

**FCC- TEST REPORT**Report Number : **64.790.16.04524.01** Date of Issue: September 27, 2016

Model : PDV3606

Product Type : Panoramic View Camera

Applicant : SHUOYING DIGITAL SCIENCE&amp;TECHNOLOGY(CHINA)Co.,Ltd

Address : NO.187,5th Binhai Road, Wenzhou, Zhejiang, China

Production Facility : SHUOYING DIGITAL SCIENCE&amp;TECHNOLOGY(CHINA)Co.,Ltd

Address : NO.187,5th Binhai Road, Wenzhou, Zhejiang, China

Test Result : ☒ **Positive** ☐ **Negative**Total pages including  
Appendices : 48

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

#### Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
Building 12&13, Zhiheng Wisdomland Business Park,  
Nantou Checkpoint Road 2, Nanshan District,  
Shenzhen City, 518052,  
P. R. China

FCC Registration No.: 502708

Telephone: 86 755 8828 6998  
Fax: 86 755 8828 5299

#### Test Site 2

Company name: Dongguan NTC Co., Ltd.  
Building D, Gaosheng Science and Technology Park,  
Hongtu Road, Nancheng District, Dongguan City, Guangdong, China

Telephone: 86 769 22022444  
Fax: 86 769 22022799  
FCC Registration No.: 665078

### 3 Description of the Equipment under Test

#### Description of the Equipment Under Test

Product:	Panoramic View Camera
Model no.:	PDV3606
FCC ID:	YGB-PDV3606
Options and accessories:	NIL
Rating:	3.7VDC, 1000mAh (Supplied by Li-ion rechargeable battery) 5.0VDC, 1.5A (Charging by USB Port)
RF Transmission Frequency:	2412-2462MHz
No. of Operated Channel:	11
Modulation:	CCK, DQPSK, DBPSK for 802.11b QPSK,BPSK for 802.11g/n
Duty Cycle:	100%
Antenna Type:	Integral Antenna
Antenna Gain:	2dBi
Description of the EUT:	The Equipment Under Test (EUT) is a Panoramic View Camera with WIFI function operating at 2.4GHz

## 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2015 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to KDB558074 DTS Measurement Guidance and ANSI C63.10 (2013).

## 5 Summary of Test Results

Technical Requirements				
FCC Part 15 Subpart C				
Test Condition		Pages	Test Result	Site
§15.207	Conducted emission AC power port	10	Pass	Site 2
§15.247(b)(1)	Conducted peak output power	13	Pass	Site 2
§15.247(e)	Power spectral density	20	Pass	Site 2
§15.247(a)(2)	6dB bandwidth	14	Pass	Site 2
§15.247(a)(1)	20dB bandwidth and 99% Occupied Bandwidth	--	--	N/A
§15.247(a)(1)	Carrier frequency separation	--	--	N/A
§15.247(a)(1)(ii i)	Number of hopping frequencies	--	--	N/A
§15.247(a)(1)(ii i)	Dwell Time	--	--	N/A
§15.247(d)	Spurious RF conducted emissions	26	Pass	Site 2
§15.247(d)	Band edge	32	Pass	Site 2
§15.247(d) & §15.209 & §15.203	Spurious radiated emissions for transmitter and receiver	36	Pass	Site 2
§15.203	Antenna requirement	See note 1	Pass	Site 2

Remark 1: N/A – Not Applicable.

Note 1: The EUT uses a permanently integral antenna, which gain is 2dBi. According to §15.203, it is considered sufficiently to comply with the provisions of this section.

## 6 General Remarks

### Remarks

This submittal(s) (test report) is intended for FCC ID: YGB-PDV3606, complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C.

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: September 01, 2016

Testing Start Date: September 01, 2016

Testing End Date: September 27, 2016

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:

Prepared by:

Tested by:



Phoebe Hu  
EMC Project Manager



Aaron Lai  
EMC Project Engineer



Leon Zhang  
EMC Test Engineer

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## 8 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
---	---	---	---

Test software: SSCOM 32.EXE

The system was configured to channel 1, 6 and 11 for the test.

## 9 Technical Requirement

### 9.1 Conducted Emission

#### Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

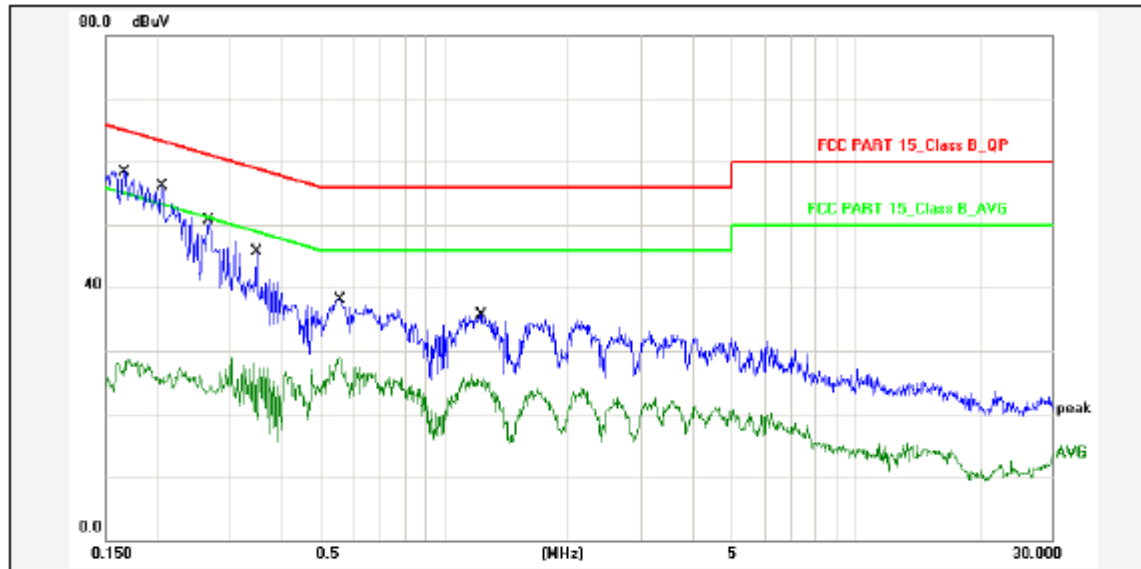
#### Limit

Frequency MHz	QP Limit dB $\mu$ V	AV Limit dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linea

## Conducted Emission

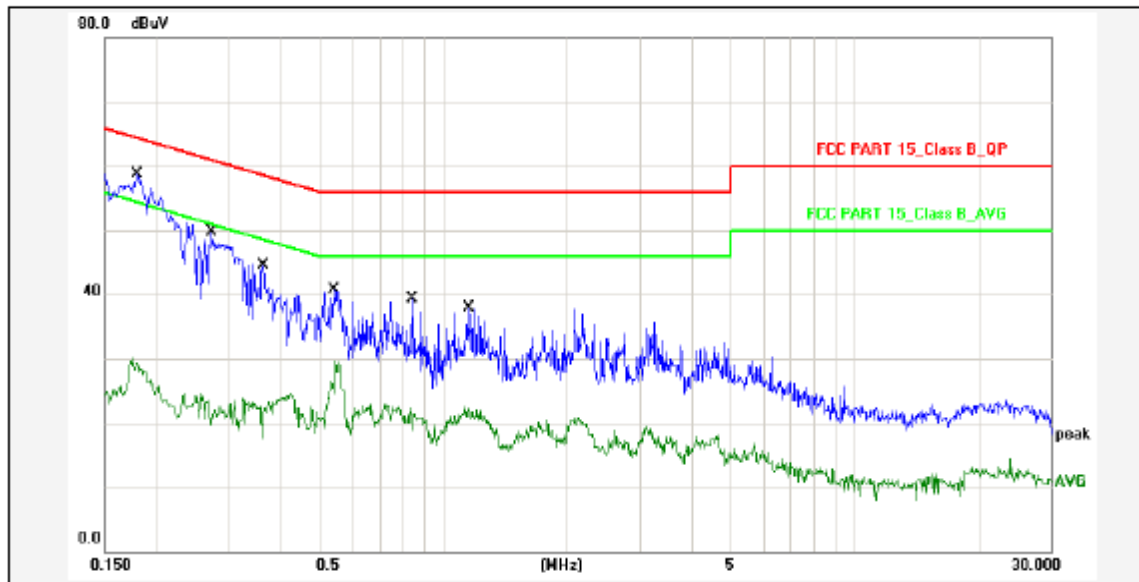
Product Type : Panoramic View Camera  
 M/N : PDV3606  
 Operating Condition : Charging & TX  
 Test Specification : Live  
 Comment : AC 120V/60Hz



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1658	10.80	45.50	56.30	65.16	-8.86	QP	P	
2	0.1658	10.80	15.90	26.70	55.16	-28.46	AVG	P	
3	0.2050	10.80	43.30	54.10	63.40	-9.30	QP	P	
4	0.2050	10.80	13.80	24.60	53.40	-28.80	AVG	P	
5	0.2658	10.80	37.90	48.70	61.25	-12.55	QP	P	
6	0.2658	10.80	13.30	24.10	51.25	-27.15	AVG	P	
7	0.3482	10.80	32.90	43.70	59.00	-15.30	QP	P	
8	0.3482	10.80	15.40	26.20	49.00	-22.80	AVG	P	
9	0.5551	10.80	25.40	36.20	56.00	-19.80	QP	P	
10	0.5551	10.80	16.10	26.90	46.00	-19.10	AVG	P	
11	1.2291	10.80	22.80	33.60	56.00	-22.40	QP	P	
12	1.2291	10.80	13.40	24.20	46.00	-21.80	AVG	P	

## Conducted Emission

Product Type : Panoramic View Camera  
 M/N : PDV3606  
 Operating Condition : Charging & TX  
 Test Specification : Neutral  
 Comment : AC 120V/60Hz



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1796	10.80	45.80	56.60	64.50	-7.90	QP	P	
2	0.1796	10.80	17.30	28.10	54.50	-26.40	AVG	P	
3	0.2729	10.80	36.90	47.70	61.03	-13.33	QP	P	
4	0.2729	10.80	11.80	22.60	51.03	-28.43	AVG	P	
5	0.3633	10.80	31.70	42.50	58.65	-16.15	QP	P	
6	0.3633	10.80	11.00	21.80	48.65	-26.85	AVG	P	
7	0.5406	10.80	27.80	38.60	56.00	-17.40	QP	P	
8	0.5406	10.80	16.90	27.70	46.00	-18.30	AVG	P	
9	0.8346	10.80	26.60	37.40	56.00	-18.60	QP	P	
10	0.8346	10.80	9.70	20.50	46.00	-25.50	AVG	P	
11	1.1532	10.80	25.00	35.80	56.00	-20.20	QP	P	
12	1.1532	10.80	9.80	20.60	46.00	-25.40	AVG	P	

## 9.2

### 9.2 Conducted peak output power

#### Test Method

1. Use the following spectrum analyzer settings:  
RBW > the 6 dB bandwidth of the emission being measured, VBW $\geq$ 3RBW, Span $\geq$ 3RBW  
Sweep = auto, Detector function = peak, Trace = max hold.
2. Add a correction factor to the display.
3. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power.

#### Limits

According to §15.247 (b) (1), conducted peak output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	$\leq 1$	$\leq 30$

Test result as below table

802.11b

Frequency MHz	Conducted Peak Output Power dBm	Result
Top channel 2412MHz	8.27	Pass
Middle channel 2437MHz	7.84	Pass
Bottom channel 2462MHz	9.11	Pass

802.11g

Frequency MHz	Conducted Peak Output Power dBm	Result
Top channel 2412MHz	7.25	Pass
Middle channel 2437MHz	6.98	Pass
Bottom channel 2462MHz	7.21	Pass

802.11nHT20

Frequency MHz	Conducted Peak Output Power dBm	Result
Top channel 2412MHz	6.84	Pass
Middle channel 2437MHz	8.12	Pass
Bottom channel 2462MHz	7.15	Pass

### 9.3 6dB bandwidth

#### Test Method

1. Use the following spectrum analyzer settings:  
RBW=100K, VBW≥3RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Use the automatic bandwidth measurement capability of an instrument, may be employed using the X dB bandwidth mode with X set to 6 dB, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.
3. Allow the trace to stabilize, record the X dB Bandwidth value.

#### Limit

Limit [kHz]

≥500

#### Test result

##### 802.11b

Frequency MHz	6dB bandwidth MHz	Result
Top channel 2412MHz	10.048	Pass
Middle channel 2437MHz	10.048	Pass
Bottom channel 2462MHz	10.048	Pass

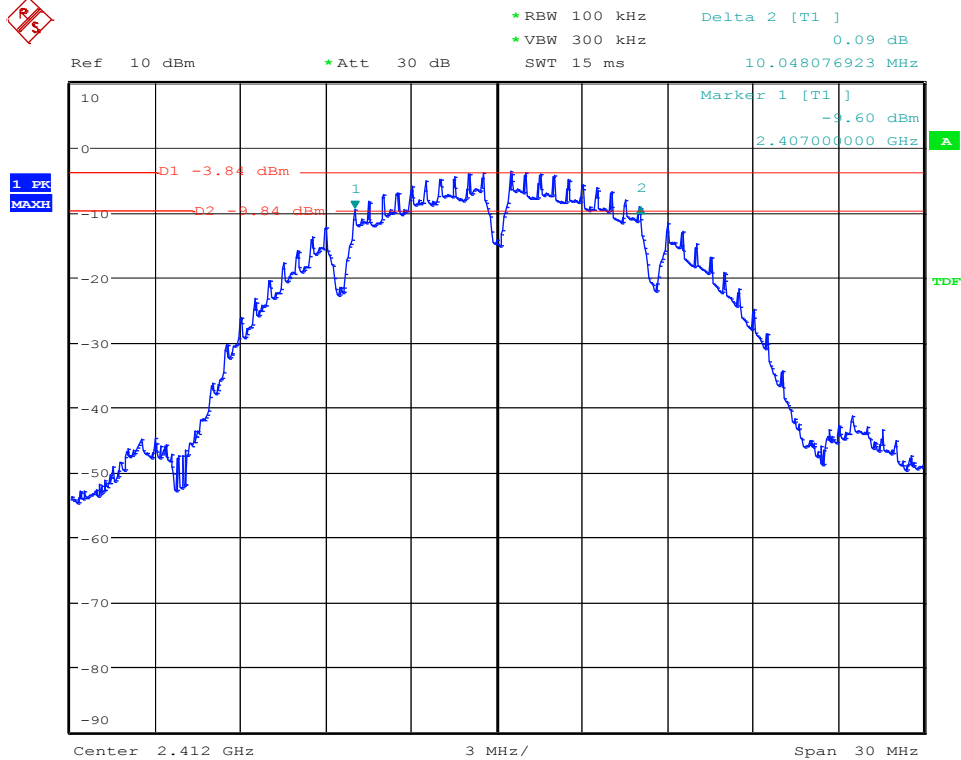
##### 802.11g

Frequency MHz	6dB bandwidth MHz	Result
Top channel 2412MHz	16.442	Pass
Middle channel 2437MHz	16.394	Pass
Bottom channel 2462MHz	16.442	Pass

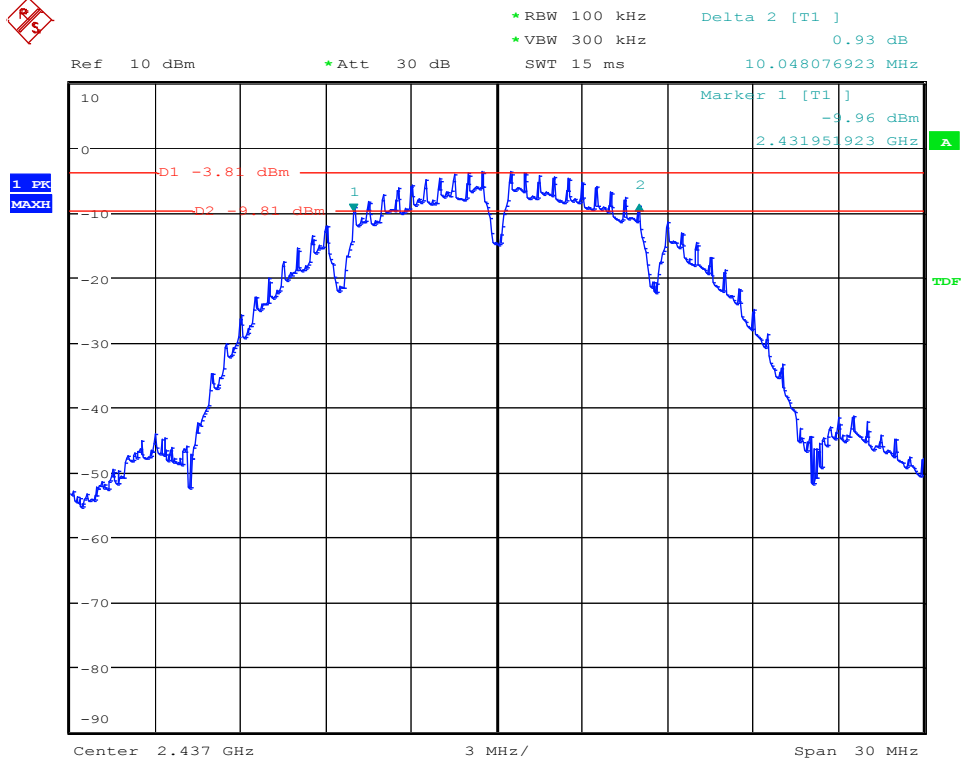
##### 802.11nHT20

Frequency MHz	6dB bandwidth MHz	Result
Top channel 2412MHz	17.644	Pass
Middle channel 2437MHz	17.644	Pass
Bottom channel 2462MHz	17.644	Pass

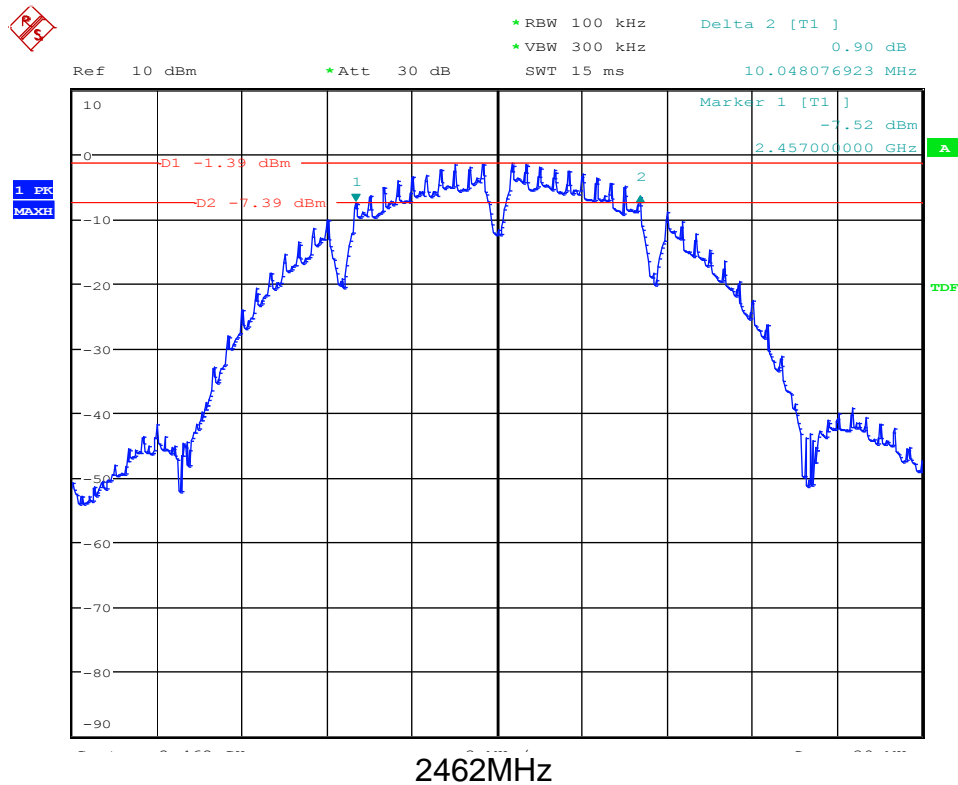
802.11b



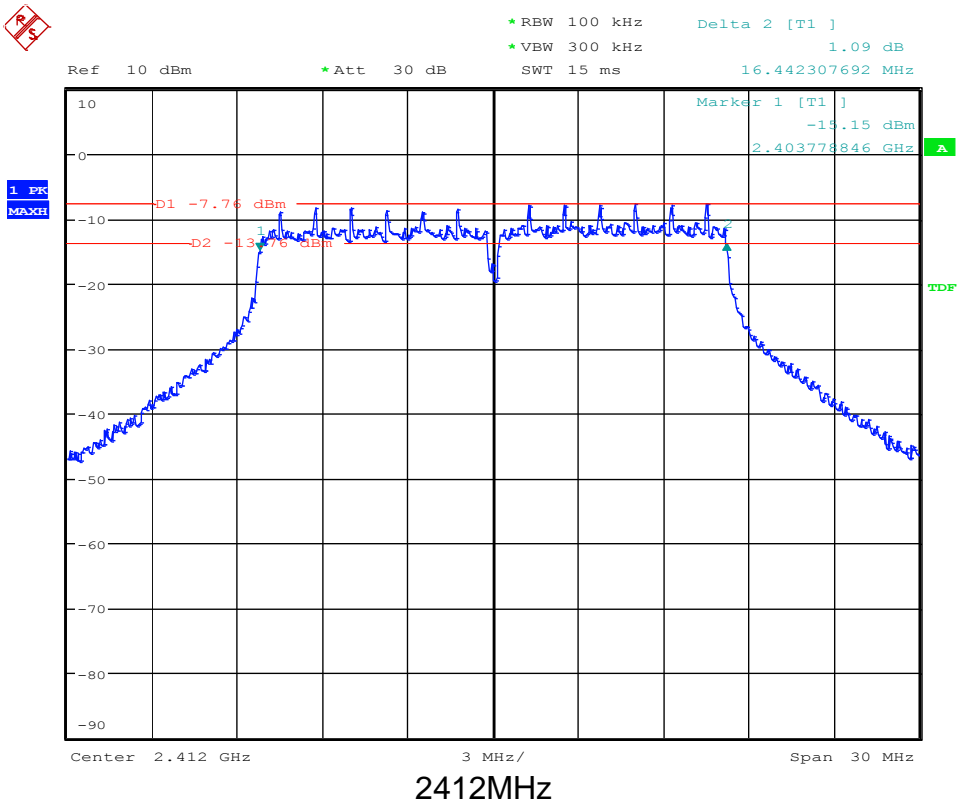
2412MHz



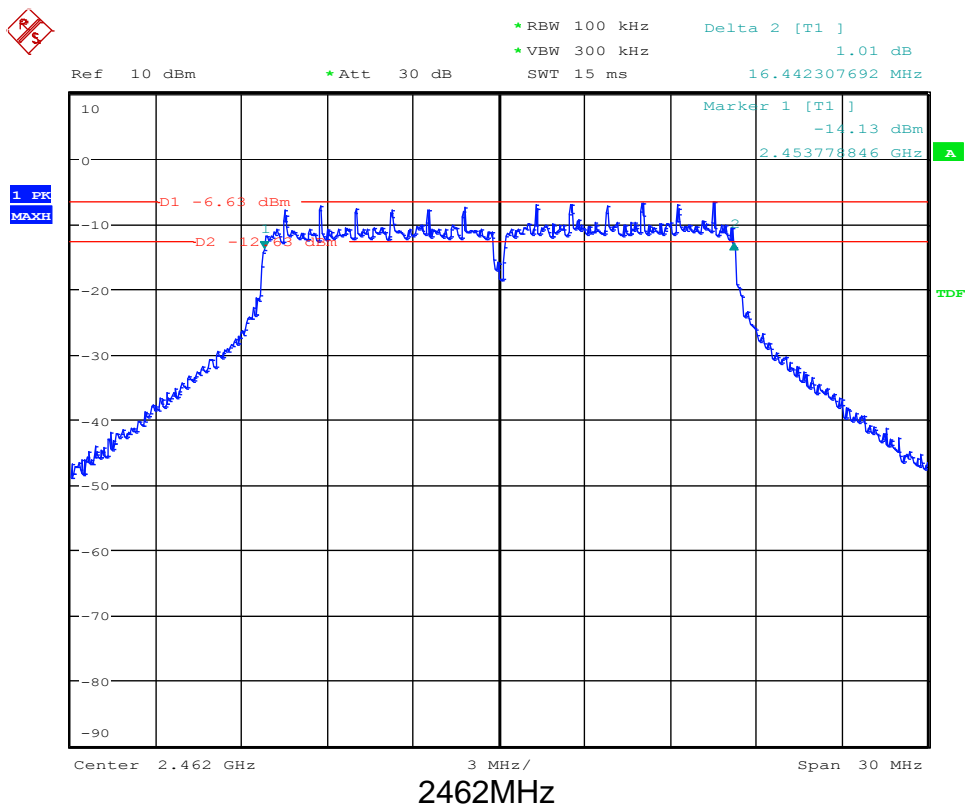
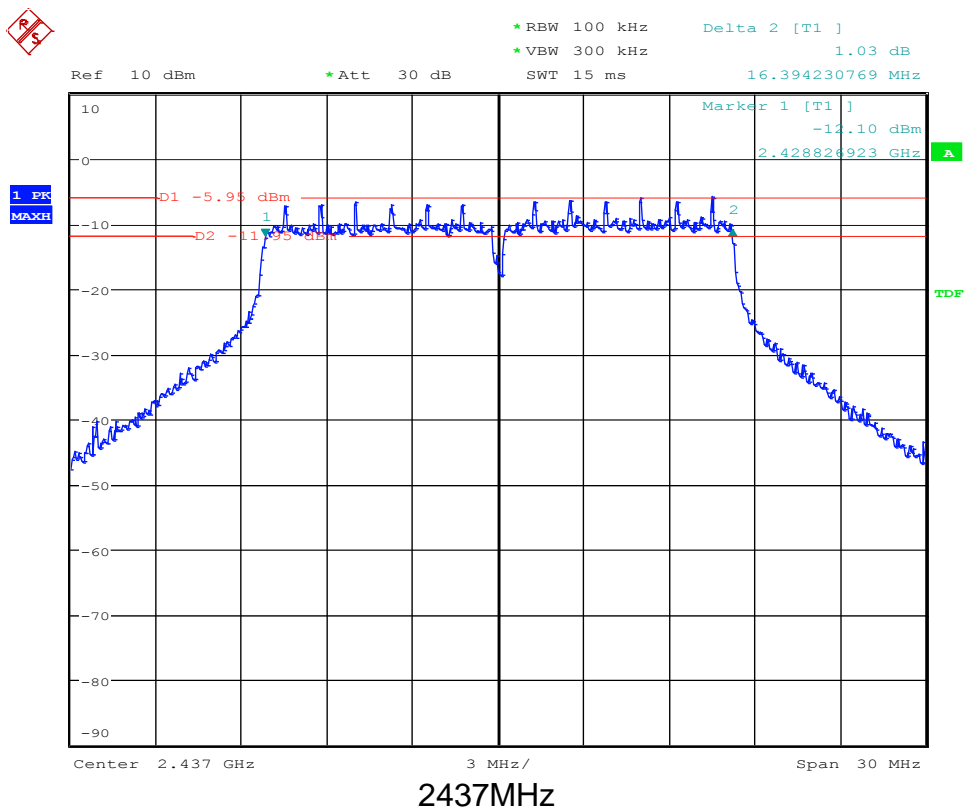
2437MHz



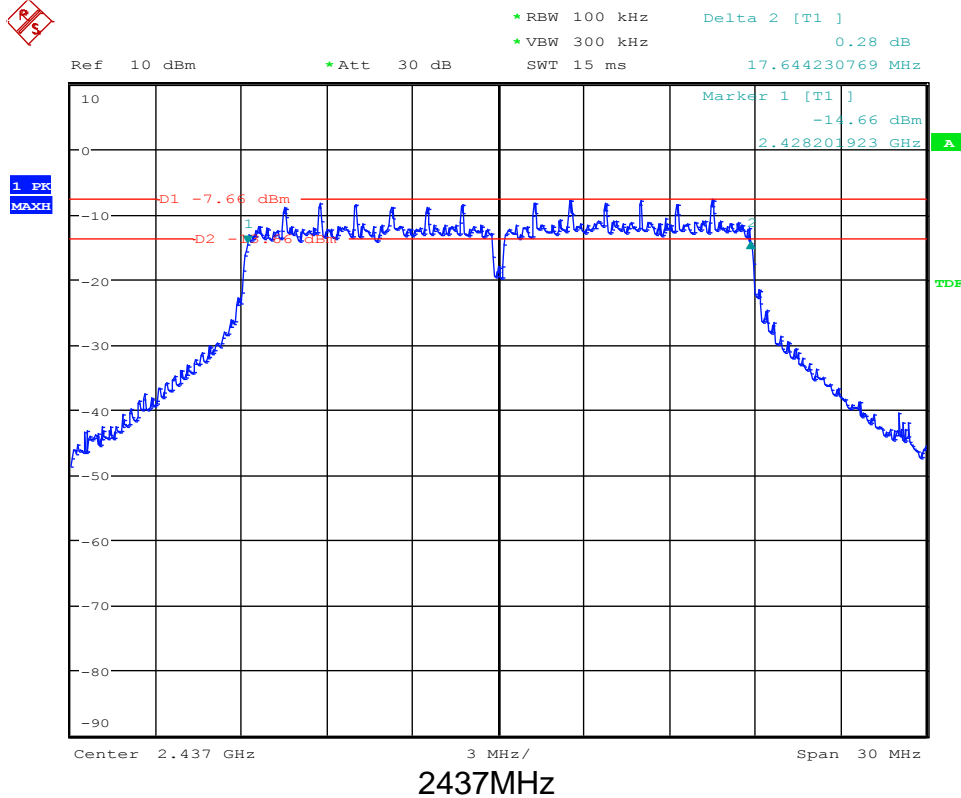
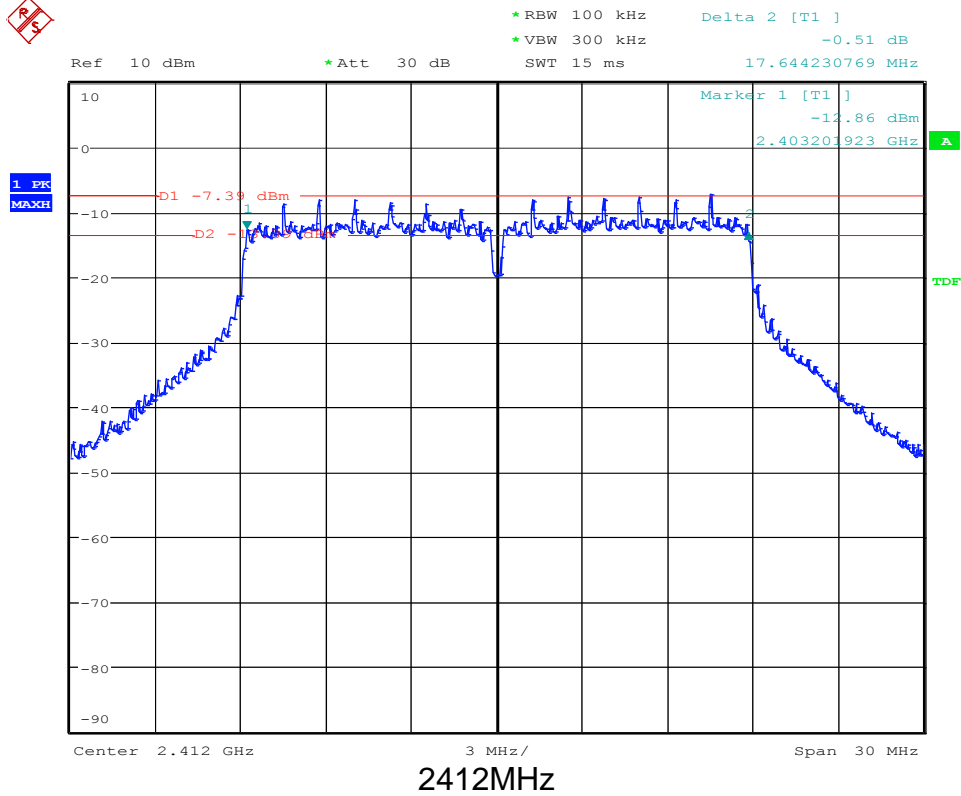
802.11g

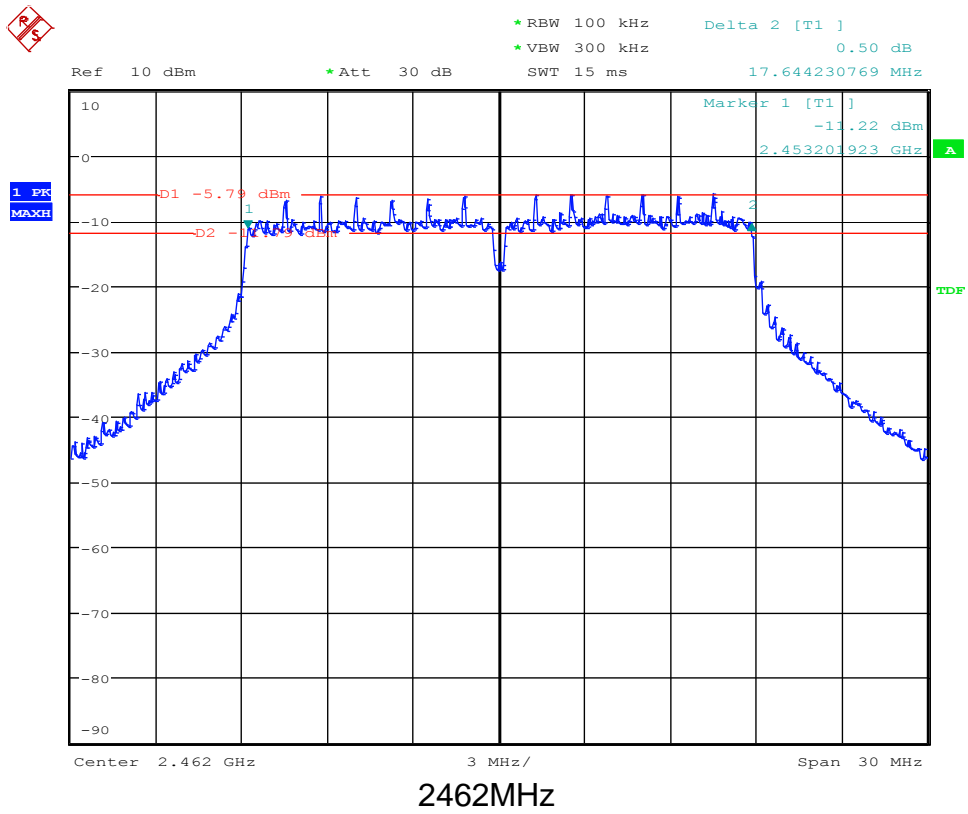






## 802.11nHT20





## 9.4 Power spectral density

### Test Method

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance:

1. Set analyzer center frequency to DTS channel center frequency. RBW=3kHz, VBW $\geq$ 3RBW, Span=1.5 times DTS bandwidth, Detector=Peak, Sweep=auto, Trace= max hold.
2. Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
3. Repeat above procedures until other frequencies measured were completed.

### Limit

Limit [dBm]

$\leq 8$

### Test result

#### 802.11b

Frequency MHz	Power spectral density dBm	Result
Top channel 2412MHz	-13.63	Pass
Middle channel 2437MHz	-13.02	Pass
Bottom channel 2462MHz	-15.10	Pass

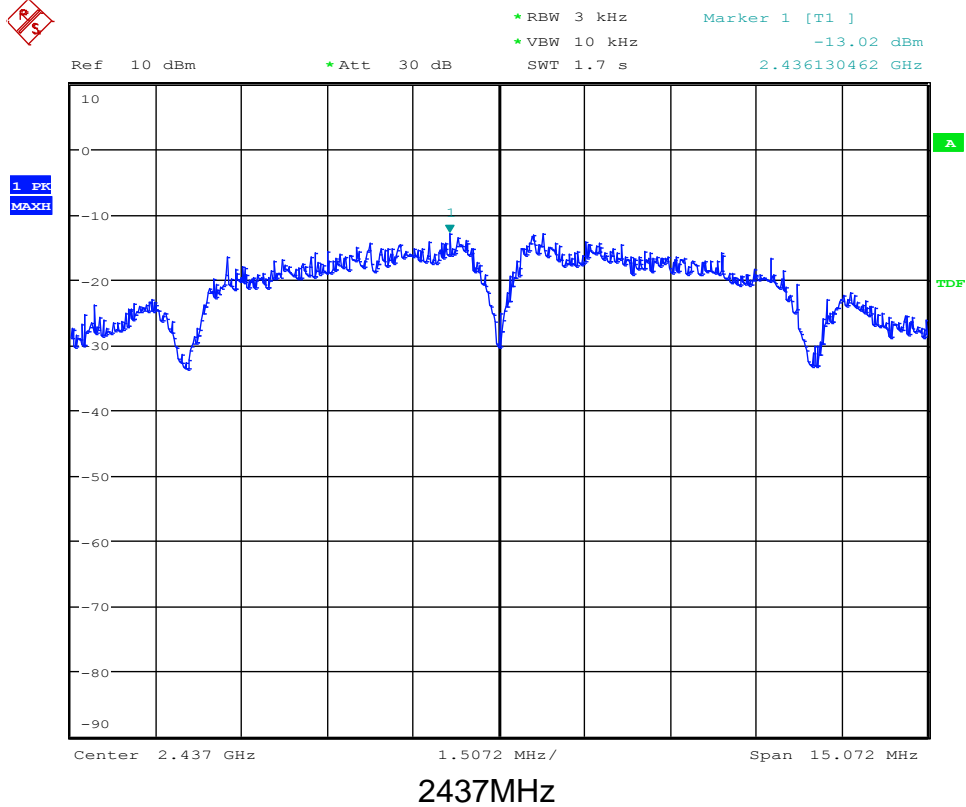
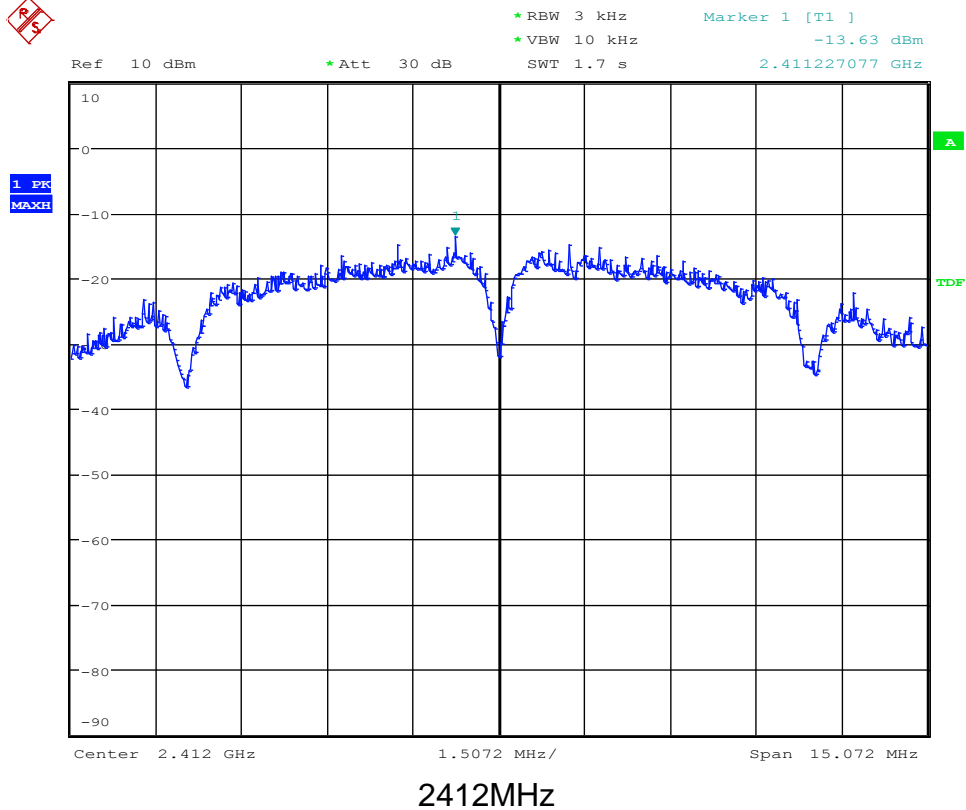
#### 802.11g

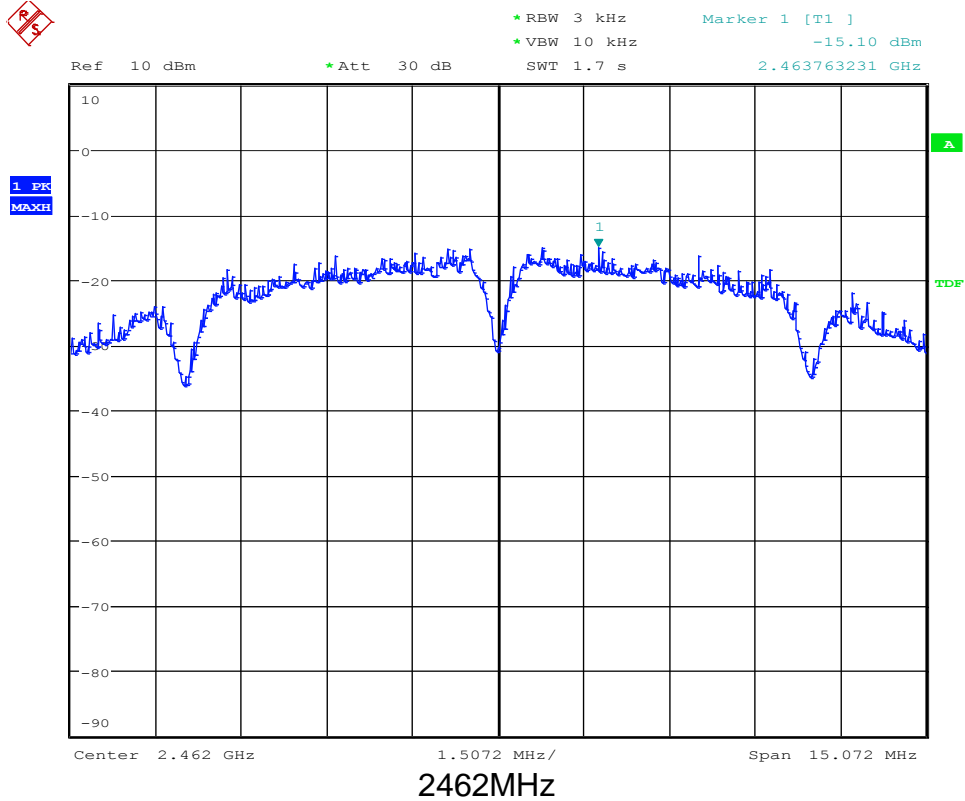
Frequency MHz	Power spectral density dBm	Result
Top channel 2412MHz	-20.89	Pass
Middle channel 2437MHz	-20.47	Pass
Bottom channel 2462MHz	-21.02	Pass

#### 802.11nHT20

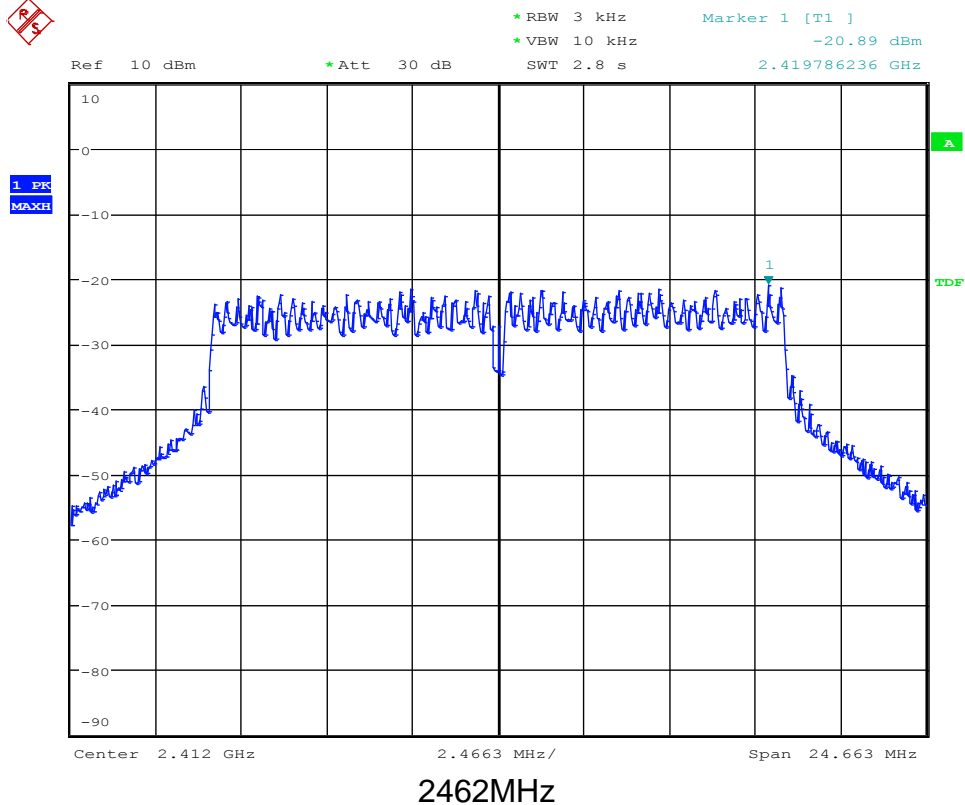
Frequency MHz	Power spectral density dBm	Result
Top channel 2412MHz	-21.47	Pass
Middle channel 2437MHz	-20.34	Pass
Bottom channel 2462MHz	-20.66	Pass

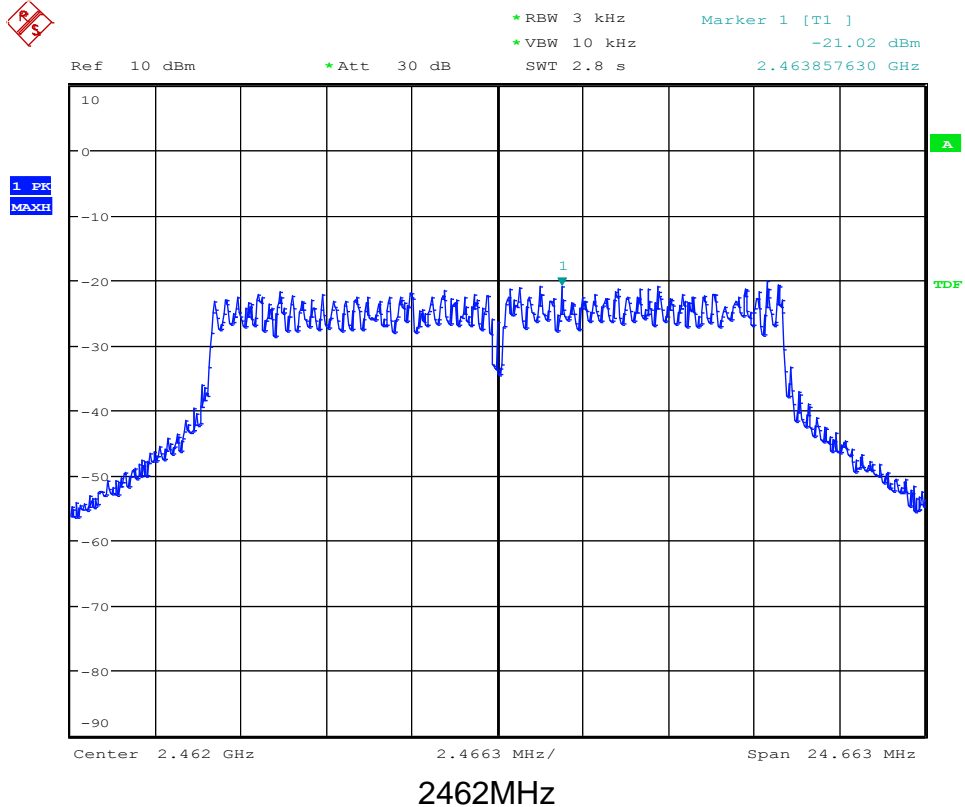
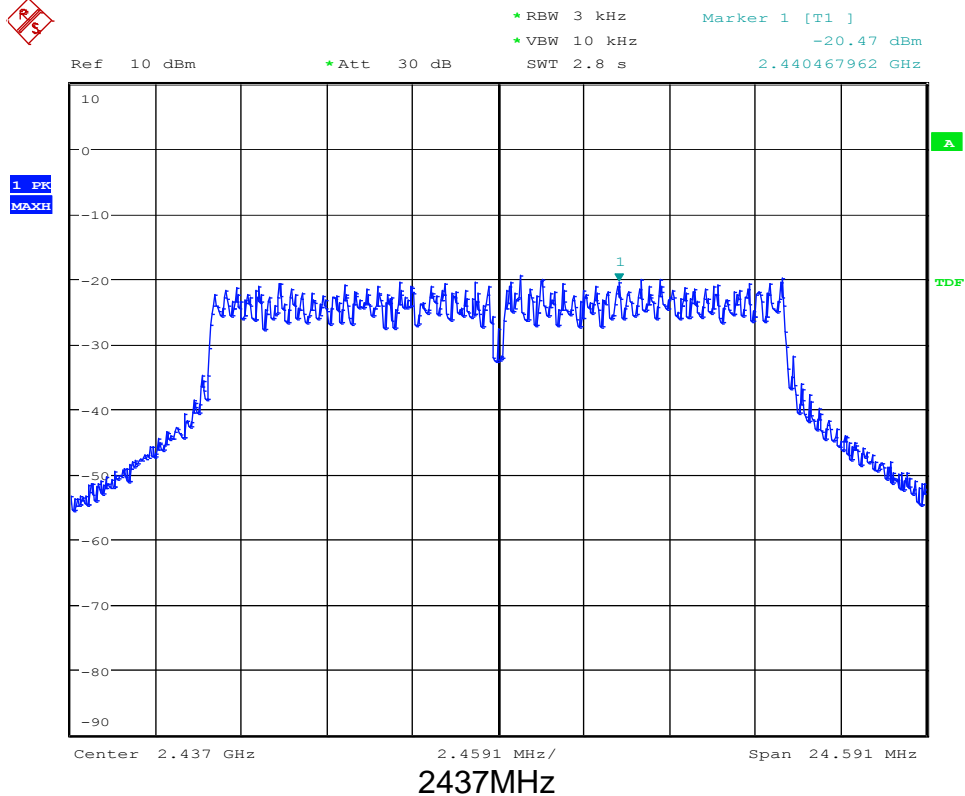
802.11b



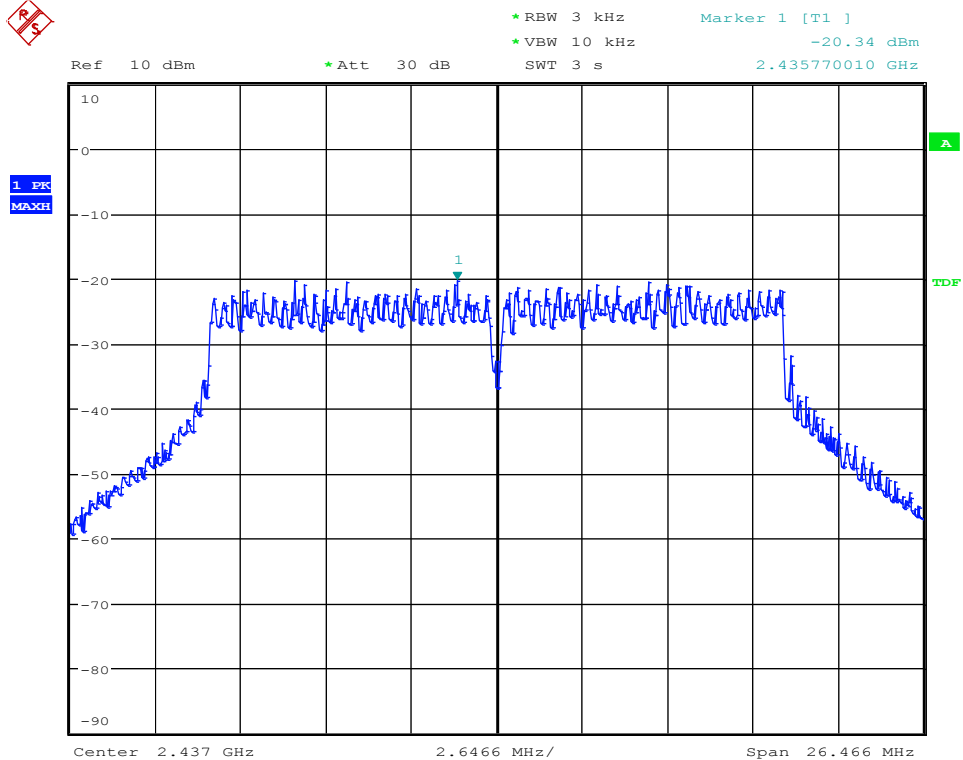
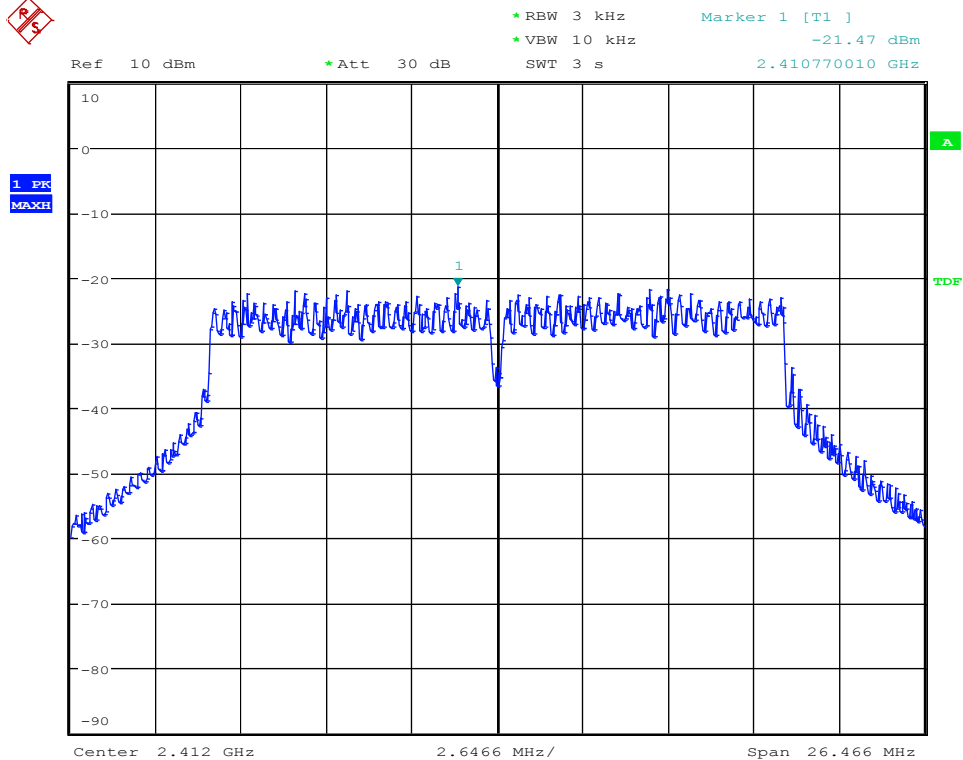


802.11g





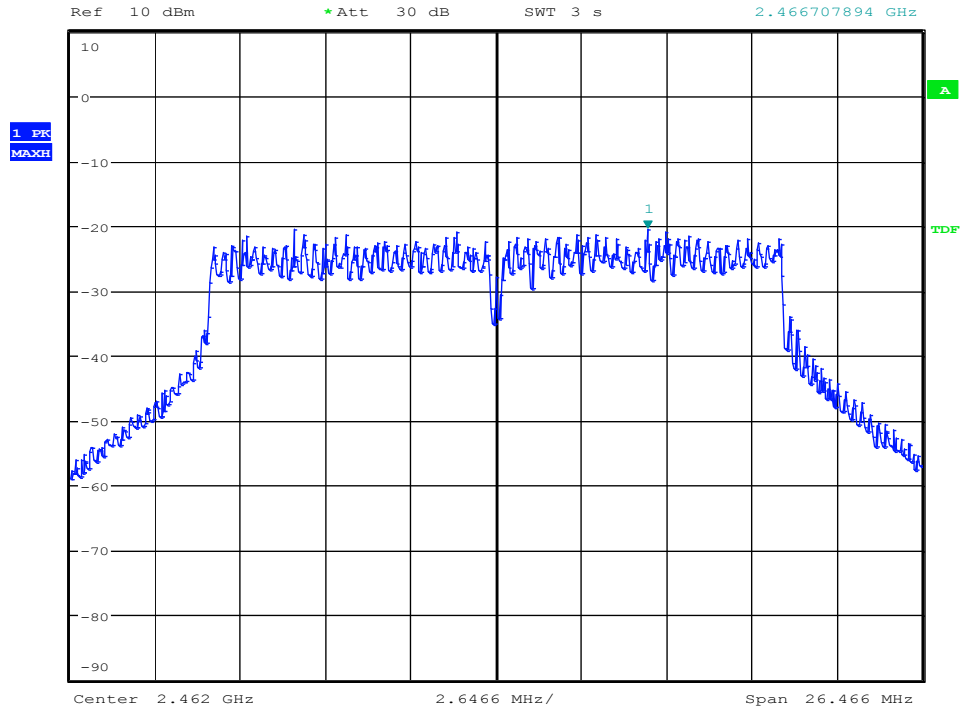
802.11nHT20







\* RBW 3 kHz  
\* VBW 10 kHz  
SWT 3 s  
Marker 1 [T1]  
-20.66 dBm  
2.466707894 GHz



2462MHz

## 9.5 Spurious RF conducted emissions

### Test Method

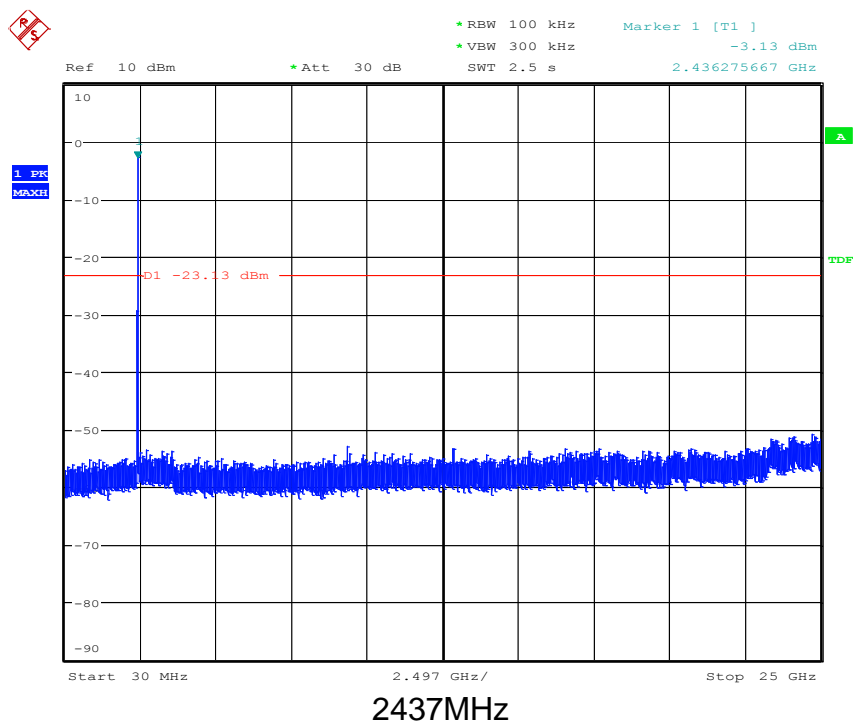
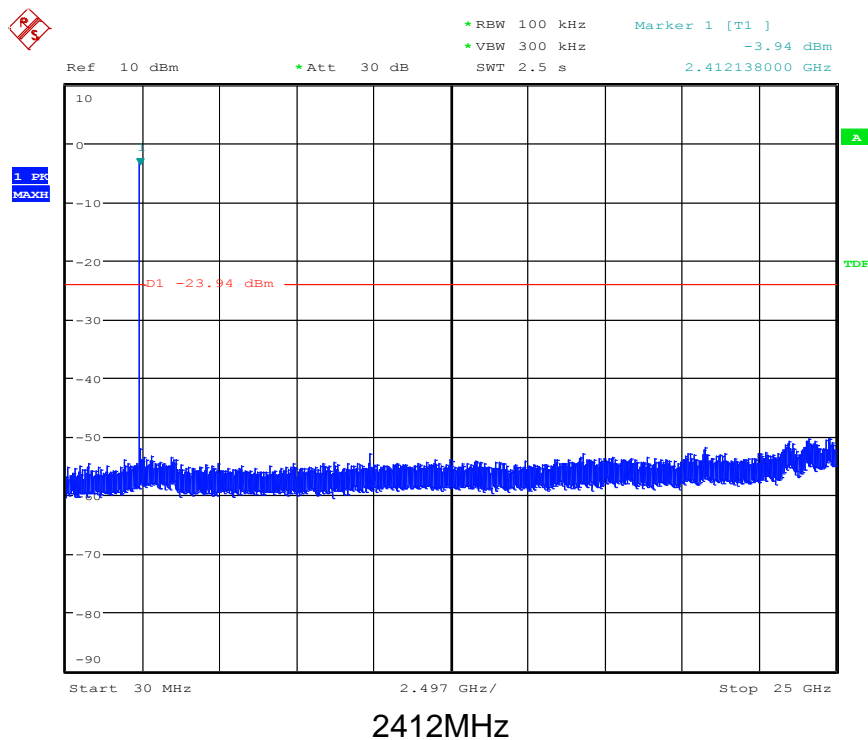
1. Establish a reference level by using the following procedure:
  - a. Set RBW=100 kHz. VBW $\geq$ 3RBW. Detector =peak, Sweep time = auto couple, Trace mode = max hold.
  - b. Allow trace to fully stabilize, use the peak marker function to determine the maximum PSD level.
2. Use the maximum PSD level to establish the reference level.
  - a. Set the center frequency and span to encompass frequency range to be measured.
  - b. Use the peak marker function to determine the maximum amplitude level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements, report the three highest emissions relative to the limit.
3. Repeat above procedures until other frequencies measured were completed.

### Limit

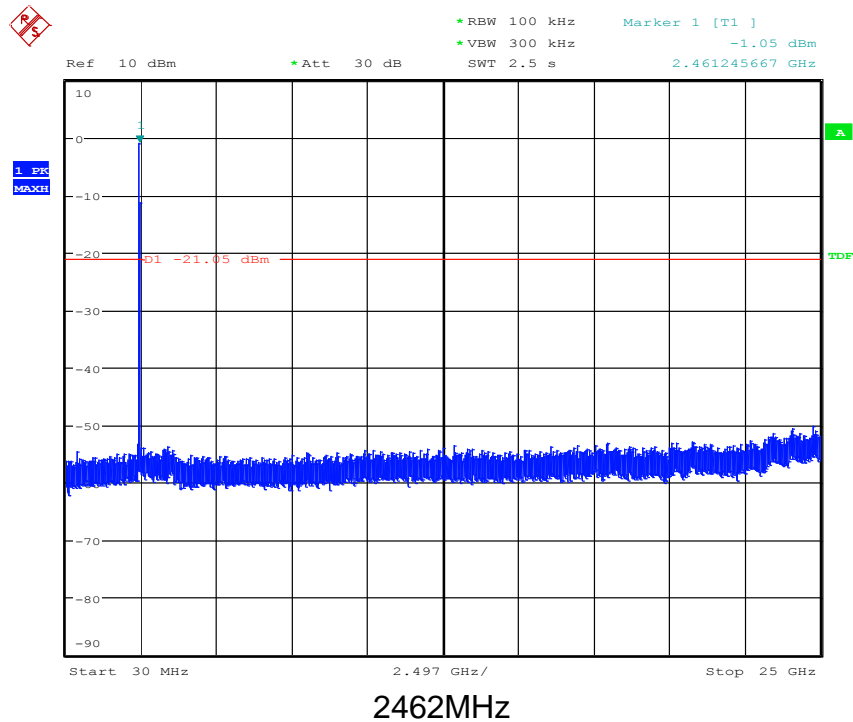
Frequency Range MHz	Limit (dBc)
30-25000	-20

**Spurious RF conducted emissions**

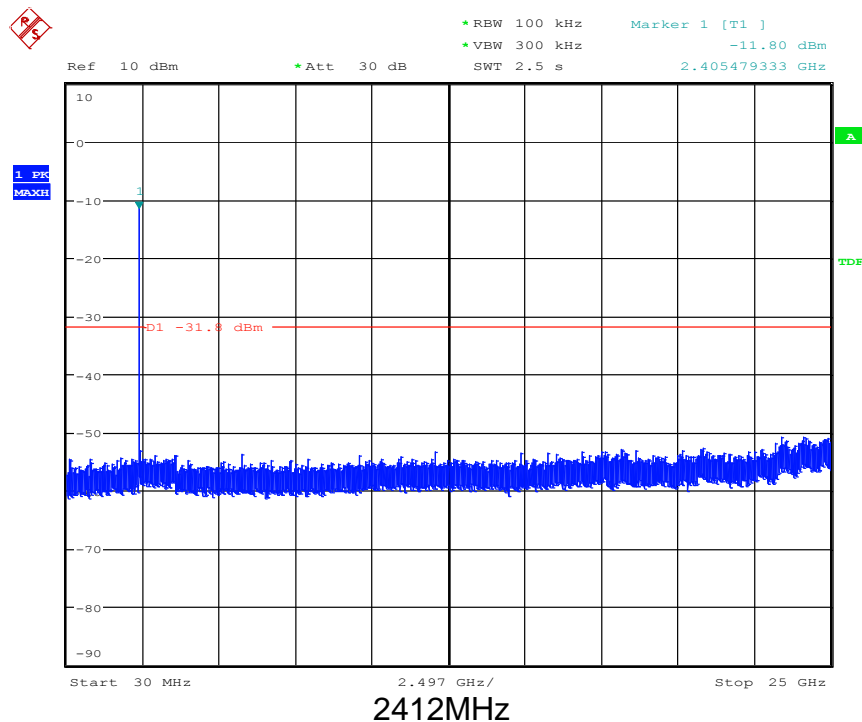
802.11b



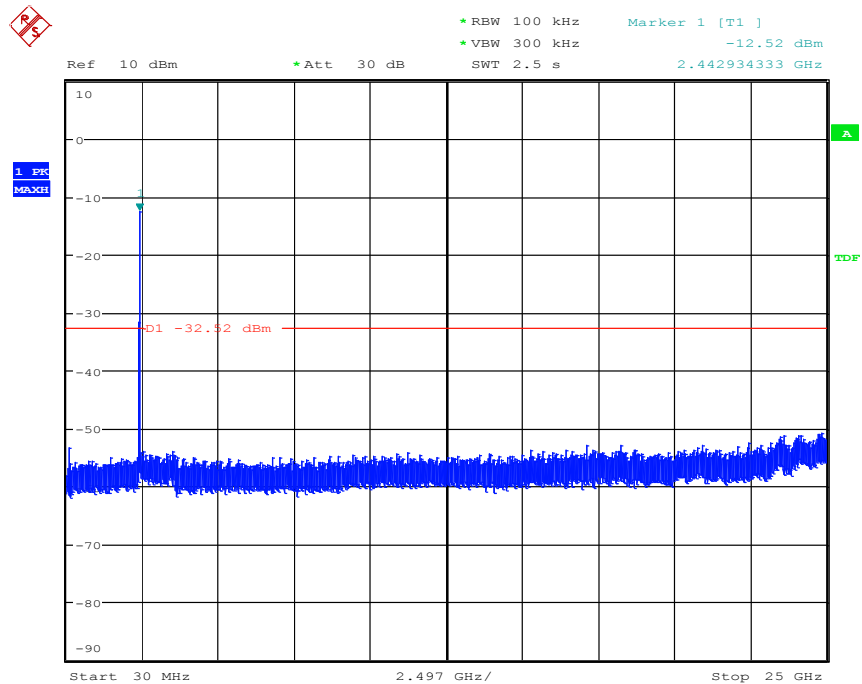
## Spurious RF conducted emissions



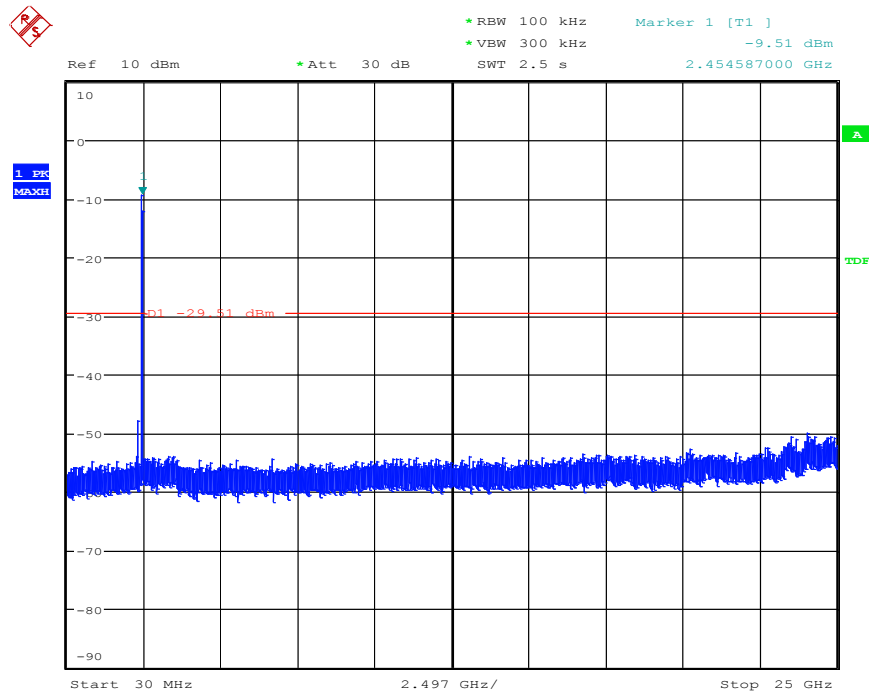
802.11g



## Spurious RF conducted emissions



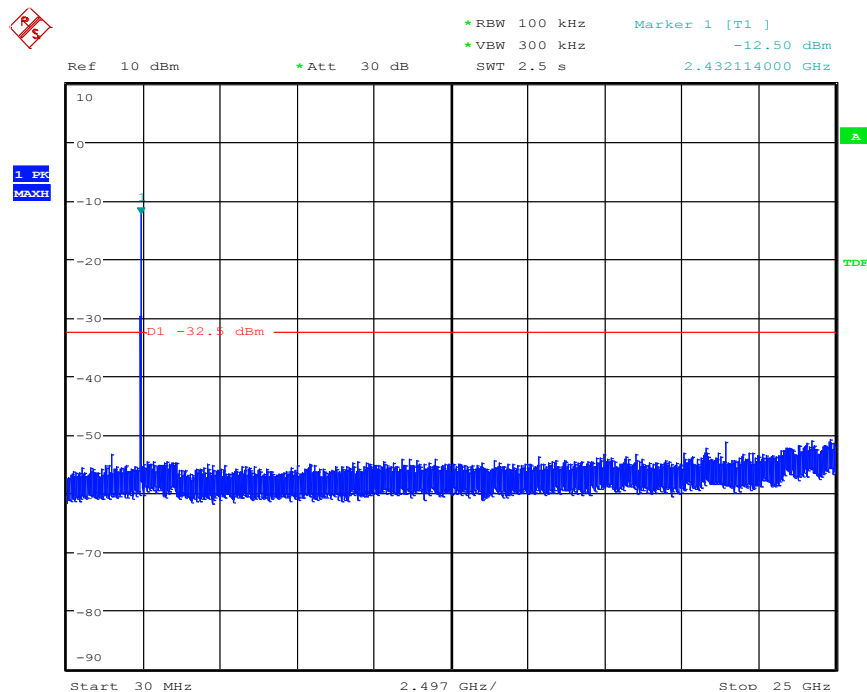
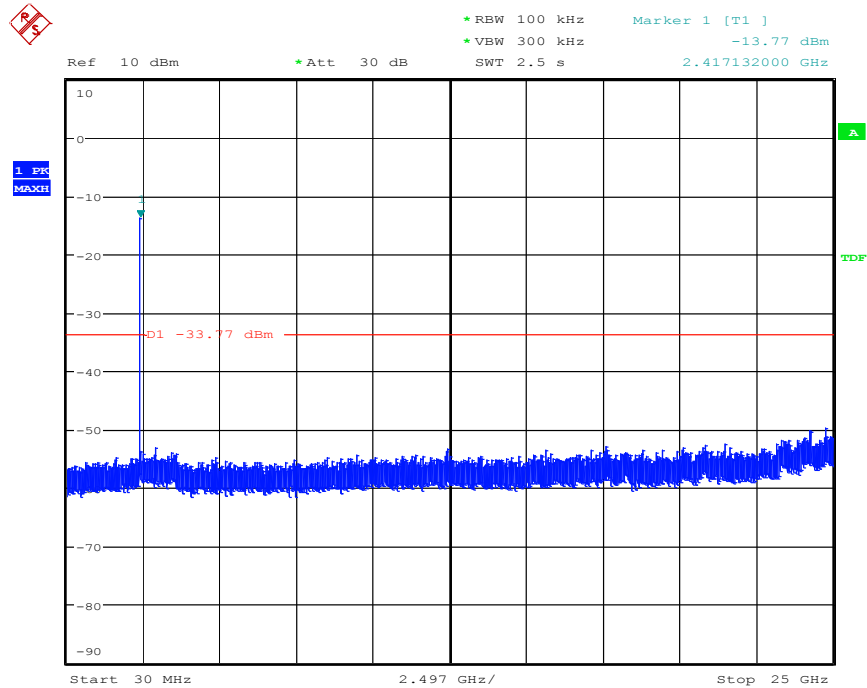
2437MHz



2462MHz

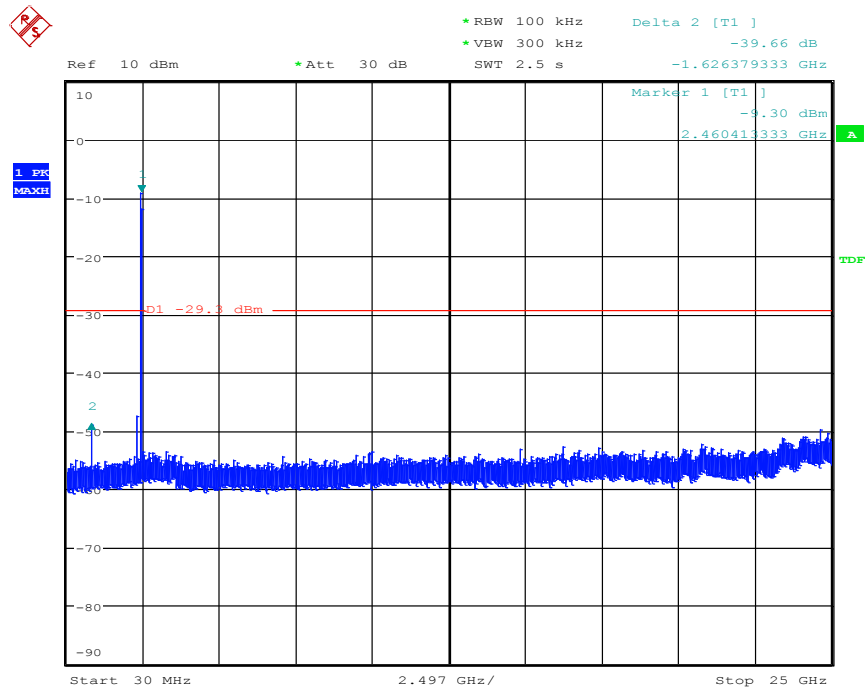
**Spurious RF conducted emissions**

802.11nHT20





Spurious RF conducted emissions



2462MHz

## 9.6 Band edge

### Test Method

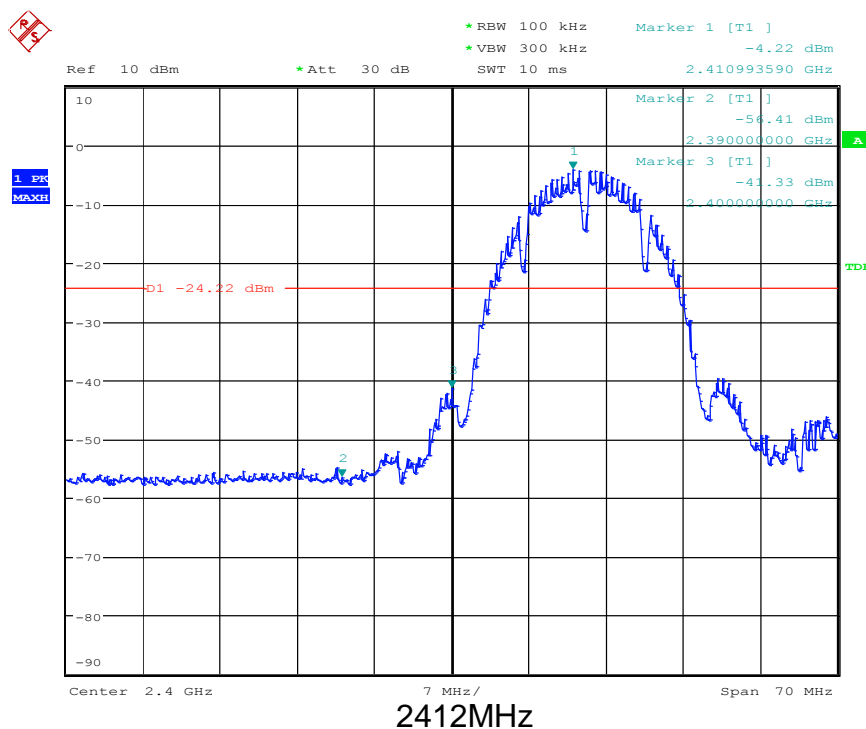
- 1 Use the following spectrum analyzer settings:  
Span = wide enough to capture the peak level of the in-band emission and all spurious  
RBW = 100 kHz, VBW  $\geq$  RBW, Sweep = auto, Detector function = peak, Trace = max hold.
- 2 Allow the trace to stabilize, use the peak and delta measurement to record the result.
- 3 The level displayed must comply with the limit specified in this Section.

### Limit

Frequency Range MHz	Limit (dBc)
30-25000	-20

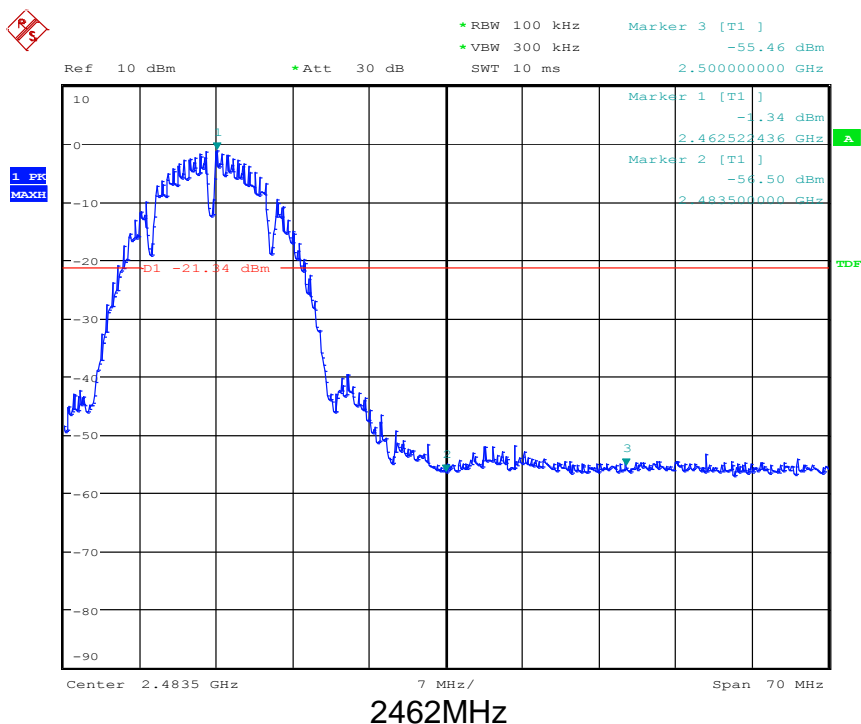
### Test result

802.11b

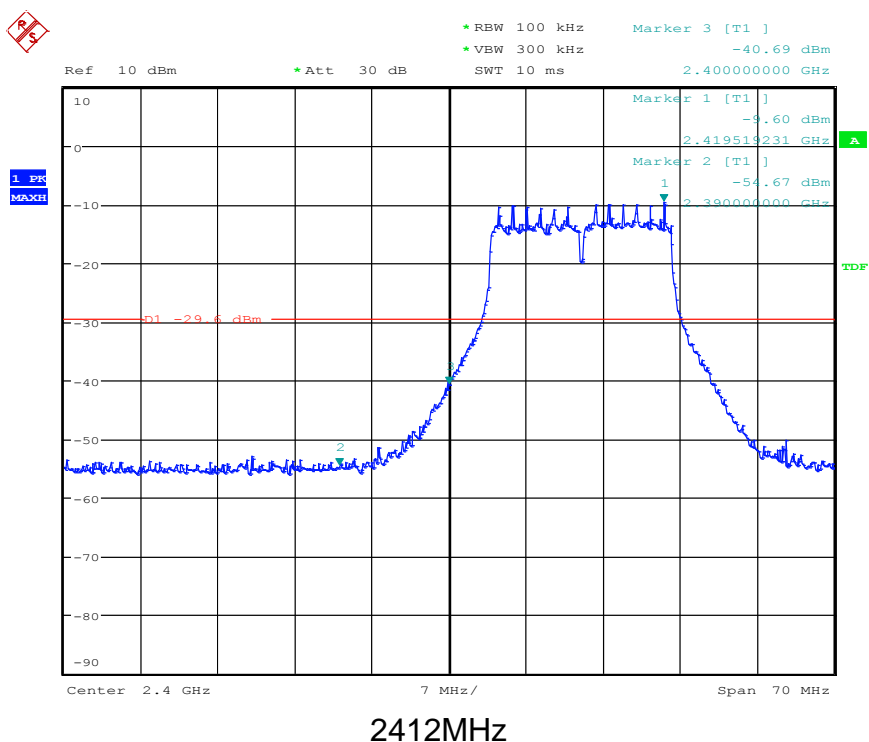




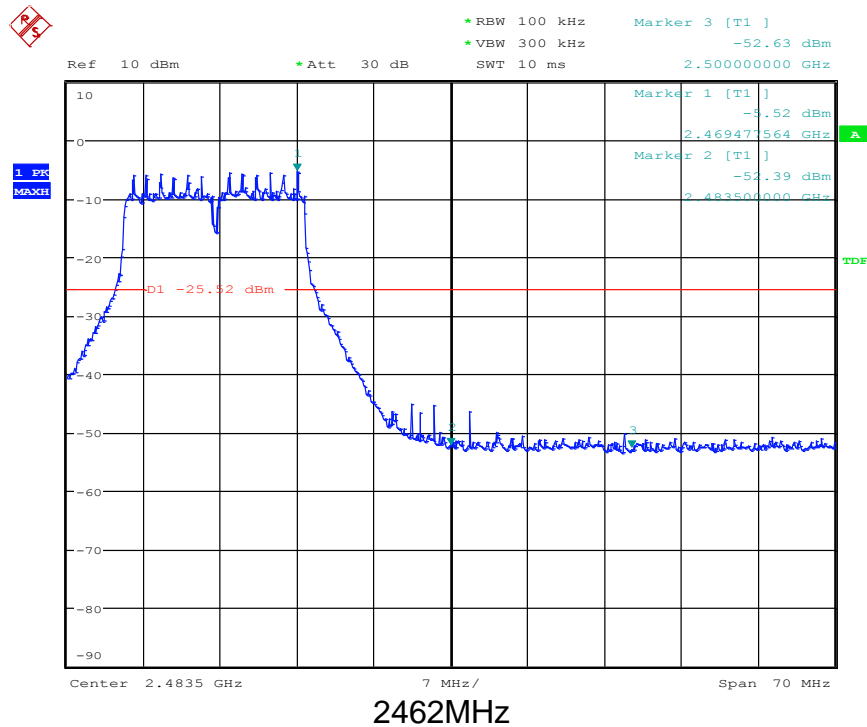
## Band edge



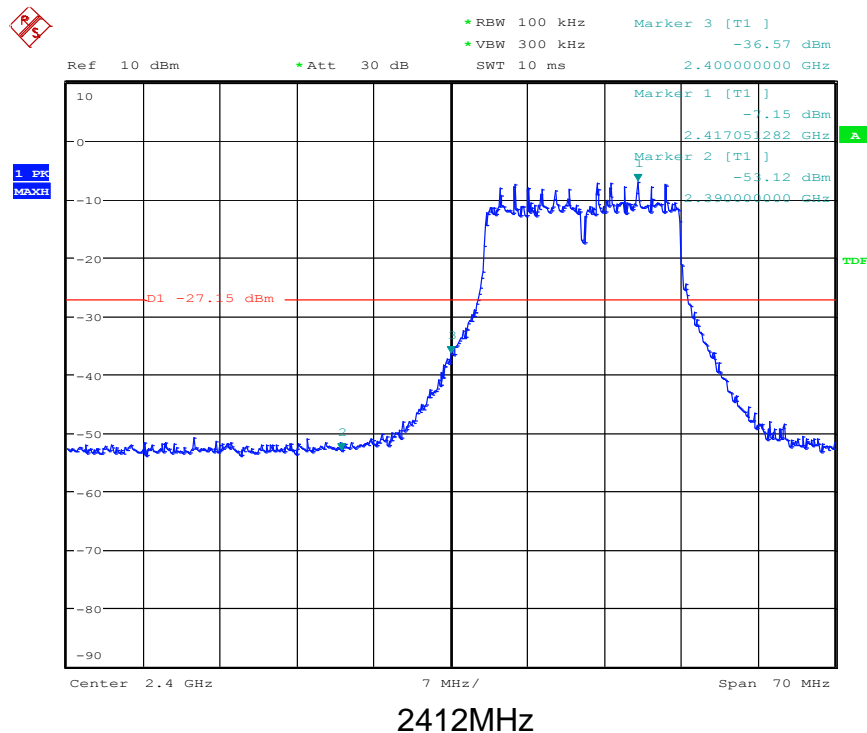
802.11g

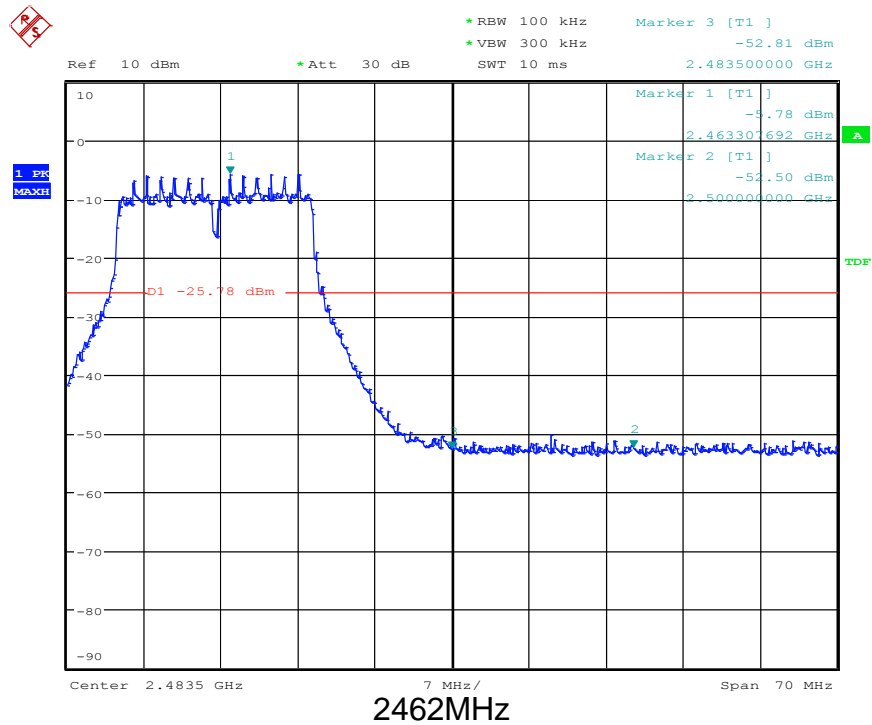


## Band edge



## 802.11nHT20



**Band edge**

## 9.7 Spurious radiated emissions for transmitter

### Test Method

- 1: The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
- 3: The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4: For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5: Use the following spectrum analyzer settings According to C63.10:  
For Above 1GHz  
Span = wide enough to capture the peak level of the in-band emission and all spurious  
RBW = 1MHz, VBW  $\geq$  RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Below 1GHz

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious  
RBW = 100 KHz, VBW  $\geq$  RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

### Note:

- 1: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
- 3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ( $20\log(1/\text{duty cycle})$ ).
- 4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

## Limit

The radio emission outside the operating frequency band 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. Radiated emissions which fall in the restricted bands, as defined in section 15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dBµV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

### Spurious radiated emissions for transmitter

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

#### Transmitting spurious emission test result as below:

802.11b

2412MHz (30MHz – 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
157.06	32.80	Horizontal	43.50	QP	Pass
159.97	32.20	Vertical	43.50	QP	Pass

2412MHz (Above 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
4824.00	57.56	Horizontal	74.00	PK	Pass
4824.00	42.12	Horizontal	54.00	AV	Pass
7236.00	60.47	Horizontal	74.00	PK	Pass
7236.00	45.61	Horizontal	54.00	AV	Pass
4824.00	60.32	Vertical	74.00	PK	Pass
4824.00	45.24	Vertical	54.00	AV	Pass
7236.00	60.36	Vertical	74.00	PK	Pass
7236.00	46.23	Vertical	54.00	AV	Pass

#### Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 2437MHz (30MHz – 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

## 2437MHz (Above 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
4874.00	55.31	Horizontal	74.00	PK	Pass
4874.00	46.31	Horizontal	54.00	AV	Pass
7311.00	60.40	Horizontal	74.00	PK	Pass
7311.00	45.34	Horizontal	54.00	AV	Pass
4874.00	56.21	Vertical	74.00	PK	Pass
4874.00	47.71	Vertical	54.00	AV	Pass
7311.00	60.32	Vertical	74.00	PK	Pass
7311.00	45.67	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 2462MHz (30MHz – 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

## 2462MHz (Above 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
4924.00	56.32	Horizontal	74.00	PK	Pass
4924.00	44.12	Horizontal	54.00	AV	Pass
7386.00	60.20	Horizontal	74.00	PK	Pass
7386.00	45.44	Horizontal	54.00	AV	Pass
4924.00	57.33	Vertical	74.00	PK	Pass
4924.00	45.35	Vertical	54.00	AV	Pass
7386.00	60.57	Vertical	74.00	PK	Pass
7386.00	46.61	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.



802.11g

2412MHz (30MHz – 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
		Horizontal		QP	Pass
		Vertical		QP	Pass

2412MHz (Above 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
4824.00	55.23	Horizontal	74.00	PK	Pass
4824.00	40.52	Horizontal	54.00	AV	Pass
7236.00	59.57	Horizontal	74.00	PK	Pass
7236.00	45.66	Horizontal	54.00	AV	Pass
4824.00	54.32	Vertical	74.00	PK	Pass
4824.00	39.32	Vertical	54.00	AV	Pass
7236.00	60.42	Vertical	74.00	PK	Pass
7236.00	46.24	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 2437MHz (30MHz – 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBμV/m	Detector	Result
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

## 2437MHz (Above 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBμV/m	Detector	Result
4874.00	55.62	Horizontal	74.00	PK	Pass
4874.00	40.41	Horizontal	54.00	AV	Pass
7311.00	59.25	Horizontal	74.00	PK	Pass
7311.00	45.52	Horizontal	54.00	AV	Pass
4874.00	56.72	Vertical	74.00	PK	Pass
4874.00	39.63	Vertical	54.00	AV	Pass
7311.00	60.52	Vertical	74.00	PK	Pass
7311.00	46.41	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 2462MHz (30MHz – 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

## 2462MHz (Above 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
4924.00	55.21	Horizontal	74.00	PK	Pass
4924.00	39.87	Horizontal	54.00	AV	Pass
7386.00	59.36	Horizontal	74.00	PK	Pass
7386.00	44.47	Horizontal	54.00	AV	Pass
4924.00	54.76	Vertical	74.00	PK	Pass
4924.00	40.22	Vertical	54.00	AV	Pass
7386.00	60.61	Vertical	74.00	PK	Pass
7386.00	45.24	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

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2412MHz (30MHz – 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

2412MHz (Above 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
4824.00	58.41	Horizontal	74.00	PK	Pass
4824.00	43.31	Horizontal	54.00	AV	Pass
7236.00	61.36	Horizontal	74.00	PK	Pass
7236.00	46.32	Horizontal	54.00	AV	Pass
4824.00	62.82	Vertical	74.00	PK	Pass
4824.00	47.77	Vertical	54.00	AV	Pass
7236.00	62.12	Vertical	74.00	PK	Pass
7236.00	48.62	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 2437MHz (30MHz – 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

## 2437MHz (Above 1GHz)

Frequency	Emission Level	Polarization	Limit	Detector	Result
MHz	dBuV/m		dBuV/m		
4874.00	54.24	Horizontal	74.00	PK	Pass
4874.00	45.21	Horizontal	54.00	AV	Pass
7311.00	59.22	Horizontal	74.00	PK	Pass
7311.00	44.67	Horizontal	54.00	AV	Pass
4874.00	55.23	Vertical	74.00	PK	Pass
4874.00	46.34	Vertical	54.00	AV	Pass
7311.00	59.32	Vertical	74.00	PK	Pass
7311.00	44.70	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 2462MHz (30MHz – 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBμV/m	Detector	Result
--	--	Horizontal	--	QP	Pass
--	--	Vertical	--	QP	Pass

## 2462MHz (Above 1GHz)

Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBμV/m	Detector	Result
4924.00	57.92	Horizontal	74.00	PK	Pass
4924.00	45.21	Horizontal	54.00	AV	Pass
7386.00	61.21	Horizontal	74.00	PK	Pass
7386.00	46.33	Horizontal	54.00	AV	Pass
4924.00	56.72	Vertical	74.00	PK	Pass
4924.00	47.07	Vertical	54.00	AV	Pass
7386.00	59.62	Vertical	74.00	PK	Pass
7386.00	49.05	Vertical	54.00	AV	Pass

## Remark:

- (1) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (2) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 10 Test Equipment List

### List of Test Instruments

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Test Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 07, 2017
DC Power Source	HUA YI	HY5003-2	N/A	Nov.02, 2016
Temperature & Humidity Chamber	HAIDA	DH-225T	N/A	Nov.04, 2016
Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 07, 2017
Pre-Amplifier	Agilent	8449B	3008A02964	Mar. 07, 2017
Broadband Antenna	Schwarzbeck	VULB9162	9162-010	Apr. 25, 2017
Horn Antenna	Com-Power	AH-118	071078	Mar. 07, 2017
Pre-Amplifier	COM-Power	PAM-118	443007	Mar. 07, 2017
Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 06, 2017
Power Sensor	DARE	RPR3006W	15I00041SNO6 4	Mar. 06, 2017
Test Software	Acentest	AT890-SW	N/A	N/A

#### C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth
- Power spectral density\*
- Spurious RF conducted emissions
- Band edge

## 11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty

Items	Extended Uncertainty
Occupied Channel Bandwidth	$\pm 1.42 \times 10^{-4}\%$
RF output power, conducted	$\pm 0.50\text{dB}$
Power Spectral Density, conducted	$\pm 0.50\text{dB}$
Unwanted Emissions, conducted	$\pm 2.51\text{dB}$
All emissions, radiated	$\pm 3.70\text{dB}$
Temperature	$\pm 0.8^\circ\text{C}$
Humidity	$\pm 3.2\%$
DC and low frequency voltages	$\pm 0.1\%$
Time	$\pm 5\%$
Duty cycle	$\pm 5\%$