

## 10. PEAK POWER SPECTRUL DENSITY

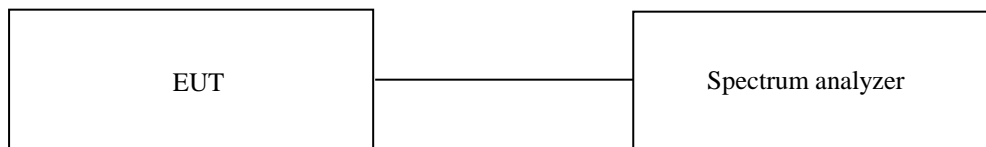
### 10.1 Operating environment

Temperature : 23 °C  
Relative humidity : 41 % R.H.

### 10.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer.

The resolution bandwidth is set to  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$  , the video bandwidth is set to 3 times the resolution bandwidth.



### 10.3 Test Date

August 21, 2020 ~ September 08, 2020

### 10.4 Test data for 802.11b WLAN Mode

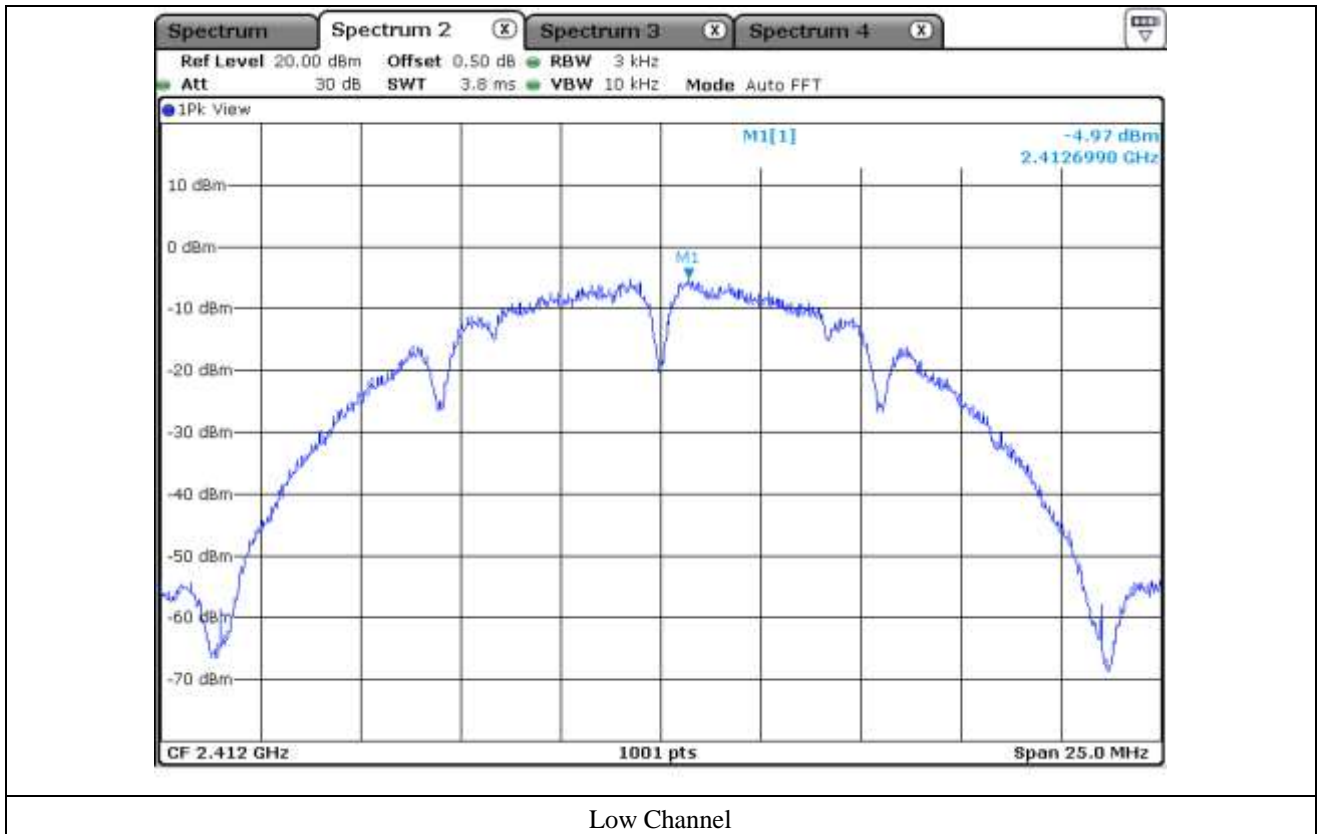
#### 10.4.1 Test data for Antenna 0

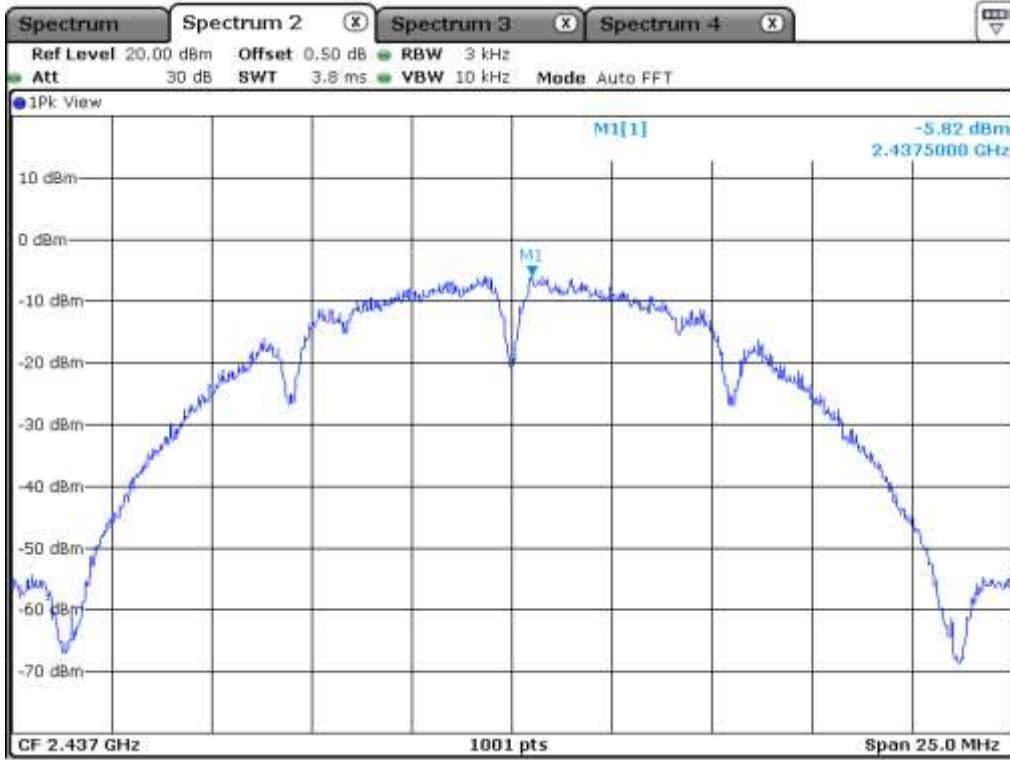
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

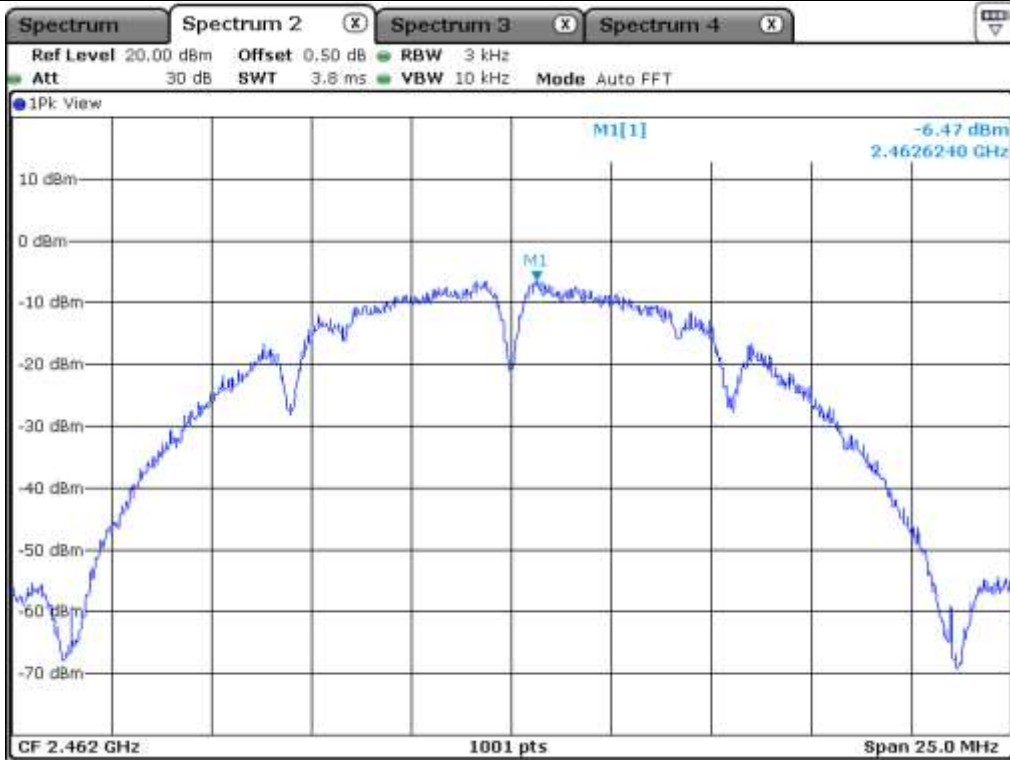
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-4.97	8.00	12.97
Middle	2 437.00	-5.82	8.00	13.82
High 11	2 462.00	-6.47	8.00	14.47
High 12	2 467.00	-7.36	8.00	15.36
High 13	2 472.00	-8.85	8.00	16.85

Remark. Margin = Limit – Measured value

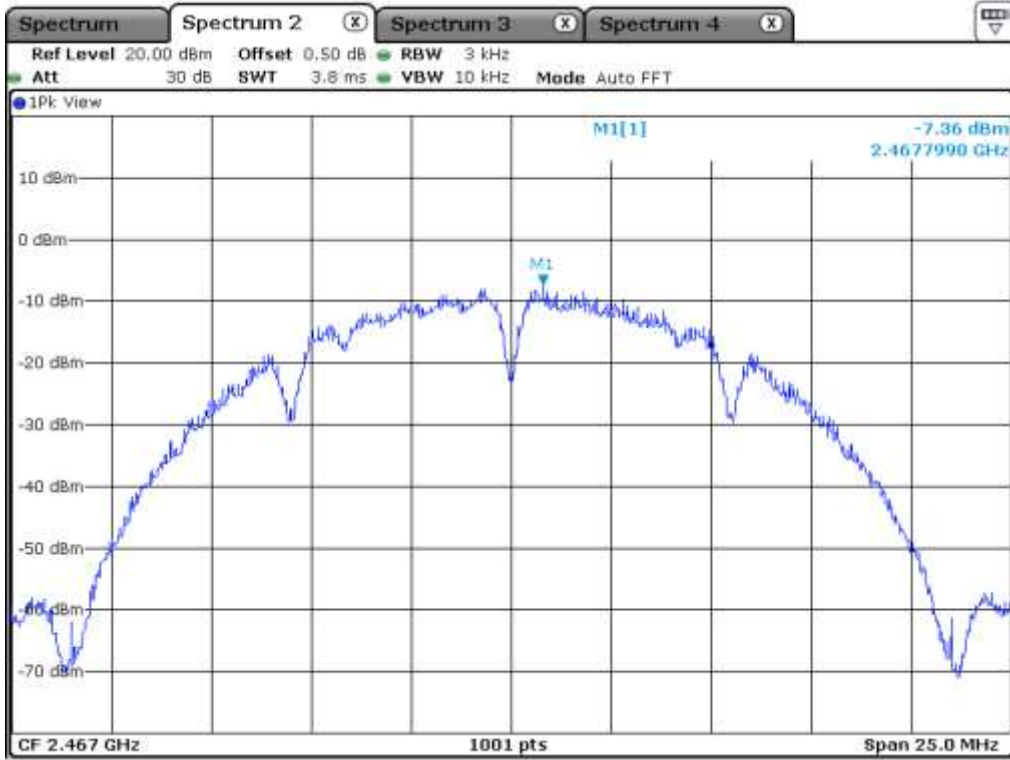




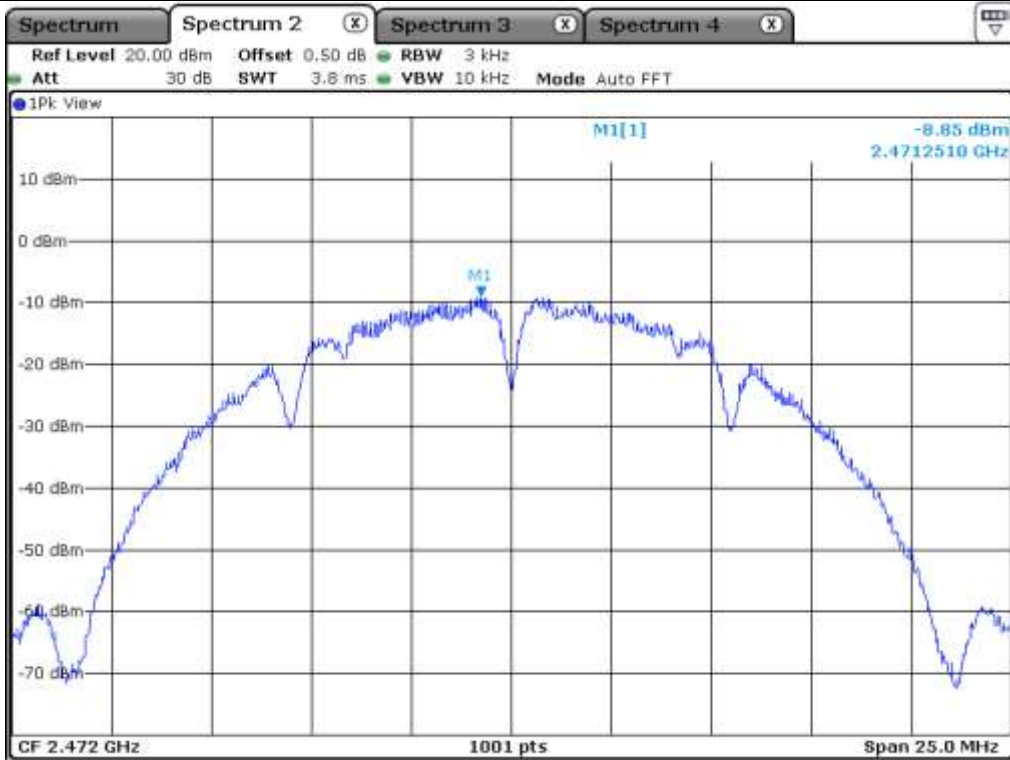
Middle Channel



High Channel 11



High Channel 12



High Channel 13

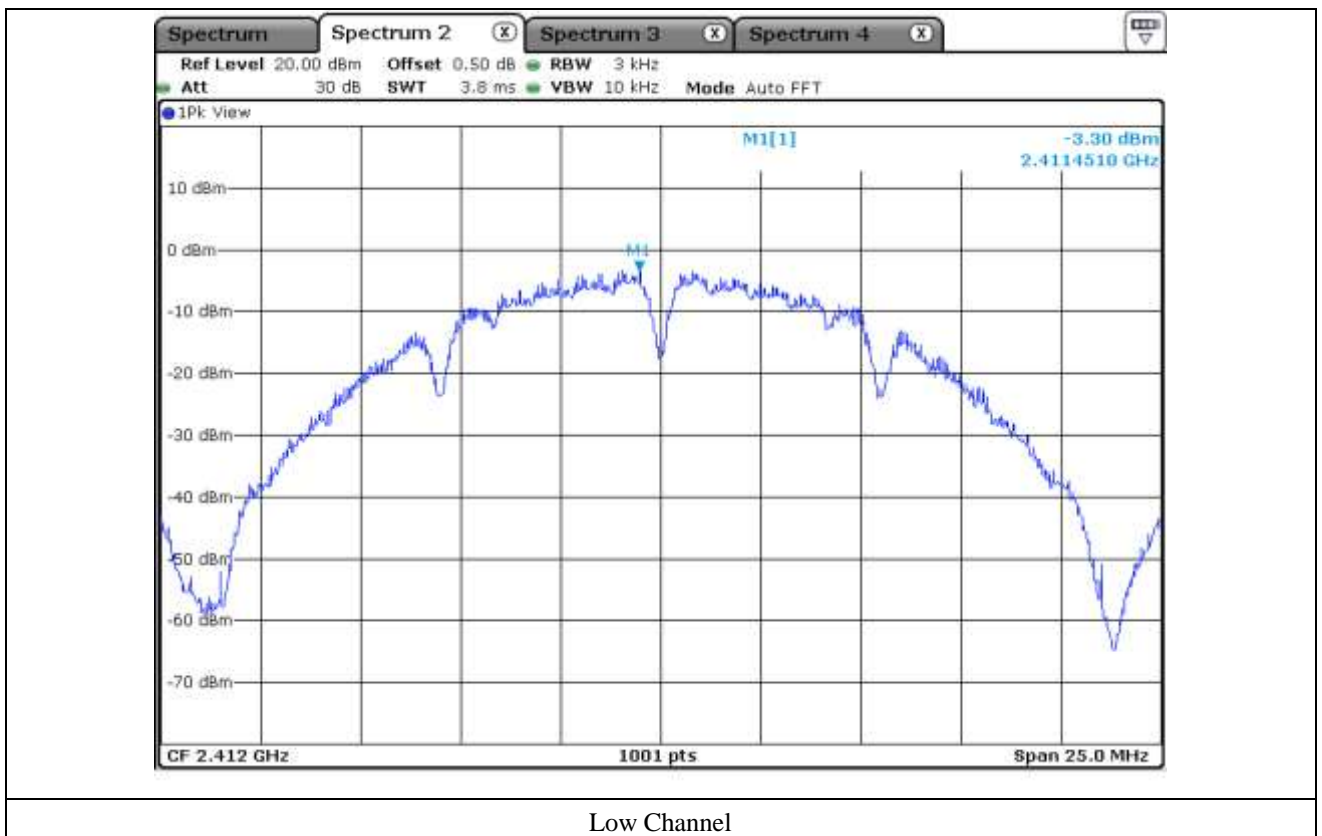
**10.4.2 Test data for Antenna 1**

-. Test Result : Pass

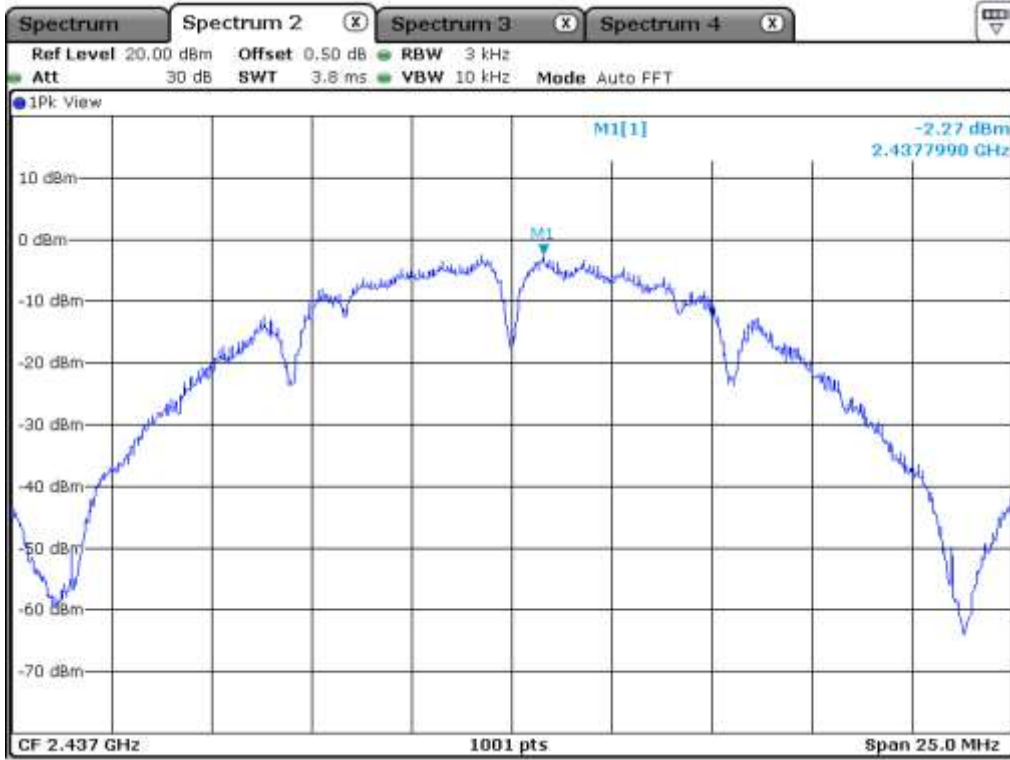
-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-3.30	8.00	11.30
Middle	2 437.00	-2.27	8.00	10.27
High 11	2 462.00	-2.79	8.00	10.79
High 12	2 467.00	-5.45	8.00	13.45
High 13	2 472.00	-7.53	8.00	15.53

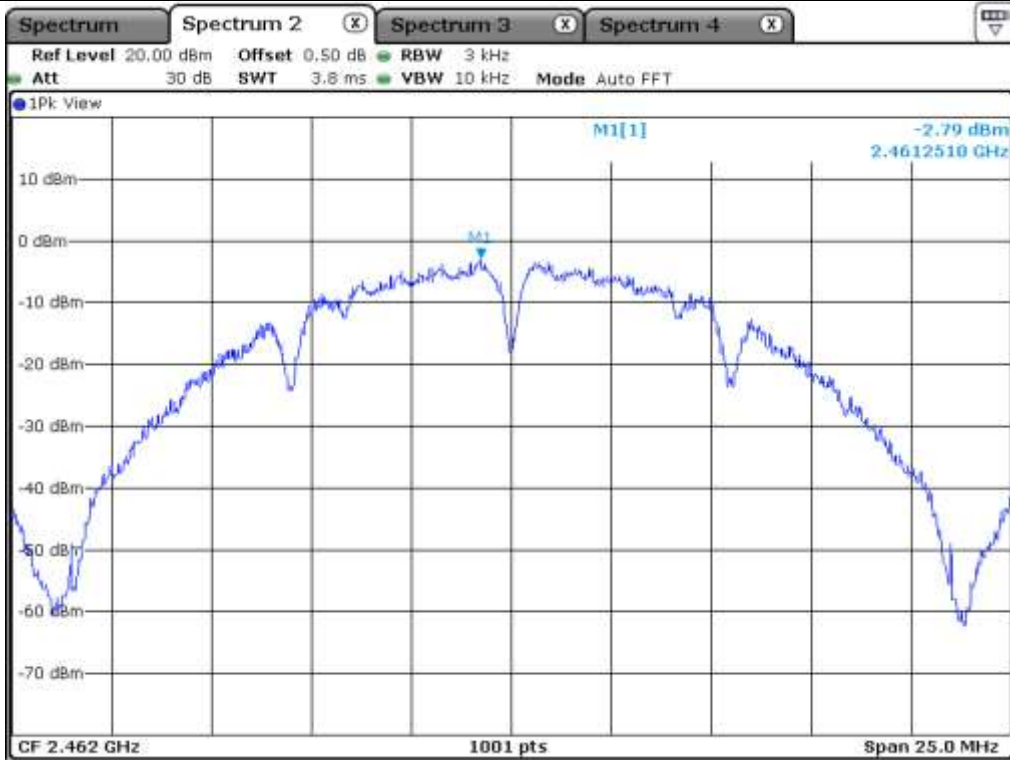
Remark. Margin = Limit – Measured value



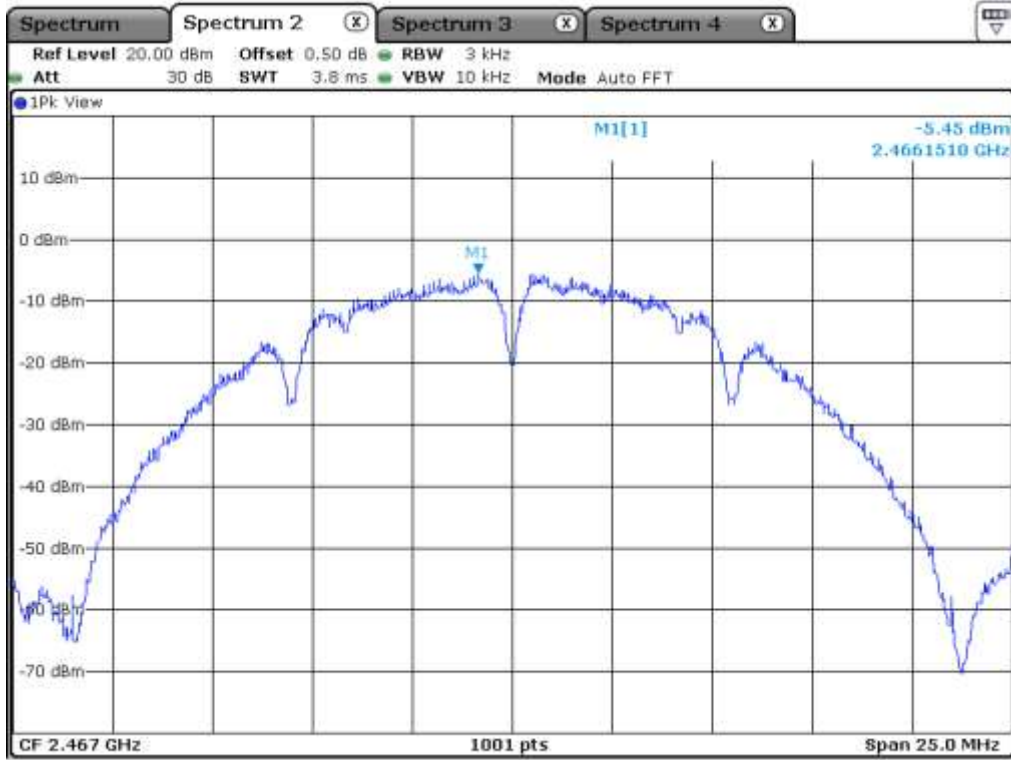
Low Channel



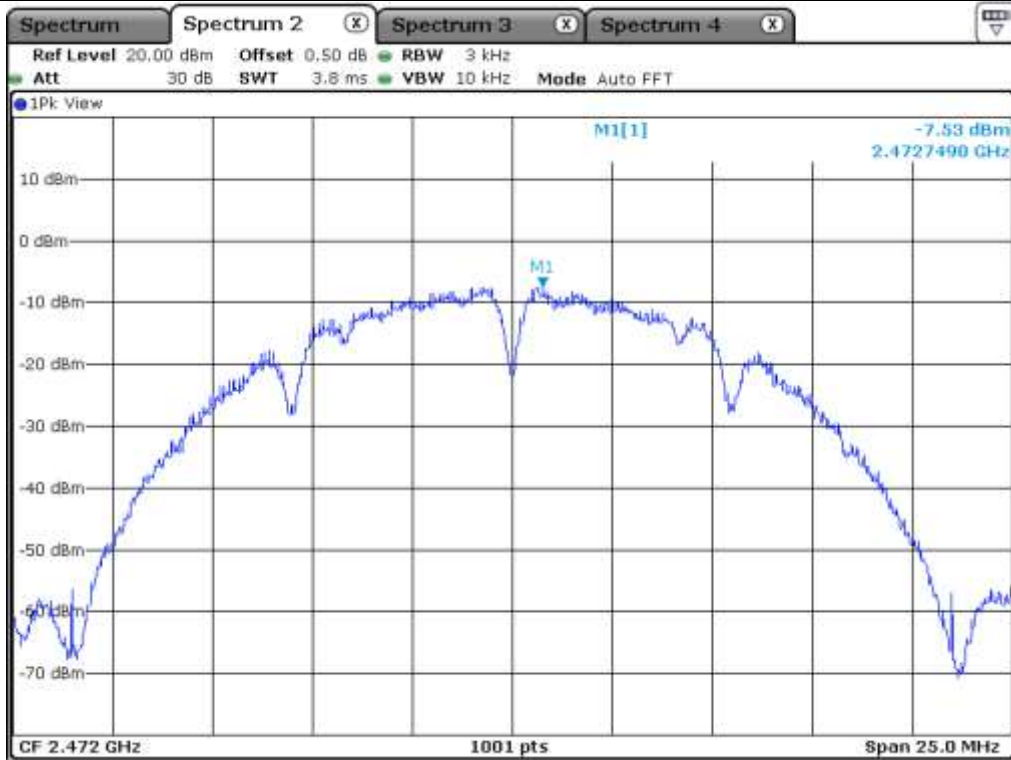
Middle Channel



High Channel 11



High Channel 12



High Channel 13

### 10.5 Test data for 802.11g WLAN Mode

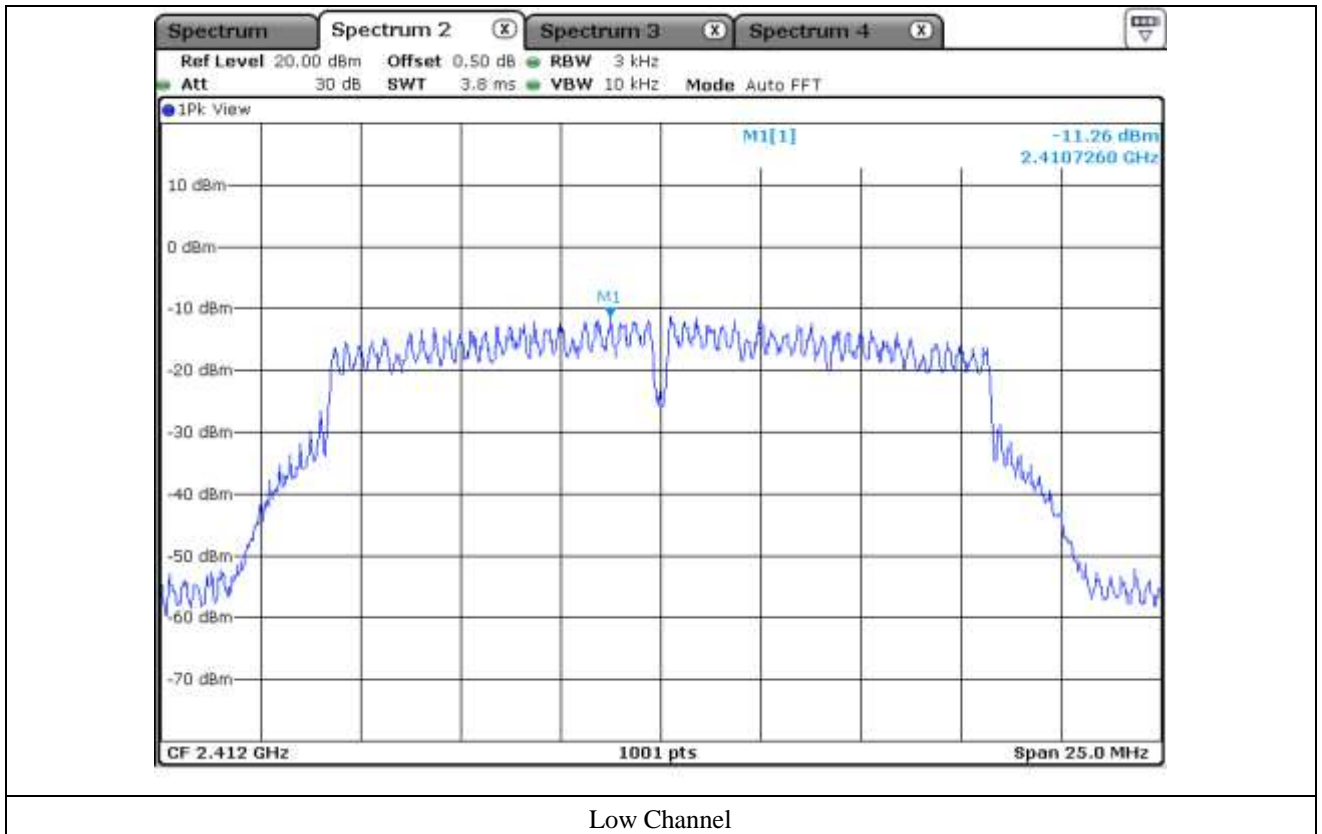
#### 10.5.1 Test data for Antenna 0

-. Test Result : Pass

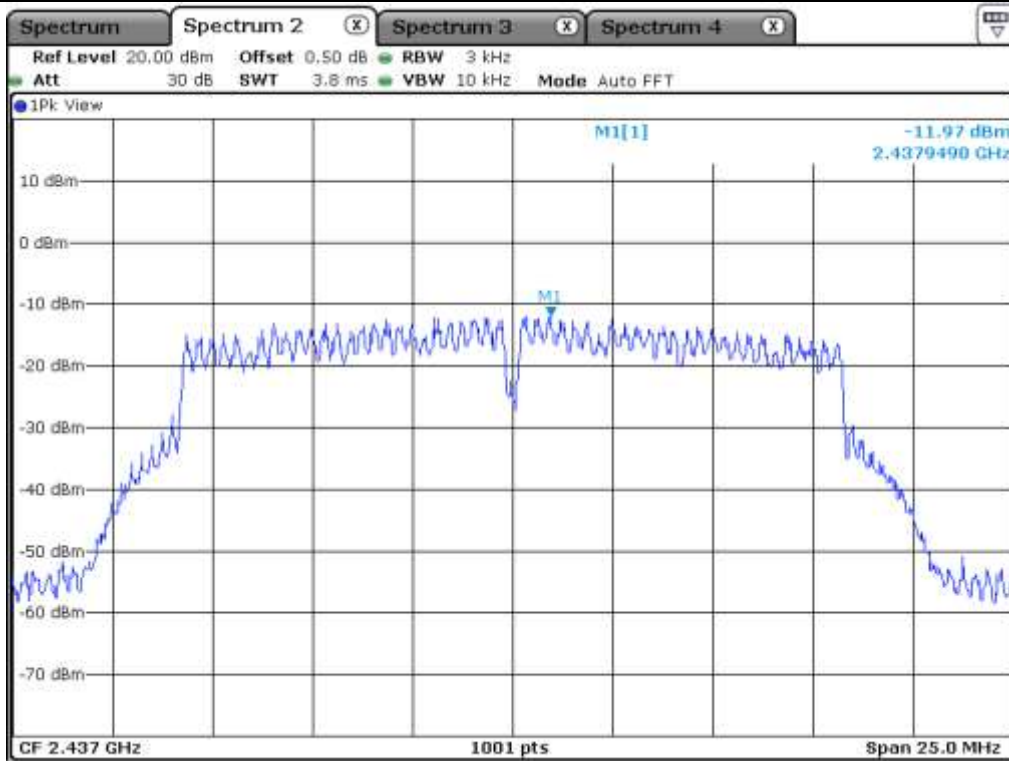
-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-11.26	8.00	19.26
Middle	2 437.00	-11.97	8.00	19.97
High 11	2 462.00	-11.21	8.00	19.21
High 12	2 467.00	-12.46	8.00	20.46
High 13	2 472.00	-14.50	8.00	22.50

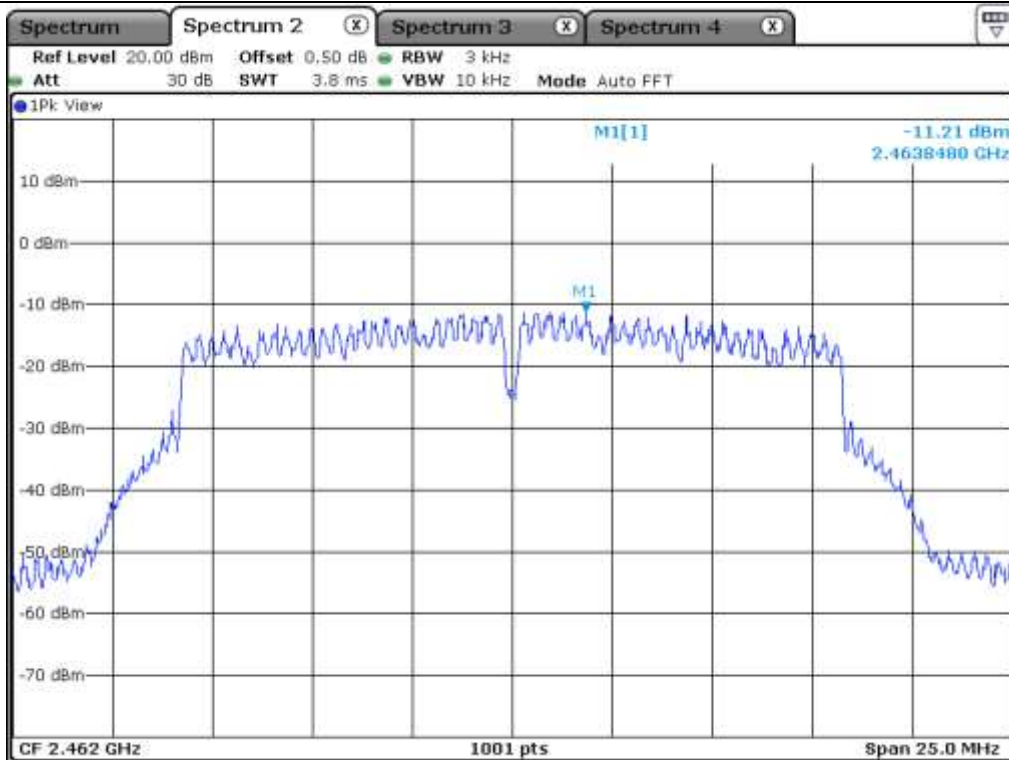
Remark. Margin = Limit – Measured value



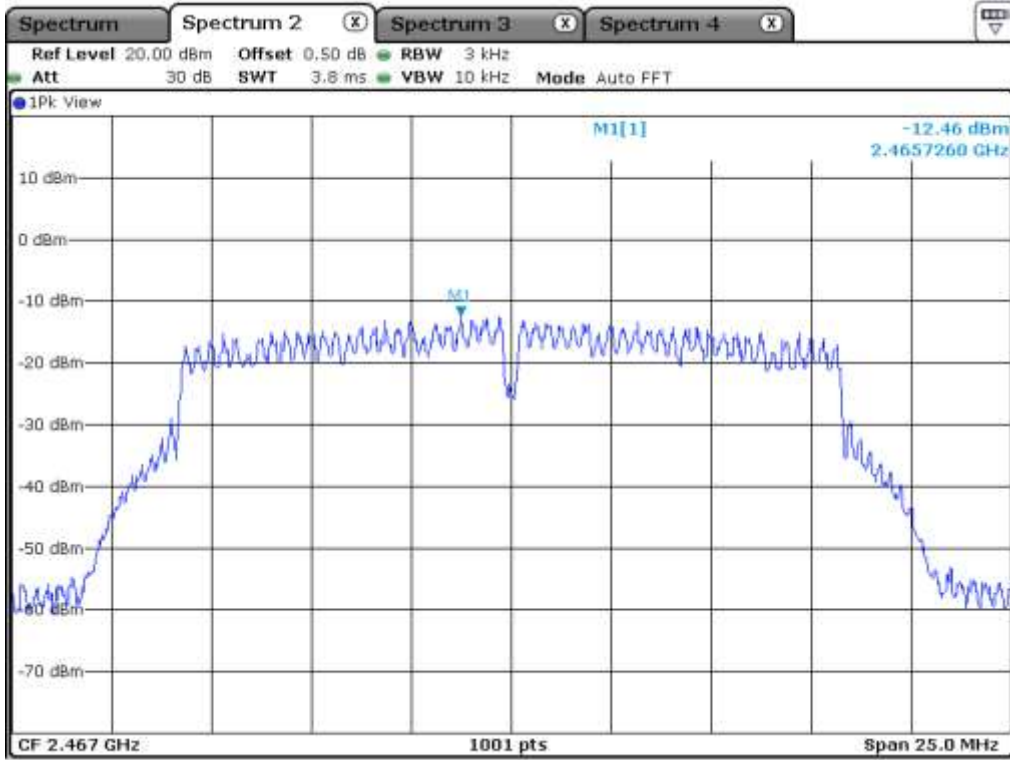




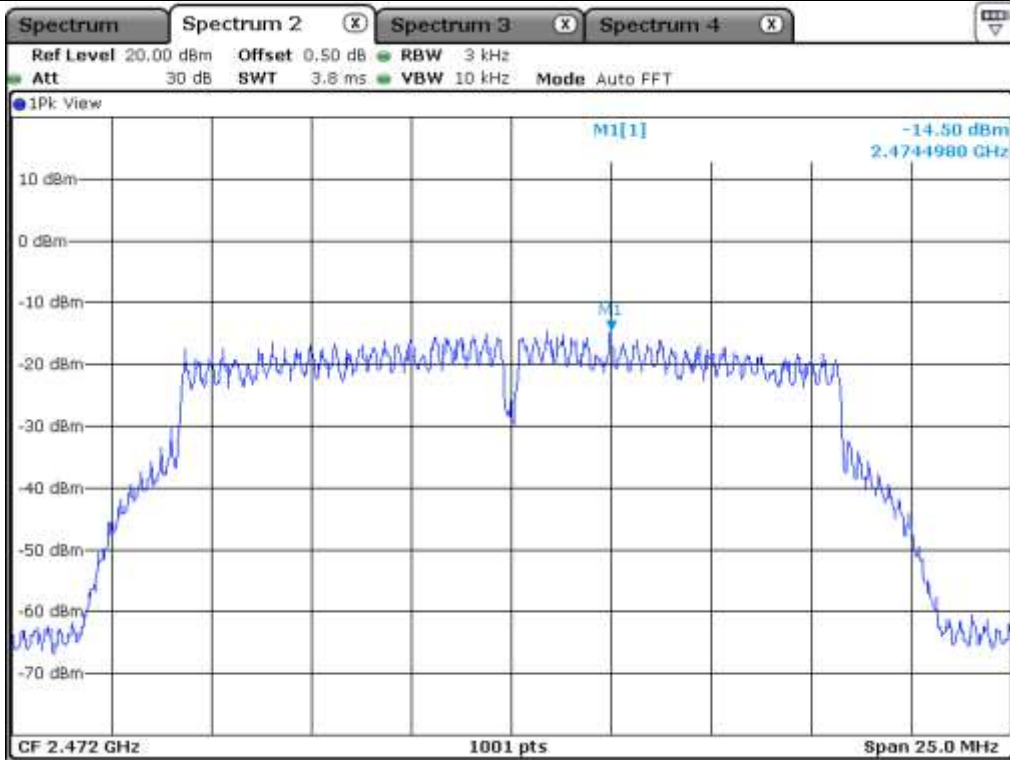
Middle Channel



High Channel 11



High Channel 12



High Channel 13

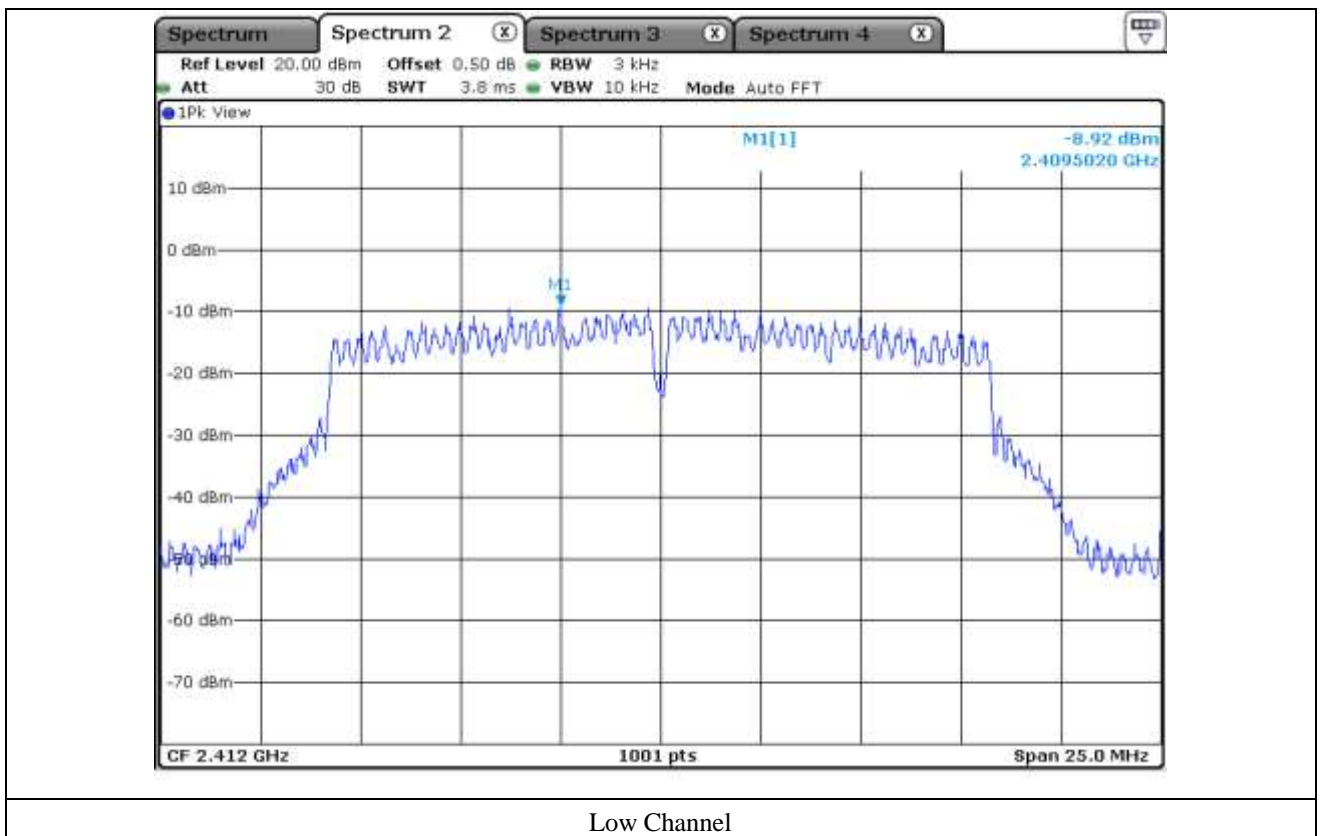
**10.5.2 Test data for Antenna 1**

-. Test Result : Pass

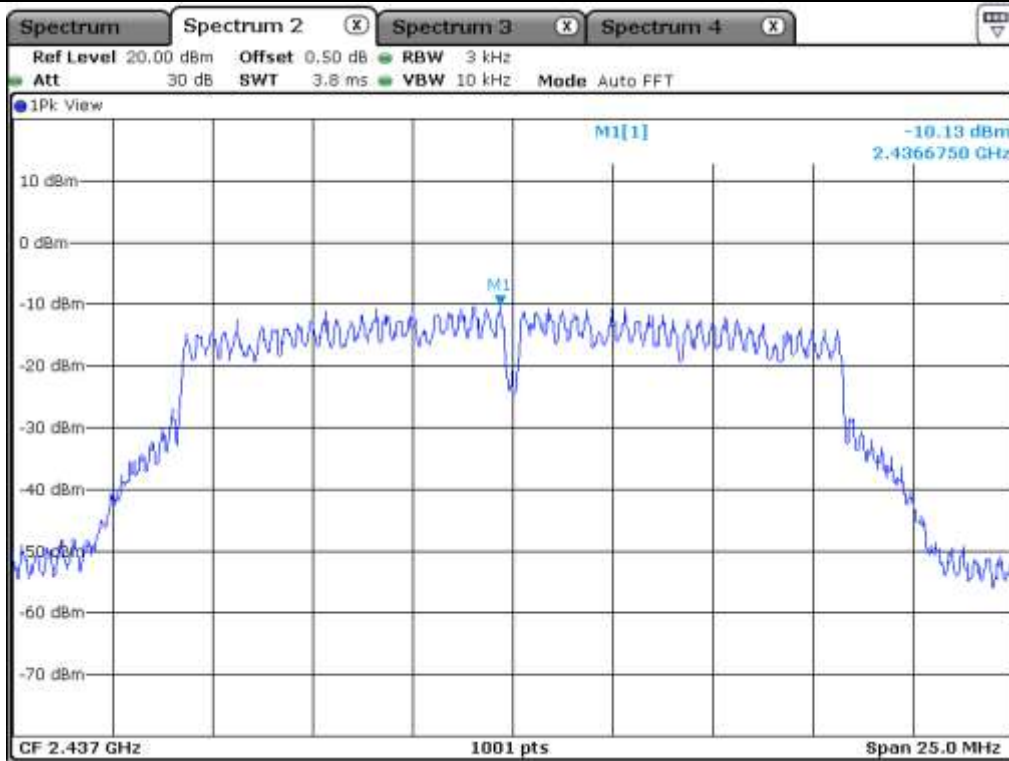
-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-8.92	8.00	16.92
Middle	2 437.00	-10.13	8.00	18.13
High 11	2 462.00	-10.49	8.00	18.49
High 12	2 467.00	-12.03	8.00	20.03
High 13	2 472.00	-13.25	8.00	21.25

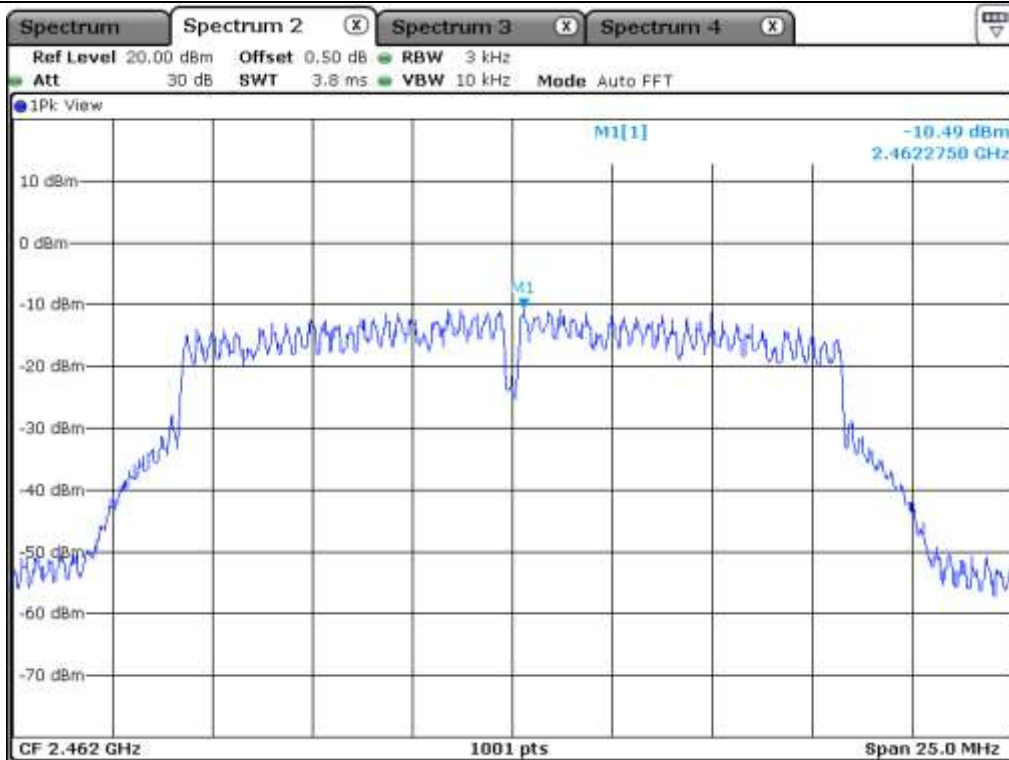
Remark. Margin = Limit – Measured value



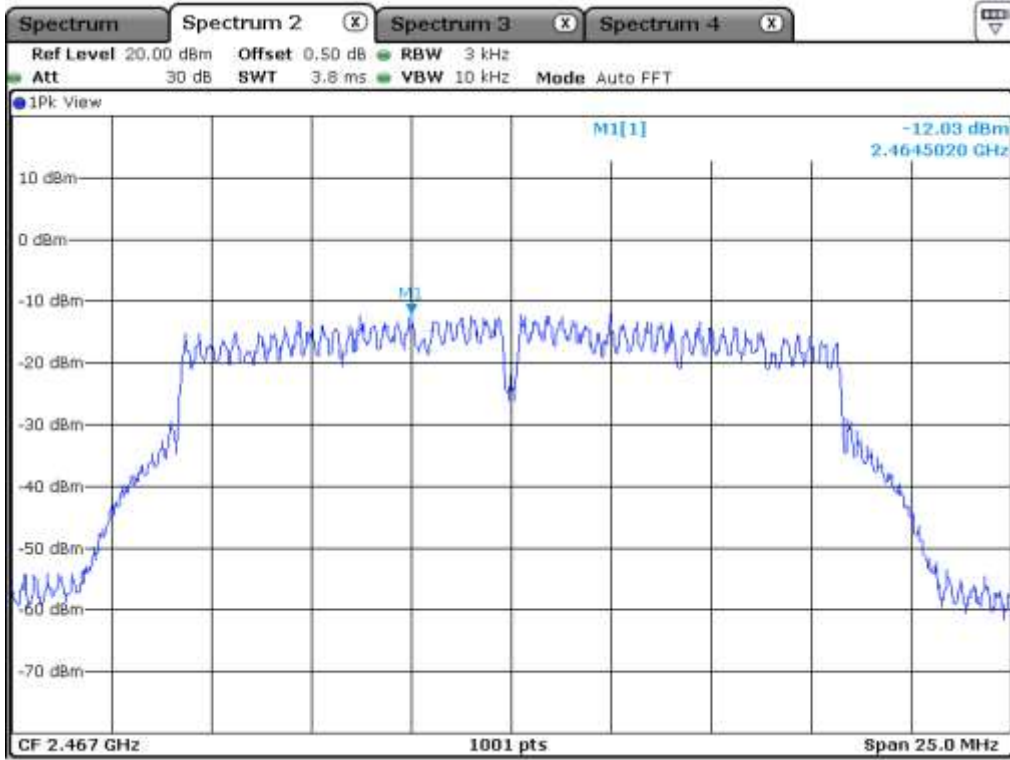
Low Channel



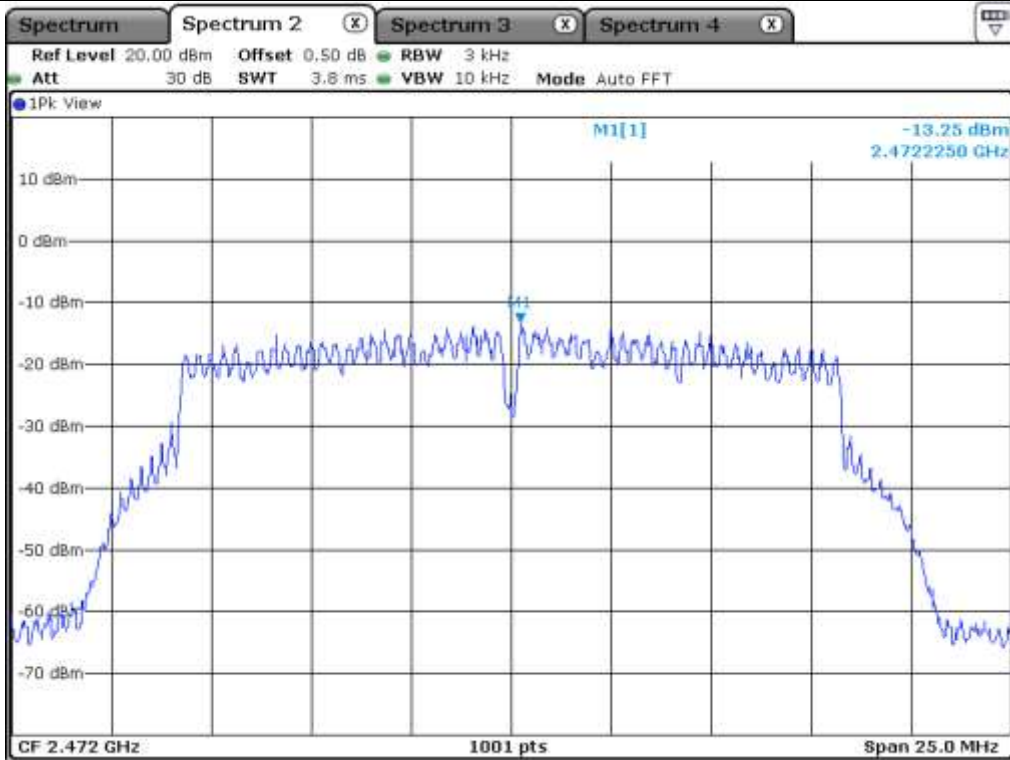
Middle Channel



High Channel 11



High Channel 12



High Channel 13

### 10.5.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-6.92	8.00	14.92
Middle	2 437.00	-7.94	8.00	15.94
High 11	2 462.00	-7.82	8.00	15.82
High 12	2 467.00	-9.23	8.00	17.23
High 13	2 472.00	-10.82	8.00	18.82

Remark 1 : Margin = Limit – Measured value

Remark 2 : Calculated Power Density =  $10\log(10^{(\text{Antenna 0 Power Density}/10)} + 10^{(\text{Antenna 1 Power Density}/10)})$

Remark 3 : Directional gain =  $10*\log[(10^{G0/20} + 10^{G1/20})^2/N]$  dBi

**10.6 Test data for 802.11n\_HT20 WLAN Mode**

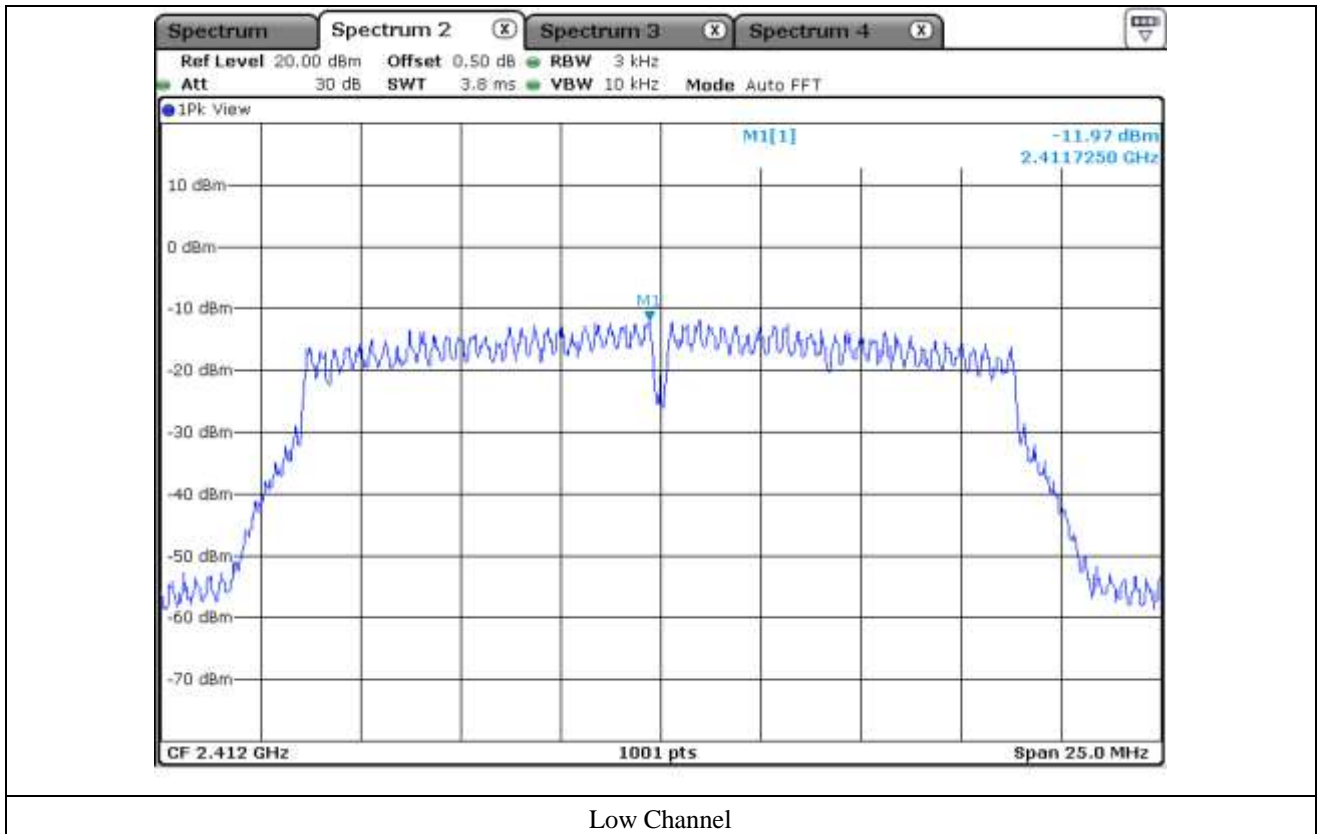
**10.6.1 Test data for Antenna 0**

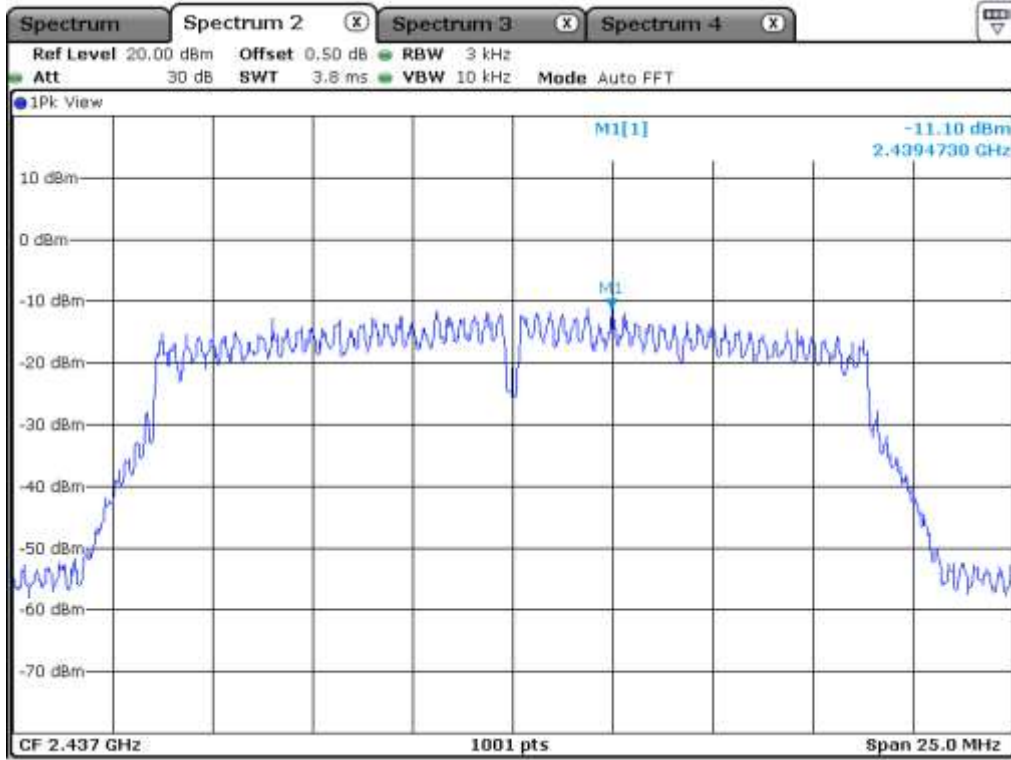
-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

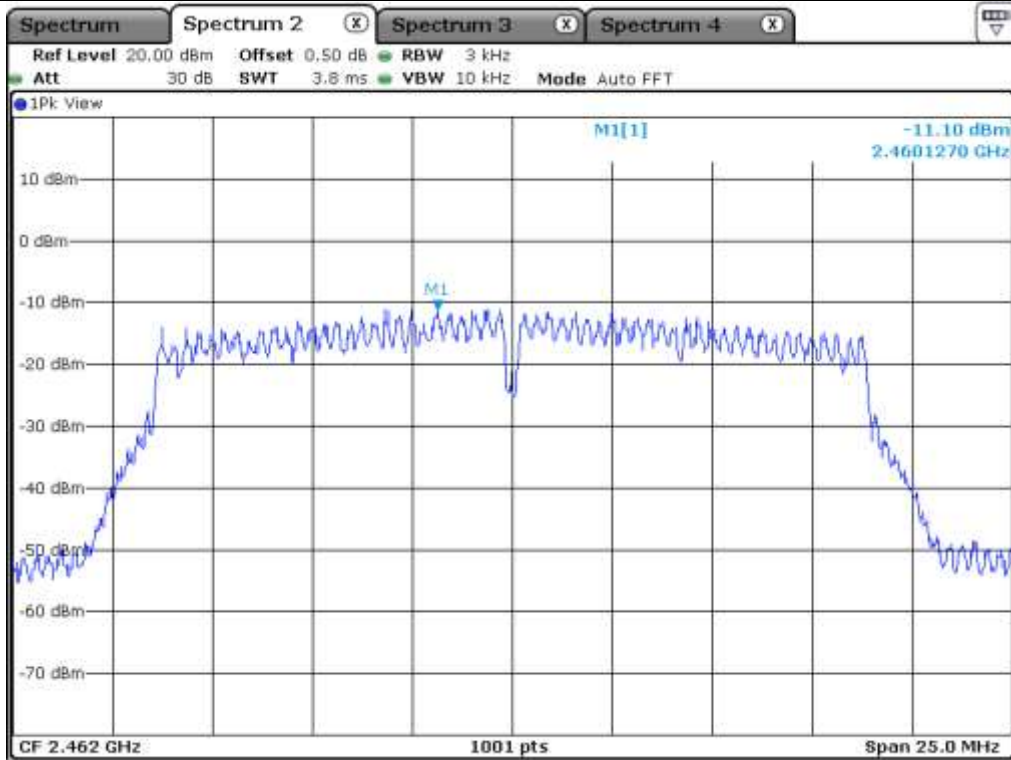
CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-11.97	8.00	19.97
Middle	2 437.00	-11.10	8.00	19.10
High 11	2 462.00	-11.10	8.00	19.10
High 12	2 467.00	-12.51	8.00	20.51
High 13	2 472.00	-13.62	8.00	21.62

Remark. Margin = Limit – Measured value



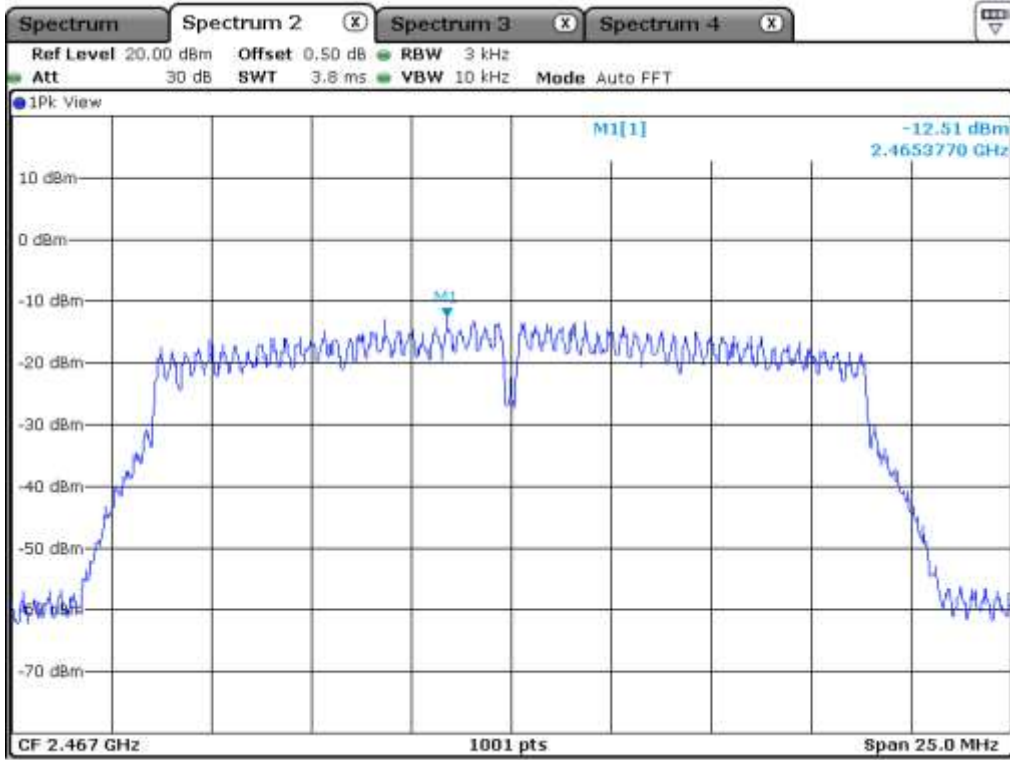


Middle Channel

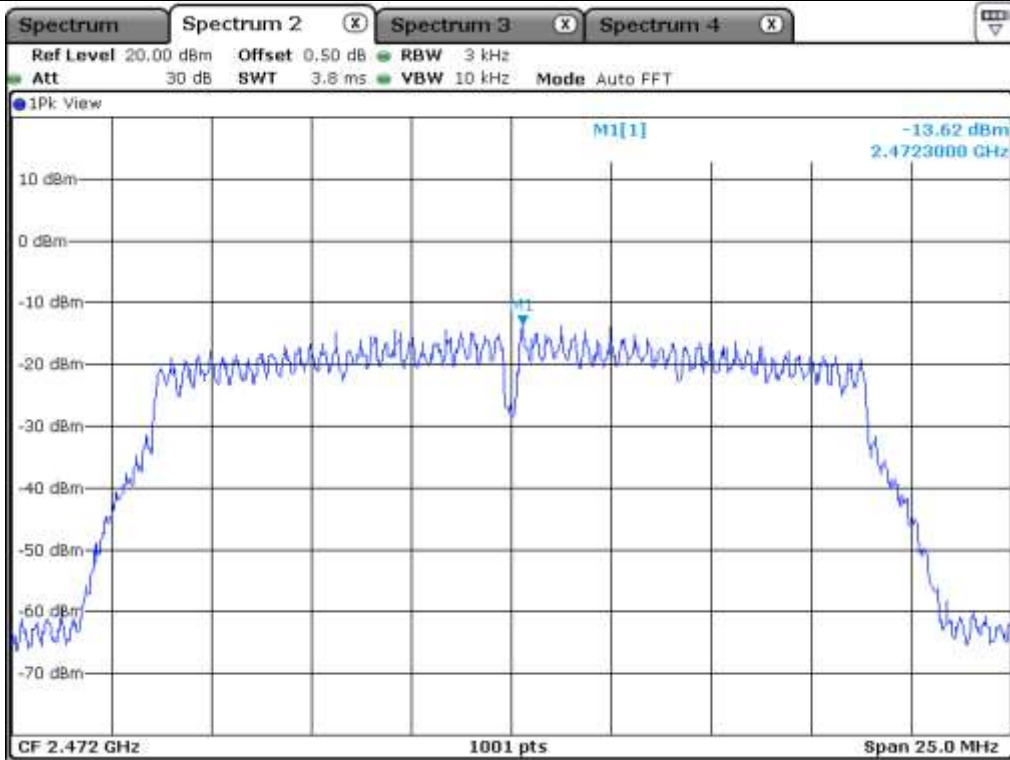


High Channel 11





High Channel 12



High Channel 13

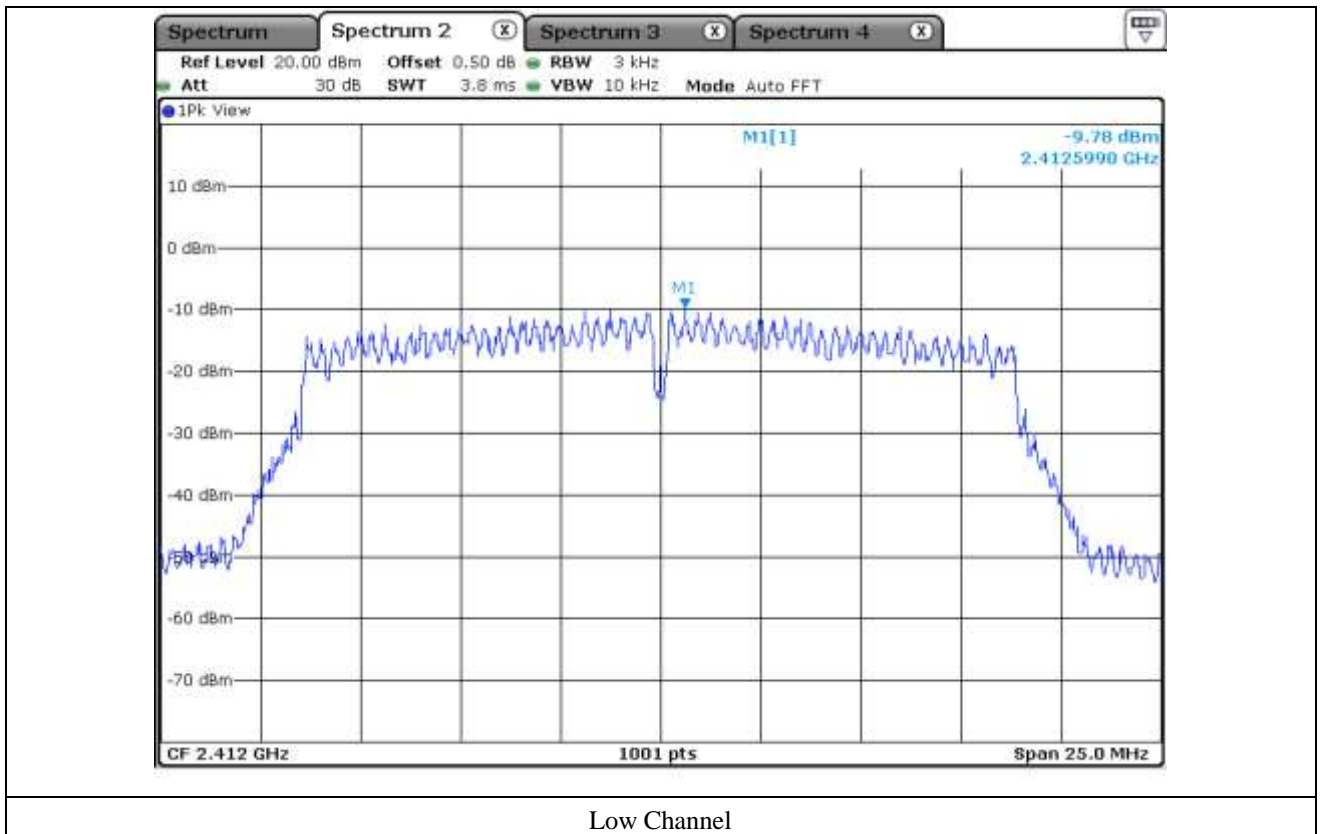
**10.6.2 Test data for Antenna 1**

- Test Result : Pass

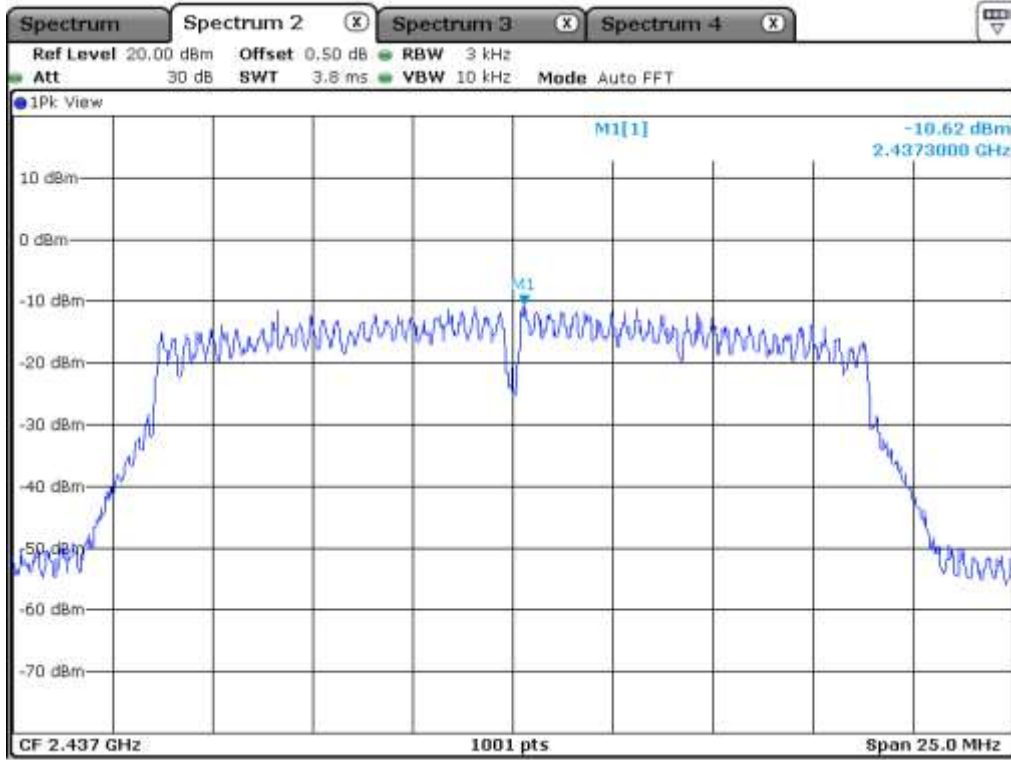
- Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-9.78	8.00	17.78
Middle	2 437.00	-10.62	8.00	18.62
High 11	2 462.00	-10.72	8.00	18.72
High 12	2 467.00	-12.75	8.00	20.75
High 13	2 472.00	-14.44	8.00	22.44

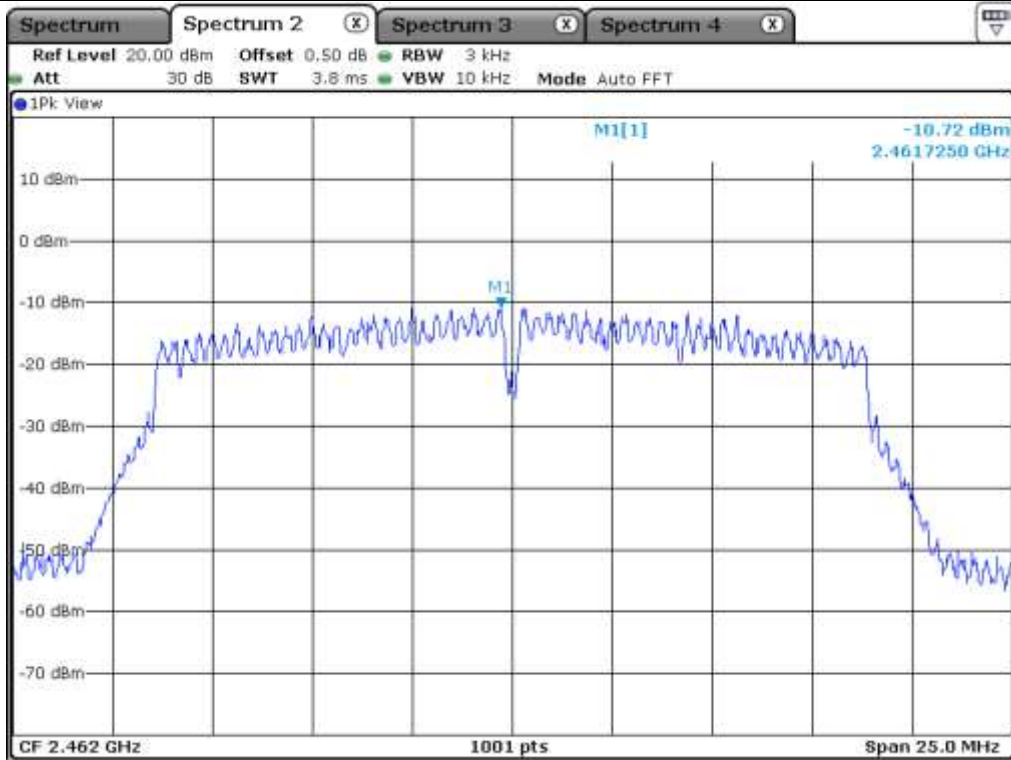
Remark. Margin = Limit – Measured value



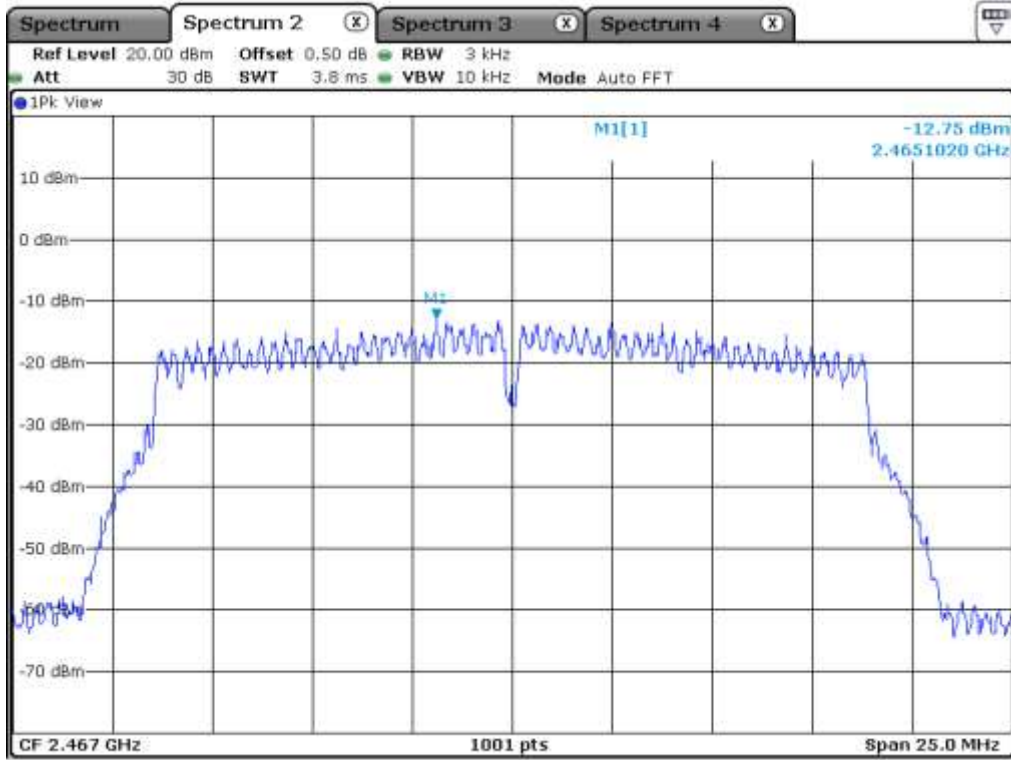
Low Channel



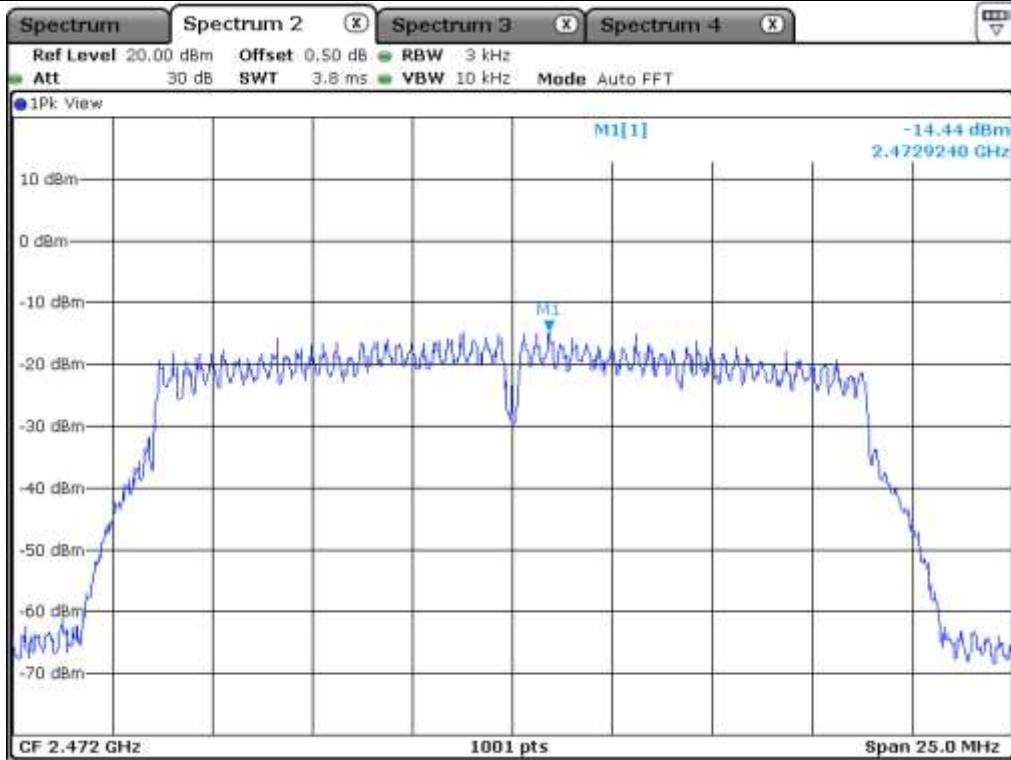
Middle Channel



High Channel 11



High Channel 12



High Channel 13

### 10.6.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-7.73	8.00	15.73
Middle	2 437.00	-7.84	8.00	15.84
High 11	2 462.00	-7.90	8.00	15.90
High 12	2 467.00	-9.62	8.00	17.62
High 13	2 472.00	-11.00	8.00	19.00

Remark 1 : Margin = Limit – Measured value

Remark 2 : Calculated Power Density =  $10\log(10^{(\text{Antenna 0 Power Density}/10)} + 10^{(\text{Antenna 1 Power Density}/10)})$

Remark 3 : Directional gain =  $10*\log[(10^{G0/20} + 10^{G1/20})^2/N]$  dBi

10.7 Test data for 802.11n\_HT40 WLAN Mode

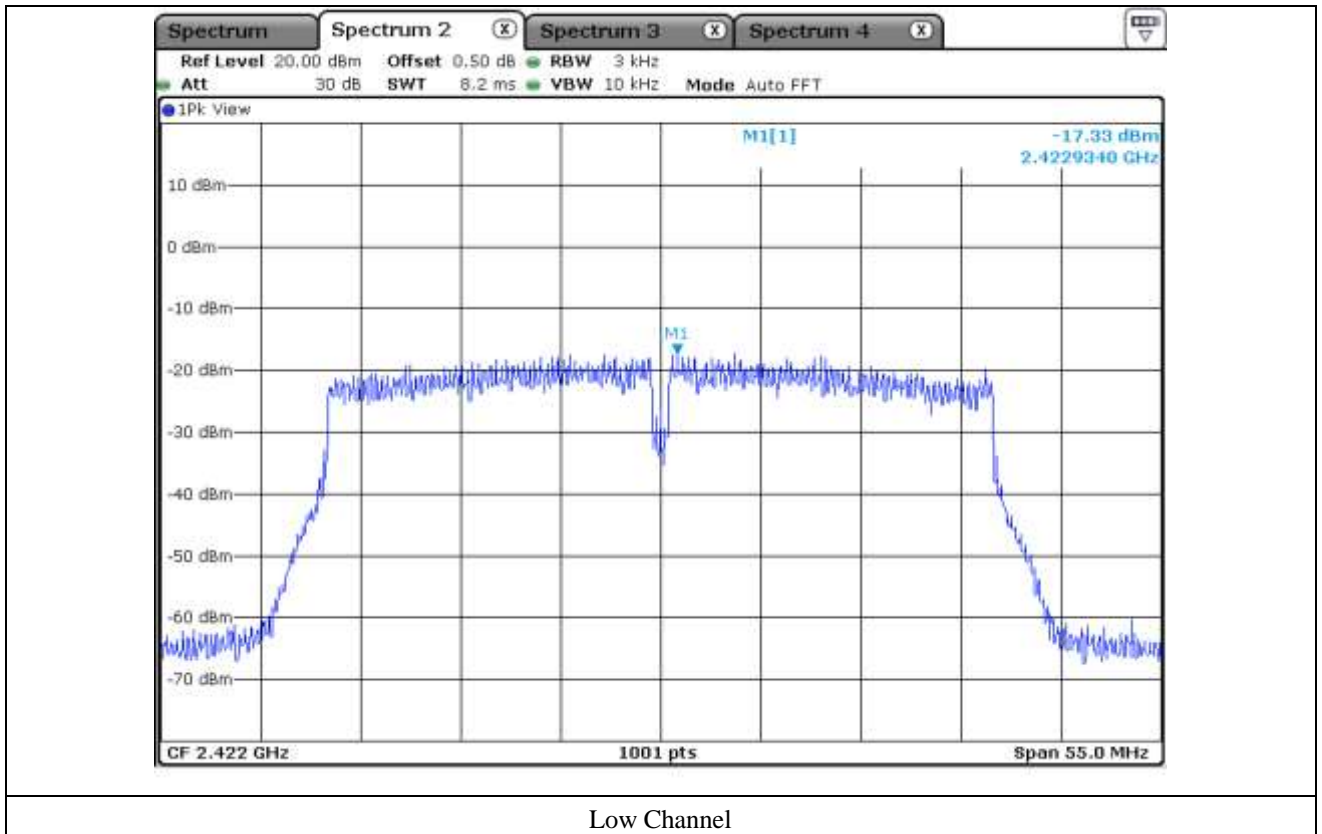
10.7.1 Test data for Antenna 0

-. Test Result : Pass

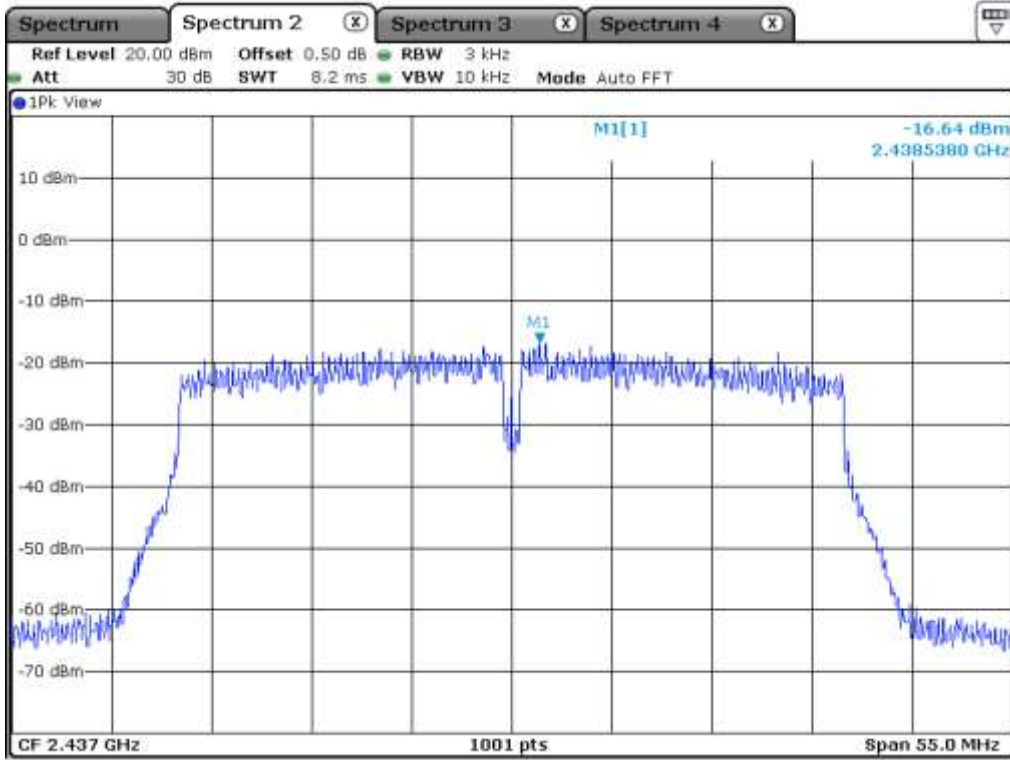
-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-17.33	8.00	25.33
Middle	2 437.00	-16.64	8.00	24.64
High 9	2 452.00	-17.31	8.00	25.31
High 10	2 457.00	-18.21	8.00	26.21
High 11	2 462.00	-17.19	8.00	25.19

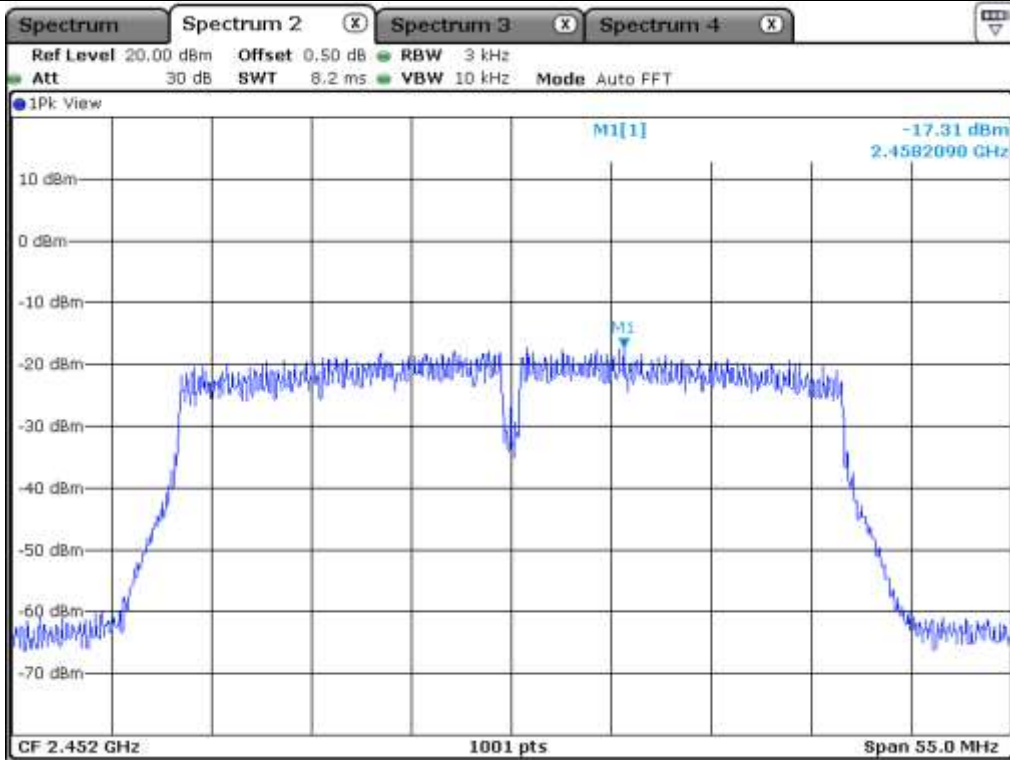
Remark. Margin = Limit – Measured value



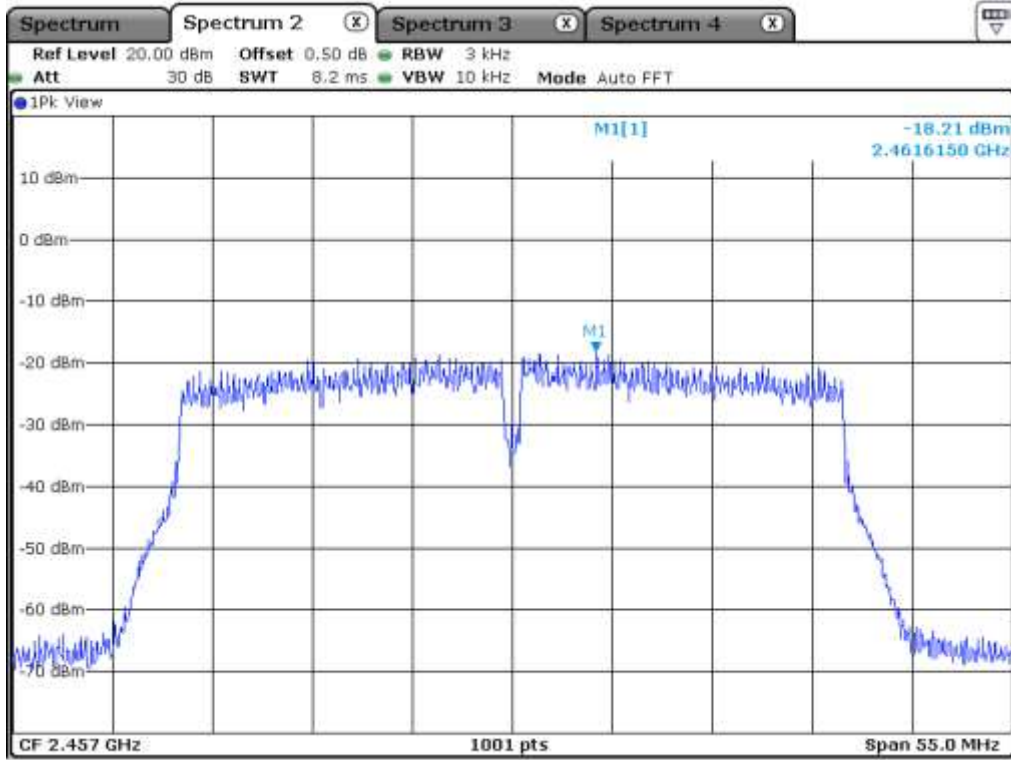
Low Channel



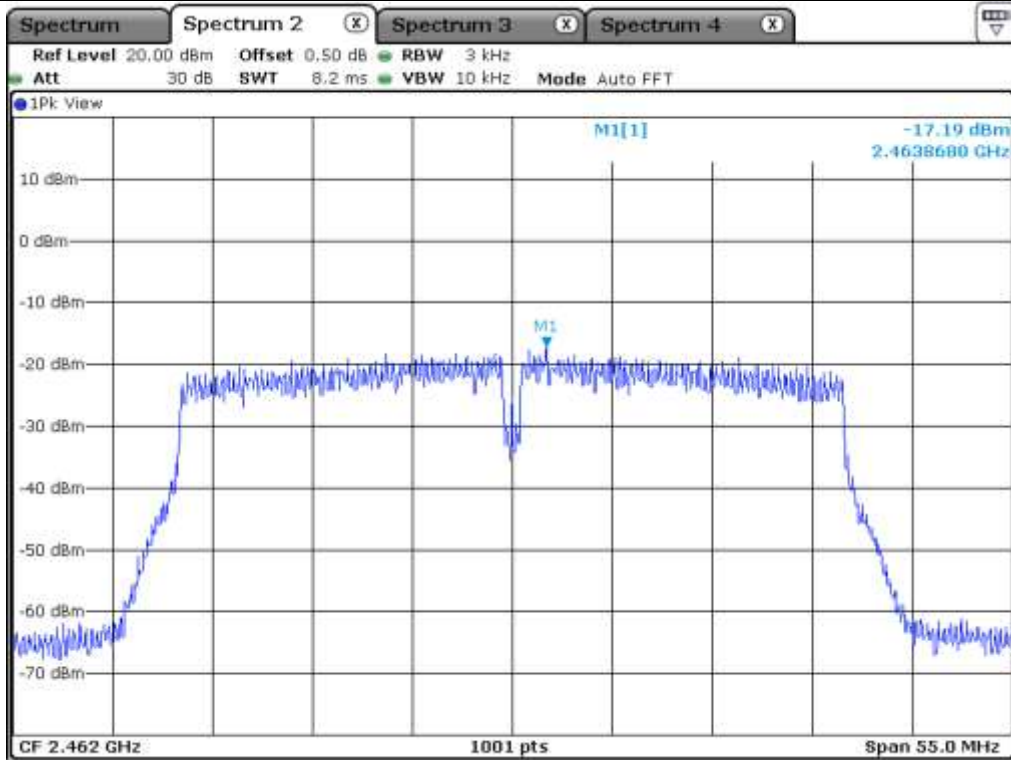
Middle Channel



High Channel 9



High Channel 10



High Channel 11



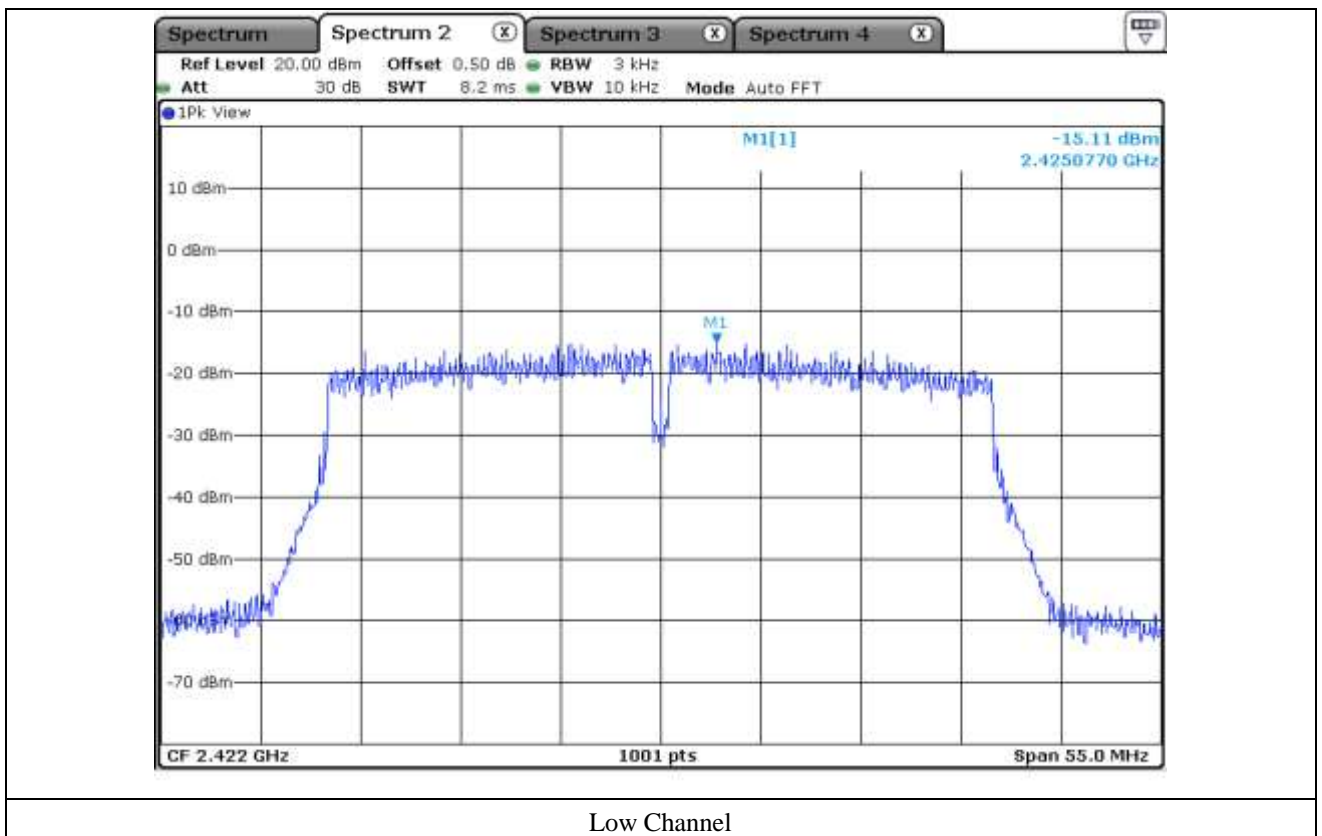
**10.7.2 Test data for Antenna 1**

-. Test Result : Pass

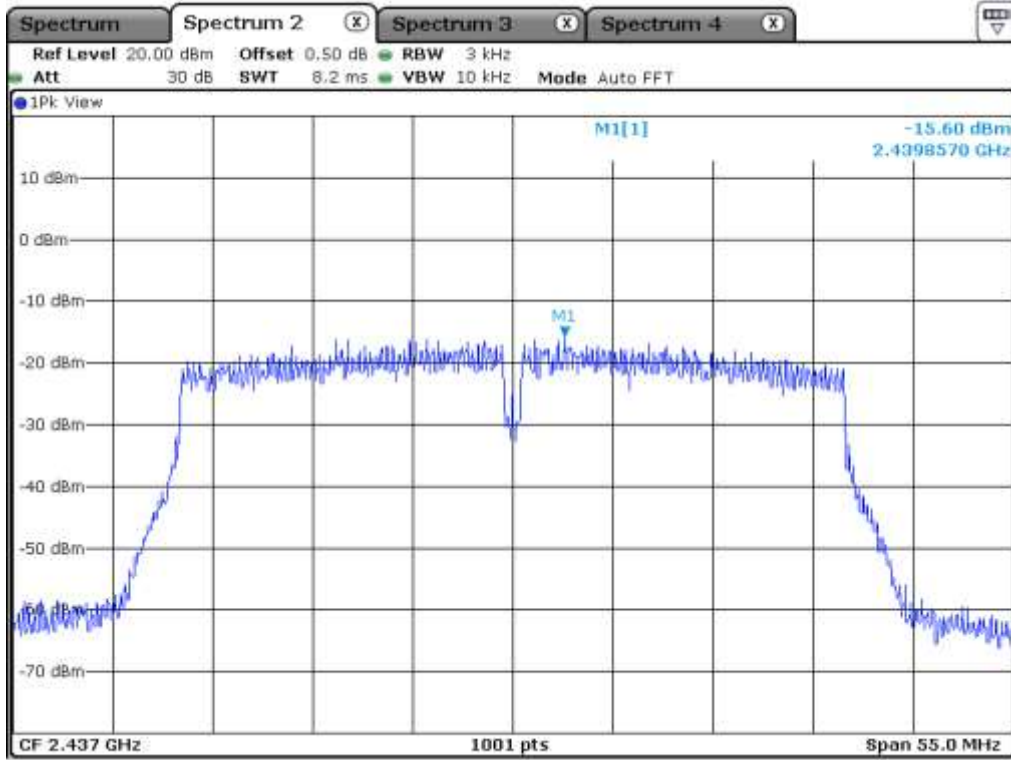
-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-15.11	8.00	23.11
Middle	2 437.00	-15.60	8.00	23.60
High 9	2 452.00	-15.36	8.00	23.36
High 10	2 457.00	-16.89	8.00	24.89
High 11	2 462.00	-16.83	8.00	24.83

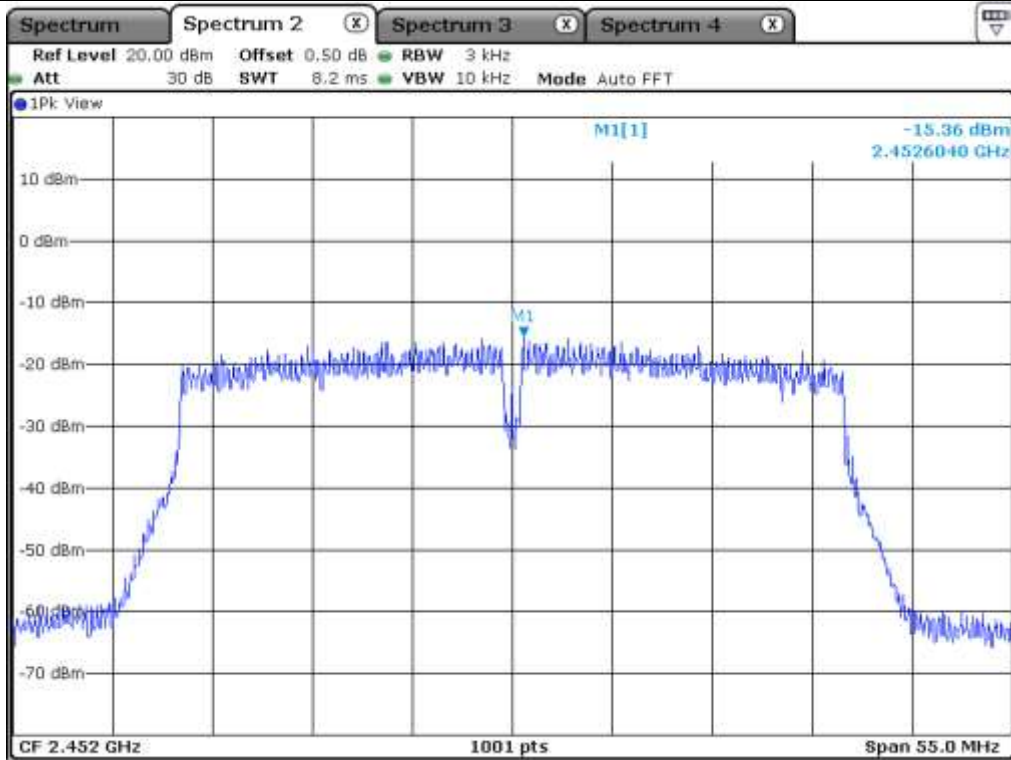
Remark. Margin = Limit – Measured value



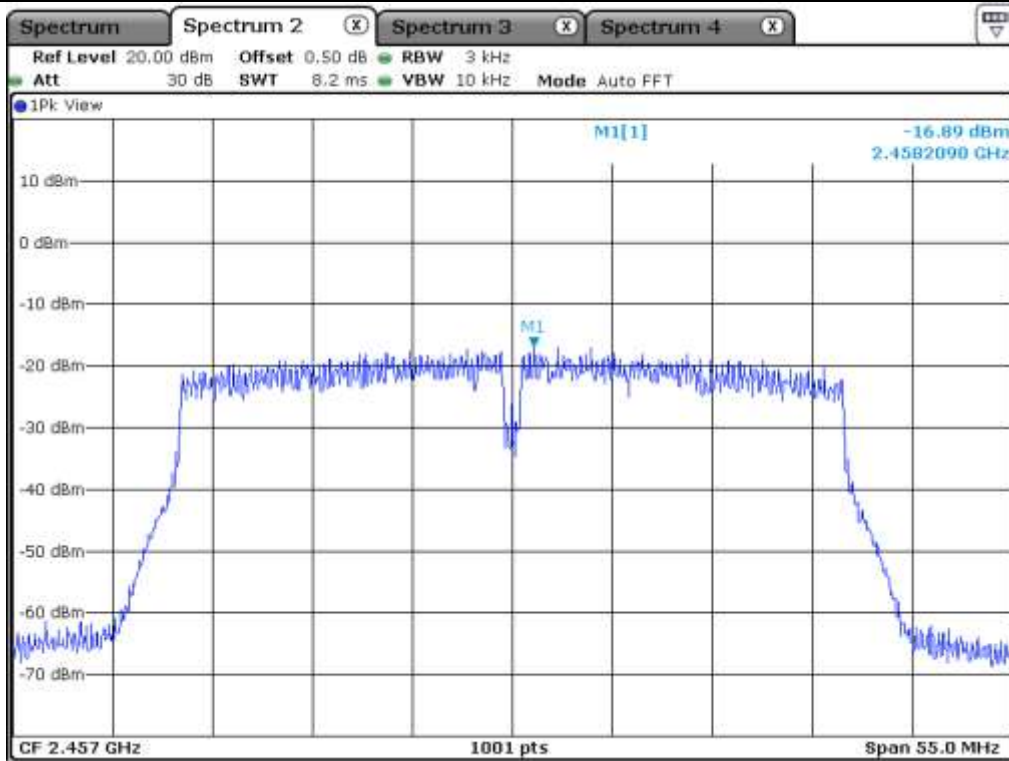
Low Channel



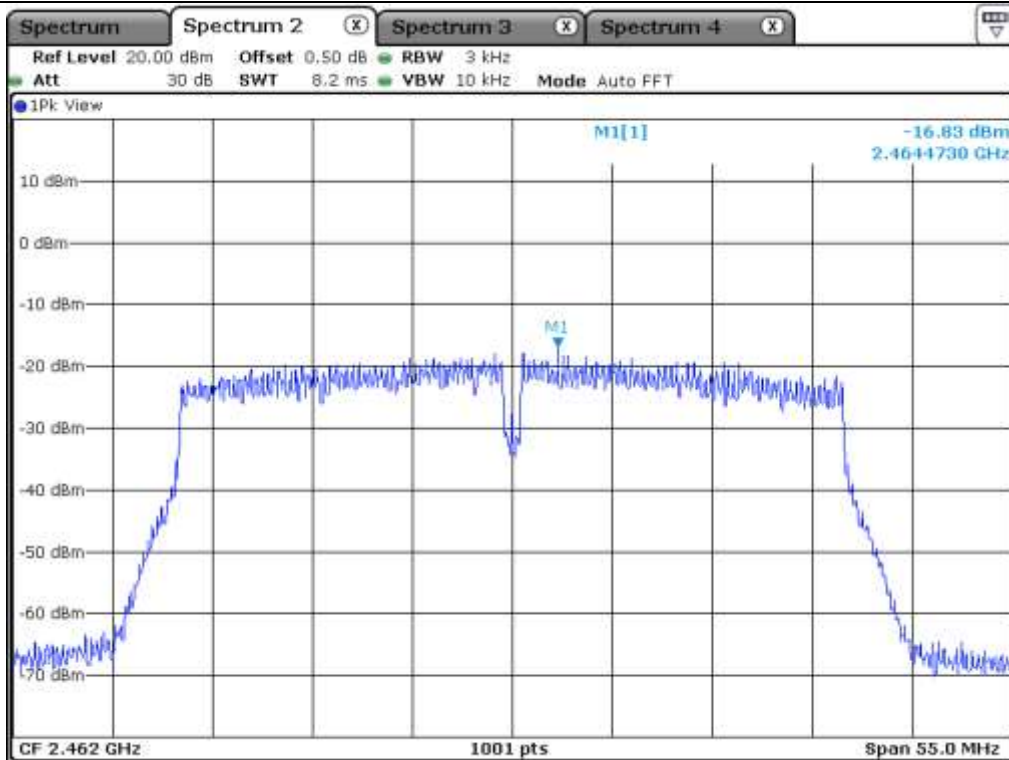
Middle Channel



High Channel 9



High Channel 10



High Channel 11

### 10.7.3 Test data for Multiple Transmit

-. Test Result : Pass

-. Operating Condition : Continuous transmitting mode

CHANNEL	FREQUENCY(MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 412.00	-13.07	8.00	21.07
Middle	2 437.00	-13.08	8.00	21.08
High 9	2 452.00	-13.22	8.00	21.22
High 10	2 457.00	-14.49	8.00	22.49
High 11	2 462.00	-14.00	8.00	22.00

Remark 1 : Margin = Limit – Measured value

Remark 2 : Calculated Power Density =  $10\log(10^{(\text{Antenna 0 Power Density}/10)} + 10^{(\text{Antenna 1 Power Density}/10)})$

Remark 3 : Directional gain =  $10*\log[(10^{G0/20} + 10^{G1/20})^2/N]$  dBi

## **11. RADIATED EMISSION TEST**

### **11.1 Operating environment**

Temperature : 23 °C  
Relative humidity : 41 % R.H.

### **11.2 Test set-up**

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

The frequency spectrum from 30 MHz to 26.5 GHz was scanned and emission levels maximized at each frequency recorded. The system was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna.

### **11.3 Test Date**

August 21, 2020 ~ September 08, 2020

11.4 Test data for 30 MHz ~ 960 MHz

11.4.1 Test data for WLAN 2.4 GHz

Humidity Level : 41 % R.H.

Temperature: 23 °C

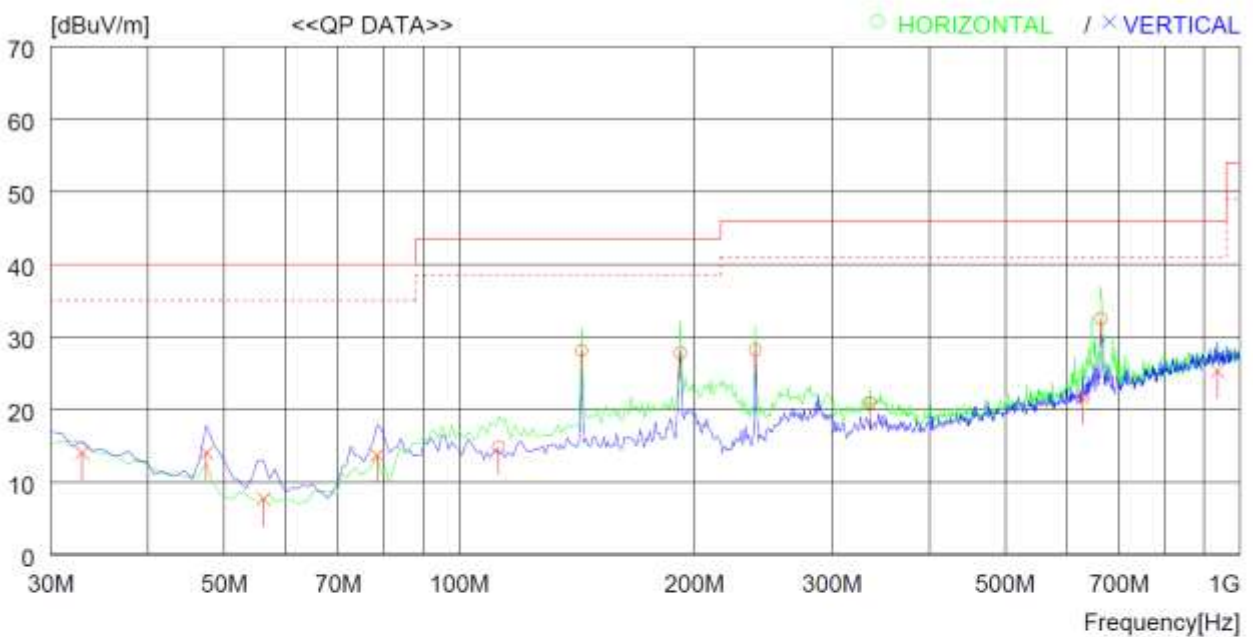
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

-Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	112.450	36.2	10.3	1.0	32.7	14.8	43.5	28.7	400	82
2	143.490	48.6	11.1	1.1	32.7	28.1	43.5	15.4	400	357
3	191.990	46.3	12.8	1.3	32.6	27.8	43.5	15.7	400	347
4	239.520	48.7	10.6	1.5	32.6	28.2	46.0	17.8	400	357
5	335.550	37.2	14.6	1.8	32.7	20.9	46.0	25.1	400	33
6	663.406	42.4	20.5	2.5	32.9	32.5	46.0	13.5	400	298
----- Vertical -----										
7	32.910	35.1	11.0	0.5	32.6	14.0	40.0	26.0	400	288
8	47.460	36.0	10.1	0.6	32.7	14.0	40.0	26.0	400	350
9	56.190	30.2	9.5	0.7	32.7	7.7	40.0	32.3	400	281
10	78.500	37.7	7.9	0.8	32.7	13.7	40.0	26.3	400	4
11	628.487	32.1	20.1	2.4	33.0	21.6	46.0	24.4	400	358
12	934.998	30.8	23.4	2.9	31.8	25.3	46.0	20.7	400	256

**11.4.2 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)**

Humidity Level : 45 % R.H. Temperature: 23 °C

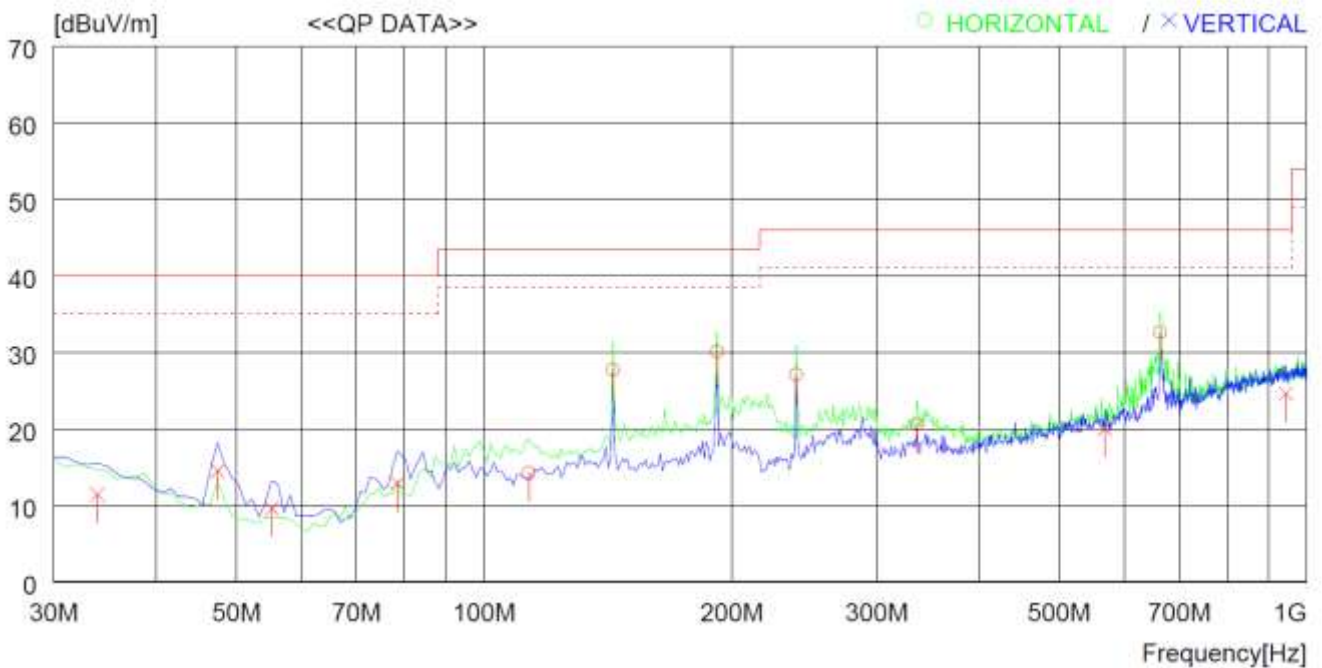
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

-Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	113.420	35.7	10.3	1.0	32.7	14.3	43.5	29.2	400	359
2	143.490	48.2	11.1	1.1	32.7	27.7	43.5	15.8	400	359
3	191.990	48.6	12.8	1.3	32.6	30.1	43.5	13.4	400	344
4	239.520	47.6	10.6	1.5	32.6	27.1	46.0	18.9	400	359
5	335.550	36.9	14.6	1.8	32.7	20.6	46.0	25.4	400	359
6	663.406	42.5	20.5	2.5	32.9	32.6	46.0	13.4	400	310
----- Vertical -----										
7	33.880	32.5	11.0	0.5	32.6	11.4	40.0	28.6	400	157
8	47.460	36.5	10.1	0.6	32.7	14.5	40.0	25.5	400	346
9	55.220	32.0	9.6	0.7	32.7	9.6	40.0	30.4	400	4
10	78.500	36.9	7.9	0.8	32.7	12.9	40.0	27.1	400	4
11	568.349	31.5	19.2	2.3	33.0	20.0	46.0	26.0	400	4
12	942.758	29.9	23.5	3.0	31.8	24.6	46.0	21.4	400	4

**11.4.3 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)**

Humidity Level : 45 % R.H. Temperature: 23 °C

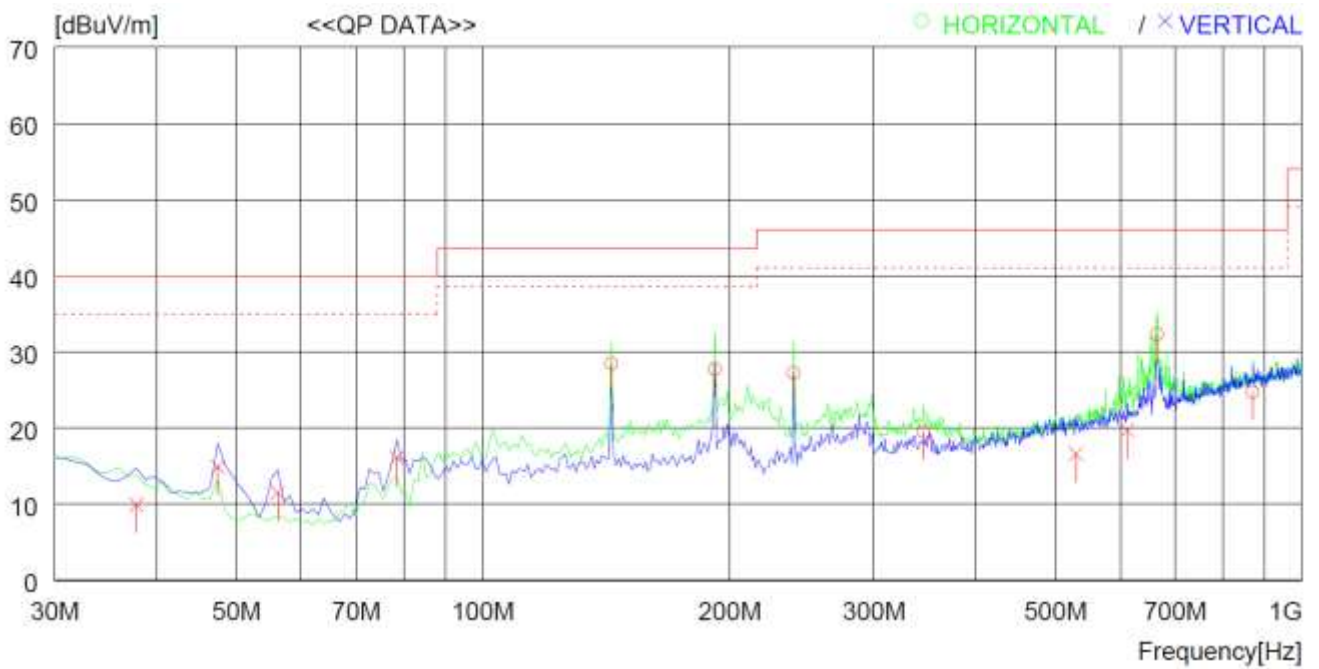
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Wi-Fi/BT Transceiver

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

-Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	143.490	48.9	11.1	1.1	32.7	28.4	43.5	15.1	400	355
2	191.990	46.2	12.8	1.3	32.6	27.7	43.5	15.8	400	355
3	239.520	47.7	10.6	1.5	32.6	27.2	46.0	18.8	400	25
4	345.250	35.5	14.9	1.8	32.7	19.5	46.0	26.5	400	350
5	665.346	42.1	20.6	2.5	32.9	32.3	46.0	13.7	400	355
6	870.010	31.4	22.9	2.6	32.2	24.7	46.0	21.3	400	34
----- Vertical -----										
7	37.760	31.2	10.9	0.5	32.7	9.9	40.0	30.1	400	37
8	47.460	36.9	10.1	0.6	32.7	14.9	40.0	25.1	400	335
9	56.190	34.0	9.5	0.7	32.7	11.5	40.0	28.5	400	3
10	78.500	40.1	7.9	0.8	32.7	16.1	40.0	23.9	400	3
11	529.550	28.9	18.4	2.2	32.9	16.6	46.0	29.4	400	193
12	611.998	30.3	20.0	2.4	33.0	19.7	46.0	26.3	400	265



**11.5 Test data for Below 30 MHz**

- Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- Frequency range : 9 kHz ~ 30 MHz
- Measurement distance : 3 m
- Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)
It was not observed any emissions from the EUT.									

**11.6 Test data for above 1 GHz**

- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Operating mode : Transmitting mode

Frequency (MHz)	Reading (dBμV)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)
It was not observed any emissions from the EUT.									

## 12. CONDUCTED EMISSION TEST

### 12.1 Operating environment

Temperature : 23 °C  
Relative humidity : 41 % R.H.

### 12.2 Test set-up

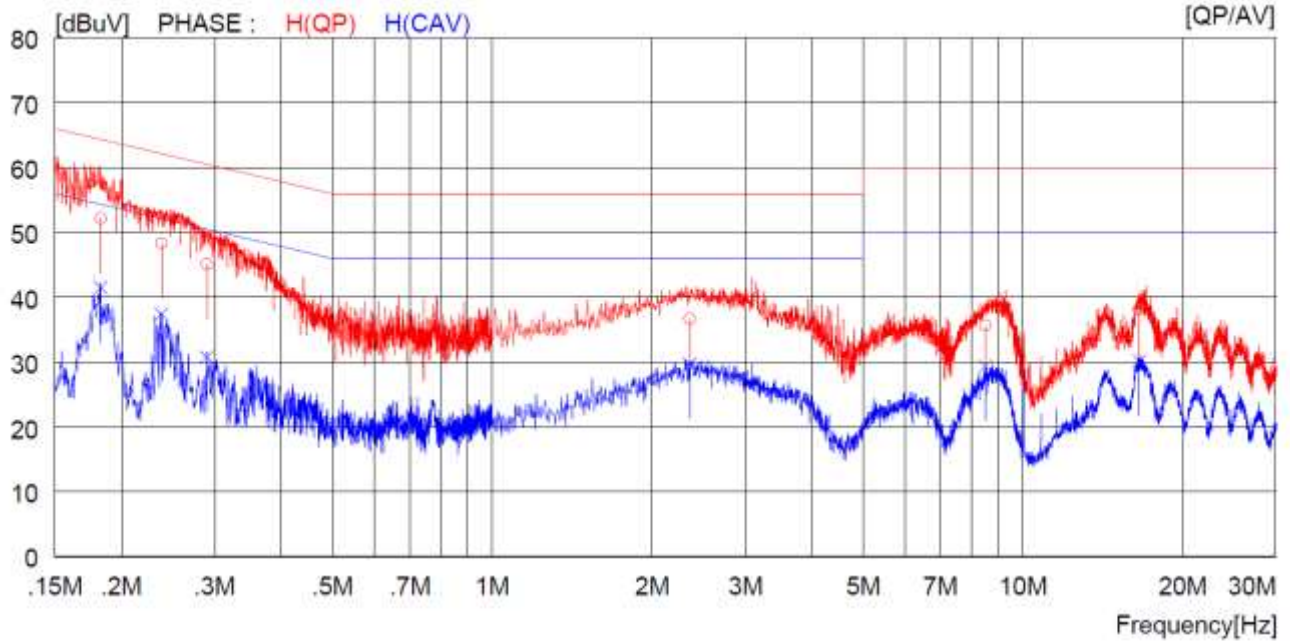
The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a 50  $\Omega$  / 50  $\mu$ H + 5  $\Omega$  Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

### 12.3 Test Date

August 21, 2020 ~ September 08, 2020

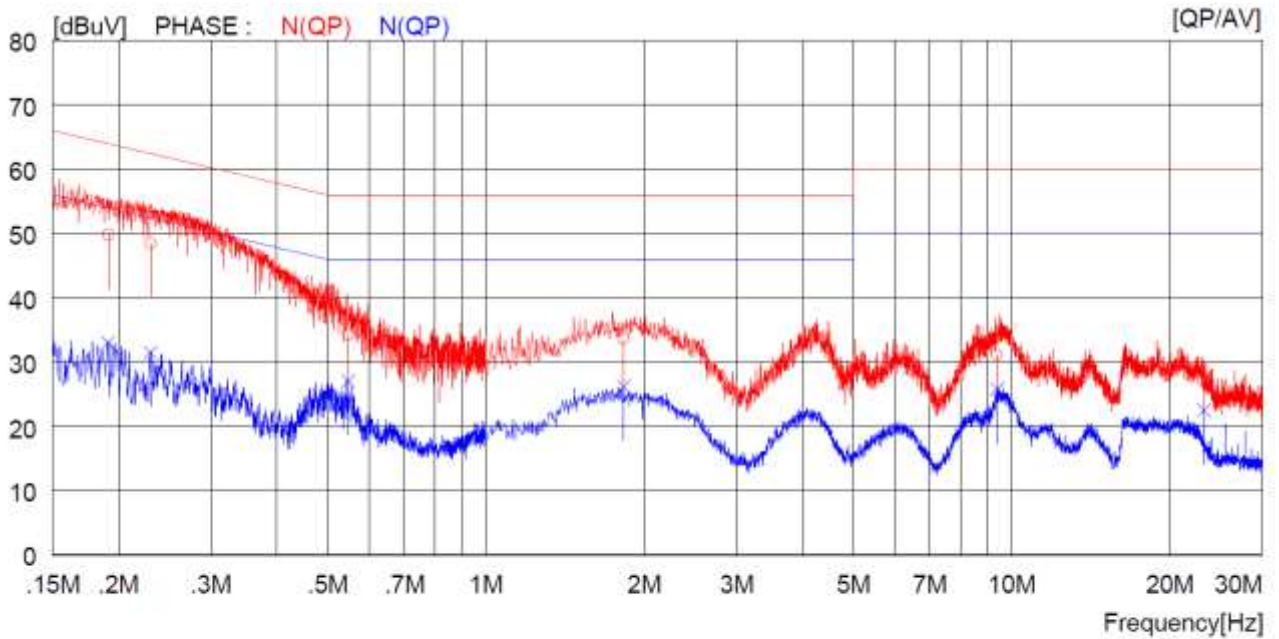
**12.4 Test data for WLAN 2.4 GHz**

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE
- Antenna 0, Antenna 1 and Multiple transmit tested, but the worst data were recorded.



NO	FREQ [MHz]	READING		C.FACTOR		RESULT		LIMIT		MARGIN		PHASE
		QP	AV	QP	AV	QP	AV	QP	AV	QP	AV	
		[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.18300	42.1	---	10.0	52.1	---	64.3	---	12.2	---	H(QP)	
2	0.23800	38.4	---	9.9	48.3	---	62.2	---	13.9	---	H(QP)	
3	0.29000	35.2	---	9.9	45.1	---	60.5	---	15.4	---	H(QP)	
4	2.36000	26.6	---	10.1	36.7	---	56.0	---	19.3	---	H(QP)	
5	8.50500	25.5	---	10.2	35.7	---	60.0	---	24.3	---	H(QP)	
6	16.57000	27.8	---	10.3	38.1	---	60.0	---	21.9	---	H(QP)	
7	0.18300	---	31.5	10.0	---	41.5	---	54.3	---	12.8	H(CAV)	
8	0.23800	---	27.5	9.9	---	37.4	---	52.2	---	14.8	H(CAV)	
9	0.29000	---	20.9	9.9	---	30.8	---	50.5	---	19.7	H(CAV)	
10	2.36000	---	19.6	10.1	---	29.7	---	46.0	---	16.3	H(CAV)	
11	8.50500	---	19.2	10.2	---	29.4	---	50.0	---	20.6	H(CAV)	
12	16.57000	---	19.9	10.3	---	30.2	---	50.0	---	19.8	H(CAV)	

- Tested Line : NEUTRAL LINE



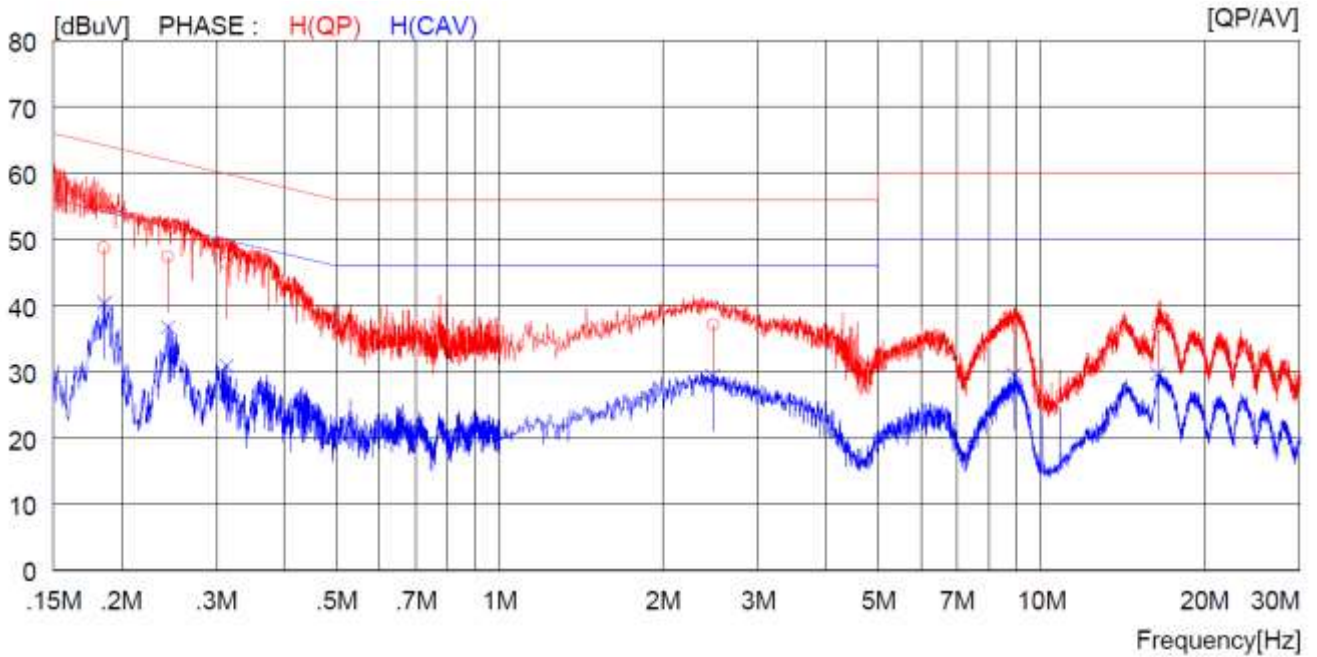
NO	FREQ [MHz]	READING		C.FACTOR		RESULT		LIMIT		MARGIN		PHASE
		QP	AV	QP	AV	QP	AV	QP	AV	QP	AV	
		[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.19100	39.8	---	10.0	49.8	---	64.0	---	14.2	---	N(QP)	
2	0.23000	38.5	---	9.9	48.4	---	62.4	---	14.0	---	N(QP)	
3	0.54700	24.3	---	10.0	34.3	---	56.0	---	21.7	---	N(QP)	
4	1.82800	23.5	---	10.1	33.6	---	56.0	---	22.4	---	N(QP)	
5	9.38500	20.9	---	10.2	31.1	---	60.0	---	28.9	---	N(QP)	
6	23.21000	16.6	---	10.5	27.1	---	60.0	---	32.9	---	N(QP)	
7	0.19100	---	23.0	10.0	---	33.0	---	54.0	---	21.0	N(CAV)	
8	0.23000	---	21.6	9.9	---	31.5	---	52.4	---	20.9	N(CAV)	
9	0.54700	---	17.0	10.0	---	27.0	---	46.0	---	19.0	N(CAV)	
10	1.82800	---	16.1	10.1	---	26.2	---	46.0	---	19.8	N(CAV)	
11	9.38500	---	15.6	10.2	---	25.8	---	50.0	---	24.2	N(CAV)	
12	23.21000	---	12.0	10.5	---	22.5	---	50.0	---	27.5	N(CAV)	

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

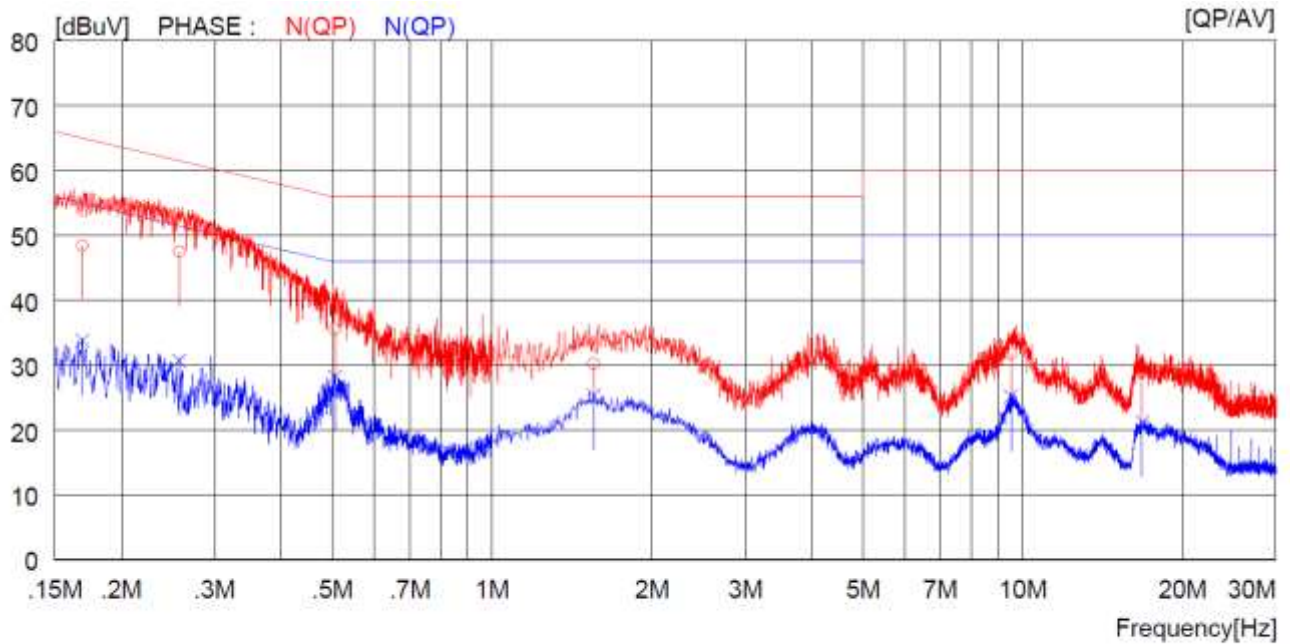
**12.5 Test data for Intermodulation Mode(Bluetooth LE + WLAN 2.4 GHz + WLAN 5 GHz)**

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



NO	FREQ [MHz]	READING		C.FACTOR		RESULT		LIMIT		MARGIN		PHASE
		QP	AV	QP	AV	QP	AV	QP	AV	QP	AV	
		[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.18600	38.7	---	10.0	48.7	---	64.2	---	15.5	---	H(QP)	
2	0.24400	37.5	---	9.9	47.4	---	62.0	---	14.6	---	H(QP)	
3	0.31300	36.5	---	9.9	46.4	---	59.9	---	13.5	---	H(QP)	
4	2.47600	27.0	---	10.1	37.1	---	56.0	---	18.9	---	H(QP)	
5	8.90500	27.8	---	10.2	38.0	---	60.0	---	22.0	---	H(QP)	
6	16.40000	26.6	---	10.3	36.9	---	60.0	---	23.1	---	H(QP)	
7	0.18600	---	30.4	10.0	---	40.4	---	54.2	---	13.8	H(CAV)	
8	0.24400	---	26.8	9.9	---	36.7	---	52.0	---	15.3	H(CAV)	
9	0.31300	---	21.0	9.9	---	30.9	---	49.9	---	19.0	H(CAV)	
10	2.47600	---	19.3	10.1	---	29.4	---	46.0	---	16.6	H(CAV)	
11	8.90500	---	19.4	10.2	---	29.6	---	50.0	---	20.4	H(CAV)	
12	16.40000	---	19.4	10.3	---	29.7	---	50.0	---	20.3	H(CAV)	

-. Tested Line : NEUTRAL LINE



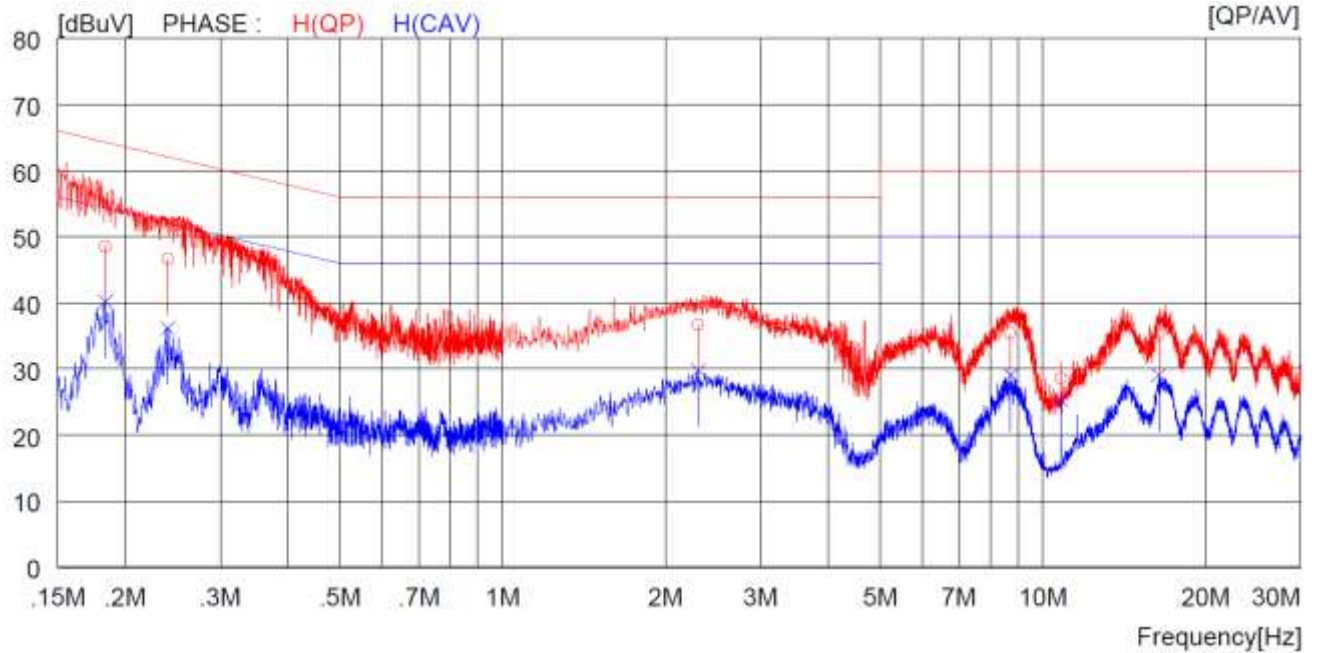
NO	FREQ	READING		C.FACTOR		RESULT		LIMIT		MARGIN		PHASE
		QP	AV	QP	AV	QP	AV	QP	AV	QP	AV	
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.16900	38.4	---	10.0	48.4	---	65.0	---	16.6	---	N(QP)	
2	0.25700	37.6	---	9.9	47.5	---	61.5	---	14.0	---	N(QP)	
3	0.50600	25.5	---	10.0	35.5	---	56.0	---	20.5	---	N(QP)	
4	1.55600	20.1	---	10.1	30.2	---	56.0	---	25.8	---	N(QP)	
5	9.50500	21.5	---	10.2	31.7	---	60.0	---	28.3	---	N(QP)	
6	16.80000	18.6	---	10.3	28.9	---	60.0	---	31.1	---	N(QP)	
7	0.16900	---	23.8	10.0	---	33.8	---	55.0	---	21.2	N(CAV)	
8	0.25700	---	20.8	9.9	---	30.7	---	51.5	---	20.8	N(CAV)	
9	0.50600	---	18.3	10.0	---	28.3	---	46.0	---	17.7	N(CAV)	
10	1.55600	---	15.2	10.1	---	25.3	---	46.0	---	20.7	N(CAV)	
11	9.50500	---	15.0	10.2	---	25.2	---	50.0	---	24.8	N(CAV)	
12	16.80000	---	11.0	10.3	---	21.3	---	50.0	---	28.7	N(CAV)	

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

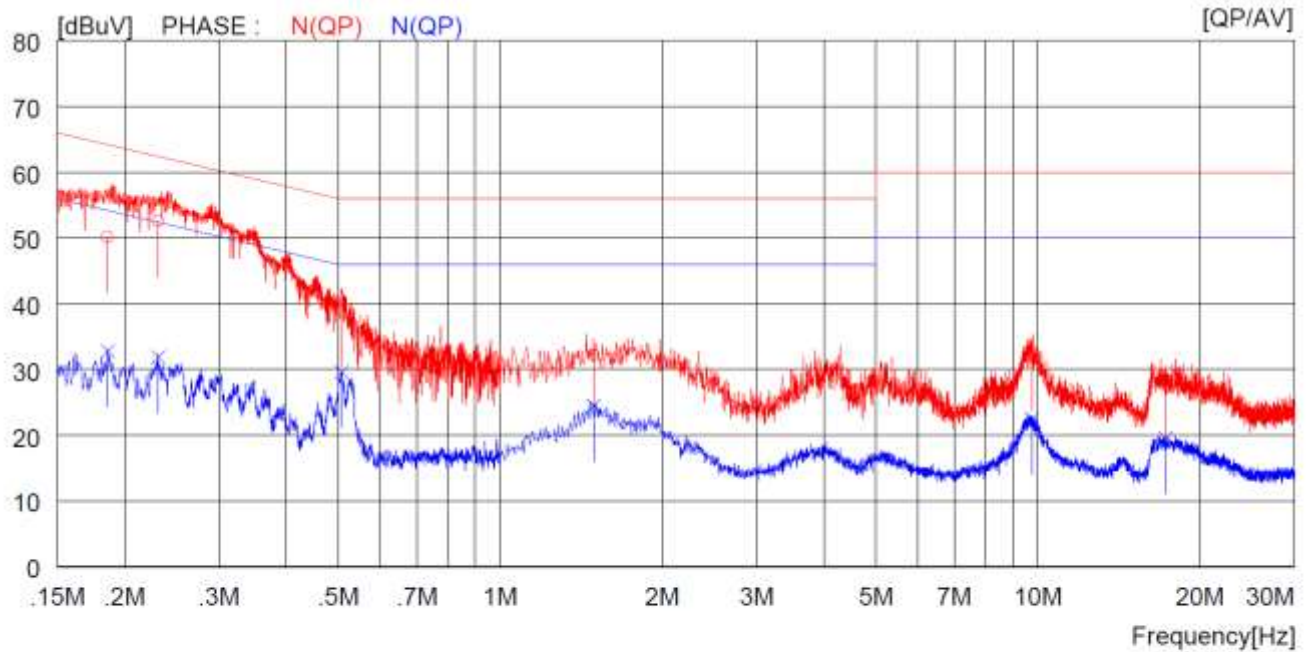
**12.6 Test data for Intermodulation Mode(Bluetooth + WLAN 2.4 GHz + WLAN 5 GHz)**

- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



NO	FREQ		READING		C.FACTOR	RESULT		LIMIT	MARGIN		PHASE
	QP	AV	QP	AV		QP	AV		QP	AV	
	[MHz]	[dBuV]	[dBuV]	[dB]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.18400	38.5	---	10.0		48.5	---	64.3	---	15.8	H(QP)
2	0.24000	36.7	---	9.9		46.6	---	62.1	---	15.5	H(QP)
3	2.30400	26.6	---	10.1		36.7	---	56.0	---	19.3	H(QP)
4	8.71000	25.2	---	10.2		35.4	---	60.0	---	24.6	H(QP)
5	10.82000	18.4	---	10.2		28.6	---	60.0	---	31.4	H(QP)
6	16.40000	24.8	---	10.3		35.1	---	60.0	---	24.9	H(QP)
7	0.18400	---	30.1	10.0		---	40.1	---	54.3	---	H(CAV)
8	0.24000	---	26.2	9.9		---	36.1	---	52.1	---	H(CAV)
9	2.30400	---	19.7	10.1		---	29.8	---	46.0	---	H(CAV)
10	8.71000	---	18.8	10.2		---	29.0	---	50.0	---	H(CAV)
11	10.82000	---	15.1	10.2		---	25.3	---	50.0	---	H(CAV)
12	16.40000	---	18.7	10.3		---	29.0	---	50.0	---	H(CAV)

- Tested Line : NEUTRAL LINE



NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.18600	40.1	----	10.0	50.1	----	64.2	----	14.1	----	N (QP)
2	0.23100	42.6	----	9.9	52.5	----	62.4	----	9.9	----	N (QP)
3	0.50700	28.8	----	10.0	38.8	----	56.0	----	17.2	----	N (QP)
4	1.49200	22.0	----	10.1	32.1	----	56.0	----	23.9	----	N (QP)
5	9.75500	21.9	----	10.2	32.1	----	60.0	----	27.9	----	N (QP)
6	17.32000	17.3	----	10.3	27.6	----	60.0	----	32.4	----	N (QP)
7	0.18600	----	22.8	10.0	----	32.8	----	54.2	----	21.4	N (CAV)
8	0.23100	----	22.0	9.9	----	31.9	----	52.4	----	20.5	N (CAV)
9	0.50700	----	19.6	10.0	----	29.6	----	46.0	----	16.4	N (CAV)
10	1.49200	----	14.4	10.1	----	24.5	----	46.0	----	21.5	N (CAV)
11	9.75500	----	12.3	10.2	----	22.5	----	50.0	----	27.5	N (CAV)
12	17.32000	----	9.3	10.3	----	19.6	----	50.0	----	30.4	N (CAV)

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.



### 13. LIST OF TEST EQUIPMENT

Model Number	Manufacturer	Description	Serial Number	Last Cal.(Interval)
FSV40-N	Rohde & Schwarz	Signal Analyzer	102177	Apr. 20, 2020 (1Y)
NRP-Z81	Rohde & Schwarz	Wide band Sensor	101975	Feb. 19, 2020 (1Y)
ESW	Rohde & Schwarz	EMI Test Receiver	101851	Mar. 27, 2020 (1Y)
310N	Sonoma Instrument	Pre-Amplifier	312544	Mar. 16, 2020 (1Y)
BBV 9718 B	Schwarzbeck	Broadband Preamplifier	00009	Mar. 16, 2020 (1Y)
SCU40A	Rohde & Schwarz	Signal Conditioning unit	100436	Feb. 20, 2020 (1Y)
SCU18	Rohde & Schwarz	Signal Conditioning unit	102266	Jul. 15, 2020 (1Y)
DT3000-3t	Innco System	Turn Table	DT3000/093	N/A
MA-4000XPET	Innco System	Antenna Master	MA4000/509	N/A
VULB9163	Schwarzbeck	TRILOG Broadband Antenna	777	Apr. 08, 2020 (2Y)
BBHA 9120D	Schwarzbeck	Horn Antenna	9120D-1366	Jul. 23, 2020 (1Y)
BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Jan. 07, 2020(1Y)
ESCI	Rohde & Schwarz	Test Receiver	101012	Oct. 22, 2019 (1Y)
NSLK8126	Schwarzbeck	AMN	8126-404	Mar. 16, 2020 (1Y)
3825/2	EMCO	AMN	9109-1869	Mar. 16, 2020 (1Y)