MHz to 1GHz	Oct. 13, 2018	Jan. 30, 2019~ Feb. 21, 2019	Oct. 12, 2019	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-152 2	1G~18GHz	Sep. 07, 2018	Jan. 30, 2019~ Feb. 21, 2019	Sep. 06, 2019	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 576	18GHz ~ 40GHz	May 08, 2018	Jan. 30, 2019~ Feb. 21, 2019	May 07, 2019	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY572901 11	3Hz~26.5GHz	Nov. 29, 2018	Jan. 30, 2019~ Feb. 21, 2019	Nov. 28, 2019	Radiation (03CH16-HY)
Spectrum Analyzer	Agilent	N9010A	MY534701 18	10Hz~44GHz	Apr. 17, 2018	Jan. 30, 2019~ Feb. 21, 2019	Apr. 16, 2019	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1000MHz	Oct.02. 2018	Jan. 30, 2019~ Feb. 21, 2019	Oct.01. 2019	Radiation (03CH16-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03	171000180 0054001	1GHz~18GHz	Apr. 16, 2018	Jan. 30, 2019~ Feb. 21, 2019	Apr. 15, 2019	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY532702 64	1GHz~26.5GHz	Dec.12.2018	Jan. 30, 2019~ Feb. 21, 2019	Dec.11.2019	Radiation (03CH16-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Jan. 30, 2019~ Feb. 21, 2019	Jul. 15, 2019	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 14, 2018	Jan. 30, 2019~ Feb. 21, 2019	Mar. 13, 2019	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15539/ 4	30M-18G	Mar. 14, 2018	Jan. 30, 2019~ Feb. 21, 2019	Mar. 13, 2019	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36979/ 4	30M~18GHz	Mar. 14, 2018	Jan. 30, 2019~ Feb. 21, 2019	Mar. 13, 2019	Radiation (03CH16-HY)
Hygrometer	TECPEL	DTM-303B	TP162965	N/A	Oct. 22, 2018	Jan. 30, 2019~ Feb. 21, 2019	Oct. 21, 2019	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Jan. 30, 2019~ Feb. 21, 2019	N/A	Radiation (03CH16-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.2
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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% ($U = 2Uc(y)$)	5.8
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.9
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Richard Qiu	Temperature:	21~25	°C
Test Date:	2019/1/29 ~ 2019/02/18	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1		
11b	1Mbps	1	1	2412	-	14.25	-	9.04	0.50	Pass
11b	1Mbps	1	6	2437	-	14.40	-	9.04	0.50	Pass
11b	1Mbps	1	11	2462	-	14.40	-	9.52	0.50	Pass
11b	1Mbps	1	12	2467	-	13.75	-	8.04	0.50	Pass
11b	1Mbps	1	13	2472	-	13.55	-	8.52	0.50	Pass
11g	6Mbps	1	1	2412	-	16.70	-	16.32	0.50	Pass
11g	6Mbps	1	6	2437	-	16.95	-	16.28	0.50	Pass
11g	6Mbps	1	11	2462	-	16.70	-	16.32	0.50	Pass
11g	6Mbps	1	12	2467	-	16.70	-	16.32	0.50	Pass
11g	6Mbps	1	13	2472	-	16.70	-	16.32	0.50	Pass
HT20	MCS0	1	1	2412	-	17.85	-	17.56	0.50	Pass
HT20	MCS0	1	6	2437	-	17.85	-	17.60	0.50	Pass
HT20	MCS0	1	11	2462	-	17.75	-	17.60	0.50	Pass
HT20	MCS0	1	12	2467	-	17.70	-	17.56	0.50	Pass
HT20	MCS0	1	13	2472	-	17.70	-	17.52	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band															
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak Conducted Power (dBm)		Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11b	1Mbps	1	1	2412	-	23.25	-	30.00	-	3.00	-	26.25	-	36.00	Pass
11b	1Mbps	1	6	2437	-	23.23	-	30.00	-	3.00	-	26.23	-	36.00	Pass
11b	1Mbps	1	11	2462	-	23.13	-	30.00	-	3.00	-	26.13	-	36.00	Pass
11b	1Mbps	1	12	2467	-	20.20	-	30.00	-	3.00	-	23.20	-	36.00	Pass
11b	1Mbps	1	13	2472	-	17.07	-	30.00	-	3.00	-	20.07	-	36.00	Pass
11g	6Mbps	1	1	2412	-	24.61	-	30.00	-	3.00	-	27.61	-	36.00	Pass
11g	6Mbps	1	6	2437	-	24.75	-	30.00	-	3.00	-	27.75	-	36.00	Pass
11g	6Mbps	1	11	2462	-	24.16	-	30.00	-	3.00	-	27.16	-	36.00	Pass
11g	6Mbps	1	12	2467	-	22.54	-	30.00	-	3.00	-	25.54	-	36.00	Pass
11g	6Mbps	1	13	2472	-	20.06	-	30.00	-	3.00	-	23.06	-	36.00	Pass
HT20	MCS0	1	1	2412	-	24.31	-	30.00	-	3.00	-	27.31	-	36.00	Pass
HT20	MCS0	1	6	2437	-	24.34	-	30.00	-	3.00	-	27.34	-	36.00	Pass
HT20	MCS0	1	11	2462	-	23.85	-	30.00	-	3.00	-	26.85	-	36.00	Pass
HT20	MCS0	1	12	2467	-	22.43	-	30.00	-	3.00	-	25.43	-	36.00	Pass
HT20	MCS0	1	13	2472	-	20.42	-	30.00	-	3.00	-	23.42	-	36.00	Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band							
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Average Conducted Power (dBm)		
					Ant 0	Ant 1	SUM
11b	1Mbps	1	1	2412	-	21.30	-
11b	1Mbps	1	6	2437	-	21.40	
11b	1Mbps	1	11	2462	-	21.40	
11b	1Mbps	1	12	2467	-	18.20	
11b	1Mbps	1	13	2472	-	15.10	
11g	6Mbps	1	1	2412	-	18.60	
11g	6Mbps	1	6	2437	-	19.10	
11g	6Mbps	1	11	2462	-	17.00	
11g	6Mbps	1	12	2467	-	14.10	
11g	6Mbps	1	13	2472	-	11.10	
HT20	MCS0	1	1	2412	-	17.40	
HT20	MCS0	1	6	2437	-	18.10	
HT20	MCS0	1	11	2462	-	16.00	
HT20	MCS0	1	12	2467	-	13.40	
HT20	MCS0	1	13	2472	-	11.50	

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band											
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)		DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 0	Ant 1	Ant 0	Ant 1	Ant 0	Ant 1	
11b	1Mbps	1	1	2412	-	-1.64	-	3.00	-	8.00	Pass
11b	1Mbps	1	6	2437	-	-0.37	-	3.00	-	8.00	Pass
11b	1Mbps	1	11	2462	-	-1.48	-	3.00	-	8.00	Pass
11b	1Mbps	1	12	2467	-	-4.08	-	3.00	-	8.00	Pass
11b	1Mbps	1	13	2472	-	-7.38	-	3.00	-	8.00	Pass
11g	6Mbps	1	1	2412	-	-7.68	-	3.00	-	8.00	Pass
11g	6Mbps	1	6	2437	-	-4.70	-	3.00	-	8.00	Pass
11g	6Mbps	1	11	2462	-	-7.79	-	3.00	-	8.00	Pass
11g	6Mbps	1	12	2467	-	-11.44	-	3.00	-	8.00	Pass
11g	6Mbps	1	13	2472	-	-13.16	-	3.00	-	8.00	Pass
HT20	MCS0	1	1	2412	-	-7.74	-	3.00	-	8.00	Pass
HT20	MCS0	1	6	2437	-	-5.70	-	3.00	-	8.00	Pass
HT20	MCS0	1	11	2462	-	-7.58	-	3.00	-	8.00	Pass
HT20	MCS0	1	12	2467	-	-11.20	-	3.00	-	8.00	Pass
HT20	MCS0	1	13	2472	-	-14.01	-	3.00	-	8.00	Pass

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



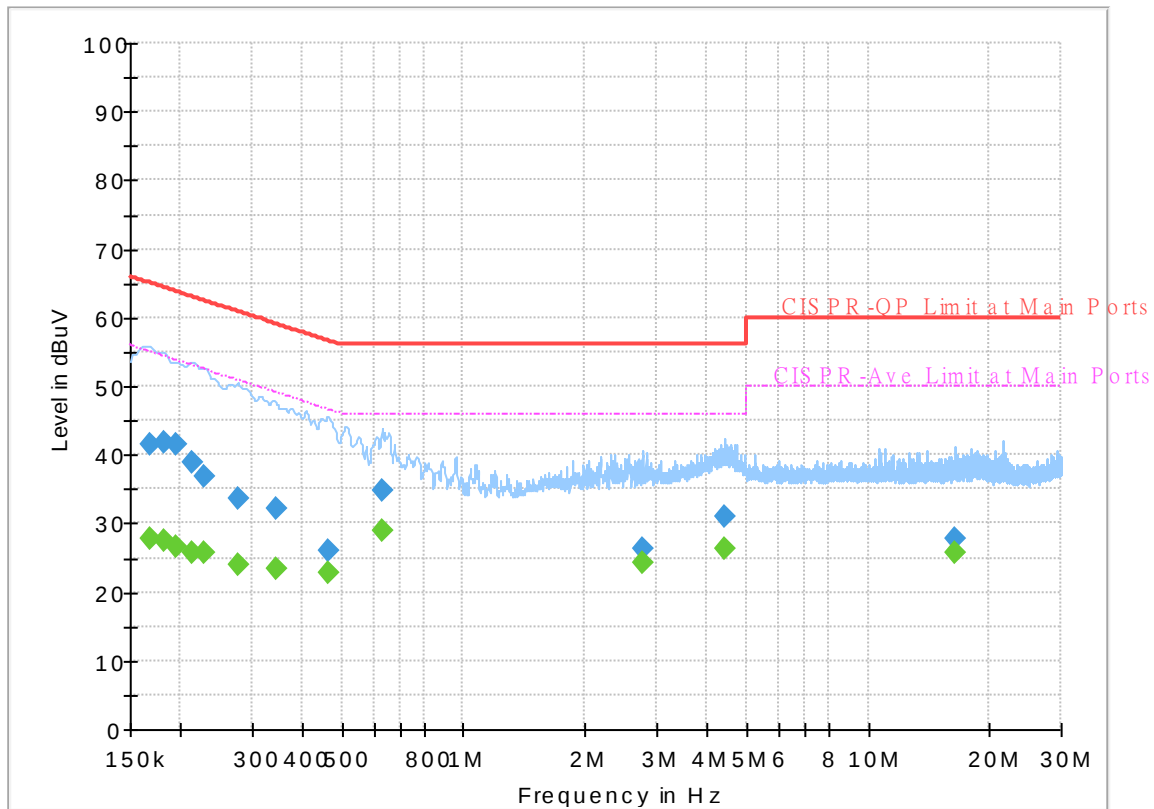
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Jimmy Chang	Temperature :	24~26℃
		Relative Humidity :	50~53%

EUT Information

Report NO : 8O2938-01
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

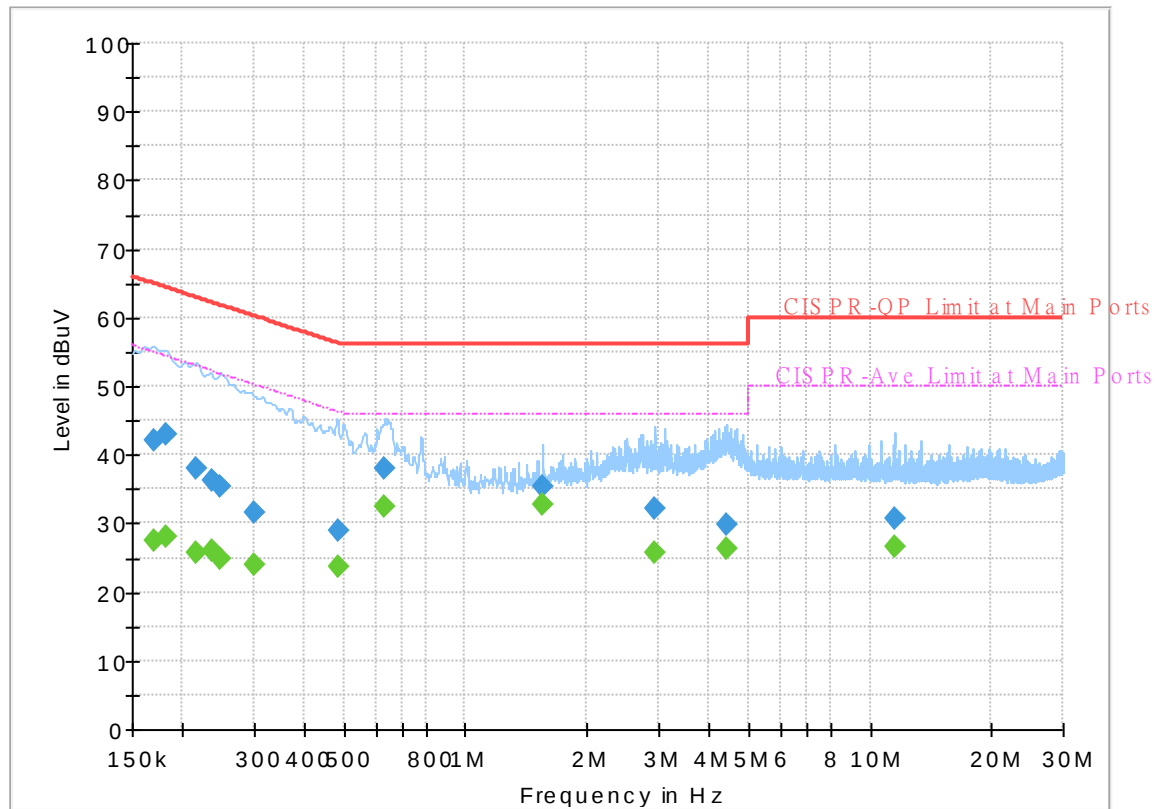
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.168000	41.42	---	65.06	23.64	L1	OFF	19.5
0.168000	---	27.83	55.06	27.23	L1	OFF	19.5
0.181500	41.82	---	64.42	22.60	L1	OFF	19.5
0.181500	---	27.61	54.42	26.81	L1	OFF	19.5
0.195000	41.41	---	63.82	22.41	L1	OFF	19.5
0.195000	---	26.63	53.82	27.19	L1	OFF	19.5
0.213000	38.82	---	63.09	24.27	L1	OFF	19.5
0.213000	---	25.81	53.09	27.28	L1	OFF	19.5
0.228750	36.80	---	62.50	25.70	L1	OFF	19.5
0.228750	---	25.82	52.50	26.68	L1	OFF	19.5
0.276000	33.57	---	60.94	27.37	L1	OFF	19.5
0.276000	---	23.88	50.94	27.06	L1	OFF	19.5
0.343500	32.04	---	59.12	27.08	L1	OFF	19.5
0.343500	---	23.46	49.12	25.66	L1	OFF	19.5
0.462750	26.11	---	56.64	30.53	L1	OFF	19.5
0.462750	---	22.91	46.64	23.73	L1	OFF	19.5
0.629250	34.74	---	56.00	21.26	L1	OFF	19.6
0.629250	---	28.88	46.00	17.12	L1	OFF	19.6
2.773500	26.28	---	56.00	29.72	L1	OFF	19.6
2.773500	---	24.21	46.00	21.79	L1	OFF	19.6
4.438500	30.93	---	56.00	25.07	L1	OFF	19.7

4.438500	---	26.44	46.00	19.56	L1	OFF	19.7
16.467000	27.90	---	60.00	32.10	L1	OFF	20.1
16.467000	---	25.67	50.00	24.33	L1	OFF	20.1

EUT Information

Report NO : 8O2938-01
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170250	42.16	---	64.95	22.79	N	OFF	19.5
0.170250	---	27.44	54.95	27.51	N	OFF	19.5
0.181500	42.88	---	64.42	21.54	N	OFF	19.5
0.181500	---	28.05	54.42	26.37	N	OFF	19.5
0.215250	37.88	---	63.00	25.12	N	OFF	19.5
0.215250	---	25.67	53.00	27.33	N	OFF	19.5
0.235500	36.31	---	62.25	25.94	N	OFF	19.5
0.235500	---	26.14	52.25	26.11	N	OFF	19.5
0.249000	35.28	---	61.79	26.51	N	OFF	19.5
0.249000	---	24.72	51.79	27.07	N	OFF	19.5
0.300750	31.57	---	60.22	28.65	N	OFF	19.5
0.300750	---	24.08	50.22	26.14	N	OFF	19.5
0.483000	28.98	---	56.29	27.31	N	OFF	19.5
0.483000	---	23.83	46.29	22.46	N	OFF	19.5
0.633750	38.06	---	56.00	17.94	N	OFF	19.6
0.633750	---	32.56	46.00	13.44	N	OFF	19.6
1.549500	35.28	---	56.00	20.72	N	OFF	19.6
1.549500	---	32.84	46.00	13.16	N	OFF	19.6
2.946750	32.16	---	56.00	23.84	N	OFF	19.6
2.946750	---	25.70	46.00	20.30	N	OFF	19.6
4.416000	29.89	---	56.00	26.11	N	OFF	19.7

4.416000	---	26.38	46.00	19.62	N	OFF	19.7
11.460750	30.64	---	60.00	29.36	N	OFF	20.0
11.460750	---	26.75	50.00	23.25	N	OFF	20.0



Appendix C. Radiated Spurious Emission

Test Engineer :	Caster Liao, Jacky Hung, and Lewis Ho	Temperature :	22~25°C
		Relative Humidity :	50~54%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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		2377.515	55.89	-18.11	74	40.37	27.21	18.3	29.99	161	313	P	H
		2385.39	44.63	-9.37	54	29.09	27.22	18.31	29.99	161	313	A	H
	*	2412	111.3	-	-	95.66	27.29	18.34	29.99	161	313	P	H
	*	2412	108.19	-	-	92.55	27.29	18.34	29.99	161	313	A	H
		2383.5	55.95	-18.05	74	40.41	27.22	18.31	29.99	376	338	P	V
		2388.225	44.99	-9.01	54	29.44	27.23	18.31	29.99	376	338	A	V
	*	2412	111.55	-	-	95.91	27.29	18.34	29.99	376	338	P	V
	*	2412	108.39	-	-	92.75	27.29	18.34	29.99	376	338	A	V
802.11b CH 06 2437MHz		2378.04	56.17	-17.83	74	40.65	27.21	18.3	29.99	105	133	P	H
		2386.72	44.55	-9.45	54	29	27.23	18.31	29.99	105	133	A	H
	*	2437	113.35	-	-	97.63	27.35	18.35	29.98	105	133	P	H
	*	2437	110.21	-	-	94.49	27.35	18.35	29.98	105	133	A	H
		2499.44	56.9	-17.1	74	40.97	27.5	18.39	29.96	105	133	P	H
		2487.26	45.02	-8.98	54	29.14	27.47	18.38	29.97	105	133	A	H
		2359.28	56.19	-17.81	74	40.76	27.16	18.27	30	368	340	P	V
		2386.86	44.18	-9.82	54	28.63	27.23	18.31	29.99	368	340	A	V
	*	2437	112.27	-	-	96.55	27.35	18.35	29.98	368	340	P	V
	*	2437	109.13	-	-	93.41	27.35	18.35	29.98	368	340	A	V
		2487.26	56.56	-17.44	74	40.68	27.47	18.38	29.97	368	340	P	V
		2485.79	44.62	-9.38	54	28.74	27.47	18.38	29.97	368	340	A	V



802.11b CH 11 2462MHz	*	2462	112.27	-	-	96.46	27.41	18.37	29.97	130	147	P	H
	*	2462	109.14	-	-	93.33	27.41	18.37	29.97	130	147	A	H
		2488.92	57.14	-16.86	74	41.26	27.47	18.38	29.97	130	147	P	H
		2483.52	46.73	-7.27	54	30.86	27.46	18.38	29.97	130	147	A	H
	*	2462	111.24	-	-	95.43	27.41	18.37	29.97	361	320	P	V
	*	2462	108.08	-	-	92.27	27.41	18.37	29.97	361	320	A	V
		2483.76	56.74	-17.26	74	40.87	27.46	18.38	29.97	361	320	P	V
		2483.52	46.49	-7.51	54	30.62	27.46	18.38	29.97	361	320	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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 12 2467MHz	*	2467	109.38	-	-	93.56	27.42	18.37	29.97	130	148	P	H
	*	2467	106.24	-	-	90.42	27.42	18.37	29.97	130	148	A	H
		2483.76	60.64	-13.36	74	44.77	27.46	18.38	29.97	130	148	P	H
		2484.12	53.36	-0.64	54	37.49	27.46	18.38	29.97	130	148	A	H
	*	2467	108.67	-	-	92.85	27.42	18.37	29.97	362	324	P	V
	*	2467	105.5	-	-	89.68	27.42	18.37	29.97	362	324	A	V
		2483.84	60.45	-13.55	74	44.58	27.46	18.38	29.97	362	324	P	V
		2484.12	53.21	-0.79	54	37.34	27.46	18.38	29.97	362	324	A	V
802.11b CH 13 2472MHz	*	2472	105.66	-	-	89.83	27.43	18.37	29.97	131	147	P	H
	*	2472	102.53	-	-	86.7	27.43	18.37	29.97	131	147	A	H
		2484.52	59.99	-14.01	74	44.12	27.46	18.38	29.97	131	147	P	H
		2487.2	52.68	-1.32	54	36.8	27.47	18.38	29.97	131	147	A	H
	*	2472	105.3	-	-	89.47	27.43	18.37	29.97	361	322	P	V
	*	2472	102.18	-	-	86.35	27.43	18.37	29.97	361	322	A	V
		2484.44	60.11	-13.89	74	44.24	27.46	18.38	29.97	361	322	P	V
		2487.24	52.28	-1.72	54	36.4	27.47	18.38	29.97	361	322	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	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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		4824	53.4	-20.6	74	66.93	31.25	13.76	58.54	100	233	P	H
		4824	51.37	-2.63	54	64.9	31.25	13.76	58.54	100	233	A	H
		4824	49.53	-24.47	74	63.06	31.25	13.76	58.54	100	0	P	V
802.11b CH 06 2437MHz		4874	49.78	-24.22	74	63.12	31.35	13.84	58.53	100	0	P	H
		7311	46.97	-27.03	74	54.65	36.07	15.22	58.97	100	0	P	H
		4874	49.58	-24.42	74	62.92	31.35	13.84	58.53	100	0	P	V
		7311	52.43	-21.57	74	60.11	36.07	15.22	58.97	366	75	P	V
		7311	47.42	-6.58	54	55.1	36.07	15.22	58.97	366	75	A	V
802.11b CH 11 2462MHz		4924	49.77	-24.23	74	62.92	31.45	13.92	58.52	100	0	P	H
		7386	46.75	-27.25	74	54.22	36.28	15.15	58.9	100	0	P	H
		4924	49.87	-24.13	74	63.02	31.45	13.92	58.52	100	0	P	V
		7386	49.76	-24.24	74	57.23	36.28	15.15	58.9	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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 12 2467MHz		4934	46.54	-27.46	74	59.65	31.47	13.93	58.51	100	0	P	H
		7401	43.39	-30.61	74	50.82	36.32	15.14	58.89	100	0	P	H
		4934	46.89	-27.11	74	60	31.47	13.93	58.51	100	0	P	V
		7401	43.79	-30.21	74	51.22	36.32	15.14	58.89	100	0	P	V
802.11b CH 13 2472MHz		4944	42.34	-31.66	74	55.41	31.49	13.95	58.51	100	0	P	H
		7416	43.43	-30.57	74	50.75	36.36	15.2	58.88	100	0	P	H
		4944	42.3	-31.7	74	55.37	31.49	13.95	58.51	100	0	P	V
		7416	43.03	-30.97	74	50.35	36.36	15.2	58.88	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11g CH 01 2412MHz		2389.485	63.86	-10.14	74	48.31	27.23	18.31	29.99	161	311	P	H
		2390	51.1	-2.9	54	35.53	27.24	18.32	29.99	161	311	A	H
	*	2412	111.56	-	-	95.92	27.29	18.34	29.99	161	311	P	H
	*	2412	103.53	-	-	87.89	27.29	18.34	29.99	161	311	A	H
		2389.59	65.83	-8.17	74	50.27	27.24	18.31	29.99	384	341	P	V
		2390	52.33	-1.67	54	36.76	27.24	18.32	29.99	384	341	A	V
	*	2412	109.87	-	-	94.23	27.29	18.34	29.99	384	341	P	V
	*	2412	102.46	-	-	86.82	27.29	18.34	29.99	384	341	A	V
802.11g CH 06 2437MHz		2342.34	56.43	-17.57	74	41.06	27.12	18.25	30	105	136	P	H
		2389.94	44.3	-9.7	54	28.73	27.24	18.32	29.99	105	136	A	H
	*	2437	112.57	-	-	96.85	27.35	18.35	29.98	105	136	P	H
	*	2437	105.09	-	-	89.37	27.35	18.35	29.98	105	136	A	H
		2486.7	56.64	-17.36	74	40.76	27.47	18.38	29.97	105	136	P	H
		2486	44.8	-9.2	54	28.92	27.47	18.38	29.97	105	136	A	H
		2365.72	56.38	-17.62	74	40.91	27.18	18.28	29.99	369	321	P	V
		2389.8	44.12	-9.88	54	28.55	27.24	18.32	29.99	369	321	A	V
	*	2437	112.16	-	-	96.44	27.35	18.35	29.98	369	321	P	V
	*	2437	104.51	-	-	88.79	27.35	18.35	29.98	369	321	A	V
		2491.32	56.19	-17.81	74	40.3	27.48	18.38	29.97	369	321	P	V
		2484.25	44.65	-9.35	54	28.78	27.46	18.38	29.97	369	321	A	V



802.11g CH 11 2462MHz	*	2462	110.31	-	-	94.5	27.41	18.37	29.97	127	148	P	H
	*	2462	102.71	-	-	86.9	27.41	18.37	29.97	127	148	A	H
		2484	65.33	-8.67	74	49.46	27.46	18.38	29.97	127	148	P	H
		2483.52	52.63	-1.37	54	36.76	27.46	18.38	29.97	127	148	A	H
	*	2462	109.39	-	-	93.58	27.41	18.37	29.97	400	339	P	V
	*	2462	101.73	-	-	85.92	27.41	18.37	29.97	400	339	A	V
		2484.2	66.37	-7.63	74	50.5	27.46	18.38	29.97	400	339	P	V
		2483.52	53.23	-0.77	54	37.36	27.46	18.38	29.97	400	339	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11g CH 12 2467MHz	*	2467	106.81	-	-	90.99	27.42	18.37	29.97	104	134	P	H
	*	2467	99.29	-	-	83.47	27.42	18.37	29.97	104	134	A	H
		2483.84	67.09	-6.91	74	51.22	27.46	18.38	29.97	104	134	P	H
		2483.52	53.3	-0.7	54	37.43	27.46	18.38	29.97	104	134	A	H
	*	2467	106.41	-	-	90.59	27.42	18.37	29.97	363	321	P	V
	*	2467	98.75	-	-	82.93	27.42	18.37	29.97	363	321	A	V
		2483.64	66.05	-7.95	74	50.18	27.46	18.38	29.97	363	321	P	V
		2483.52	52.62	-1.38	54	36.75	27.46	18.38	29.97	363	321	A	V
802.11g CH 13 2472MHz	*	2472	104.33	-	-	88.5	27.43	18.37	29.97	106	134	P	H
	*	2472	96.88	-	-	81.05	27.43	18.37	29.97	106	134	A	H
		2483.68	65.82	-8.18	74	49.95	27.46	18.38	29.97	106	134	P	H
		2483.52	52.37	-1.63	54	36.5	27.46	18.38	29.97	106	134	A	H
	*	2472	103.72	-	-	87.89	27.43	18.37	29.97	400	341	P	V
	*	2472	96.43	-	-	80.6	27.43	18.37	29.97	400	341	A	V
		2484.88	66.77	-7.23	74	50.9	27.46	18.38	29.97	400	341	P	V
		2483.52	53.25	-0.75	54	37.38	27.46	18.38	29.97	400	341	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 802.11g (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11g CH 01 2412MHz		4824	39.39	-34.61	74	52.92	31.25	13.76	58.54	100	0	P	H
		4824	39.44	-34.56	74	52.97	31.25	13.76	58.54	100	0	P	V
802.11g CH 06 2437MHz		4874	38.4	-35.6	74	51.74	31.35	13.84	58.53	100	0	P	H
		7311	42.3	-31.7	74	49.98	36.07	15.22	58.97	100	0	P	H
		4874	38.66	-35.34	74	52	31.35	13.84	58.53	100	0	P	V
		7311	42.2	-31.8	74	49.88	36.07	15.22	58.97	100	0	P	V
802.11g CH 11 2462MHz		4924	39.45	-34.55	74	52.6	31.45	13.92	58.52	100	0	P	H
		7386	42.9	-31.1	74	50.37	36.28	15.15	58.9	100	0	P	H
		4924	38.97	-35.03	74	52.12	31.45	13.92	58.52	100	0	P	V
		7386	42.51	-31.49	74	49.98	36.28	15.15	58.9	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11g CH 12 2467MHz		4934	39.31	-34.69	74	52.42	31.47	13.93	58.51	100	0	P	H
		7401	42.85	-31.15	74	50.28	36.32	15.14	58.89	100	0	P	H
		4934	39.45	-34.55	74	52.56	31.47	13.93	58.51	100	0	P	V
		7401	42.68	-31.32	74	50.11	36.32	15.14	58.89	100	0	P	V
802.11g CH 13 2472MHz		4944	38.57	-35.43	74	51.64	31.49	13.95	58.51	100	0	P	H
		7416	43.31	-30.69	74	50.63	36.36	15.2	58.88	100	0	P	H
		4944	38.67	-35.33	74	51.74	31.49	13.95	58.51	100	0	P	V
		7416	43.26	-30.74	74	50.58	36.36	15.2	58.88	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11n HT20 CH 01 2412MHz		2388.015	66.26	-7.74	74	50.71	27.23	18.31	29.99	131	149	P	H
		2390	52.57	-1.43	54	37	27.24	18.32	29.99	131	149	A	H
	*	2412	108.66	-	-	93.02	27.29	18.34	29.99	131	149	P	H
	*	2412	101.2	-	-	85.56	27.29	18.34	29.99	131	149	A	H
		2388.855	69.15	-4.85	74	53.6	27.23	18.31	29.99	372	339	P	V
		2390	53	-1	54	37.43	27.24	18.32	29.99	372	339	A	V
	*	2412	109.52	-	-	93.88	27.29	18.34	29.99	372	339	P	V
	*	2412	102.23	-	-	86.59	27.29	18.34	29.99	372	339	A	V
802.11n HT20 CH 06 2437MHz		2315.74	55.95	-18.05	74	40.69	27.06	18.21	30.01	134	150	P	H
		2389.8	44.25	-9.75	54	28.68	27.24	18.32	29.99	134	150	A	H
	*	2437	110.57	-	-	94.85	27.35	18.35	29.98	134	150	P	H
	*	2437	103.03	-	-	87.31	27.35	18.35	29.98	134	150	A	H
		2486	56.37	-17.63	74	40.49	27.47	18.38	29.97	134	150	P	H
		2483.55	44.64	-9.36	54	28.77	27.46	18.38	29.97	134	150	A	H
		2387.42	58.49	-15.51	74	42.94	27.23	18.31	29.99	365	340	P	V
		2389.1	44.14	-9.86	54	28.59	27.23	18.31	29.99	365	340	A	V
	*	2437	110.6	-	-	94.88	27.35	18.35	29.98	365	340	P	V
	*	2437	102.99	-	-	87.27	27.35	18.35	29.98	365	340	A	V
		2488.17	56.67	-17.33	74	40.79	27.47	18.38	29.97	365	340	P	V
		2483.9	44.68	-9.32	54	28.81	27.46	18.38	29.97	365	340	A	V



802.11n HT20 CH 11 2462MHz	*	2462	108.7	-	-	92.89	27.41	18.37	29.97	128	148	P	H
	*	2462	101.22	-	-	85.41	27.41	18.37	29.97	128	148	A	H
		2484.04	66.09	-7.91	74	50.22	27.46	18.38	29.97	128	148	P	H
		2483.52	52.09	-1.91	54	36.22	27.46	18.38	29.97	128	148	A	H
	*	2462	107.68	-	-	91.87	27.41	18.37	29.97	360	321	P	V
	*	2462	100.23	-	-	84.42	27.41	18.37	29.97	360	321	A	V
		2484.32	65.32	-8.68	74	49.45	27.46	18.38	29.97	360	321	P	V
		2483.52	51.53	-2.47	54	35.66	27.46	18.38	29.97	360	321	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11n HT20 CH 12 2467MHz	*	2467	106.6	-	-	90.78	27.42	18.37	29.97	130	148	P	H
	*	2467	98.97	-	-	83.15	27.42	18.37	29.97	130	148	A	H
		2483.72	68.33	-5.67	74	52.46	27.46	18.38	29.97	130	148	P	H
		2483.52	52.08	-1.92	54	36.21	27.46	18.38	29.97	130	148	A	H
	*	2467	105.8	-	-	89.98	27.42	18.37	29.97	355	322	P	V
	*	2467	98.12	-	-	82.3	27.42	18.37	29.97	355	322	A	V
		2483.84	69.34	-4.66	74	53.47	27.46	18.38	29.97	355	322	P	V
		2483.52	52.01	-1.99	54	36.14	27.46	18.38	29.97	355	322	P	V
802.11n HT20 CH 13 2472MHz	*	2472	103.71	-	-	87.88	27.43	18.37	29.97	129	146	P	H
	*	2472	96.31	-	-	80.48	27.43	18.37	29.97	129	146	A	H
		2483.88	72.27	-1.73	74	56.4	27.46	18.38	29.97	129	146	P	H
		2483.52	53.08	-0.92	54	37.21	27.46	18.38	29.97	129	146	A	H
	*	2472	103.73	-	-	87.9	27.43	18.37	29.97	354	321	P	V
	*	2472	96.19	-	-	80.36	27.43	18.37	29.97	354	321	A	V
		2483.52	72.51	-1.49	74	56.64	27.46	18.38	29.97	354	321	P	V
		2483.52	53.04	-0.96	54	37.17	27.46	18.38	29.97	354	321	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11n HT20 CH 01 2412MHz		4824	39.22	-34.78	74	52.75	31.25	13.76	58.54	100	0	P	H
		4824	38.88	-35.12	74	52.41	31.25	13.76	58.54	100	0	P	V
802.11n HT20 CH 06 2437MHz		4874	40.11	-33.89	74	53.45	31.35	13.84	58.53	100	0	P	H
		7311	42.51	-31.49	74	50.19	36.07	15.22	58.97	100	0	P	H
		4874	39.29	-34.71	74	52.63	31.35	13.84	58.53	100	0	P	V
		7311	42.65	-31.35	74	50.33	36.07	15.22	58.97	100	0	P	V
802.11n HT20 CH 11 2462MHz		4924	38.42	-35.58	74	51.57	31.45	13.92	58.52	100	0	P	H
		7386	43	-31	74	50.47	36.28	15.15	58.9	100	0	P	H
		4924	39.03	-34.97	74	52.18	31.45	13.92	58.52	100	0	P	V
		7386	42.99	-31.01	74	50.46	36.28	15.15	58.9	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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)
802.11n		4934	38.53	-35.47	74	51.64	31.47	13.93	58.51	100	0	P	H
HT20		7401	44.22	-29.78	74	51.65	36.32	15.14	58.89	100	0	P	H
CH 12		4934	39.39	-34.61	74	52.5	31.47	13.93	58.51	100	0	P	V
2467MHz		7401	42.78	-31.22	74	50.21	36.32	15.14	58.89	100	0	P	V
802.11n		4944	38.71	-35.29	74	51.78	31.49	13.95	58.51	100	0	P	H
HT20		7416	43.59	-30.41	74	50.91	36.36	15.2	58.88	100	0	P	H
CH 13		4944	39.55	-34.45	74	52.62	31.49	13.95	58.51	100	0	P	V
2472MHz		7416	43.29	-30.71	74	50.61	36.36	15.2	58.88	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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		88.59	16.59	-26.91	43.5	33.3	14.7	0.95	32.38	-	-	P	H
		126.93	23.15	-20.35	43.5	36.32	17.91	1.23	32.36	-	-	P	H
		181.2	20.44	-23.06	43.5	35.74	15.41	1.55	32.35	-	-	P	H
		496.7	27.96	-18.04	46	32.94	24.32	3.23	32.58	-	-	P	H
		703.2	28.47	-17.53	46	30.21	26.66	3.99	32.52	-	-	P	H
		925.8	31.9	-14.1	46	29.25	29.58	4.46	31.56	100	0	P	H
		74.01	19.38	-20.62	40	37.76	13.07	0.93	32.4	-	-	P	V
		124.5	19.58	-23.92	43.5	32.89	17.82	1.2	32.37	-	-	P	V
		177.69	23.97	-19.53	43.5	39.11	15.59	1.53	32.35	-	-	P	V
		467.3	25.07	-20.93	46	30.73	23.68	3.17	32.55	-	-	P	V
		652.1	28.5	-17.5	46	30.9	26.12	3.97	32.6	-	-	P	V
		869.1	31.66	-14.34	46	30.16	28.82	4.5	31.97	100	0	P	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	Path	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)
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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)

2. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path 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) + Path 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”.



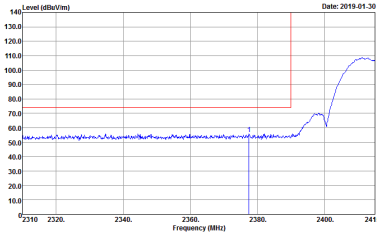
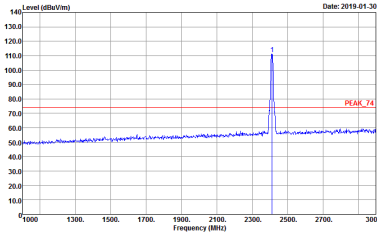
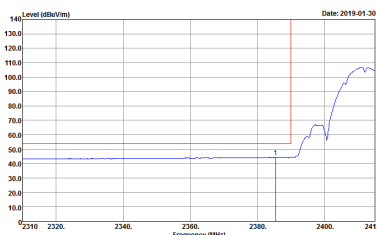
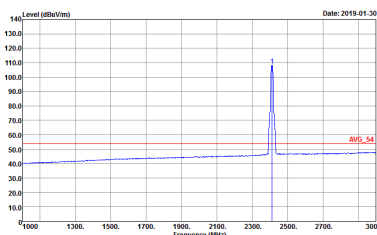
Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Caster Liao, Jacky Hung, and Lewis Ho	Temperature :	22~25°C
		Relative Humidity :	50~54%

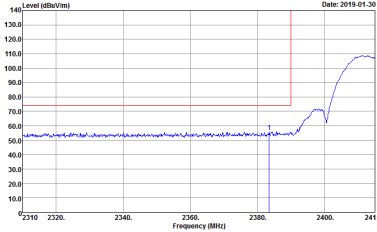
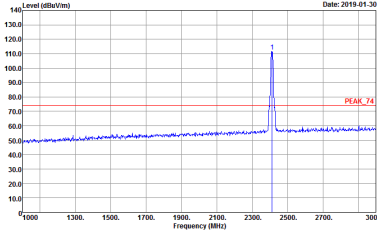
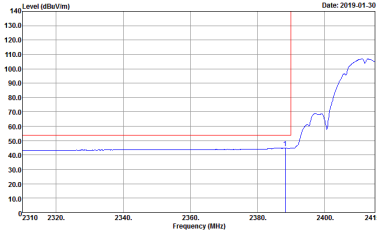
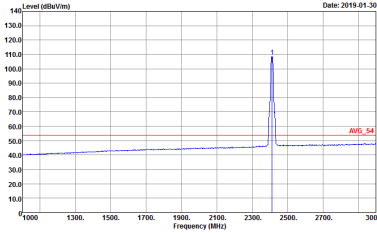
Note symbol

-L	Low channel location
-R	High channel location

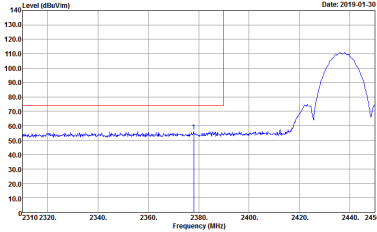
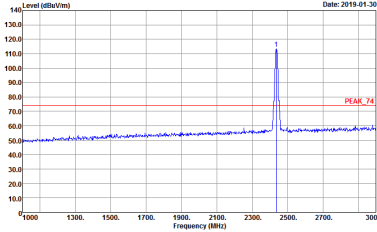
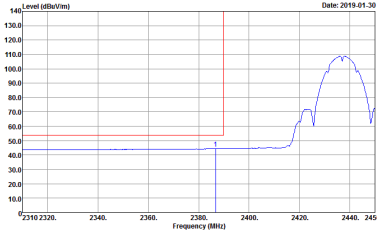
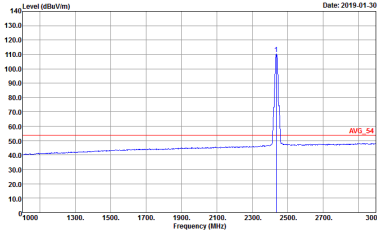
2.4GHz 2400~2483.5MHz
WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

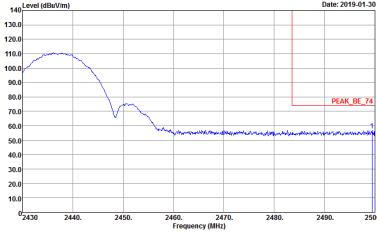
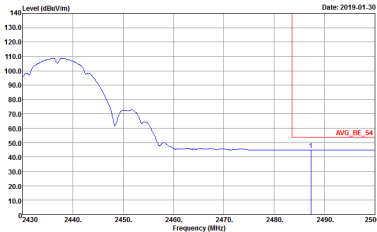


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

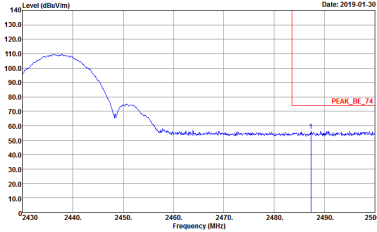
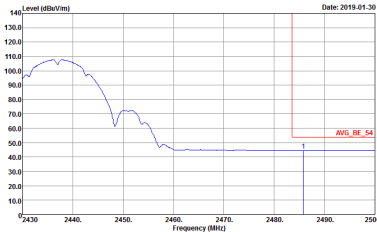


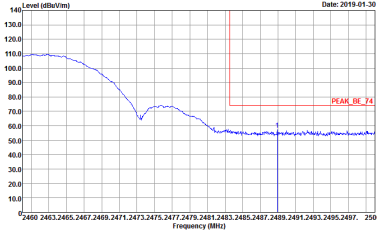
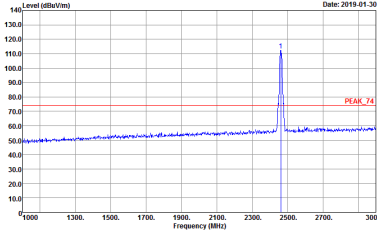
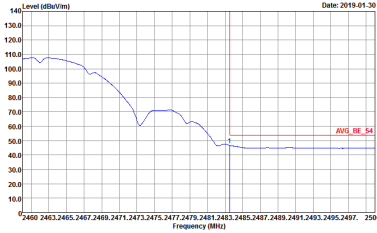
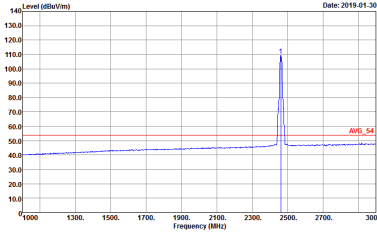
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

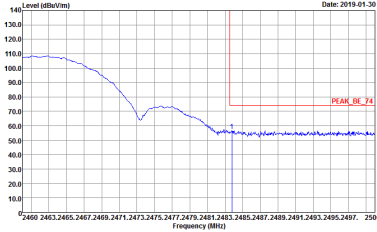
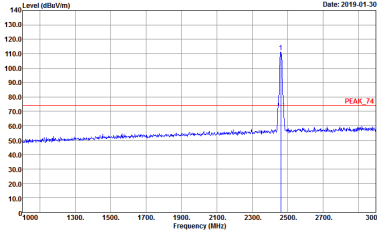
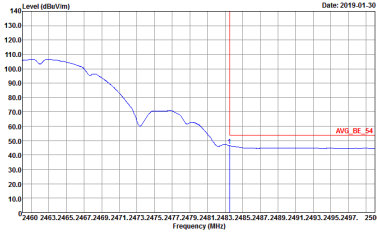
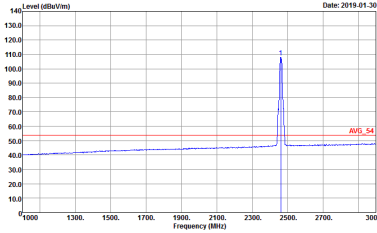


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

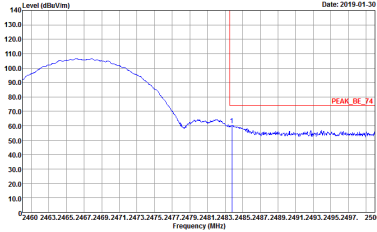
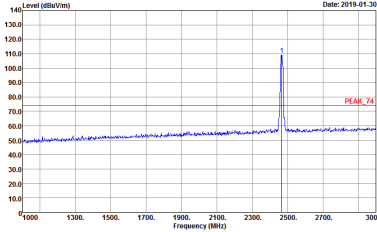
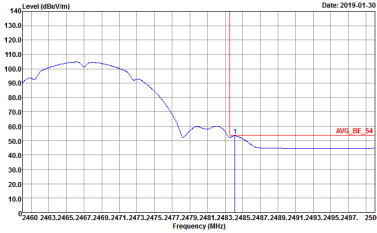
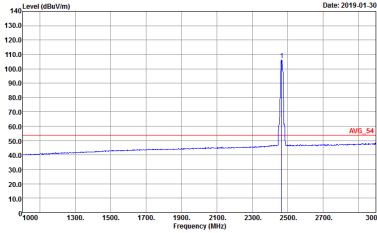


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

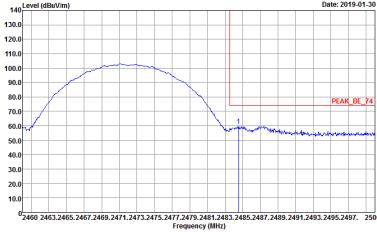
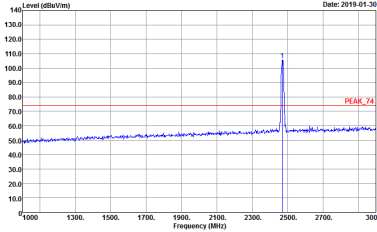
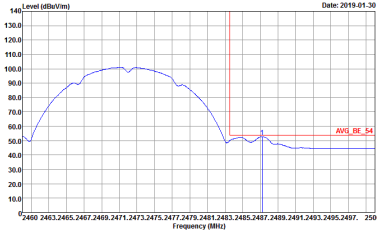
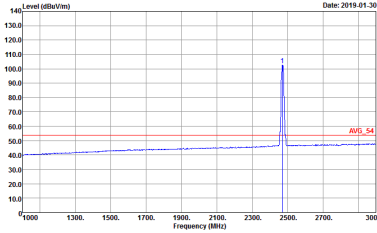


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

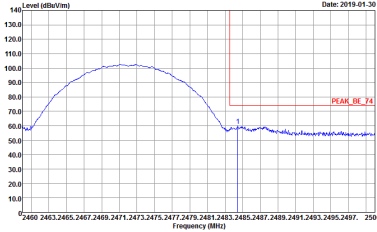
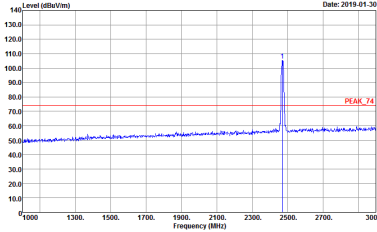
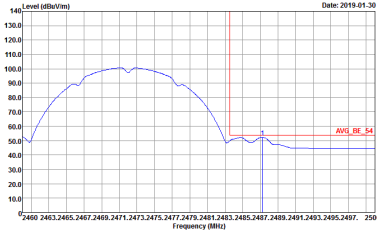
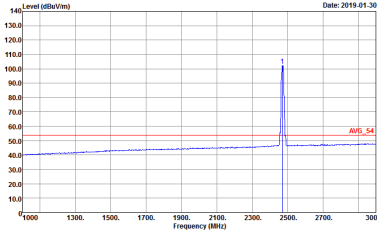


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



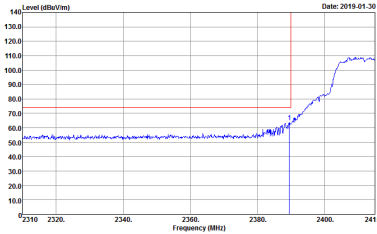
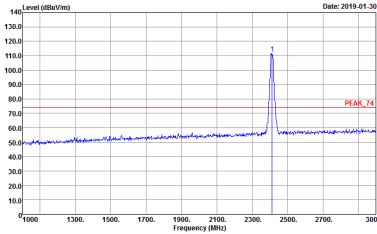
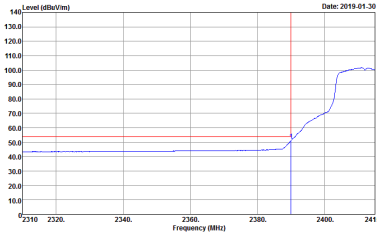
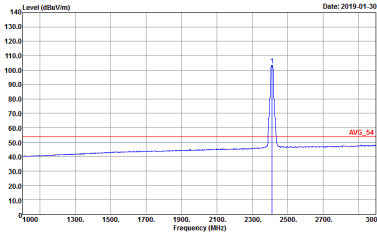
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



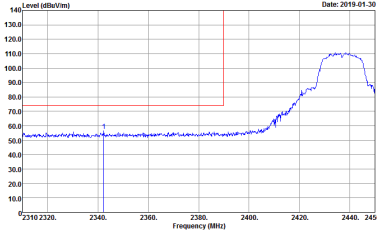
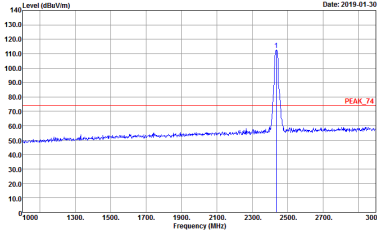
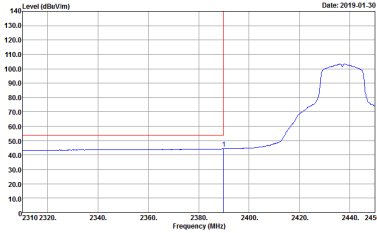
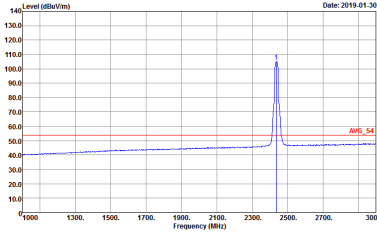
2.4GHz 2400~2483.5MHz
WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

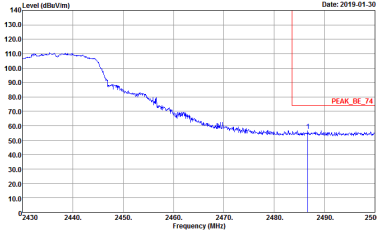
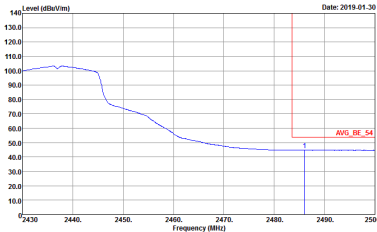


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

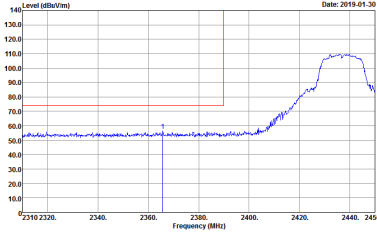
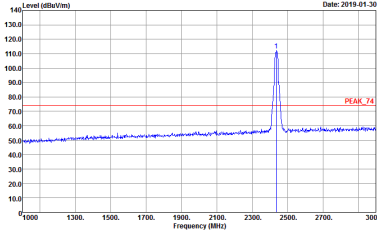
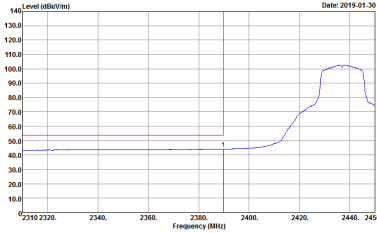
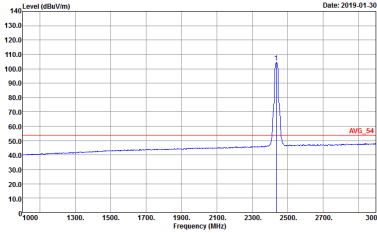


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

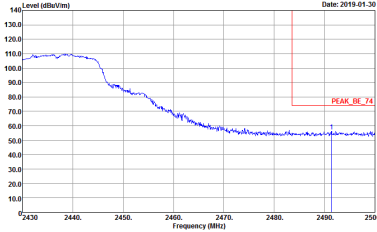
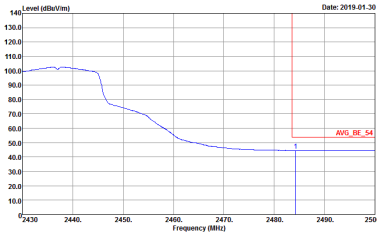


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

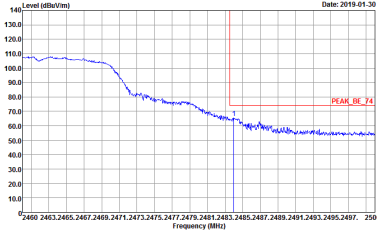
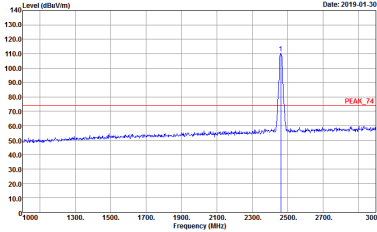
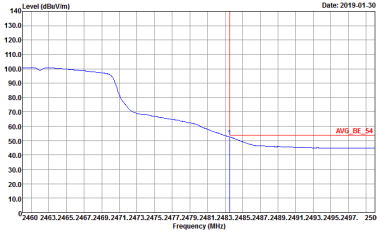
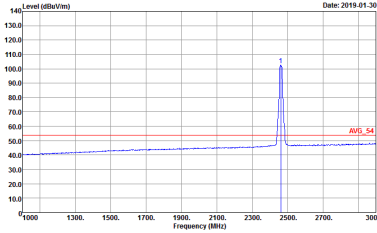


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left Blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left Blank

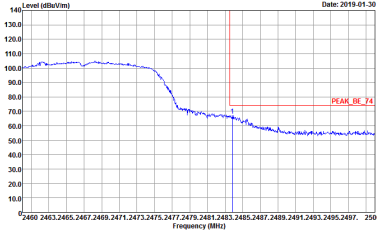
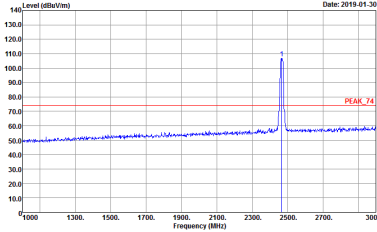
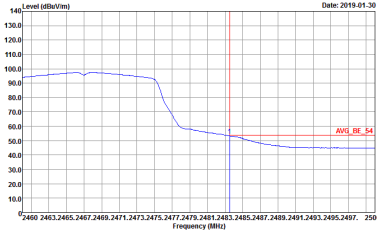
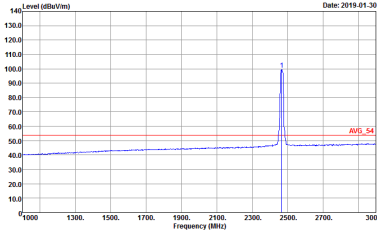


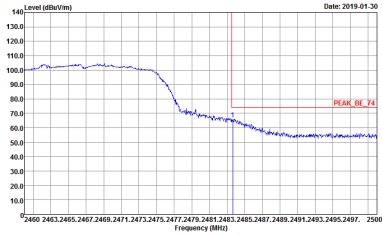
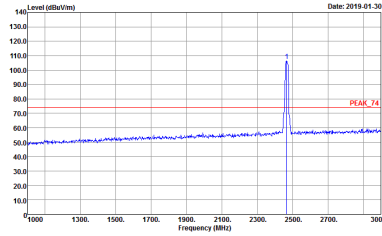
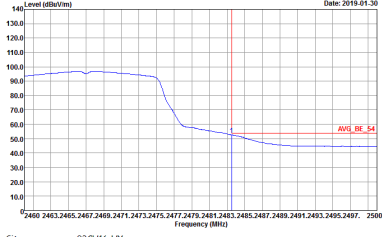
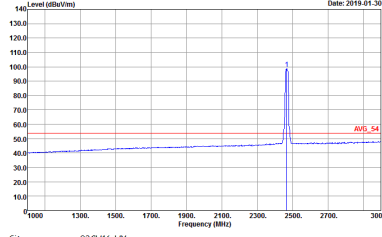
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



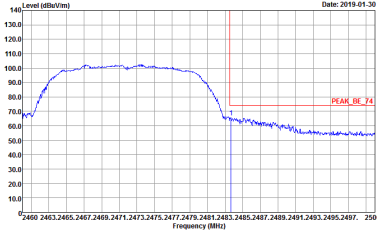
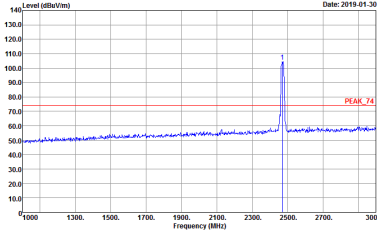
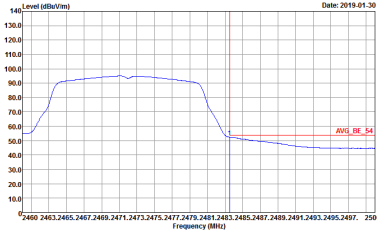
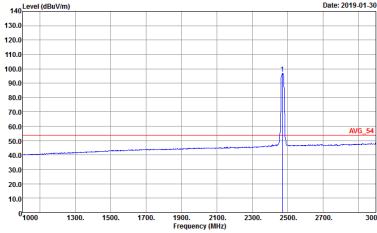
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



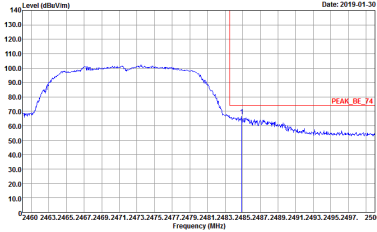
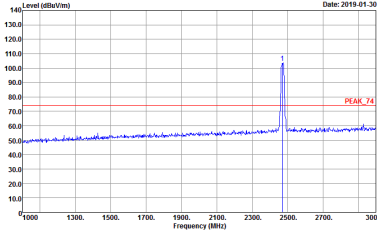
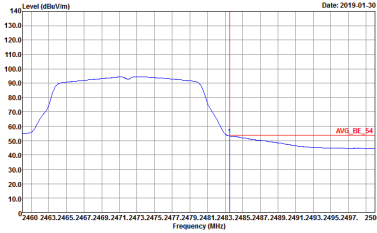
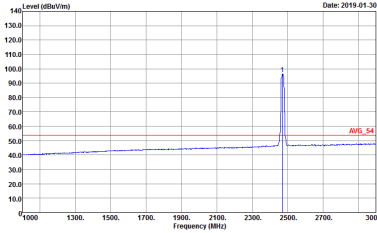
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



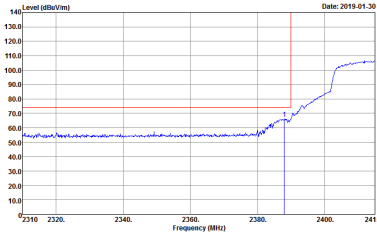
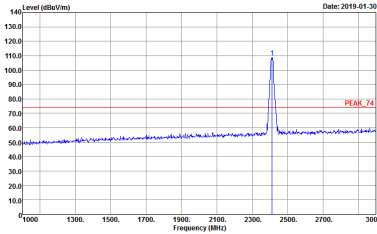
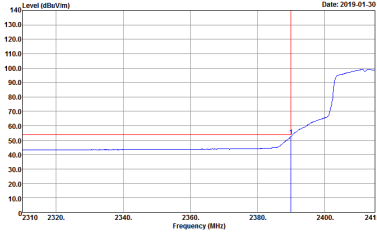
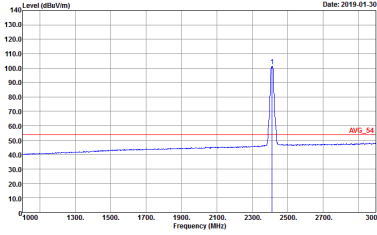
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



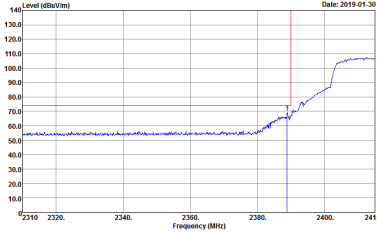
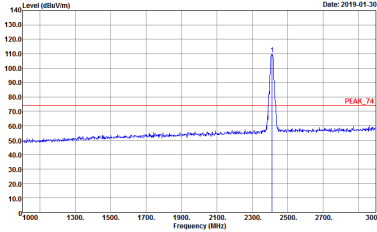
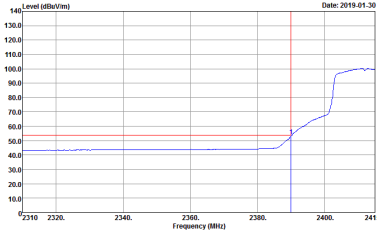
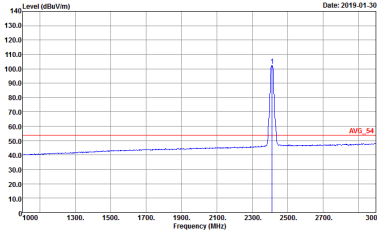
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



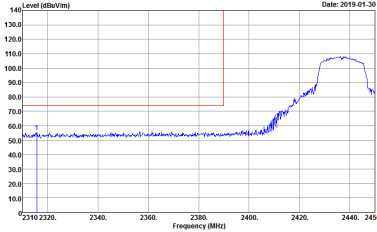
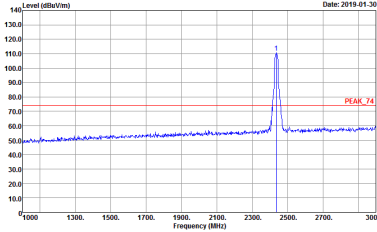
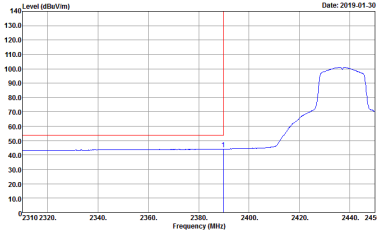
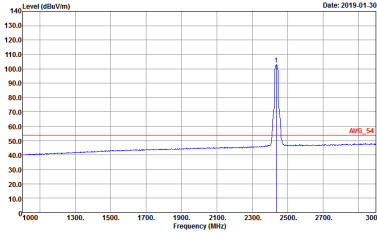
2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

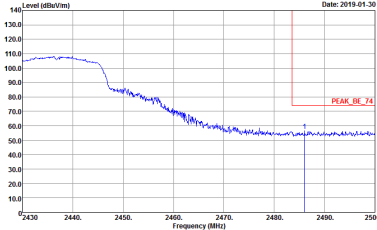
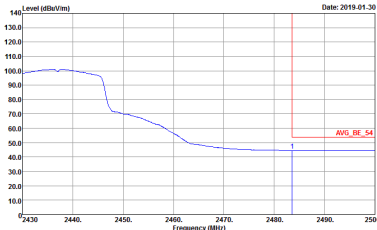


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

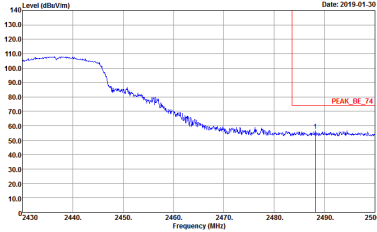
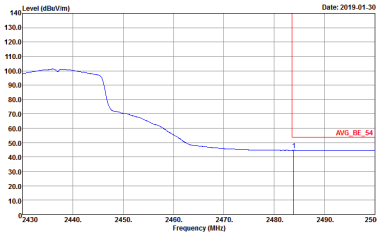


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

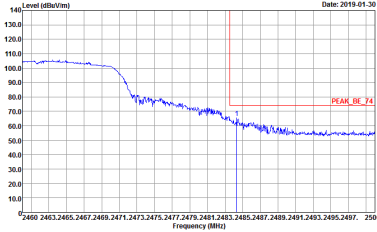
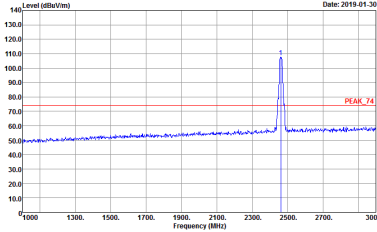
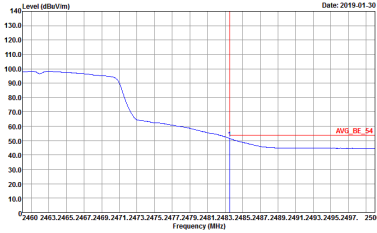
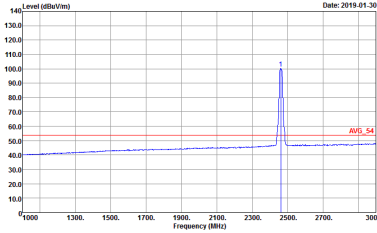


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left Blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left Blank

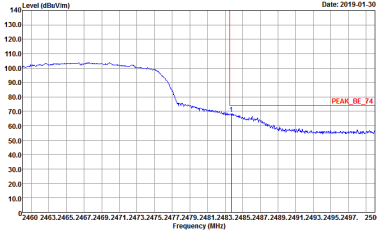
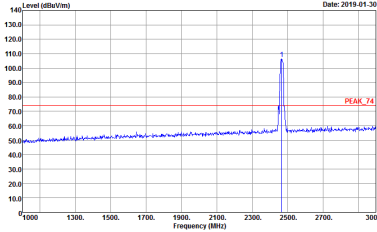
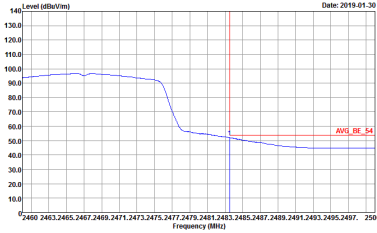
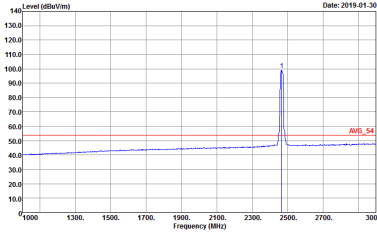


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

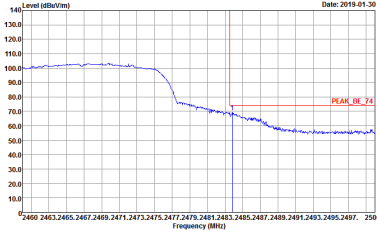
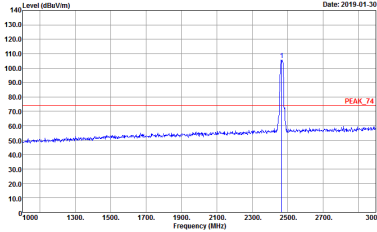
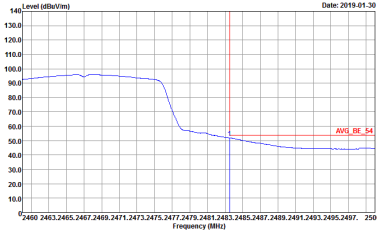
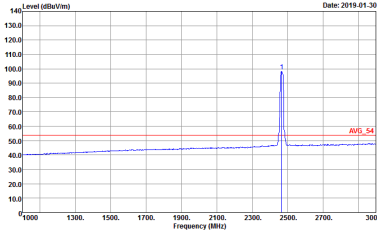


WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

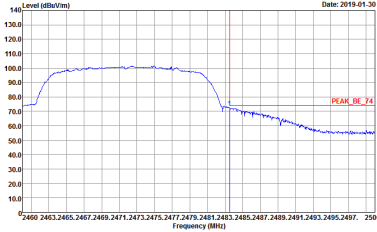
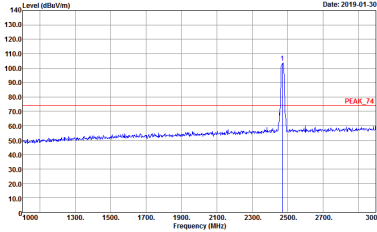
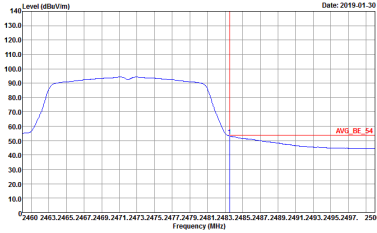
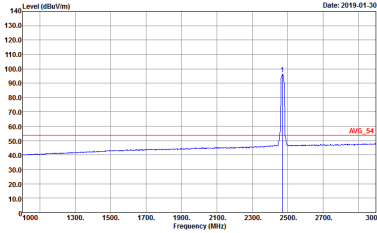


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH12 2467MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



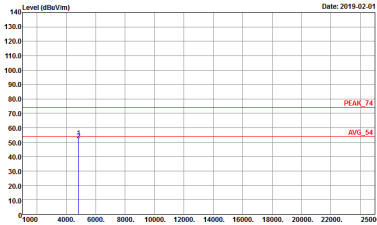
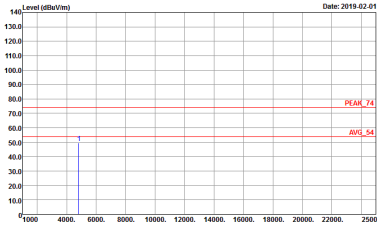
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



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 : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-01 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-01 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-01 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-01 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



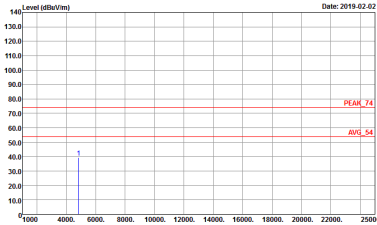
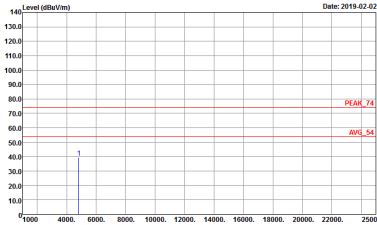
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-01 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-01 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



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 : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



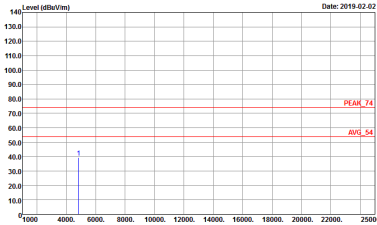
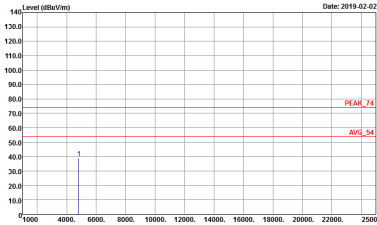
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH12 2467MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH13 2472MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



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 : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak

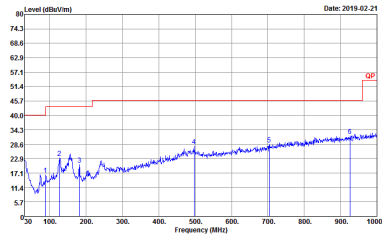
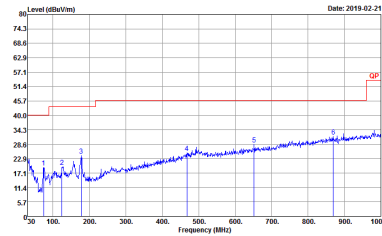


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH12 2462MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH13 2472MHz	
1	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2019-02-02 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL Detector : Peak

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

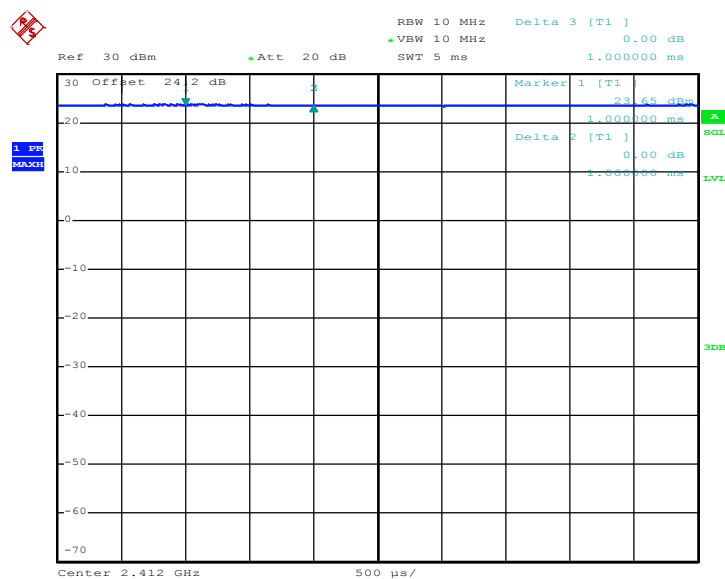
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11b LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m BIL06_47020606 HORIZONTAL Detector : Peak	 Site : 03CH16-HY Condition : QP 3m BIL06_47020606 VERTICAL Detector : Peak

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11b	100.00	-	-	10Hz	0.00
1	802.11g	100.00	-	-	10Hz	0.00
1	2.4GHz 802.11n HT20	100.00	-	-	10Hz	0.00

<Ant. 1>

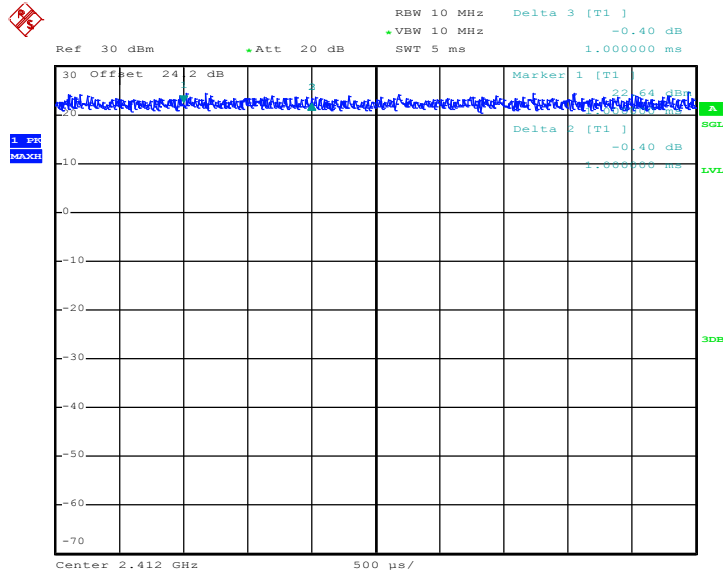
802.11b



Date: 29.JAN.2019 16:48:51

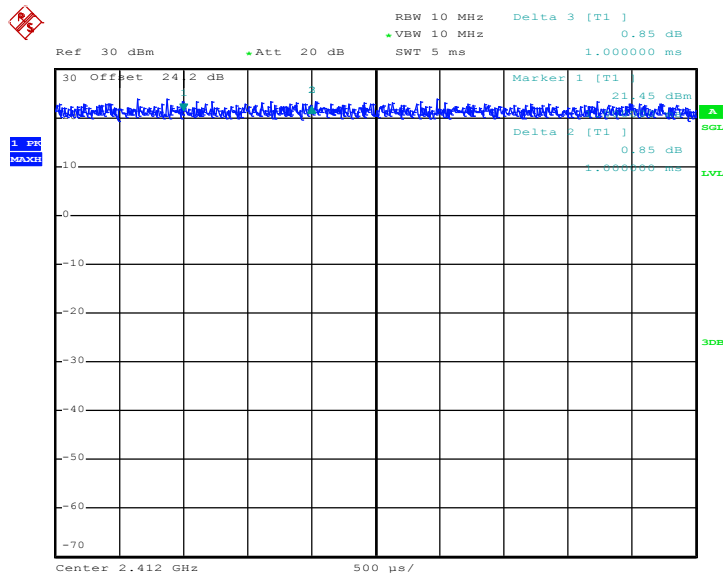


802.11g



Date: 29.JAN.2019 16:50:08

802.11n HT20



Date: 29.JAN.2019 16:51:03

————THE END————