



# FCC PART 15C TEST REPORT No.I22Z60641-IOT07

for

**Hytera Communications Corporation Limited**

**PoC Mobile Radio**

**Model Name: MNC360**

with

**Hardware Version: V1.0.01.000.01**

**Software Version: V1.0.06.000.01**

**FCC ID: YAMMNC360**

**IC: 8913A-MNC360**

**Issued Date: 2022-05-25**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

**Test Laboratory:**

**CTTL-Telecommunication Technology Labs, CAICT**

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: [ctl\\_terminals@caict.ac.cn](mailto:ctl_terminals@caict.ac.cn), website: [www.caict.ac.cn](http://www.caict.ac.cn)



## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I22Z60641-IOT07	Rev.0	1st edition	2022-05-11
I22Z60641-IOT07	Rev.1	Update the address of applicant and manufacturer.	2022-05-25

## **CONTENTS**

<b>CONTENTS .....</b>	<b>3</b>
<b>1. TEST LABORATORY .....</b>	<b>5</b>
1.1. INTRODUCTION & ACCREDITATION .....	5
1.1. TESTING LOCATION .....	5
1.2. TESTING ENVIRONMENT.....	5
1.3. PROJECT DATA .....	5
1.4. SIGNATURE .....	6
<b>2. CLIENT INFORMATION.....</b>	<b>7</b>
2.1. APPLICANT INFORMATION .....	7
2.2. MANUFACTURER INFORMATION .....	7
<b>3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE) .....</b>	<b>8</b>
3.1. ABOUT EUT .....	8
3.2. INTERNAL IDENTIFICATION OF EUT .....	8
3.3. INTERNAL IDENTIFICATION OF AE.....	8
3.4. GENERAL DESCRIPTION.....	9
3.5. INTERPRETATION OF THE TEST ENVIRONMENT.....	9
<b>4. REFERENCE DOCUMENTS.....</b>	<b>10</b>
4.1. DOCUMENTS SUPPLIED BY APPLICANT .....	10
4.2. REFERENCE DOCUMENTS FOR TESTING.....	10
<b>5. TEST RESULTS .....</b>	<b>11</b>
5.1. TEST RESULTS .....	11
5.2. STATEMENTS.....	11
<b>6. TEST EQUIPMENTS UTILIZED.....</b>	<b>12</b>
<b>7. LABORATORY ENVIRONMENT.....</b>	<b>13</b>
<b>8. MEASUREMENT UNCERTAINTY .....</b>	<b>14</b>
<b>ANNEX A: DETAILED TEST RESULTS.....</b>	<b>15</b>
TEST CONFIGURATION.....	15
A.0 ANTENNA REQUIREMENT .....	18
A.1 MAXIMUM OUTPUT POWER.....	19
A.2 PEAK POWER SPECTRAL DENSITY .....	20
A.3 6DB BANDWIDTH.....	27
A.4 BAND EDGES COMPLIANCE .....	34
A.5 CONDUCTED EMISSION .....	39



No.I22Z60641-IOT07

A.6 RADIATED EMISSION.....	59
A.7 99% OCCUPIED BANDWIDTH.....	75
<b>ANNEX B: ACCREDITATION CERTIFICATE.....</b>	<b>82</b>



## **1. Test Laboratory**

### **1.1.Introduction & Accreditation**

**Telecommunication Technology Labs, CAICT** is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

### **1.1. Testing Location**

Location 1:CTTL(Shennan Road)

Address: Building G, Shenzhen International Innovation Center,  
No.1006 Shennan Road, Futian District, Shenzhen,  
Guangdong, P. R. China

Location 2:CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,  
P. R. China100191

Location 3:CTTL(BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology  
Development Area, Beijing, P. R. China 100176

### **1.2. Testing Environment**

Normal Temperature: 15-35°C

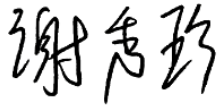
Relative Humidity: 20-75%

### **1.3. Project data**

Testing Start Date: 2022-03-29

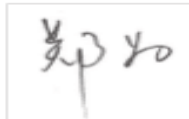
Testing End Date: 2022-05-11

#### 1.4. Signature



---

Xie Xiuzhen  
(Prepared this test report)



---

Zheng Wei  
(Reviewed this test report)



---

Hu Xiaoyu  
(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Hytera Communications Corporation Limited  
Address: Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road,  
Nanshan District, Shenzhen, P.R.C., P 518057  
Contact Person Ruifen Huang  
E-Mail Ruifen.Huang@hytera.com  
Telephone: 18925250460  
Fax: /

### **2.2. Manufacturer Information**

Company Name: Hytera Communications Corporation Limited  
Address: Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road,  
Nanshan District, Shenzhen, P.R.C., P 518057  
Contact Person Ruifen Huang  
E-Mail Ruifen.Huang@hytera.com  
Telephone: 18925250460  
Fax: /

### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

#### **3.1. About EUT**

Product Name	PoC Mobile Radio
Model Name	MNC360
RF Protocol	IEEE 802.11 b/g/n-HT20/n-HT40
Operating Frequency	2412MHz~2462MHz
Number of Channels	11
Antenna Type	Integrated
Antenna Gain	0.20dBi
Power Supply	13.6V DC by external power supply
FCC ID	YAMMNC360
IC	8913A-MNC360
Condition of EUT as received	No abnormality in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Receive Date</b>
UT03aa	866346040178303	V1.0.01.000.01	V1.0.06.000.01	2022-03-28
UT11aa	866346040178394	V1.0.01.000.01	V1.0.06.000.01	2022-03-28

\*EUT ID: is used to identify the test sample in the lab internally.

UT03aa is used for conduction test, UT11aa is used for radiation test.

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>AE ID*</b>
AE1	GPS Antenna	/
AE2	2G/3G/4G Antenna	/
AE3	DC power supply	/
AE4	Palm microphone	/

AE1

Model	DAMA1575AT41
Manufacturer	ZHANGJIAGANG FREE TRADE ZONE CAIQIN TECHNOLOGY CO.,LTD.

AE2

Model	AN1700W01
Manufacturer	/

AE3





Model                    ZUP60-14  
Manufacturer           /  
AE4  
Model                    SM16A1  
Manufacturer           Hytera Communications Corporation Limited

\*AE ID: is used to identify the test sample in the lab internally.

### **3.4. General Description**

The Equipment under Test (EUT) is a model of PoC Mobile Radio with integrated antenna. Manual and specifications of the EUT were provided to fulfil the test. Samples undergoing test were selected by the client.

### **3.5. Interpretation of the Test Environment**

For the test methods, the test environment uncertainty figures correspond to an expansion factor k=2.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

## **4. Reference Documents**

### **4.1. Documents supplied by applicant**

EUT parameters, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

### **4.2. Reference Documents for testing**

The following documents listed in this section are referred for testing.

<b>Reference</b>	<b>Title</b>	<b>Version</b>
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902–928MHz, 2400–2483.5 MHz, and 5725–5850 MHz	2019
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
RSS-247	Spectrum Management and Telecommunications Radio Standards Specification Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices	Issue 2 February, 2017
RSS-Gen	Spectrum Management and Telecommunications Radio Standards Specification General Requirements for Compliance of Radio Apparatus	Issue 5 February, 2021 Amendment 2
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES	2019

## 5. Test Results

### 5.1. Test Results

No	Test cases	Sub-clause of Part 15C	Sub-clause of IC	Verdict
0	Antenna Requirement	15.203	/	<b>P</b>
1	Maximum Output Power	15.247 (b)	RSS-247 section 5.4	<b>P</b>
2	Peak Power Spectral Density	15.247 (e)	RSS-247 section 5.2	<b>P</b>
3	6dB Bandwidth	15.247 (a)	RSS-247 section 5.2	<b>P</b>
4	Band Edges Compliance	15.247 (d)	RSS-247 section 5.5	<b>P</b>
5	Conducted Emission	15.247 (d)	RSS-247 section 5.5/ RSS-Gen section 6.13	<b>P</b>
6	Radiated Emission	15.247, 15.205, 15.209	RSS-247 section 5.5/ RSS-Gen section 6.13	<b>P</b>
7	99% Occupied Bandwidth	/	RSS-Gen section 6.7	<b>/</b>

See **ANNEX A** for details.

### 5.2. Statements

The test cases as listed in section 5.1 of this report for the EUT specified in section 3 was performed by CTTL and according to the standards or reference documents listed in section 4.2

The EUT met all requirements of the standards or reference documents, and only the WLAN function was tested in this report.

Disclaimer:

A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.

B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.

## 6. Test Equipments Utilized

### Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2022-12-29	1 year
2	Power Sensor	U2021XA	MY55430013	Keysight	2022-12-29	1 year
3	Data Acquisiton	U2531A	TW55443507	Keysight	/	/
4	RF Control Unit	JS0806-2	21C8060398	Tonscend	2023-05-08	1 year

### Radiated test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Antenna	VULB9163	01176	Schwarzbeck	2022-11-15	1 year
2	Loop Antenna	HFH2-Z2	829324/007	Schwarzbeck	2022-12-22	1 year
3	Receiver	ESU26	100376	R&S	2022-09-15	1 year
4	Antenna	3117	00139065	ETS-Lindgren	2022-09-13	1 year

### Test software

No.	Equipment	Manufacturer	Version
1	JS1120-3	Tonscend	2.6
2	EMC32	Rohde & Schwarz	V8.53.0

EUT is engineering software provided by the customer to control the transmitting signal. The EUT was programmed to be in continuously transmitting mode.

### Anechoic Chamber

Fully anechoic Chamber by ETS-Lindgren.

## 7. Laboratory Environment

### Shielded room

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-1000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω

### Semi/Full-anechoic chamber

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3 m distance, from 30 to 1000 MHz
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3 m distance

## 8. Measurement Uncertainty

Test Name	Uncertainty ( $k=2$ )	
1. Maximum Peak Output Power	1.32dB	
2. Peak Power Spectral Density	2.32dB	
3. 6dB Bandwidth	4.56kHz	
4. Band Edges Compliance	1.92dB	
5. Transmitter Spurious Emission - Conducted	30MHz $\leq$ f<1GHz	1.41dB
	1GHz $\leq$ f<7GHz	1.92dB
	7GHz $\leq$ f<13GHz	2.31dB
	13GHz $\leq$ f $\leq$ 26GHz	2.61dB
6. Transmitter Spurious Emission - Radiated	9kHz $\leq$ f<30MHz	4.49dB
	30MHz $\leq$ f<1GHz	5.73dB
	1GHz $\leq$ f<18GHz	5.58dB
	18GHz $\leq$ f $\leq$ 40GHz	3.37dB
7. 99% Occupied Bandwidth	4.56kHz	

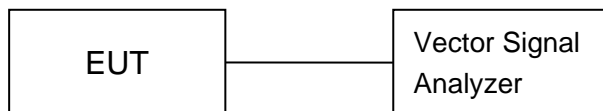
## ANNEX A: Detailed Test Results

### Test Configuration

The measurement is made according to ANSI C63.10.

#### 1) Conducted Measurements

1. Connect the EUT to the test system correctly.
2. Set the EUT to the required work mode.
3. Set the EUT to the required channel.
4. Set the spectrum analyzer to start measurement.
5. Record the values.

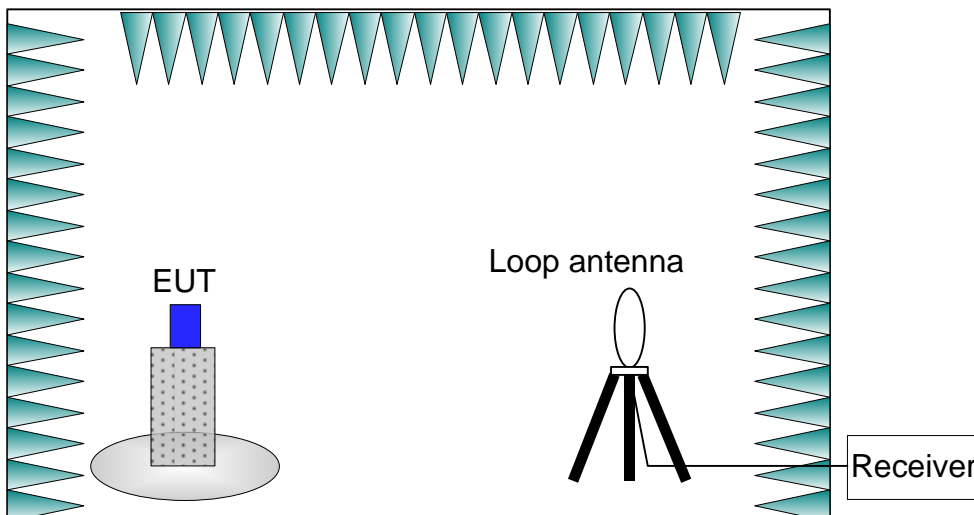


#### 2) Radiated Measurements

##### Test setup:

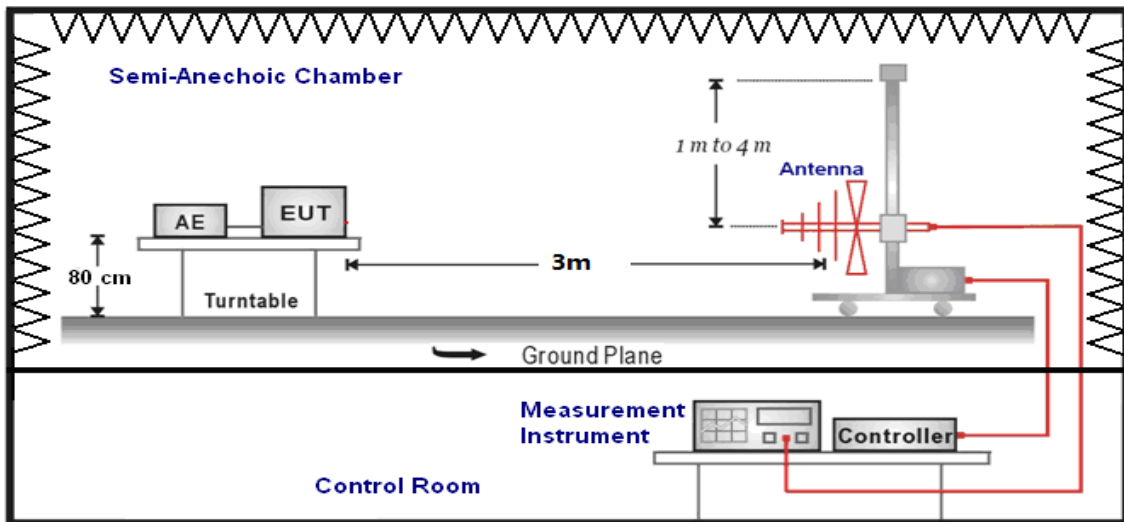
##### 9kHz-30MHz:

The EUT are measured in a semi-anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.



**30MHz-1GHz:**

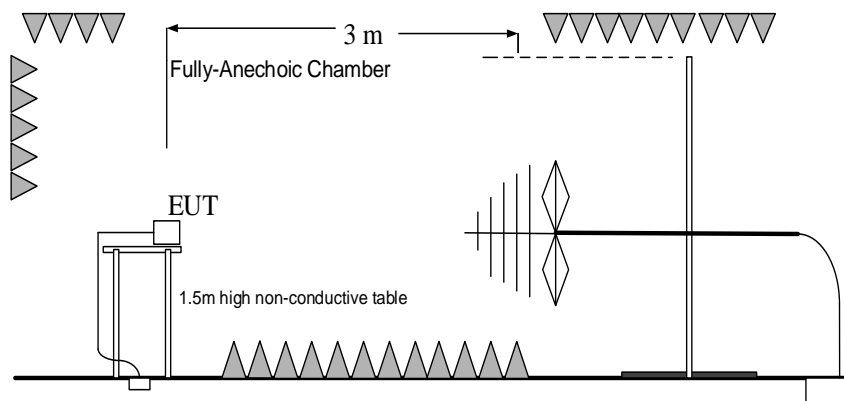
The EUT are measured in a semi-anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving antenna is 1.0 meter to 4.0 meter above the ground. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.



**Above 1GHz:**

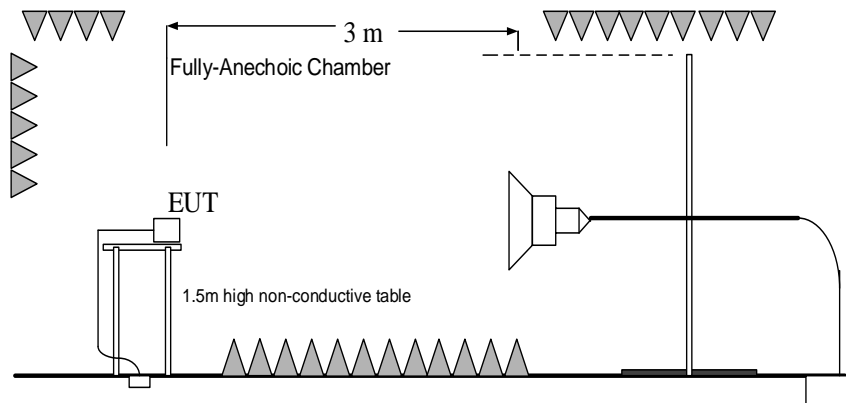
EUT was placed on a 1.5 meter high non-conductive table at a 3 meter test distance from the receive antenna. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiving antenna polarization.

**1GHz-3GHz:**





**3GHz-40GHz:**





## A.0 Antenna requirement

### Measurement Limit:

Standard	Requirement
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. 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 provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

**Conclusion: The Directional gains of antenna used for transmitting: 0.20dBi.  
The RF transmitter uses an integrate antenna without connector.**

## A.1 Maximum Output Power

**Measurement of method: See ANSI C63.10-2013-Clause 11.9.2.3.2**

Method AVGPM-G is a measurement using a gated RF average power meter.

Alternatively, measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

### Measurement Limit:

Standard	Limit (dBm)	E.I.R.P Limit (dBm)
FCC CRF Part 15.247(b) & RSS-247 Section 5.4	< 30	< 36

### Measurement Results:

Mode	Channel	Frequency (MHz)	Average Conducted Power (dBm)	E.I.R.P (dBm)	Conclusion
802.11b	CH 1	2412	16.89	17.09	<b>P</b>
	CH 6	2437	16.31	16.51	<b>P</b>
	CH 11	2462	16.62	16.82	<b>P</b>
802.11g	CH 1	2412	14.74	14.94	<b>P</b>
	CH 6	2437	14.12	14.32	<b>P</b>
	CH 11	2462	14.18	14.38	<b>P</b>
802.11n- HT20	CH 1	2412	13.77	13.97	<b>P</b>
	CH 6	2437	13.20	13.40	<b>P</b>
	CH 11	2462	13.17	13.37	<b>P</b>
802.11n- HT40	CH 3	2422	13.74	13.94	<b>P</b>
	CH 6	2437	13.25	13.45	<b>P</b>
	CH 9	2452	13.64	13.84	<b>P</b>

### Note:

The data rate 1Mbps (11b mode), 6Mbps (11g mode) and MCS0 (11n mode) are selected as the Worst-Case. The following cases and test graphs are performed with this condition.

The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

**Conclusion: PASS**

## A.2 Peak Power Spectral Density

### Measurement Limit:

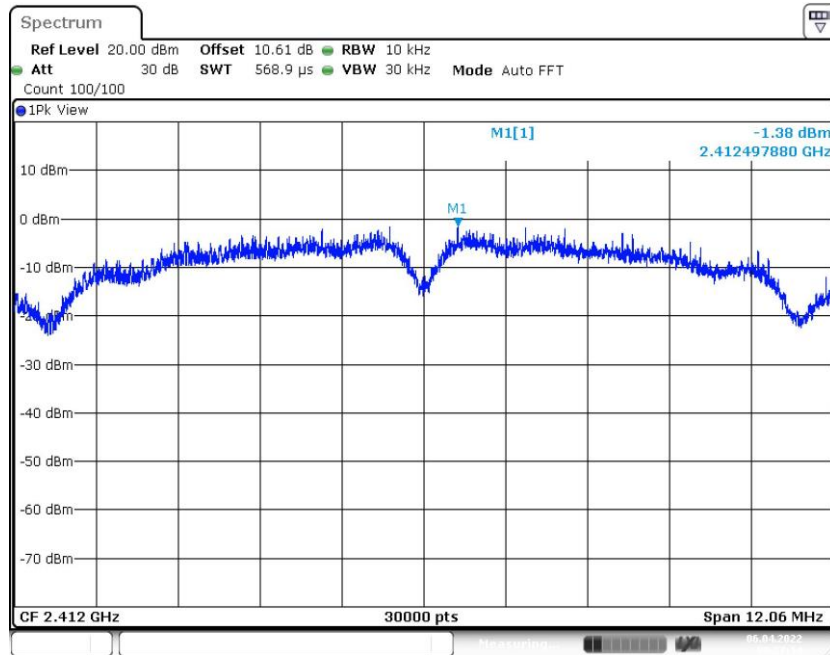
Standard	Limit (dBm/3 kHz)
FCC CRF Part 15.247(e) & RSS-247 Section 5.2	< 8 dBm/3 kHz

### Measurement Results:

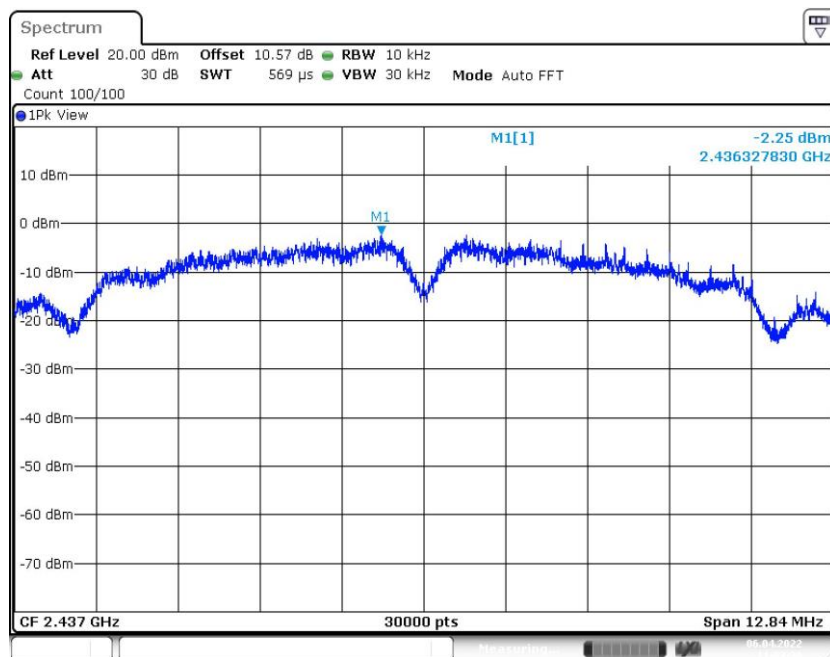
Mode	Channel	Frequency (MHz)	Test Results(dBm/10 kHz)		Conclusion
			Fig.	Value	
802.11b	CH 1	2412	Fig.1	-1.38	P
	CH 6	2437	Fig.2	-2.25	P
	CH 11	2462	Fig.3	-1.57	P
802.11g	CH 1	2412	Fig.4	-5.37	P
	CH 6	2437	Fig.5	-6.06	P
	CH 11	2462	Fig.6	-6.53	P
802.11n- HT20	CH 1	2412	Fig.7	-6.42	P
	CH 6	2437	Fig.8	-6.38	P
	CH 11	2462	Fig.9	-8.45	P
802.11n- HT40	CH 3	2422	Fig.10	-8.78	P
	CH 6	2437	Fig.11	-9.58	P
	CH 9	2452	Fig.12	-9.82	P

See below for test graphs.

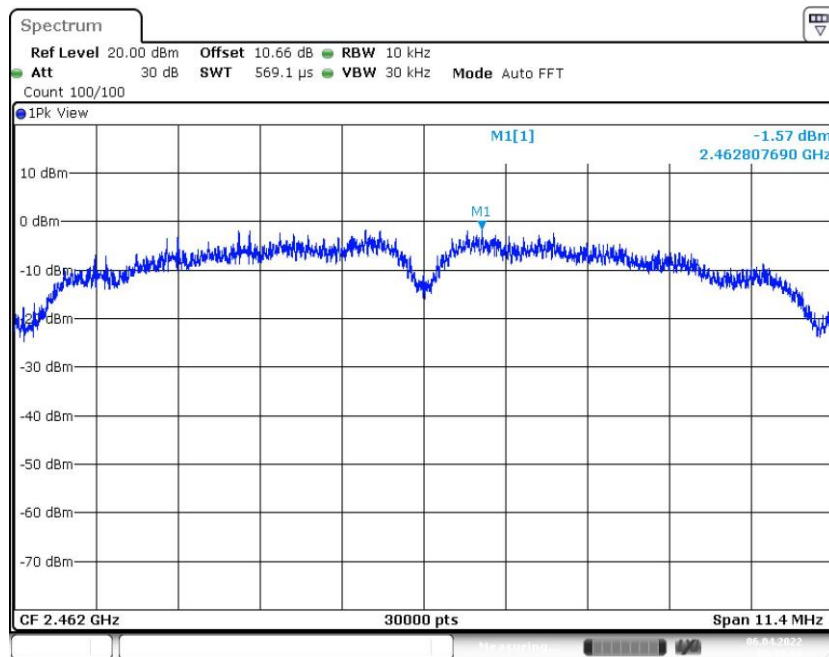
**Conclusion: PASS**



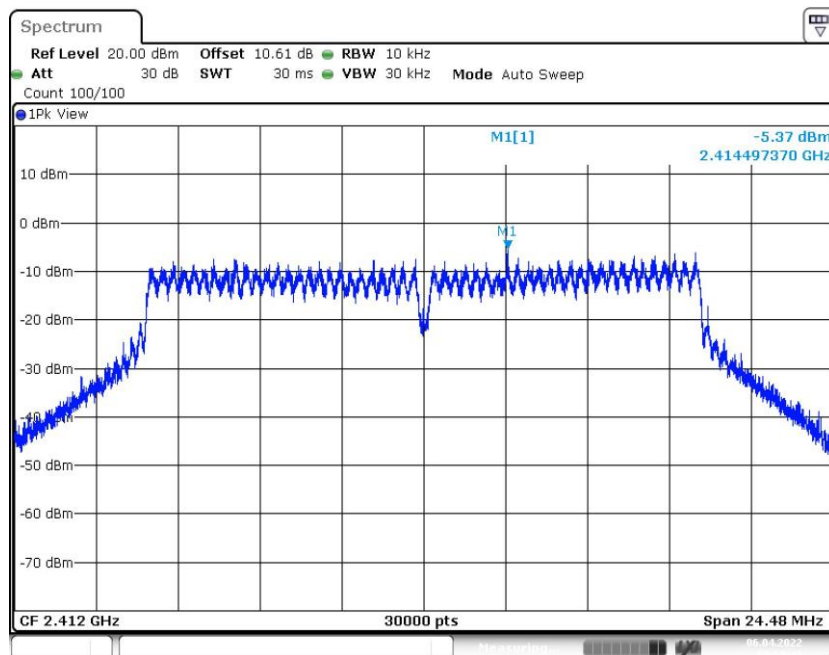
**Fig.1 Power Spectral Density (802.11b, CH 1)**



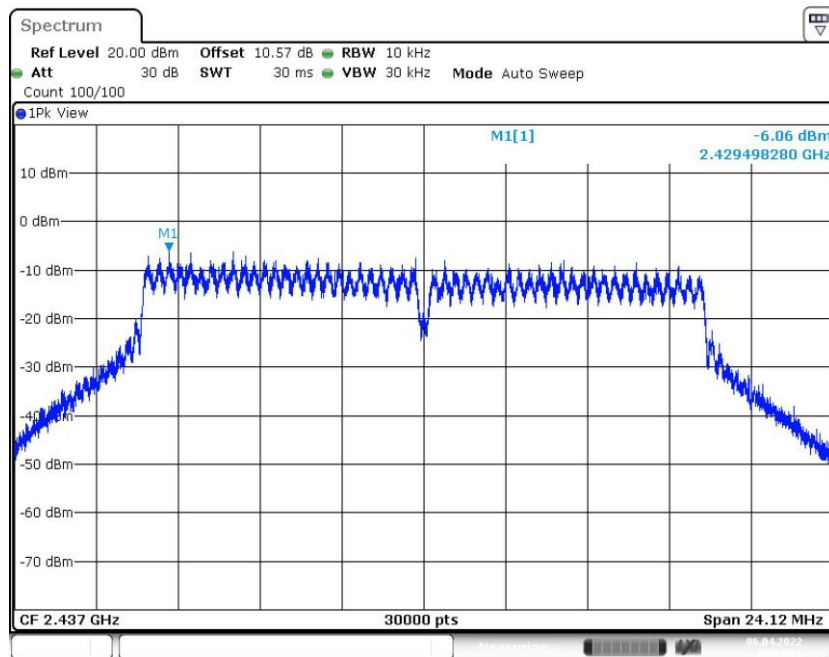
**Fig.2 Power Spectral Density (802.11b, CH 6)**



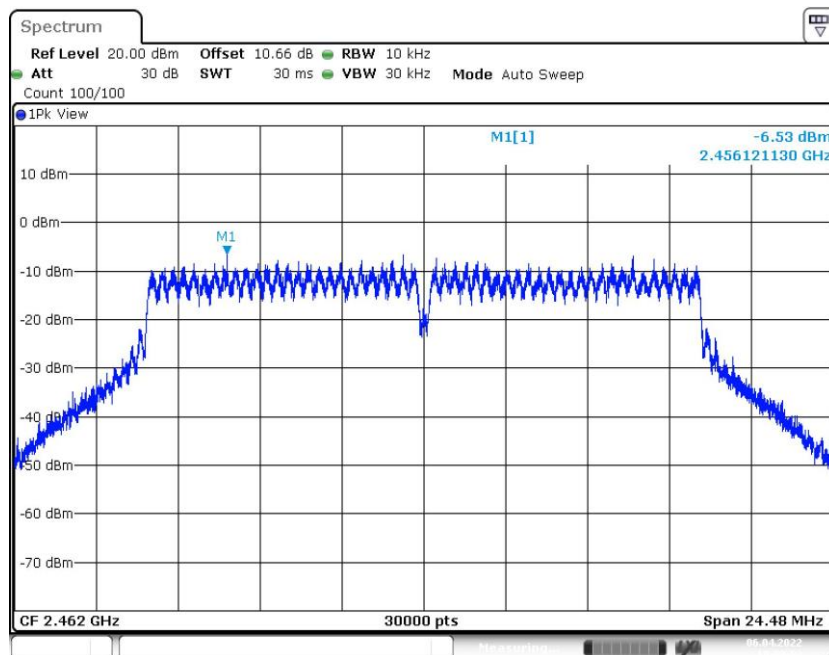
**Fig.3 Power Spectral Density (802.11b, CH 11)**



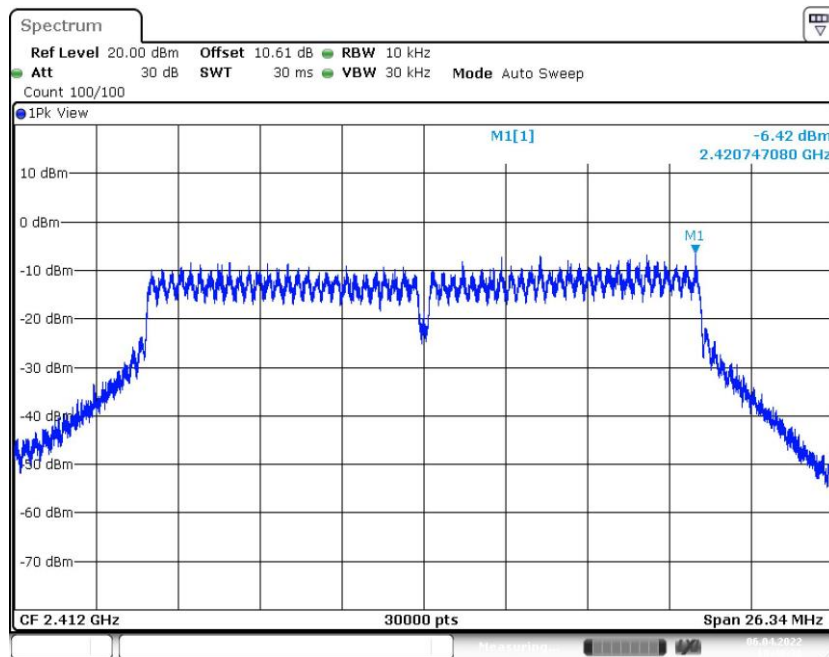
**Fig.4 Power Spectral Density (802.11g, CH 1)**



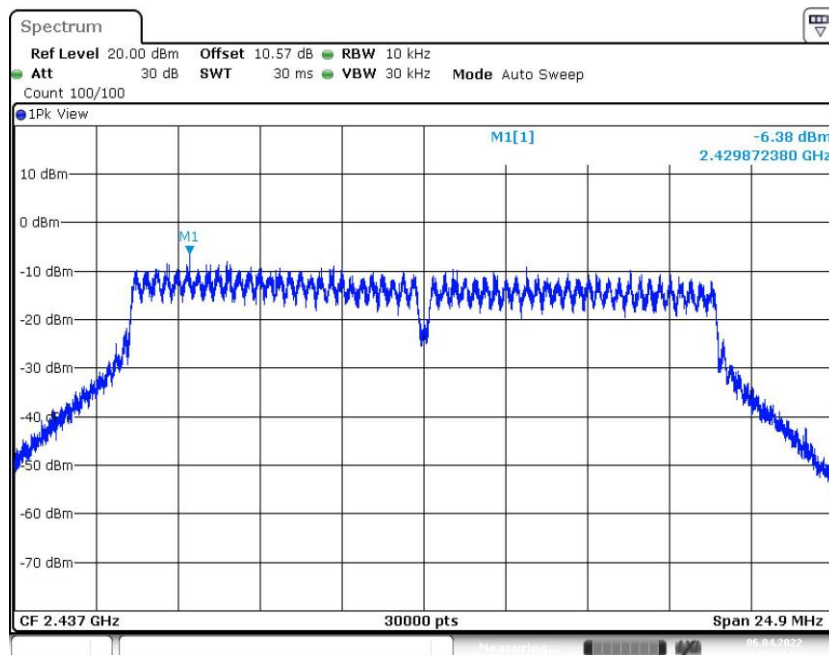
**Fig.5 Power Spectral Density (802.11g, CH 6)**



**Fig.6 Power Spectral Density (802.11g, CH 11)**

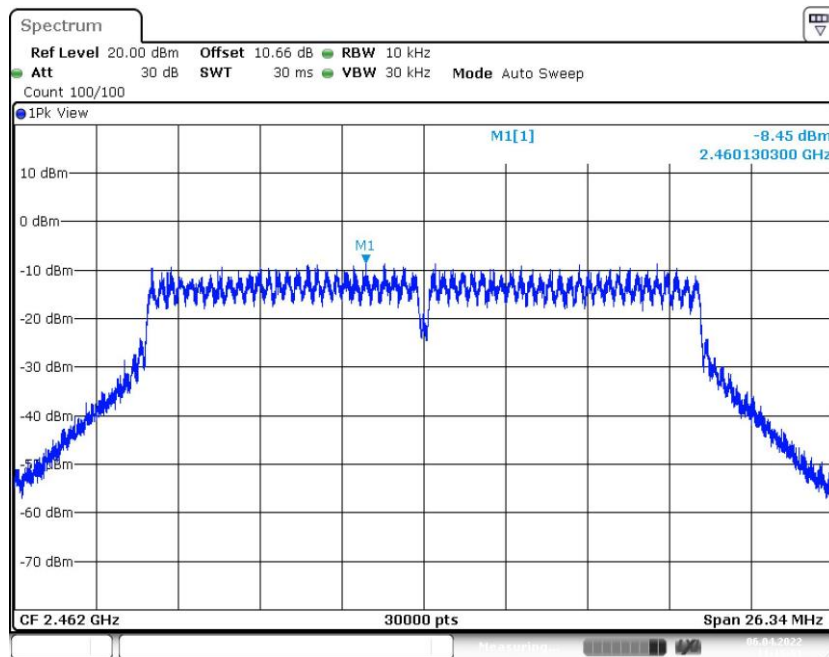


**Fig.7 Power Spectral Density (802.11n-HT20, CH 1)**

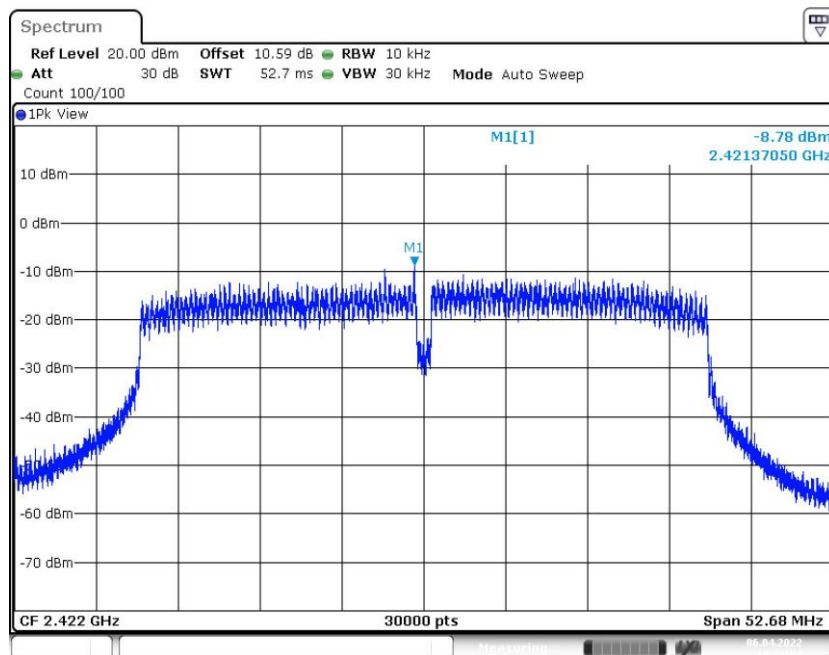


**Fig.8 Power Spectral Density (802.11n-HT20, CH 6)**

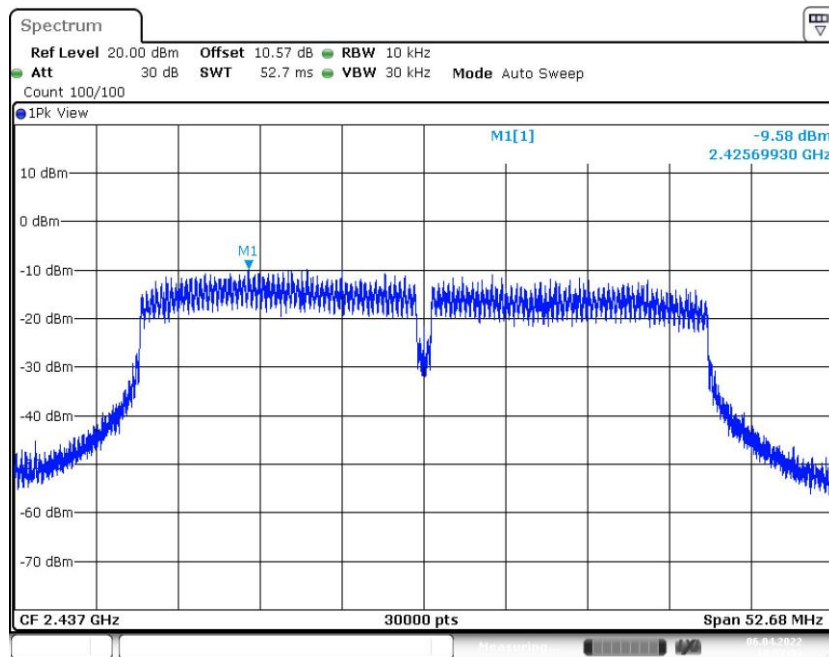




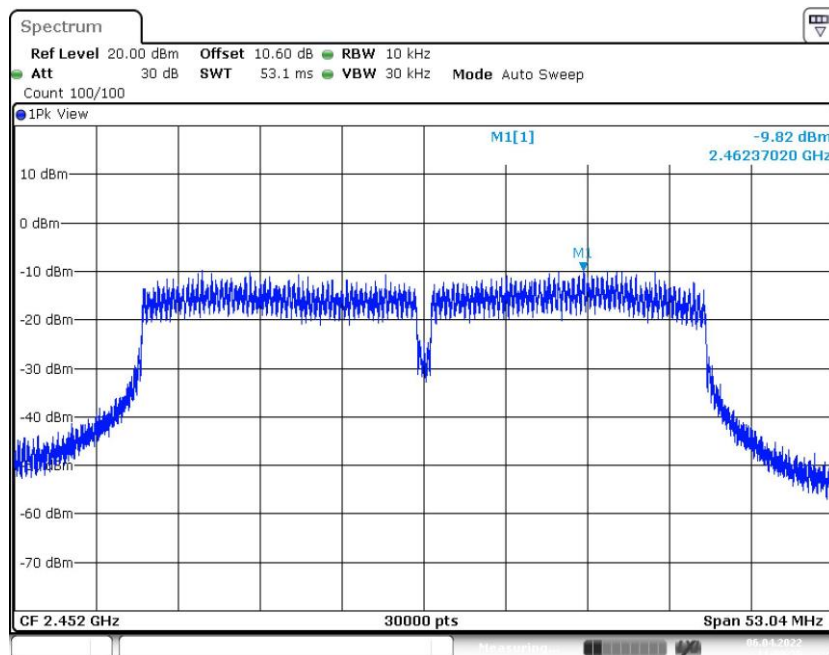
**Fig.9 Power Spectral Density (802.11n-HT20, CH 11)**



**Fig.10 Power Spectral Density (802.11n-HT40, CH 3)**



**Fig.11 Power Spectral Density (802.11n-HT40, CH 6)**



**Fig.12 Power Spectral Density (802.11n-HT40, CH 9)**

### A.3 6dB Bandwidth

#### Measurement Limit:

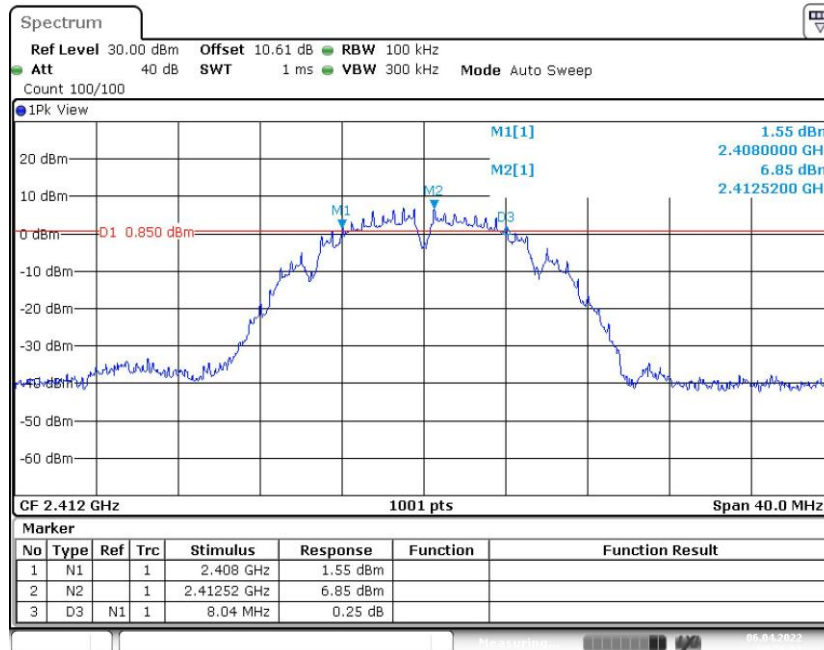
Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a) & RSS-247 Section 5.2	≥ 500

#### Measurement Result:

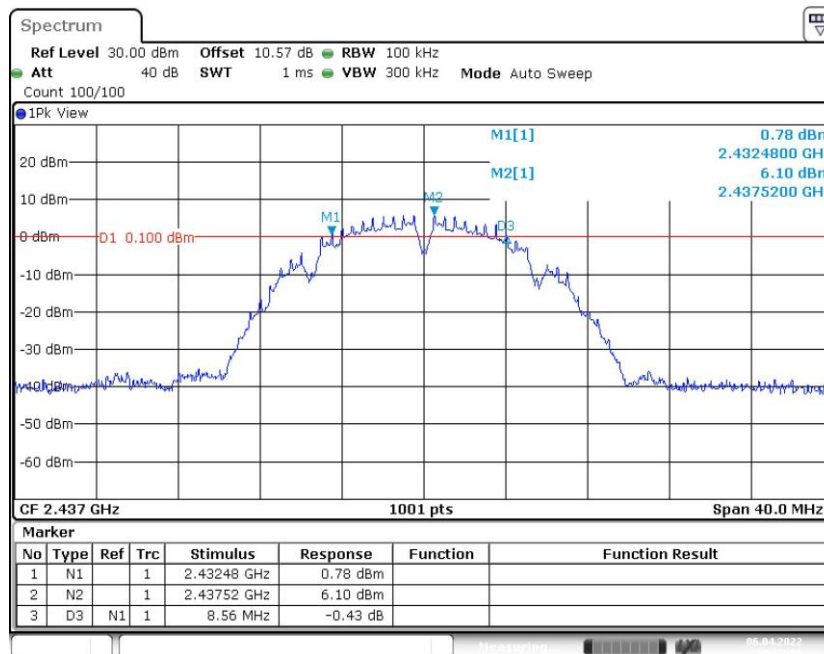
Mode	Channel	Frequency (MHz)	Test Results (kHz)		Conclusion
			Fig.	Value	
802.11b	CH 1	2412	Fig.13	8040	P
	CH 6	2437	Fig.14	8560	P
	CH 11	2462	Fig.15	7600	P
802.11g	CH 1	2412	Fig.16	16320	P
	CH 6	2437	Fig.17	16080	P
	CH 11	2462	Fig.18	16320	P
802.11n- HT20	CH 1	2412	Fig.19	17560	P
	CH 6	2437	Fig.20	16600	P
	CH 11	2462	Fig.21	17560	P
802.11n- HT40	CH 3	2422	Fig.22	35120	P
	CH 6	2437	Fig.23	35120	P
	CH 9	2452	Fig.24	35360	P

See below for test graphs.

**Conclusion: PASS**



**Fig.13 6dB Bandwidth (802.11b, CH 1)**



**Fig.14 6dB Bandwidth (802.11b, CH 6)**

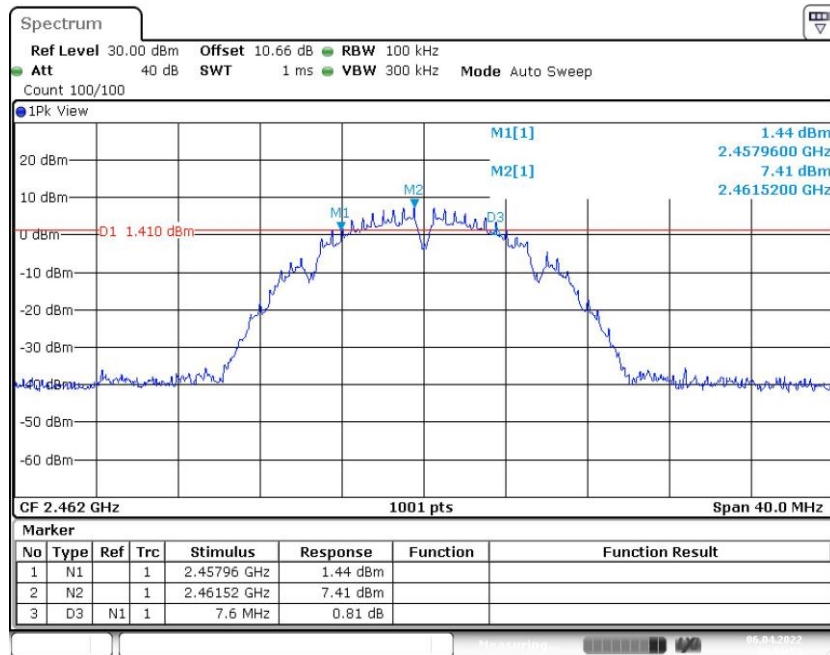


Fig.15 6dB Bandwidth (802.11b, CH 11)

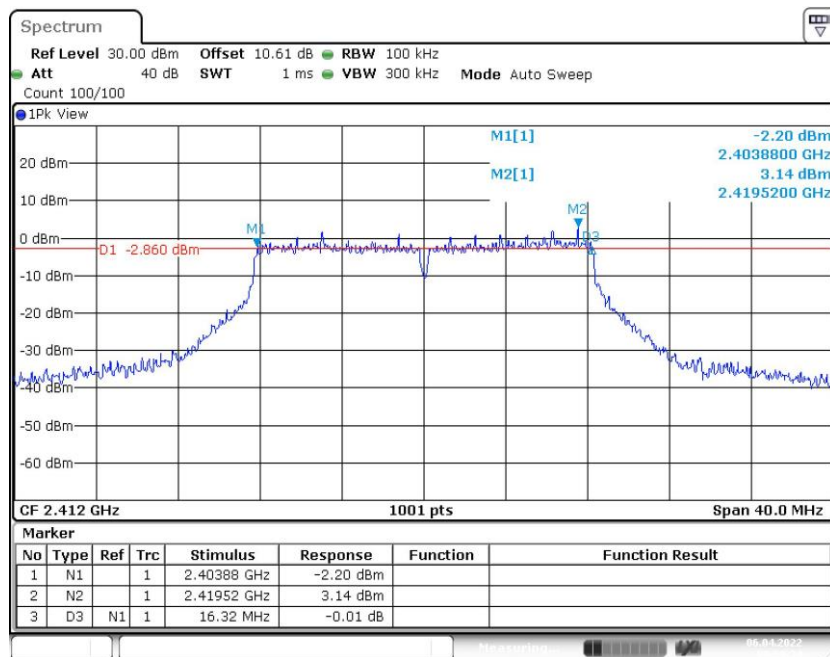
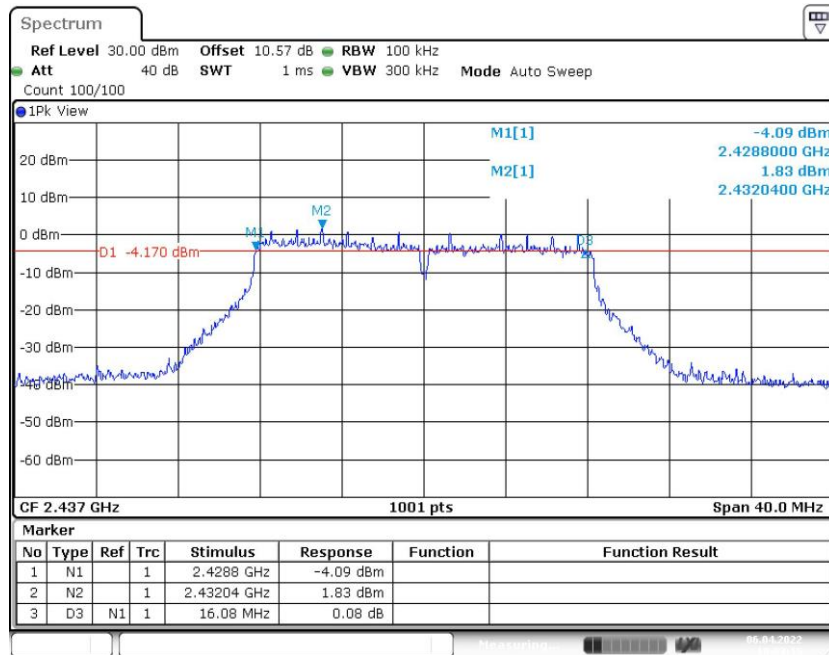
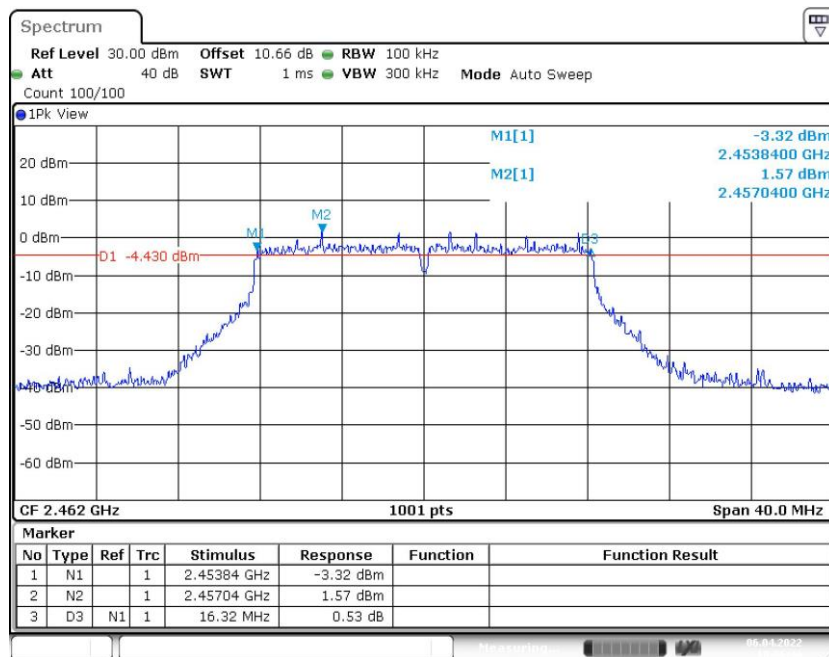


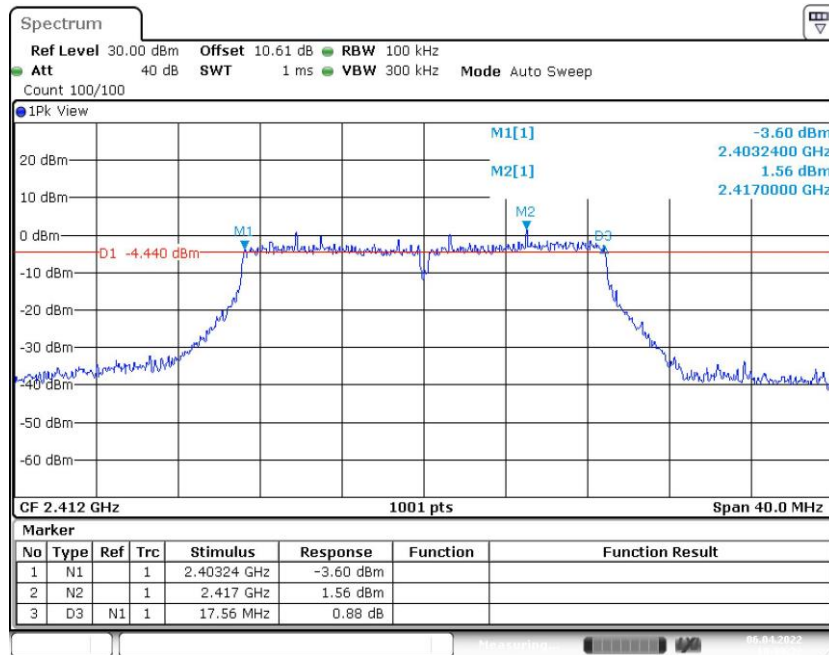
Fig.16 6dB Bandwidth (802.11g, CH 1)



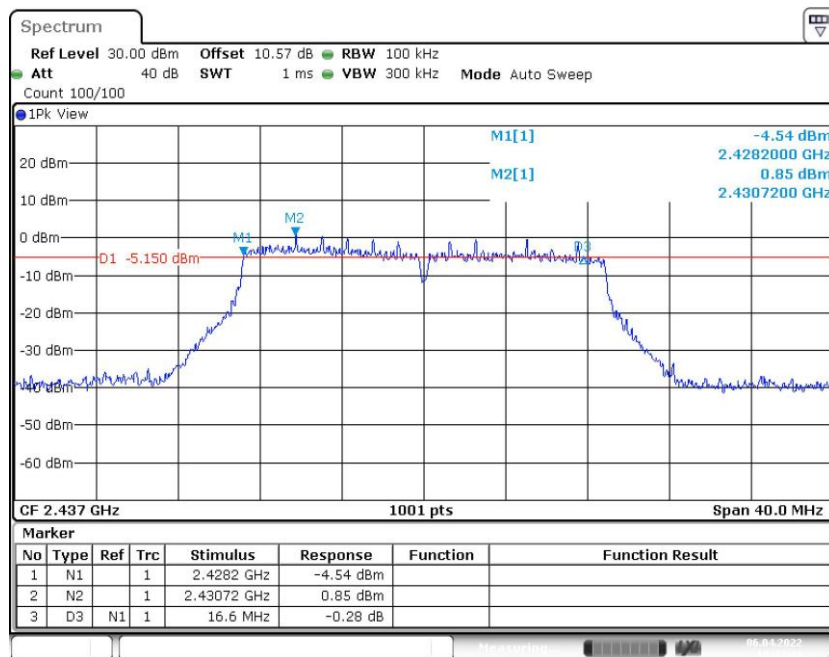
**Fig.17 6dB Bandwidth (802.11g, CH 6)**



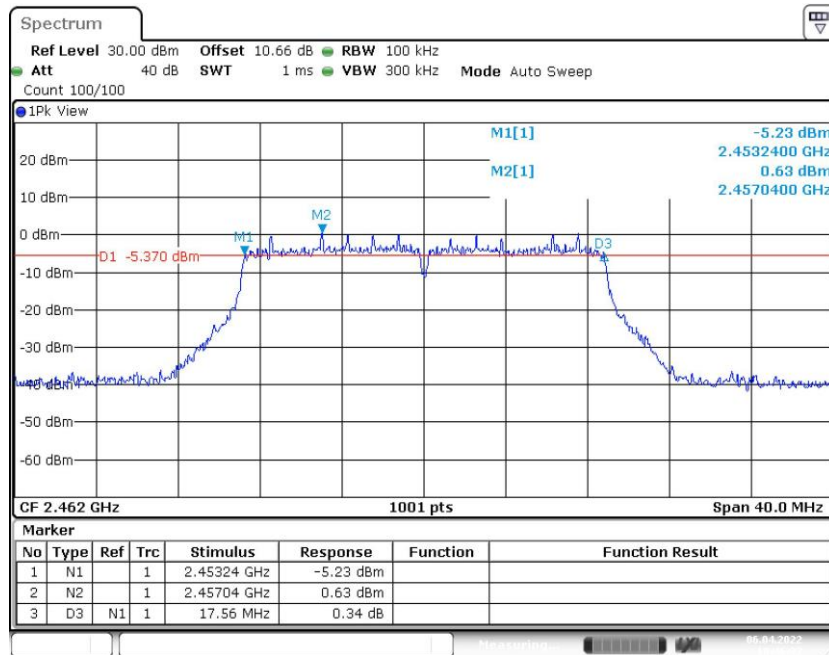
**Fig.18 6dB Bandwidth (802.11g, CH 11)**



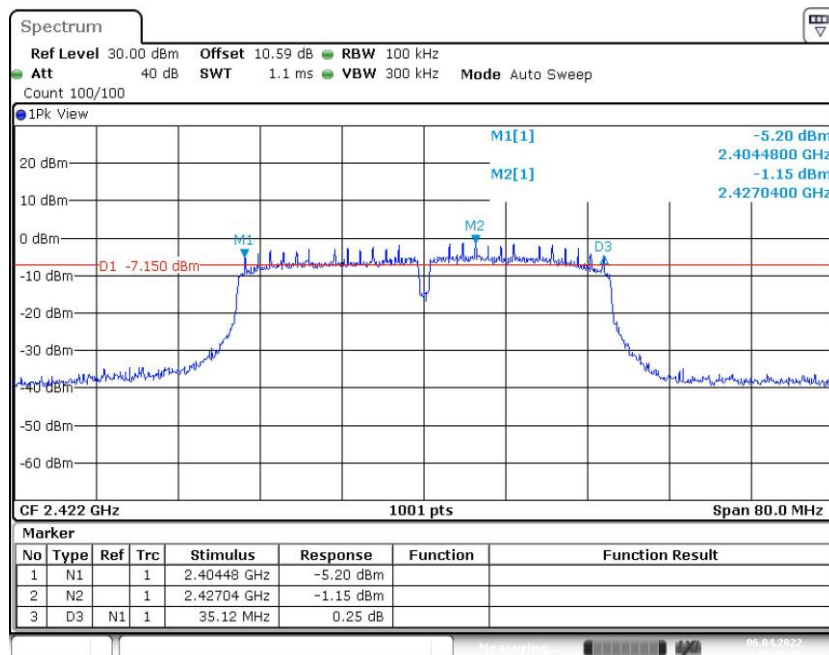
**Fig.19 6dB Bandwidth (802.11n-HT20, CH 1)**



**Fig.20 6dB Bandwidth (802.11n-HT20, CH 6)**

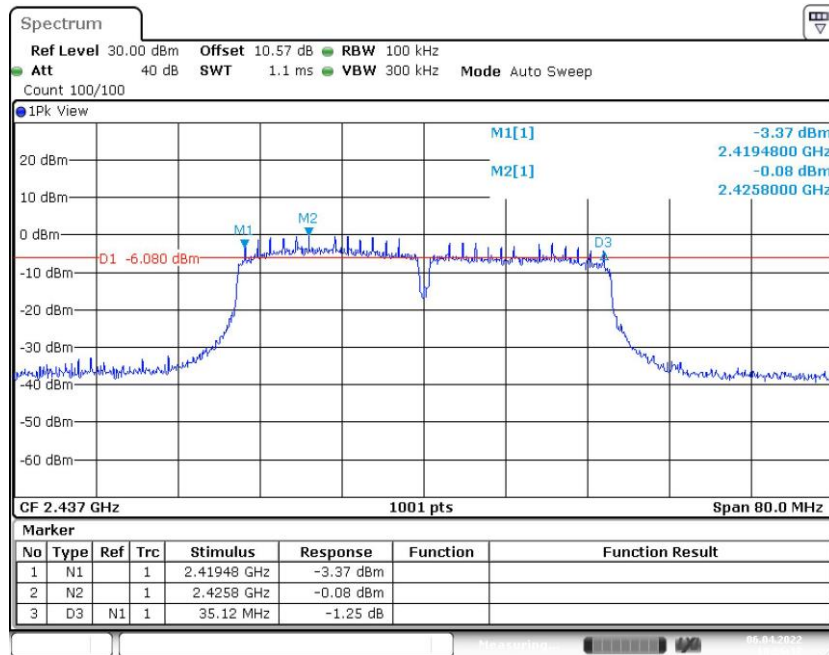


**Fig.21 6dB Bandwidth (802.11n-HT20, CH 11)**



**Fig.22 6dB Bandwidth (802.11n-HT40, CH 3)**





**Fig.23 6dB Bandwidth (802.11n-HT40, CH 6)**



**Fig.24 6dB Bandwidth (802.11n-HT40, CH 9)**

#### A.4 Band Edges Compliance

**Measurement Limit:**

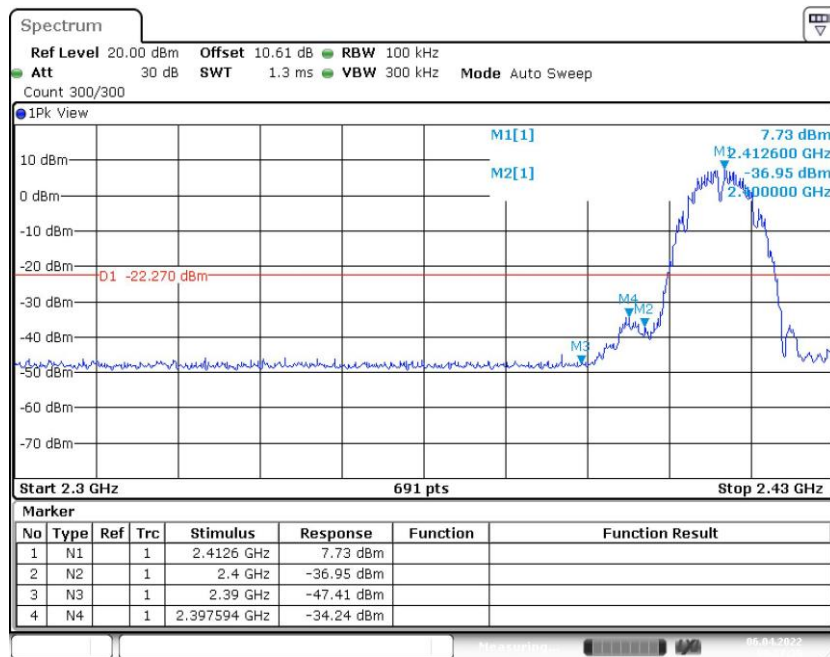
Standard	Limit (dBm)
FCC 47 CFR Part 15.247 (d) & RSS-247 Section 5.5	> 20

**Measurement Result:**

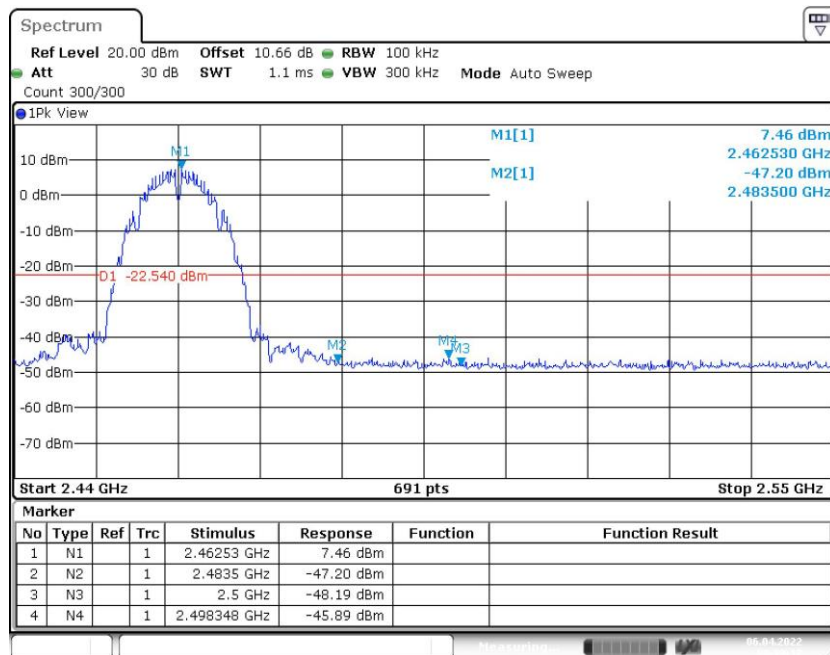
Mode	Channel	Frequency (MHz)	Test Results (dBm)		Conclusion
			Fig.	Value	
802.11b	CH1	2412	Fig.25	41.97	<b>P</b>
	CH11	2462	Fig.26	53.35	<b>P</b>
802.11g	CH1	2412	Fig.27	34.72	<b>P</b>
	CH11	2462	Fig.28	44.63	<b>P</b>
802.11n- HT20	CH1	2412	Fig.29	33.04	<b>P</b>
	CH11	2462	Fig.30	44.48	<b>P</b>
802.11n- HT40	CH3	2422	Fig.31	32.38	<b>P</b>
	CH9	2452	Fig.32	36.41	<b>P</b>

See below for test graphs.

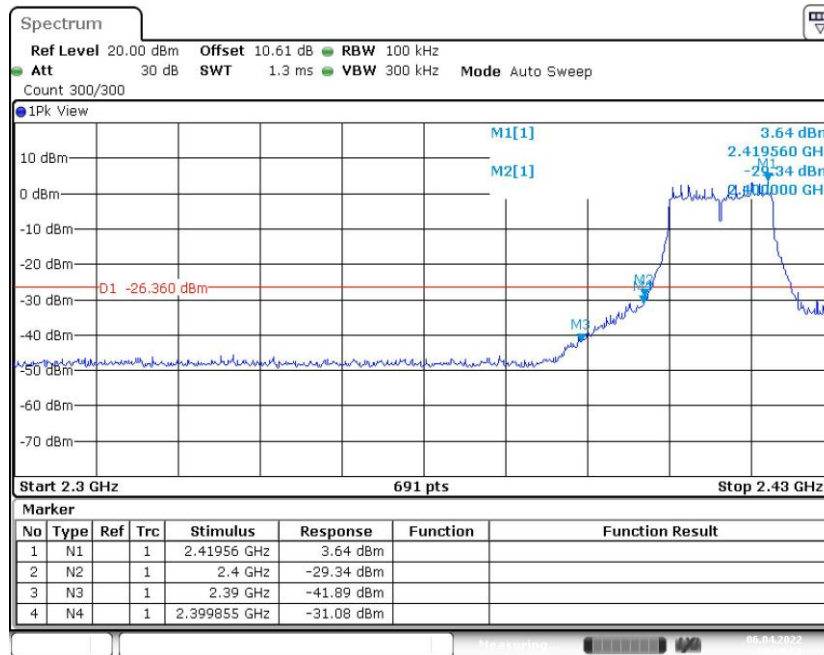
**Conclusion: PASS**



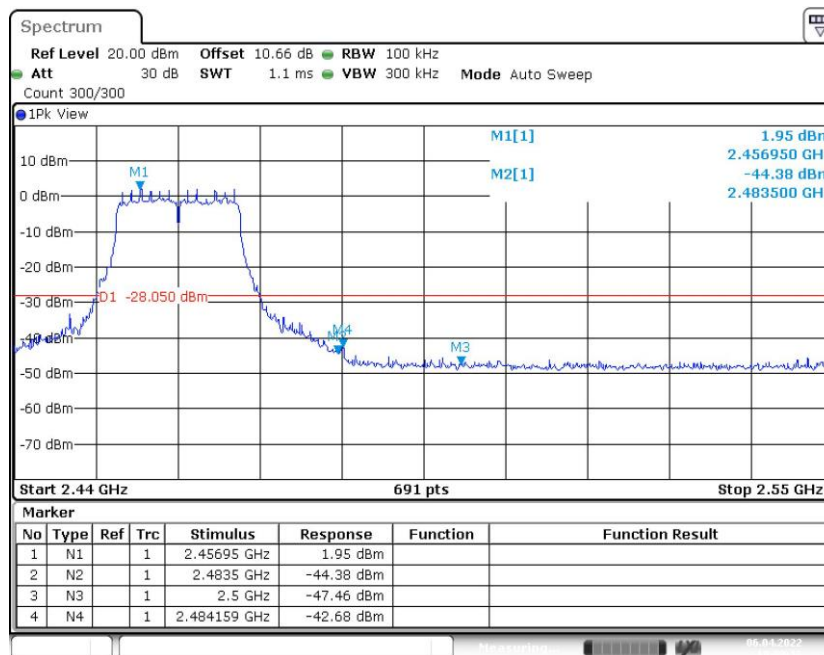
**Fig.25 Band Edges (802.11b, CH 1)**



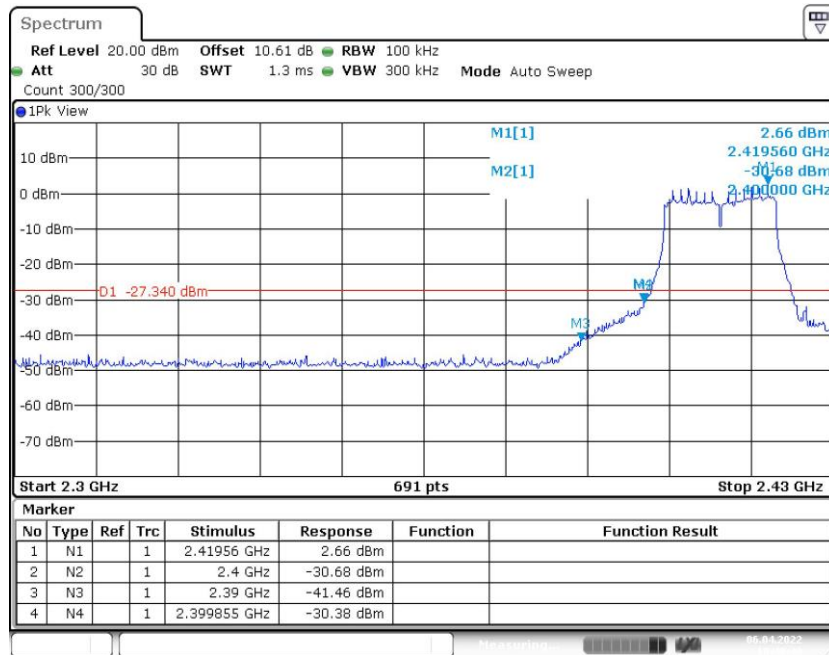
**Fig.26 Band Edges (802.11b, CH 11)**



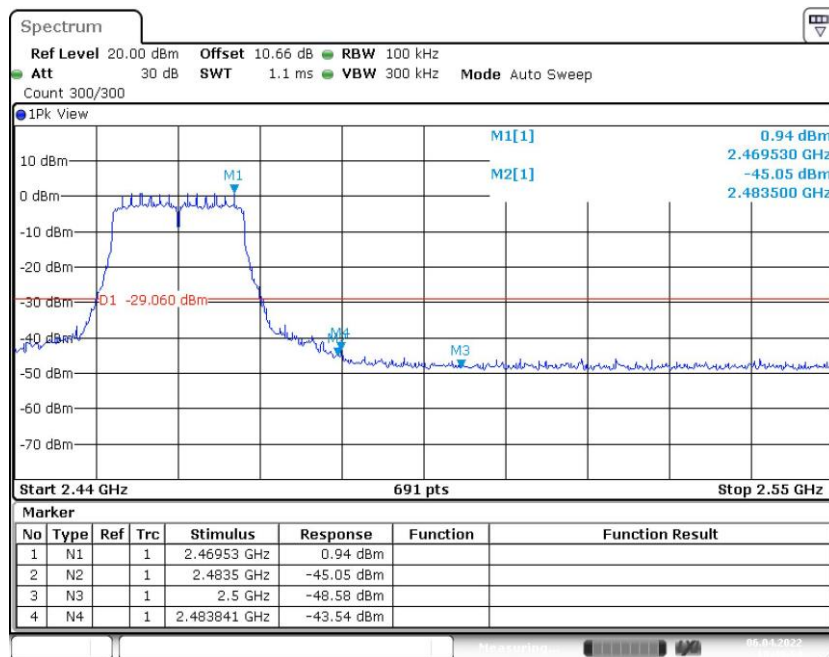
**Fig.27 Band Edges (802.11g, CH 1)**



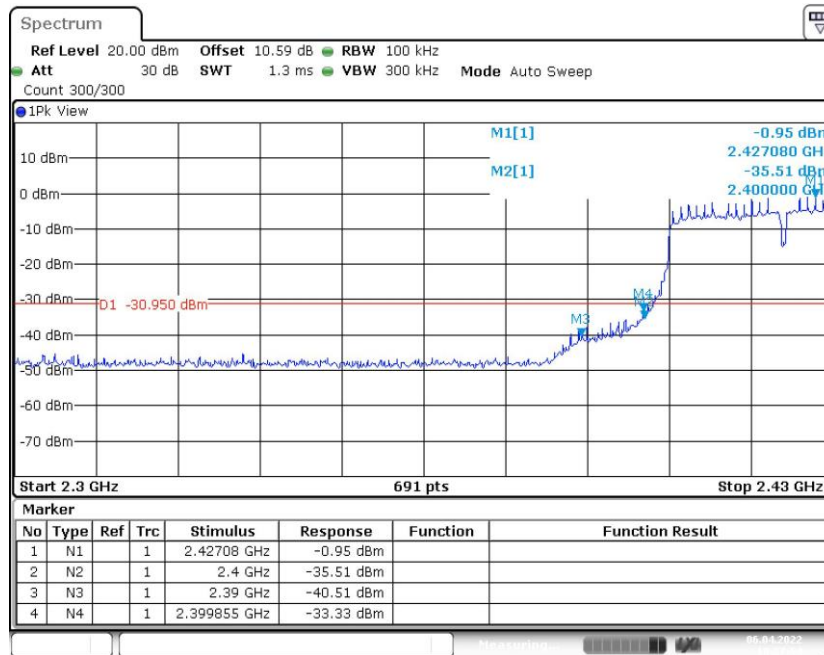
**Fig.28 Band Edges (802.11g, CH 11)**



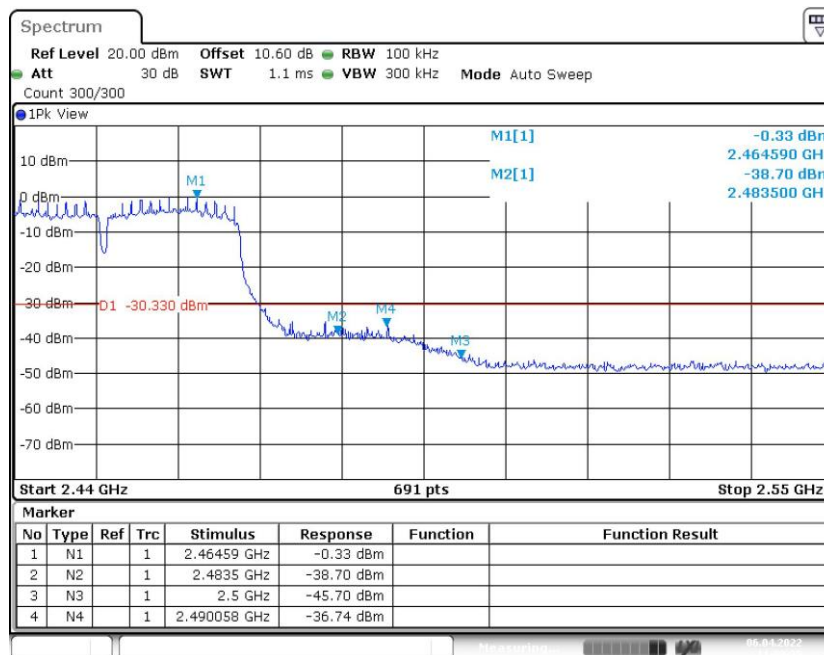
**Fig.29 Band Edges (802.11n-HT20, CH 1)**



**Fig.30 Band Edges (802.11n-HT20, CH 11)**



**Fig.31 Band Edges (802.11n-HT40, CH 3)**



**Fig.32 Band Edges (802.11n-HT40, CH 9)**

## A.5 Conducted Emission

### Measurement Limit:

Standard	Limit (dBm)
FCC 47 CFR Part 15.247 (d) & RSS-247 Section 5.5/RSS-Gen Section 6.13	30dBm below peak output power in 100 kHz bandwidth

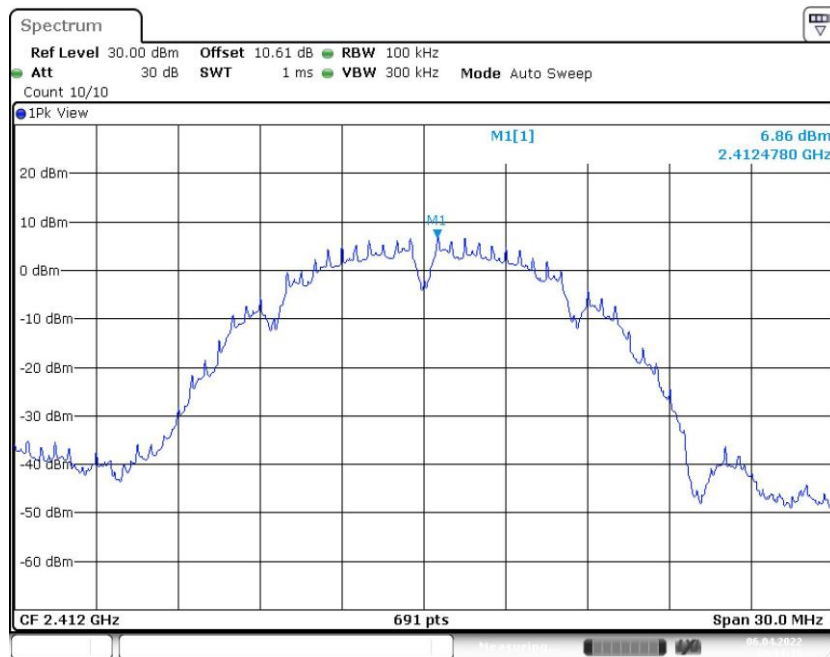
### Measurement Results:

Mode	Channel	Frequency (MHz)	Frequency Range	Test Results	Conclusion
802.11b	CH 1	2412	2.412 GHz	Fig.33	P
			30MHz -1GHz	Fig.34	P
			1GHz-26.5GHz	Fig.35	P
	CH 6	2437	2.437 GHz	Fig.36	P
			30MHz -1GHz	Fig.37	P
			1GHz-26.5GHz	Fig.38	P
	CH 11	2462	2.462 GHz	Fig.39	P
			30MHz -1GHz	Fig.40	P
			1GHz-26.5GHz	Fig.41	P
802.11g	CH 1	2412	2.412 GHz	Fig.42	P
			30MHz -1GHz	Fig.43	P
			1GHz-26.5GHz	Fig.44	P
	CH 6	2437	2.437 GHz	Fig.45	P
			30MHz -1GHz	Fig.46	P
			1GHz-26.5GHz	Fig.47	P
	CH 11	2462	2.462 GHz	Fig.48	P
			30MHz -1GHz	Fig.49	P
			1GHz-26.5GHz	Fig.50	P
802.11n- HT20	CH 1	2412	2.412 GHz	Fig.51	P
			30MHz -1GHz	Fig.52	P
			1GHz-26.5GHz	Fig.53	P
	CH 6	2437	2.437 GHz	Fig.54	P
			30MHz -1GHz	Fig.55	P
			1GHz-26.5GHz	Fig.56	P
	CH 11	2462	2.462 GHz	Fig.57	P
			30MHz -1GHz	Fig.58	P
			1GHz-26.5GHz	Fig.59	P
802.11n- HT40	CH 3	2422	2.422 GHz	Fig.60	P
			30MHz -1GHz	Fig.61	P
			1GHz-26.5GHz	Fig.62	P
	CH 6	2437	2.437 GHz	Fig.63	P

			30MHz -1GHz	Fig.64	<b>P</b>
			1GHz-26.5GHz	Fig.65	<b>P</b>
	CH 9	2452	2.452 GHz	Fig.66	<b>P</b>
			30MHz -1GHz	Fig.67	<b>P</b>
			1GHz-26.5GHz	Fig.68	<b>P</b>

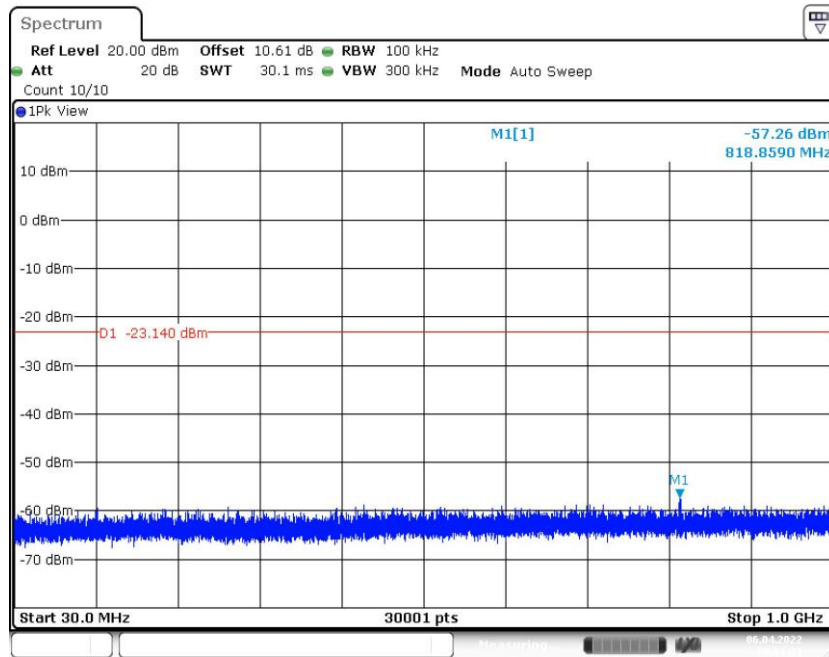
See below for test graphs.

Conclusion: **PASS**

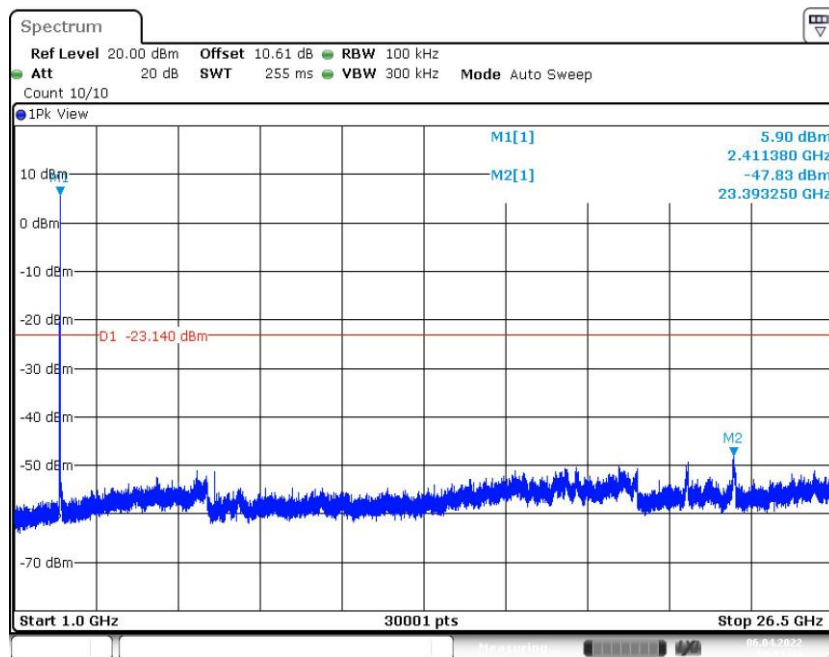


**Fig.33 Conducted Spurious Emission (Center Frequency, 802.11b, CH1)**

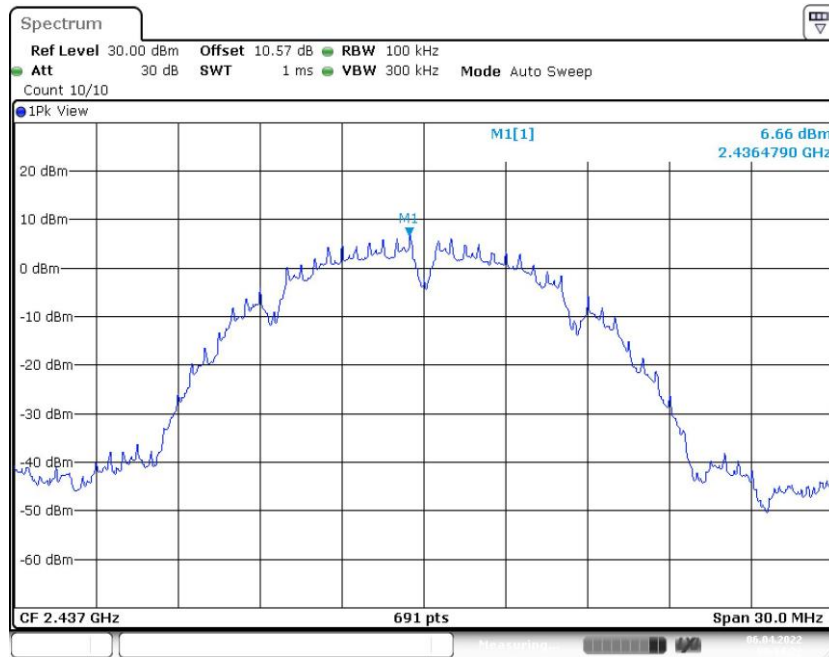




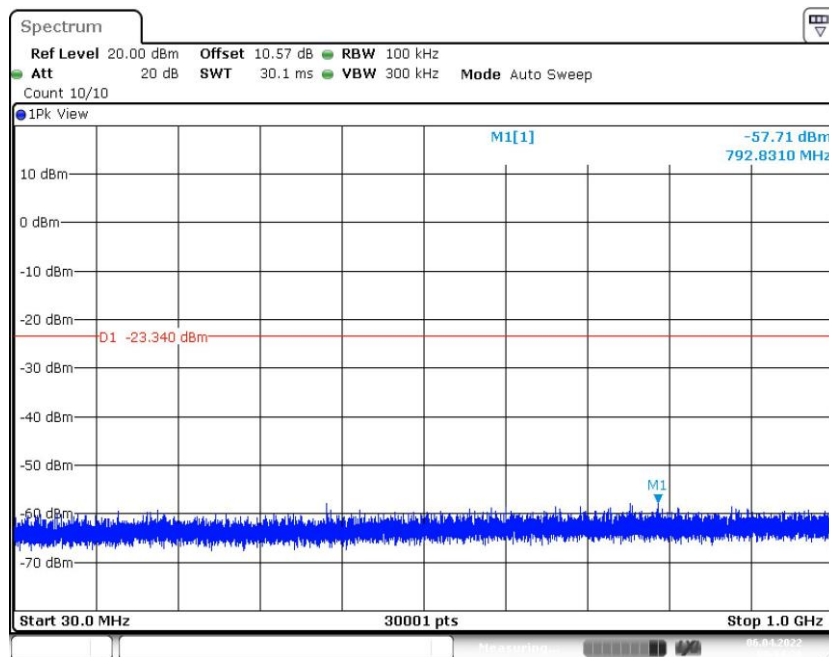
**Fig.34 Conducted Spurious Emission (30MHz -1GHz, 802.11b, CH1)**



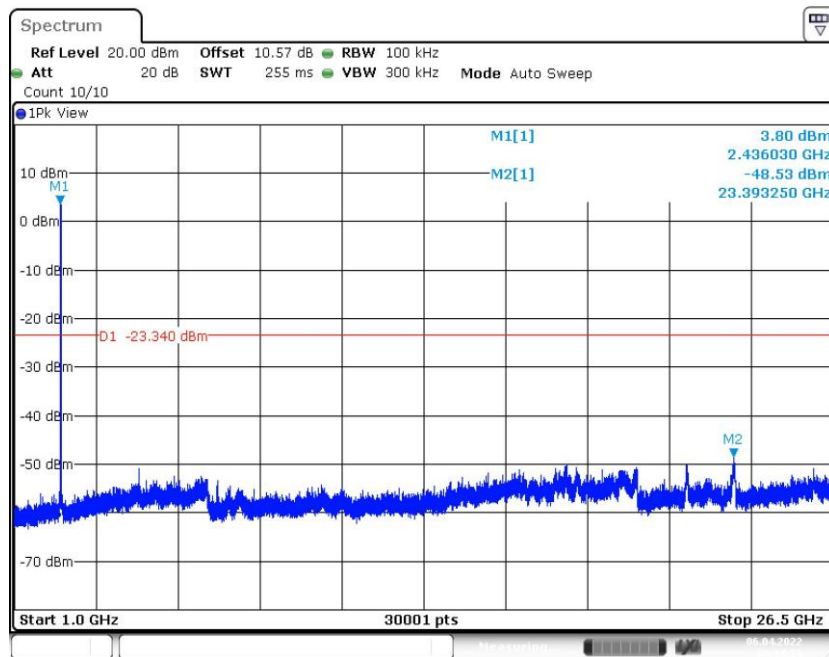
**Fig.35 Conducted Spurious Emission (1GHz-26.5GHz, 802.11b, CH1)**



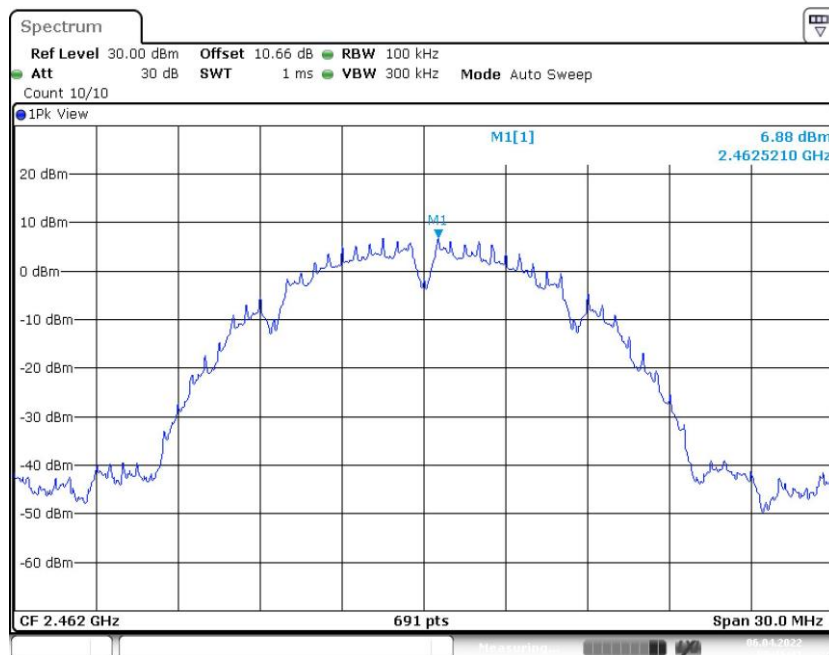
**Fig.36 Conducted Spurious Emission (Center Frequency, 802.11b, CH6)**



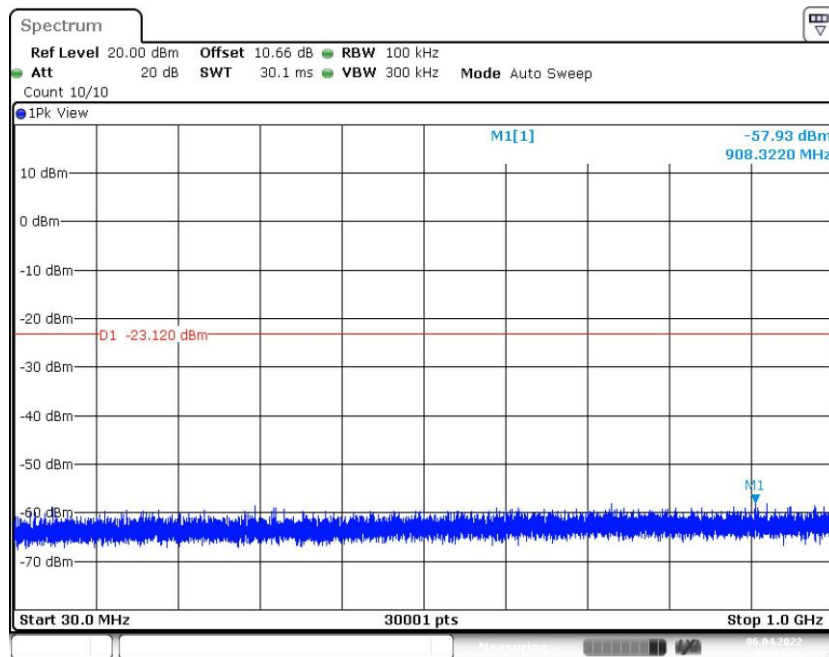
**Fig.37 Conducted Spurious Emission (30MHz -1GHz, 802.11b, CH6)**



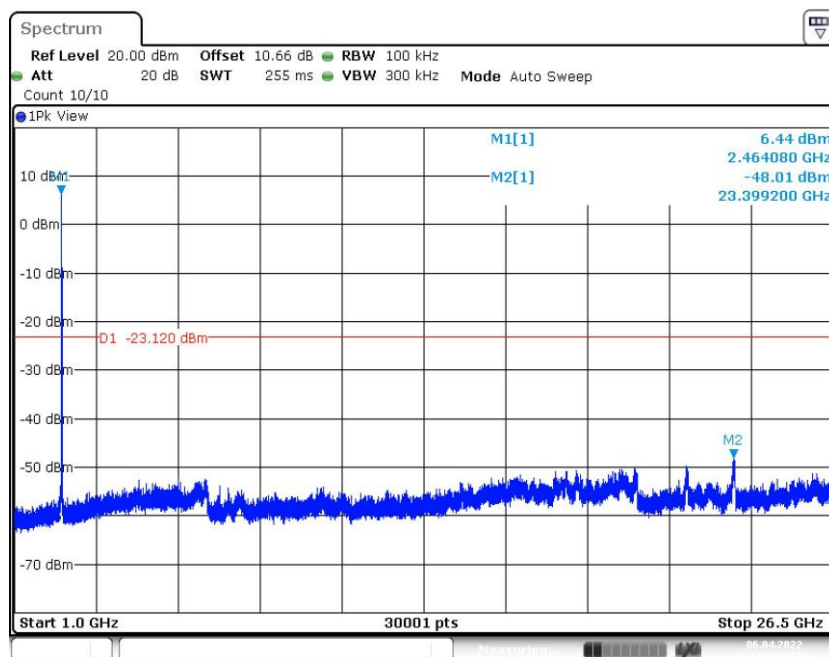
**Fig.38 Conducted Spurious Emission (1GHz-26.5GHz, 802.11b, CH6)**



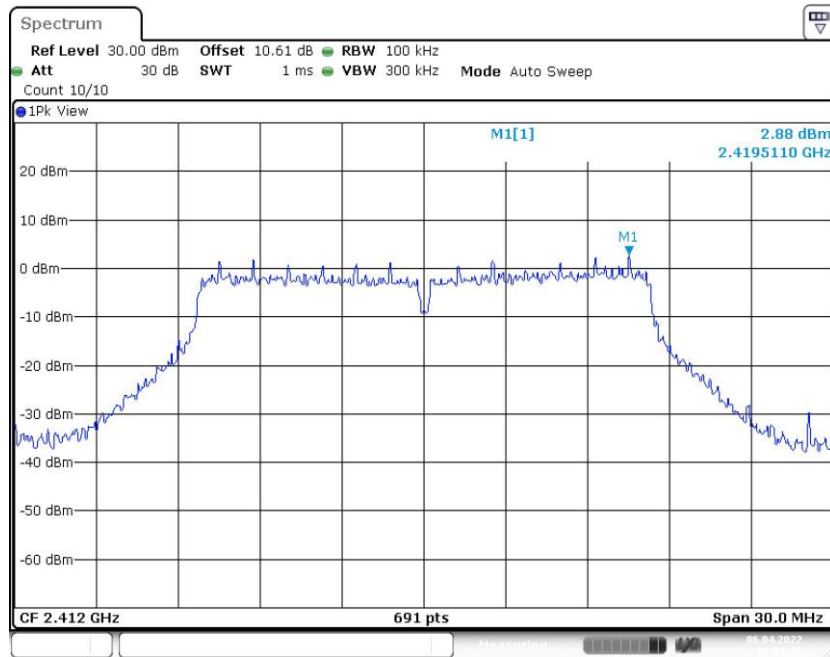
**Fig.39 Conducted Spurious Emission (Center Frequency, 802.11b, CH11)**



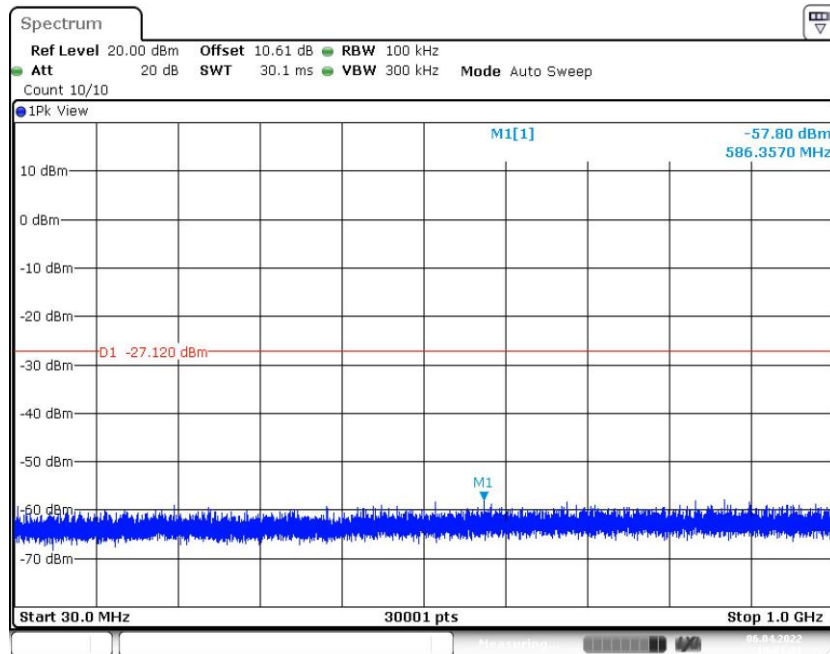
**Fig.40 Conducted Spurious Emission (30MHz -1GHz, 802.11b, CH11)**



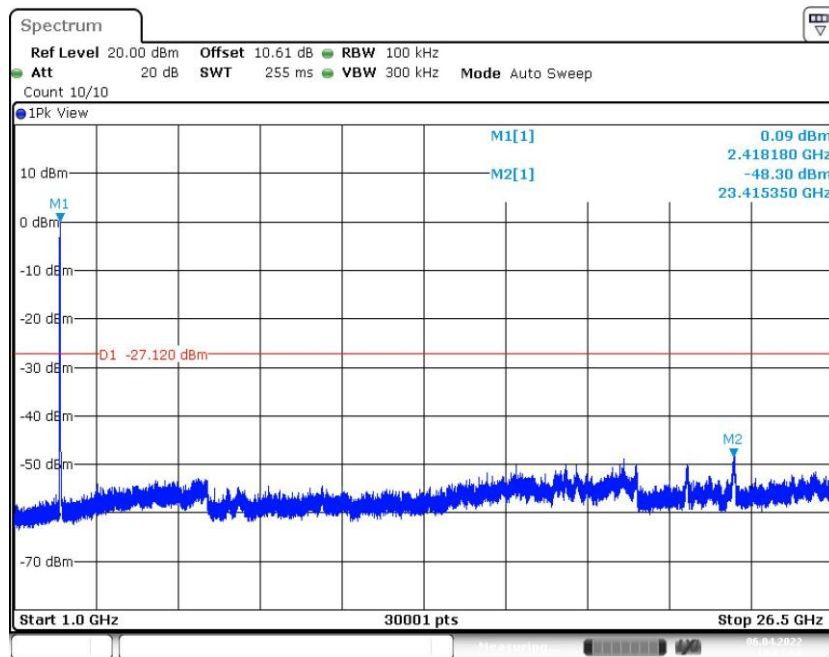
**Fig.41 Conducted Spurious Emission (1GHz-26.5GHz, 802.11b, CH11)**



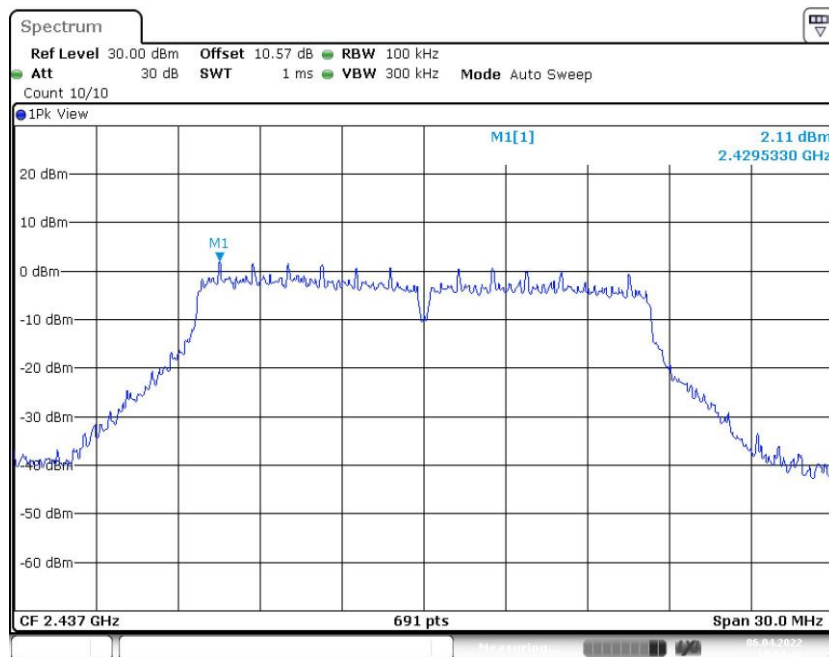
**Fig.42 Conducted Spurious Emission (Center Frequency, 802.11g, CH1)**



**Fig.43 Conducted Spurious Emission (30MHz -1GHz, 802.11g, CH1)**



**Fig.44 Conducted Spurious Emission (1GHz-26.5GHz, 802.11g, CH1)**



**Fig.45 Conducted Spurious Emission (Center Frequency, 802.11g, CH6)**

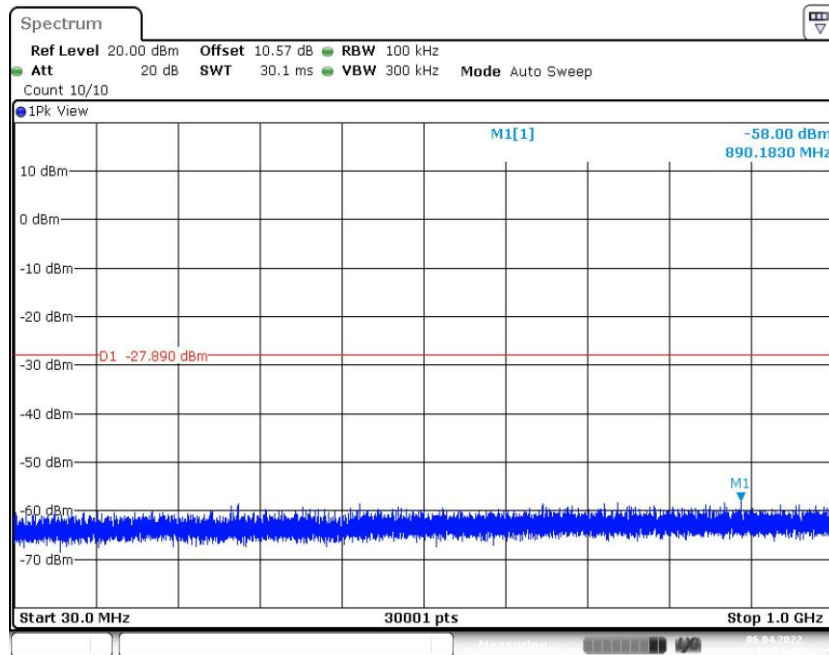


Fig.46 Conducted Spurious Emission (30MHz -1GHz, 802.11g, CH6)

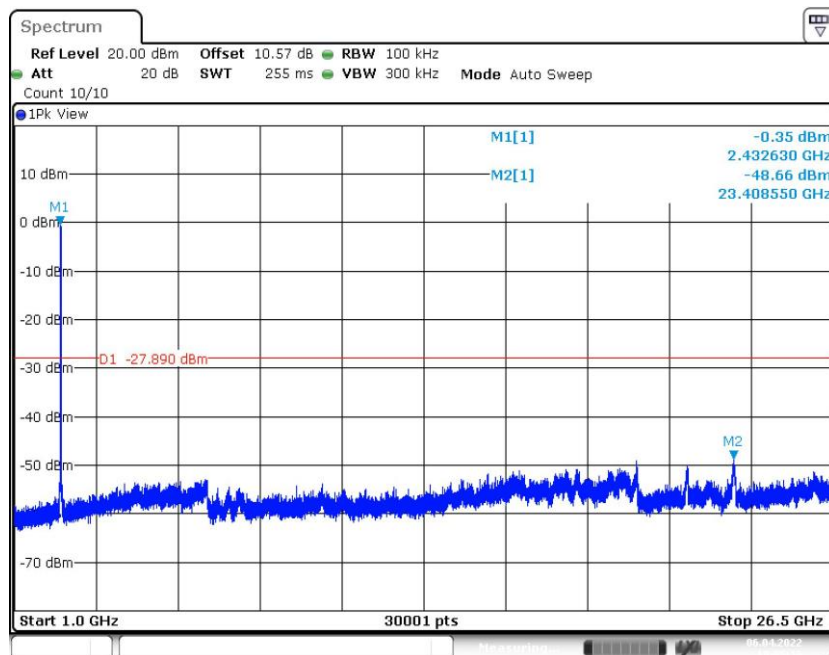
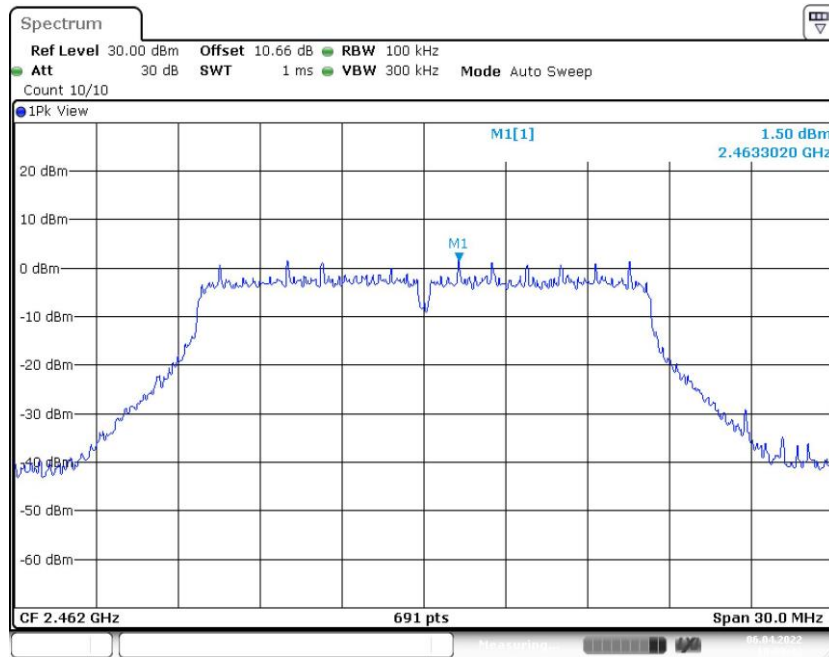
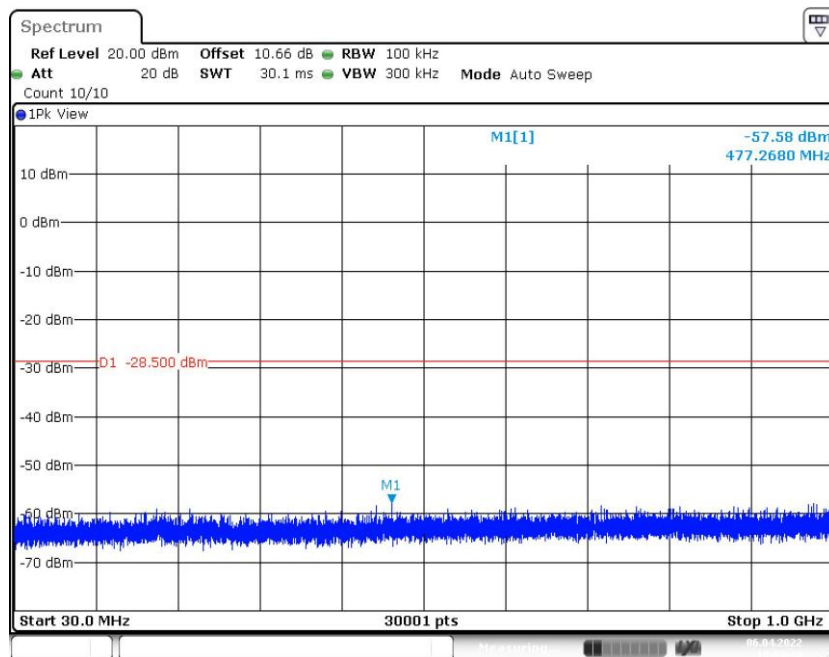


Fig.47 Conducted Spurious Emission (1GHz-26.5GHz, 802.11g, CH6)

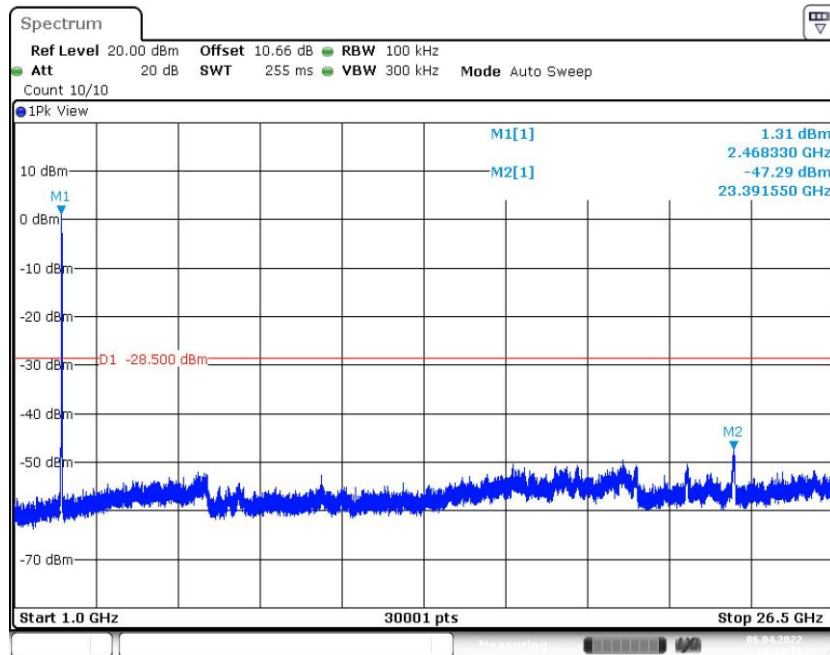


**Fig.48 Conducted Spurious Emission (Center Frequency, 802.11g, CH11)**

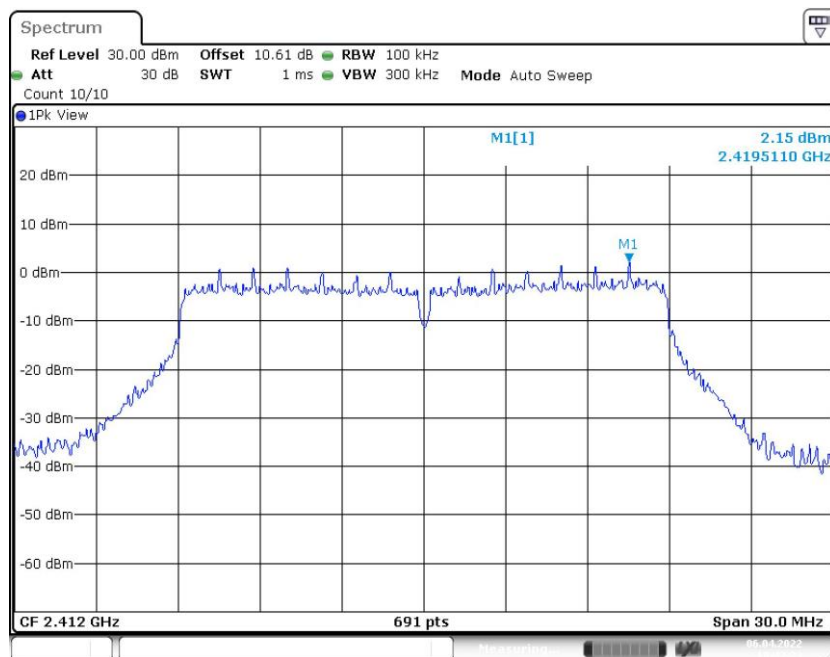


**Fig.49 Conducted Spurious Emission (30MHz -1GHz, 802.11g, CH11)**





**Fig.50 Conducted Spurious Emission (1GHz-26.5GHz, 802.11g, CH11)**



**Fig.51 Conducted Spurious Emission (Center Frequency, 802.11n-HT20, CH1)**

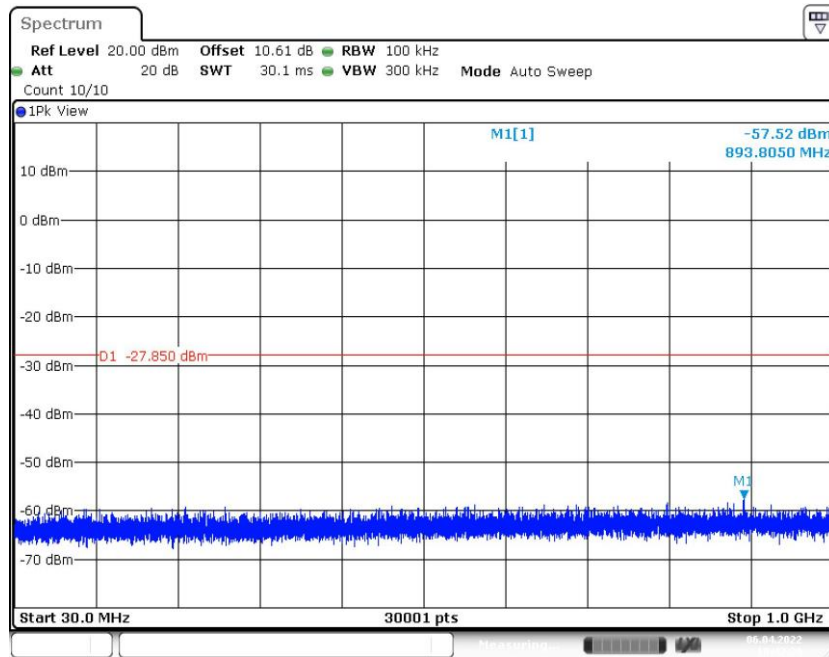


Fig.52 Conducted Spurious Emission (30MHz -1GHz, 802.11n-HT20, CH1)

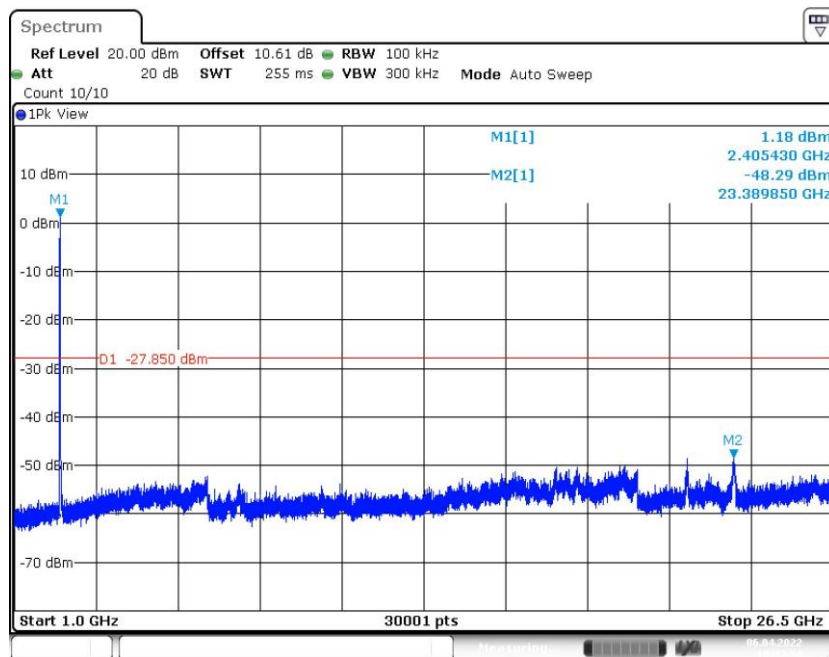
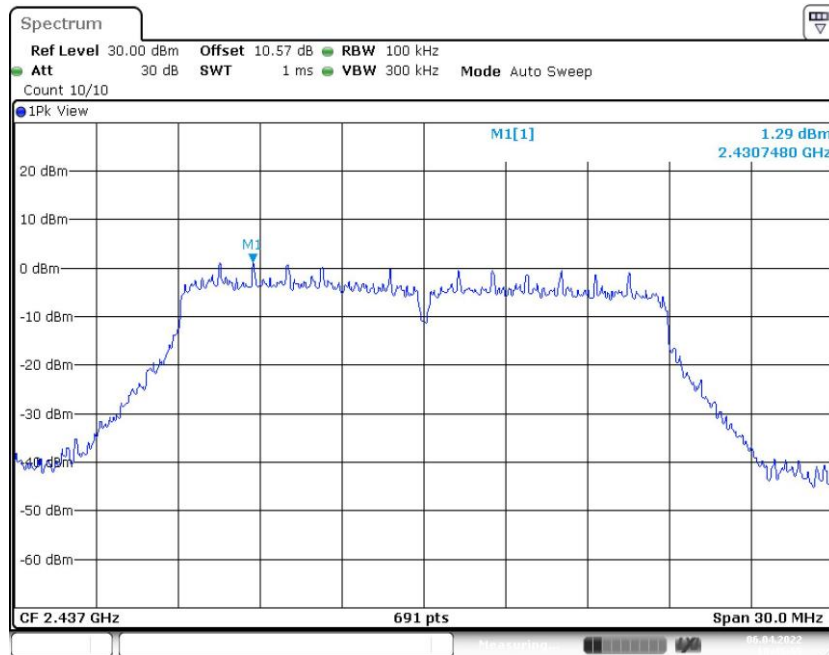
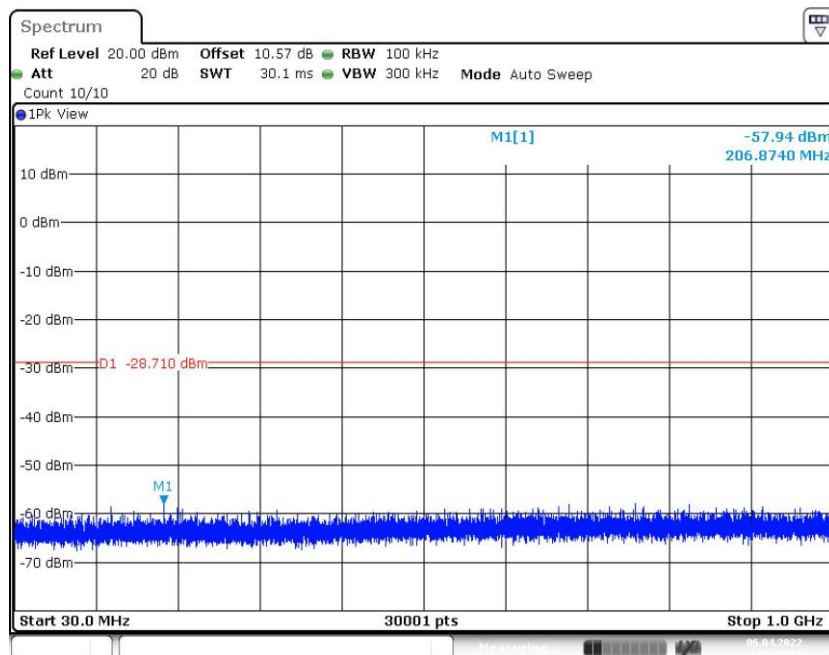


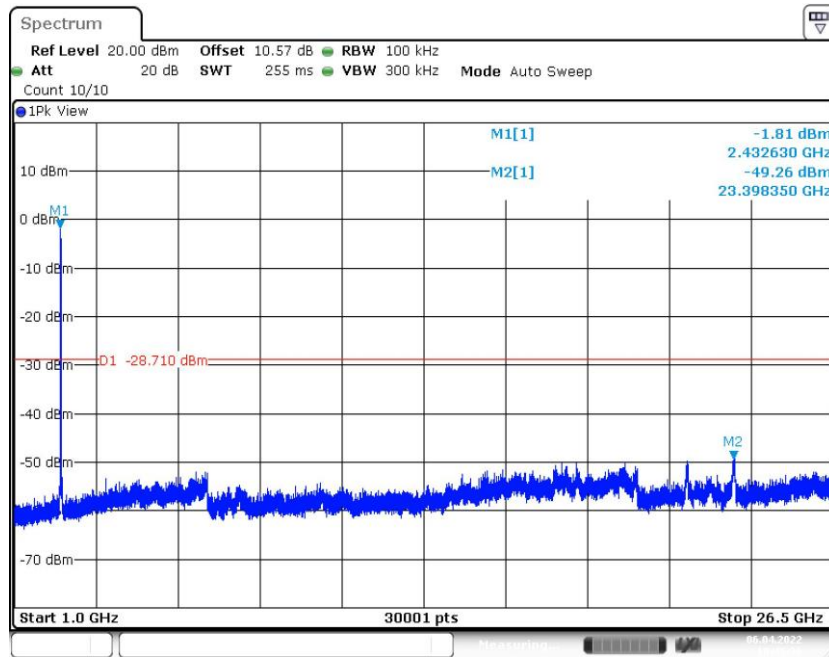
Fig.53 Conducted Spurious Emission (1GHz-26.5GHz, 802.11n-HT20, CH1)



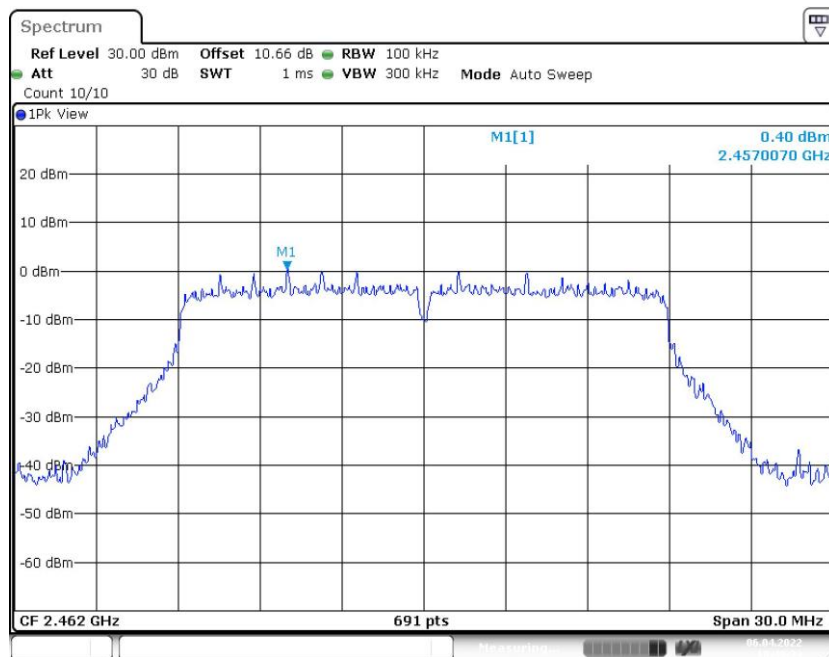
**Fig.54 Conducted Spurious Emission (Center Frequency, 802.11n-HT20, CH6)**



**Fig.55 Conducted Spurious Emission (30MHz -1GHz, 802.11n-HT20, CH6)**



**Fig.56 Conducted Spurious Emission (1GHz-26.5GHz, 802.11n-HT20, CH6)**



**Fig.57 Conducted Spurious Emission (Center Frequency, 802.11n-HT20, CH11)**