MOTOROLA SOLUTIONS

CERTIFICATE 2518.08

MS ISO/IEC 17025
TESTING
SAMM NO. 0825

MOTOROLA PENANG ADV. COMM. LABORATORY

Motorola Solutions Malaysia Sdn. Bhd.
Plot 2A Medan Bayan Lepas,
Mukim 12, S.W.D. 11900 Bayan Lepas,
Penang, Malaysia.

FCC / ISED TEST REPORT

Report Revision : Rev.C

Date/s Tested	:	02-Aug-2022 - 24-Aug-2022
Report Issue Date	:	24-Aug-2022
Manufacturer/Location	:	Motorola Solutions Malaysia Sdn Bhd Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900, Bayan Lepas, Penang, Malaysia
Requestor	:	CADOGAN SEAN
Product Type	:	Hand-held
Product Version (PMN)	:	APX N70
Model Number (HVIN)	:	H35UCT9PW8AN
Frequency Band	:	2.412-2.462 GHz
Max RF Output Power	:	802.11b - 199.53 mWatts 802.11g - 199.53 mWatts 802.11n(HT20) - 199.53 mWatts 802.11n(HT40) - 316.23 mWatts
Applicant Name	:	Motorola Solutions Inc
Applicant Address		8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322
FCC Registrations	:	461337
ISED Registrations	:	MY0001
Firmware Version (FVIN)	:	D00.00.45

The equipment was tested accordance to the requirement listed below:

(2.4GHz Wifi) **47CFR Part 15C** **ISED RSS 247 Issue 2**	**PASS**

Prepared By:

GAN BOON TEONG
Test Personnel

Approved Signatory:

VINCENT FOONG CHUEN KIT
Responsible Engineer

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REVISION HISTORY

Revision History	Description	Date	Originator
Rev. A	Initial Report	**24-Aug-2022**	**Gan Boon Teong**
Rev. B	Updated summary table power detector	**20-Sep-2022**	**Vincent Foong**
Rev. C	Updated emission limits	**11-Oct-2022**	**Vincent Foong**

1.0. General Information

EUT Description:

Technologies	2.4GHz Wi-Fi
TX Frequency range	2412MHz – 2462MHz
Modulation Type	DSSS, OFDM
Connector type	PROGRAMMING, TEST & ALIGNMENT CABLE
Antenna type	Stamped Metal

1.1. Channel number and frequency information:

There are two bandwidth systems.
For 20MHz Bandwidth systems (802.11b, 802.11g, 802.11n), use channel 1 ~ channel 11
For 40MHz Bandwidth systems (802.11n), use channel 3 ~ channel 9

Channel	Frequency	Channel	Frequency
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

The EUT contains following accessory devices and data cable:

Item	Brand	Model or P/N
Hi Cap 4400mAH (using RN 2170 Li-Ion cell) Non-UL battery	MOTOROLA	PMNN4817A
GCAI-mini Programming & Test Cable	MOTOROLA	PMKN4231A
7800 Whip 762-870MHz	MOTOROLA	AN000411A01
CHARGER DESKTOP MULTI UNIT IMPRES 2 6 DISPLAYS INT PS US	MOTOROLA	PMPN4591A

General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, the EUT is to comply with the requirements of the following standards:

FCC 47 CFR Part 15 Subpart C
KDB 558074 D01 15.247 Meas Guidance v05
ANSI C63.10-2013

Deviation from standard

Not applicable as no deviation from standard test method

Modifications to EUT

For RF conducted measurements a pigtail was soldered out of the board while for radiated measurements there were no modifications to the device

2.0. Summary of Test Results

FCC Clause	IC Clause	Test Item	Result	Remark	Serial number tested	Tested by
15.247 (a)(2)	RSS-247 5.2(a)	DTS & 99% Channel Bandwidth	Pass	Highest 99% OCB: 802.11b: 13.762 MHz(13M8G1D) 802.11g: 16.678 MHz(16M7D1D) 802.11n(HT20): 17.886 MHz(17M9D1D) 802.11n(HT40): 36.264 MHz(36M3D1D)	022TYP0086	Gan
15.247 (b)(3)	RSS-247 5.4(d)	Conducted RF Output Power (Peak)	Pass	Highest output power: 802.11b: 21.96 dBm (157.04 mW) 802.11g: 22.06 dBm (160.69 mW) 802.11n(HT20): 22.04 dBm (159.96 mW) 802.11n(HT40): 23.98 dBm (250.03 mW)	022TYP0086	Gan
15.247(e)	RSS-247 5.2(b)	Maximum Power Spectral Density	Pass	Meet the limit requirement.	022TYP0086	Gan
15.247(d)	RSS-247 5.5	Conducted Spurious Emissions	Pass	Worst case emission: -42.62 dBm	022TYP0086	Gan
15.247 (d)	RSS-247 5.5	Band edge Conducted Spurious Emission	Pass	Worst case emission: -25.97 dBm	022TYP0086	Gan
15.205, 15.209, 15.247 (d)	RSS-247 5.5	Radiated Emission within Restricted Bands	Pass	Worst case emission: RBE: 47.7229 dBuV/m (margin: 6.2771 dB) RSE: 50.4483dBuV/m (margin: 3.5517 dB), noise floor	022TYP0004	Qawiman&Nazrin
15.207	RSS-Gen 8.8	AC Power Line Conducted Emission	NA	Meet the limit requirement	022TYP0018 022TYP0004	Azil
15.203		Antenna requirement	NA	Internal antenna is not accessible to the enduser	NA	NA

NA → Not Available

3.0. Measurement Uncertainty

Measurement	Frequency	Expended Uncertainty (k=1.96) (±dB)
AC Power Line Conducted Spurious Emission	150KHz ~ 30MHz	3.48
Radiated Emissions up to 1 GHz	30MHz ~ 1000MHz	5.88
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.84
	18GHz ~ 40GHz	6.02
Conducted Spurious Emissions	9kHz ~ 12.75GHz	2.82

4.0. Equipment List

Bluetooth ATE # 1 (SW Version: Ate Main_3.1.11)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
SPECTRUM ANALYZER	E440A	MY48250919	30-Sep-21	30-Sep-22
CHAMBER	SH-641	92003820	8-Jul-22	8-Jul-23
POWER SUPPLY	6652A	MY40001436	22-Nov-21	22-Nov-22
PULSE POWER METER	ML2495A	1845014	3-May-22	3-May-23
PULSE SENSOR	MA2411B	1726287	3-May-22	3-May-23
N to N RF Cable # 1	SF126/11N/11N	NA	NA	NA

Radiated Emission Station (SW Version: EMC FCC RE v1.6.4)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
DRG HORN FREQ.	SAS-571	720	06-Apr-21	06-Apr-23
DRG HORN FREQ.	SAS-571	719	13-Sep-21	13-Sep-22
Advanced Power System - Dynamic DC Power Supply, 120V, 16.7A, 2000W	N7976A	MY53410110	30-Jun-22	30-Jun-23
SIGNAL GENERATOR	SMB 100A	182511	4-Jun-21	4-Jun-24
EMI TEST RECEIVER	ESW44	101731	5-Nov-21	5-Nov-22
5m SEMI-ANECHOIC CHAMBER	S800-HX	J2308	Not Required	Not Required
BILOG ANTENNA	CBL6112B	2863	22-Jun-22	22-Jun-23
BILOG ANTENNA	CBL6112D	30991	05-Oct-21	05-Oct-22
DATA LOGGER THERMOHYGROMETER	SDL500	A.016800	13-Jun-21	13-Jun-23
SYSTEM CONTROLLER	SC104V	050806-1	Not Required	Not Required
TURNTABLE FLUSH MOUNT 2M	FM2011	NA	Not Required	Not Required
ANTENNA POSITIONING TOWER	TLT2	NA	Not Required	Not Required
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170255	18-Feb-22	18-Feb-23
PREAMPLIFIER 18-40GHz	BBV9721	9721-007	Not Required	Not Required

PREAMPLIFIER	PAM-0118P	361	11-Sep-20	11-Sep-23
LOOP ANTENNA	6502	00208416	8-Oct-21	8-Oct-22

AC Powerline Station (SW Version: EMC32 Ver. 10.60.10)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETHERNET TEMPERATURE & HUMIDITY SENSOR TRANSMITTER	iTHX-SD	M21280391	20-Nov-21	20-Nov-22
V-NETWORK 2-LINE	ENV216	101135	5-Oct-21	5-Oct-22
EMI TEST RECEIVER	ESCI	10025	5-Feb-21	5-Nov-22
POWER SUPPLY	61604	616040003502	07-Dec-21	07-Dec-22

5.0. Test Mode Applicability and Test Channel Detail

The device employs MIMO technology. Below are the possible configurations.

WLAN Configurations		Mode					
		SISO		Spatial Diversity Multiplexing (MIMO)		Cyclic Delay Diversity (MIMO)	
	Antenna	Primary	Secondary	Primary	Secondary	Primary	Secondary
2.4GHz	802.11b	√	x	x	x	x	x
	802.11g	√	x	x	x	x	x
	802.11n (HT20)	√	x	x	x	x	x
	802.11n (HT40)	√	x	x	x	x	x

√ = Support;
x = NOT Support

Note: This Device supports simultaneous transmission operation, which allows for two SISO or two MIMO channels to operate independent of one another in the 2.4GHz band on each antenna. 802.11n mode is capable of transmitting simultaneously on two antennas using Cyclic Delay Diversity and Spatial Diversity Multiplexing (2x2 MIMO).
The following tables show the worst case configurations determined during testing. The data for these configurations is contained in this test report.

Radiated Emission Test (Above 1GHz)

☒Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Modulation	Available Channel	Tested Channel	Modulation Technology	Data Modulation Type	Date Rate (Mbps)	Mode	Environmental Conditions
Test Mode	802.11b	1 to 11	1,6,11	DSSS	QPSK	2	SISO	23.5°C, 69.9%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	23.5°C, 69.9%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO	23.5°C, 69.9%RH
Test Mode	802.11n (HT40)	3 to 9	3,6,9	OFDM	BPSK	13.5	SISO	NA

Radiated Emission Test (Below 1GHz)

☒Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Modulation	Available Channel	Tested Channel	Modulation Technology	Data Modulation Type	Date Rate (Mbps)	Mode	Environmental Conditions
Test Mode	802.11b	1 to 11	1,6,11	DSSS	QPSK	2	SISO	23.5°C, 69.9%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	23.5°C, 69.9%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO	23.5°C, 69.9%RH
Test Mode	802.11n (HT40)	3 to 9	3,6,9	OFDM	BPSK	13.5	SISO	NA

Power Line Conducted Emission Test

☒Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Modulation	Available Channel	Tested Channel	Modulation Technology	Data Modulation Type	Date Rate (Mbps)	Environmental Conditions
Application Mode	802.11bgn mixed	1 to 11	AUTO	DSSS, OFDM	AUTO	AUTO	23°C, 69.3%RH

Antenna Port Conducted Measurement:

☒This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Modulation	Available Channel	Tested Channel	Modulation Technology	Data Modulation Type	Data Rate (Mbps)	Mode	Environmental Conditions
Test Mode	802.11b	1 to 11	1,6,11	DSSS	QPSK	2	SISO	25°C, 54.8%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	25°C, 54.8%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO	25°C, 54.8%RH
Test Mode	802.11n (HT40)	1 to 11	3,6,9	OFDM	BPSK	13.5	SISO	25°C, 54.8%RH

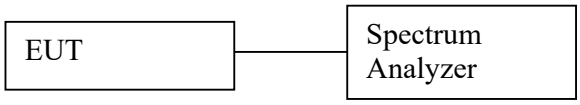
Duty Cycle of Test Signal

802.11b, 802.11g and 802.11n : Duty cycle of test signal is ≥98%. (Refer to Clause 6.3 for duty cycle test signal)

6.0. Transmitter Test Parameters

6.1. 6dB Channel Bandwidth

6.1.1. Test Setup



a) Check and ensure the spectrum analyzer well calibrate.
b) Turn on the DUT and set DUT to transmit maximum power.
c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
d) Setting of Spectrum analyzer :
    a. RBW = 100 kHz
    b. VBW = 300 kHz
    c. Detector mode = Peak
    d. Trace = Max hold
    e. Sweep = auto
e) Measure the freq different of two frequencies that were attenuated 6dB from peak of the emission & record the frequency difference as the emission bandwidth.
f) Measure every antenna port by repeat the step above for MIMO measurement.

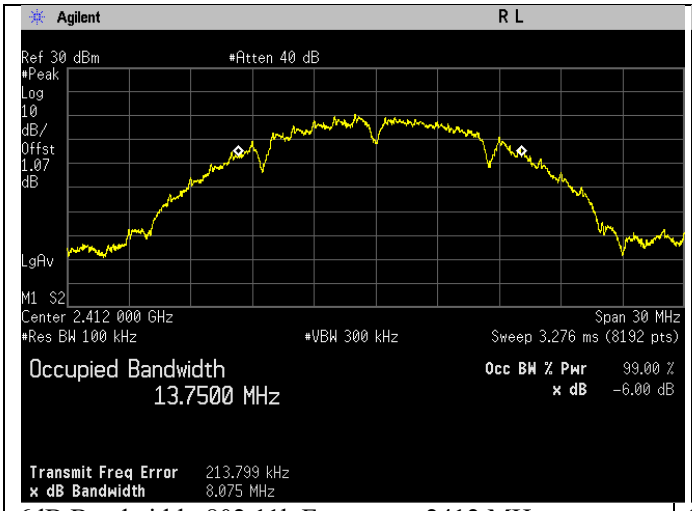
6.1.2. Test Limits:

Normal Condition (25 º C)
≥500 kHz

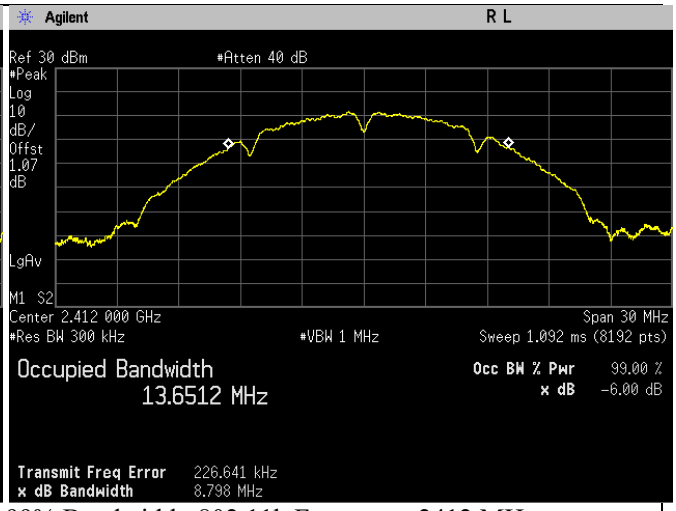
6.1.3. **Test Data:**

802.11 b

Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11b	DSSS	QPSK	2	2412	8.075	13.651	Pass
802.11b	DSSS	QPSK	2	2437	8.083	13.762	Pass
802.11b	DSSS	QPSK	2	2462	8.080	13.534	Pass



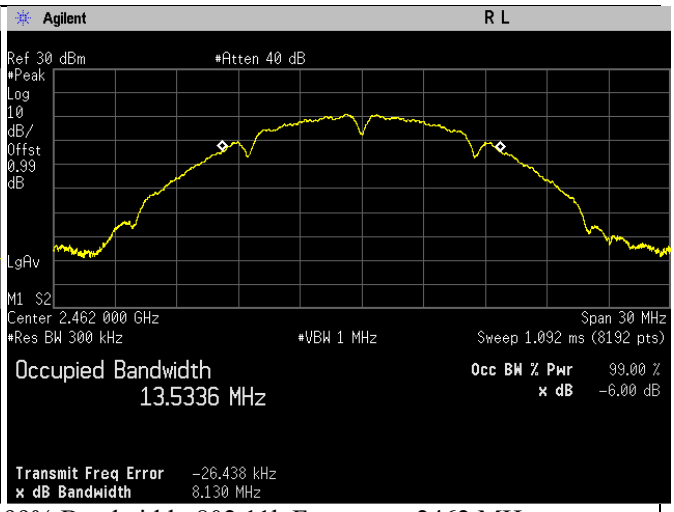
6dB Bandwidth. 802.11b Frequency 2412 MHz



99% Bandwidth. 802.11b Frequency 2412 MHz

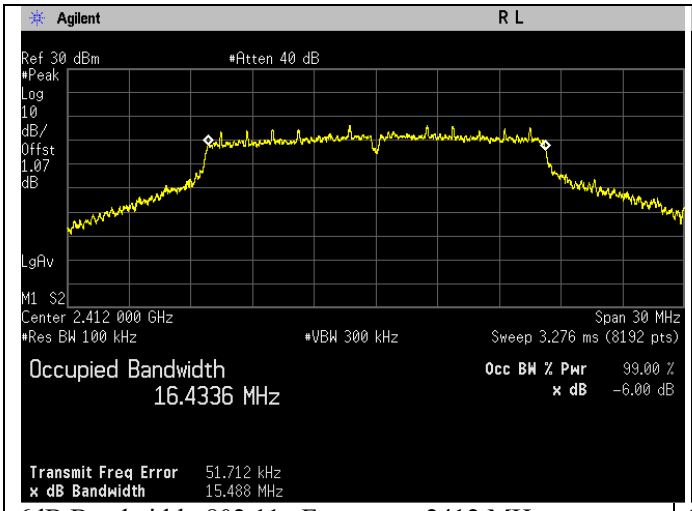
6dB Bandwidth. 802.11b Frequency 2437 MHz

99% Bandwidth. 802.11b Frequency 2437 MHz

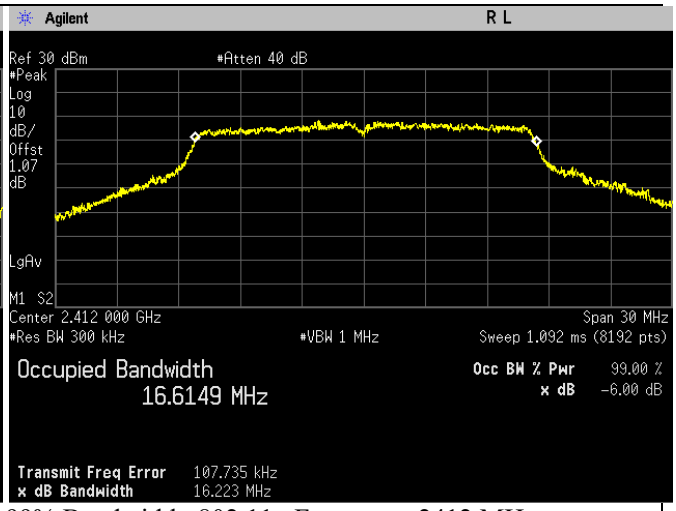
	
6dB Bandwidth. 802.11b Frequency 2462 MHz	99% Bandwidth. 802.11b Frequency 2462 MHz

802.11 g

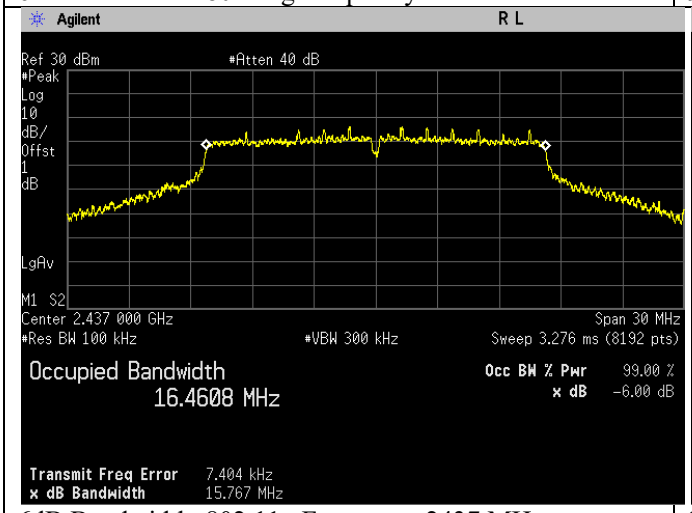
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11g	OFDM	BPSK	6	2412	15.488	16.615	Pass
802.11g	OFDM	BPSK	6	2437	15.767	16.678	Pass
802.11g	OFDM	BPSK	6	2462	15.151	16.565	Pass



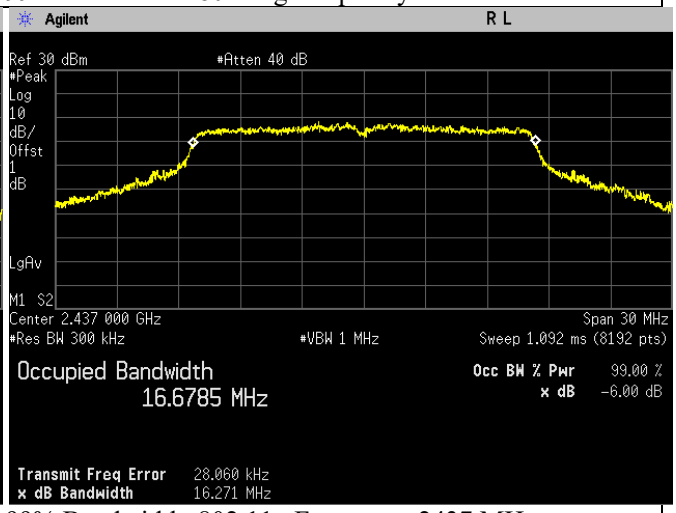
6dB Bandwidth. 802.11g Frequency 2412 MHz



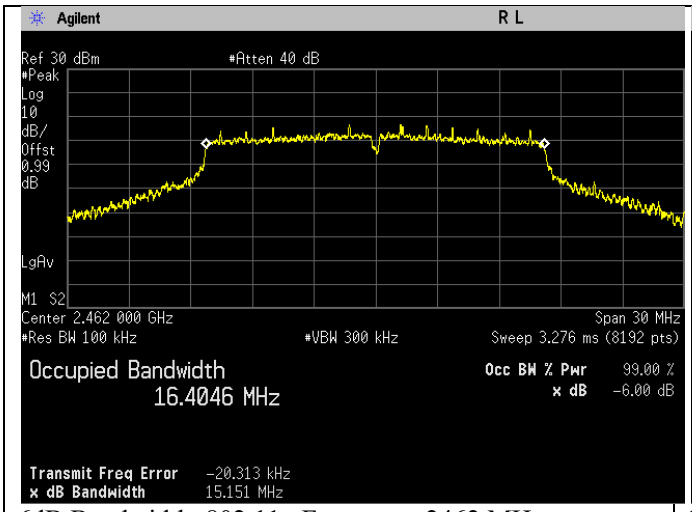
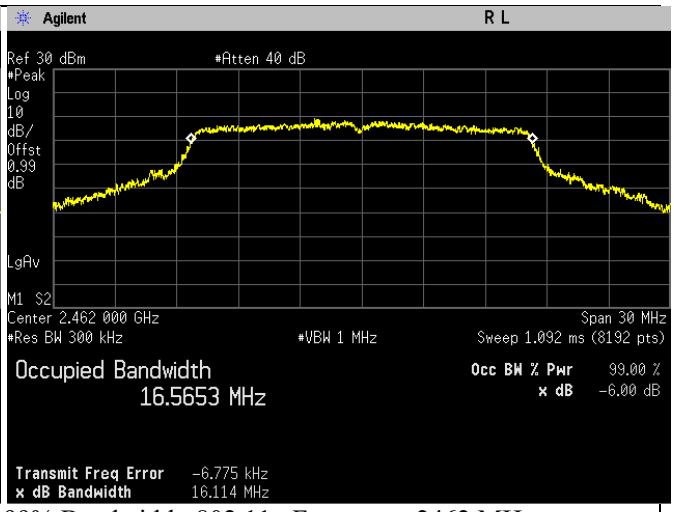
99% Bandwidth. 802.11g Frequency 2412 MHz



6dB Bandwidth. 802.11g Frequency 2437 MHz

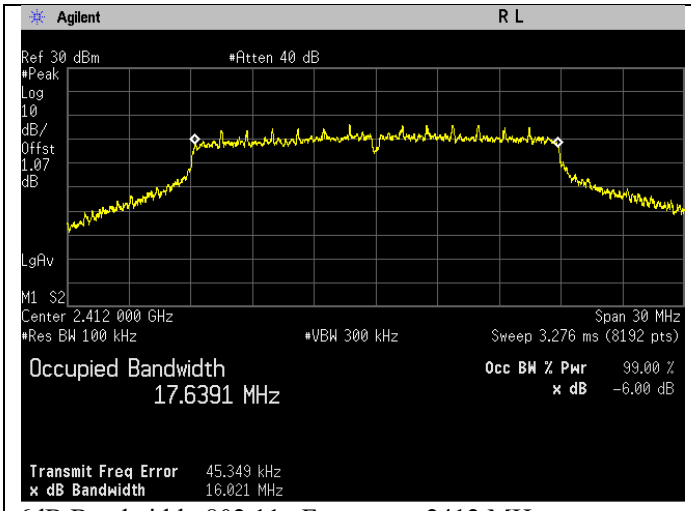


99% Bandwidth. 802.11g Frequency 2437 MHz

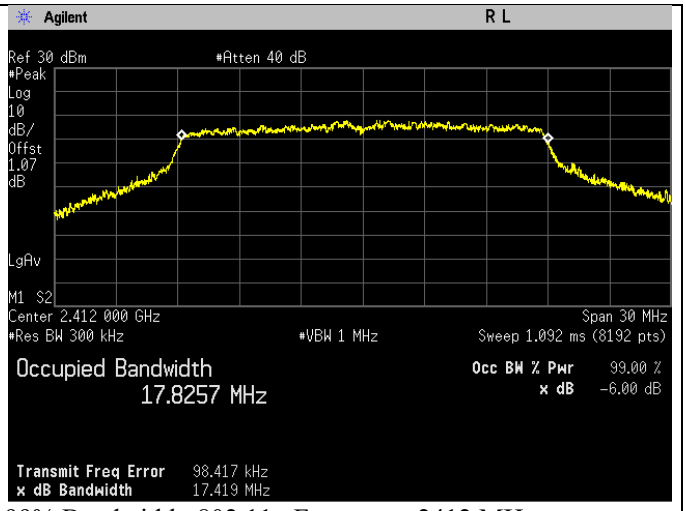
	
6dB Bandwidth. 802.11g Frequency 2462 MHz	99% Bandwidth. 802.11g Frequency 2462 MHz

802.11n (HT20)

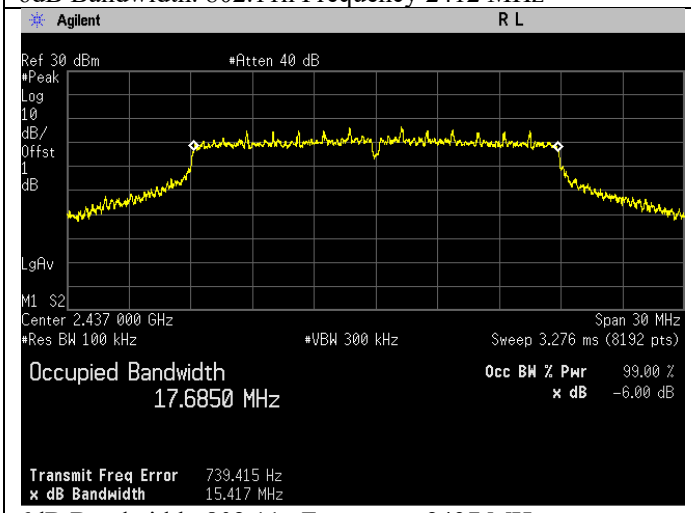
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11n	OFDM	BPSK	6.5	2412	16.021	17.826	Pass
802.11n	OFDM	BPSK	6.5	2437	15.417	17.886	Pass
802.11n	OFDM	BPSK	6.5	2462	15.079	17.730	Pass



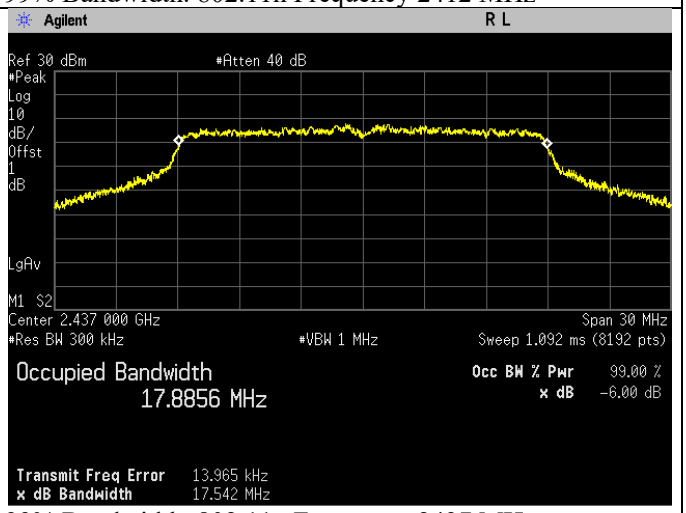
6dB Bandwidth. 802.11n Frequency 2412 MHz



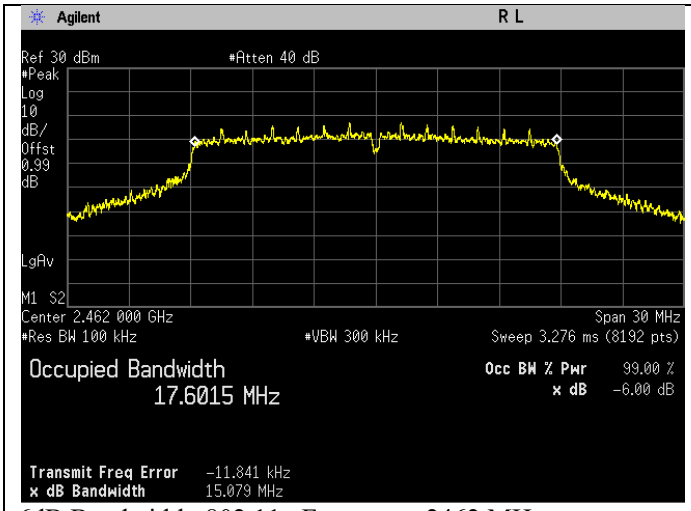
99% Bandwidth. 802.11n Frequency 2412 MHz



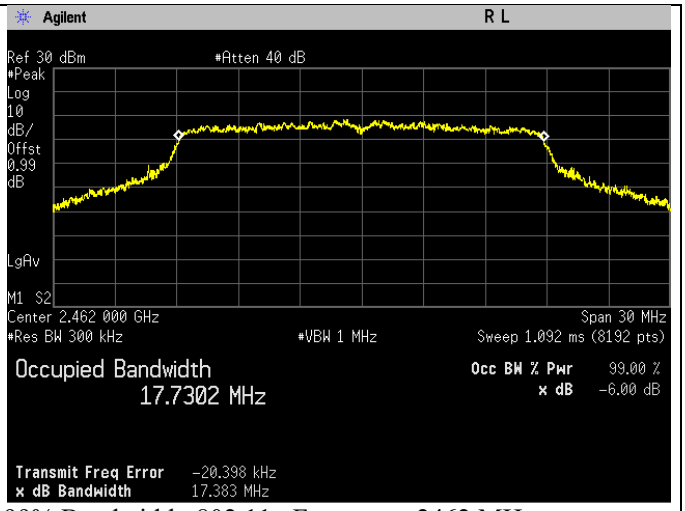
6dB Bandwidth. 802.11n Frequency 2437 MHz



99% Bandwidth. 802.11n Frequency 2437 MHz



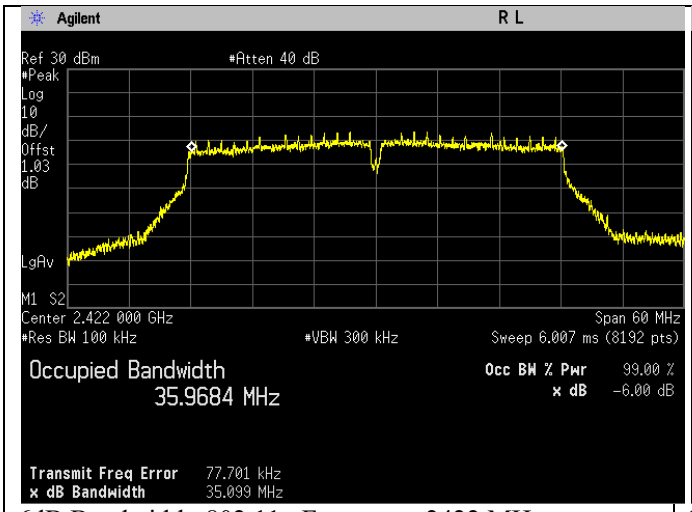
6dB Bandwidth. 802.11n Frequency 2462 MHz



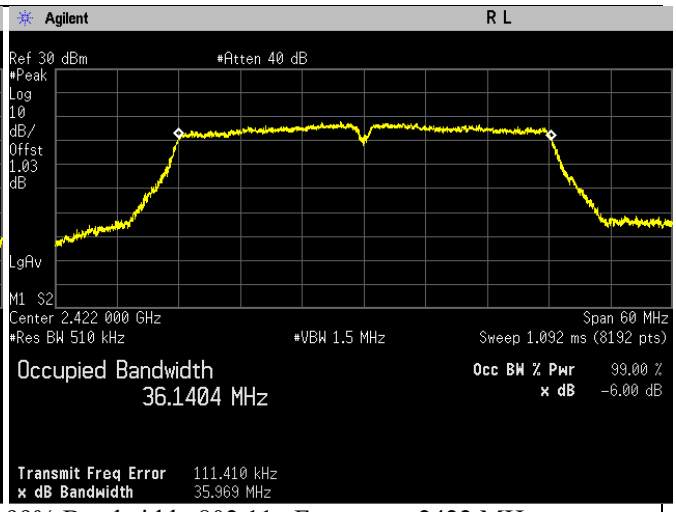
99% Bandwidth. 802.11n Frequency 2462 MHz

802.11n (HT40)

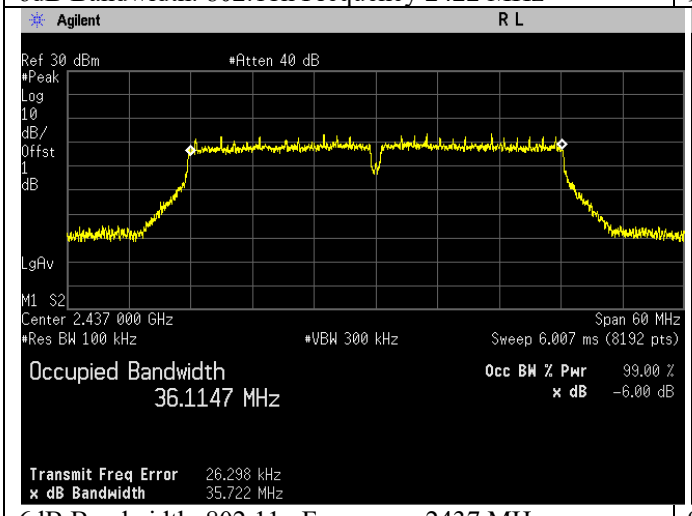
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11n	OFDM	BPSK	13.5	2422	35.099	36.140	Pass
802.11n	OFDM	BPSK	13.5	2437	35.722	36.264	Pass
802.11n	OFDM	BPSK	13.5	2452	35.131	36.137	Pass



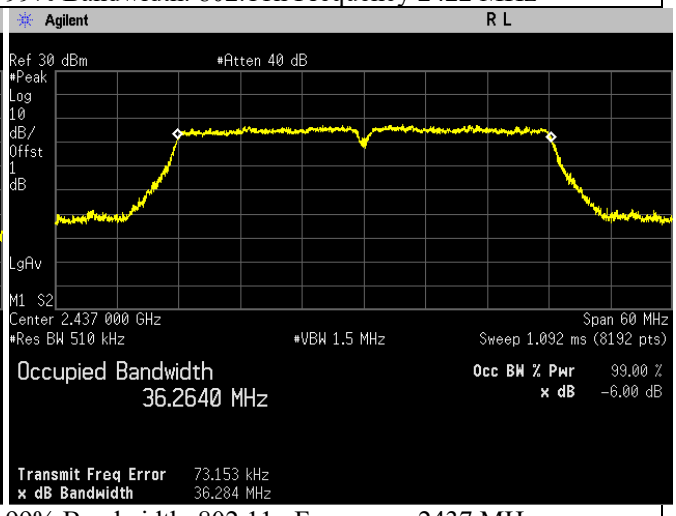
6dB Bandwidth. 802.11n Frequency 2422 MHz



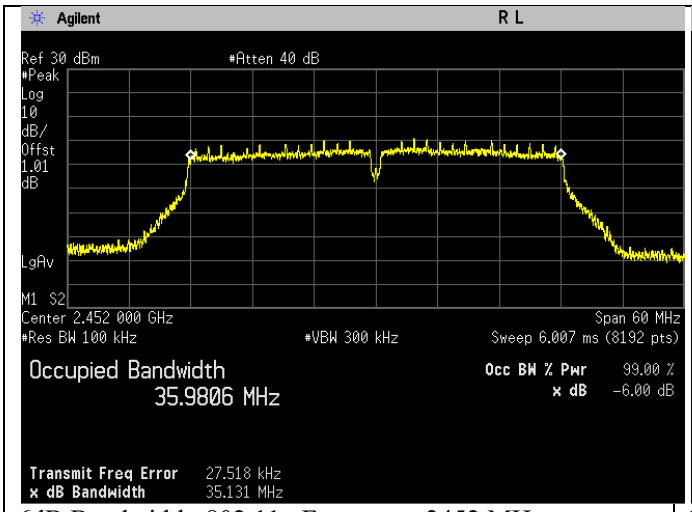
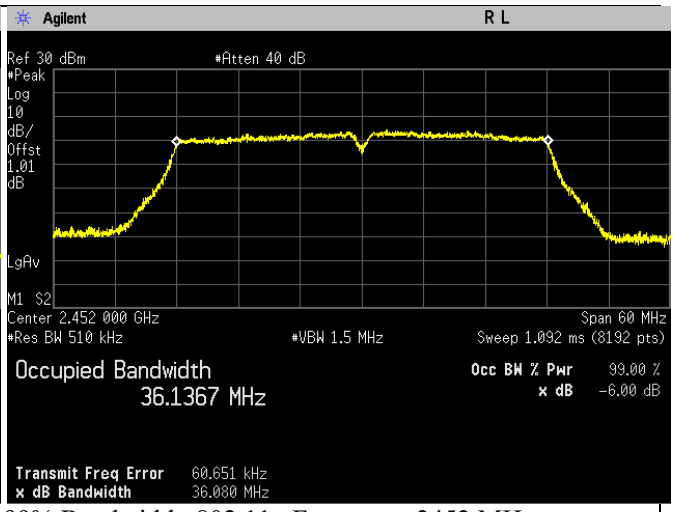
99% Bandwidth. 802.11n Frequency 2422 MHz



6dB Bandwidth. 802.11n Frequency 2437 MHz

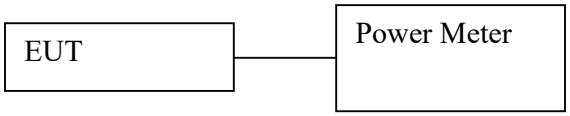


99% Bandwidth. 802.11n Frequency 2437 MHz

	
6dB Bandwidth. 802.11n Frequency 2452 MHz	99% Bandwidth. 802.11n Frequency 2452 MHz

6.2. Conducted RF Output Power

6.2.1. Test Setup



Peak

1. Set the following settings on the power meter:
   - Preset -> reset
   - Cal/Zero -> Zero & Cal
   - Preset -> 802.11g
   - Sensor -> Cal Factor -> Enter freq
   - Channel -> Trigger -> Trigger Source -> Internal, Rising Edge
   - Channel -> Trigger -> More -> Arming -> Automatic
   - Channel -> Averaging -> Averaging
   - Sensor -> offset -> fixed to couple for losses from ancillaries
   - Record peak/avg and crest data
2. Key up DUT
3. Restart averaging and read data once the numbers stabilize.
4. Record power by reading peak/avg and crest data
5. Repeat the steps in (1) (omit first 3 steps if done previously) by setting DUT to transmit at mid frequency and high frequency.

6.2.2. Test Limits:

Normal Condition (25 º C)
≤1 Watt(30 dBm)

6.2.3. **Test Data:**

802.11b

Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11b	DSSS	QPSK	2	2412	21.96	Pass
802.11b	DSSS	QPSK	2	2437	21.91	Pass
802.11b	DSSS	QPSK	2	2462	21.62	Pass

802.11g

Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11g	OFDM	BPSK	6	2412	21.49	Pass
802.11g	OFDM	BPSK	6	2437	21.53	Pass
802.11g	OFDM	BPSK	6	2462	22.06	Pass

802.11n (HT20)

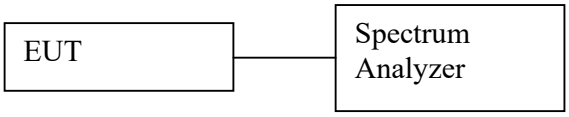
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11n20	OFDM	BPSK	6.5	2412	21.49	Pass
802.11n20	OFDM	BPSK	6.5	2437	21.52	Pass
802.11n20	OFDM	BPSK	6.5	2462	22.04	Pass

802.11n (HT40)

Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11n40	OFDM	BPSK	13.5	2422	23.53	Pass
802.11n40	OFDM	BPSK	13.5	2437	23.98	Pass
802.11n40	OFDM	BPSK	13.5	2452	20.22	Pass

6.3.Duty Cycle of the test signal

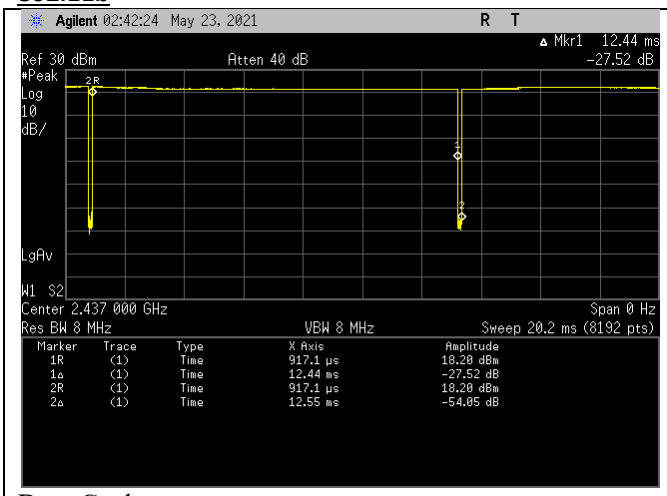
6.3.1. Test Setup



1) Check and ensure the spectrum analyzer well calibrate.
2) Turn on the DUT and set DUT to transmit maximum power.
3) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
4) Setting of Spectrum analyzer :
    a. Set the RBW = 10 MHz or the highest RBW available on spectrum analyzer.
    b. Set the VBW ≥ RBW.
    c. Set the span ≥ [1.5 × DTS bandwidth].
    d. Detector = Peak.
    e. Sweep time = 10ms or others that allow to measure accurate duty cycle.
    f. Trace mode = max hold.
    g. Allow trace to fully stabilize.
5) Record the duty cycle as X and save the plot.
6) Measure every antenna port by repeat the step above for MIMO measurement.

6.3.2. **Test Data**

802.11b

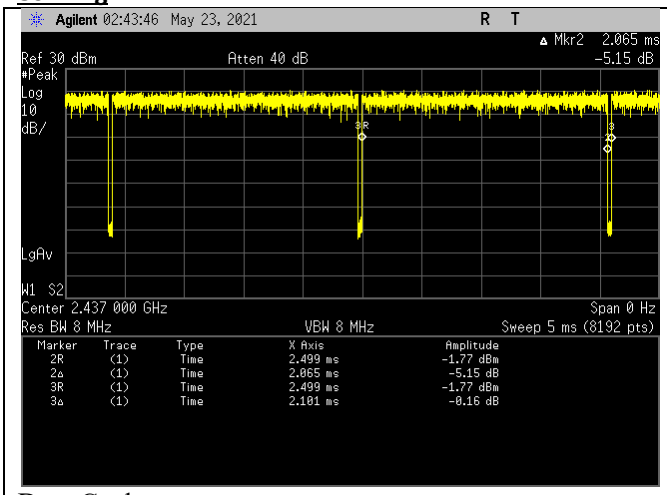


Duty Cycle

On time (ms)	12.44
On + Off Time (ms)	12.55
Duty cycle	0.9912
Duty Cycle factor	0.038

*Duty cycle = On time/ On +off time
*Duty Cycle factor = 10*log(1/Duty Cycle)

802.11g

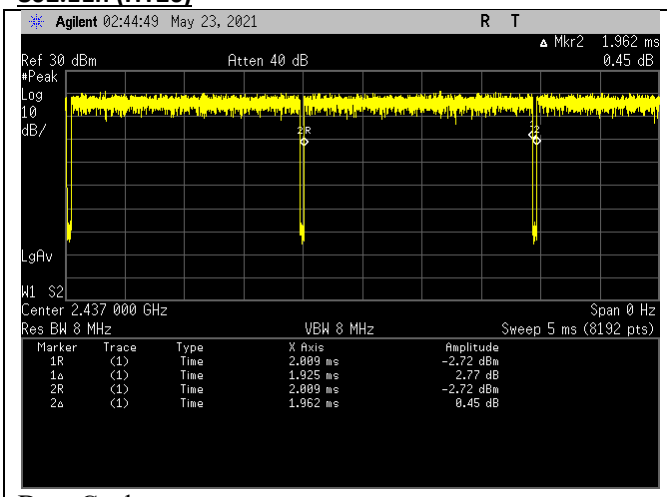


Duty Cycle

On time (ms)	2.065
On + Off Time (ms)	2.101
Duty cycle	0.9829
Duty Cycle factor	0.075

*Duty cycle = On time/ On +off time
*Duty Cycle factor = 10*log(1/Duty Cycle)

802.11n (HT20)

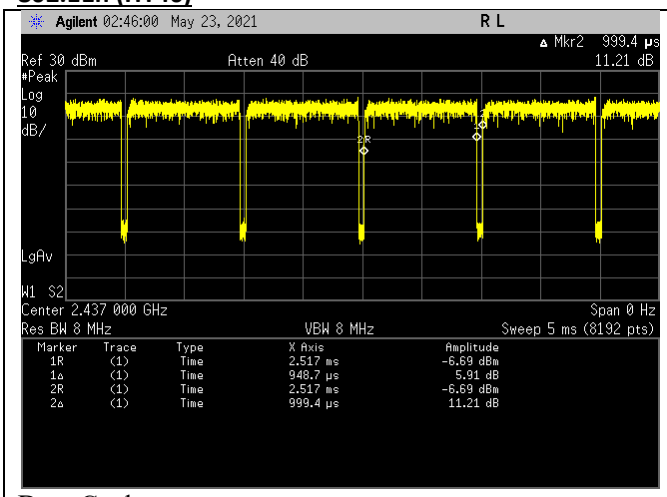


Duty Cycle

On time (ms)	1.925
On + Off Time (ms)	1.962
Duty cycle	0.9811
Duty Cycle factor	0.083

*Duty cycle = On time/ On +off time
*Duty Cycle factor = 10*log(1/Duty Cycle)

802.11n (HT40)



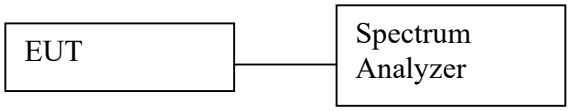
Duty Cycle

On time (ms)	0.9487
On + Off Time (ms)	0.9994
Duty cycle	0.9493
Duty Cycle factor	0.226

*Duty cycle = On time/ On +off time
*Duty Cycle factor = 10*log(1/Duty Cycle)

6.4. Maximum Peak Power Spectral Density

6.4.1. Test Setup



Maximum Peak

a) Check and ensure the spectrum analyzer well calibrate.
b) Turn on the DUT and set DUT to transmit maximum power.
c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
d) Setting of Spectrum analyzer :
    a. Set analyzer center frequency to DTS channel center frequency.
    b. Set the span to 1.5 times the DTS bandwidth.
    c. Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.
    d. Set the VBW ≥ [3 × RBW].
    e. Detector = peak.
    f. Sweep time = auto couple.
    g. Trace mode = max hold.
    h. Allow trace to fully stabilize.
    i. Use the peak marker function to determine the maximum amplitude level within the RBW.
    j. If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.
e) Measure every antenna port by repeat the step above for MIMO measurement.

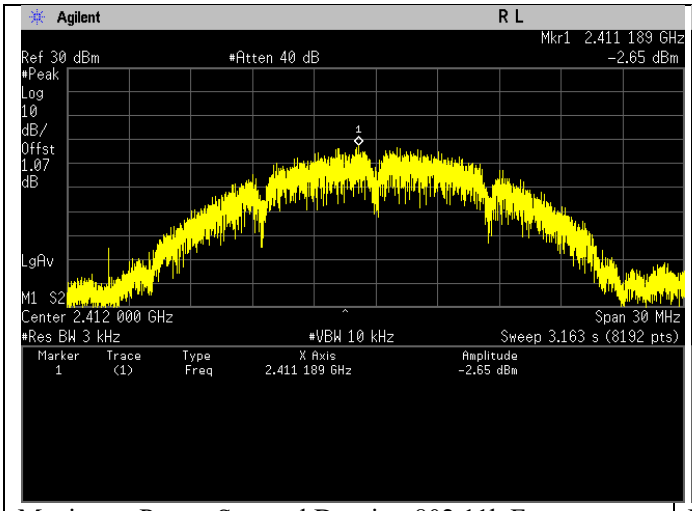
6.4.2. Test Limits

Normal Condition (25 º C)
≤ 8 dBm/3kHz

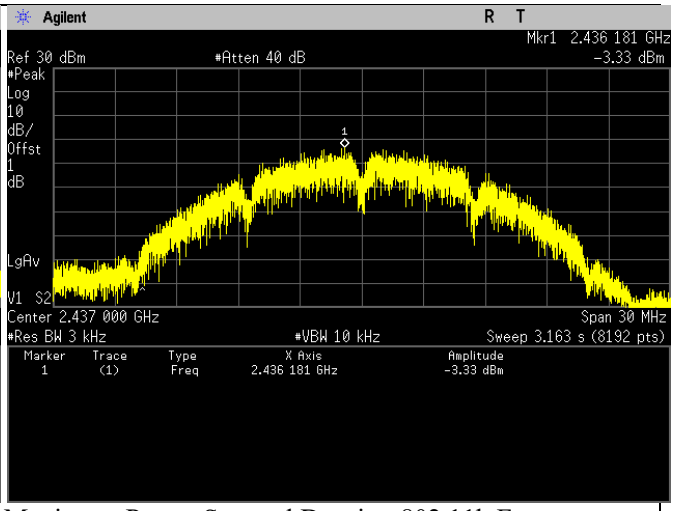
6.4.3. **Test Result**

802.11b

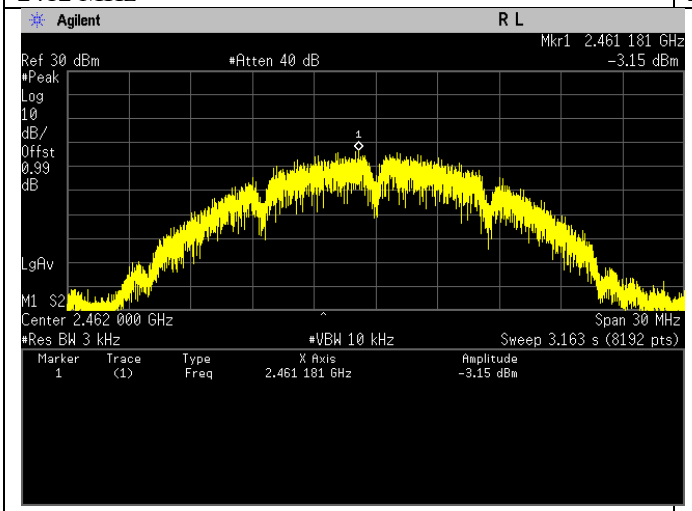
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Power (dBm/3kHz)	Status
802.11b	DSSS	QPSK	2	2412	-2.65	Pass
802.11b	DSSS	QPSK	2	2437	-3.33	Pass
802.11b	DSSS	QPSK	2	2462	-3.15	Pass



Maximum Power Spectral Density. 802.11b Frequency 2412 MHz



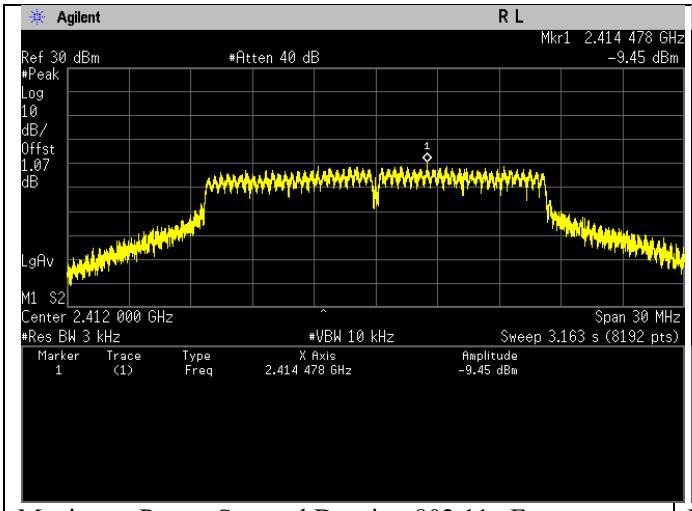
Maximum Power Spectral Density. 802.11b Frequency 2437 MHz



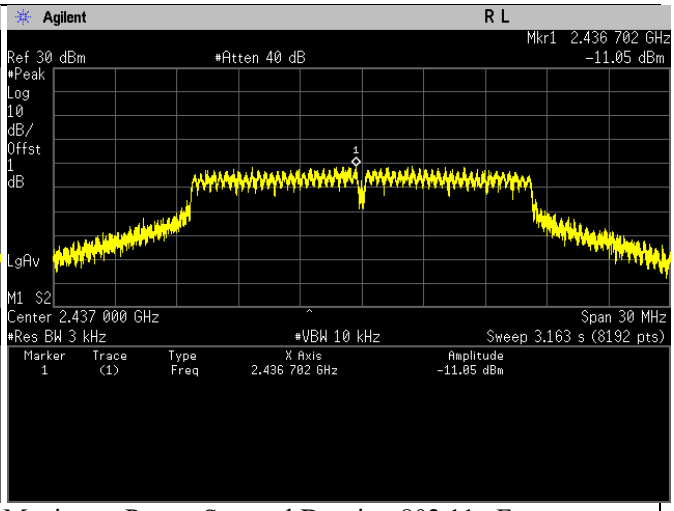
Maximum Power Spectral Density. 802.11b Frequency 2462 MHz

802.11g

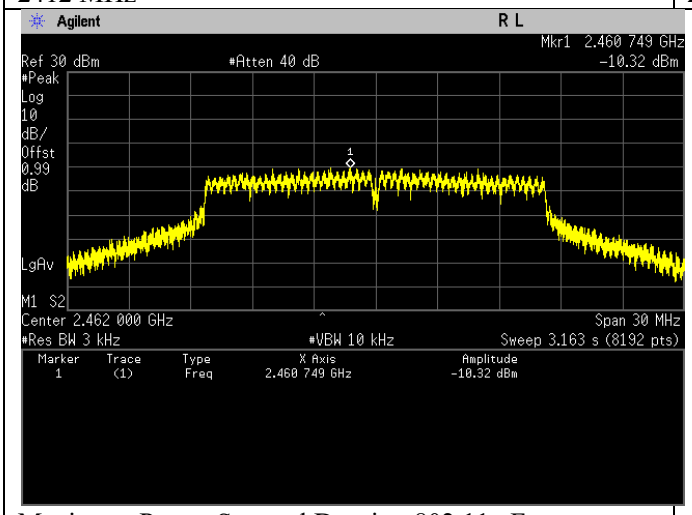
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Power (dBm/3kHz)	Status
802.11g	OFDM	BPSK	6	2412	-9.45	Pass
802.11g	OFDM	BPSK	6	2437	-11.05	Pass
802.11g	OFDM	BPSK	6	2462	-10.32	Pass



Maximum Power Spectral Density. 802.11g Frequency 2412 MHz



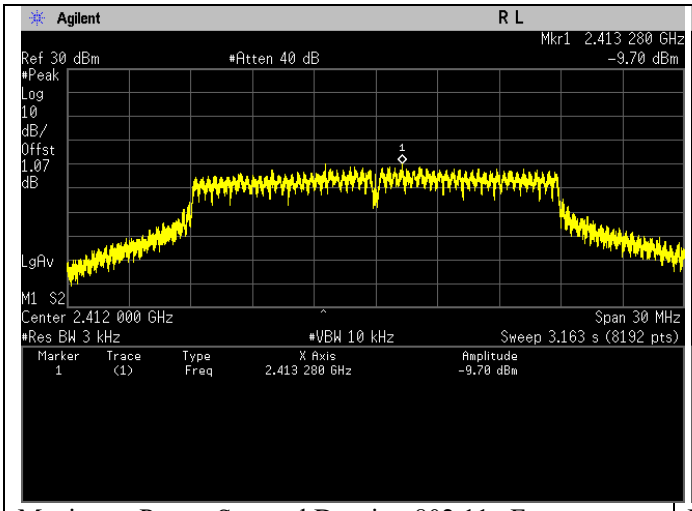
Maximum Power Spectral Density. 802.11g Frequency 2437 MHz



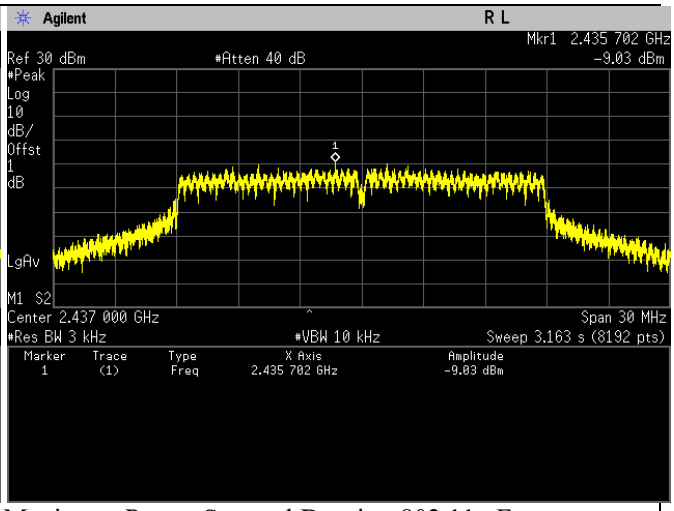
Maximum Power Spectral Density. 802.11g Frequency 2462 MHz

802.11n (HT20)

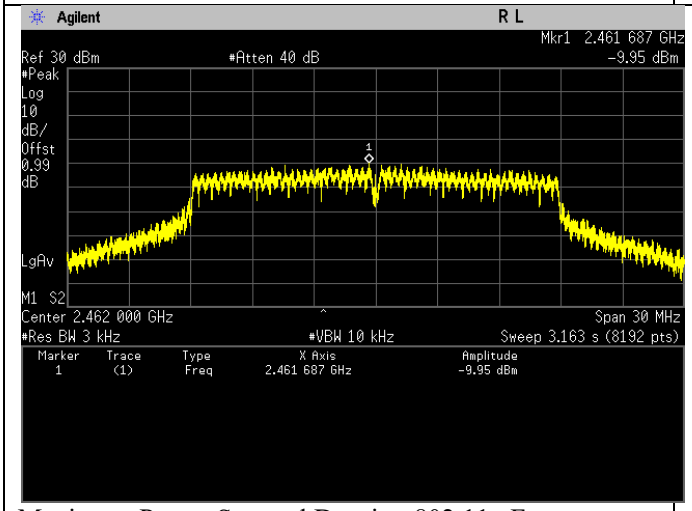
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Power (dBm/3kHz)	Status
802.11n	OFDM	BPSK	6.5	2412	-9.70	Pass
802.11n	OFDM	BPSK	6.5	2437	-9.03	Pass
802.11n	OFDM	BPSK	6.5	2462	-9.95	Pass



Maximum Power Spectral Density. 802.11n Frequency 2412 MHz



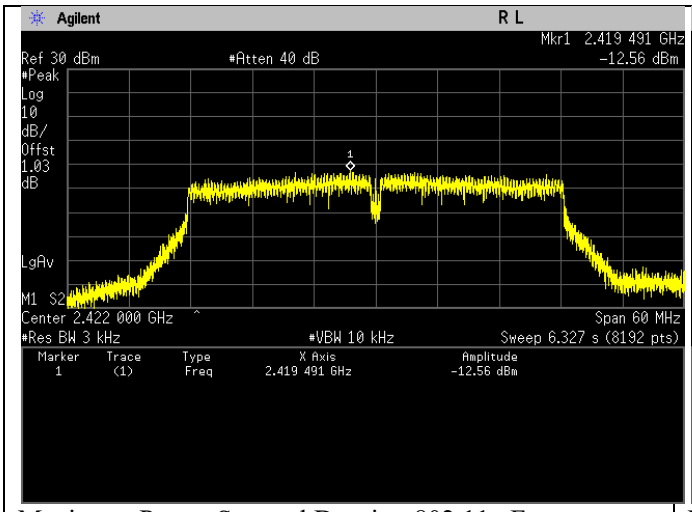
Maximum Power Spectral Density. 802.11n Frequency 2437 MHz



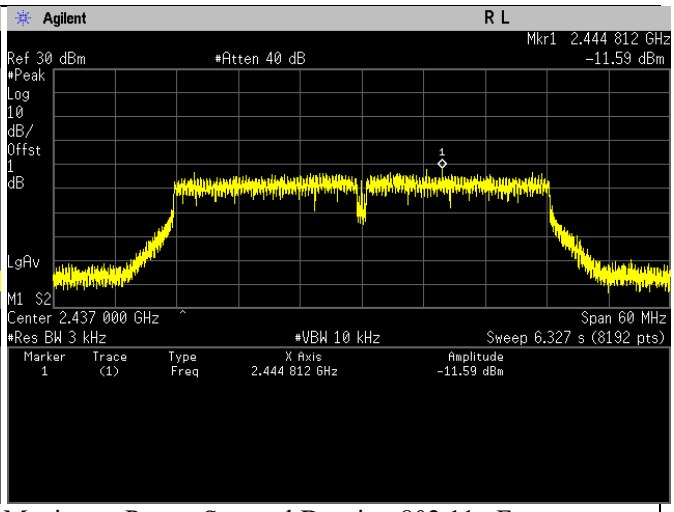
Maximum Power Spectral Density. 802.11n Frequency 2462 MHz

802.11n (HT40)

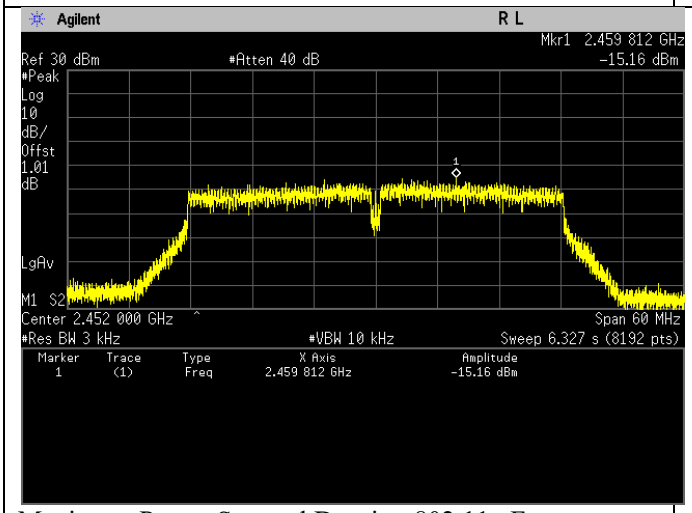
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Power (dBm/3kHz)	Status
802.11n	OFDM	BPSK	13.5	2422	-12.56	Pass
802.11n	OFDM	BPSK	13.5	2437	-11.59	Pass
802.11n	OFDM	BPSK	13.5	2452	-15.16	Pass



Maximum Power Spectral Density. 802.11n Frequency 2422 MHz



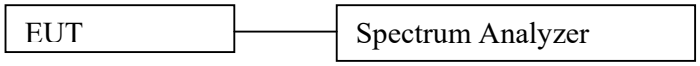
Maximum Power Spectral Density. 802.11n Frequency 2437 MHz



Maximum Power Spectral Density. 802.11n Frequency 2452 MHz

6.5. Conducted Spurious Emission

6.5.1. Test Setup



a) Check and ensure the spectrum analyzer well calibrate.
b) Turn on the DUT and set DUT to transmit maximum power.
c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
d) Setting of Spectrum analyzer :
    a. RBW = 100 kHz
    b. VBW = 300 kHz
    c. Detector mode = Peak
    d. Trace = Max Hold
    e. Sweep = auto
e) Use the peak marker function to measure highest emission and scan up to 10th harmonic.
f) Measure every antenna port by repeat the step above for MIMO measurement.

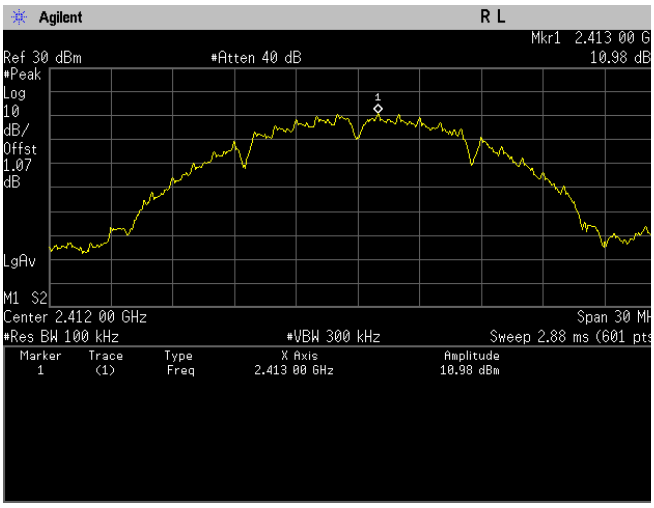
6.5.2. Test Limits:

Normal Condition (25 ° C)
Shall be at least 20 dB below peak (max) power.

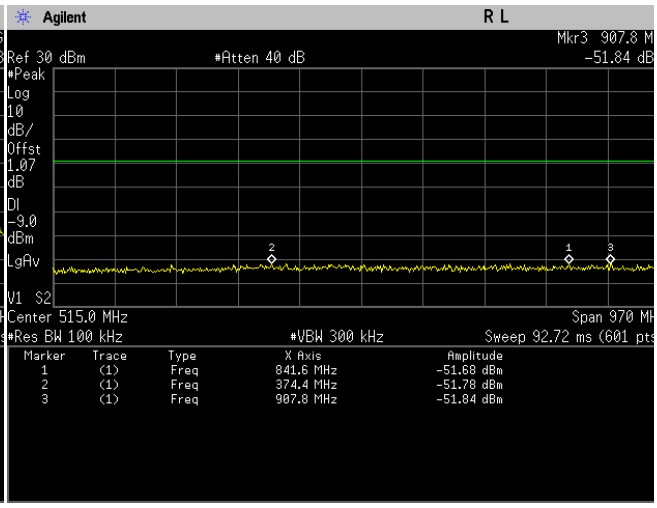
6.5.3. Test Result

802.11b

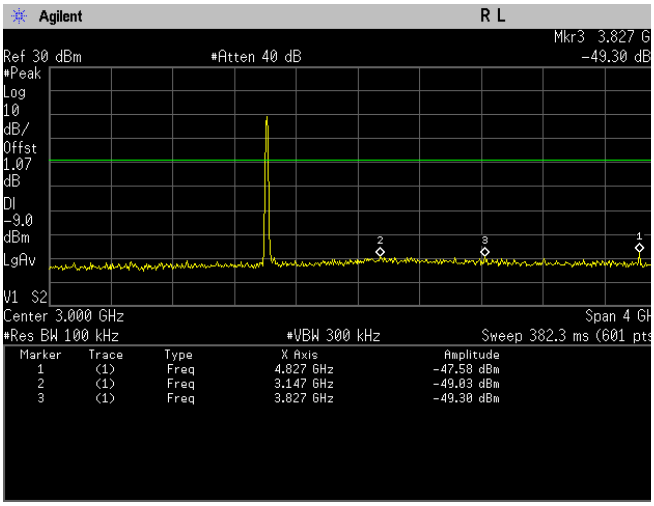
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11b	DSSS	QPSK	2	2412	24283.00	-43.29	Pass
					24875.00	-43.33	Pass
					24750.00	-43.53	Pass
802.11b	DSSS	QPSK	2	2437	23708.00	-42.86	Pass
					24567.00	-43.64	Pass
					24100.00	-43.64	Pass
802.11b	DSSS	QPSK	2	2462	24767.00	-43.77	Pass
					24717.00	-43.79	Pass
					24633.00	-43.82	Pass



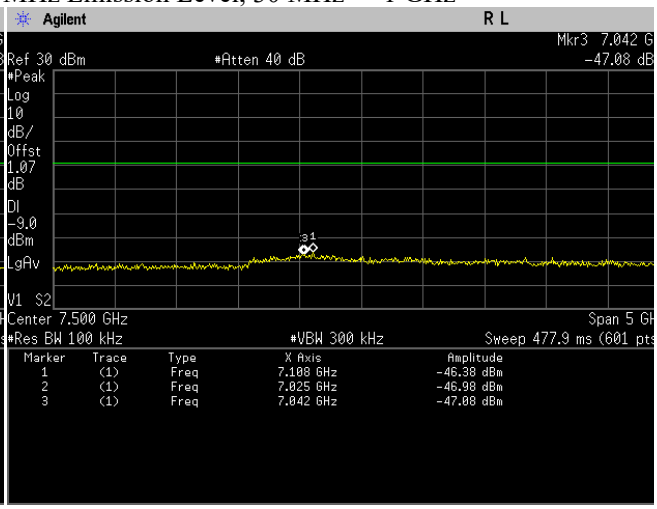
Conducted Emissions(Peak). 802.11b, Frequency 2412 MHz Reference Level



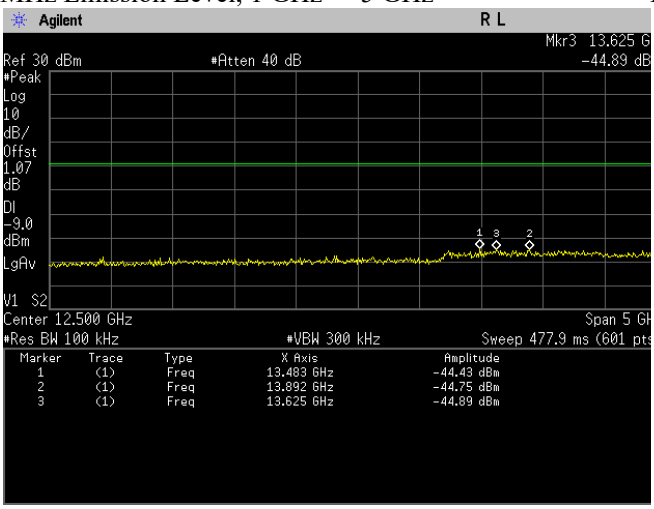
Conducted Emissions(Peak). 802.11b, Frequency 2412 MHz Emission Level, 30 MHz -> 1 GHz



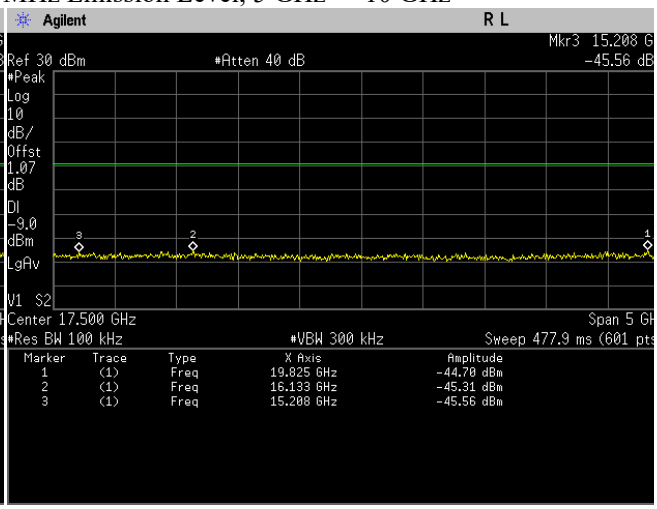
Conducted Emissions(Peak). 802.11b, Frequency 2412 MHz Emission Level, 1 GHz -> 5 GHz



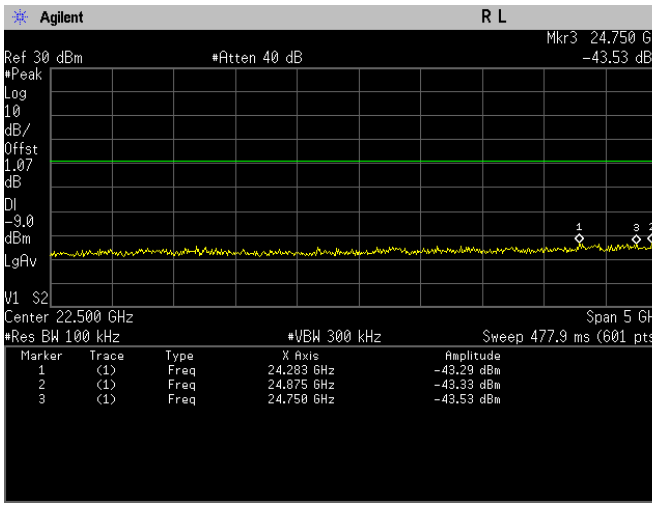
Conducted Emissions(Peak). 802.11b, Frequency 2412 MHz Emission Level, 5 GHz -> 10 GHz



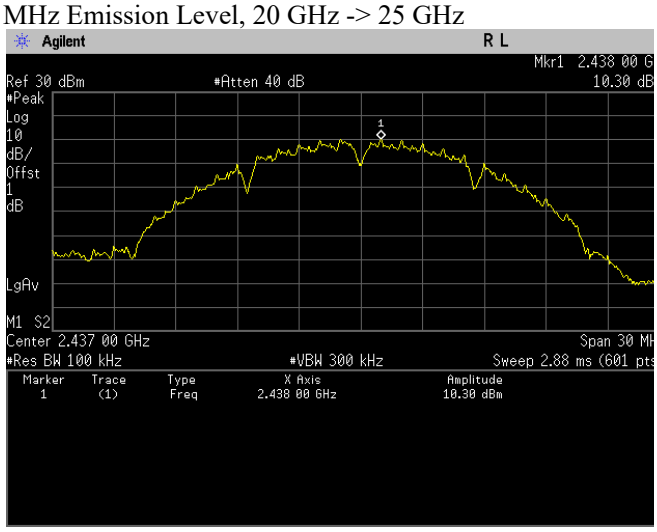
Conducted Emissions(Peak). 802.11b, Frequency 2412 Emission Level, 10 GHz -> 15 GHz



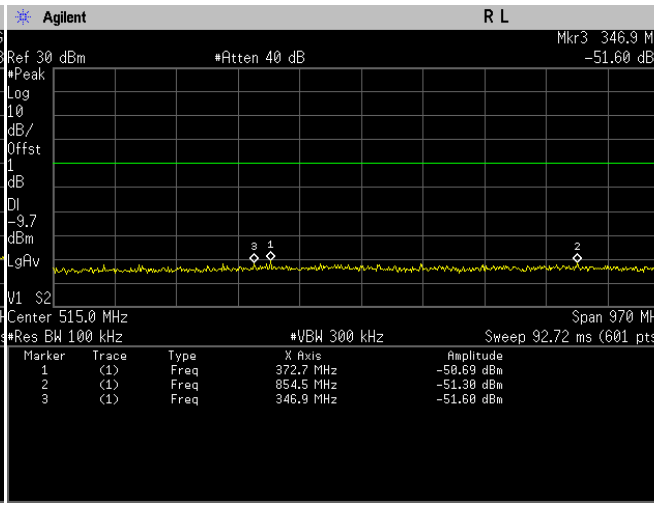
Conducted Emissions(Peak). 802.11b, Frequency 2412 MHz Emission Level, 15 GHz -> 20 GHz



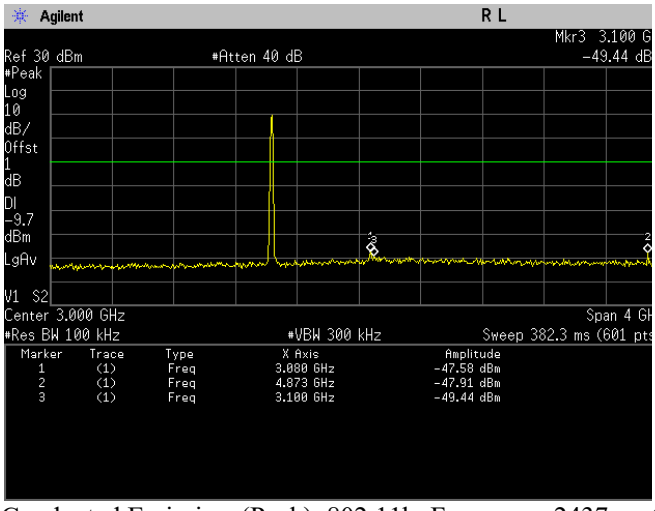
Conducted Emissions(Peak). 802.11b, Frequency 2412 MHz Emission Level, 20 GHz -> 25 GHz



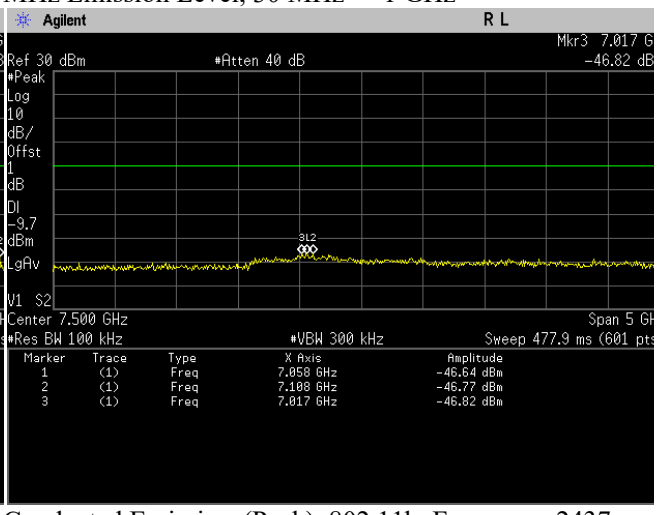
Conducted Emissions(Peak). 802.11b, Frequency 2437 MHz Reference Level



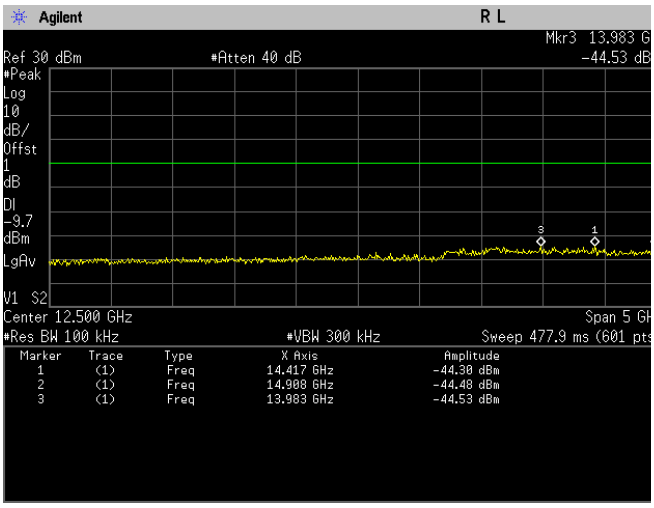
Conducted Emissions(Peak). 802.11b, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



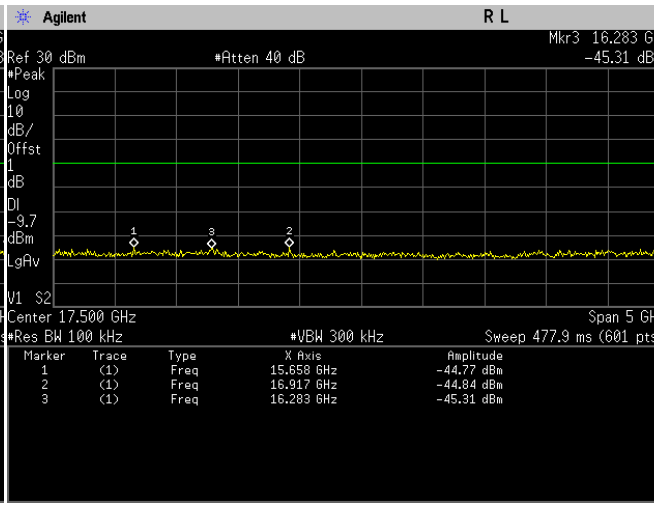
Conducted Emissions(Peak). 802.11b, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



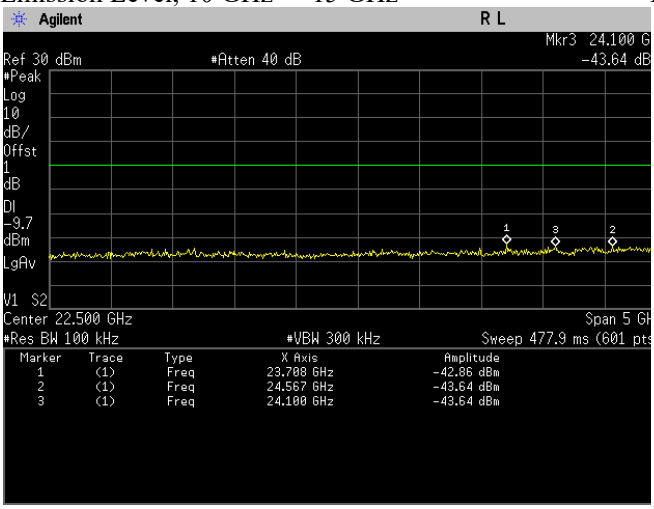
Conducted Emissions(Peak). 802.11b, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



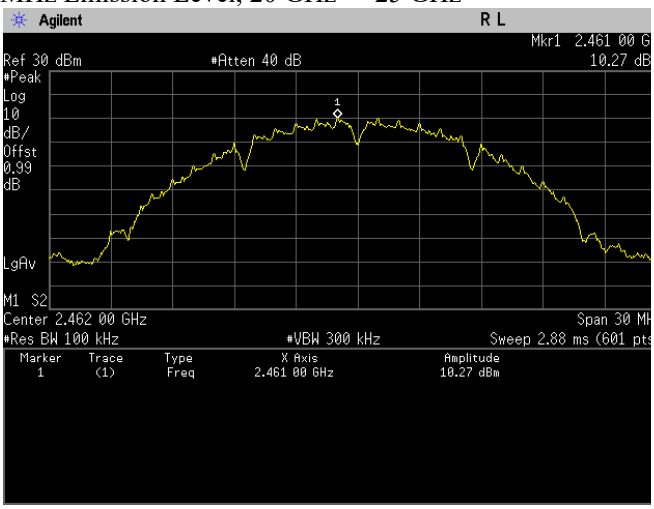
Conducted Emissions(Peak). 802.11b, Frequency 2437 Emission Level, 10 GHz -> 15 GHz



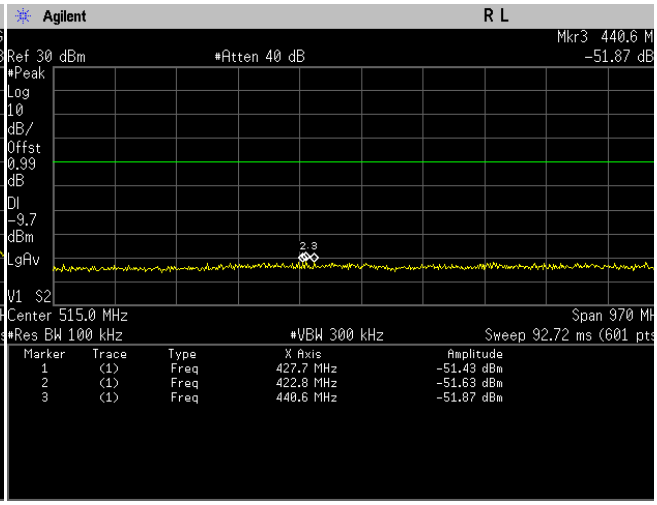
Conducted Emissions(Peak). 802.11b, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



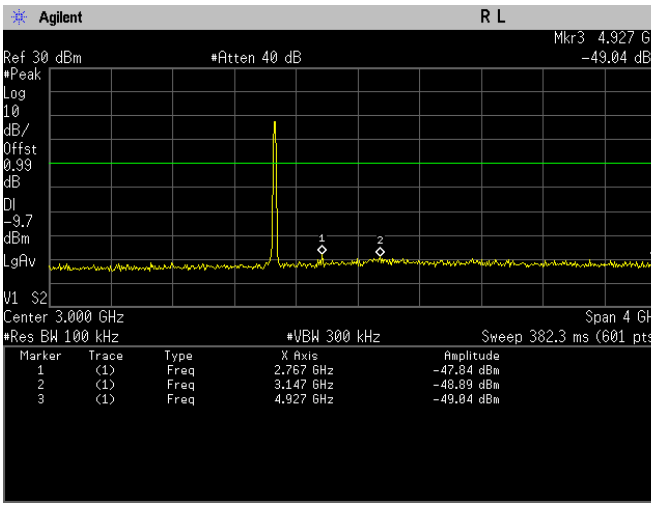
Conducted Emissions(Peak). 802.11b, Frequency 2437 MHz Emission Level, 20 GHz -> 25 GHz



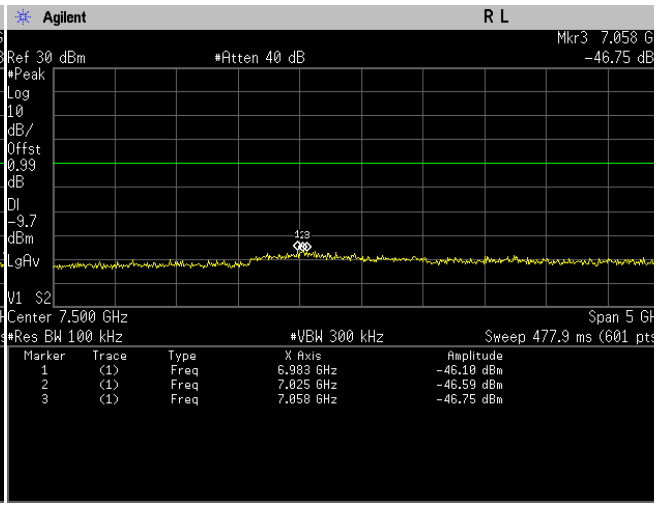
Conducted Emissions(Peak). 802.11b, Frequency 2462 MHz Reference Level



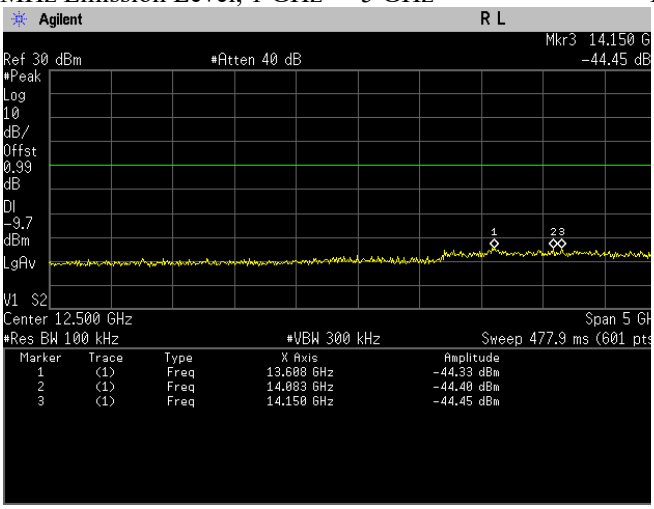
Conducted Emissions(Peak). 802.11b, Frequency 2462 MHz Emission Level, 30 MHz -> 1 GHz



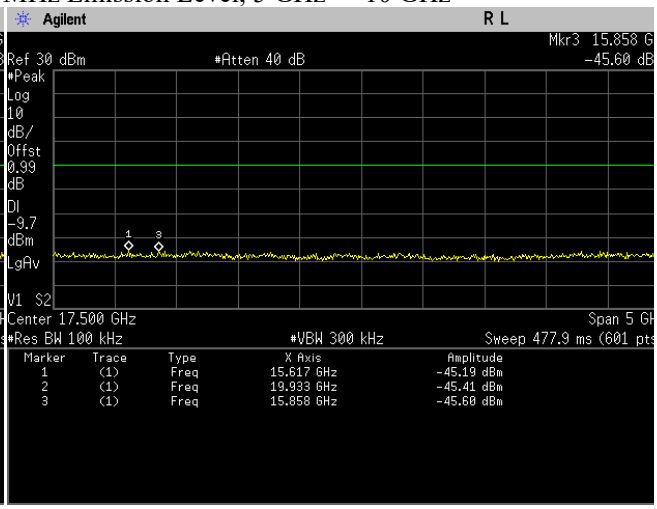
Conducted Emissions(Peak). 802.11b, Frequency 2462 MHz Emission Level, 1 GHz -> 5 GHz



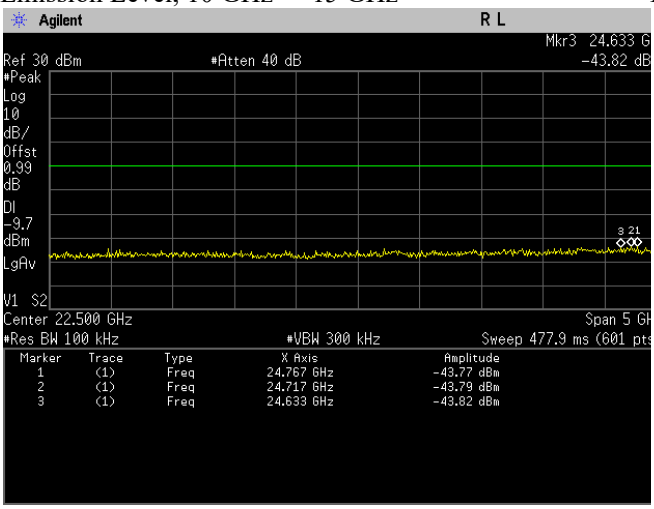
Conducted Emissions(Peak). 802.11b, Frequency 2462 MHz Emission Level, 5 GHz -> 10 GHz



Conducted Emissions(Peak). 802.11b, Frequency 2462 Emission Level, 10 GHz -> 15 GHz



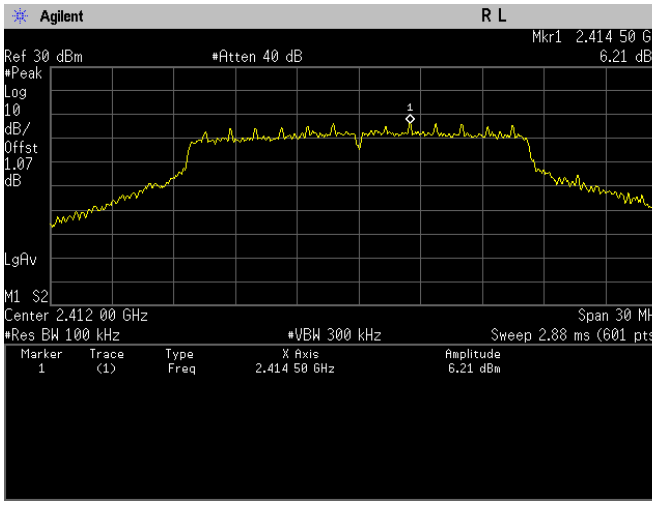
Conducted Emissions(Peak). 802.11b, Frequency 2462 MHz Emission Level, 15 GHz -> 20 GHz



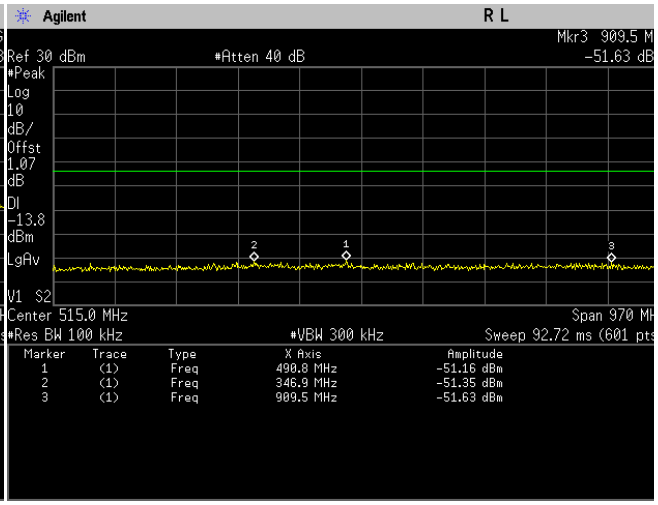
Conducted Emissions(Peak). 802.11b, Frequency 2462 MHz Emission Level, 20 GHz -> 25 GHz

802.11g

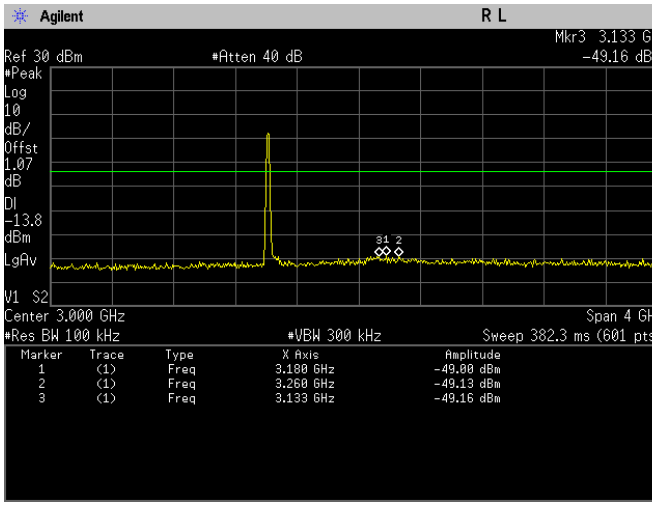
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11g	OFDM	BPSK	6	2412	24450.00	-42.81	Pass
					24992.00	-43.28	Pass
					24967.00	-43.28	Pass
802.11g	OFDM	BPSK	6	2437	25000.00	-42.65	Pass
					24925.00	-43.22	Pass
					24975.00	-43.58	Pass
802.11g	OFDM	BPSK	6	2462	24983.00	-42.78	Pass
					24658.00	-43.51	Pass
					24842.00	-43.56	Pass



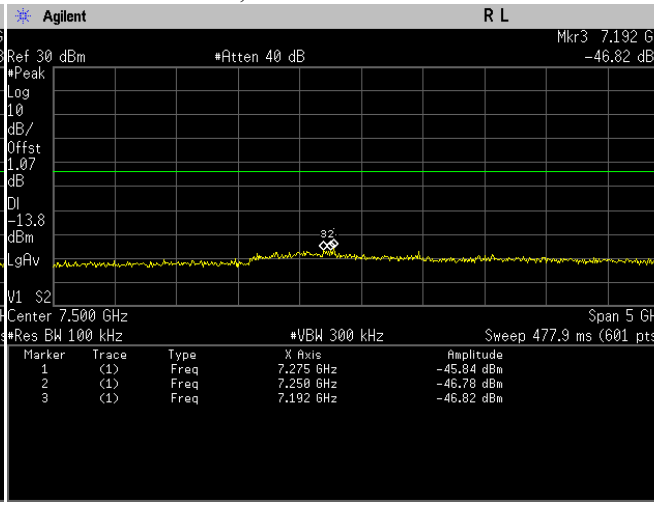
Conducted Emissions(Peak). 802.11g, Frequency 2412 MHz Reference Level



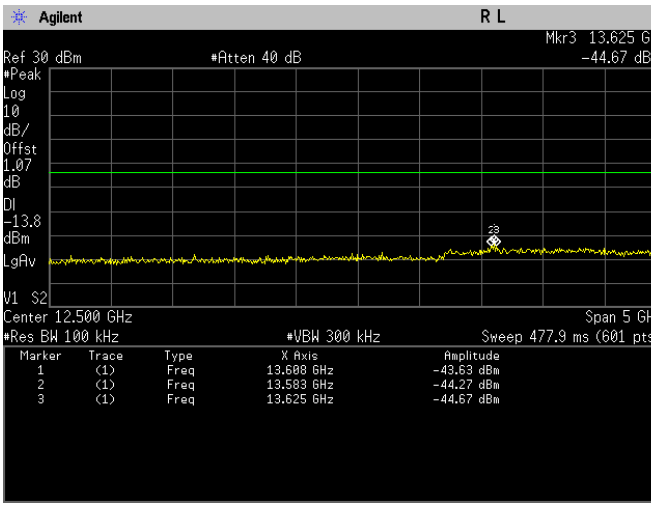
Conducted Emissions(Peak). 802.11g, Frequency 2412 MHz Emission Level, 30 MHz -> 1 GHz



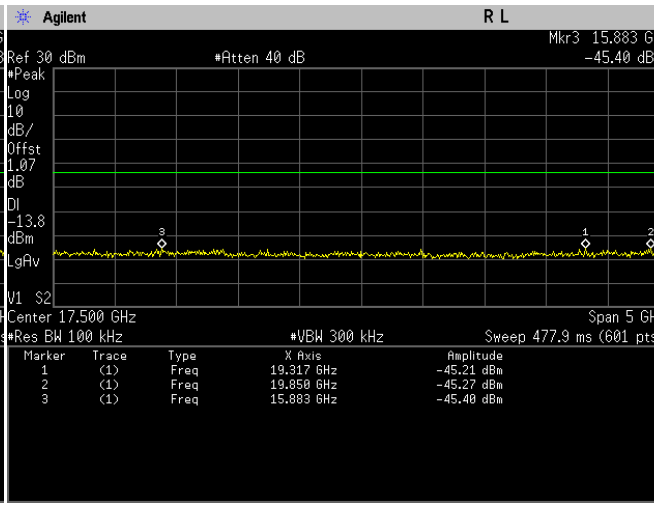
Conducted Emissions(Peak). 802.11g, Frequency 2412 MHz Emission Level, 1 GHz -> 5 GHz



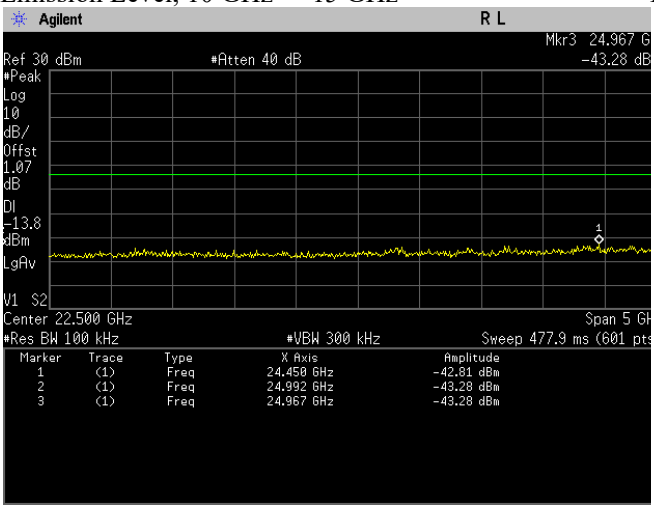
Conducted Emissions(Peak). 802.11g, Frequency 2412 MHz Emission Level, 5 GHz -> 10 GHz



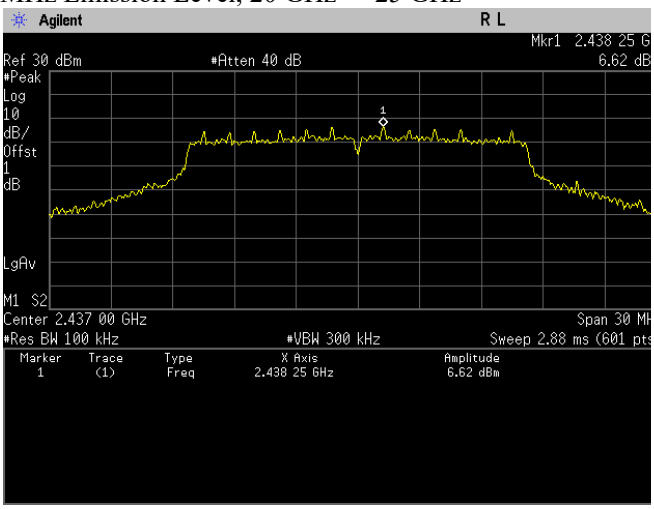
Conducted Emissions(Peak). 802.11g, Frequency 2412 Emission Level, 10 GHz -> 15 GHz



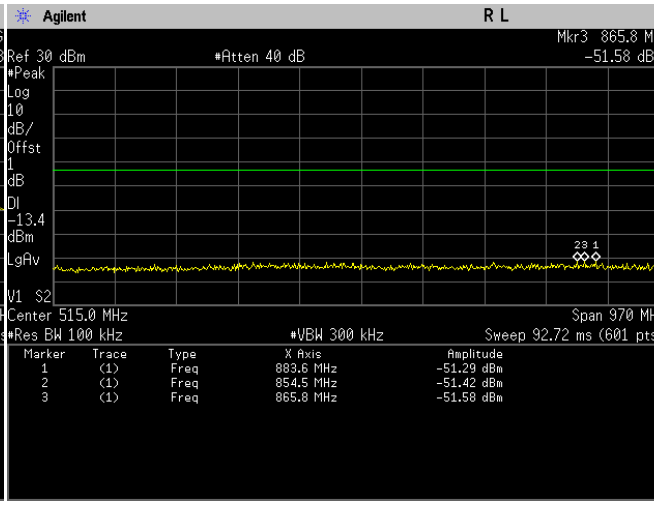
Conducted Emissions(Peak). 802.11g, Frequency 2412 MHz Emission Level, 15 GHz -> 20 GHz



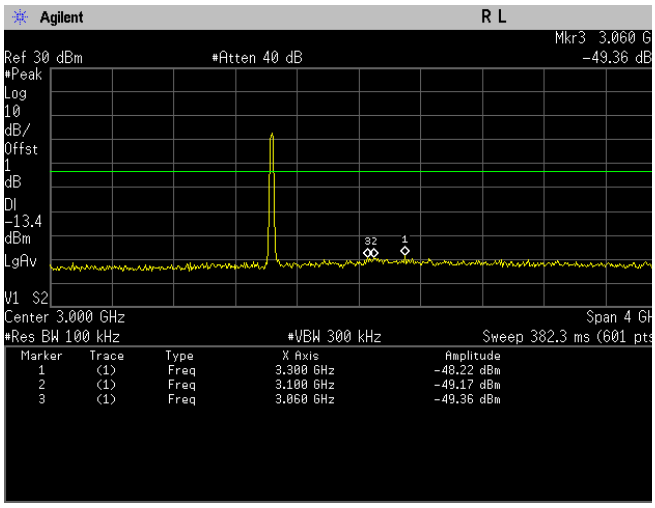
Conducted Emissions(Peak). 802.11g, Frequency 2412 MHz Emission Level, 20 GHz -> 25 GHz



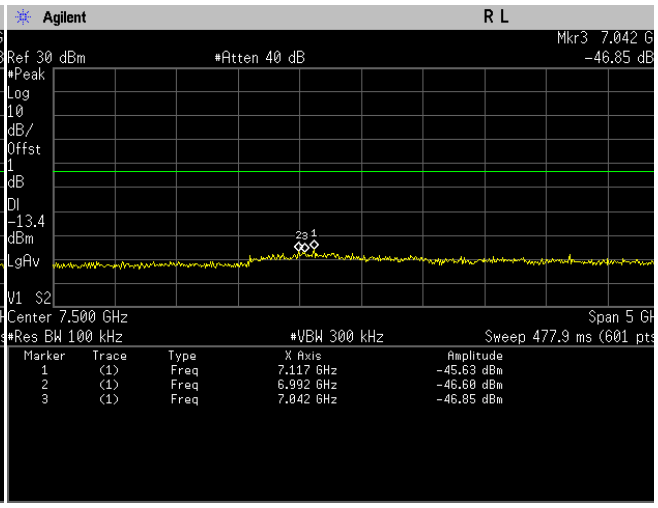
Conducted Emissions(Peak). 802.11g, Frequency 2437 MHz Reference Level



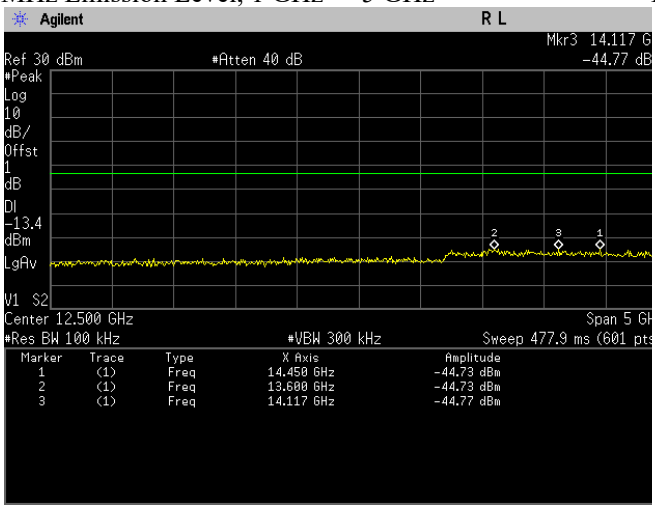
Conducted Emissions(Peak). 802.11g, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



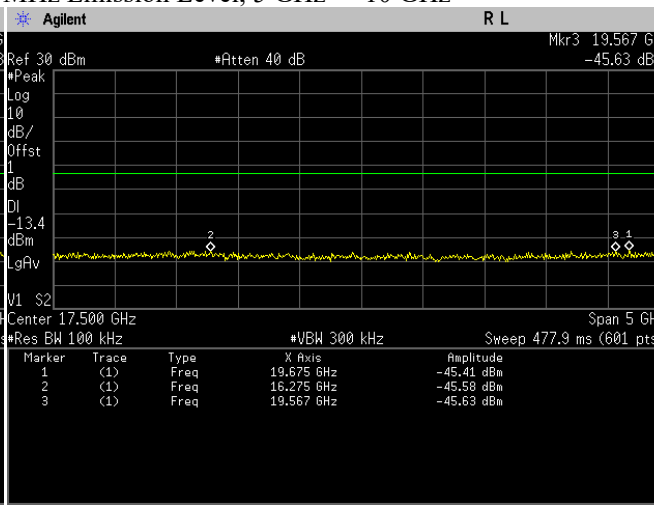
Conducted Emissions(Peak). 802.11g, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



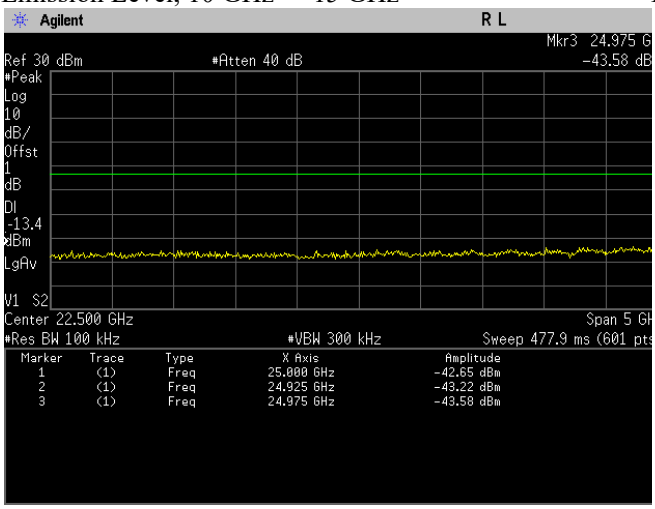
Conducted Emissions(Peak). 802.11g, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



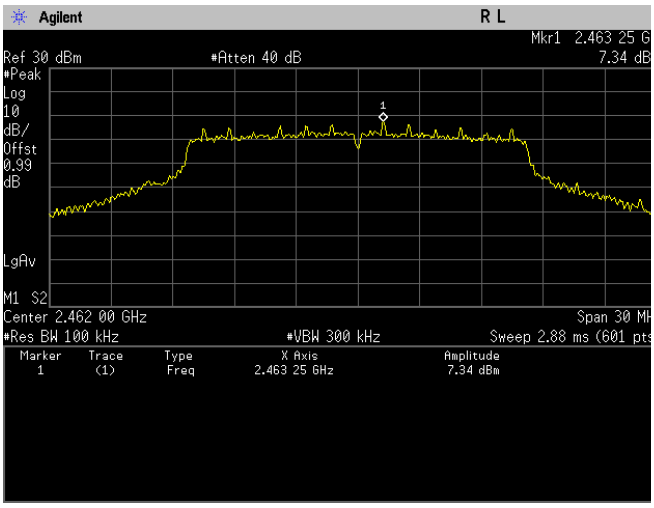
Conducted Emissions(Peak). 802.11g, Frequency 2437 Emission Level, 10 GHz -> 15 GHz



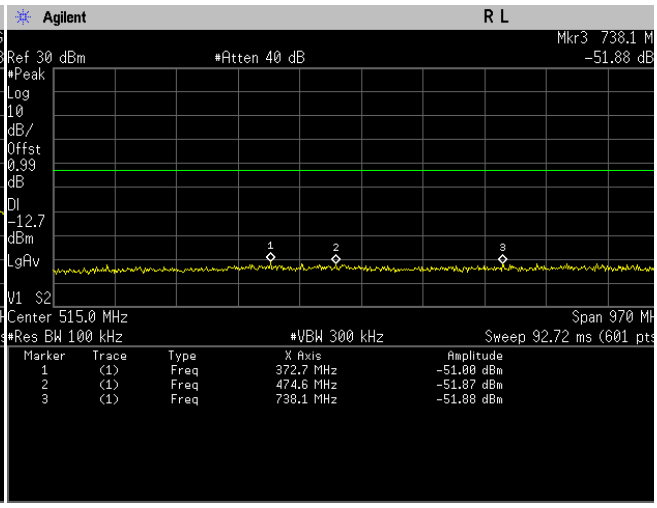
Conducted Emissions(Peak). 802.11g, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



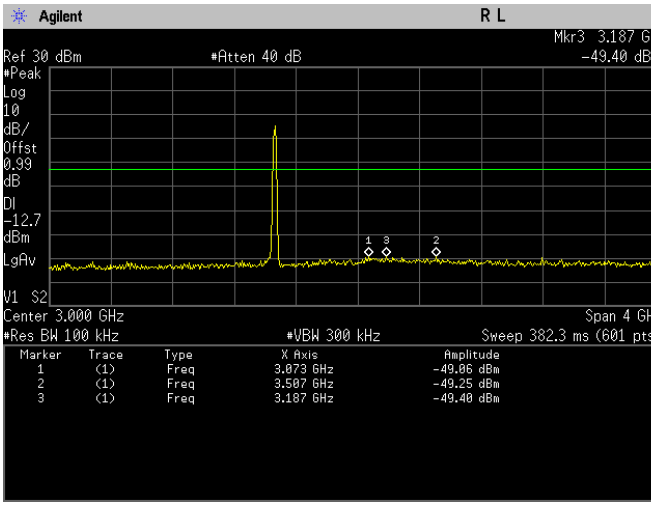
Conducted Emissions(Peak). 802.11g, Frequency 2437 MHz Emission Level, 20 GHz -> 25 GHz



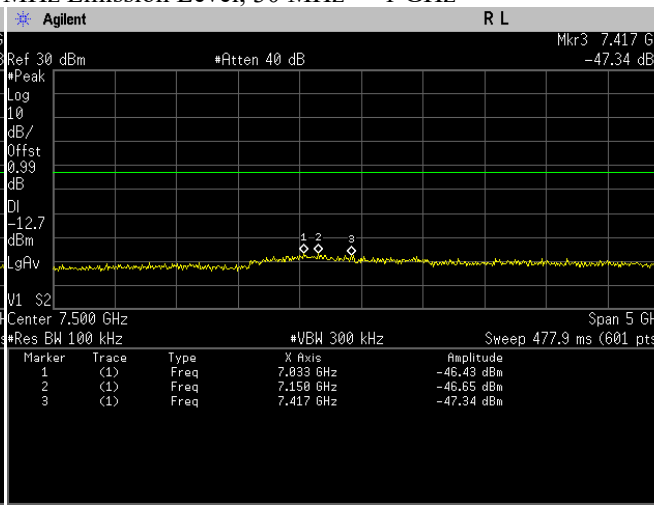
Conducted Emissions(Peak). 802.11g, Frequency 2462 MHz Reference Level



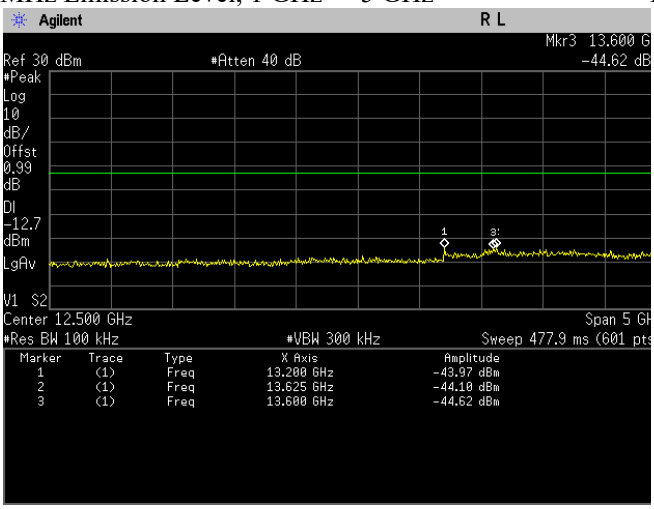
Conducted Emissions(Peak). 802.11g, Frequency 2462 MHz Emission Level, 30 MHz -> 1 GHz



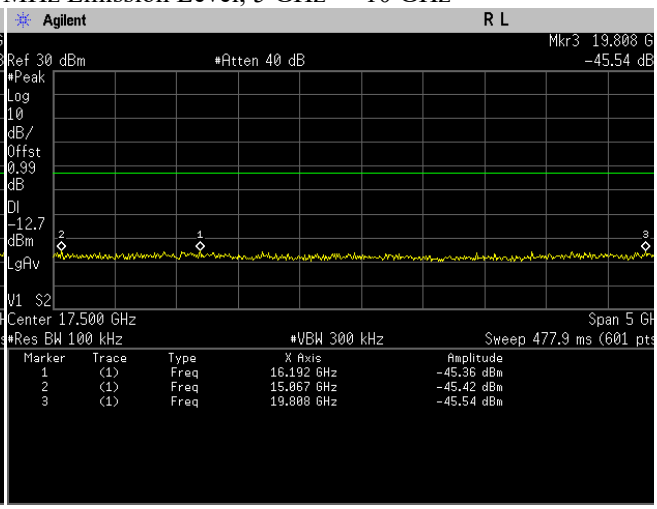
Conducted Emissions(Peak). 802.11g, Frequency 2462 MHz Emission Level, 1 GHz -> 5 GHz



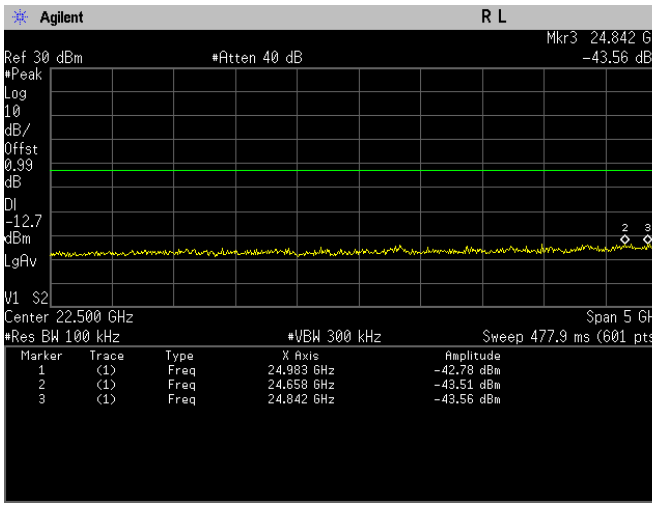
Conducted Emissions(Peak). 802.11g, Frequency 2462 MHz Emission Level, 5 GHz -> 10 GHz



Conducted Emissions(Peak). 802.11g, Frequency 2462 Emission Level, 10 GHz -> 15 GHz



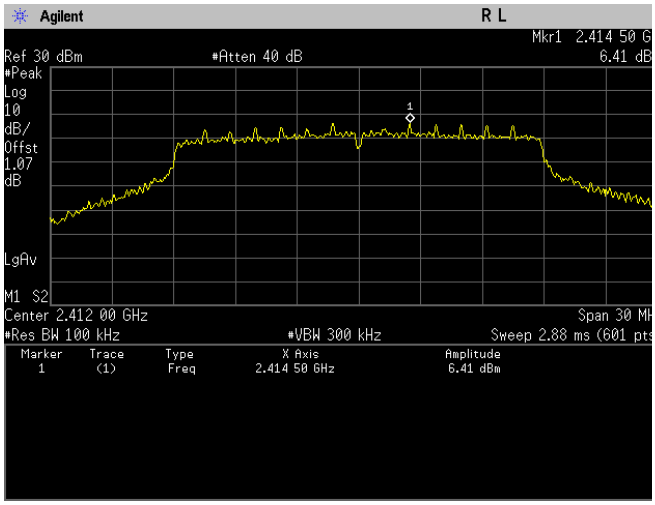
Conducted Emissions(Peak). 802.11g, Frequency 2462 MHz Emission Level, 15 GHz -> 20 GHz



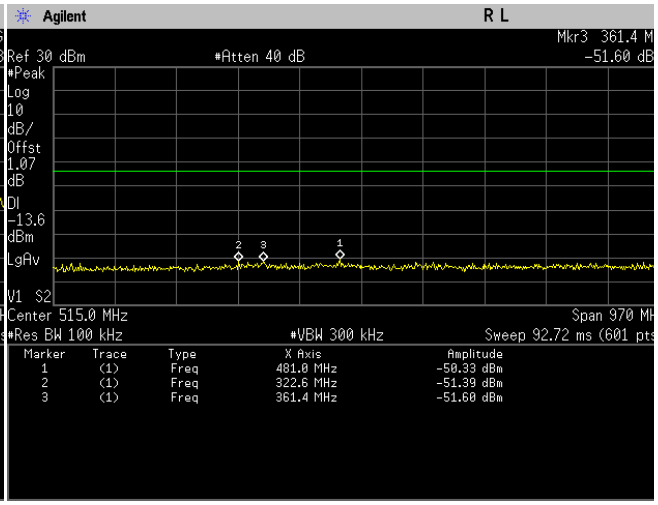
Conducted Emissions(Peak). 802.11g, Frequency 2462 MHz Emission Level, 20 GHz -> 25 GHz

802.11n (HT20)

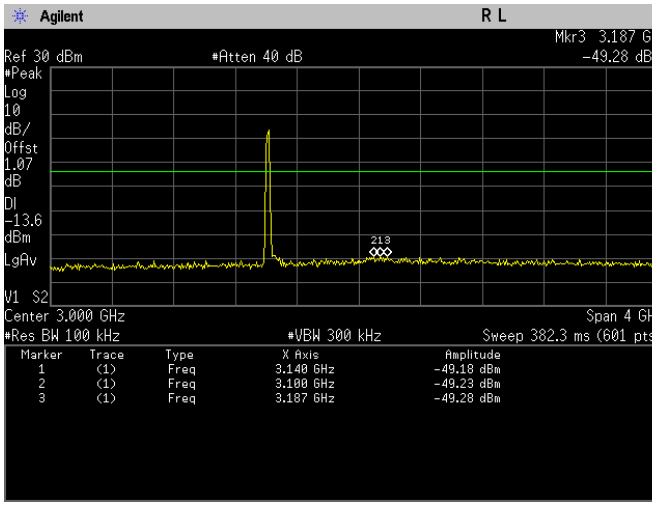
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11n	OFDM	BPSK	6.5	2412	24308.00	-43.11	Pass
					24942.00	-43.43	Pass
					24558.00	-43.62	Pass
802.11n	OFDM	BPSK	6.5	2437	24833.00	-43.08	Pass
					24983.00	-43.20	Pass
					24058.00	-43.32	Pass
802.11n	OFDM	BPSK	6.5	2462	24967.00	-43.44	Pass
					24692.00	-43.47	Pass
					24358.00	-43.82	Pass



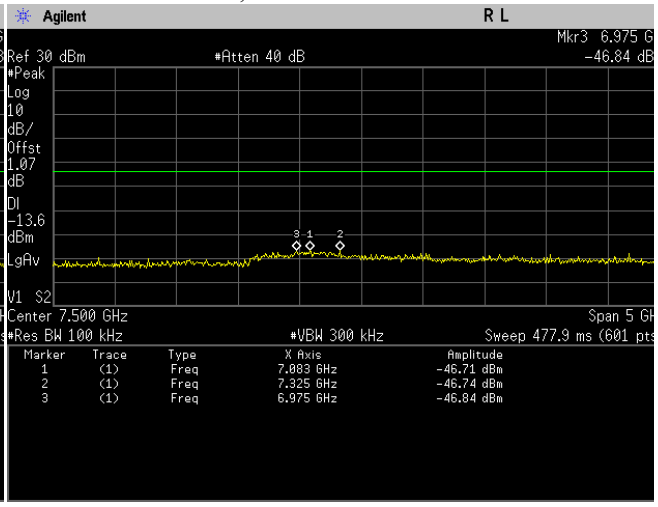
Conducted Emissions(Peak). 802.11n, Frequency 2412 MHz Reference Level



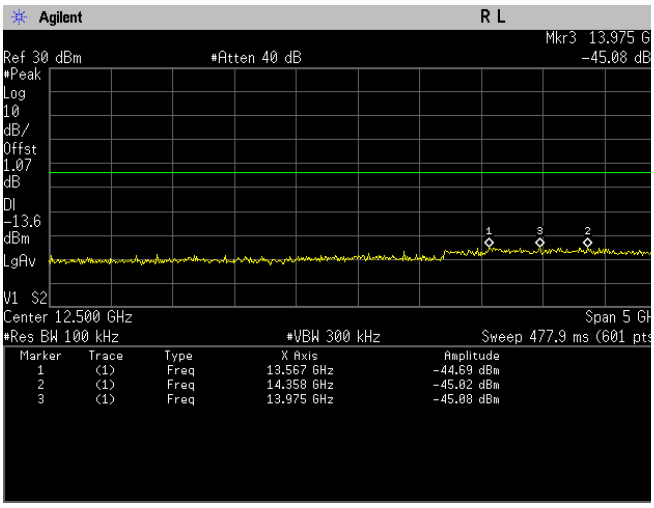
Conducted Emissions(Peak). 802.11n, Frequency 2412 MHz Emission Level, 30 MHz -> 1 GHz



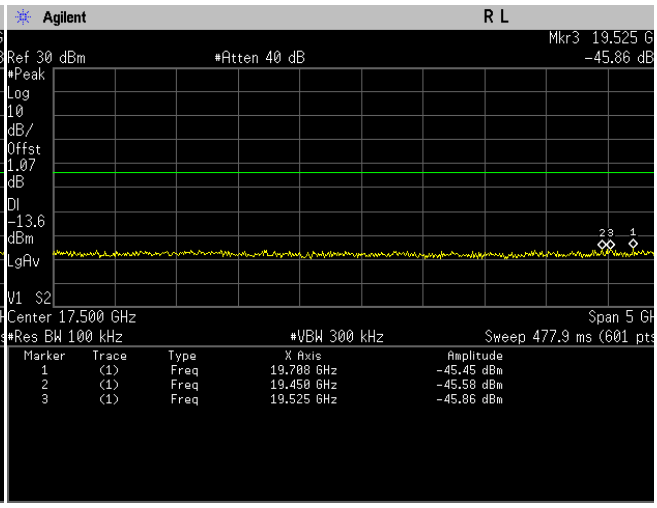
Conducted Emissions(Peak). 802.11n, Frequency 2412 MHz Emission Level, 1 GHz -> 5 GHz



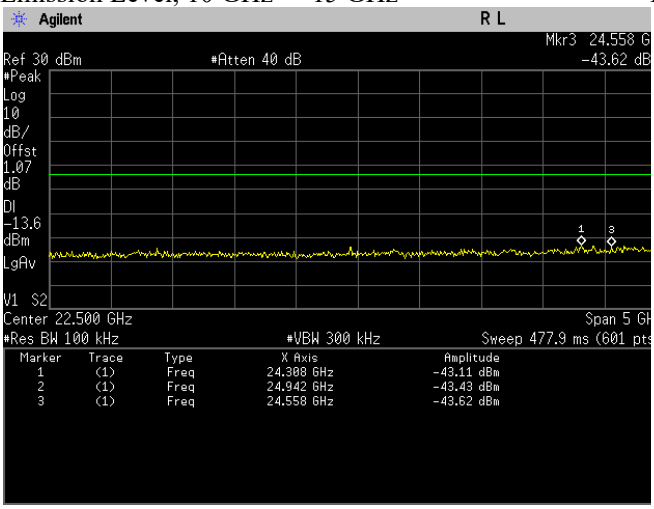
Conducted Emissions(Peak). 802.11n, Frequency 2412 MHz Emission Level, 5 GHz -> 10 GHz



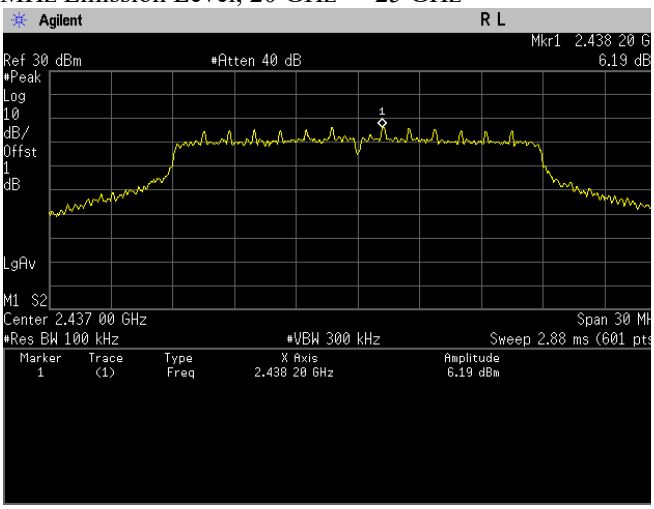
Conducted Emissions(Peak). 802.11n, Frequency 2412 Emission Level, 10 GHz -> 15 GHz



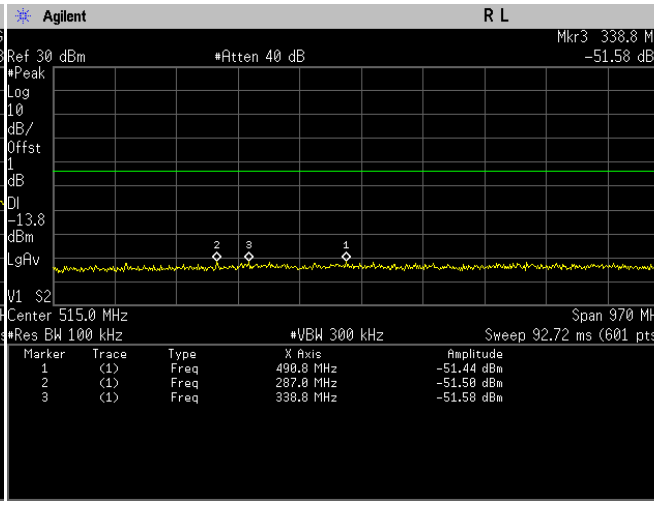
Conducted Emissions(Peak). 802.11n, Frequency 2412 MHz Emission Level, 15 GHz -> 20 GHz



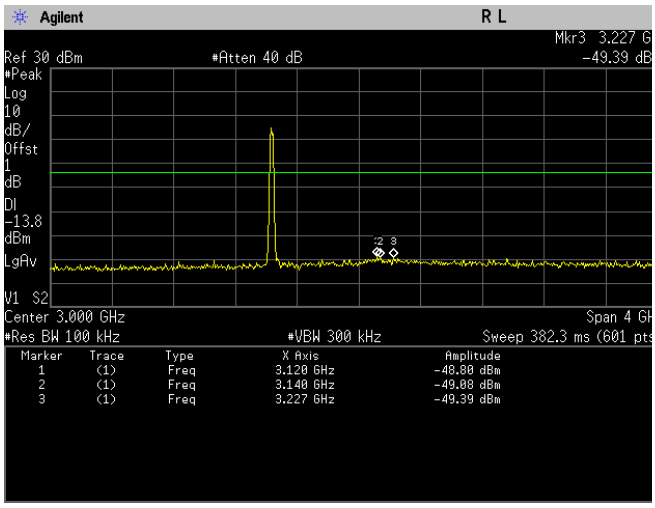
Conducted Emissions(Peak). 802.11n, Frequency 2412 MHz Emission Level, 20 GHz -> 25 GHz



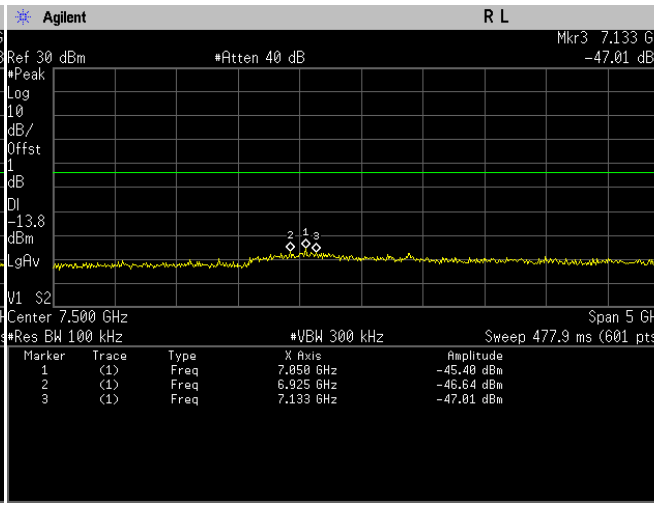
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Reference Level



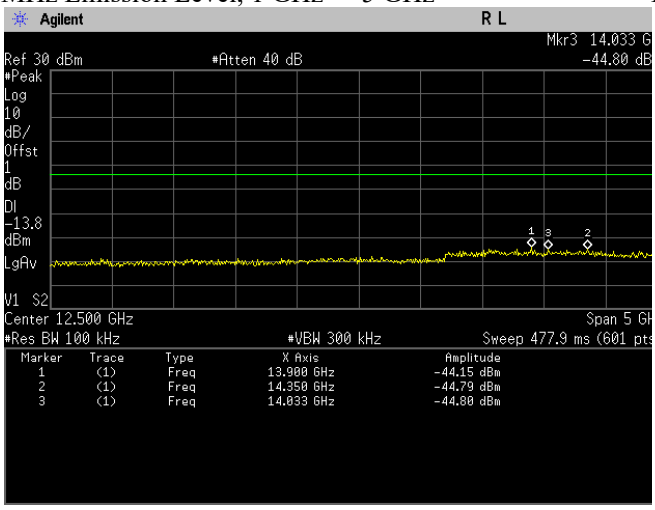
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



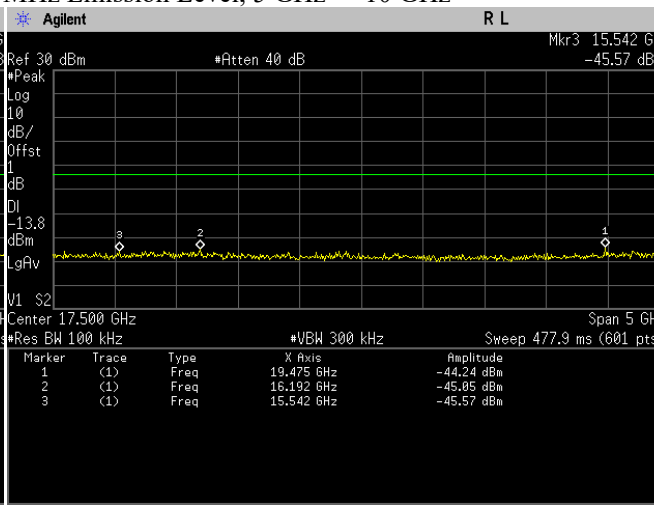
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



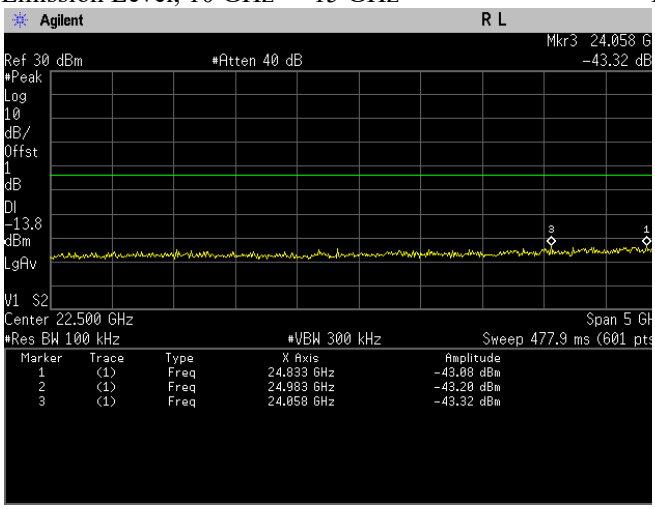
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



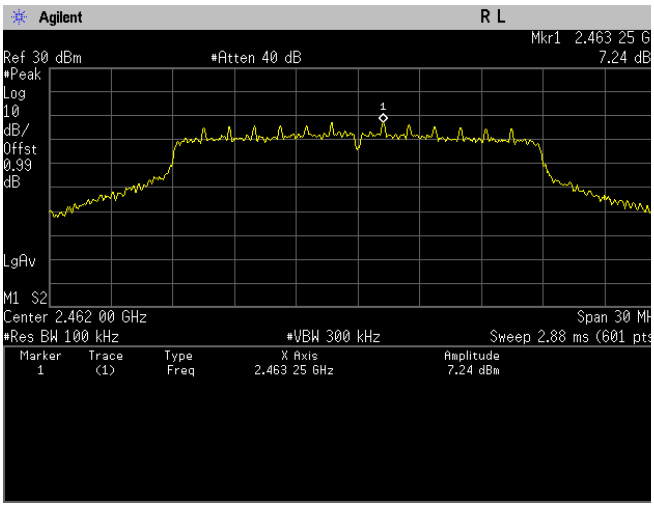
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 10 GHz -> 15 GHz



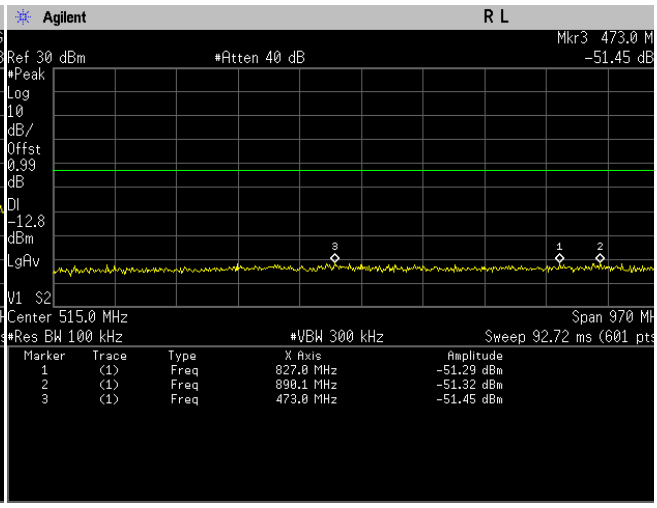
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



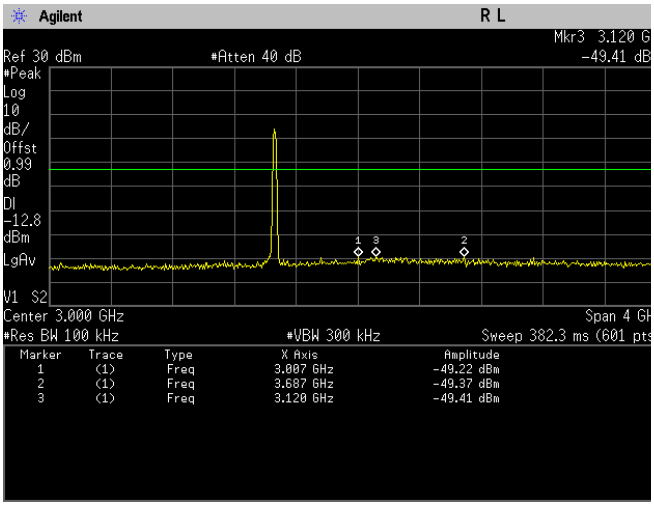
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 20 GHz -> 25 GHz



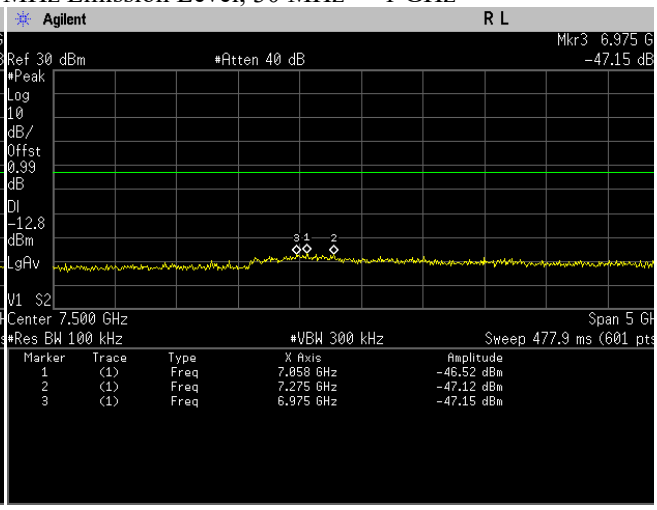
Conducted Emissions(Peak). 802.11n, Frequency 2462 MHz Reference Level



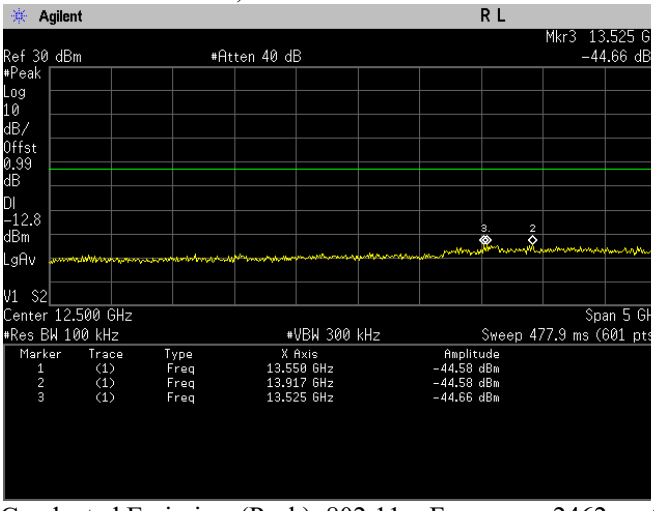
Conducted Emissions(Peak). 802.11n, Frequency 2462 MHz Emission Level, 30 MHz -> 1 GHz



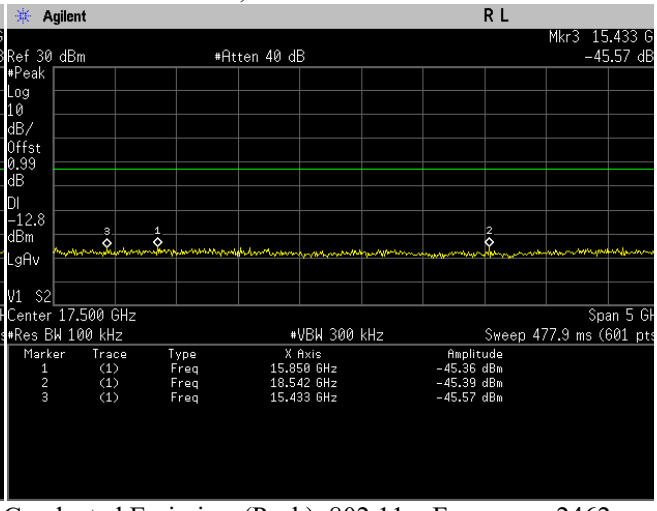
Conducted Emissions(Peak). 802.11n, Frequency 2462 MHz Emission Level, 1 GHz -> 5 GHz



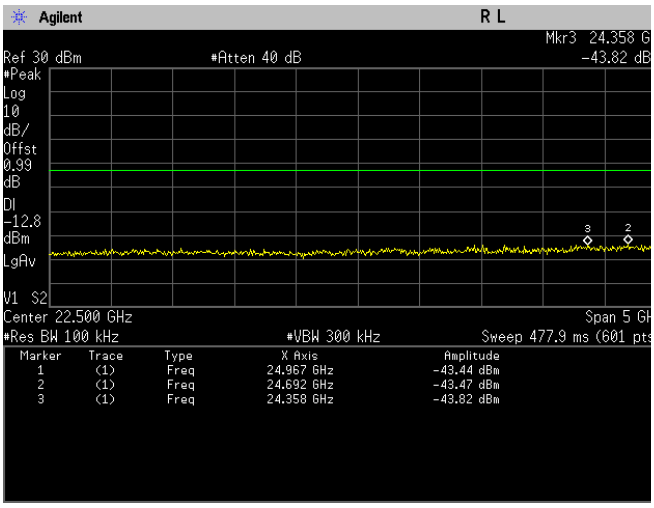
Conducted Emissions(Peak). 802.11n, Frequency 2462 MHz Emission Level, 5 GHz -> 10 GHz



Conducted Emissions(Peak). 802.11n, Frequency 2462 Emission Level, 10 GHz -> 15 GHz



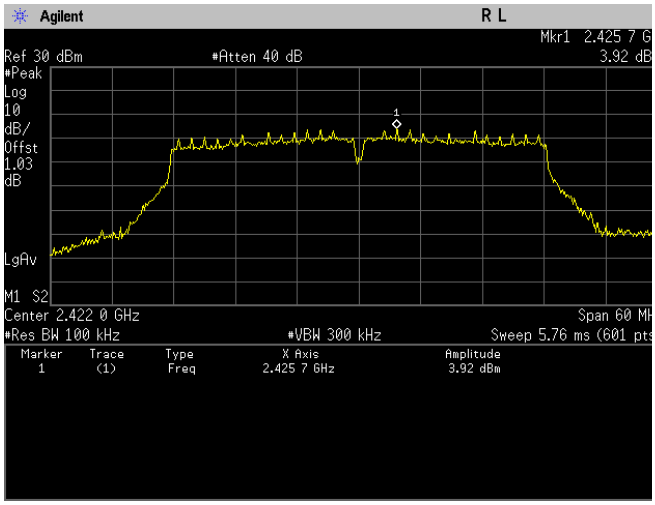
Conducted Emissions(Peak). 802.11n, Frequency 2462 MHz Emission Level, 15 GHz -> 20 GHz



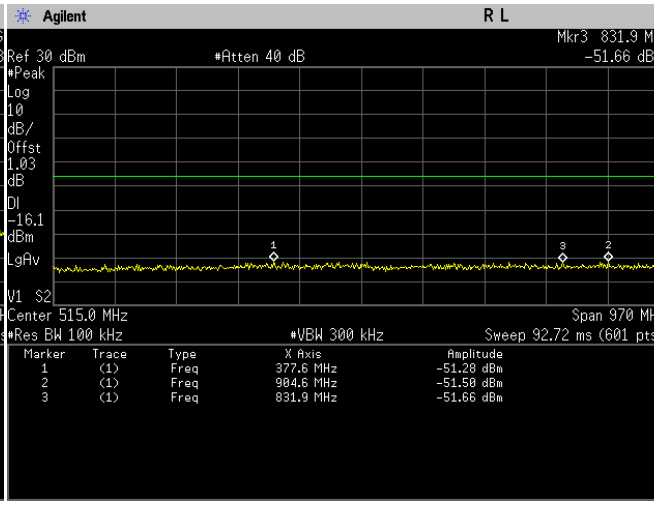
Conducted Emissions(Peak). 802.11n, Frequency 2462 MHz Emission Level, 20 GHz -> 25 GHz

802.11n (HT40)

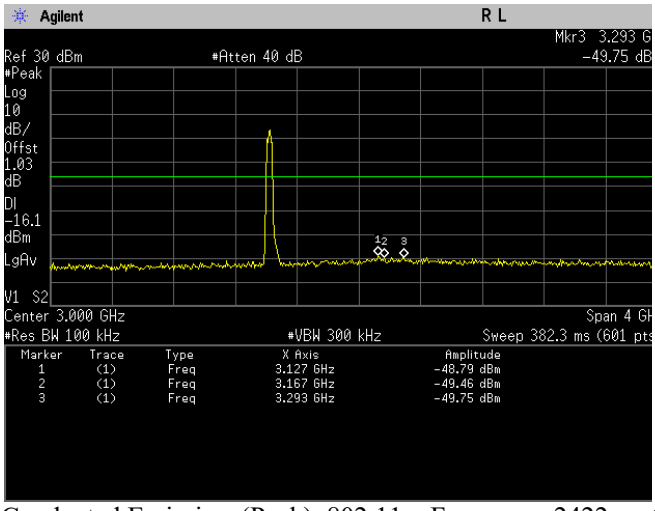
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11n	OFDM	BPSK	13.5	2422	24742.00	-43.20	Pass
					24967.00	-43.22	Pass
					24683.00	-43.23	Pass
802.11n	OFDM	BPSK	13.5	2437	24367.00	-42.62	Pass
					24708.00	-43.11	Pass
					24733.00	-43.23	Pass
802.11n	OFDM	BPSK	13.5	2452	24300.00	-42.93	Pass
					24733.00	-43.30	Pass
					23733.00	-43.35	Pass



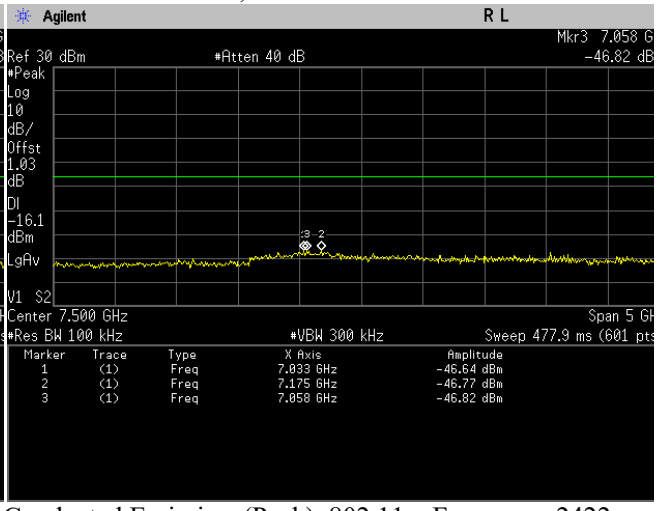
Conducted Emissions(Peak). 802.11n, Frequency 2422 MHz Reference Level



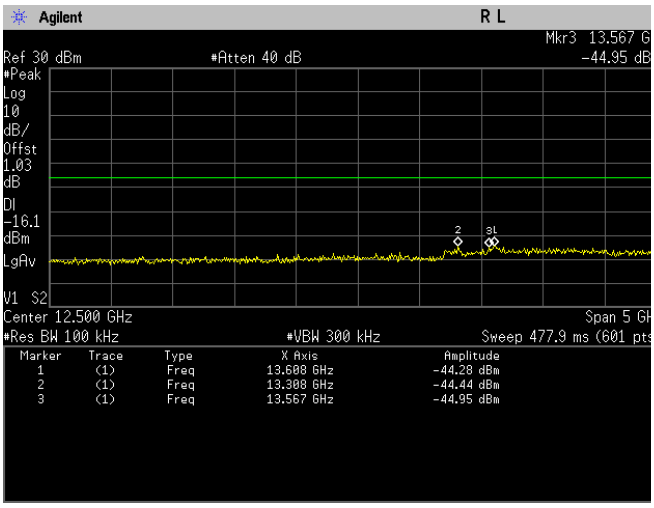
Conducted Emissions(Peak). 802.11n, Frequency 2422 MHz Emission Level, 30 MHz -> 1 GHz



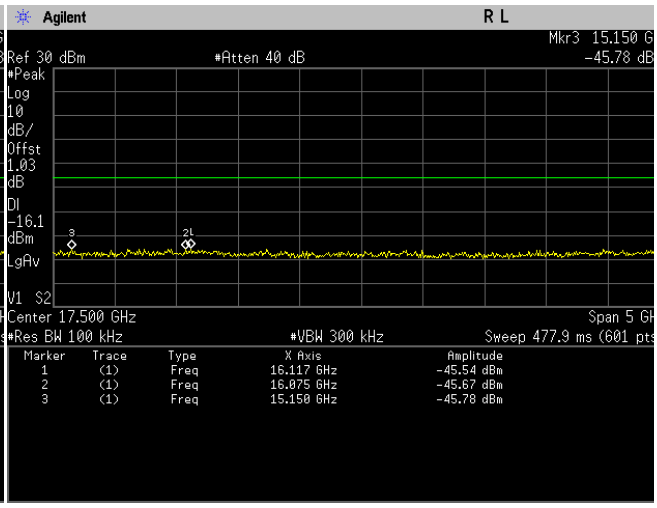
Conducted Emissions(Peak). 802.11n, Frequency 2422 MHz Emission Level, 1 GHz -> 5 GHz



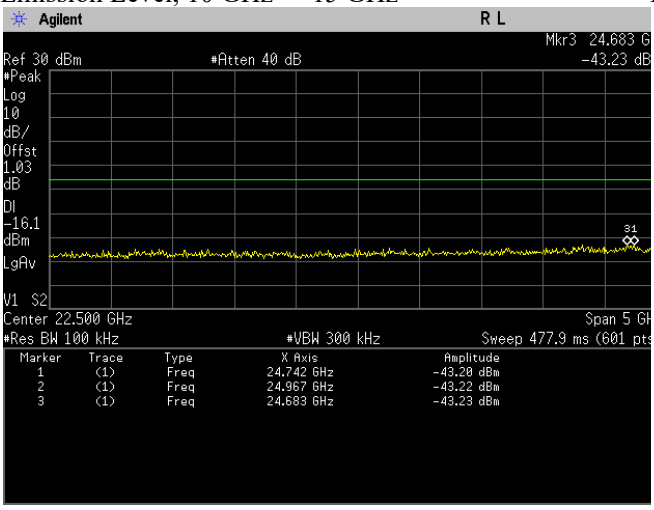
Conducted Emissions(Peak). 802.11n, Frequency 2422 MHz Emission Level, 5 GHz -> 10 GHz



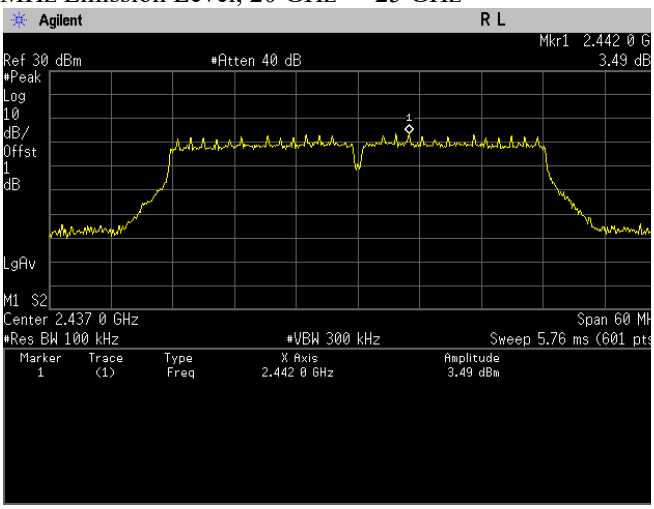
Conducted Emissions(Peak). 802.11n, Frequency 2422 Emission Level, 10 GHz -> 15 GHz



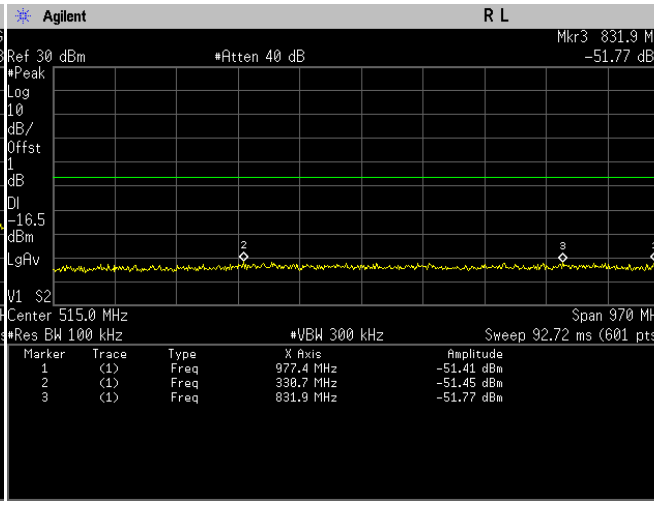
Conducted Emissions(Peak). 802.11n, Frequency 2422 MHz Emission Level, 15 GHz -> 20 GHz



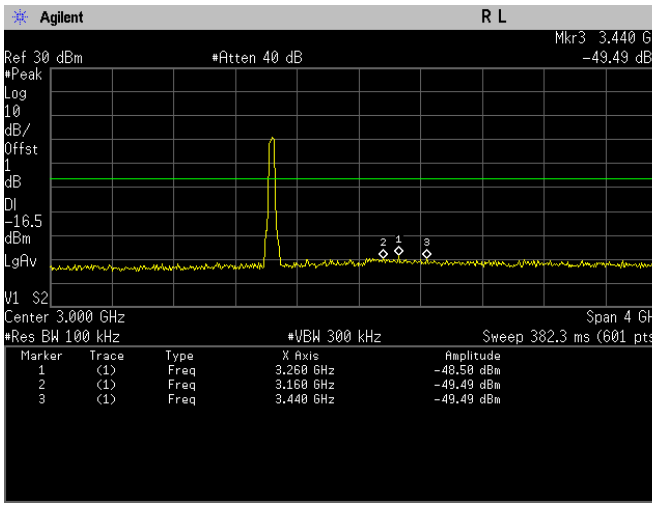
Conducted Emissions(Peak). 802.11n, Frequency 2422 MHz Emission Level, 20 GHz -> 25 GHz



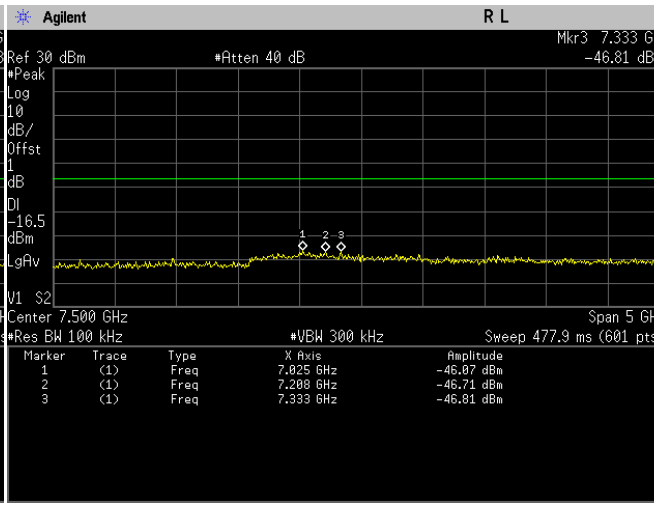
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Reference Level



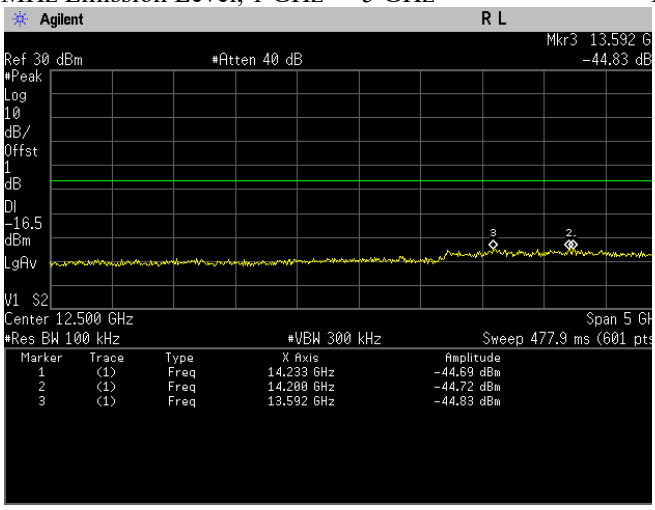
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



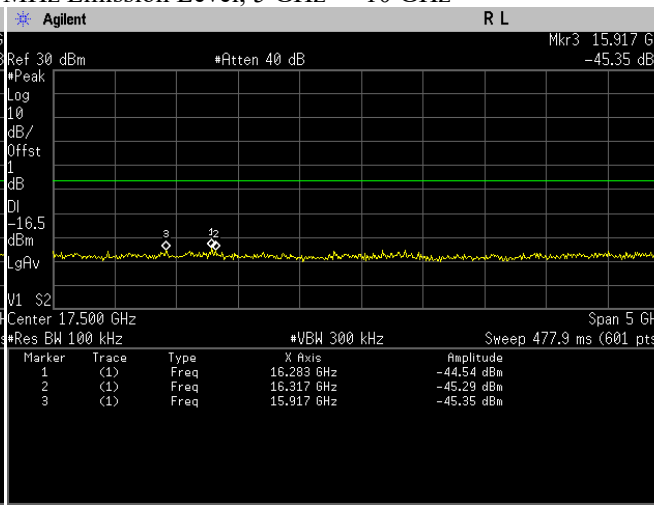
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



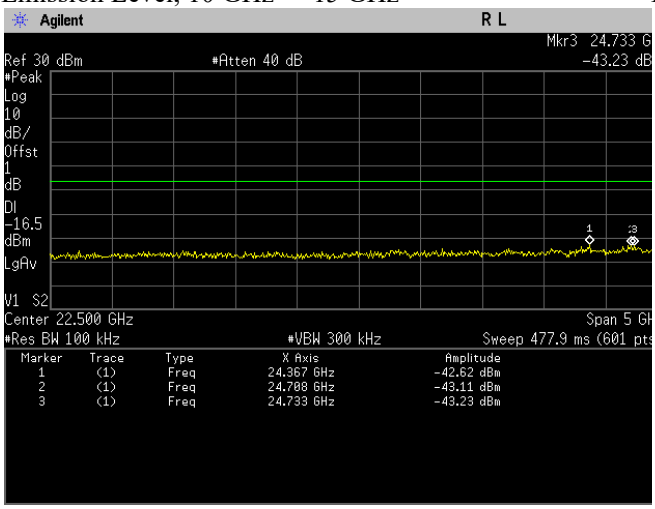
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



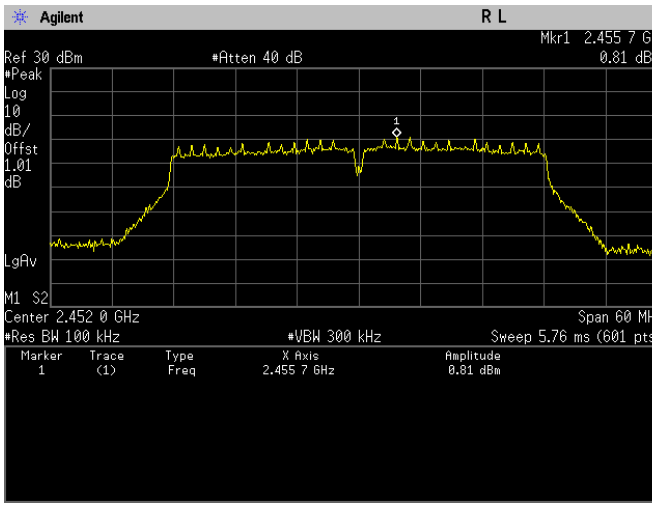
Conducted Emissions(Peak). 802.11n, Frequency 2437 Emission Level, 10 GHz -> 15 GHz



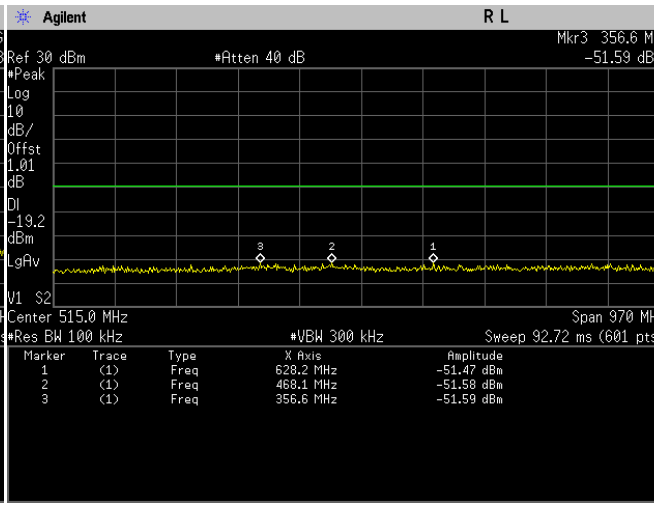
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



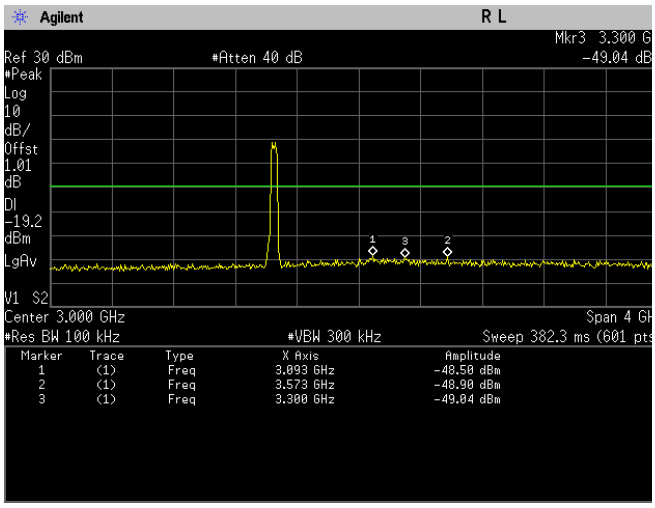
Conducted Emissions(Peak). 802.11n, Frequency 2437 MHz Emission Level, 20 GHz -> 25 GHz



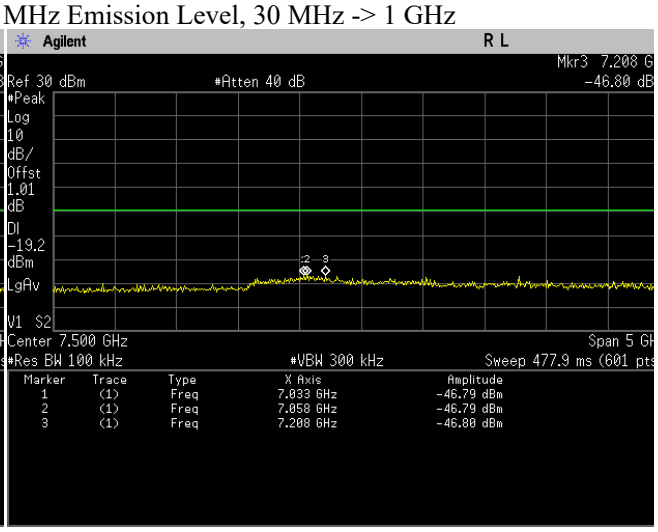
Conducted Emissions(Peak). 802.11n, Frequency 2452 MHz Reference Level



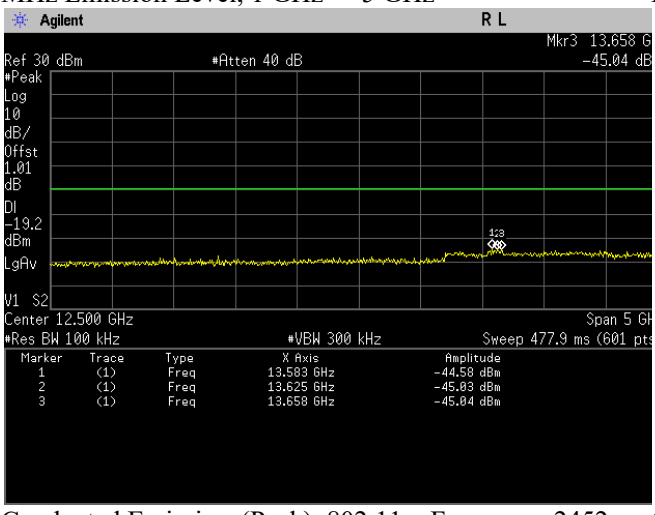
Conducted Emissions(Peak). 802.11n, Frequency 2452 MHz Emission Level, 30 MHz -> 1 GHz



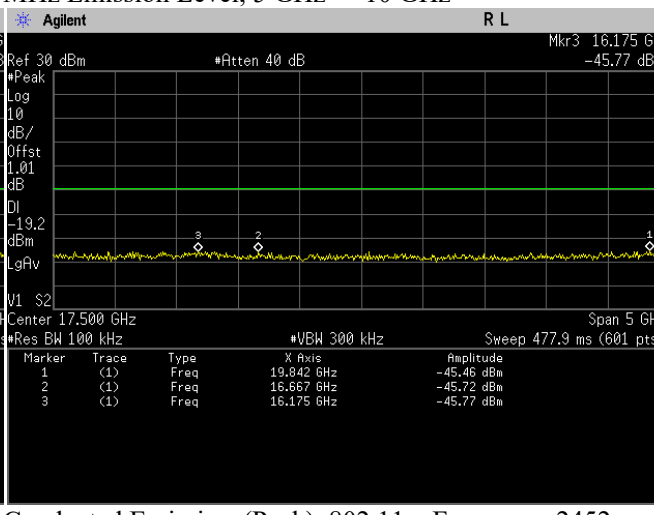
Conducted Emissions(Peak). 802.11n, Frequency 2452 MHz Emission Level, 1 GHz -> 5 GHz



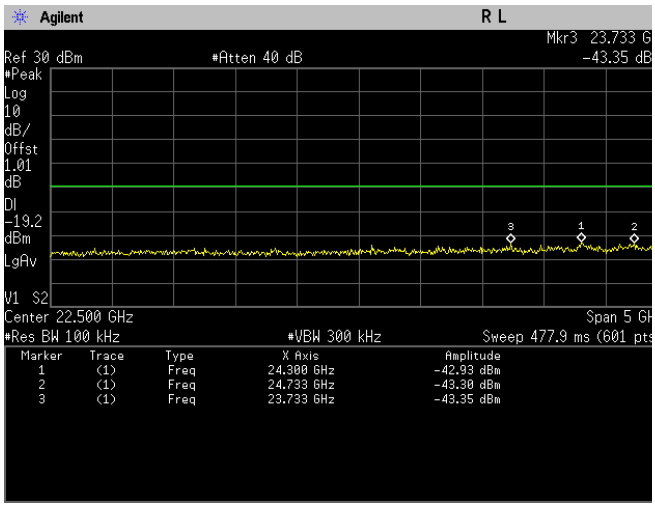
Conducted Emissions(Peak). 802.11n, Frequency 2452 MHz Emission Level, 5 GHz -> 10 GHz



Conducted Emissions(Peak). 802.11n, Frequency 2452 Emission Level, 10 GHz -> 15 GHz



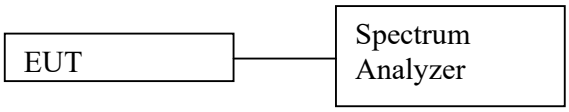
Conducted Emissions(Peak). 802.11n, Frequency 2452 MHz Emission Level, 15 GHz -> 20 GHz



Conducted Emissions(Peak). 802.11n, Frequency 2452 MHz Emission Level, 20 GHz -> 25 GHz

6.6. Band edge Conducted Spurious Emission

6.6.1. Test Setup



a) Check and ensure the spectrum analyzer well calibrate.
b) Turn on the DUT and set DUT to transmit maximum power.
c) Connect DUT's antenna terminal to spectrum analyzer with a low loss cable.
d) Setting of Spectrum analyzer :
    a. RBW = 100 kHz
    b. VBW = 300 kHz
    c. Detector mode = Peak
    d. Trace = Max Hold
    e. Sweep = auto
e) Use the peak marker function to measure highest emission.
f) Measure every antenna port by repeat the step above for MIMO measurement.

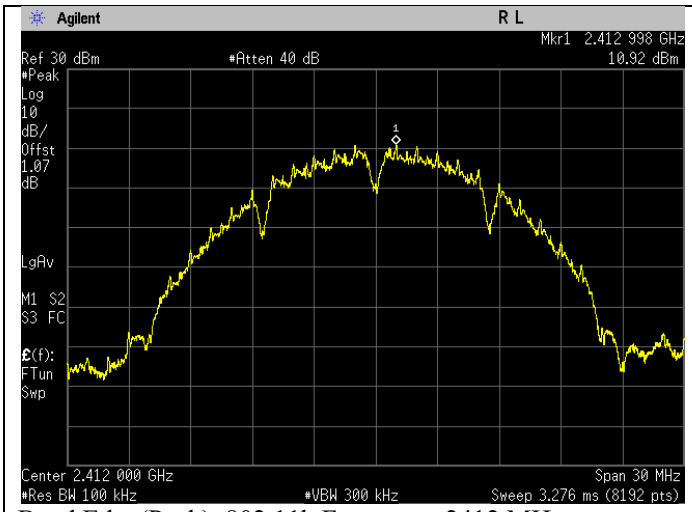
6.6.2. Test Limits:

Normal Condition (25 º C)
Shall be at least 20 dB below peak (max) power.

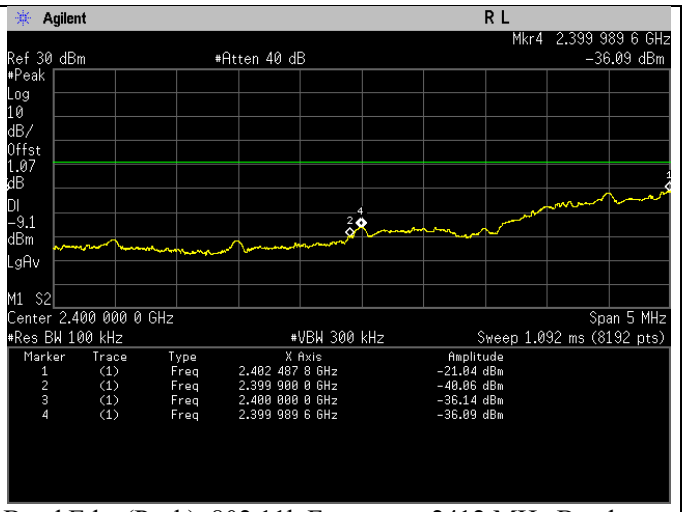
6.6.3. Test Result

802.11b

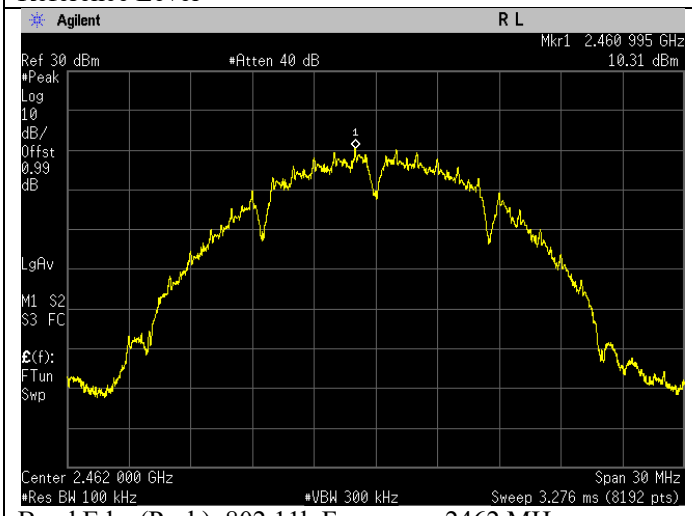
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11b	DSSS	QPSK	2	2412	2399.99	-36.09	Pass
802.11b	DSSS	QPSK	2	2462	2483.54	-49.81	Pass



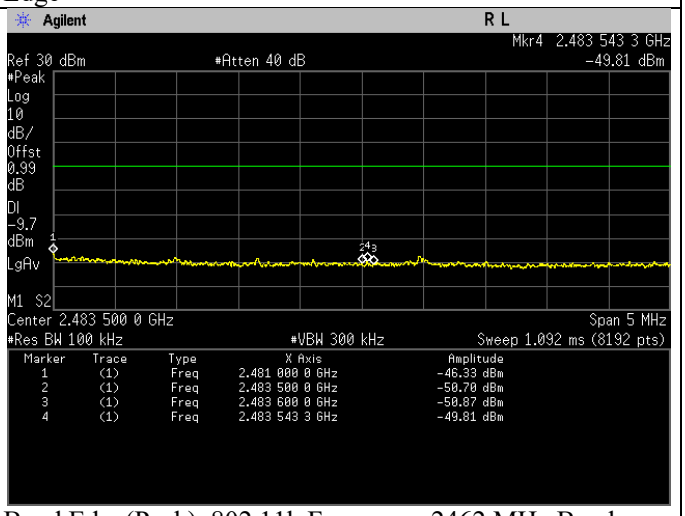
Band Edge(Peak). 802.11b Frequency 2412 MHz Reference Level



Band Edge(Peak). 802.11b Frequency 2412 MHz Band Edge



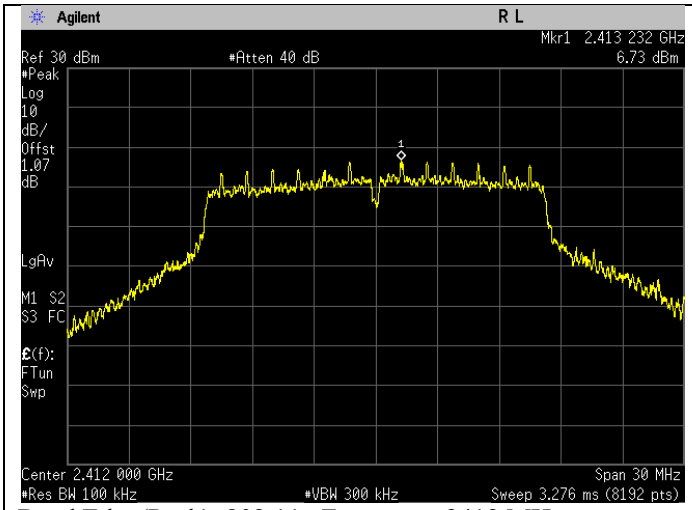
Band Edge(Peak). 802.11b Frequency 2462 MHz Reference Level



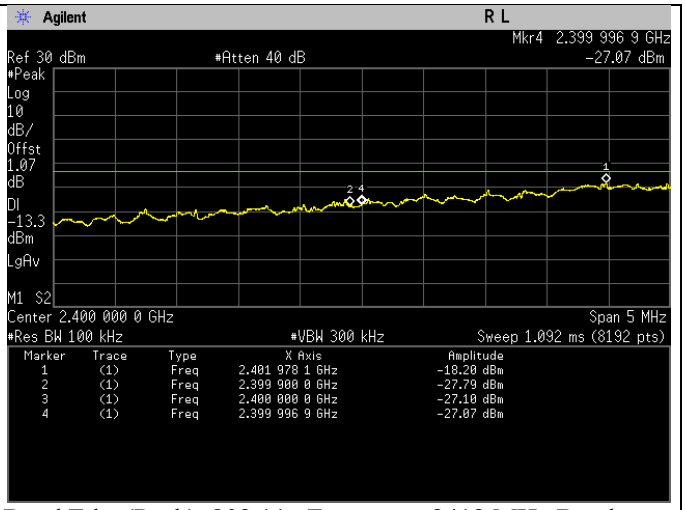
Band Edge(Peak). 802.11b Frequency 2462 MHz Band Edge

802.11g

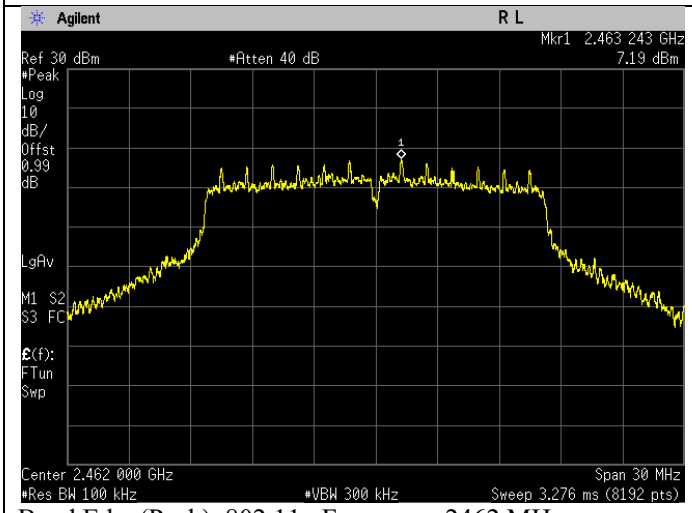
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11g	OFDM	BPSK	6	2412	2400.00	-27.07	Pass
802.11g	OFDM	BPSK	6	2462	2483.57	-45.67	Pass



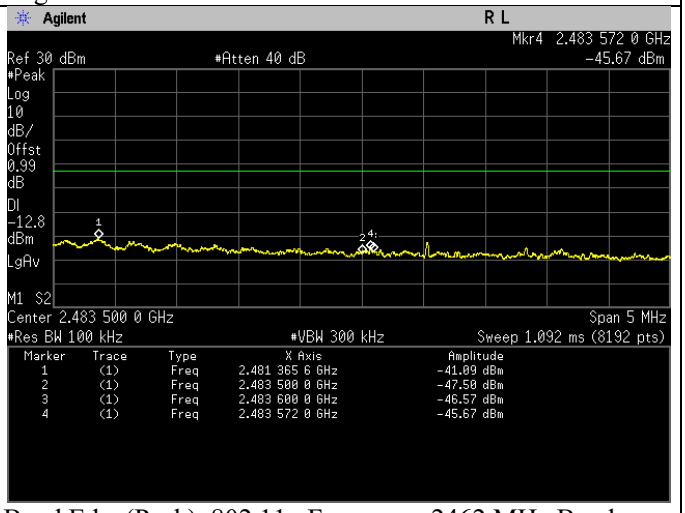
Band Edge(Peak). 802.11g Frequency 2412 MHz Reference Level



Band Edge(Peak). 802.11g Frequency 2412 MHz Band Edge



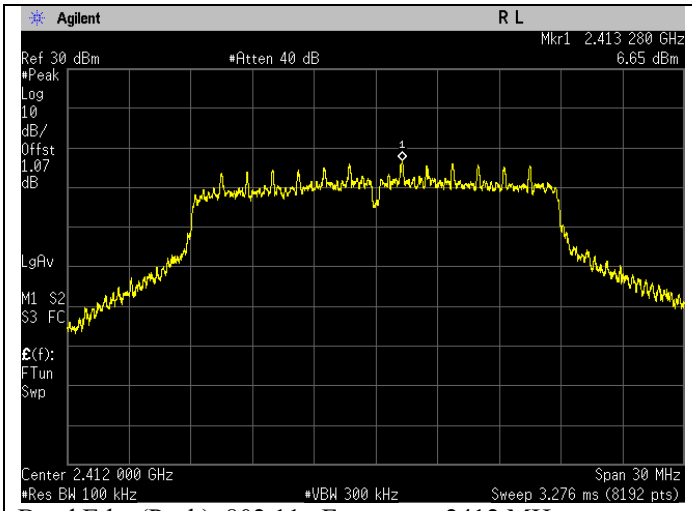
Band Edge(Peak). 802.11g Frequency 2462 MHz Reference Level



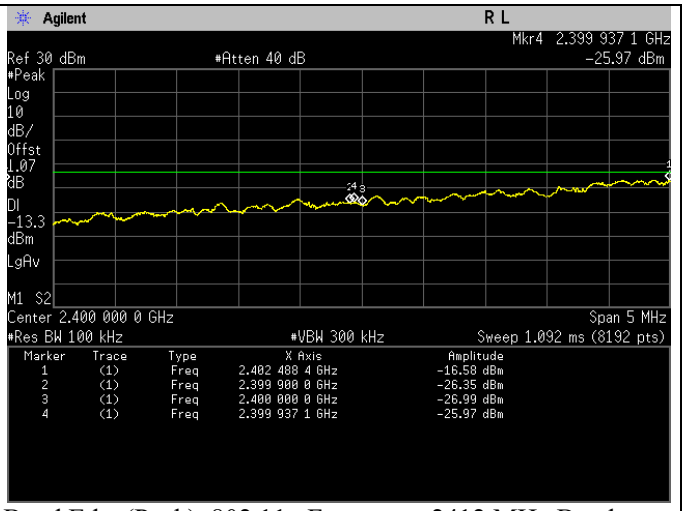
Band Edge(Peak). 802.11g Frequency 2462 MHz Band Edge

802.11n (HT20)

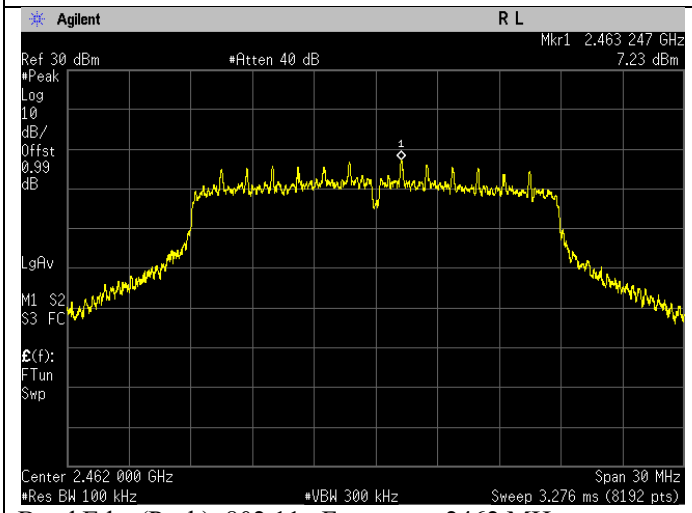
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11n	OFDM	BPSK	6.5	2412	2399.94	-25.97	Pass
802.11n	OFDM	BPSK	6.5	2462	2483.52	-45.93	Pass



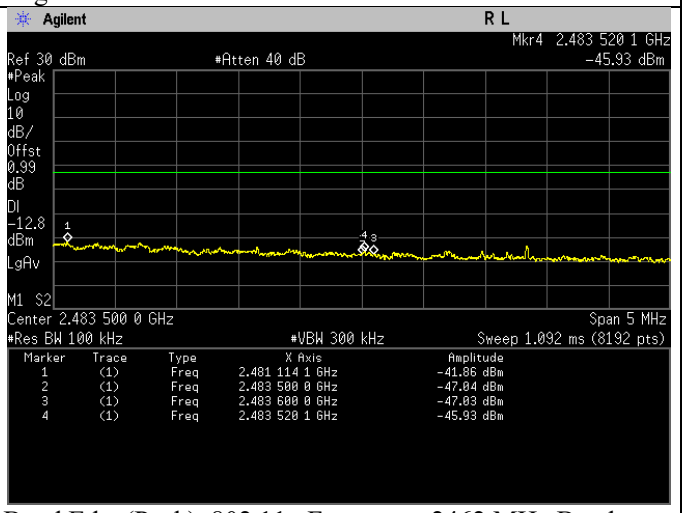
Band Edge(Peak). 802.11n Frequency 2412 MHz Reference Level



Band Edge(Peak). 802.11n Frequency 2412 MHz Band Edge



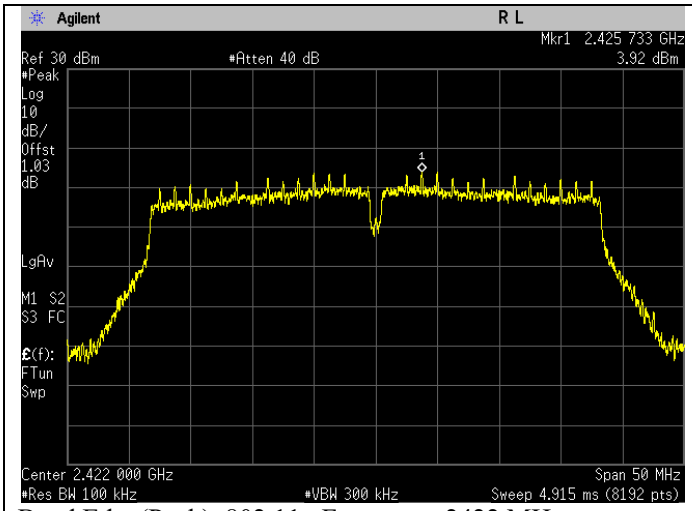
Band Edge(Peak). 802.11n Frequency 2462 MHz Reference Level



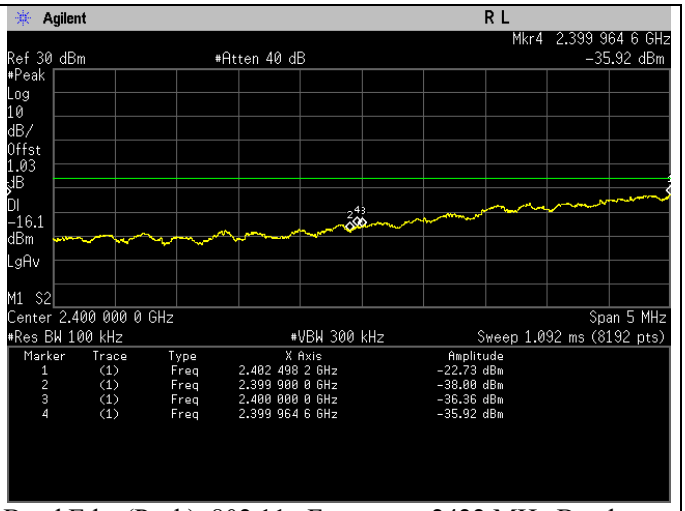
Band Edge(Peak). 802.11n Frequency 2462 MHz Band Edge

802.11n (HT40)

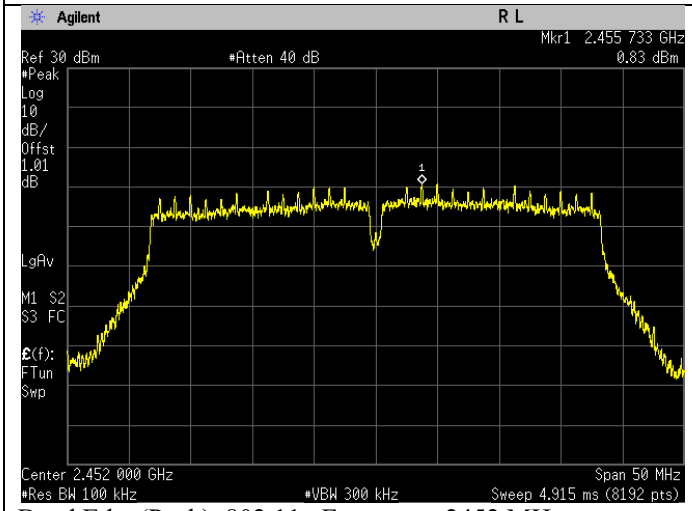
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11n	OFDM	BPSK	13.5	2422	2399.96	-35.91	Pass
802.11n	OFDM	BPSK	13.5	2452	2483.51	-46.94	Pass



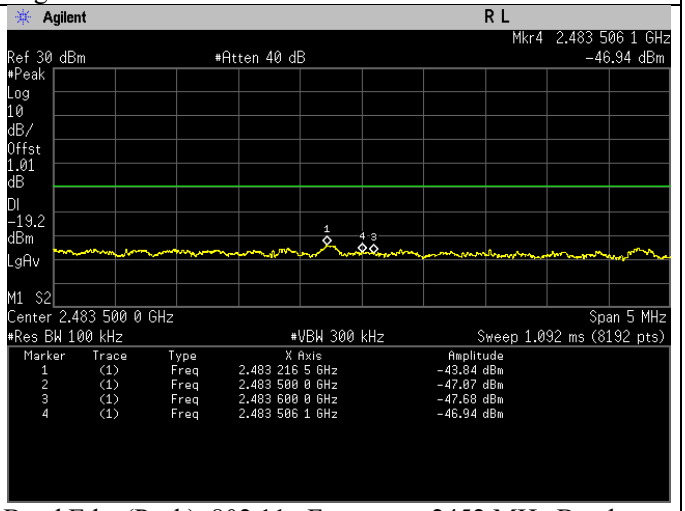
Band Edge(Peak). 802.11n Frequency 2422 MHz Reference Level



Band Edge(Peak). 802.11n Frequency 2422 MHz Band Edge



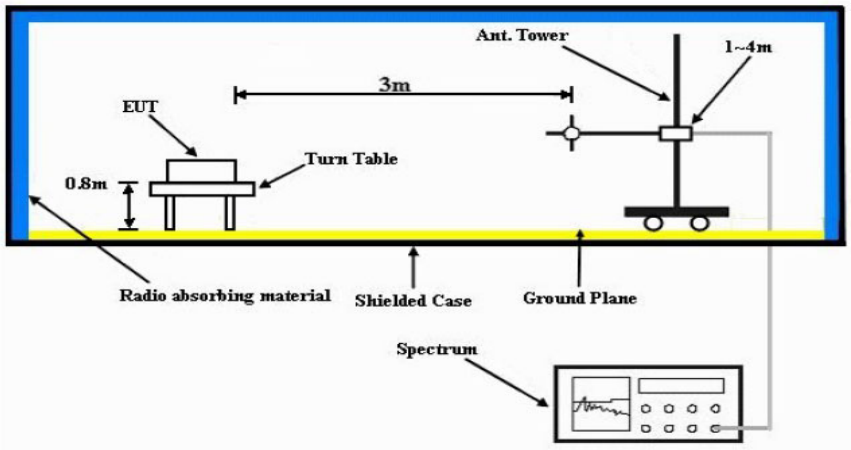
Band Edge(Peak). 802.11n Frequency 2452 MHz Reference Level



Band Edge(Peak). 802.11n Frequency 2452 MHz Band Edge

6.7. Radiated Emission within restricted Bands

6.7.1. Test Setup



a. The EUT is placed on the top of a rotating table 0.8m above the ground (<1GHz) and 1.5m above the ground (>1GHz) at a 3m semi-anechoic chamber. The table is rotated 360 degrees to determine the position of the highest radiation.
b. The EUT is set 3m away from the interference-receiving antenna, which is mounted on the top of a variable-height antenna tower.
c. The antenna is Bilog/Horn antenna depend on which frequency range uses, and its height 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.
d. For each suspected emission, the EUT is arranged to its worst case and then the antenna is tuned to heights from 1m to 4m and the rotatable table is turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system is set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode is fall within the range of 10dB from the limit specified, the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Otherwise, the testing could be stopped and the peak values of the EUT would be reported.

NOTE:

a. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1GHz.

b. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1 GHz.
c. All modes of operation were investigated and the worst-case emissions are reported.

6.7.2. **Test Limits:**

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

NOTE:

a. The lower limit shall apply at the transition frequencies.
b. Emission level (dBuV/m) = 20 log Emission level (uV/m).
c. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

6.7.3. Test Data:

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11b)

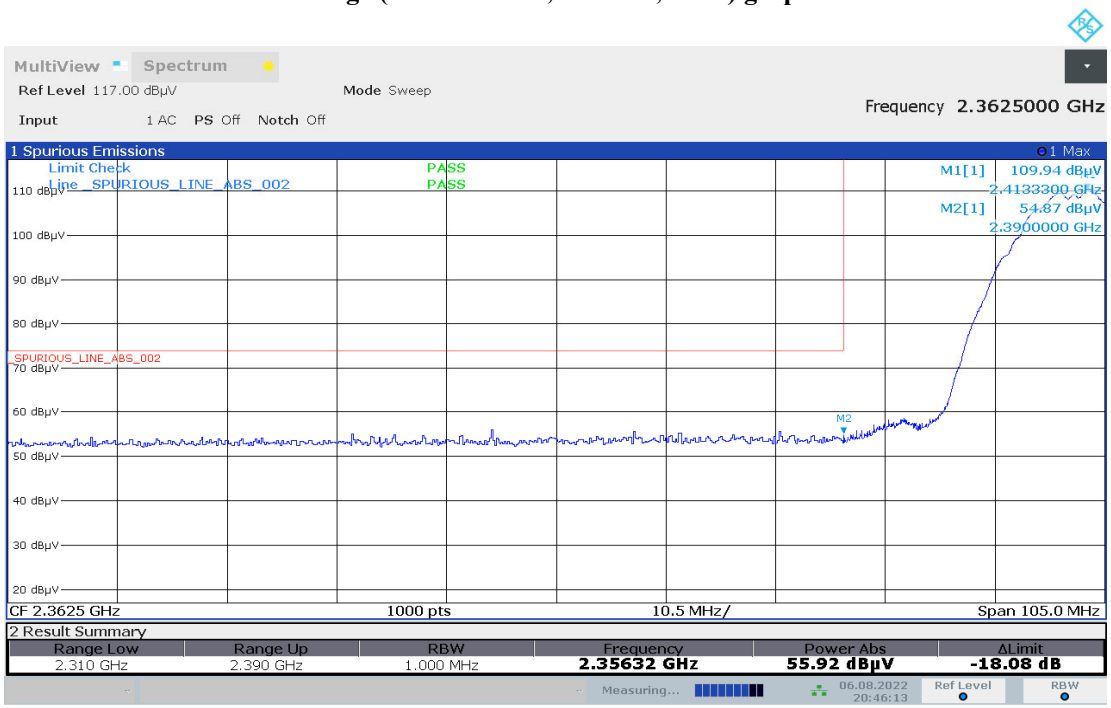
Restricted Band Edge (Low Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2390.0000	-	54.8651	42.7309	-	74.0000	54.0000	-	-19.1349	-11.2691	-
Horizontal Radiated Emission Result										
2390.0000	-	53.8887	42.6682	-	74.0000	54.0000	-	-20.1113	-11.3318	-

Remarks: Pass Result	Marginal Result	Fail Result

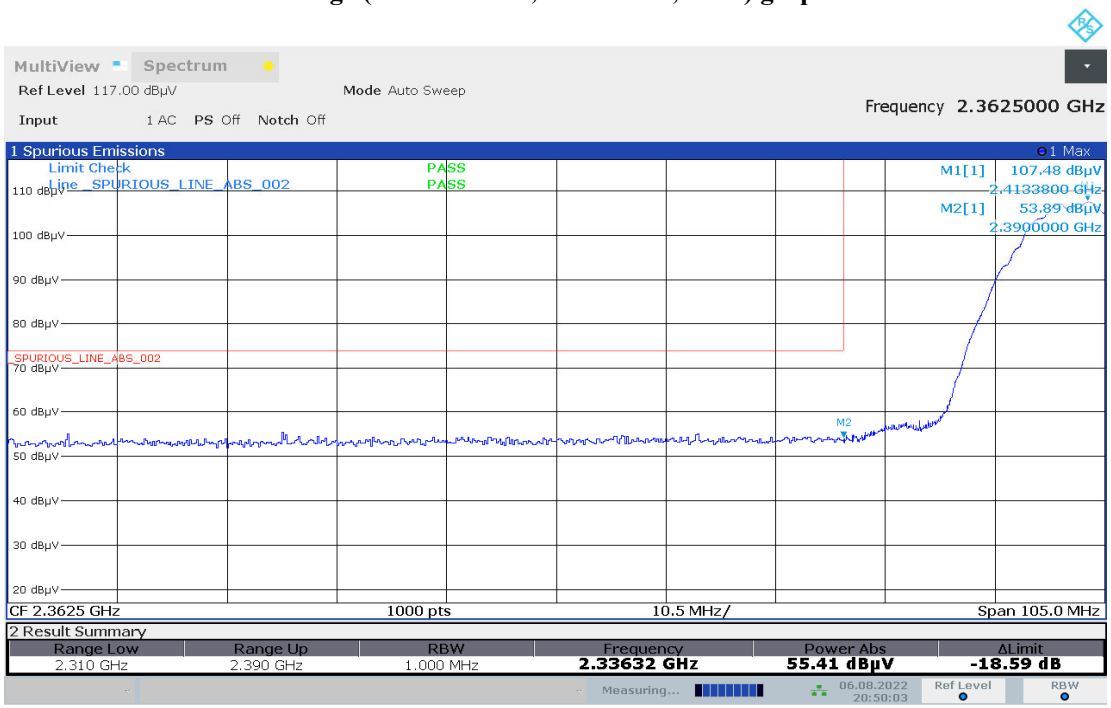
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Sun, 7 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



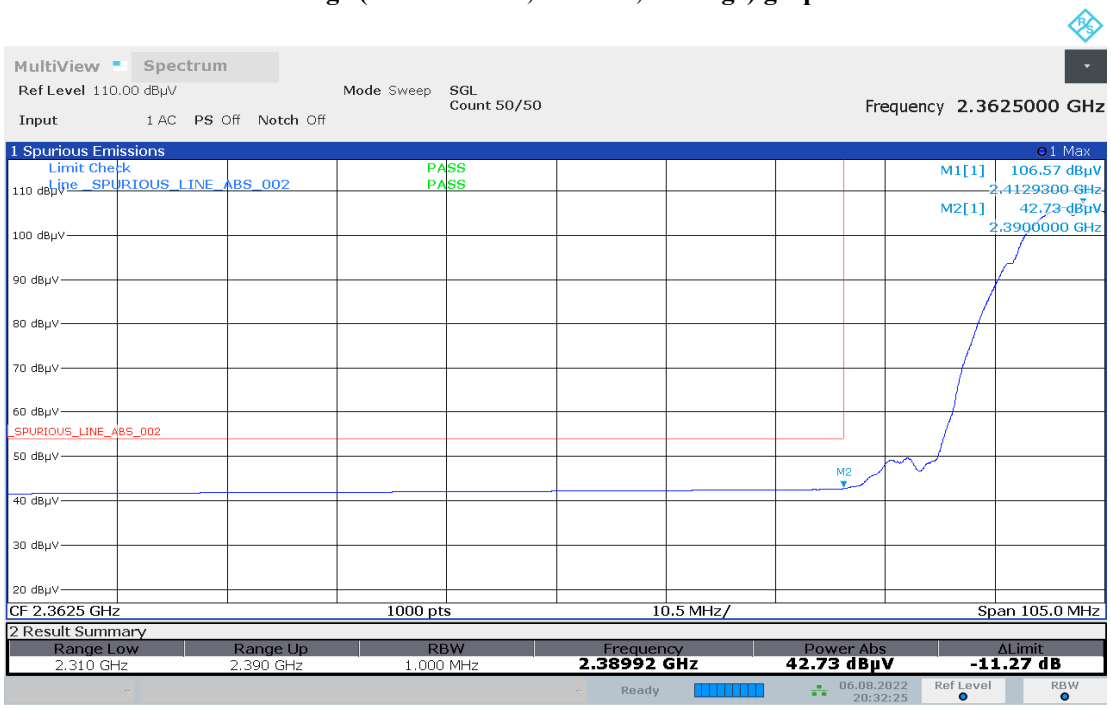
20:46:13 06.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



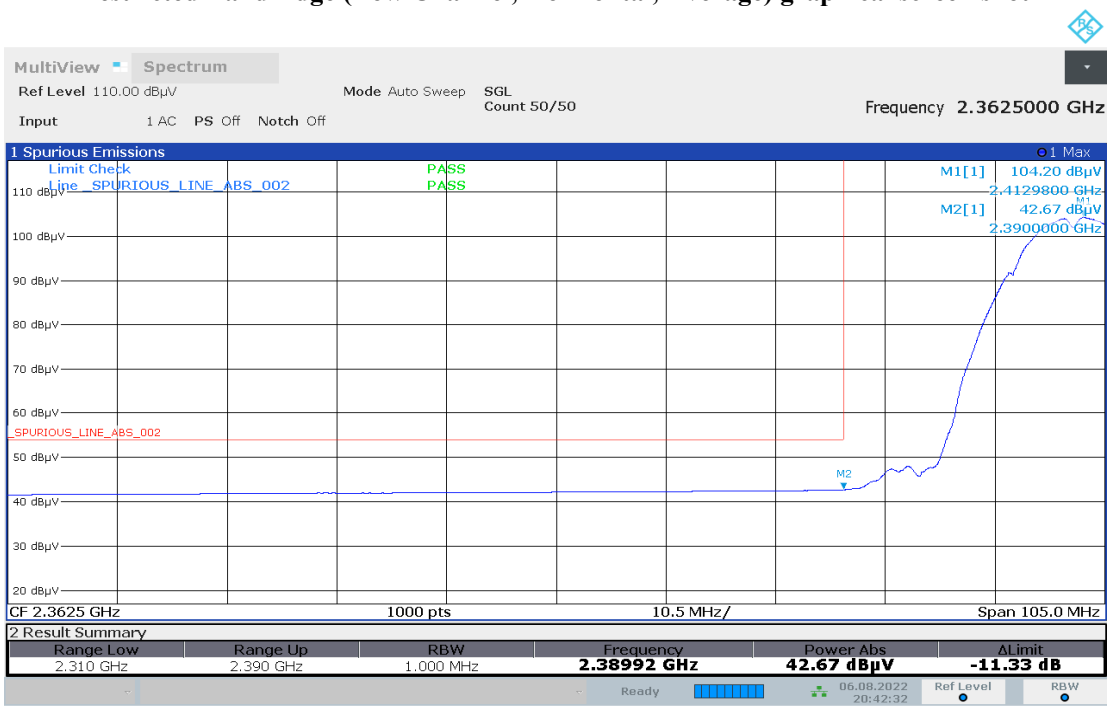
20:50:03 06.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



20:32:25 06.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



20:42:33 06.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11b)

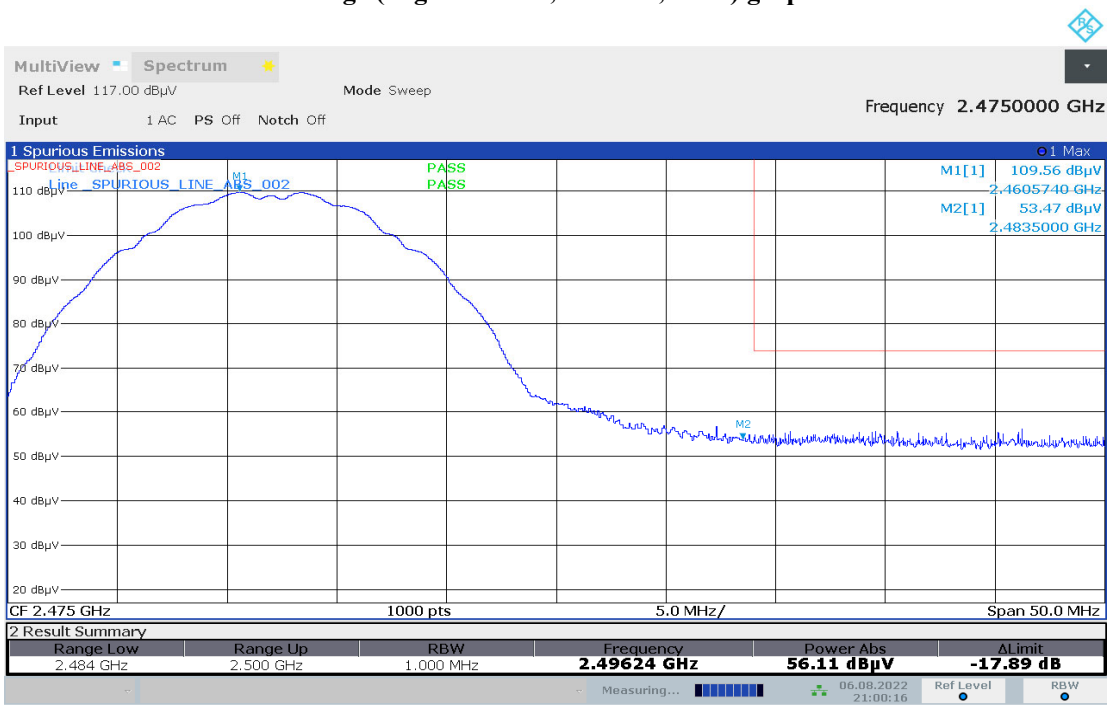
Restricted Band Edge (High Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2483.5000	-	53.4696	43.9840	-	74.0000	54.0000	-	-20.5304	-10.0160	-
2487.4720	-	-	44.1744	-	-	54.0000	-	-	-9.8256	-
Horizontal Radiated Emission Result										
2483.5000	-	53.4562	43.5484	-	74.0000	54.0000	-	-20.5438	-10.4516	-

Remarks: Pass Result	Marginal Result	Fail Result

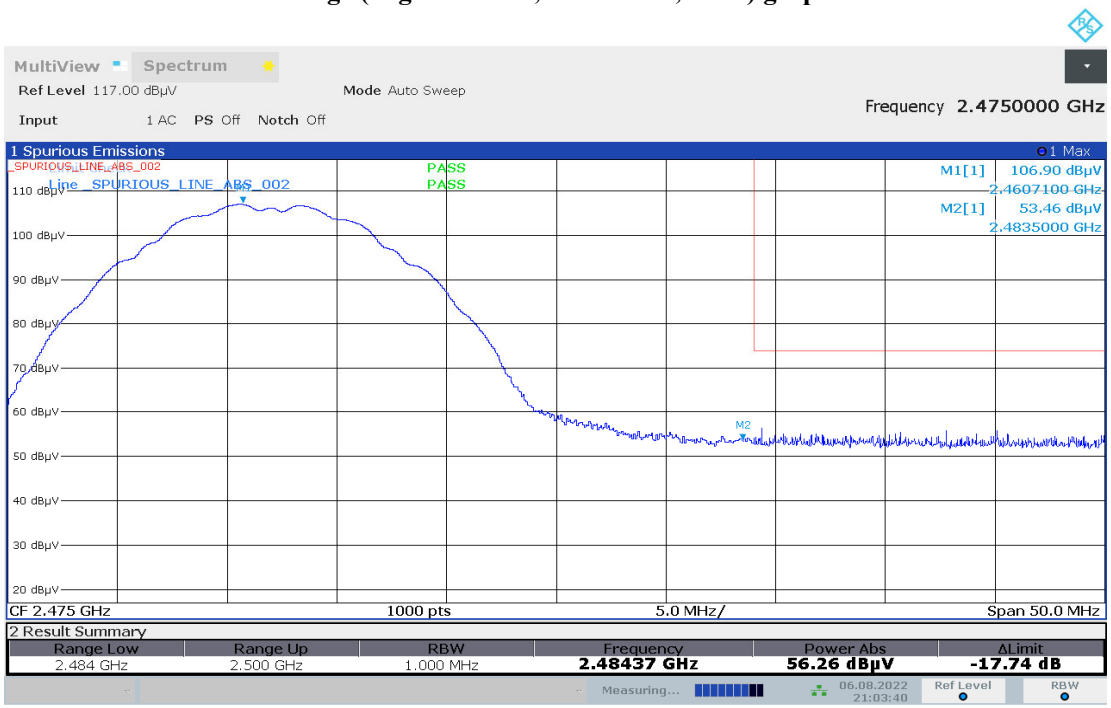
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Sun, 7 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



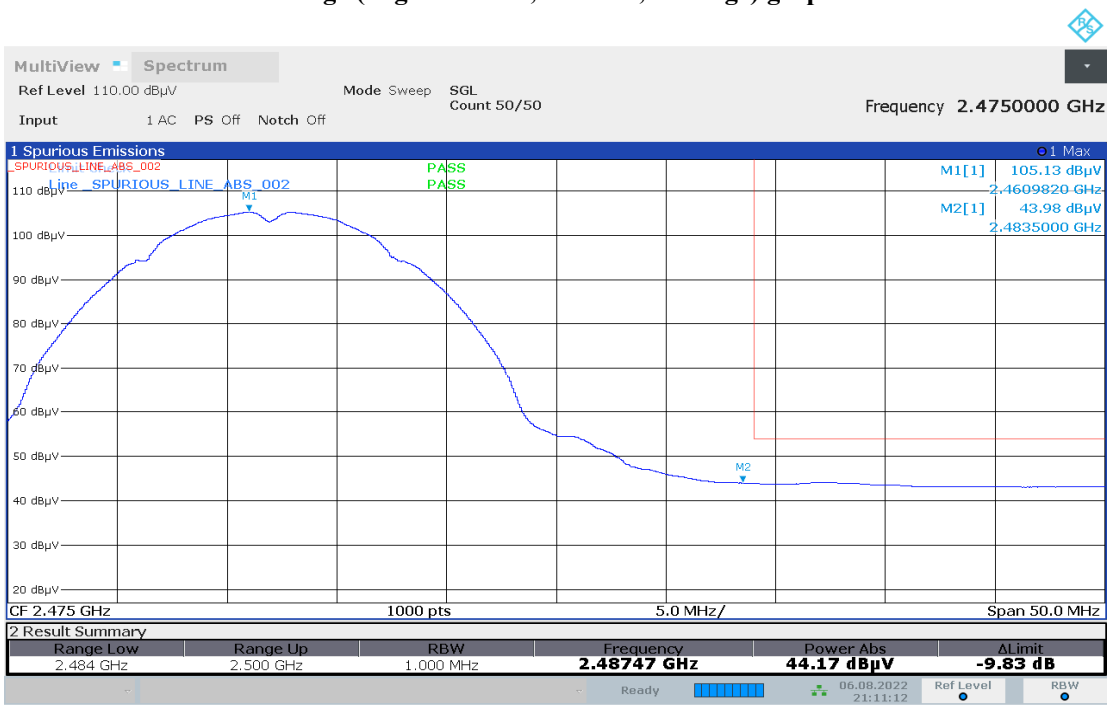
21:00:17 06.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



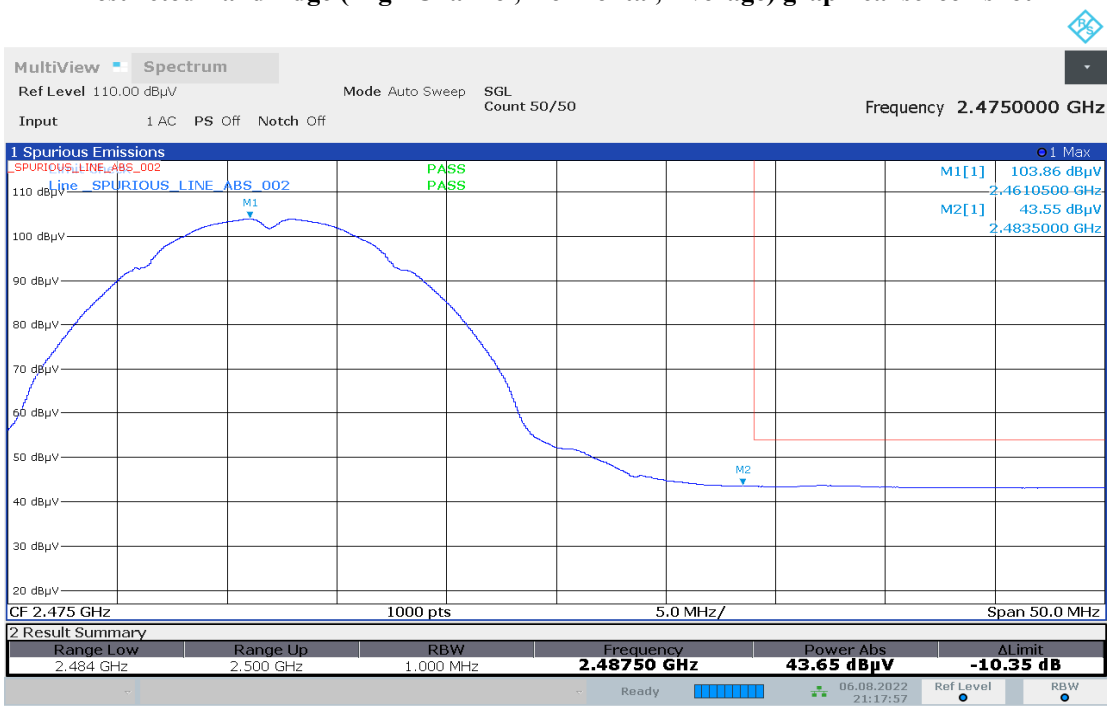
21:03:40 06.08.2022

Restricted Band Edge (High Channel, Vertical, Average) graphical screen shot



21:11:12 06.08.2022

Restricted Band Edge (High Channel, Horizontal, Average) graphical screen shot



21:17:57 06.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11g)

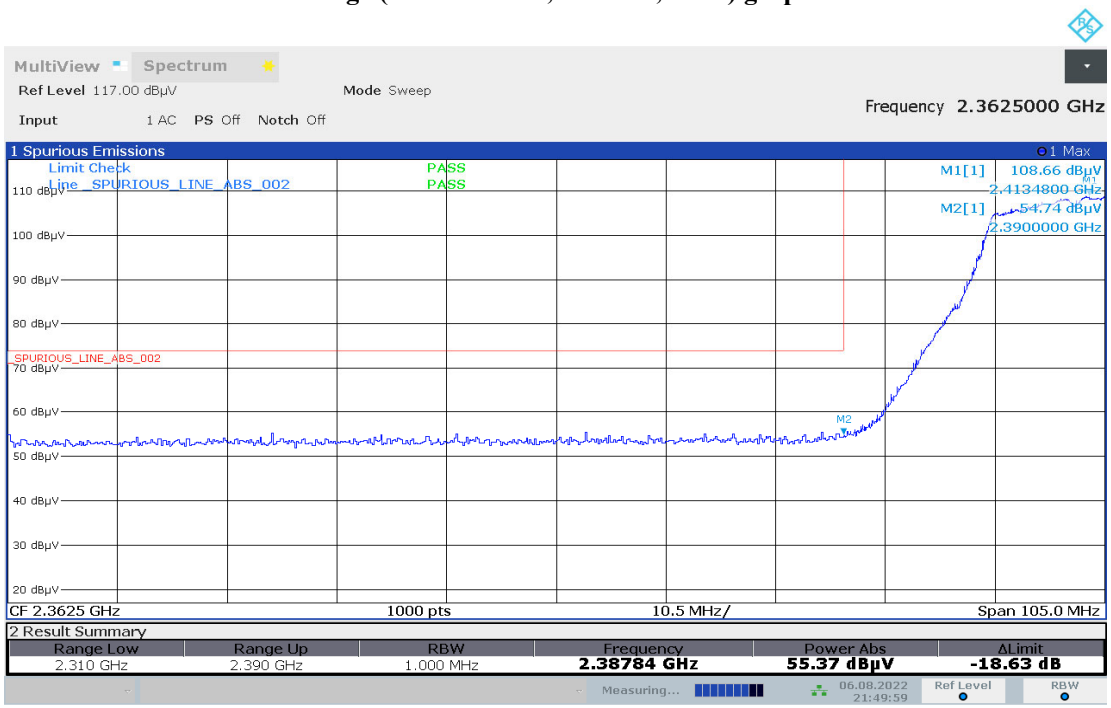
Restricted Band Edge (Low Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2390.0000	-	54.7404	43.1576	-	74.0000	54.0000	-	-19.2596	-10.8424	-
Horizontal Radiated Emission Result										
2390.0000	-	54.6748	42.9163	-	74.0000	54.0000	-	-19.3252	-11.0837	-

Remarks: Pass Result	Marginal Result	Fail Result

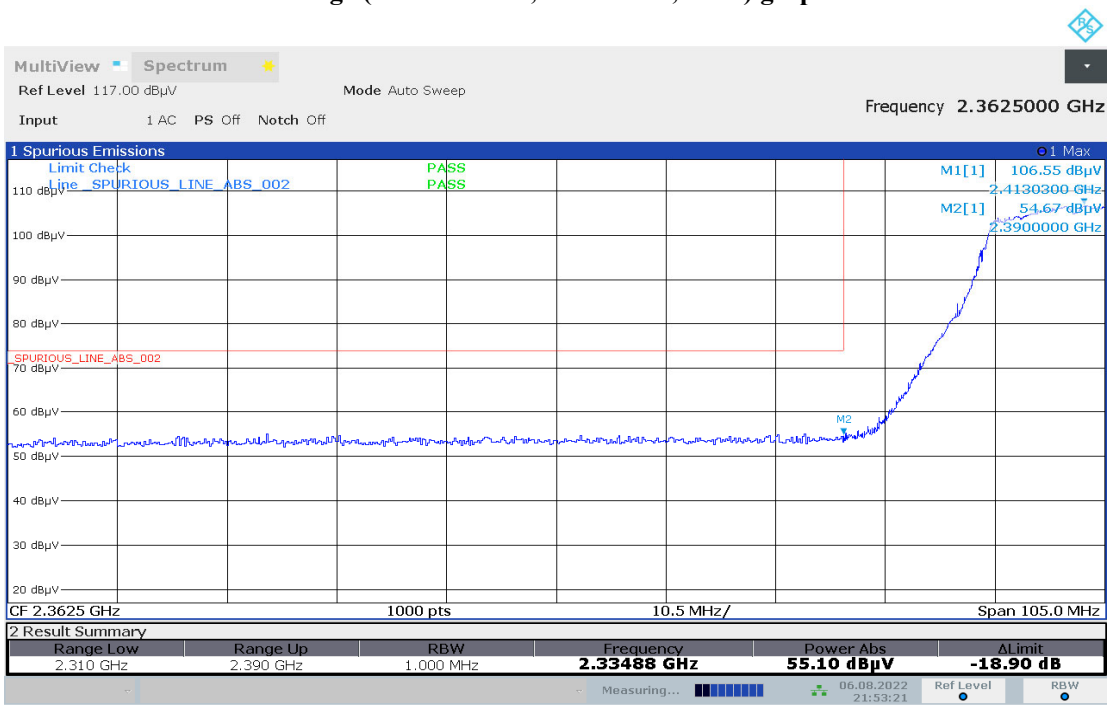
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Sun, 7 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



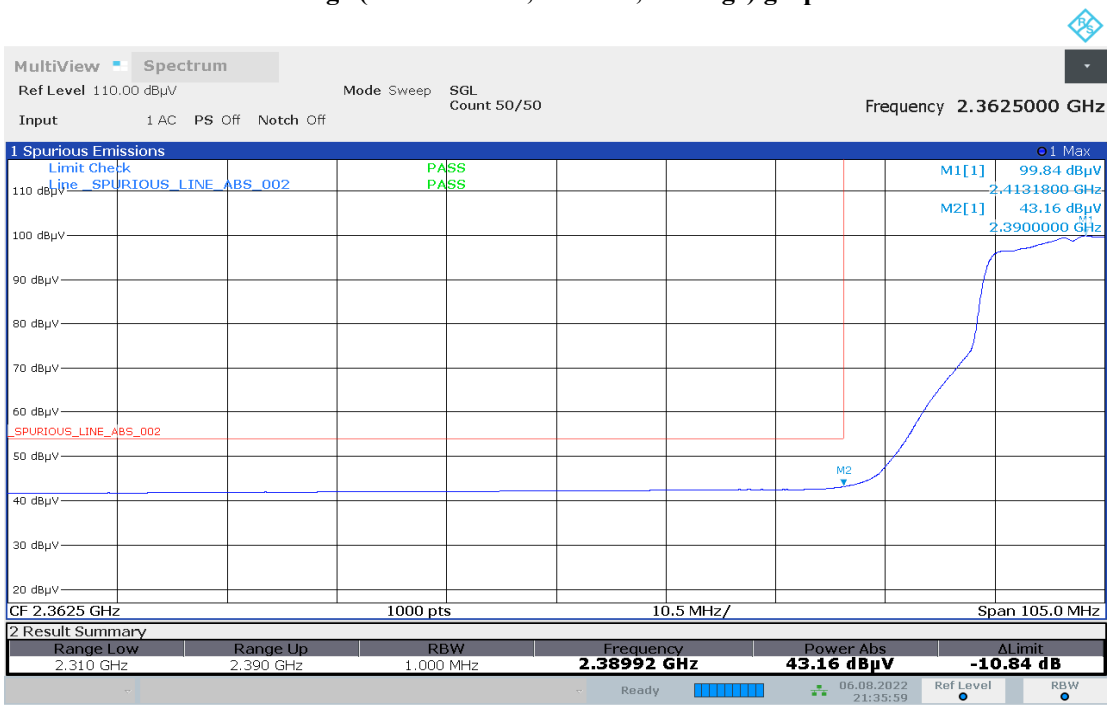
21:50:00 06.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



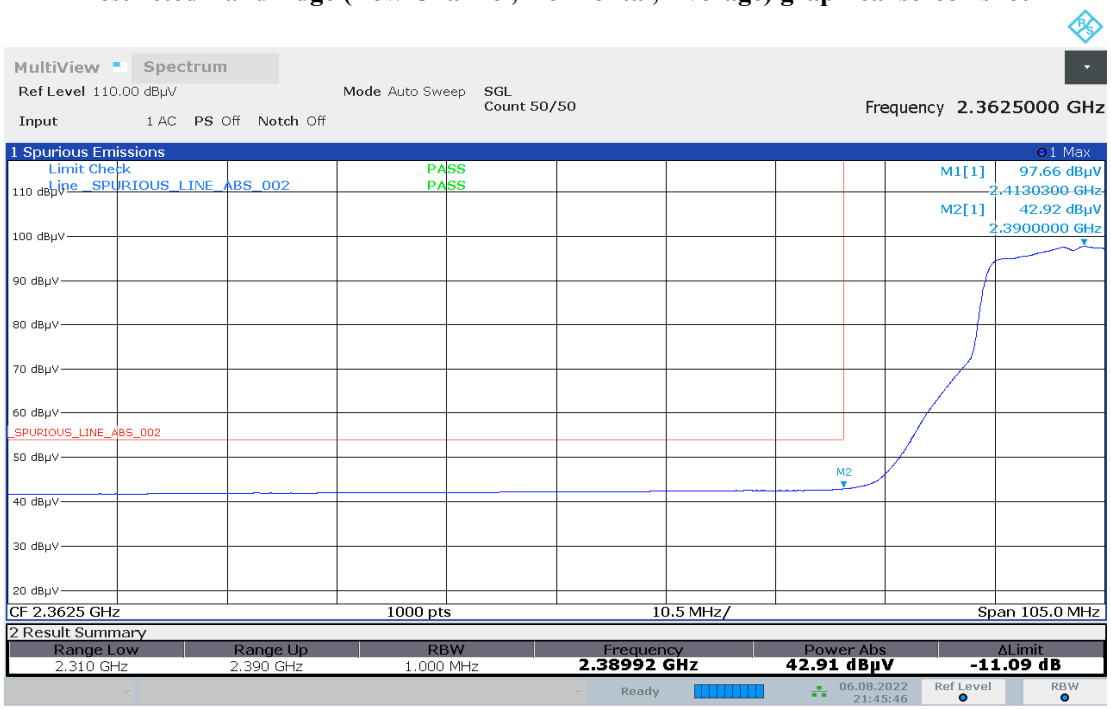
21:53:21 06.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



21:36:00 06.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



21:45:47 06.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11g)

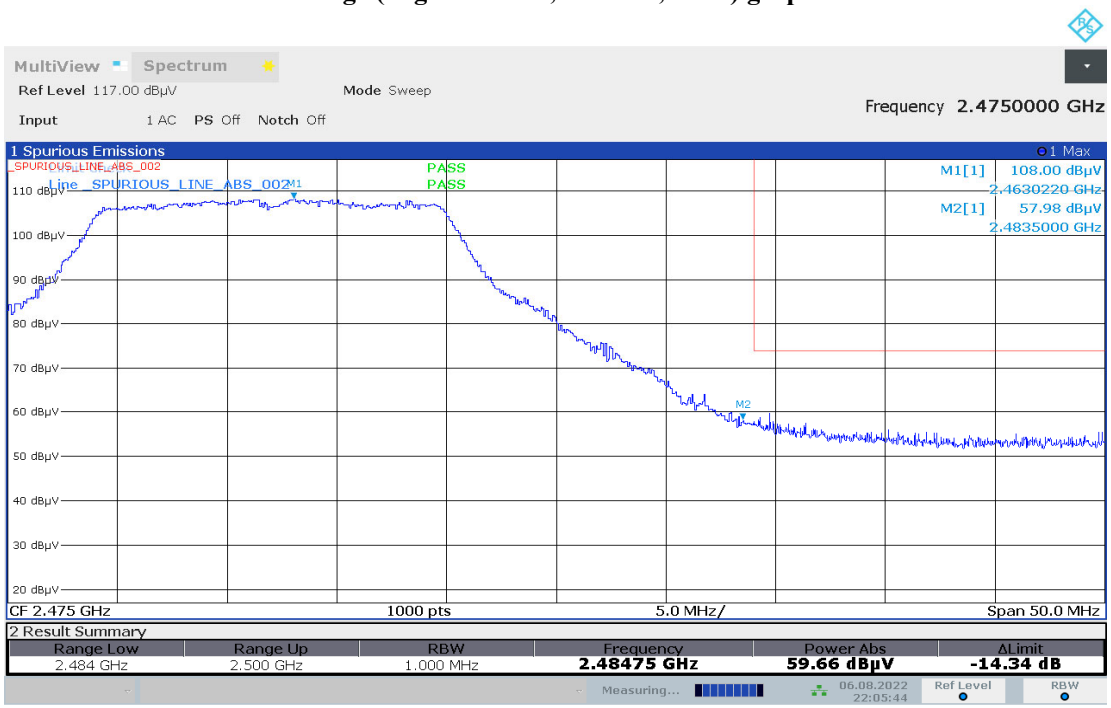
Restricted Band Edge (High Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2483.5000	-	57.9798	47.5058	-	74.0000	54.0000	-	-16.0202	-6.4942	-
2484.0480	-	-	46.9541	-	-	54.0000	-	-	-7.0459	-
2484.7520	-	59.6582	-	-	74.0000	-	-	-14.3418	-	-
Horizontal Radiated Emission Result										
2483.5000	-	53.7319	45.6147	-	74.0000	54.0000	-	-20.2681	-8.3853	-
2484.0480	-	-	45.2557	-	-	54.0000	-	-	-8.7443	-
2484.7520	-	56.6066	-	-	74.0000	-	-	-17.3934	-	-

Remarks: Pass Result	Marginal Result	Fail Result

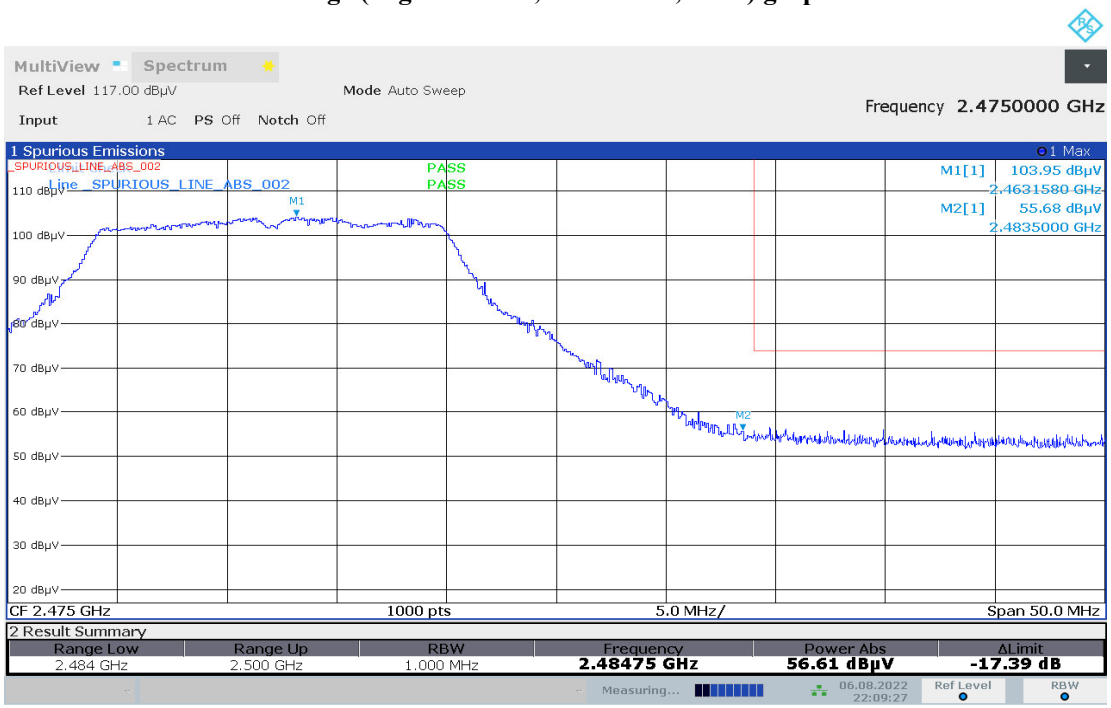
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Sun, 7 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



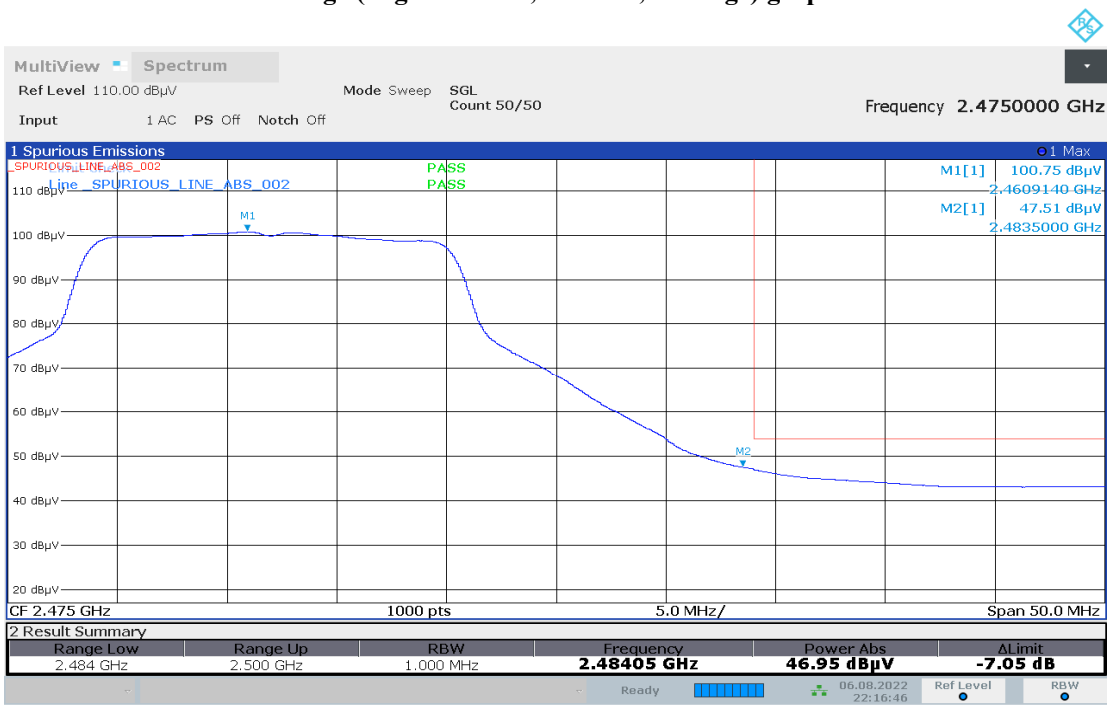
22:05:45 06.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



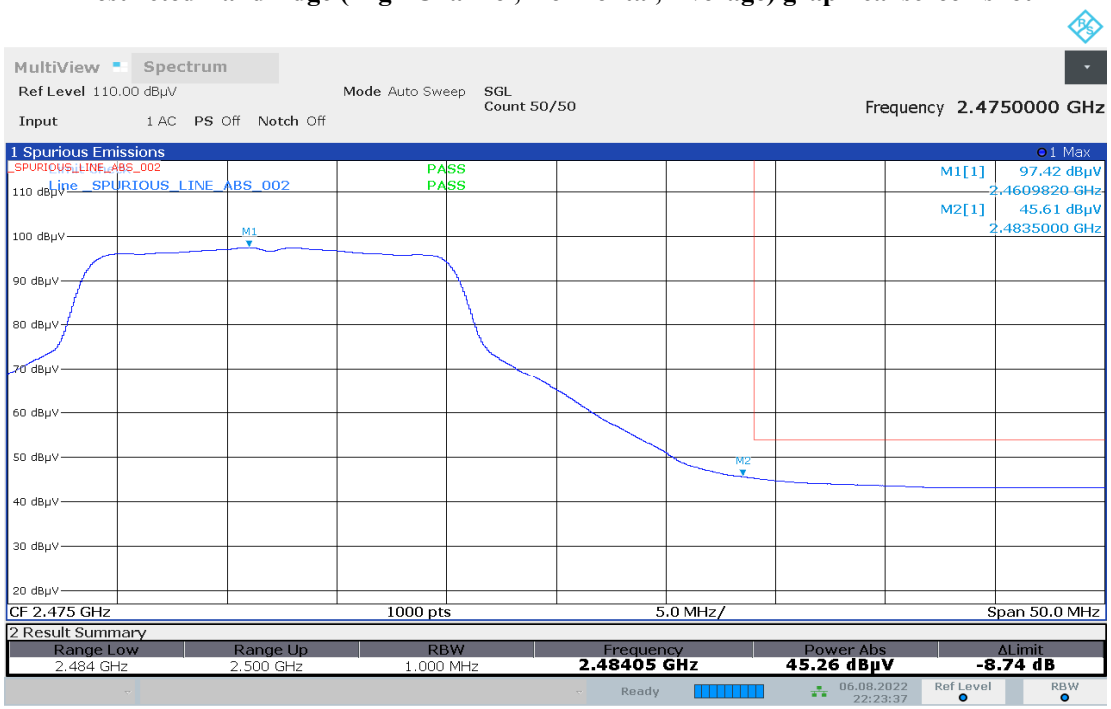
22:09:28 06.08.2022

Restricted Band Edge (High Channel, Vertical, Average) graphical screen shot



22:16:46 06.08.2022

Restricted Band Edge (High Channel, Horizontal, Average) graphical screen shot



22:23:38 06.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 20MHz)

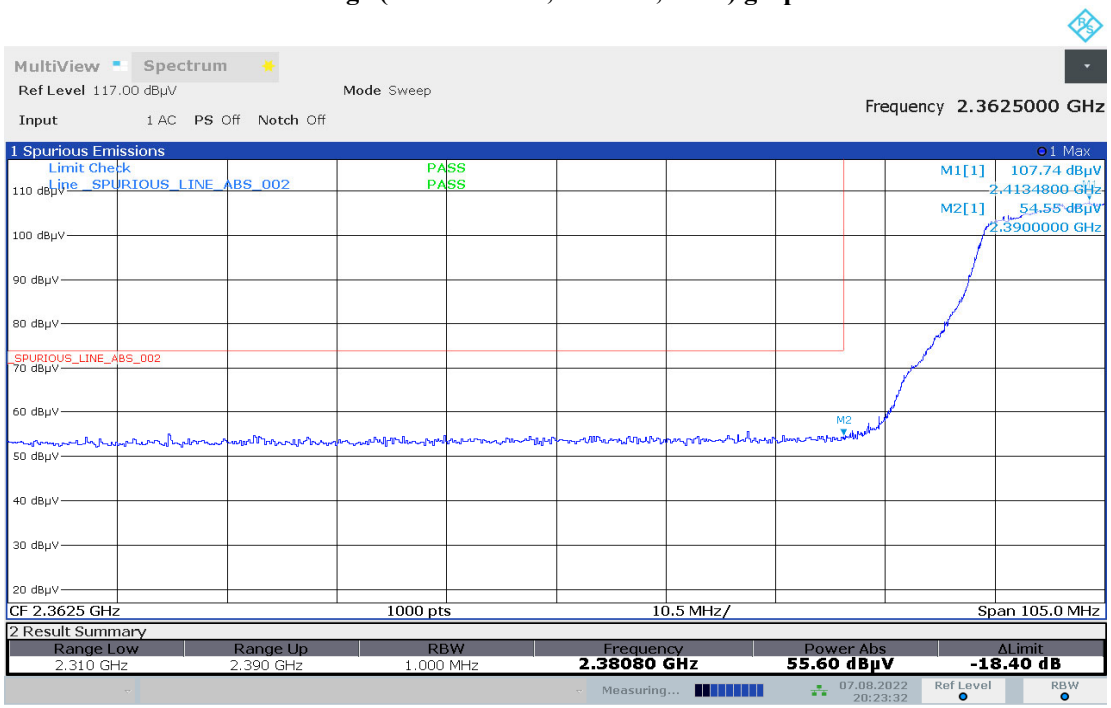
Restricted Band Edge (Low Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2390.0000	-	54.5549	44.1674	-	74.0000	54.0000	-	-19.4451	-9.8326	-
Horizontal Radiated Emission Result										
2390.0000	-	54.2545	43.1576	-	74.0000	54.0000	-	-19.7455	-10.8424	-

Remarks: Pass Result	Marginal Result	Fail Result

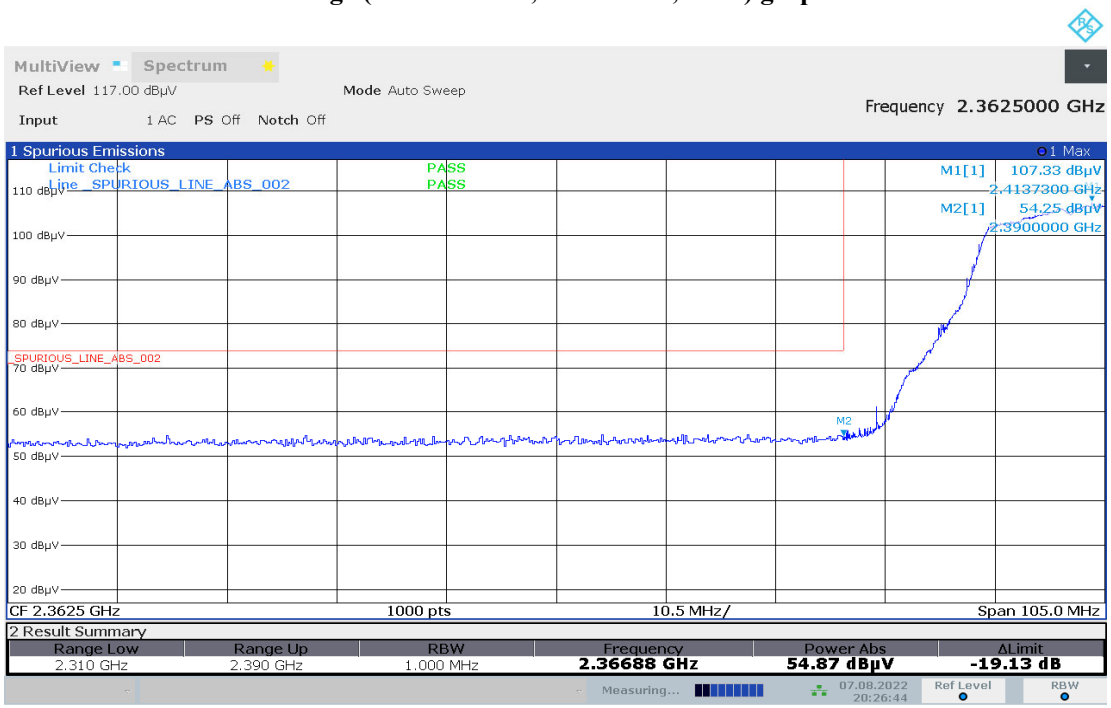
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



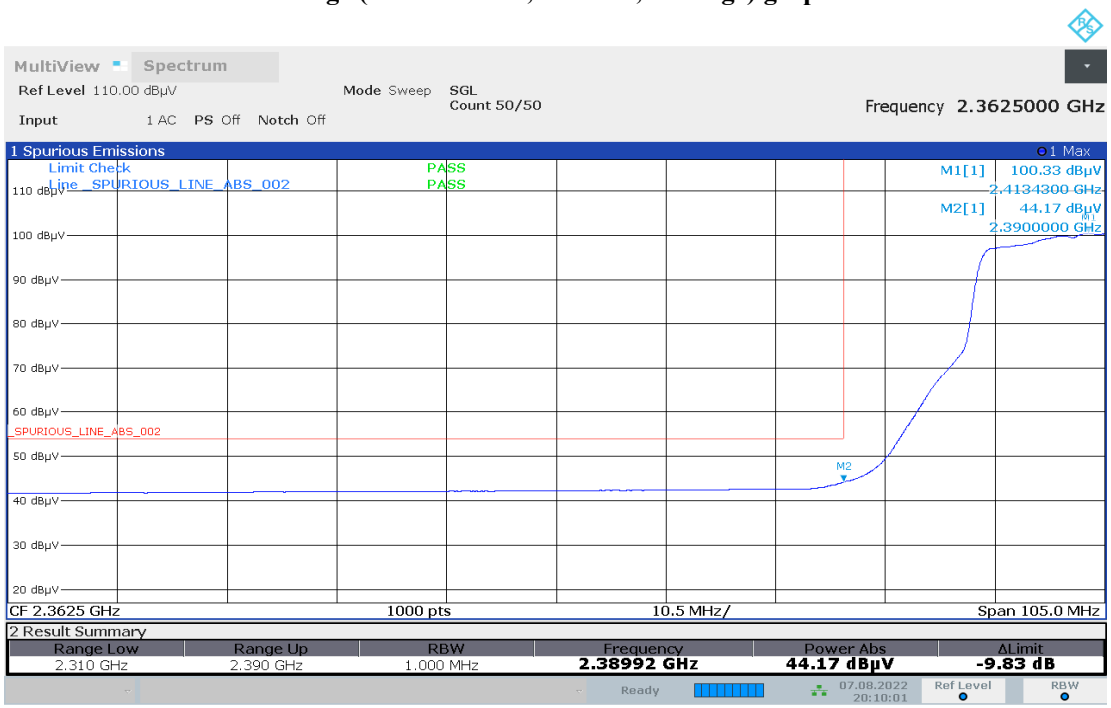
20:23:32 07.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



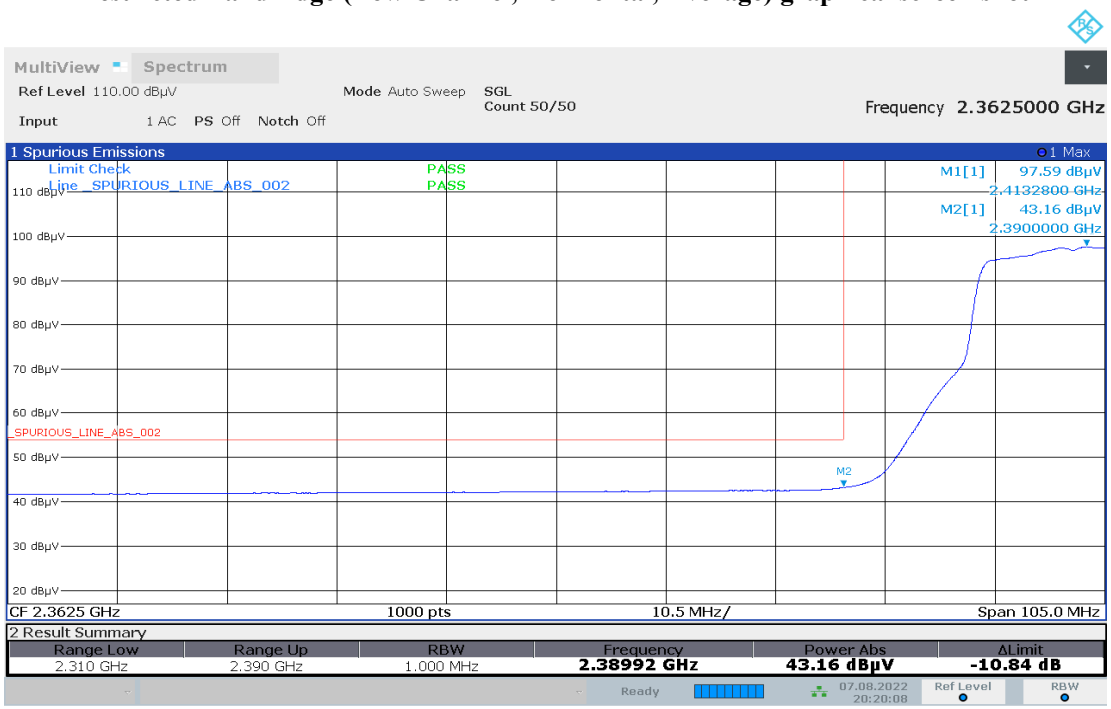
20:26:45 07.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



20:10:02 07.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



20:20:09 07.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 20MHz)

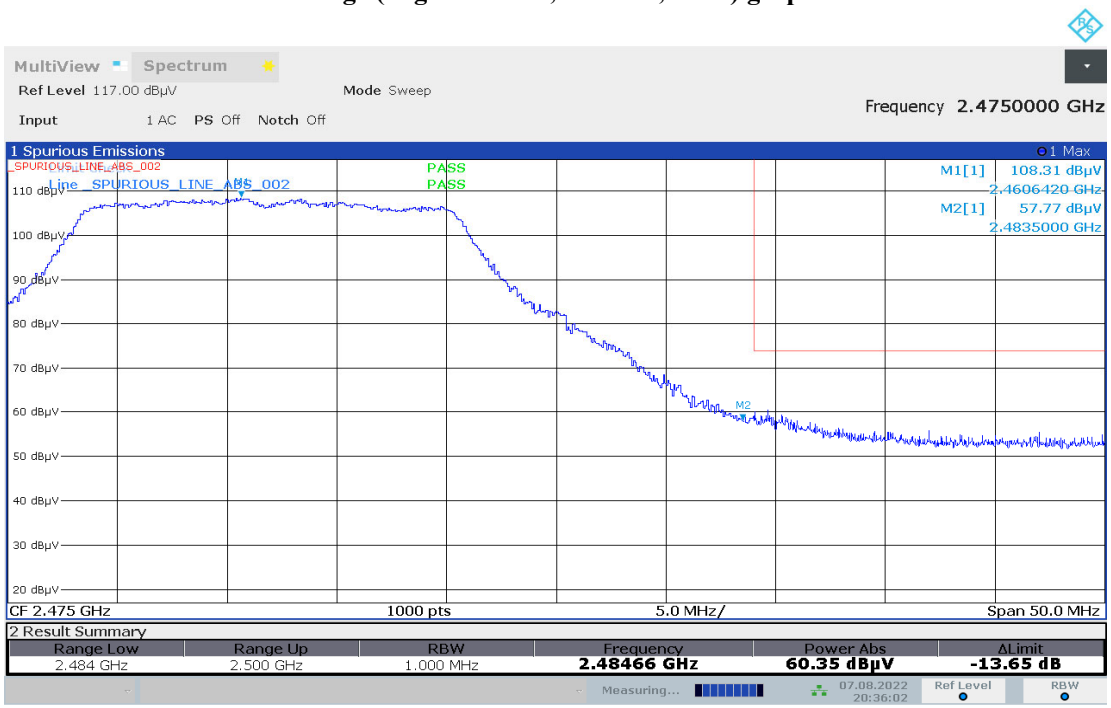
Restricted Band Edge (High Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2483.5000	-	57.7690	47.4426	-	74.0000	54.0000	-	-16.2310	-6.5574	-
Horizontal Radiated Emission Result										
2483.5000	-	52.8650	46.2556	-	74.0000	54.0000	-	-21.1350	-7.7444	-

Remarks: Pass Result	Marginal Result	Fail Result

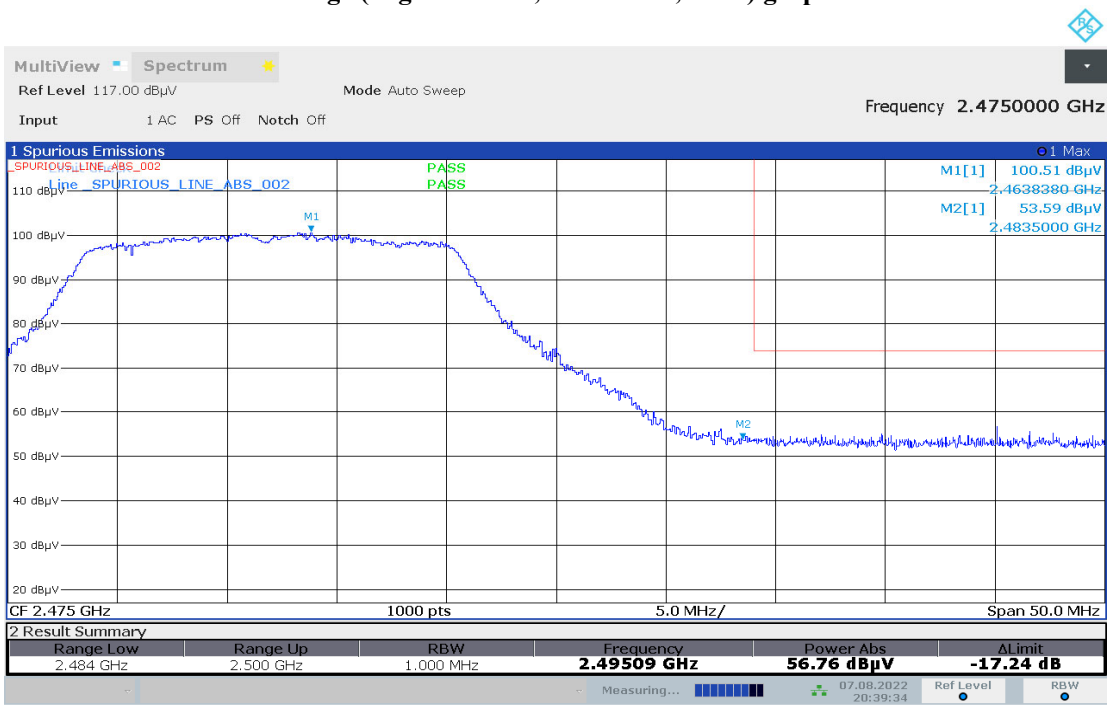
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



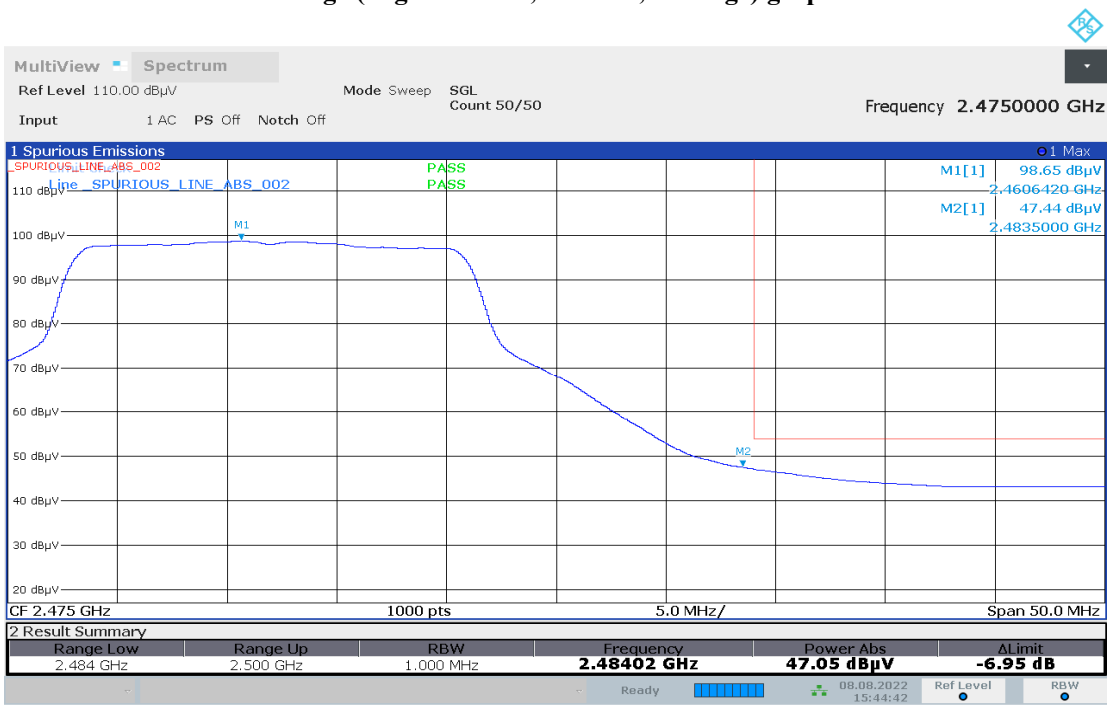
20:36:02 07.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



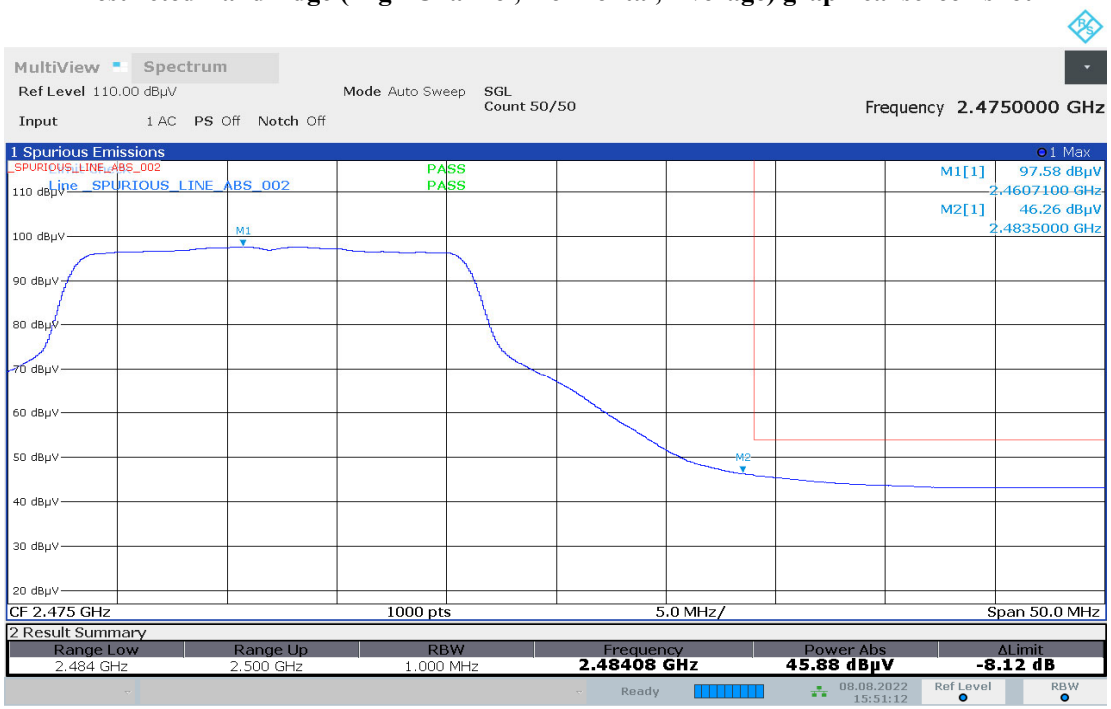
20:39:35 07.08.2022

Restricted Band Edge (High Channel, Vertical, Average) graphical screen shot



15:44:42 08.08.2022

Restricted Band Edge (High Channel, Horizontal, Average) graphical screen shot



15:51:12 08.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2422.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 40MHz)

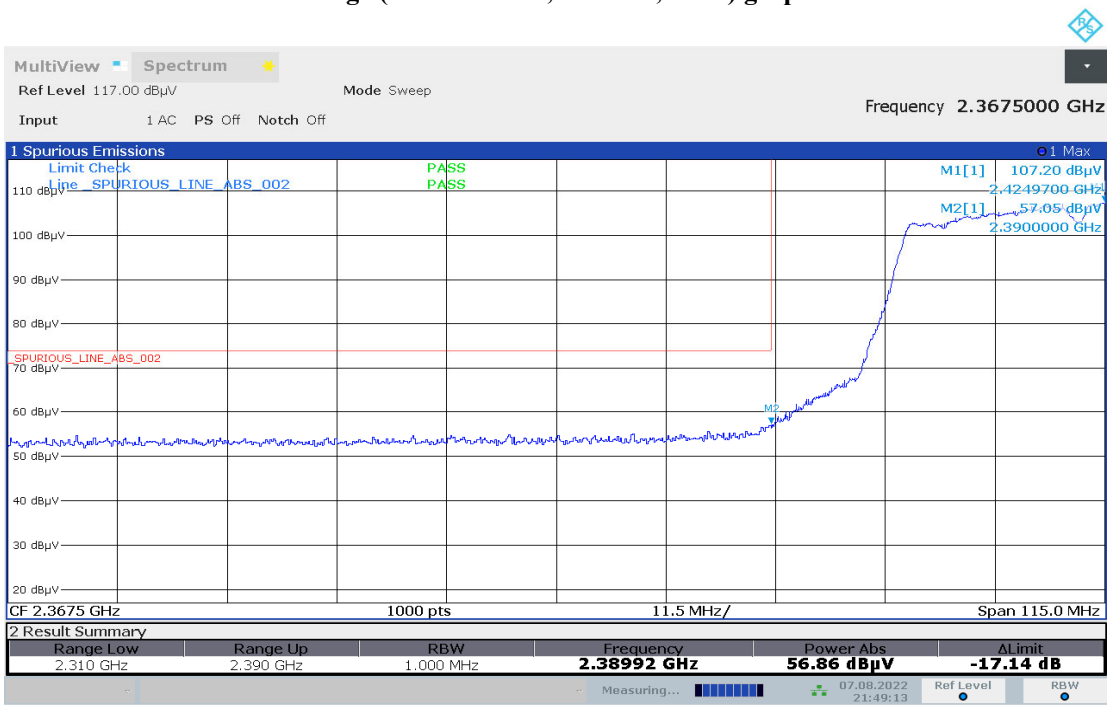
Restricted Band Edge (Low Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2389.9200	-	56.8624	47.7229	-	74.0000	54.0000	-	-17.1376	-6.2771	-
2390.0000	-	57.0468	47.5111	-	74.0000	54.0000	-	-16.9532	-6.4889	-
Horizontal Radiated Emission Result										
2390.0000	-	54.6458	45.7601	-	74.0000	54.0000	-	-19.3542	-8.2399	-

Remarks: Pass Result	Marginal Result	Fail Result

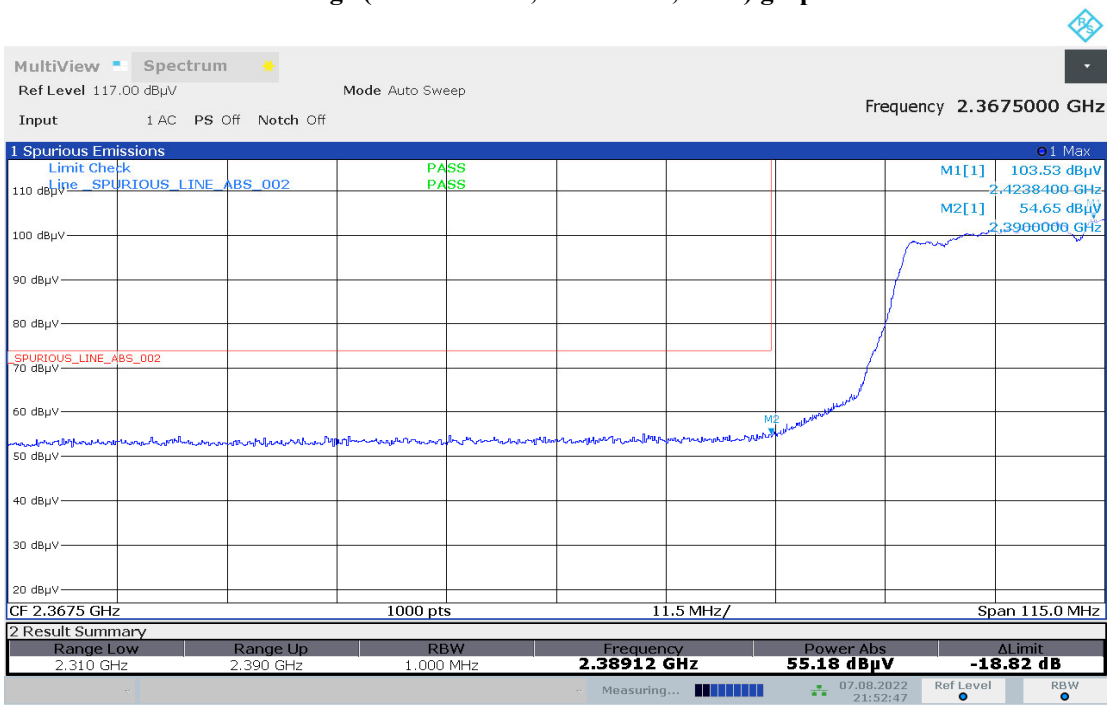
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



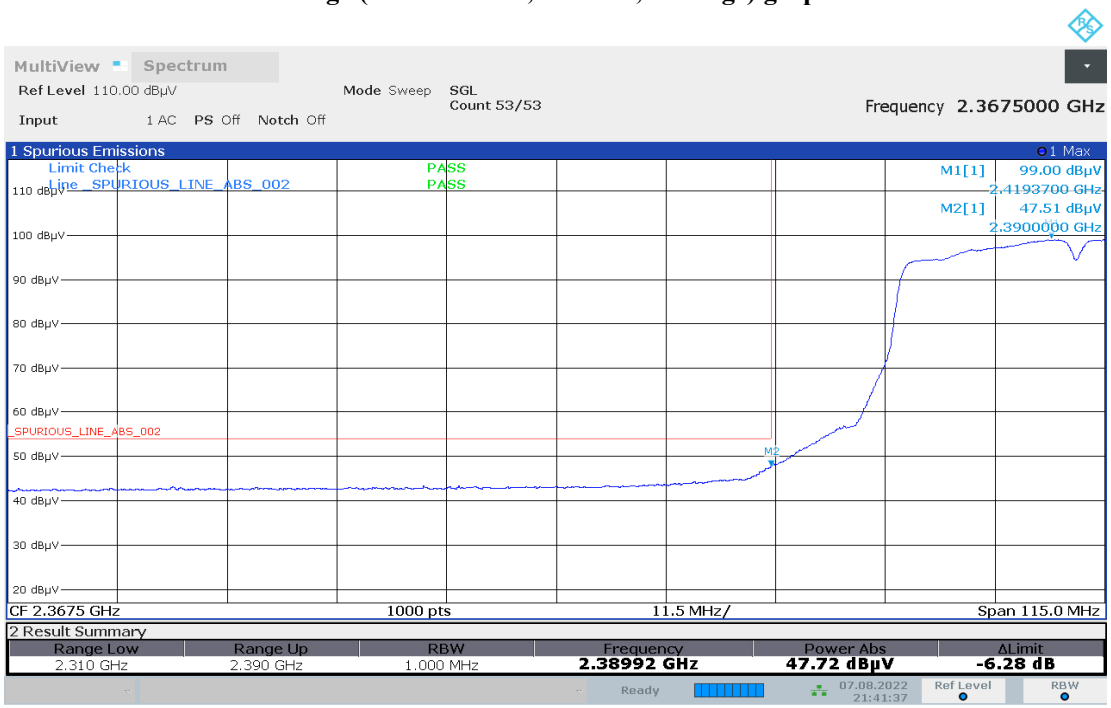
21:49:13 07.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



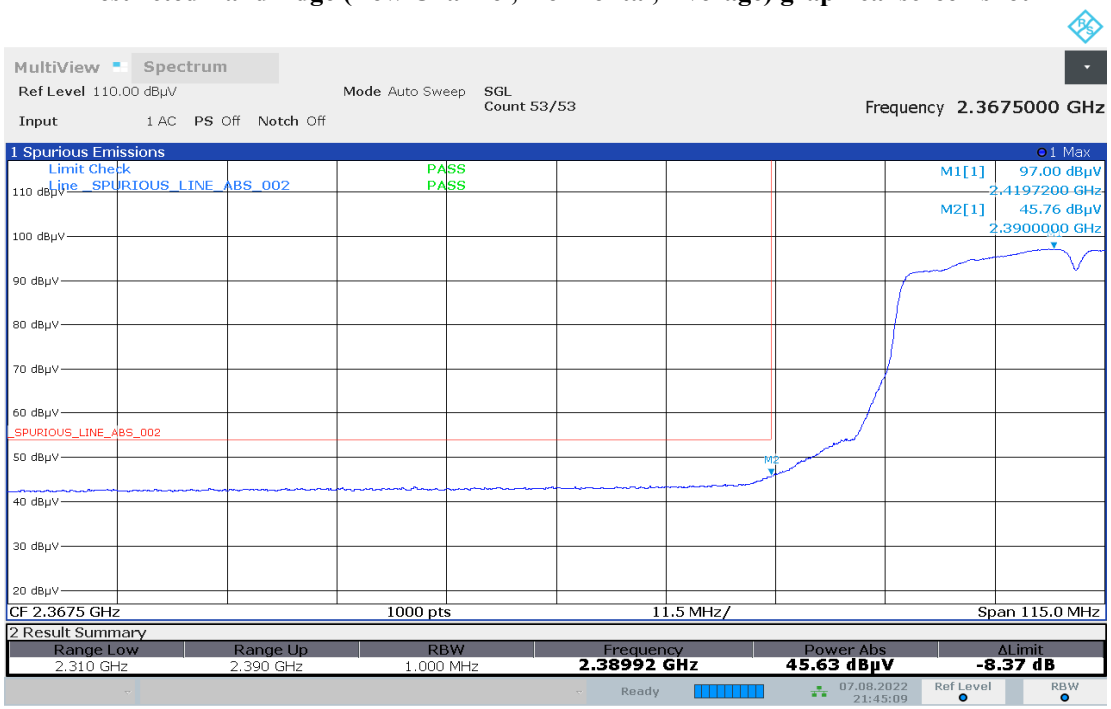
21:52:48 07.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



21:41:37 07.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



21:45:09 07.08.2022

Test: WIFI SAC Restricted Band Edge
Model Number: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2452.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 40MHz)

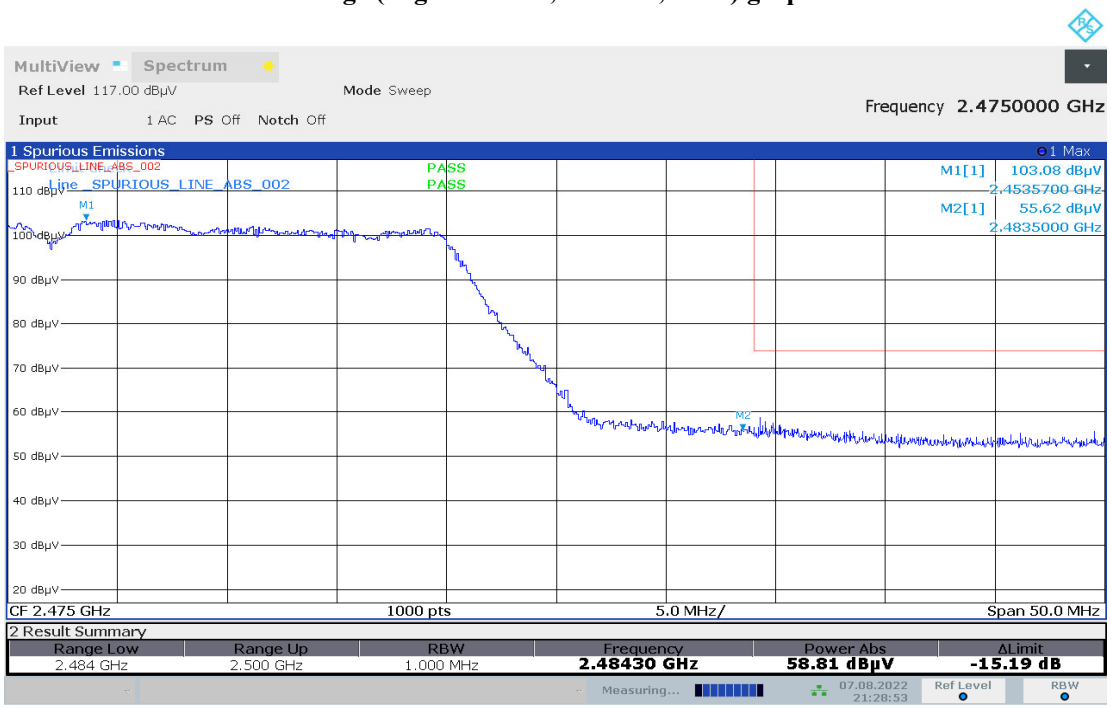
Restricted Band Edge (High Channel) tabular data

Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
2483.5000	-	55.6212	46.3279	-	74.0000	54.0000	-	-18.3788	-7.6721	-
2484.0160	-	-	46.4002	-	-	54.0000	-	-	-7.5998	-
Horizontal Radiated Emission Result										
2483.5000	-	54.6006	45.0905	-	74.0000	54.0000	-	-19.3994	-8.9095	-

Remarks: Pass Result	Marginal Result	Fail Result

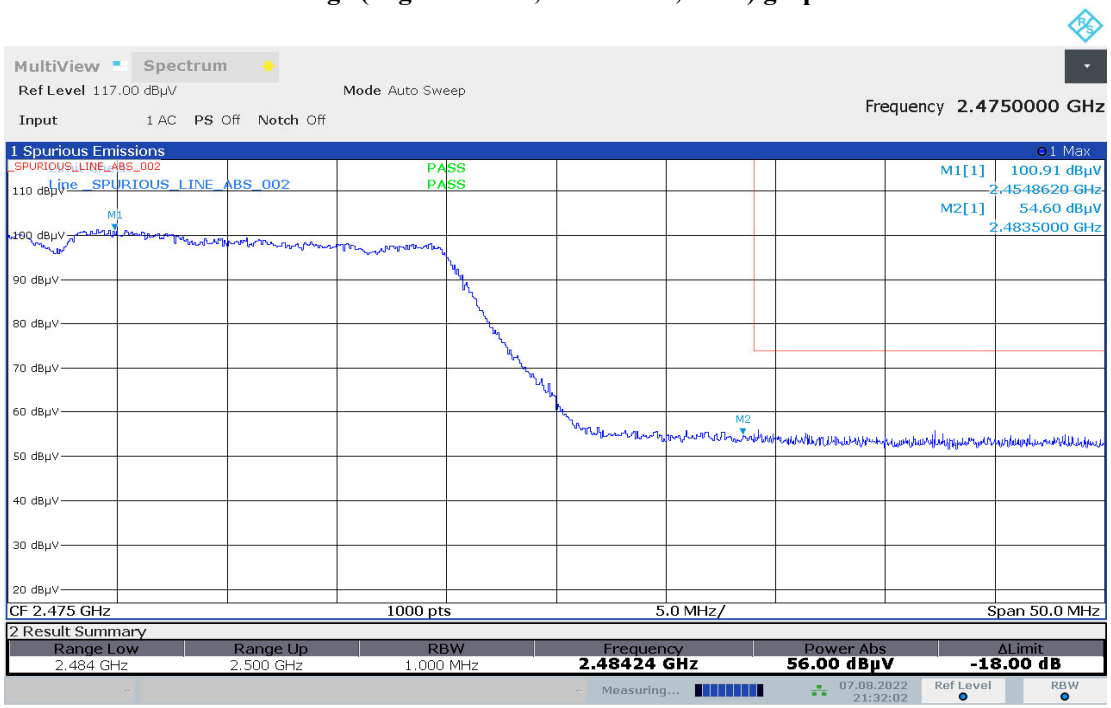
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.84dB

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



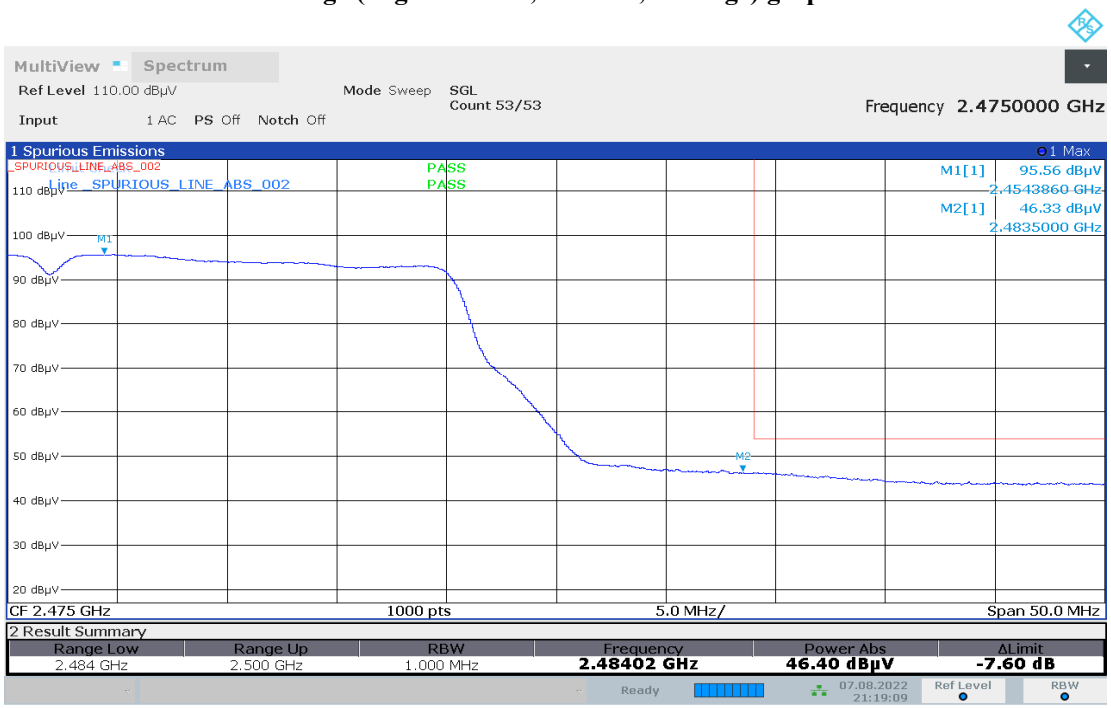
21:28:53 07.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



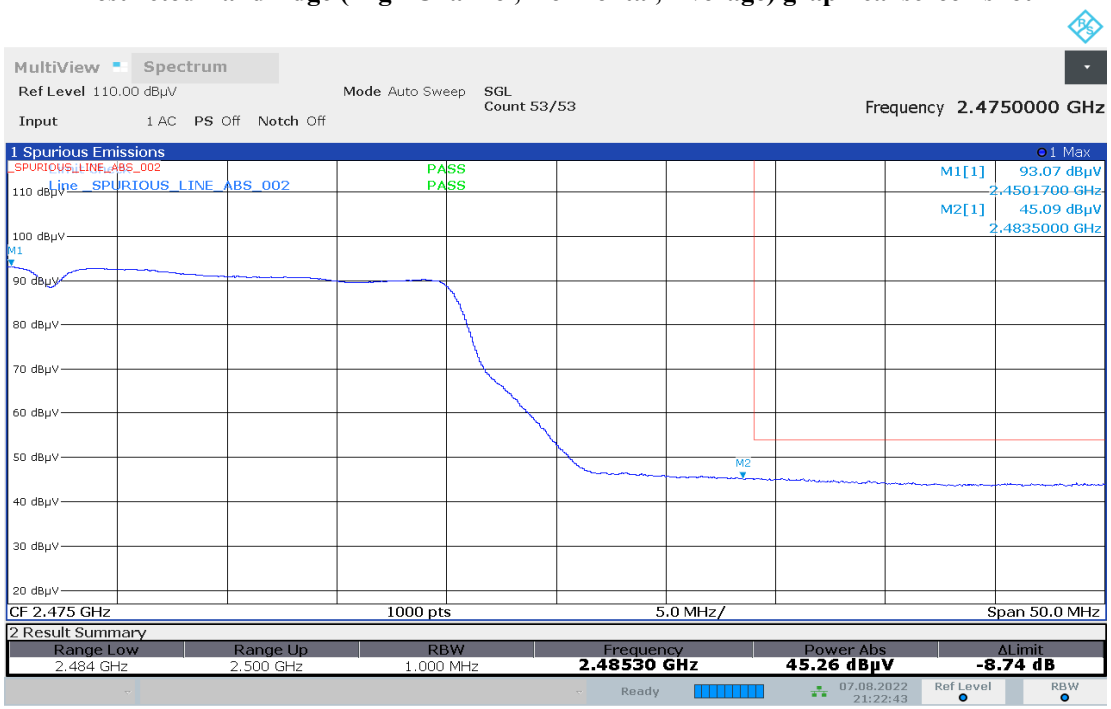
21:32:03 07.08.2022

Restricted Band Edge (High Channel, Vertical, Average) graphical screen shot



21:19:10 07.08.2022

Restricted Band Edge (High Channel, Horizontal, Average) graphical screen shot



21:22:44 07.08.2022

Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11b)

Radiated Emission (Low Channel) tabular data

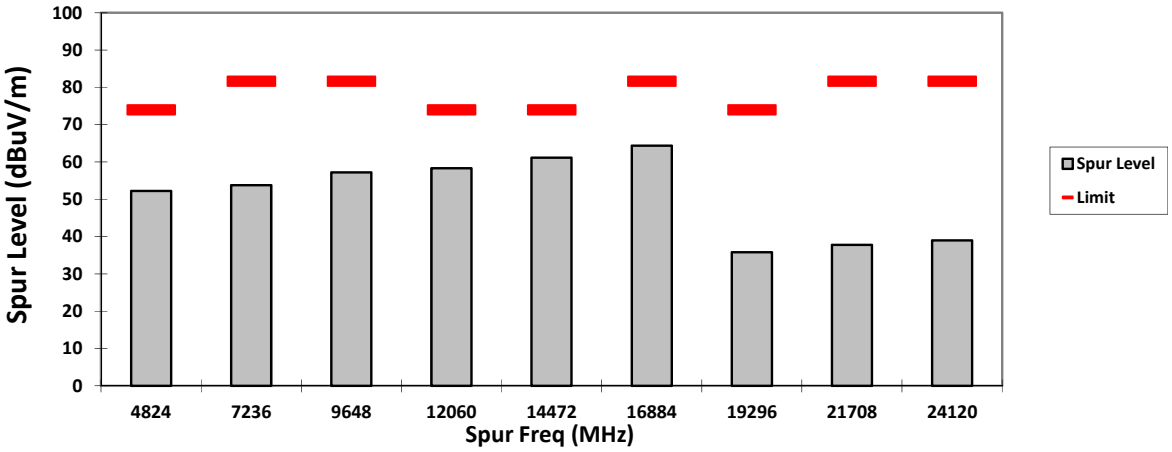
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4824	-	52.2224**	-	-	74.0000	-	-	21.7776	-	-
7236	-	53.7981**	-	-	81.6643	-	-	27.8662	-	111.6643
9648	-	57.2116**	-	-	81.6643	-	-	24.4527	-	111.6643
12060	-	63.1911**	48.6703**	-	74.0000	54.0000	-	10.8089	5.3297	-
14472	-	63.9754**	49.8656**	-	74.0000	54.0000	-	10.0246	4.1344	-
16884	-	64.3614**	-	-	81.6643	-	-	17.3029	-	111.6643
19296	-	35.8067**	-	-	74.0000	-	-	38.1933	-	-
21708	-	37.7857**	-	-	81.6643	-	-	43.8786	-	111.6643
24120	-	39.0105**	-	-	81.6643	-	-	42.6538	-	111.6643
Horizontal Radiated Emission Result										
4824	-	52.1461**	-	-	74.0000	-	-	21.8539	-	-
7236	-	54.9763**	-	-	81.6643	-	-	26.6880	-	111.6643
9648	-	56.2771**	-	-	81.6643	-	-	25.3872	-	111.6643
12060	-	62.6668**	48.6701**	-	74.0000	54.0000	-	11.3332	5.3299	-
14472	-	63.8916**	49.8659**	-	74.0000	54.0000	-	10.1084	4.1341	-
16884	-	65.1542**	-	-	81.6643	-	-	16.5101	-	111.6643
19296	-	35.8072**	-	-	74.0000	-	-	38.1928	-	-
21708	-	37.6620**	-	-	81.6643	-	-	44.0023	-	111.6643
24120	-	40.1448**	-	-	81.6643	-	-	41.5195	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

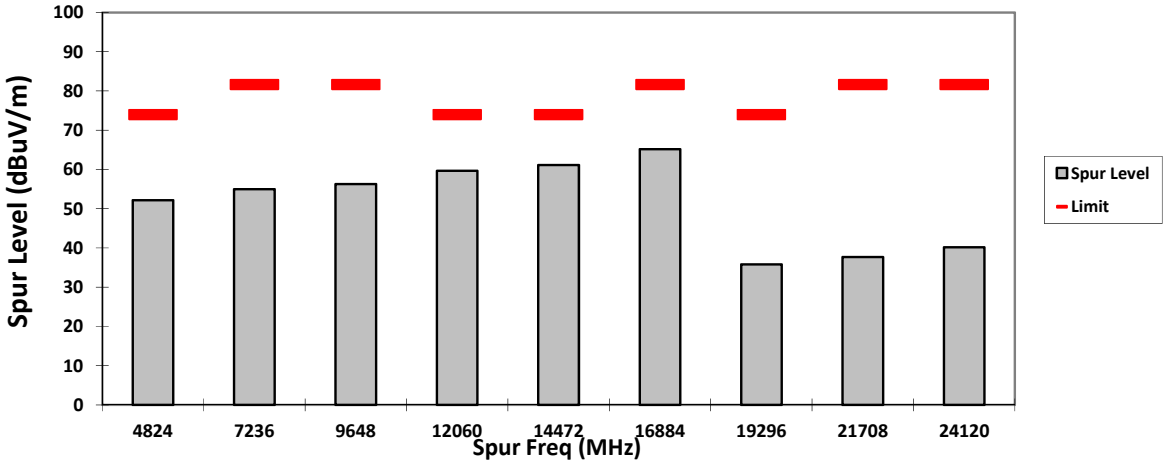
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

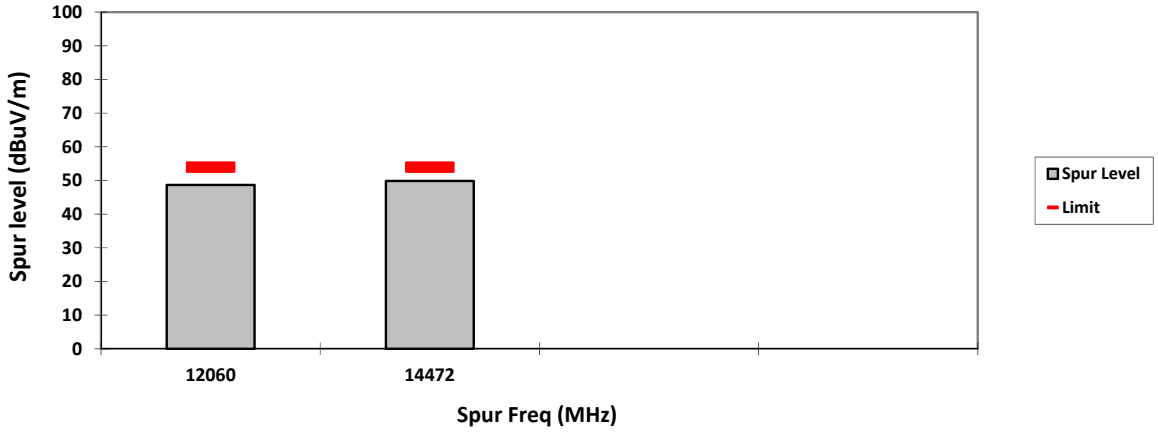
VERTICAL, PK



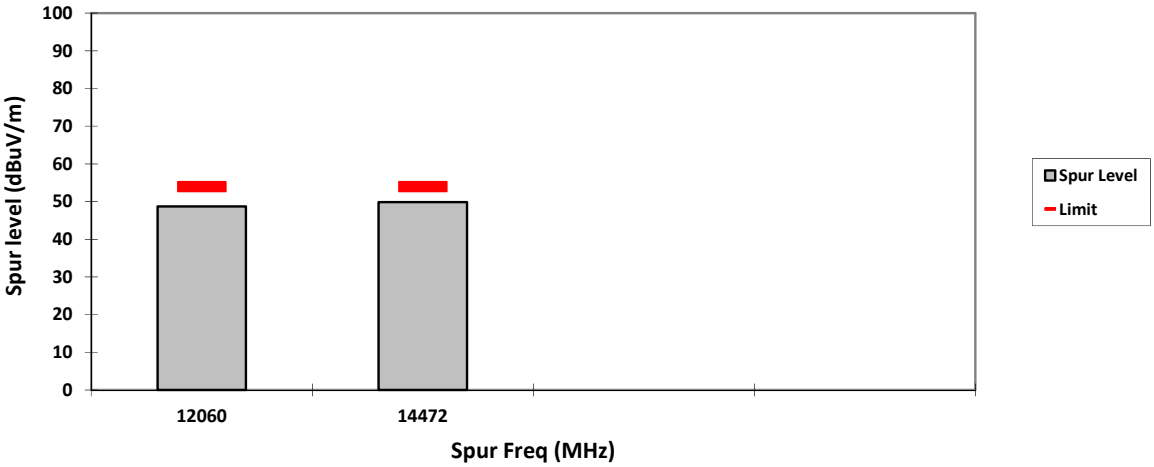
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11b)

Radiated Emission (Mid Channel) tabular data

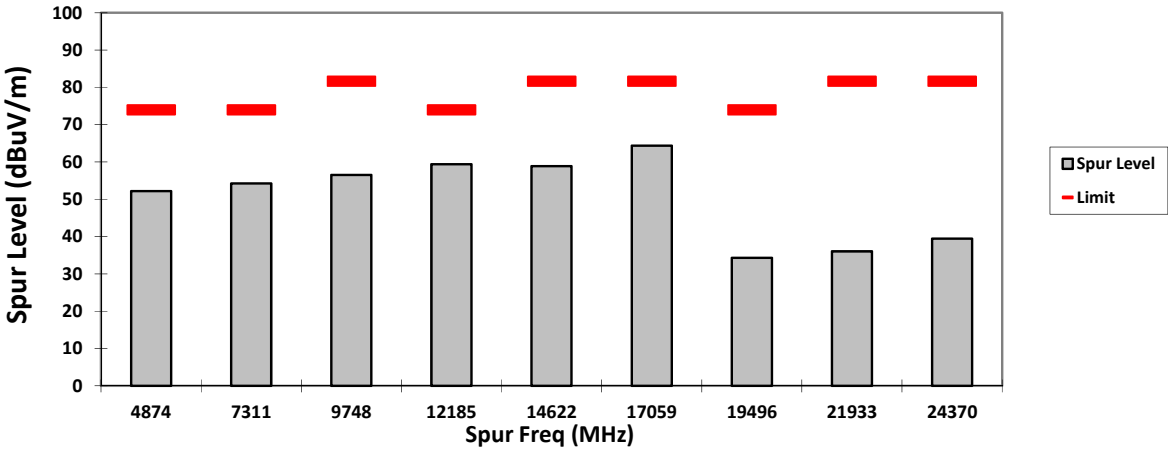
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	52.1918**	-	-	74.0000	-	-	21.8082	-	-
7311	-	57.5144**	43.0253**	-	74.0000	54.0000	-	16.4856	10.9747	-
9748	-	56.5401**	-	-	81.6643	-	-	25.1242	-	111.6643
12185	-	62.6698**	49.1811**	-	74.0000	54.0000	-	11.3302	4.8189	-
14622	-	58.8857**	-	-	81.6643	-	-	22.7786	-	111.6643
17059	-	64.3738**	-	-	81.6643	-	-	17.2905	-	111.6643
19496	-	34.2973**	-	-	74.0000	-	-	39.7027	-	-
21933	-	36.0347**	-	-	81.6643	-	-	45.6296	-	111.6643
24370	-	39.4396**	-	-	81.6643	-	-	42.2247	-	111.6643
Horizontal Radiated Emission Result										
4874	-	51.7377**	-	-	74.0000	-	-	22.2623	-	-
7311	-	56.8602**	43.0941**	-	74.0000	54.0000	-	17.1398	10.9059	-
9748	-	56.5304**	-	-	81.6643	-	-	25.1339	-	111.6643
12185	-	62.9968**	49.1812**	-	74.0000	54.0000	-	11.0032	4.8188	-
14622	-	60.1678**	-	-	81.6643	-	-	21.4965	-	111.6643
17059	-	64.5459**	-	-	81.6643	-	-	17.1184	-	111.6643
19496	-	35.1078**	-	-	74.0000	-	-	38.8922	-	-
21933	-	37.5575**	-	-	81.6643	-	-	44.1068	-	111.6643
24370	-	41.1320**	-	-	81.6643	-	-	40.5323	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

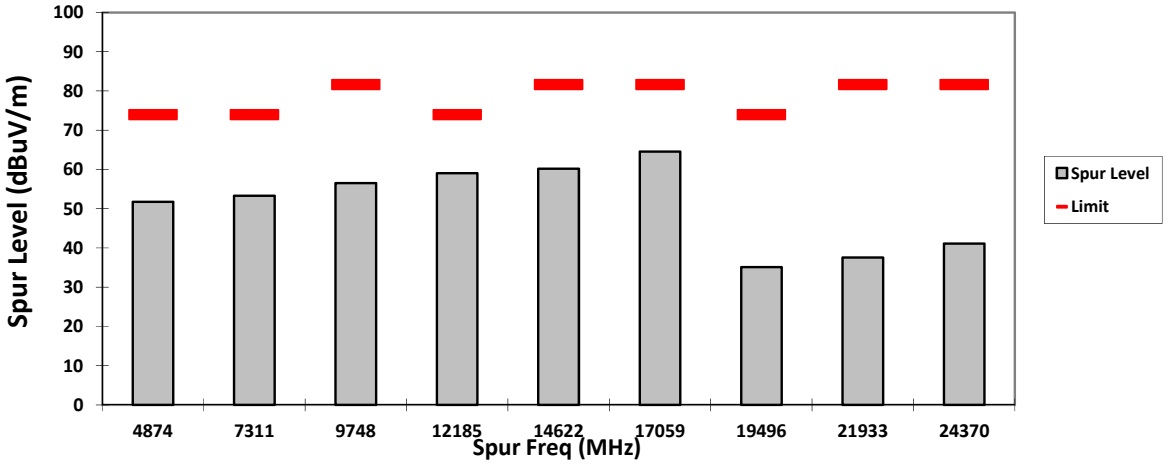
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

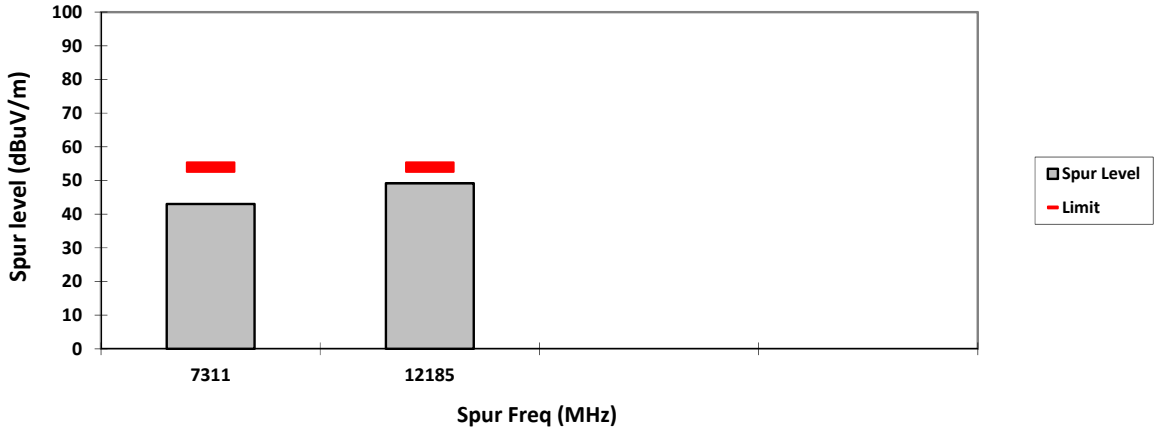
VERTICAL, PK



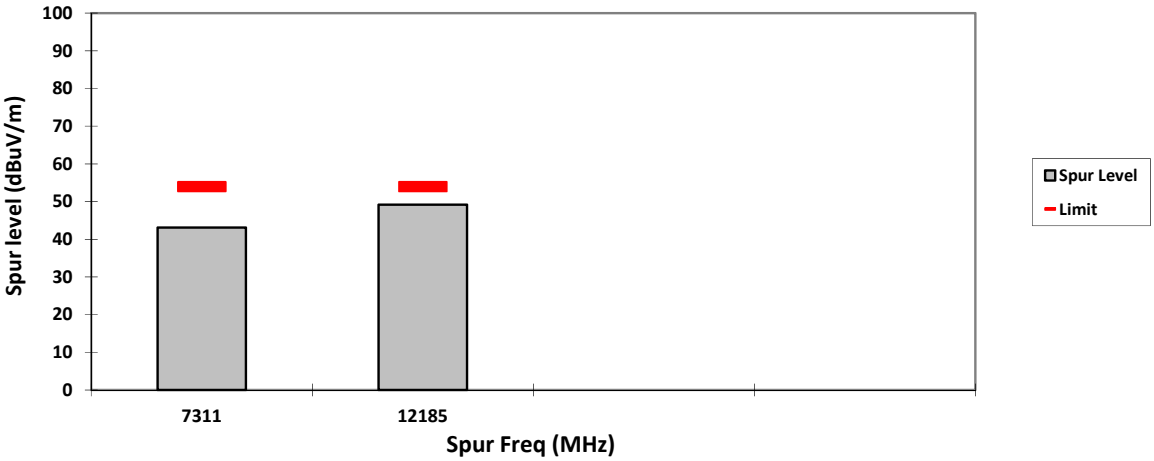
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11b)

Radiated Emission (High Channel) tabular data

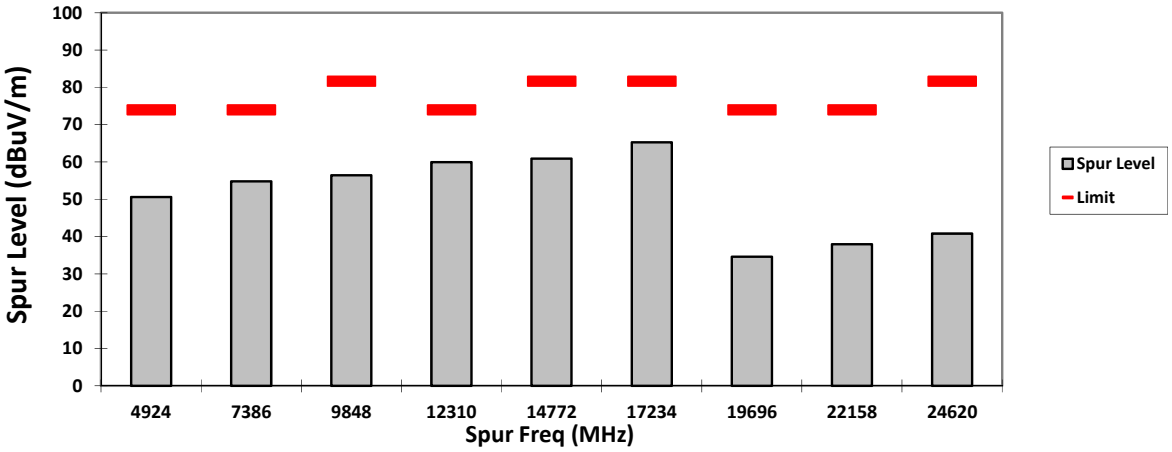
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4924	-	50.5958**	-	-	74.0000	-	-	23.4042	-	-
7386	-	57.7460**	43.8006**	-	74.0000	54.0000	-	16.2540	10.1994	-
9848	-	56.4181**	-	-	81.6643	-	-	25.2462	-	111.6643
12310	-	63.2379**	49.0958**	-	74.0000	54.0000	-	10.7621	4.9042	-
14772	-	60.8946**	-	-	81.6643	-	-	20.7697	-	111.6643
17234	-	65.2424**	-	-	81.6643	-	-	16.4219	-	111.6643
19696	-	34.5905**	-	-	74.0000	-	-	39.4095	-	-
22158	-	37.9604**	-	-	74.0000	-	-	36.0396	-	-
24620	-	40.8262**	-	-	81.6643	-	-	40.8381	-	111.6643
Horizontal Radiated Emission Result										
4924	-	51.4364**	-	-	74.0000	-	-	22.5636	-	-
7386	-	54.7704**	43.8147**	-	74.0000	54.0000	-	16.1100	10.1853	-
9848	-	56.6237**	-	-	81.6643	-	-	25.0406	-	111.6643
12310	-	59.8885**	48.8811**	-	74.0000	54.0000	-	11.3214	5.1189	-
14772	-	61.1574**	-	-	81.6643	-	-	20.5069	-	111.6643
17234	-	65.5011**	-	-	81.6643	-	-	16.1632	-	111.6643
19696	-	35.2390**	-	-	74.0000	-	-	38.7610	-	-
22158	-	37.6140**	-	-	74.0000	-	-	36.3860	-	-
24620	-	41.8590**	-	-	81.6643	-	-	39.8053	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

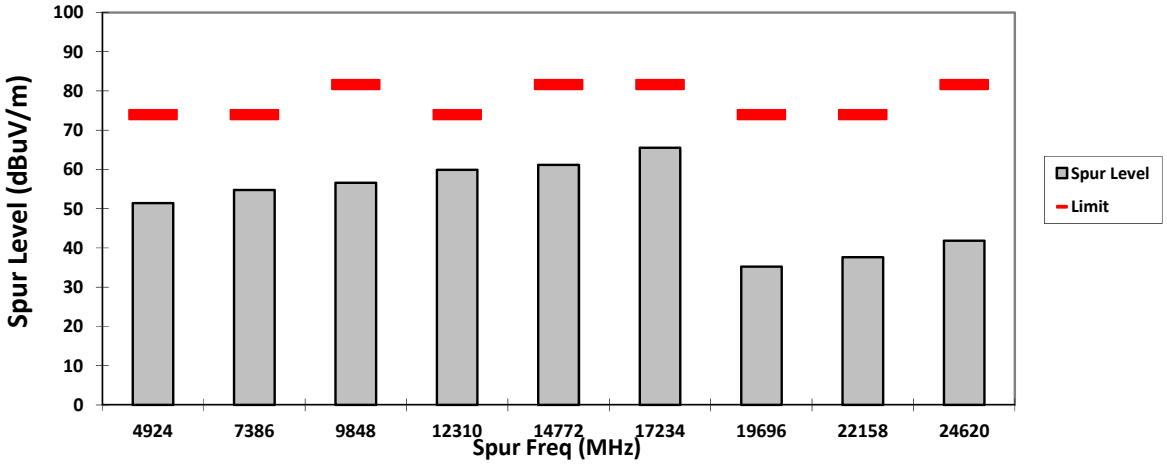
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

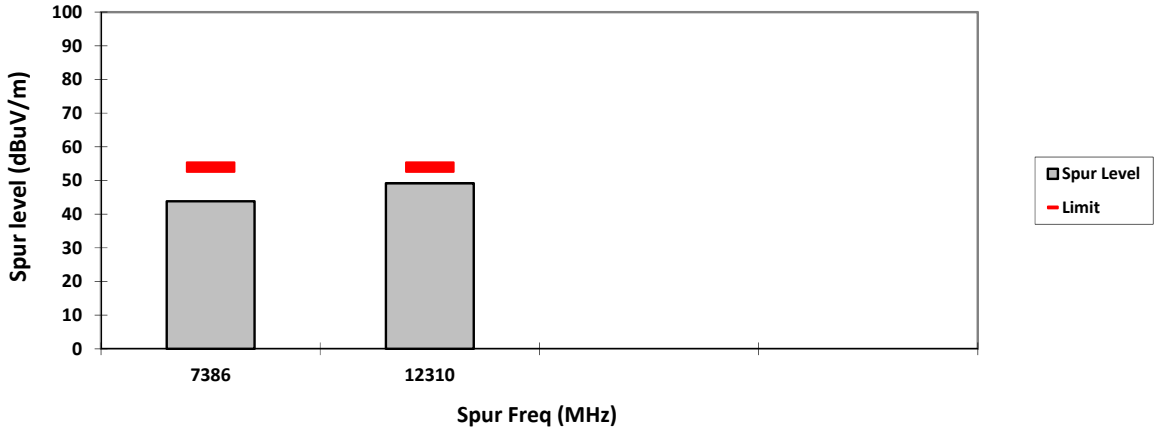
VERTICAL, PK



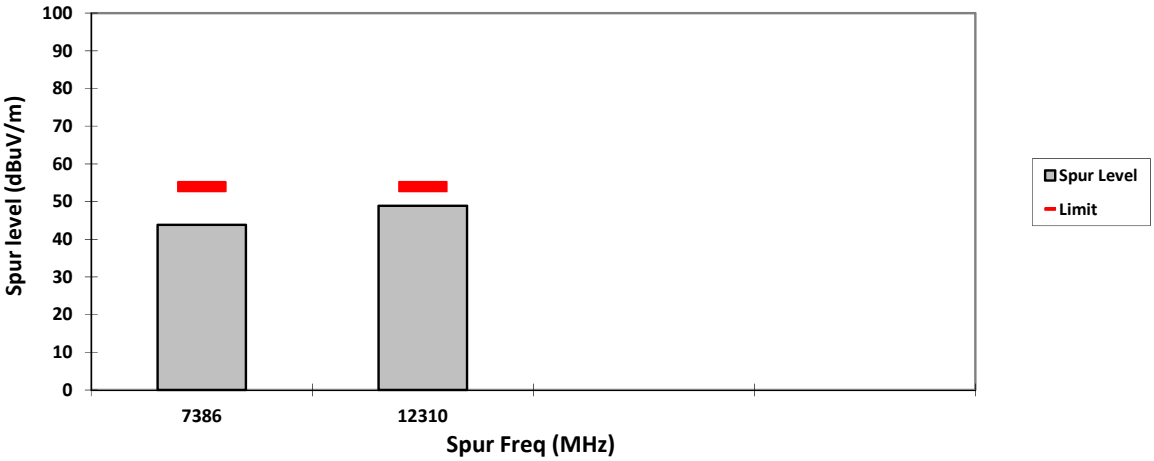
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11g)

Radiated Emission (Low Channel) tabular data

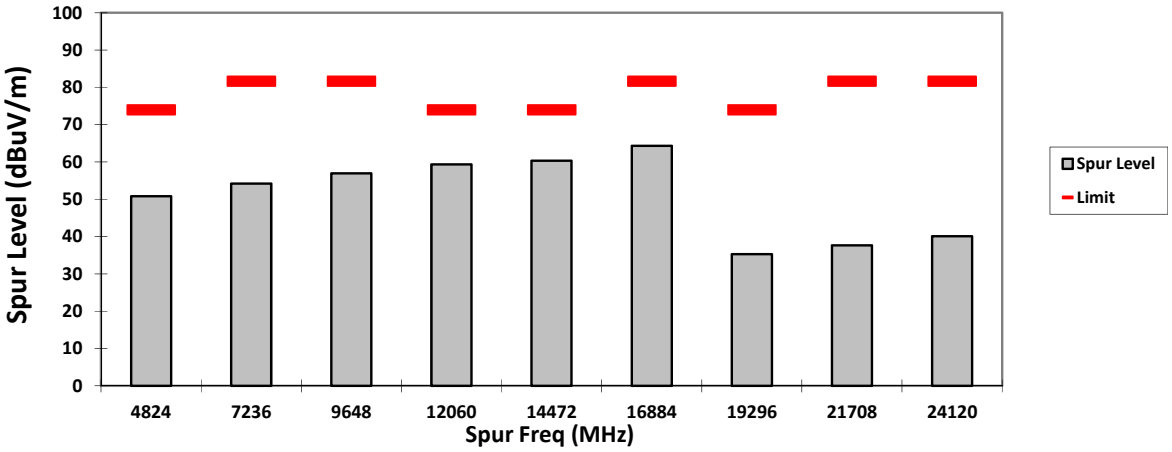
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4824	-	50.8181**	-	-	74.0000	-	-	23.1819	-	-
7236	-	54.2228**	-	-	81.6643	-	-	27.4415	-	111.6643
9648	-	56.9342**	-	-	81.6643	-	-	24.7301	-	111.6643
12060	-	62.8026**	48.8625**	-	74.0000	54.0000	-	11.1974	5.1375	-
14472	-	64.2349**	50.1325**	-	74.0000	54.0000	-	9.7651	3.8675	-
16884	-	64.3269**	-	-	81.6643	-	-	17.3374	-	111.6643
19296	-	35.2852**	-	-	74.0000	-	-	38.7148	-	-
21708	-	37.6422**	-	-	81.6643	-	-	44.0221	-	111.6643
24120	-	40.0912**	-	-	81.6643	-	-	41.5731	-	111.6643
Horizontal Radiated Emission Result										
4824	-	49.3487**	-	-	74.0000	-	-	24.6513	-	-
7236	-	55.0265**	-	-	81.6643	-	-	26.6378	-	111.6643
9648	-	57.6658**	-	-	81.6643	-	-	23.9985	-	111.6643
12060	-	62.7613**	48.8598**	-	74.0000	54.0000	-	11.2387	5.1402	-
14472	-	63.7942**	50.1310**	-	74.0000	54.0000	-	10.2058	3.8690	-
16884	-	65.1646**	-	-	81.6643	-	-	16.4997	-	111.6643
19296	-	35.7210**	-	-	74.0000	-	-	38.2790	-	-
21708	-	37.9622**	-	-	81.6643	-	-	43.7021	-	111.6643
24120	-	39.0558**	-	-	81.6643	-	-	42.6085	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

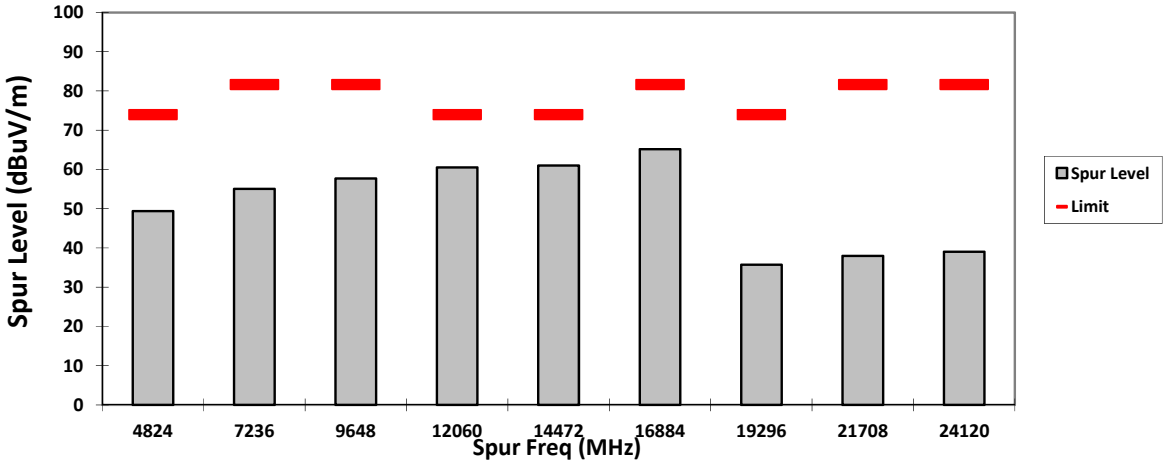
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

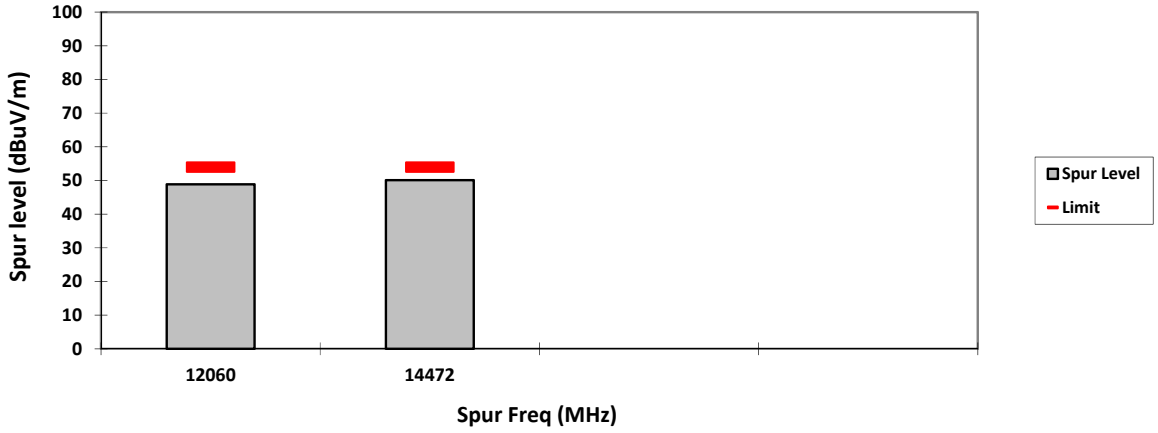
VERTICAL, PK



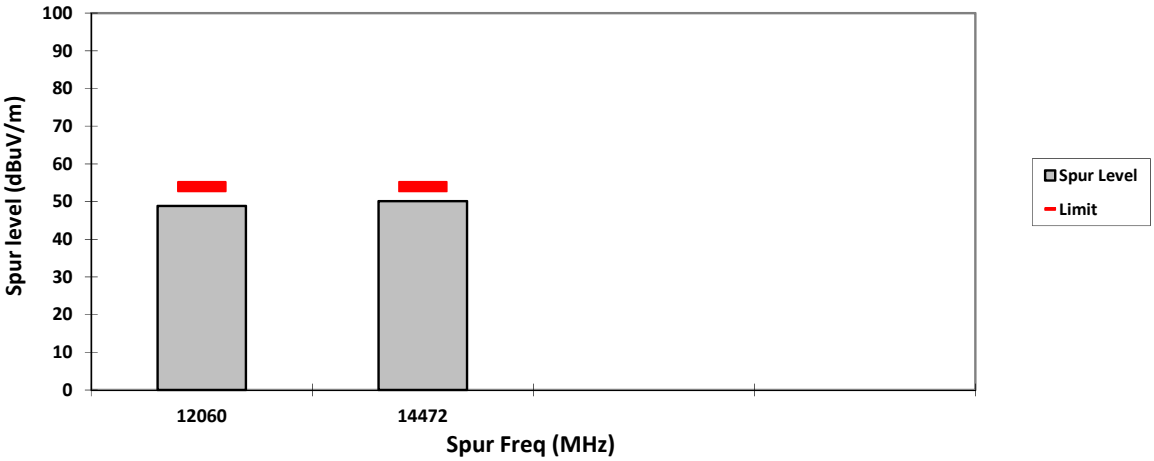
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11g)

Radiated Emission (Mid Channel) tabular data

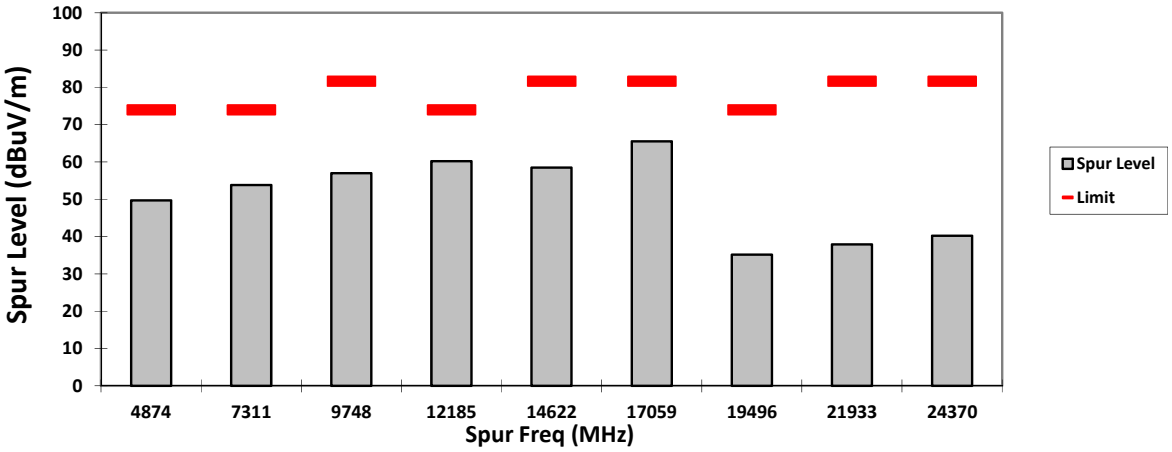
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	49.7414**	-	-	74.0000	-	-	24.2586	-	-
7311	-	57.4187**	43.0927**	-	74.0000	54.0000	-	16.5813	10.9073	-
9748	-	56.9703**	-	-	81.6643	-	-	24.6940	-	111.6643
12185	-	63.0053**	48.9719**	-	74.0000	54.0000	-	10.9947	5.0281	-
14622	-	58.4901**	-	-	81.6643	-	-	23.1742	-	111.6643
17059	-	65.5328**	-	-	81.6643	-	-	16.1315	-	111.6643
19496	-	35.1539**	-	-	74.0000	-	-	38.8461	-	-
21933	-	37.9022**	-	-	81.6643	-	-	43.7621	-	111.6643
24370	-	40.2281**	-	-	81.6643	-	-	41.4362	-	111.6643
Horizontal Radiated Emission Result										
4874	-	50.9356**	-	-	74.0000	-	-	23.0644	-	-
7311	-	57.2929**	43.0246**	-	74.0000	54.0000	-	16.7071	10.9754	-
9748	-	56.9778**	-	-	81.6643	-	-	24.6865	-	111.6643
12185	-	62.9647**	49.1811**	-	74.0000	54.0000	-	11.0353	4.8189	-
14622	-	58.6564**	-	-	81.6643	-	-	23.0079	-	111.6643
17059	-	66.2911**	-	-	81.6643	-	-	15.3732	-	111.6643
19496	-	34.1325**	-	-	74.0000	-	-	39.8675	-	-
21933	-	36.0780**	-	-	81.6643	-	-	45.5863	-	111.6643
24370	-	40.2113**	-	-	81.6643	-	-	41.4530	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

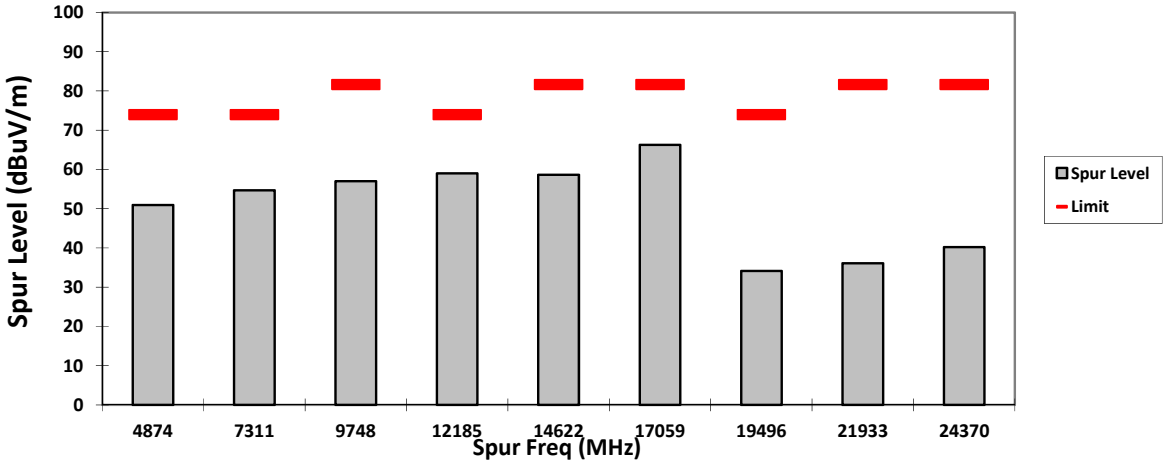
Temperature (degC): 23.5 **Humidity (%): 69.9**
Test Performed by: Qawiman&Nazrin **Test Date: Mon, 8 Aug, 2022**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

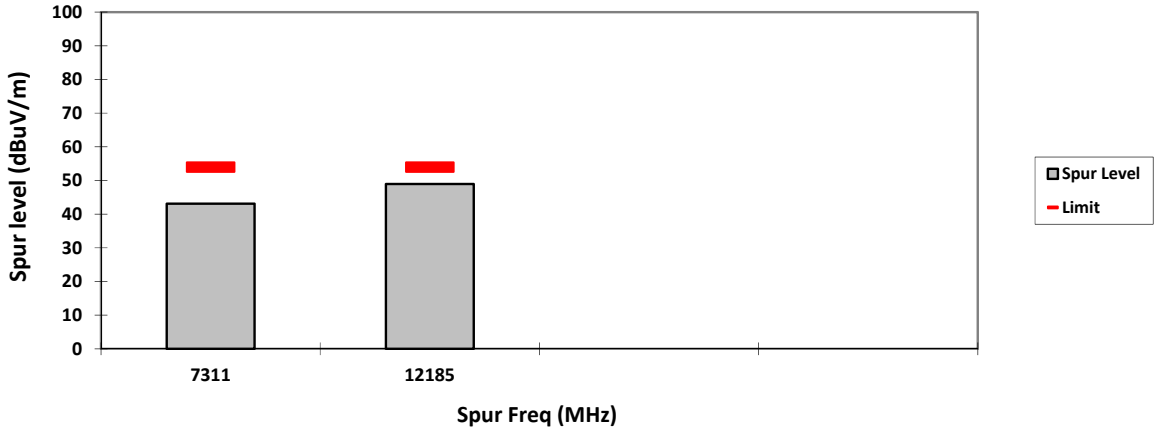
VERTICAL, PK



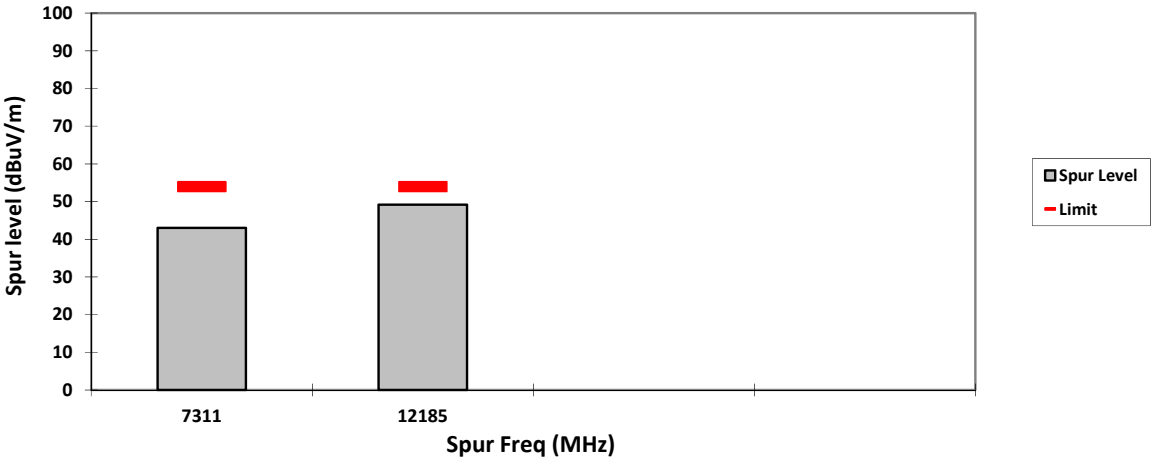
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11g)

Radiated Emission (High Channel) tabular data

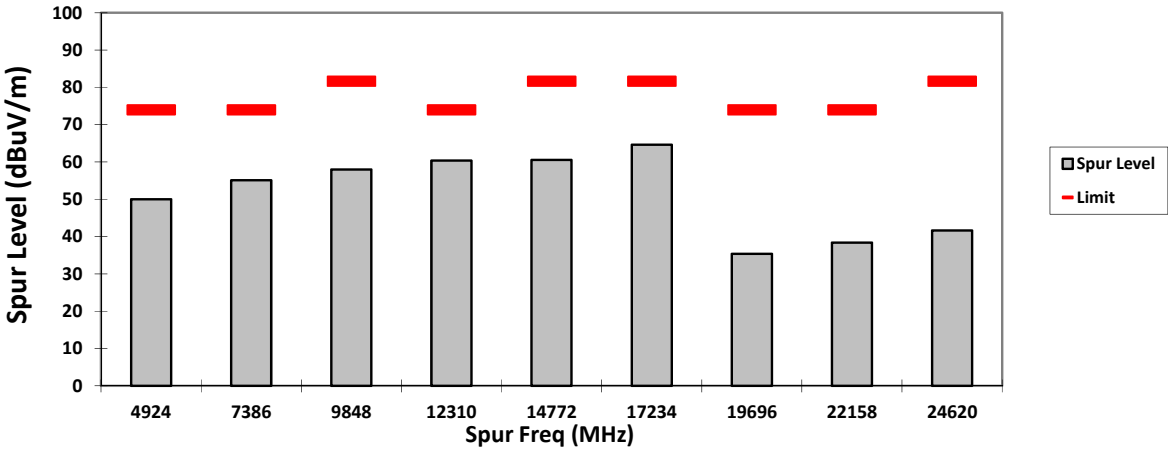
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4924	-	50.0044**	-	-	74.0000	-	-	23.9956	-	-
7386	-	58.1064**	43.8126**	-	74.0000	54.0000	-	15.8936	10.1874	-
9848	-	58.0004**	-	-	81.6643	-	-	23.6639	-	111.6643
12310	-	62.8026**	49.0966**	-	74.0000	54.0000	-	11.1974	4.9034	-
14772	-	60.5474**	-	-	81.6643	-	-	21.1169	-	111.6643
17234	-	64.5975**	-	-	81.6643	-	-	17.0668	-	111.6643
19696	-	35.4034**	-	-	74.0000	-	-	38.5966	-	-
22158	-	38.3739**	-	-	74.0000	-	-	35.6261	-	-
24620	-	41.6628**	-	-	81.6643	-	-	40.0015	-	111.6643
Horizontal Radiated Emission Result										
4924	-	49.1064**	-	-	74.0000	-	-	24.8936	-	-
7386	-	57.6379**	43.8137**	-	74.0000	54.0000	-	16.3621	10.1863	-
9848	-	56.3961**	-	-	81.6643	-	-	25.2682	-	111.6643
12310	-	62.6811**	49.0960**	-	74.0000	54.0000	-	11.3189	4.9040	-
14772	-	61.3940**	-	-	81.6643	-	-	20.2703	-	111.6643
17234	-	65.6955**	-	-	81.6643	-	-	15.9688	-	111.6643
19696	-	35.5890**	-	-	74.0000	-	-	38.4110	-	-
22158	-	38.0292**	-	-	74.0000	-	-	35.9708	-	-
24620	-	40.7576**	-	-	81.6643	-	-	40.9067	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

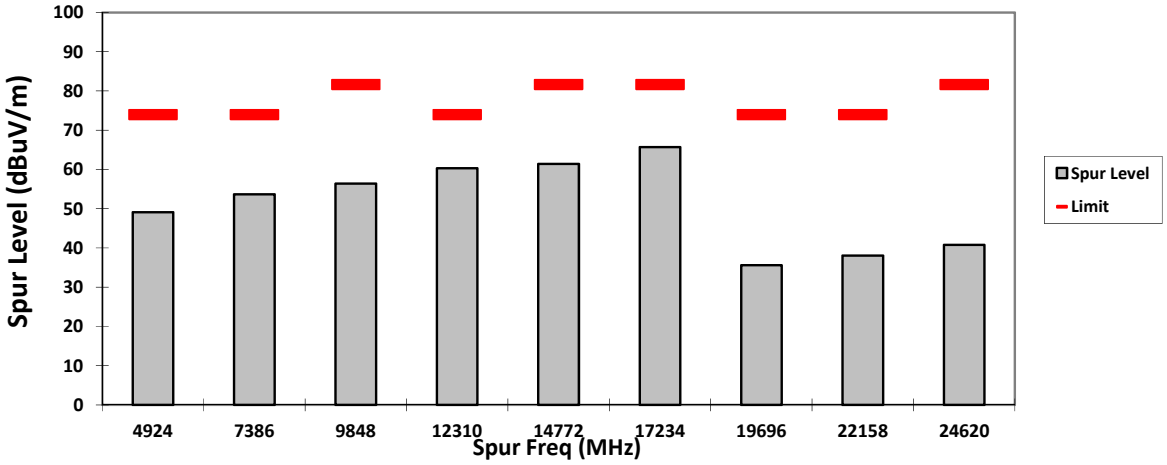
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

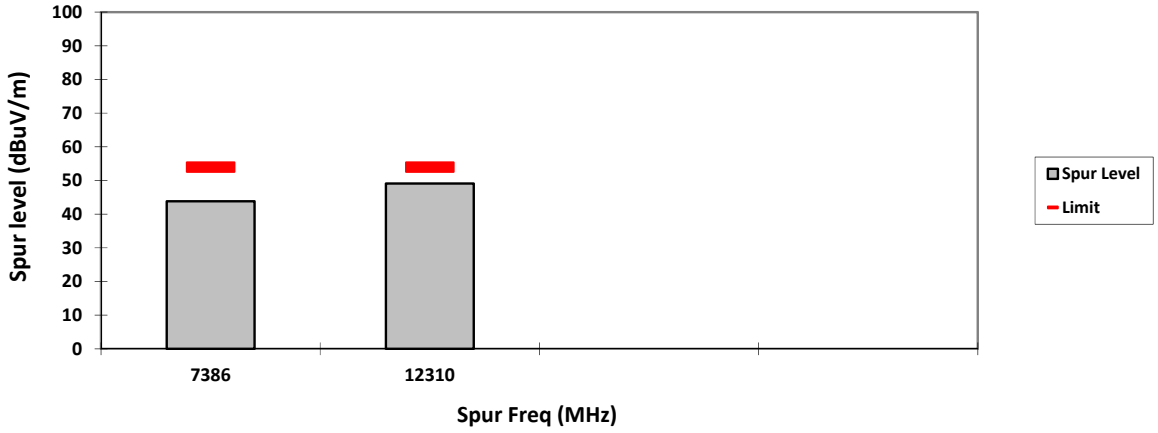
VERTICAL, PK



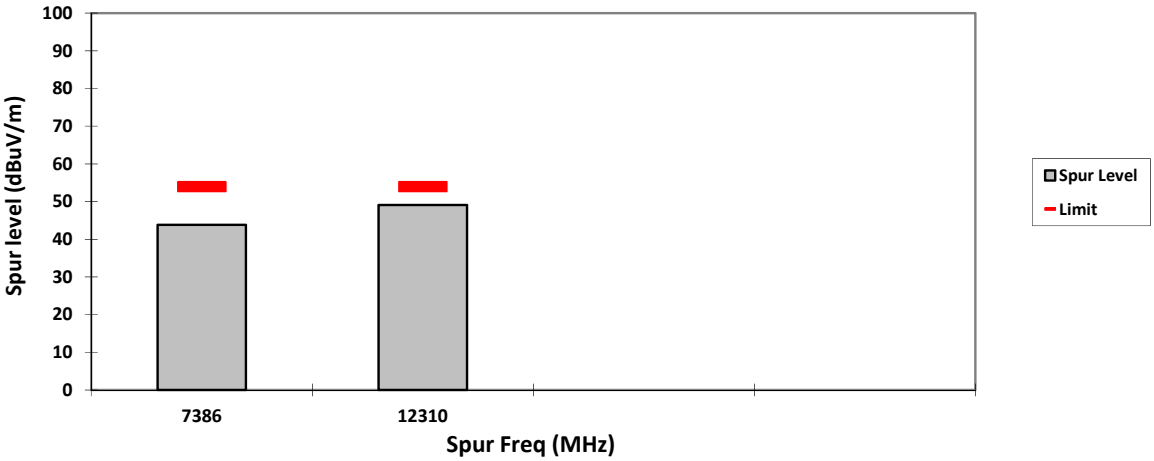
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 20MHz)

Radiated Emission (Low Channel) tabular data

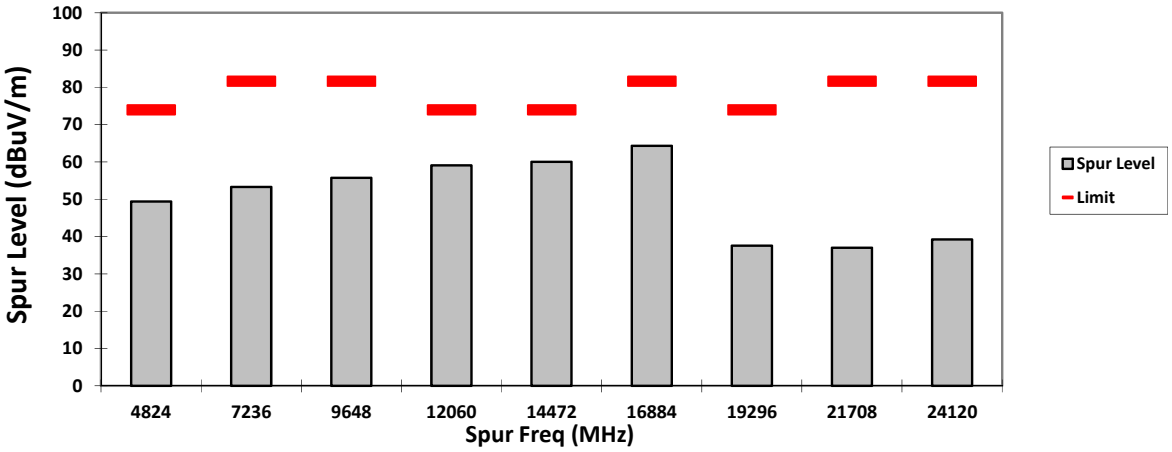
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4824	-	49.3851**	-	-	74.0000	-	-	24.6149	-	-
7236	-	53.3096**	-	-	81.6643	-	-	28.3547	-	111.6643
9648	-	55.7242**	-	-	81.6643	-	-	25.9401	-	111.6643
12060	-	62.8018**	48.6685**	-	74.0000	54.0000	-	11.1982	5.3315	-
14472	-	63.6898**	49.8649**	-	74.0000	54.0000	-	10.3102	4.1351	-
16884	-	64.3164**	-	-	81.6643	-	-	17.3479	-	111.6643
19296	-	37.5958**	-	-	74.0000	-	-	36.4042	-	-
21708	-	37.0335**	-	-	81.6643	-	-	44.6308	-	111.6643
24120	-	39.2241**	-	-	81.6643	-	-	42.4402	-	111.6643
Horizontal Radiated Emission Result										
4824	-	50.7783**	-	-	74.0000	-	-	23.2217	-	-
7236	-	54.0602**	-	-	81.6643	-	-	27.6041	-	111.6643
9648	-	56.5719**	-	-	81.6643	-	-	25.0924	-	111.6643
12060	-	62.6275**	48.8608**	-	74.0000	54.0000	-	11.3725	5.1392	-
14472	-	64.1601**	50.1308**	-	74.0000	54.0000	-	9.8399	3.8692	-
16884	-	64.4657**	-	-	81.6643	-	-	17.1986	-	111.6643
19296	-	35.1167**	-	-	74.0000	-	-	38.8833	-	-
21708	-	37.5651**	-	-	81.6643	-	-	44.0992	-	111.6643
24120	-	38.6543**	-	-	81.6643	-	-	43.0100	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

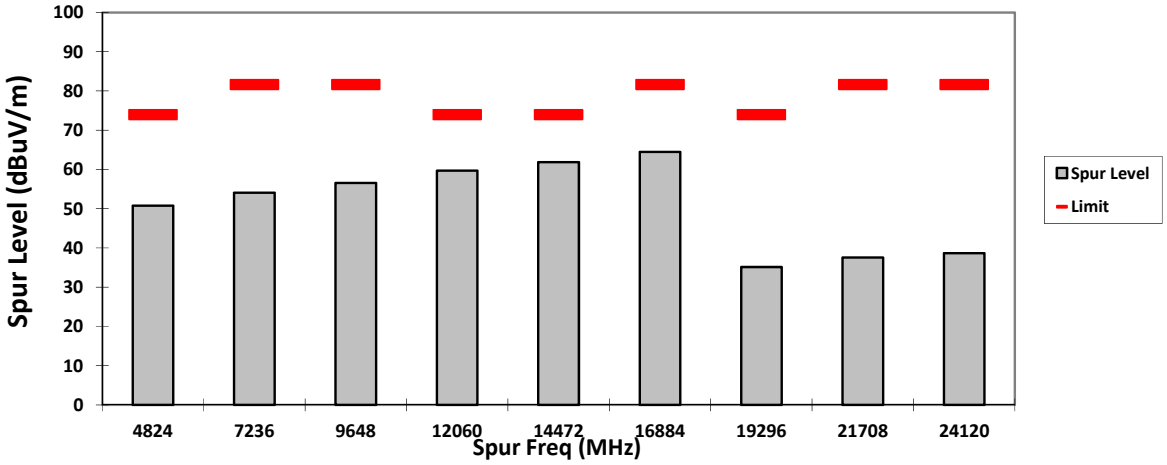
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

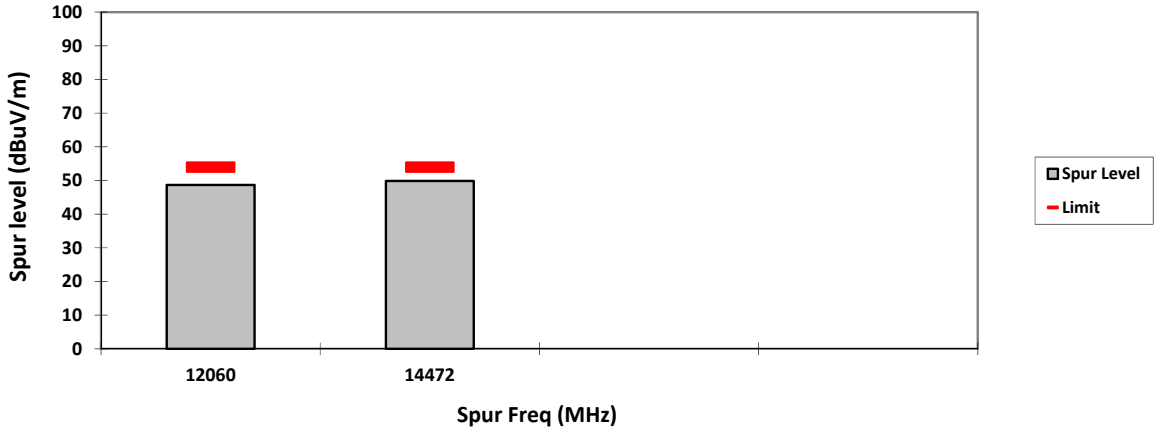
VERTICAL, PK



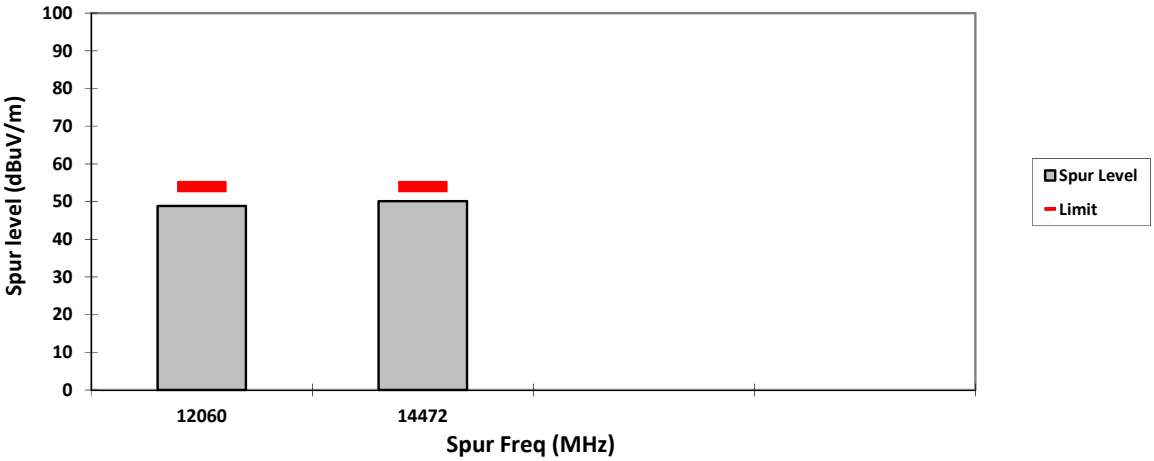
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 20MHz)

Radiated Emission (Mid Channel) tabular data

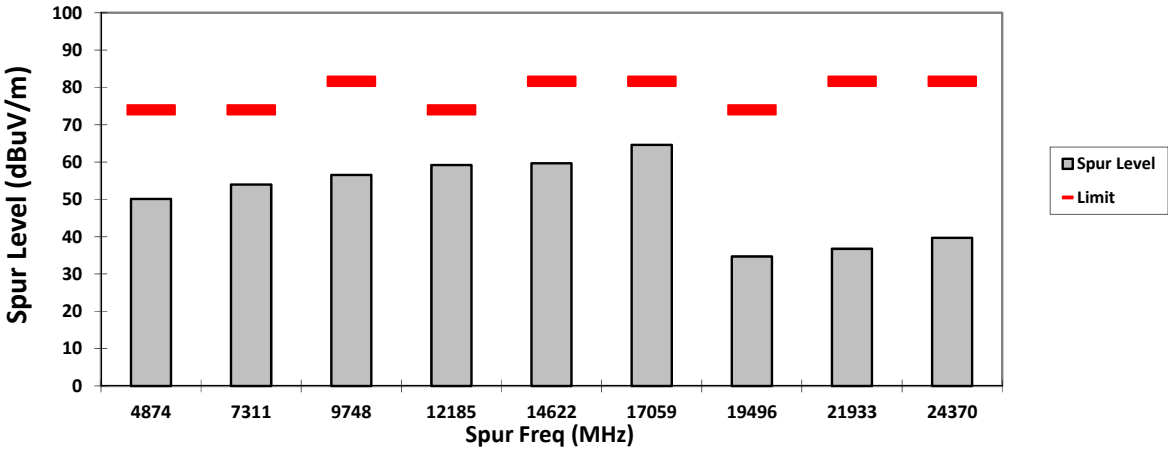
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	50.1061**	-	-	74.0000	-	-	23.8939	-	-
7311	-	57.0170**	43.0254**	-	74.0000	54.0000	-	16.9830	10.9746	-
9748	-	56.5603**	-	-	81.6643	-	-	25.1040	-	111.6643
12185	-	63.0029**	48.9719**	-	74.0000	54.0000	-	10.9971	5.0281	-
14622	-	59.6661**	-	-	81.6643	-	-	21.9982	-	111.6643
17059	-	64.5678**	-	-	81.6643	-	-	17.0965	-	111.6643
19496	-	34.6898**	-	-	74.0000	-	-	39.3102	-	-
21933	-	36.7543**	-	-	81.6643	-	-	44.9100	-	111.6643
24370	-	39.7130**	-	-	81.6643	-	-	41.9513	-	111.6643
Horizontal Radiated Emission Result										
4874	-	49.1086**	-	-	74.0000	-	-	24.8914	-	-
7311	-	57.2071**	43.0254**	-	74.0000	54.0000	-	16.7929	10.9746	-
9748	-	56.6002**	-	-	81.6643	-	-	25.0641	-	111.6643
12185	-	63.4167**	49.1811**	-	74.0000	54.0000	-	10.5833	4.8189	-
14622	-	59.4922**	-	-	81.6643	-	-	22.1721	-	111.6643
17059	-	64.6709**	-	-	81.6643	-	-	16.9934	-	111.6643
19496	-	34.7885**	-	-	74.0000	-	-	39.2115	-	-
21933	-	36.7806**	-	-	81.6643	-	-	44.8837	-	111.6643
24370	-	39.5558**	-	-	81.6643	-	-	42.1085	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

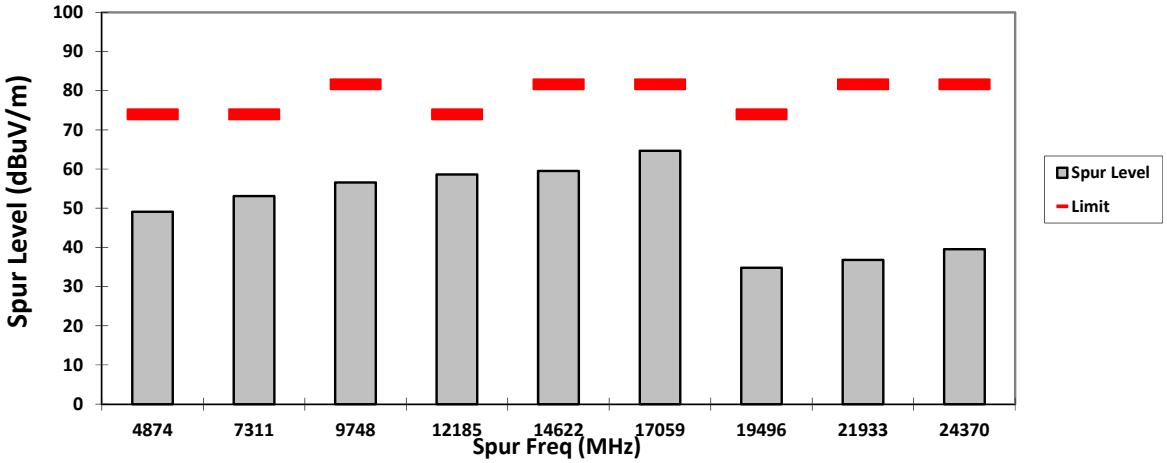
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

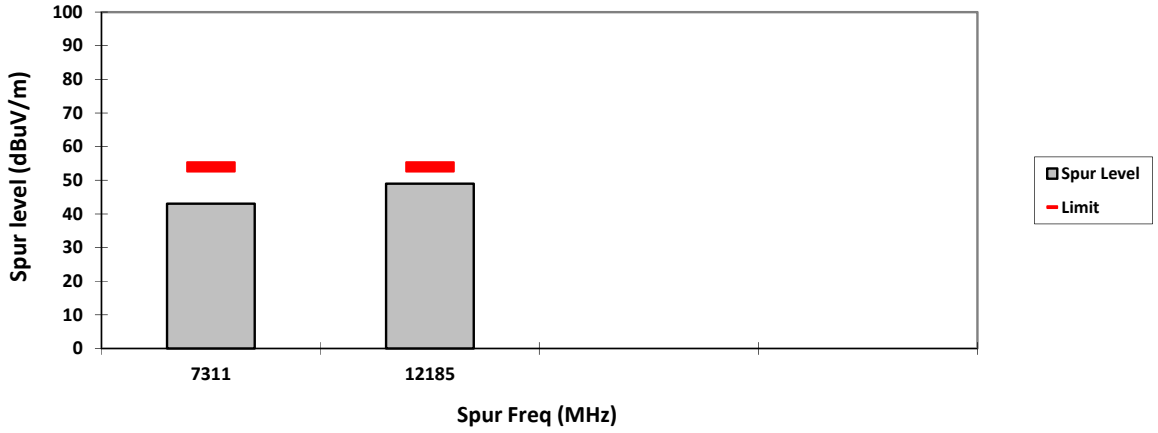
VERTICAL, PK



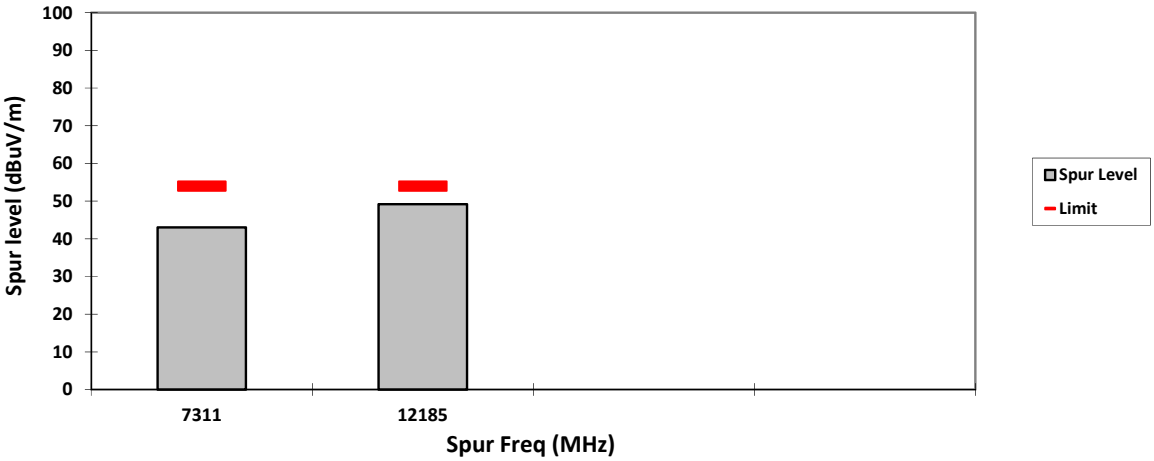
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 20MHz)

Radiated Emission (High Channel) tabular data

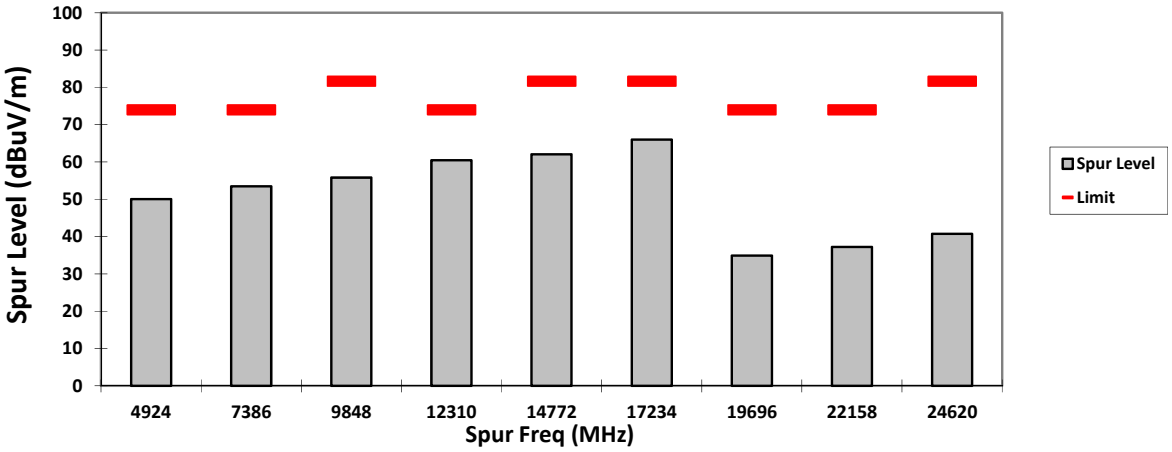
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4924	-	50.0350**	-	-	74.0000	-	-	23.9650	-	-
7386	-	57.6697**	43.7989**	-	74.0000	54.0000	-	16.3303	10.2011	-
9848	-	55.8298**	-	-	81.6643	-	-	25.8345	-	111.6643
12310	-	62.8465**	48.8819**	-	74.0000	54.0000	-	11.1535	5.1181	-
14772	-	62.0644**	-	-	81.6643	-	-	19.5999	-	111.6643
17234	-	65.9975**	-	-	81.6643	-	-	15.6668	-	111.6643
19696	-	34.9188**	-	-	74.0000	-	-	39.0812	-	-
22158	-	37.2162**	-	-	74.0000	-	-	36.7838	-	-
24620	-	40.7343**	-	-	81.6643	-	-	40.9300	-	111.6643
Horizontal Radiated Emission Result										
4924	-	49.3111**	-	-	74.0000	-	-	24.6889	-	-
7386	-	57.9176**	43.8065**	-	74.0000	54.0000	-	16.0824	10.1935	-
9848	-	57.7639**	-	-	81.6643	-	-	23.9004	-	111.6643
12310	-	62.7672**	48.8815**	-	74.0000	54.0000	-	11.2328	5.1185	-
14772	-	61.1252**	-	-	81.6643	-	-	20.5391	-	111.6643
17234	-	65.2010**	-	-	81.6643	-	-	16.4633	-	111.6643
19696	-	36.0370**	-	-	74.0000	-	-	37.9630	-	-
22158	-	37.3795**	-	-	74.0000	-	-	36.6205	-	-
24620	-	41.1853**	-	-	81.6643	-	-	40.4790	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

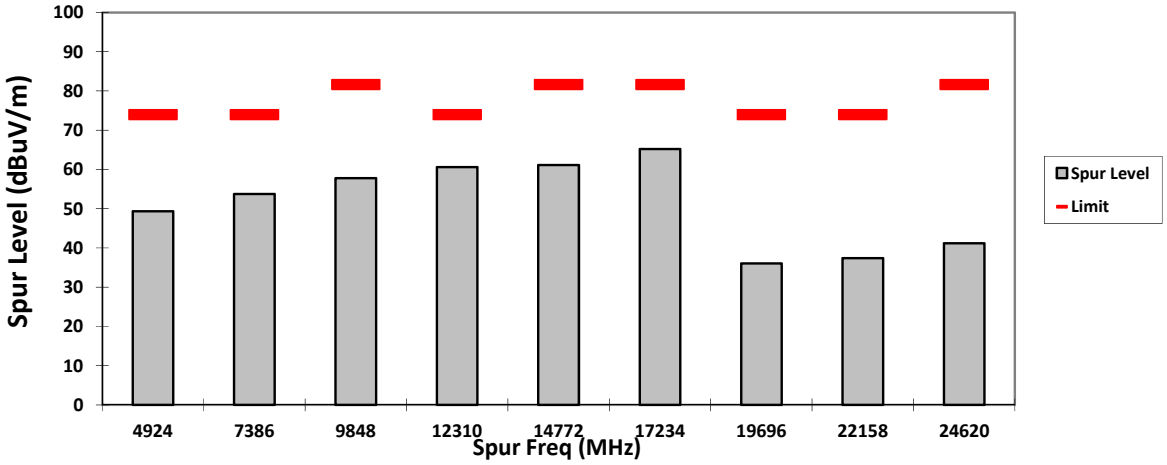
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

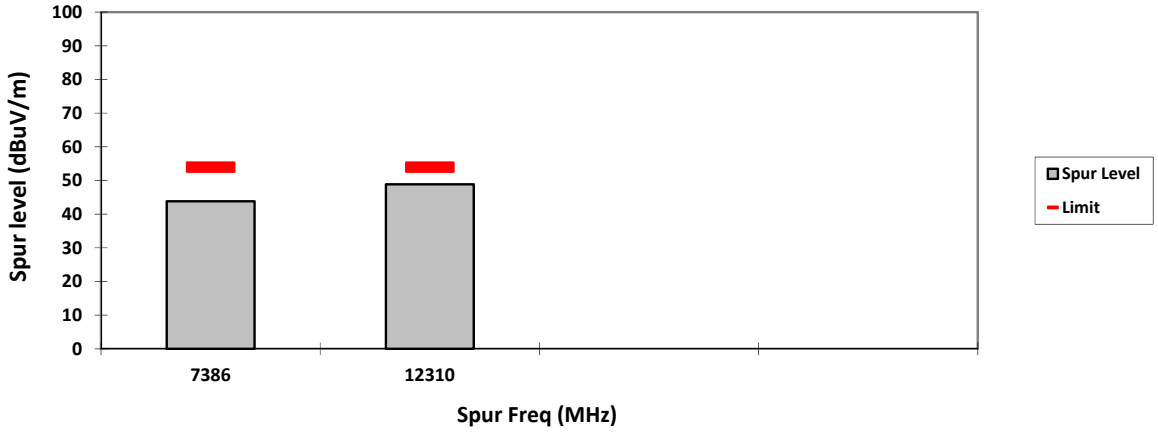
VERTICAL, PK



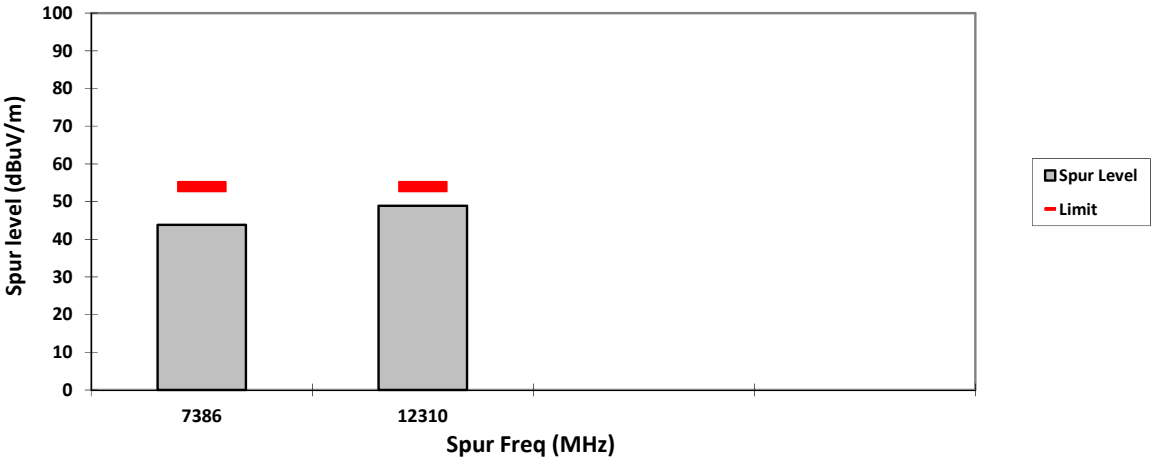
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Low Test Frequency: 2422.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 40MHz)

Radiated Emission (Low Channel) tabular data

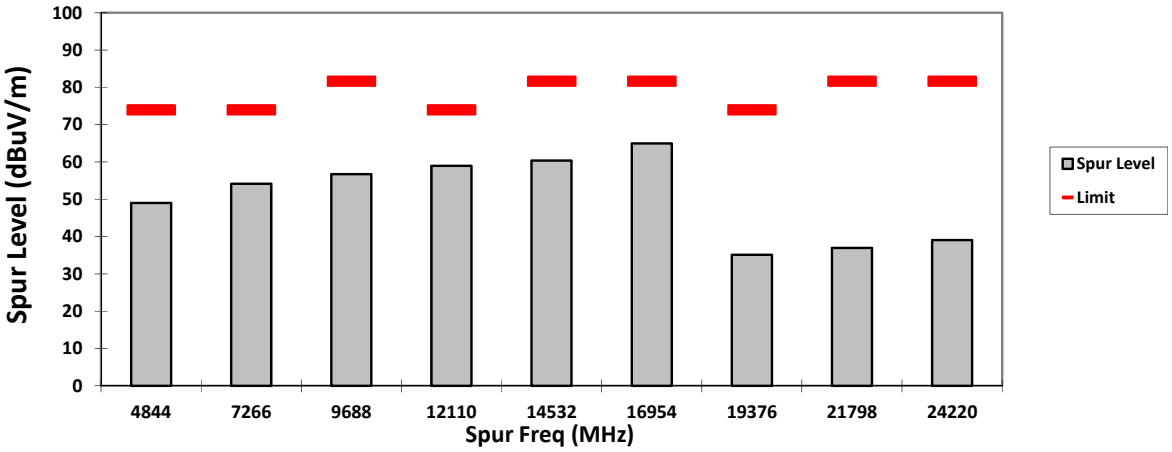
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4844	-	49.0378**	-	-	74.0000	-	-	24.9622	-	-
7266	-	57.5019**	44.6782**	-	74.0000	54.0000	-	16.4981	9.3218	-
9688	-	56.7283**	-	-	81.6643	-	-	24.9360	-	111.6643
12110	-	63.7750**	50.4478**	-	74.0000	54.0000	-	10.2250	3.5522	-
14532	-	60.3798**	-	-	81.6643	-	-	21.2845	-	111.6643
16954	-	64.9674**	-	-	81.6643	-	-	16.6969	-	111.6643
19376	-	35.1312**	-	-	74.0000	-	-	38.8688	-	-
21798	-	36.9685**	-	-	81.6643	-	-	44.6958	-	111.6643
24220	-	39.0901**	-	-	81.6643	-	-	42.5742	-	111.6643
Horizontal Radiated Emission Result										
4844	-	50.0024**	-	-	74.0000	-	-	23.9976	-	-
7266	-	57.6493**	44.4507**	-	74.0000	54.0000	-	16.3507	9.5493	-
9688	-	55.5920**	-	-	81.6643	-	-	26.0723	-	111.6643
12110	-	63.4676**	50.4483**	-	74.0000	54.0000	-	10.5324	3.5517	-
14532	-	59.7586**	-	-	81.6643	-	-	21.9057	-	111.6643
16954	-	65.7141**	-	-	81.6643	-	-	15.9502	-	111.6643
19376	-	34.5479**	-	-	74.0000	-	-	39.4521	-	-
21798	-	36.8131**	-	-	81.6643	-	-	44.8512	-	111.6643
24220	-	38.4128**	-	-	81.6643	-	-	43.2515	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

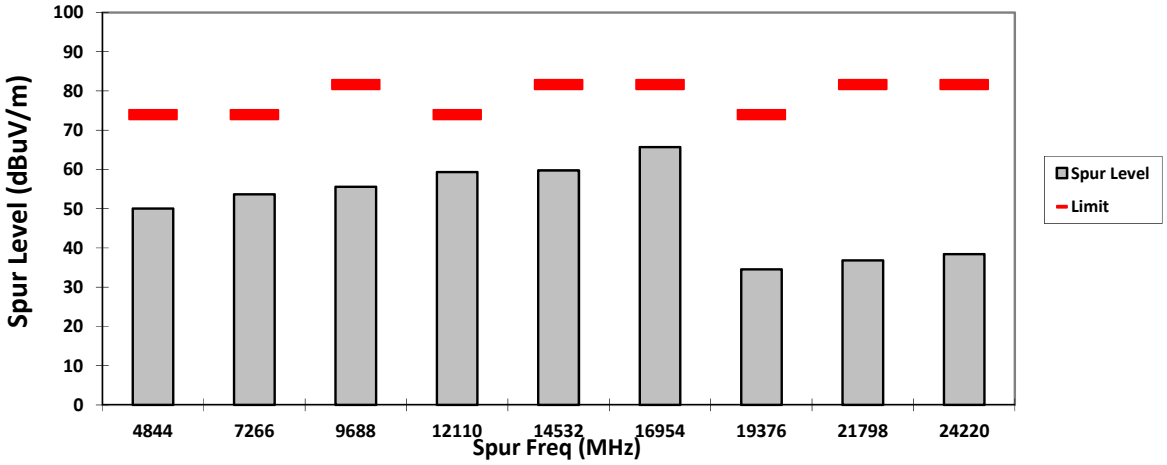
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

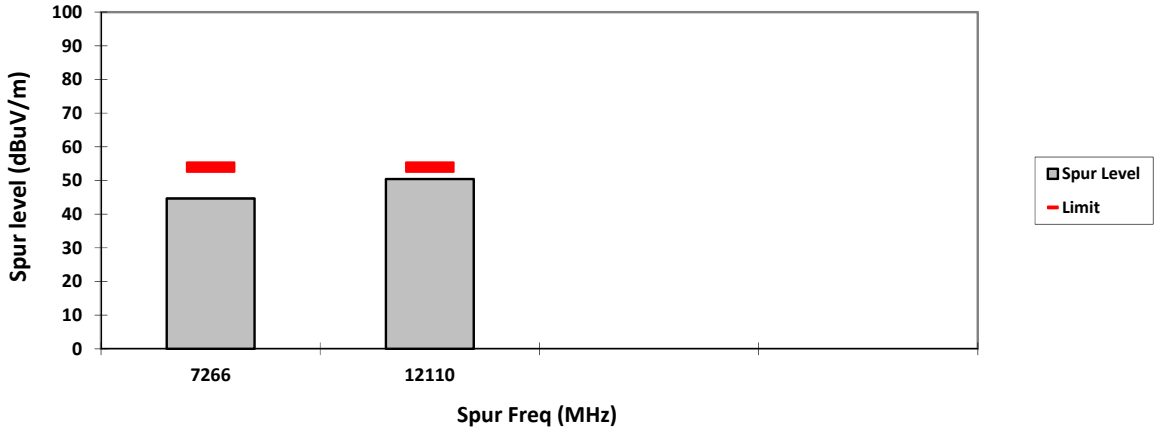
VERTICAL, PK



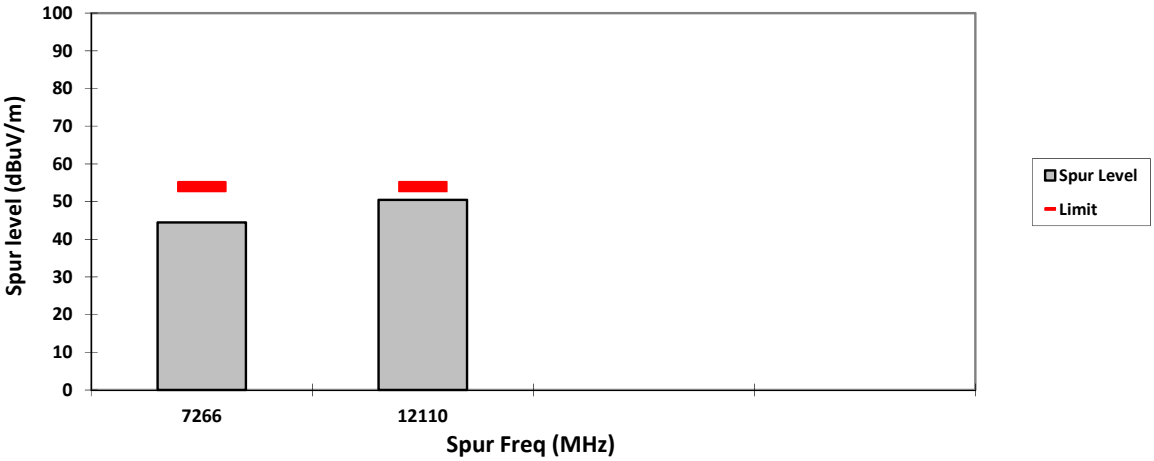
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 40MHz)

Radiated Emission (Mid Channel) tabular data

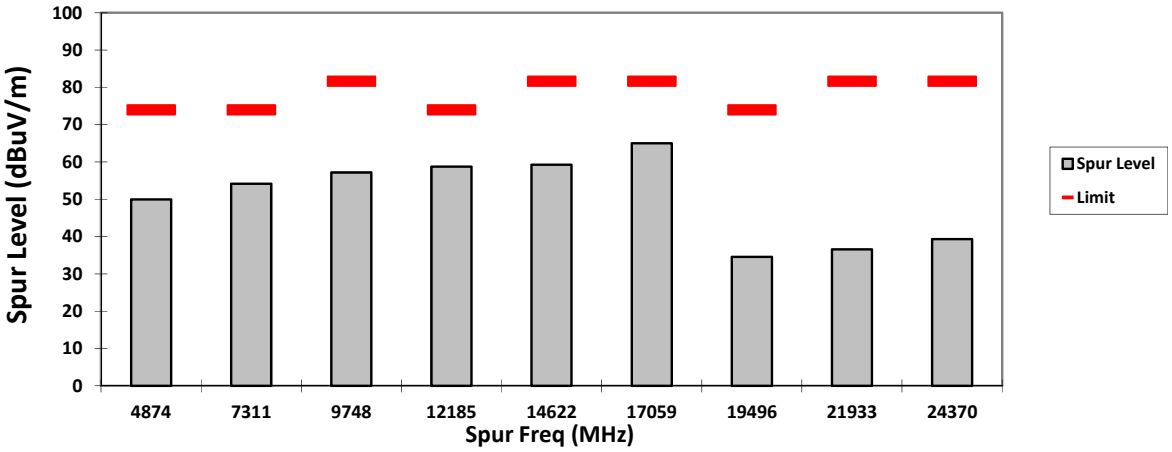
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	49.9706**	-	-	74.0000	-	-	24.0294	-	-
7311	-	57.4738**	44.2441**	-	74.0000	54.0000	-	16.5262	9.7559	-
9748	-	57.1957**	-	-	81.6643	-	-	24.4686	-	111.6643
12185	-	63.3267**	50.3402**	-	74.0000	54.0000	-	10.6733	3.6598	-
14622	-	59.2771**	-	-	81.6643	-	-	22.3872	-	111.6643
17059	-	64.9966**	-	-	81.6643	-	-	16.6677	-	111.6643
19496	-	34.5529**	-	-	74.0000	-	-	39.4471	-	-
21933	-	36.5725**	-	-	81.6643	-	-	45.0918	-	111.6643
24370	-	39.3324**	-	-	81.6643	-	-	42.3319	-	111.6643
Horizontal Radiated Emission Result										
4874	-	49.4183**	-	-	74.0000	-	-	24.5817	-	-
7311	-	57.2026**	44.1239**	-	74.0000	54.0000	-	16.7974	9.8761	-
9748	-	56.7515**	-	-	81.6643	-	-	24.9128	-	111.6643
12185	-	63.3999**	50.3410**	-	74.0000	54.0000	-	10.6001	3.6590	-
14622	-	59.2765**	-	-	81.6643	-	-	22.3878	-	111.6643
17059	-	65.2940**	-	-	81.6643	-	-	16.3703	-	111.6643
19496	-	34.1252**	-	-	74.0000	-	-	39.8748	-	-
21933	-	36.9722**	-	-	81.6643	-	-	44.6921	-	111.6643
24370	-	39.8752**	-	-	81.6643	-	-	41.7891	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

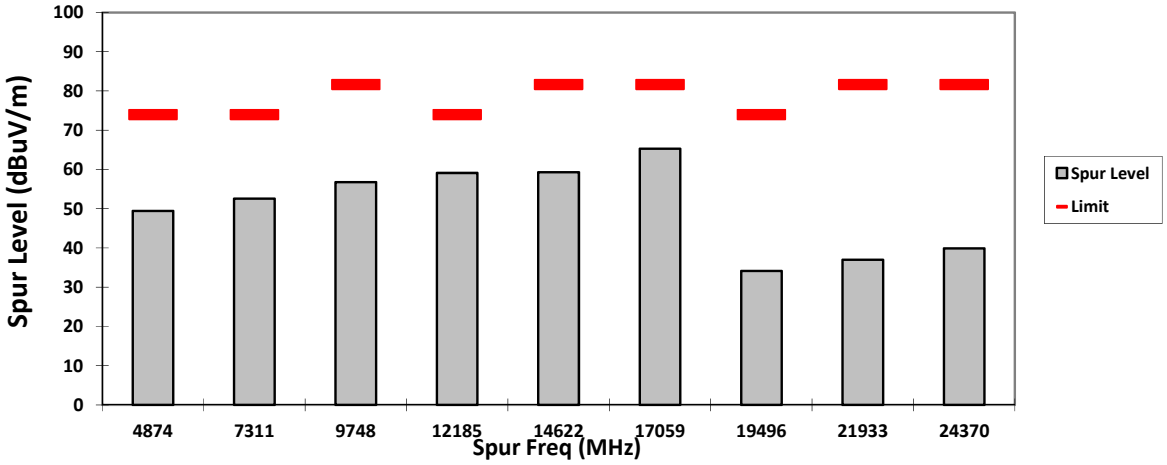
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

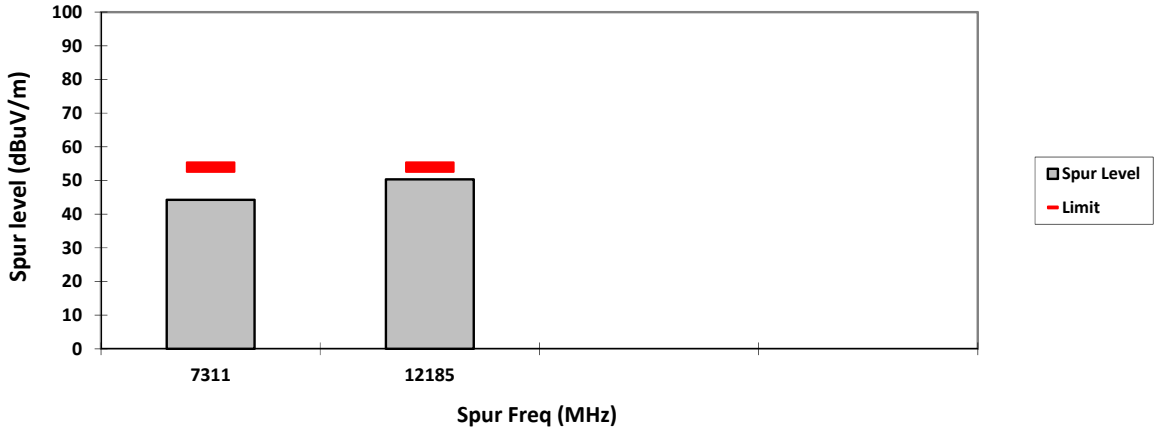
VERTICAL, PK



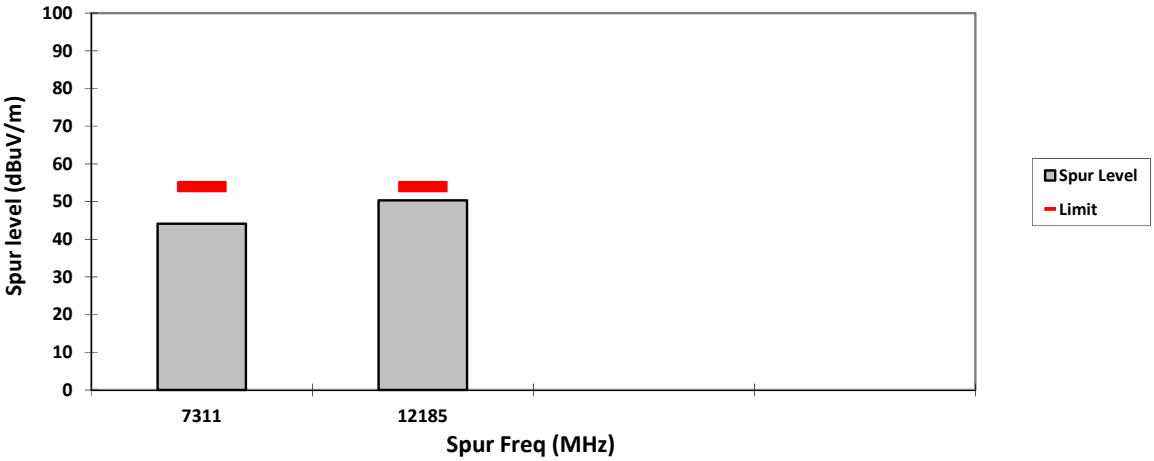
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0004 EMC SR ID#: 26977-EMC-00105
Battery: PMNN4817A Accessory: AN000411A01
Test Channel: High Test Frequency: 2452.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Z-Plane (802.11n 40MHz)

Radiated Emission (High Channel) tabular data

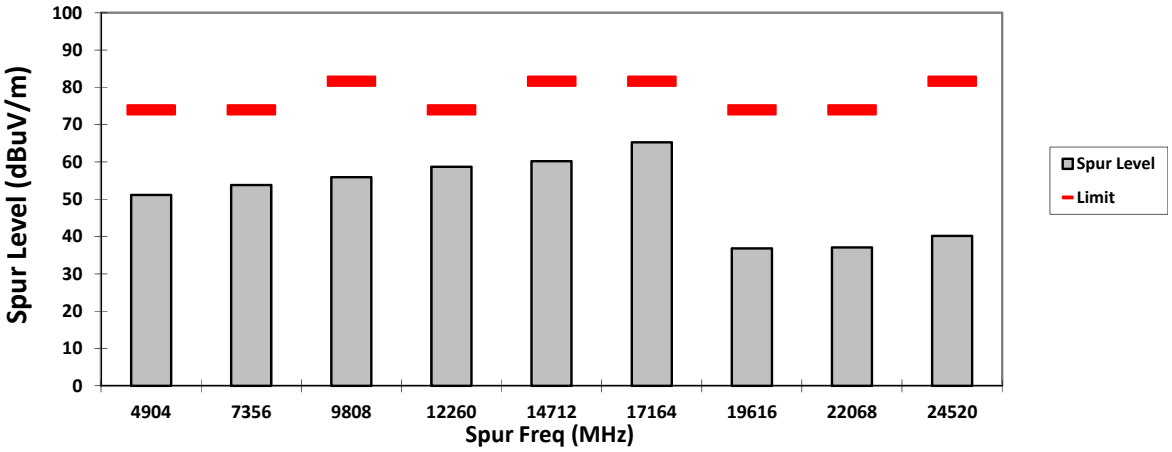
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4904	-	51.1604**	-	-	74.0000	-	-	22.8396	-	-
7356	-	57.3150**	44.5687**	-	74.0000	54.0000	-	16.6850	9.4313	-
9808	-	55.9562**	-	-	81.6643	-	-	25.7081	-	111.6643
12260	-	63.4702**	50.2165**	-	74.0000	54.0000	-	10.5298	3.7835	-
14712	-	60.2315**	-	-	81.6643	-	-	21.4328	-	111.6643
17164	-	65.2563**	-	-	81.6643	-	-	16.4080	-	111.6643
19616	-	36.8499**	-	-	74.0000	-	-	37.1501	-	-
22068	-	37.0819**	-	-	74.0000	-	-	36.9181	-	-
24520	-	40.2202**	-	-	81.6643	-	-	41.4441	-	111.6643
Horizontal Radiated Emission Result										
4904	-	49.5048**	-	-	74.0000	-	-	24.4952	-	-
7356	-	57.5387**	44.5691**	-	74.0000	54.0000	-	16.4613	9.4309	-
9808	-	55.9709**	-	-	81.6643	-	-	25.6934	-	111.6643
12260	-	63.3009**	50.2074**	-	74.0000	54.0000	-	10.6991	3.7926	-
14712	-	59.7981**	-	-	81.6643	-	-	21.8662	-	111.6643
17164	-	64.9576**	-	-	81.6643	-	-	16.7067	-	111.6643
19616	-	34.2114**	-	-	74.0000	-	-	39.7886	-	-
22068	-	36.6995**	-	-	74.0000	-	-	37.3005	-	-
24520	-	41.6032**	-	-	81.6643	-	-	40.0611	-	111.6643

Remarks: Pass Result	Marginal Result	Fail Result

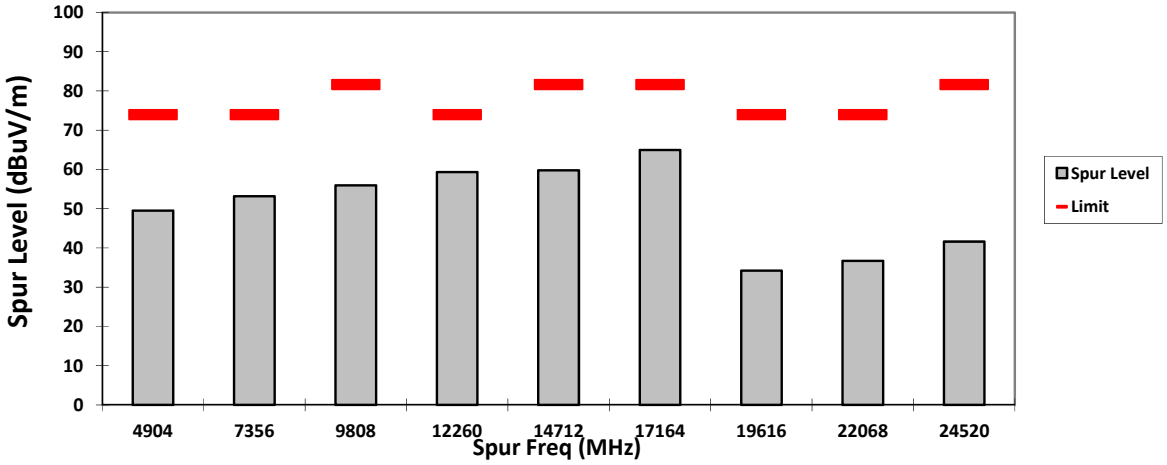
Temperature (degC): 23.5 Humidity (%): 69.9
Test Performed by: Qawiman&Nazrin Test Date: Mon, 8 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

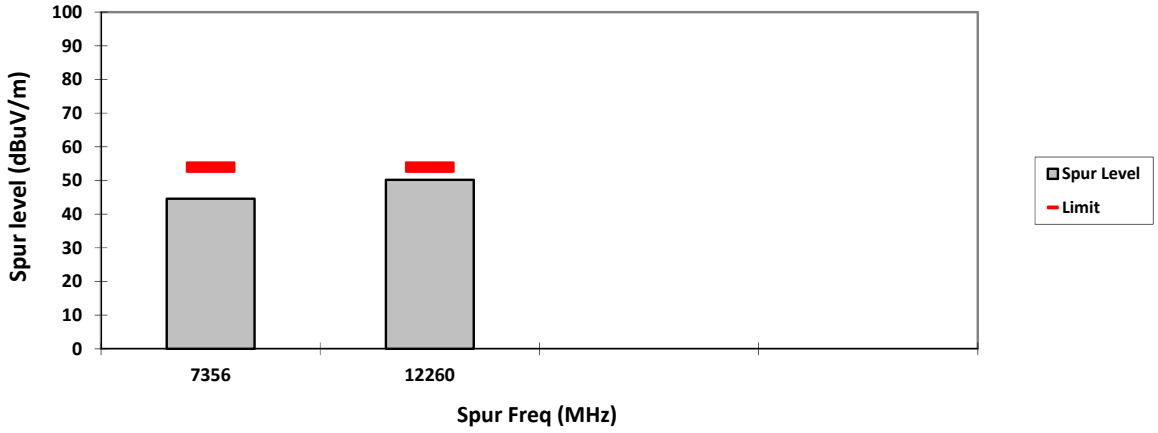
VERTICAL, PK



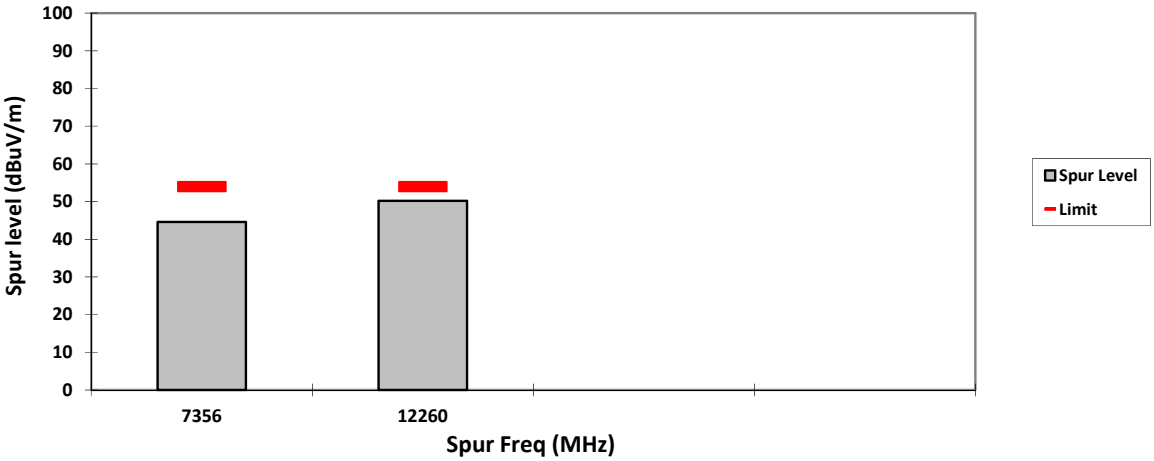
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0018, 022TYP0003, 022TYP0004
EMC SR ID#: 26977-EMC-00118
Battery: PMNN4817A Accessory: PMPN4591A-CF5, 3087791G01, AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Y-Plane (802.11b)

Radiated Emission (Low Channel) tabular data

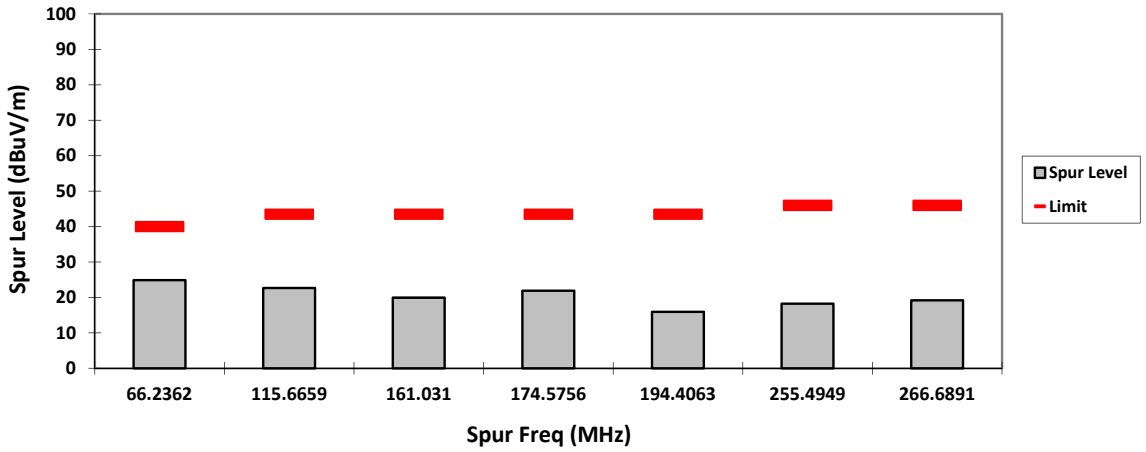
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
66.2362	24.8700	-	-	40.0000	-	-	15.1300	-	-	-
115.6659	22.6285	-	-	43.5000	-	-	20.8715	-	-	-
161.0310	19.9463	-	-	43.5000	-	-	23.5537	-	-	-
174.5756	21.8591	-	-	43.5000	-	-	21.6409	-	-	-
194.4063	15.9242	-	-	43.5000	-	-	27.5758	-	-	-
255.4949	18.2084	-	-	46.0000	-	-	27.7916	-	-	-
266.6891	19.1776	-	-	46.0000	-	-	26.8224	-	-	-
Horizontal Radiated Emission Result										
66.4260	19.9523	-	-	40.0000	-	-	20.0477	-	-	-
115.2393	26.9767	-	-	43.5000	-	-	16.5233	-	-	-
161.5185	19.4523	-	-	43.5000	-	-	24.0477	-	-	-
174.4337	26.6570	-	-	43.5000	-	-	16.8430	-	-	-
194.3663	24.9732	-	-	43.5000	-	-	18.5268	-	-	-
254.8925	19.9633	-	-	46.0000	-	-	26.0367	-	-	-
266.9499	23.3175	-	-	46.0000	-	-	22.6825	-	-	-

Remarks: Pass Result	Marginal Result	Fail Result

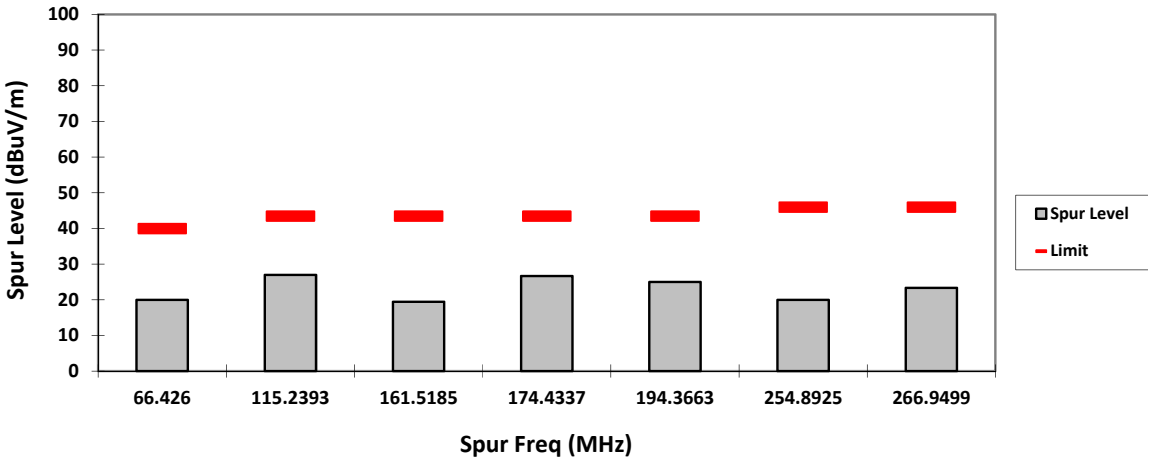
Temperature (degC): 23.9 Humidity (%): 70.1
Test Performed by: Nazrin&Qawiman Test Date: Sun, 21 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

VERTICAL, QPK



HORIZONTAL, QPK



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35UCT9PW8AN S/N: 022TYP0018, 022TYP0003, 022TYP0004
EMC SR ID#: 26977-EMC-00118
Battery: PMNN4817A Accessory: PMPN4591A-CF5, 3087791G01, AN000411A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: Y-Plane (802.11b)

Radiated Emission (Low Channel) tabular data

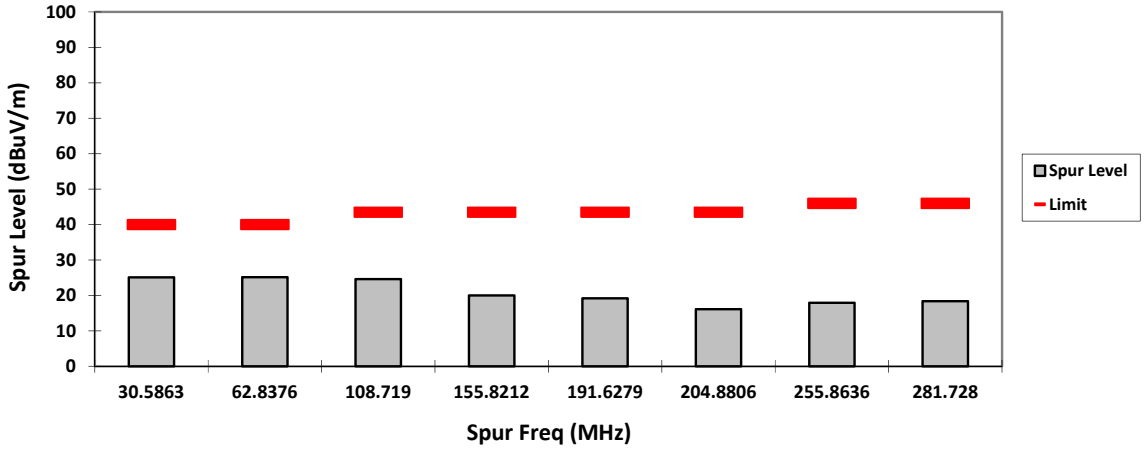
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
30.5863	25.0896	-	-	40.0000	-	-	14.9104	-	-	-
62.8376	25.1449	-	-	40.0000	-	-	14.8551	-	-	-
108.7190	24.6075	-	-	43.5000	-	-	18.8925	-	-	-
155.8212	20.0118	-	-	43.5000	-	-	23.4882	-	-	-
191.6279	19.1540	-	-	43.5000	-	-	24.3460	-	-	-
204.8806	16.1197	-	-	43.5000	-	-	27.3803	-	-	-
255.8636	17.9210	-	-	46.0000	-	-	28.0790	-	-	-
281.7280	18.3596	-	-	46.0000	-	-	27.6404	-	-	-
Horizontal Radiated Emission Result										
30.8161	23.7192	-	-	40.0000	-	-	16.2808	-	-	-
62.9605	26.7591	-	-	40.0000	-	-	13.2409	-	-	-
109.1186	24.9124	-	-	43.5000	-	-	18.5876	-	-	-
156.3946	26.2839	-	-	43.5000	-	-	17.2161	-	-	-
191.0664	23.1498	-	-	43.5000	-	-	20.3502	-	-	-
204.5809	21.9995	-	-	43.5000	-	-	21.5005	-	-	-
255.4301	26.2423	-	-	46.0000	-	-	19.7577	-	-	-
281.9278	26.1117	-	-	46.0000	-	-	19.8883	-	-	-

Remarks: Pass Result	Marginal Result	Fail Result

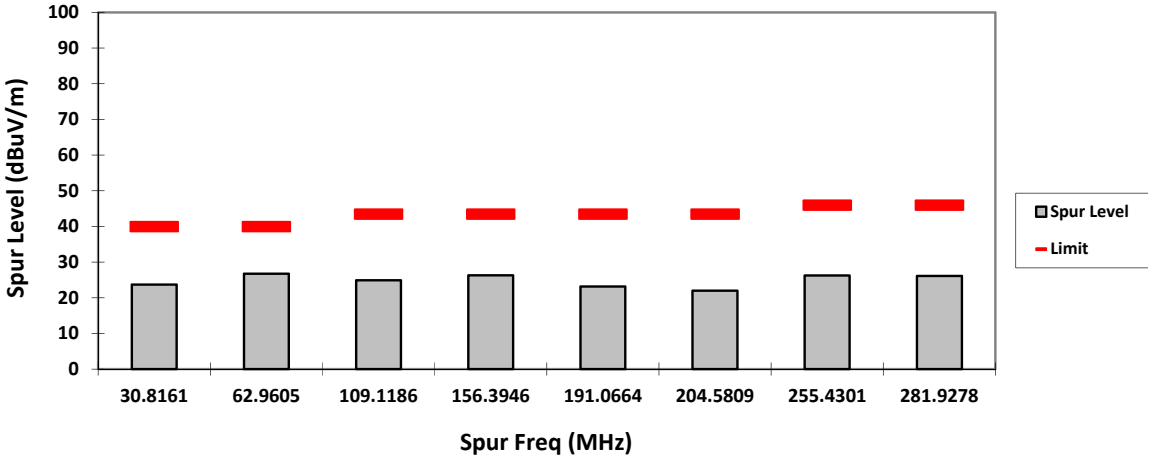
Temperature (degC): 23.9 Humidity (%): 70.1
Test Performed by: Nazrin&Qawiman Test Date: Sun, 21 Aug, 2022
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
***Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported.**

VERTICAL, QPK

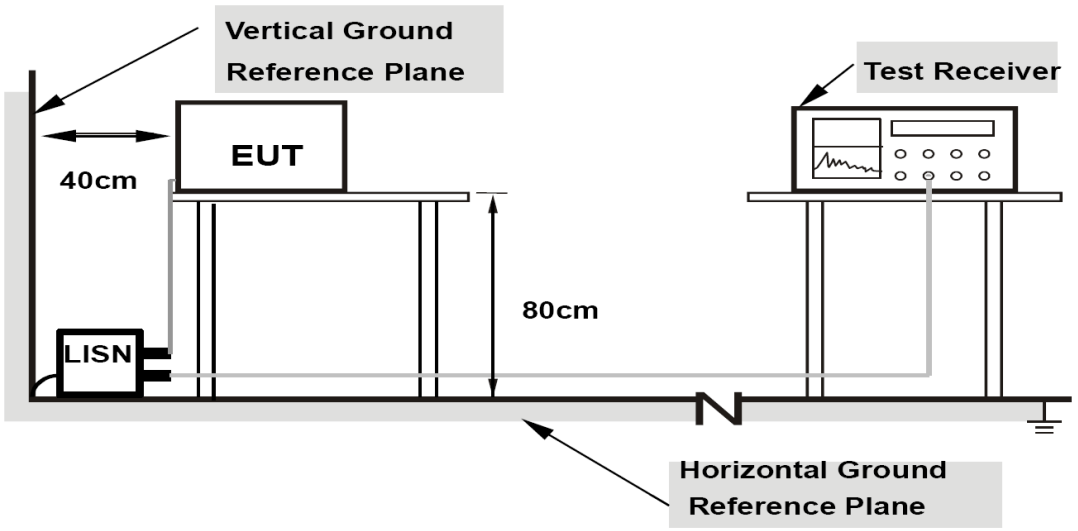


HORIZONTAL, QPK



6.8. AC Powerline Conducted Emission

6.8.1. Test Setup



1) Tests were conducted for both Receive and Transmit Mode of the EUT.
2) The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50uH of coupling impedance for the measuring instrument.
3) Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
4) The frequency range from 150 kHz to 30MHz was measured.

6.8.2. Test Limits:

For AC Power Line Conducted Test Limit can be Class A or B depends on product classification.

Limits for conducted disturbance at the mains ports of class A ITE

Frequency range MHz	Limits dB(µV)	
	Quasi-peak	Average
0,15 to 0,50	79	66
0,50 to 30	73	60
NOTE The lower limit shall apply at the transition frequency.		

Table 1: Limits for Conducted Disturbance at the Mains Ports of Class A ITE.

Limits for conducted disturbance at the mains ports of class B ITE

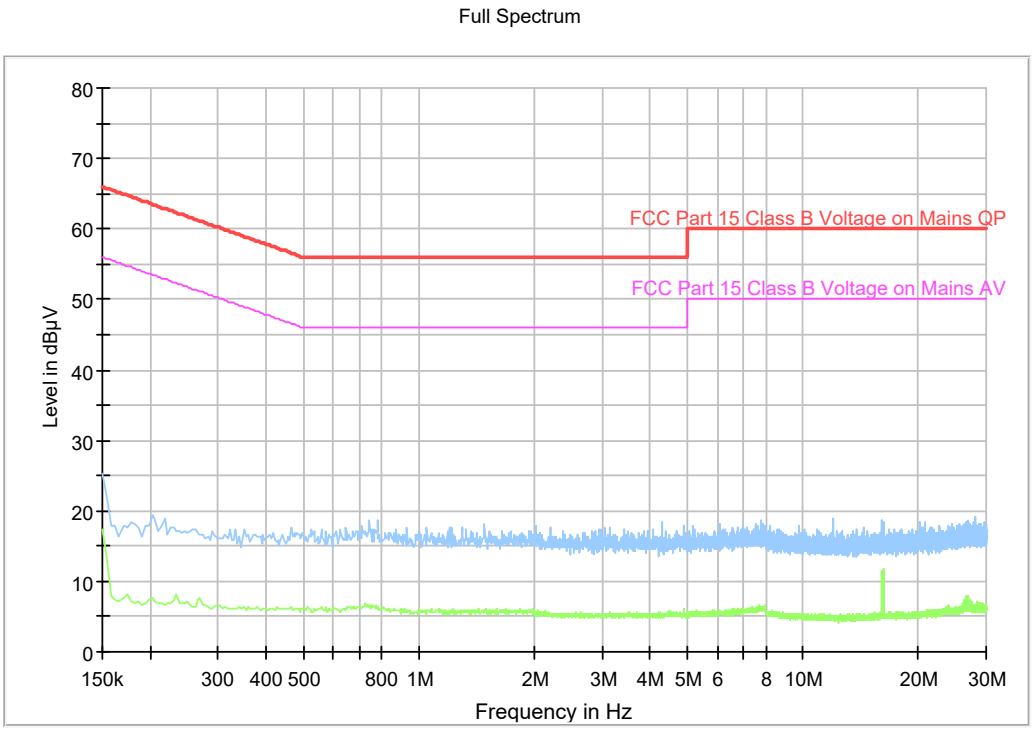
Frequency range MHz	Limits dB(µV)	
	Quasi-peak	Average
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50
NOTE 1 The lower limit shall apply at the transition frequencies. NOTE 2 The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.		

Table 2: Limits for Conducted Disturbance at the Mains Ports of Class B ITE

6.8.3. **Test Result**

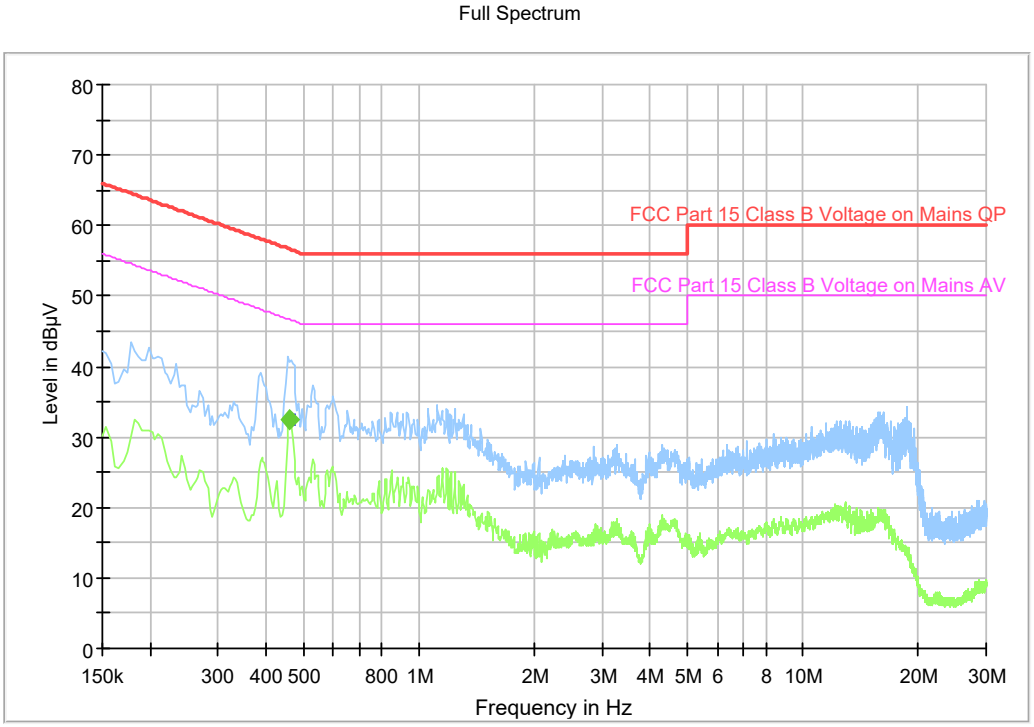
Report ID.:	:	26977-EMC-00118
Ambient Temperature:	:	23.0 °C
Humidity:	:	70.8 %RH
Tester:	:	Azil
Date of test:	:	23 August 2022

1) Ambient



120 VAC , 60Hz

1) Charger + Radio in WIFI 2.4GHz test mode (2412MHz, 802.11b)



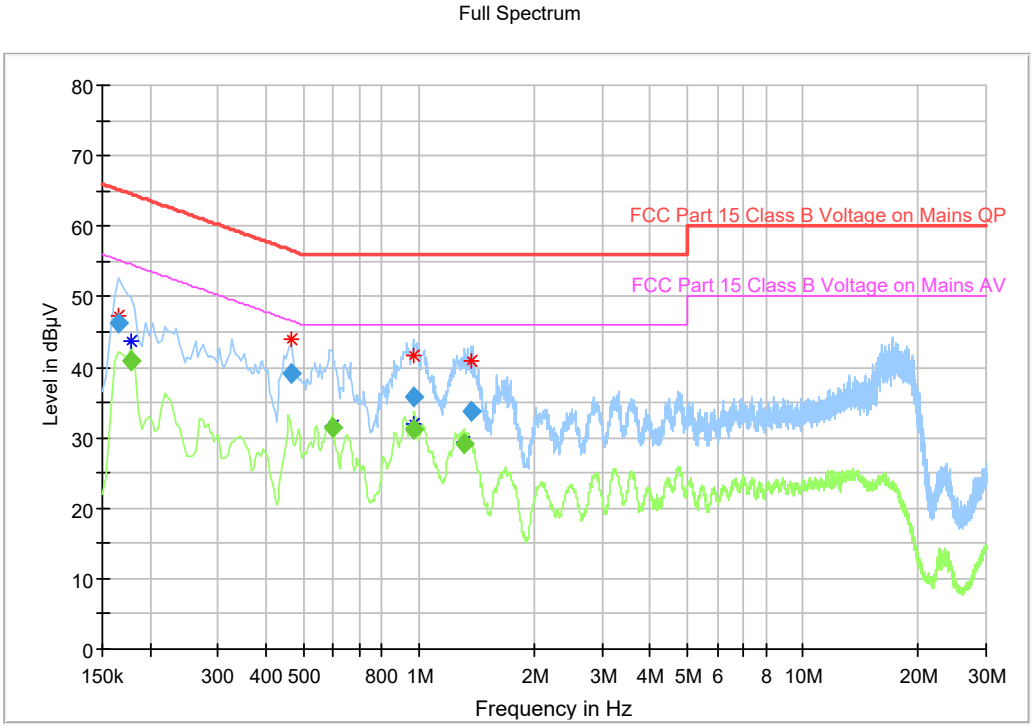
Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.462000	---	32.46	46.66	14.20	1000.0	9.000	L1	ON	10.4	PASS

*** Expanded Uncertainty (U) = +/- 3.48dB**

240 VAC , 50Hz

2) Charger + Radio in WIFI 2.4GHz test mode (2412MHz, 802.11b)



Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.166000	46.35	---	65.16	18.81	1000.0	9.000	L1	ON	10.3	PASS
0.178000	---	40.86	54.58	13.71	1000.0	9.000	N	ON	10.3	PASS
0.466000	39.06	---	56.59	17.53	1000.0	9.000	L1	ON	10.4	PASS
0.594000	---	31.31	46.00	14.69	1000.0	9.000	L1	ON	10.4	PASS
0.966000	35.71	---	56.00	20.29	1000.0	9.000	L1	ON	10.3	PASS
0.974000	---	31.13	46.00	14.87	1000.0	9.000	N	ON	10.3	PASS
1.310000	---	29.04	46.00	16.96	1000.0	9.000	L1	ON	10.2	PASS
1.370000	33.80	---	56.00	22.20	1000.0	9.000	L1	ON	10.2	PASS

*** Expanded Uncertainty (U) = +/- 3.48dB**

END OF TEST REPORT