



FCC RADIO TEST REPORT

FCC ID : HD5-CT30PL0N
Equipment : Mobile computer
Brand Name : Honeywell
Model Name : CT30PL0N
Applicant : Honeywell International Inc.
9680 Old Bailes Road, Fort Mill, SC 29707 USA
Manufacturer : Honeywell International Inc.
9680 Old Bailes Road, Fort Mill, SC 29707 USA
Standard : FCC Part 15 Subpart C §15.247

The product was received on Nov. 11, 2021 and testing was performed from Nov. 15, 2021 to Jan. 06, 2022. We, Sporton International Inc. Wensan 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 test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issue Date
FR1N0506C	01	Initial issue of report	Jan. 06, 2022
FR1N0506C	02	1. Add description in test mode 2. Revise antenna information 3. Revise test procedures for radiated spurious emission 4. Revise list of measuring equipment	Jan. 10, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
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	1.94 dB under the limit at 2390.000 MHz
3.6	15.207	AC Conducted Emission	Pass	13.60 dB under the limit at 0.708 MHz
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 product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Wei Chen

Report Producer: Cindy Liu

1 General Description

1.1 Product Feature of Equipment Under Test

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

Product Feature	
Sample 1	with Scanner (S0703)
Sample 2	Non Scanner
HW Version	EVT1.5
SW Version	311.C0.00.0630-N-DEBUG
Antenna Type	WLAN 5GHz <Ant. 1>: PIFA Antenna WLAN 2.4GHz <Ant. 2>: PIFA Antenna Bluetooth: PIFA Antenna NFC: Loop Antenna

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	2.5

Remark: The above EUT's information is declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. CO05-HY (TAF Code: 1190)
Remark	The Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory

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

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. TH05-HY; 03CH13-HY

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

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

According to the specifications declared by 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 v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.



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). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane for Sample 1; Z plane for Sample 2 as worst plane.
- 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	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

2.2 Test Mode

The final test modes consider the modulation and the worst data rates as shown in the table below.

The 802.11ac mode has no higher power and PSD than 802.11n mode, thus the 802.11n mode is chosen as main test configuration, and the 802.11ac mode is verified the power.

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : Bluetooth Link + WLAN Link + AC Adapter for Sample 1

<Sample 1>

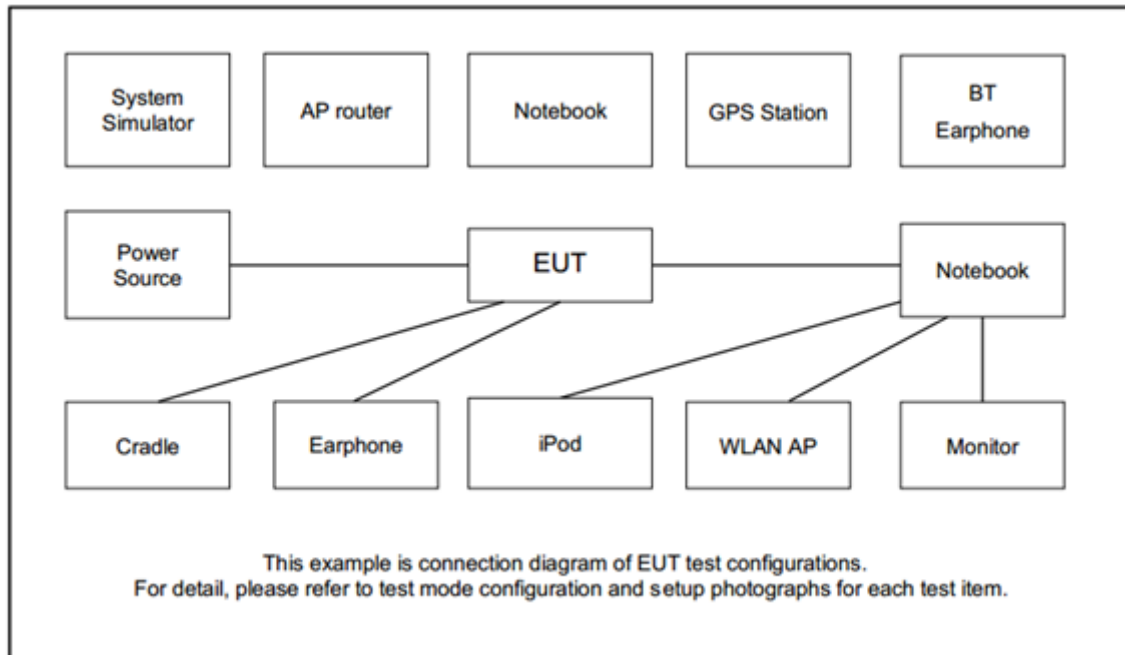
Ch. #	2400-2483.5 MHz			
	802.11b	802.11g	802.11n HT20	802.11n HT40
Low	01	01	01	03
Middle	06	06	06	06
High	11	11	11	09

<Sample 2>

Ch. #	2400-2483.5 MHz	
	802.11b	802.11g
Low	01	01
Middle	-	-
High	-	-

Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8m
3.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Notebook	Acer	N18Q13	PD9AX201NG	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m



2.5 EUT Operation Test Setup

The RF test items, utility “QRCT v4.0.00193.0” 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 10 dB 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

Please refer to the measuring equipment list in 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 is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to 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

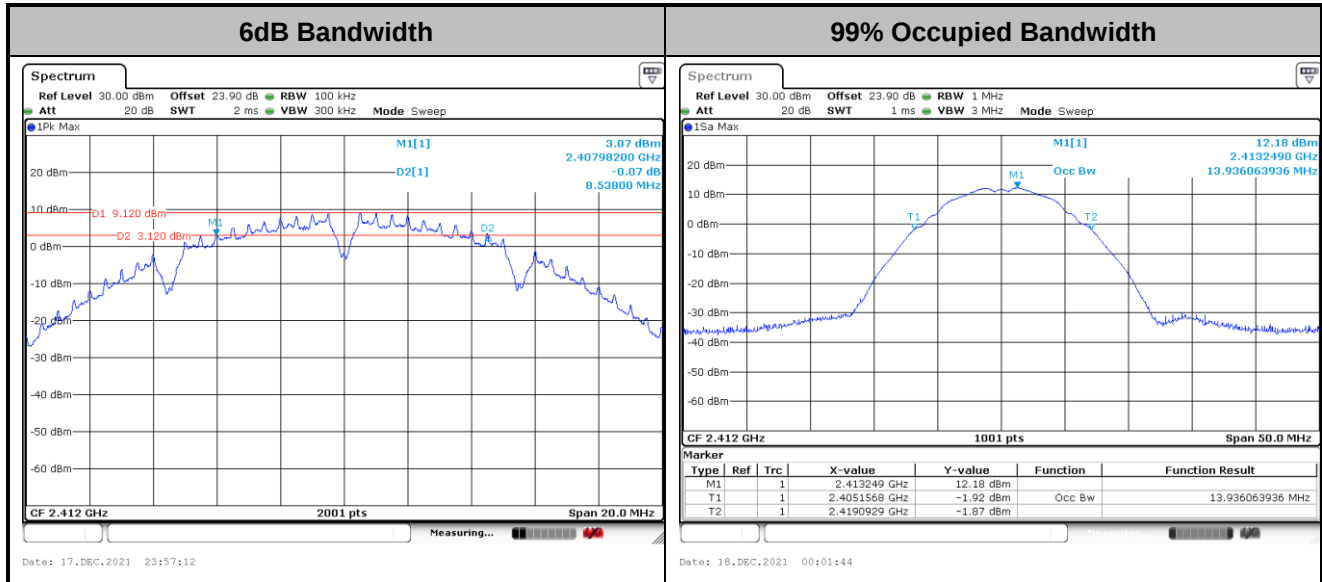




3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

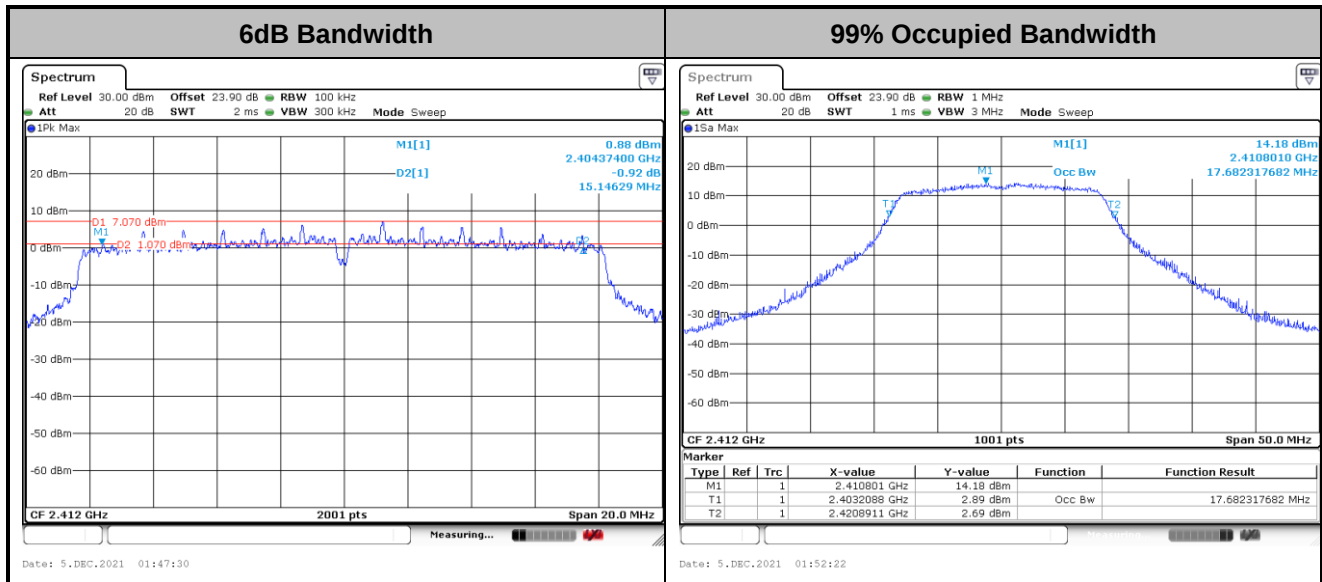
Please refer to Appendix A.

<802.11b Mode>



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

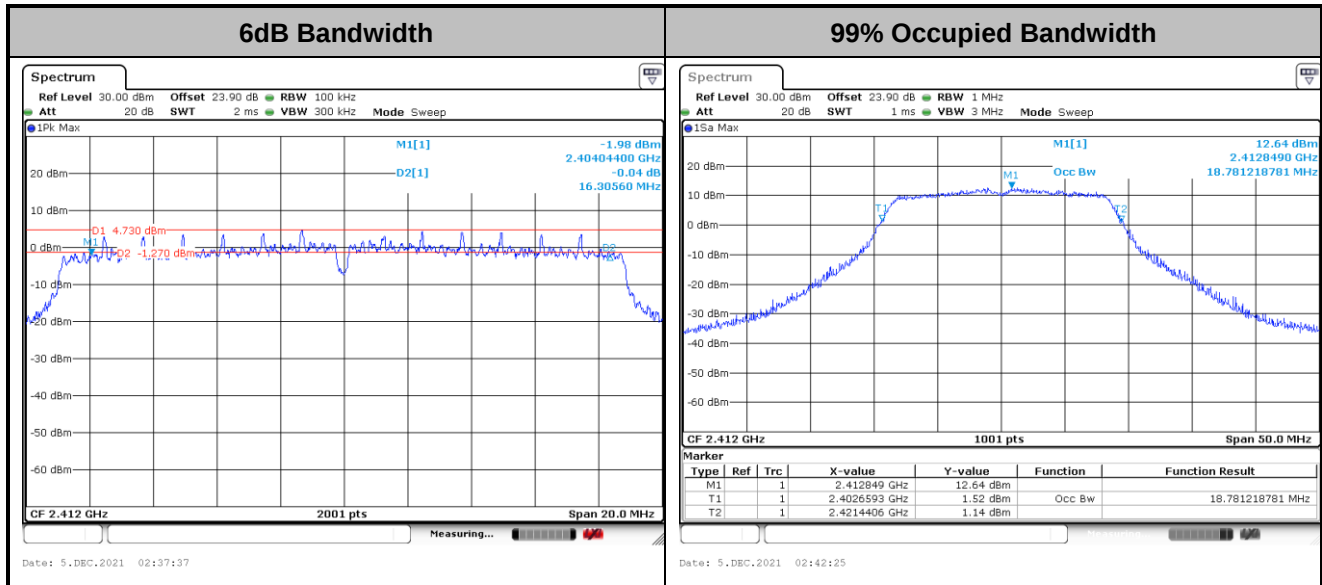
<802.11g Mode>



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

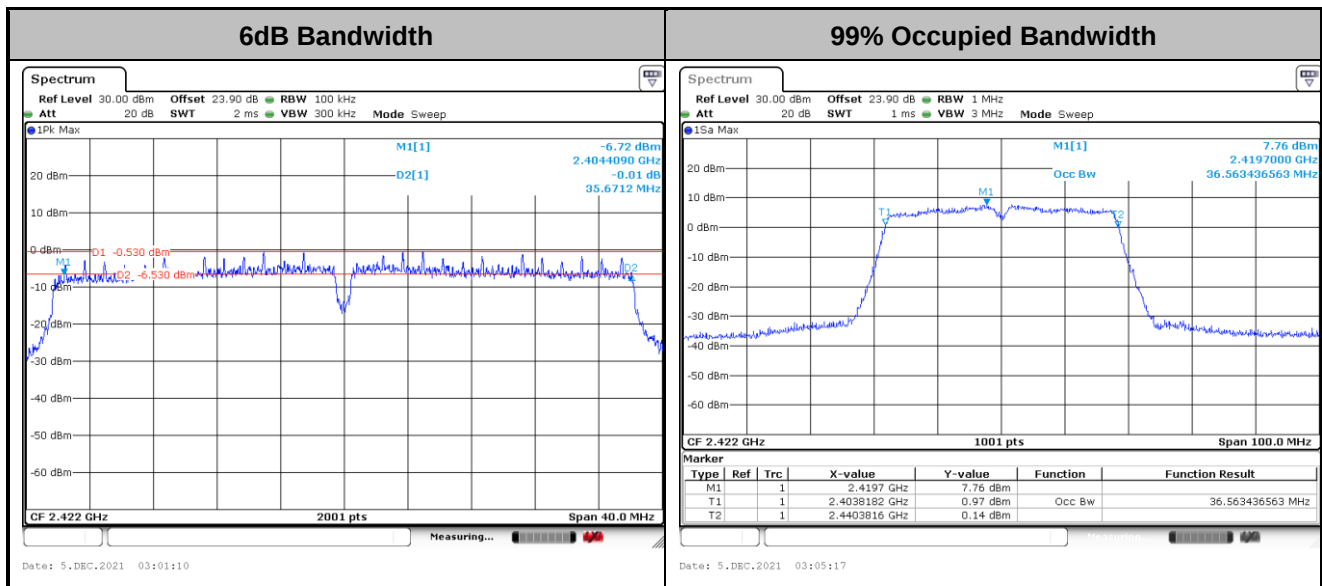


<802.11n HT20 Mode>



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

<802.11n HT40 Mode>



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 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna with directional gain greater than 6 dBi 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 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.2.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
2. The RF output of EUT is connected to the power meter by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup



3.2.5 Test Result of Average Output Power

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 8 dBm in any 3 kHz band at any time interval of continuous transmission.

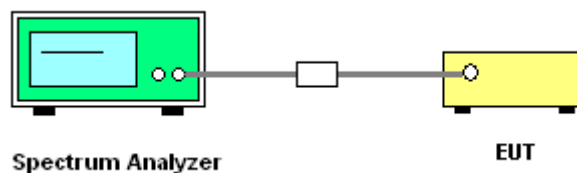
3.3.2 Measuring Instruments

Please refer to the measuring equipment list in 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 is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to 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.

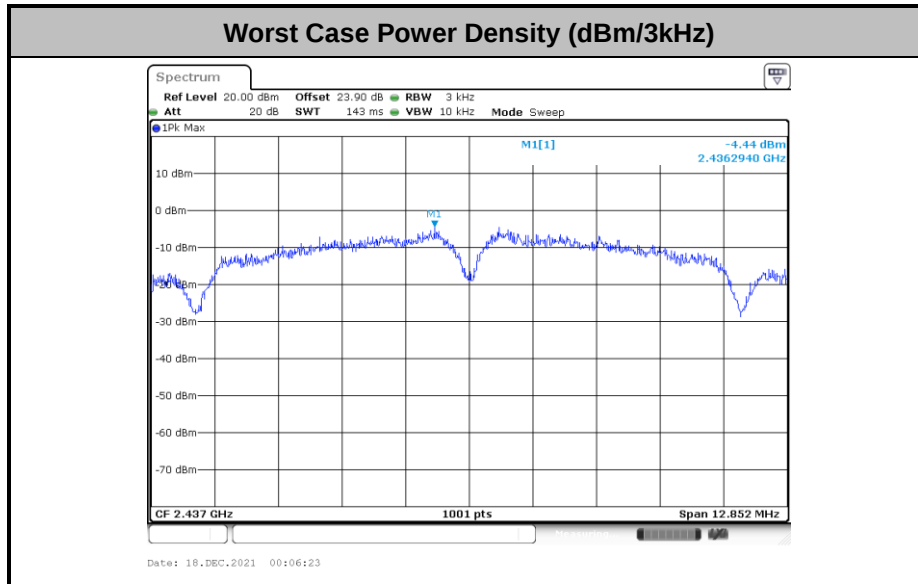
3.3.4 Test Setup





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.

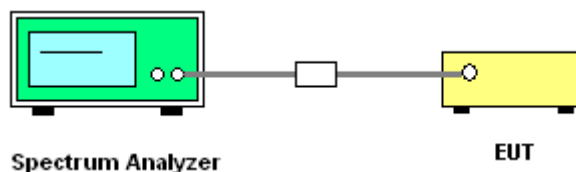
3.4.2 Measuring Instruments

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

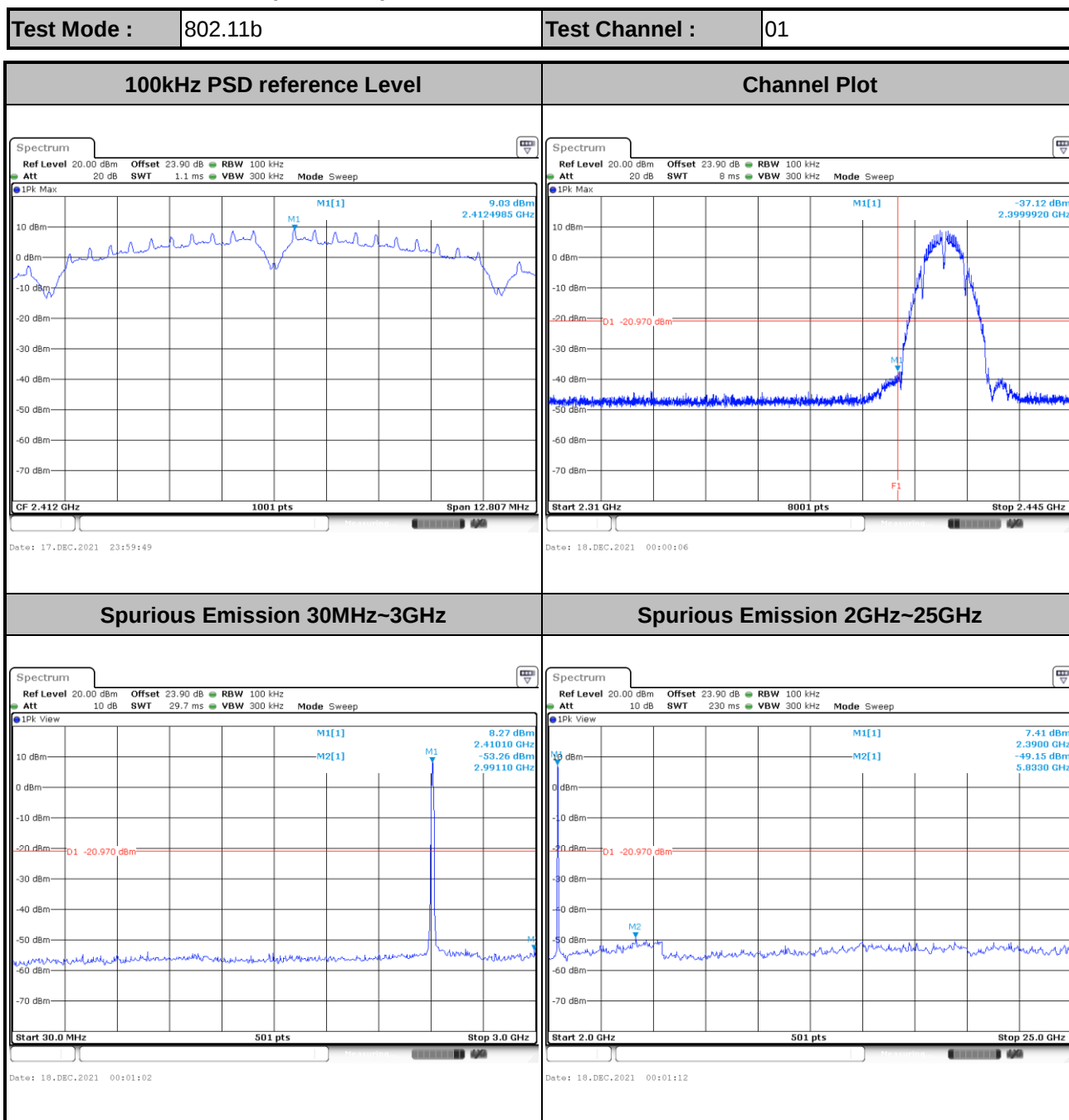
3.4.4 Test Setup





3.4.5 Test Result of Conducted Band Edges and Spurious Emission

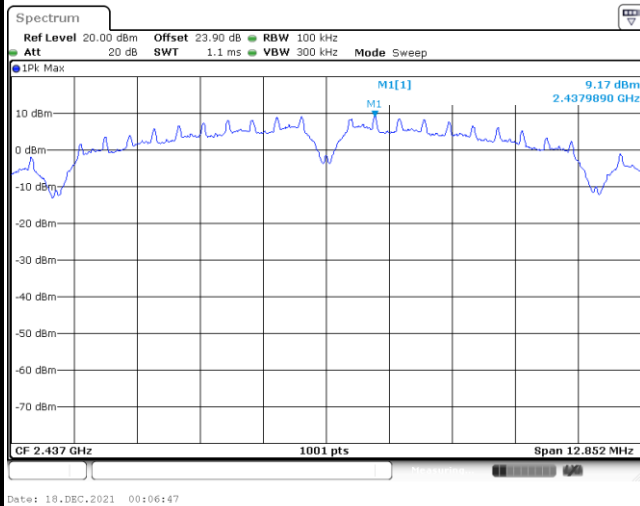
Number of TX = 1, Ant. 2 (Measured)





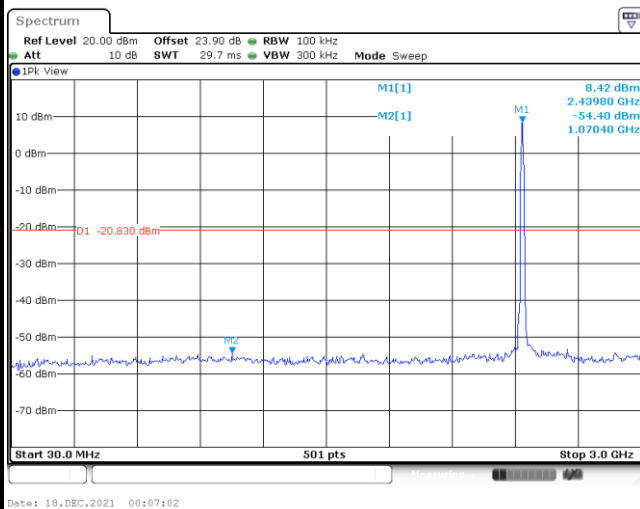
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100kHz PSD reference Level

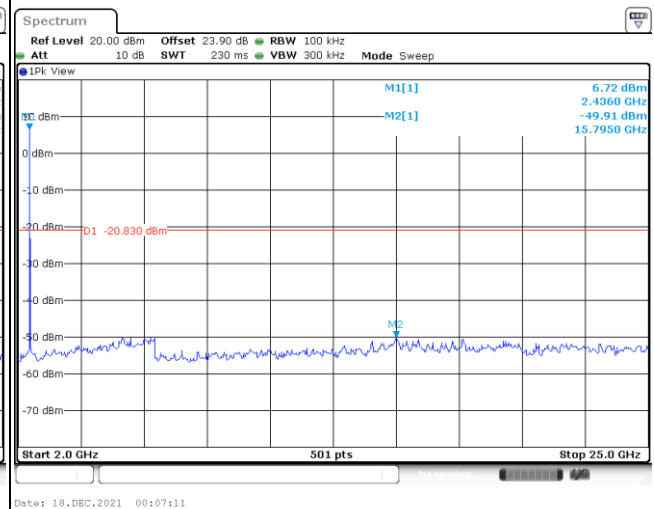


Channel Plot

Spurious Emission 30MHz~3GHz

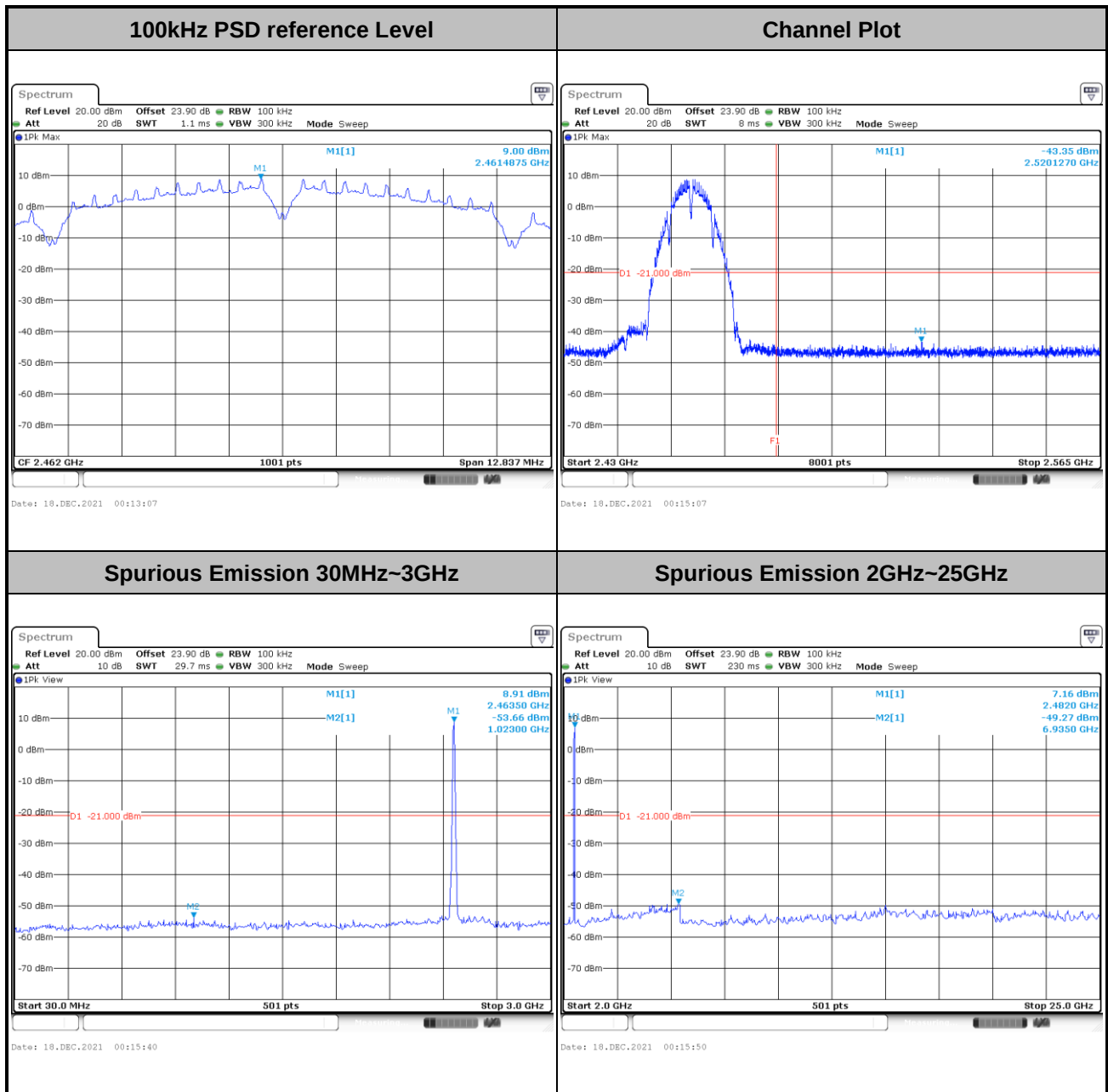


Spurious Emission 2GHz~25GHz





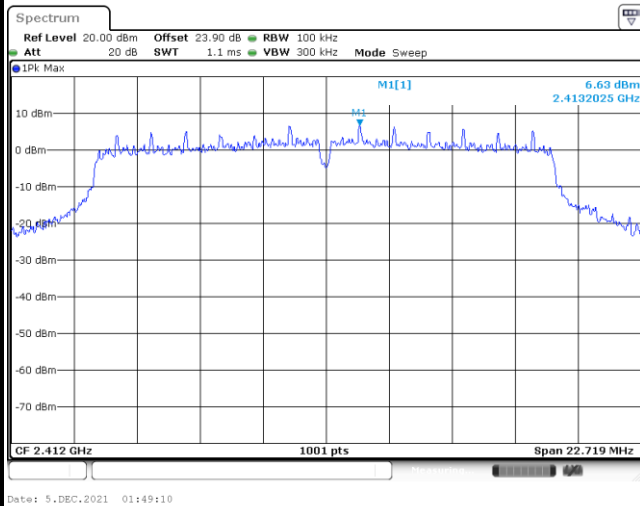
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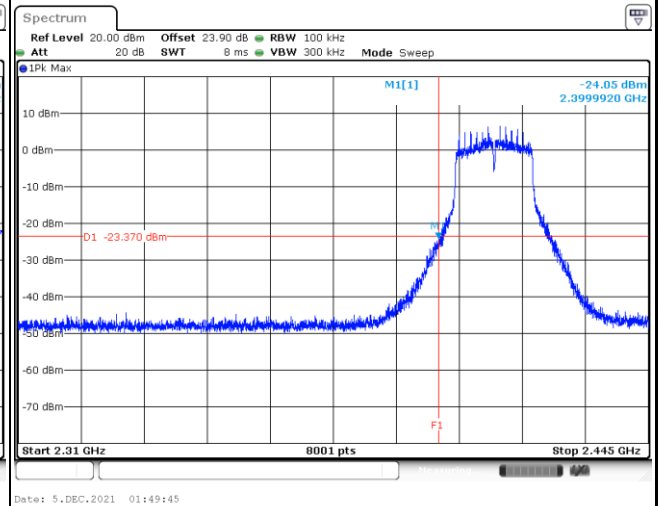


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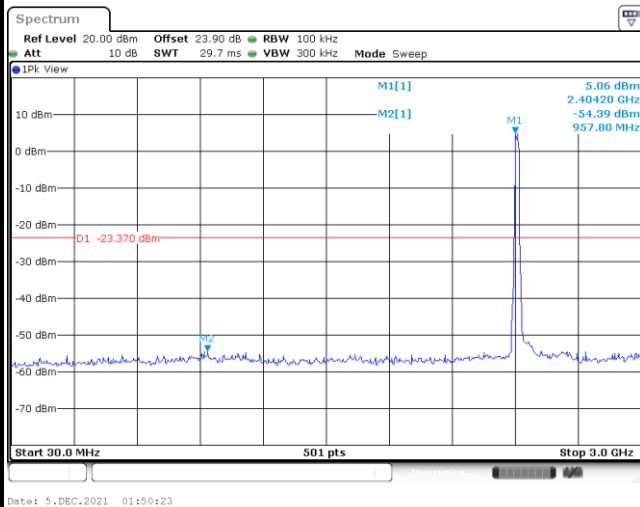
100kHz PSD reference Level



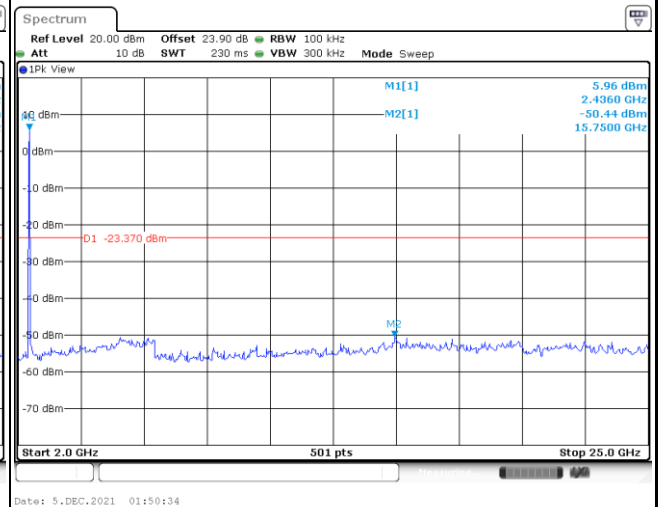
Channel Plot



Spurious Emission 30MHz~3GHz



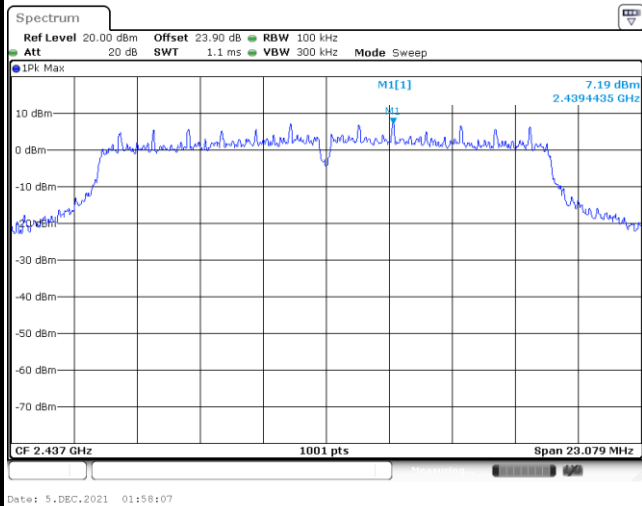
Spurious Emission 2GHz~25GHz





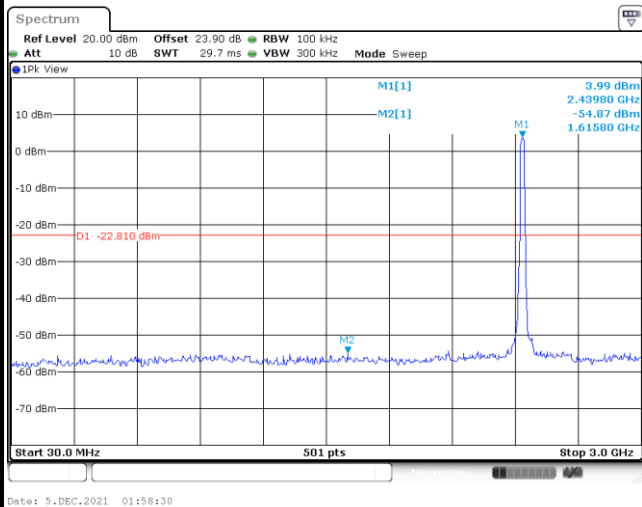
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100kHz PSD reference Level

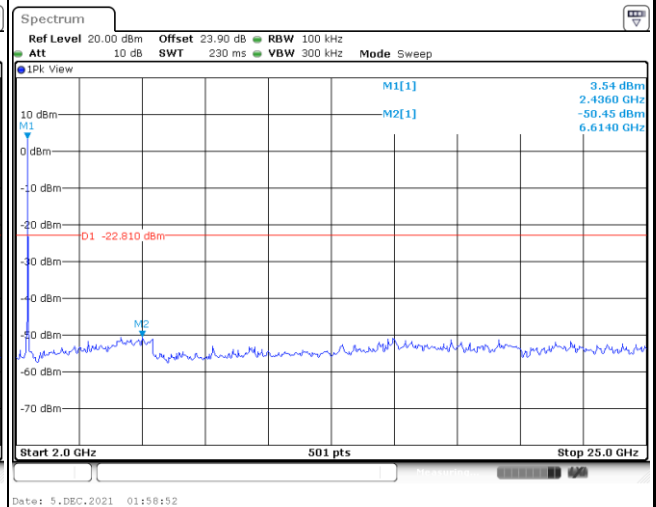


Channel Plot

Spurious Emission 30MHz~3GHz

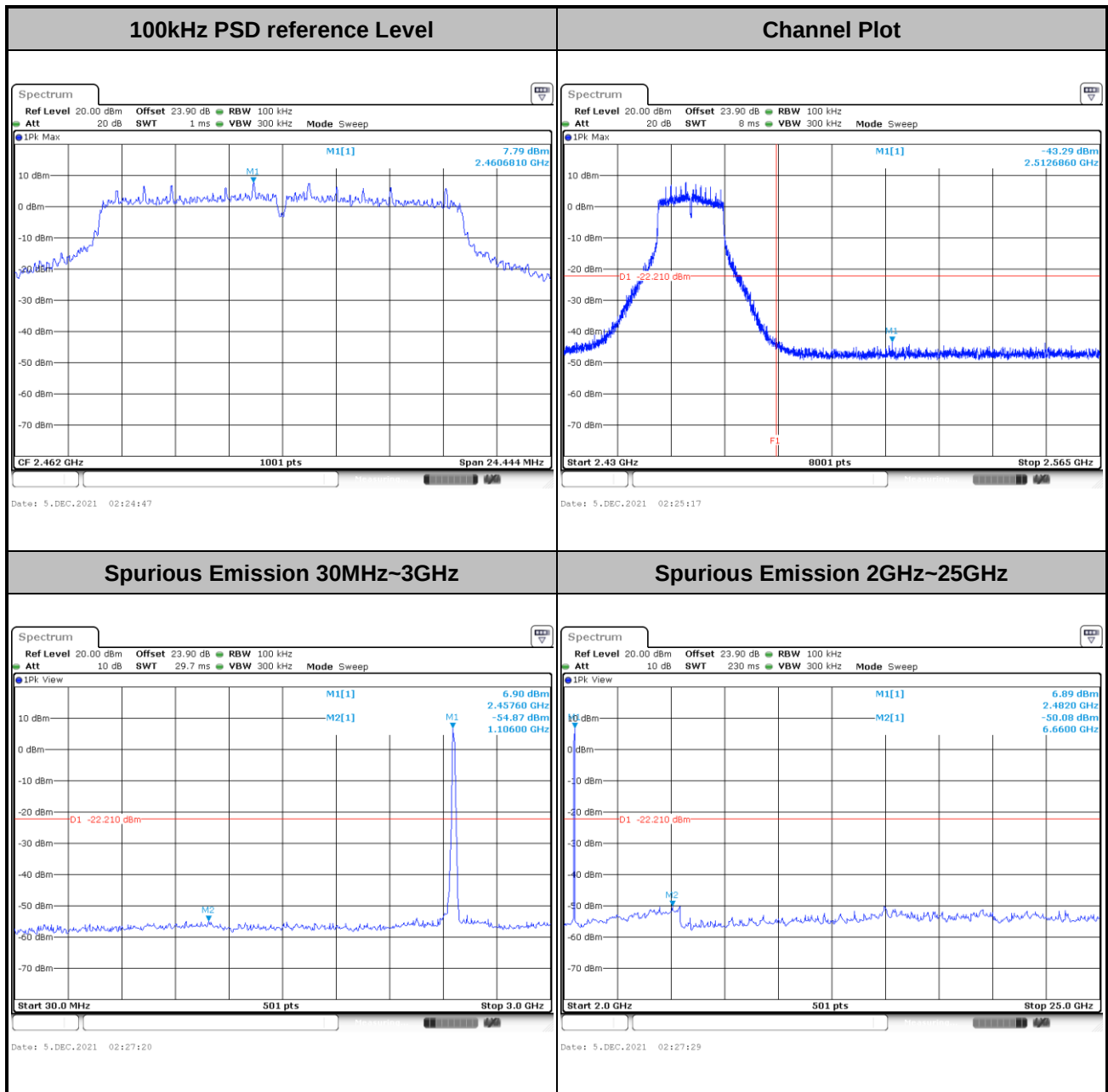


Spurious Emission 2GHz~25GHz





Test Mode :	802.11g	Test Channel :	11
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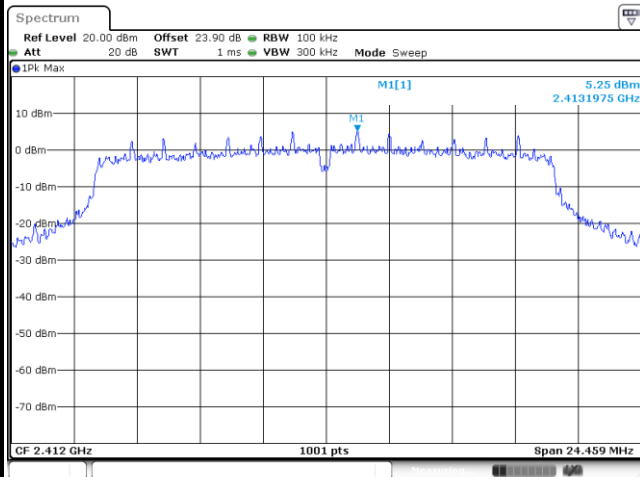




Test Mode : 802.11n HT20

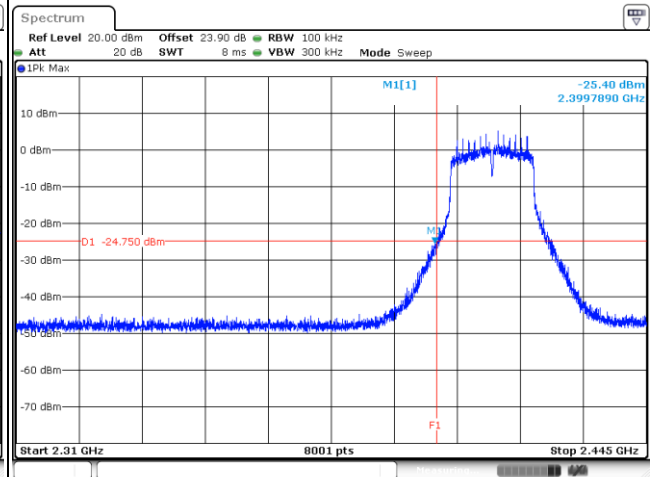
Test Channel : 01

100kHz PSD reference Level



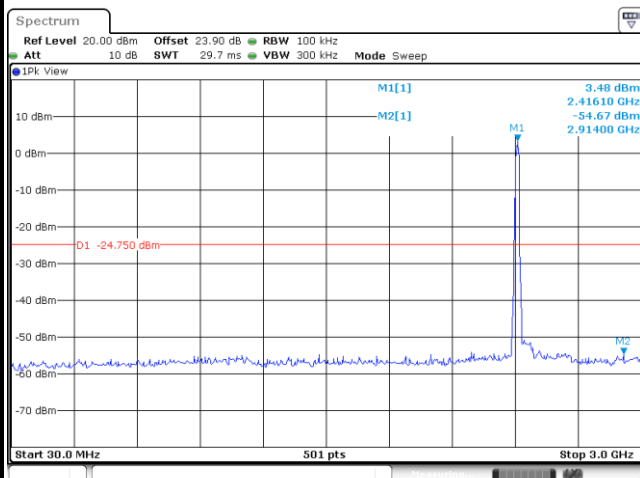
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Channel Plot



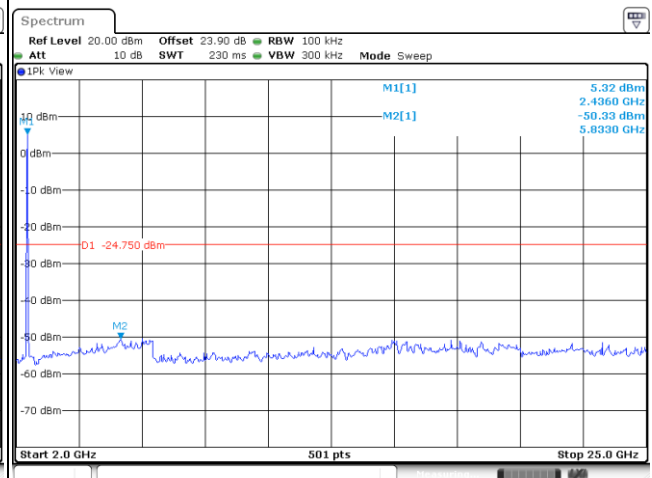
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Spurious Emission 30MHz~3GHz



Date: 5.DEC.2021 02:41:30

Spurious Emission 2GHz~25GHz

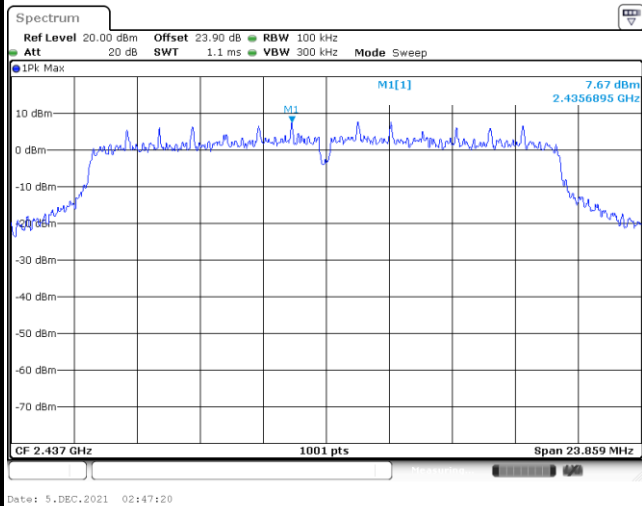


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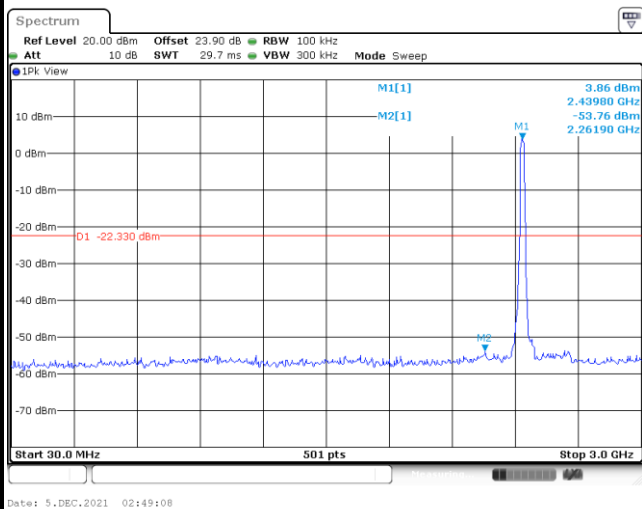
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100kHz PSD reference Level

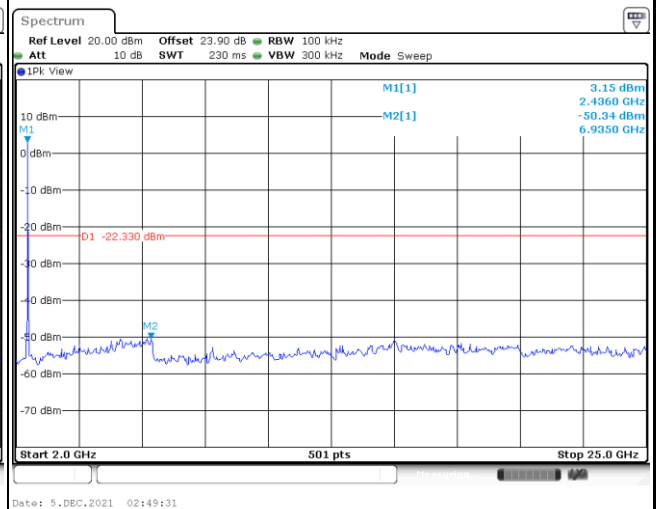


Channel Plot

Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

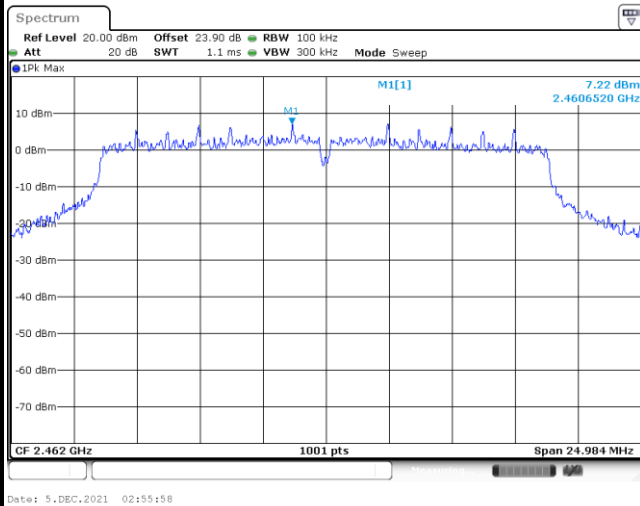




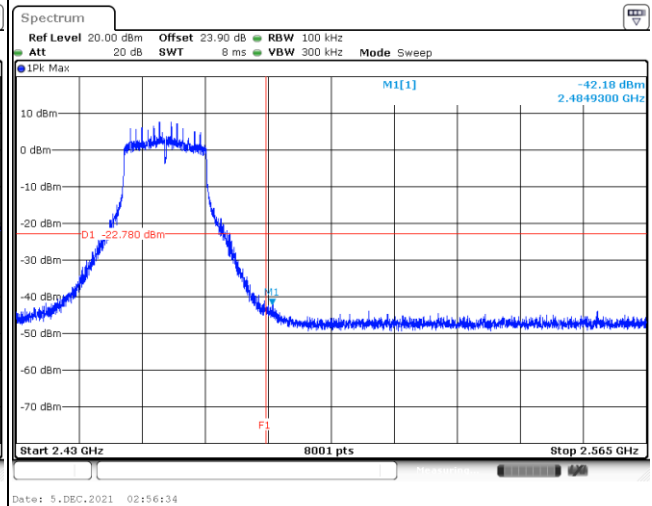
Test Mode : 802.11n HT20

Test Channel : 11

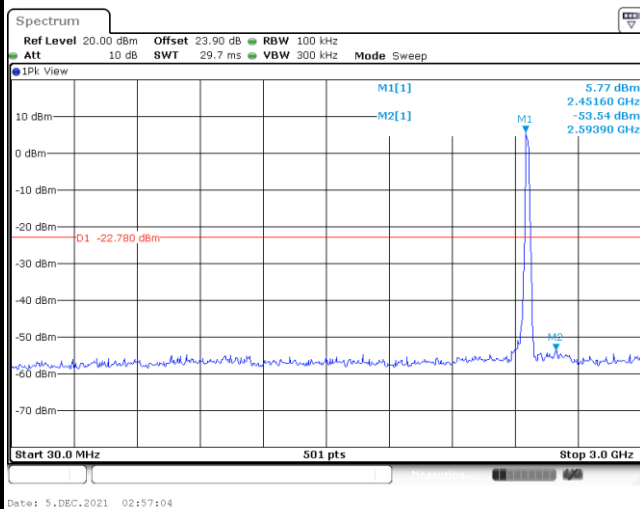
100kHz PSD reference Level



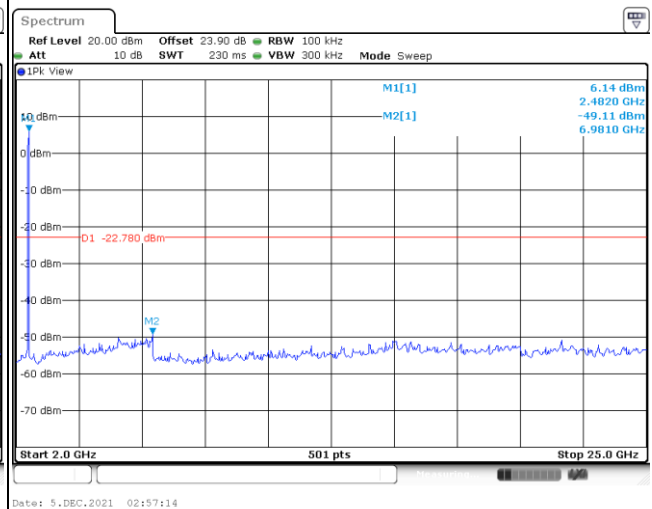
Channel Plot



Spurious Emission 30MHz~3GHz



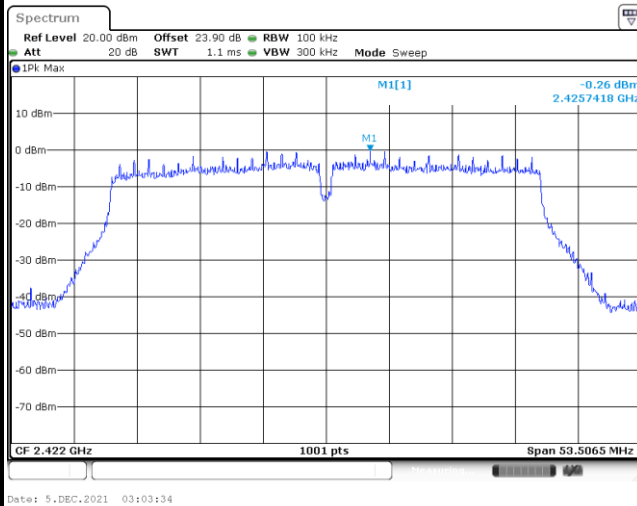
Spurious Emission 2GHz~25GHz



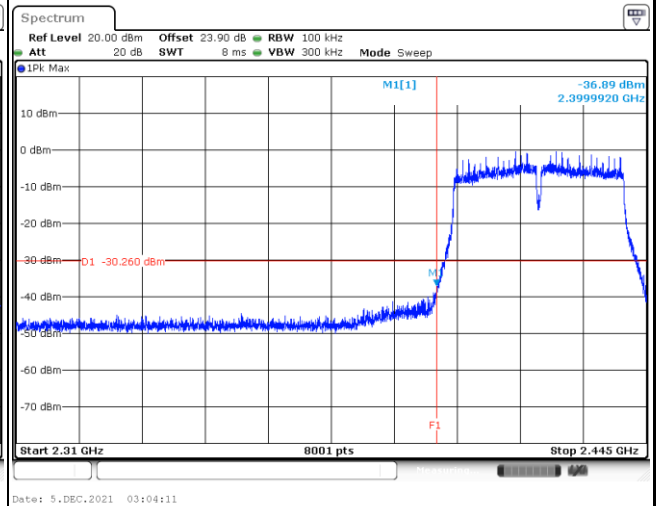


Test Mode :	802.11n HT40	Test Channel :	03
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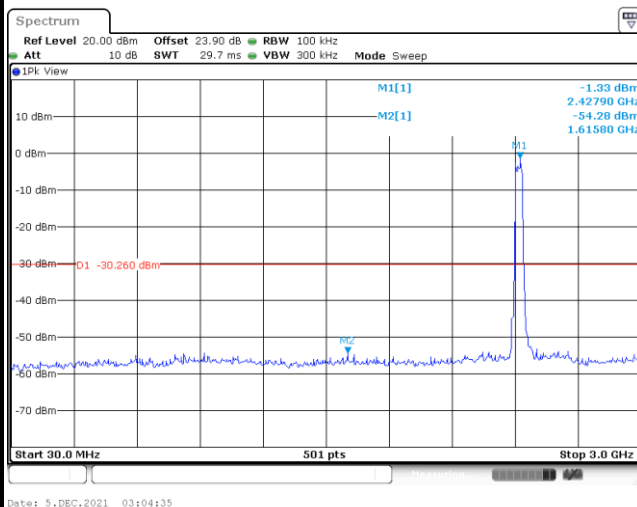
100kHz PSD reference Level



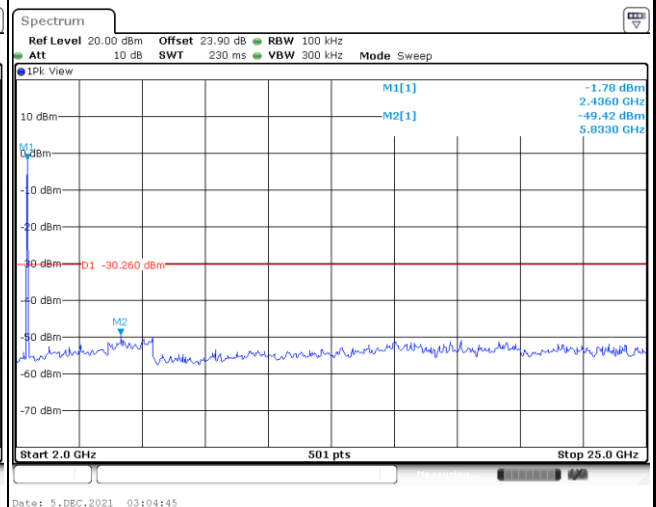
Channel Plot



Spurious Emission 30MHz~3GHz



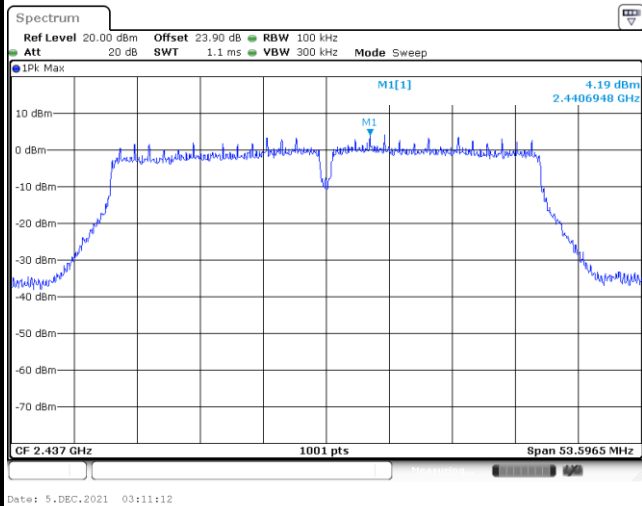
Spurious Emission 2GHz~25GHz





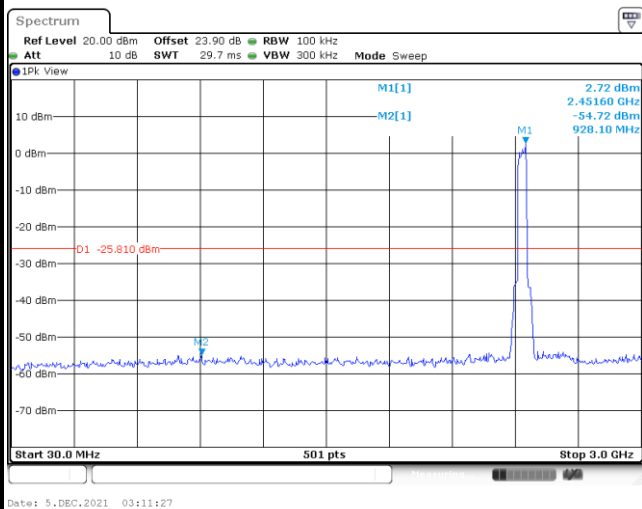
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100kHz PSD reference Level

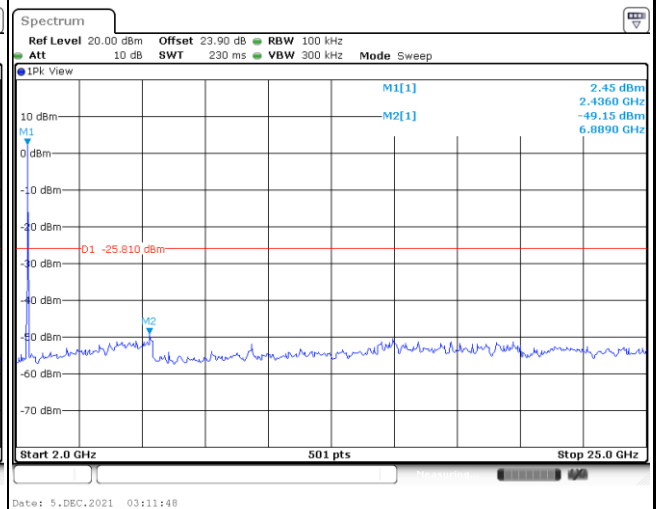


Channel Plot

Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

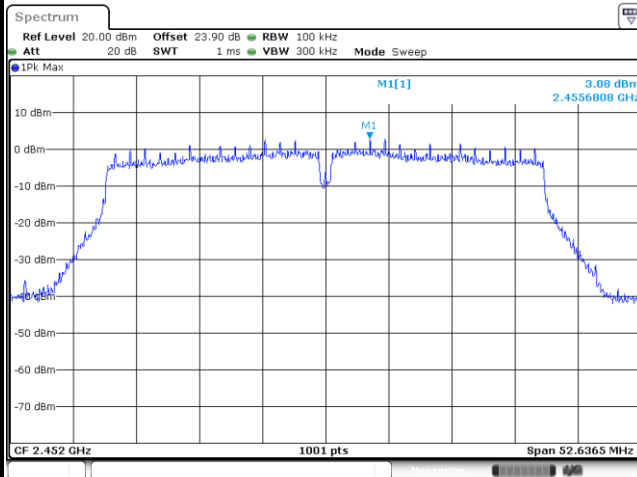




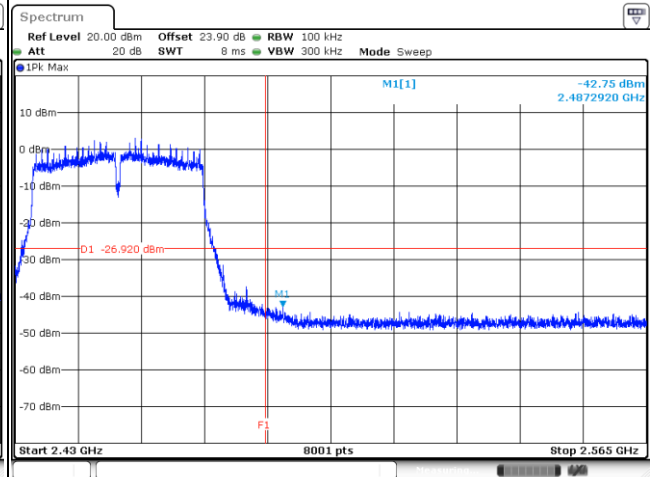
Test Mode : 802.11n HT40

Test Channel : 09

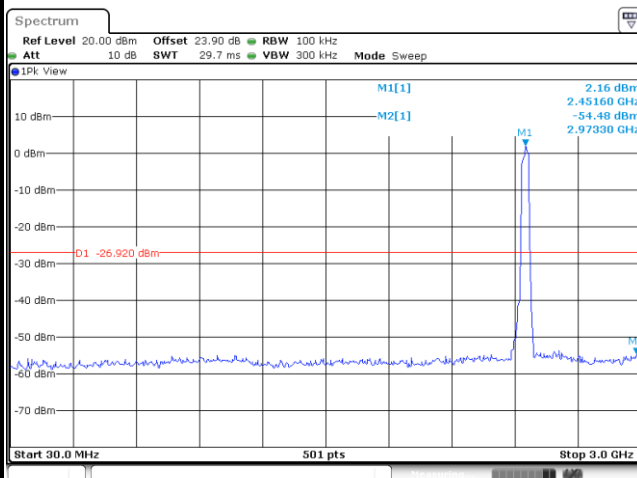
100kHz PSD reference Level



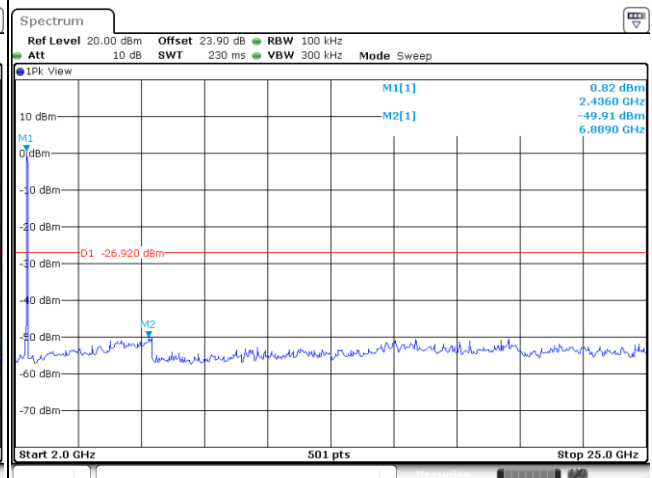
Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



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 is 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

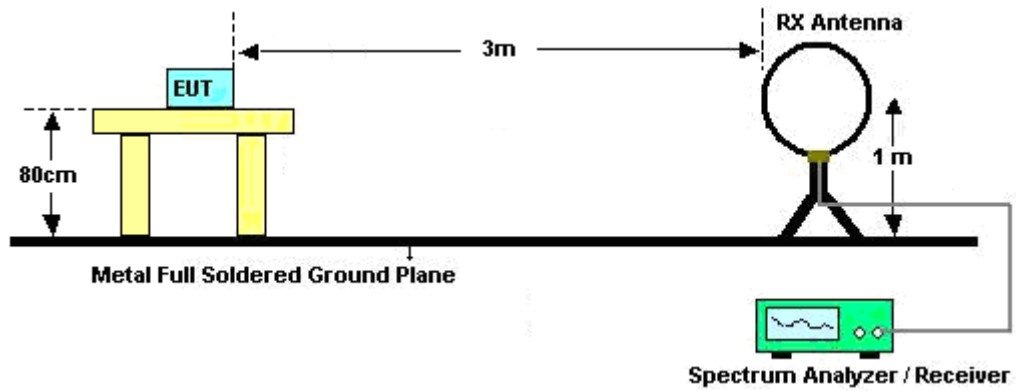
Please refer to the measuring equipment list in this test report.

3.5.3 Test Procedures

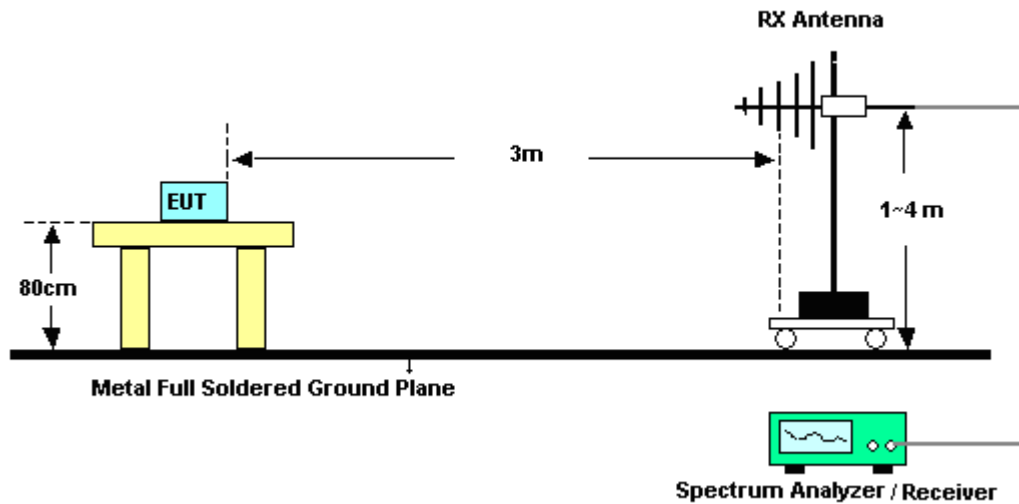
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
4. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamplifier Factor = Level
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-”.
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-”.
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= 3 MHz 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

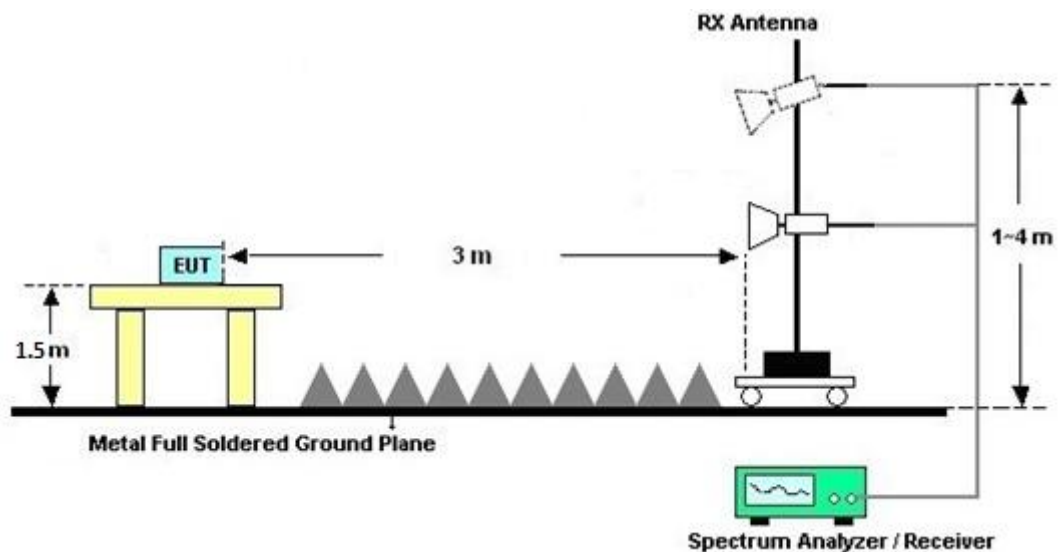
For radiated emissions below 30MHz



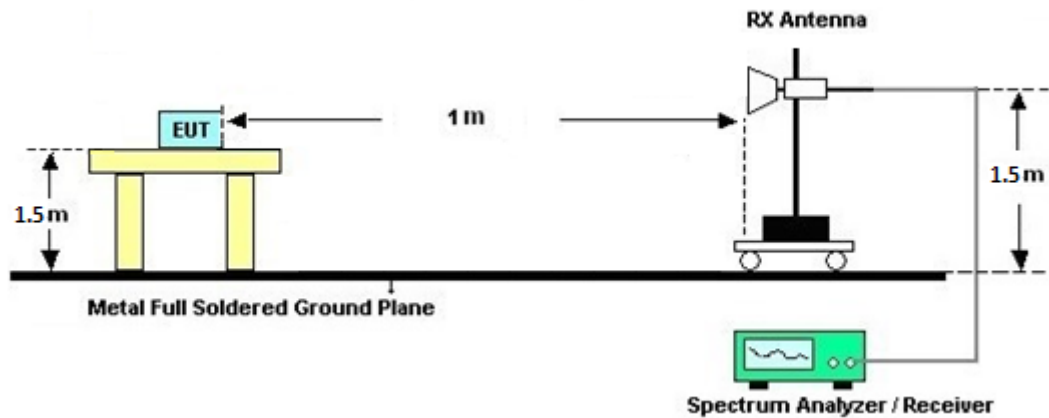
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

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

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result comes 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.

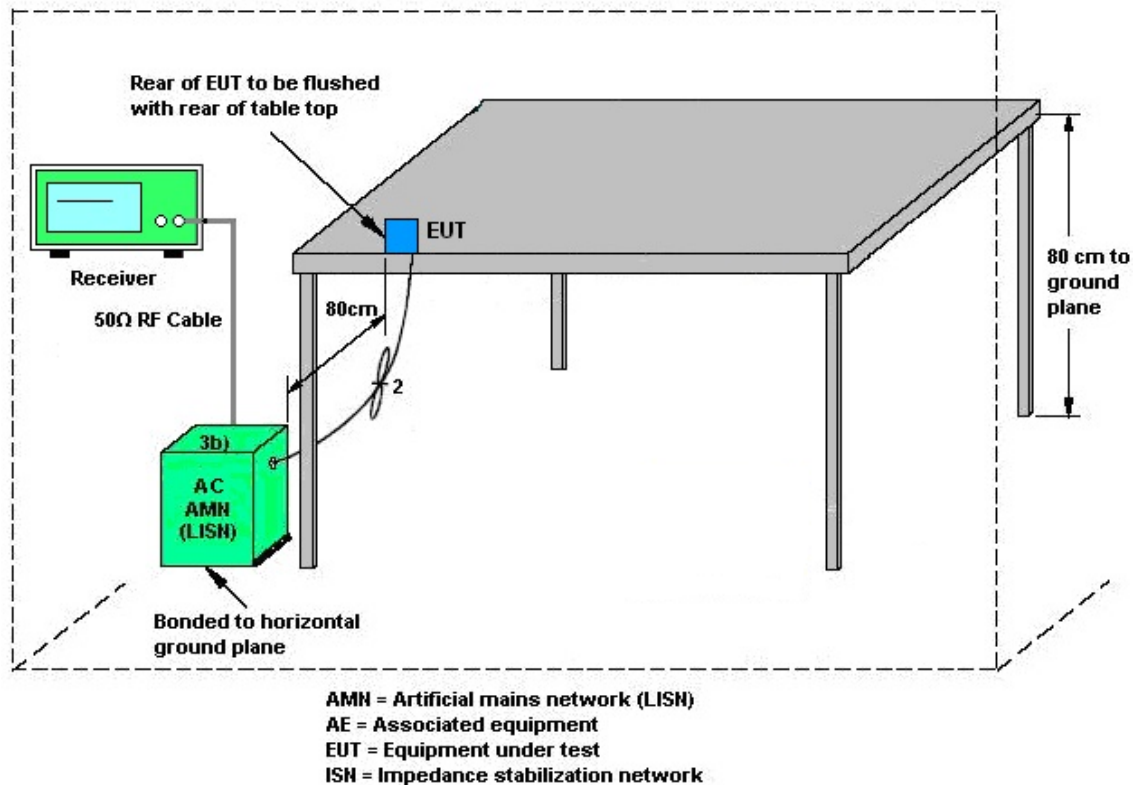
3.6.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.6.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is 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 shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
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 6 dBi, the power shall be reduced by the same level in dB comparing to gain minus 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.7.2 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	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9kHz~30MHz	Sep. 07, 2021	Nov. 19, 2021~ Jan. 06, 2022	Sep. 06, 2022	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jul. 13, 2021	Nov. 19, 2021~ Jan. 06, 2022	Jul. 12, 2022	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917057 6	18GHz- 40GHz	May 21, 2021	Nov. 19, 2021~ Jan. 06, 2022	May 20, 2022	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 16, 2020	Nov. 19, 2021~ Dec. 14, 2021	Dec. 15, 2021	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 15, 2021	Dec. 15, 2021~ Jan. 06, 2022	Dec. 14, 2022	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	May 18, 2021	Nov. 19, 2021~ Jan. 06, 2022	May 17, 2022	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 26, 2021	Nov. 19, 2021~ Jan. 06, 2022	Oct. 25, 2022	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz ~ 40GHz	Jun. 22, 2021	Nov. 19, 2021~ Jan. 06, 2022	Jun. 21, 2022	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 18, 2021	Nov. 19, 2021~ Jan. 06, 2022	Mar. 17, 2022	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Nov. 19, 2021~ Jan. 06, 2022	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Nov. 19, 2021~ Jan. 06, 2022	N/A	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24	RK-000992	N/A	N/A	Nov. 19, 2021~ Jan. 06, 2022	N/A	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Feb. 10, 2021	Nov. 19, 2021~ Jan. 06, 2022	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30M-18G	Feb. 10, 2021	Nov. 19, 2021~ Jan. 06, 2022	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Feb. 22, 2021	Nov. 19, 2021~ Jan. 06, 2022	Feb. 21, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz~40GHz	Mar. 11, 2021	Nov. 19, 2021~ Jan. 06, 2022	Mar. 10, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 10, 2021	Nov. 19, 2021~ Jan. 06, 2022	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Nov. 19, 2021~ Jan. 06, 2022	Mar. 10, 2022	Radiation (03CH13-HY)
Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN12	1.53GHz Low Pass Filter	Sep. 14, 2021	Nov. 19, 2021~ Jan. 06, 2022	Sep. 13, 2022	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 OSS	SN2	3GHz High Pass Filter	Jul. 12, 2021	Nov. 19, 2021~ Jan. 06, 2022	Jul. 11, 2022	Radiation (03CH13-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECEPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Nov. 24, 2021~ Dec. 18, 2021	Nov. 15, 2022	Conducted (TH05-HY)
Power Meter	DARE	RPR3006W	13I00030SNO 31(NO:182)	10MHz~6GHz	Dec. 30, 2020	Nov. 24, 2021~ Dec. 18, 2021	Dec. 29, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Nov. 24, 2021~ Dec. 18, 2021	Aug. 29, 2022	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW191204 (BOX8)	N/A	Jan. 07, 2021	Nov. 24, 2021~ Dec. 18, 2021	Jan. 06, 2022	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 15, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Nov. 15, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 18, 2020	Nov. 15, 2021	Nov. 17, 2021	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2020	Nov. 15, 2021	Nov. 30, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Nov. 15, 2021	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Jul. 28, 2021	Nov. 15, 2021	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Nov. 15, 2021	Dec. 30, 2021	Conduction (CO05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.1 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.0 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.2 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.9 dB
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Shiming Liu	Temperature:	21.3~22.8	°C
Test Date:	2021/11/24~2021/12/18	Relative Humidity:	41.6~56.8	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band Single Antenna										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant1	Ant2	Ant1	Ant2		
11b	1Mbps	1	1	2412	-	13.94	-	8.54	0.50	Pass
11b	1Mbps	1	6	2437	-	14.04	-	8.57	0.50	Pass
11b	1Mbps	1	11	2462	-	13.94	-	8.56	0.50	Pass
11g	6Mbps	1	1	2412	-	17.68	-	15.15	0.50	Pass
11g	6Mbps	1	6	2437	-	17.88	-	15.39	0.50	Pass
11g	6Mbps	1	11	2462	-	17.88	-	16.30	0.50	Pass
HT20	MCS0	1	1	2412	-	18.78	-	16.31	0.50	Pass
HT20	MCS0	1	6	2437	-	18.98	-	15.91	0.50	Pass
HT20	MCS0	1	11	2462	-	18.93	-	16.66	0.50	Pass
HT40	MCS0	1	3	2422	-	36.56	-	35.67	0.50	Pass
HT40	MCS0	1	6	2437	-	36.66	-	35.73	0.50	Pass
HT40	MCS0	1	9	2452	-	36.36	-	35.09	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	-	17.30		-	30.00	-	2.50	-	19.80	-	36.00	Pass
11b	1Mbps	1	6	2437	-	17.90		-	30.00	-	2.50	-	20.40	-	36.00	Pass
11b	1Mbps	1	11	2462	-	17.50		-	30.00	-	2.50	-	20.00	-	36.00	Pass
11g	6Mbps	1	1	2412	-	16.90		-	30.00	-	2.50	-	19.40	-	36.00	Pass
11g	6Mbps	1	6	2437	-	18.10		-	30.00	-	2.50	-	20.60	-	36.00	Pass
11g	6Mbps	1	11	2462	-	18.30		-	30.00	-	2.50	-	20.80	-	36.00	Pass
HT20	MCS0	1	1	2412	-	15.20		-	30.00	-	2.50	-	17.70	-	36.00	Pass
HT20	MCS0	1	6	2437	-	18.40		-	30.00	-	2.50	-	20.90	-	36.00	Pass
HT20	MCS0	1	11	2462	-	18.20		-	30.00	-	2.50	-	20.70	-	36.00	Pass
HT40	MCS0	1	3	2422	-	13.00		-	30.00	-	2.50	-	15.50	-	36.00	Pass
HT40	MCS0	1	6	2437	-	17.80		-	30.00	-	2.50	-	20.30	-	36.00	Pass
HT40	MCS0	1	9	2452	-	16.20		-	30.00	-	2.50	-	18.70	-	36.00	Pass
VHT20	MCS0	1	1	2412	-	15.10		-	30.00	-	2.50	-	17.60	-	36.00	Pass
VHT20	MCS0	1	6	2437	-	18.30		-	30.00	-	2.50	-	20.80	-	36.00	Pass
VHT20	MCS0	1	11	2462	-	18.10		-	30.00	-	2.50	-	20.60	-	36.00	Pass
VHT40	MCS0	1	3	2422	-	12.90		-	30.00	-	2.50	-	15.40	-	36.00	Pass
VHT40	MCS0	1	6	2437	-	17.70		-	30.00	-	2.50	-	20.20	-	36.00	Pass
VHT40	MCS0	1	9	2452	-	16.10		-	30.00	-	2.50	-	18.60	-	36.00	Pass

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band Single Antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant1	Ant2	Worse + 3.01	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	-	-5.10		-	2.50	-	8.00	Pass
11b	1Mbps	1	6	2437	-	-4.44		-	2.50	-	8.00	Pass
11b	1Mbps	1	11	2462	-	-4.60		-	2.50	-	8.00	Pass
11g	6Mbps	1	1	2412	-	-8.09		-	2.50	-	8.00	Pass
11g	6Mbps	1	6	2437	-	-7.17		-	2.50	-	8.00	Pass
11g	6Mbps	1	11	2462	-	-7.14		-	2.50	-	8.00	Pass
HT20	MCS0	1	1	2412	-	-10.67		-	2.50	-	8.00	Pass
HT20	MCS0	1	6	2437	-	-7.40		-	2.50	-	8.00	Pass
HT20	MCS0	1	11	2462	-	-7.65		-	2.50	-	8.00	Pass
HT40	MCS0	1	3	2422	-	-15.55		-	2.50	-	8.00	Pass
HT40	MCS0	1	6	2437	-	-10.49		-	2.50	-	8.00	Pass
HT40	MCS0	1	9	2452	-	-11.94		-	2.50	-	8.00	Pass

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



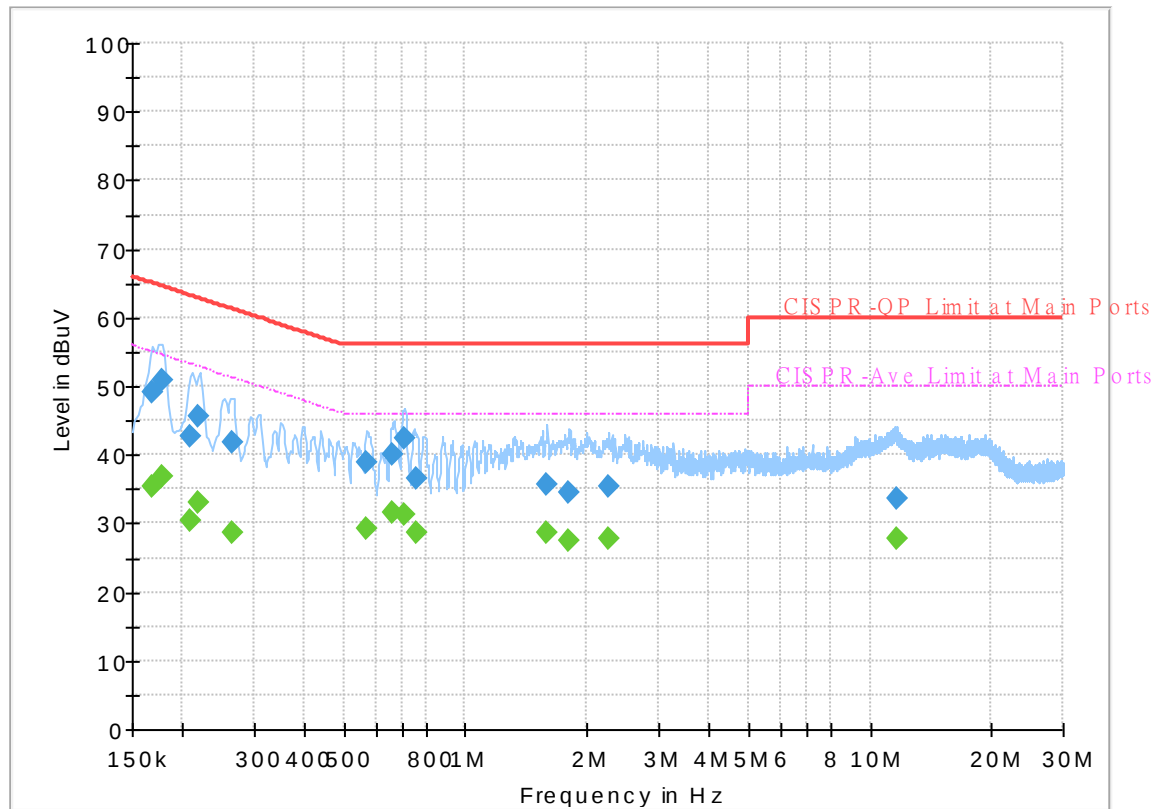
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	Temperature :	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO : 1N0506
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



Final_Result

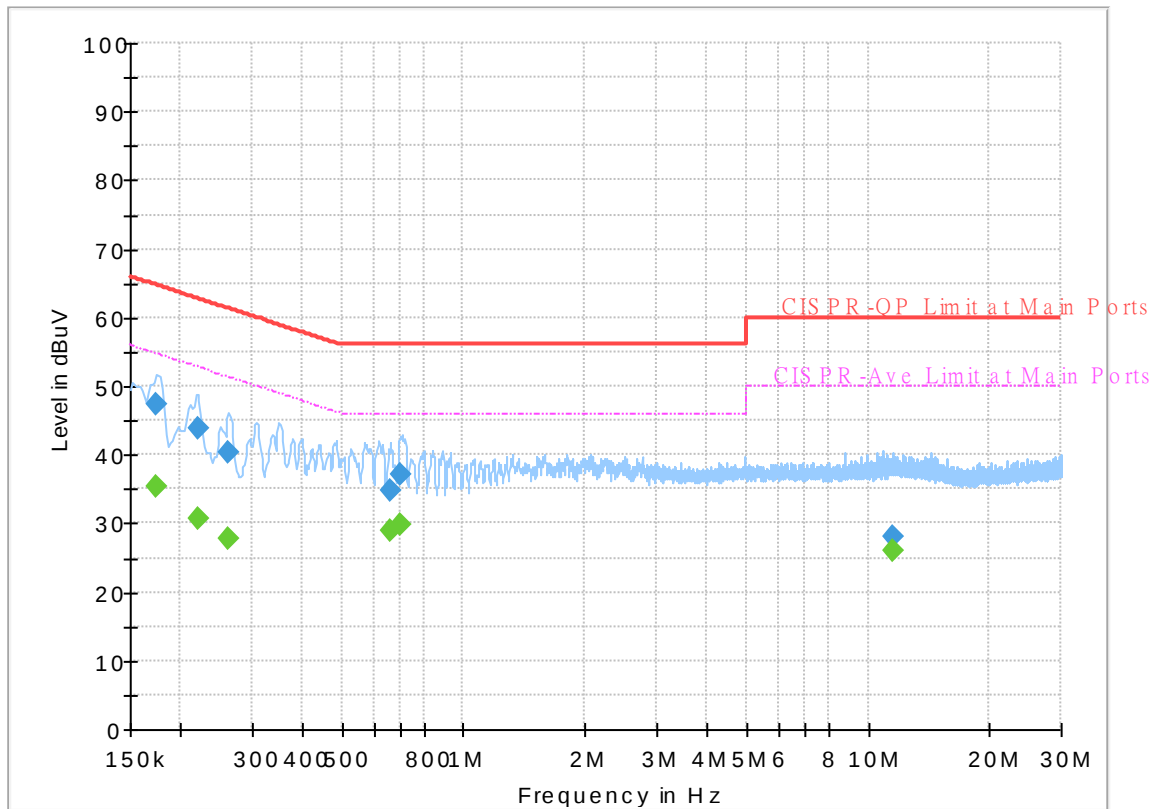
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.168000	---	35.28	55.06	19.78	L1	OFF	19.7
0.168000	49.02	---	65.06	16.04	L1	OFF	19.7
0.177000	---	36.93	54.63	17.70	L1	OFF	19.7
0.177000	50.78	---	64.63	13.85	L1	OFF	19.7
0.208500	---	30.27	53.27	23.00	L1	OFF	19.7
0.208500	42.83	---	63.27	20.44	L1	OFF	19.7
0.217500	---	33.05	52.91	19.86	L1	OFF	19.7
0.217500	45.52	---	62.91	17.39	L1	OFF	19.7
0.264750	---	28.79	51.28	22.49	L1	OFF	19.7
0.264750	41.93	---	61.28	19.35	L1	OFF	19.7
0.568500	---	29.19	46.00	16.81	L1	OFF	19.9
0.568500	38.77	---	56.00	17.23	L1	OFF	19.9
0.658500	---	31.66	46.00	14.34	L1	OFF	20.0
0.658500	39.94	---	56.00	16.06	L1	OFF	20.0
0.708000	---	31.31	46.00	14.69	L1	OFF	20.0
0.708000	42.40	---	56.00	13.60	L1	OFF	20.0
0.759750	---	28.63	46.00	17.37	L1	OFF	20.0
0.759750	36.47	---	56.00	19.53	L1	OFF	20.0
1.592250	---	28.68	46.00	17.32	L1	OFF	20.2
1.592250	35.57	---	56.00	20.43	L1	OFF	20.2
1.794750	---	27.38	46.00	18.62	L1	OFF	20.2

1.794750	34.45	---	56.00	21.55	L1	OFF	20.2
2.253750	---	27.91	46.00	18.09	L1	OFF	20.1
2.253750	35.38	---	56.00	20.62	L1	OFF	20.1
11.638500	---	27.68	50.00	22.32	L1	OFF	20.2
11.638500	33.54	---	60.00	26.46	L1	OFF	20.2

EUT Information

Report NO : 1N0506
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)
0.174750	---	35.27	54.73	19.46	N	OFF	19.7
0.174750	47.48	---	64.73	17.25	N	OFF	19.7
0.219750	---	30.75	52.83	22.08	N	OFF	19.7
0.219750	43.84	---	62.83	18.99	N	OFF	19.7
0.262500	---	27.84	51.35	23.51	N	OFF	19.7
0.262500	40.34	---	61.35	21.01	N	OFF	19.7
0.660750	---	28.97	46.00	17.03	N	OFF	20.0
0.660750	34.94	---	56.00	21.06	N	OFF	20.0
0.699000	---	29.70	46.00	16.30	N	OFF	20.0
0.699000	37.18	---	56.00	18.82	N	OFF	20.0
11.492250	---	25.94	50.00	24.06	N	OFF	20.2
11.492250	27.95	---	60.00	32.05	N	OFF	20.2



Appendix C. Radiated Spurious Emission

Test Engineer :	Yuan Lee, Jacky Hong, Wilson Wu and Peter Liao	Temperature :	20~25°C
		Relative Humidity :	50~60%

<Sample 1>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preampl Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2388.33	56.36	-17.64	74	41.59	27.72	14.12	27.07	100	93	P	H
		2389.485	45.32	-8.68	54	30.55	27.72	14.12	27.07	100	93	A	H
	*	2412	110.23	-	-	95.47	27.68	14.14	27.06	100	93	P	H
	*	2412	106.96	-	-	92.2	27.68	14.14	27.06	100	93	A	H
													H
		2356.935	55.59	-18.41	74	40.79	27.79	14.09	27.08	399	57	P	V
		2389.065	44.67	-9.33	54	29.9	27.72	14.12	27.07	399	57	A	V
	*	2412	106.33	-	-	91.57	27.68	14.14	27.06	399	57	P	V
	*	2412	103.06	-	-	88.3	27.68	14.14	27.06	399	57	A	V
													V
802.11b CH 06 2437MHz		2313.08	55.62	-18.38	74	40.57	28.1	14.04	27.09	100	88	P	H
		2389.38	44.78	-9.22	54	30.01	27.72	14.12	27.07	100	88	A	H
	*	2437	109.69	-	-	94.95	27.63	14.16	27.05	100	88	P	H
	*	2437	106.49	-	-	91.75	27.63	14.16	27.05	100	88	A	H
		2495.95	56.31	-17.69	74	41.44	27.69	14.21	27.03	100	88	P	H
		2483.53	45.2	-8.8	54	30.37	27.67	14.2	27.04	100	88	A	H
		2372.02	55.69	-18.31	74	40.9	27.76	14.1	27.07	392	58	P	V
		2312.8	44.41	-9.59	54	29.36	28.1	14.04	27.09	392	58	A	V
	*	2437	106.71	-	-	91.97	27.63	14.16	27.05	392	58	P	V
	*	2437	103.51	-	-	88.77	27.63	14.16	27.05	392	58	A	V
		2496.58	55.37	-18.63	74	40.5	27.69	14.21	27.03	392	58	P	V
		2483.53	44.54	-9.46	54	29.71	27.67	14.2	27.04	392	58	A	V



802.11b CH 11 2462MHz	*	2462	109.86	-	-	95.1	27.62	14.18	27.04	290	92	P	H
	*	2462	106.65	-	-	91.89	27.62	14.18	27.04	290	92	P	H
		2485.24	57.09	-16.91	74	42.25	27.67	14.2	27.03	290	92	P	H
		2486.84	46.58	-7.42	54	31.74	27.67	14.2	27.03	290	92	P	H
													H
													H
	*	2462	106.2	-	-	91.44	27.62	14.18	27.04	386	57	P	V
	*	2462	103.04	-	-	88.28	27.62	14.18	27.04	386	57	A	V
		2486.52	55.44	-18.56	74	40.6	27.67	14.2	27.03	386	57	P	V
		2486.72	45.1	-8.9	54	30.26	27.67	14.2	27.03	386	57	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	52.77	-21.23	74	71.82	31.45	6.56	57.06	168	306	P	H
		4824	50.51	-3.49	54	69.56	31.45	6.56	57.06	168	306	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	51.15	-22.85	74	70.2	31.45	6.56	57.06	323	4	P	V
		4824	48.03	-5.97	54	67.08	31.45	6.56	57.06	323	4	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 06 2437MHz		4874	49.14	-24.86	74	67.89	31.45	6.77	56.97	104	86	P	H
		4874	45.6	-8.4	54	64.35	31.45	6.77	56.97	104	86	A	H
		7311	45.39	-28.61	74	56.57	37.08	8.64	56.9	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4874	49.32	-24.68	74	68.07	31.45	6.77	56.97	100	168	P	V
		4874	46.03	-7.97	54	64.78	31.45	6.77	56.97	100	168	A	V
		7311	45.23	-28.77	74	56.41	37.08	8.64	56.9	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 11 2462MHz		4924	49.43	-24.57	74	67.78	31.54	6.99	56.88	100	85	P	H
		4924	46.08	-7.92	54	64.43	31.54	6.99	56.88	100	85	A	H
		7386	46.66	-27.34	74	57.99	37.07	8.65	57.05	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4924	49.33	-24.67	74	67.68	31.54	6.99	56.88	105	188	P	V
		4924	45.98	-8.02	54	64.33	31.54	6.99	56.88	105	188	A	V
		7386	45.35	-28.65	74	56.68	37.07	8.65	57.05	-	-	P	V
													V
													V
													V
													V
													V
													V
												V	
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												
	3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



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

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.485	62.7	-11.3	74	47.93	27.72	14.12	27.07	126	91	P	H
		2390	52.06	-1.94	54	37.29	27.72	14.12	27.07	126	91	A	H
	*	2412	110.14	-	-	95.38	27.68	14.14	27.06	126	91	P	H
	*	2412	102.16	-	-	87.4	27.68	14.14	27.06	126	91	A	H
													H
													H
		2389.8	59.99	-14.01	74	45.22	27.72	14.12	27.07	357	56	P	V
		2390	49.34	-4.66	54	34.57	27.72	14.12	27.07	357	56	A	V
	*	2412	105.75	-	-	90.99	27.68	14.14	27.06	357	56	P	V
	*	2412	98.08	-	-	83.32	27.68	14.14	27.06	357	56	A	V
													V
													V
802.11g CH 06 2437MHz		2388.12	55.5	-18.5	74	40.73	27.72	14.12	27.07	123	93	P	H
		2389.52	45.45	-8.55	54	30.68	27.72	14.12	27.07	123	93	A	H
	*	2437	110.88	-	-	96.14	27.63	14.16	27.05	123	93	P	H
	*	2437	103.15	-	-	88.41	27.63	14.16	27.05	123	93	A	H
		2486.95	56.39	-17.61	74	41.55	27.67	14.2	27.03	123	93	P	H
		2483.62	45.77	-8.23	54	30.94	27.67	14.2	27.04	123	93	A	H
		2326.38	55.65	-18.35	74	40.69	27.99	14.06	27.09	393	56	P	V
		2389.24	44.46	-9.54	54	29.69	27.72	14.12	27.07	393	56	A	V
	*	2437	108.28	-	-	93.54	27.63	14.16	27.05	393	56	P	V
	*	2437	100.54	-	-	85.8	27.63	14.16	27.05	393	56	A	V
		2499.55	55.58	-18.42	74	40.7	27.7	14.21	27.03	393	56	P	V
		2483.71	44.75	-9.25	54	29.92	27.67	14.2	27.04	393	56	A	V



802.11g CH 11 2462MHz	*	2462	112.01	-	-	97.25	27.62	14.18	27.04	292	91	P	H
	*	2462	104.25	-	-	89.49	27.62	14.18	27.04	292	91	A	H
		2483.88	60.9	-13.1	74	46.07	27.67	14.2	27.04	292	91	P	H
		2483.52	50.58	-3.42	54	35.75	27.67	14.2	27.04	292	91	A	H
													H
													H
	*	2462	107	-	-	92.24	27.62	14.18	27.04	379	58	P	V
	*	2462	99.26	-	-	84.5	27.62	14.18	27.04	379	58	A	V
		2484.28	58.42	-15.58	74	43.59	27.67	14.2	27.04	379	58	P	V
		2483.52	48.05	-5.95	54	33.22	27.67	14.2	27.04	379	58	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	44.11	-29.89	74	63.16	31.45	6.56	57.06	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	43.92	-30.08	74	62.97	31.45	6.56	57.06	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 06 2437MHz		4874	45.41	-28.59	74	64.16	31.45	6.77	56.97	-	-	P	H
		7311	46.12	-27.88	74	57.3	37.08	8.64	56.9	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4874	45.97	-28.03	74	64.72	31.45	6.77	56.97	-	-	P	V
		7311	45.84	-28.16	74	57.02	37.08	8.64	56.9	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.485	61.83	-12.17	74	47.06	27.72	14.12	27.07	307	95	P	H
		2389.8	51.7	-2.3	54	36.93	27.72	14.12	27.07	307	95	A	H
	*	2412	109.41	-	-	94.65	27.68	14.14	27.06	307	95	P	H
	*	2412	101.33	-	-	86.57	27.68	14.14	27.06	307	95	A	H
													H
													H
		2388.96	59.85	-14.15	74	45.08	27.72	14.12	27.07	400	59	P	V
		2390	48.86	-5.14	54	34.09	27.72	14.12	27.07	400	59	A	V
	*	2412	106.01	-	-	91.25	27.68	14.14	27.06	400	59	P	V
	*	2412	98.18	-	-	83.42	27.68	14.14	27.06	400	59	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2388.4	55.6	-18.4	74	40.83	27.72	14.12	27.07	303	94	P	H
		2389.38	45.86	-8.14	54	31.09	27.72	14.12	27.07	303	94	A	H
	*	2437	111.27	-	-	96.53	27.63	14.16	27.05	303	94	P	H
	*	2437	103.02	-	-	88.28	27.63	14.16	27.05	303	94	A	H
		2484.53	56.09	-17.91	74	41.25	27.67	14.2	27.03	303	94	P	H
		2483.55	46.25	-7.75	54	31.42	27.67	14.2	27.04	303	94	A	H
		2373	55.22	-18.78	74	40.44	27.75	14.1	27.07	394	59	P	V
		2388.96	45.62	-8.38	54	30.85	27.72	14.12	27.07	394	59	A	V
	*	2437	108.85	-	-	94.11	27.63	14.16	27.05	394	59	P	V
	*	2437	100.92	-	-	86.18	27.63	14.16	27.05	394	59	A	V
		2493.07	55.78	-18.22	74	40.92	27.69	14.2	27.03	394	59	P	V
		2484.88	45.68	-8.32	54	30.84	27.67	14.2	27.03	394	59	A	V



802.11n HT20 CH 11 2462MHz	*	2462	111.18	-	-	96.42	27.62	14.18	27.04	296	91	P	H
	*	2462	102.9	-	-	88.14	27.62	14.18	27.04	296	91	A	H
		2484.8	59.28	-14.72	74	44.44	27.67	14.2	27.03	296	91	P	H
		2483.52	50.37	-3.63	54	35.54	27.67	14.2	27.04	296	91	A	H
													H
													H
	*	2462	107.98	-	-	93.22	27.62	14.18	27.04	384	58	P	V
	*	2462	100.23	-	-	85.47	27.62	14.18	27.04	384	58	A	V
		2483.64	58.27	-15.73	74	43.44	27.67	14.2	27.04	384	58	P	V
		2483.56	48.77	-5.23	54	33.94	27.67	14.2	27.04	384	58	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2389.66	60.07	-13.93	74	45.3	27.72	14.12	27.07	311	95	P	H
		2389.38	51.93	-2.07	54	37.16	27.72	14.12	27.07	311	95	A	H
	*	2422	105.47	-	-	90.71	27.66	14.15	27.05	311	95	P	H
	*	2422	97.28	-	-	82.52	27.66	14.15	27.05	311	95	A	H
		2485.93	55.65	-18.35	74	40.81	27.67	14.2	27.03	311	95	P	H
		2484.88	46.5	-7.5	54	31.66	27.67	14.2	27.03	311	95	A	H
		2389.94	57.61	-16.39	74	42.84	27.72	14.12	27.07	400	58	P	V
		2389.66	48.89	-5.11	54	34.12	27.72	14.12	27.07	400	58	A	V
	*	2422	102.93	-	-	88.17	27.66	14.15	27.05	400	58	P	V
	*	2422	94.68	-	-	79.92	27.66	14.15	27.05	400	58	A	V
		2494.82	55.4	-18.6	74	40.53	27.69	14.21	27.03	400	58	P	V
		2495.87	46.54	-7.46	54	31.67	27.69	14.21	27.03	400	58	A	V
802.11n HT40 CH 06 2437MHz		2388.96	59.26	-14.74	74	44.49	27.72	14.12	27.07	305	94	P	H
		2389.8	50.75	-3.25	54	35.98	27.72	14.12	27.07	305	94	A	H
	*	2437	108.9	-	-	94.16	27.63	14.16	27.05	305	94	P	H
	*	2437	100.98	-	-	86.24	27.63	14.16	27.05	305	94	A	H
		2483.83	60.91	-13.09	74	46.08	27.67	14.2	27.04	305	94	P	H
		2483.55	51.73	-2.27	54	36.9	27.67	14.2	27.04	305	94	A	H
		2388.12	56.25	-17.75	74	41.48	27.72	14.12	27.07	394	60	P	V
		2389.94	47.5	-6.5	54	32.73	27.72	14.12	27.07	394	60	A	V
	*	2437	107.24	-	-	92.5	27.63	14.16	27.05	394	60	P	V
	*	2437	98.99	-	-	84.25	27.63	14.16	27.05	394	60	A	V
		2483.76	58.65	-15.35	74	43.82	27.67	14.2	27.04	394	60	P	V
		2483.83	49.53	-4.47	54	34.7	27.67	14.2	27.04	394	60	A	V



802.11n HT40 CH 09 2452MHz		2375.52	56.37	-17.63	74	41.58	27.75	14.11	27.07	298	93	P	H
		2388.4	46.59	-7.41	54	31.82	27.72	14.12	27.07	298	93	A	H
	*	2452	107.77	-	-	93.05	27.6	14.17	27.05	298	93	P	H
	*	2452	99.58	-	-	84.86	27.6	14.17	27.05	298	93	A	H
		2483.62	61.03	-12.97	74	46.2	27.67	14.2	27.04	298	93	P	H
		2483.5	51.66	-2.34	54	36.83	27.67	14.2	27.04	298	93	A	H
		2367.82	55.83	-18.17	74	41.04	27.76	14.1	27.07	385	59	P	V
		2364.74	46.36	-7.64	54	31.57	27.77	14.09	27.07	385	59	A	V
	*	2452	105.1	-	-	90.38	27.6	14.17	27.05	385	59	P	V
	*	2452	96.86	-	-	82.14	27.6	14.17	27.05	385	59	A	V
		2483.55	58.64	-15.36	74	43.81	27.67	14.2	27.04	385	59	P	V
		2483.76	50.11	-3.89	54	35.28	27.67	14.2	27.04	385	59	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

[illegible]



<Sample 2>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		4824	50.69	-23.31	74	69.74	31.45	6.56	57.06	218	0	P	H
		4824	47.95	-6.05	54	67	31.45	6.56	57.06	218	0	A	H
													H
													H
													H
													H
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													H
													H
													H
													H
		4824	49.5	-24.5	74	68.55	31.45	6.56	57.06	225	96	P	V
		4824	46.71	-7.29	54	65.76	31.45	6.56	57.06	225	96	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2390	61.85	-12.15	74	47.08	27.72	14.12	27.07	298	66	P	H
		2390	51.28	-2.72	54	36.51	27.72	14.12	27.07	298	66	A	H
	*	2412	109.84	-	-	95.08	27.68	14.14	27.06	298	66	P	H
	*	2412	101.97	-	-	87.21	27.68	14.14	27.06	298	66	A	H
													H
													H
		2389.275	62.56	-11.44	74	47.79	27.72	14.12	27.07	100	98	P	V
		2390	51.71	-2.29	54	36.94	27.72	14.12	27.07	100	98	A	V
	*	2412	110.32	-	-	95.56	27.68	14.14	27.06	100	98	P	V
	*	2412	102.7	-	-	87.94	27.68	14.14	27.06	100	98	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	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)
2.4GHz 802.11g LF		30	22.22	-17.78	40	29.28	24.57	0.71	32.34	-	-	P	H
		124.09	19.44	-24.06	43.5	33.03	17.56	1.15	32.3	-	-	P	H
		515	25.7	-20.3	46	31.94	23.86	2.08	32.18	-	-	P	H
		767.2	29.15	-16.85	46	31.09	27.74	2.43	32.11	-	-	P	H
		951.5	32.12	-13.88	46	30.24	30.39	2.6	31.11	-	-	P	H
		967.99	32.11	-21.89	54	29.52	30.91	2.63	30.95	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		30	22.34	-17.66	40	29.4	24.57	0.71	32.34	-	-	P	V
		127	17.05	-26.45	43.5	30.59	17.61	1.15	32.3	-	-	P	V
		565.44	26.98	-19.02	46	31.16	25.91	2.16	32.25	-	-	P	V
		855.47	30.79	-15.21	46	31.17	28.82	2.55	31.75	-	-	P	V
		946.65	32.07	-13.93	46	30.59	30.03	2.6	31.15	-	-	P	V
		970.9	33.22	-20.78	54	30.61	30.9	2.63	30.92	-	-	P	V
													V
													V
													V
													V
													V
												V	
Remark	1. No other spurious found.												
	2. All results are PASS against limit line.												
	3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



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 :	Yuan Lee, Jacky Hong, Wilson Wu and Peter Liao	Temperature :	20~25°C
		Relative Humidity :	50~60%

Note symbol

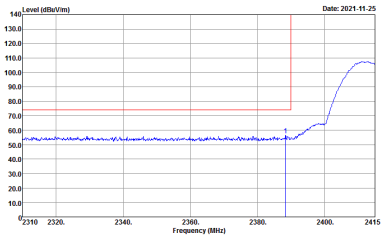
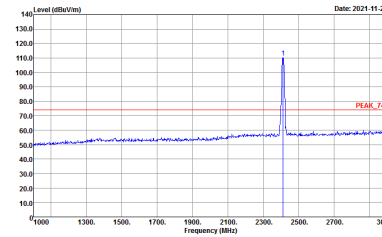
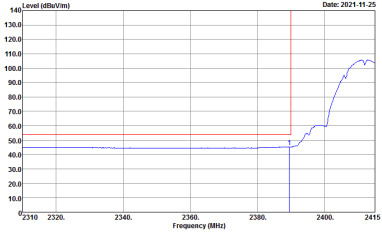
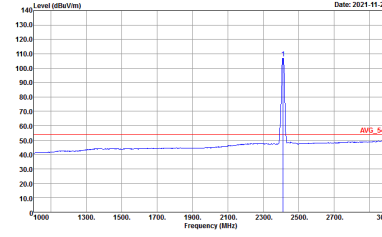
-L	Low channel location
-R	High channel location



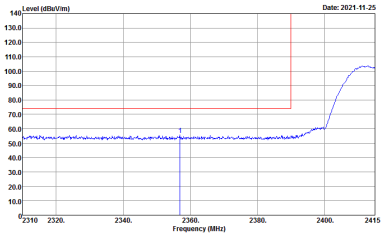
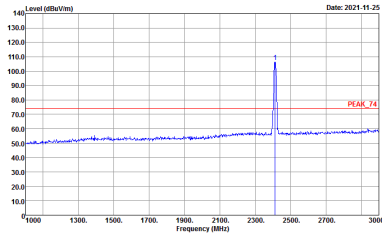
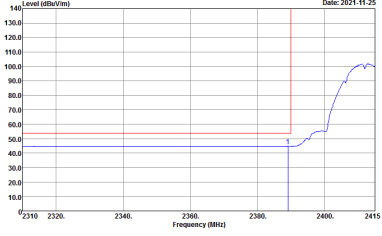
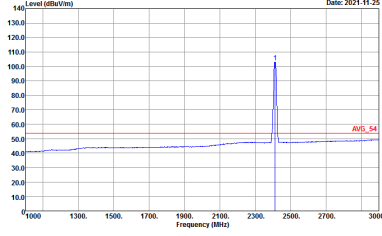
<Sample 1>

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	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto

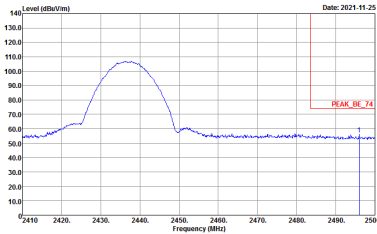
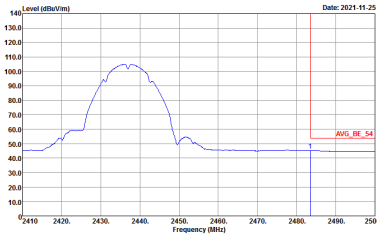


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz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



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
2	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

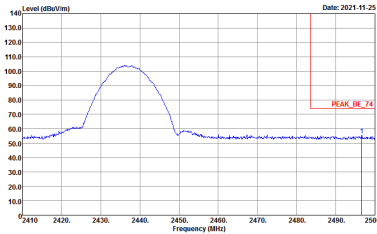
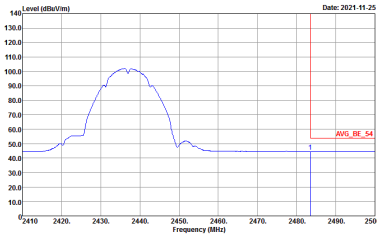


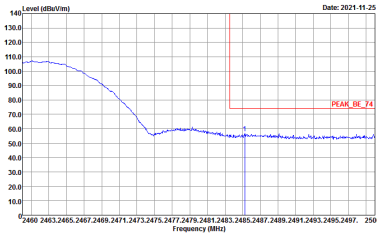
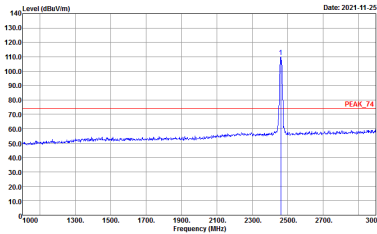
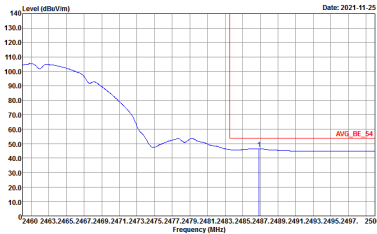
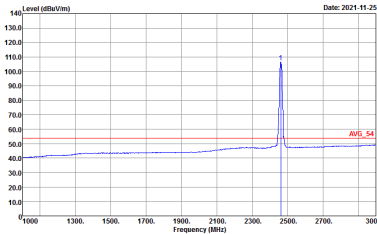
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL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

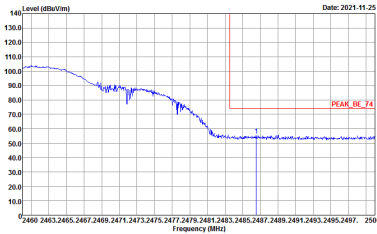
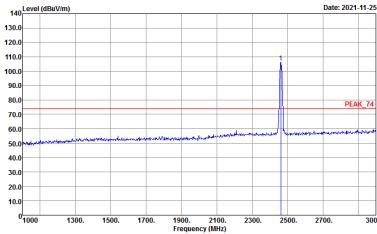
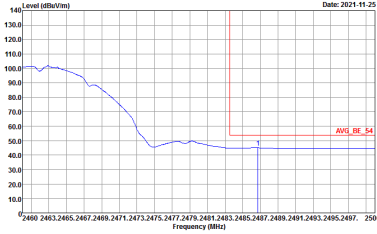
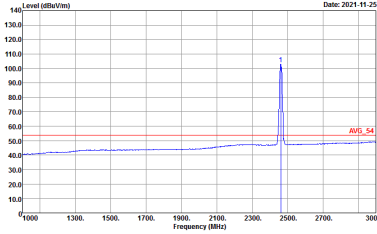


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
2	Vertical	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz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



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 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	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto
Avg.		

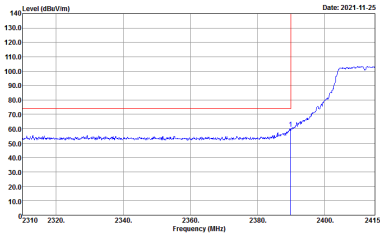
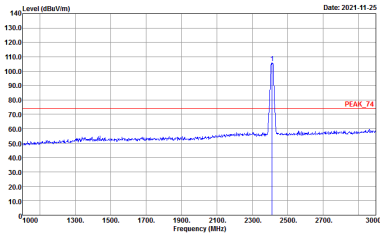
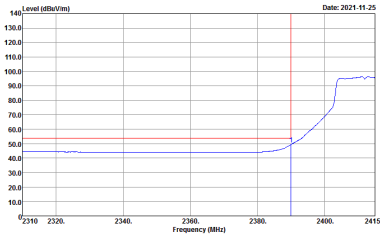
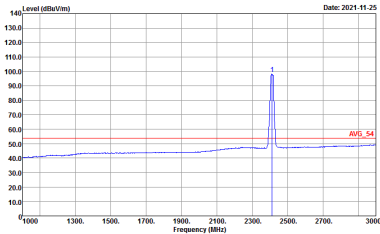
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto
Avg.		



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

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
2	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

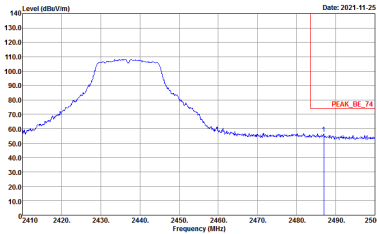
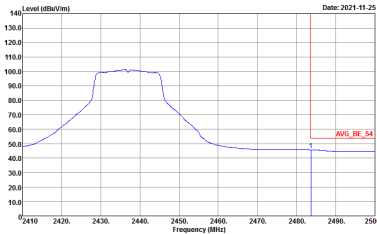


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz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

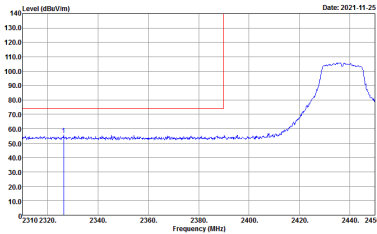
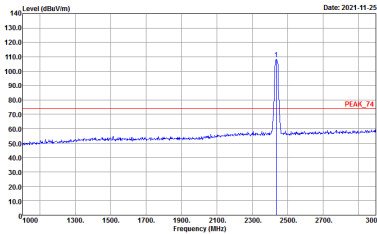
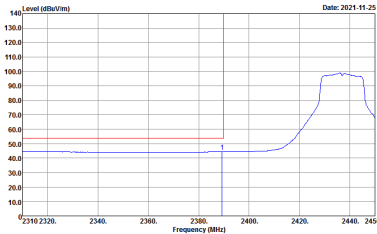
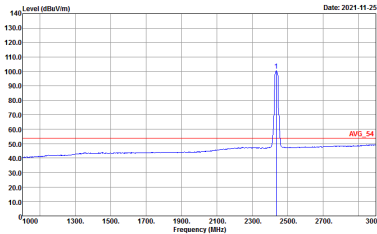


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
2	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto

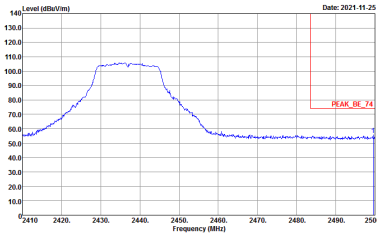
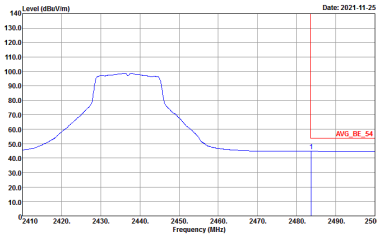


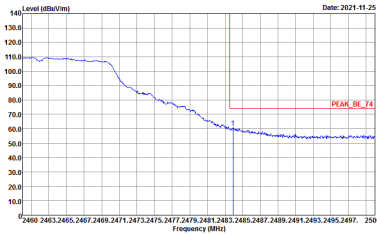
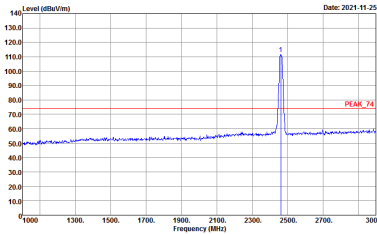
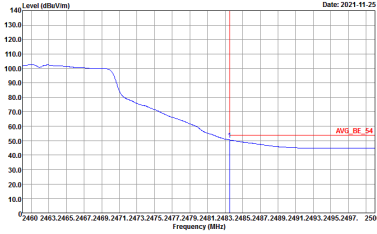
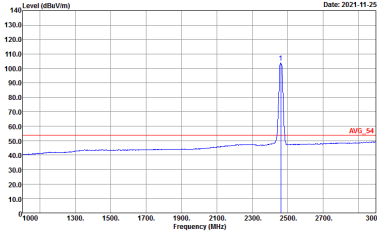
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL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



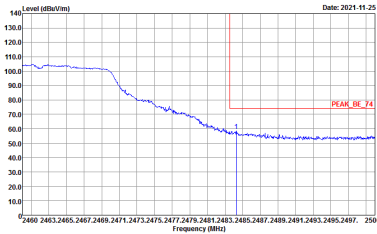
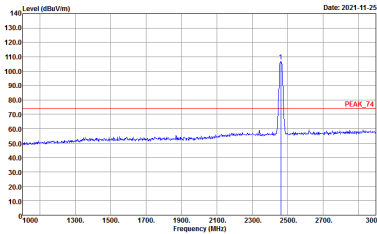
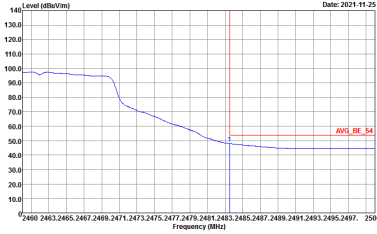
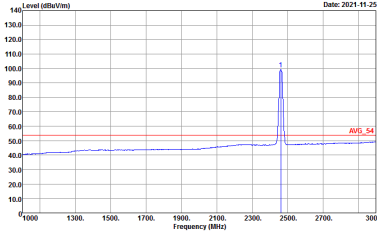
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 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	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto
Avg.		

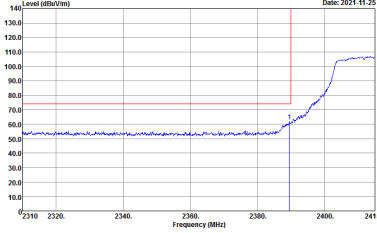
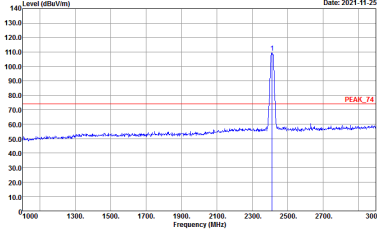
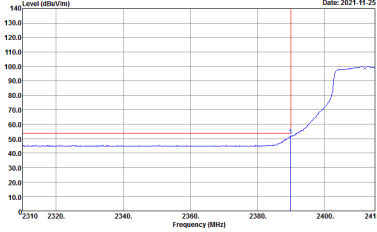
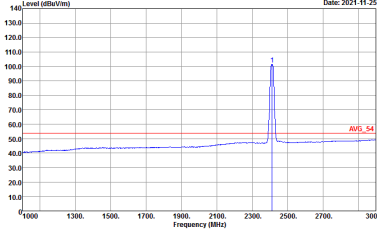


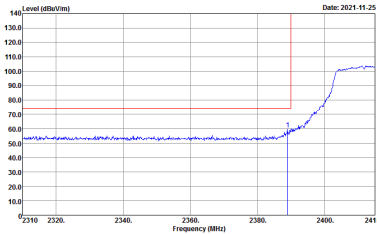
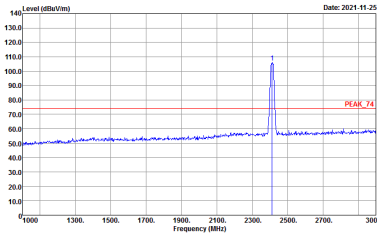
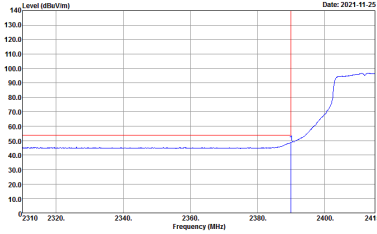
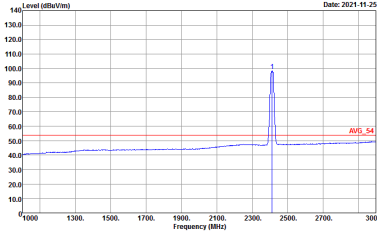
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto



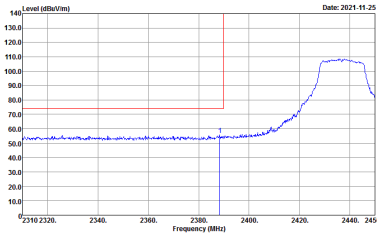
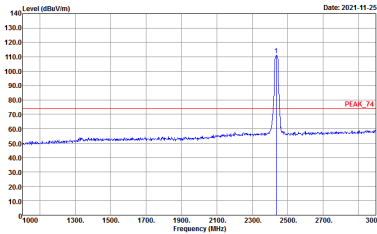
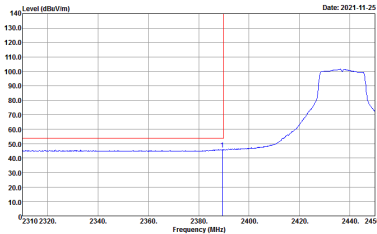
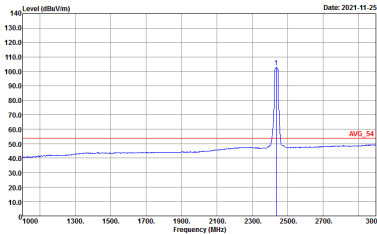
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

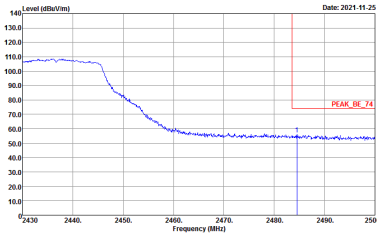
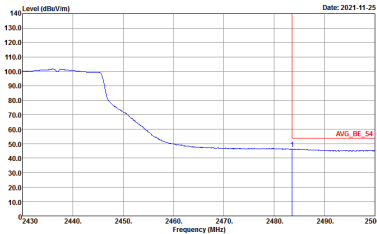
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		

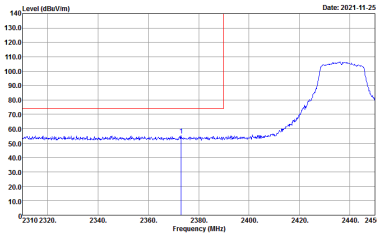
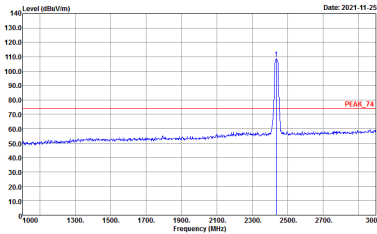
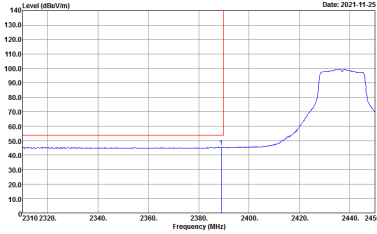
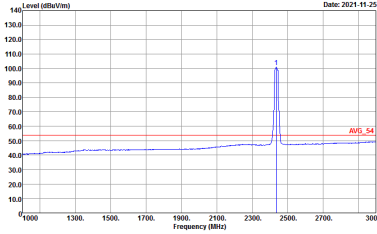


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto

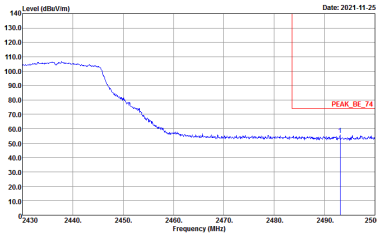
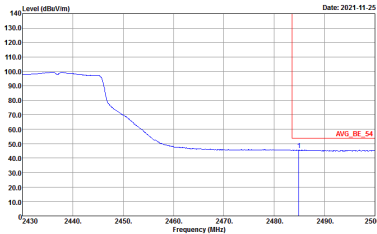


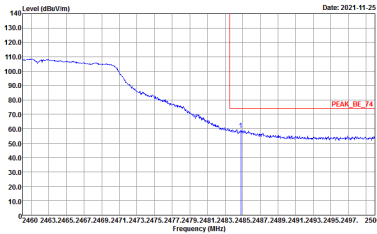
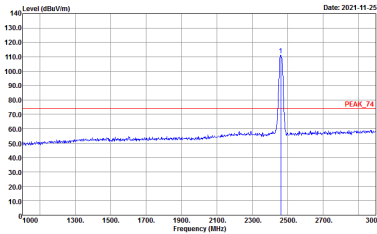
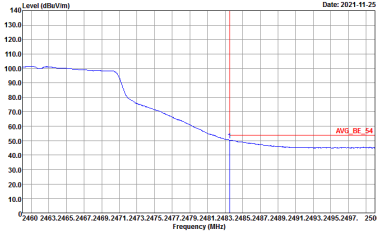
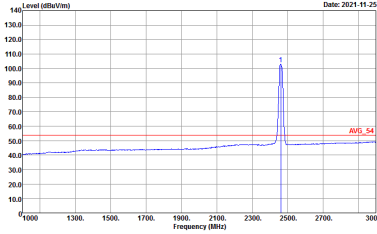
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:10000Hz SWT:Auto	Left blank

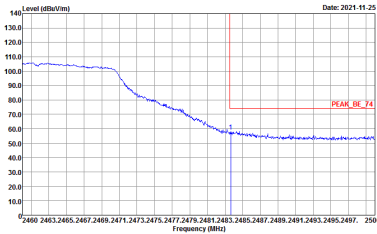
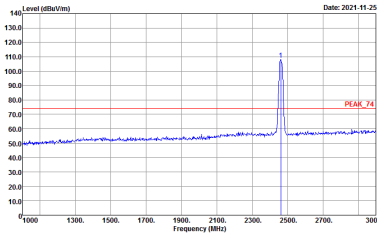
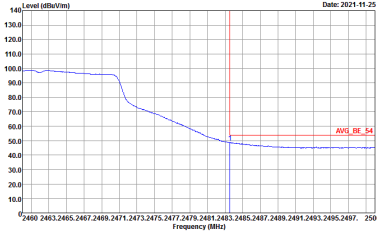
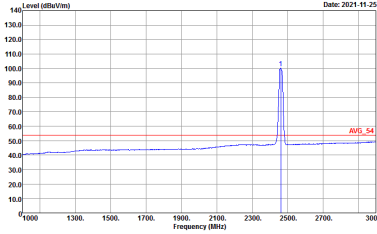


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	Left Blank

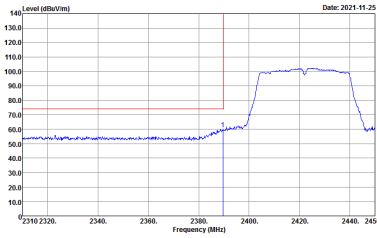
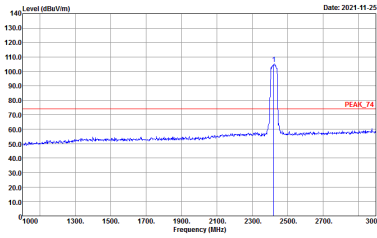
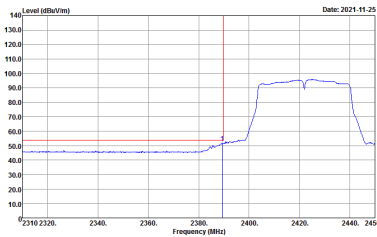
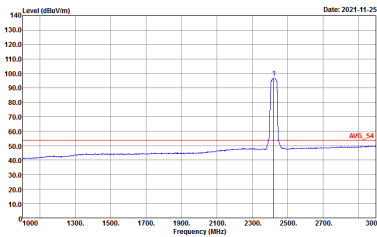
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto
Avg.		

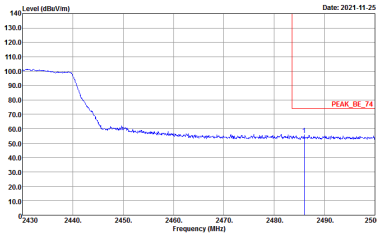
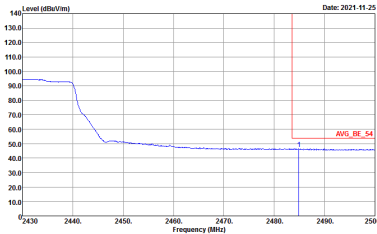


2.4GHz 2400~2483.5MHz

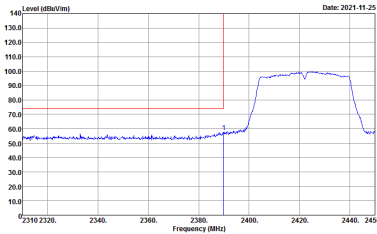
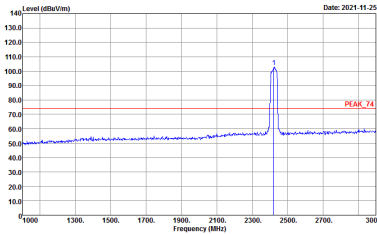
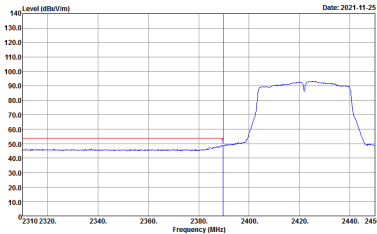
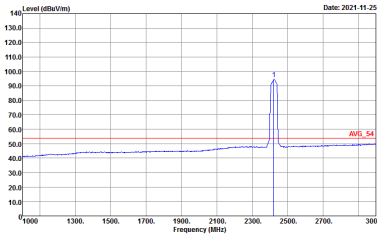
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto

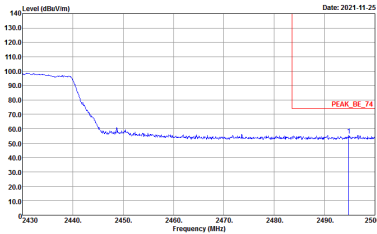
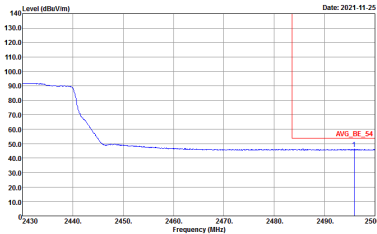


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left Blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left Blank

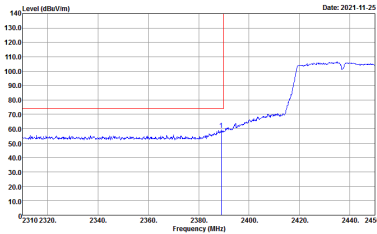
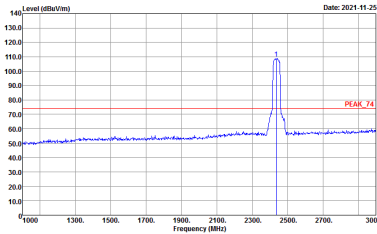
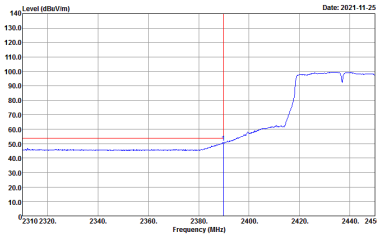
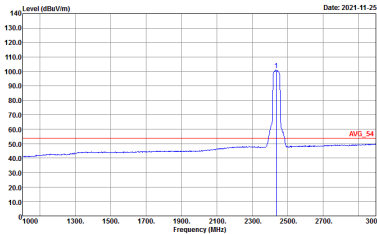


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.		

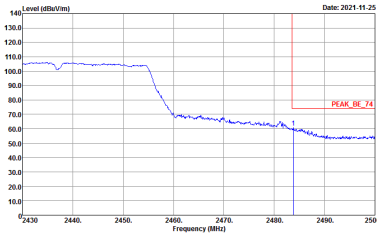
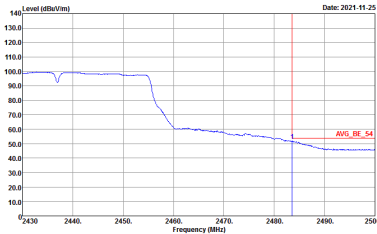


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz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

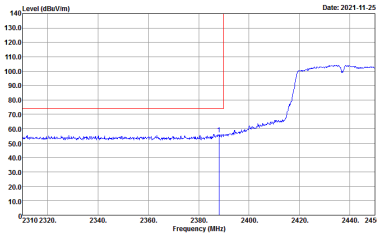
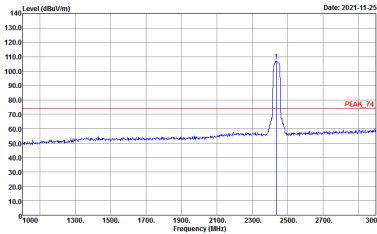
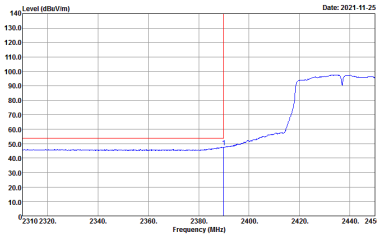
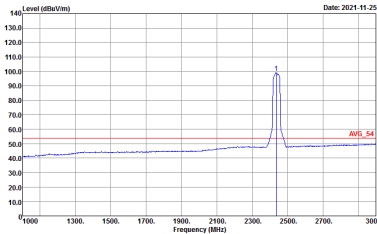


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3.000kHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3.000kHz SWT:Auto



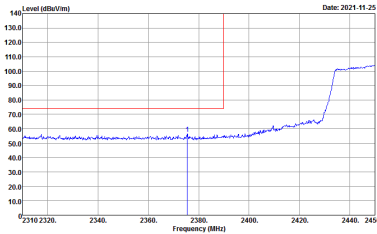
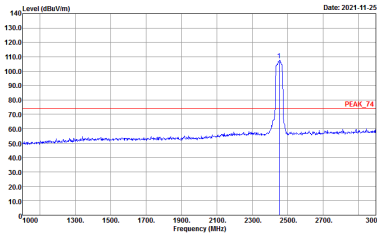
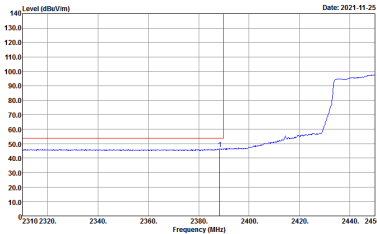
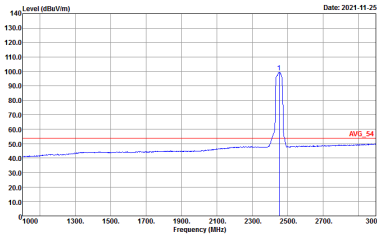
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : : AVG_BE_54 3m HORN_91200_1241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



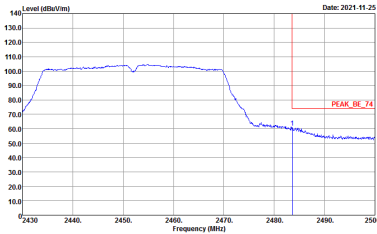
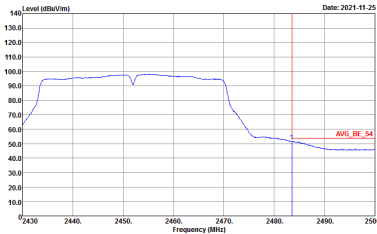
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



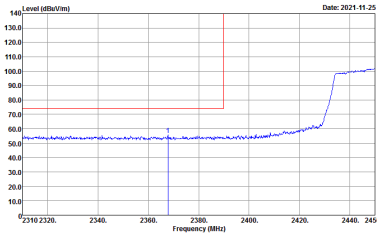
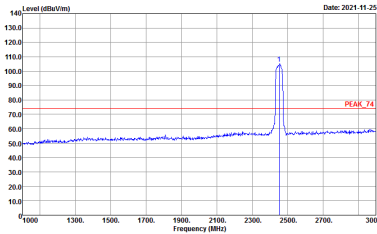
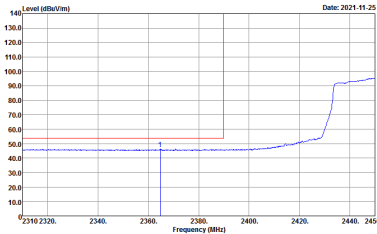
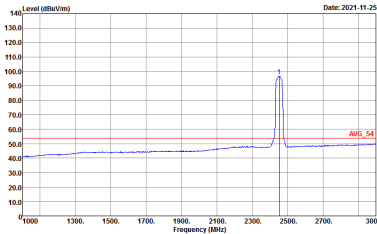
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz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

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.		

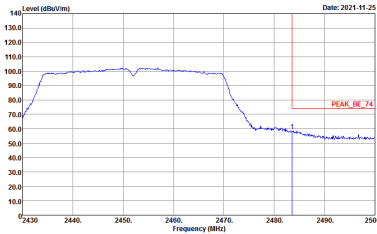
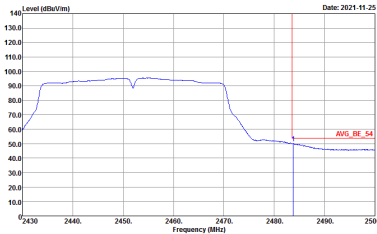


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
2	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.		

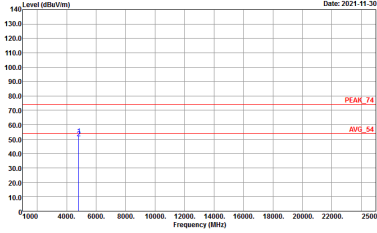
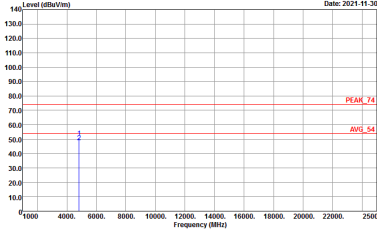


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank

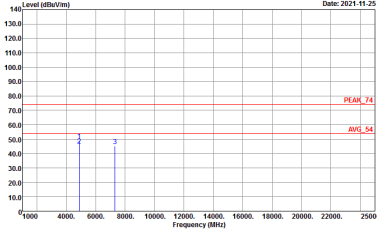
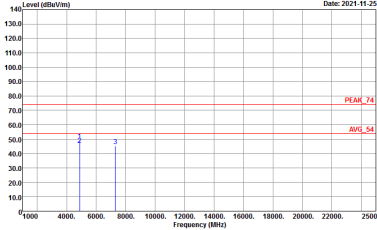


2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
2	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-11-25 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2021-11-25 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 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	
2	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2022-01-06 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2022-01-06 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak

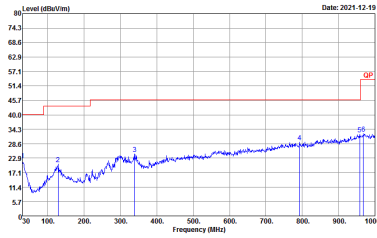
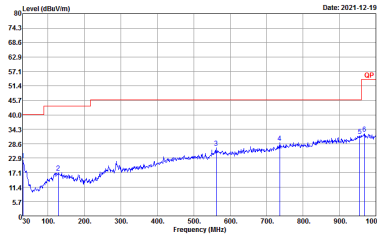


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
2	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2022-01-06 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2022-01-06 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
2	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2022-01-06 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2022-01-06 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak

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

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
2	Horizontal	Vertical
QP / Peak	 Site : 03CH13-HY Condition : QP 3m 8ILO6_40103 HORIZONTAL Detector : Peak	 Site : 03CH13-HY Condition : QP 3m 8ILO6_40103 VERTICAL Detector : Peak

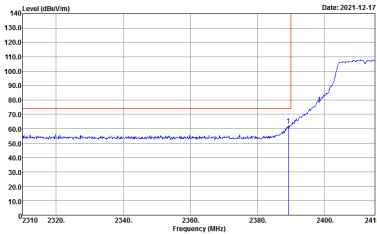
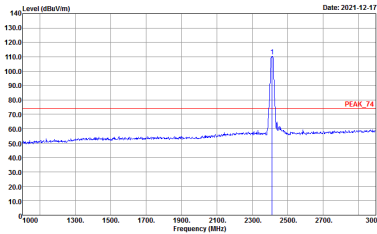
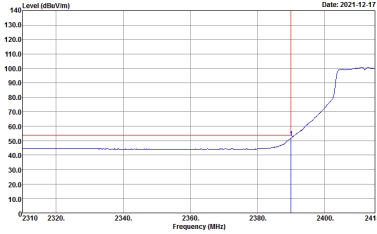
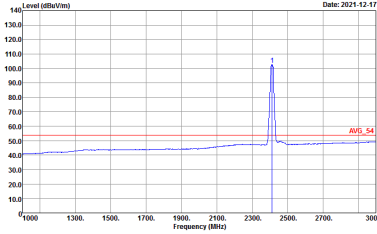


<Sample 2>

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	
2	Horizontal	Fundamental
Peak	Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto	Site : 03CH13-HY Condition : AVG_54 3m HORN_91200_1241 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH13-HY Condition : AV6_BE_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AV6_54 3m HORN_91200_1241 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto

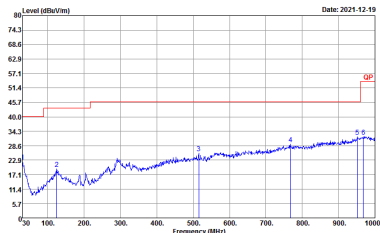
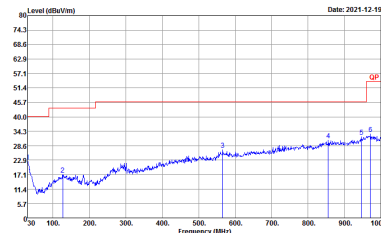


2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
2	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-12-19 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 HORIZONTAL Detector : Peak	Level (dBuV/m) Date: 2021-12-19 Frequency (MHz) Site : 03CH13-HY Condition : PEAK_74 3m HORN_91200_1241 VERTICAL Detector : Peak

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

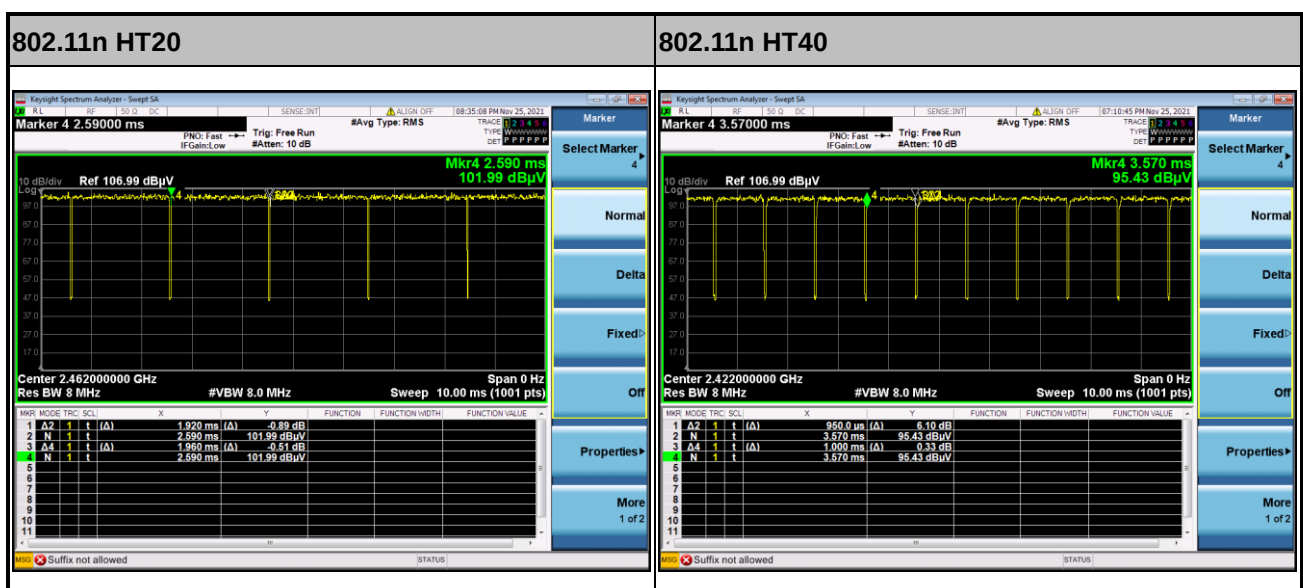
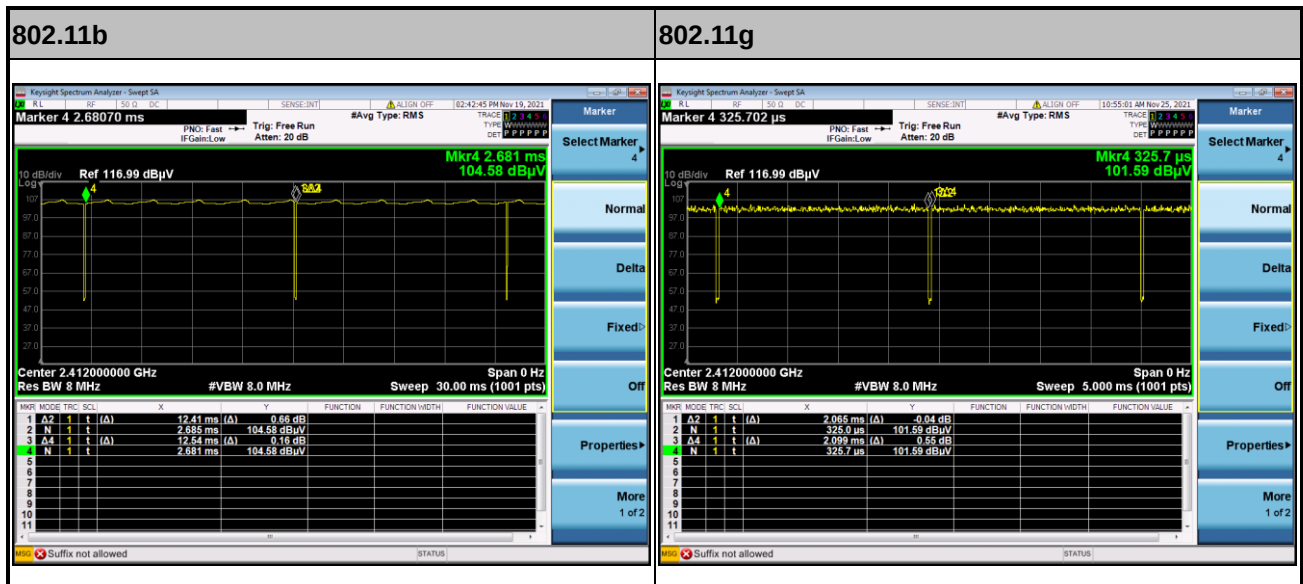
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
2	Horizontal	Vertical
QP / Peak	 Site : 03CH13-HY Condition : QP 3m 81LO6_40103 HORIZONTAL Detector : Peak	 Site : 03CH13-HY Condition : QP 3m 81LO6_40103 VERTICAL Detector : Peak



Appendix E. Duty Cycle Plots

<Sample 1>

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	98.96	-	-	10Hz
802.11g	98.38	-	-	10Hz
2.4GHz 802.11n HT20	97.96	1920	0.52	1kHz
2.4GHz 802.11n HT40	95.00	950	1.05	3kHz





<Sample 2>

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	99.20	-	-	10Hz
802.11g	98.38	-	-	10Hz

