FCC RADIO TEST REPORT

FCC ID	:	**2AFZZ116AG**
Equipment	:	**Mobile Phone**
Brand Name	:	**POCO**
Model Name	:	**21091116AG**
Applicant	:	**Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085**
Manufacturer	:	**Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085**
Standard	:	**FCC Part 15 Subpart C §15.247**

The product was received on Aug. 19, 2021 and testing was started from Aug. 23, 2021 and completed on Sep. 15, 2021. 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 of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

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	Issued Date
FR181632C	01	Initial issue of report	Sep. 24, 2021

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	Under limit 3.20 dB at 2483.520 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 21.21 dB at 0.152 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 declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Danny Lee

Report Producer: Tina Chuang

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, NFC, FM Receiver, and GNSS.

Product Specification subjective to this standard	
Sample 1	6G+128GB with Battery 1
Sample 2	4G+64GB with Battery 2
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass / BDS / Galileo: PIFA Antenna NFC: FPC Antenna FM: Using Earphone as Antenna

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	-2.6

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

1.2 Modification of EUT

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

1.3 Testing Location

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, CO07-HY

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

FCC designation No.: TW3786

1.4 Applicable Standards

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

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. 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 Z Plane for 802.11b and X Plane for 802.11g, 802.11n HT20/HT40 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

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

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

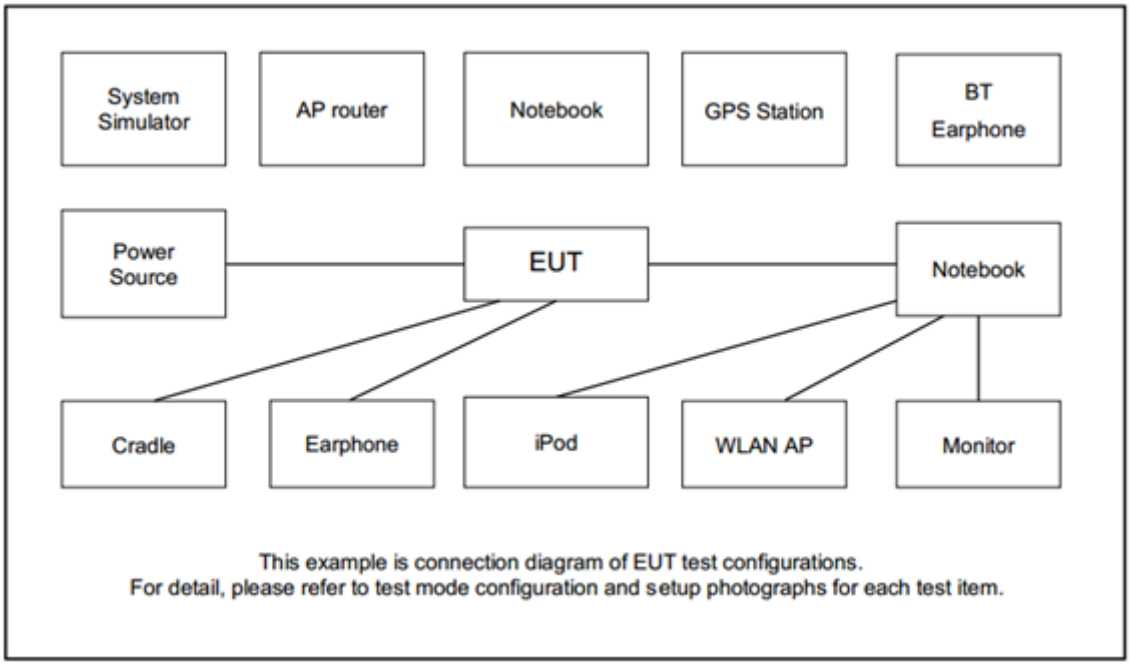
Test Cases	
AC Conducted Emission	Mode 1: GSM850 (Middle Channel) Idle + Bluetooth Link + WLAN (2.4GHz) Link + GNSS Rx + Earphone + USB Cable 1 (Data Link with Notebook) for Sample 1

Remark:
1. For Radiated Test Cases, the tests were performed with USB Cable 2 and Sample 1.
2. Data Link with Notebook means data application transferred mode between EUT and Notebook.

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

Remark: For radiation spurious emission, the final modulation and the worst data rate was reference 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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
4.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
5.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
6.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
8.	Earphone	MI	EM023	N/A	Unshielded, 1.0m	N/A

2.5 EUT Operation Test Setup

The RF test items, make the EUT (SW: MIUI 12.5 Global 0.0.0) 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.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

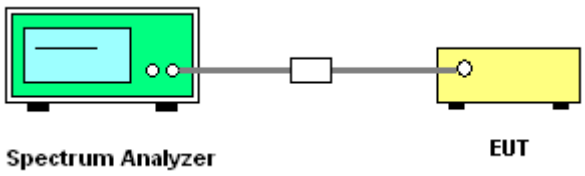
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

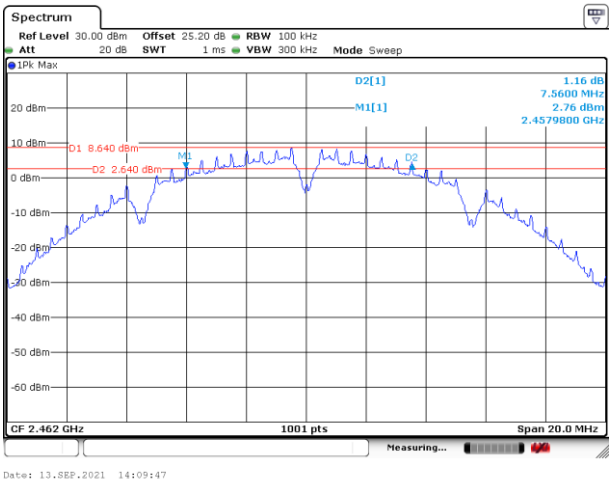
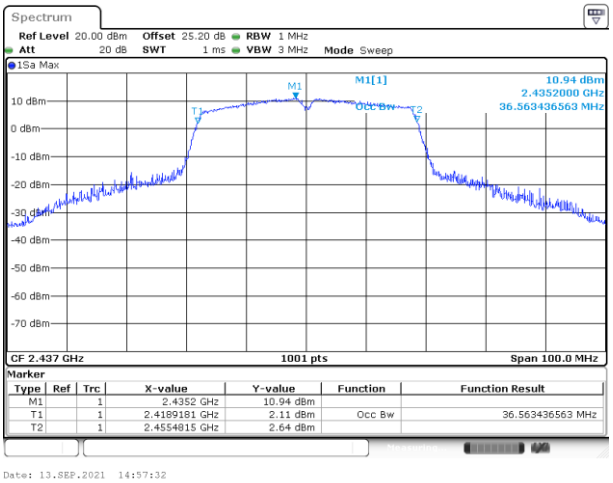
1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit 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) ≥ 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.

Minimum 6dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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.

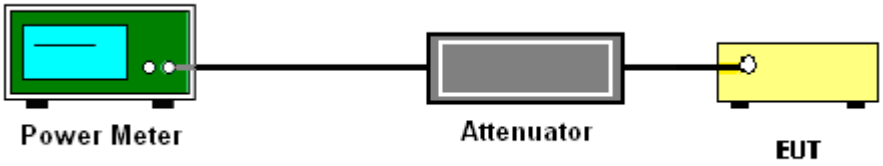
3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1
2. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
3. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. Set the maximum power setting and enable the EUT to transmit continuously.
5. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.2.6 Test Result of Average Output Power

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.

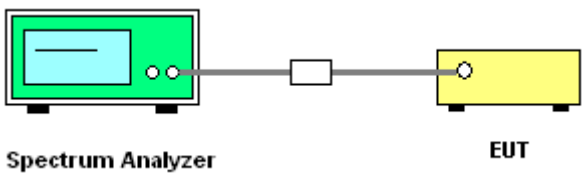
3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set 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.

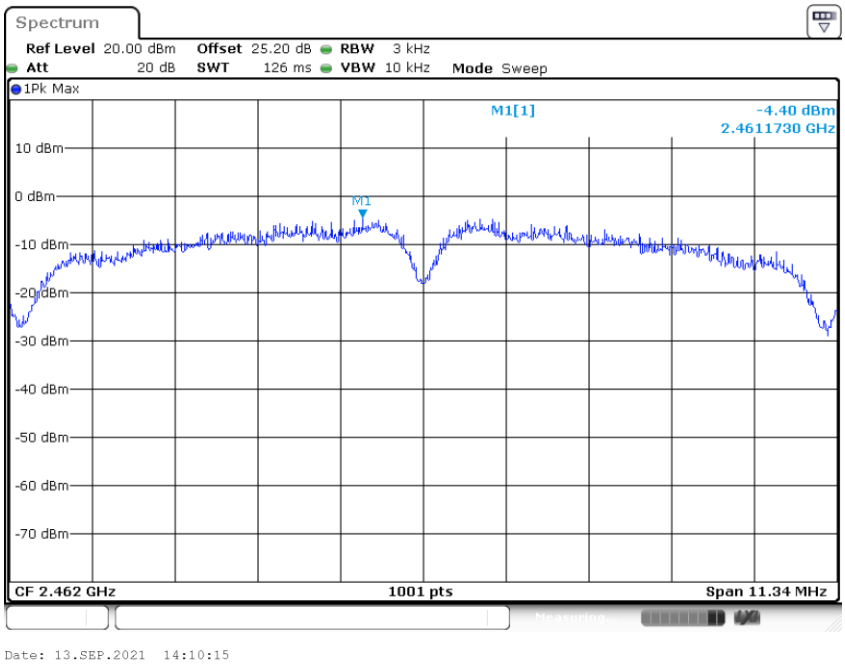
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/3kHz)



3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

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

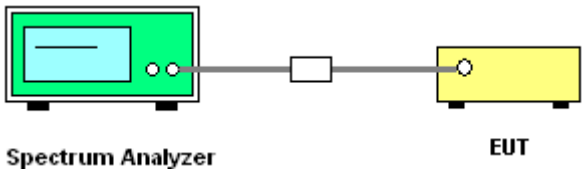
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set 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.

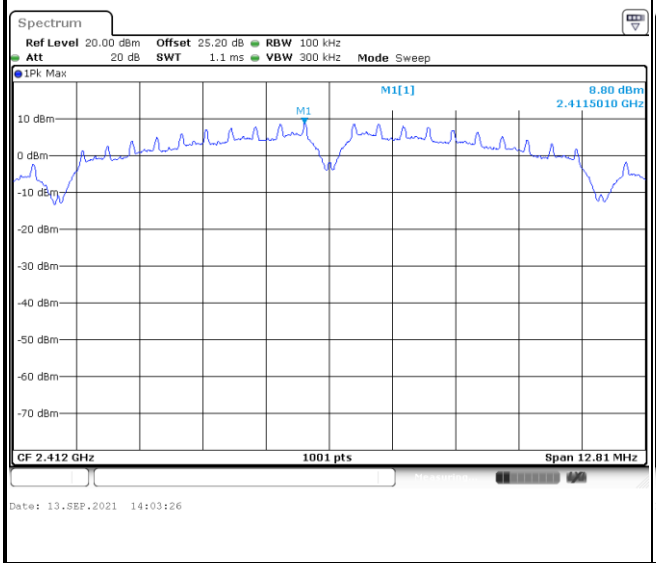
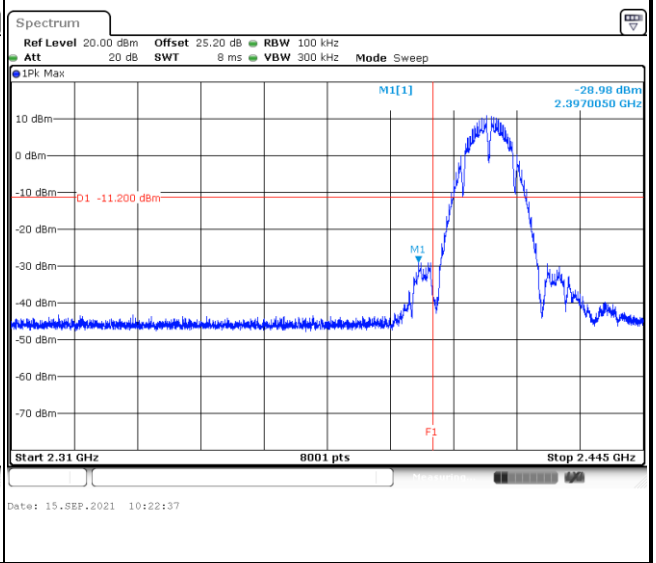
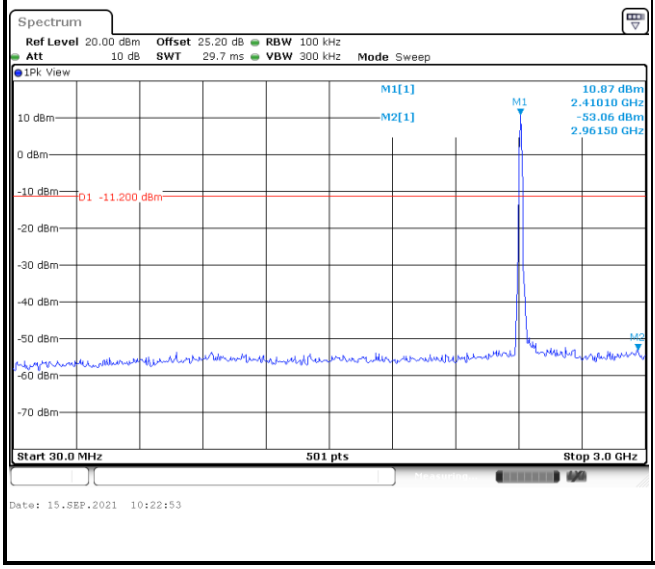
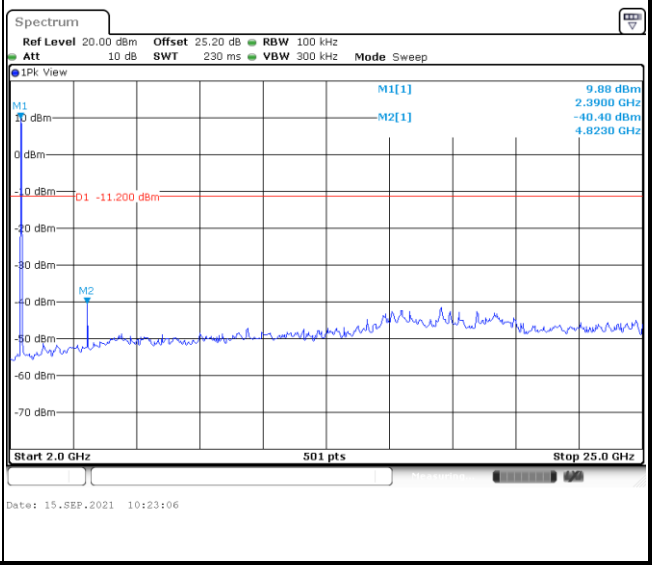
3.4.4 Test Setup



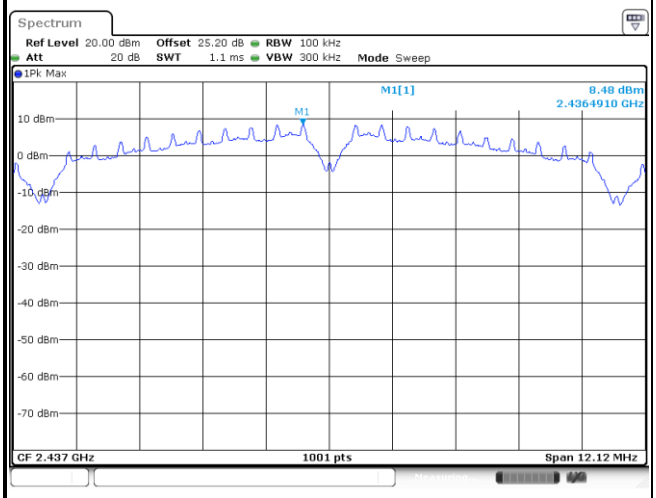
3.4.5 Test Result of Conducted Band Edges and Spurious Emission

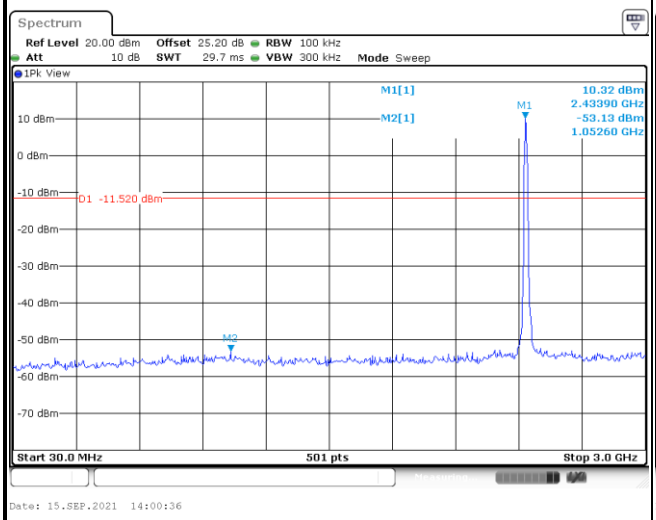
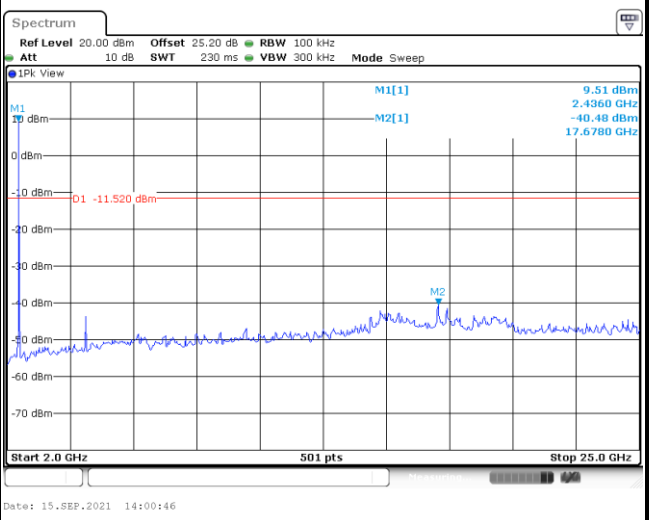
Number of TX = 1, Ant. 1 (Measured)

Test Mode :	802.11b	Test Channel :	01

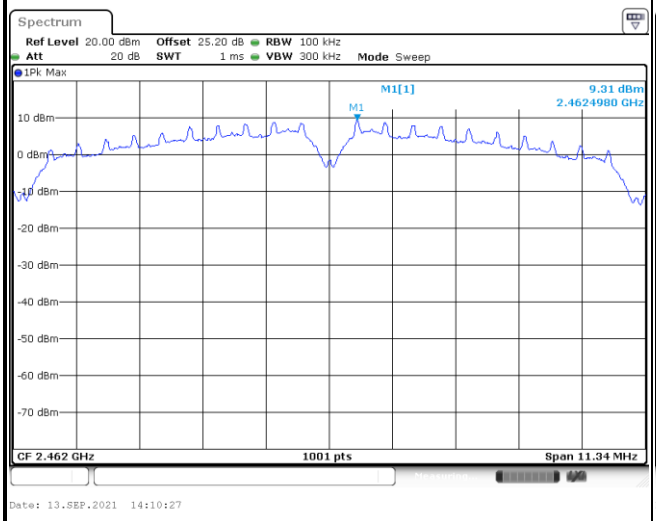
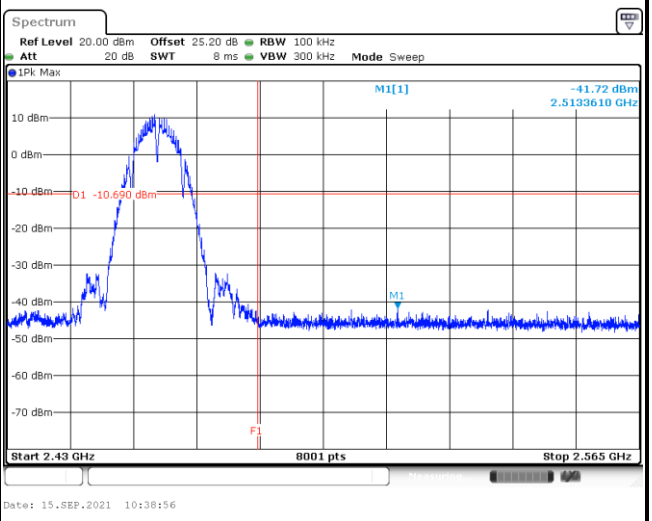
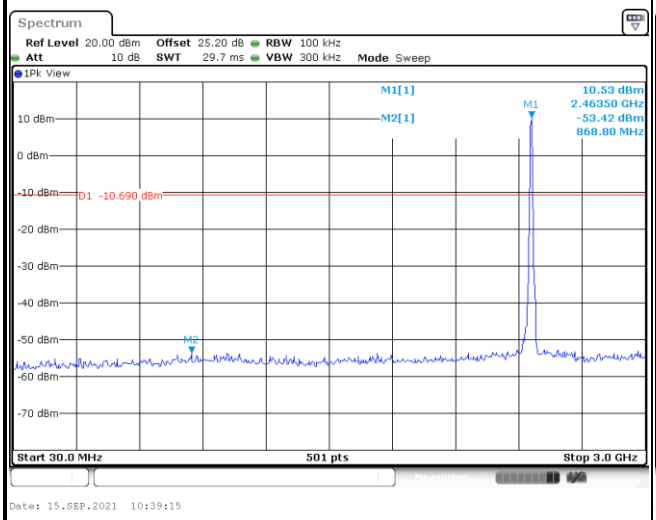
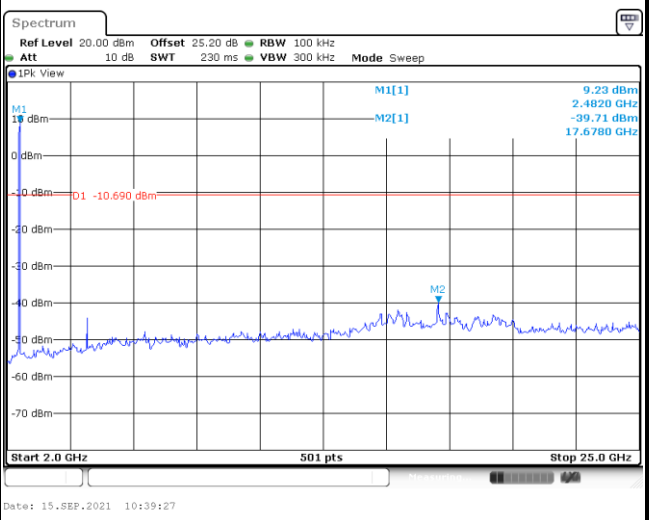
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11b	Test Channel :	06

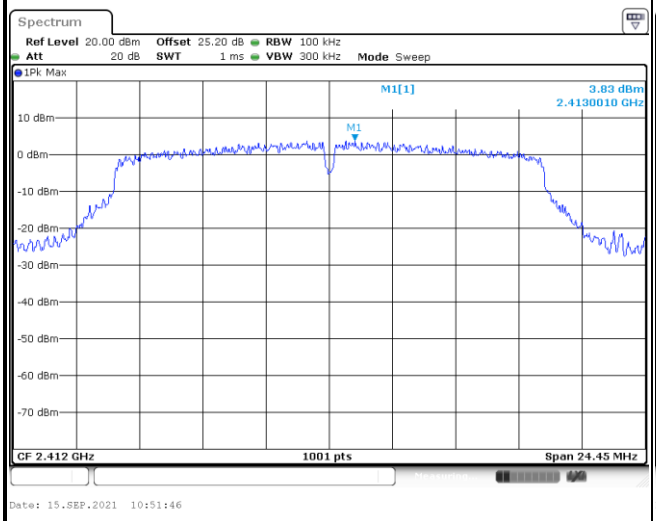
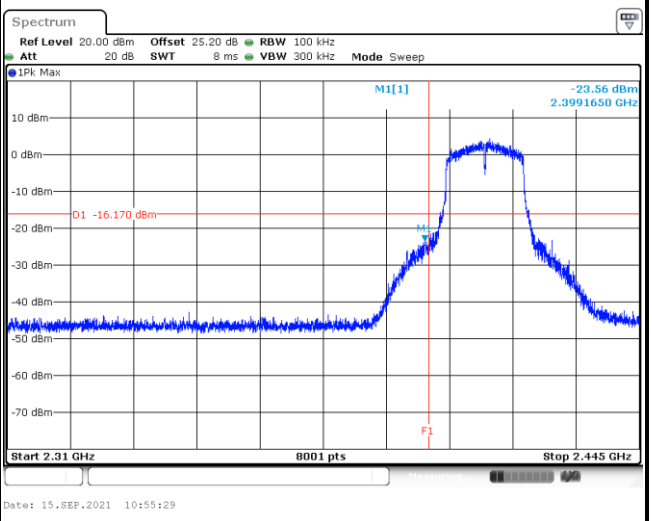
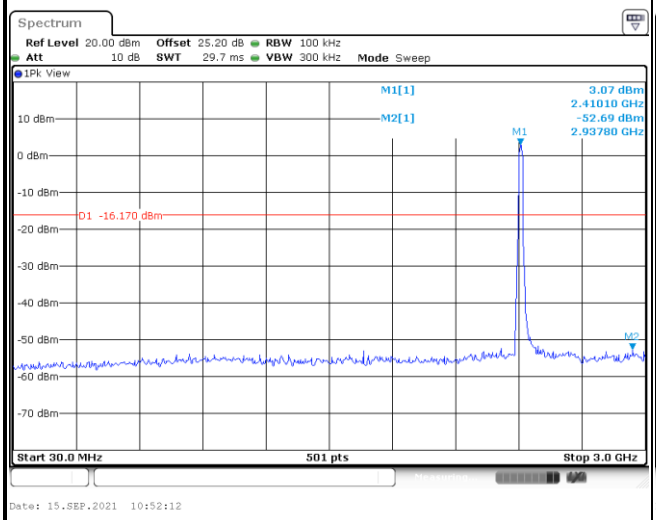
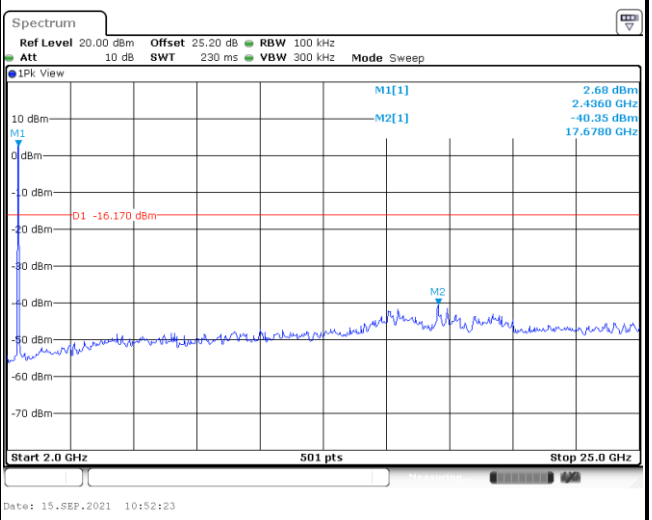
100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

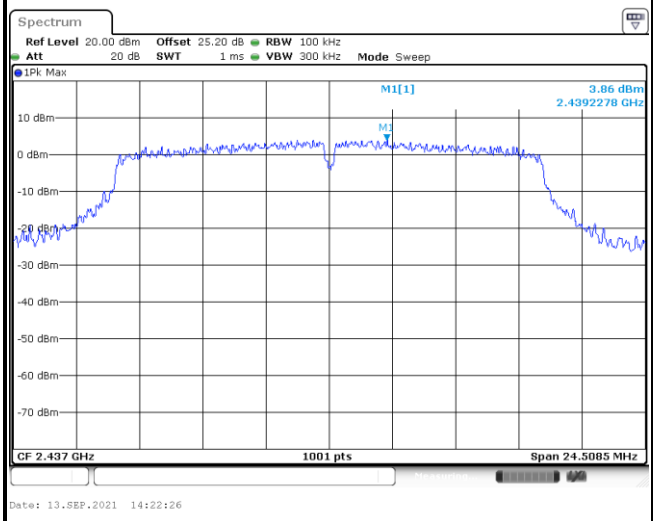
Test Mode :	802.11b	Test Channel :	11

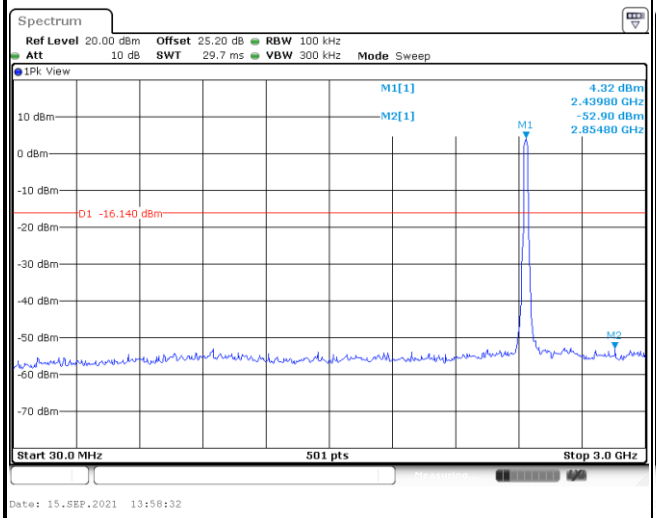
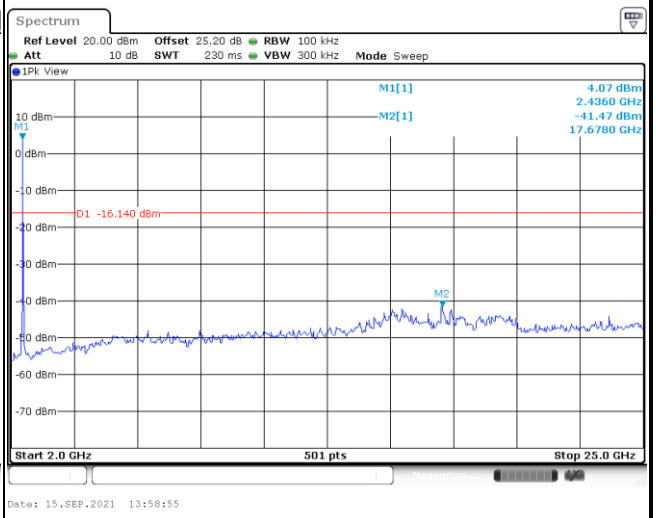
100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11g	Test Channel :	01

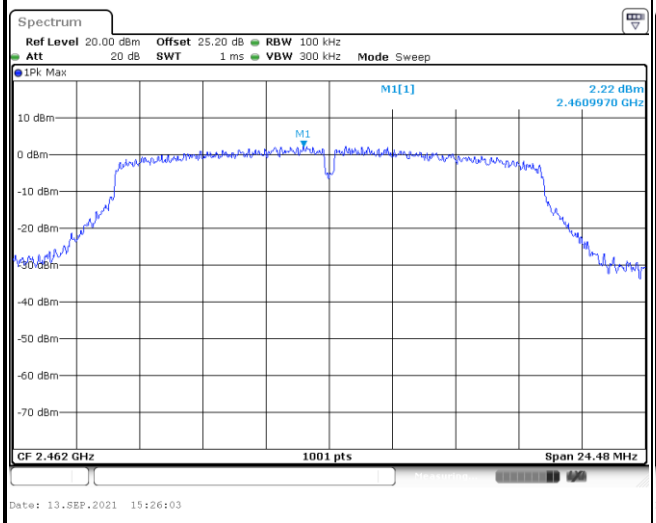
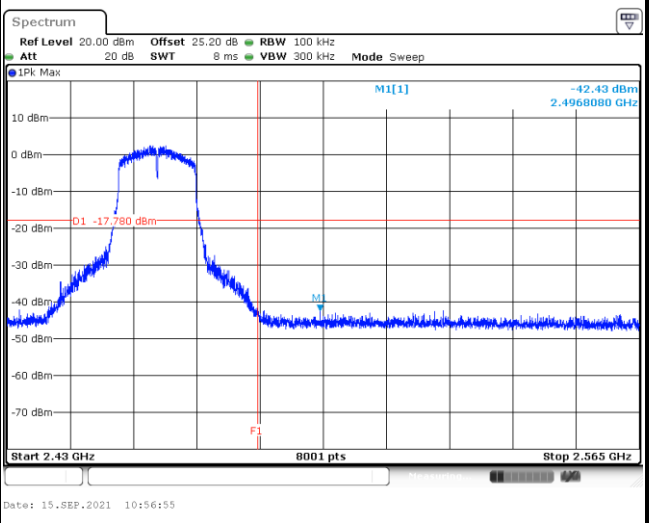
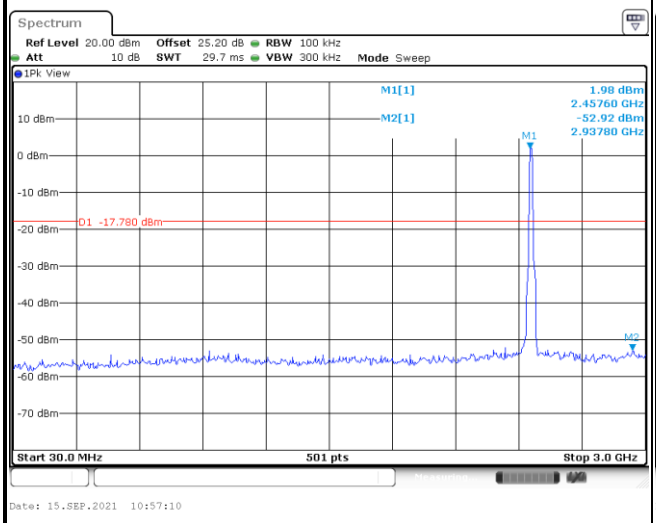
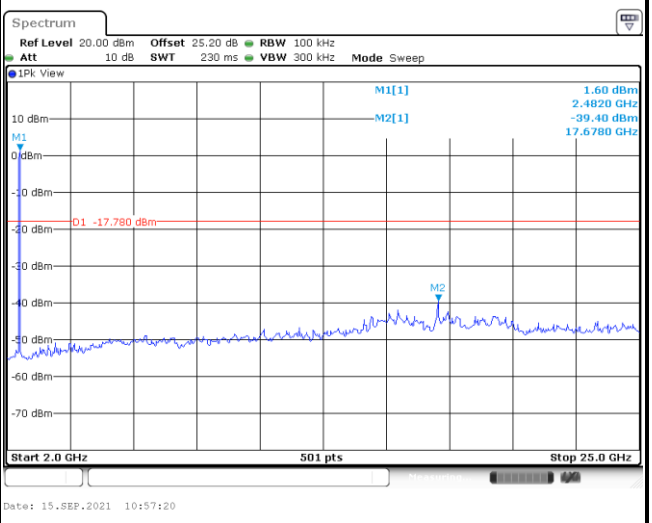
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11g	Test Channel :	06

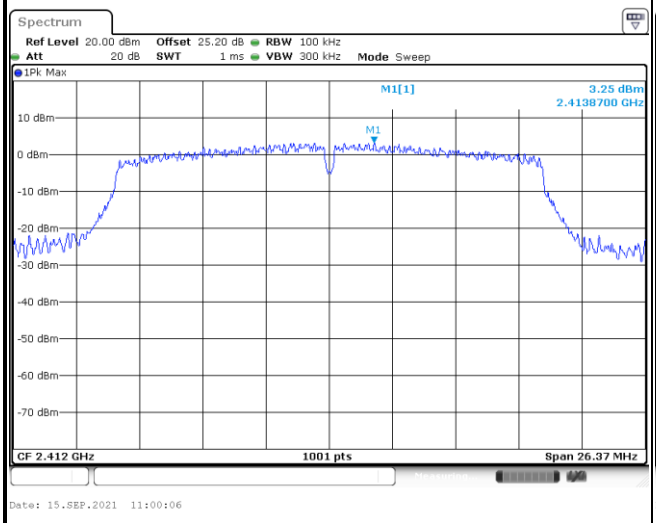
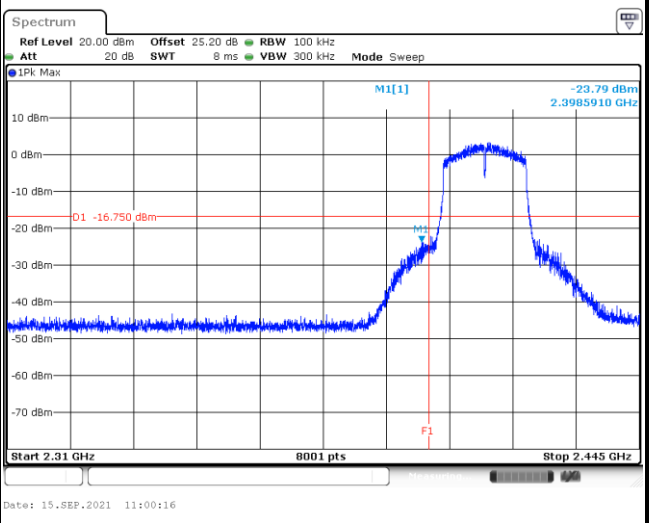
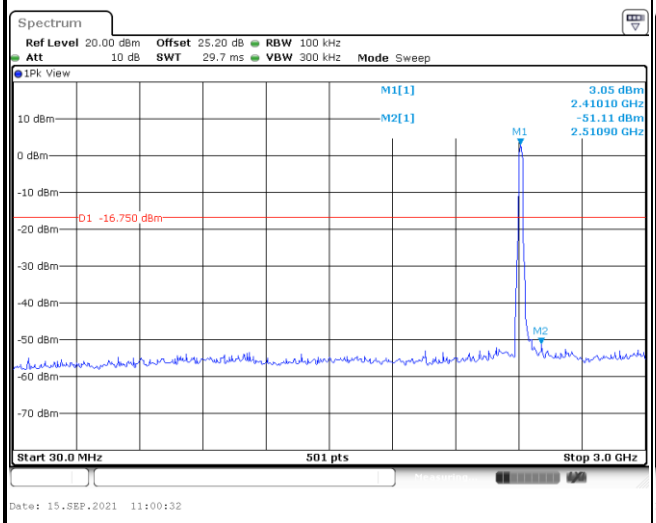
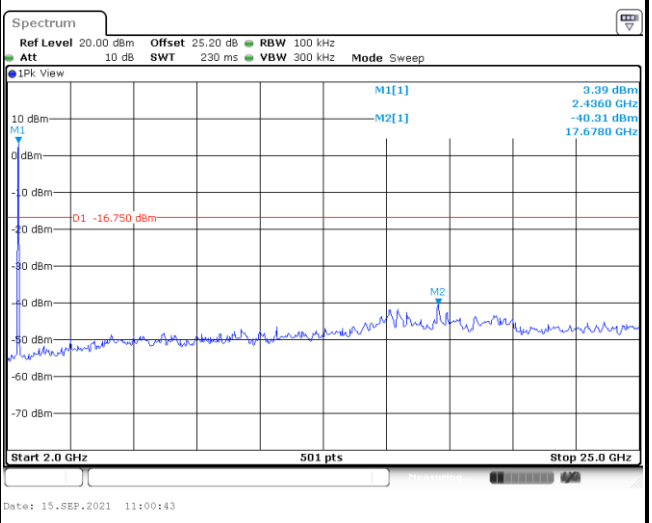
100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

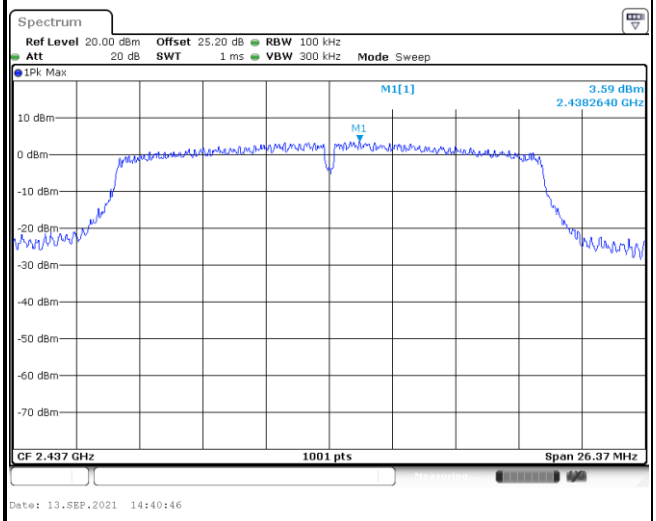
Test Mode :	802.11g	Test Channel :	11

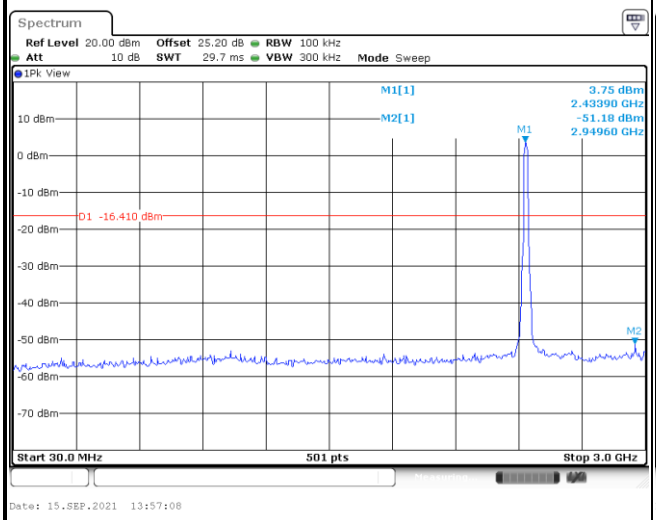
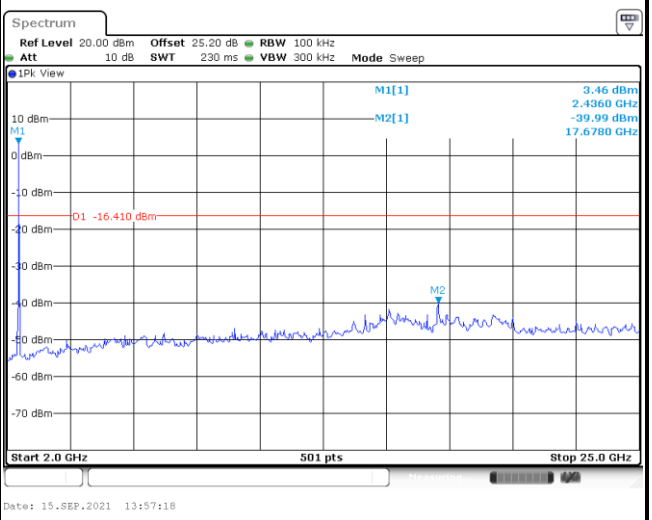
100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT20	Test Channel :	01

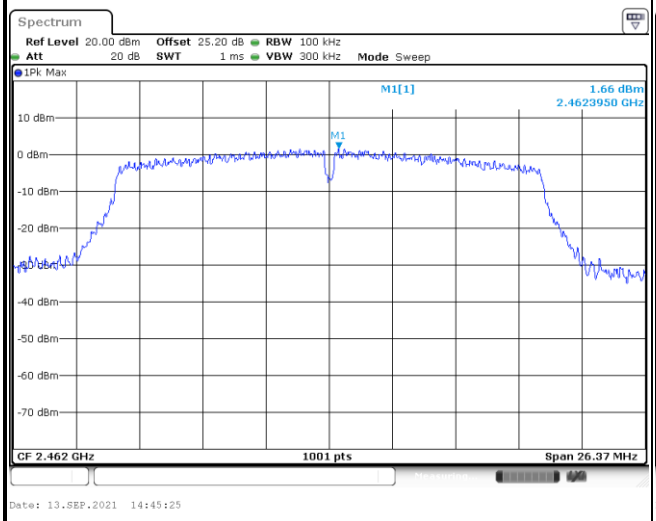
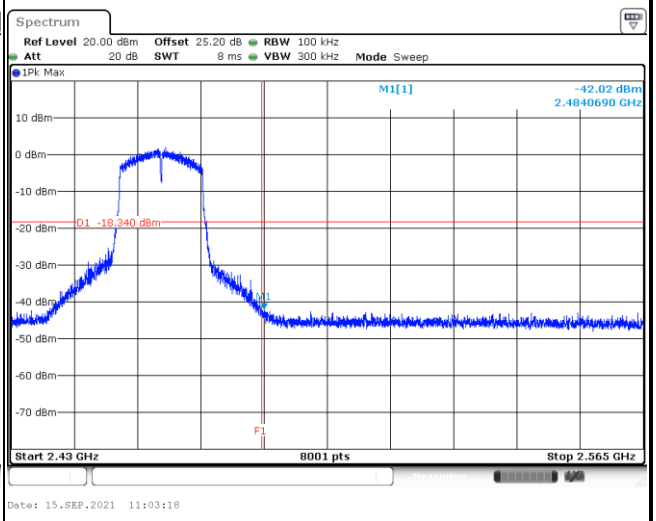
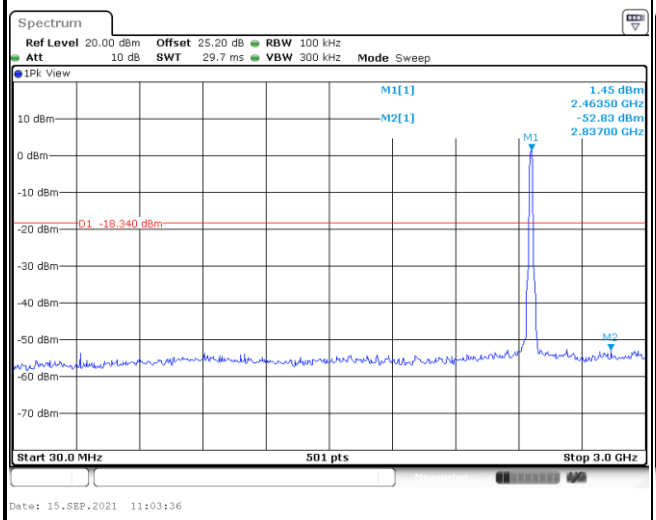
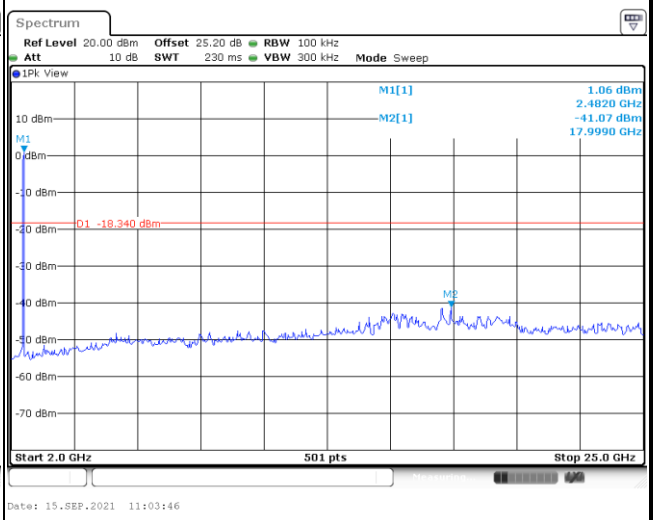
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT20	Test Channel :	06

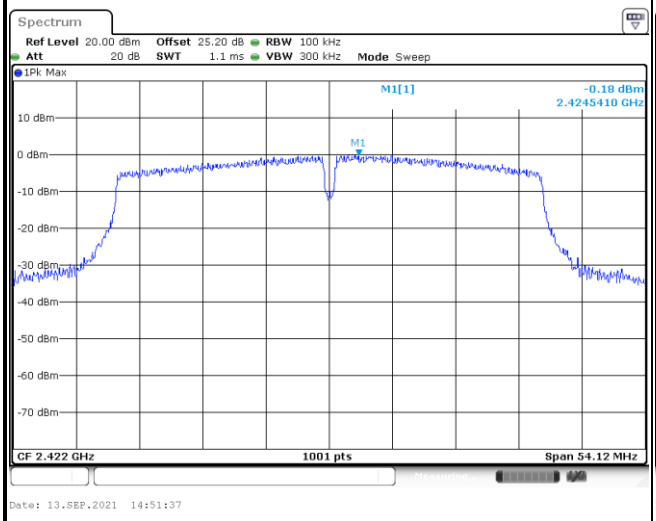
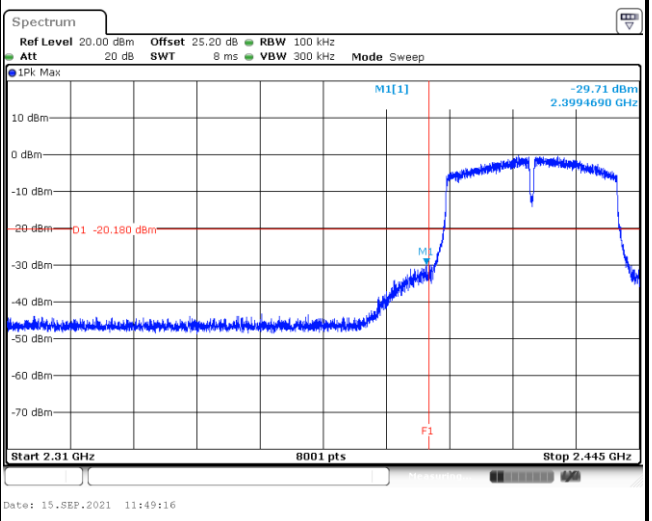
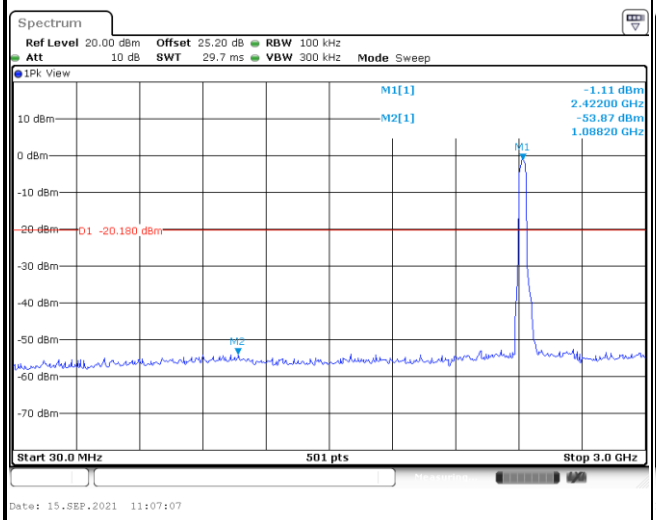
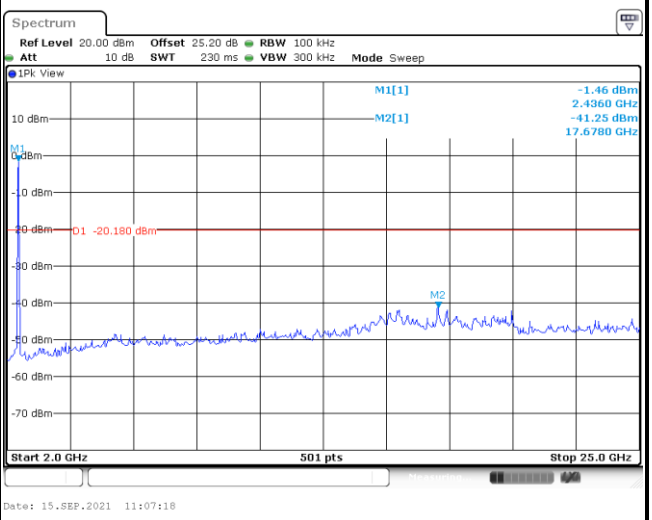
100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

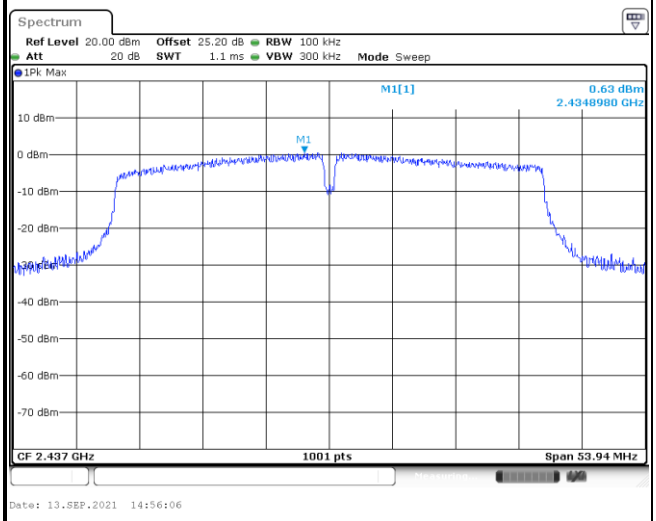
Test Mode :	802.11n HT20	Test Channel :	11

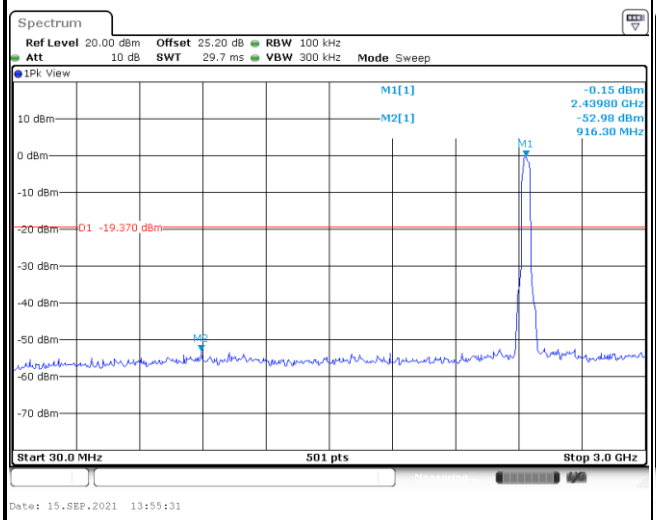
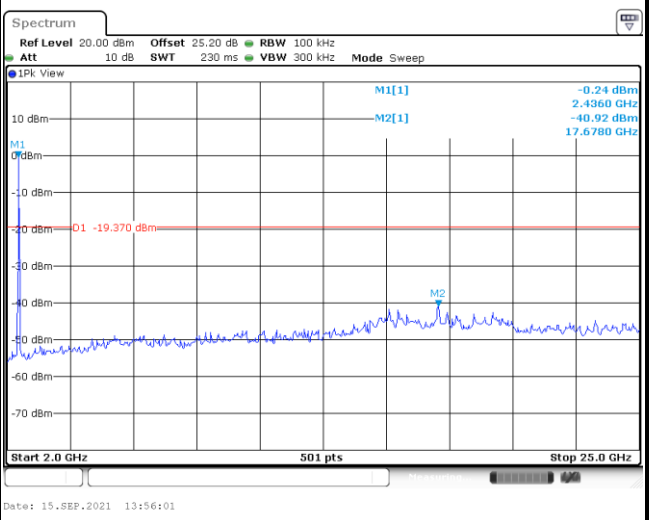
100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT40	Test Channel :	03

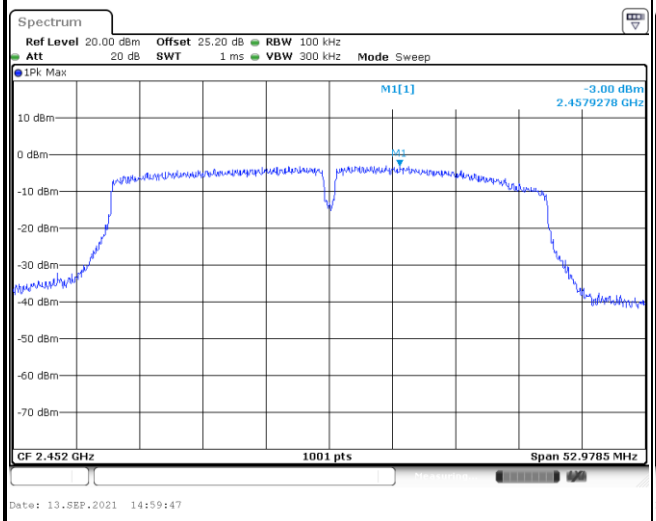
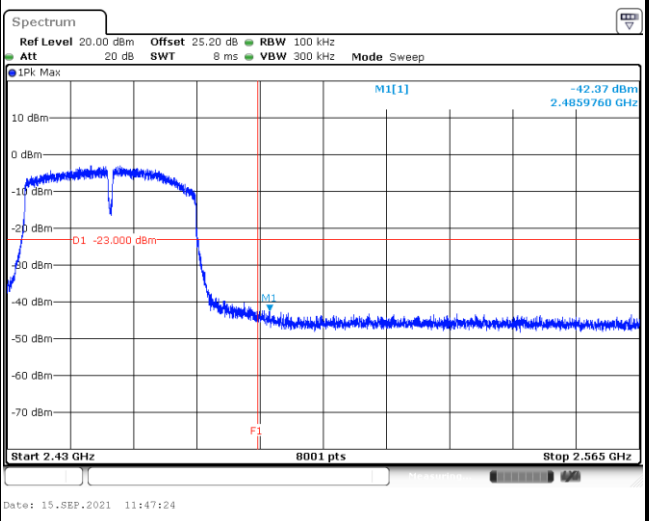
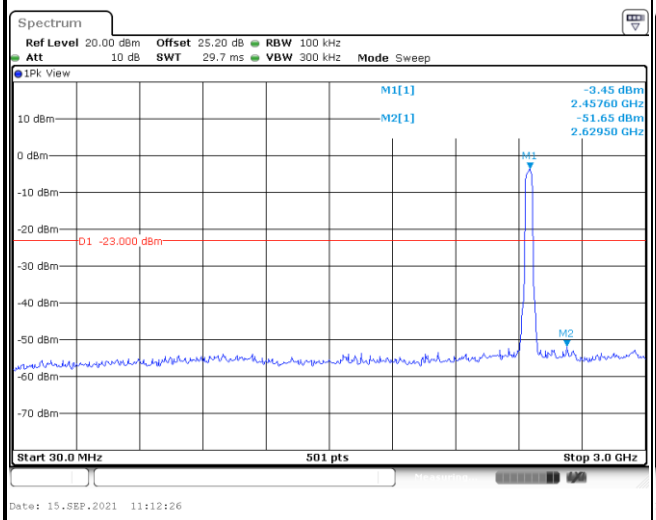
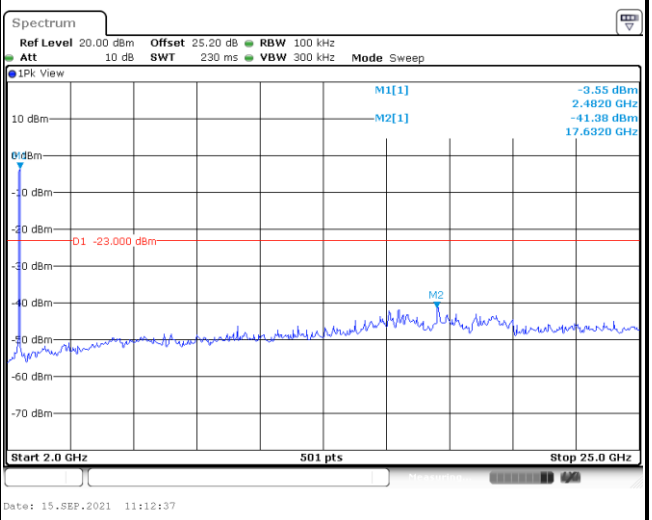
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT40	Test Channel :	06

100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11n HT40	Test Channel :	09

100kHz PSD reference Level	High 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 was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

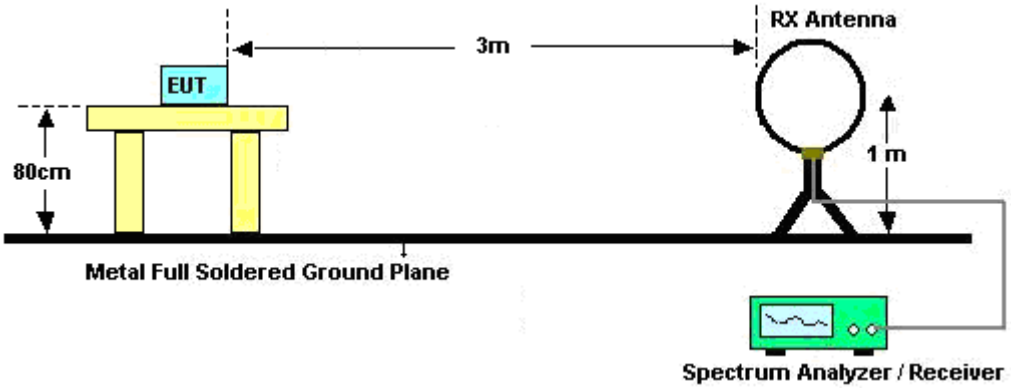
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the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

   * The ANSI C63.10, Section 6.6.4.3, NOTE 1— where limits are specified by regulations for both average and peak detection, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

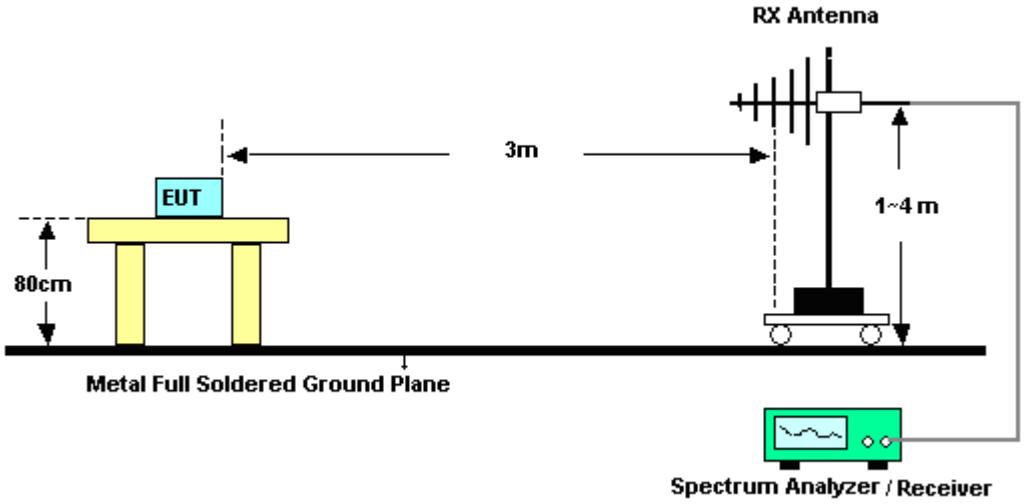
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW = 100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3 MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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

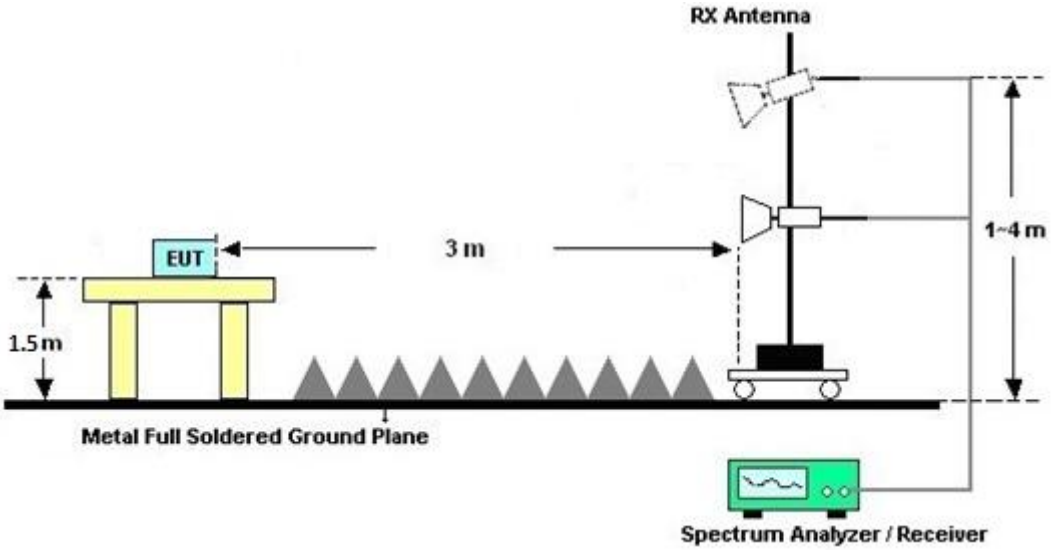
For radiated emissions below 30MHz



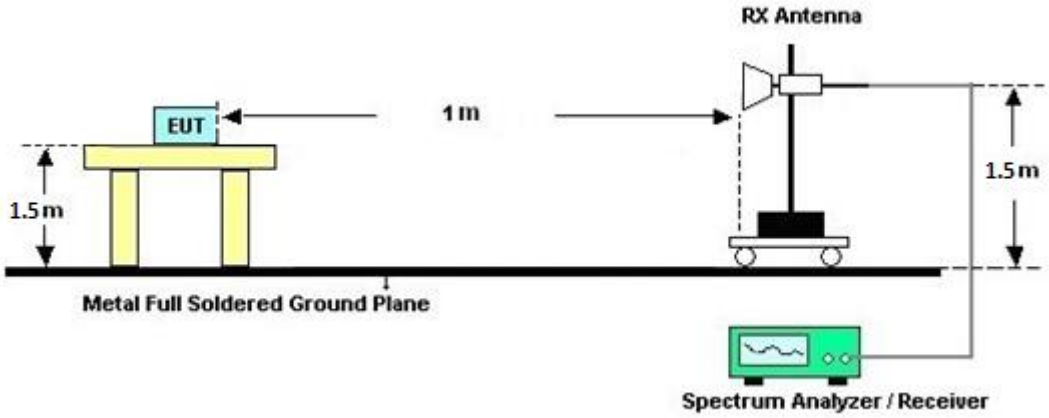
For radiated emissions from 30MHz to 1GHz



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

There is 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 came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

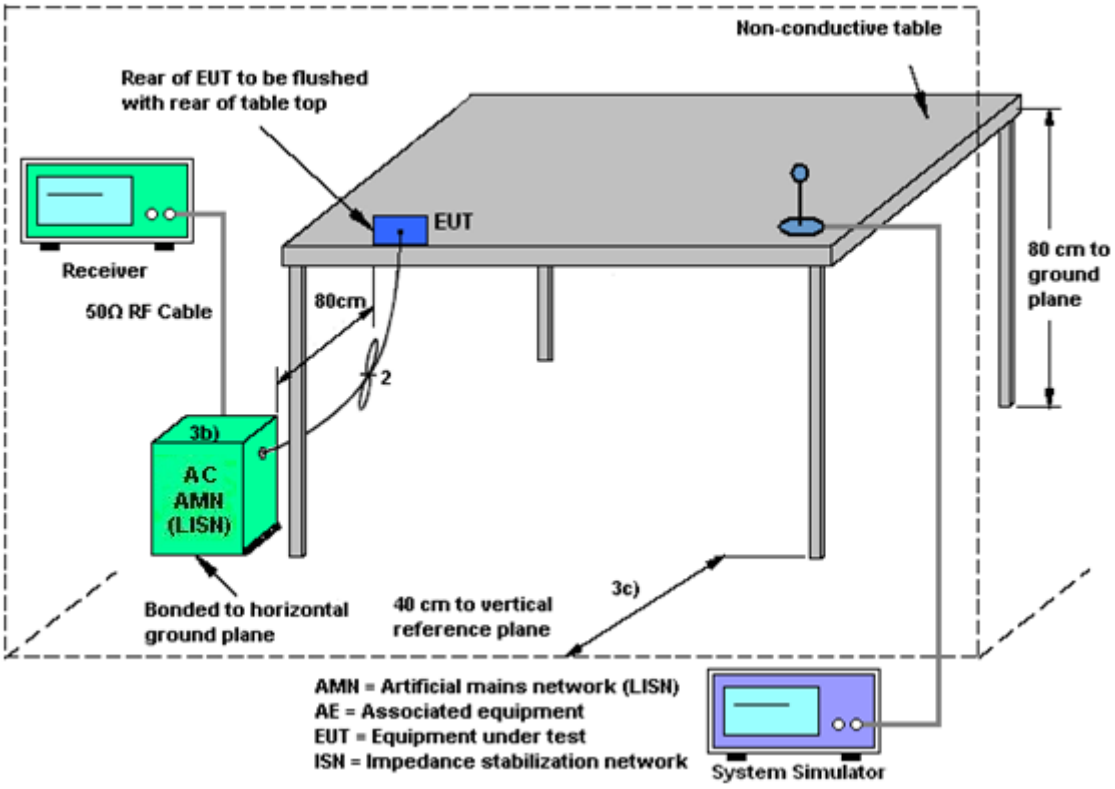
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 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
Power Sensor	DARE	RPR3006W	16I00054SNO12	10MHz~6GHz	Dec. 16, 2020	Aug. 25, 2021~ Sep. 15, 2021	Dec. 15, 2021	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1036004	N/A	Aug. 01, 2021	Aug. 25, 2021~ Sep. 15, 2021	Jul. 31, 2022	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 01, 2021	Aug. 25, 2021~ Sep. 15, 2021	Jul. 31, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101565	10Hz ~ 40GHz	Nov. 13, 2020	Aug. 25, 2021~ Sep. 15, 2021	Nov. 12, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	Aug. 25, 2021~ Sep. 15, 2021	Mar. 16, 2022	Conducted (TH05-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Sep. 07, 2021	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Sep. 07, 2021	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	9561-FN00373	9kHz-200MHz	Nov. 02, 2020	Sep. 07, 2021	Nov. 01, 2021	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	N/A	Sep. 07, 2021	N/A	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 01, 2021	Sep. 07, 2021	Jan. 31, 2022	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 52	36122	N/A	Feb. 01, 2021	Sep. 07, 2021	Jan. 31, 2022	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 11, 2020	Sep. 07, 2021	Sep. 10, 2021	Conduction (CO07-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Aug. 23, 2021~ Sep. 10, 2021	Jan. 03, 2022	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jul. 13, 2021	Aug. 23, 2021~ Sep. 10, 2021	Jul. 12, 2022	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02294	1GHz ~ 18GHz	Jun. 23, 2021	Aug. 23, 2021~ Sep. 10, 2021	Jun. 22, 2022	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 11, 2020	Aug. 23, 2021~ Sep. 10, 2021	Dec. 10, 2021	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 16, 2020	Aug. 23, 2021~ Sep. 10, 2021	Dec. 15, 2021	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 18, 2021	Aug. 23, 2021~ Sep. 10, 2021	May 17, 2022	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 28, 2020	Aug. 23, 2021~ Sep. 10, 2021	Oct. 27, 2021	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 11, 2020	Aug. 23, 2021~ Sep. 10, 2021	Dec. 10, 2021	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 18, 2021	Aug. 23, 2021~ Sep. 10, 2021	Mar. 17, 2022	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Aug. 23, 2021~ Sep. 10, 2021	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Aug. 23, 2021~ Sep. 10, 2021	N/A	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24	RK-000992	N/A	N/A	Aug. 23, 2021~ Sep. 10, 2021	N/A	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Feb. 10, 2021	Aug. 23, 2021~ Sep. 10, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30M-18G	Feb. 10, 2021	Aug. 23, 2021~ Sep. 10, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Feb. 22, 2021	Aug. 23, 2021~ Sep. 10, 2021	Feb. 21, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz~40GHz	Mar. 11, 2021	Aug. 23, 2021~ Sep. 10, 2021	Mar. 10, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 10, 2021	Aug. 23, 2021~ Sep. 10, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Aug. 23, 2021~ Sep. 10, 2021	Mar. 10, 2022	Radiation (03CH13-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN12	1.53GHz Low Pass Filter	Sep. 15, 2020	Aug. 23, 2021~ Sep. 10, 2021	Sep. 14, 2021	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60SS	SN2	3GHz High Pass Filter	Jul. 12, 2021	Aug. 23, 2021~ Sep. 10, 2021	Jul. 11, 2022	Radiation (03CH13-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.2 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.3 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.8 dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.9 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Benny Ku	Temperature:	21~25	°C
Test Date:	2021/8/25~2021/9/15	Relative Humidity:	51~54	%

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	13.79	-	8.54	-	0.50	Pass
11b	1Mbps	1	6	2437	13.79	-	8.08	-	0.50	Pass
11b	1Mbps	1	11	2462	13.39	-	7.56	-	0.50	Pass
11g	6Mbps	1	1	2412	18.13	-	16.30	-	0.50	Pass
11g	6Mbps	1	6	2437	18.38	-	16.34	-	0.50	Pass
11g	6Mbps	1	11	2462	17.73	-	16.32	-	0.50	Pass
HT20	MCS0	1	1	2412	18.78	-	17.58	-	0.50	Pass
HT20	MCS0	1	6	2437	18.83	-	17.58	-	0.50	Pass
HT20	MCS0	1	11	2462	18.43	-	17.58	-	0.50	Pass
HT40	MCS0	1	3	2422	36.56	-	36.08	-	0.50	Pass
HT40	MCS0	1	6	2437	36.56	-	35.96	-	0.50	Pass
HT40	MCS0	1	9	2452	36.16	-	35.32	-	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band Single Antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)		Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	19.90	-	30.00	-	-2.60	-	17.30	-	36.00	-	Pass
11b	1Mbps	1	6	2437	20.30	-	30.00	-	-2.60	-	17.70	-	36.00	-	Pass
11b	1Mbps	1	11	2462	19.95	-	30.00	-	-2.60	-	17.35	-	36.00	-	Pass
11g	6Mbps	1	1	2412	23.10	-	30.00	-	-2.60	-	20.50	-	36.00	-	Pass
11g	6Mbps	1	6	2437	23.37	-	30.00	-	-2.60	-	20.77	-	36.00	-	Pass
11g	6Mbps	1	11	2462	23.15	-	30.00	-	-2.60	-	20.55	-	36.00	-	Pass
HT20	MCS0	1	1	2412	23.31	-	30.00	-	-2.60	-	20.71	-	36.00	-	Pass
HT20	MCS0	1	6	2437	23.41	-	30.00	-	-2.60	-	20.81	-	36.00	-	Pass
HT20	MCS0	1	11	2462	23.05	-	30.00	-	-2.60	-	20.45	-	36.00	-	Pass
HT40	MCS0	1	3	2422	23.52	-	30.00	-	-2.60	-	20.92	-	36.00	-	Pass
HT40	MCS0	1	6	2437	23.60	-	30.00	-	-2.60	-	21.00	-	36.00	-	Pass
HT40	MCS0	1	9	2452	21.93	-	30.00	-	-2.60	-	19.33	-	36.00	-	Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)		DG (dBi)		EIRP Power (dBm)	
					Ant1	Ant2	Ant1	Ant2	Ant1	Ant2
11b	1Mbps	1	1	2412	19.50	-	-2.60	-	16.90	-
11b	1Mbps	1	6	2437	19.00	-	-2.60	-	16.40	-
11b	1Mbps	1	11	2462	19.20	-	-2.60	-	16.60	-
11g	6Mbps	1	1	2412	17.90	-	-2.60	-	15.30	-
11g	6Mbps	1	6	2437	17.80	-	-2.60	-	15.20	-
11g	6Mbps	1	11	2462	16.00	-	-2.60	-	13.40	-
HT20	MCS0	1	1	2412	17.80	-	-2.60	-	15.20	-
HT20	MCS0	1	6	2437	17.60	-	-2.60	-	15.00	-
HT20	MCS0	1	11	2462	15.20	-	-2.60	-	12.60	-
HT40	MCS0	1	3	2422	15.80	-	-2.60	-	13.20	-
HT40	MCS0	1	6	2437	16.80	-	-2.60	-	14.20	-
HT40	MCS0	1	9	2452	13.20	-	-2.60	-	10.60	-

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	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	-4.85	-	-2.60	-	8.00	-	Pass
11b	1Mbps	1	6	2437	-5.59	-	-2.60	-	8.00	-	Pass
11b	1Mbps	1	11	2462	-4.40	-	-2.60	-	8.00	-	Pass
11g	6Mbps	1	1	2412	-7.45	-	-2.60	-	8.00	-	Pass
11g	6Mbps	1	6	2437	-6.75	-	-2.60	-	8.00	-	Pass
11g	6Mbps	1	11	2462	-8.43	-	-2.60	-	8.00	-	Pass
HT20	MCS0	1	1	2412	-7.43	-	-2.60	-	8.00	-	Pass
HT20	MCS0	1	6	2437	-6.96	-	-2.60	-	8.00	-	Pass
HT20	MCS0	1	11	2462	-9.21	-	-2.60	-	8.00	-	Pass
HT40	MCS0	1	3	2422	-12.21	-	-2.60	-	8.00	-	Pass
HT40	MCS0	1	6	2437	-10.90	-	-2.60	-	8.00	-	Pass
HT40	MCS0	1	9	2452	-14.80	-	-2.60	-	8.00	-	Pass

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

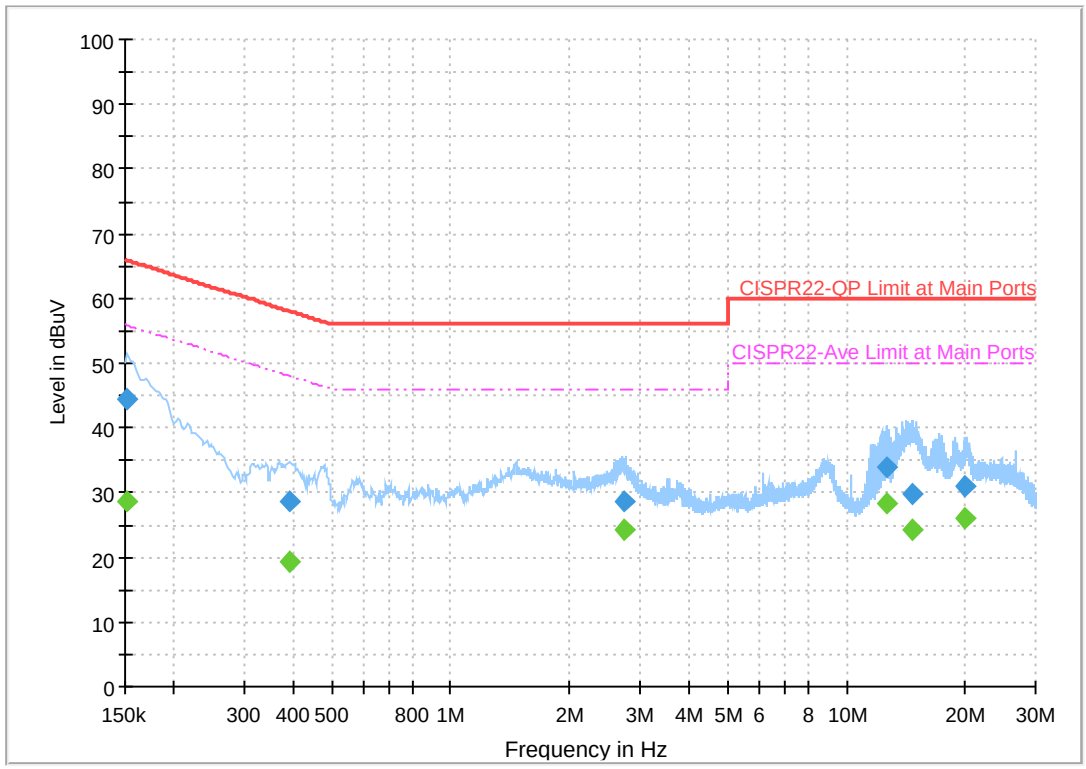
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	40~50%

EUT Information

Report NO :	181632
Test Mode :	Mode 1
Test Voltage :	Power From System
Phase :	Line

Full Spectrum



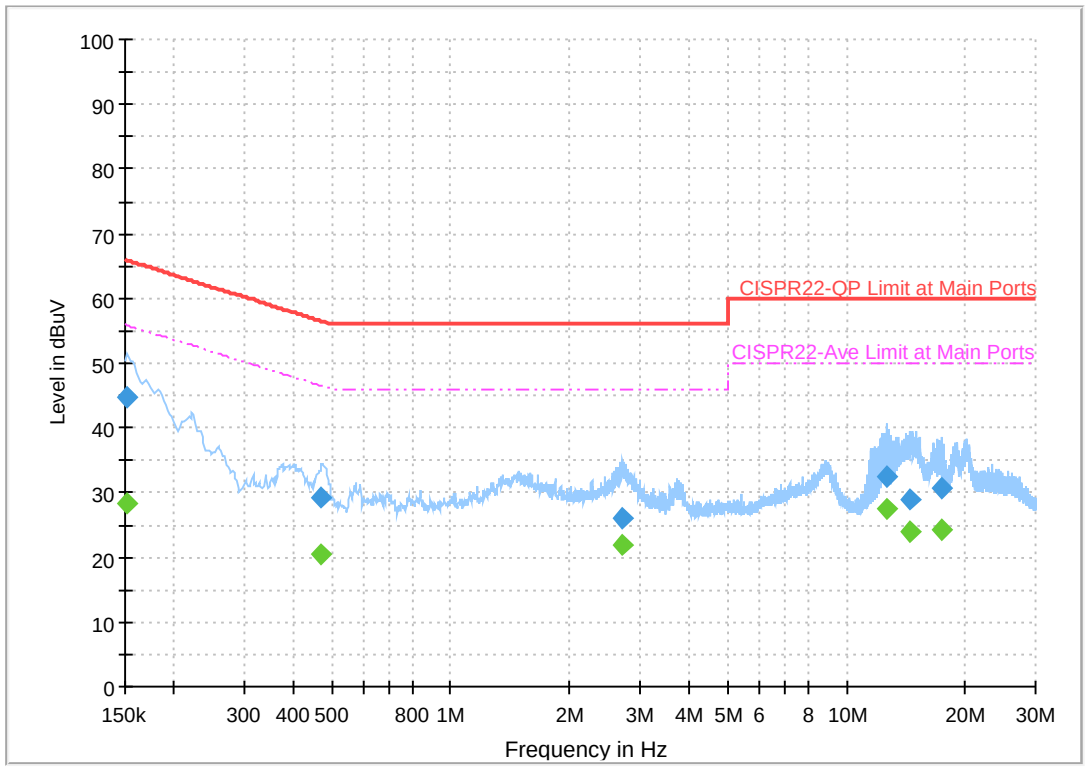
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	44.52	---	65.88	21.36	L1	OFF	20.0
0.152250	---	28.72	55.88	27.16	L1	OFF	20.0
0.390750	28.74	---	58.05	29.30	L1	OFF	20.0
0.390750	---	19.23	48.05	28.82	L1	OFF	20.0
2.733000	28.65	---	56.00	27.35	L1	OFF	20.1
2.733000	---	24.28	46.00	21.72	L1	OFF	20.1
12.574500	33.93	---	60.00	26.07	L1	OFF	20.2
12.574500	---	28.33	50.00	21.67	L1	OFF	20.2
14.705250	29.68	---	60.00	30.32	L1	OFF	20.2
14.705250	---	24.39	50.00	25.61	L1	OFF	20.2
19.961250	30.99	---	60.00	29.01	L1	OFF	20.2
19.961250	---	25.96	50.00	24.04	L1	OFF	20.2

EUT Information

Report NO :	181632
Test Mode :	Mode 1
Test Voltage :	Power From System
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.49	55.88	27.39	N	OFF	20.0
0.152250	44.67	---	65.88	21.21	N	OFF	20.0
0.469500	---	20.48	46.52	26.05	N	OFF	20.0
0.469500	29.38	---	56.52	27.14	N	OFF	20.0
2.724000	---	21.99	46.00	24.01	N	OFF	20.1
2.724000	26.17	---	56.00	29.83	N	OFF	20.1
12.669000	---	27.43	50.00	22.57	N	OFF	20.2
12.669000	32.56	---	60.00	27.44	N	OFF	20.2
14.401500	---	23.91	50.00	26.09	N	OFF	20.2
14.401500	28.87	---	60.00	31.13	N	OFF	20.2
17.342250	---	24.29	50.00	25.71	N	OFF	20.3
17.342250	30.77	---	60.00	29.23	N	OFF	20.3

Appendix C. Radiated Spurious Emission

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

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2349.585	54.81	-19.19	74	40.78	27.8	14.08	27.85	201	50	P	H
		2387.175	44.23	-9.77	54	30.22	27.73	14.12	27.84	201	50	A	H
	*	2412	109.68	-	-	95.7	27.68	14.14	27.84	201	50	P	H
	*	2412	106.21	-	-	92.23	27.68	14.14	27.84	201	50	A	H
													H
													H
		2367.855	54.55	-19.45	74	40.54	27.76	14.1	27.85	100	119	P	V
		2387.07	44.5	-9.5	54	30.49	27.73	14.12	27.84	100	119	A	V
	*	2412	110.82	-	-	96.84	27.68	14.14	27.84	100	119	P	V
	*	2412	107.47	-	-	93.49	27.68	14.14	27.84	100	119	A	V
													V
													V
802.11b CH 06 2437MHz		2326.52	55.22	-18.78	74	41.02	27.99	14.06	27.85	224	51	P	H
		2310.7	43.69	-10.31	54	29.4	28.11	14.04	27.86	224	51	A	H
	*	2437	108.33	-	-	94.37	27.63	14.16	27.83	224	51	P	H
	*	2437	104.75	-	-	90.79	27.63	14.16	27.83	224	51	A	H
		2498.29	54.38	-19.62	74	40.29	27.7	14.21	27.82	224	51	P	H
		2484.07	43.76	-10.24	54	29.71	27.67	14.2	27.82	224	51	A	H
		2312.8	54.66	-19.34	74	40.38	28.1	14.04	27.86	100	119	P	V
		2310.98	43.68	-10.32	54	29.39	28.11	14.04	27.86	100	119	A	V
	*	2437	110.91	-	-	96.95	27.63	14.16	27.83	100	119	P	V
	*	2437	107.76	-	-	93.8	27.63	14.16	27.83	100	119	A	V
		2490.55	54.97	-19.03	74	40.91	27.68	14.2	27.82	100	119	P	V
		2312.8	54.66	-19.34	74	40.38	28.1	14.04	27.86	100	119	A	V

802.11b CH 11 2462MHz	*	2462	106.85	-	-	92.88	27.62	14.18	27.83	221	56	P	H
	*	2462	103.8	-	-	89.83	27.62	14.18	27.83	221	56	A	H
		2487.32	54.72	-19.28	74	40.67	27.67	14.2	27.82	221	56	P	H
		2483.52	45.52	-8.48	54	31.47	27.67	14.2	27.82	221	56	A	H
													H
													H
	*	2462	110.6	-	-	96.63	27.62	14.18	27.83	100	119	P	V
	*	2462	107.42	-	-	93.45	27.62	14.18	27.83	100	119	A	V
		2483.6	55.88	-18.12	74	41.83	27.67	14.2	27.82	100	119	P	V
		2483.52	47.35	-6.65	54	33.3	27.67	14.2	27.82	100	119	A	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (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	47.08	-26.92	74	66.13	31.45	6.56	57.06	-	-	P	H
		18000	56.11	-17.89	74	51.36	48.5	12.97	56.72	-	-	P	H
		18000	46.01	-7.99	54	41.26	48.5	12.97	56.72	-	-	A	H
													H
		4824	48.36	-25.64	74	67.41	31.45	6.56	57.06	-	-	P	V
		17985	57.05	-16.95	74	52.71	48.1	12.96	56.72	-	-	P	V
		17985	46.93	-7.07	54	42.59	48.1	12.96	56.72	-	-	A	V
													V
802.11b CH 06 2437MHz		4874	45.71	-28.29	74	64.46	31.45	6.77	56.97	-	-	P	H
		7311	45.48	-28.52	74	56.66	37.08	8.64	56.9	-	-	P	H
		17985	57.4	-16.6	74	53.06	48.1	12.96	56.72	-	-	P	H
		17985	47.32	-6.68	54	42.98	48.1	12.96	56.72	-	-	A	H
		4874	47.27	-26.73	74	66.02	31.45	6.77	56.97	-	-	P	V
		7311	47.26	-26.74	74	58.44	37.08	8.64	56.9	-	-	P	V
		18000	57.98	-16.02	74	53.23	48.5	12.97	56.72	-	-	P	V
		18000	47.94	-6.06	54	43.19	48.5	12.97	56.72	-	-	A	V
802.11b CH 11 2462MHz		4924	46.06	-27.94	74	64.41	31.54	6.99	56.88	-	-	P	H
		7386	45.99	-28.01	74	57.32	37.07	8.65	57.05	-	-	P	H
		18000	56.44	-17.56	74	51.69	48.5	12.97	56.72	-	-	P	H
		18000	46.57	-7.43	54	41.82	48.5	12.97	56.72	-	-	P	H
		4924	49.31	-24.69	74	67.66	31.54	6.99	56.88	-	-	P	V
		7386	45.31	-28.69	74	56.64	37.07	8.65	57.05	-	-	P	V
		17985	56.34	-17.66	74	52	48.1	12.96	56.72	-	-	P	V
		17985	46.41	-7.59	54	42.07	48.1	12.96	56.72	-	-	A	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. 4. The emission level close to 18GHz is checked that the average emission level is noise floor only.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.905	61.98	-12.02	74	47.98	27.72	14.12	27.84	353	103	P	H
		2390	49.57	-4.43	54	35.57	27.72	14.12	27.84	353	103	A	H
	*	2412	110.99	-	-	97.01	27.68	14.14	27.84	353	103	P	H
	*	2412	103.4	-	-	89.42	27.68	14.14	27.84	353	103	A	H
													H
													H
		2389.8	59.69	-14.31	74	45.69	27.72	14.12	27.84	354	69	P	V
		2390	46.57	-7.43	54	32.57	27.72	14.12	27.84	354	69	A	V
	*	2412	106.55	-	-	92.57	27.68	14.14	27.84	354	69	P	V
	*	2412	99.54	-	-	85.56	27.68	14.14	27.84	354	69	A	V
													V
													V
802.11g CH 06 2437MHz		2330.58	55.68	-18.32	74	41.51	27.96	14.06	27.85	392	102	P	H
		2311.68	43.77	-10.23	54	29.48	28.11	14.04	27.86	392	102	A	H
	*	2437	111.4	-	-	97.44	27.63	14.16	27.83	392	102	P	H
	*	2437	103.6	-	-	89.64	27.63	14.16	27.83	392	102	A	H
		2485.15	55.27	-18.73	74	41.22	27.67	14.2	27.82	392	102	P	H
		2483.71	44.49	-9.51	54	30.44	27.67	14.2	27.82	392	102	A	H
		2340.24	54.77	-19.23	74	40.67	27.88	14.07	27.85	347	70	P	V
		2313.92	43.76	-10.24	54	29.49	28.09	14.04	27.86	347	70	A	V
	*	2437	107.88	-	-	93.92	27.63	14.16	27.83	347	70	P	V
	*	2437	99.9	-	-	85.94	27.63	14.16	27.83	347	70	A	V
		2485.33	54.3	-19.7	74	40.25	27.67	14.2	27.82	347	70	P	V
		2483.98	43.97	-10.03	54	29.92	27.67	14.2	27.82	347	70	A	V

802.11g CH 11 2462MHz	*	2462	108.72	-	-	94.75	27.62	14.18	27.83	342	103	P	H
	*	2462	101.36	-	-	87.39	27.62	14.18	27.83	342	103	A	H
		2483.6	64.85	-9.15	74	50.8	27.67	14.2	27.82	342	103	P	H
		2483.52	49.57	-4.43	54	35.52	27.67	14.2	27.82	342	103	A	H
													H
													H
	*	2462	105.29	-	-	91.32	27.62	14.18	27.83	337	71	P	V
	*	2462	97.64	-	-	83.67	27.62	14.18	27.83	337	71	A	V
		2483.64	60.87	-13.13	74	46.82	27.67	14.2	27.82	337	71	P	V
		2483.52	47.14	-6.86	54	33.09	27.67	14.2	27.82	337	71	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (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	45.1	-28.9	74	64.15	31.45	6.56	57.06	-	-	P	H
		17970	56.23	-17.77	74	52.31	47.69	12.95	56.72	-	-	P	H
		17970	46.27	-7.73	54	42.35	47.69	12.95	56.72	-	-	A	H
													H
		4824	39.84	-34.16	74	58.89	31.45	6.56	57.06	-	-	P	V
		18000	56.08	-17.92	74	51.33	48.5	12.97	56.72	-	-	P	V
		18000	46.16	-7.84	54	41.41	48.5	12.97	56.72	-	-	A	V
													V
802.11g CH 06 2437MHz		4874	43.79	-30.21	74	62.54	31.45	6.77	56.97	-	-	P	H
		7311	44.96	-29.04	74	56.14	37.08	8.64	56.9	-	-	P	H
		17985	57.27	-16.73	74	52.93	48.1	12.96	56.72	-	-	P	H
		17985	47.13	-6.87	54	42.79	48.1	12.96	56.72	-	-	A	H
		4874	40.13	-33.87	74	58.88	31.45	6.77	56.97	-	-	P	V
		7311	45.24	-28.76	74	56.42	37.08	8.64	56.9	-	-	P	V
		18000	56.63	-17.37	74	51.88	48.5	12.97	56.72	-	-	P	V
		18000	46.68	-7.32	54	41.93	48.5	12.97	56.72	-	-	A	V
802.11g CH 11 2462MHz		4924	48.4	-25.6	74	66.75	31.54	6.99	56.88	-	-	P	H
		7386	45.16	-28.84	74	56.49	37.07	8.65	57.05	-	-	P	H
		18000	56.29	-17.71	74	51.54	48.5	12.97	56.72	-	-	P	H
		18000	46.14	-7.86	54	41.39	48.5	12.97	56.72	-	-	A	H
		4924	43.47	-30.53	74	61.82	31.54	6.99	56.88	-	-	P	V
		7386	45.62	-28.38	74	56.95	37.07	8.65	57.05	-	-	P	V
		18000	56.06	-17.94	74	51.31	48.5	12.97	56.72	-	-	P	V
		18000	46.02	-7.98	54	41.27	48.5	12.97	56.72	-	-	A	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. 4. The emission level close to 18GHz is checked that the average emission level is noise floor only.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.8	64.37	-9.63	74	50.37	27.72	14.12	27.84	353	108	P	H
		2390	50.76	-3.24	54	36.76	27.72	14.12	27.84	353	108	A	H
	*	2412	110.37	-	-	96.39	27.68	14.14	27.84	353	108	P	H
	*	2412	102.82	-	-	88.84	27.68	14.14	27.84	353	108	A	H
802.11n													H
HT20													H
CH 01		2389.695	62.98	-11.02	74	48.98	27.72	14.12	27.84	400	75	P	V
2412MHz		2390	48.82	-5.18	54	34.82	27.72	14.12	27.84	400	75	A	V
	*	2412	107.89	-	-	93.91	27.68	14.14	27.84	400	75	P	V
	*	2412	100.08	-	-	86.1	27.68	14.14	27.84	400	75	A	V
													V
													V
		2320.92	54.8	-19.2	74	40.58	28.03	14.05	27.86	392	105	P	H
		2311.4	43.74	-10.26	54	29.45	28.11	14.04	27.86	392	105	A	H
	*	2437	110.31	-	-	96.35	27.63	14.16	27.83	392	105	P	H
	*	2437	102.42	-	-	88.46	27.63	14.16	27.83	392	105	A	H
802.11n		2495.05	54.84	-19.16	74	40.76	27.69	14.21	27.82	392	105	P	H
HT20		2484.79	44.23	-9.77	54	30.18	27.67	14.2	27.82	392	105	A	H
CH 06		2340.1	54.98	-19.02	74	40.88	27.88	14.07	27.85	395	75	P	V
2437MHz		2311.82	43.69	-10.31	54	29.4	28.11	14.04	27.86	395	75	A	V
	*	2437	108.49	-	-	94.53	27.63	14.16	27.83	395	75	P	V
	*	2437	101.07	-	-	87.11	27.63	14.16	27.83	395	75	A	V
		2494.06	54.63	-19.37	74	40.55	27.69	14.21	27.82	395	75	P	V
		2483.8	43.88	-10.12	54	29.83	27.67	14.2	27.82	395	75	A	V

	*	2462	108.3	-	-	94.33	27.62	14.18	27.83	375	106	P	H
	*	2462	100.67	-	-	86.7	27.62	14.18	27.83	375	106	A	H
		2483.8	69.8	-4.2	74	55.75	27.67	14.2	27.82	375	106	P	H
		2483.52	50.8	-3.2	54	36.75	27.67	14.2	27.82	375	106	A	H
802.11n													H
HT20													H
CH 11	*	2462	106.48	-	-	92.51	27.62	14.18	27.83	389	75	P	V
2462MHz	*	2462	98.43	-	-	84.46	27.62	14.18	27.83	389	75	A	V
		2483.76	65.86	-8.14	74	51.81	27.67	14.2	27.82	389	75	P	V
		2483.52	48.43	-5.57	54	34.38	27.67	14.2	27.82	389	75	A	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4824	46.75	-27.25	74	65.8	31.45	6.56	57.06	-	-	P	H
		18000	56.9	-17.1	74	52.15	48.5	12.97	56.72	-	-	P	H
802.11n		18000	46.97	-7.03	54	42.22	48.5	12.97	56.72	-	-	A	H
HT20													H
CH 01		4824	39.86	-34.14	74	58.91	31.45	6.56	57.06	-	-	P	V
2412MHz		18000	55.81	-18.19	74	51.06	48.5	12.97	56.72	-	-	P	V
		18000	45.78	-8.22	54	41.03	48.5	12.97	56.72	-	-	A	V
													V
		4874	43.49	-30.51	74	62.24	31.45	6.77	56.97	-	-	P	H
		7311	45.61	-28.39	74	56.79	37.08	8.64	56.9	-	-	P	H
802.11n		17985	56.25	-17.75	74	51.91	48.1	12.96	56.72	-	-	P	H
HT20		17985	46.2	-7.8	54	41.86	48.1	12.96	56.72	-	-	A	H
CH 06		4874	40.76	-33.24	74	59.51	31.45	6.77	56.97	-	-	P	V
2437MHz		7311	44.95	-29.05	74	56.13	37.08	8.64	56.9	-	-	P	V
		18000	56.59	-17.41	74	51.84	48.5	12.97	56.72	-	-	P	V
		18000	46.54	-7.46	54	41.79	48.5	12.97	56.72	-	-	A	V
		4924	48.14	-25.86	74	66.49	31.54	6.99	56.88	-	-	P	H
		7386	45.15	-28.85	74	56.48	37.07	8.65	57.05	-	-	P	H
802.11n		17985	57.09	-16.91	74	52.75	48.1	12.96	56.72	-	-	P	H
HT20		17985	46.23	-7.77	54	41.89	48.1	12.96	56.72	-	-	A	H
CH 11		4924	41.5	-32.5	74	59.85	31.54	6.99	56.88	-	-	P	V
2462MHz		7386	45.36	-28.64	74	56.69	37.07	8.65	57.05	-	-	P	V
		18000	55.84	-18.16	74	51.09	48.5	12.97	56.72	-	-	P	V
		18000	46.13	-7.87	54	41.38	48.5	12.97	56.72	-	-	A	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.52	62.59	-11.41	74	48.59	27.72	4.19	27.84	130	98	P	H
		2389.94	50.51	-3.49	54	36.51	27.72	4.19	27.84	130	98	A	H
	*	2422	105.4	-	-	91.43	27.66	4.22	27.84	130	98	P	H
	*	2422	96.71	-	-	82.74	27.66	4.22	27.84	130	98	A	H
802.11n		2483.8	56.22	-17.78	74	42.17	27.67	4.27	27.82	130	98	P	H
HT40		2484.25	44.73	-9.27	54	30.68	27.67	4.27	27.82	130	98	A	H
CH 03		2389.94	57.46	-16.54	74	43.46	27.72	4.19	27.84	395	43	P	V
2422MHz		2389.94	46.88	-7.12	54	32.88	27.72	4.19	27.84	395	43	A	V
	*	2422	101.88	-	-	87.91	27.66	4.22	27.84	395	43	P	V
	*	2422	94.2	-	-	80.23	27.66	4.22	27.84	395	43	A	V
		2495.5	55.44	-18.56	74	41.36	27.69	4.28	27.82	395	43	P	V
		2484.43	44	-10	54	29.95	27.67	4.27	27.82	395	43	A	V
		2315.88	54.58	-19.42	74	40.32	28.07	14.05	27.86	122	96	P	H
		2389.94	44.33	-9.67	54	30.33	27.72	14.12	27.84	122	96	A	H
	*	2437	107.22	-	-	93.26	27.63	14.16	27.83	122	96	P	H
	*	2437	99.38	-	-	85.42	27.63	14.16	27.83	122	96	A	H
802.11n		2484.79	65.2	-8.8	74	51.15	27.67	14.2	27.82	122	96	P	H
HT40		2483.53	48.29	-5.71	54	34.24	27.67	14.2	27.82	122	96	A	H
CH 06		2372.02	54.58	-19.42	74	40.57	27.76	14.1	27.85	395	76	P	V
2437MHz		2389.94	43.88	-10.12	54	29.88	27.72	14.12	27.84	395	76	A	V
	*	2437	105.49	-	-	91.53	27.63	14.16	27.83	395	76	P	V
	*	2437	97.77	-	-	83.81	27.63	14.16	27.83	395	76	A	V
		2484.07	58.91	-15.09	74	44.86	27.67	14.2	27.82	395	76	P	V
		2483.53	45.52	-8.48	54	31.47	27.67	14.2	27.82	395	76	A	V

		2318.12	54.54	-19.46	74	40.29	28.06	14.05	27.86	127	95	P	H
		2313.64	43.76	-10.24	54	29.49	28.09	14.04	27.86	127	95	A	H
	*	2452	102.95	-	-	89.01	27.6	14.17	27.83	127	95	P	H
	*	2452	94.96	-	-	81.02	27.6	14.17	27.83	127	95	A	H
802.11n		2484.52	65.64	-8.36	74	51.59	27.67	14.2	27.82	127	95	P	H
HT40		2484.07	49.55	-4.45	54	35.5	27.67	14.2	27.82	127	95	A	H
CH 09		2384.06	54.78	-19.22	74	40.78	27.73	14.11	27.84	387	75	P	V
2452MHz		2312.66	43.68	-10.32	54	29.4	28.1	14.04	27.86	387	75	A	V
	*	2452	101.1	-	-	87.16	27.6	14.17	27.83	387	75	P	V
	*	2452	93.51	-	-	79.57	27.6	14.17	27.83	387	75	A	V
		2484.07	62.34	-11.66	74	48.29	27.67	14.2	27.82	387	75	P	V
		2484.07	47.26	-6.74	54	33.21	27.67	14.2	27.82	387	75	A	V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4844	44.75	-29.25	74	63.63	31.49	6.65	57.02	-	-	P	H
		7266	45.64	-28.36	74	56.9	36.9	8.64	56.8	-	-	P	H
802.11n		17985	56.26	-17.74	74	51.92	48.1	12.96	56.72	-	-	P	H
HT40		17985	46.27	-7.73	54	41.93	48.1	12.96	56.72	-	-	A	H
CH 03		4844	39.97	-34.03	74	58.85	31.49	6.65	57.02	-	-	P	V
2422MHz		7266	46.19	-27.81	74	57.45	36.9	8.64	56.8	-	-	P	V
		18000	55.67	-18.33	74	50.92	48.5	12.97	56.72	-	-	P	V
		18000	46.09	-7.91	54	41.34	48.5	12.97	56.72	-	-	A	V
		4874	42.23	-31.77	74	60.98	31.45	6.77	56.97	-	-	P	H
		7311	45.93	-28.07	74	57.11	37.08	8.64	56.9	-	-	P	H
802.11n		17985	56.56	-17.44	74	52.22	48.1	12.96	56.72	-	-	P	H
HT40		17985	46.42	-7.58	54	42.08	48.1	12.96	56.72	-	-	A	H
CH 06		4874	39.44	-34.56	74	58.19	31.45	6.77	56.97	-	-	P	V
2437MHz		7311	45.83	-28.17	74	57.01	37.08	8.64	56.9	-	-	P	V
		18000	56.28	-17.72	74	51.53	48.5	12.97	56.72	-	-	P	V
		18000	46.11	-7.89	54	41.36	48.5	12.97	56.72	-	-	A	V
		4904	41.1	-32.9	74	59.69	31.42	6.9	56.91	-	-	P	H
		7350	44.59	-29.41	74	55.93	37	8.64	56.98	-	-	P	H
802.11n		17985	56.46	-17.54	74	52.12	48.1	12.96	56.72	-	-	P	H
HT40		17985	46.29	-7.71	54	41.95	48.1	12.96	56.72	-	-	A	H
CH 09		4904	39.8	-34.2	74	58.39	31.42	6.9	56.91	-	-	P	V
2452MHz		7356	45.86	-28.14	74	57.19	37.01	8.65	56.99	-	-	P	V
		18000	56.77	-17.23	74	52.02	48.5	12.97	56.72	-	-	P	V
		18000	46.13	-7.87	54	41.38	48.5	12.97	56.72	-	-	A	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Emission above 18GHz

2.4GHz WIFI 802.11n HT20 (SHF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		22389	40.72	-33.28	74	43.57	38.52	12.25	53.62	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT20		20954	40.38	-33.62	74	44.32	38.36	11.21	53.51	-	-	P	V
SHF													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		30	25.14	-14.86	40	30.17	24.57	0.5	32.22	-	-	P	H
		97.9	27.77	-15.73	43.5	43.06	15.72	0.87	32.23	-	-	P	H
		183.26	23.72	-19.78	43.5	39.6	14.82	1.17	32.26	-	-	P	H
		568.35	26.45	-19.55	46	30.46	25.87	2.03	32.38	-	-	P	H
		679.9	28.05	-17.95	46	31.46	26.19	2.22	32.18	-	-	P	H
		908.82	32.78	-13.22	46	32.16	28.64	2.55	31	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT20		30	24.16	-15.84	40	29.19	24.57	0.5	32.22	-	-	P	V
LF		45.52	25.99	-14.01	40	40.22	16.62	0.61	32.28	-	-	P	V
		91.11	20.75	-22.75	43.5	37.02	14.75	0.83	32.24	-	-	P	V
		632.37	26.99	-19.01	46	30.86	25.93	2.15	32.42	-	-	P	V
		804.06	30.82	-15.18	46	31.53	27.71	2.41	31.31	-	-	P	V
		952.47	32.95	-13.05	46	30.41	30.43	2.59	30.78	-	-	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	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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

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

1. 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

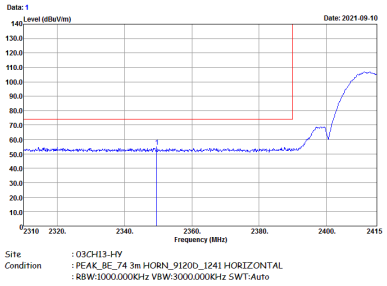
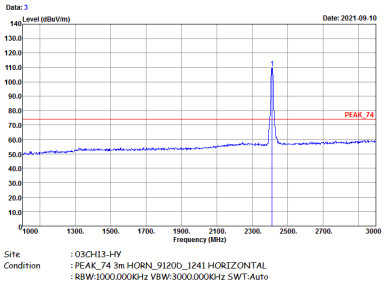
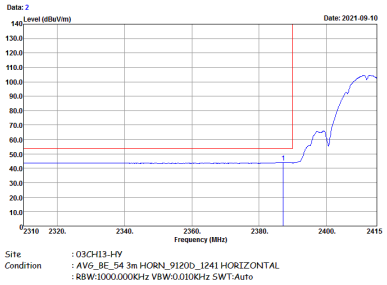
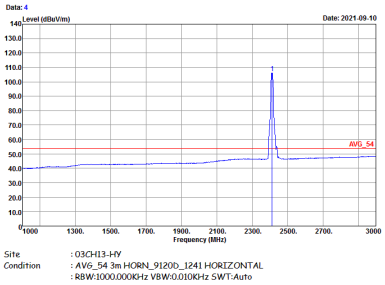
Test Engineer :	Yuan Lee, Jacky Hong, and Wilson Wu	**Temperature :**	20~25°C
		Relative Humidity :	50~60%

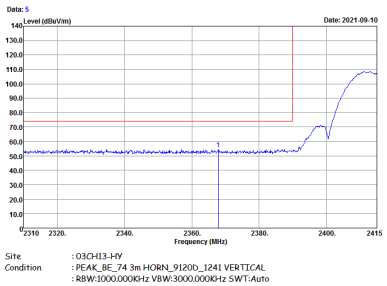
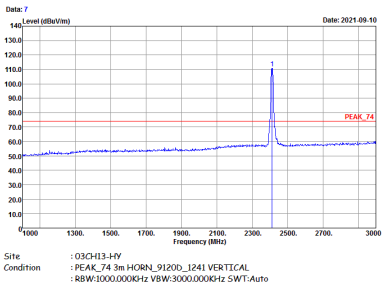
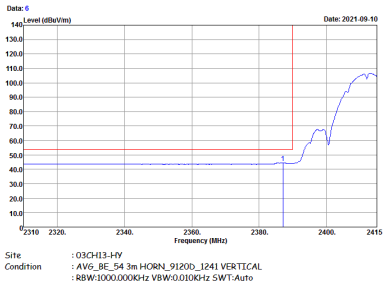
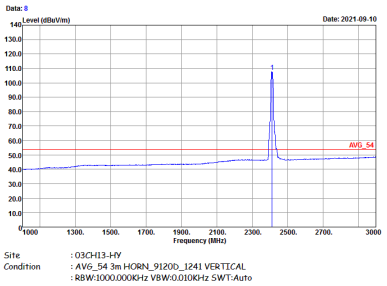
Note symbol

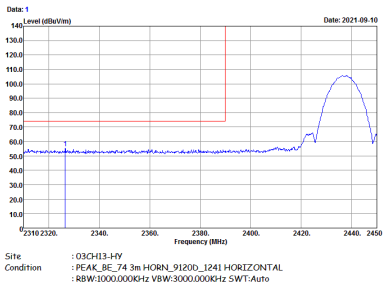
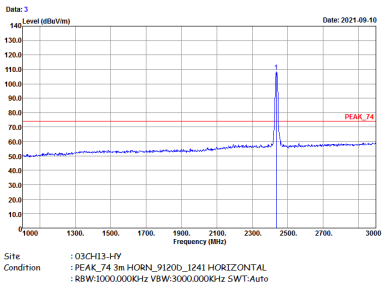
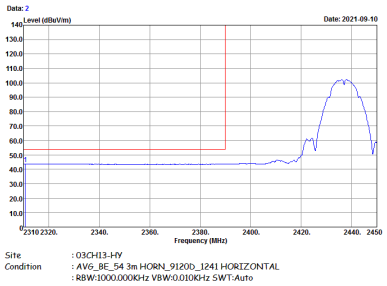
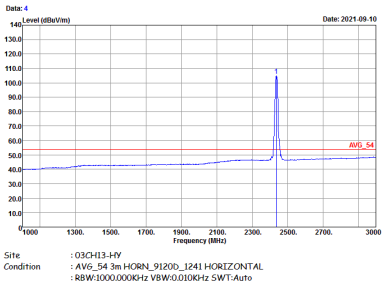
-L	**Low channel location**
-R	**High channel location**

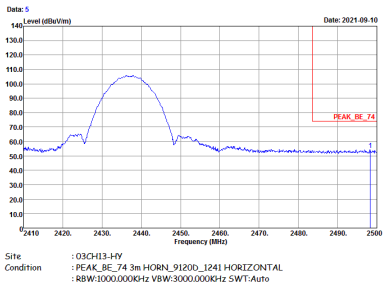
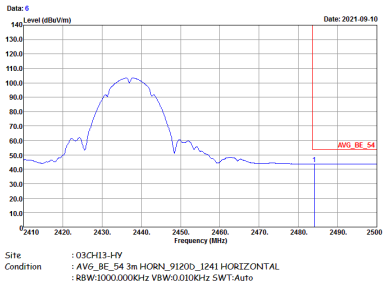
2.4GHz 2400~2483.5MHz

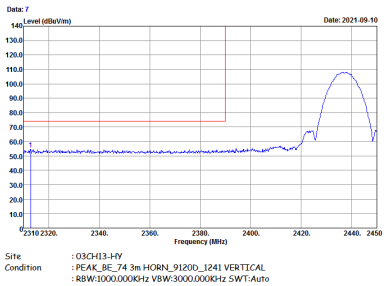
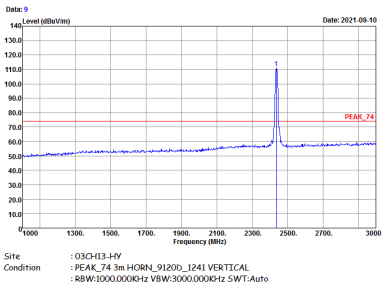
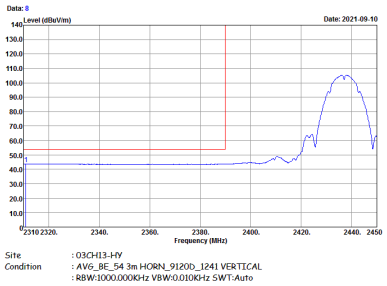
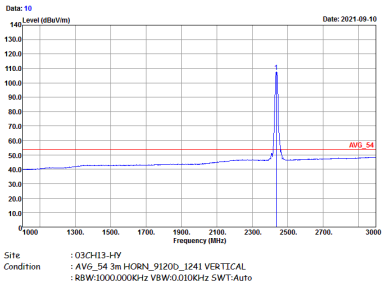
WIFI 802.11b (Band Edge @ 3m)

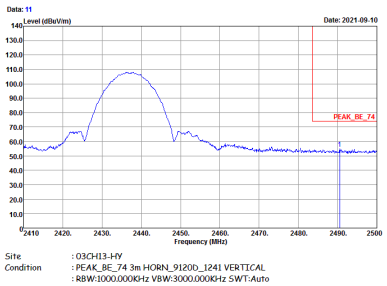
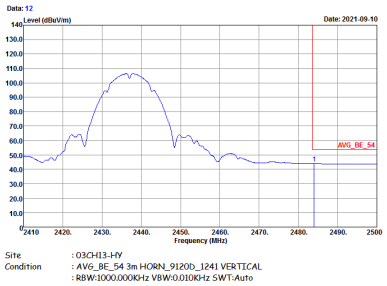
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

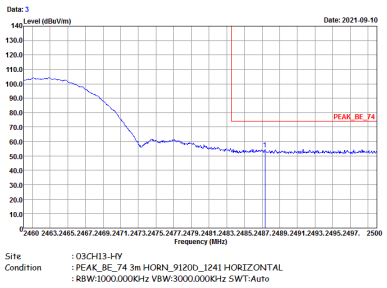
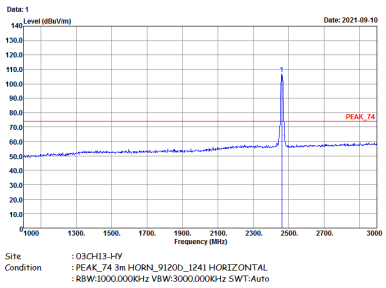
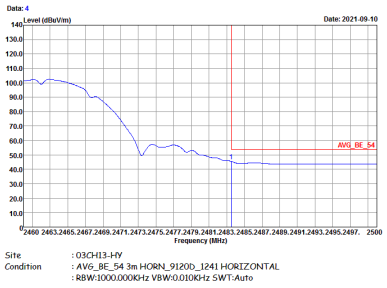
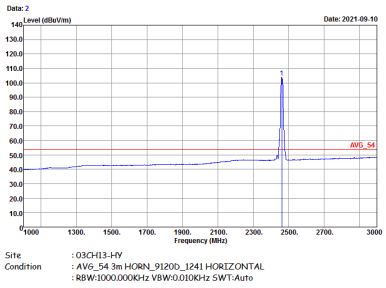
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

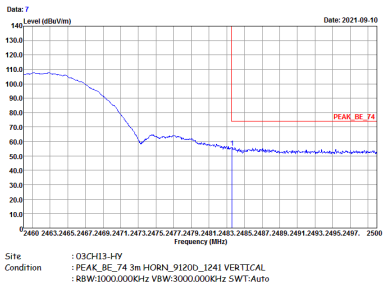
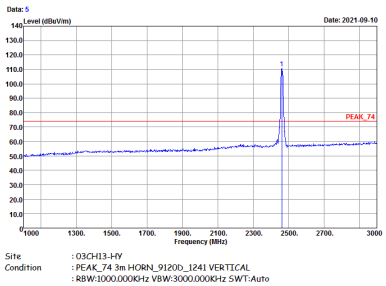
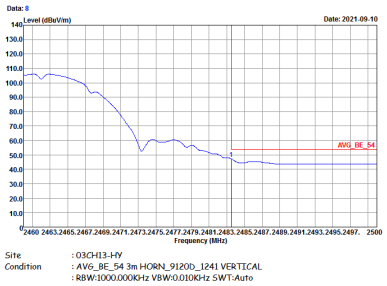
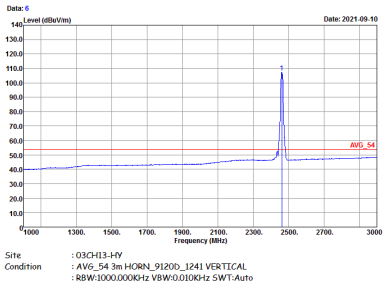
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_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	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

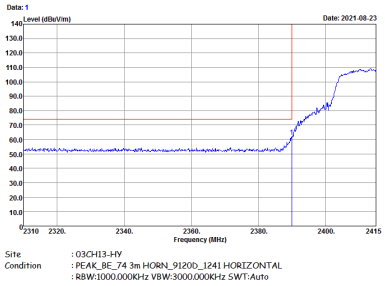
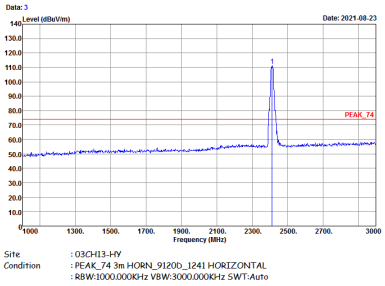
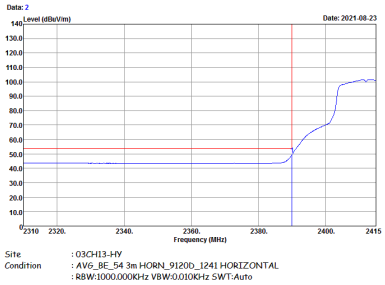
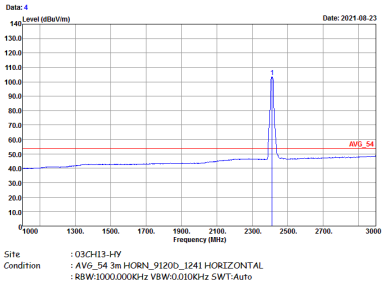
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

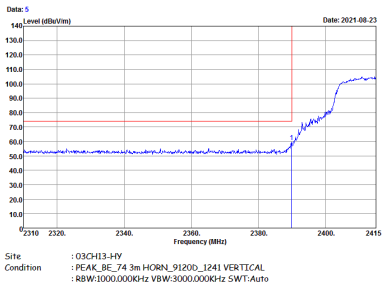
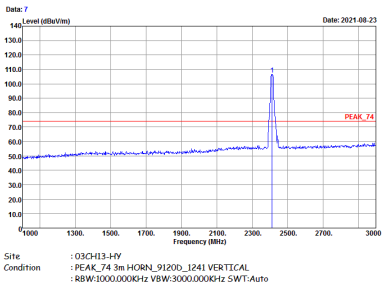
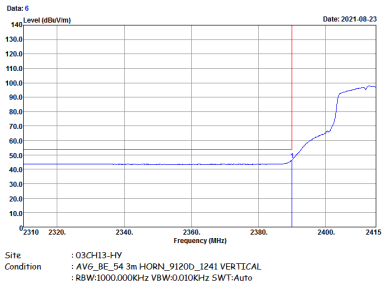
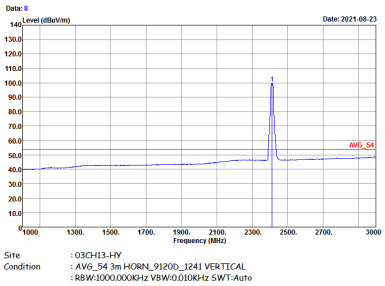
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

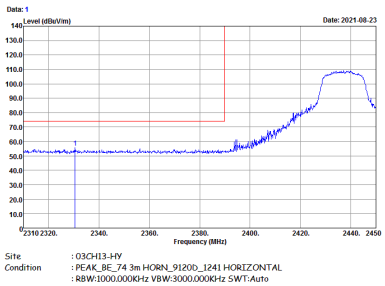
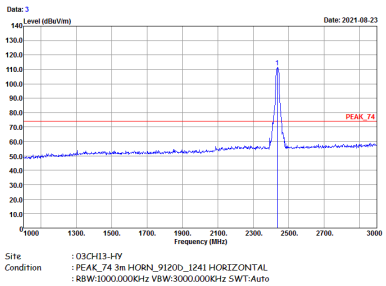
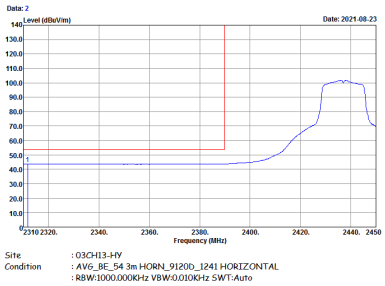
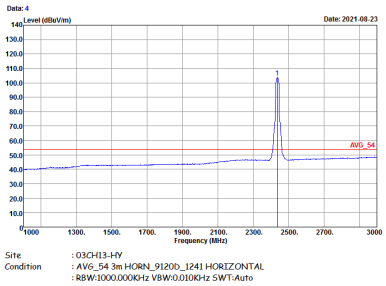
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

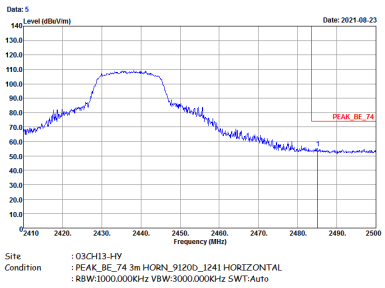
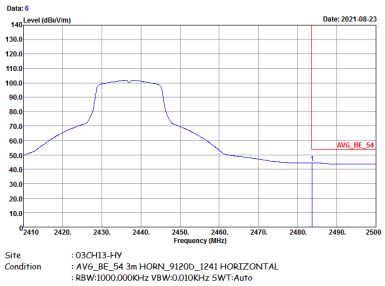
2.4GHz 2400~2483.5MHz

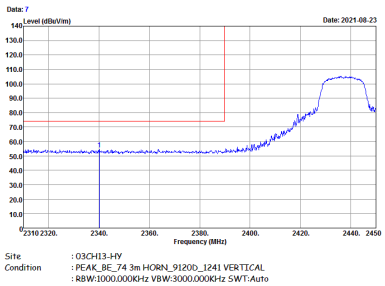
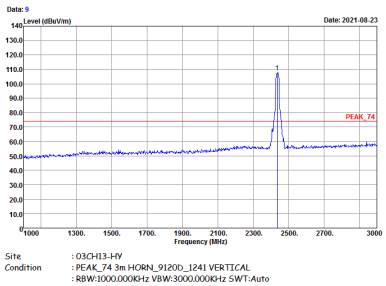
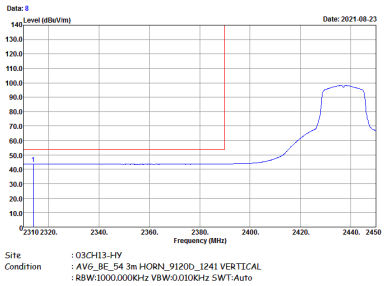
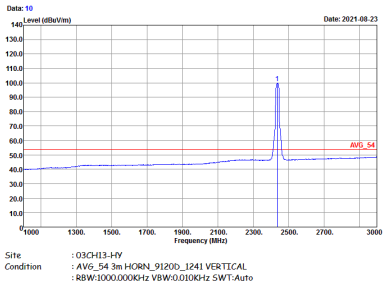
WIFI 802.11g (Band Edge @ 3m)

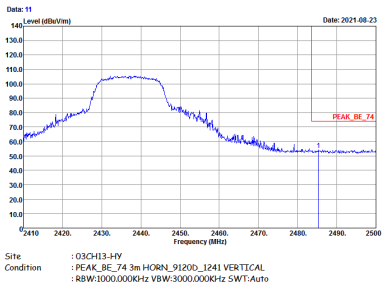
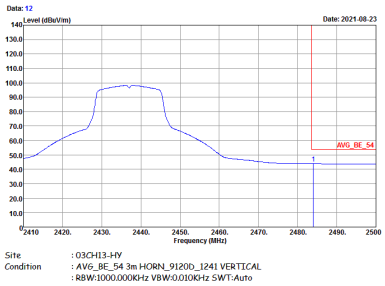
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

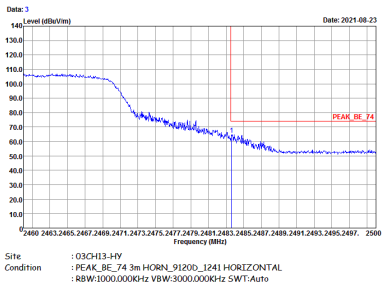
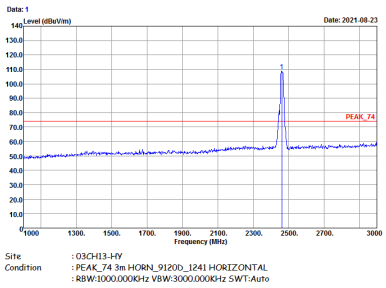
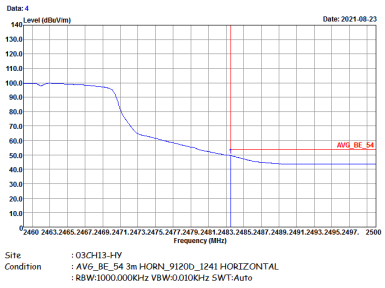
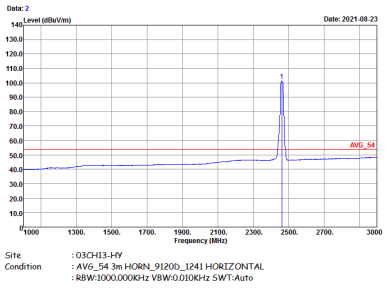
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

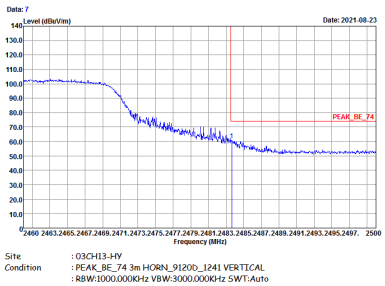
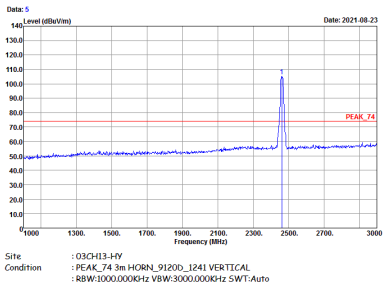
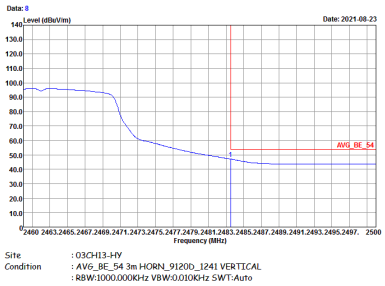
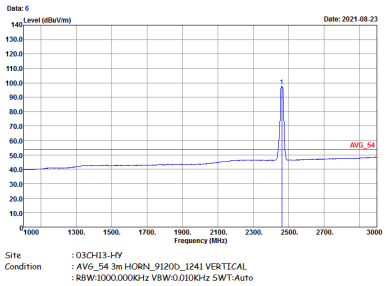
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

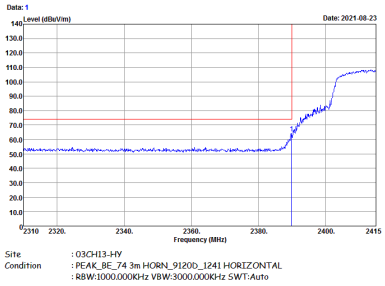
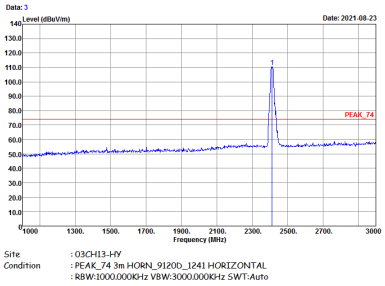
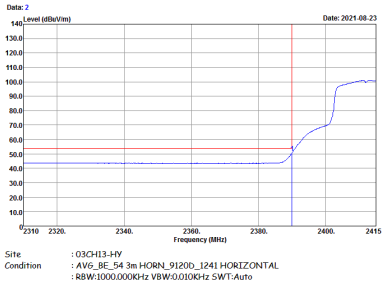
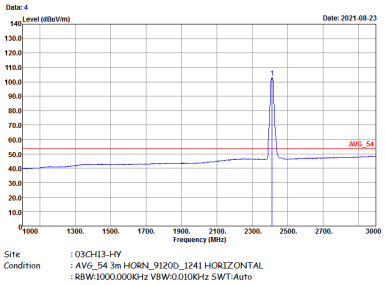
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

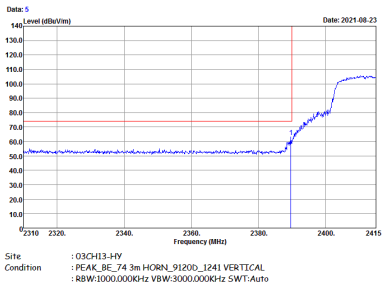
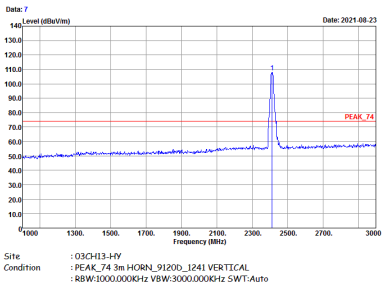
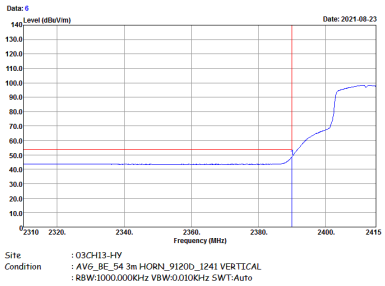
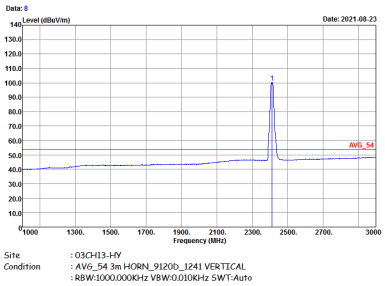
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

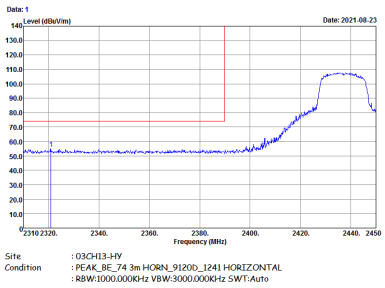
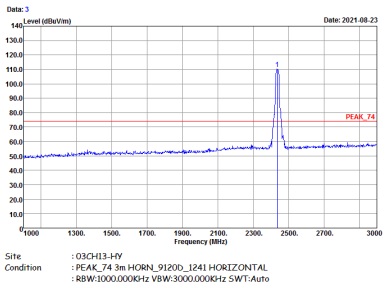
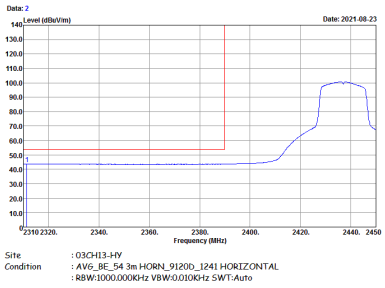
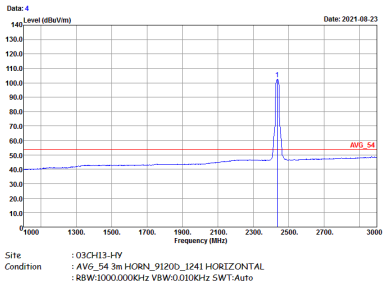
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

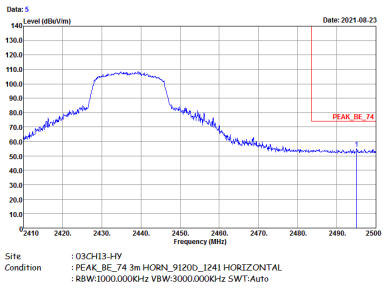
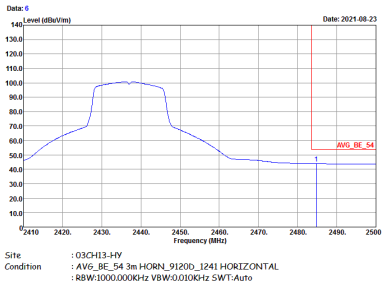
2.4GHz 2400~2483.5MHz

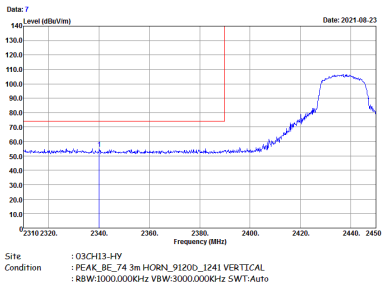
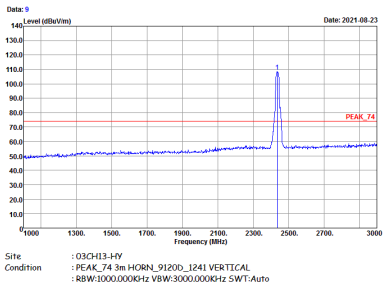
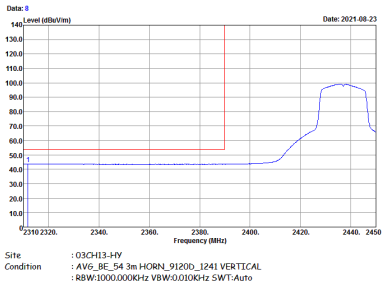
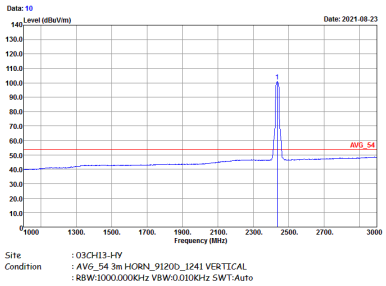
WIFI 802.11n HT20 (Band Edge @ 3m)

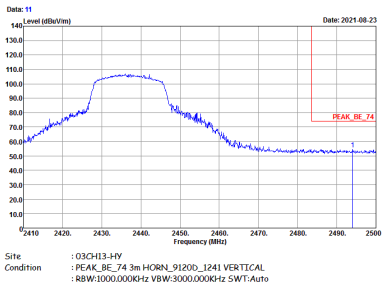
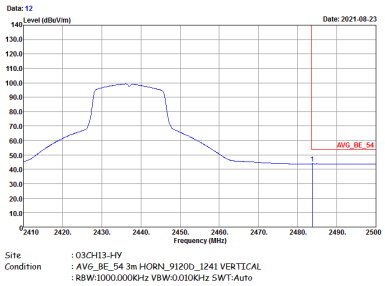
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

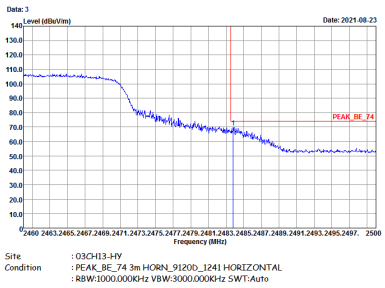
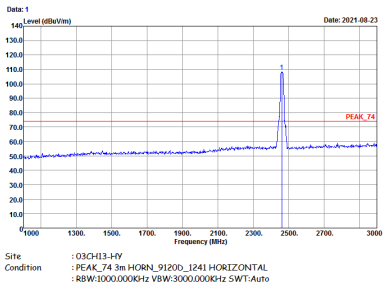
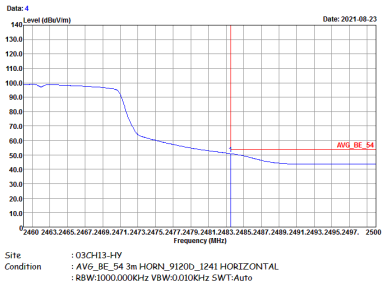
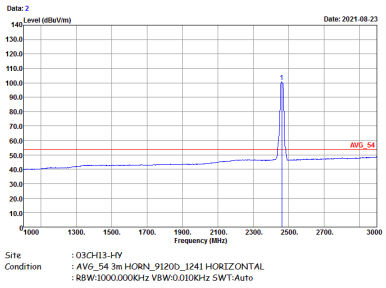
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

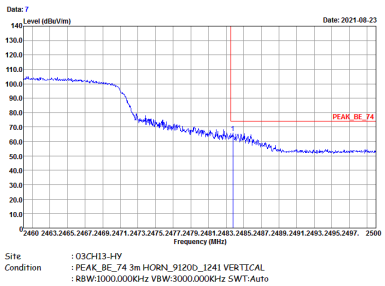
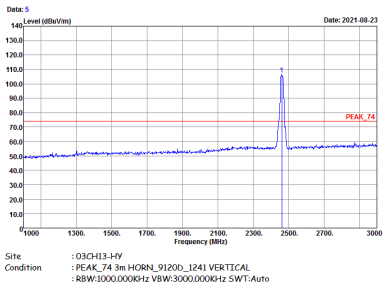
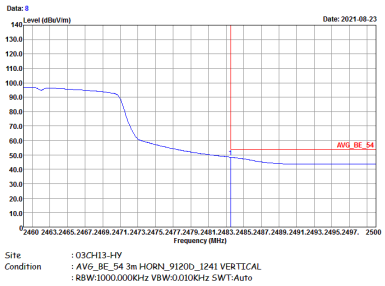
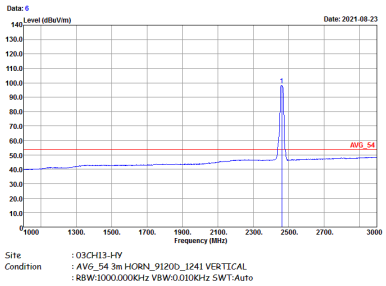
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

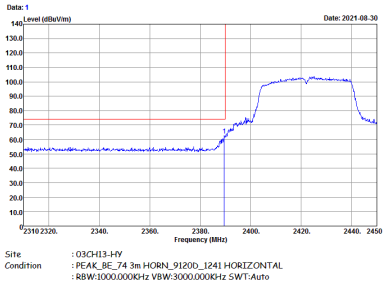
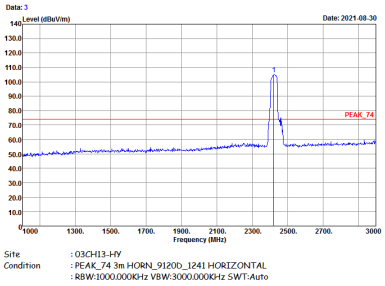
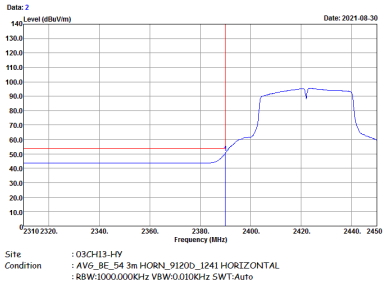
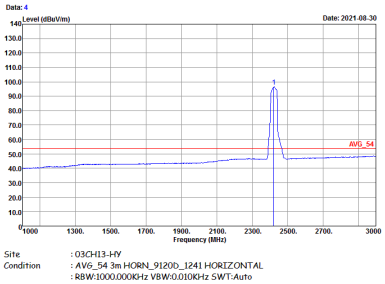
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

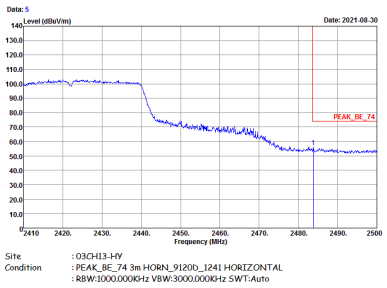
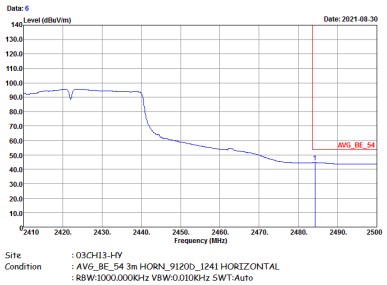
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

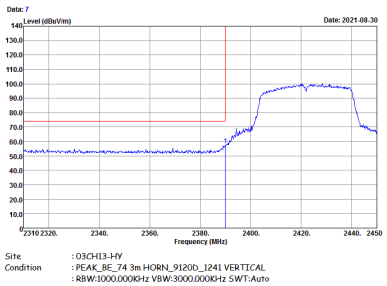
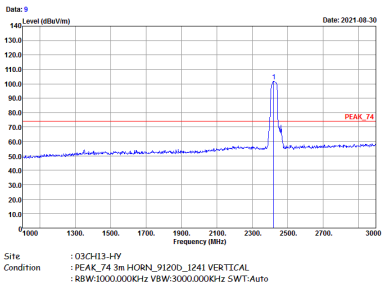
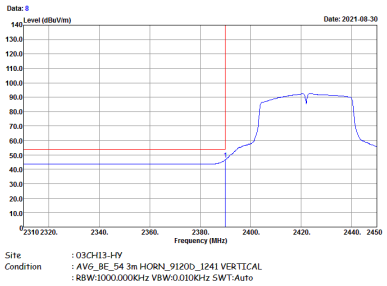
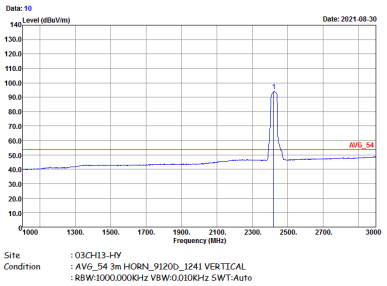
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

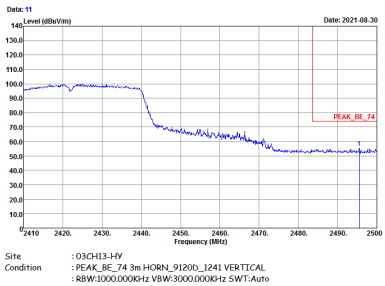
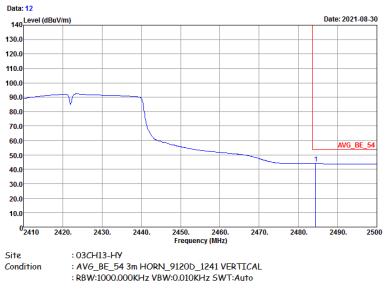
2.4GHz 2400~2483.5MHz

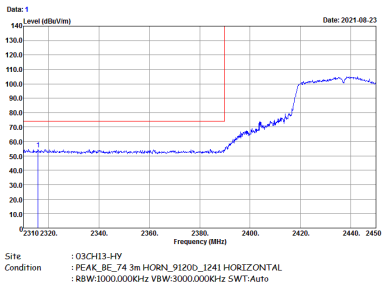
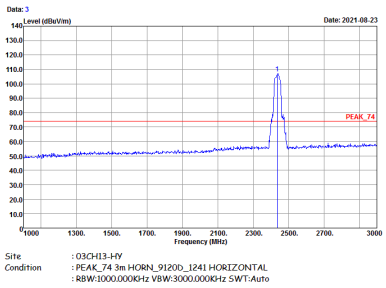
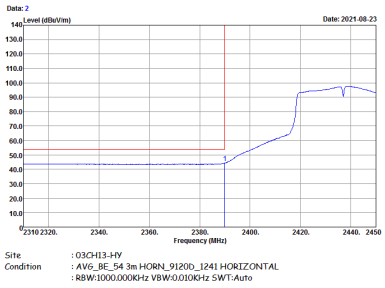
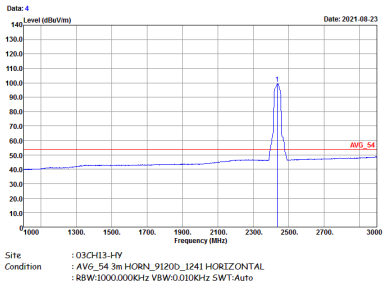
WIFI 802.11n HT40 (Band Edge @ 3m)

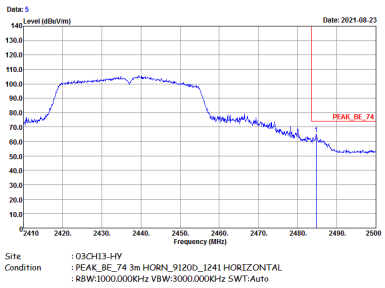
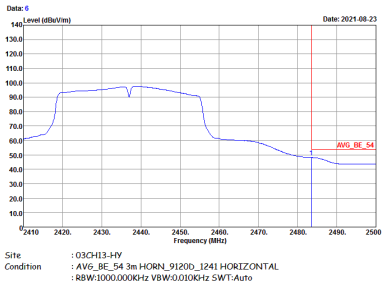
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

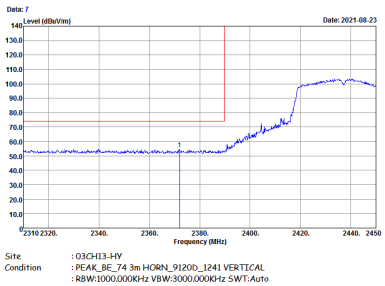
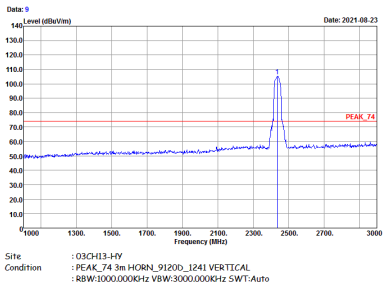
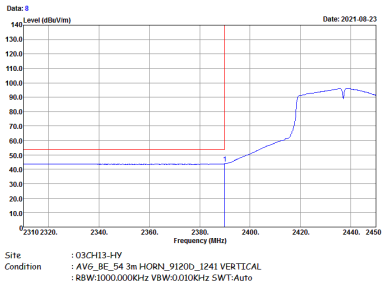
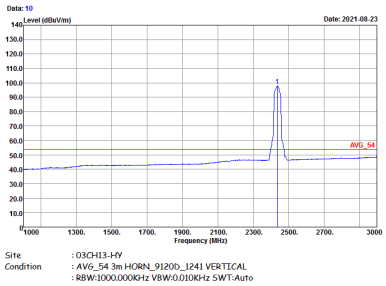
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak		Left Blank
Avg.		Left Blank

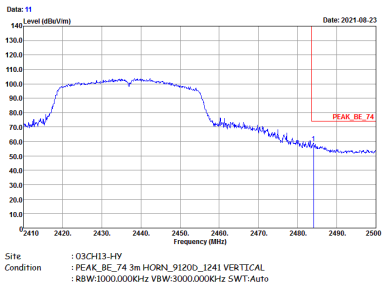
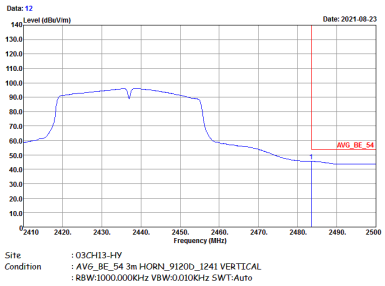
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

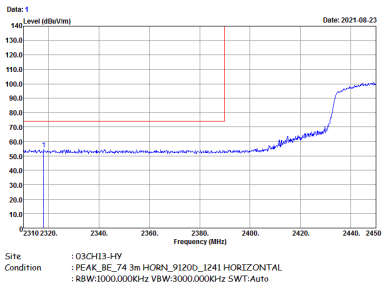
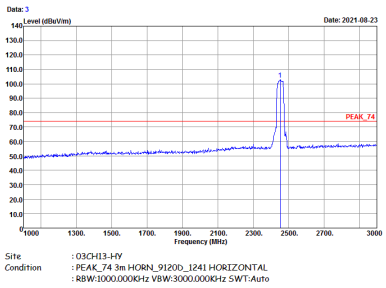
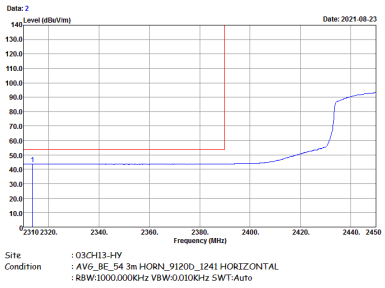
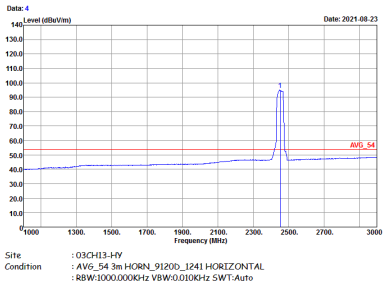
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

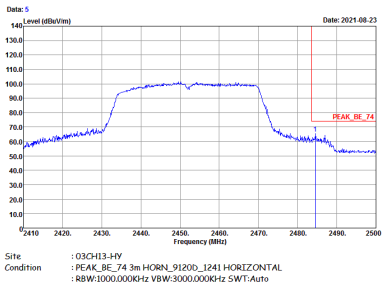
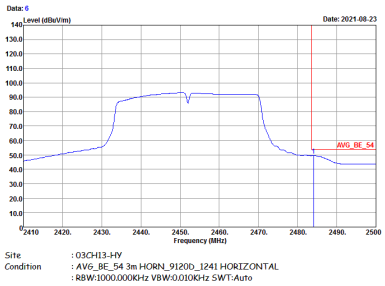
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

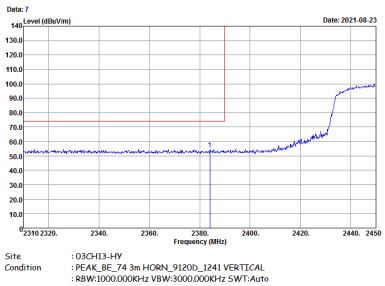
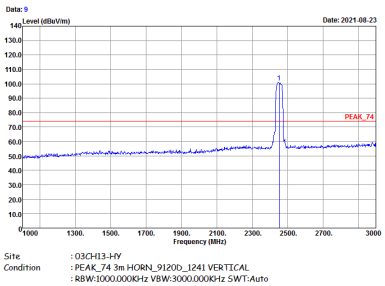
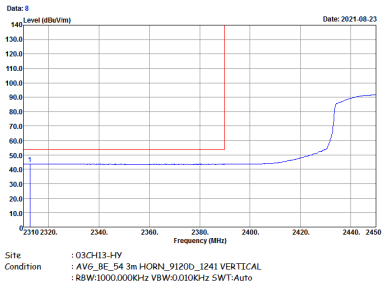
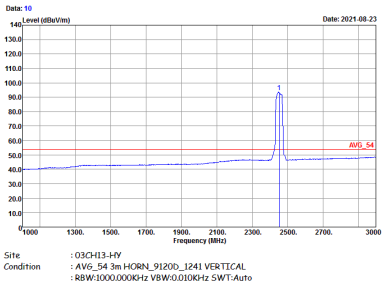
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

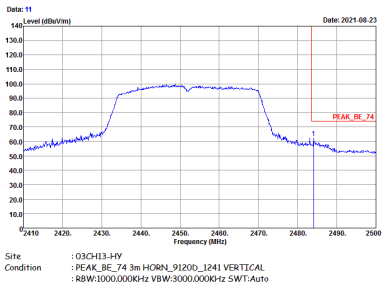
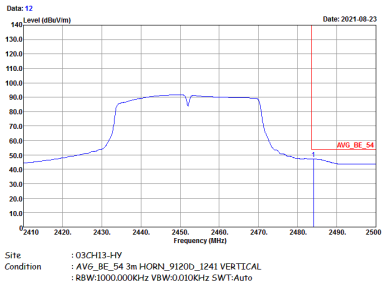
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

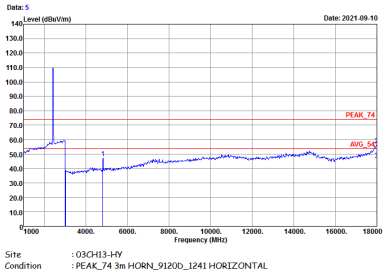
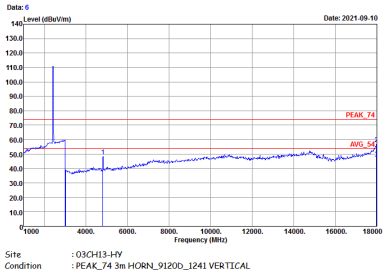
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

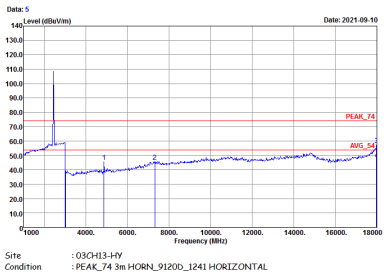
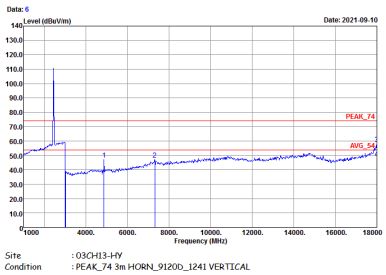
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

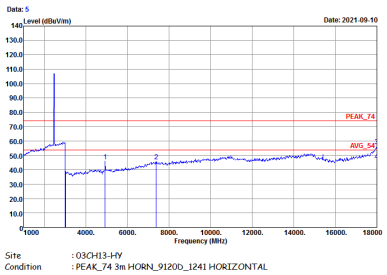
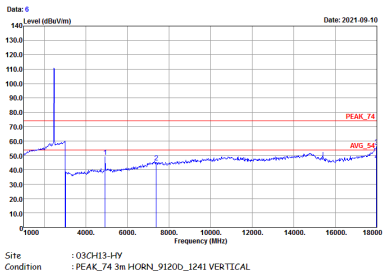
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

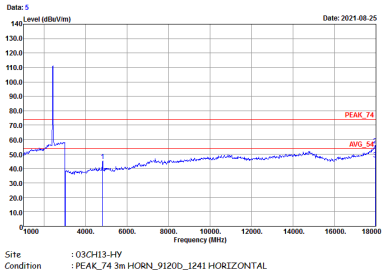
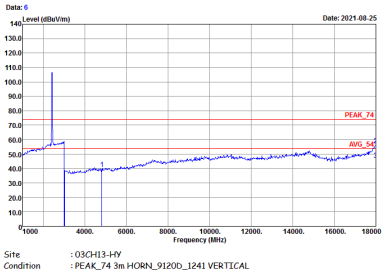
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

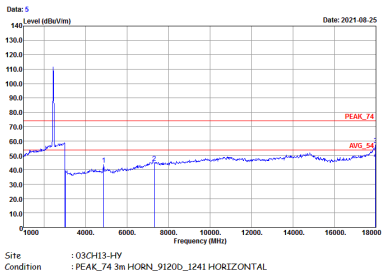
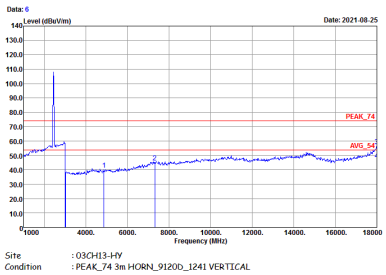
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

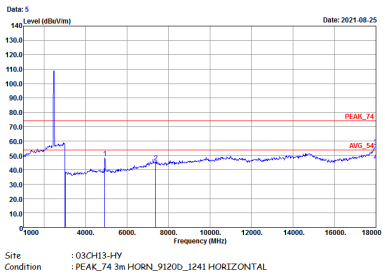
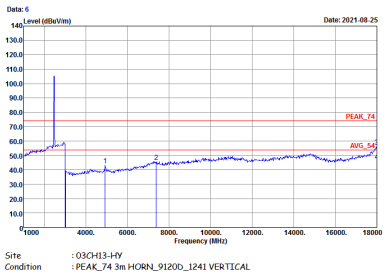
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

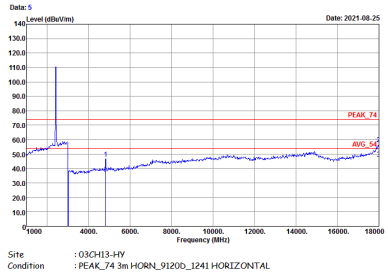
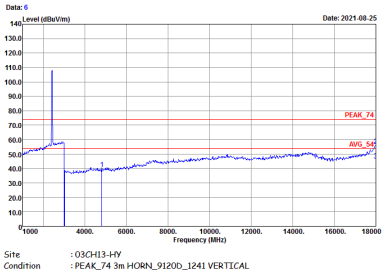
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

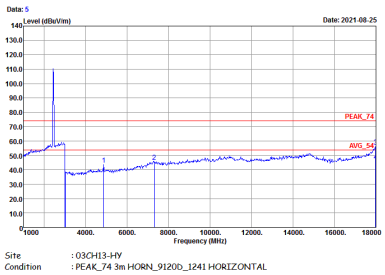
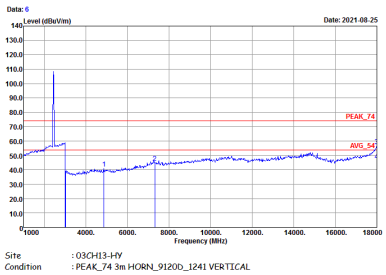
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

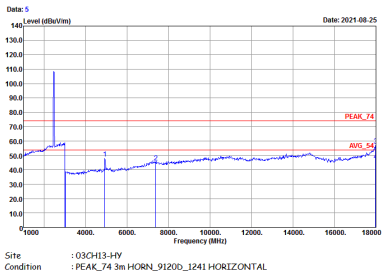
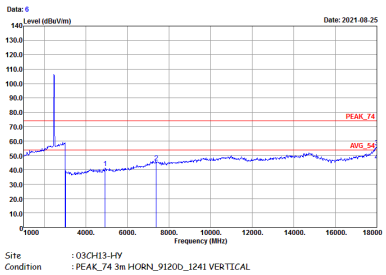
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

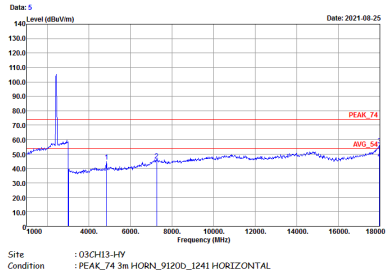
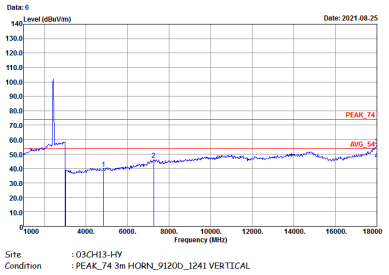
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

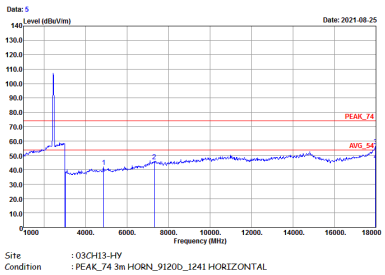
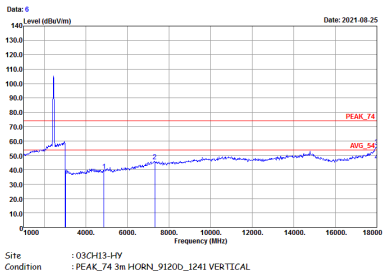
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

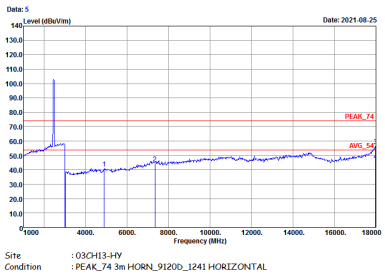
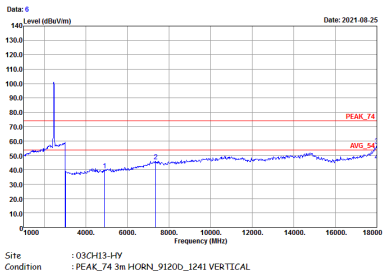
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

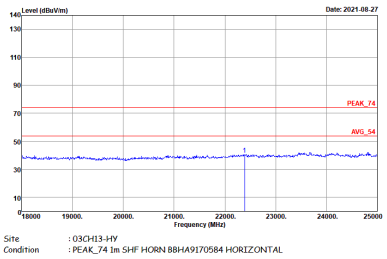
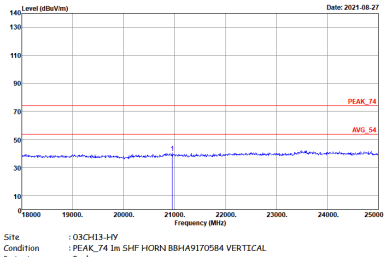
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.		

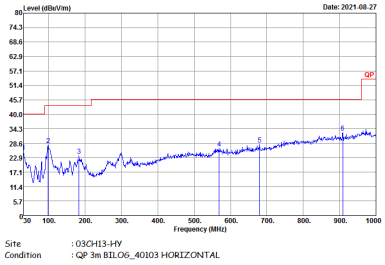
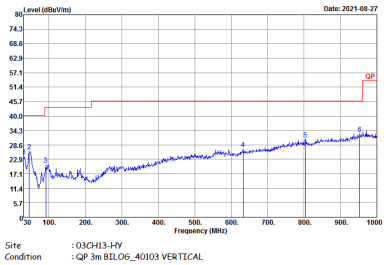
Emission above 18GHz

2.4GHz WIFI 802.11n HT20 (SHF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT20 SHF	
1	Horizontal	Vertical
Peak / Avg.		

Emission below 1GHz

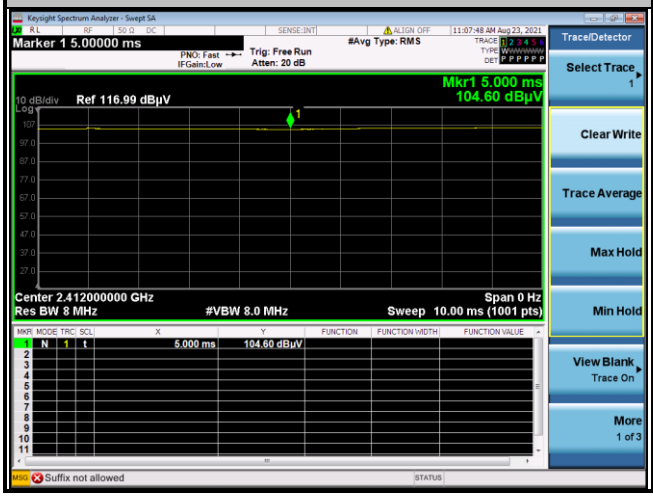
2.4GHz WIFI 802.11n HT20 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT20 LF	
1	Horizontal	Vertical
QP / Peak		

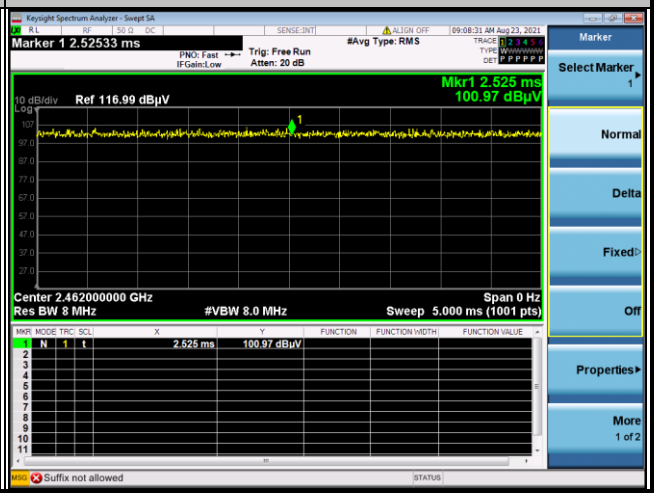
Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	100.00	-	-	10Hz
802.11g	100.00	-	-	10Hz
2.4GHz 802.11n HT20	100.00	-	-	10Hz
2.4GHz 802.11n HT40	100.00	-	-	10Hz

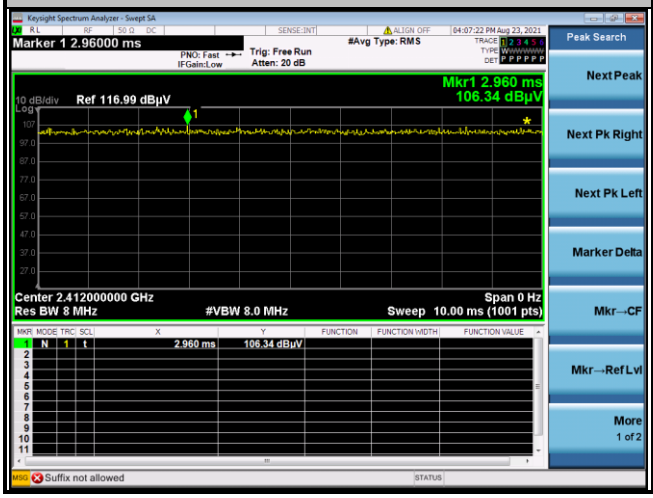
802.11b



802.11g



802.11n HT20



802.11n HT40