FCC RF Test Report

APPLICANT	:	Amazon.com Services LLC
EQUIPMENT	:	Digital Media Receiver
MODEL NAME	:	H97N6S
FCC ID	:	2A4DH-1022
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System
TEST DATE(S)	:	Nov. 08, 2022 ~ Dec. 03, 2022

We, Sporton International Inc. (ShenZhen), 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. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

Sporton International Inc. (ShenZhen)

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR1D0301-03C	Rev. 01	Initial issue of report	Dec. 09, 2022
FR1D0301-03C	Rev. 02	Appendix C: 1. Add fundamental frequency note symbol "*" 2. Modify "calculation example"	Feb. 02, 2023
FR1D0301-03C	Rev. 03	Update test mode	May 02, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.1	-	99% Bandwidth	-	Report Only	-
3.2	15.247(b)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	Conducted Band Edges	≤ 30dBc	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.04 dB at 2483.52 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 18.98 dB at 0.188 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	15.203 & 15.247(b)	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits.
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.

1 General Description

1.1 Applicant

Amazon.com Services LLC
410 Terry Avenue N Seattle, WA 98109-5210 United States

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	H97N6S
FCC ID	2A4DH-1022
SN Code	Conducted: POB2RQ0121740AE3 Conduction: G092360523870021 Radiation: G092370523860039

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

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	2412 MHz ~ 2472 MHz
Maximum (Average) Output Power to antenna	802.11b : 18.60 dBm (0.0724 W) 802.11g : 17.70 dBm (0.0589 W) 802.11n HT20 : 16.90 dBm (0.0490 W)
99% Occupied Bandwidth	802.11b : 13.69MHz 802.11g : 17.68MHz 802.11n HT20 : 18.28MHz
Antenna Type / Gain	IFA Antenna with gain 4.0 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Modification of EUT

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

1.5 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO02-SZ 03CH02-SZ	CN1256	421272

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a
2.	CO02-SZ	Rohde&Schwarz	EMC32	10.60.0.0

1.7 Applicable Standards

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

- 47 CFR Part 15 Subpart C §15.247
- FCC KDB 558074 D01 15.247 Meas Guidance v05r02
- ANSI C63.10-2013

Remark:

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: 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, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

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

2.2 Test Mode

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

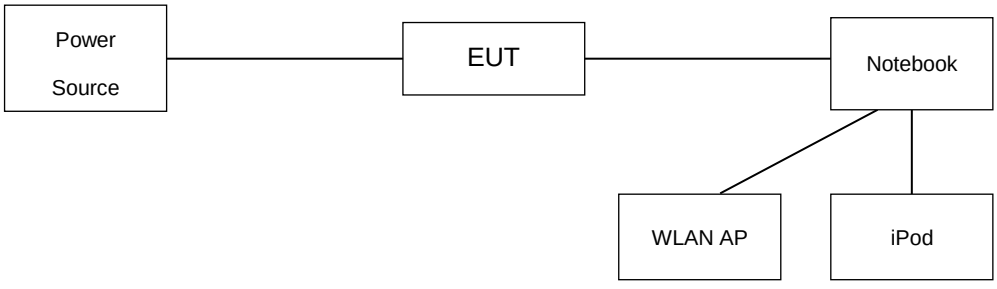
Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0

Co-location mode
802.11n-HT20 CH12 Tx + BLE(2M) CH39 Tx
802.11n-HT20 CH01 Tx + BLE(1M) CH00 Tx
802.11b CH01 Tx + BLE(1M) CH18 Tx
802.11b CH01 Tx + BLE(1M) CH25 Tx
802.11b CH06 Tx + BLE(1M) CH3 Tx
802.11b CH11 Tx + BLE(1M) CH11 Tx
802.11n-HT20 CH11 Tx + BLE(1M) CH39 Tx

Test Cases	
AC Conducted Emission	Mode 1 :All Stress + Bluetooth Tx + WLAN Tx(2.4G) + Adapter(PA27NA)
Remark: For Radiated Test Cases, The tests were performance with Adapter.	

2.3 Connection Diagram of Test System

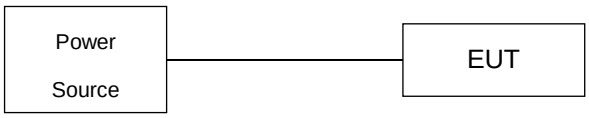
For AC Conducted Emission:



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

For Radiated Emission:



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

2.4 Support Unit used in test configuration and system

Item	Equipment	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	RT-AC66U	Fcc DoC	Shielded, 1.0m	N/A
2.	Notebook	Inspiron 15-7570	Fcc DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
3.	IPod	MC525 ZP/A	FCC DoC	Shielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions, the EUT was set to Tx mode for continuous transmit.

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 1.2 dB and 10dB attenuator.

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

= 1.2 + 10 = 11.2 (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

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

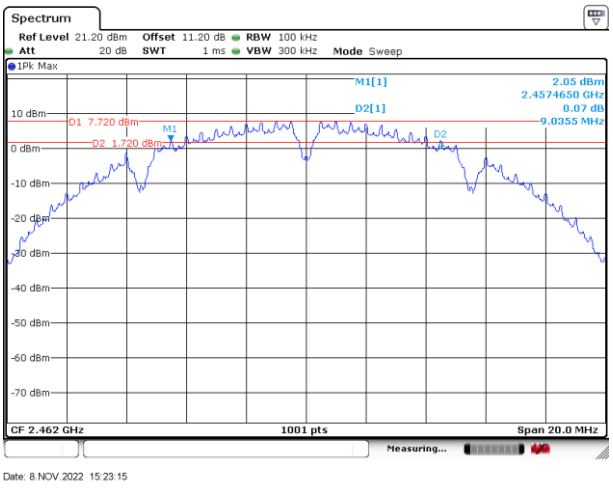
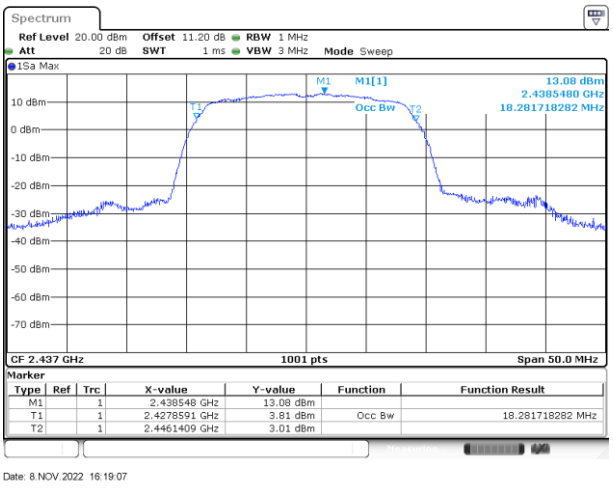
3.1.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 11.8
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1%~5% of OBW and set the Video bandwidth (VBW) = 3MHz.
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 2400-2483.5MHz, the limit for output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

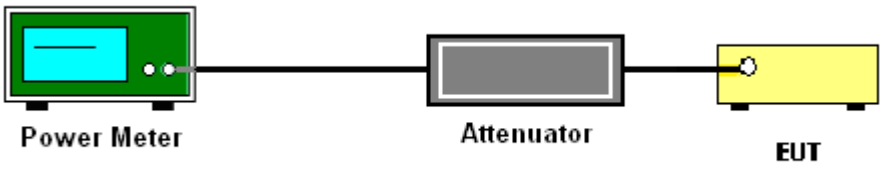
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of ANSI C63.10-2013 clause 11.9.1.3 PKPM1 Peak power meter or ANSI C63.10-2013 clause 11.9.2.3.2 Method AVGPM-G method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

3.2.4 Test Setup



3.2.5 Test Result of Average Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

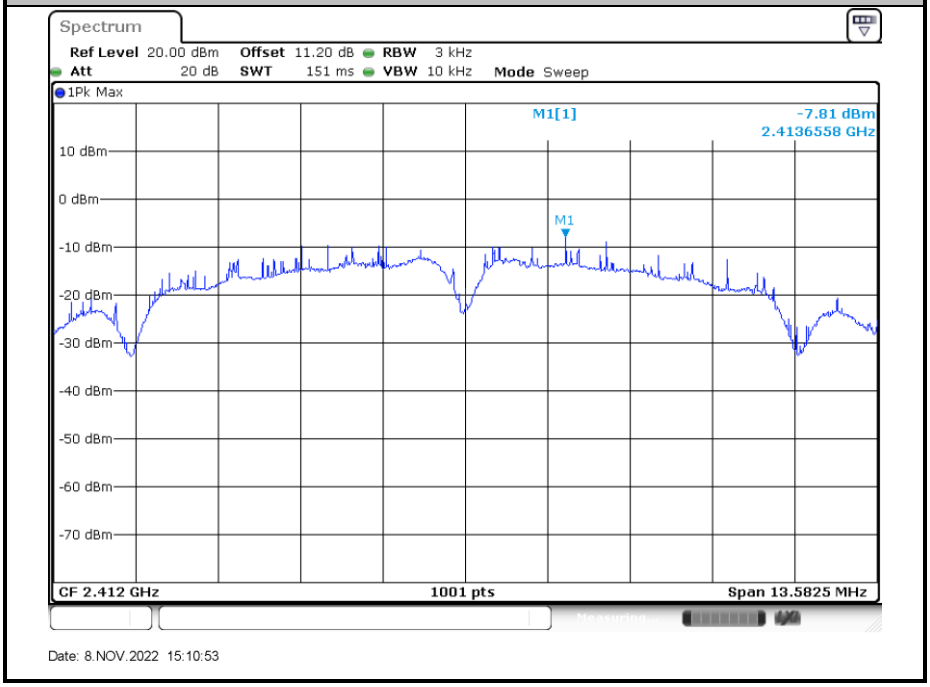
1. The testing follows Measurement Procedure of ANSI C63.10-2013 clause 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

3.3.4 Test Setup

3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

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 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

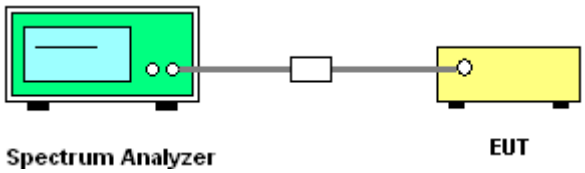
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 11.13
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup

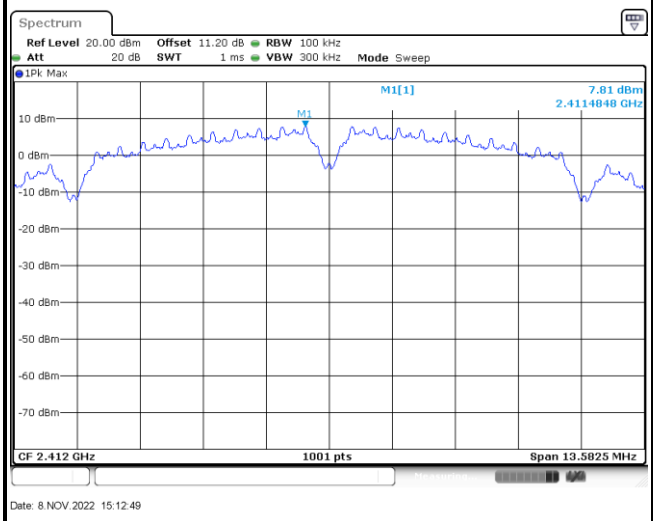


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

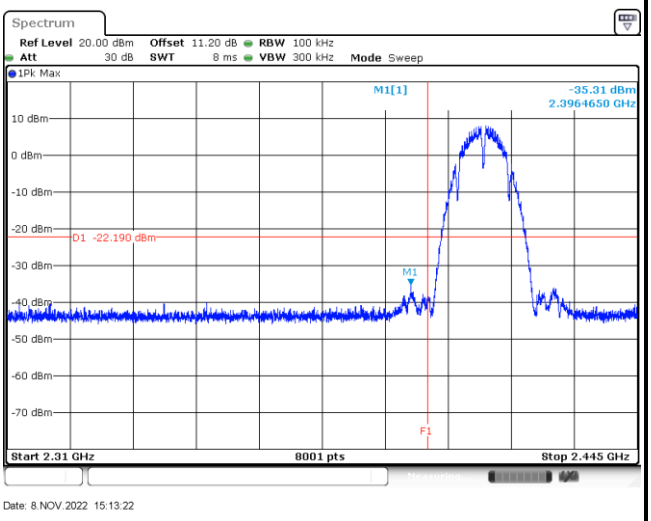
Test Engineer :	Liu Qiu Qiu	**Temperature :**	21~25℃
		Relative Humidity :	51~54%

Test Mode :	802.11b	**Test Channel :**	01

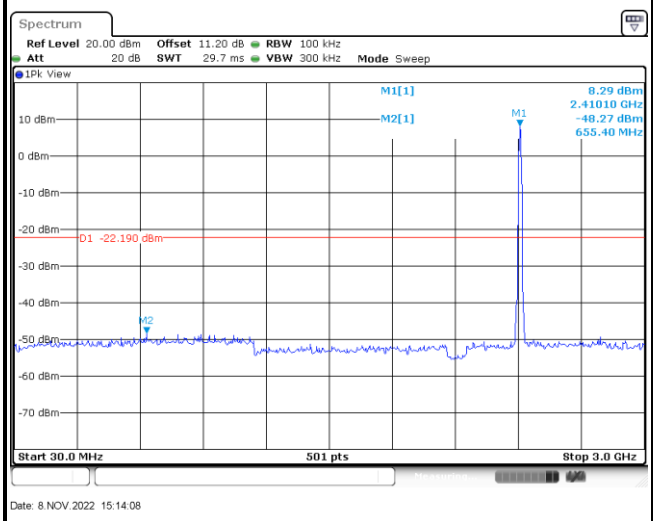
100kHz PSD reference Level



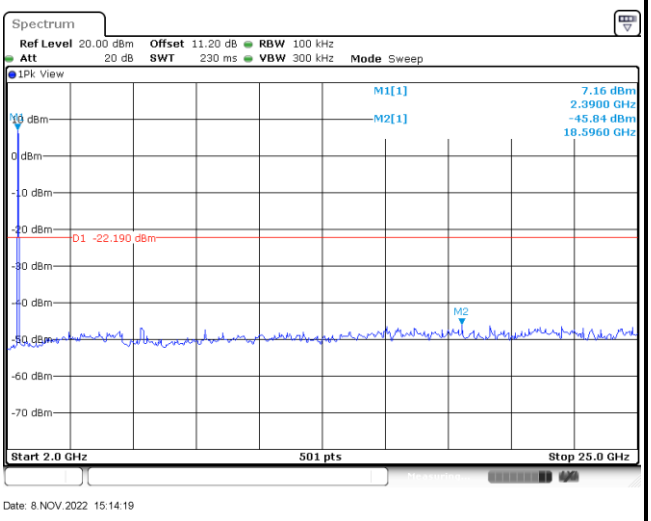
Channel Plot



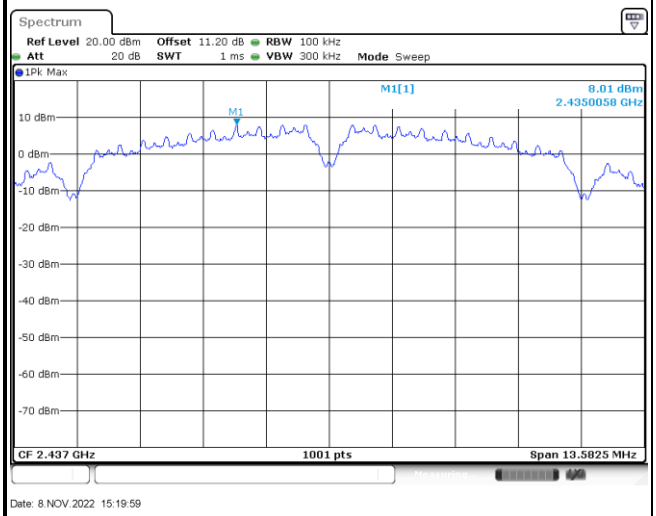
Spurious Emission 30MHz~3GHz

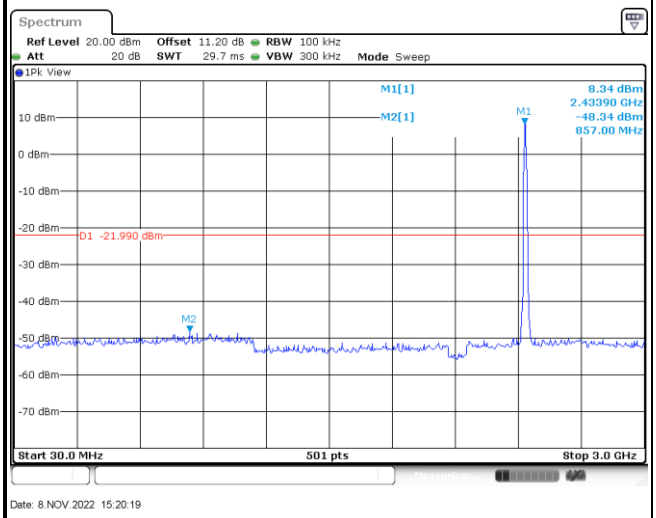
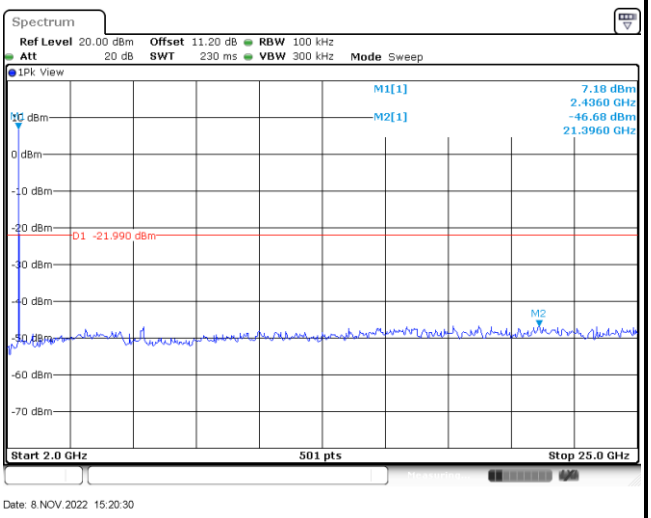


Spurious Emission 2GHz~25GHz

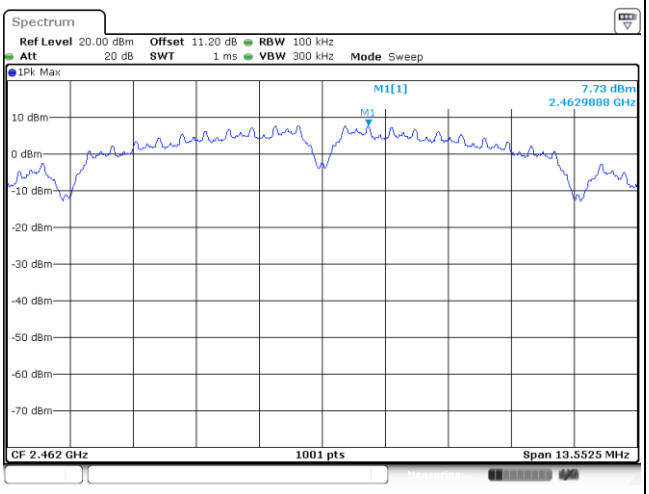
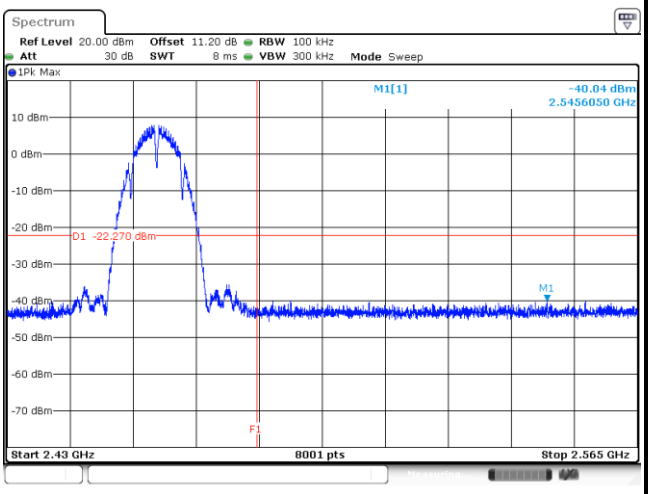
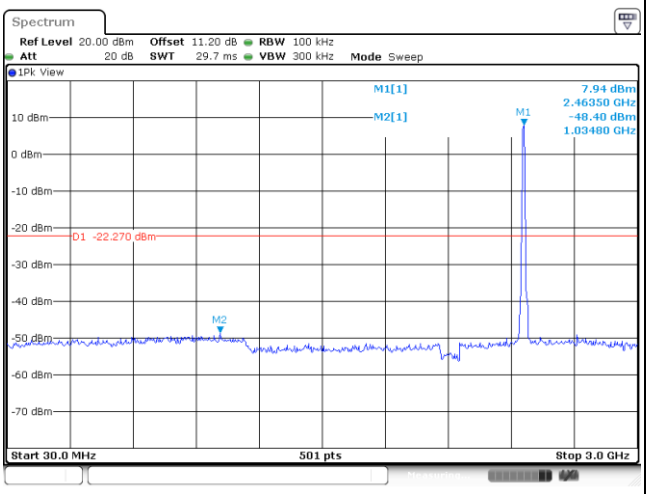
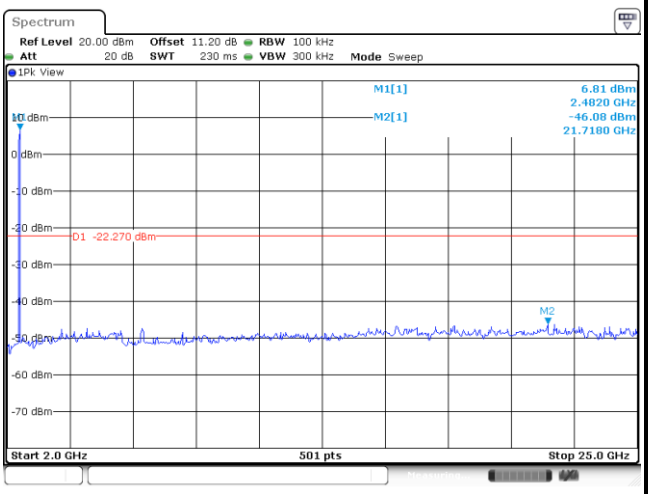


Test Mode :	802.11b	Test Channel :	06

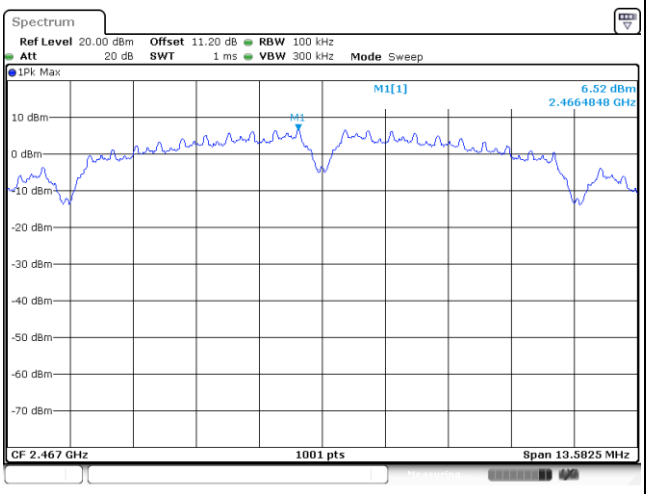
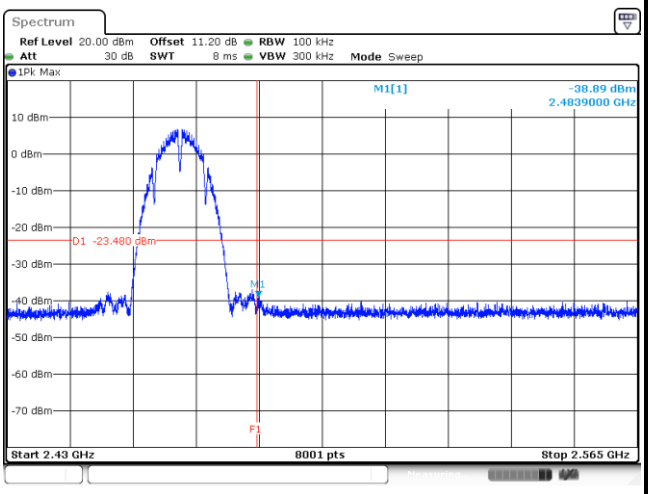
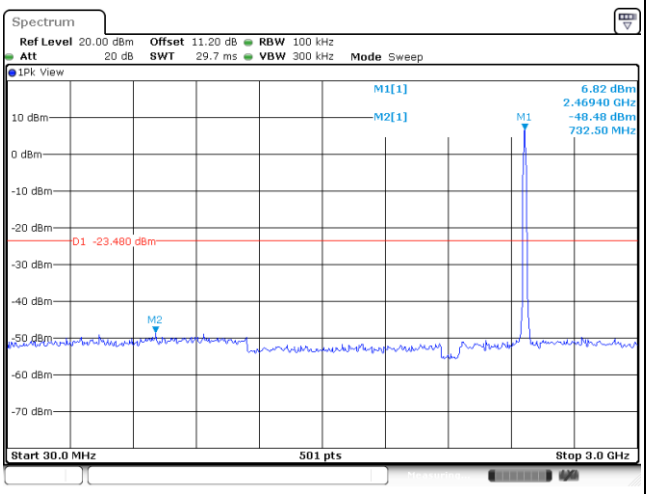
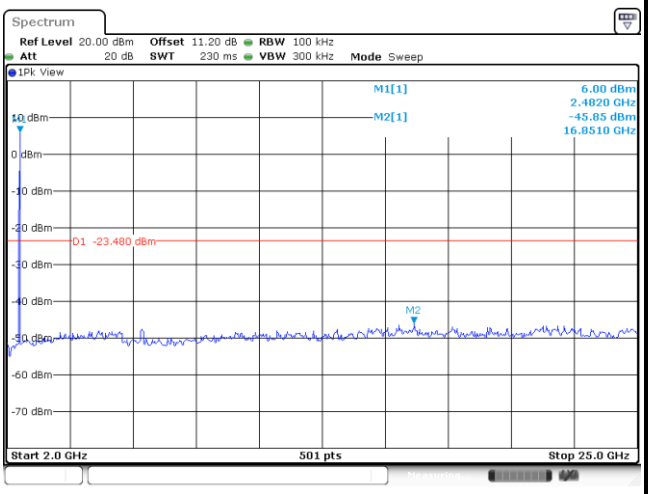
100kHz PSD reference Level	/
	/

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

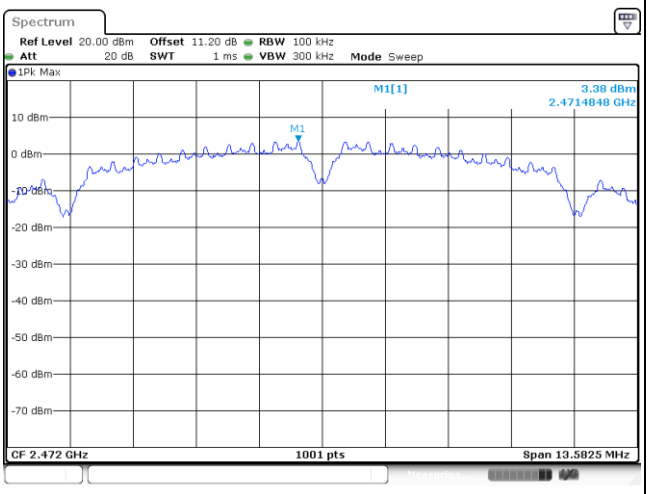
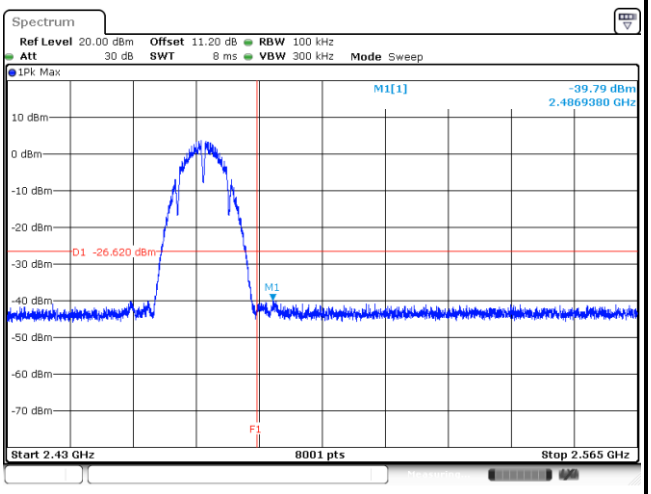
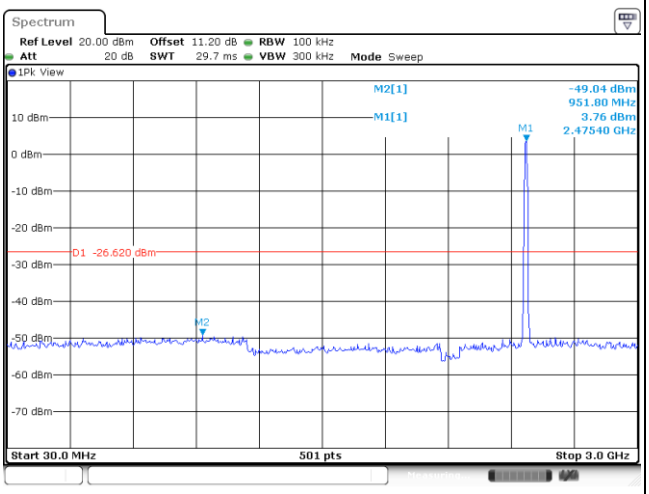
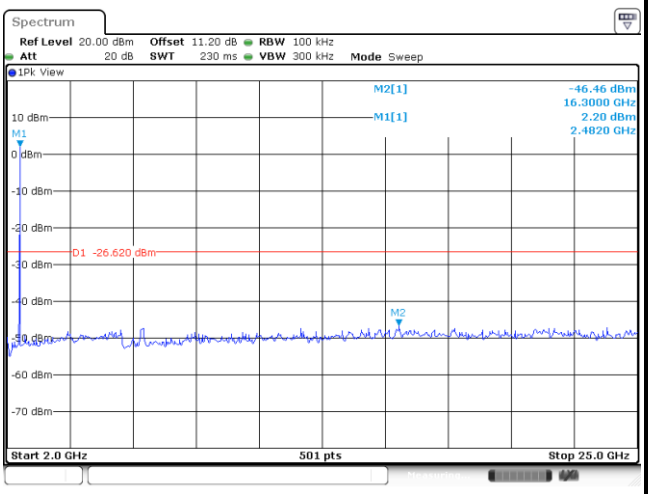
Test Mode :	802.11b	Test Channel :	11

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

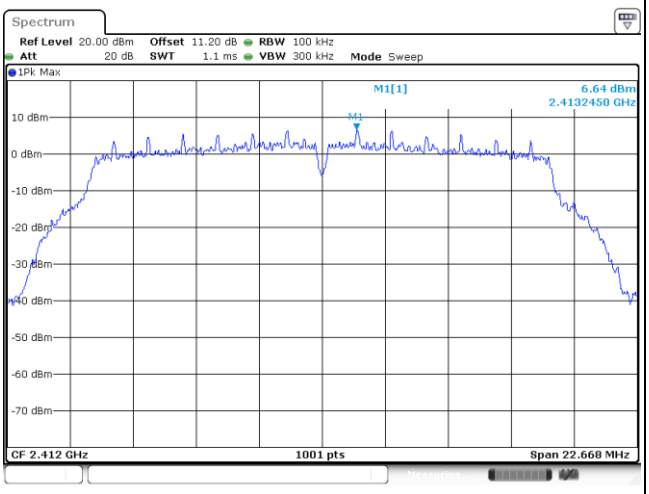
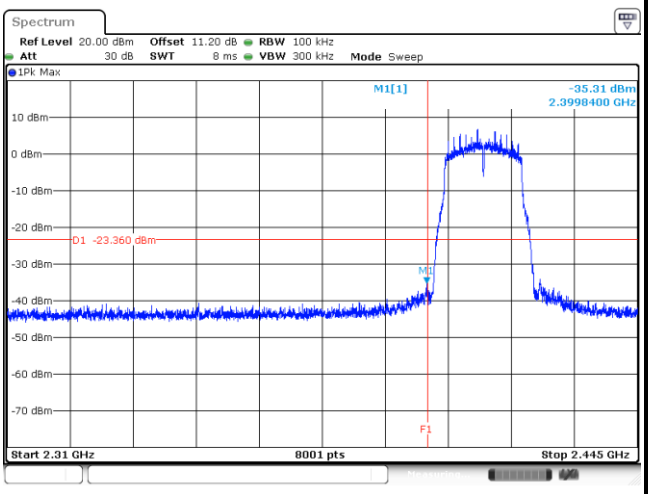
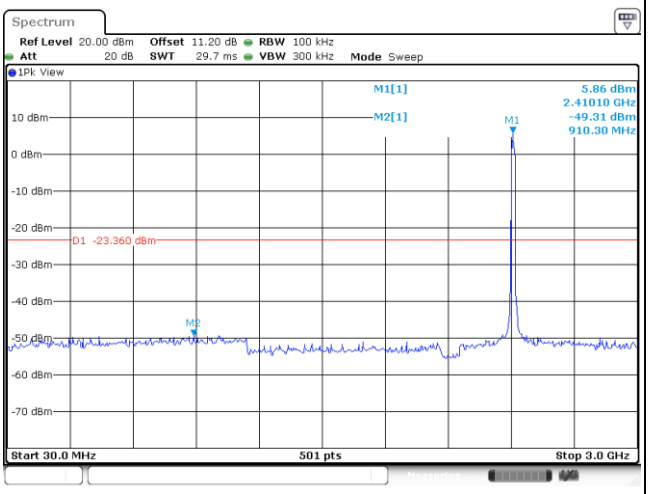
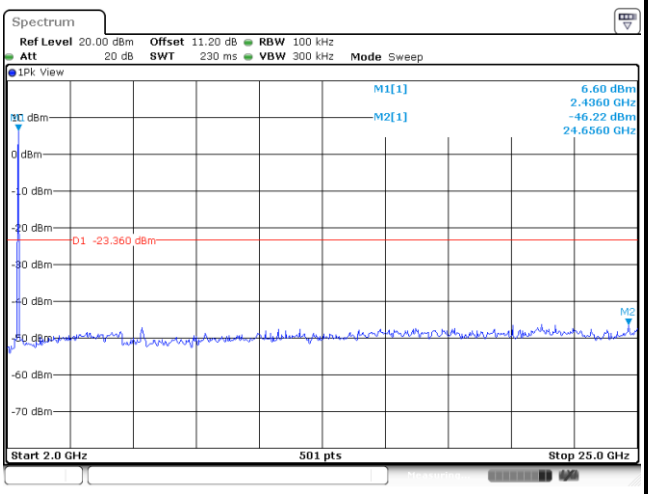
Test Mode :	802.11b	Test Channel :	12

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

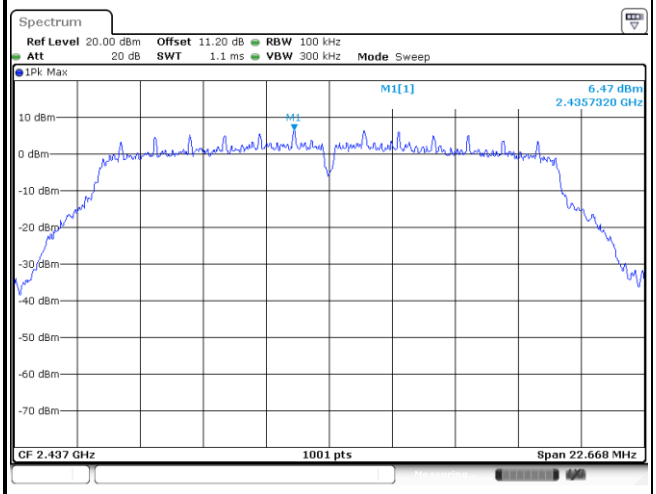
Test Mode :	802.11b	Test Channel :	13

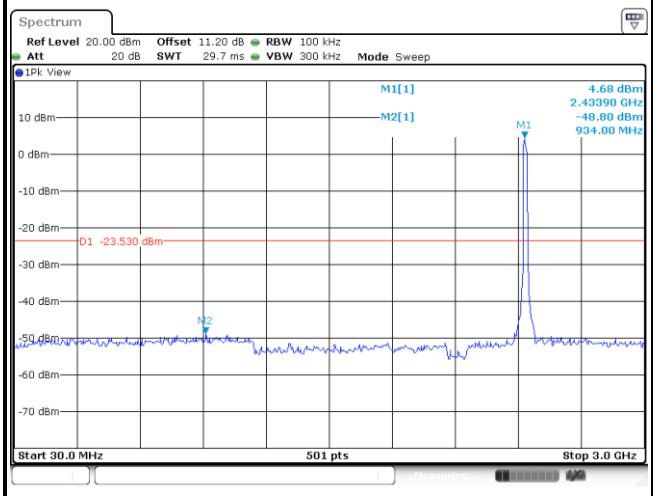
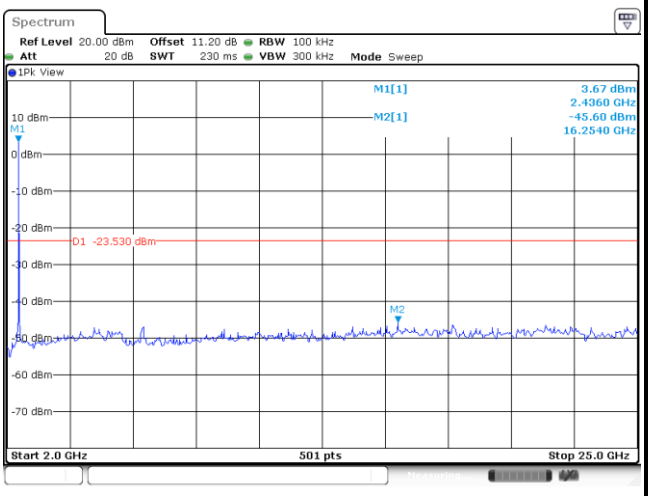
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11g	Test Channel :	01

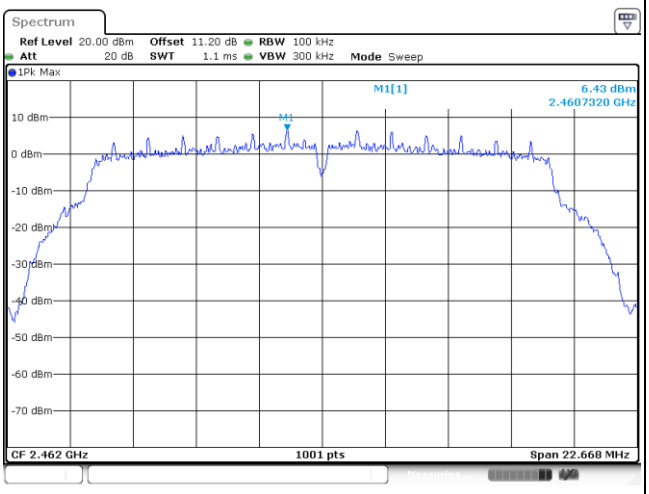
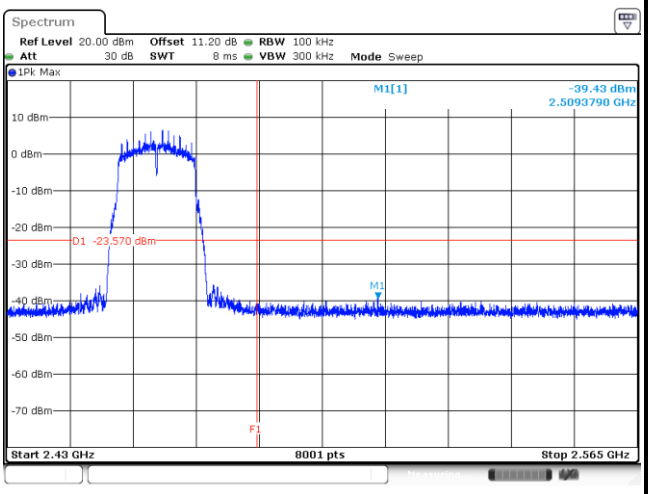
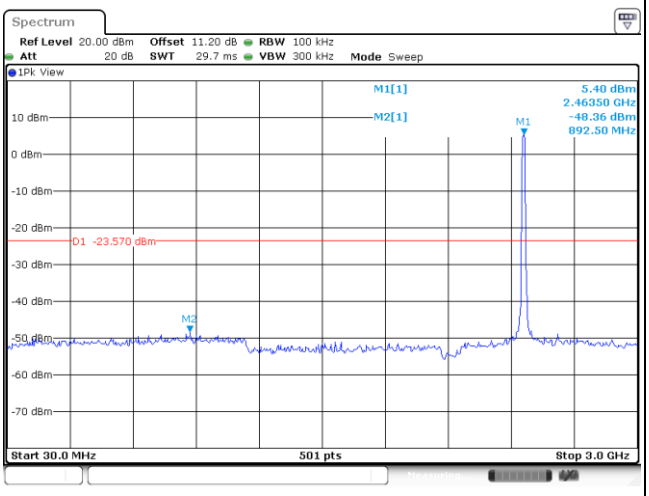
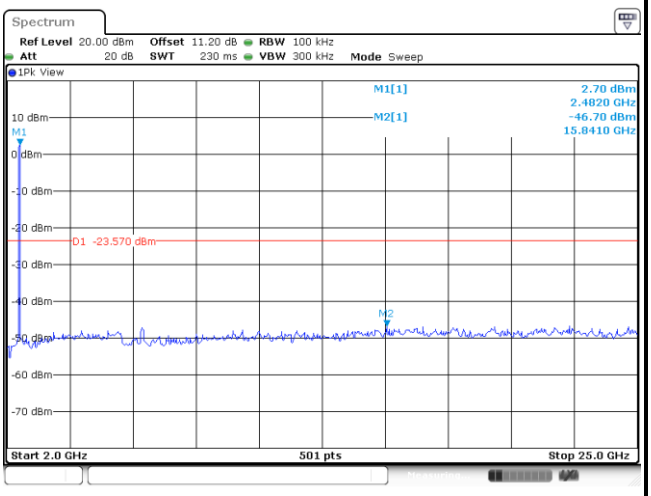
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11g	Test Channel :	06

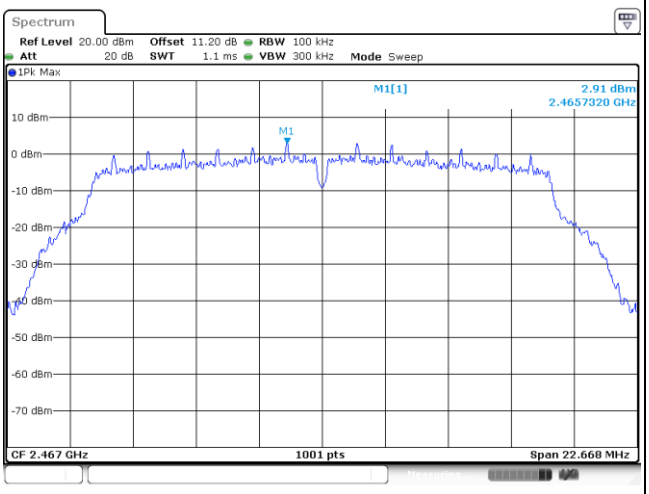
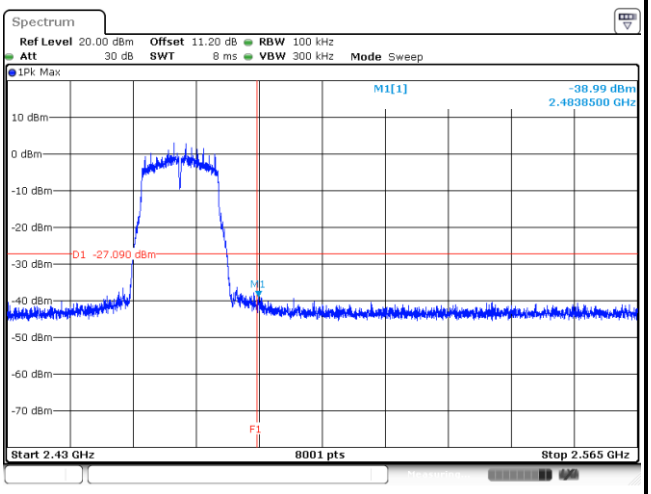
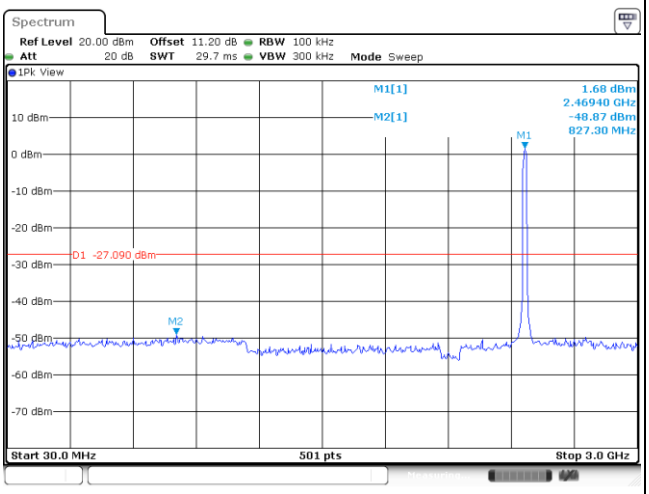
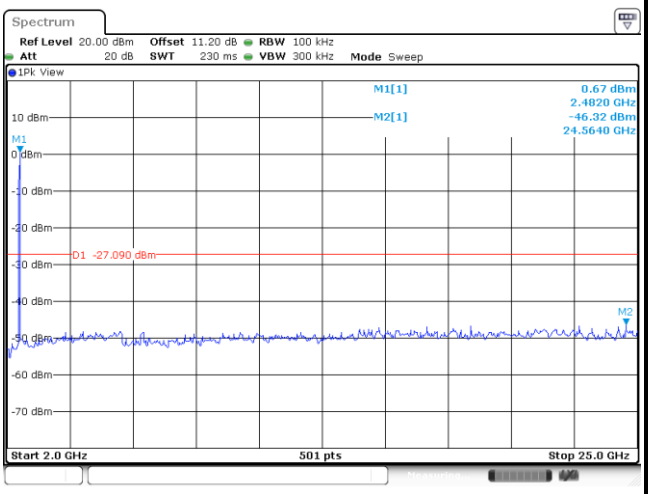
100kHz PSD reference Level	/
	/

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

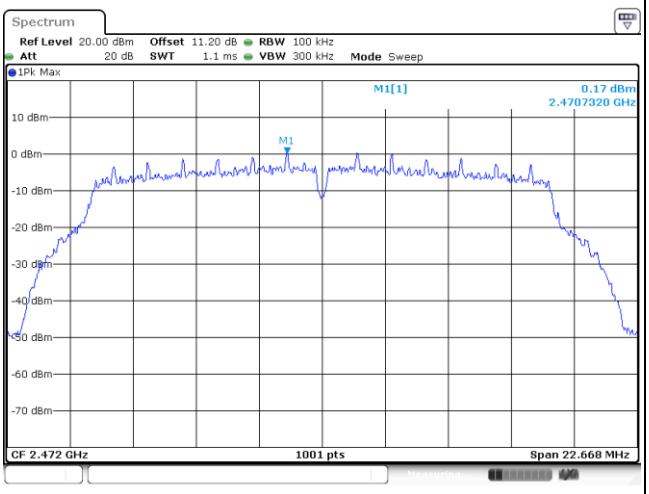
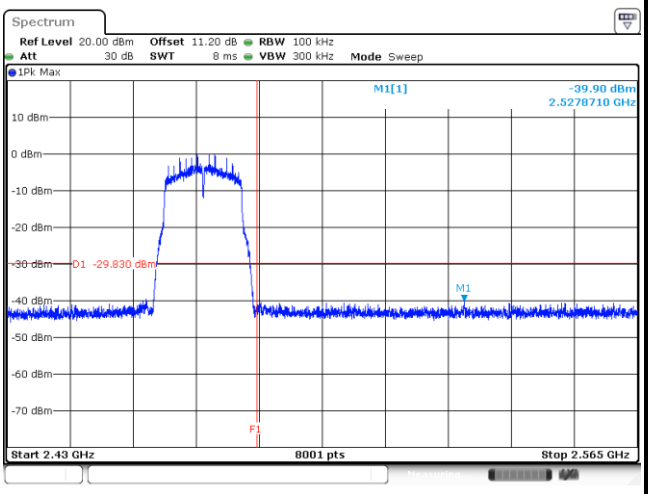
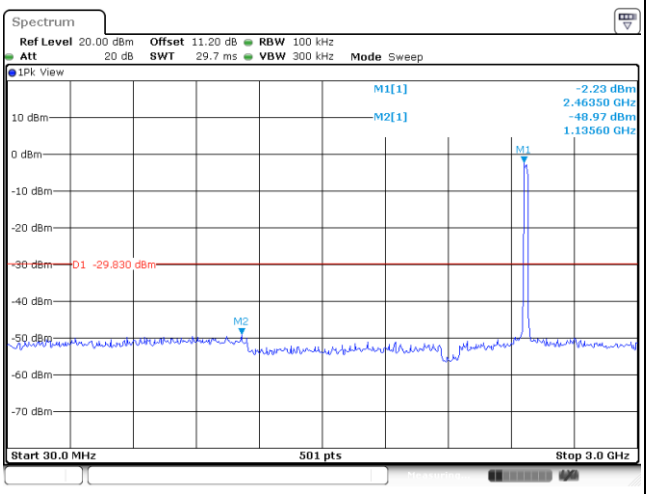
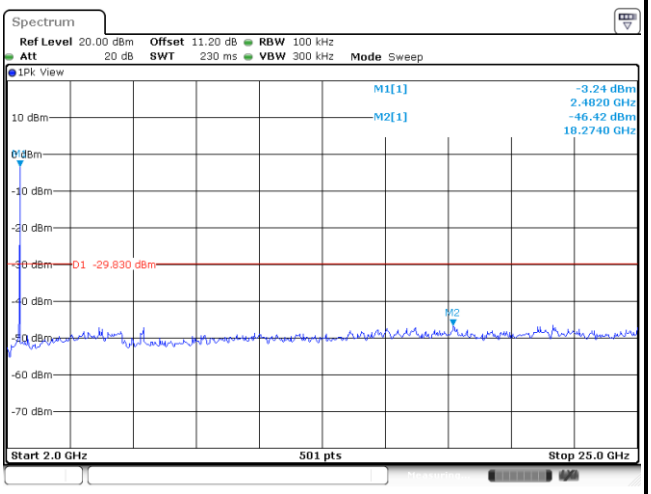
Test Mode :	802.11g	Test Channel :	11

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

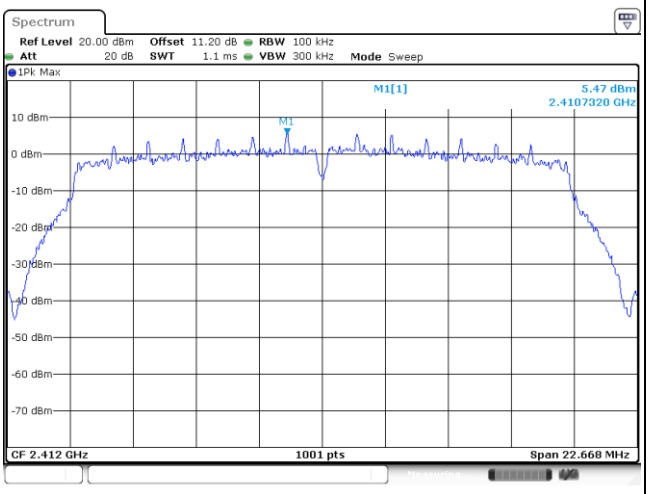
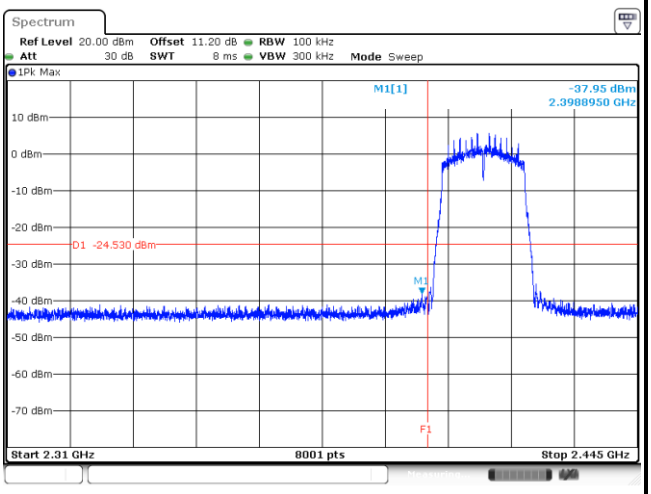
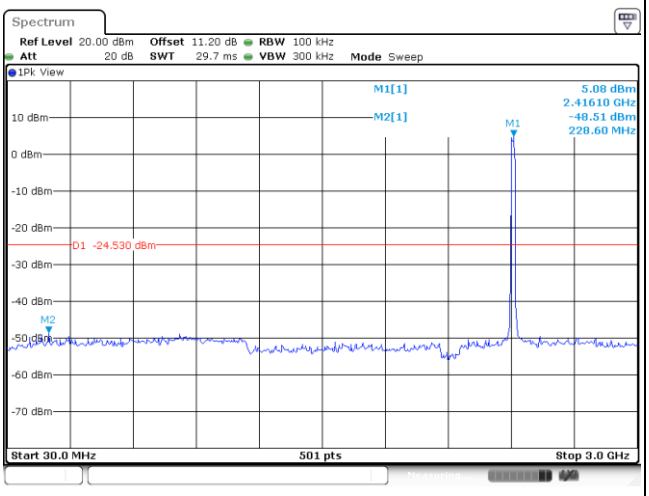
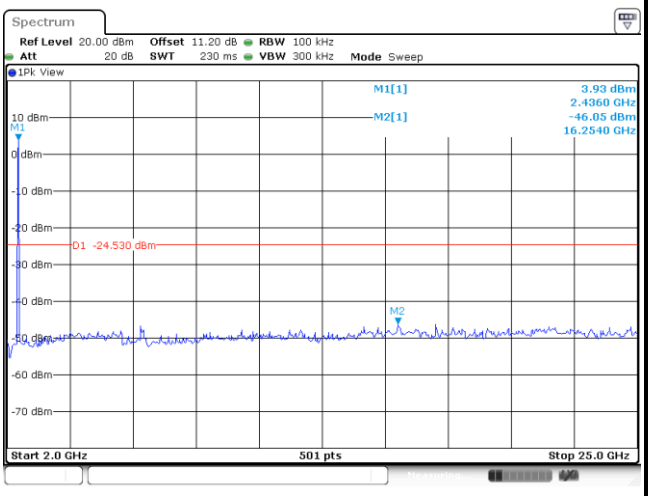
Test Mode :	802.11g	Test Channel :	12

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

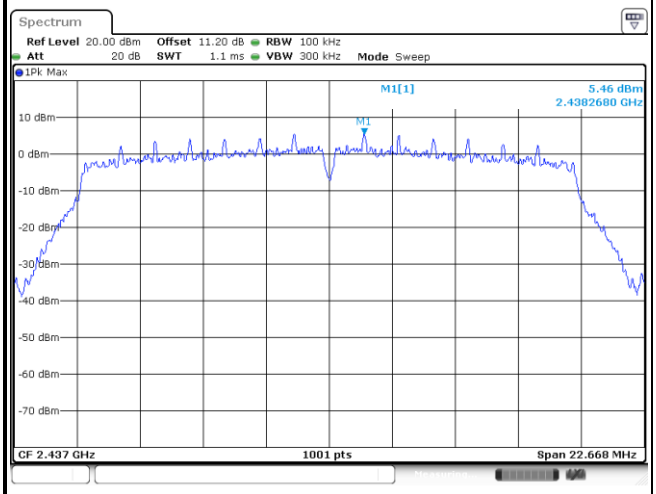
Test Mode :	802.11g	Test Channel :	13

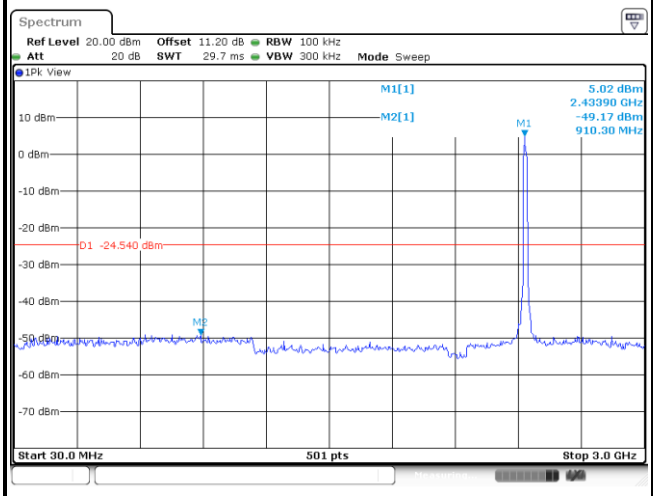
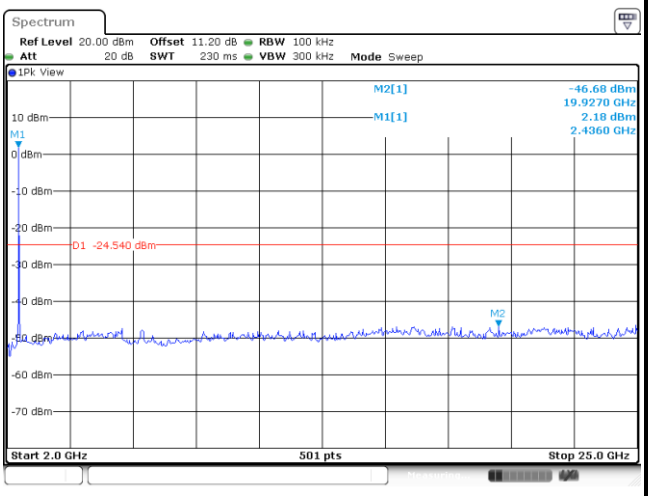
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT20	Test Channel :	01

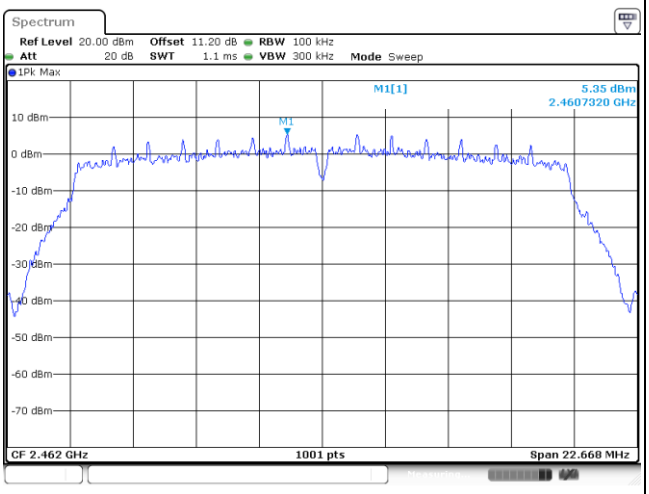
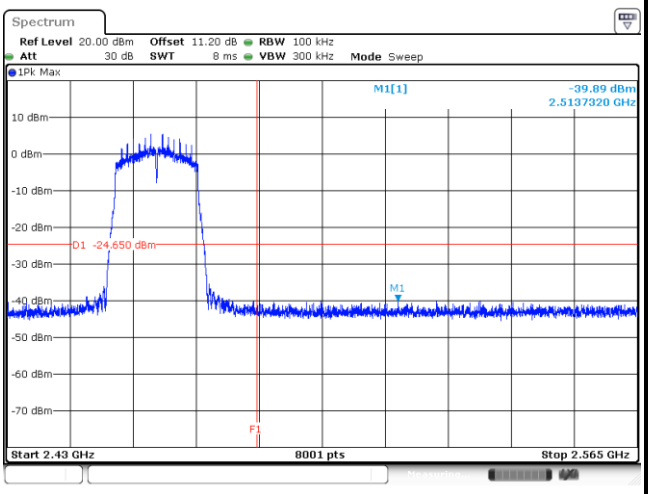
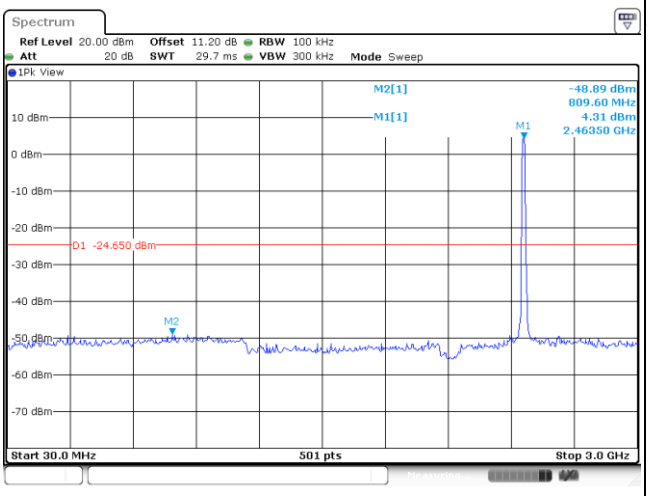
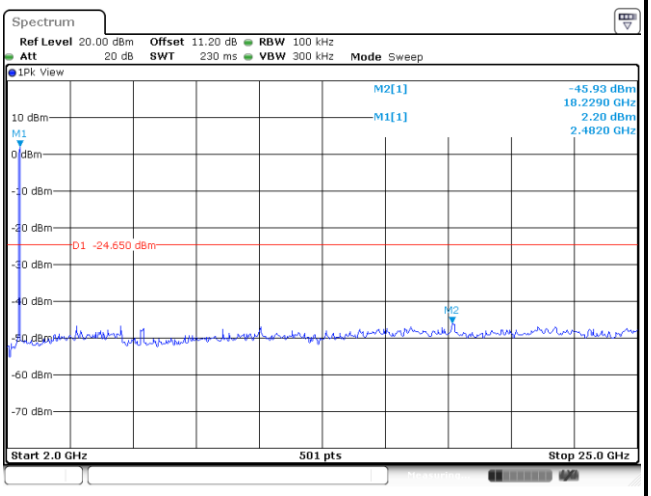
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11n HT20	Test Channel :	06

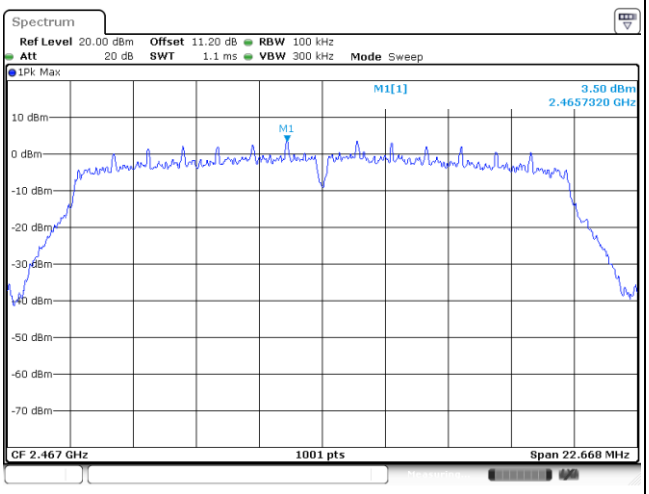
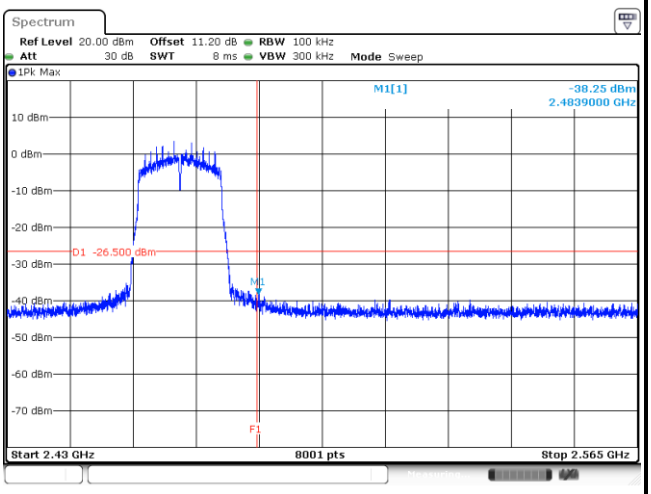
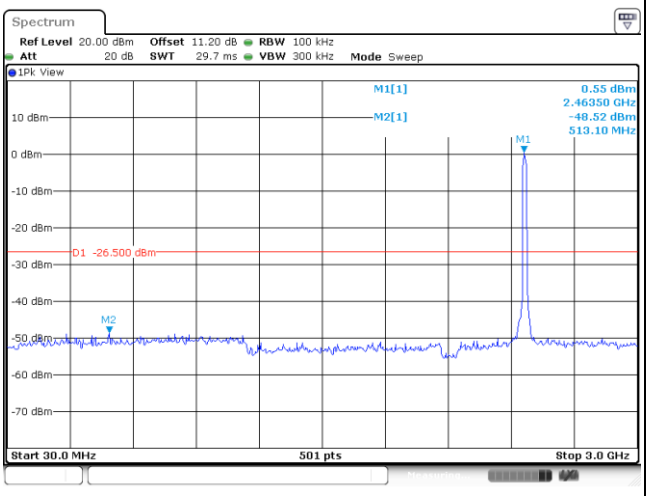
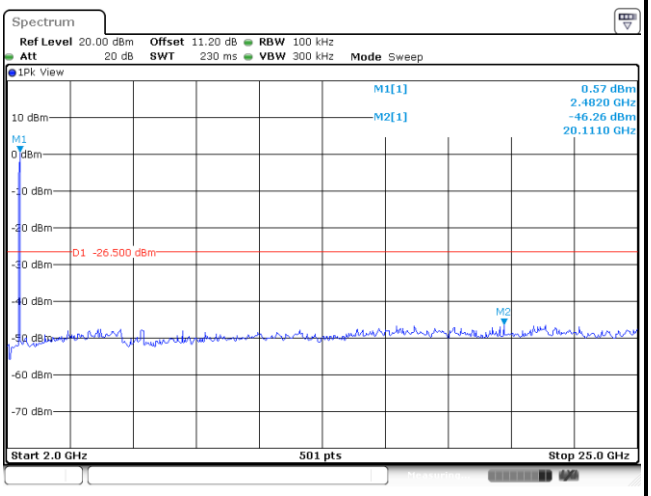
100kHz PSD reference Level	/
	/

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

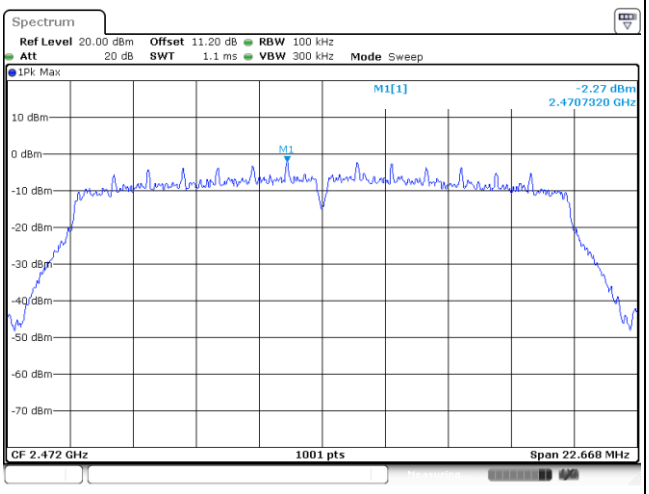
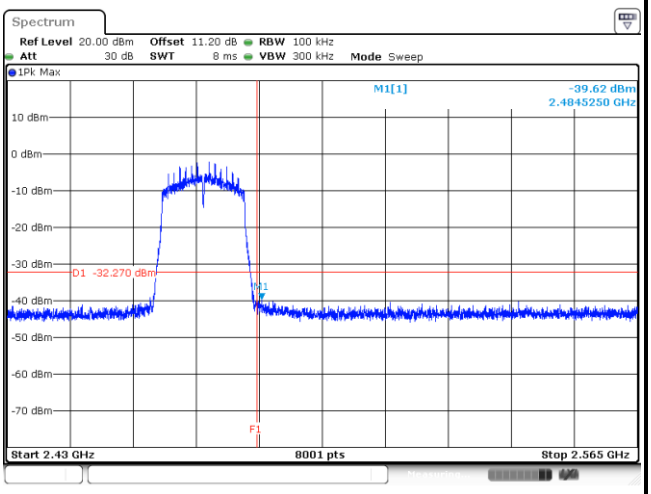
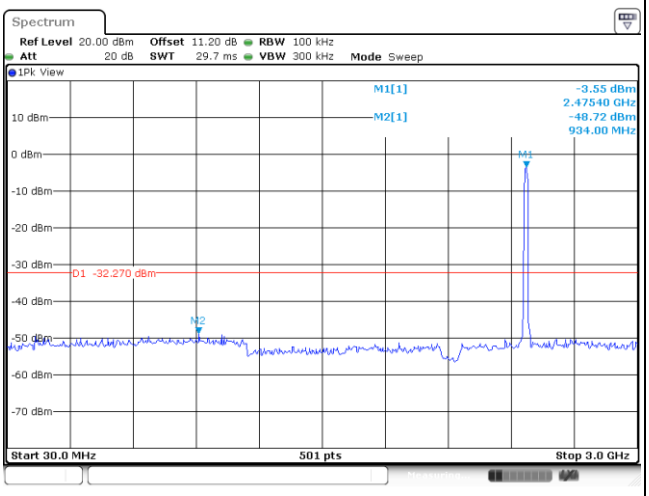
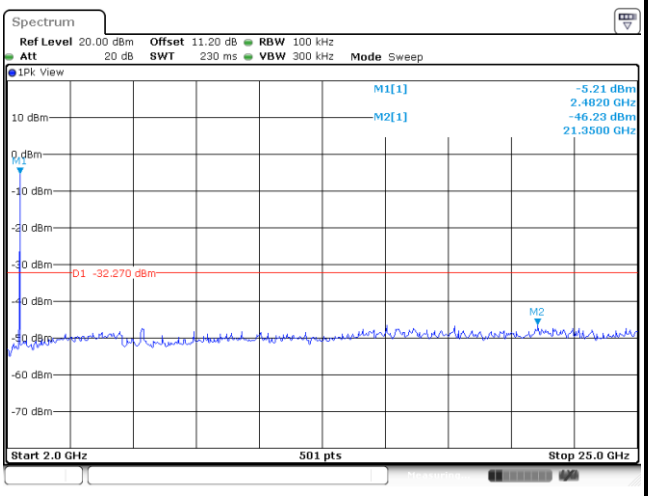
Test Mode :	802.11n HT20	Test Channel :	11

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

Test Mode :	802.11n HT20	Test Channel :	12

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

Test Mode :	802.11n HT20	Test Channel :	13

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

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device 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

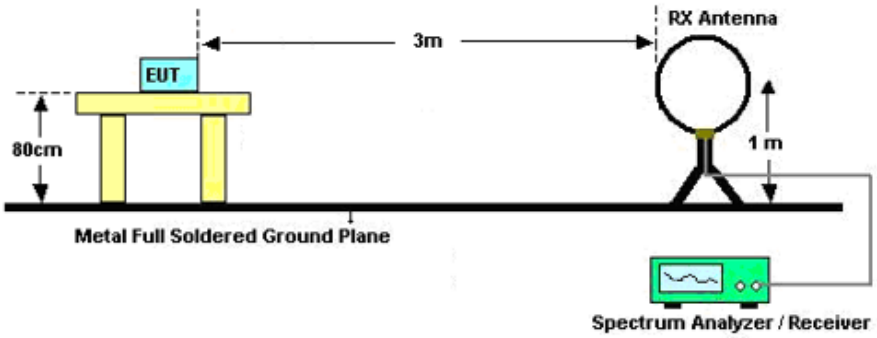
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

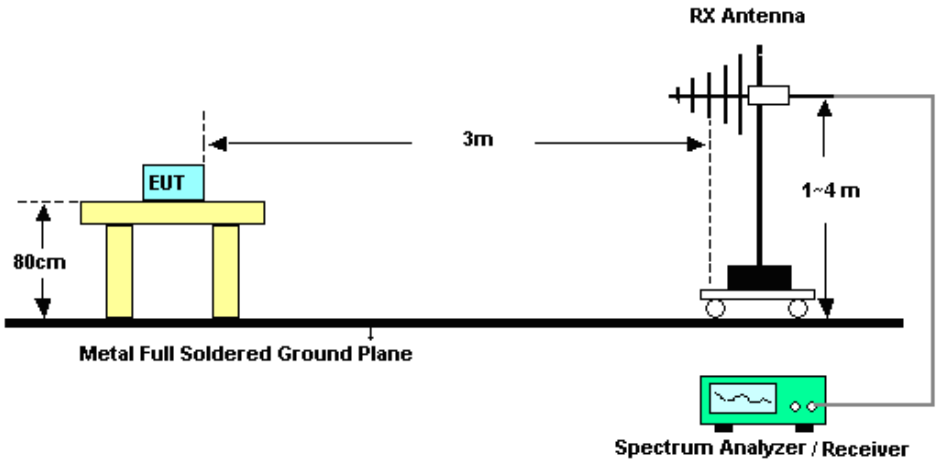
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz 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

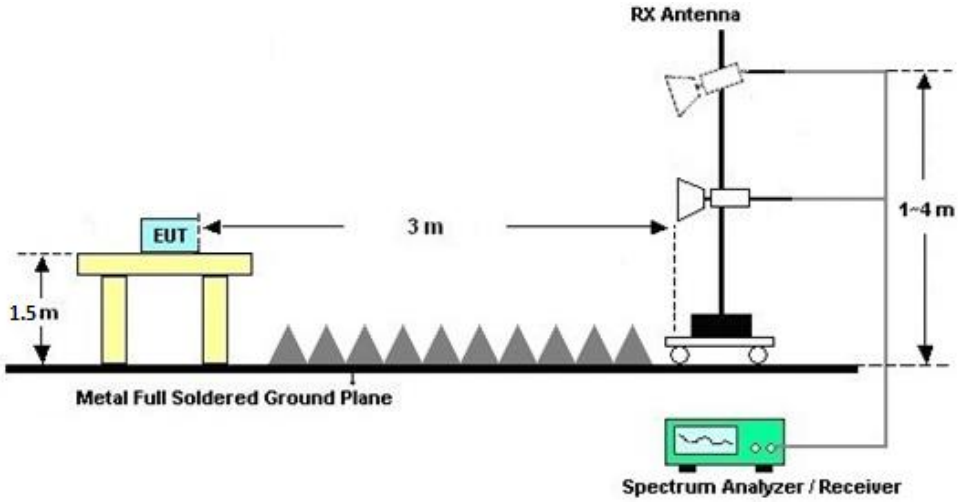
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

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

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C&D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix C&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.

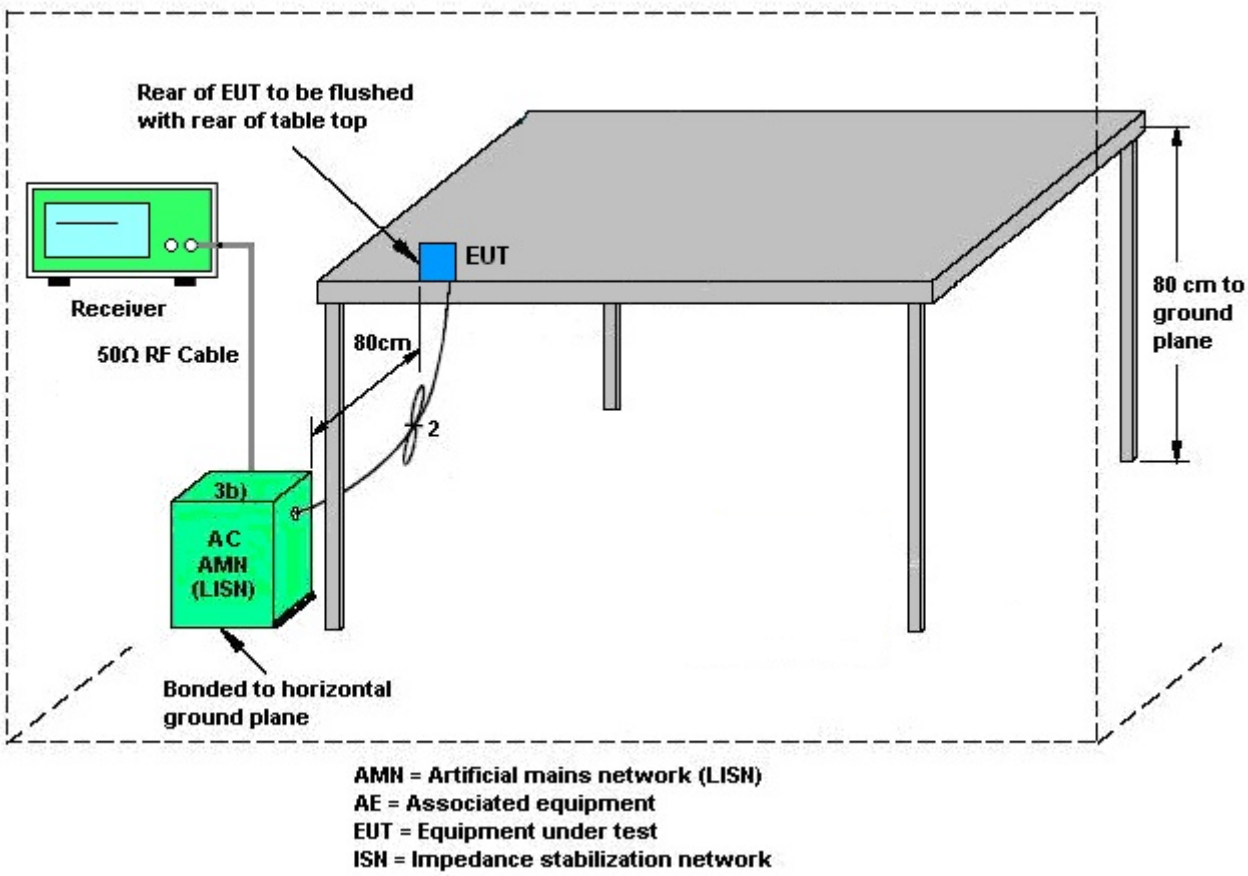
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 07, 2022	Nov. 08, 2022~ Nov. 17, 2022	Apr. 08, 2023	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 28, 2021	Nov. 08, 2022~ Nov. 17, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 28, 2021	Nov. 08, 2022~ Nov. 17, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 07, 2022	Sep. 29, 2022~ Nov. 16, 2022	Jul. 06, 2023	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Sep. 29, 2022~ Nov. 16, 2022	Jul. 27, 2024	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Sep. 28, 2021	Sep. 29, 2022~ Nov. 16, 2022	Sep. 27, 2023	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 07, 2022	Sep. 29, 2022~ Nov. 16, 2022	Jul. 06, 2023	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 07, 2022	Sep. 29, 2022~ Nov. 16, 2022	Jul. 06, 2023	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 10, 2022	Sep. 29, 2022~ Nov. 16, 2022	Apr. 09, 2023	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 20, 2021	Sep. 29, 2022~ Nov. 16, 2022	Oct. 19, 2022	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 19, 2022		Oct. 18, 2023	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 20, 2021	Sep. 29, 2022~ Nov. 16, 2022	Oct. 19, 2022	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 19, 2022		Oct. 18, 2023	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 20, 2021	Sep. 29, 2022~ Nov. 16, 2022	Oct. 19, 2022	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 19, 2022		Oct. 18, 2023	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Nov. 11, 2021	Sep. 29, 2022~ Nov. 16, 2022	Nov. 10, 2022	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Nov. 10, 2022		Nov. 09, 2023	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Sep. 29, 2022~ Nov. 16, 2022	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Sep. 29, 2022~ Nov. 16, 2022	NCR	Radiation (03CH02-SZ)
EMI Receiver	R&S	ESR7	102297	9kHz~7GHz;	Jul. 06, 2022	Dec. 03, 2022	Jul. 05, 2023	Conduction (CO02-SZ)
AC LISN	R&S	ENV216	101499	9kHz~30MHz	Jul. 06, 2022	Dec. 03, 2022	Jul. 05, 2023	Conduction (CO02-SZ)
AC Power Source	CHROMA	61601	616010002470	100Vac~250Vac	NCR	Dec. 03, 2022	NCR	Conduction (CO02-SZ)

NCR: No Calibration Required

5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±1.34 dB
Conducted Emissions	±1.34 dB
Occupied Channel Bandwidth	±0.13 %
Conducted Power Spectral Density	±1.32 dB

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1dB

---------- THE END ----------

Appendix A. Conducted Test Results

Test Engineer:	Liu Qiu Qiu	Temperature:	21~25	°C
Test Date:	2022/11/8~2022/11/17	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band								
Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 1		
11b	1Mbps	1	1	2412	13.69	9.06	0.50	Pass
11b	1Mbps	1	6	2437	13.69	9.06	0.50	Pass
11b	1Mbps	1	11	2462	13.69	9.04	0.50	Pass
11b	1Mbps	1	12	2467	13.69	9.06	0.50	Pass
11b	1Mbps	1	13	2472	13.59	9.06	0.50	Pass
11g	6Mbps	1	1	2412	17.63	15.11	0.50	Pass
11g	6Mbps	1	6	2437	17.68	15.11	0.50	Pass
11g	6Mbps	1	11	2462	17.68	15.11	0.50	Pass
11g	6Mbps	1	12	2467	17.63	15.11	0.50	Pass
11g	6Mbps	1	13	2472	17.58	15.11	0.50	Pass
HT20	MCS0	1	1	2412	18.23	15.11	0.50	Pass
HT20	MCS0	1	6	2437	18.28	15.11	0.50	Pass
HT20	MCS0	1	11	2462	18.28	15.11	0.50	Pass
HT20	MCS0	1	12	2467	18.28	15.11	0.50	Pass
HT20	MCS0	1	13	2472	18.18	15.11	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 1	Ant 1	Ant 1	Ant 1	
11b	1Mbps	1	1	2412	18.40	30.00	4.00	22.40	36.00	Pass
11b	1Mbps	1	6	2437	18.60	30.00	4.00	22.60	36.00	Pass
11b	1Mbps	1	11	2462	18.30	30.00	4.00	22.30	36.00	Pass
11b	1Mbps	1	12	2467	17.40	30.00	4.00	21.40	36.00	Pass
11b	1Mbps	1	13	2472	14.20	30.00	4.00	18.20	36.00	Pass
11g	6Mbps	1	1	2412	17.70	30.00	4.00	21.70	36.00	Pass
11g	6Mbps	1	6	2437	17.60	30.00	4.00	21.60	36.00	Pass
11g	6Mbps	1	11	2462	17.50	30.00	4.00	21.50	36.00	Pass
11g	6Mbps	1	12	2467	13.90	30.00	4.00	17.90	36.00	Pass
11g	6Mbps	1	13	2472	11.50	30.00	4.00	15.50	36.00	Pass
HT20	MCS0	1	1	2412	16.90	30.00	4.00	20.90	36.00	Pass
HT20	MCS0	1	6	2437	16.80	30.00	4.00	20.80	36.00	Pass
HT20	MCS0	1	11	2462	16.80	30.00	4.00	20.80	36.00	Pass
HT20	MCS0	1	12	2467	14.80	30.00	4.00	18.80	36.00	Pass
HT20	MCS0	1	13	2472	9.30	30.00	4.00	13.30	36.00	Pass

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

TEST RESULTS DATA
Peak Power Spectral Density

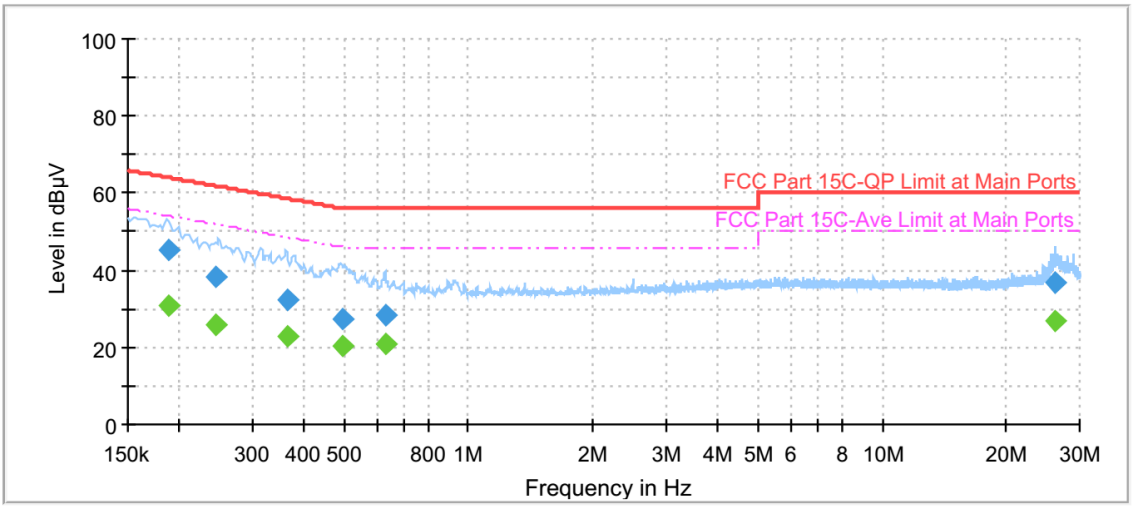
2.4GHz Band								
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)	DG (dBi)	Peak PSD Limit (dBm/3kHz)	Pass/Fail
					Ant 1	Ant 1	Ant 1	
11b	1Mbps	1	1	2412	-7.81	4.00	8.00	Pass
11b	1Mbps	1	6	2437	-8.28	4.00	8.00	Pass
11b	1Mbps	1	11	2462	-8.53	4.00	8.00	Pass
11b	1Mbps	1	12	2467	-8.34	4.00	8.00	Pass
11b	1Mbps	1	13	2472	-11.18	4.00	8.00	Pass
11g	6Mbps	1	1	2412	-9.06	4.00	8.00	Pass
11g	6Mbps	1	6	2437	-7.92	4.00	8.00	Pass
11g	6Mbps	1	11	2462	-8.98	4.00	8.00	Pass
11g	6Mbps	1	12	2467	-12.54	4.00	8.00	Pass
11g	6Mbps	1	13	2472	-14.54	4.00	8.00	Pass
HT20	MCS0	1	1	2412	-8.70	4.00	8.00	Pass
HT20	MCS0	1	6	2437	-8.47	4.00	8.00	Pass
HT20	MCS0	1	11	2462	-9.71	4.00	8.00	Pass
HT20	MCS0	1	12	2467	-12.74	4.00	8.00	Pass
HT20	MCS0	1	13	2472	-17.66	4.00	8.00	Pass

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

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tao Zhang	**Temperature :**	22~25℃
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

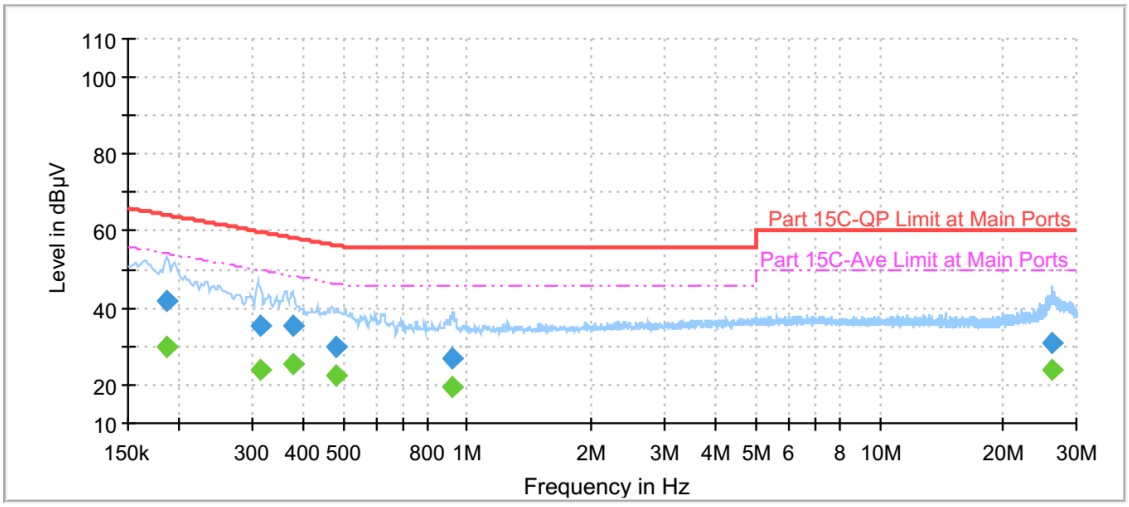
Full Spectrum



Frequency	QuasiPeak	Average	Limit	Margin	Line	Filter	Corr.
MHz	dBµV	dBµV	dBµV	dB			dB
0.187800	45.15	---	64.13	18.98	L1	OFF	19.7
0.187800	---	30.92	54.13	23.21	L1	OFF	19.7
0.245130	38.24	---	61.92	23.68	L1	OFF	19.7
0.245130	---	25.70	51.92	26.22	L1	OFF	19.7
0.365460	32.37	---	58.60	26.23	L1	OFF	19.7
0.365460	---	23.00	48.60	25.60	L1	OFF	19.7
0.494250	27.16	---	56.10	28.94	L1	OFF	19.7
0.494250	---	20.48	46.10	25.62	L1	OFF	19.7
0.629070	28.49	---	56.00	27.51	L1	OFF	19.8
0.629070	---	20.97	46.00	25.03	L1	OFF	19.8
26.232000	36.92	---	60.00	23.08	L1	OFF	20.5
26.232000	---	26.87	50.00	23.13	L1	OFF	20.5

Test Engineer :	Tao Zhang	Temperature :	22~25℃
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

Full Spectrum



Frequency	QuasiPeak	Average	Limit	Margin	Line	Filter	Corr.
MHz	dBµV	dBµV	dBµV	dB			dB
0.186990	41.84	---	64.17	22.33	N	OFF	19.7
0.186990	---	29.69	54.17	24.48	N	OFF	19.7
0.314250	35.26	---	59.86	24.60	N	OFF	19.7
0.314250	---	23.70	49.86	26.15	N	OFF	19.7
0.375900	35.18	---	58.37	23.19	N	OFF	19.7
0.375900	---	25.20	48.37	23.17	N	OFF	19.7
0.480390	29.78	---	56.33	26.56	N	OFF	19.7
0.480390	---	22.45	46.33	23.89	N	OFF	19.7
0.919500	26.81	---	56.00	29.19	N	OFF	19.7
0.919500	---	19.41	46.00	26.59	N	OFF	19.7
26.225250	30.84	---	60.00	29.16	N	OFF	20.5
26.225250	---	23.81	50.00	26.19	N	OFF	20.5

Appendix C. Radiated Spurious Emission

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2387.805	54.28	-19.72	74	47.21	32.36	6.44	31.73	120	118	P	H
		2385.18	43.71	-10.29	54	36.65	32.35	6.44	31.73	120	118	A	H
	*	2412	110.09	-	-	102.95	32.37	6.44	31.67	120	118	P	H
	*	2412	106.28	-	-	99.14	32.37	6.44	31.67	120	118	A	H
		2383.71	53.28	-20.72	74	46.35	32.35	6.37	31.79	252	194	P	V
		2385.285	42.88	-11.12	54	35.82	32.35	6.44	31.73	252	194	A	V
	*	2412	108.19	-	-	101.05	32.37	6.44	31.67	252	194	P	V
	*	2412	104.42	-	-	97.28	32.37	6.44	31.67	252	194	A	V
802.11b CH 06 2437MHz		2387.56	53.05	-20.95	74	45.98	32.36	6.44	31.73	115	115	P	H
		2385.18	42.63	-11.37	54	35.57	32.35	6.44	31.73	115	115	A	H
	*	2437	109.83	-	-	102.64	32.38	6.48	31.67	115	115	P	H
	*	2437	106.09	-	-	98.9	32.38	6.48	31.67	115	115	A	H
		2490.27	52.84	-21.16	74	45.41	32.4	6.53	31.5	115	115	P	H
		2488.73	42.91	-11.09	54	35.54	32.4	6.53	31.56	115	115	A	H
		2361.1	53.2	-20.8	74	46.28	32.34	6.37	31.79	286	190	P	V
		2385.18	42.14	-11.86	54	35.08	32.35	6.44	31.73	286	190	A	V
	*	2436	108.14	-	-	100.96	32.37	6.48	31.67	286	190	P	V
	*	2437	104.41	-	-	97.22	32.38	6.48	31.67	286	190	A	V
		2487.89	53.39	-20.61	74	46.02	32.4	6.53	31.56	286	190	P	V
		2489.15	42.45	-11.55	54	35.02	32.4	6.53	31.5	286	190	A	V

802.11b CH 11 2462MHz	*	2462	109.77	-	-	102.52	32.39	6.48	31.62	100	115	P	H
	*	2462	106.01	-	-	98.76	32.39	6.48	31.62	100	115	A	H
		2490.36	54.6	-19.4	74	47.17	32.4	6.53	31.5	100	115	P	H
		2491	44.15	-9.85	54	36.72	32.4	6.53	31.5	100	115	A	H
	*	2462	108.31	-	-	101.06	32.39	6.48	31.62	277	193	P	V
	*	2462	104.52	-	-	97.27	32.39	6.48	31.62	277	193	A	V
		2491.08	53.86	-20.14	74	46.43	32.4	6.53	31.5	277	193	P	V
		2490.76	43.37	-10.63	54	35.94	32.4	6.53	31.5	277	193	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 12 2467MHz	*	2467	109.19	-	-	101.83	32.39	6.53	31.56	134	123	P	H
	*	2467	105.33	-	-	97.97	32.39	6.53	31.56	134	123	A	H
		2483.6	59.04	-14.96	74	51.68	32.39	6.53	31.56	134	123	P	H
		2483.96	50.52	-3.48	54	43.16	32.39	6.53	31.56	134	123	A	H
	*	2467	104.62	-	-	97.26	32.39	6.53	31.56	135	344	P	V
	*	2467	100.81	-	-	93.45	32.39	6.53	31.56	135	344	A	V
		2484.16	56.58	-17.42	74	49.22	32.39	6.53	31.56	135	344	P	V
		2483.92	48.61	-5.39	54	41.25	32.39	6.53	31.56	135	344	A	V
802.11b CH 13 2472MHz	*	2472	105.2	-	-	97.84	32.39	6.53	31.56	132	120	P	H
	*	2472	101.34	-	-	93.98	32.39	6.53	31.56	132	120	A	H
		2487.56	57.45	-16.55	74	50.08	32.4	6.53	31.56	132	120	P	H
		2487.28	50.72	-3.28	54	43.36	32.39	6.53	31.56	132	120	A	H
	*	2472	103.26	-	-	95.9	32.39	6.53	31.56	310	192	P	V
	*	2472	99.72	-	-	92.36	32.39	6.53	31.56	310	192	A	V
		2484.28	56.17	-17.83	74	48.81	32.39	6.53	31.56	310	192	P	V
		2487.28	48.99	-5.01	54	41.63	32.39	6.53	31.56	310	192	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	43.45	-30.55	74	57.48	34.4	9.47	57.9	-	-	P	H
		6432	47.48	-26.52	74	59	35.76	10.76	58.04	-	-	P	H
		4824	47.3	-26.7	74	61.33	34.4	9.47	57.9	-	-	P	V
		6432	47.15	-26.85	74	58.67	35.76	10.76	58.04	-	-	P	V
802.11b CH 06 2437MHz		4874	43.42	-30.58	74	57.59	33.73	10	57.9	-	-	P	H
		7311	46.36	-27.64	74	57.78	35.72	12.33	59.47	-	-	P	H
		4874	46.6	-27.4	74	60.77	33.73	10	57.9	-	-	P	V
		7311	46.57	-27.43	74	57.99	35.72	12.33	59.47	-	-	P	V
802.11b CH 11 2462MHz		4924	44.73	-29.27	74	58.73	34.34	9.56	57.9	-	-	P	H
		6564	47.42	-26.58	74	59	35.85	10.81	58.24	-	-	P	H
		7386	44.71	-29.29	74	57.12	35.98	11.32	59.71	-	-	P	H
		4924	46.6	-27.4	74	60.6	34.34	9.56	57.9	-	-	P	V
		6564	47.86	-26.14	74	59.44	35.85	10.81	58.24	-	-	P	V
		7386	44.15	-29.85	74	56.56	35.98	11.32	59.71	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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 12 2467MHz		4934	45.04	-28.96	74	59.04	34.34	9.56	57.9	-	-	P	H
		6576	47.42	-26.58	74	59	35.87	10.81	58.26	-	-	P	H
		7401	45.26	-28.74	74	57.73	35.97	11.32	59.76	-	-	P	H
		4934	45.69	-28.31	74	59.69	34.34	9.56	57.9	-	-	P	V
		6576	48.78	-25.22	74	60.36	35.87	10.81	58.26	-	-	P	V
		7401	44.88	-29.12	74	57.35	35.97	11.32	59.76	-	-	P	V
802.11b CH 13 2472MHz		4944	43.91	-30.09	74	57.92	34.33	9.56	57.9	-	-	P	H
		6594	46.94	-27.06	74	58.51	35.89	10.81	58.27	-	-	P	H
		7416	44.16	-29.84	74	56.66	35.97	11.29	59.76	-	-	P	H
		4944	43.63	-30.37	74	57.64	34.33	9.56	57.9	-	-	P	V
		6594	48.3	-25.7	74	59.87	35.89	10.81	58.27	-	-	P	V
		7416	44.47	-29.53	74	56.97	35.97	11.29	59.76	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		2389.905	58.35	-15.65	74	51.28	32.36	6.44	31.73	121	117	P	H
		2390	46.81	-7.19	54	39.74	32.36	6.44	31.73	121	117	A	H
	*	2412	111.68	-	-	104.54	32.37	6.44	31.67	121	117	P	H
	*	2412	101.97	-	-	94.83	32.37	6.44	31.67	121	117	A	H
		2388.12	55.79	-18.21	74	48.72	32.36	6.44	31.73	253	192	P	V
		2390	44.85	-9.15	54	37.78	32.36	6.44	31.73	253	192	A	V
	*	2412	109.53	-	-	102.39	32.37	6.44	31.67	253	192	P	V
	*	2412	99.7	-	-	92.56	32.37	6.44	31.67	253	192	A	V
802.11g CH 06 2437MHz		2386.44	54.88	-19.12	74	47.81	32.36	6.44	31.73	113	114	P	H
		2389.66	45.05	-8.95	54	37.98	32.36	6.44	31.73	113	114	A	H
	*	2437	112.01	-	-	104.82	32.38	6.48	31.67	113	114	P	H
	*	2437	102.24	-	-	95.05	32.38	6.48	31.67	113	114	A	H
		2485.3	54.88	-19.12	74	47.52	32.39	6.53	31.56	113	114	P	H
		2483.55	45.16	-8.84	54	37.8	32.39	6.53	31.56	113	114	A	H
		2381.54	53.98	-20.02	74	47.05	32.35	6.37	31.79	285	197	P	V
		2389.94	44.16	-9.84	54	37.09	32.36	6.44	31.73	285	197	A	V
	*	2437	109.73	-	-	102.54	32.38	6.48	31.67	285	197	P	V
	*	2437	100.49	-	-	93.3	32.38	6.48	31.67	285	197	A	V
		2491.04	54.94	-19.06	74	47.51	32.4	6.53	31.5	285	197	P	V
		2483.5	43.89	-10.11	54	36.53	32.39	6.53	31.56	285	197	A	V

802.11g CH 11 2462MHz	*	2462	111.2	-	-	103.95	32.39	6.48	31.62	100	114	P	H
	*	2462	101.64	-	-	94.39	32.39	6.48	31.62	100	114	A	H
		2483.8	61.98	-12.02	74	54.62	32.39	6.53	31.56	100	114	P	H
		2483.76	47.63	-6.37	54	40.27	32.39	6.53	31.56	100	114	A	H
	*	2462	109.8	-	-	102.55	32.39	6.48	31.62	279	193	P	V
	*	2462	99.87	-	-	92.62	32.39	6.48	31.62	279	193	A	V
		2483.6	58.46	-15.54	74	51.1	32.39	6.53	31.56	279	193	P	V
		2483.76	45.32	-8.68	54	37.96	32.39	6.53	31.56	279	193	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 12 2467MHz	*	2467	108.25	-	-	100.89	32.39	6.53	31.56	100	299	P	H
	*	2467	98.66	-	-	91.3	32.39	6.53	31.56	100	299	A	H
		2484.32	64.36	-9.64	74	57	32.39	6.53	31.56	100	299	P	H
		2483.52	50.65	-3.35	54	43.29	32.39	6.53	31.56	100	299	A	H
	*	2467	102.47	-	-	95.11	32.39	6.53	31.56	131	359	P	V
	*	2467	92.74	-	-	85.38	32.39	6.53	31.56	131	359	A	V
		2484.6	58.38	-15.62	74	51.02	32.39	6.53	31.56	131	359	P	V
		2483.52	46.5	-7.5	54	39.14	32.39	6.53	31.56	131	359	A	V
802.11g CH 13 2472MHz	*	2472	105.46	-	-	98.1	32.39	6.53	31.56	100	300	P	H
	*	2472	95.42	-	-	88.06	32.39	6.53	31.56	100	300	A	H
		2484.12	61.38	-12.62	74	54.02	32.39	6.53	31.56	100	300	P	H
		2484.2	50.68	-3.32	54	43.32	32.39	6.53	31.56	100	300	A	H
	*	2472	101.82	-	-	94.46	32.39	6.53	31.56	134	344	P	V
	*	2472	92.23	-	-	84.87	32.39	6.53	31.56	134	344	A	V
		2484.32	58.43	-15.57	74	51.07	32.39	6.53	31.56	134	344	P	V
		2484.16	47.9	-6.1	54	40.54	32.39	6.53	31.56	134	344	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	41.74	-32.26	74	55.77	34.4	9.47	57.9	-	-	P	H
		6432	46.69	-27.31	74	58.21	35.76	10.76	58.04	-	-	P	H
		4824	43.36	-30.64	74	57.39	34.4	9.47	57.9	-	-	P	V
		6432	47.59	-26.41	74	59.11	35.76	10.76	58.04	-	-	P	V
802.11g CH 06 2437MHz		4874	42.47	-31.53	74	56.5	34.37	9.5	57.9	-	-	P	H
		6498	49.71	-24.29	74	61.3	35.79	10.78	58.16	-	-	P	H
		7311	45.06	-28.94	74	57.24	36.05	11.24	59.47	-	-	P	H
		4874	42.82	-31.18	74	56.85	34.37	9.5	57.9	-	-	P	V
		6498	47.38	-26.62	74	58.97	35.79	10.78	58.16	-	-	P	V
		7311	44.18	-29.82	74	56.36	36.05	11.24	59.47	-	-	P	V
802.11g CH 11 2462MHz		4924	43.5	-30.5	74	57.5	34.34	9.56	57.9	-	-	P	H
		6564	46.35	-27.65	74	57.93	35.85	10.81	58.24	-	-	P	H
		7386	44.64	-29.36	74	57.05	35.98	11.32	59.71	-	-	P	H
		4924	44.22	-29.78	74	58.22	34.34	9.56	57.9	-	-	P	V
		6564	49.1	-24.9	74	60.68	35.85	10.81	58.24	-	-	P	V
		7386	44.89	-29.11	74	57.3	35.98	11.32	59.71	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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 12 2467MHz		4934	42.14	-31.86	74	56.14	34.34	9.56	57.9	-	-	P	H
		6576	47.99	-26.01	74	59.57	35.87	10.81	58.26	-	-	P	H
		7401	45.23	-28.77	74	57.7	35.97	11.32	59.76	-	-	P	H
		4934	42.51	-31.49	74	56.51	34.34	9.56	57.9	-	-	P	V
		6576	49.49	-24.51	74	61.07	35.87	10.81	58.26	-	-	P	V
		7401	45.39	-28.61	74	57.86	35.97	11.32	59.76	-	-	P	V
802.11g CH 13 2472MHz		4944	43.51	-30.49	74	57.52	34.33	9.56	57.9	-	-	P	H
		6594	46.96	-27.04	74	58.53	35.89	10.81	58.27	-	-	P	H
		7416	45.77	-28.23	74	58.27	35.97	11.29	59.76	-	-	P	H
		4944	43.5	-30.5	74	57.51	34.33	9.56	57.9	-	-	P	V
		6594	49.04	-24.96	74	60.61	35.89	10.81	58.27	-	-	P	V
		7416	44.92	-29.08	74	57.42	35.97	11.29	59.76	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
		2389.485	54.79	-19.21	74	48.4	31.7	6.94	32.25	167	327	P	H
		2390	43.45	-10.55	54	37.05	31.7	6.94	32.24	167	327	A	H
802.11n	*	2412	108.61	-	-	102.11	31.8	6.94	32.24	167	327	P	H
HT20	*	2412	97.92	-	-	91.42	31.8	6.94	32.24	167	327	A	H
CH 01		2375.205	53.36	-20.64	74	47.04	31.7	6.87	32.25	100	349	P	V
2412MHz		2388.96	43.36	-10.64	54	36.97	31.7	6.94	32.25	100	349	A	V
	*	2412	107.81	-	-	101.31	31.8	6.94	32.24	100	349	P	V
	*	2412	97.97	-	-	91.47	31.8	6.94	32.24	100	349	A	V
		2387.98	54.06	-19.94	74	46.99	32.36	6.44	31.73	110	117	P	H
		2389.94	43.9	-10.1	54	36.83	32.36	6.44	31.73	110	117	A	H
	*	2437	109.69	-	-	102.5	32.38	6.48	31.67	110	117	P	H
	*	2437	100.04	-	-	92.85	32.38	6.48	31.67	110	117	A	H
802.11n		2484.18	54.65	-19.35	74	47.29	32.39	6.53	31.56	110	117	P	H
HT20		2483.83	43.73	-10.27	54	36.37	32.39	6.53	31.56	110	117	A	H
CH 06		2363.06	52.66	-21.34	74	45.74	32.34	6.37	31.79	112	344	P	V
2437MHz		2389.94	42.52	-11.48	54	35.45	32.36	6.44	31.73	112	344	A	V
	*	2437	106.59	-	-	99.4	32.38	6.48	31.67	112	344	P	V
	*	2437	97.11	-	-	89.92	32.38	6.48	31.67	112	344	A	V
		2487.68	54.56	-19.44	74	47.19	32.4	6.53	31.56	112	344	P	V
		2483.83	42.7	-11.3	54	35.34	32.39	6.53	31.56	112	344	A	V

	*	2462	109.39	-	-	102.14	32.39	6.48	31.62	135	121	P	H
	*	2462	99.45	-	-	92.2	32.39	6.48	31.62	135	121	A	H
802.11n		2489.56	58	-16	74	50.57	32.4	6.53	31.5	135	121	P	H
HT20		2483.72	45.56	-8.44	54	38.2	32.39	6.53	31.56	135	121	A	H
CH 11	*	2462	107.17	-	-	99.92	32.39	6.48	31.62	100	344	P	V
2462MHz	*	2462	96.49	-	-	89.24	32.39	6.48	31.62	100	344	A	V
		2486.4	55.3	-18.7	74	47.94	32.39	6.53	31.56	100	344	P	V
		2483.96	43.92	-10.08	54	36.56	32.39	6.53	31.56	100	344	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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)
	*	2467	107.8	-	-	100.44	32.39	6.53	31.56	134	124	P	H
	*	2467	98.07	-	-	90.71	32.39	6.53	31.56	134	124	A	H
802.11n		2483.6	64.07	-9.93	74	56.71	32.39	6.53	31.56	134	124	P	H
HT20		2483.52	50.96	-3.04	54	43.6	32.39	6.53	31.56	134	124	A	H
CH 12	*	2467	104.31	-	-	96.95	32.39	6.53	31.56	131	343	P	V
2467MHz	*	2467	94.3	-	-	86.94	32.39	6.53	31.56	131	343	A	V
		2484.8	61.87	-12.13	74	54.51	32.39	6.53	31.56	131	343	P	V
		2483.52	48.98	-5.02	54	41.62	32.39	6.53	31.56	131	343	A	V
	*	2472	102.47	-	-	95.11	32.39	6.53	31.56	134	115	P	H
	*	2472	92.67	-	-	85.31	32.39	6.53	31.56	134	115	A	H
802.11n		2483.56	60.83	-13.17	74	53.47	32.39	6.53	31.56	134	115	P	H
HT20		2483.52	50.81	-3.19	54	43.45	32.39	6.53	31.56	134	115	A	H
CH 13	*	2472	98.4	-	-	91.04	32.39	6.53	31.56	134	345	P	V
2472MHz	*	2472	88.58	-	-	81.22	32.39	6.53	31.56	134	345	A	V
		2484.04	58.21	-15.79	74	50.85	32.39	6.53	31.56	134	345	P	V
		2483.52	48.32	-5.68	54	40.96	32.39	6.53	31.56	134	345	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 HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		4824	42.63	-31.37	74	56.66	34.4	9.47	57.9	-	-	P	H
HT20		6432	47.36	-26.64	74	58.88	35.76	10.76	58.04	-	-	P	H
CH 01		4824	42.6	-31.4	74	56.63	34.4	9.47	57.9	-	-	P	V
2412MHz		6432	47.89	-26.11	74	59.41	35.76	10.76	58.04	-	-	P	V
		4874	41.67	-32.33	74	55.7	34.37	9.5	57.9	-	-	P	H
802.11n		6498	47.38	-26.62	74	58.97	35.79	10.78	58.16	-	-	P	H
HT20		7311	45.45	-28.55	74	57.63	36.05	11.24	59.47	-	-	P	H
CH 06		4874	42.27	-31.73	74	56.3	34.37	9.5	57.9	-	-	P	V
2437MHz		6498	48.37	-25.63	74	59.96	35.79	10.78	58.16	-	-	P	V
		7311	45.9	-28.1	74	58.08	36.05	11.24	59.47	-	-	P	V
		4924	42.56	-31.44	74	56.56	34.34	9.56	57.9	-	-	P	H
802.11n		6564	47.43	-26.57	74	59.01	35.85	10.81	58.24	-	-	P	H
HT20		7386	45.76	-28.24	74	58.17	35.98	11.32	59.71	-	-	P	H
CH 11		4924	43.77	-30.23	74	57.77	34.34	9.56	57.9	-	-	P	V
2462MHz		6564	48.61	-25.39	74	60.19	35.85	10.81	58.24	-	-	P	V
		7386	45.7	-28.3	74	58.11	35.98	11.32	59.71	-	-	P	V

Remark

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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 12 2467MHz		4934	43.27	-30.73	74	57.27	34.34	9.56	57.9	-	-	P	H
		6576	48.63	-25.37	74	60.21	35.87	10.81	58.26	-	-	P	H
		7401	44.7	-29.3	74	57.17	35.97	11.32	59.76	-	-	P	H
		4934	43.27	-30.73	74	57.27	34.34	9.56	57.9	-	-	P	V
		6576	48.51	-25.49	74	60.09	35.87	10.81	58.26	-	-	P	V
		7401	45.12	-28.88	74	57.59	35.97	11.32	59.76	-	-	P	V
802.11n HT20 CH 13 2472MHz		4944	43.36	-30.64	74	57.37	34.33	9.56	57.9	-	-	P	H
		6594	47.12	-26.88	74	58.69	35.89	10.81	58.27	-	-	P	H
		7416	45.68	-28.32	74	58.18	35.97	11.29	59.76	-	-	P	H
		4944	42.99	-31.01	74	57	34.33	9.56	57.9	-	-	P	V
		6594	48.74	-25.26	74	60.31	35.89	10.81	58.27	-	-	P	V
		7416	44.79	-29.21	74	57.29	35.97	11.29	59.76	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		89.17	20.04	-23.46	43.5	40.2	14.04	0.98	35.18	-	-	P	H
		196.84	25.73	-17.77	43.5	44.32	16.51	0	35.1	-	-	P	H
		317.12	27.19	-18.81	46	40.06	20.15	1.88	34.9	-	-	P	H
		581.93	24.92	-21.08	46	31.4	25.43	2.63	34.54	-	-	P	H
		828.31	27.97	-18.03	46	30.69	28.42	3.16	34.3	-	-	P	H
		974.78	29.48	-24.52	54	30.21	29.99	3.43	34.15	-	-	P	H
		36.79	26.86	-13.14	40	42.48	19.38	0	35	-	-	P	V
		90.14	25.95	-17.55	43.5	46.23	13.92	0.98	35.18	-	-	P	V
		196.84	30.01	-13.49	43.5	47.15	16.51	1.45	35.1	-	-	P	V
		325.85	24.59	-21.41	46	37.15	20.44	1.9	34.9	-	-	P	V
		603.27	25.67	-20.33	46	31.66	25.82	2.69	34.5	-	-	P	V
		988.36	29.18	-24.82	54	29.71	30.13	3.46	34.12	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<Co-location Mode>

2.4GHz 2400~2483.5MHz

WIFI 802.11n20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
	*	2467	107.16	-	-	99.8	32.39	6.53	31.56	140	131	P	H
11n20_TX_	*	2467	97.47	-	-	90.11	32.39	6.53	31.56	140	131	A	H
CH12		2483.72	63.41	-10.59	74	56.05	32.39	6.53	31.56	140	131	P	H
2467Mhz+		2483.52	50.55	-3.45	54	43.19	32.39	6.53	31.56	140	131	A	H
BLE(2M)_	*	2467	104.05	-	-	96.69	32.39	6.53	31.56	338	193	P	V
CH39	*	2467	94.39	-	-	87.03	32.39	6.53	31.56	338	193	A	V
2480Mhz		2484.12	61.86	-12.14	74	54.5	32.39	6.53	31.56	338	193	P	V
		2483.52	49.72	-4.28	54	42.36	32.39	6.53	31.56	338	193	A	V
	*	2480	101.29	-	-	93.93	32.39	6.53	31.56	100	292	Peak	H
11n20_TX_	*	2480	99.04	-	-	91.68	32.39	6.53	31.56	100	292	A	H
CH12		2484.72	55.59	-18.41	74	48.23	32.39	6.53	31.56	100	292	P	H
2467Mhz+		2483.6	45.3	-8.7	54	37.94	32.39	6.53	31.56	100	292	A	H
BLE(2M)_	*	2480	99.3	-	-	91.94	32.39	6.53	31.56	100	94	P	V
CH39	*	2480	96.27	-	-	88.91	32.39	6.53	31.56	100	94	A	V
2480Mz		2484.6	56.33	-17.67	74	48.97	32.39	6.53	31.56	100	94	P	V
		2483.64	45.62	-8.38	54	38.26	32.39	6.53	31.56	100	94	A	V

Remark

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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		2389.065	54.96	-19.04	74	48.57	31.7	6.94	32.25	100	120	P	H
11n20_Tx_		2390	44.55	-9.45	54	38.15	31.7	6.94	32.24	100	120	A	H
Ch01	*	2412	111.19	-	-	104.69	31.8	6.94	32.24	100	120	P	H
2412Mhz+	*	2412	99.88	-	-	93.38	31.8	6.94	32.24	100	120	A	H
BLE_Tx_		2384.235	54.42	-19.58	74	48.1	31.7	6.87	32.25	372	236	P	V
Ch00		2390	44.38	-9.62	54	37.98	31.7	6.94	32.24	372	236	A	V
2402Mhz	*	2412	107.94	-	-	101.44	31.8	6.94	32.24	372	236	P	V
	*	2412	98.17	-	-	91.67	31.8	6.94	32.24	372	236	A	V
		2386.545	52.23	-21.77	74	45.84	31.7	6.94	32.25	100	85	P	H
11n20_Tx_		2389.905	43.71	-10.29	54	37.31	31.7	6.94	32.24	100	85	A	H
Ch01	*	2402	103.27	-	-	96.87	31.7	6.94	32.24	100	85	P	H
2412Mhz+	*	2402	100.03	-	-	93.63	31.7	6.94	32.24	100	85	A	H
BLE_Tx_		2389.59	51.58	-22.42	74	45.19	31.7	6.94	32.25	100	253	P	V
Ch00		2371.53	42.92	-11.08	54	36.6	31.7	6.87	32.25	100	253	A	V
2402Mhz	*	2402	98.87	-	-	92.47	31.7	6.94	32.24	100	253	P	V
	*	2402	97.26	-	-	90.86	31.7	6.94	32.24	100	253	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
	*	2462	108.44	-	-	101.48	32.03	6.98	32.05	100	116	P	H
11n20_Tx_	*	2462	98.62	-	-	91.66	32.03	6.98	32.05	100	116	A	H
Ch11		2487.12	57.27	-16.73	74	50.12	32.07	7.03	31.95	100	116	P	H
2462Mhz		2483.8	45.3	-8.7	54	38.15	32.07	7.03	31.95	100	116	A	H
+BLE_Tx_	*	2462	106.78	-	-	99.82	32.03	6.98	32.05	102	344	P	V
Ch39	*	2462	96.33	-	-	89.37	32.03	6.98	32.05	102	344	A	V
2480Mhz		2486	57.87	-16.13	74	50.72	32.07	7.03	31.95	102	344	P	V
		2483.88	44.17	-9.83	54	37.02	32.07	7.03	31.95	102	344	A	V
	*	2480	105.26	-	-	98.11	32.07	7.03	31.95	134	151	P	H
11n20_Tx_	*	2480	101.62	-	-	94.47	32.07	7.03	31.95	134	151	A	H
Ch11		2484.56	55.29	-18.71	74	48.14	32.07	7.03	31.95	134	151	P	H
2462Mhz		2483.96	44.97	-9.03	54	37.82	32.07	7.03	31.95	134	151	A	H
+BLE_Tx_	*	2480	99.84	-	-	92.69	32.07	7.03	31.95	100	236	P	V
Ch39	*	2480	99.14	-	-	91.99	32.07	7.03	31.95	100	236	A	V
2480Mhz		2484.36	52.47	-21.53	74	45.32	32.07	7.03	31.95	100	236	P	V
		2496.84	43.68	-10.32	54	36.4	32.1	7.03	31.85	100	236	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 802.11n20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
11n20_TX_ CH12 2467Mhz+ BLE(2M)_ CH39 2480Mh		4934	43.69	-30.31	74	57.69	34.34	9.56	57.9	-	-	P	H
		4960	42.35	-31.65	74	56.34	34.32	9.59	57.9	-	-	P	H
		6576	47.26	-26.74	74	58.84	35.87	10.81	58.26	-	-	P	H
		7401	45.02	-28.98	74	57.49	35.97	11.32	59.76	-	-	P	H
		7440	43.84	-30.16	74	56.47	35.94	11.29	59.86	-	-	P	H
		4934	44.05	-29.95	74	58.05	34.34	9.56	57.9	-	-	P	V
		4960	41.98	-32.02	74	55.97	34.32	9.59	57.9	-	-	P	V
		6576	48.58	-25.42	74	60.16	35.87	10.81	58.26	-	-	P	V
		7401	44.62	-29.38	74	57.09	35.97	11.32	59.76	-	-	P	V
		7440	44.29	-29.71	74	56.92	35.94	11.29	59.86	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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)
		2385.495	53.25	-20.75	74	46.86	31.7	6.94	32.25	100	121	P	H
11b_Tx_		2386.125	44.2	-9.8	54	37.81	31.7	6.94	32.25	100	121	A	H
Ch01	*	2412	109.07	-	-	102.57	31.8	6.94	32.24	100	121	P	H
2412Mhz+	*	2412	105.28	-	-	98.78	31.8	6.94	32.24	100	121	A	H
BLE_Tx_		2385.81	54.15	-19.85	74	47.76	31.7	6.94	32.25	375	239	P	V
Ch18		2386.125	43.49	-10.51	54	37.1	31.7	6.94	32.25	375	239	A	V
2438Mh	*	2412	106.91	-	-	100.41	31.8	6.94	32.24	375	239	P	V
	*	2412	103.09	-	-	96.59	31.8	6.94	32.24	375	239	A	V
		2380.28	51.83	-22.17	74	45.51	31.7	6.87	32.25	100	89	P	H
		2386.02	44.07	-9.93	54	37.68	31.7	6.94	32.25	100	89	A	H
	*	2438	102.39	-	-	95.55	32	6.98	32.14	100	89	P	H
11b_Tx_	*	2438	101.46	-	-	94.62	32	6.98	32.14	100	89	A	H
Ch01		2486.98	52.68	-21.32	74	45.53	32.07	7.03	31.95	100	89	P	H
2412Mhz+		2491.25	43.58	-10.42	54	36.4	32.1	7.03	31.95	100	89	A	H
BLE_Tx_		2368.94	51.62	-22.38	74	45.3	31.7	6.87	32.25	100	234	P	V
Ch18		2386.16	42.61	-11.39	54	36.22	31.7	6.94	32.25	100	234	A	V
2438M	*	2438	99.35	-	-	92.51	32	6.98	32.14	100	234	P	V
	*	2438	97.47	-	-	90.63	32	6.98	32.14	100	234	A	V
		2490.55	52.15	-21.85	74	44.97	32.1	7.03	31.95	100	234	P	V
		2490.97	43.34	-10.66	54	36.16	32.1	7.03	31.95	100	234	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
		2362.815	53.3	-20.7	74	46.99	31.7	6.87	32.26	100	122	P	H
11b_Tx_		2371.95	44.62	-9.38	54	38.3	31.7	6.87	32.25	100	122	A	H
Ch01	*	2412	108.88	-	-	102.38	31.8	6.94	32.24	100	122	P	H
2412Mhz+	*	2412	105.15	-	-	98.65	31.8	6.94	32.24	100	122	A	H
BLE_Tx_		2388.855	53.16	-20.84	74	46.77	31.7	6.94	32.25	372	238	P	V
Ch25		2372.055	43.7	-10.3	54	37.38	31.7	6.87	32.25	372	238	A	V
2452Mh	*	2412	107.34	-	-	100.84	31.8	6.94	32.24	372	238	P	V
	*	2412	103.54	-	-	97.04	31.8	6.94	32.24	372	238	A	V
		2351.16	52.5	-21.5	74	46.19	31.7	6.87	32.26	100	86	P	H
		2372.02	43.54	-10.46	54	37.22	31.7	6.87	32.25	100	86	A	H
	*	2452	102.84	-	-	95.91	32	6.98	32.05	100	86	P	H
11b_Tx_	*	2452	102.03	-	-	95.1	32	6.98	32.05	100	86	A	H
Ch01		2488.1	52.45	-21.55	74	45.27	32.1	7.03	31.95	100	86	P	H
2412Mhz+		2490.9	44.08	-9.92	54	36.9	32.1	7.03	31.95	100	86	A	H
BLE_Tx_		2338.84	51.59	-22.41	74	45.35	31.7	6.8	32.26	109	235	P	V
Ch25		2354.24	42.63	-11.37	54	36.32	31.7	6.87	32.26	109	235	A	V
2452Mh	*	2452	99.02	-	-	92.09	32	6.98	32.05	109	235	P	V
	*	2452	98.05	-	-	91.12	32	6.98	32.05	109	235	A	V
		2498.74	52.35	-21.65	74	45.07	32.1	7.03	31.85	109	235	P	V
		2491.39	43.67	-10.33	54	36.49	32.1	7.03	31.95	109	235	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
		2314.48	52.64	-21.36	74	46.54	31.57	6.8	32.27	118	121	P	H
		2356.2	41.76	-12.24	54	35.45	31.7	6.87	32.26	118	121	A	H
	*	2437	109.01	-	-	102.17	32	6.98	32.14	118	121	P	H
11b_Tx_	*	2437	105.23	-	-	98.39	32	6.98	32.14	118	121	A	H
Ch06		2486.35	53.68	-20.32	74	46.53	32.07	7.03	31.95	118	121	P	H
2437Mhz+		2483.97	43.12	-10.88	54	35.97	32.07	7.03	31.95	118	121	A	H
BLE_Tx_		2361.24	51.72	-22.28	74	45.41	31.7	6.87	32.26	367	201	P	V
Ch03		2354.66	41.47	-12.53	54	35.16	31.7	6.87	32.26	367	201	A	V
2408Mhz	*	2437	107.85	-	-	101.01	32	6.98	32.14	367	201	P	V
	*	2437	104.06	-	-	97.22	32	6.98	32.14	367	201	A	V
		2485.3	53.07	-20.93	74	45.92	32.07	7.03	31.95	367	201	P	V
		2485.93	42.43	-11.57	54	35.28	32.07	7.03	31.95	367	201	A	V
		2366.805	51.07	-22.93	74	44.75	31.7	6.87	32.25	100	88	P	H
11b_Tx_		2377.62	42.72	-11.28	54	36.4	31.7	6.87	32.25	100	88	A	H
Ch06	*	2408	101.03	-	-	94.53	31.8	6.94	32.24	100	88	P	H
2437Mhz+	*	2408	100.03	-	-	93.53	31.8	6.94	32.24	100	88	A	H
BLE_Tx_		2340.45	51.46	-22.54	74	45.22	31.7	6.8	32.26	103	233	P	V
Ch03		2377.41	42.57	-11.43	54	36.25	31.7	6.87	32.25	103	233	A	V
2408Mhz	*	2408	98.04	-	-	91.54	31.8	6.94	32.24	103	233	P	V
	*	2408	97.14	-	-	90.64	31.8	6.94	32.24	103	233	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
	*	2462	108.6	-	-	101.64	32.03	6.98	32.05	117	120	P	H
11b_Tx_	*	2462	104.8	-	-	97.84	32.03	6.98	32.05	117	120	A	H
Ch11		2499.76	55.4	-18.6	74	48.12	32.1	7.03	31.85	117	120	P	H
2462Mhz+		2499.96	45.58	-8.42	54	38.3	32.1	7.03	31.85	117	120	A	H
BLE_Tx_	*	2462	107.23	-	-	100.27	32.03	6.98	32.05	390	239	P	V
Ch11	*	2462	103.42	-	-	96.46	32.03	6.98	32.05	390	239	A	V
2424Mhz		2495.04	54.1	-19.9	74	46.82	32.1	7.03	31.85	390	239	P	V
		2499.96	44.22	-9.78	54	36.94	32.1	7.03	31.85	390	239	A	V
	*	2424	101.43	-	-	94.69	31.9	6.98	32.14	129	66	P	H
11b_Tx_	*	2424	99.82	-	-	93.08	31.9	6.98	32.14	129	66	A	H
Ch11		2489.04	52.27	-21.73	74	45.09	32.1	7.03	31.95	129	66	P	H
2462Mhz+		2499.92	44.09	-9.91	54	36.81	32.1	7.03	31.85	129	66	A	H
BLE_Tx_	*	2424	98.66	-	-	91.92	31.9	6.98	32.14	110	235	P	V
Ch11	*	2424	97.52	-	-	90.78	31.9	6.98	32.14	110	235	A	V
2424Mhz		2498.44	52.63	-21.37	74	45.35	32.1	7.03	31.85	110	235	P	V
		2499.96	44.01	-9.99	54	36.73	32.1	7.03	31.85	110	235	A	V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
11b_Tx_ Ch01 2412Mhz+ BLE_Tx_ Ch18 2438M		4824	49.64	-24.36	74	63.77	33.8	9.97	57.9	320	268	P	H
		4824	44.7	-9.3	54	58.83	33.8	9.97	57.9	320	268	A	H
		4876	43.13	-30.87	74	57.3	33.73	10	57.9	-	-	P	H
		6432	51.91	-22.09	74	63.24	35.45	11.26	58.04	125	196	P	H
		6432	47.52	-6.48	54	58.85	35.45	11.26	58.04	125	196	A	H
		7236	46.23	-27.77	74	57.49	35.7	12.32	59.28	-	-	P	H
		7314	45.92	-28.08	74	57.34	35.72	12.33	59.47	-	-	P	H
		4824	49.31	-24.69	74	63.44	33.8	9.97	57.9	312	258	P	V
		4824	46.09	-7.91	54	60.22	33.8	9.97	57.9	312	258	A	V
		4876	42.6	-31.4	74	56.77	33.73	10	57.9	-	-	P	V
		6432	47.35	-26.65	74	58.68	35.45	11.26	58.04	-	-	P	V
		7236	45.36	-28.64	74	56.62	35.7	12.32	59.28	-	-	P	V
		7314	46.73	-27.27	74	58.15	35.72	12.33	59.47	-	-	P	V
11b_Tx_ Ch01 2412Mhz+ BLE_Tx_ Ch25 2452Mh		4824	49.73	-24.27	74	63.86	33.8	9.97	57.9	321	268	P	H
		4824	44.62	-9.38	54	58.75	33.8	9.97	57.9	321	268	A	H
		4904	42.62	-31.38	74	56.79	33.7	10.03	57.9	-	-	P	H
		6432	48.07	-25.93	74	59.4	35.45	11.26	58.04	-	-	P	H
		7356	46.08	-27.92	74	57.61	35.74	12.34	59.61	-	-	P	H
		4824	49.32	-24.68	74	63.45	33.8	9.97	57.9	311	257	P	V
		4824	44.45	-9.55	54	58.58	33.8	9.97	57.9	311	257	A	V
		4904	43.69	-30.31	74	57.86	33.7	10.03	57.9	-	-	P	V
		6432	46.77	-27.23	74	58.1	35.45	11.26	58.04	-	-	P	V
		7356	46.41	-27.59	74	57.94	35.74	12.34	59.61	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
11b_Tx_ Ch06 2437Mhz+ BLE_Tx_ Ch03 2408Mh		4816	47.12	-26.88	74	61.25	33.8	9.97	57.9	-	-	P	H
		4874	48.72	-25.28	74	62.89	33.73	10	57.9	322	266	P	H
		4874	44.94	-9.06	54	59.11	33.73	10	57.9	322	266	A	H
		6498.5	51.26	-22.74	74	62.65	35.49	11.28	58.16	100	270	P	H
		6498.5	46.72	-7.28	54	58.11	35.49	11.28	58.16	100	270	A	H
		7224	45.8	-28.2	74	57.02	35.69	12.32	59.23	-	-	P	H
		7311	46.96	-27.04	74	58.38	35.72	12.33	59.47	-	-	P	H
		4816	43.85	-30.15	74	57.98	33.8	9.97	57.9	-	-	P	V
		4874	50.25	-23.75	74	64.42	33.73	10	57.9	313	258	P	V
		4874	46.07	-7.93	54	60.24	33.73	10	57.9	313	258	A	V
		6498.5	51.46	-22.54	74	62.85	35.49	11.28	58.16	184	165	P	V
		6498.5	47.39	-6.61	54	58.78	35.49	11.28	58.16	184	165	A	V
		7224	45.73	-28.27	74	56.95	35.69	12.32	59.23	-	-	P	V
		7311	45.41	-28.59	74	56.83	35.72	12.33	59.47	-	-	P	V
11b_Tx_ Ch11 2462Mhz+ BLE_Tx_ Ch11 2424Mh		4848	42.95	-31.05	74	57.05	33.8	10	57.9	-	-	P	H
		4924	46.51	-27.49	74	60.65	33.7	10.06	57.9	-	-	P	H
		6564	51.68	-22.32	74	63.1	35.51	11.31	58.24	103	225	P	H
		6564	46.84	-7.16	54	58.26	35.51	11.31	58.24	103	225	A	H
		7272	46.28	-27.72	74	57.61	35.71	12.33	59.37	-	-	P	H
		7386	46.38	-27.62	74	57.99	35.76	12.34	59.71	-	-	P	H
		4848	42.61	-31.39	74	56.71	33.8	10	57.9	-	-	P	V
		4924	46.45	-27.55	74	60.59	33.7	10.06	57.9	-	-	P	V
		6564	51.71	-22.29	74	63.13	35.51	11.31	58.24	122	263	P	V
		6564	47.31	-6.69	54	58.73	35.51	11.31	58.24	122	263	A	V
		7272	46.2	-27.8	74	57.53	35.71	12.33	59.37	-	-	P	V
		7386	46.68	-27.32	74	58.29	35.76	12.34	59.71	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **Margin** 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	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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. Margin (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. Margin (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. Margin (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".

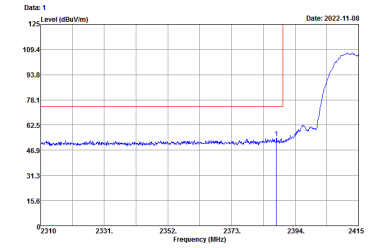
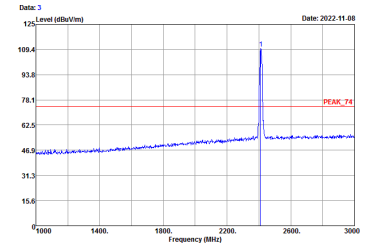
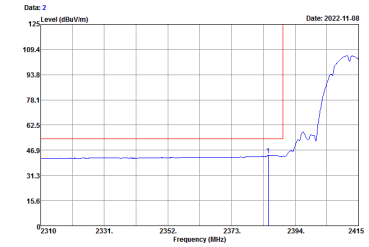
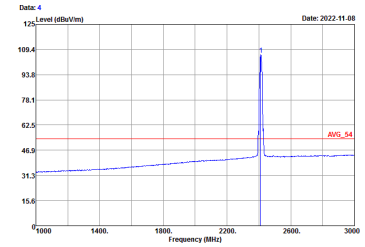
Appendix D. Radiated Spurious Emission Plots

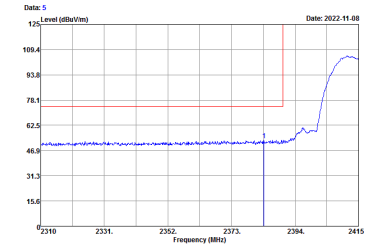
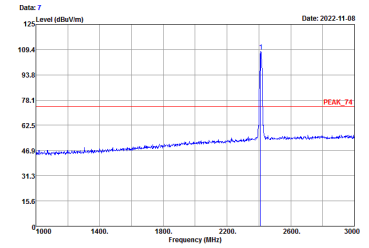
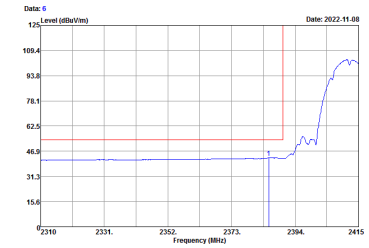
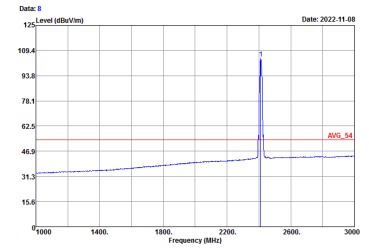
Note symbol

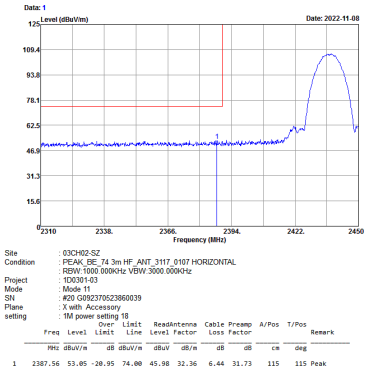
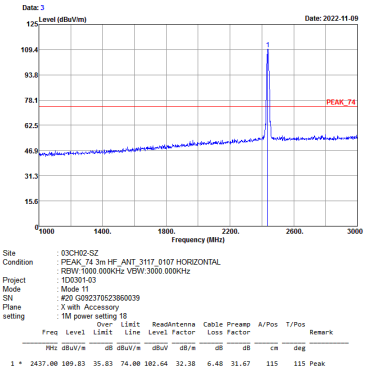
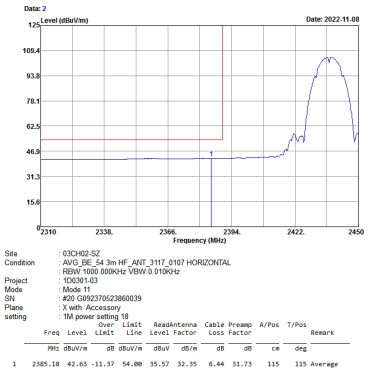
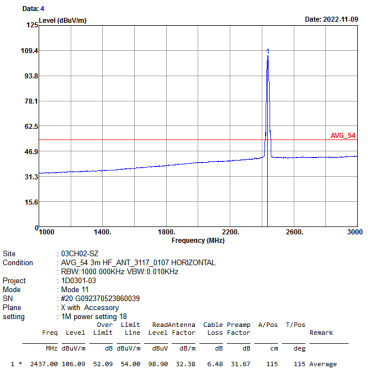
-L	**Low channel location**
-R	**High channel location**

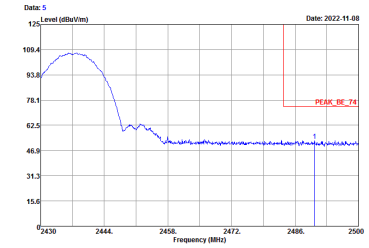
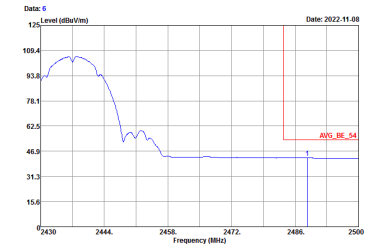
2.4GHz 2400~2483.5MHz

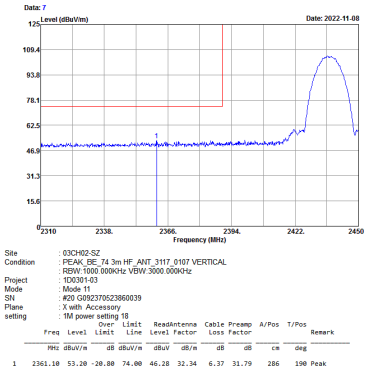
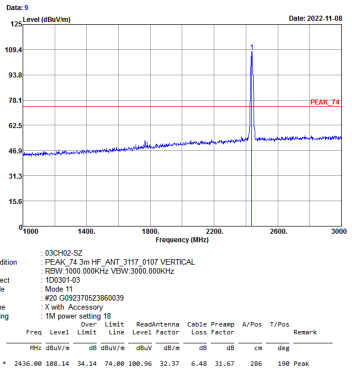
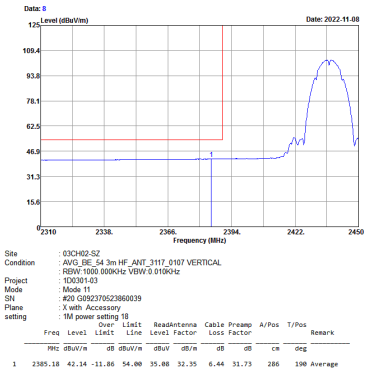
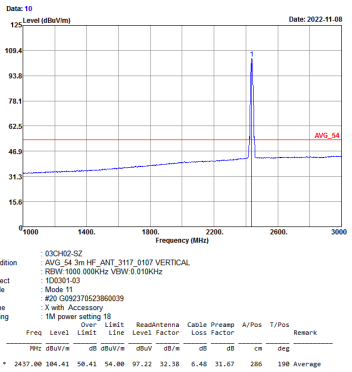
WIFI 802.11b (Band Edge @ 3m)

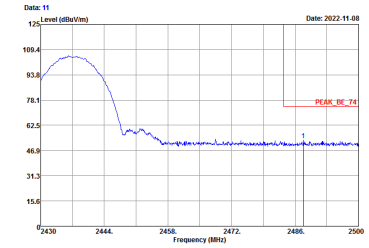
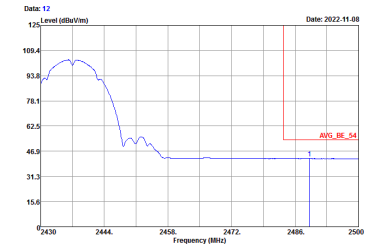
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

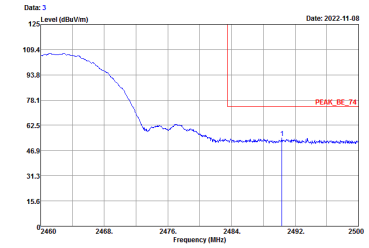
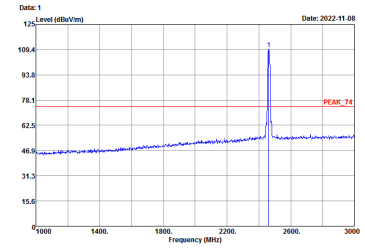
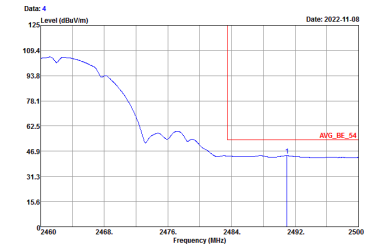
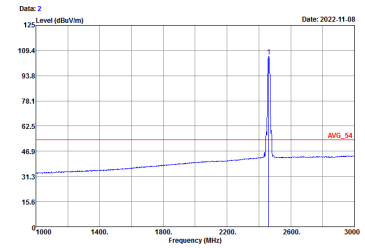
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 10 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2383.71 53.28 -20.72 74.00 46.35 32.35 6.37 31.79 252 194 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 10 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2412.00 108.19 34.19 74.00 101.05 32.37 6.44 31.67 252 194 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 10 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2385.29 42.88 -11.12 54.00 35.82 32.35 6.44 31.73 252 194 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 10 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2412.00 104.42 50.42 54.00 97.28 32.37 6.44 31.67 252 194 Average

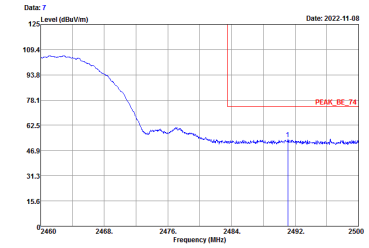
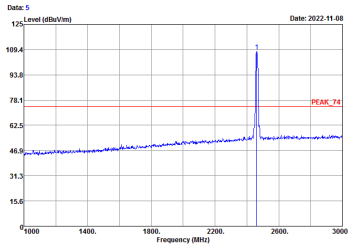
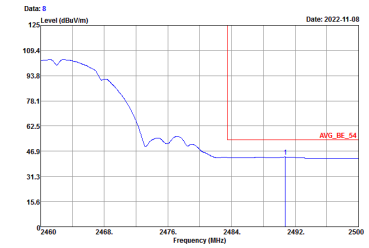
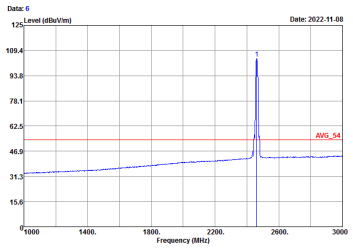
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

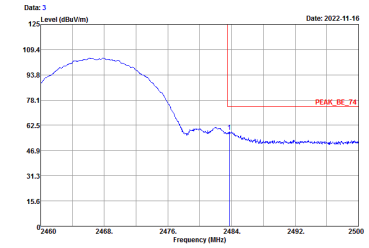
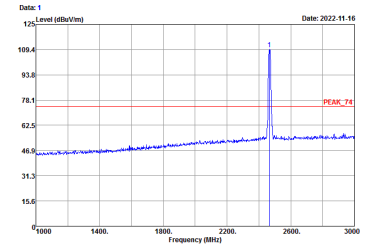
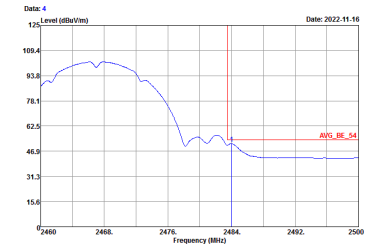
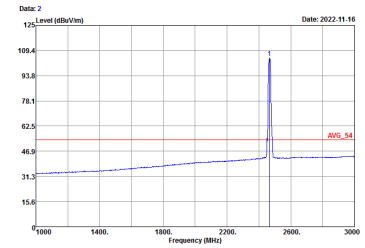
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600039 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2490.27 52.84 -21.16 74.00 45.41 32.40 6.53 31.50 115 115 Peak	Left blank
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600039 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2488.73 42.91 -11.09 54.00 35.54 32.40 6.53 31.56 115 115 Average	Left blank

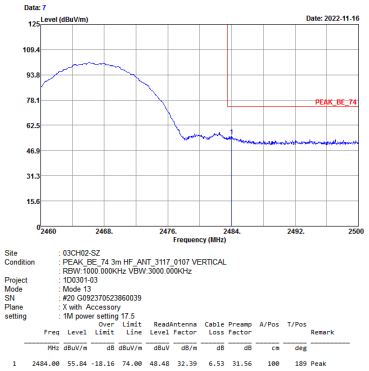
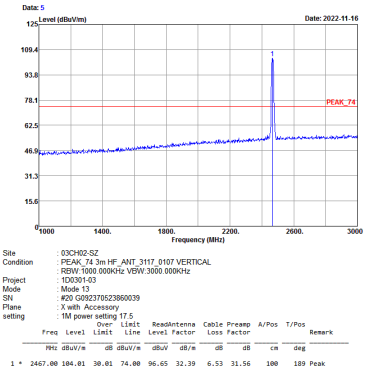
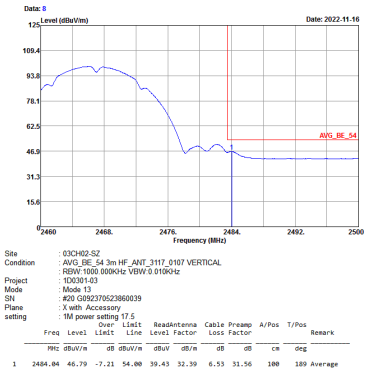
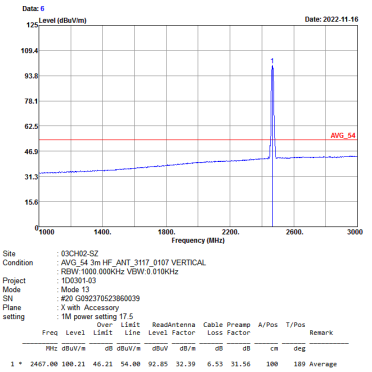
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2361.10 53.20 -20.80 74.00 46.28 32.34 6.37 31.79 286 190 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2436.00 108.14 34.14 74.00 100.96 32.37 6.48 31.67 286 190 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2385.18 42.14 -11.86 54.00 35.08 32.35 6.44 31.73 286 190 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2437.00 104.41 50.41 54.00 97.22 32.38 6.48 31.67 286 190 Average

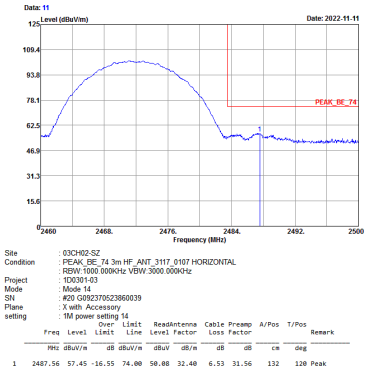
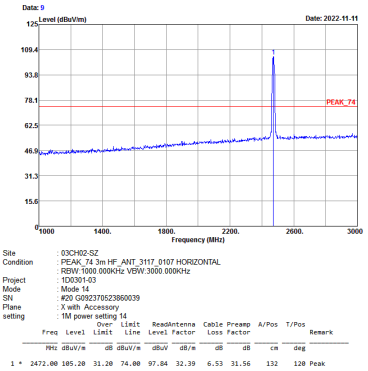
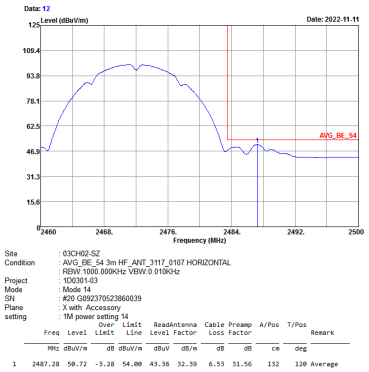
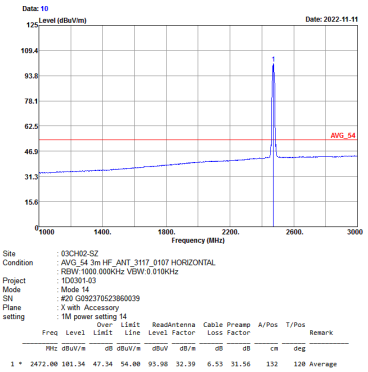
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600039 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2487.89 53.39 -20.61 74.00 46.02 32.40 6.53 31.56 286 190 Peak	Left blank
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 11 SN : #20 G0923705238600039 Plane : X with Accessory setting : 1M power setting 18 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2489.15 42.45 -11.55 54.00 35.02 32.40 6.53 31.50 286 190 Average	Left blank

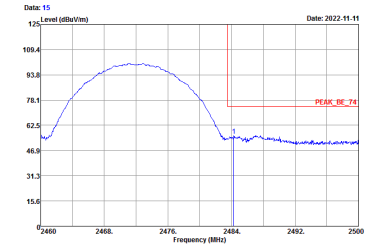
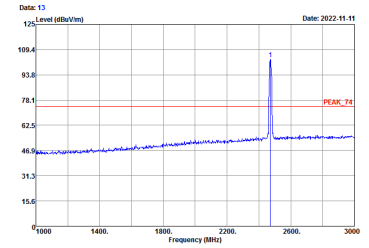
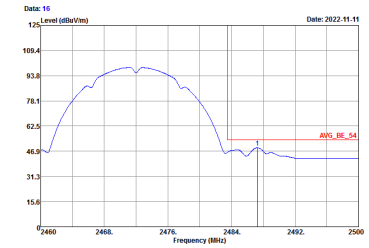
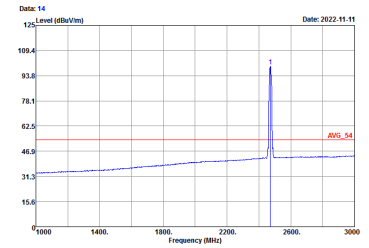
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2490.36 54.60 -19.40 74.00 47.17 32.40 6.53 31.50 100 115 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 109.77 35.77 74.00 102.52 32.39 6.48 31.62 100 115 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2491.00 44.15 -9.85 54.00 36.72 32.40 6.53 31.50 100 115 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 106.01 52.01 54.00 98.76 32.39 6.48 31.62 100 115 Average

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2491.08 53.86 -20.14 74.00 46.43 32.40 6.53 31.50 277 193 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 108.31 34.31 74.00 101.06 32.39 6.48 31.62 277 193 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2490.76 43.37 -10.63 54.00 35.94 32.40 6.53 31.50 277 193 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 12 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 18 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 104.52 50.52 54.00 97.27 32.39 6.48 31.62 277 193 Average

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.76 58.63 -15.37 74.00 51.27 32.39 6.53 31.56 138 120 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2467.00 109.73 35.73 74.00 102.37 32.39 6.53 31.56 138 120 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2484.00 51.54 -2.46 54.00 44.18 32.39 6.53 31.56 138 120 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2467.00 104.95 50.95 54.00 97.59 32.39 6.53 31.56 138 120 Average

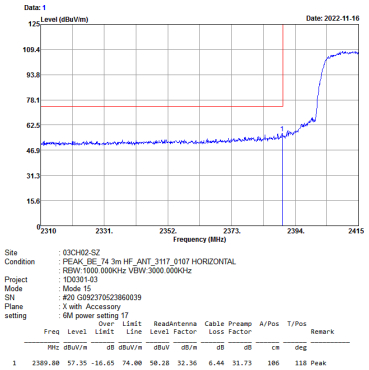
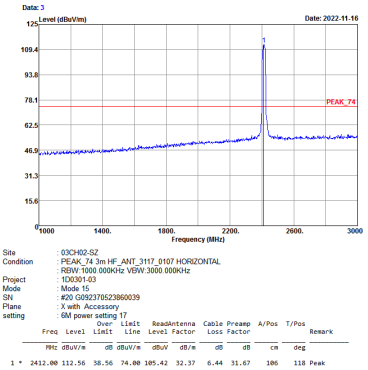
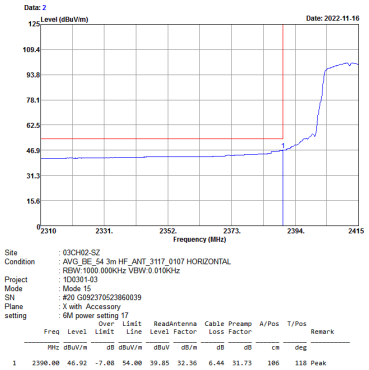
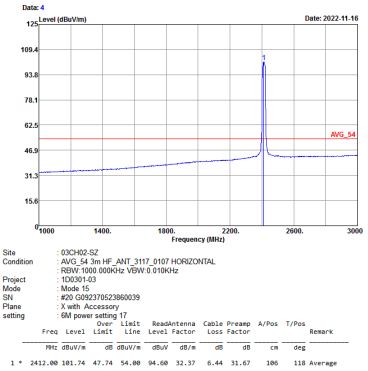
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos Factor T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2484.00 55.84 -18.16 74.00 48.48 32.39 6.53 31.56 100 189 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos Factor T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2467.00 104.01 30.01 74.00 96.65 32.39 6.53 31.56 100 189 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos Factor T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2484.04 46.79 -7.21 54.00 39.43 32.39 6.53 31.56 100 189 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 13 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 17.5 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos Factor T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2467.00 100.21 46.21 54.00 92.85 32.39 6.53 31.56 100 189 Average

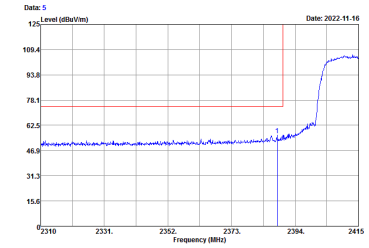
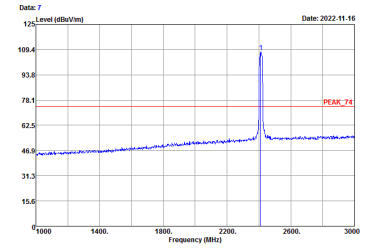
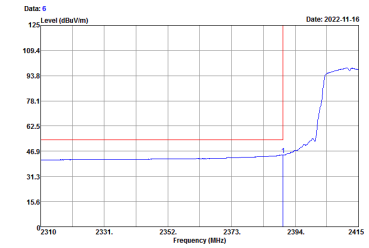
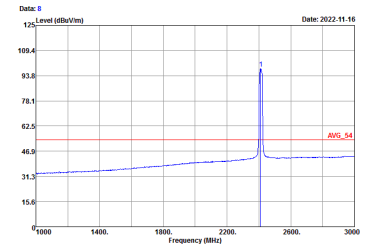
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2487.56 57.45 -16.55 74.00 50.08 32.40 6.53 31.56 132 120 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2472.00 105.20 31.20 74.00 97.84 32.39 6.53 31.56 132 120 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2487.28 50.72 -3.28 54.00 43.36 32.39 6.53 31.56 132 120 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2472.00 101.34 47.34 54.00 93.98 32.39 6.53 31.56 132 120 Average

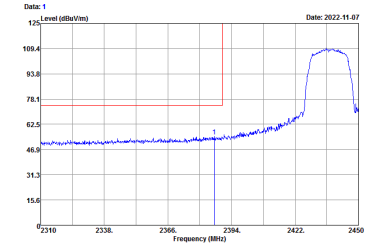
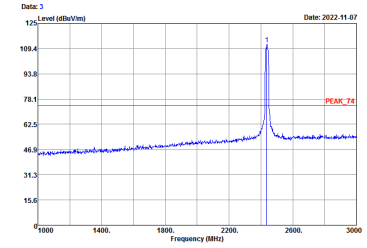
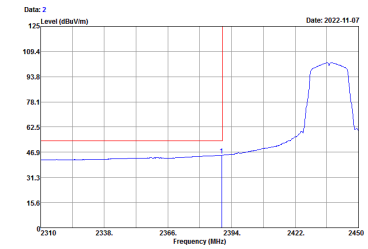
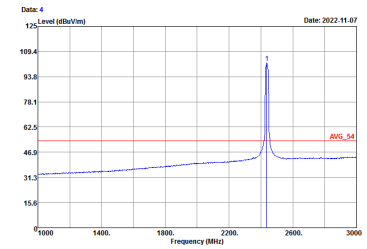
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2484.28 56.17 -17.83 74.00 48.81 32.39 6.53 31.56 310 192 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2472.00 103.26 29.26 74.00 95.90 32.39 6.53 31.56 310 192 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2487.28 48.99 -5.01 54.00 41.63 32.39 6.53 31.56 310 192 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 14 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 1M power setting 14 Freq Level Over Limit Limit ReadAntenna Level Cable Factor Preamp Loss A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2472.00 99.72 45.72 54.00 92.36 32.39 6.53 31.56 310 192 Average

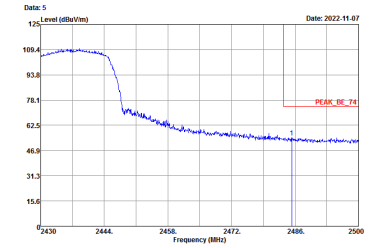
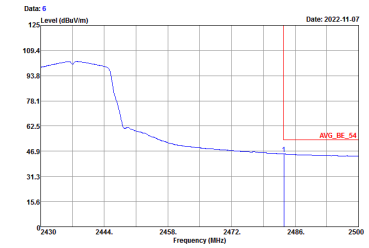
2.4GHz 2400~2483.5MHz

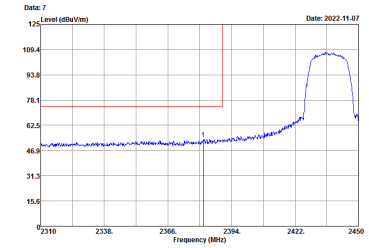
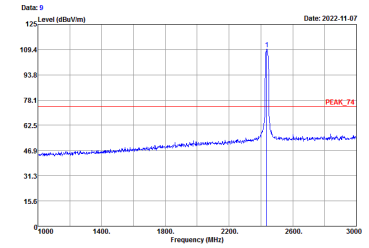
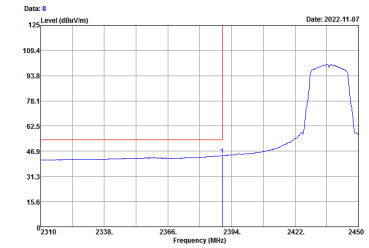
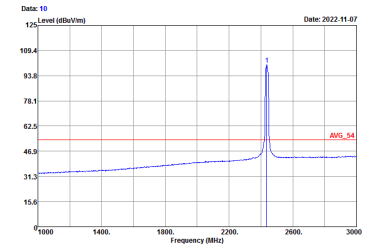
WIFI 802.11g (Band Edge @ 3m)

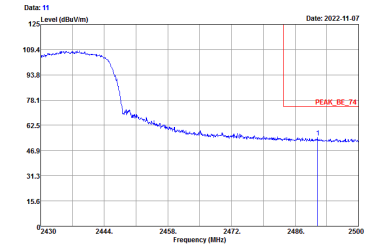
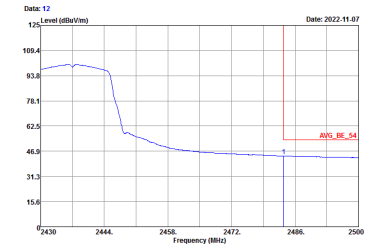
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

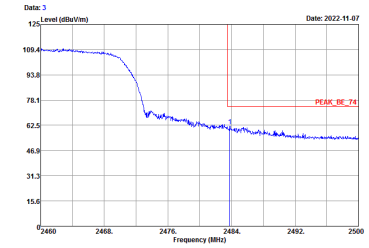
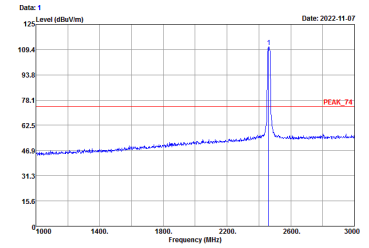
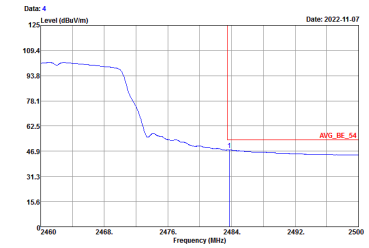
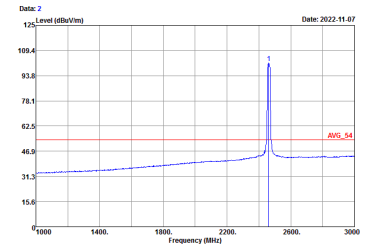
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 15 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2388.12 56.53 -17.47 74.00 49.46 32.36 6.44 31.73 354 206 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 15 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2412.00 107.96 33.96 74.00 100.82 32.37 6.44 31.67 354 206 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 15 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2390.00 44.68 -9.32 54.00 37.61 32.36 6.44 31.73 354 206 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 15 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2412.00 98.14 44.14 54.00 91.00 32.37 6.44 31.67 354 206 Average

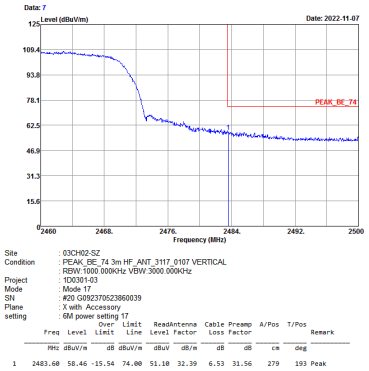
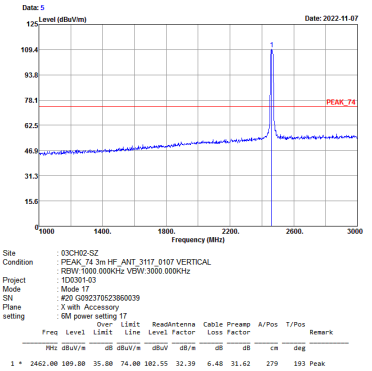
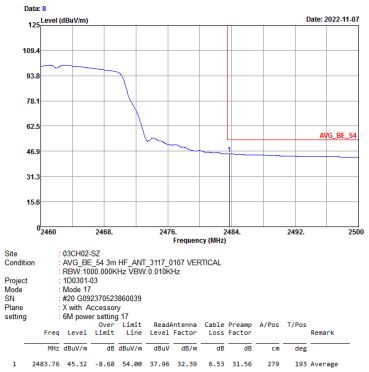
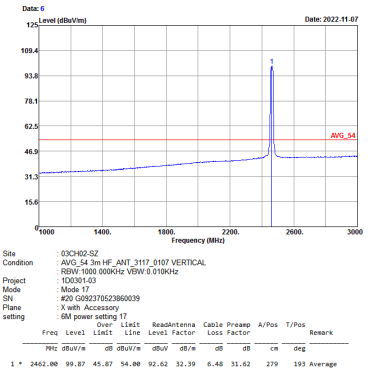
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G092370523860039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2386.44 54.88 -19.12 74.00 47.81 32.36 6.44 31.73 113 114 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G092370523860039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2437.00 112.01 38.01 74.00 104.82 32.38 6.48 31.67 113 114 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G092370523860039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2389.66 45.05 -8.95 54.00 37.98 32.36 6.44 31.73 113 114 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G092370523860039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2437.00 102.24 48.24 54.00 95.05 32.38 6.48 31.67 113 114 Average

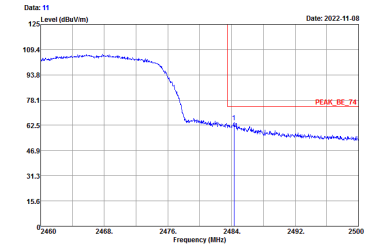
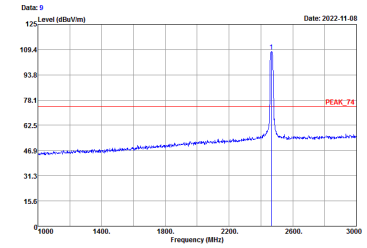
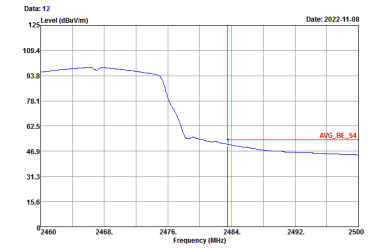
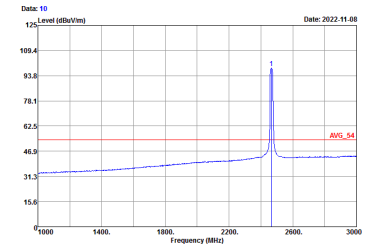
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2485.30 54.88 -19.12 74.00 47.52 32.39 6.53 31.56 113 114 Peak	Left blank
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.55 45.16 -8.84 54.00 37.80 32.39 6.53 31.56 113 114 Average	Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2381.54 53.98 -20.02 74.00 47.05 32.35 6.37 31.79 285 197 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2437.00 109.73 35.73 74.00 102.54 32.38 6.48 31.67 285 197 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2389.94 44.16 -9.84 54.00 37.09 32.36 6.44 31.73 285 197 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2437.00 100.49 46.49 54.00 93.30 32.38 6.48 31.67 285 197 Average

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2491.04 54.94 -19.06 74.00 47.51 32.40 6.53 31.50 285 197 Peak	Left Blank
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 16 SN : #20 G0923705238600039 Plane : X with Accessory setting : 6M power setting 17 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.50 43.89 -10.11 54.00 36.53 32.39 6.53 31.56 285 197 Average	Left Blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.80 61.98 -12.02 74.00 54.62 32.39 6.53 31.56 100 114 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 111.20 37.20 74.00 103.95 32.39 6.48 31.62 100 114 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.76 47.63 -6.37 54.00 40.27 32.39 6.53 31.56 100 114 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 101.64 47.64 54.00 94.39 32.39 6.48 31.62 100 114 Average

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit ReadAntenna Level Cable Loss Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.60 58.46 -15.54 74.00 51.10 32.39 6.53 31.56 279 193 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit ReadAntenna Level Cable Loss Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 109.80 35.80 74.00 102.55 32.39 6.48 31.62 279 193 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit ReadAntenna Level Cable Loss Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.76 45.32 -8.68 54.00 37.96 32.39 6.53 31.56 279 193 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 VERTICAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 17 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 17 Freq Level Over Limit Limit ReadAntenna Level Cable Loss Preamp Factor A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2462.00 99.87 45.87 54.00 92.62 32.39 6.48 31.62 279 193 Average

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH02-SZ Condition : PEAK_BE_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 18 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 13.5 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2484.32 64.36 -9.64 74.00 57.00 32.39 6.53 31.56 100 299 Peak	 Site : 03CH02-SZ Condition : PEAK_74 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz Project : 1D0301-03 Mode : Mode 18 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 13.5 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2467.00 108.25 34.25 74.00 100.89 32.39 6.53 31.56 100 299 Peak
Avg.	 Site : 03CH02-SZ Condition : AVG_BE_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 18 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 13.5 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 2483.52 50.65 -3.35 54.00 43.29 32.39 6.53 31.56 100 299 Average	 Site : 03CH02-SZ Condition : AVG_54 3m HF_ANT_3117_0107 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz Project : 1D0301-03 Mode : Mode 18 SN : #20 G0923705238600 39 Plane : X with Accessory setting : 6M power setting 13.5 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Factor Preamp A/Pos T/Pos Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 * 2467.00 98.66 44.66 54.00 91.30 32.39 6.53 31.56 100 299 Average