intertek
Total Quality. Assured.

WF TASTEMAKERS TRADING LIMITED

TEST REPORT

SCOPE OF WORK
FCC TESTING–8205

REPORT NUMBER
SZHH01472486-001

ISSUE DATE **[REVISED DATE]**
AUGUST 26, 2020 [----------]

PAGES
63

DOCUMENT CONTROL NUMBER
FCC ID 247_b

WF TASTEMAKERS TRADING LIMITED

Application For Certification

FCC ID: 2APXH82058280

X-Men vs Street Fighter (Cokem Edition)
Additional name: X-Men vs Street Fighter (with riser and light up marquee), X-Men vs Street Fighter (Standard Edition), X-Men vs Street Fighter (Sam's Club Edition), Marvel vs Capcom

Model: 8205
Additional Model: 8280, 8198, Xmn-B-8320-SM, 8210

Brand Name: ARCADE 1 UP

2.4GHz Wi-Fi Transceiver

Report No.: SZHH01472486-001

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-19]

Prepared and Checked by:	**Approved by:**
Sign on file	
Terry Tang **Assistant Supervisor**	**Kidd Yang** **Technical Supervisor** **Date: August 26, 2020**

Intertek Testing Service Shenzhen Ltd. Longhua Branch
101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community GuanHu Subdistrict, LongHua District, Shenzhen, People's Republic of China
Tel: (86 755) 8601 6288 Fax: (86 755) 8601 6751

MEASUREMENT/TECHNICAL REPORT

X-Men vs Street Fighter (Cokem Edition)

Model: 8205

FCC ID: 2APXH82058280

This report concerns (check one) Original Grant ___X___ Class II Change ____

Equipment Type: DTS - Part 15 Digital Transmission Systems (Wi-Fi transmitter portion)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes _____ No ___X___

If yes, defer until : _____ date

Company Name agrees to notify the Commission by: _____ date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes _____ No ___X___

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-19] Edition] provision.

Report prepared by:

Terry Tang
Intertek Testing Services Shenzhen Ltd.
Longhua Branch
101, 201, Building B, No. 308 Wuhe Avenue,
Zhangkengjing Community GuanHu Subdistrict,
LongHua District, Shenzhen, People's Republic of China
Tel: (86 755) 8601 6288 Fax: (86 755) 8601 6751

Table of Contents

1.0 Summary of Test Results

Applicant: WF TASTEMAKERS TRADING LIMITED
Applicant Address: Unit 05 and unit 06, 6th Floor, Greenfield Tower Concordia Plaza, 1 Science Museum Road, TST East Hong Kong

Manufacturer: WF TASTEMAKERS TRADING LIMITED
Manufacturer Address: Unit 05 and unit 06, 6th Floor, Greenfield Tower Concordia Plaza, 1 Science Museum Road, TST East Hong Kong

Model: 8205

FCC ID: 2APXH82058280

TEST ITEM	REFERENCE	RESULTS
Max. Output power	15.247(b)(3)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses an Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a X-Men vs Street Fighter (Cokem Edition) with Wi-Fi function operating at 2412-2462MHz for 802.11b/g/n-HT20, 11 channels with 5MHz channel spacing. The EUT is powered by DC 12V with AC/DC adaptor. For more detailed features description, please refer to the user's manual.

The Models: 8280, 8198, Xmn-B-8320-SM, 8210 are the same as the Model: 8205 in hardware and electrical aspect. The difference in appearance and model number serves as marketing strategy.

Type of Modulation: CCK, BPSK, QPSK, 16QAM, 64QAM.
Antenna Type: Integral Antenna.
Antenna Gain: 6dBi.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

2.2 Related Submittal(s) Grants

This is an application for certification of:
DTS- Part 15 Digital Transmission Systems (2.4GHz Wi-Fi transmitter portion).

Remaining portions are subject to the following procedures:
1. Receiver portion of WiFi: exempt from technical requirement of this Part.
2. Other Digital Function: Subject to FCC Part 15B SDOC.

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013) and KDB 558074 D01 v05r02. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

2.4 Test Facility

The Semi-anechoic chamber and shielded room used to collect the radiated data and conducted data are **Intertek Testing Services Shenzhen Ltd. Longhua Branch** and located at 101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community GuanHu Subdistrict, LongHua District, Shenzhen, People's Republic of China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: CN1188).

3.0 System Test Configuration

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. The EUT was powered by DC 12V with AC/DC adaptor during the test. Only the worst case mode is shown in the report.

On 802.11b/g/n-HT20 mode, only one antenna is used, and all data rate were tested and only the worst case data is shown in the report.

For maximizing emissions, the EUT was rotated through 360°, the EUT was placed on a wooden turntable which is four feet in diameter, 12mm in height above the ground plane. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

The rear of unit shall be flushed with the rear of the table.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

3.2 EUT Exercising Software

The EUT exercise program (provided by applicant) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The worst case configuration is used in all specified testing.
Test software: MTK-Engineermode

The parameters of test software setting:
During the test, Channel and power controlling software provided by the applicant was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the application and is going to be fixed on the firmware of the end product.

3.3 Special Accessories

AC/DC adaptor output cable with a ferrite core.

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by WF TASTEMAKERS TRADING LIMITED will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Longhua Branch.

3.6 Support Equipment List and Description

This product was tested in the following configuration:

Refer List:

Description	Manufacturer	Model No.
AC-DC adaptor (Provided by Applicant)	BLUE IRON HOLDINGS LIMITED	BI36-120300-U2

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.0 Measurement Results

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

The antenna power of the EUT was connected to the input of a broadband peak RF power meter. The power meter have a video bandwidth that is greater than DTS bandwidth and utilize a fast-responding diode detector. Power was read directly at the EUT antenna terminals with cable loss added.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

IEEE 802.11b (Antenna Gain = 6 dBi) (16QAM, 6Mbps)		
Frequency (MHz)	Output in dBm (Peak Reading)	Output in mWatt
Low Channel: 2412	15.9	38.9
Middle Channel: 2437	15.8	38.0
High Channel: 2462	15.6	36.3

IEEE 802.11g (Antenna Gain = 6 dBi) (16QAM, 6Mbps)		
Frequency (MHz)	Output in dBm (Peak Reading)	Output in mWatt
Low Channel: 2412	25.1	323.6
Middle Channel: 2437	25.1	323.6
High Channel: 2462	25.3	338.8

IEEE 802.11n-HT20 (Antenna Gain = 6 dBi) (64QAM, 6Mbps)		
Frequency (MHz)	Output in dBm (Peak Reading)	Output in mWatt
Low Channel: 2412	25.2	331.1
Middle Channel: 2437	25.4	346.7
High Channel: 2462	25.6	363.1

Cable loss: 2.5 dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

EUT max. output level = 25.6dBm
EUT max. E.I.R.P= 25.6dBm + 6dBi =31.6dBm =1445.4mW

For RF Exposure, the information is saved with filename: RF exposure.pdf.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a) (2):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 KHz according to FCC KDB 558074 D01 v05r02. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

Limit: The 6 dB Bandwidth is at least 500 kHz.

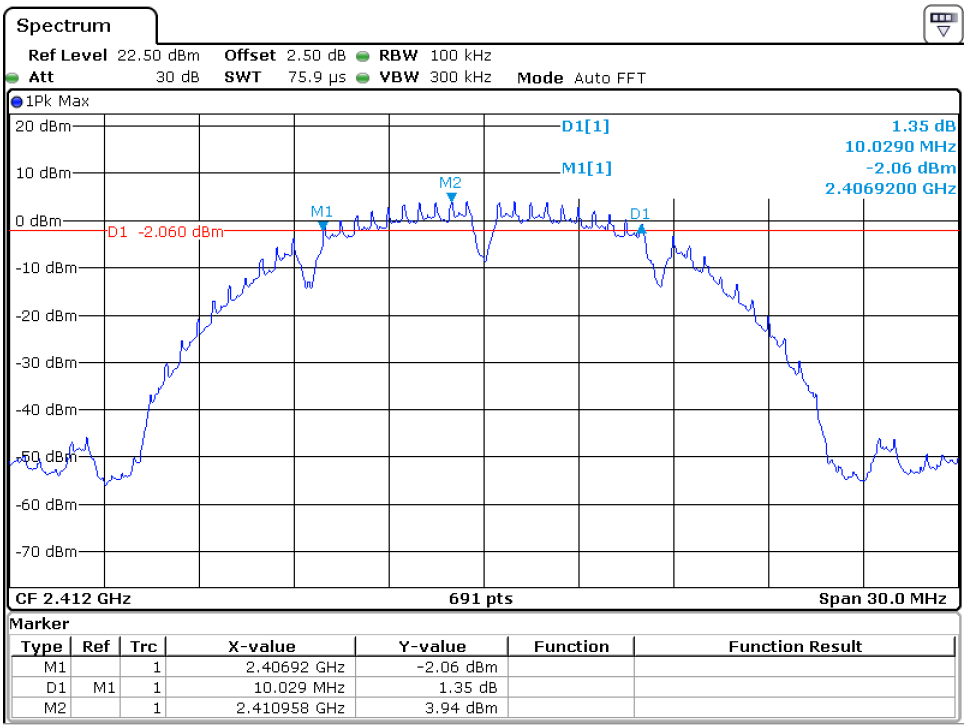
IEEE 802.11b (16QAM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	10.029
2437	10.029
2462	10.029

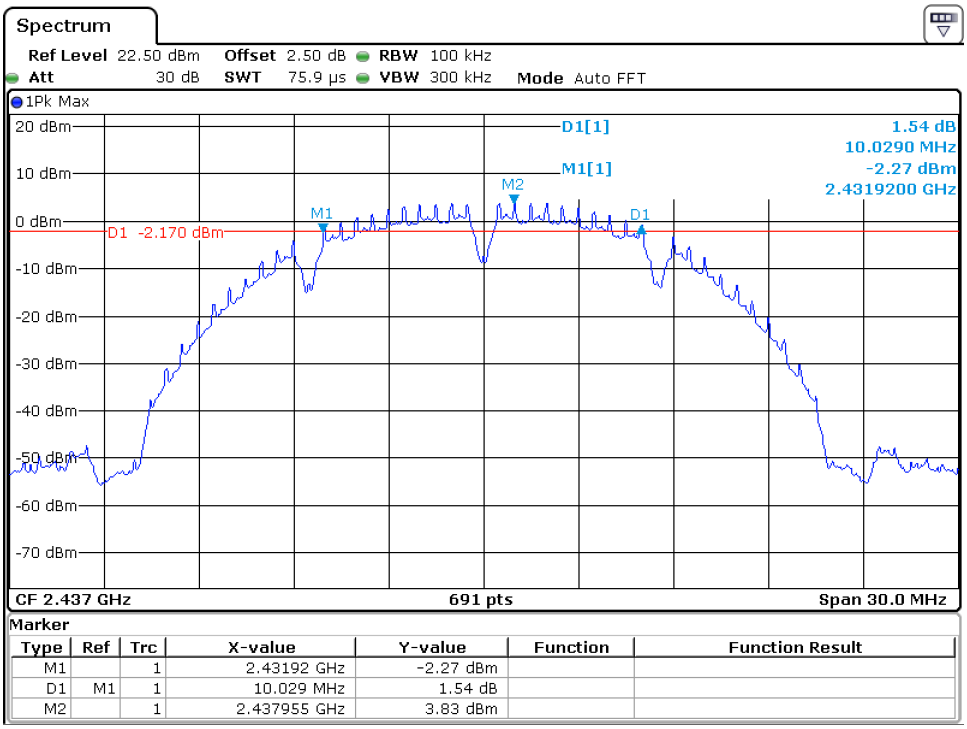
IEEE 802.11g (16QAM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	16.020
2437	16.020
2462	16.020

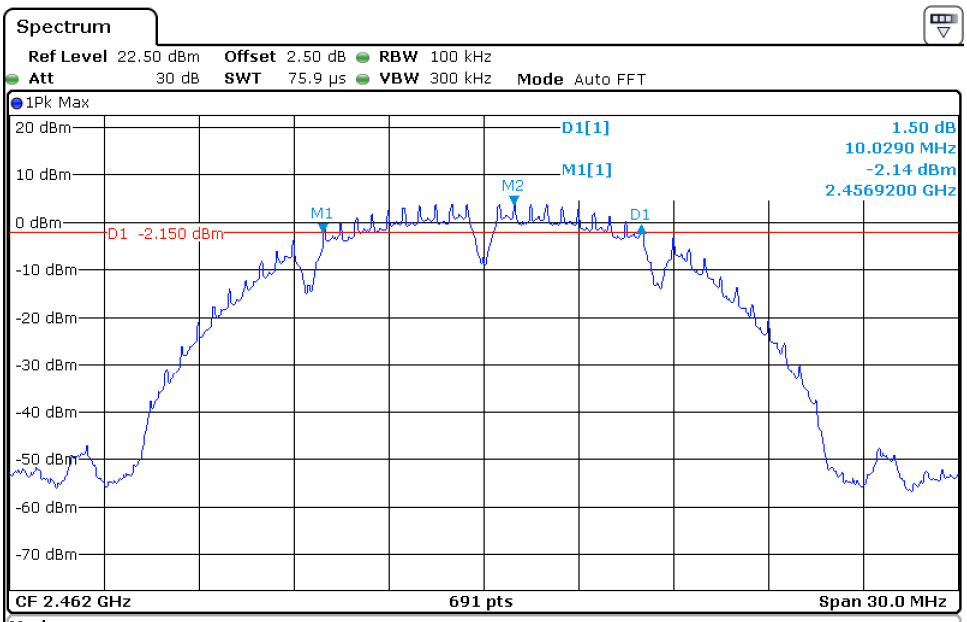
IEEE 802.11n-HT20 (64QAM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	17.236
2437	17.062
2462	17.062

The test plots are attached as below.

802.11b


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 1.35 dB
10.0290 MHz
M1[1] -2.06 dBm
2.4069200 GHz
D1 -2.060 dBm
CF 2.412 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.40692 GHz -2.06 dBm
D1 M1 1 10.029 MHz 1.35 dB
M2 1 2.410958 GHz 3.94 dBm

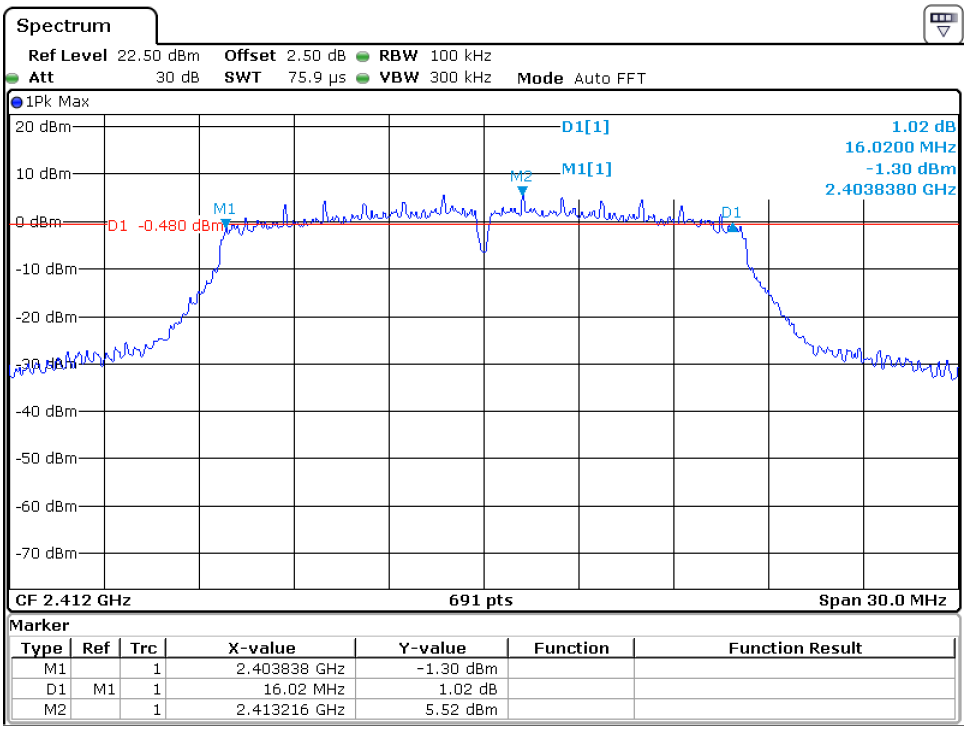

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 1.54 dB
10.0290 MHz
M1[1] -2.27 dBm
2.4319200 GHz
D1 -2.170 dBm
CF 2.437 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.43192 GHz -2.27 dBm
D1 M1 1 10.029 MHz 1.54 dB
M2 1 2.437955 GHz 3.83 dBm

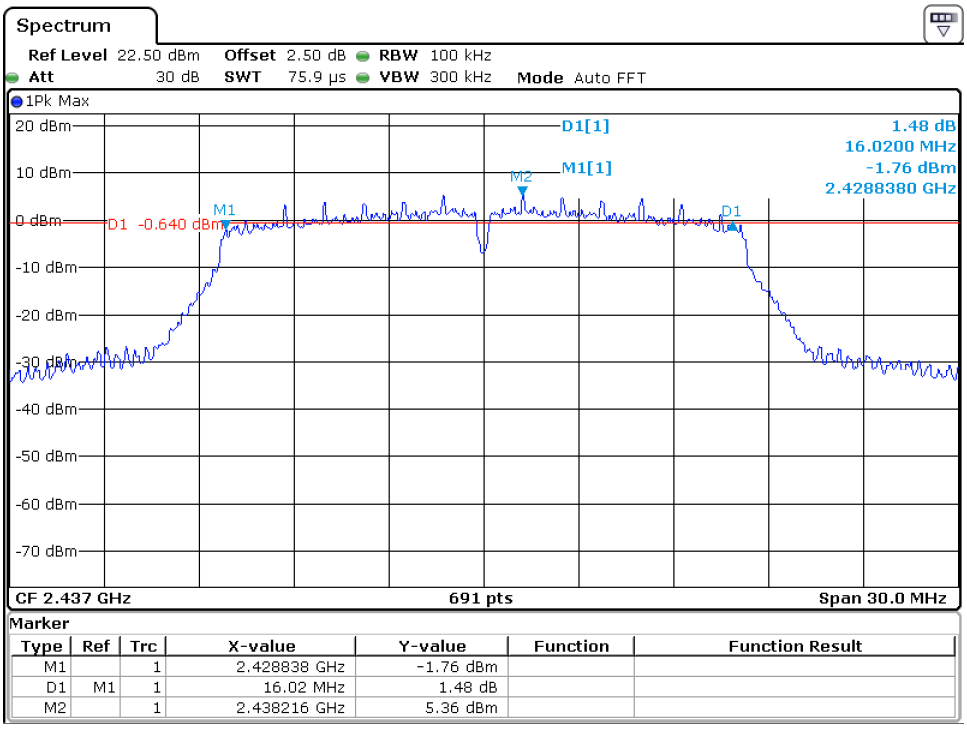


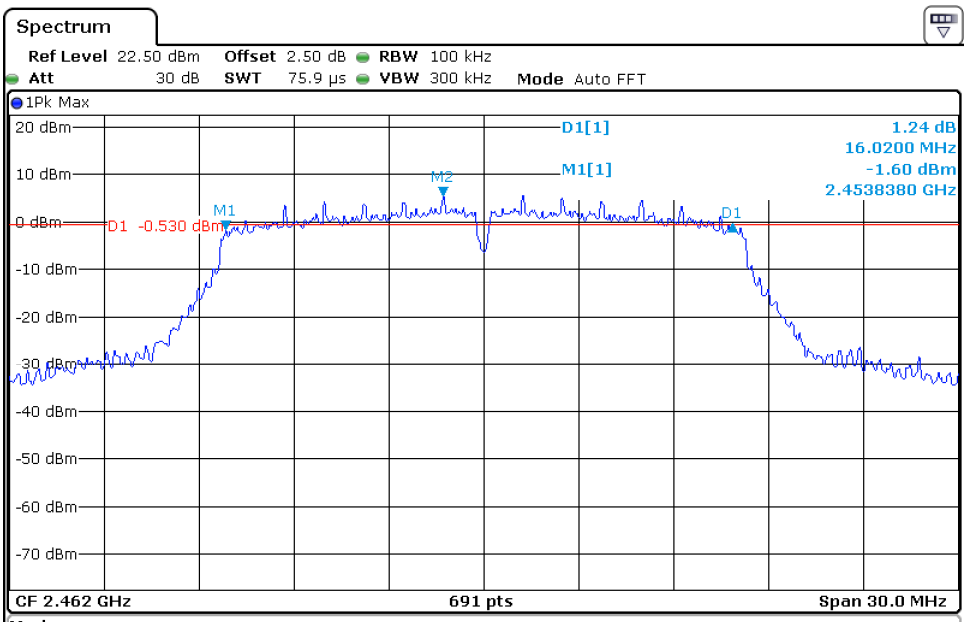
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.45692 GHz	-2.14 dBm		
D1	M1	1	10.029 MHz	1.50 dB		
M2		1	2.462955 GHz	3.85 dBm		

802.11g


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 1.02 dB
16.0200 MHz
M1[1] -1.30 dBm
2.4038380 GHz
D1 -0.480 dBm
CF 2.412 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.403838 GHz -1.30 dBm
D1 M1 1 16.02 MHz 1.02 dB
M2 1 2.413216 GHz 5.52 dBm

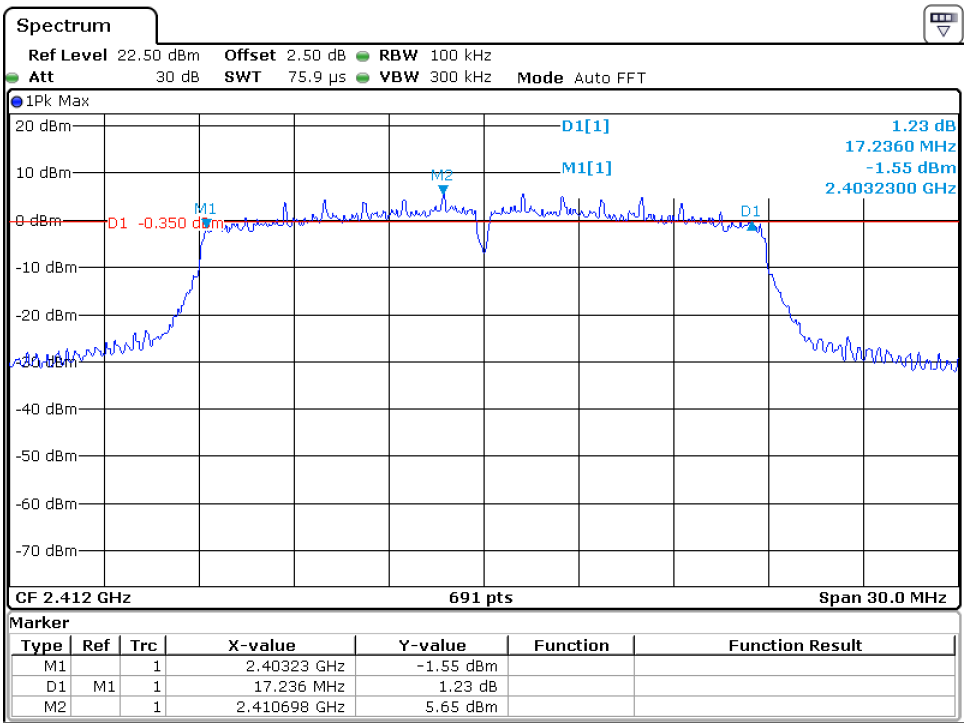

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 1.48 dB
16.0200 MHz
M1[1] -1.76 dBm
2.4288380 GHz
D1 -0.640 dBm
CF 2.437 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.428838 GHz -1.76 dBm
D1 M1 1 16.02 MHz 1.48 dB
M2 1 2.438216 GHz 5.36 dBm

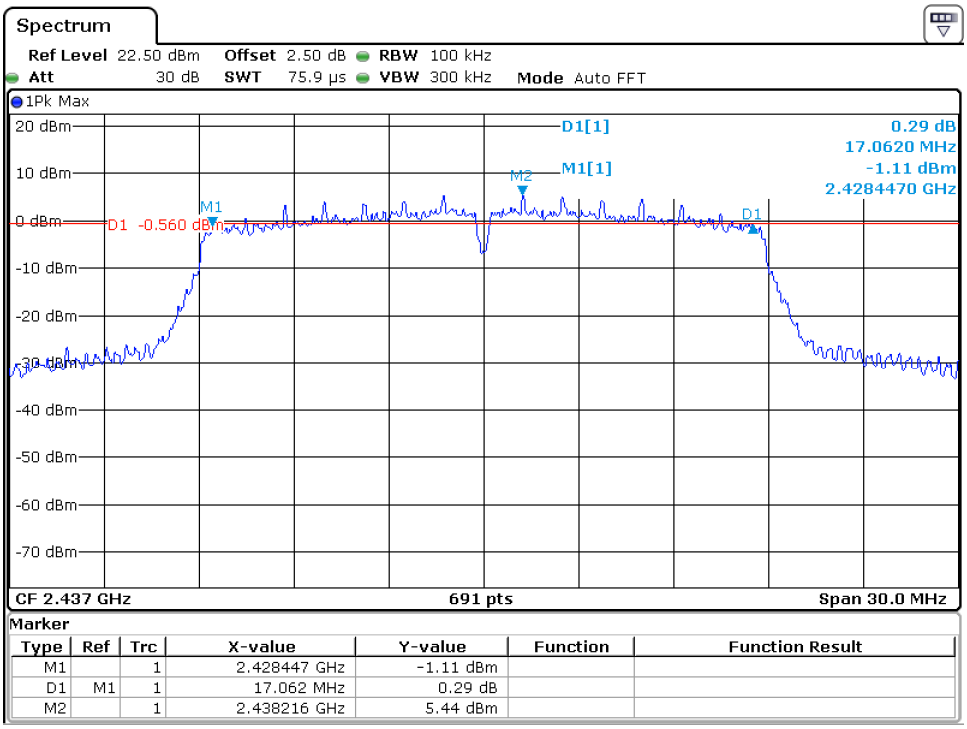


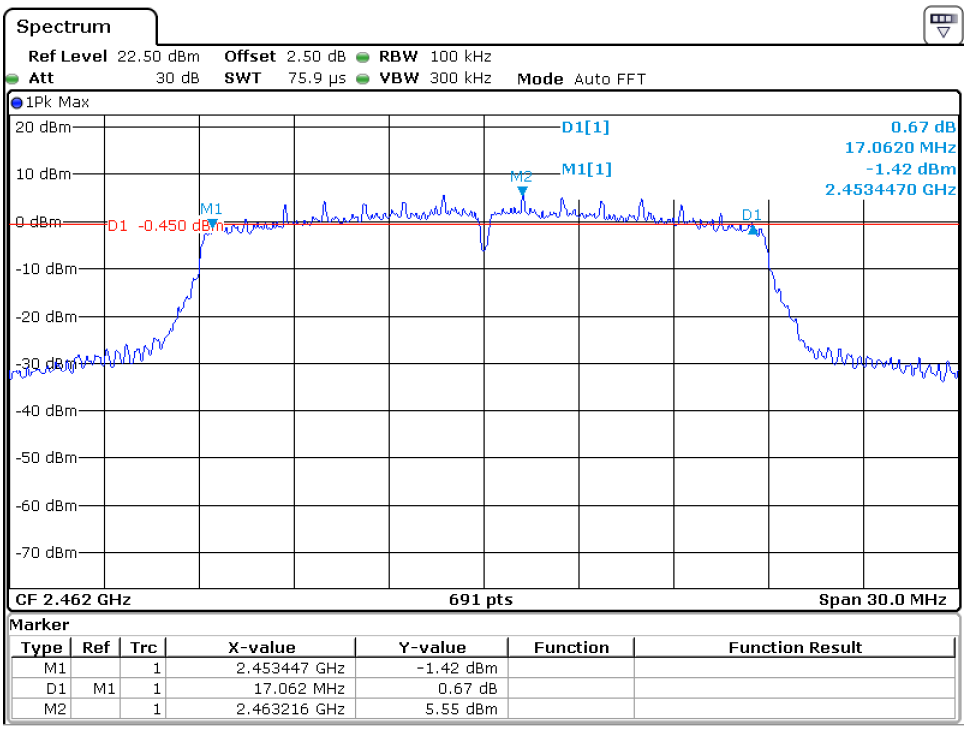
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.453838 GHz	-1.60 dBm		
D1	M1	1	16.02 MHz	1.24 dB		
M2		1	2.460698 GHz	5.47 dBm		

802.11n-HT20


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 1.23 dB
17.2360 MHz
M1[1] -1.55 dBm
2.4032300 GHz
D1 -0.350 dBm
CF 2.412 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.40323 GHz -1.55 dBm
D1 M1 1 17.236 MHz 1.23 dB
M2 1 2.410698 GHz 5.65 dBm


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 0.29 dB
17.0620 MHz
M1[1] -1.11 dBm
2.4284470 GHz
D1 -0.560 dBm
CF 2.437 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.428447 GHz -1.11 dBm
D1 M1 1 17.062 MHz 0.29 dB
M2 1 2.438216 GHz 5.44 dBm


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] 0.67 dB
17.0620 MHz
M1[1] -1.42 dBm
2.4534470 GHz
D1 -0.450 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.462 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.453447 GHz -1.42 dBm
D1 M1 1 17.062 MHz 0.67 dB
M2 1 2.463216 GHz 5.55 dBm

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.3 Maximum Power Density Reading, FCC Rule 15.247(e):

The Measurement Procedure PKPSD was set according to the FCC KDB 558074 D01 v05r02.

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

Limit: The Power Density does not exceed 8dBm/3 kHz.

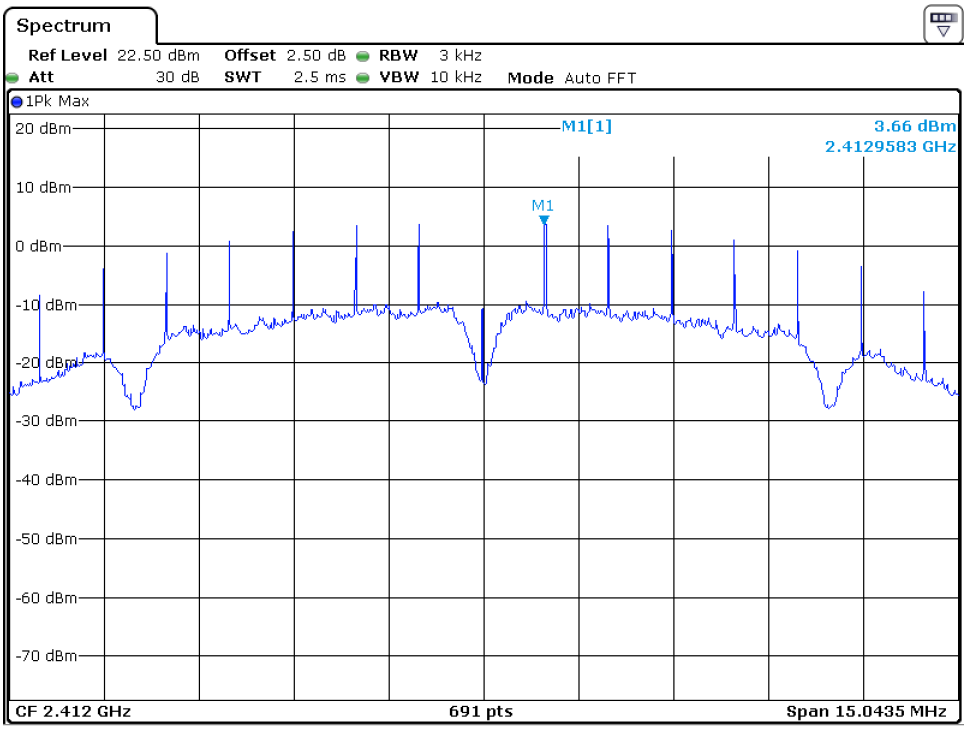
IEEE 802.11b (16QAM, 6Mbps)	
Frequency (MHz)	Power Density with RBW 3KHz
2412	3.66
2437	3.69
2462	3.77

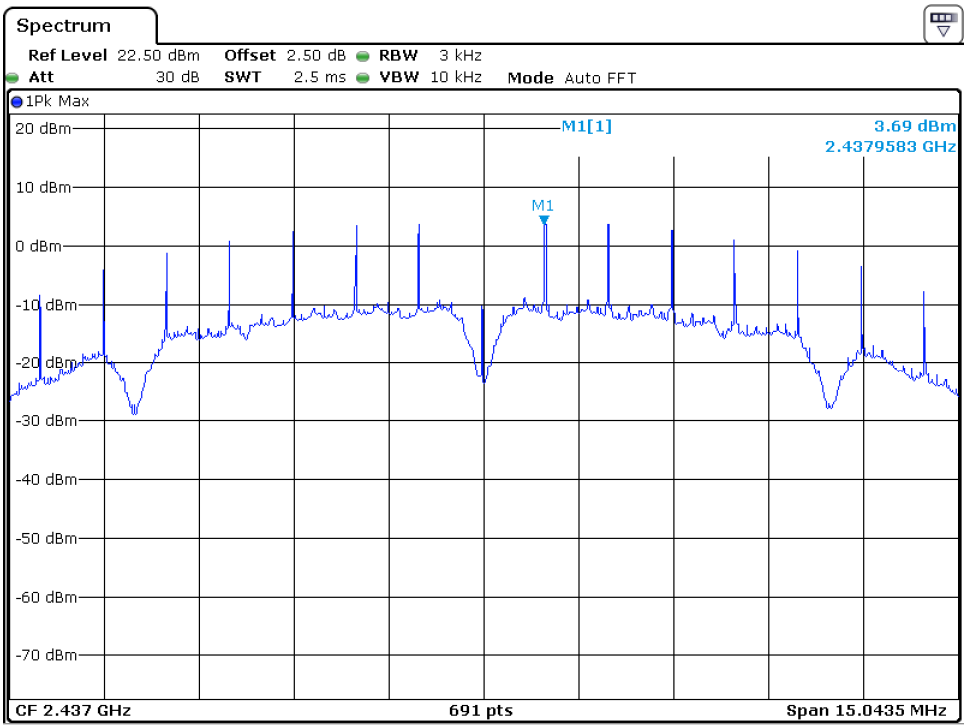
IEEE 802.11g (16QAM, 6Mbps)	
Frequency (MHz)	Power Density with RBW 3KHz
2412	-6.28
2437	-7.91
2462	-6.03

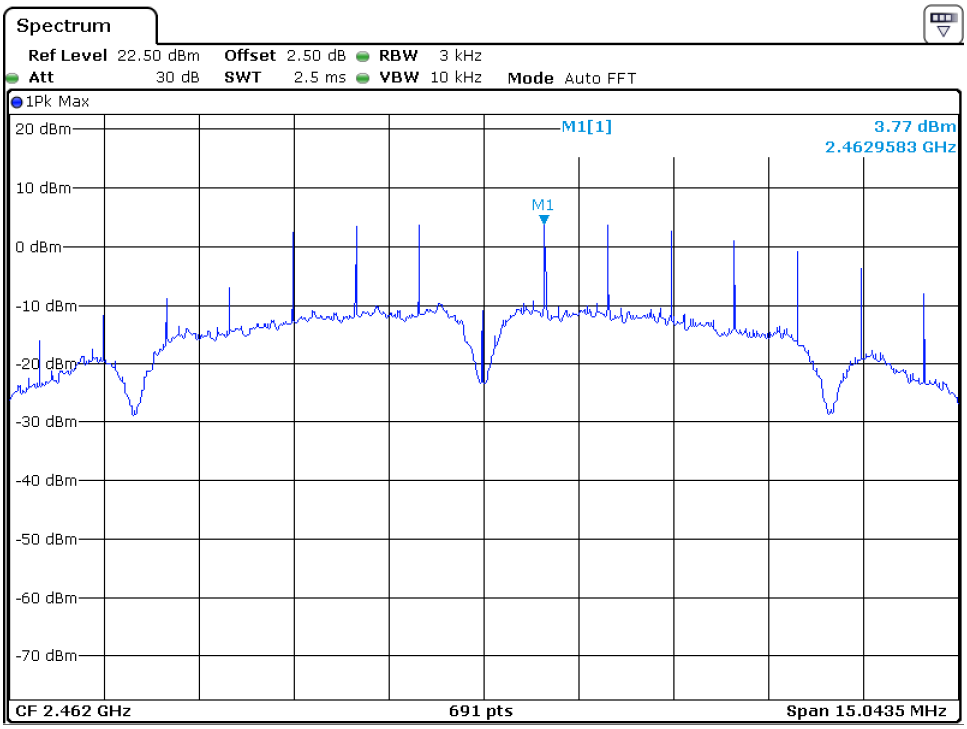
IEEE 802.11n-HT20 (64QAM, 6Mbps)	
Frequency (MHz)	Power Density with RBW 3KHz
2412	-7.42
2437	-7.87
2462	-8.18

The test plots are attached as below.

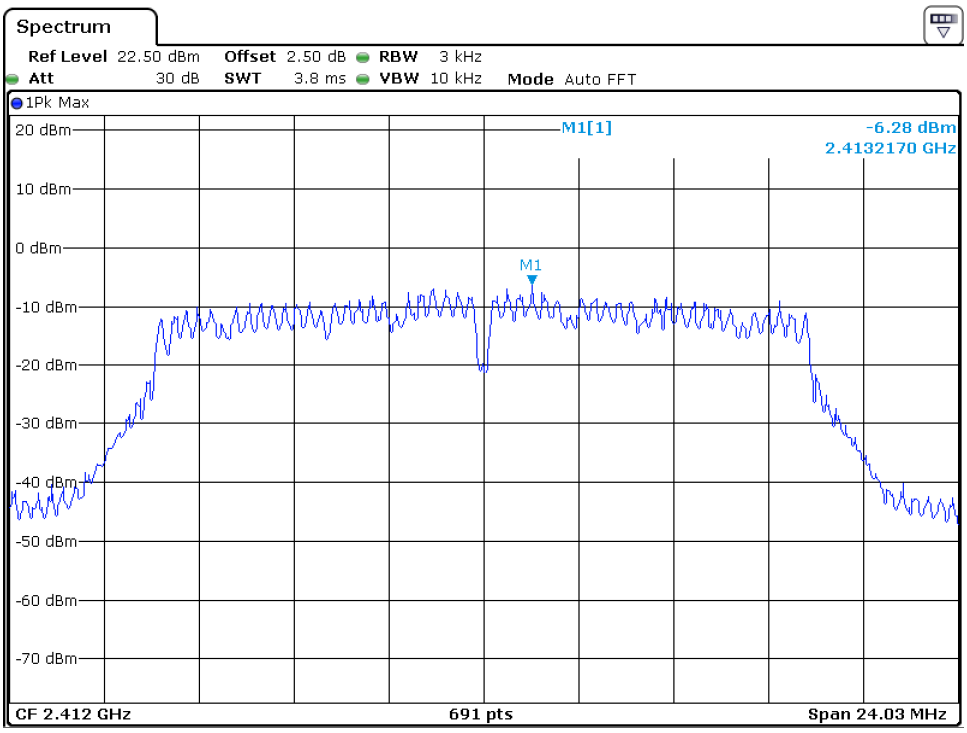
802.11b

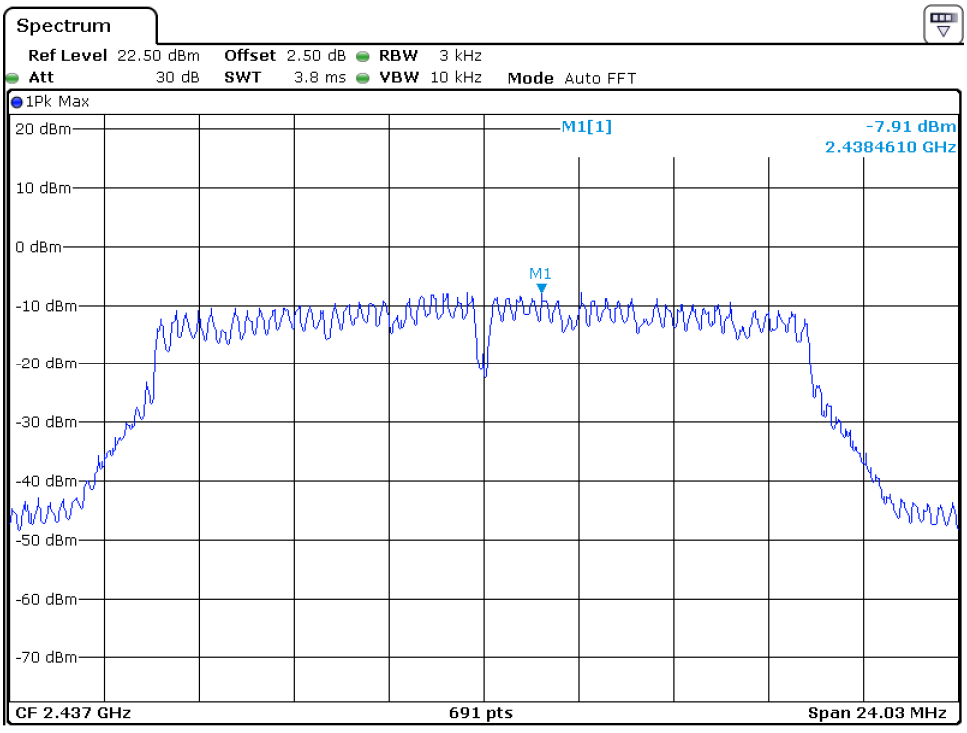

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 2.5 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1] 3.66 dBm
2.4129583 GHz
M1
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.412 GHz
691 pts
Span 15.0435 MHz

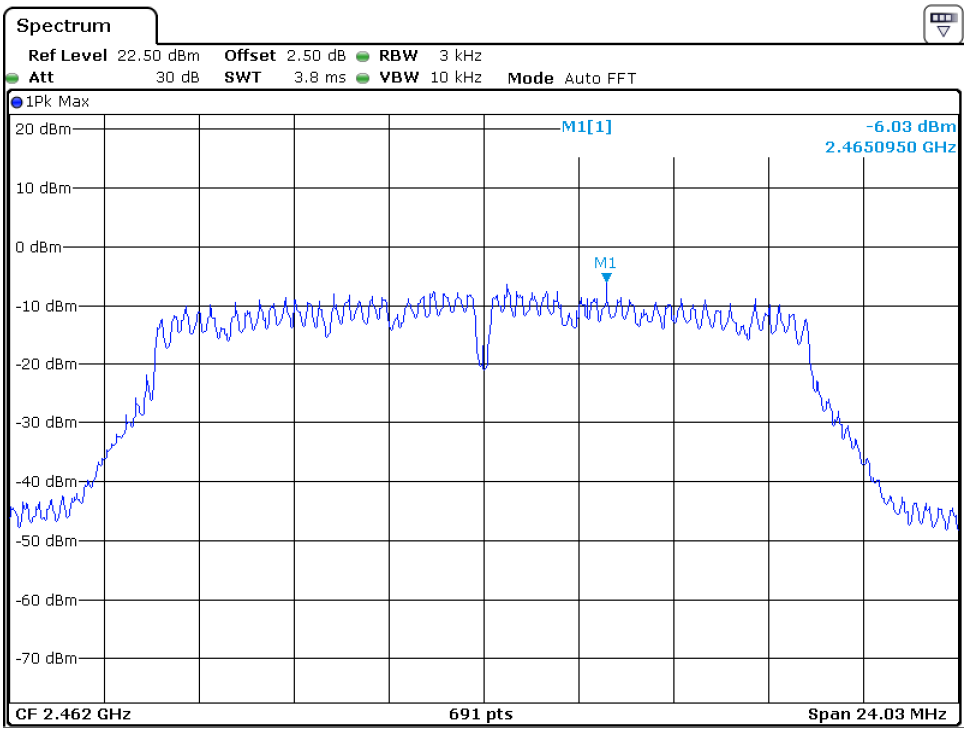

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 2.5 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1] 3.69 dBm
2.4379583 GHz
M1
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.437 GHz
691 pts
Span 15.0435 MHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 2.5 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1]
3.77 dBm
2.4629583 GHz
M1
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.462 GHz
691 pts
Span 15.0435 MHz

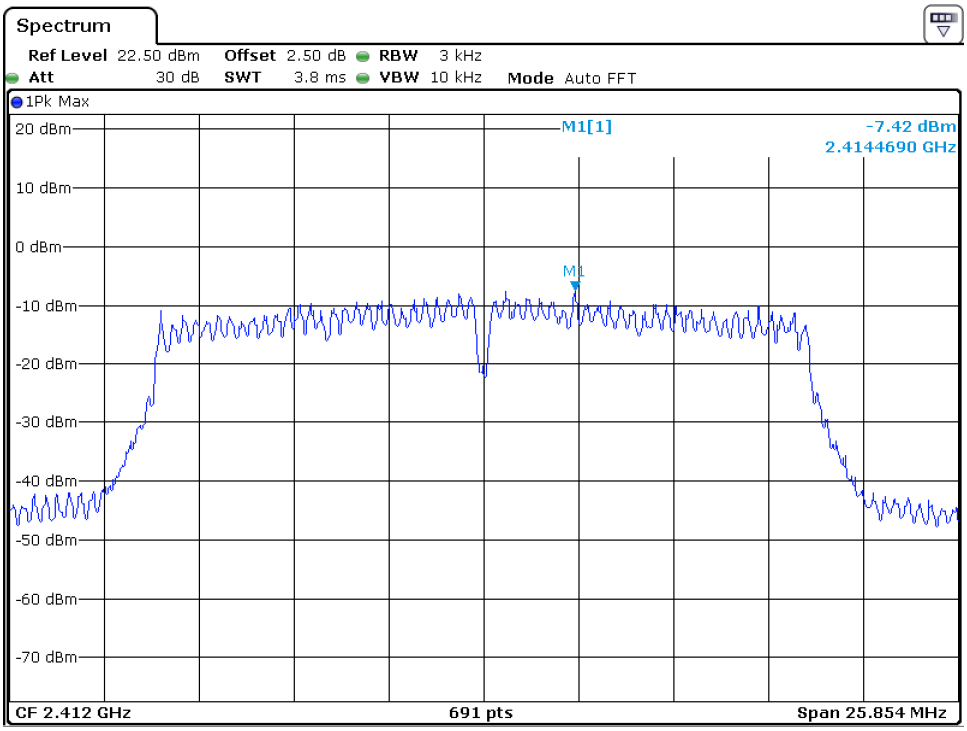
802.11g

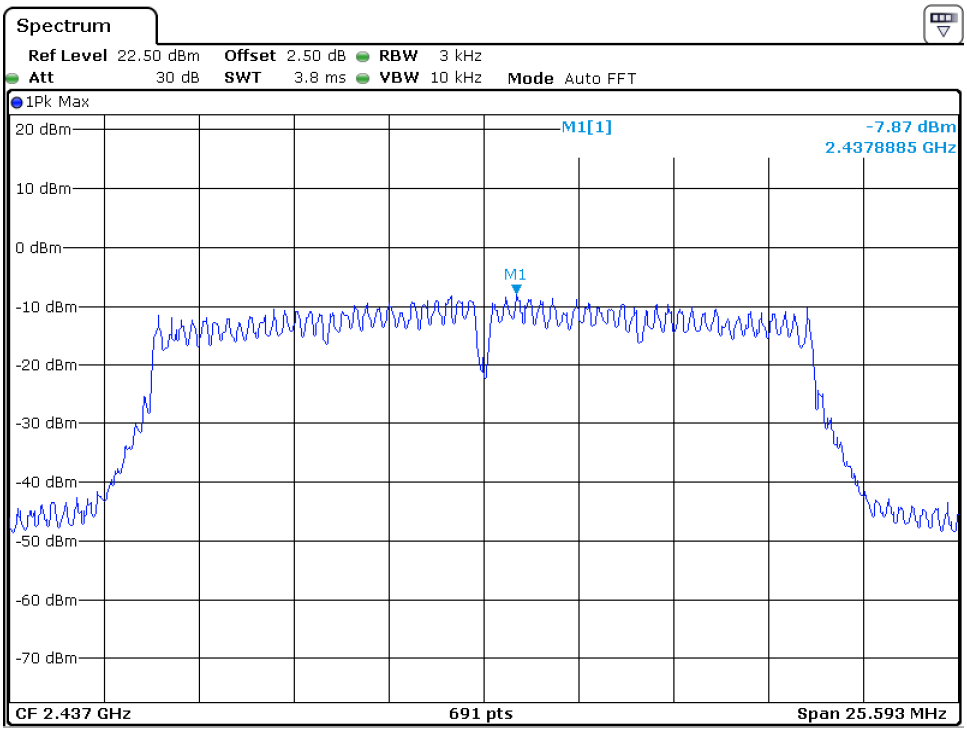

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 3.8 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1] -6.28 dBm
2.4132170 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
CF 2.412 GHz
691 pts
Span 24.03 MHz

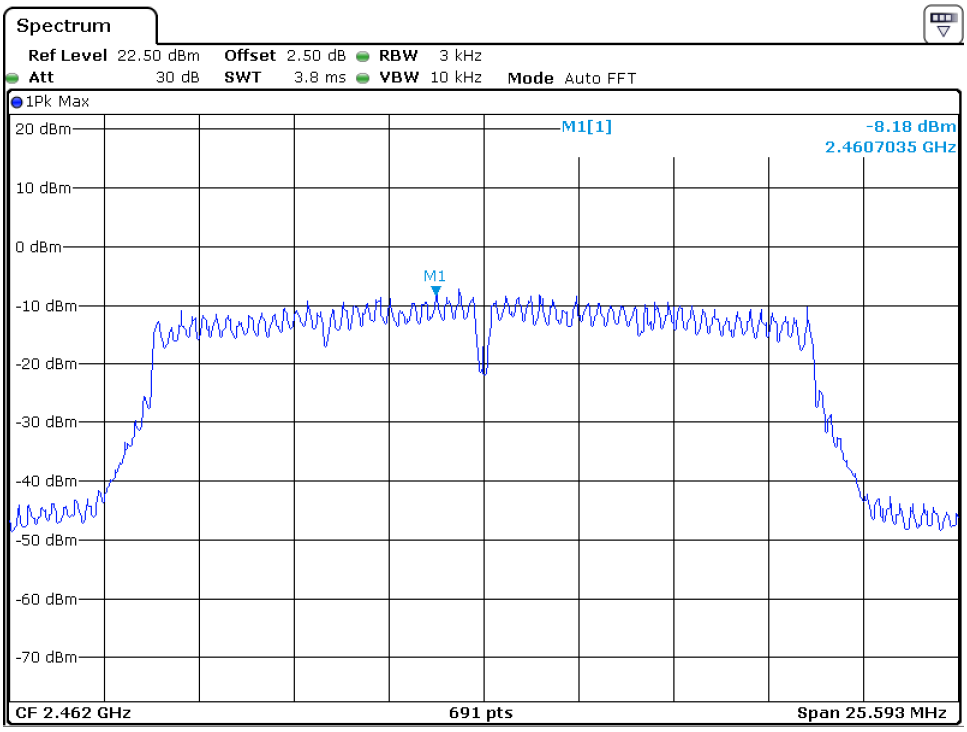

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 3.8 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1] -7.91 dBm
2.4384610 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
CF 2.437 GHz
691 pts
Span 24.03 MHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 3.8 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1]
-6.03 dBm
2.4650950 GHz
M1
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.462 GHz
691 pts
Span 24.03 MHz

802.11n-HT20


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 3.8 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1] -7.42 dBm
2.4144690 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
CF 2.412 GHz
691 pts
Span 25.854 MHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 3.8 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1] -7.87 dBm
2.4378885 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
CF 2.437 GHz
691 pts
Span 25.593 MHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 3 kHz
Att 30 dB SWT 3.8 ms VBW 10 kHz Mode Auto FFT
1Pk Max
M1[1]
-8.18 dBm
2.4607035 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
CF 2.462 GHz
691 pts
Span 25.593 MHz

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. The Measurement Procedure was set according to the FCC KDB 558074 D01 v05r02.

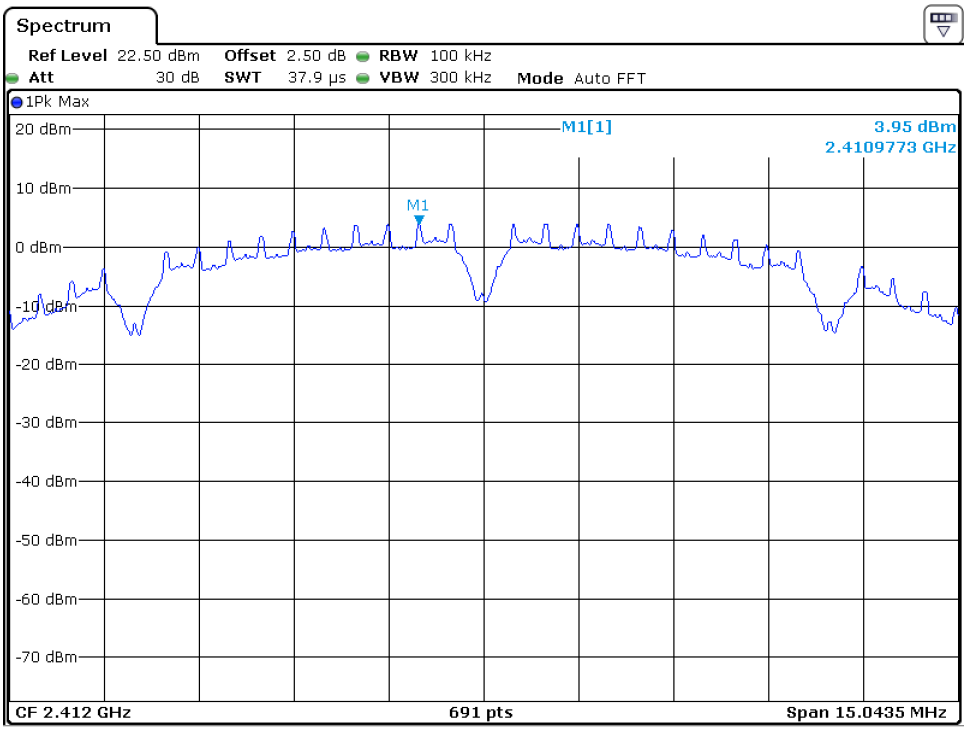
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

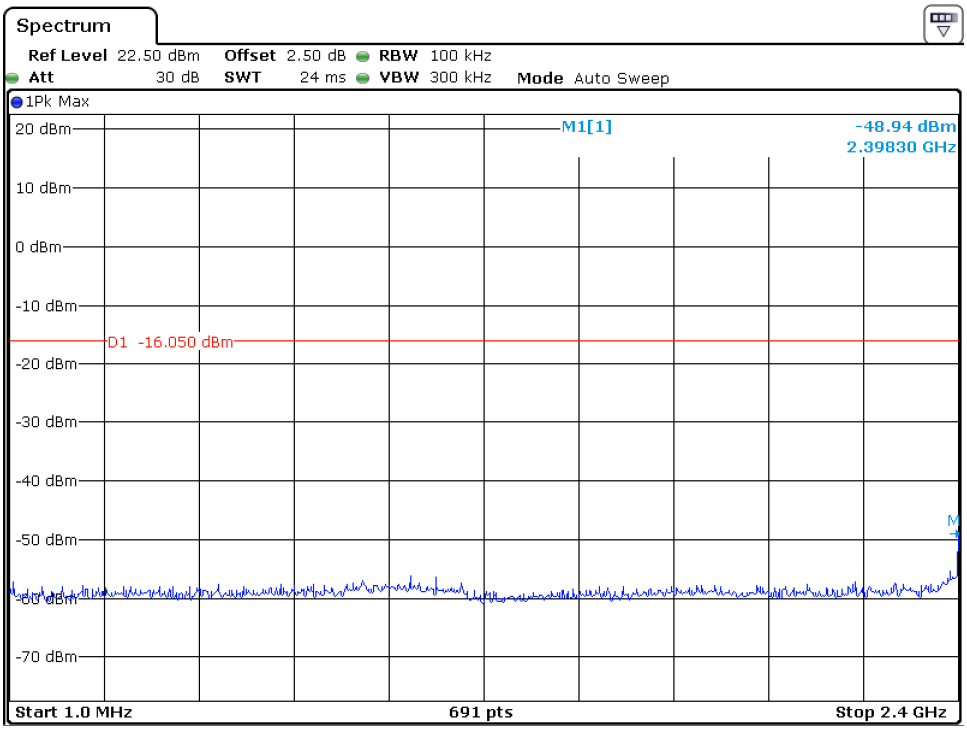
Refer to the attached test plots for out of band conducted emissions data with rate of 6Mbps for 802.11b/g and 6Mbps for 802.11n-HT20.

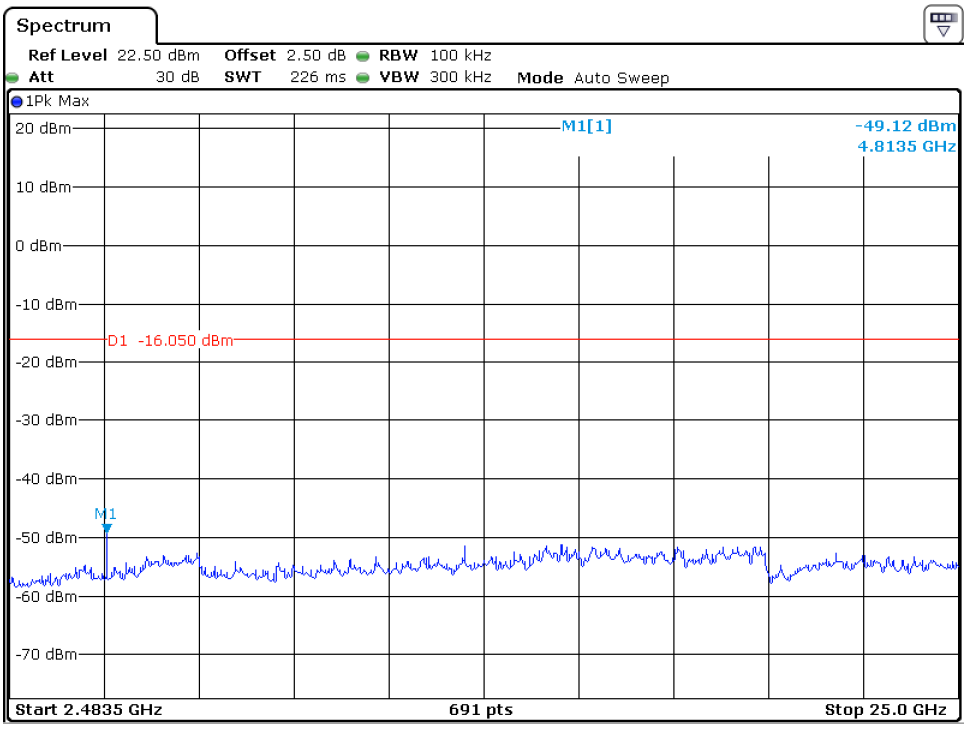
The test plots showed all spurious emission up to the tenth harmonic were measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

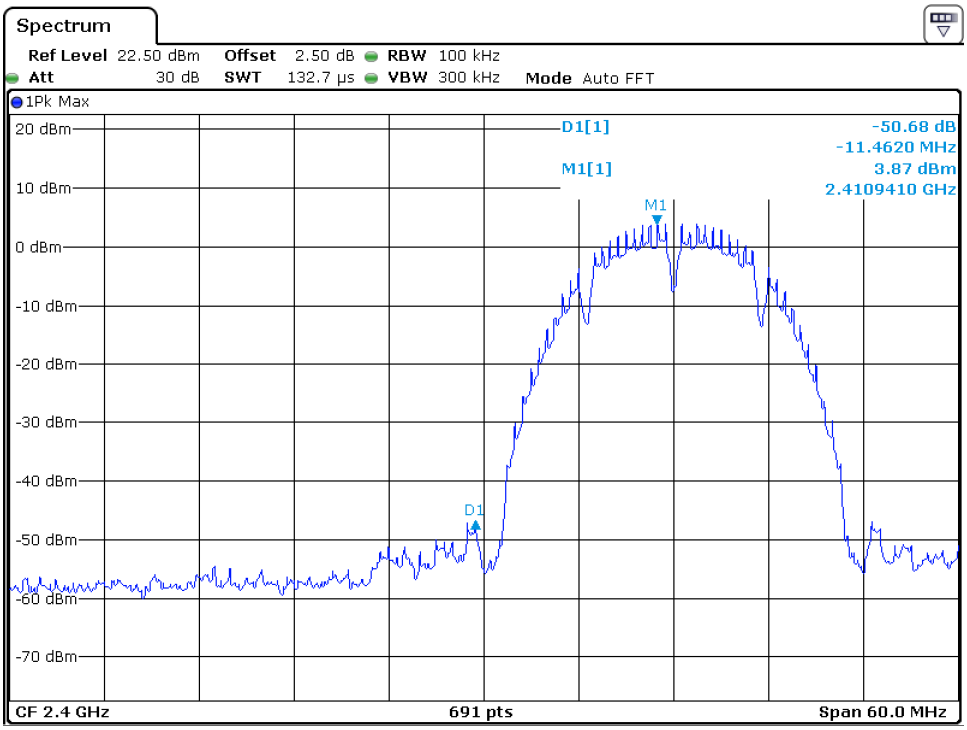
The test plots are attached as below.

802.11b
Channel 01 (2412MHz) Reference Level: 3.95dBm



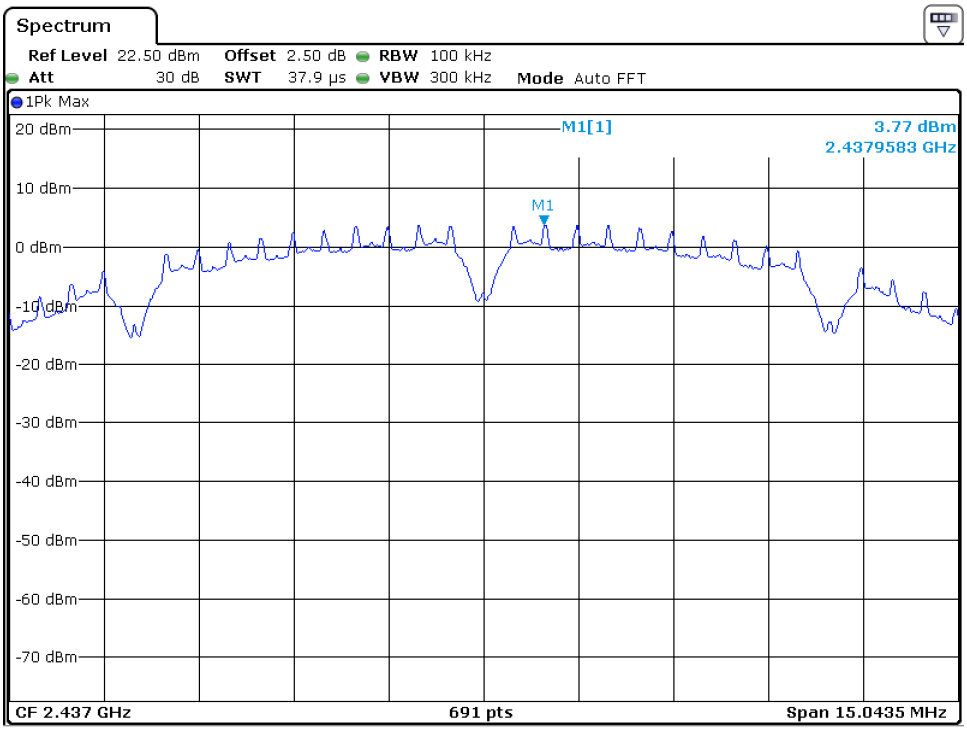


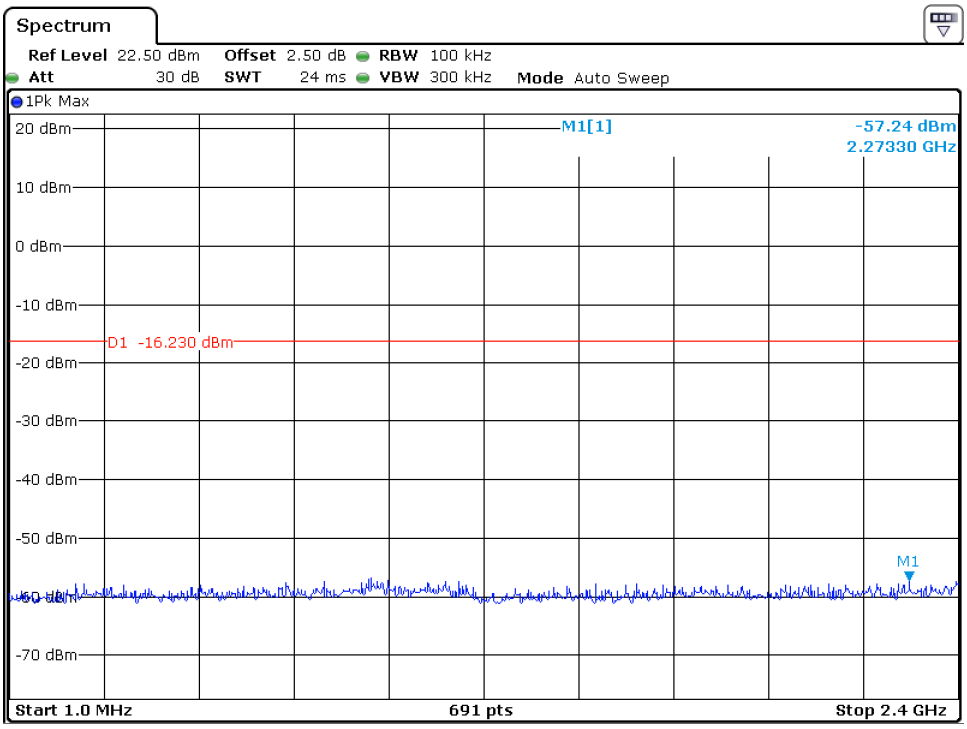


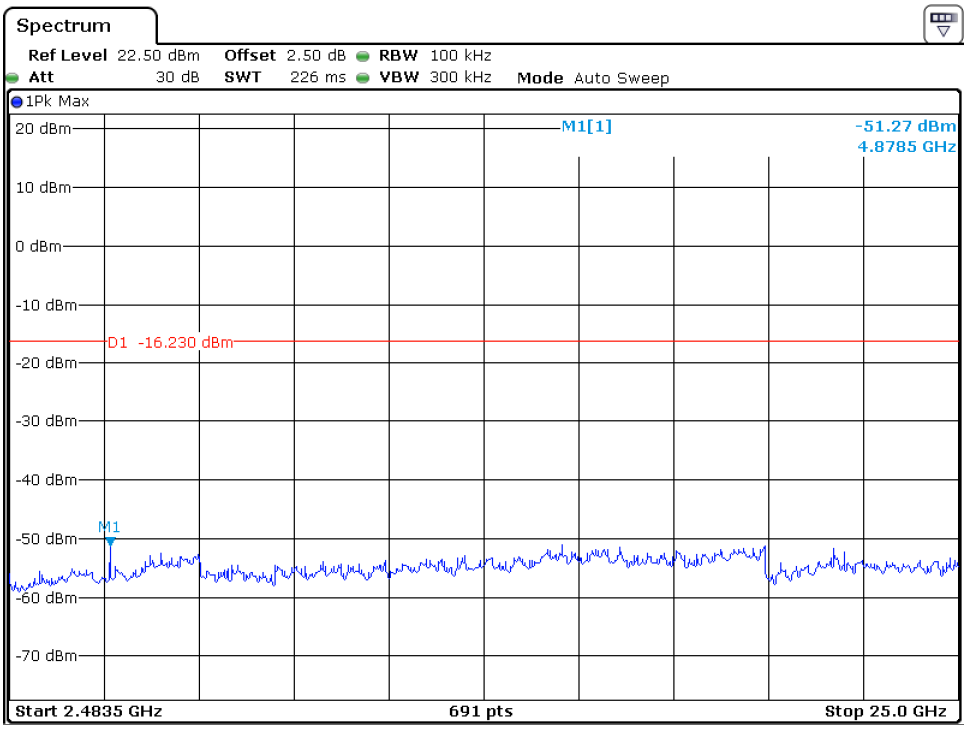


Date: 15.AUG.2020 15:13:04

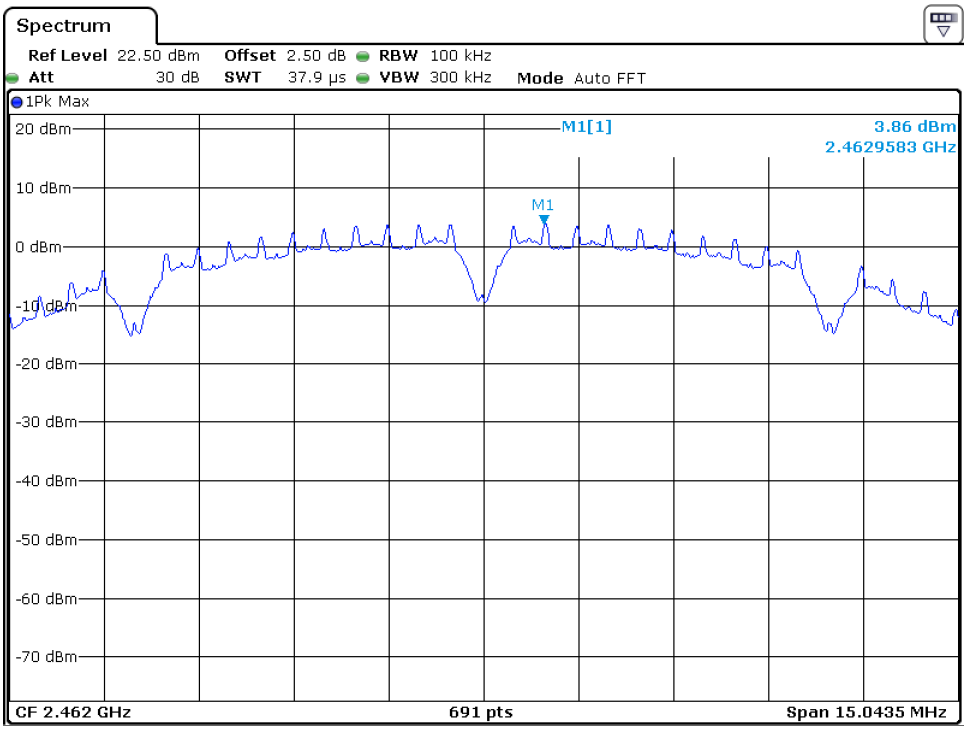
Channel 06 (2437MHz) Reference Level: 3.77dBm

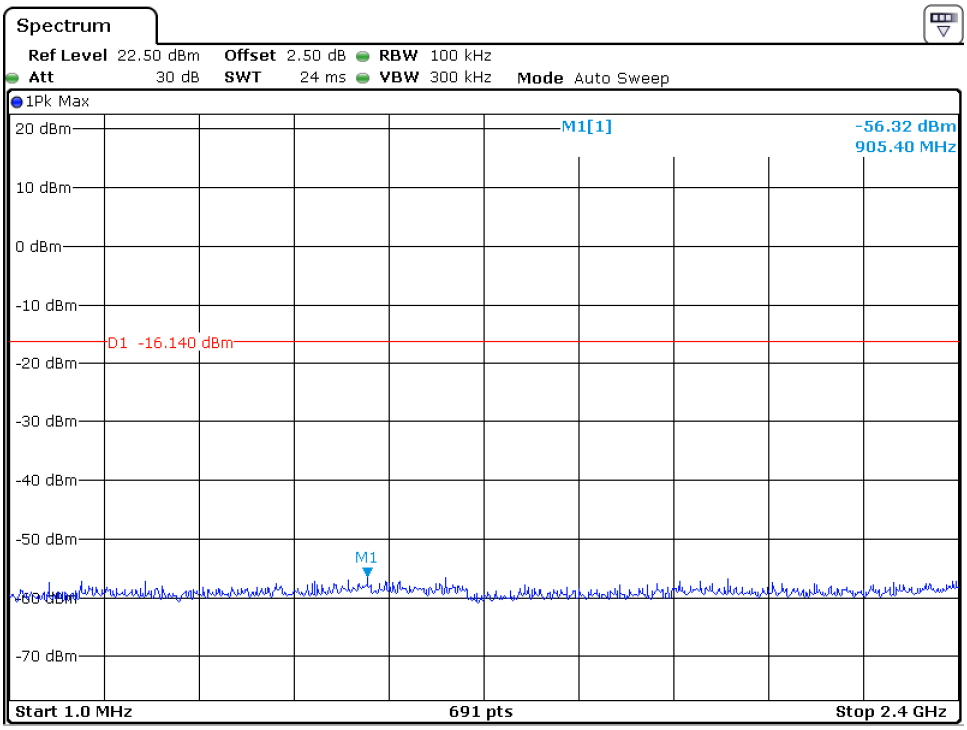


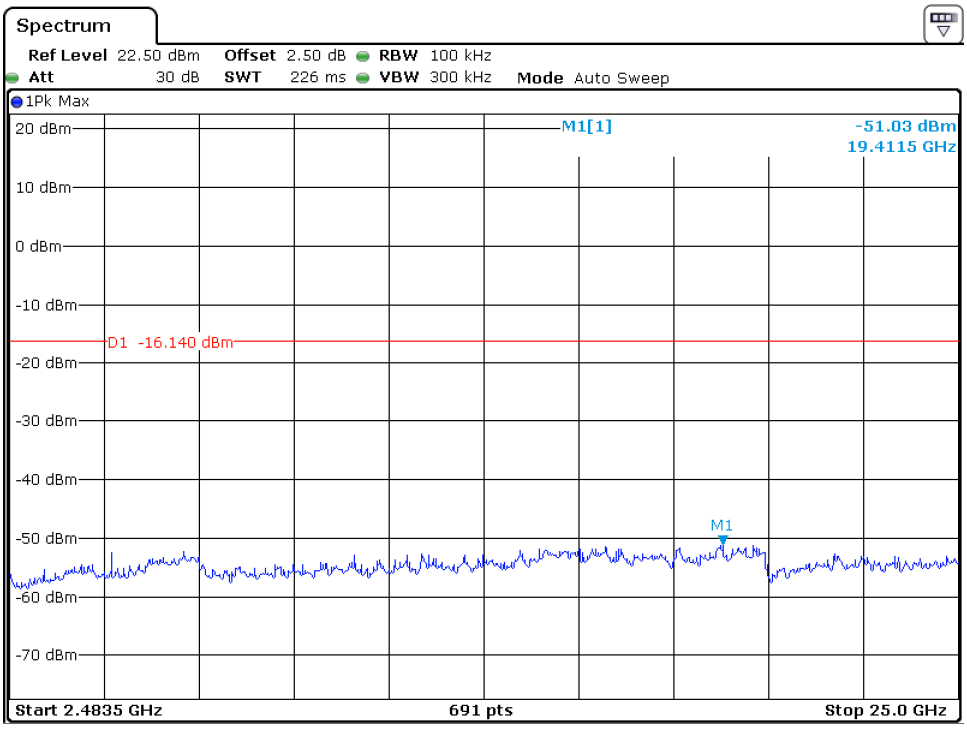


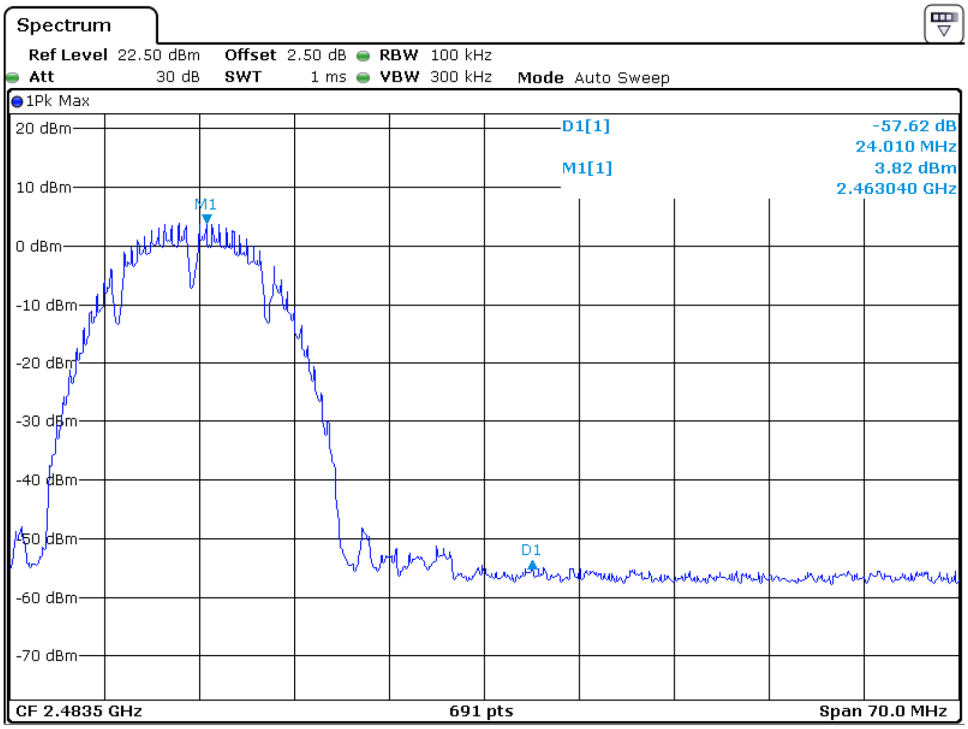

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1]
-51.27 dBm
4.8785 GHz
D1 -16.230 dBm
M1
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
Start 2.4835 GHz
691 pts
Stop 25.0 GHz

Channel 11 (2462MHz) Reference Level: 3.86dBm

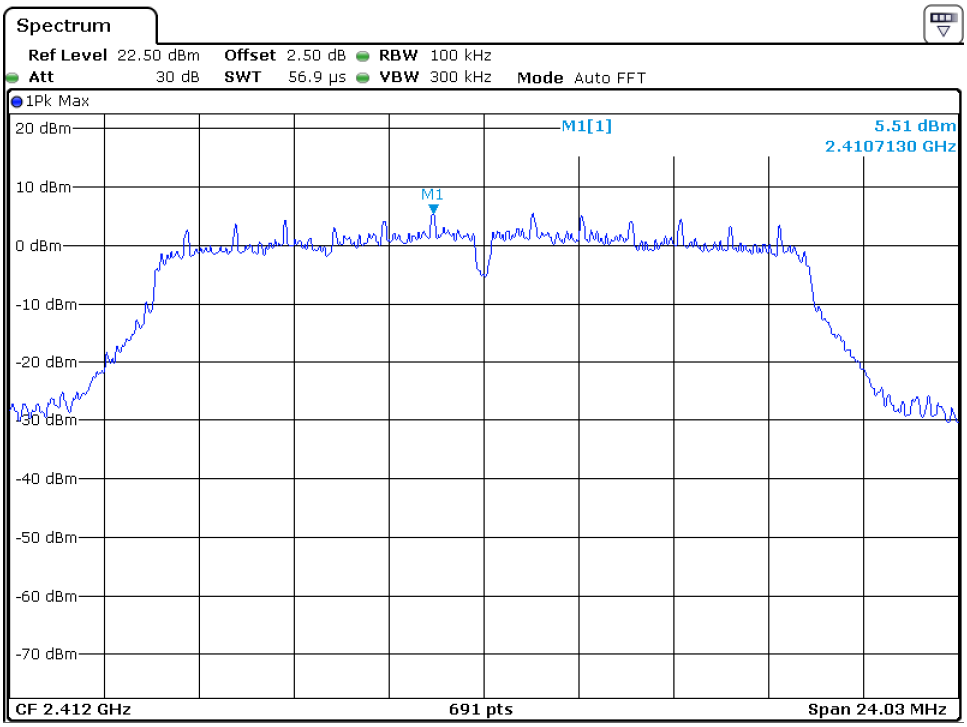


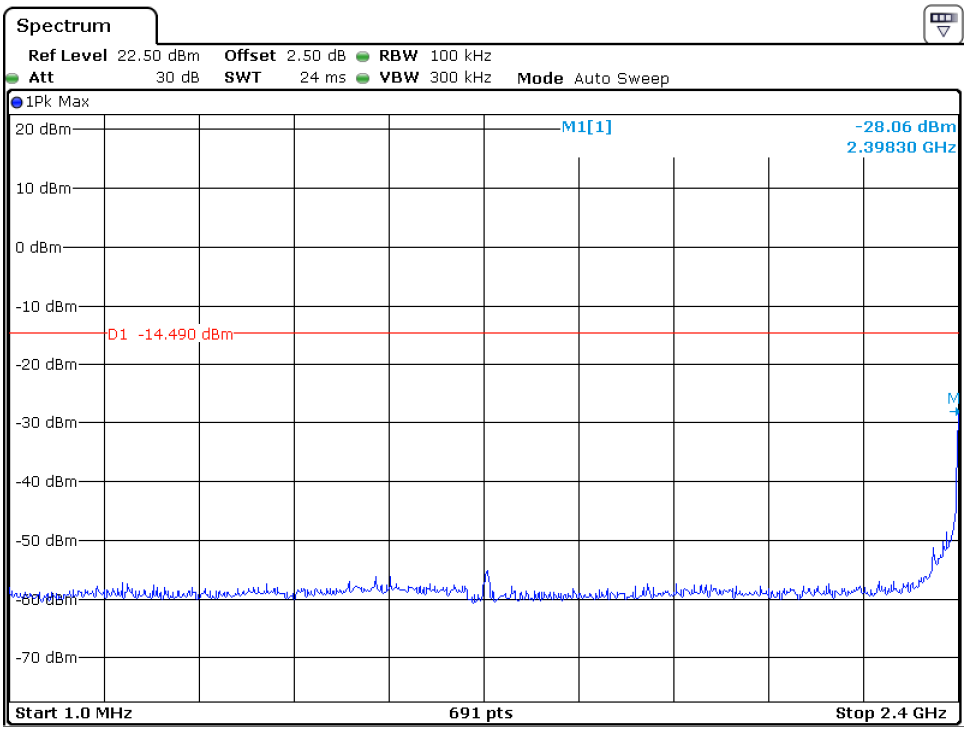


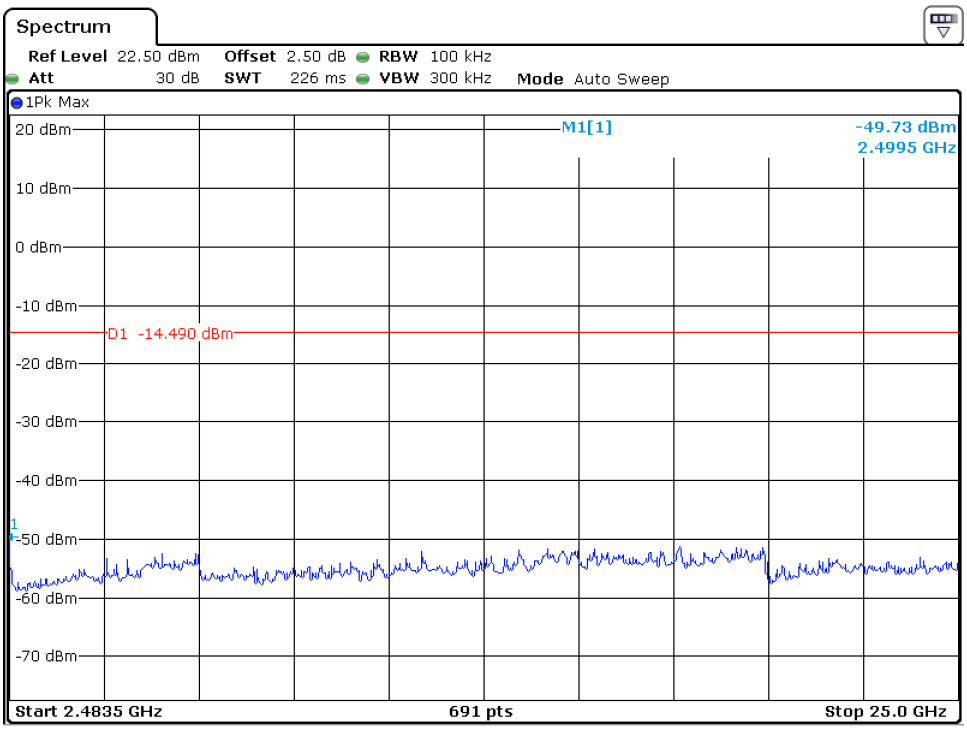

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -51.03 dBm
19.4115 GHz
D1 -16.140 dBm
M1
Start 2.4835 GHz 691 pts Stop 25.0 GHz

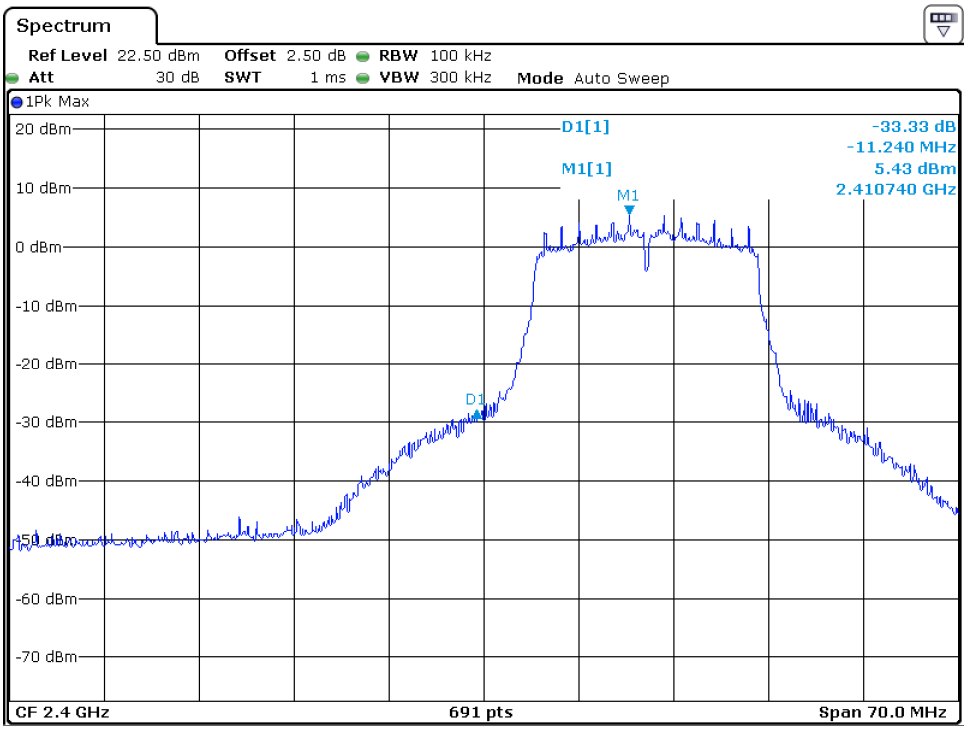

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 1 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
D1[1] -57.62 dB
24.010 MHz
M1[1] 3.82 dBm
2.463040 GHz
M1
D1
CF 2.4835 GHz 691 pts Span 70.0 MHz

802.11g
Channel 01 (2412MHz) Reference Level: 5.51dBm

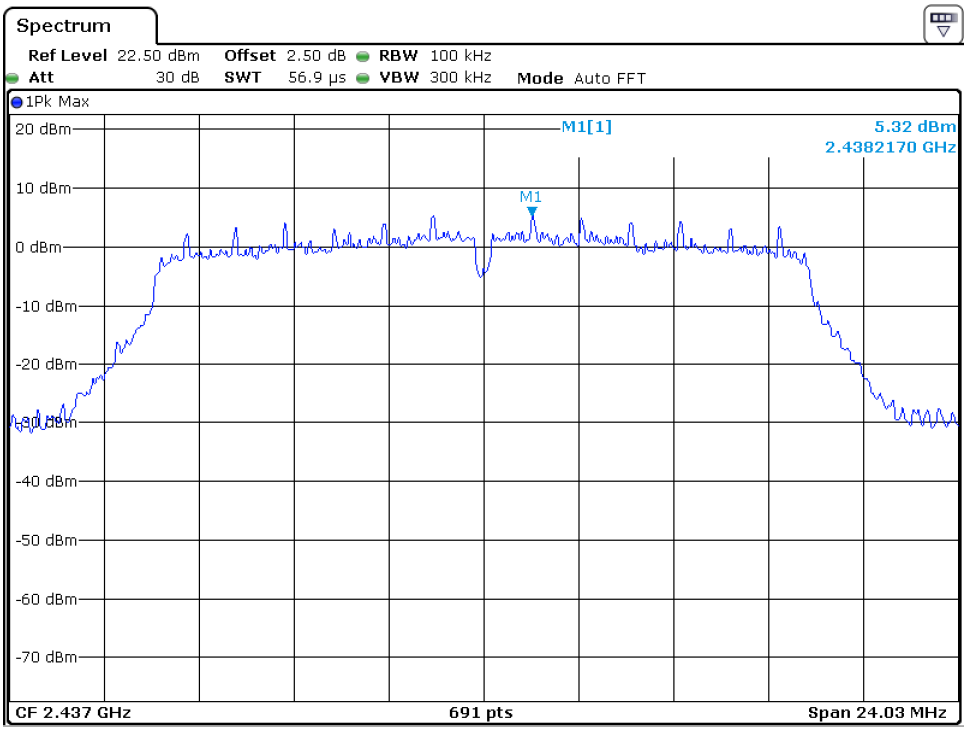


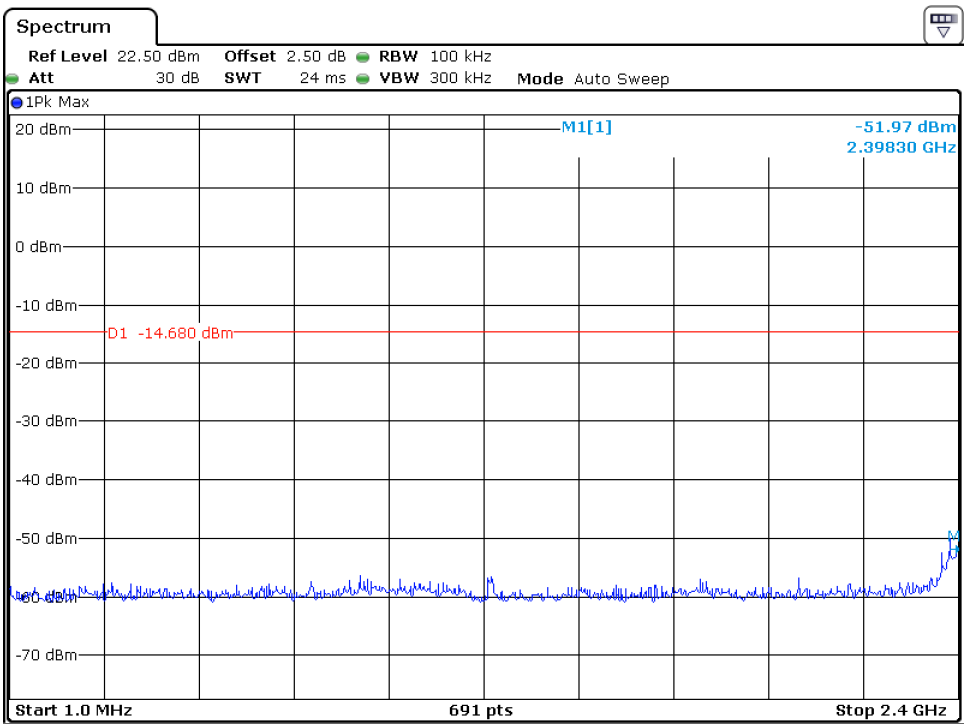


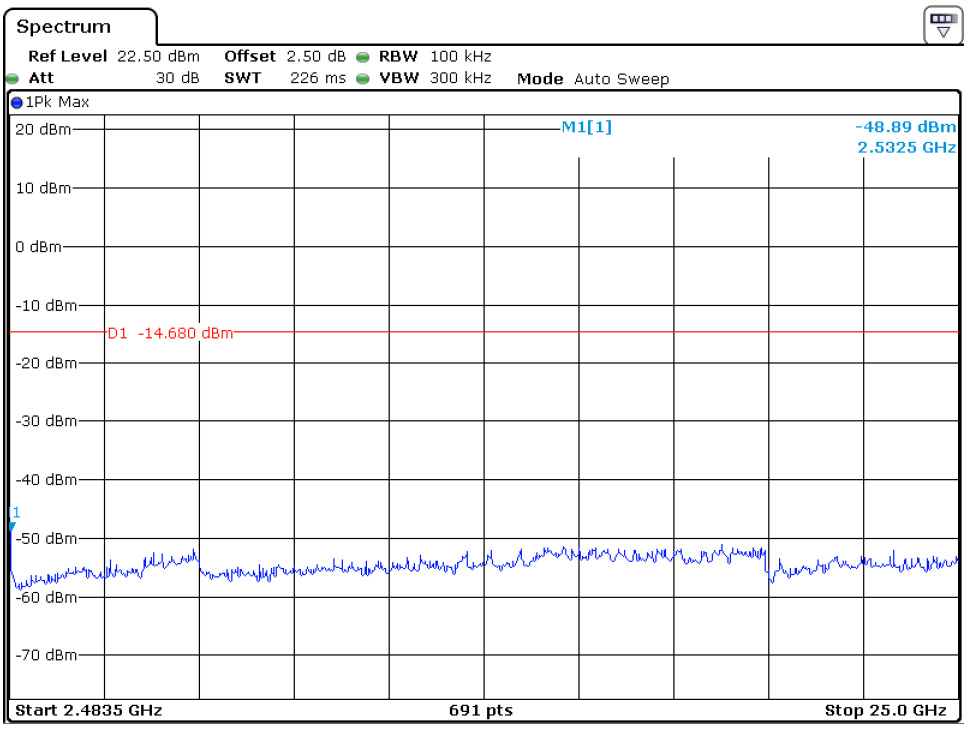

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -49.73 dBm
2.4995 GHz
D1 -14.490 dBm
Start 2.4835 GHz 691 pts Stop 25.0 GHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 1 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
D1[1] -33.33 dB
-11.240 MHz
M1[1] 5.43 dBm
2.410740 GHz
CF 2.4 GHz 691 pts Span 70.0 MHz

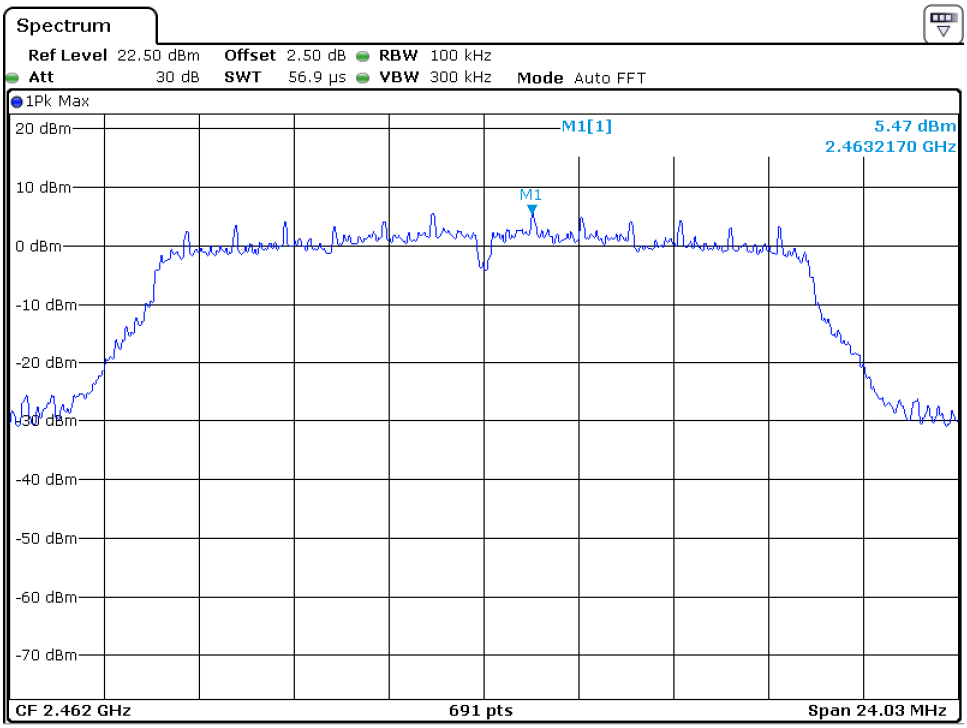
Channel 06 (2437MHz) Reference Level: 5.32dBm

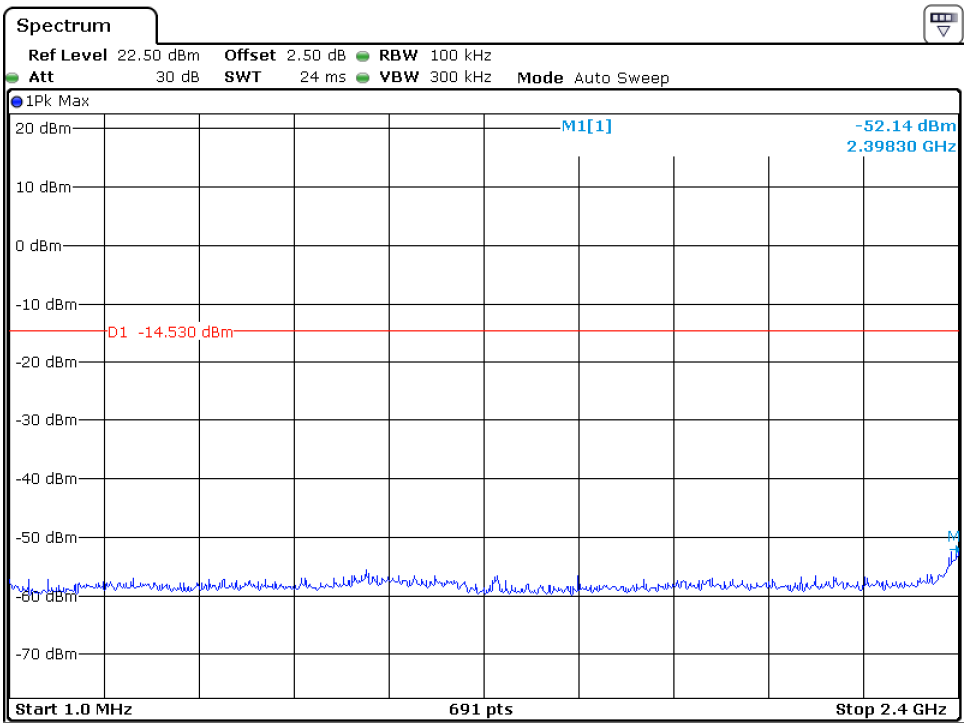


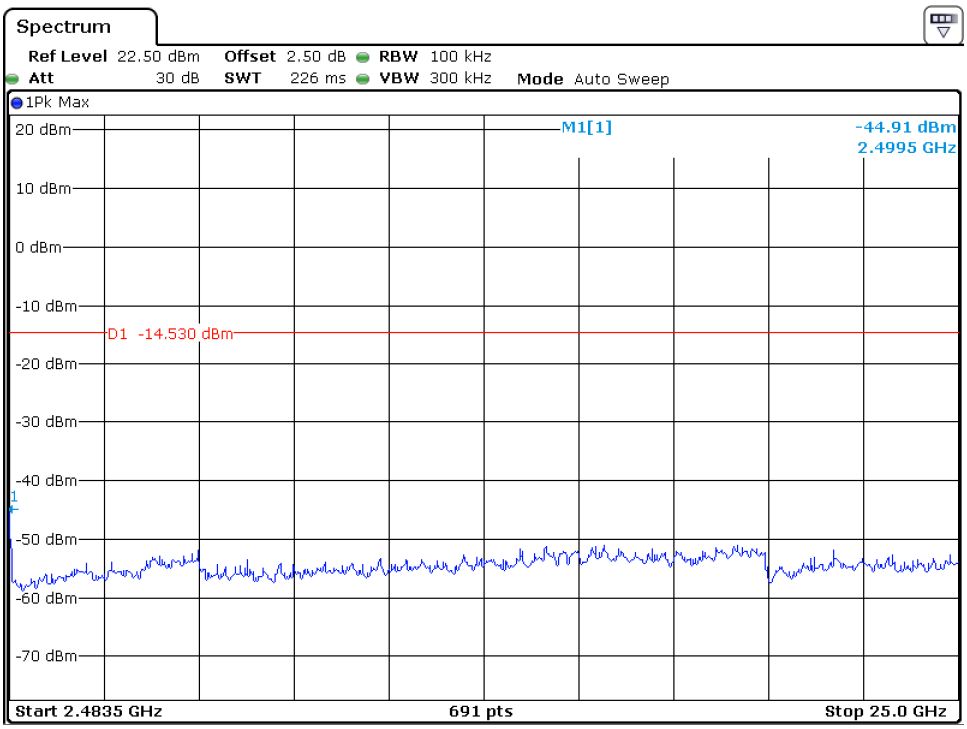


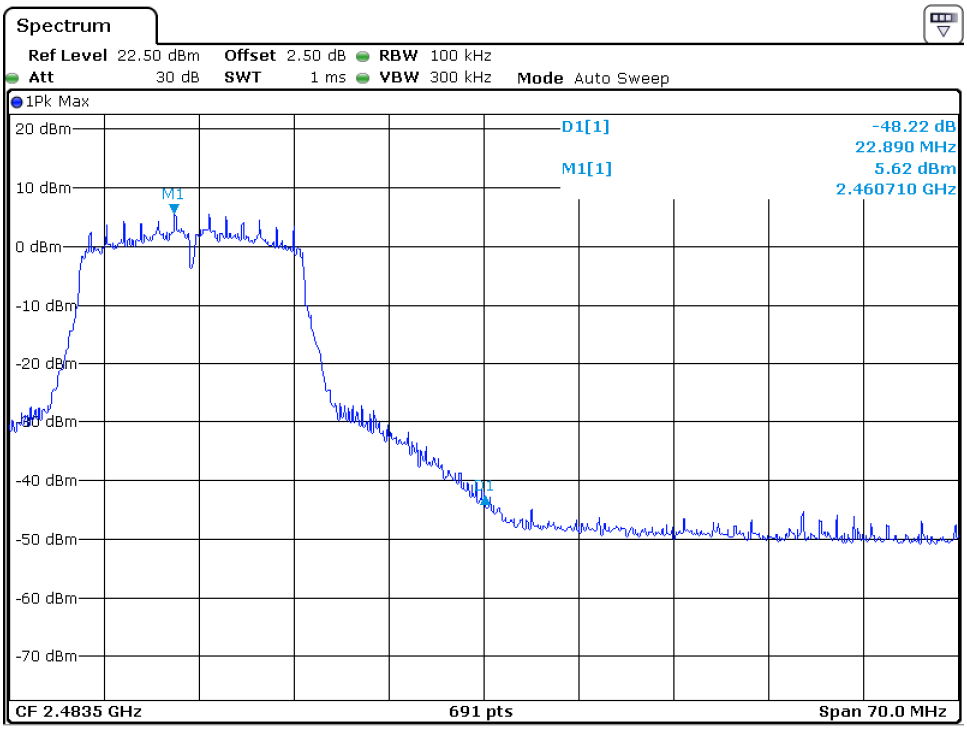

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1]
-48.89 dBm
2.5325 GHz
D1 -14.680 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
Start 2.4835 GHz
691 pts
Stop 25.0 GHz

Channel 11 (2462MHz) Reference Level: 5.47dBm

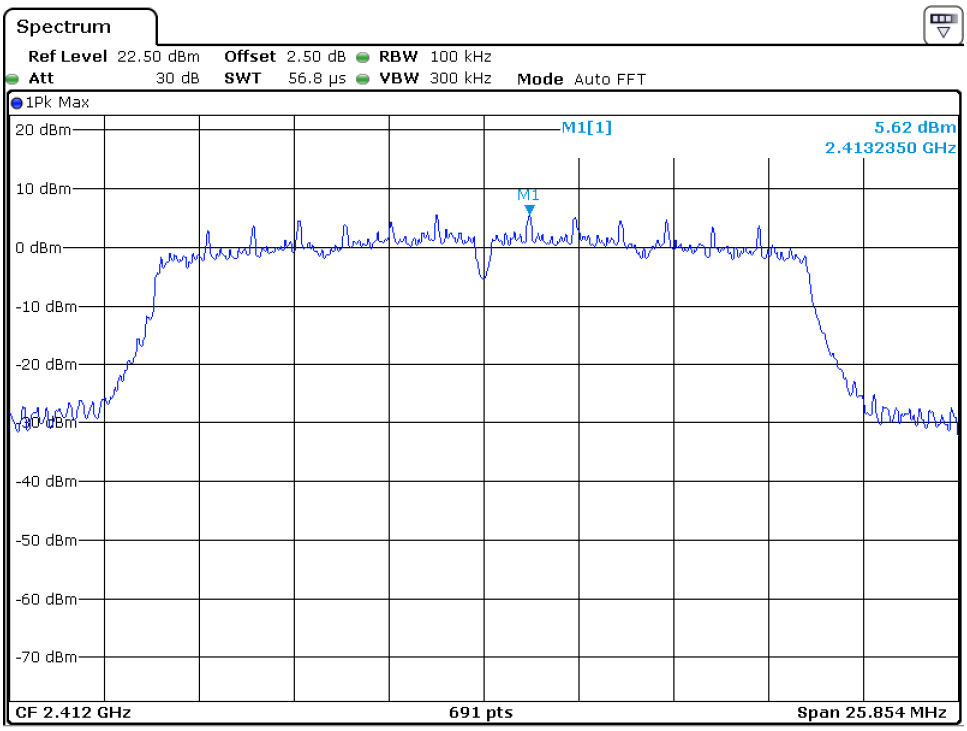


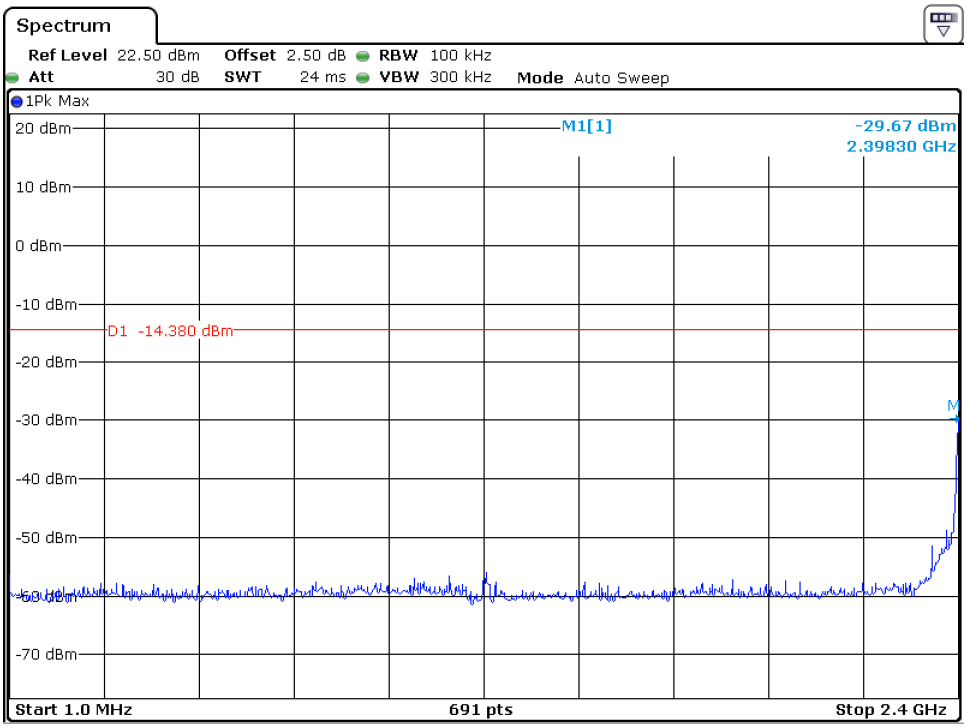


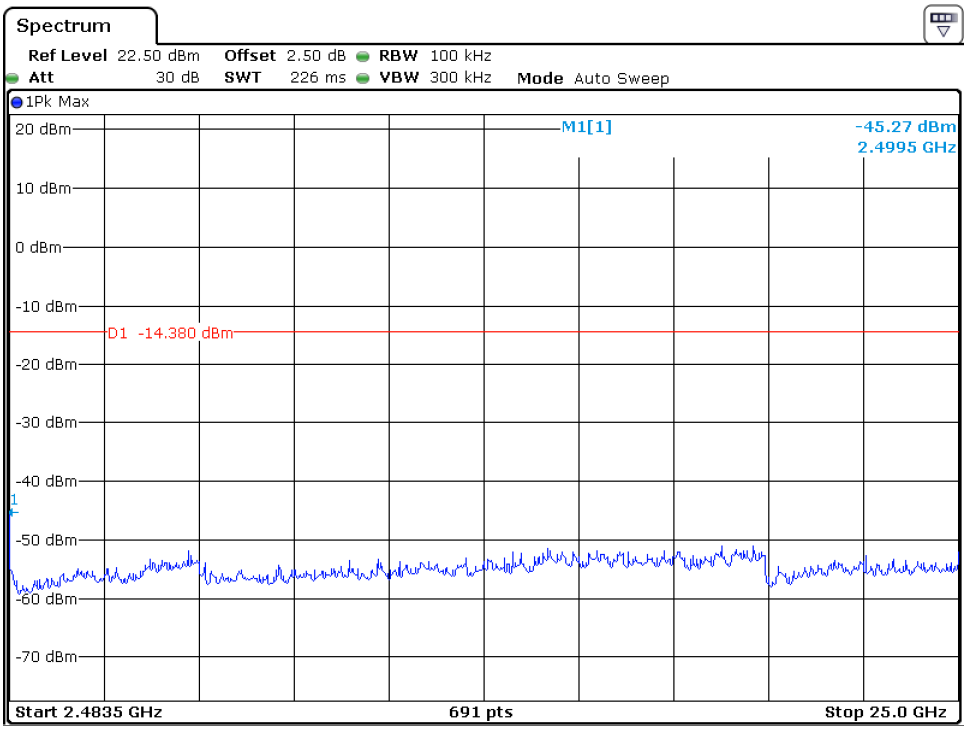

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -44.91 dBm
2.4995 GHz
D1 -14.530 dBm
Start 2.4835 GHz 691 pts Stop 25.0 GHz

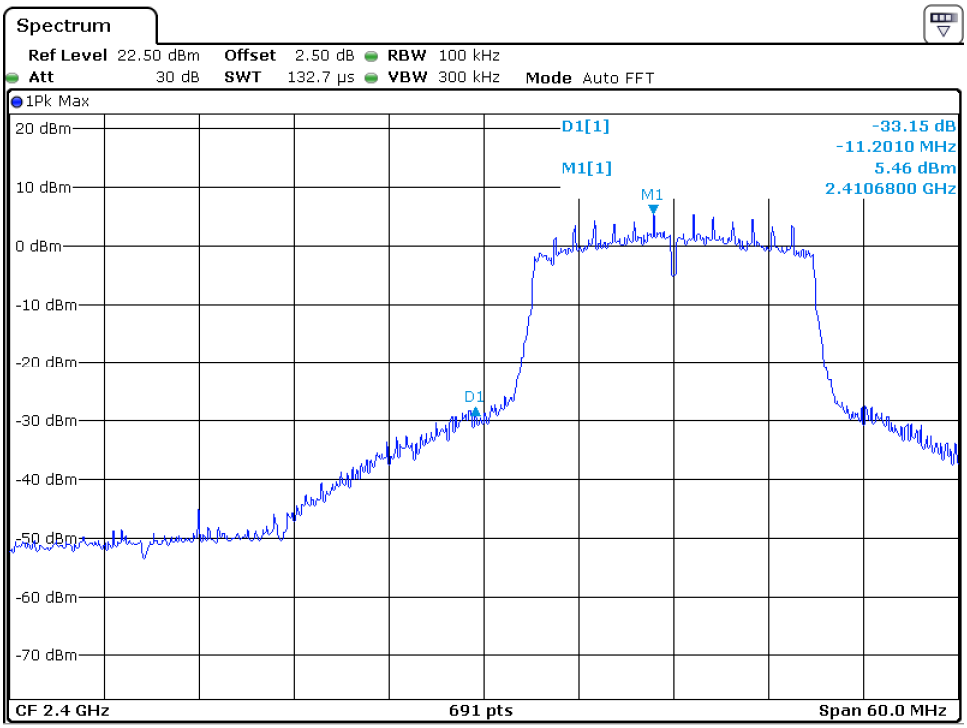

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 1 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
D1[1] -48.22 dB
22.890 MHz
M1[1] 5.62 dBm
2.460710 GHz
CF 2.4835 GHz 691 pts Span 70.0 MHz

802.11n-HT20
Channel 01 (2412MHz) Reference Level: 5.62dBm

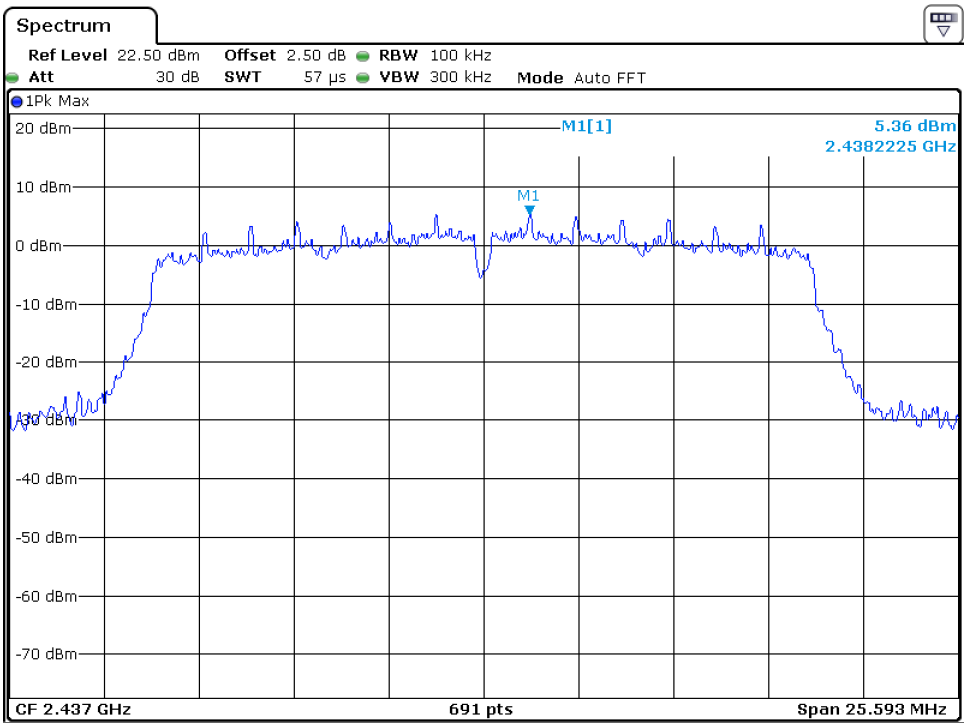


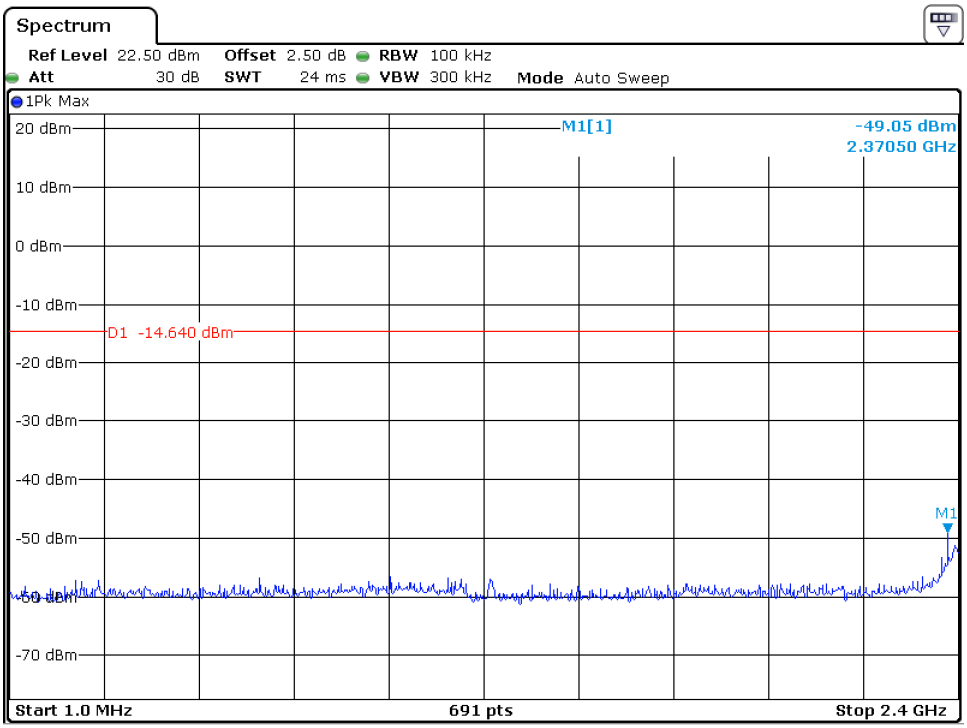


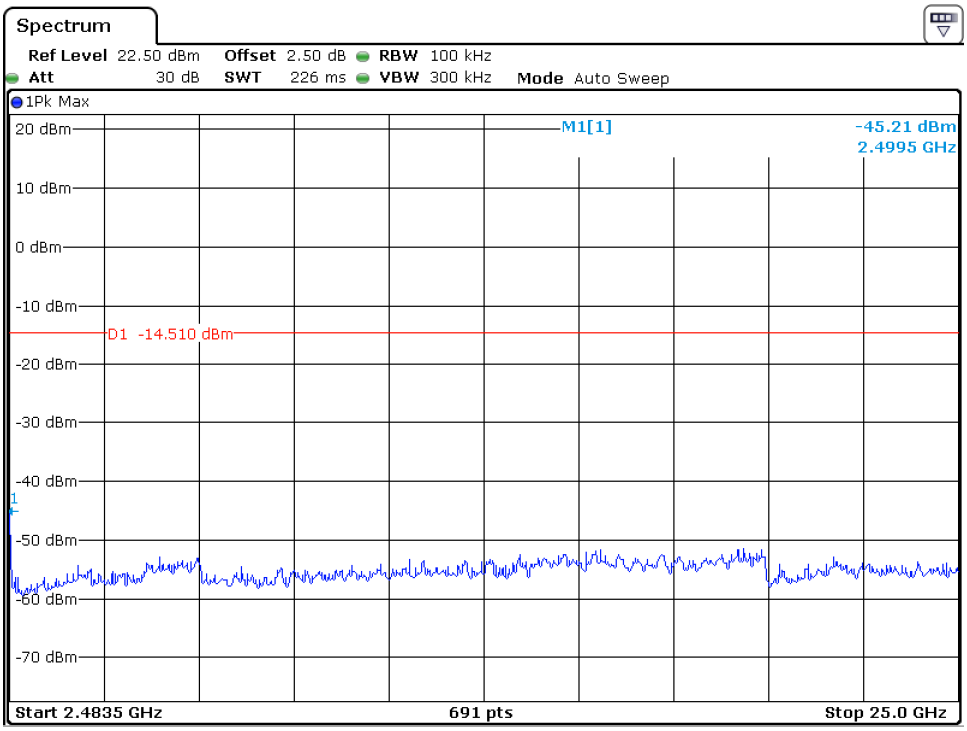

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -45.27 dBm
2.4995 GHz
D1 -14.380 dBm
Start 2.4835 GHz 691 pts Stop 25.0 GHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 132.7 µs VBW 300 kHz Mode Auto FFT
1Pk Max
D1[1] -33.15 dB
-11.2010 MHz
M1[1] 5.46 dBm
2.4106800 GHz
CF 2.4 GHz 691 pts Span 60.0 MHz

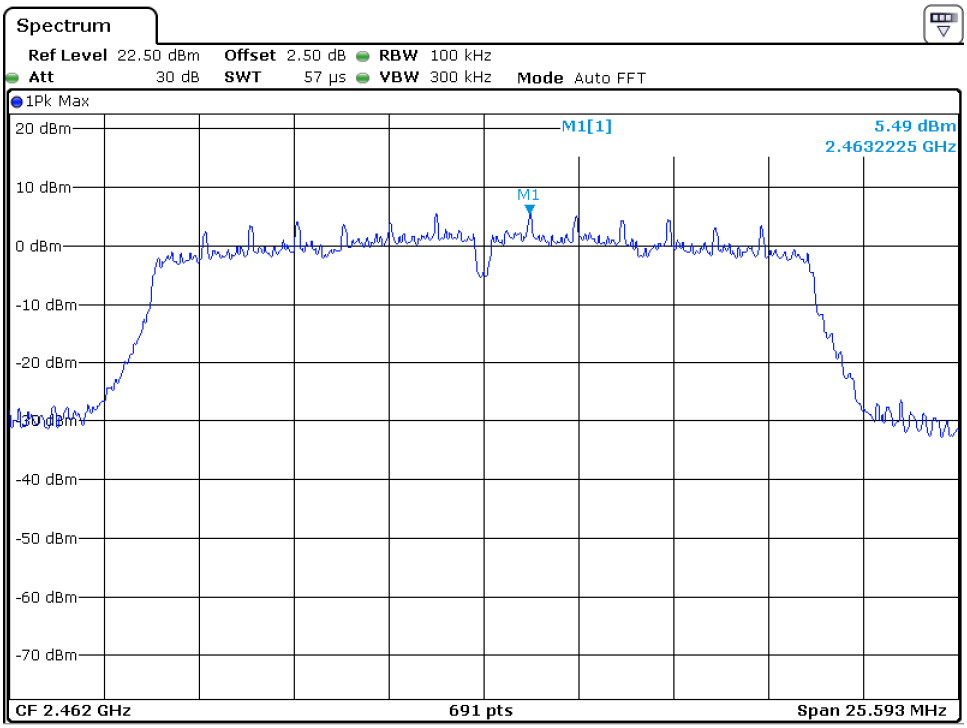
Channel 06 (2437MHz) Reference Level: 5.36dBm

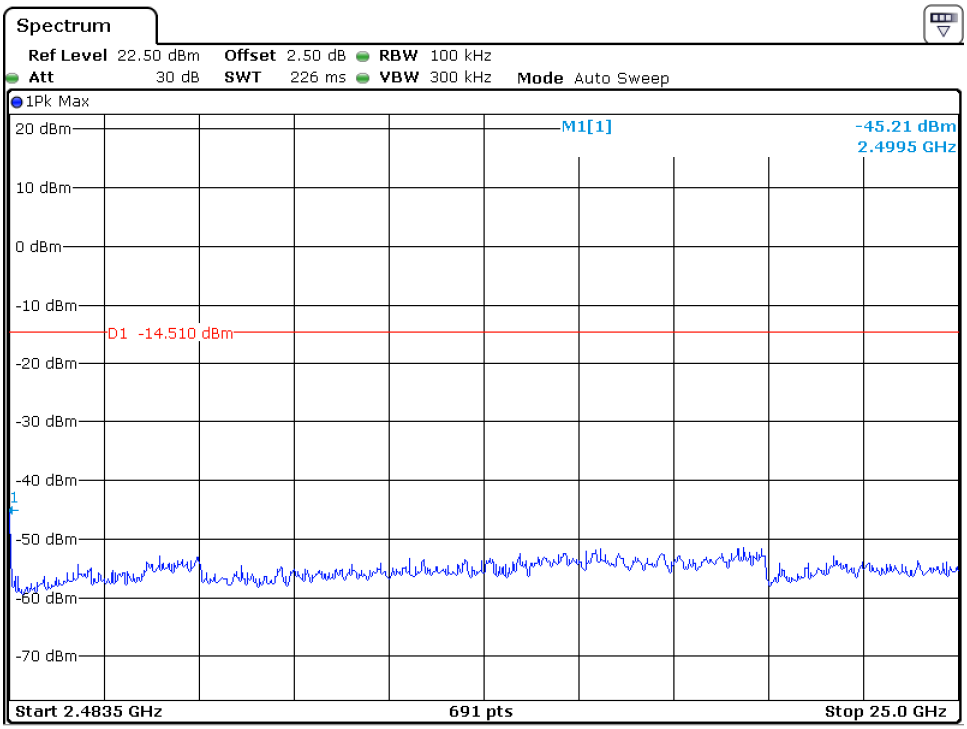


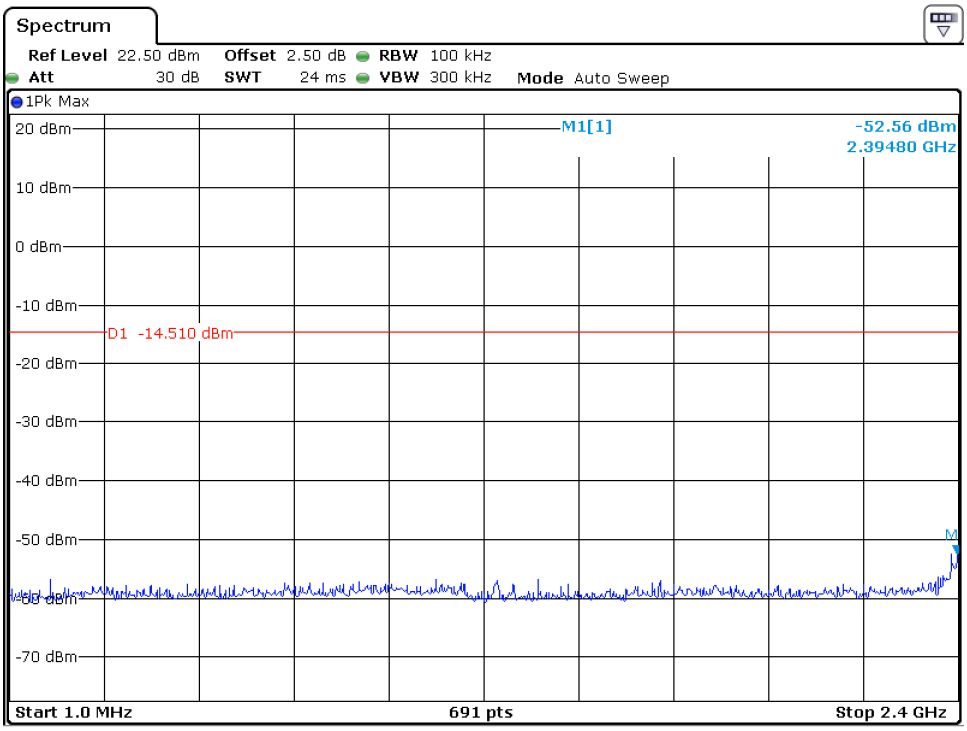


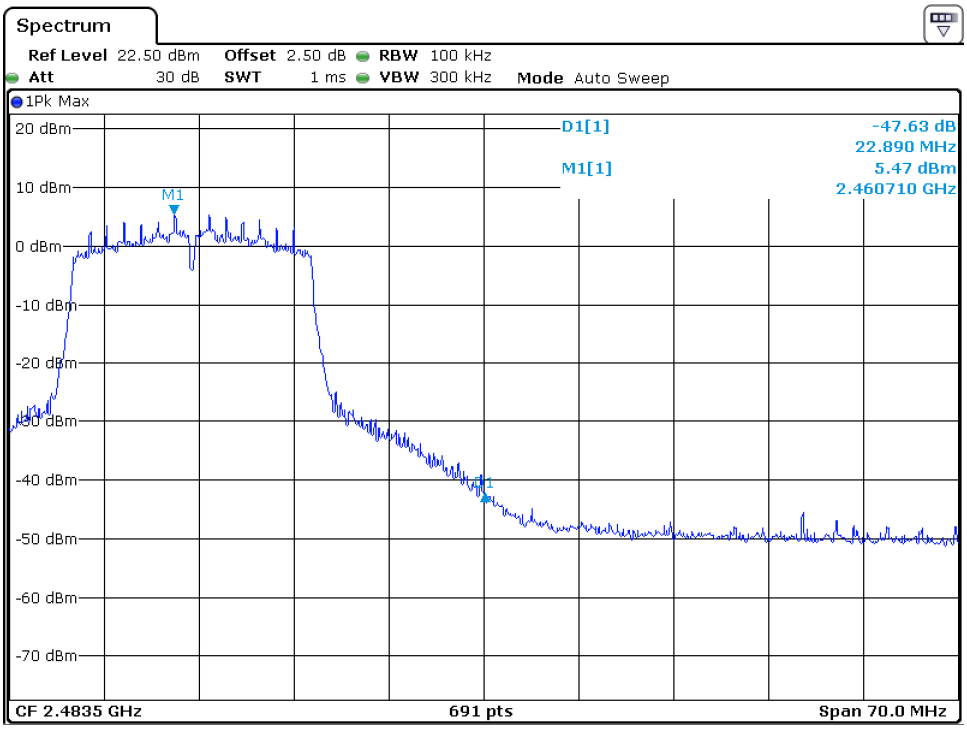

Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 226 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1]
-45.21 dBm
2.4995 GHz
D1 -14.510 dBm
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
Start 2.4835 GHz
691 pts
Stop 25.0 GHz

Channel 11 (2462MHz) Reference Level: 5.49dBm






Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 24 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
M1[1] -52.56 dBm
2.39480 GHz
D1 -14.510 dBm
Start 1.0 MHz 691 pts Stop 2.4 GHz


Spectrum
Ref Level 22.50 dBm Offset 2.50 dB RBW 100 kHz
Att 30 dB SWT 1 ms VBW 300 kHz Mode Auto Sweep
1Pk Max
D1[1] -47.63 dB
22.890 MHz
M1[1] 5.47 dBm
2.460710 GHz
CF 2.4835 GHz 691 pts Span 70.0 MHz

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

[×] Not required, since all emissions are more than 20dB below fundamental
[ ] See attached data sheet

4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b) (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD

Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD

Example
Assume a receiver reading of 62.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB. The net field strength for comparison to the appropriate emission limit is 42 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 dBμV/m

Level in mV/m = Common Antilogarithm [(42 dBμV/m)/20] = 125.9 μV/m

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.8 Radiated Spurious Emission

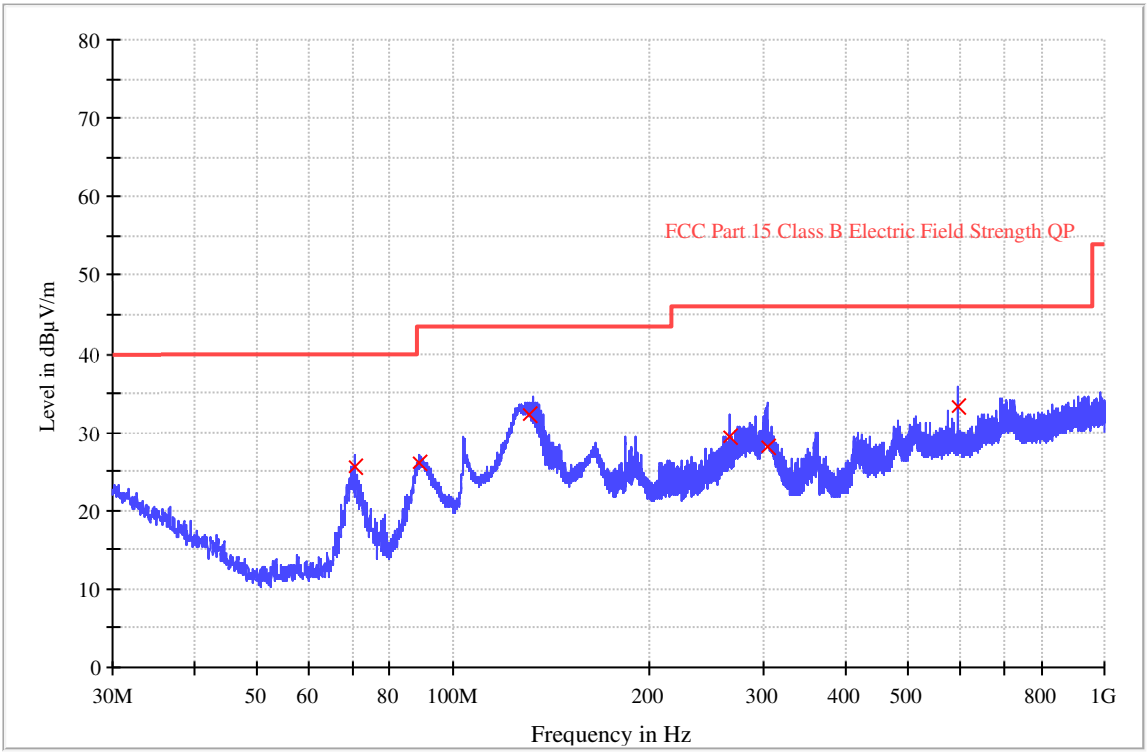
Worst Case Radiated Spurious Emission (802.11b-Channel 01)
at
70.284067MHz

Judgement: Passed by 5.8dB margin.

For the electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.pdf.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Worst Case Operating Mode: Transmitting (802.11b-Channel 01)

ANT Polarity: Horizontal

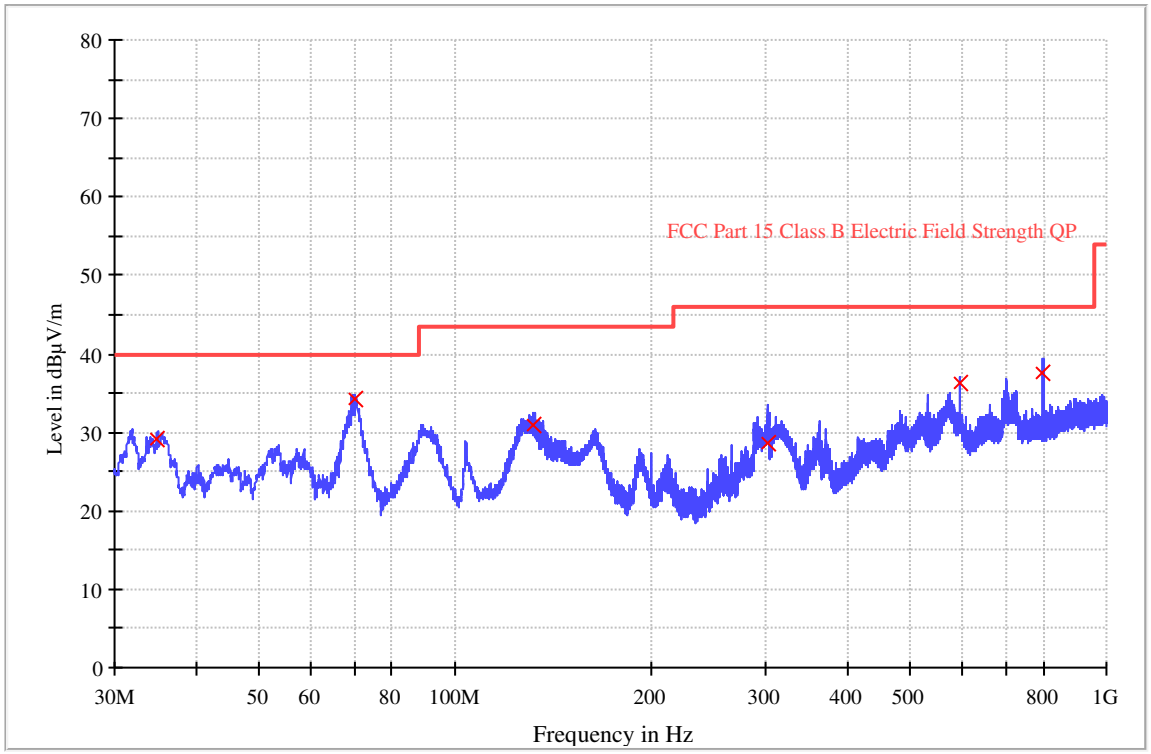


Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
70.546000	25.5	1000.0	120.000	H	8.9	14.5	40.0
88.911333	26.2	1000.0	120.000	H	9.6	17.3	43.5
131.268000	32.1	1000.0	120.000	H	10.3	11.4	43.5
266.324333	29.3	1000.0	120.000	H	15.3	16.7	46.0
303.152000	28.0	1000.0	120.000	H	16.7	18.0	46.0
597.999667	33.2	1000.0	120.000	H	23.7	12.8	46.0

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
3. Margin (dB) = Limit Line(dBµV/m) – Level (dBµV/m)

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Worst Case Operating Mode: Transmitting (802.11b-Channel 01)

ANT Polarity: Vertical



Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
34.914667	29.0	1000.0	120.000	V	16.0	11.0	40.0
70.284067	34.2	1000.0	120.000	V	8.8	5.8	40.0
131.720667	31.0	1000.0	120.000	V	10.3	12.5	43.5
302.020333	28.7	1000.0	120.000	V	16.7	17.3	46.0
597.999667	36.2	1000.0	120.000	V	23.7	9.8	46.0
799.986000	37.5	1000.0	120.000	V	26.4	8.5	46.0

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
3. Margin (dB) = Limit Line(dBµV/m) – Level (dBµV/m)

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11b-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	53.9	36.1	34.2	52.0	74.0	-22.0
Vertical	*2384.120	35.7	34.7	33.1	34.1	74.0	-39.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	47.2	36.1	34.2	45.3	54.0	-8.7
Vertical	*2384.120	25.1	34.7	33.1	23.5	54.0	-30.5

NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz/VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11b-Channel 06)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4874.000	52.9	36.1	34.6	51.4	74.0	-22.6

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4874.000	37.5	36.1	34.6	36.0	54.0	-18.0

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11b-Channel 11)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4924.000	55.3	36.1	34.6	53.8	74.0	-20.2
Vertical	*2488.100	30.5	35.6	37.2	32.1	74.0	-41.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4924.000	36.2	36.1	34.6	34.7	54.0	-19.3
Vertical	*2488.100	21.8	35.6	37.2	23.4	54.0	-30.6

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11g-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	50.8	36.1	34.2	48.9	74.0	-25.1
Vertical	*2381.230	33.7	34.7	33.1	32.1	74.0	-41.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	37.1	36.1	34.2	35.2	54.0	-18.8
Vertical	*2381.230	22.7	34.7	33.1	21.1	54.0	-32.9

NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz/VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11g-Channel 06)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4874.000	50.2	36.1	34.6	48.7	74.0	-25.3

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4874.000	36.6	36.1	34.6	35.1	54.0	-18.9

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11g-Channel 11)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4924.000	49.8	36.1	34.6	48.3	74.0	-25.7
Vertical	*2487.200	30.8	35.6	37.2	32.4	74.0	-41.6

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4924.000	37.1	36.1	34.6	35.6	54.0	-18.4
Vertical	*2487.200	20.5	35.6	37.2	22.1	54.0	-31.9

NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802.11n-HT20-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	49.9	36.1	34.2	48.0	74.0	-26.0
Vertical	*2384.108	32.0	34.7	33.1	30.4	74.0	-43.6

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	36.8	36.1	34.2	34.9	54.0	-19.1
Vertical	*2384.108	26.7	34.7	33.1	25.1	54.0	-28.9

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz/VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802. 11n-HT20-Channel 06)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4874.000	49.2	36.1	34.6	47.7	74.0	-26.3

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4874.000	36.1	36.1	34.6	34.6	54.0	-19.4

NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Operating Mode: Transmitting (802. 11n-HT20-Channel 11)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4924.000	50.2	36.1	34.6	48.7	74.0	-25.3
Vertical	*2487.130	30.8	35.6	37.2	32.4	74.0	-41.6

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4924.000	37.0	36.1	34.6	35.5	54.0	-18.5
Vertical	*2487.130	20.7	35.6	37.2	22.3	54.0	-31.7

NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.9 Conducted Emission at Mains Terminal

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

Worst Case Conducted Configuration

at 0.402000 MHz

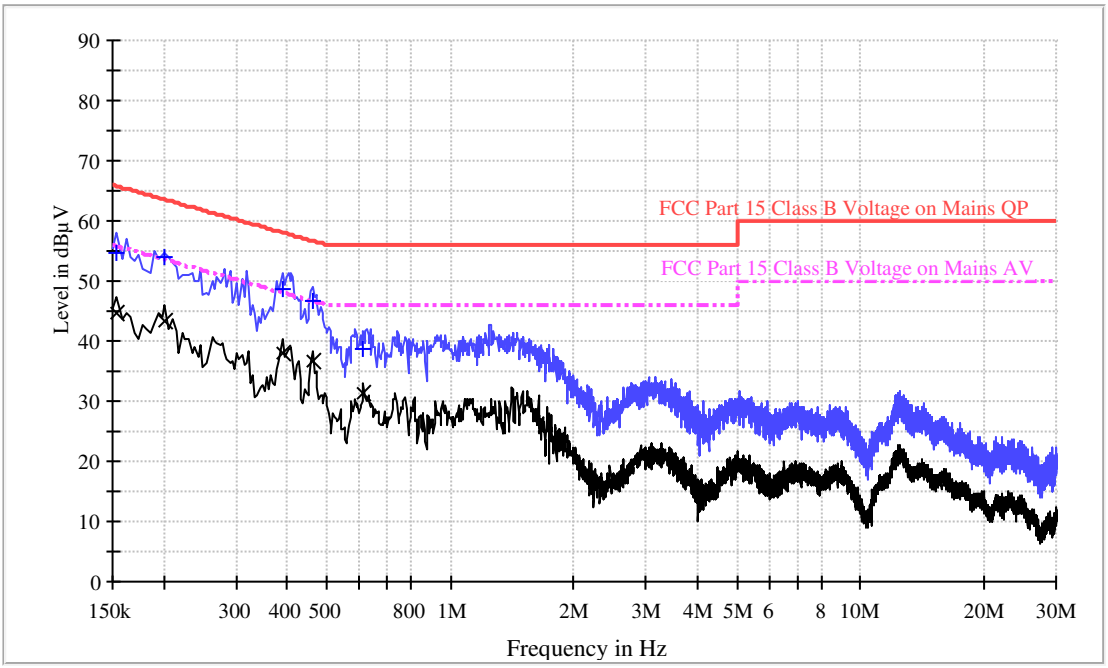
Judgement: Passed by 8.3 dB margin

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Worst Case Operating Mode: Transmitting (802.11b-Channel 01)
Phase: Neutral

Graphic / Data Table

Conducted Emissions

Pursuant to FCC 15.207: Emissions Requirement



Result Table QP

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154000	54.7	9.000	N	9.7	11.1	65.8
0.202000	54.0	9.000	N	9.7	9.5	63.5
0.390000	48.6	9.000	N	9.7	9.5	58.1
0.462000	46.7	9.000	N	9.7	10.0	56.7
0.614000	38.7	9.000	N	9.7	17.3	56.0

Result Table AV

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154000	44.7	9.000	N	9.7	11.1	55.8
0.202000	43.3	9.000	N	9.7	10.2	53.5
0.390000	38.1	9.000	N	9.7	10.0	48.1
0.462000	36.7	9.000	N	9.7	10.0	46.7
0.614000	31.4	9.000	N	9.7	14.6	46.0

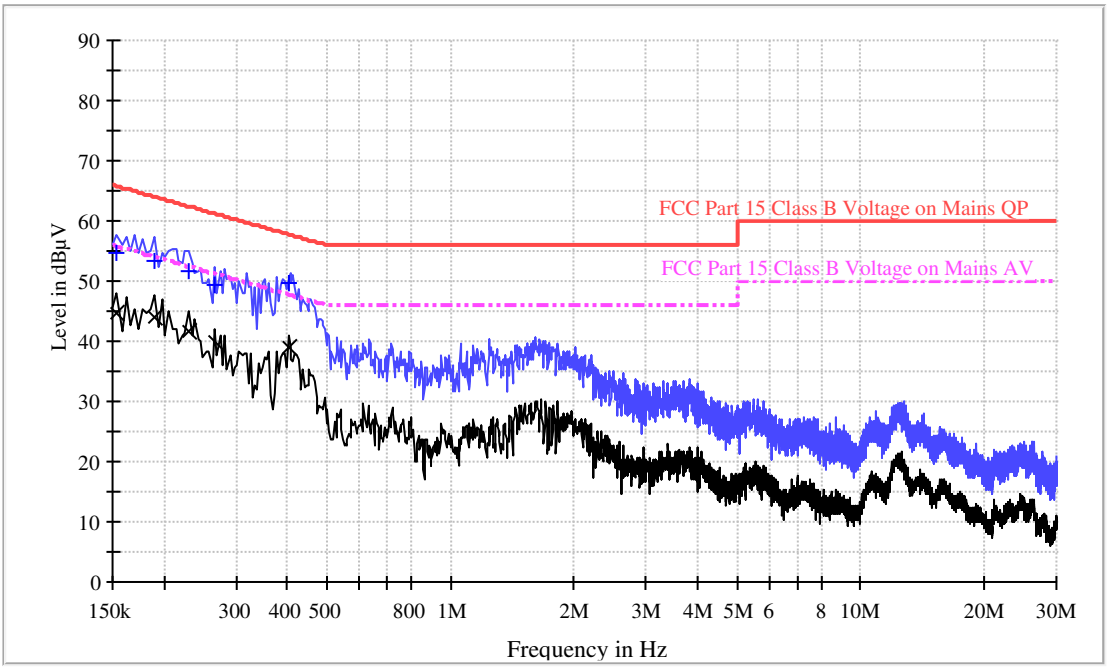
Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Limit (dBuV) – Level (dBuV)

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205
Worst Case Operating Mode: Transmitting (802.11b-Channel 01)
Phase: Live

Graphic / Data Table

Conducted Emissions

Pursuant to FCC 15.207: Emissions Requirement



Result Table QP

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154000	54.5	9.000	L1	9.7	11.3	65.8
0.190000	53.3	9.000	L1	9.7	10.7	64.0
0.230000	51.6	9.000	L1	9.7	10.8	62.4
0.266000	49.2	9.000	L1	9.7	12.0	61.2
0.402000	49.5	9.000	L1	9.7	8.3	57.8

Result Table AV

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154000	44.6	9.000	L1	9.7	11.2	55.8
0.190000	43.9	9.000	L1	9.7	10.1	54.0
0.230000	41.7	9.000	L1	9.7	10.7	52.4
0.266000	39.9	9.000	L1	9.7	11.3	51.2
0.402000	39.0	9.000	L1	9.7	8.8	47.8

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Limit (dBuV) – Level (dBuV)

Applicant: WF TASTEMAKERS TRADING LIMITED
Date of Test: August 15, 2020 Model: 8205

4.10 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.109

[ ] Not required - No digital part

[ ] Test results are attached

[x] Included in the separated report.

4.11 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

	See attached spectrum analyzer chart (s) for Transmitter timing
	See Transmitter timing diagram provided by manufacturer
x	Not applicable, duty cycle was not used.

5.0 Equipment Photographs

For electronic filing, the photographs are saved with filename: external photos.pdf & internal photos.pdf.

6.0 Product Labeling

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

7.0 Technical Specifications

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

8.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

9.0 Confidentiality Request

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

10.0 Discussion of Pulse Desensitization

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF.*

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

11.0 Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ182-02	RF Power Meter	Anritsu	ML2496A	1302005	27-May-2020	27-May-2021
SZ182-02-01	Power Sensor	Anritsu	MA2411B	1207429	27-May-2020	27-May-2021
SZ061-12	BiConiLog Antenna	ETS	3142E	00166158	14-Sep-2018	14-Sep-2020
SZ185-01	EMI Receiver	R&S	ESCI	100547	24-Dec-2019	24-Dec-2020
SZ061-08	Horn Antenna	ETS	3115	00092346	7-Sep-2019	7-Sep-2021
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	27-May-2020	27-May-2021
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	27-May-2020	27-May-2021
SZ056-06	Signal Analyzer	R&S	FSV 40	101101	27-May-2020	27-May-2021
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	27-May-2020	27-May-2021
SZ188-05	Anechoic Chamber	ETS	FACT 3-2.0	CT001880-Q1391	5-Jun-2018	5-Jun-2021
SZ062-12	RF Cable	RADIALL	RG 213U	--	26-Feb-2020	26-Aug-2020
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	26-Feb-2020	26-Aug-2020
SZ062-13	RF Cable	Habia	0.026-26.5GHz	--	26-Feb-2020	26-Aug-2020
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	27-May-2020	27-May-2021
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	29-Oct-2019	29-Oct-2020
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	29-Oct-2019	29-Oct-2020
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	27-May-2020	27-May-2021
SZ188-03	Shielding Room	ETS	RFD-100	4100	7-Jan-2020	7-Jan-2022