MOTOROLA SOLUTIONS

CERTIFICATE 2518.08

SAMM 825

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.A

Date/s Tested	:	06-March-2024 - 31-March-2024
Report Issue Date	:	16-April-2024
Manufacturer/Location	:	Motorola Solutions Malaysia Sdn Bhd Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900, Bayan Lepas, Penang, Malaysia
Requestor	:	HOMICIL HARLY
Product Type	:	Hand-held
Product Version (PMN)	:	APX N70
Model Number (HVIN)	:	H35XDT9PW8AN & H35XDT9PW8AN-H
Frequency Band	:	2.412-2.462 GHz
Max RF Output Power	:	802.11b - 112.20 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		Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
FCC Registrations	:	461337
ISED Registrations	:	MY0001
Firmware Version (FVIN)	:	D02.76.02

The equipment was tested accordance to the requirement listed below:

(2.4GHz Wifi) **47CFR Part 15C** **ISED RSS 247 Issue 2** **February 2017**	**PASS**

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Prepared By:

SITI NUR HIDAYATI BINTI ABDUL HALIM
Test Personnel

Approved Signatory:

MAHESHVARAN A/L RAJAGOPAL
Responsible Engineer

Table of Contents

1.0. General Information 3
1.1. Channel number and frequency information: 3
2.0. Summary of Test Results 4
3.0. Measurement Uncertainty 5
4.0. Equipment List 5
5.0. Test Mode Applicability and Test Channel Detail 6
6.0. Transmitter Test Parameters 9
6.1. 6dB Channel Bandwidth 9
6.1.1. Test Setup 9
6.1.2. Test Limits: 9
6.1.3. Test Data: 10
6.2. Conducted RF Output Power 18
6.2.1. Test Setup 18
6.2.2. Test Limits: 18
6.2.3. Test Data: 19
6.3. Duty Cycle of the test signal 20
6.3.1. Test Setup 20
6.3.2. Test Data 21
6.4. Maximum Peak Power Spectral Density 23
6.4.1. Test Setup 23
6.4.2. Test Limits 23
6.4.3. Test Result 24
6.5. Conducted Spurious Emission 24
6.5.1. Test Setup 25
6.5.2. Test Limits: 25
6.5.3. Test Result 26
6.6. Band edge Conducted Spurious Emission 27
6.6.1. Test Setup 27
6.6.2. Test Limits: 27
6.6.3. Test Result 28
6.7. Radiated Emission within restricted Bands 29
6.7.1. Test Setup 29
6.7.2. Test Limits: 30
6.7.3. Test Data: 31
6.8. AC Powerline Conducted Emission 91
6.8.1. Test Setup 91
6.8.2. Test Limits: 91
6.8.3. Test Result 93

REVISION HISTORY

Revision History	Description	Date	Originator
Rev. A	Initial Report	**16-April-2024**	**Hidayati**

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
UHF Whip 380-520MHz	MOTOROLA	AN000452A01
UL 3650mAH (using RN 2170 Li-Ion cell)	MOTOROLA	PMNN4818A
CHARGER,CHGR DEKSTOP SINGLE UNIT IMPRES 2 EXT PS BASE ONLY	MOTOROLA	PMPN4590A
PWR SUPPLY WALL CUBE,AC,DC,110VAC FIXED BLADE US 14.5V/2.5A L6 BARREL	MOTOROLA	PS000040A01
CHARGER DEKSTOP MULTI UNIT IMPRES 2 6 DISPLAYS INT PS US	MOTOROLA	PMPN4591A
POWER CORD US for MUC	MOTOROLA	3087791G01

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: 14.007 MHz (14M0G1D) 802.11g: 16.686 MHz (16M7D1D) 802.11n(HT20): 17.868 MHz (17M9D1D) 802.11n(HT40): 36.247 MHz (36M2D1D)	022TAB0381	Hidayati
15.247 (b)(3)	RSS-247 5.4(d)	Conducted RF Output Power (Peak)	Pass	Highest output power: 802.11b: 19.735 dBm (94.081 mW) 802.11g: 21.930 dBm (155.955 mW) 802.11n(HT20): 21.940 dBm (156.315 mW) 802.11n(HT40): 24.410 dBm (276.058 mW)	022TAB0381	Hidayati
15.247(e)	RSS-247 5.2(b)	Maximum Power Spectral Density	Pass	NA	NA	NA
15.247(d)	RSS-247 5.5	Conducted Spurious Emissions	Pass	NA	NA	NA
15.247 (d)	RSS-247 5.5	Band edge Conducted Spurious Emission	Pass	NA	NA	NA
15.205, 15.209, 15.247 (d)	RSS-247 5.5	Radiated Emission within Restricted Bands	Pass	RBE: 47.6227dBuVm (margin: 6.3773dB) RSE: 48.0141dBuV/m (margin: 5.9859dB)	022TAB0346	Nazrin & Rezza
15.207	RSS-Gen 8.8	AC Power Line Conducted Emission	NA	Meet the limit requirement.	022TAB0346	Shidee
15.203		Antenna requirement	NA	Internal antenna is not accessible to the end-user.	NA	NA

NA → Not Available

***NOTE: The Wifi chipset is identical to FCC ID AZ489FT7147. The rest of conducted measurements are by similarity. Configurations of radiated emissions based on FCC ID AZ489FT7147 are tested. As per KDB 484596 D01v01, the applicant takes full responsibility that data referenced represents compliance to the relevant rules for this current FCC ID.**

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_3.1.12_R1)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
CHAMBER	SH-641	92003820	18-Jul-23	18-Jul-24
POWER SUPPLY	6652A	3541A02371	18-Jul-23	18-Jul-24
PULSE SENSOR	MA2411B	1726287	22-Aug-23	22-Aug-24
PULSE POWER METER	ML2495A	1845014	16-Aug-23	16-Aug-24
SPECTRUM ANALYZER	E4440A	MY48250517	8-Nov-23	8-Nov-24

Radiated Emission Station (SW Version: EMC FCC RE v1.6.5)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
DRG HORN FREQ.	SAS-571	1143	08-Mar-23	08-Mar-25
DRG HORN FREQ.	SAS-571	720	18-Apr-23	18-Apr-25
DC Power Supply	NR973A	MY54180189	30-Aug-23	30-Aug-24
SIGNAL GENERATOR	SMB 100A	182511	4-Jun-21	4-Jun-24
EMI TEST RECEIVER	ESW44	101731	11-Aug-23	11-Aug-24
5m SEMI-ANECHOIC CHAMBER	S800-HX	J2308	No Cal. Req'd	No Cal. Req'd
BILOG ANTENNA	CBL6112B	2950	14-Dec-23	14-Dec-24
BILOG ANTENNA	CBL6112B	2964	25-Sep-23	25-Sep-24
DATA LOGGER THERMOHYGROMETER	SDL500	A.016800	21-Jun-23	21-Jun-24
SYSTEM CONTROLLER	SC104V	050806-1	No Cal. Req'd	No Cal. Req'd
TURNTABLE FLUSH MOUNT 2M	FM2011	NA	No Cal. Req'd	No Cal. Req'd
ANTENNA POSITIONING TOWER	TLT2	NA	No Cal. Req'd	No Cal. Req'd
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170143	28-Aug-23	28-Aug-24
PREAMPLIFIER 18-40GHz	Miteq Hi Gain Sucoflex	002	No Cal. Req'd	No Cal. Req'd
PREAMPLIFIER	PAM-0118P	269	28-Mar-23	28-Mar-24
LOOP ANTENNA	6502	00208416	26-Oct-23	26-Oct-24

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

Description	Model	Serial Number	Calibration Date	Calibration Due Date
DATA LOGGER	DSB	16344143	21-Jun-23	21-Jun-24
V-NETWORK 2-LINE	ENV216V	101039	13-Dec-23	13-Dec-24
EMI TEST RECEIVER	ESIB40	100225	19-Sep-23	19-Sep-24
PROGRAMMABLE AC SOURCE	61604	ABR000000926	25-Jul-23	25-Jul-24

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
	802.11g	√	√	x	x	x	x
	802.11n (HT20)	√	√	x	x	x	x
	802.11n (HT40)	x	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 T00est (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	22.8°C, 70.1%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	22.8°C, 70.1%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO CDD (MIMO)	22.8°C, 70.1%RH
Test Mode	802.11n (HT40)	3 to 9	3,6,9	OFDM	BPSK	6.5	SISO CDD (MIMO)	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	22.8°C, 70.1%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	22.8°C, 70.1%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO CDD (MIMO)	22.8°C, 70.1%RH
Test Mode	802.11n (HT40)	3 to 9	3,6,9	OFDM	BPSK	6.5	SISO CDD (MIMO)	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	NA

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 CDD (MIMO)	25°C, 54.8%RH
Test Mode	802.11n (HT40)	1 to 11	3,6,9	OFDM	BPSK	6.5	SISO CDD (MIMO)	NA

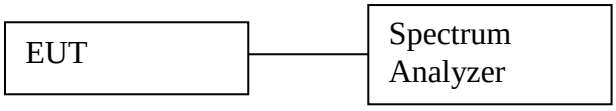
Duty Cycle of Test Signal

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.

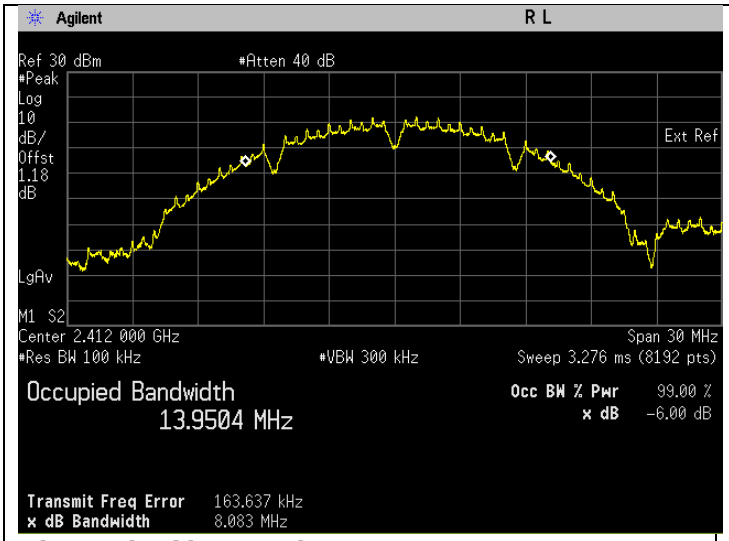
6.1.2. Test Limits:

Normal Condition (25 º C)
≥500 kHz

6.1.3. **Test Data:**

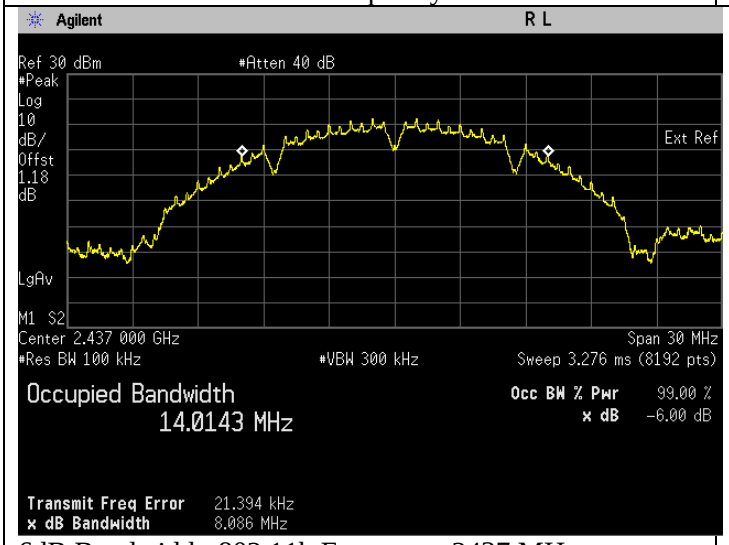
802.11 b

Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11b	OFDM	BPSK	1	2412	8.083	13.940	Pass
802.11b	OFDM	BPSK	1	2437	8.086	14.007	Pass
802.11b	OFDM	BPSK	1	2462	8.080	13.849	Pass

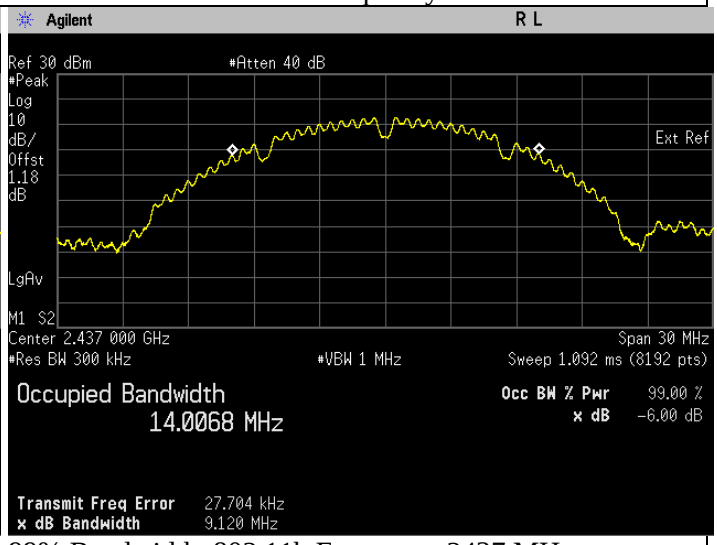


6dB Bandwidth. 802.11b Frequency 2412 MHz

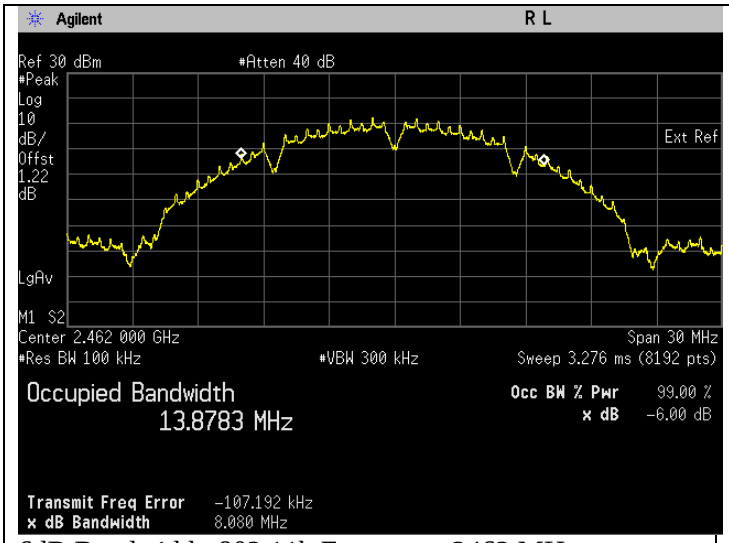
99% Bandwidth. 802.11b Frequency 2412 MHz



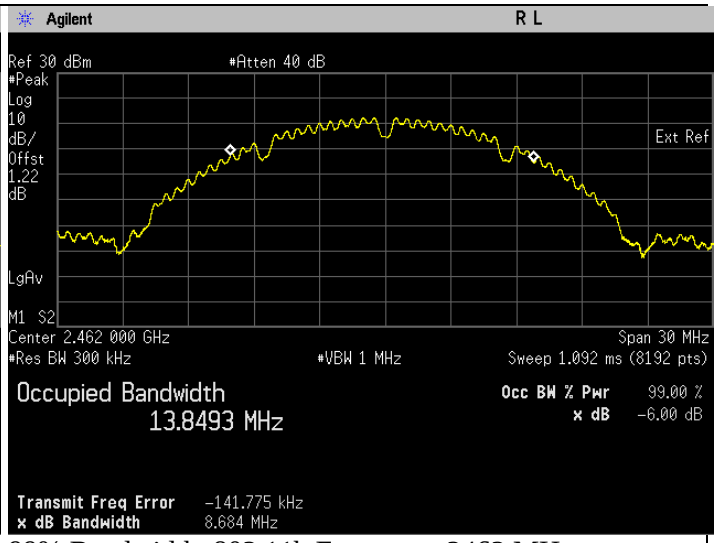
6dB Bandwidth. 802.11b Frequency 2437 MHz



99% Bandwidth. 802.11b Frequency 2437 MHz



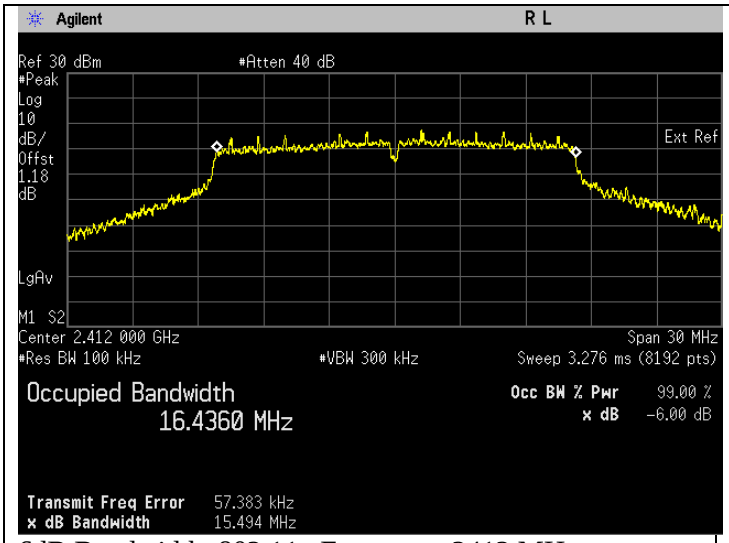
6dB Bandwidth. 802.11b Frequency 2462 MHz



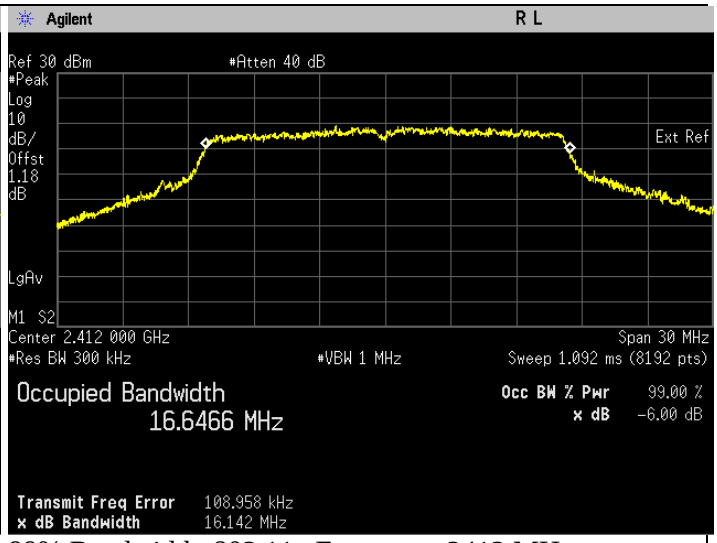
99% Bandwidth. 802.11b Frequency 2462 MHz

802.11 g

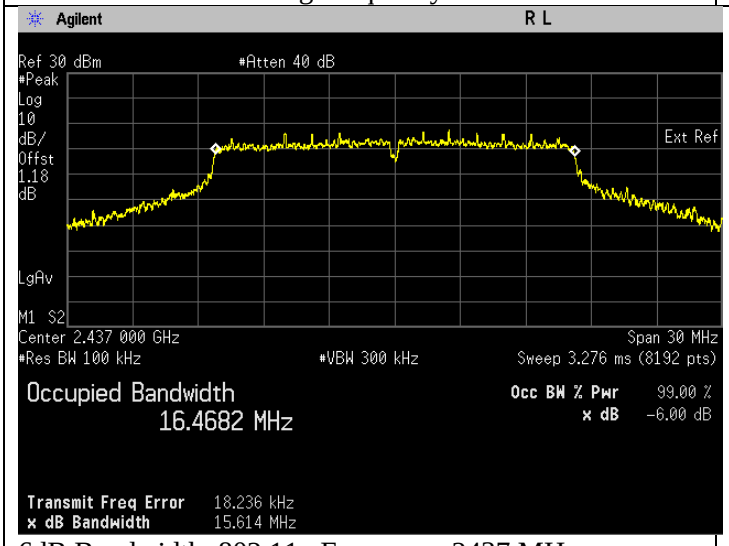
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11g	OFDM	BPSK	6	2412	15.494	16.647	Pass
802.11g	OFDM	BPSK	6	2437	15.614	16.686	Pass
802.11g	OFDM	BPSK	6	2462	15.146	16.604	Pass



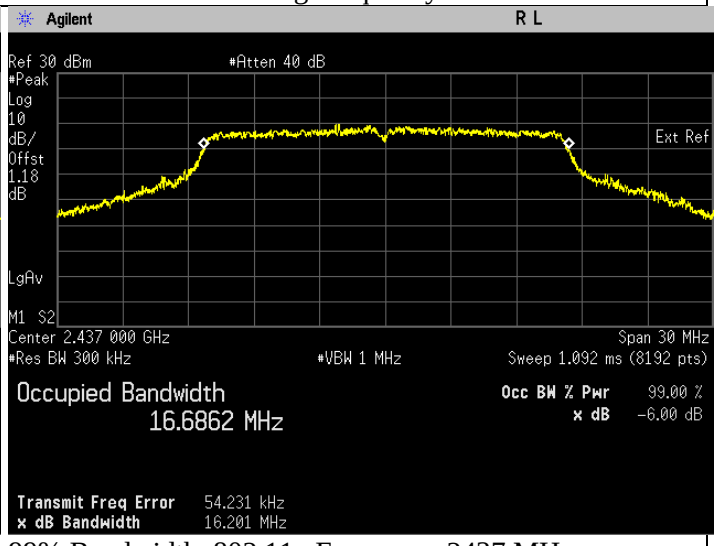
6dB Bandwidth. 802.11g Frequency 2412 MHz



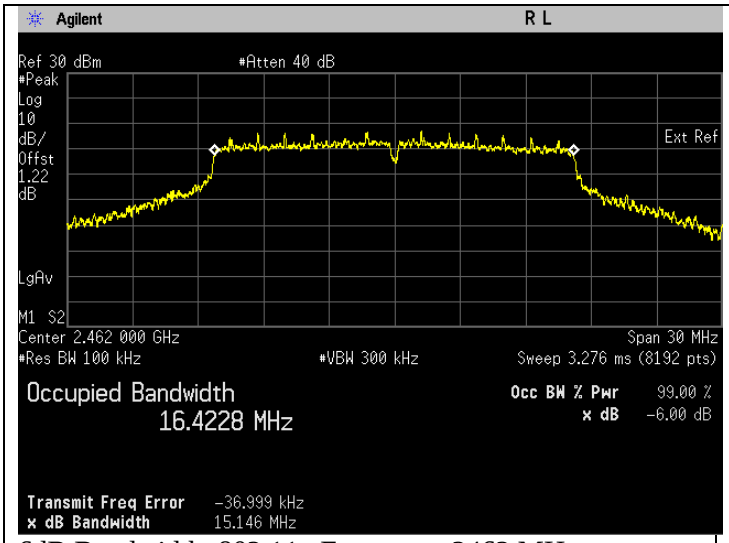
99% Bandwidth. 802.11g Frequency 2412 MHz



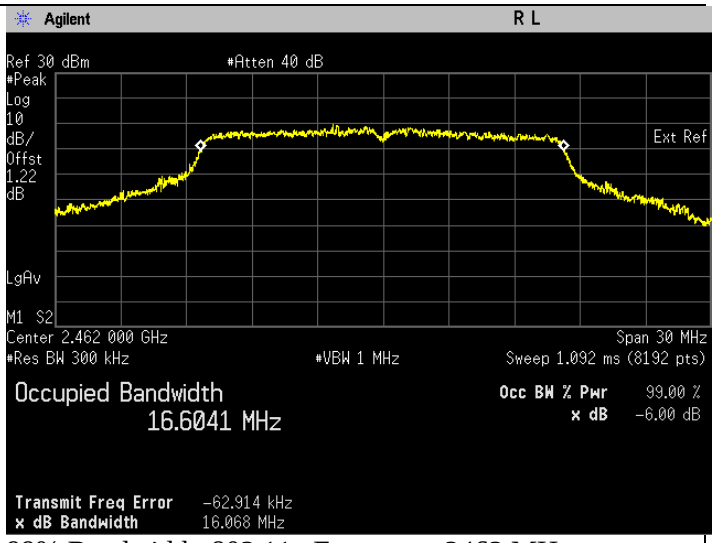
6dB Bandwidth. 802.11g Frequency 2437 MHz



99% Bandwidth. 802.11g Frequency 2437 MHz



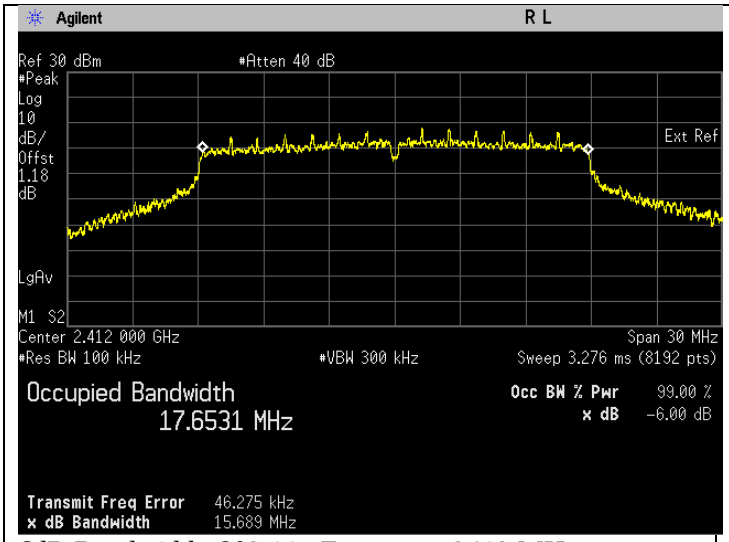
6dB Bandwidth. 802.11g Frequency 2462 MHz



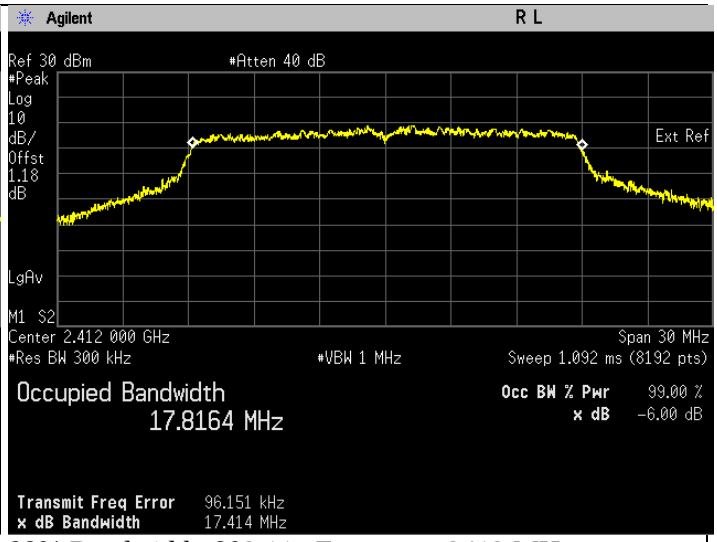
99% Bandwidth. 802.11g Frequency 2462 MHz

802.11n (HT20)

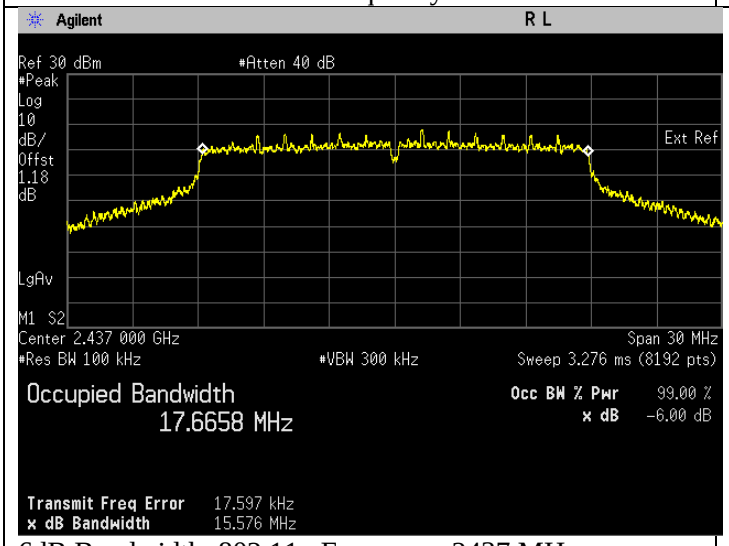
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11n	OFDM	BPSK	6.5	2412	15.689	17.816	Pass
802.11n	OFDM	BPSK	6.5	2437	15.576	17.868	Pass
802.11n	OFDM	BPSK	6.5	2462	15.952	17.804	Pass



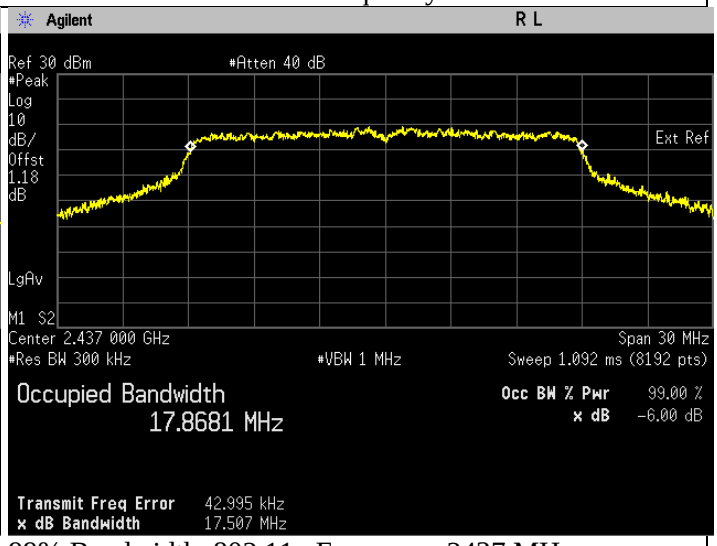
6dB Bandwidth. 802.11n Frequency 2412 MHz



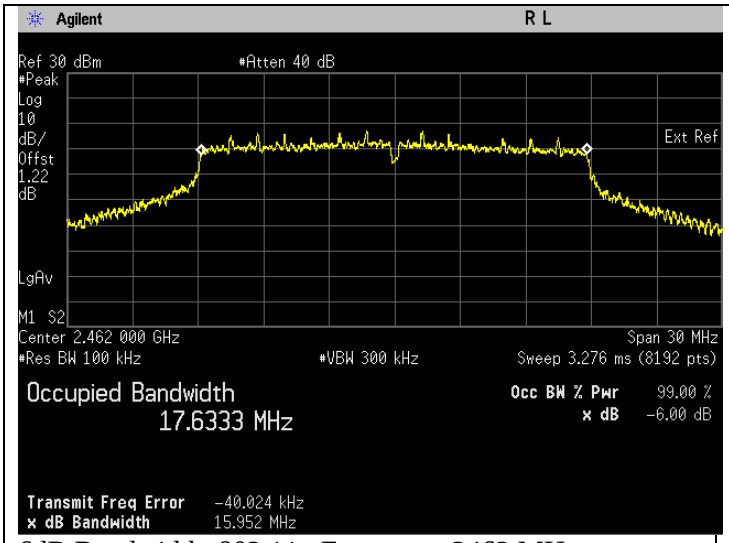
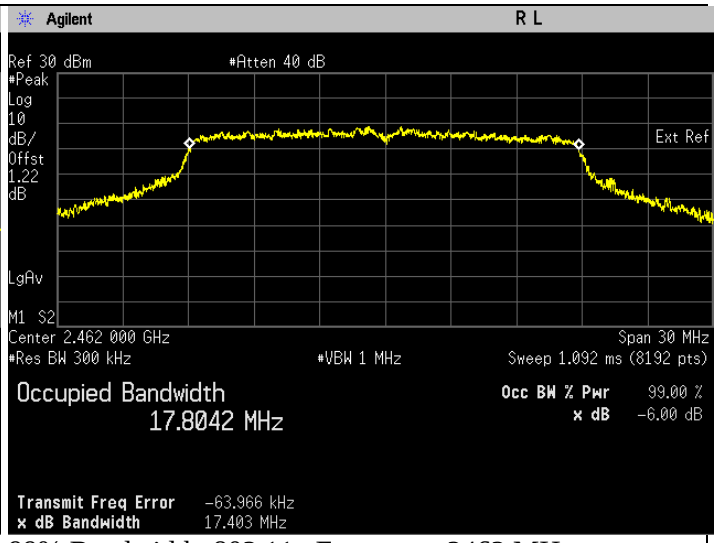
99% Bandwidth. 802.11n Frequency 2412 MHz



6dB Bandwidth. 802.11n Frequency 2437 MHz

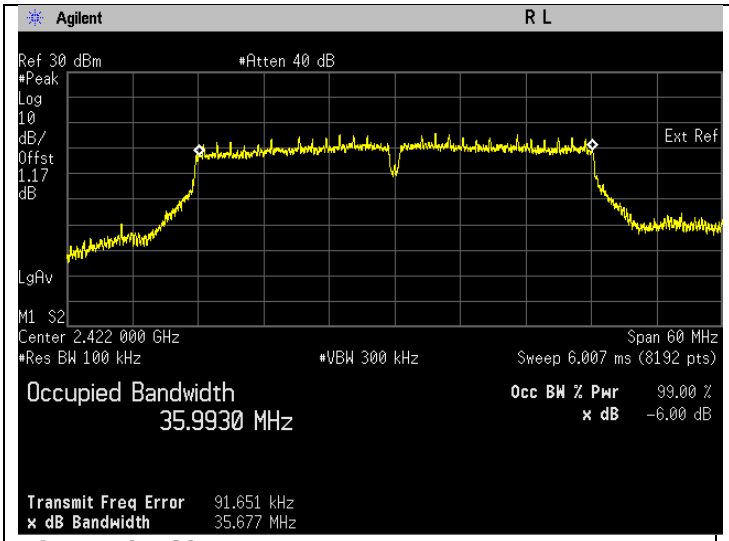


99% Bandwidth. 802.11n Frequency 2437 MHz

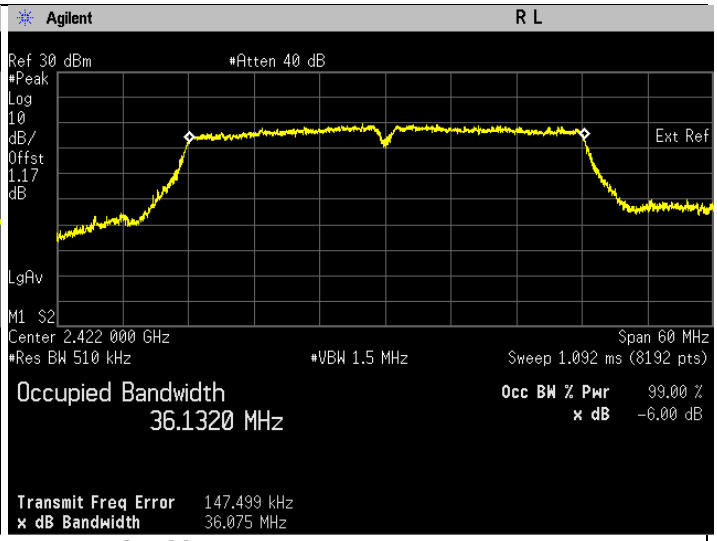
	
6dB Bandwidth. 802.11n Frequency 2462 MHz	99% Bandwidth. 802.11n Frequency 2462 MHz

802.11n (HT40)

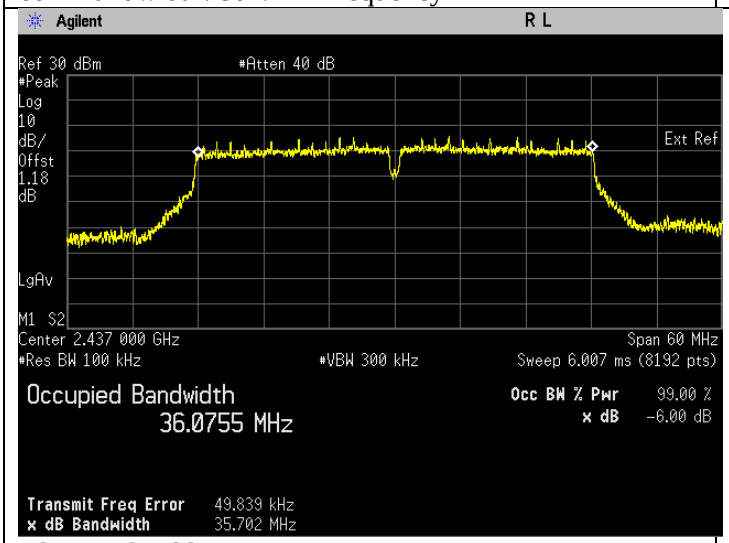
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11n	OFDM	BPSK	13.5	2422	35.677	36.132	Pass
802.11n	OFDM	BPSK	13.5	2437	35.702	36.247	Pass
802.11n	OFDM	BPSK	13.5	2452	35.095	36.089	Pass



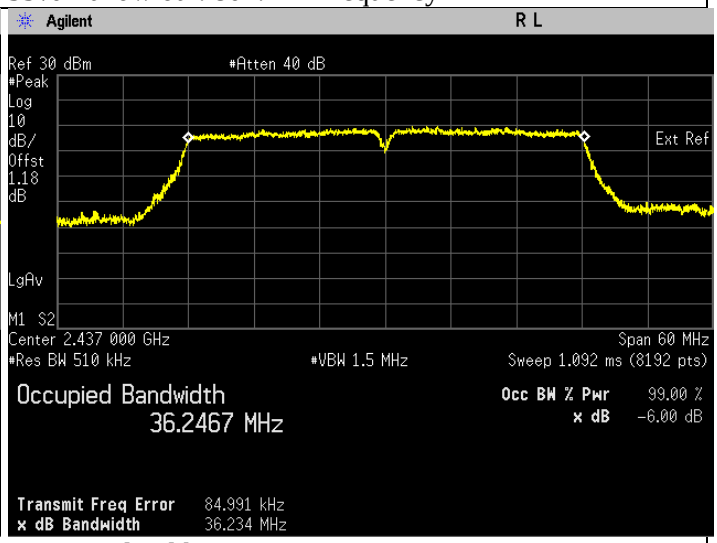
6dB Bandwidth. 802.11n Frequency 2422 MHz



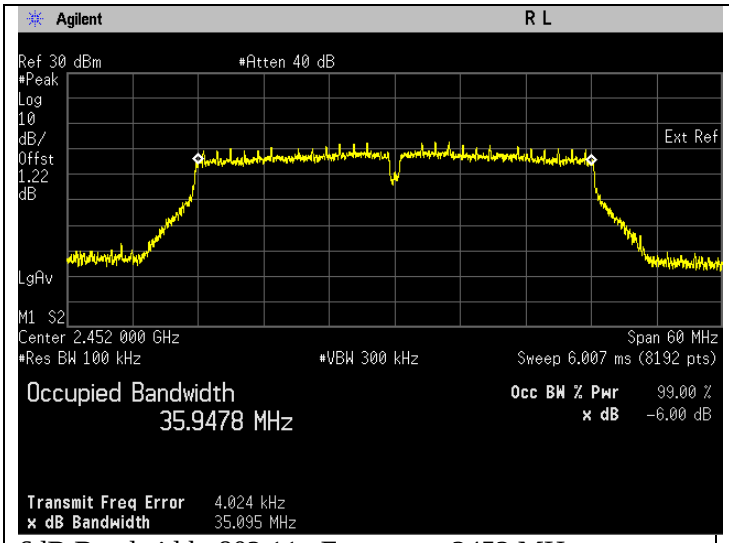
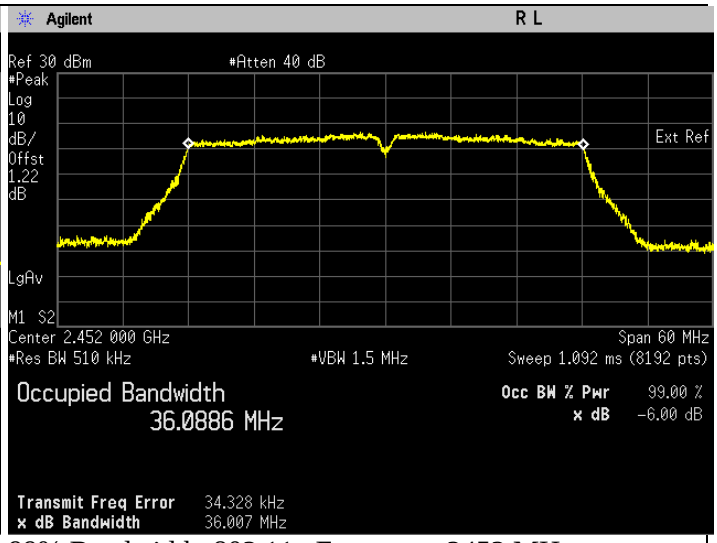
99% Bandwidth. 802.11n Frequency 2422 MHz



6dB Bandwidth. 802.11n Frequency 2437 MHz

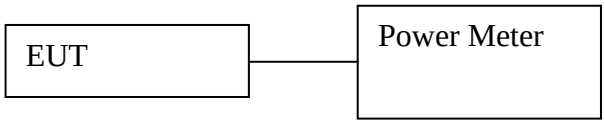


99% Bandwidth. 802.11n Frequency 2437 MHz

	
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

a) Set the following settings on the power meter:
   a. Preset -> reset
   b. Cal/Zero -> Zero & Cal
   c. Preset -> 802.11g
   d. Sensor -> Cal Factor -> Enter freq
   e. Channel -> Trigger -> Trigger Source -> Internal, Rising Edge
   f. Channel -> Trigger -> More -> Arming -> Automatic
   g. Channel -> Averaging -> Averaging
   h. Sensor -> offset -> fixed to couple for losses from ancillaries
   i. Record peak data
b) Key up DUT
c) Restart averaging and read data once the numbers stabilize.
d) Record power by reading peak data
e) 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 ° C)
≤1 Watt(30 dBm)

6.2.3. **Test Data:**

Test was conducted with peak power.

802.11b

Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11b	OFDM	BPSK	1	2412	19.735	Pass
802.11b	OFDM	BPSK	1	2437	19.070	Pass
802.11b	OFDM	BPSK	1	2462	18.865	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	20.415	Pass
802.11g	OFDM	BPSK	6	2437	21.930	Pass
802.11g	OFDM	BPSK	6	2462	19.565	Pass

802.11n (HT20)

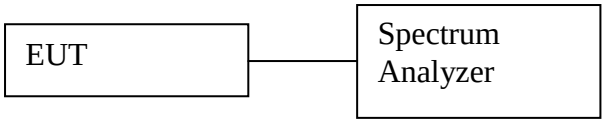
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11n	OFDM	BPSK	6.5	2412	19.605	Pass
802.11n	OFDM	BPSK	6.5	2437	21.940	Pass
802.11n	OFDM	BPSK	6.5	2462	19.535	Pass

802.11n (HT40)

Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11n	OFDM	BPSK	13.5	2422	18.805	Pass
802.11n	OFDM	BPSK	13.5	2437	24.410	Pass
802.11n	OFDM	BPSK	13.5	2452	17.740	Pass

6.3.Duty Cycle of the test signal

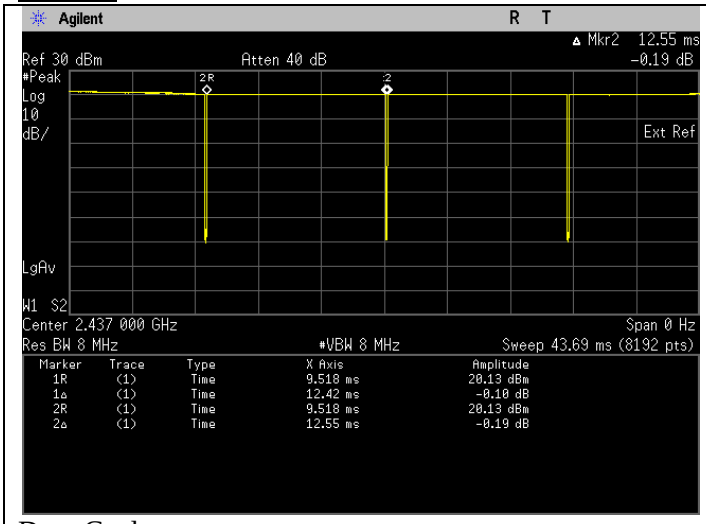
6.3.1. **Test Setup**



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

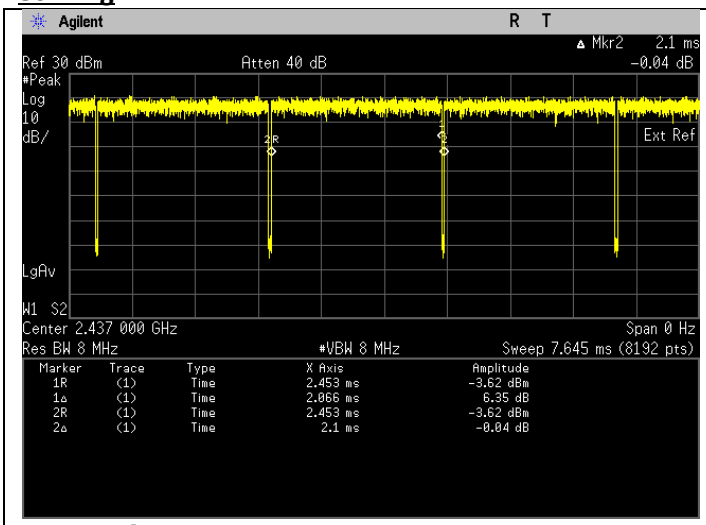


Duty Cycle

On time (ms)	12.42
On + Off Time (ms)	12.55
Duty cycle	0.9896
Duty Cycle factor	0.045

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

802.11g

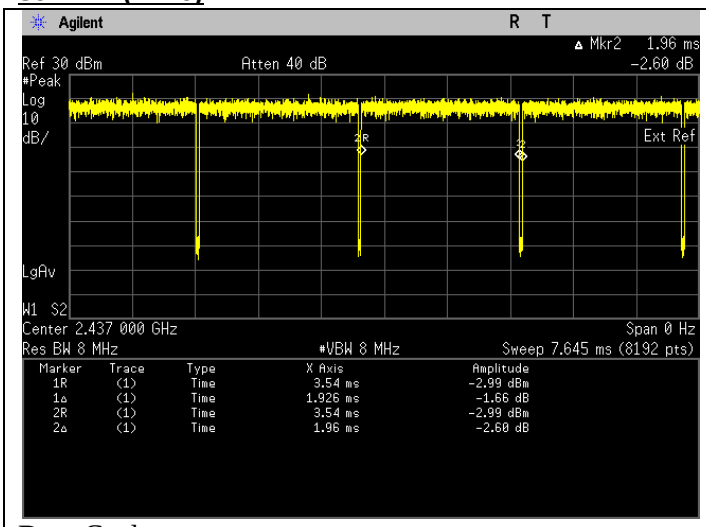


Duty Cycle

On time (ms)	2.066
On + Off Time (ms)	2.100
Duty cycle	0.9838
Duty Cycle factor	0.071

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

802.11n (HT20)

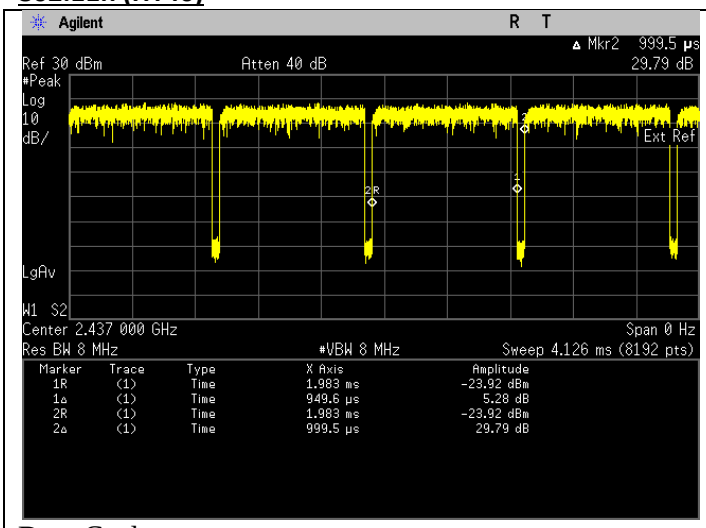


Duty Cycle

On time (ms)	1.926
On + Off Time (ms)	1.960
Duty cycle	0.9827
Duty Cycle factor	0.076

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

802.11n (HT40)



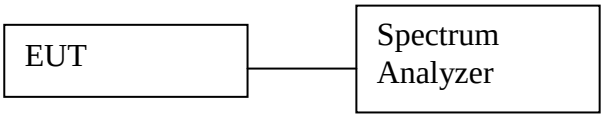
Duty Cycle

On time (ms)	0.9496
On + Off Time (ms)	0.9995
Duty cycle	0.9501
Duty Cycle factor	0.222

*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

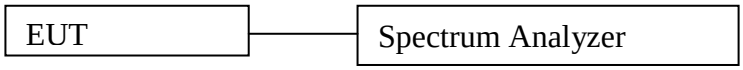
Normal Condition (25 º C)
≤ 8 dBm/3kHz

6.4.3. **Test Result**

Not Applicable.

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:**

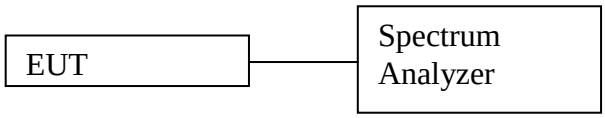
Normal Condition (25 º C)
Shall be at least 20 dB below max power. (Peak detector)

6.5.3. **Test Result**

Not Applicable.

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:

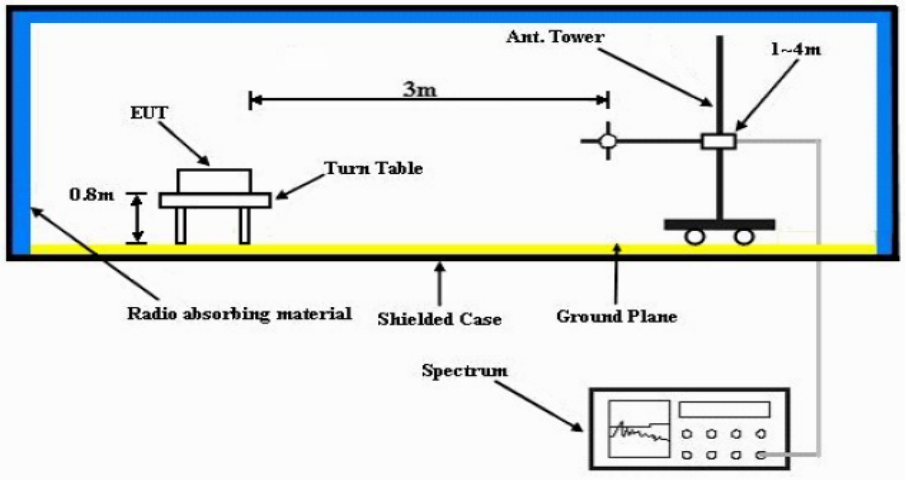
Normal Condition (25 º C)
Shall be at least 20 dB below max power. (Peak detector)

6.6.3. **Test Result**

Not Applicable.

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: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (18dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11b)

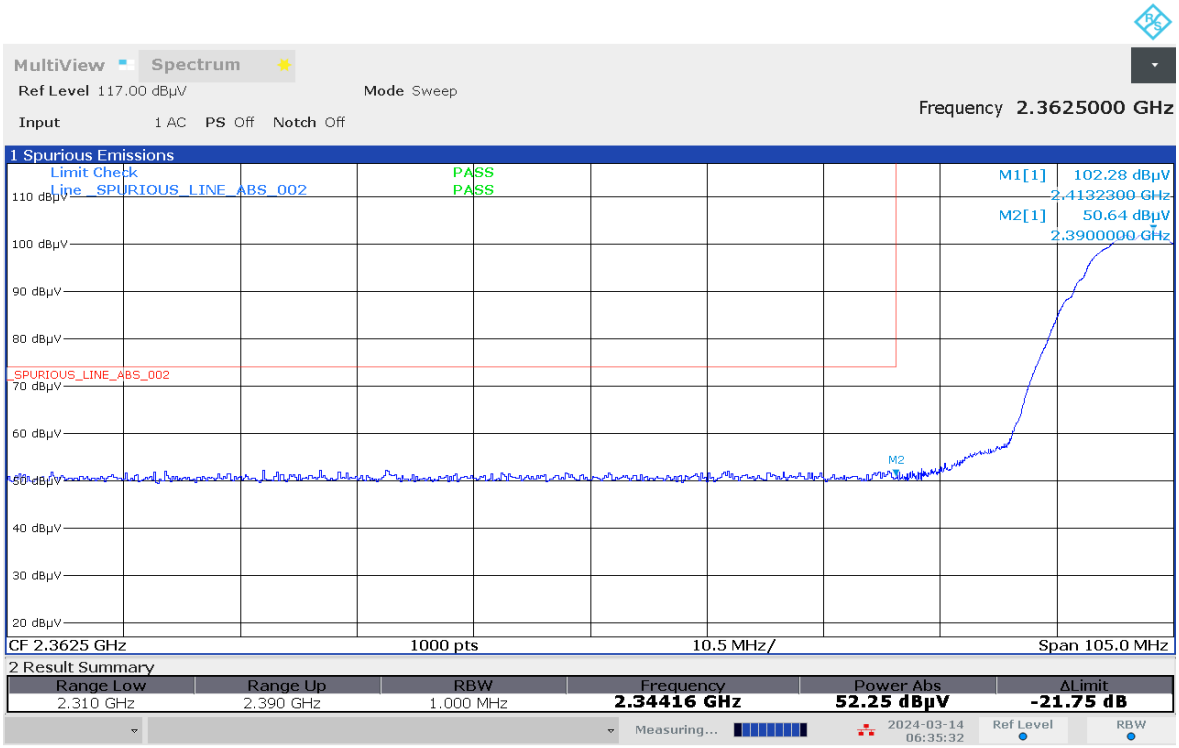
Restricted Band Edge (Low Channel) tabular data

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	-	49.7098	39.7830	-	74.0000	54.0000	-	24.2902	14.2170	-
Horizontal Radiated Emission Result										
2390.0000	-	50.1994	39.7830	-	74.0000	54.0000	-	23.8006	14.2170	-

Remarks: Pass Result	Marginal Result	Fail Result

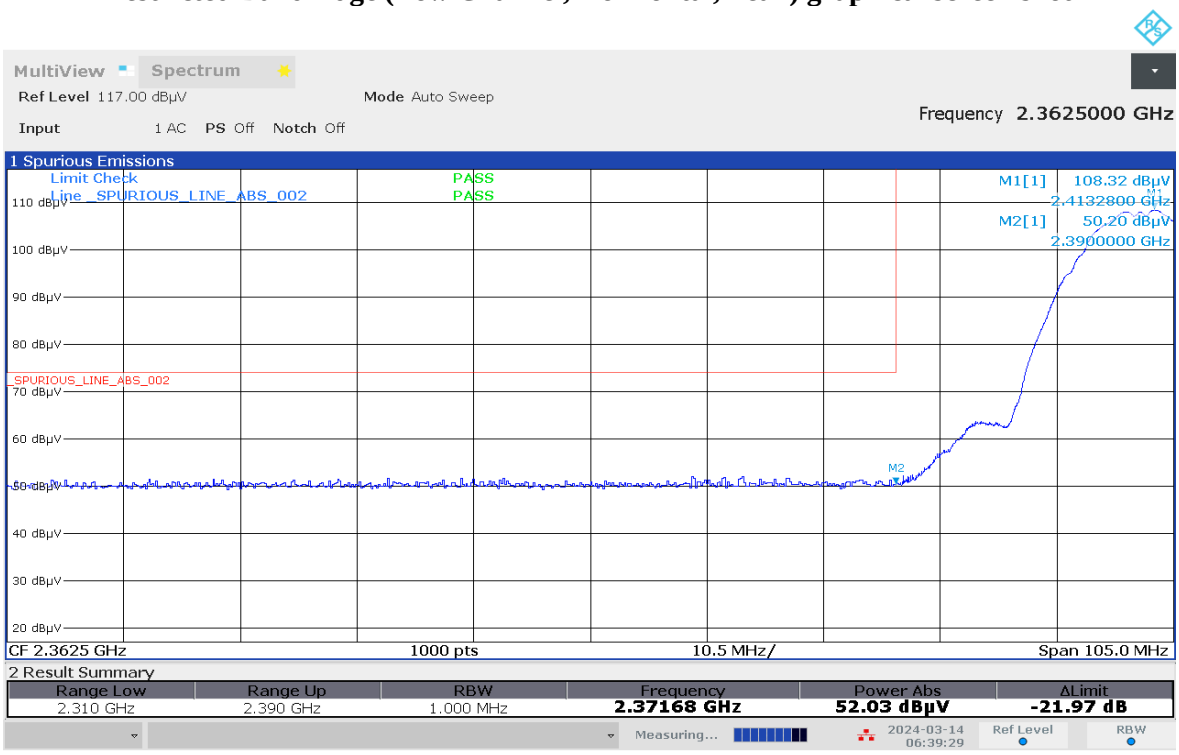
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.84dB

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



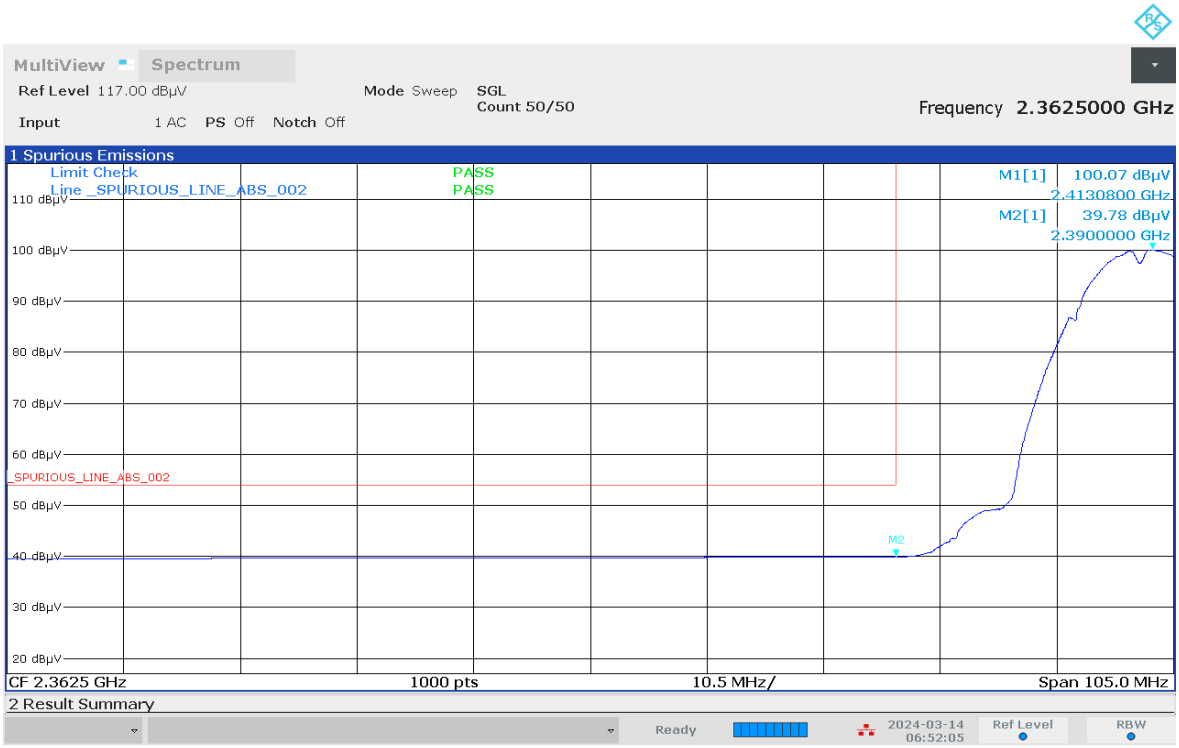
06:35:33 AM 03/14/2024

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



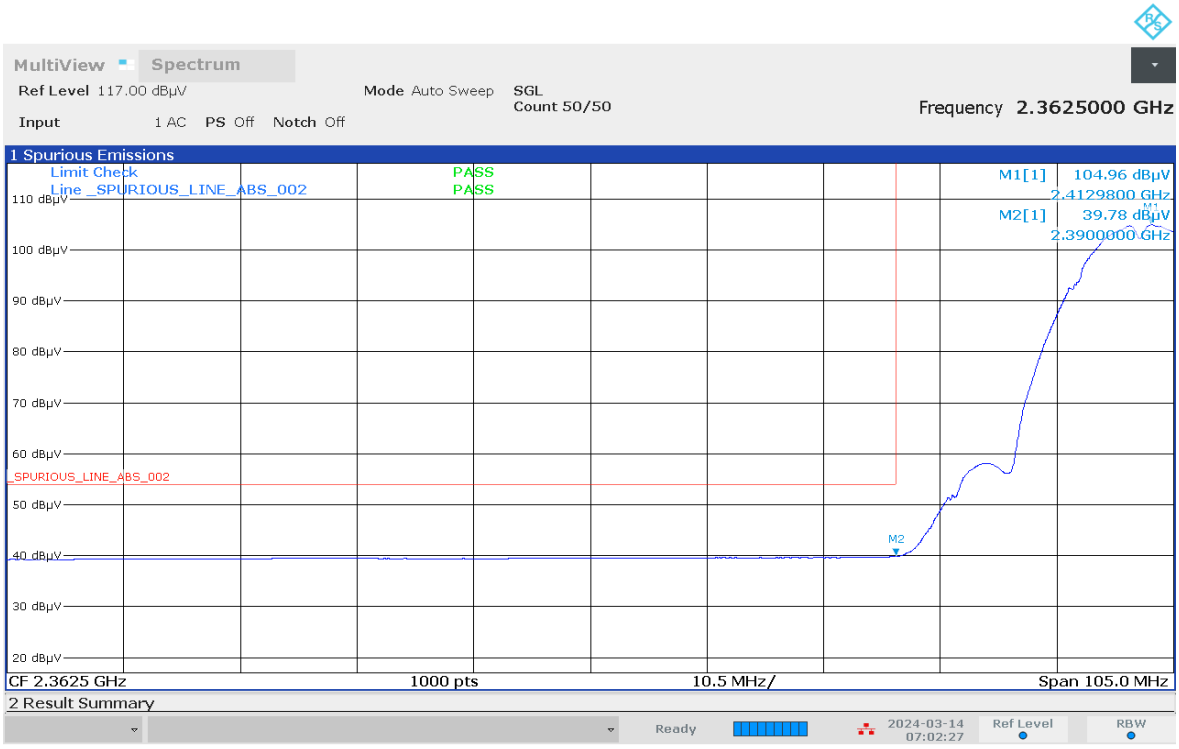
06:39:30 AM 03/14/2024

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



06:52:06 AM 03/14/2024

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



07:02:28 AM 03/14/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (17dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11b)

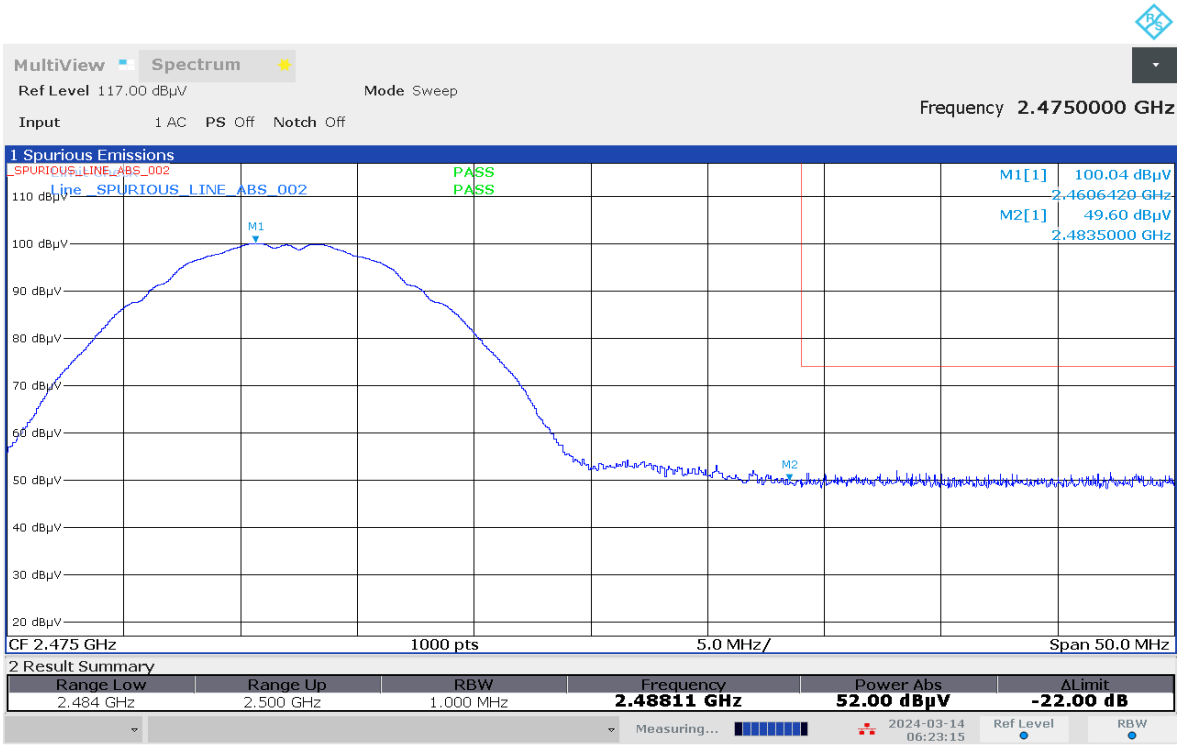
Restricted Band Edge (High Channel) tabular data

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	-	49.2174	40.4943	-	74.0000	54.0000	-	24.7826	13.5057	-
Horizontal Radiated Emission Result										
2483.5000	-	51.3196	41.1286	-	74.0000	54.0000	-	22.6804	12.8714	-

Remarks: Pass Result	Marginal Result	Fail Result

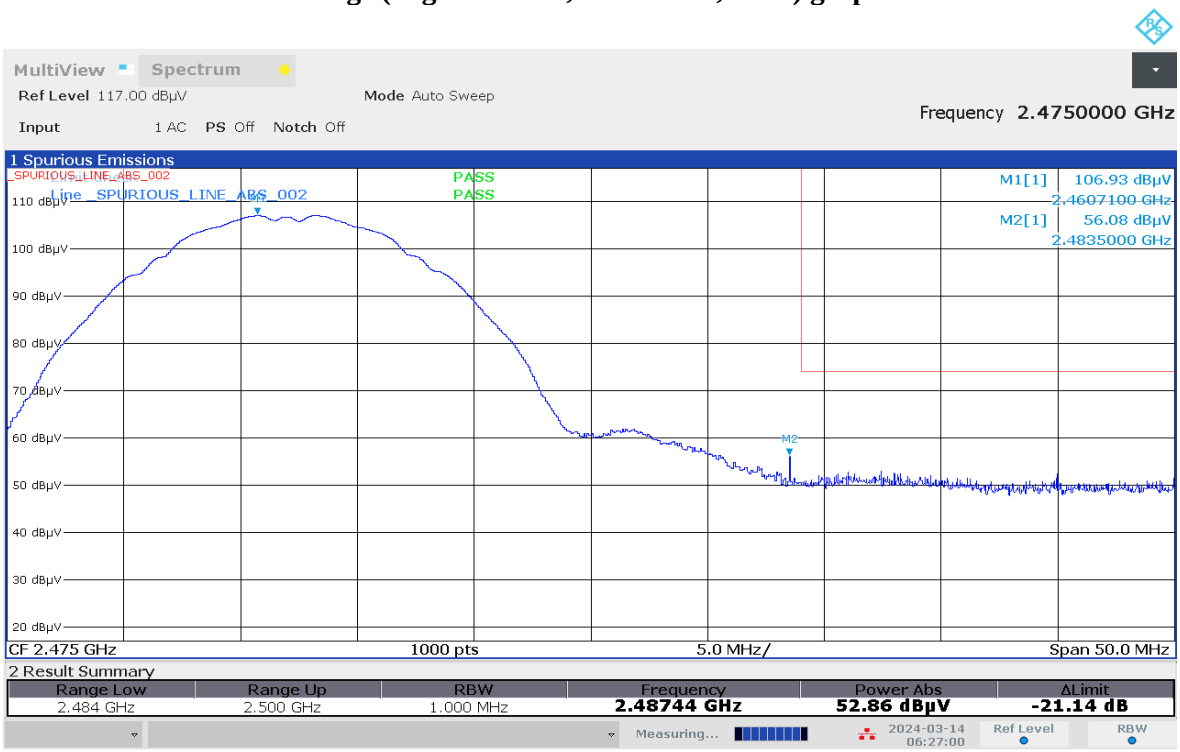
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.84dB

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



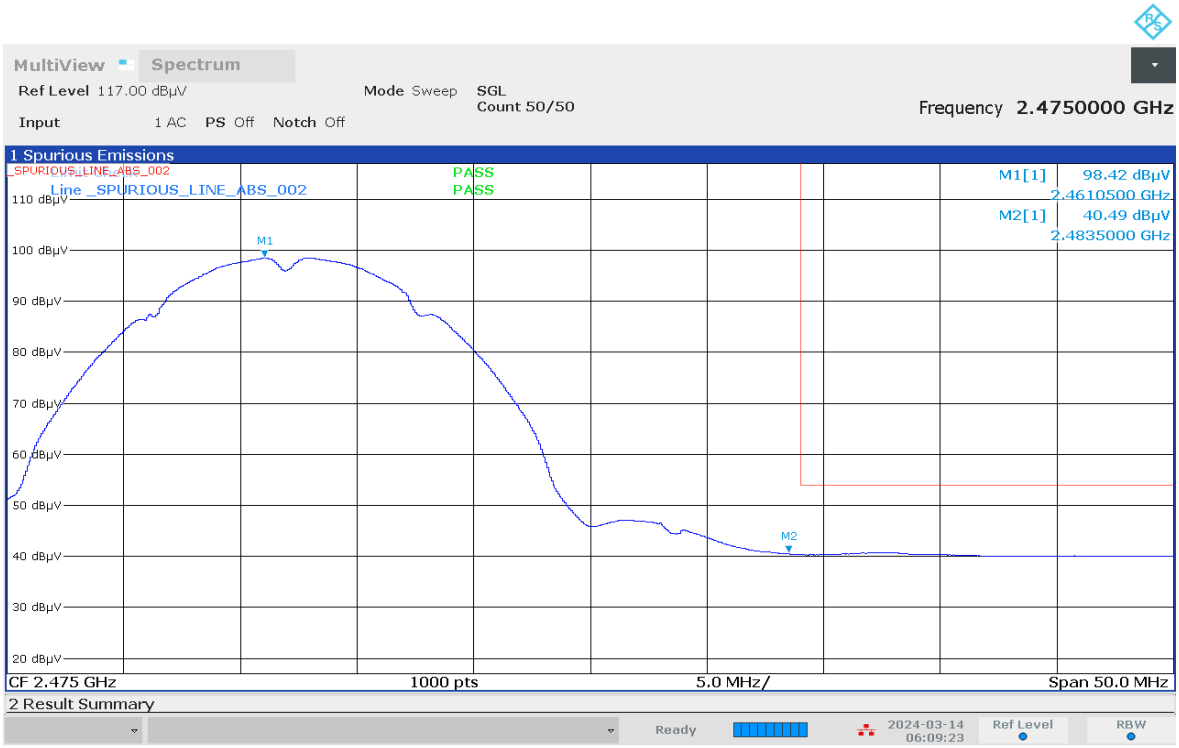
06:23:16 AM 03/14/2024

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



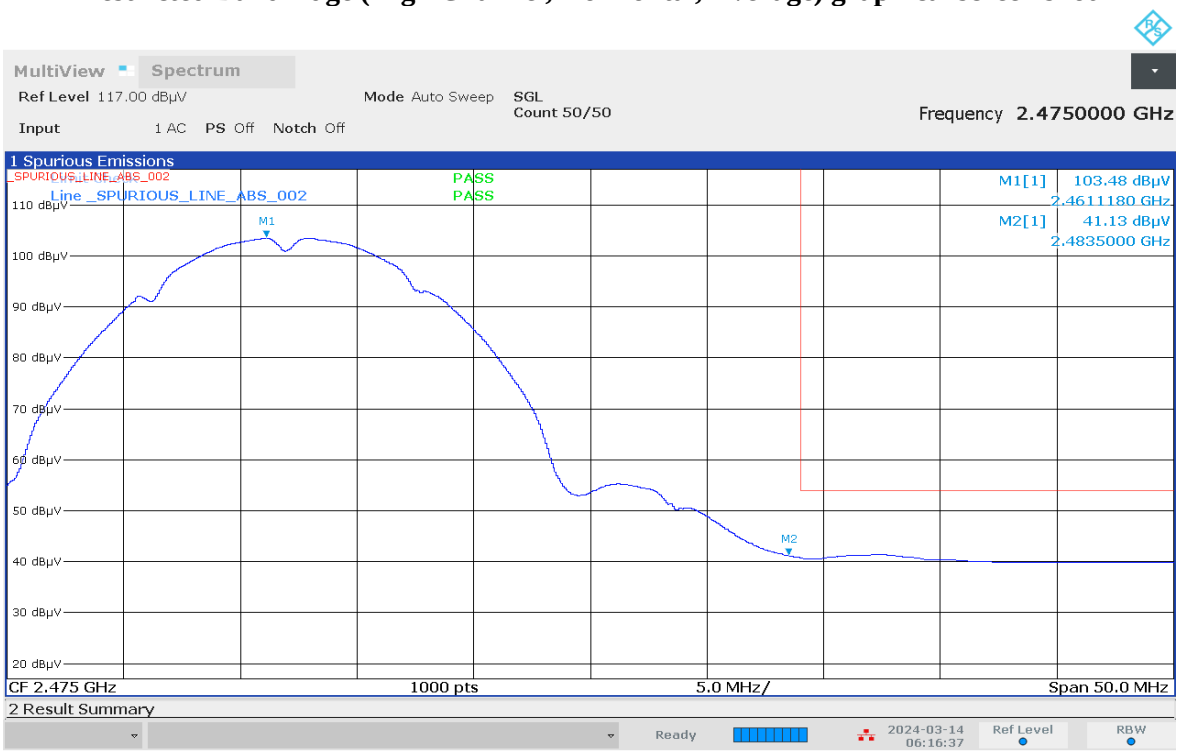
06:27:00 AM 03/14/2024

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



06:09:24 AM 03/14/2024

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



06:16:37 AM 03/14/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (17dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11g)

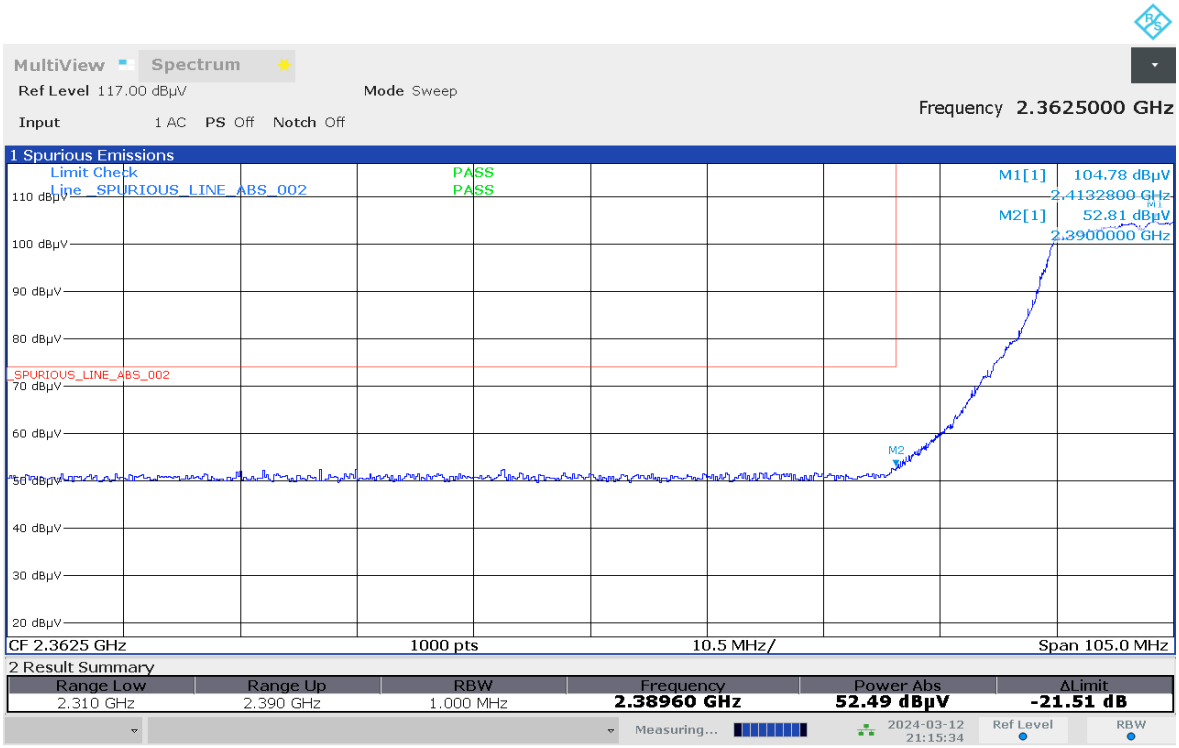
Restricted Band Edge (Low Channel) tabular data

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	-	52.0700	40.9211	-	74.0000	54.0000	-	21.9300	13.0789	-
Horizontal Radiated Emission Result										
2390.0000	-	60.6096	46.3913	-	74.0000	54.0000	-	13.3904	7.6087	-

Remarks: Pass Result	Marginal Result	Fail Result

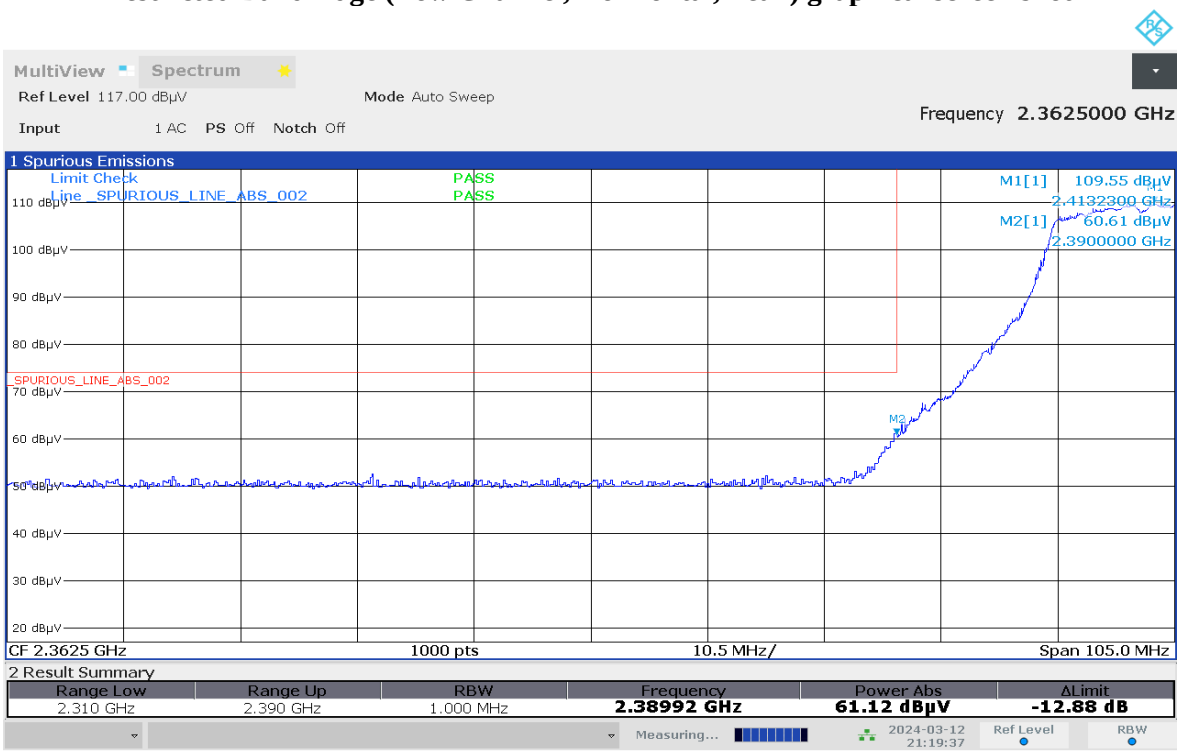
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Wed, 13 Mar, 2024**
System MU: 5.84dB

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



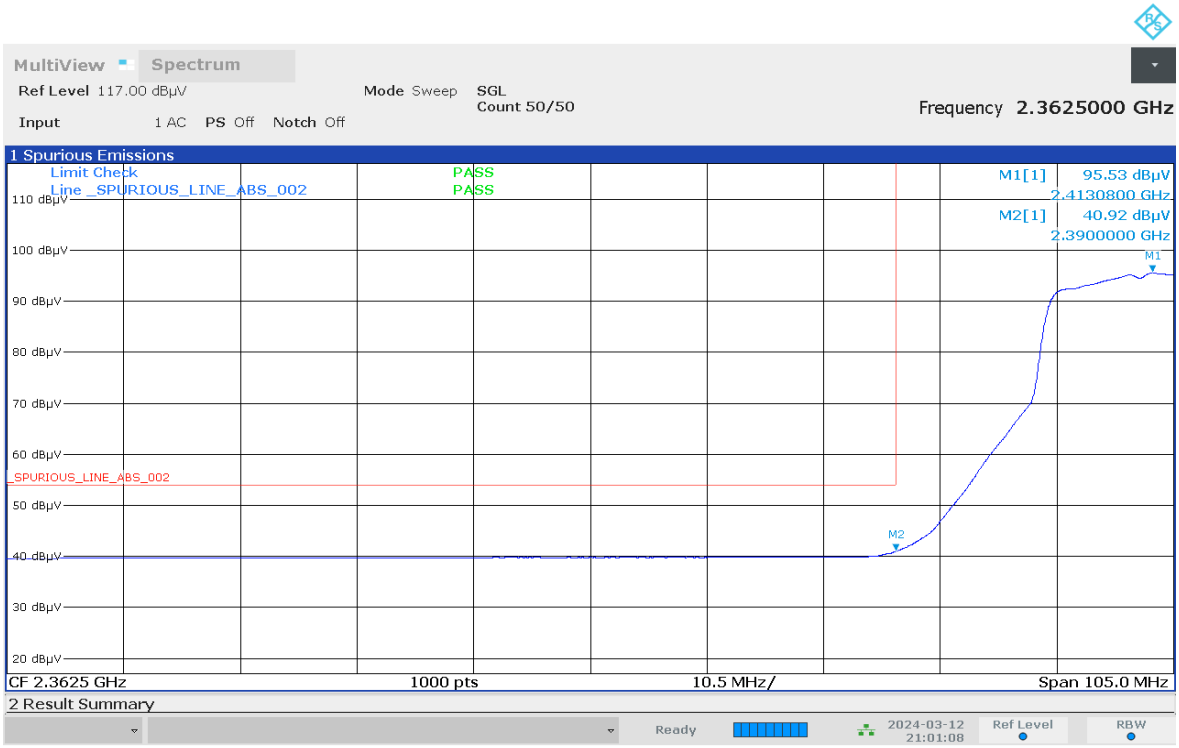
09:15:34 PM 03/12/2024

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



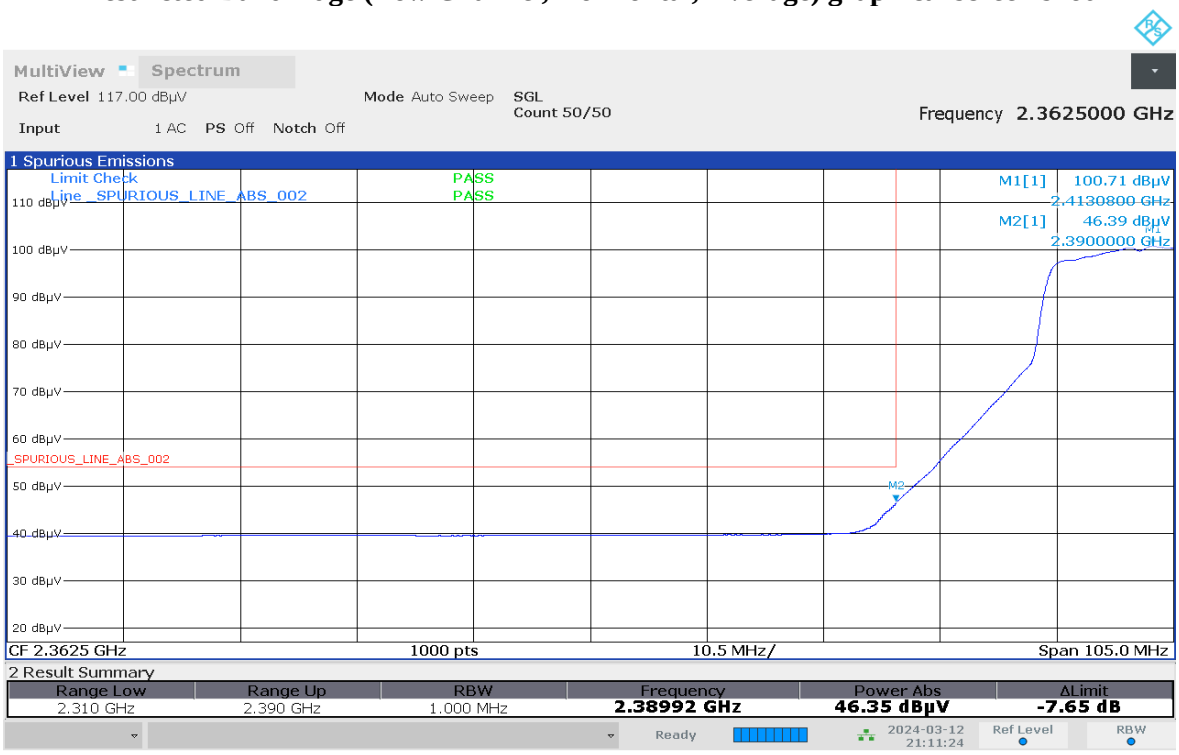
09:19:38 PM 03/12/2024

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



09:01:09 PM 03/12/2024

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



09:11:25 PM 03/12/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (16dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11g)

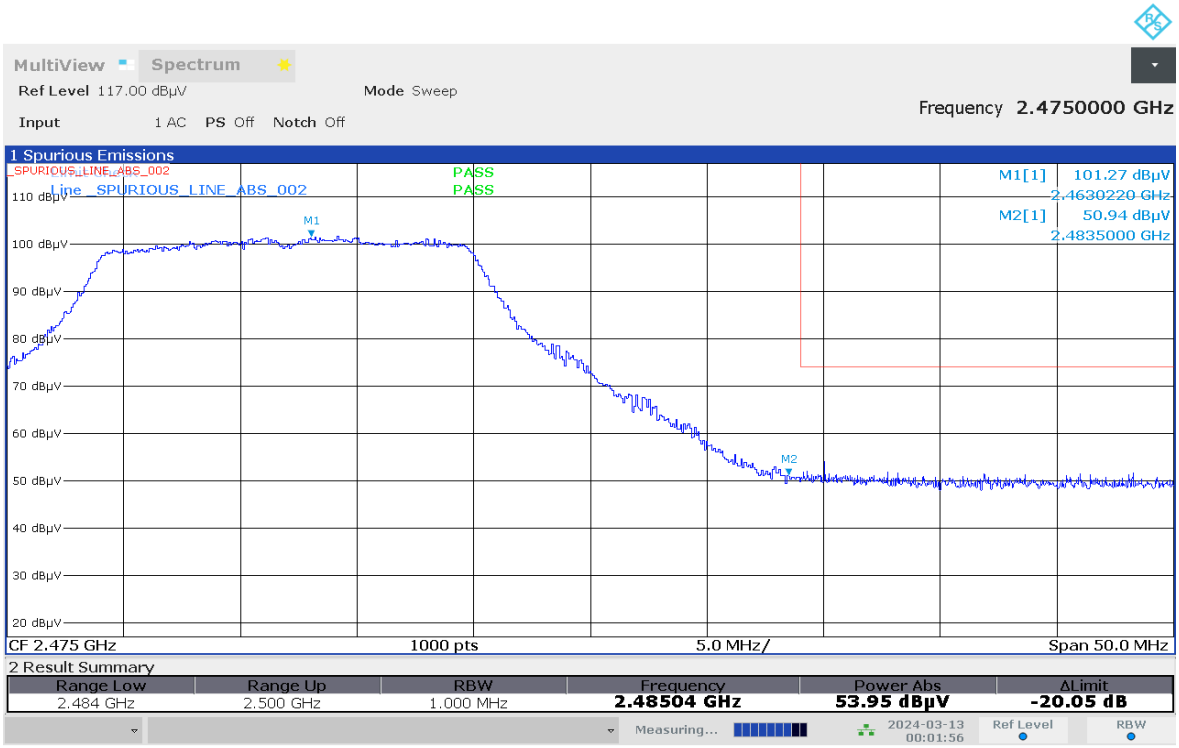
Restricted Band Edge (High Channel) tabular data

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	-	50.4322	41.7766	-	74.0000	54.0000	-	23.5678	12.2234	-
Horizontal Radiated Emission Result										
2483.5000	-	61.4907	46.6455	-	74.0000	54.0000	-	12.5093	7.3545	-

Remarks: Pass Result	Marginal Result	Fail Result

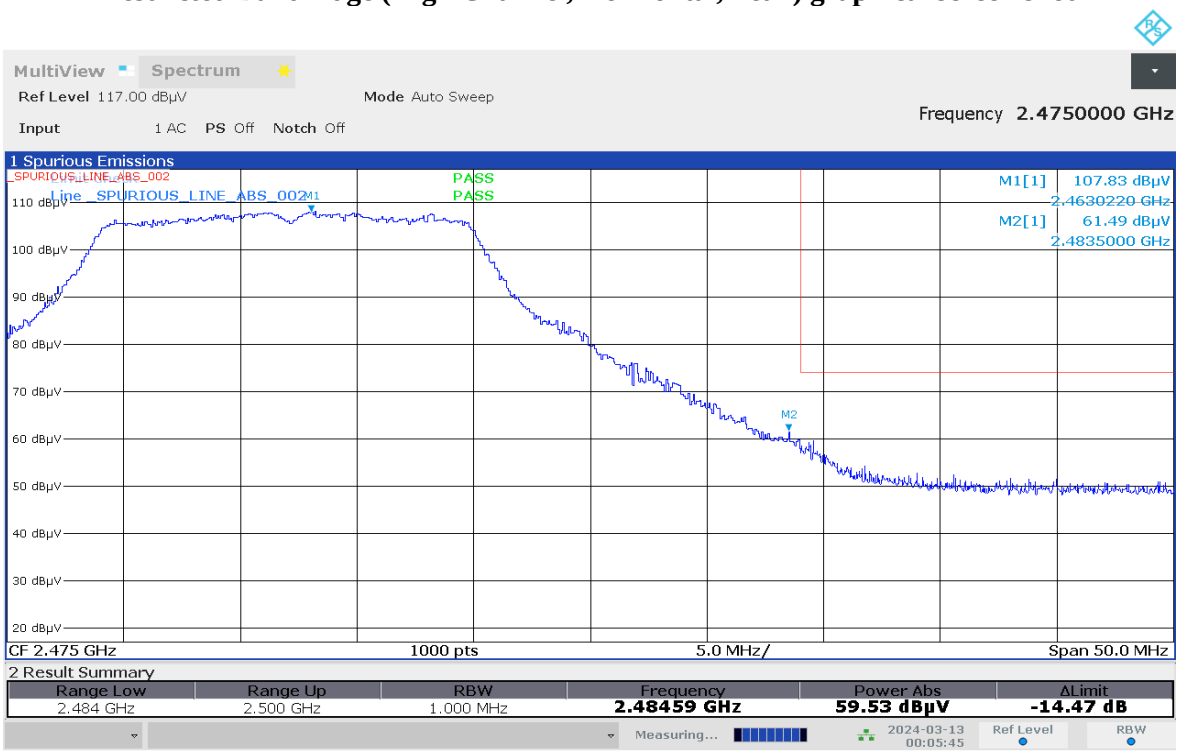
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Wed, 13 Mar, 2024**
System MU: 5.84dB

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



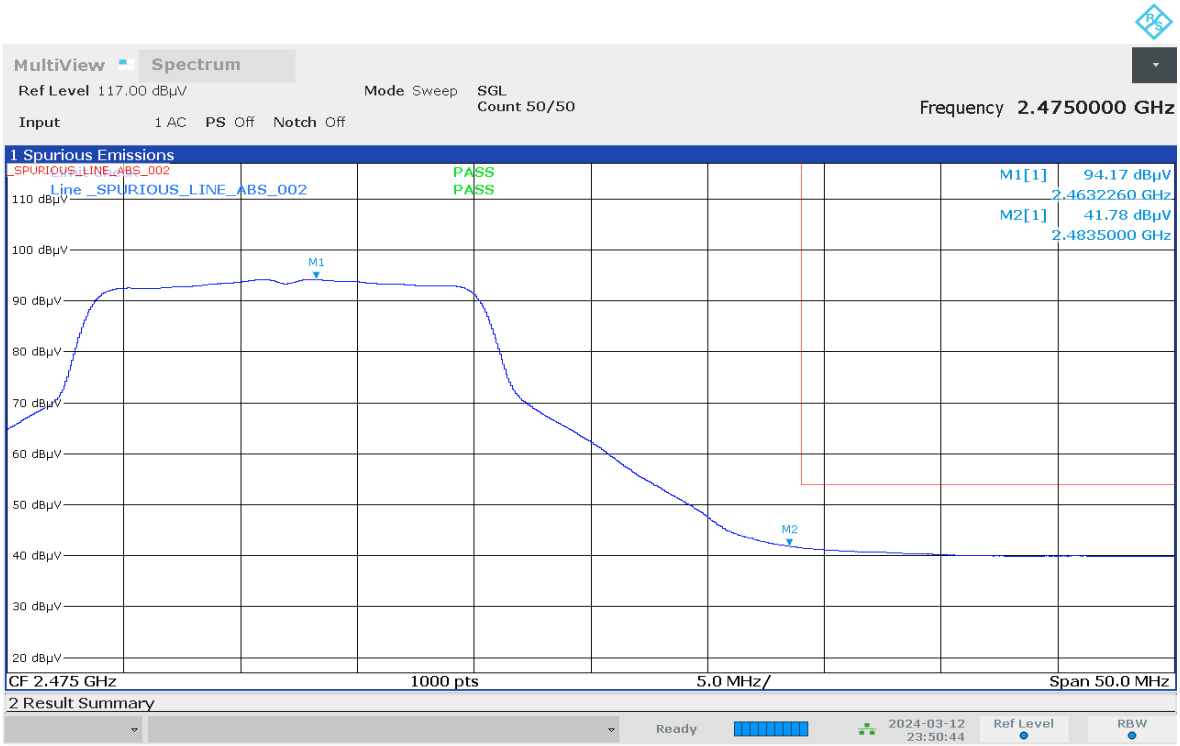
12:01:56 AM 03/13/2024

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



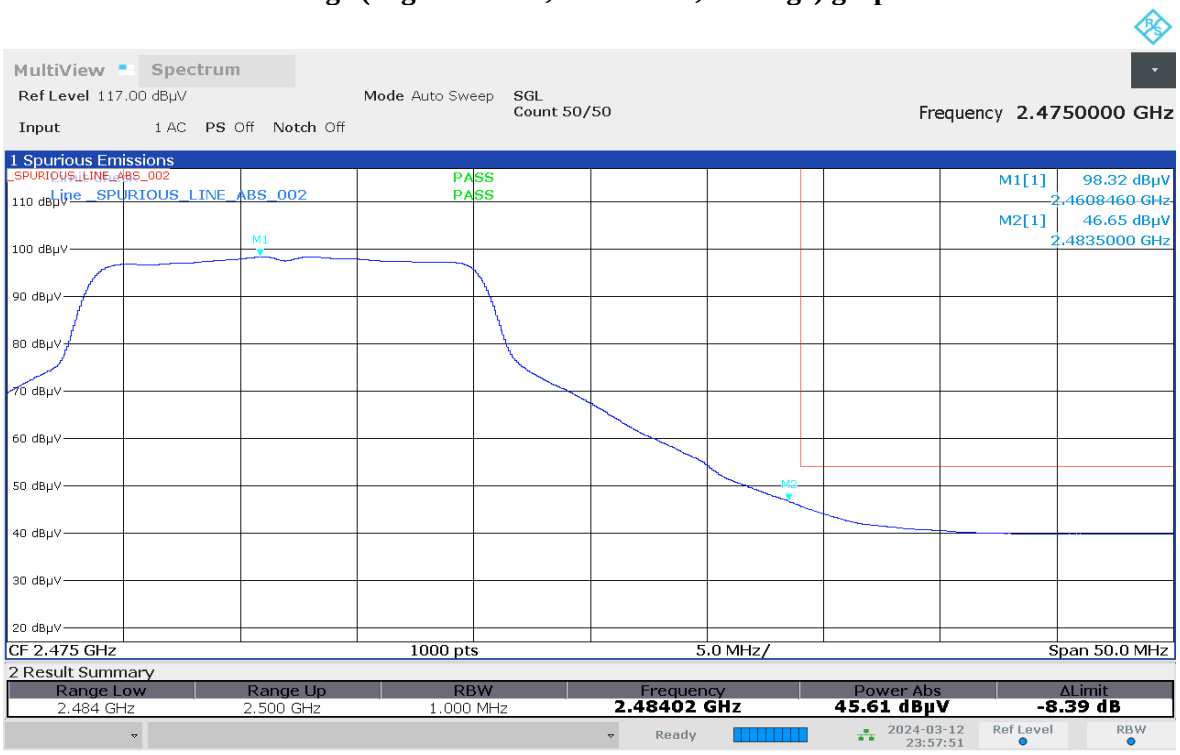
12:05:46 AM 03/13/2024

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



11:50:45 PM 03/12/2024

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



11:57:52 PM 03/12/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softport Power (16dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-Worst Case
Worst Case Plane: X-Plane (802.11n 20MHz)

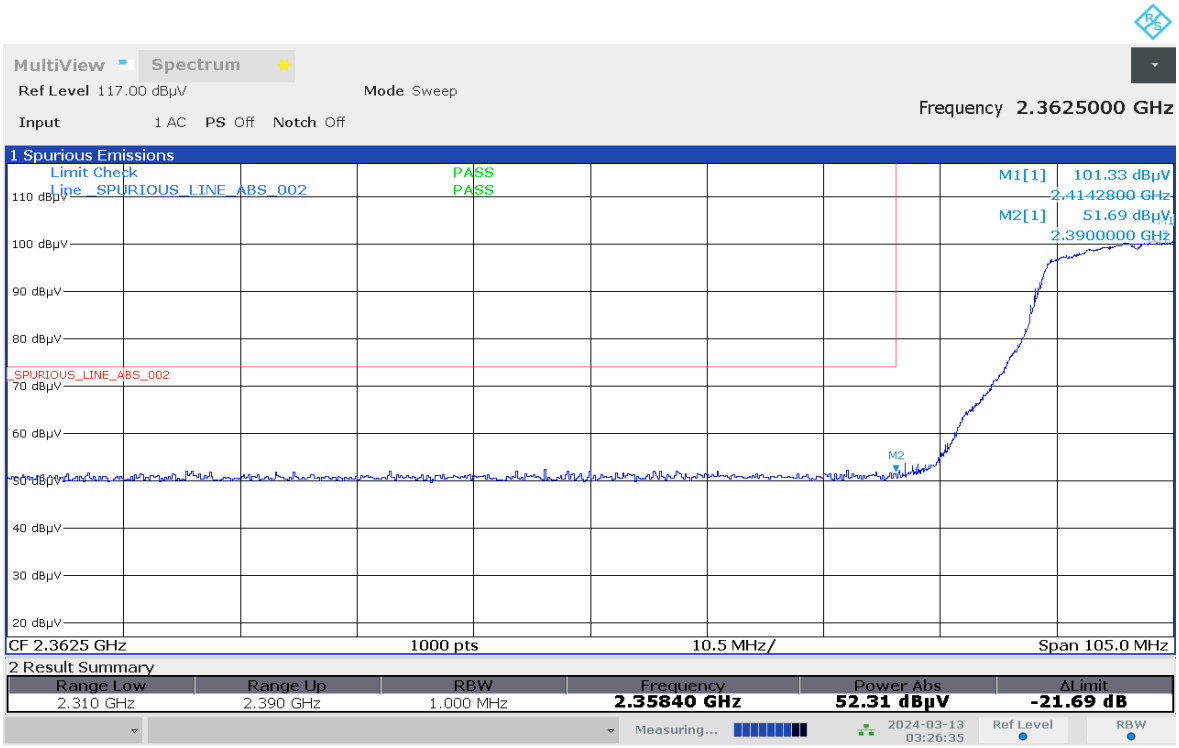
Restricted Band Edge (Low Channel) tabular data

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	-	51.6869	40.6108	-	74.0000	54.0000	-	22.3131	13.3892	-
Horizontal Radiated Emission Result										
2390.0000	-	54.6094	46.7879	-	74.0000	54.0000	-	19.3906	7.2121	-

Remarks: Pass Result	Marginal Result	Fail Result

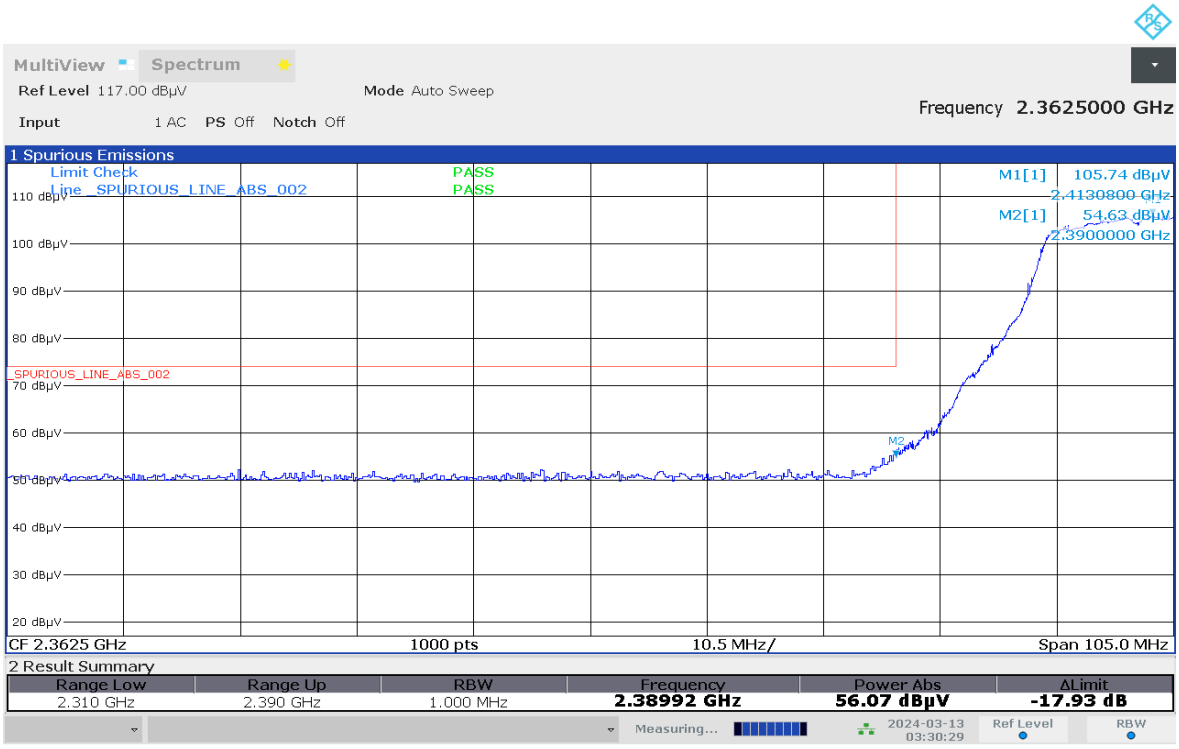
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Wed, 13 Mar, 2024**
System MU: 5.84dB

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



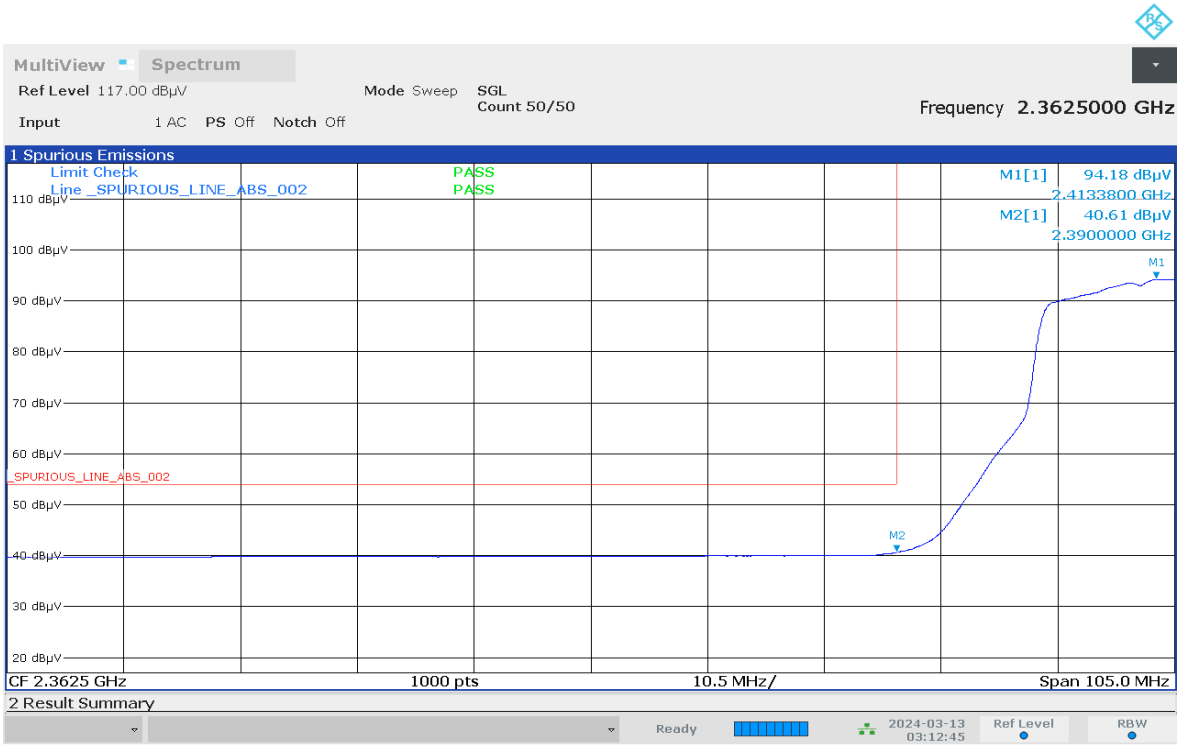
03:26:35 AM 03/13/2024

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



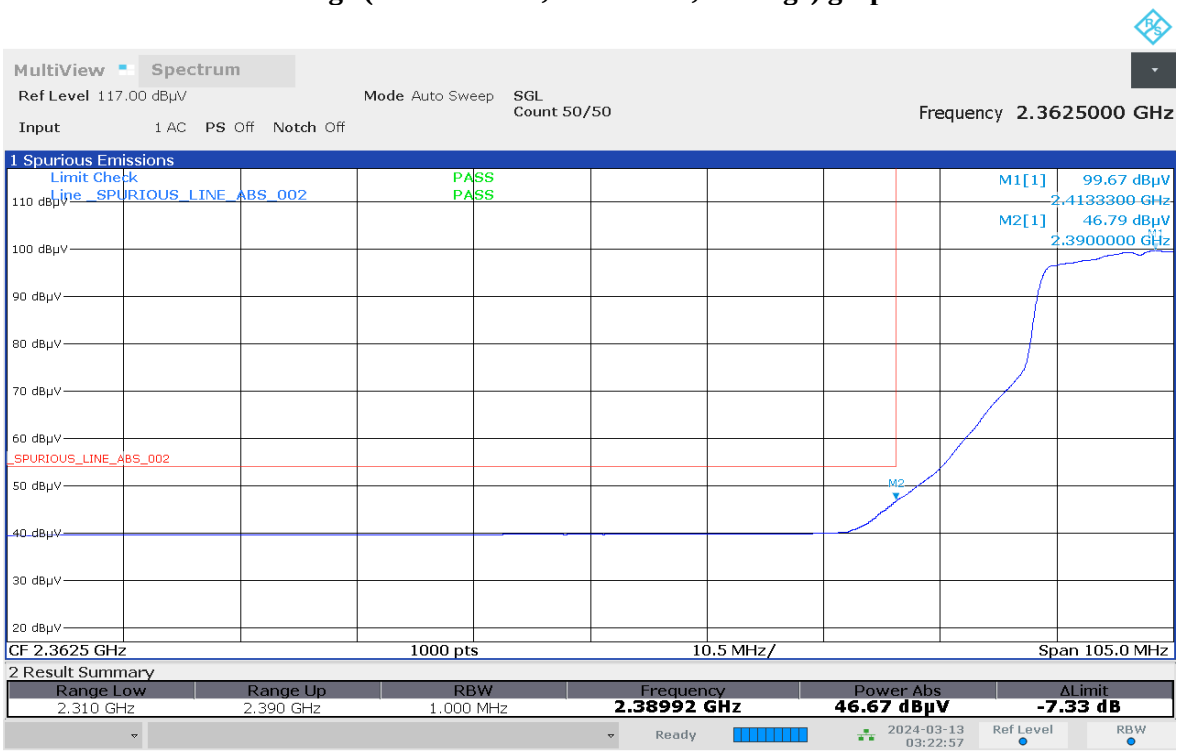
03:30:29 AM 03/13/2024

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



03:12:45 AM 03/13/2024

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



03:22:58 AM 03/13/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (16dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 20MHz)

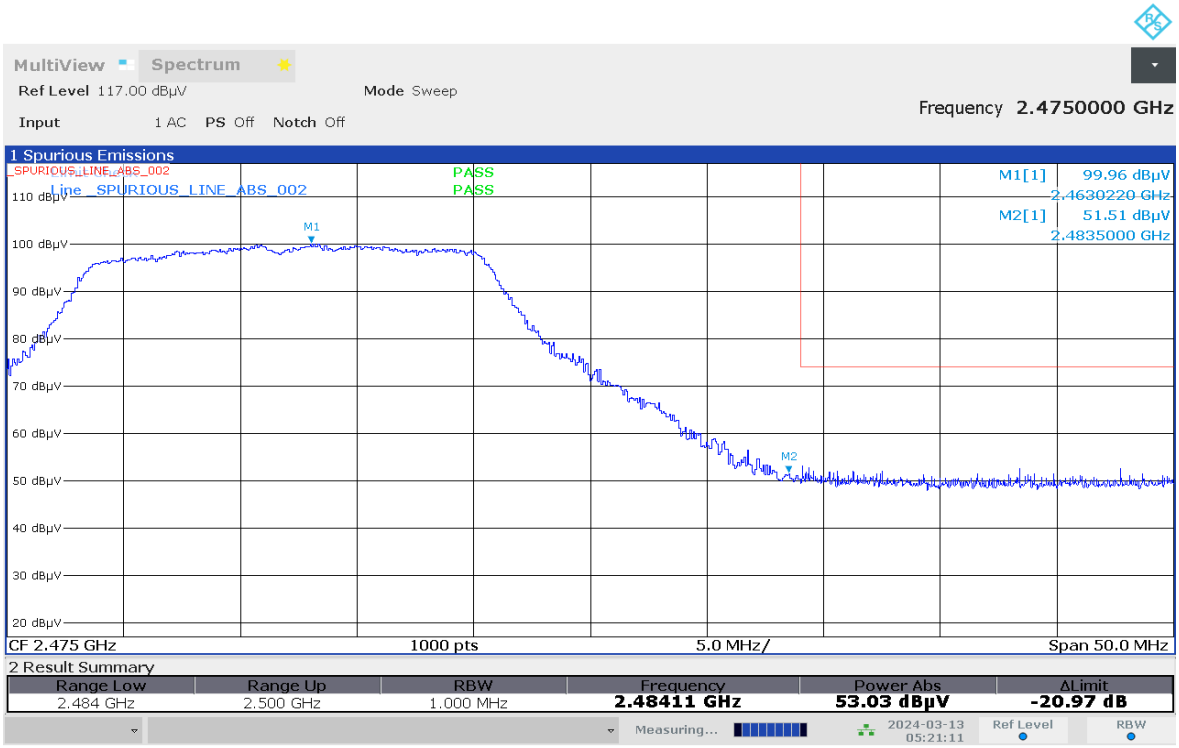
Restricted Band Edge (High Channel) tabular data

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	-	51.5146	42.6405	-	74.0000	54.0000	-	22.4854	11.3595	-
Horizontal Radiated Emission Result										
2483.5000	-	57.4057	47.5379	-	74.0000	54.0000	-	16.5943	6.4621	-

Remarks: Pass Result	Marginal Result	Fail Result

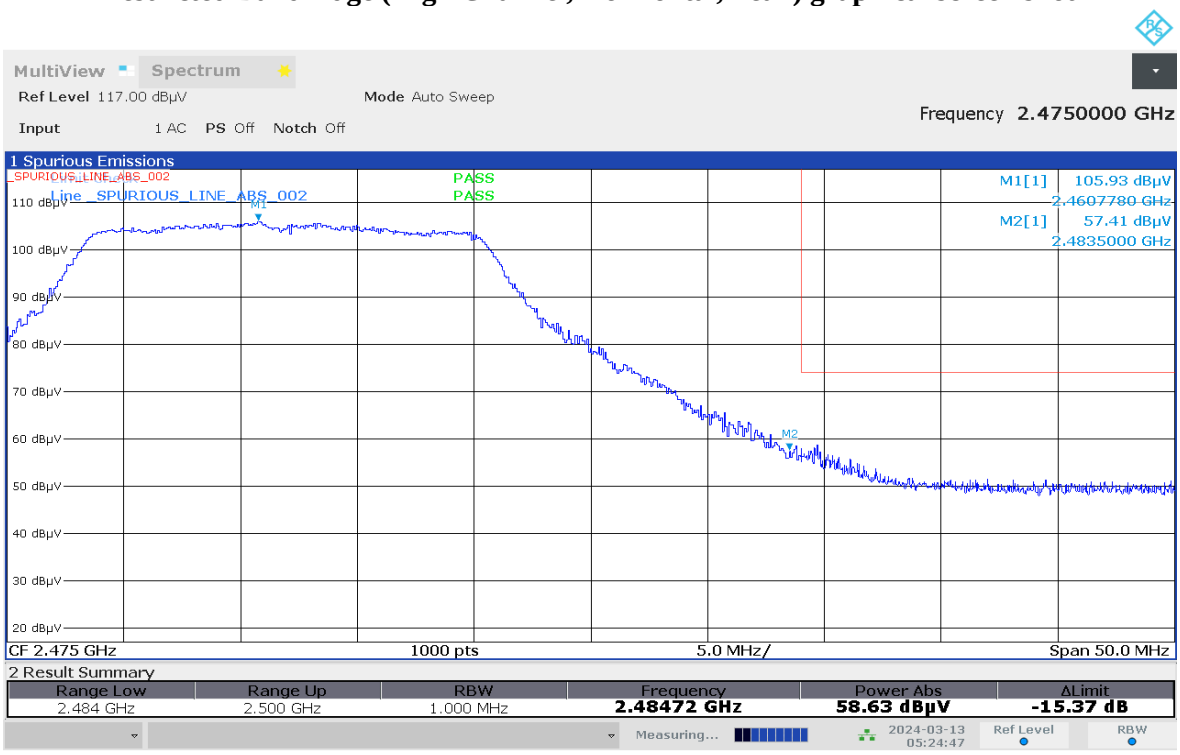
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Wed, 13 Mar, 2024**
System MU: 5.84dB

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



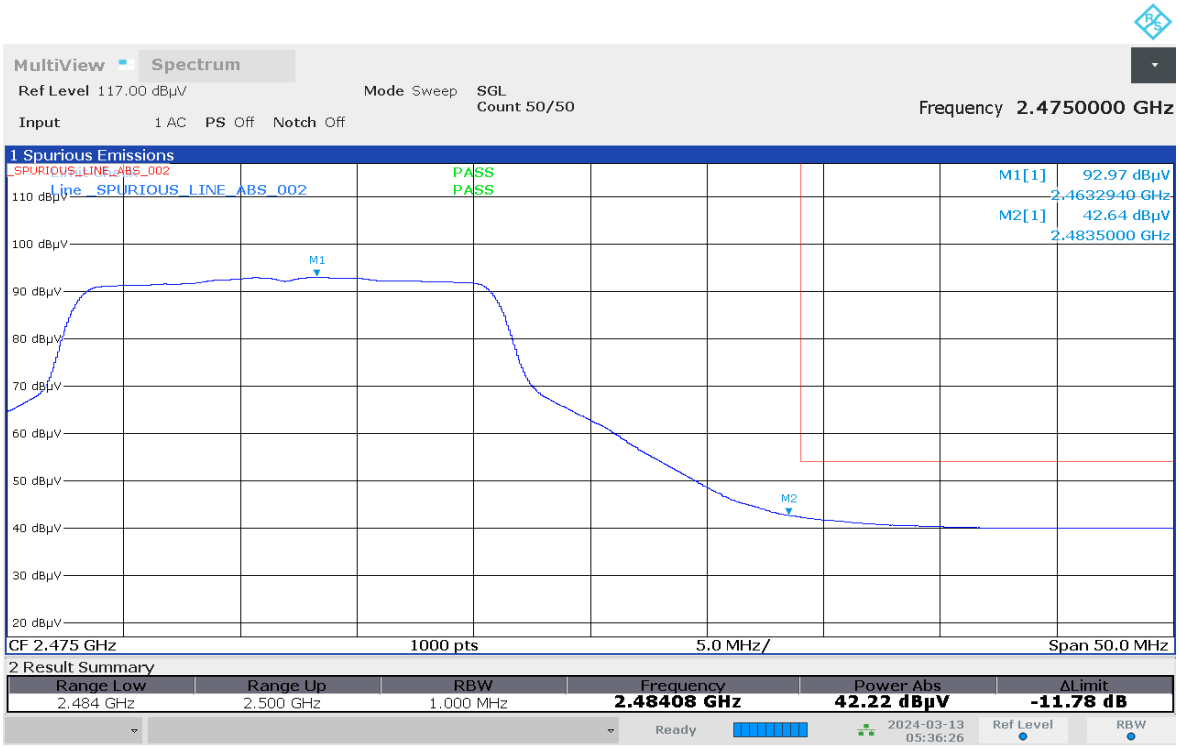
05:21:12 AM 03/13/2024

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



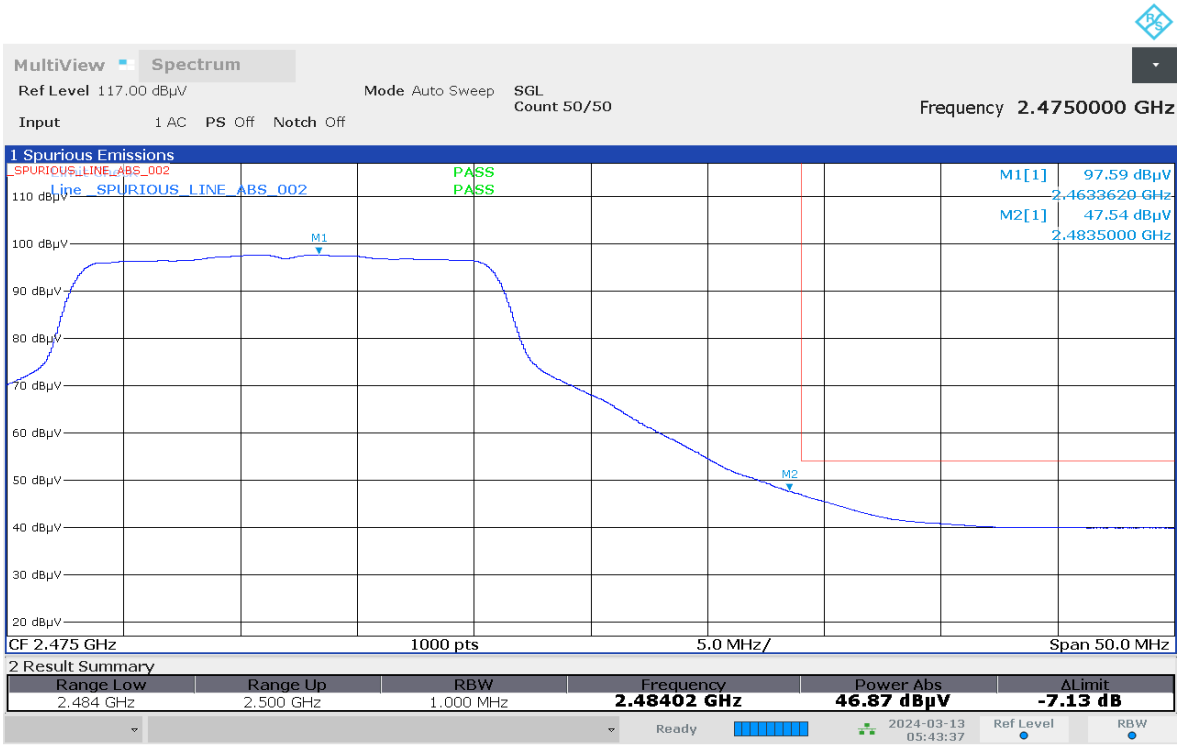
05:24:48 AM 03/13/2024

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



05:36:27 AM 03/13/2024

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



05:43:37 AM 03/13/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (13dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2422.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 40MHz)

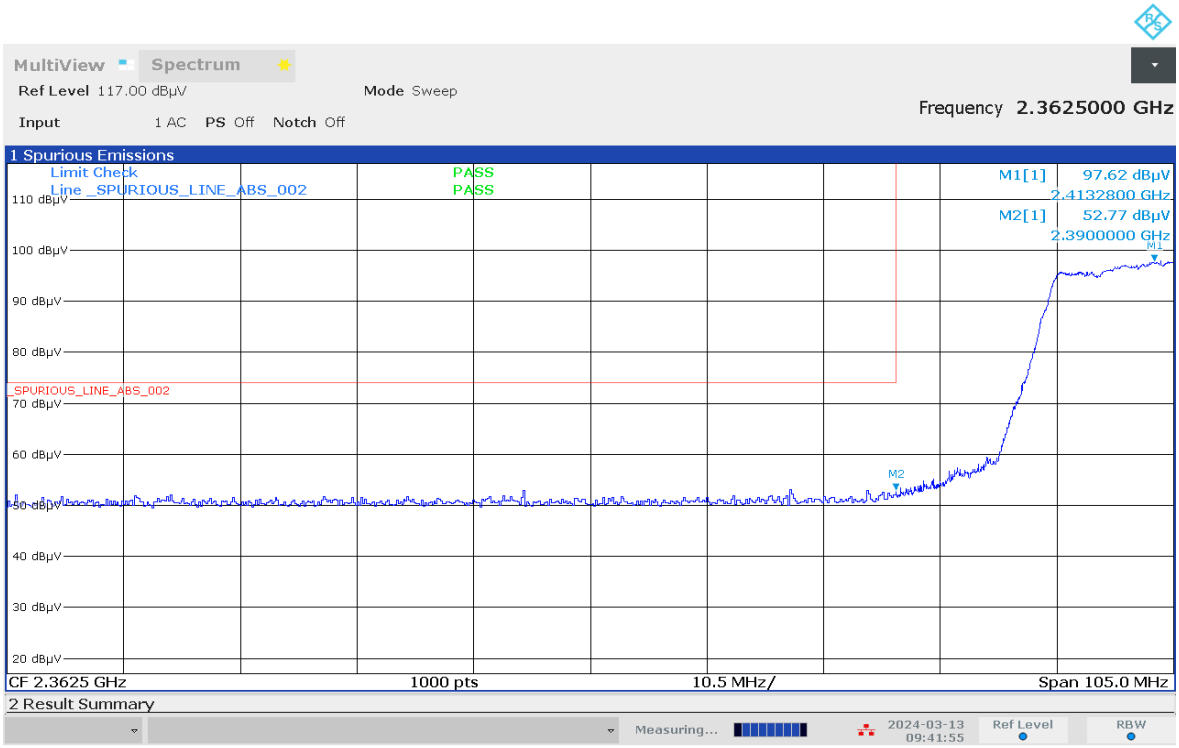
Restricted Band Edge (Low Channel) tabular data

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)
2390.0000	-	52.7695	40.9252	-	74.0000	54.0000	-	21.2305	13.0748	-
Horizontal Radiated Emission Result										
2390.0000	-	56.8416	47.1668	-	74.0000	54.0000	-	17.1584	6.8332	-

Remarks: Pass Result	Marginal Result	Fail Result

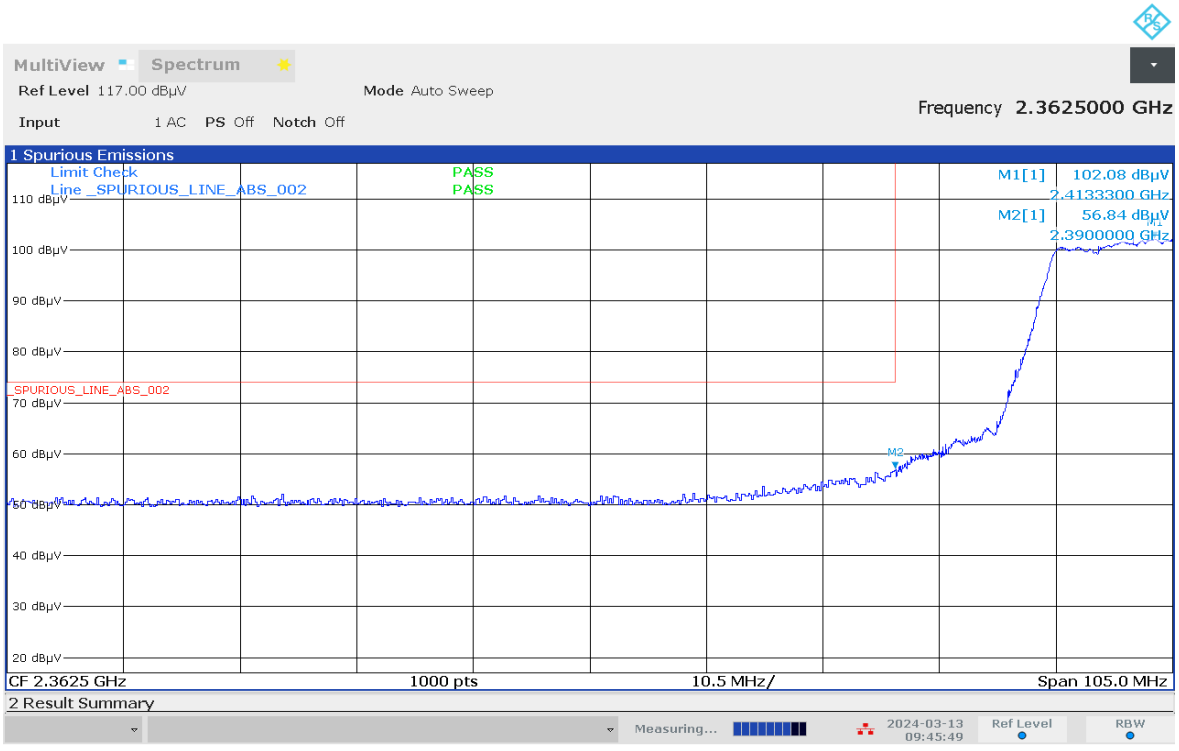
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Wed, 13 Mar, 2024**
System MU: 5.84dB

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



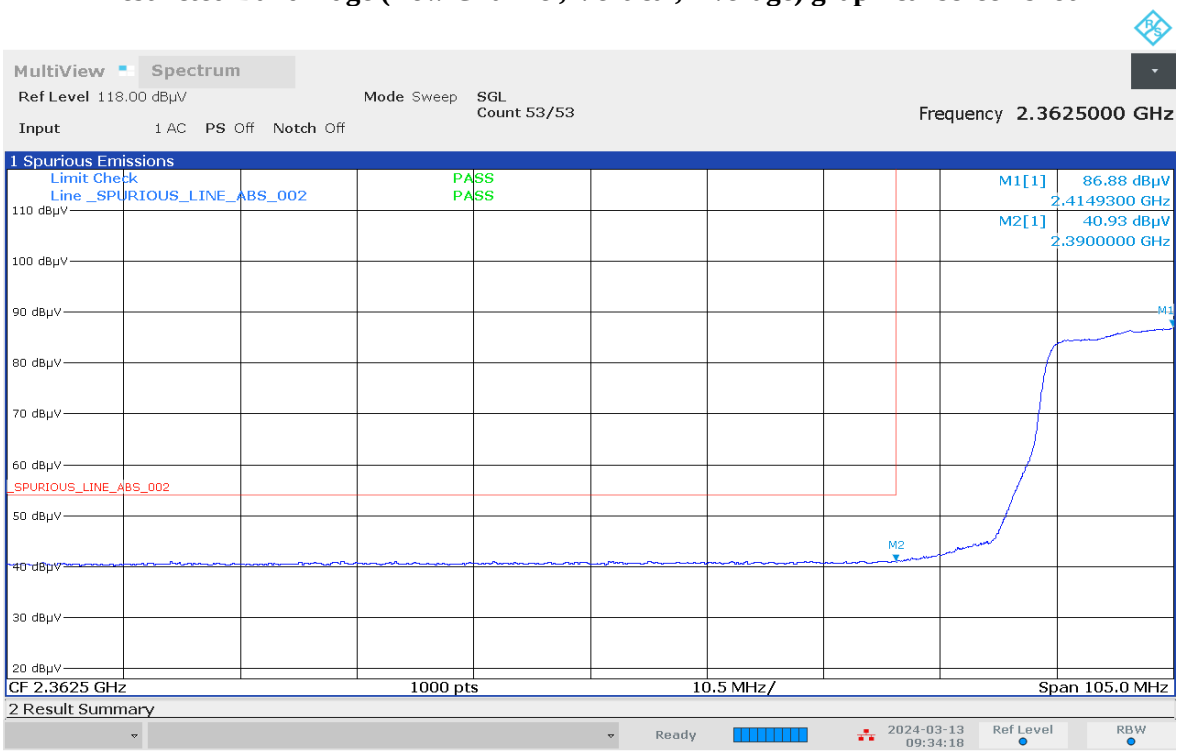
09:41:56 AM 03/13/2024

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



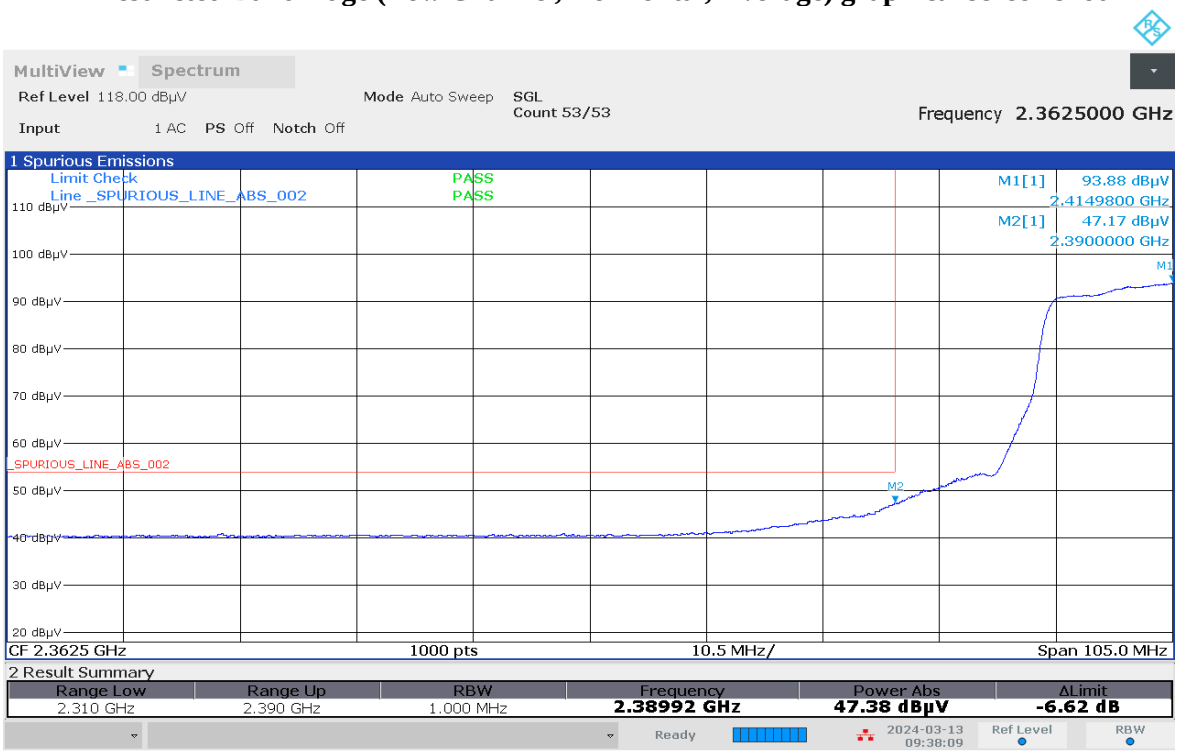
09:45:50 AM 03/13/2024

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



09:34:19 AM 03/13/2024

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



09:38:09 AM 03/13/2024

Test: WIFI SAC Restricted Band Edge
Model Number: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (12dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2452.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 40MHz)

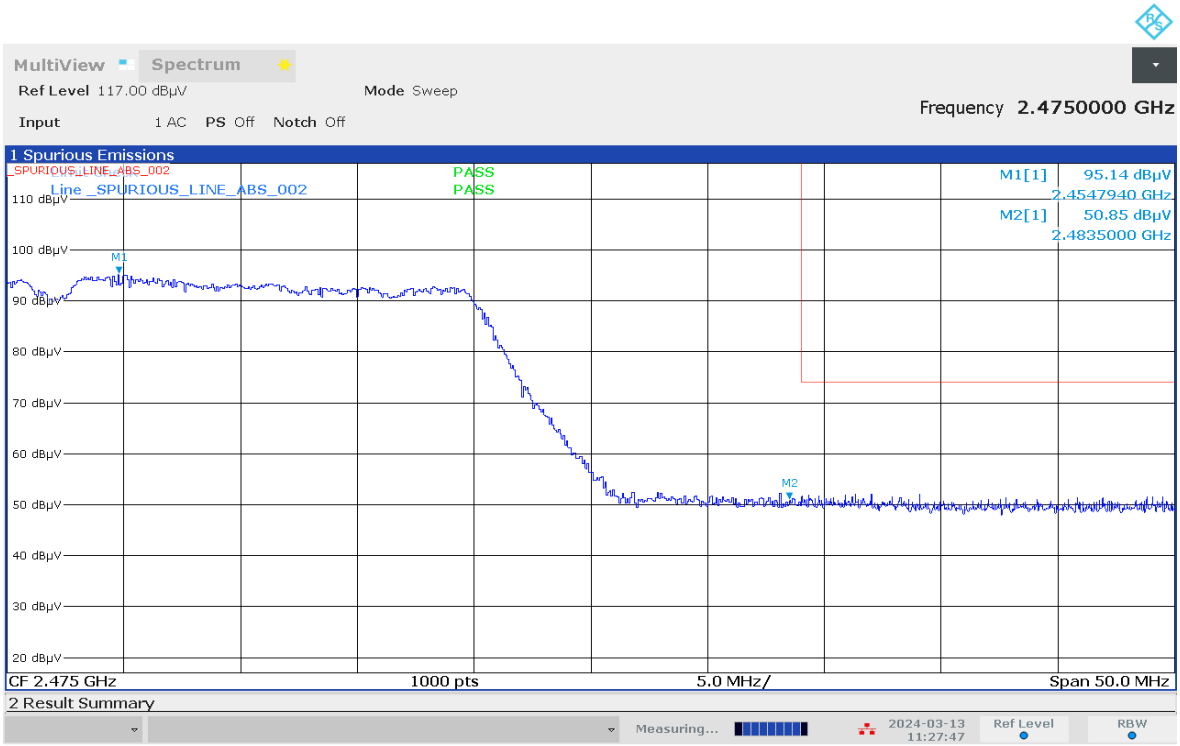
Restricted Band Edge (High Channel) tabular data

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	-	50.8525	42.0446	-	74.0000	54.0000	-	23.1475	11.9554	-
Horizontal Radiated Emission Result										
2483.5000	-	55.0453	47.6227	-	74.0000	54.0000	-	18.9547	6.3773	-

Remarks: Pass Result	Marginal Result	Fail Result

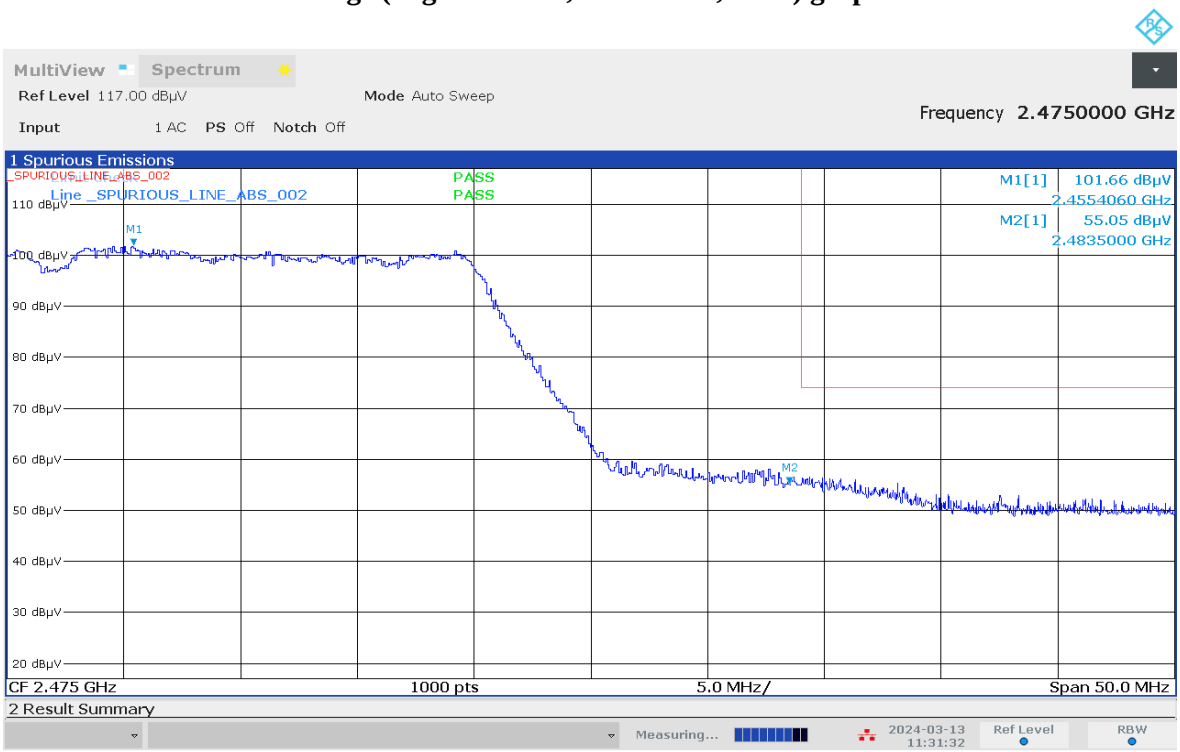
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Wed, 13 Mar, 2024**
System MU: 5.84dB

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



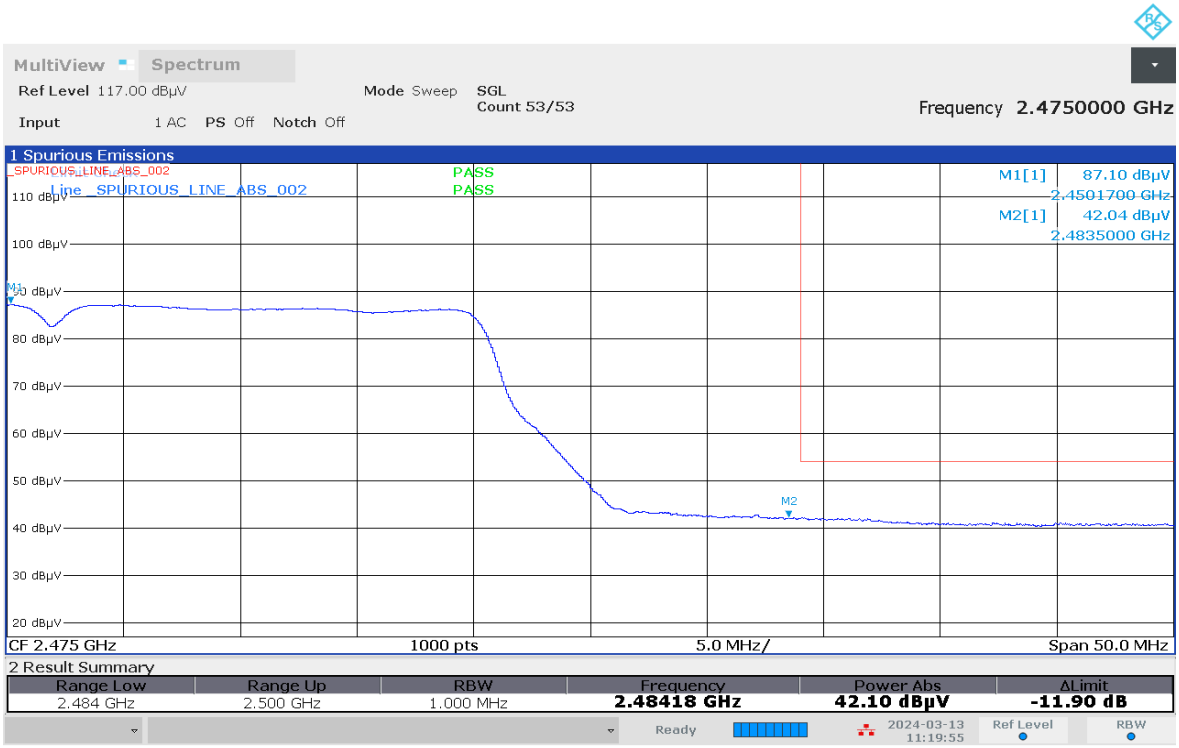
11:27:47 AM 03/13/2024

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



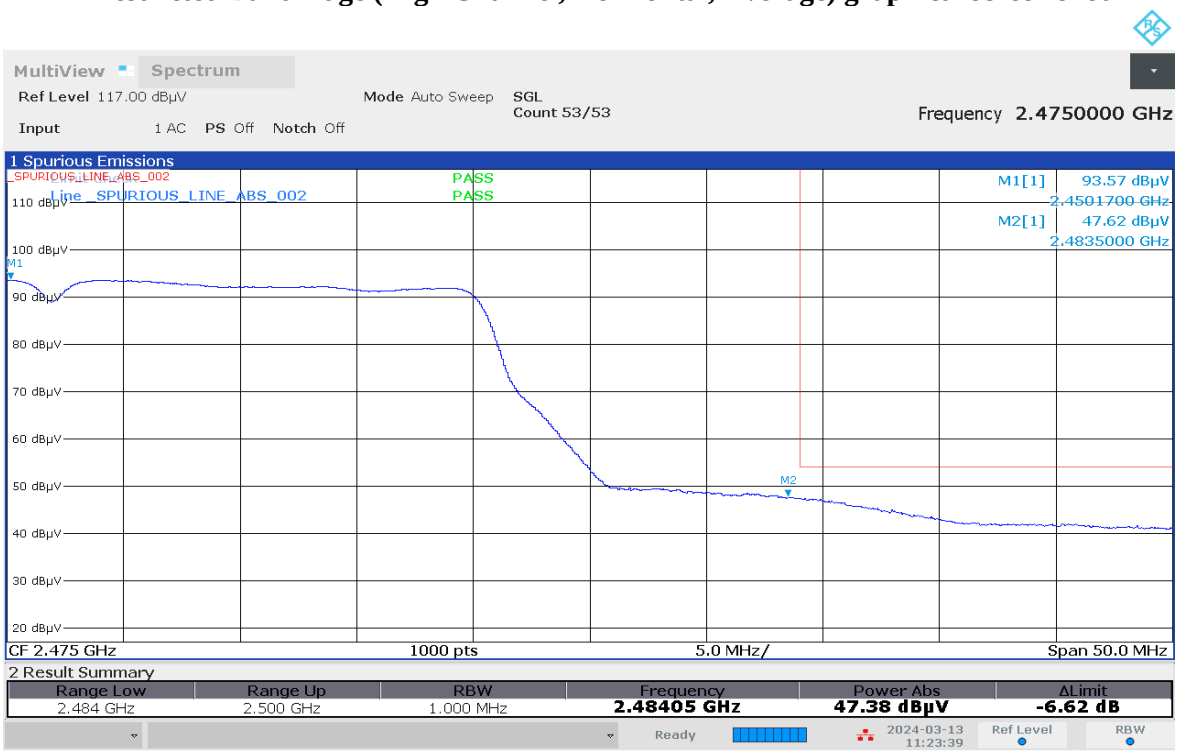
11:31:32 AM 03/13/2024

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



11:19:55 AM 03/13/2024

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



11:23:40 AM 03/13/2024

Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (18dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11b)

Radiated Emission (Low Channel) tabular data

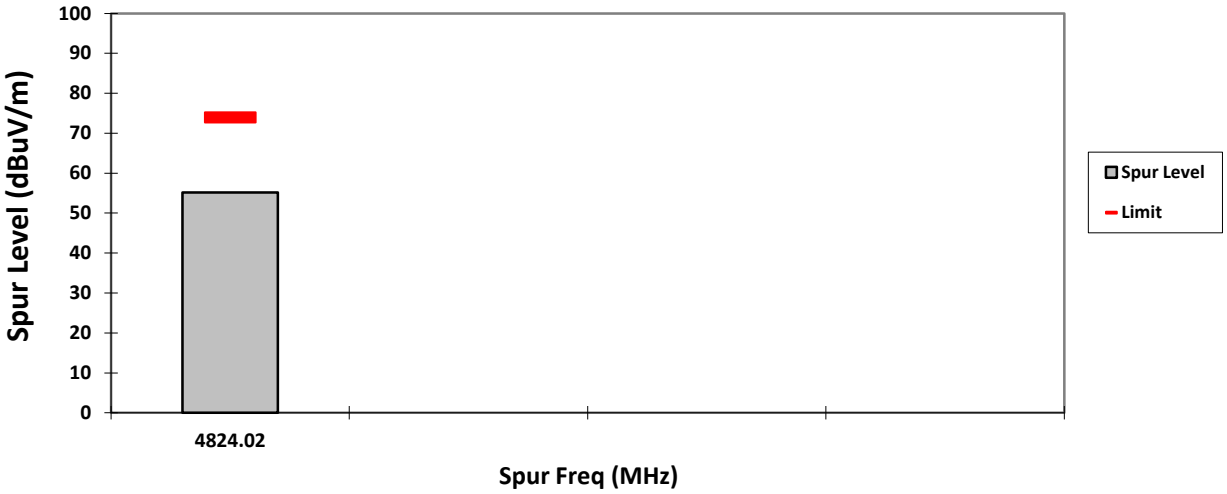
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4824.0200	-	55.1543	46.4410	-	74.0000	54.0000	-	18.8457	7.5590	-
Horizontal Radiated Emission Result										
4824.0000	-	55.0990	48.0141	-	74.0000	54.0000	-	18.9010	5.9859	-

Remarks: Pass Result	Marginal Result	Fail Result

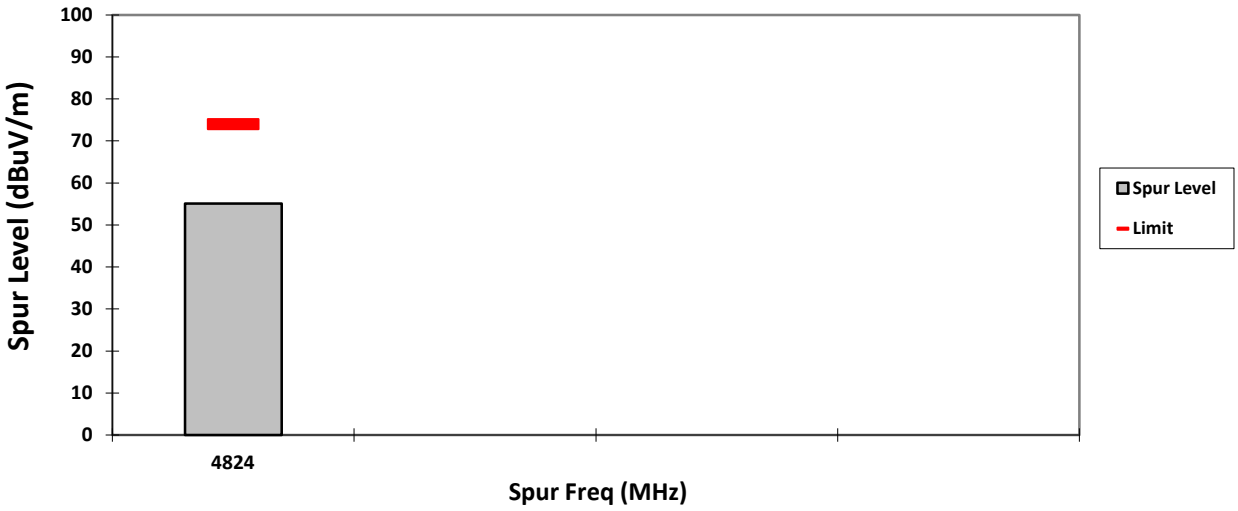
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

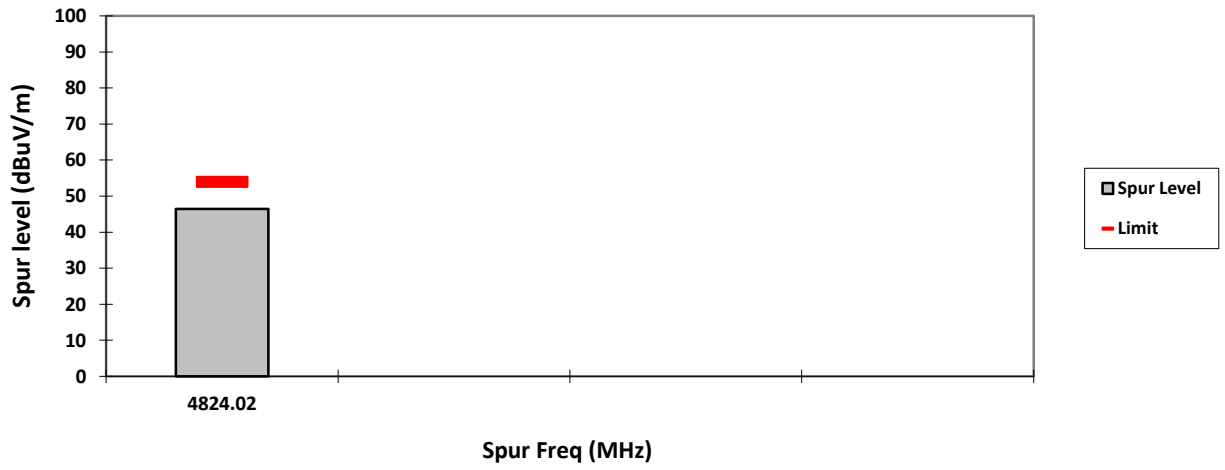
VERTICAL, PK



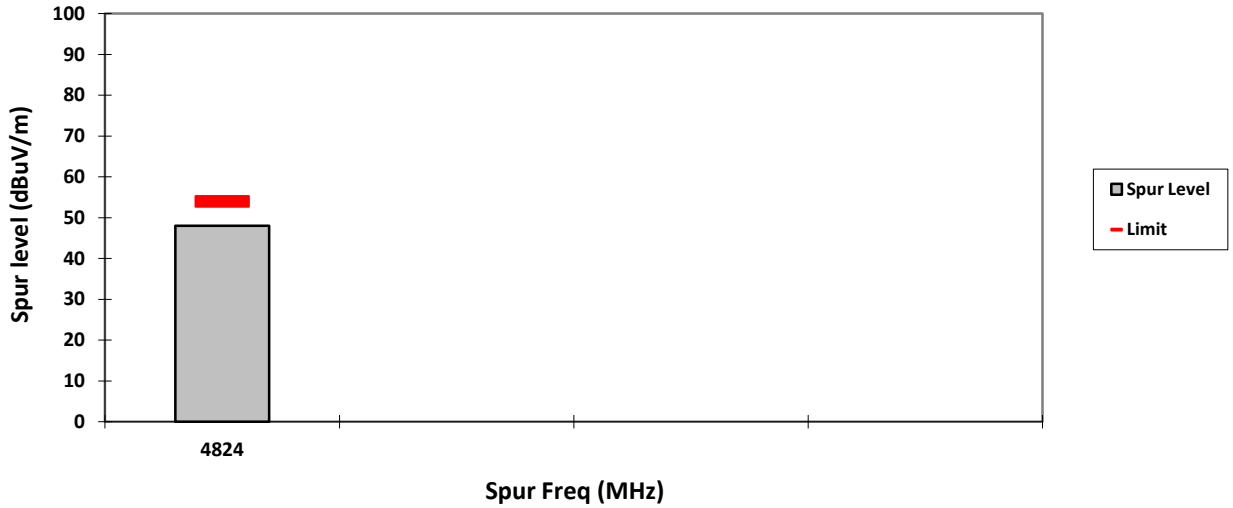
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (17dBm) Accessory: AN000452A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11b)

Radiated Emission (Mid Channel) tabular data

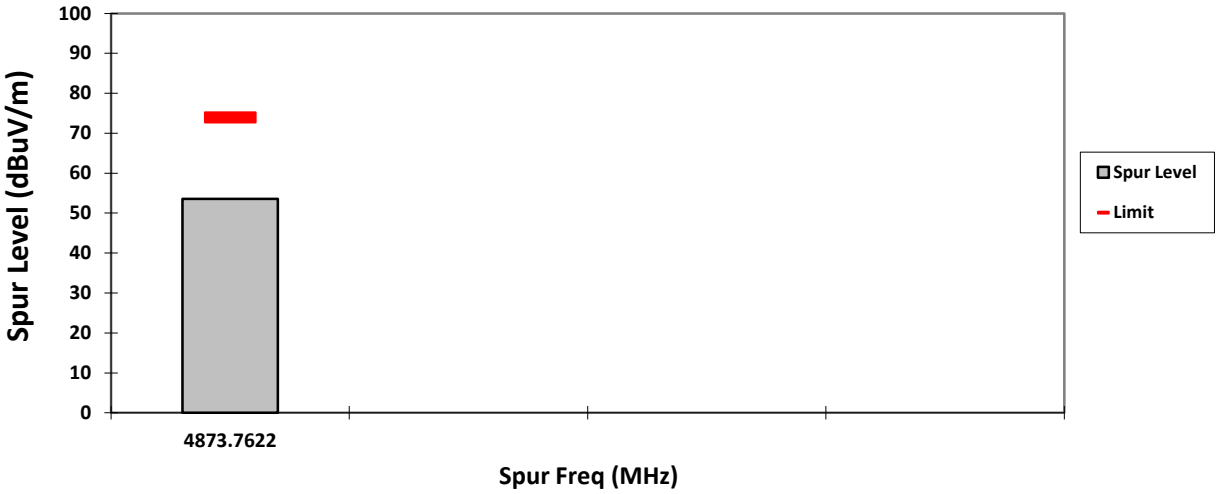
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4873.7622	-	53.5360	45.3017	-	74.0000	54.0000	-	20.4640	8.6983	-
Horizontal Radiated Emission Result										
4873.7013	-	55.0236	47.3743	-	74.0000	54.0000	-	18.9764	6.6257	-

Remarks: Pass Result	Marginal Result	Fail Result

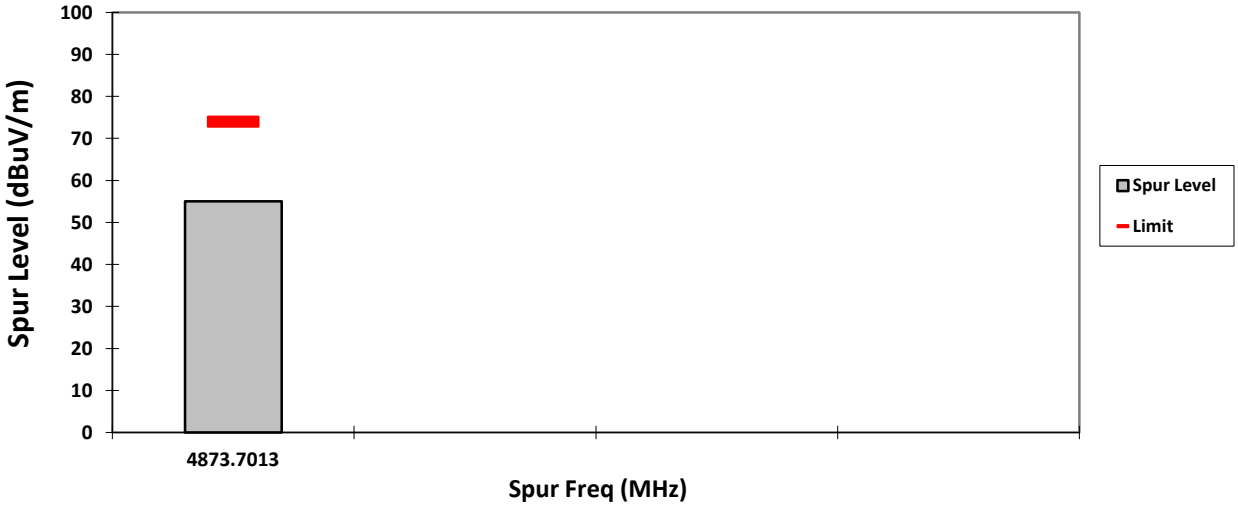
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

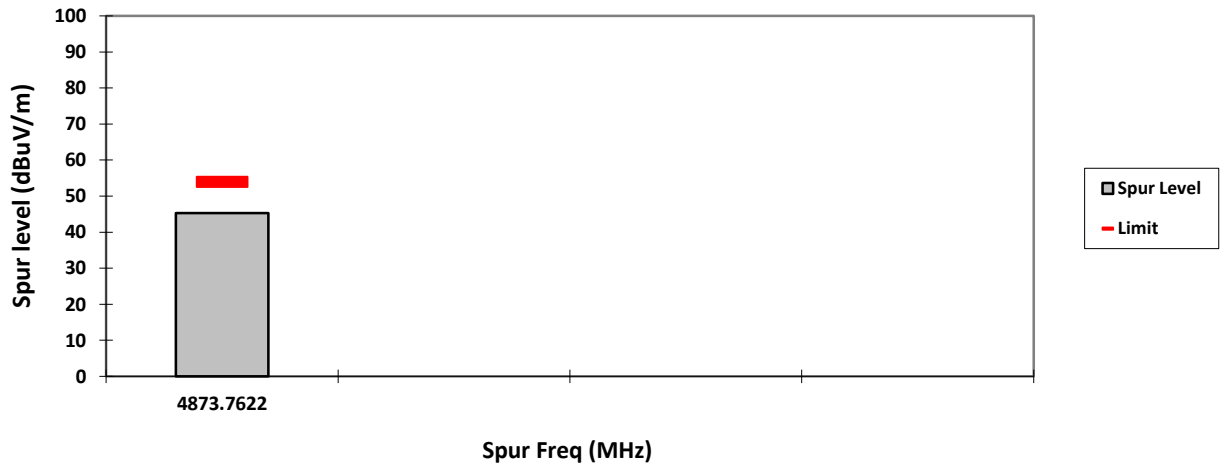
VERTICAL, PK



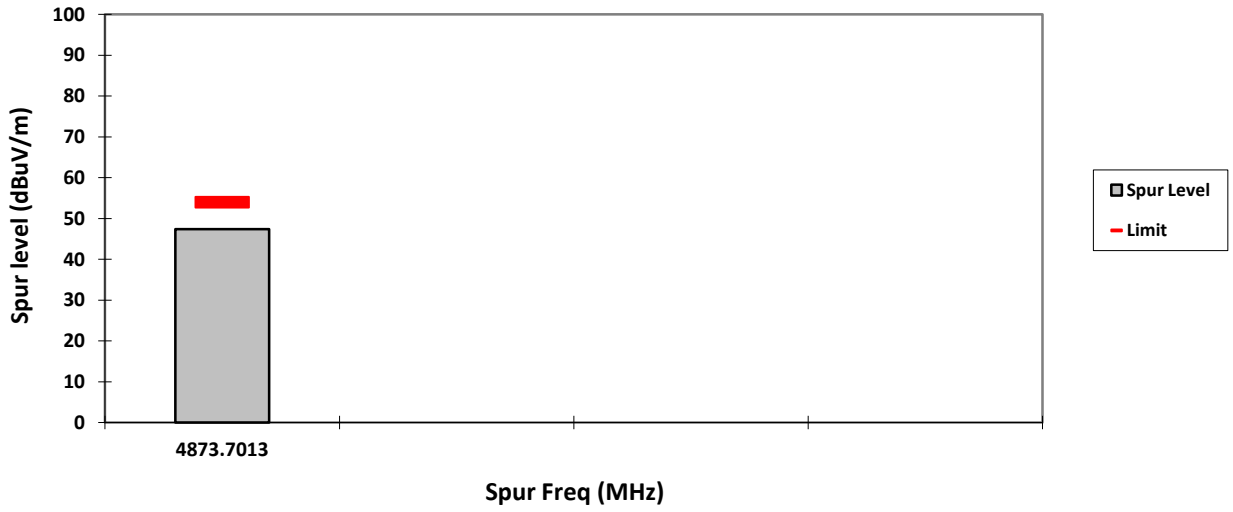
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (17dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11b)

Radiated Emission (High Channel) tabular data

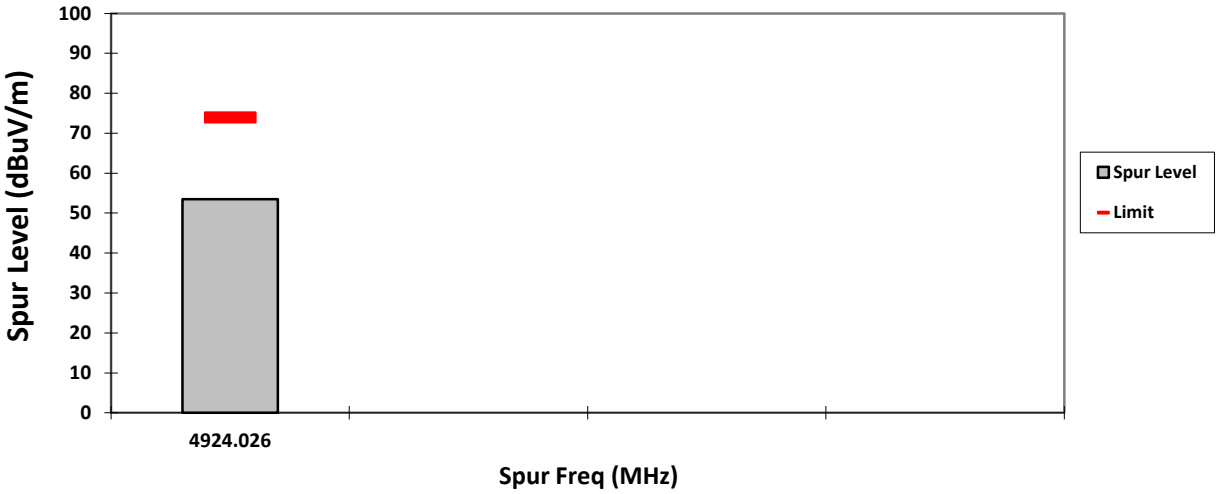
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4924.0260	-	53.4634	44.6021	-	74.0000	54.0000	-	20.5366	9.3979	-
Horizontal Radiated Emission Result										
4924.1029	-	54.8973	47.6386	-	74.0000	54.0000	-	19.1027	6.3614	-

Remarks: Pass Result	Marginal Result	Fail Result

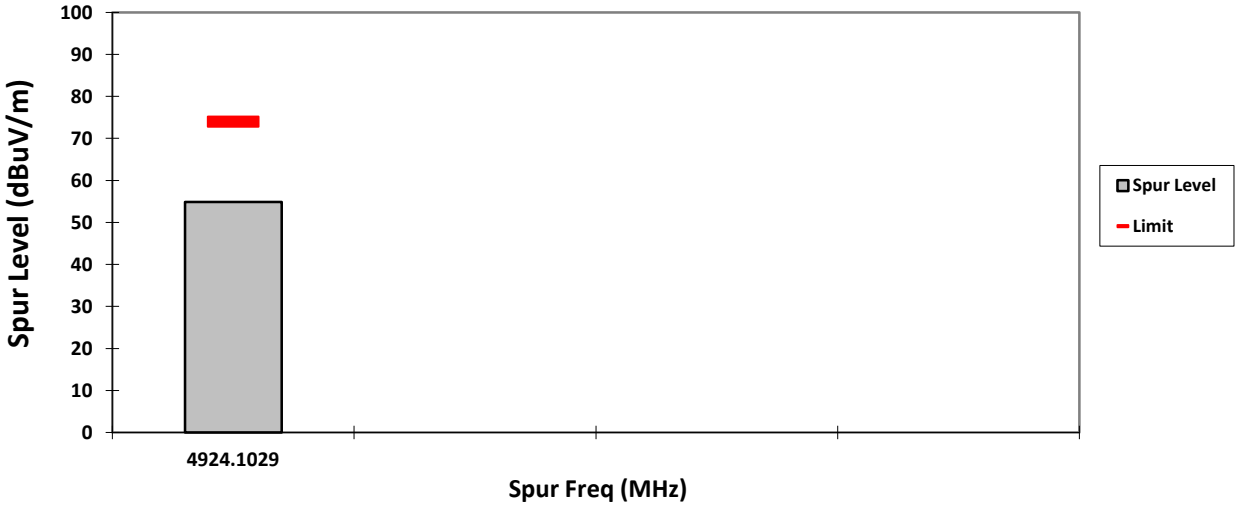
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

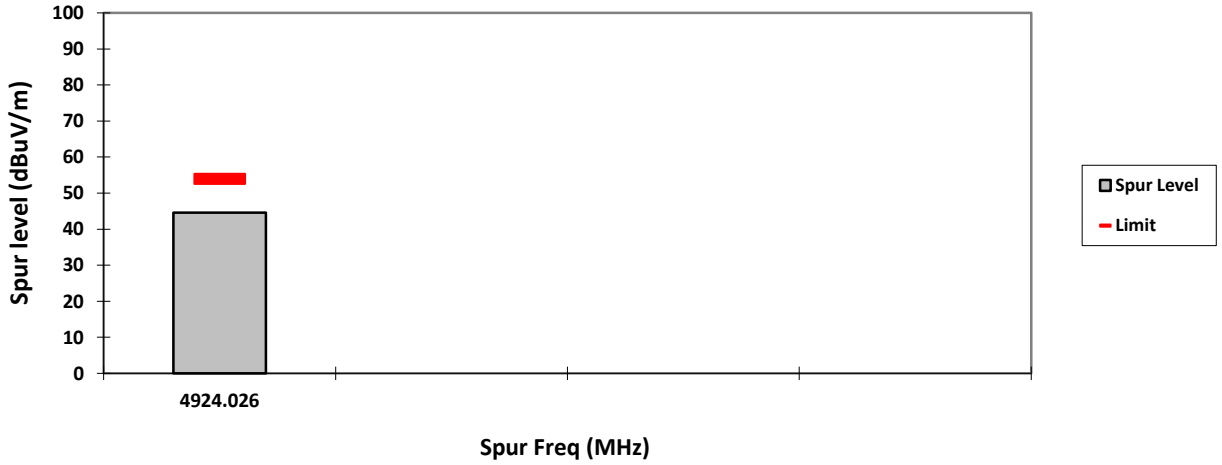
VERTICAL, PK



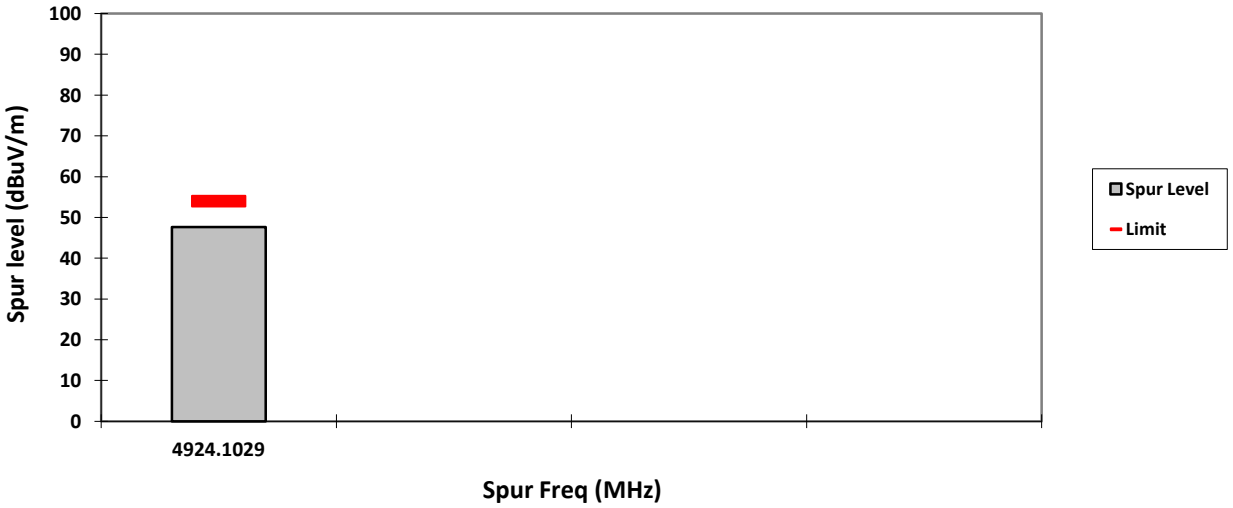
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (17dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11g)

Radiated Emission (Low Channel) tabular data

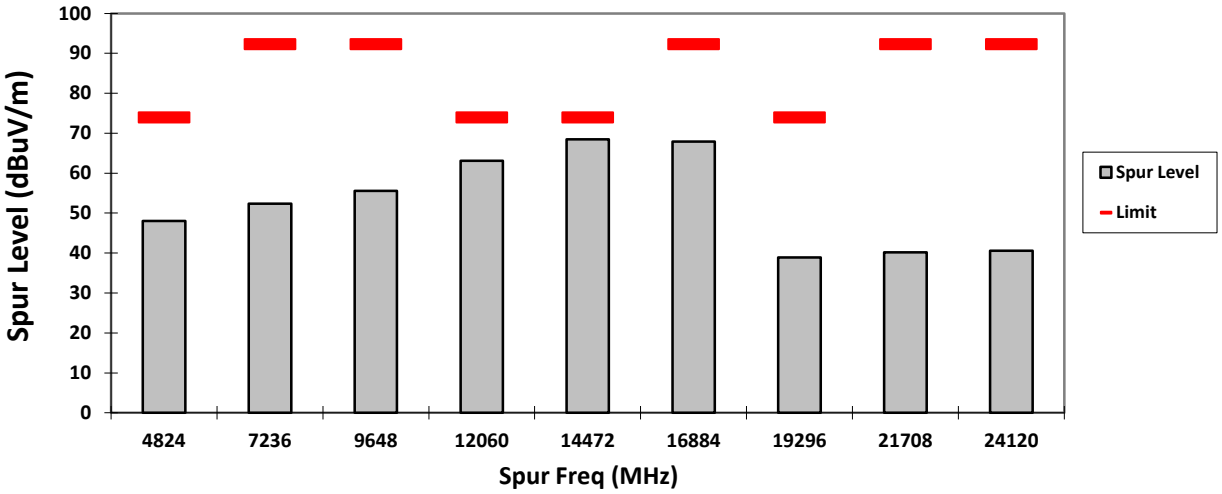
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4824	-	47.9988**	-	-	74.0000	-	-	26.0012	-	-
7236	-	52.4014**	-	-	92.3391	-	-	39.9377	-	112.3391
9648	-	55.5728**	-	-	92.3391	-	-	36.7663	-	112.3391
12060	-	63.1423**	49.7408**	-	74.0000	54.0000	-	10.8577	4.2592	-
14472	-	68.4887**	53.1220**	-	74.0000	54.0000	-	5.5113	0.8780	-
16884	-	67.9422**	-	-	92.3391	-	-	24.3969	-	112.3391
19296	-	38.9178**	-	-	74.0000	-	-	35.0822	-	-
21708	-	40.1695**	-	-	92.3391	-	-	52.1696	-	112.3391
24120	-	40.5936**	-	-	92.3391	-	-	51.7455	-	112.3391
Horizontal Radiated Emission Result										
4824	-	49.4172**	-	-	74.0000	-	-	24.5828	-	-
7236	-	53.2961**	-	-	92.3391	-	-	39.0430	-	112.3391
9648	-	55.7526**	-	-	92.3391	-	-	36.5865	-	112.3391
12060	-	63.3681**	49.7501**	-	74.0000	54.0000	-	10.6319	4.2499	-
14472	-	68.8333**	53.1579**	-	74.0000	54.0000	-	5.1667	0.8421	-
16884	-	67.9898**	-	-	92.3391	-	-	24.3493	-	112.3391
19296	-	38.6597**	-	-	74.0000	-	-	35.3403	-	-
21708	-	39.0247**	-	-	92.3391	-	-	53.3144	-	112.3391
24120	-	38.8368**	-	-	92.3391	-	-	53.5023	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

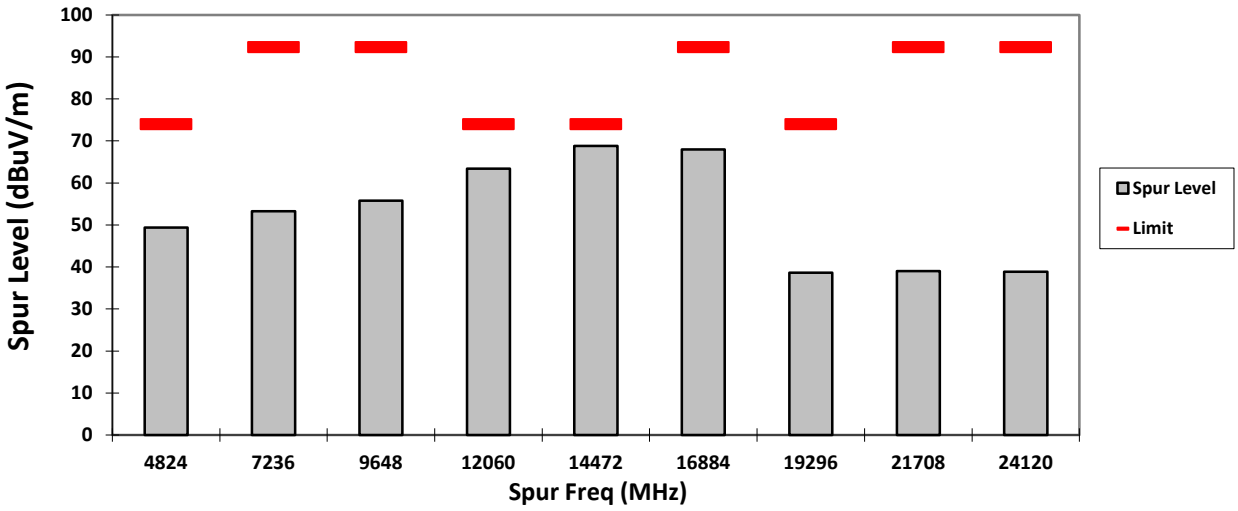
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

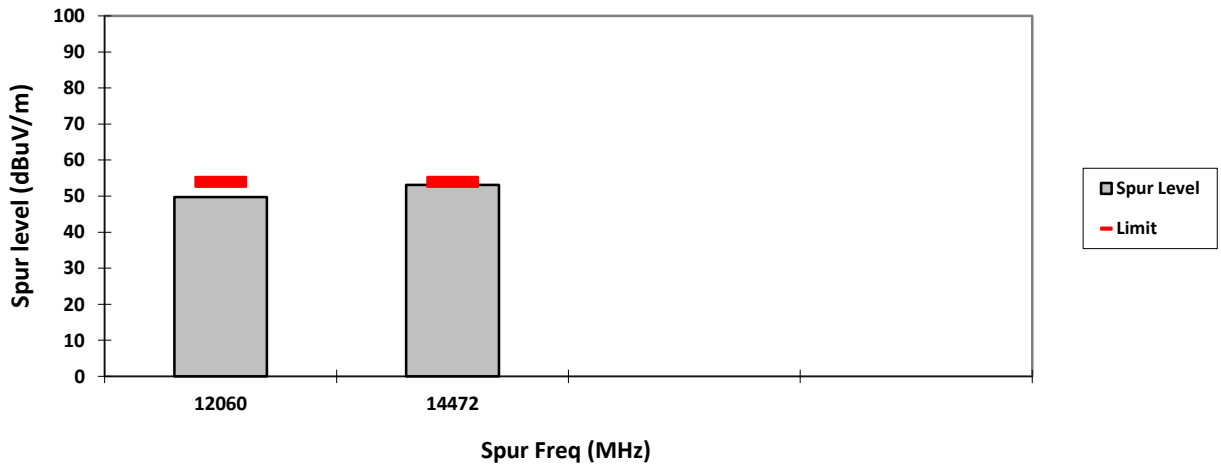
VERTICAL, PK



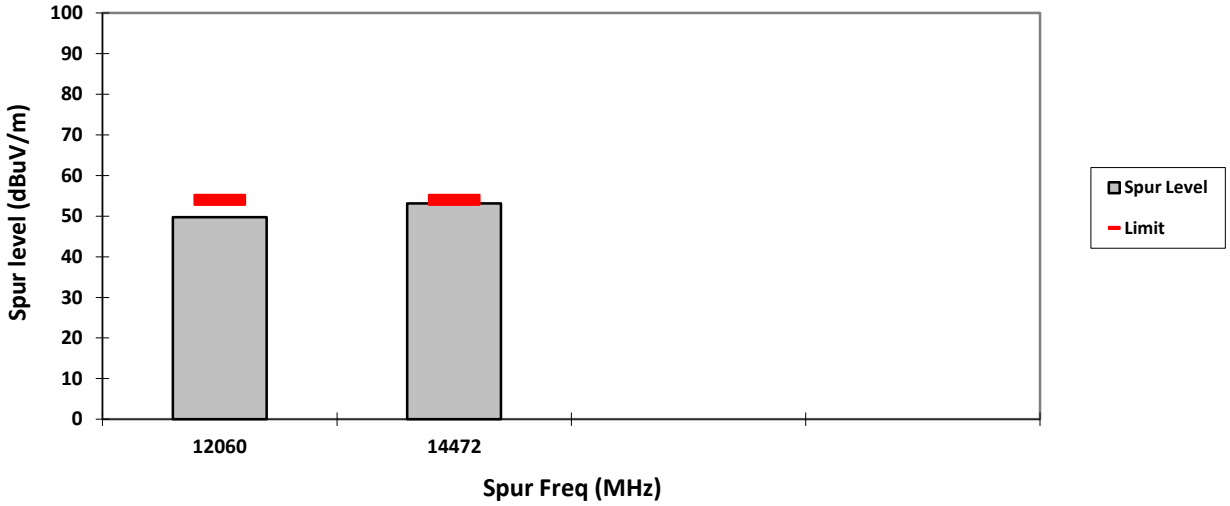
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot Power (18dBm) Accessory: AN000452A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11g)

Radiated Emission (Mid Channel) tabular data

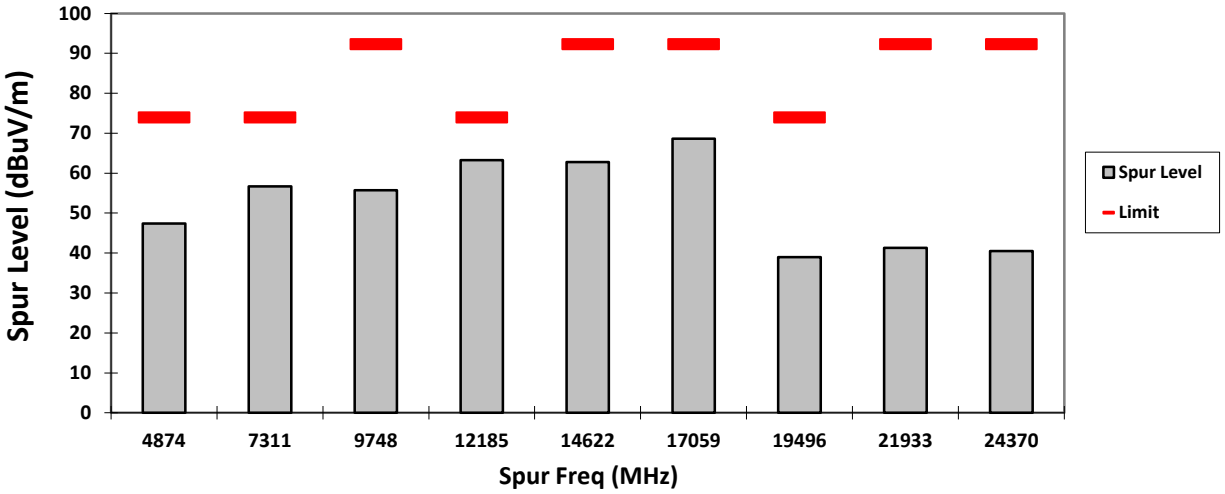
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	47.4263**	-	-	74.0000	-	-	26.5737	-	-
7311	-	56.6808**	43.1963**	-	74.0000	54.0000	-	17.3192	10.8037	-
9748	-	55.7154**	-	-	92.3391	-	-	36.6237	-	112.3391
12185	-	63.2407**	49.5441**	-	74.0000	54.0000	-	10.7593	4.4559	-
14622	-	62.7464**	-	-	92.3391	-	-	29.5927	-	112.3391
17059	-	68.5957**	-	-	92.3391	-	-	23.7434	-	112.3391
19496	-	38.9844**	-	-	74.0000	-	-	35.0156	-	-
21933	-	41.2703**	-	-	92.3391	-	-	51.0688	-	112.3391
24370	-	40.5132**	-	-	92.3391	-	-	51.8259	-	112.3391
Horizontal Radiated Emission Result										
4874	-	50.3407**	-	-	74.0000	-	-	23.6593	-	-
7311	-	56.9281**	43.1981**	-	74.0000	54.0000	-	17.0719	10.8019	-
9748	-	55.2488**	-	-	92.3391	-	-	37.0903	-	112.3391
12185	-	62.9258**	49.6623**	-	74.0000	54.0000	-	11.0742	4.3377	-
14622	-	62.8499**	-	-	92.3391	-	-	29.4892	-	112.3391
17059	-	68.6567**	-	-	92.3391	-	-	23.6824	-	112.3391
19496	-	39.7436**	-	-	74.0000	-	-	34.2564	-	-
21933	-	40.3956**	-	-	92.3391	-	-	51.9435	-	112.3391
24370	-	40.2828**	-	-	92.3391	-	-	52.0563	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

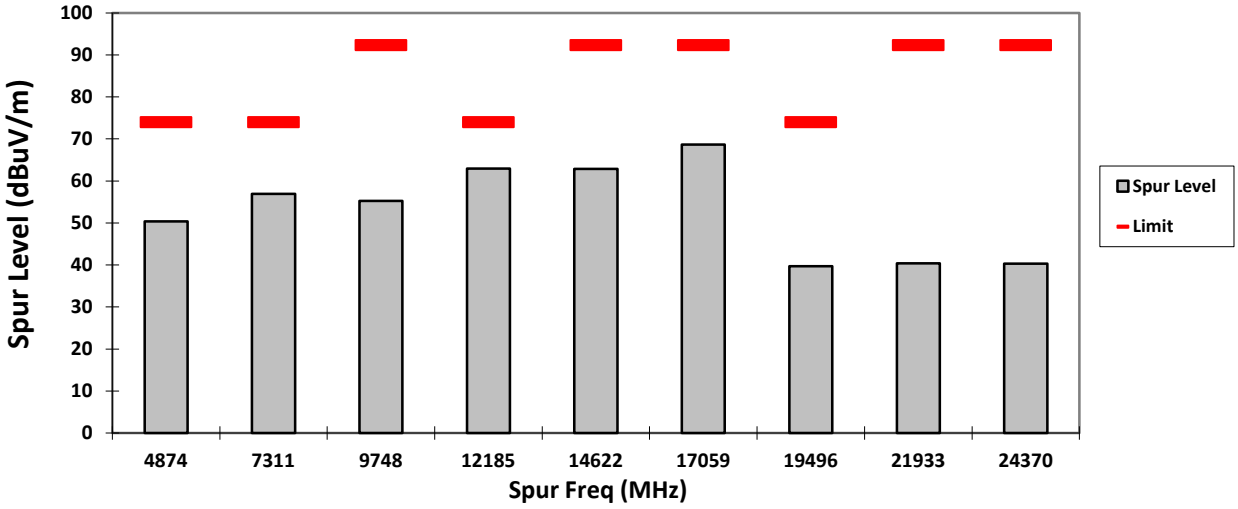
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

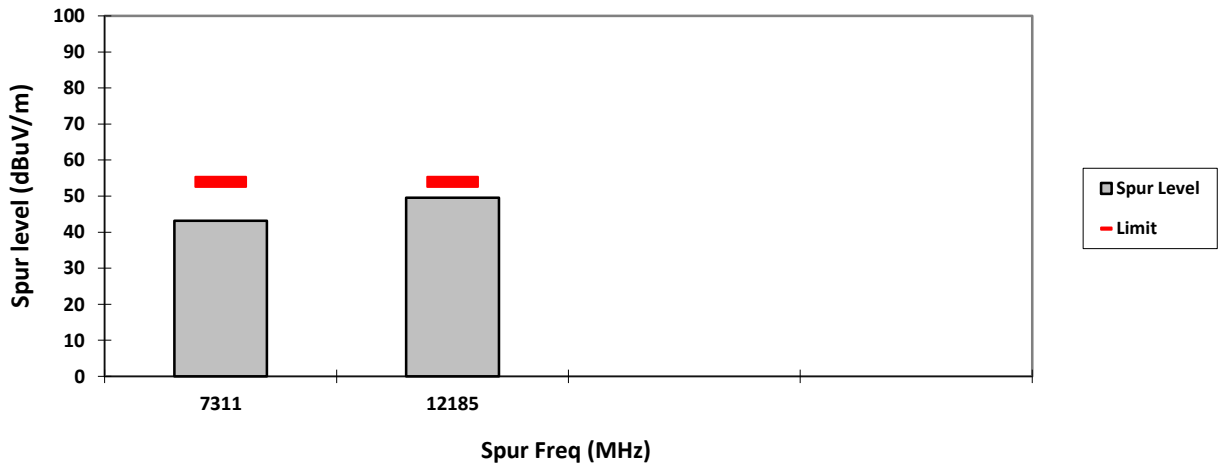
VERTICAL, PK



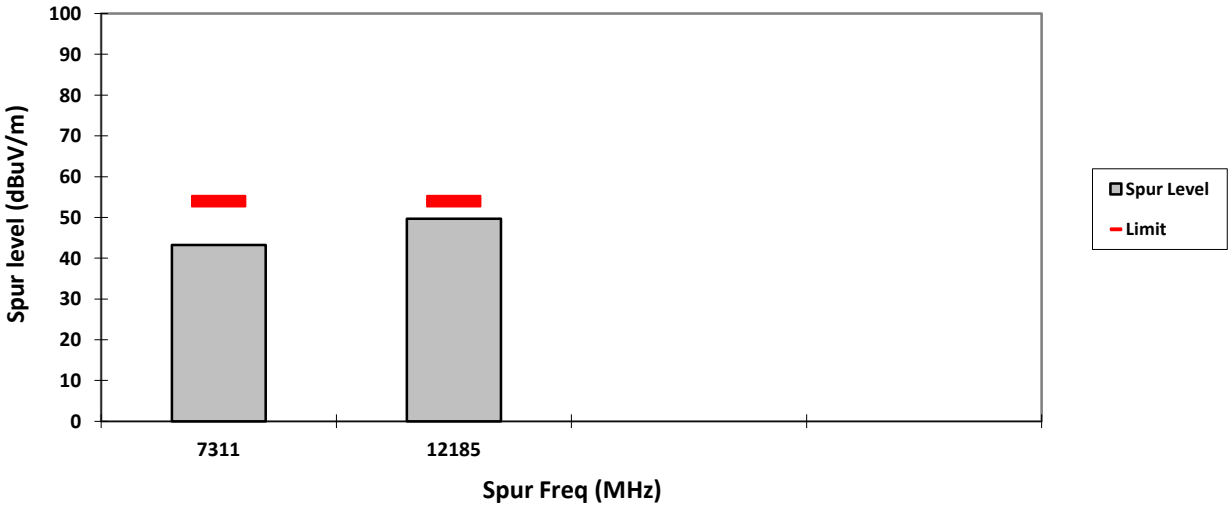
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Accessory: AN000452A01
Battery: PMNN4818A Softpot Power (16dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013 Worst Case Plane: X-Plane (802.11g)

Radiated Emission (High Channel) tabular data

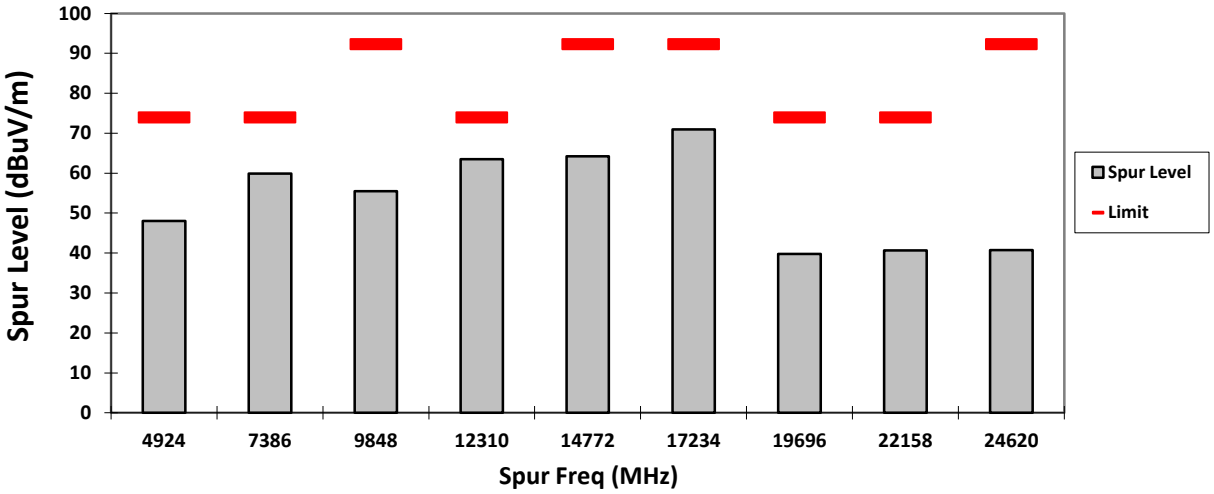
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4924	-	48.0369**	-	-	74.0000	-	-	25.9631	-	-
7386	-	59.9254**	45.7049**	-	74.0000	54.0000	-	14.0746	8.2951	-
9848	-	55.4587**	-	-	92.3391	-	-	36.8804	-	112.3391
12310	-	63.4960**	50.0897**	-	74.0000	54.0000	-	10.5040	3.9103	-
14772	-	64.2107**	-	-	92.3391	-	-	28.1284	-	112.3391
17234	-	70.9897**	-	-	92.3391	-	-	21.3494	-	112.3391
19696	-	39.7697**	-	-	74.0000	-	-	34.2303	-	-
22158	-	40.6583**	-	-	74.0000	-	-	33.3417	-	-
24620	-	40.7442**	-	-	92.3391	-	-	51.5949	-	112.3391
Horizontal Radiated Emission Result										
4924	-	48.1502**	-	-	74.0000	-	-	25.8498	-	-
7386	-	57.1481**	43.4044**	-	74.0000	54.0000	-	16.8519	10.5956	-
9848	-	55.5837**	-	-	92.3391	-	-	36.7554	-	112.3391
12310	-	63.1673**	50.0882**	-	74.0000	54.0000	-	10.8327	3.9118	-
14772	-	64.8624**	-	-	92.3391	-	-	27.4767	-	112.3391
17234	-	69.6709**	-	-	92.3391	-	-	22.6682	-	112.3391
19696	-	39.0071**	-	-	74.0000	-	-	34.9929	-	-
22158	-	40.0069**	-	-	74.0000	-	-	33.9931	-	-
24620	-	40.8662**	-	-	92.3391	-	-	51.4729	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

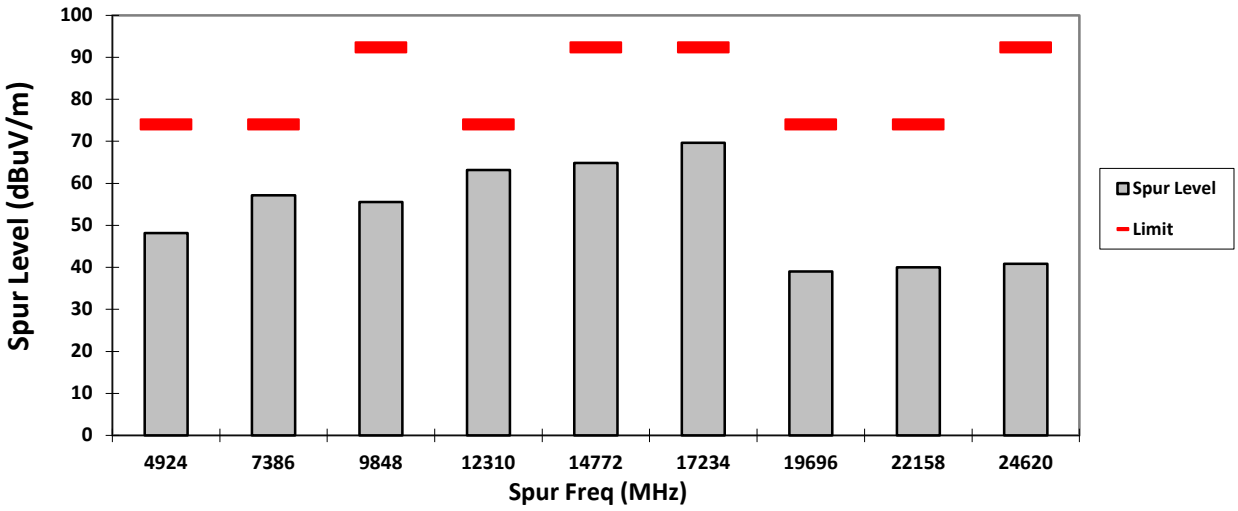
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

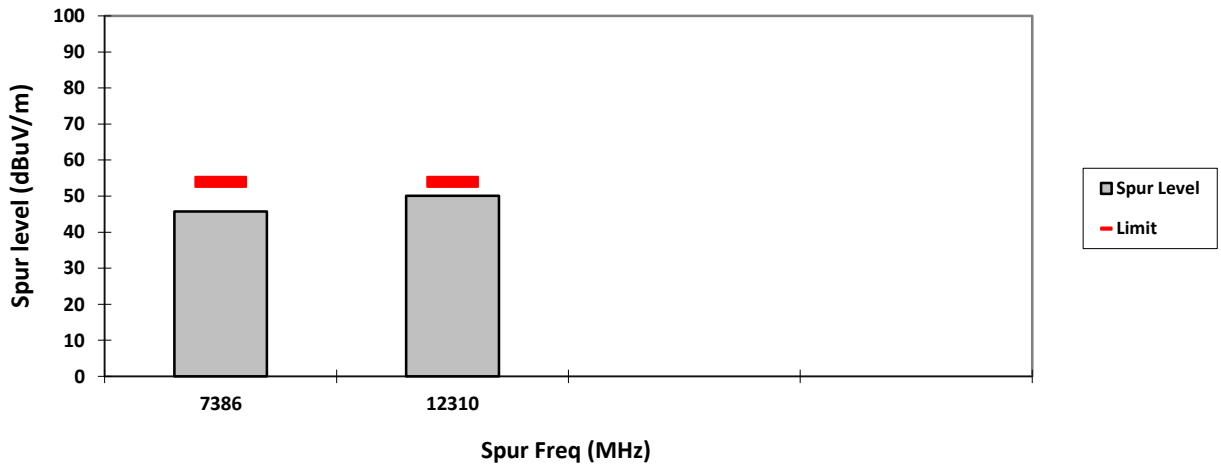
VERTICAL, PK



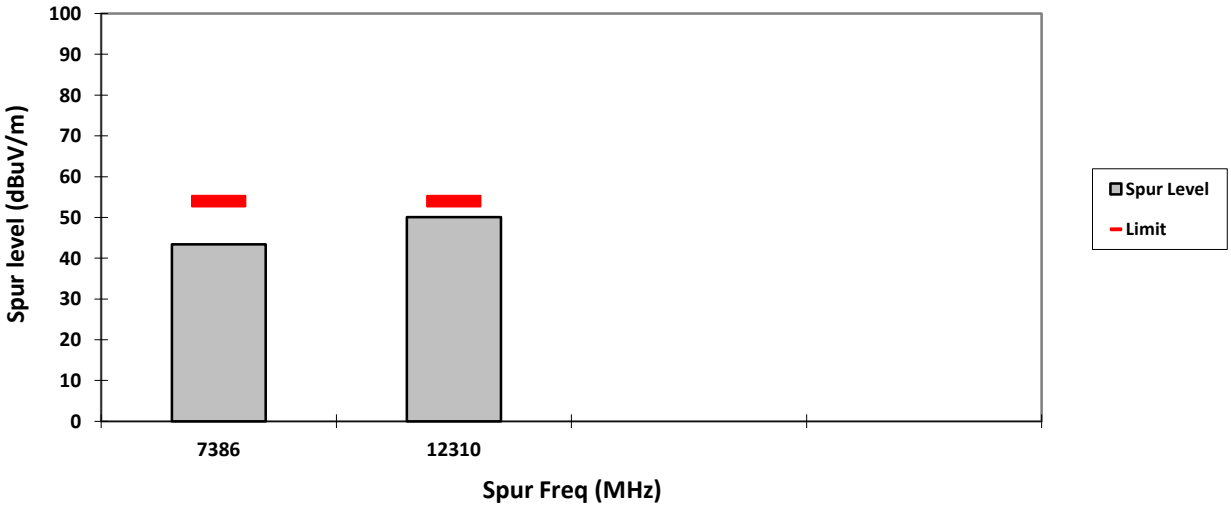
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softport Power (16dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2412.0000 MHz Test Standard: ANSI C63.10-Worst Case
Worst Case Plane: X-Plane (802.11n 20MHz)

Radiated Emission (Low Channel) tabular data

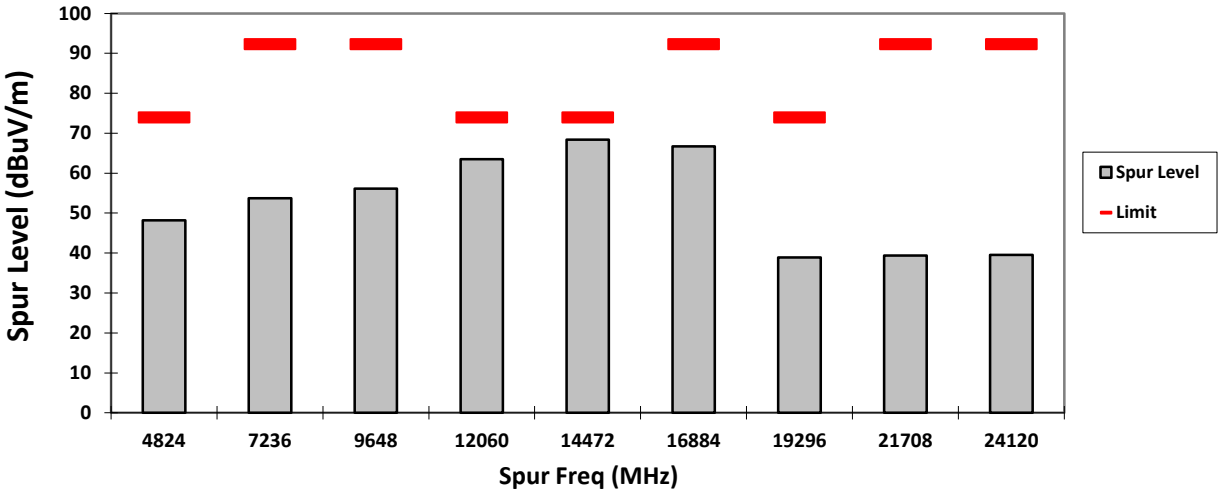
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4824	-	48.2000**	-	-	74.0000	-	-	25.8000	-	-
7236	-	53.7648**	-	-	92.3391	-	-	38.5743	-	112.3391
9648	-	56.1696**	-	-	92.3391	-	-	36.1695	-	112.3391
12060	-	63.4995**	49.6312**	-	74.0000	54.0000	-	10.5005	4.3688	-
14472	-	68.3634**	53.0530**	-	74.0000	54.0000	-	5.6366	0.9470	-
16884	-	66.7141**	-	-	92.3391	-	-	25.6250	-	112.3391
19296	-	38.9267**	-	-	74.0000	-	-	35.0733	-	-
21708	-	39.4162**	-	-	92.3391	-	-	52.9229	-	112.3391
24120	-	39.5195**	-	-	92.3391	-	-	52.8196	-	112.3391
Horizontal Radiated Emission Result										
4824	-	51.1812**	-	-	74.0000	-	-	22.8188	-	-
7236	-	52.7522**	-	-	92.3391	-	-	39.5869	-	112.3391
9648	-	57.4377**	-	-	92.3391	-	-	34.9014	-	112.3391
12060	-	63.1565**	49.6243**	-	74.0000	54.0000	-	10.8435	4.3757	-
14472	-	69.5383**	53.1278**	-	74.0000	54.0000	-	4.4617	0.8722	-
16884	-	67.7490**	-	-	92.3391	-	-	24.5901	-	112.3391
19296	-	39.4433**	-	-	74.0000	-	-	34.5567	-	-
21708	-	39.6080**	-	-	92.3391	-	-	52.7311	-	112.3391
24120	-	39.3080**	-	-	92.3391	-	-	53.0311	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

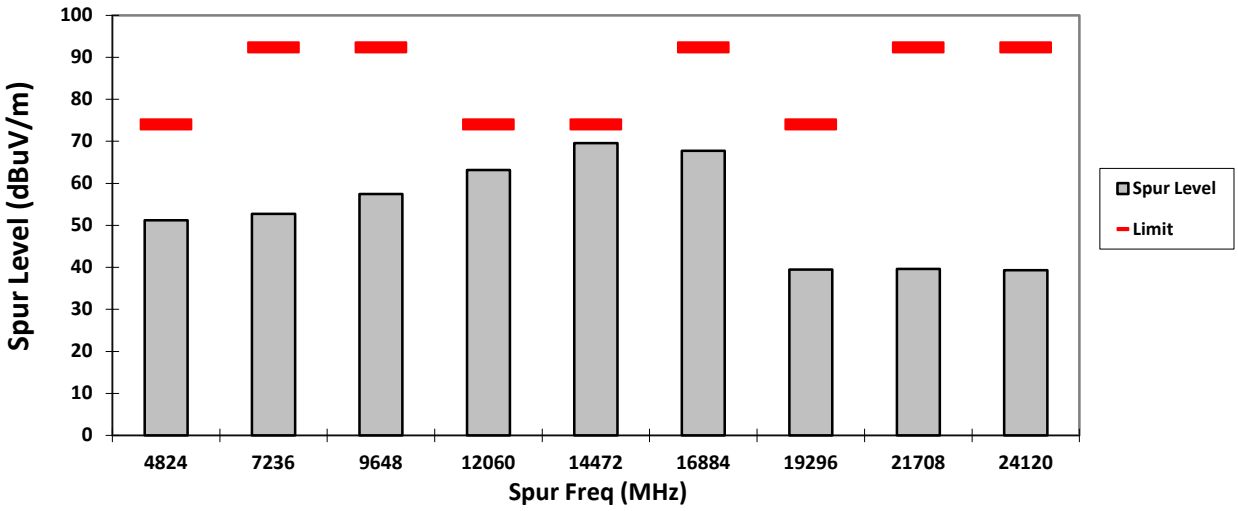
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

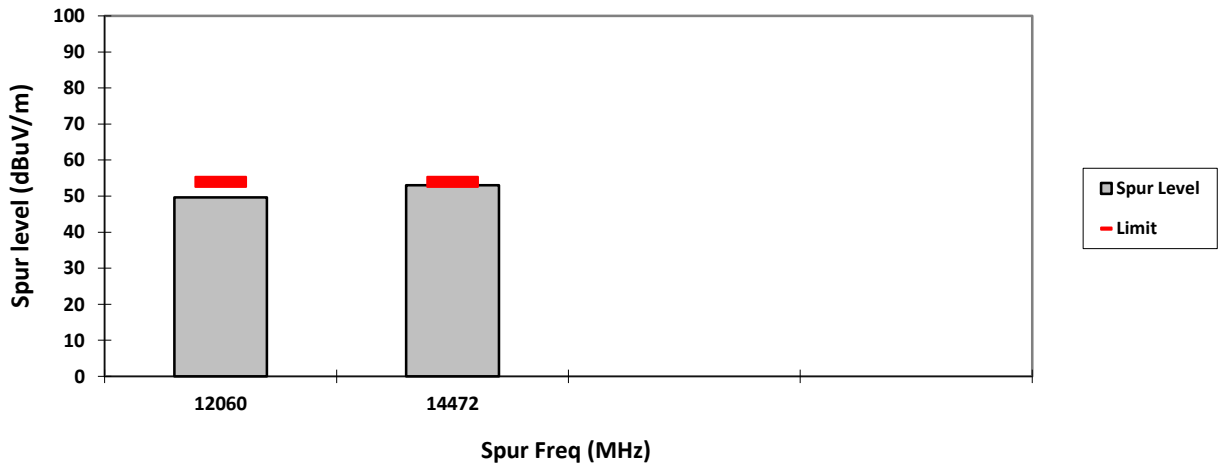
VERTICAL, PK



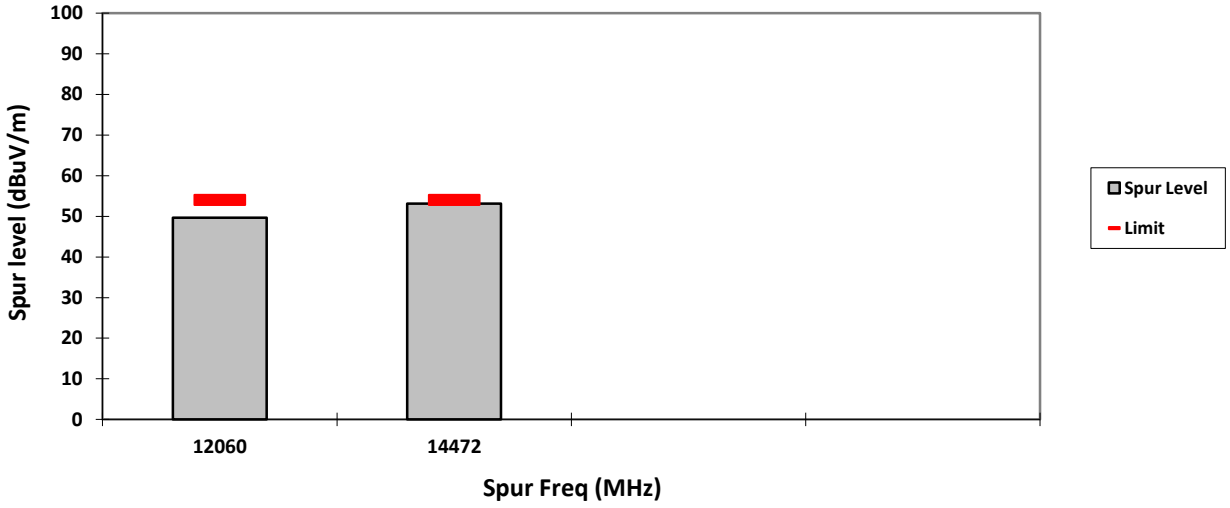
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softport Power (18dBm) Accessory: AN000452A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 20MHz)

Radiated Emission (Mid Channel) tabular data

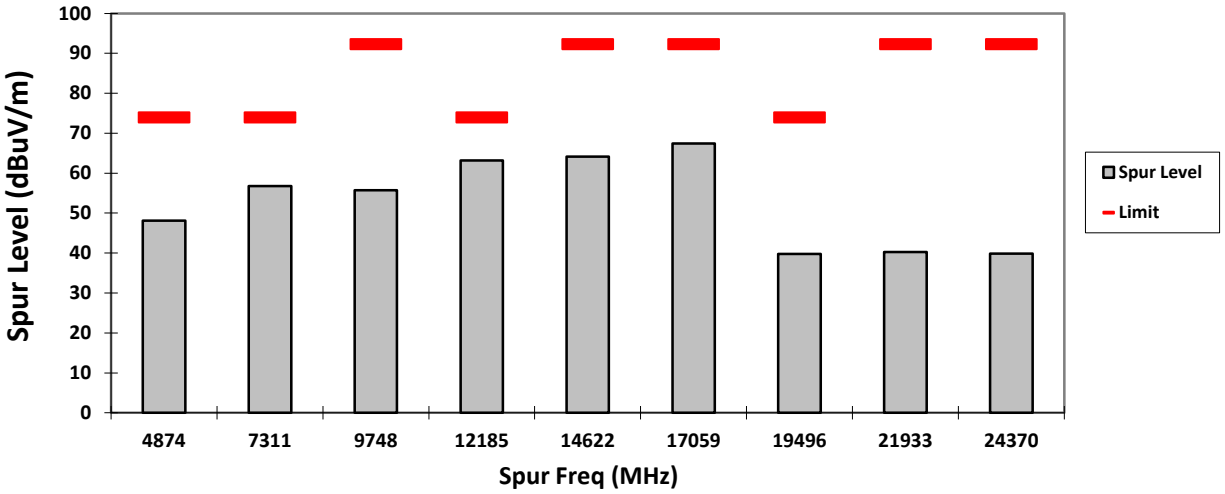
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	48.1255**	-	-	74.0000	-	-	25.8745	-	-
7311	-	56.7704**	43.1153**	-	74.0000	54.0000	-	17.2296	10.8847	-
9748	-	55.7614**	-	-	92.3391	-	-	36.5777	-	112.3391
12185	-	63.1936**	49.5439**	-	74.0000	54.0000	-	10.8064	4.4561	-
14622	-	64.1650**	-	-	92.3391	-	-	28.1741	-	112.3391
17059	-	67.4387**	-	-	92.3391	-	-	24.9004	-	112.3391
19496	-	39.8022**	-	-	74.0000	-	-	34.1978	-	-
21933	-	40.2305**	-	-	92.3391	-	-	52.1086	-	112.3391
24370	-	39.8410**	-	-	92.3391	-	-	52.4981	-	112.3391
Horizontal Radiated Emission Result										
4874	-	49.0641**	-	-	74.0000	-	-	24.9359	-	-
7311	-	57.0340**	43.1165**	-	74.0000	54.0000	-	16.9660	10.8835	-
9748	-	55.7078**	-	-	92.3391	-	-	36.6313	-	112.3391
12185	-	63.0576**	49.5442**	-	74.0000	54.0000	-	10.9424	4.4558	-
14622	-	63.2430**	-	-	92.3391	-	-	29.0961	-	112.3391
17059	-	68.8133**	-	-	92.3391	-	-	23.5258	-	112.3391
19496	-	38.2617**	-	-	74.0000	-	-	35.7383	-	-
21933	-	40.2002**	-	-	92.3391	-	-	52.1389	-	112.3391
24370	-	40.1876**	-	-	92.3391	-	-	52.1515	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

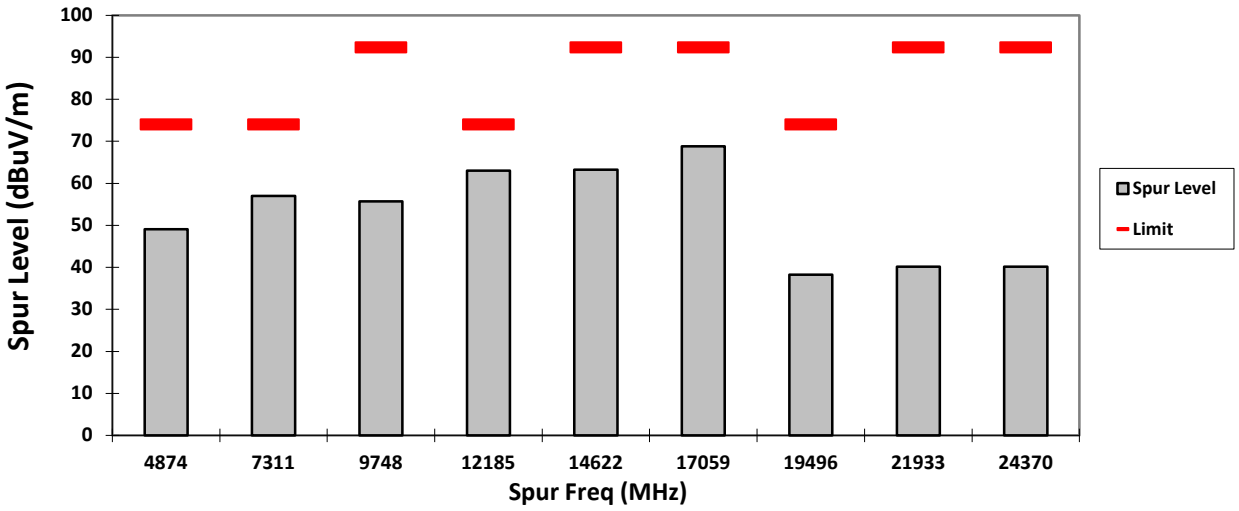
Temperature (degC): 23.3 Humidity (%): 69.6
Test Performed by: Nazrin & Rezza Test Date: Thu, 14 Mar, 2024
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

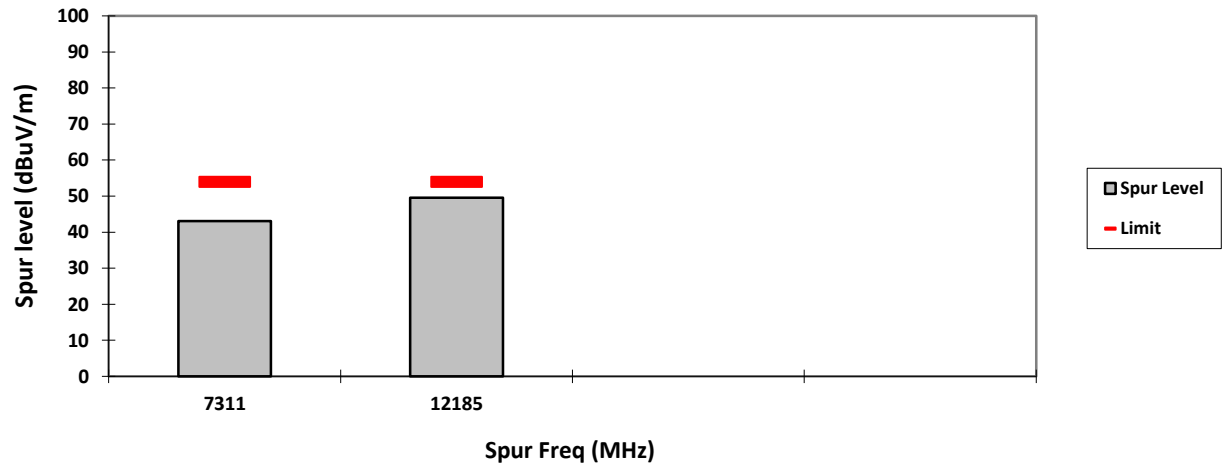
VERTICAL, PK



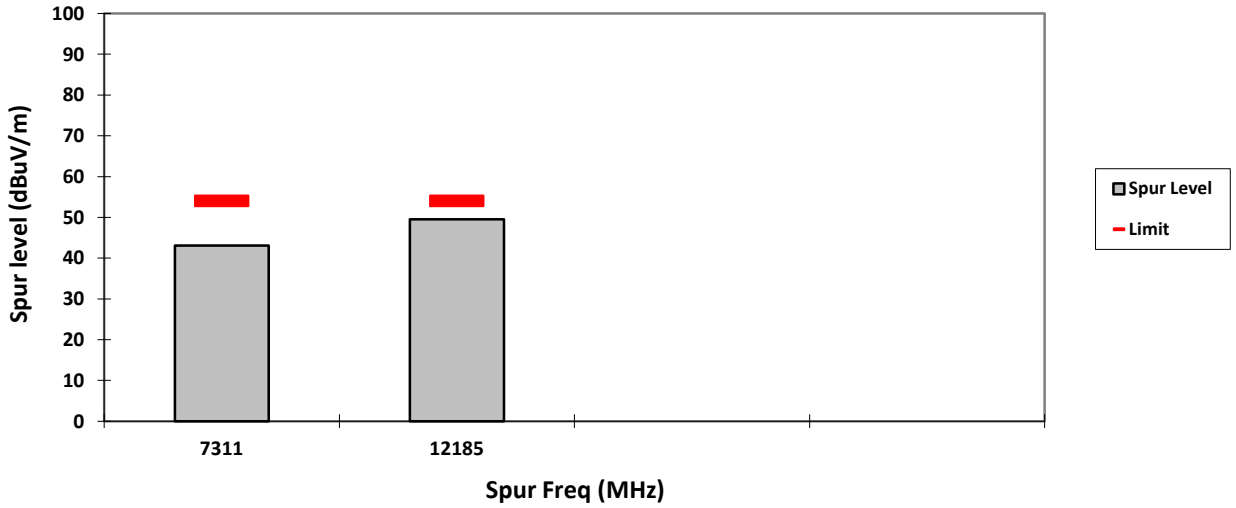
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softport Power (16dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2462.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 20MHz)

Radiated Emission (High Channel) tabular data

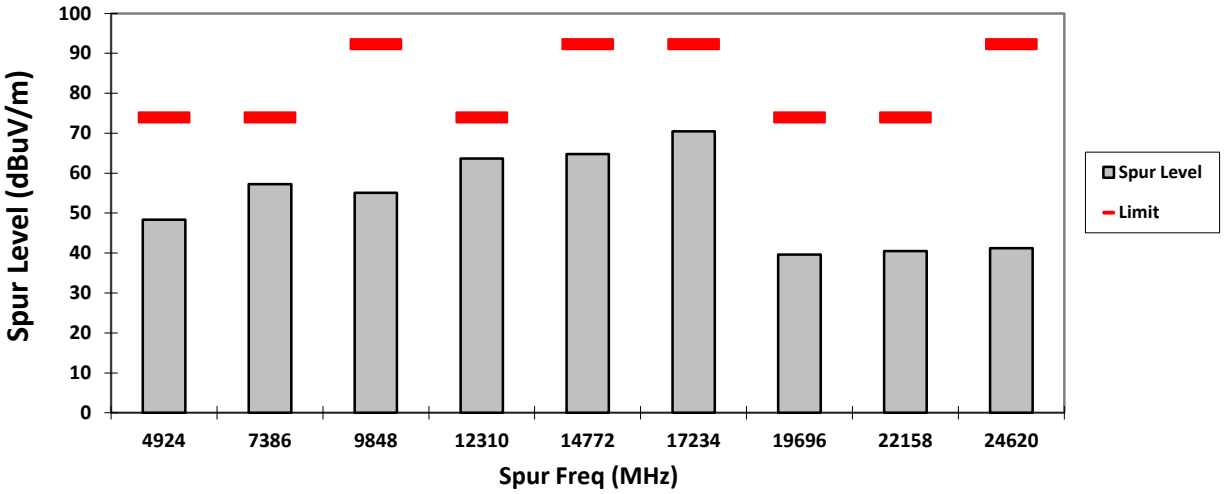
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4924	-	48.3275**	-	-	74.0000	-	-	25.6725	-	-
7386	-	57.2143**	43.6509**	-	74.0000	54.0000	-	16.7857	10.3491	-
9848	-	55.1042**	-	-	92.3391	-	-	37.2349	-	112.3391
12310	-	63.6740**	50.0902**	-	74.0000	54.0000	-	10.3260	3.9098	-
14772	-	64.8157**	-	-	92.3391	-	-	27.5234	-	112.3391
17234	-	70.4591**	-	-	92.3391	-	-	21.8800	-	112.3391
19696	-	39.6507**	-	-	74.0000	-	-	34.3493	-	-
22158	-	40.5180**	-	-	74.0000	-	-	33.4820	-	-
24620	-	41.1930**	-	-	92.3391	-	-	51.1461	-	112.3391
Horizontal Radiated Emission Result										
4924	-	49.1034**	-	-	74.0000	-	-	24.8966	-	-
7386	-	56.8727**	43.4079**	-	74.0000	54.0000	-	17.1273	10.5921	-
9848	-	55.7974**	-	-	92.3391	-	-	36.5417	-	112.3391
12310	-	63.3710**	50.2194**	-	74.0000	54.0000	-	10.6290	3.7806	-
14772	-	65.7068**	-	-	92.3391	-	-	26.6323	-	112.3391
17234	-	70.0660**	-	-	92.3391	-	-	22.2731	-	112.3391
19696	-	40.4950**	-	-	74.0000	-	-	33.5050	-	-
22158	-	41.4020**	-	-	74.0000	-	-	32.5980	-	-
24620	-	40.5714**	-	-	92.3391	-	-	51.7677	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

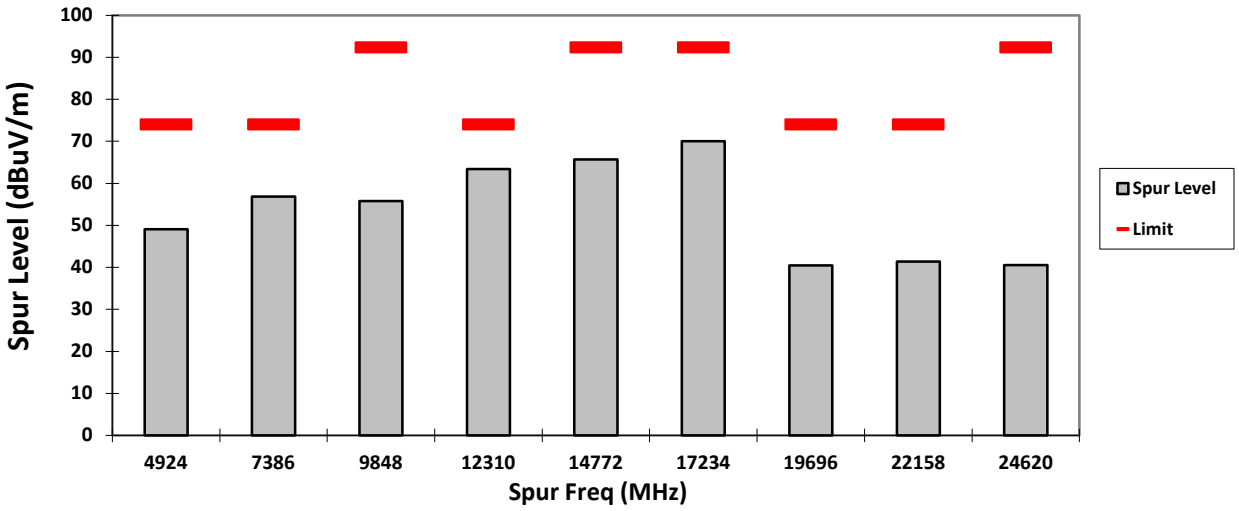
Temperature (degC): 23.3 Humidity (%): 69.6
Test Performed by: Nazrin & Rezza Test Date: Thu, 14 Mar, 2024
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

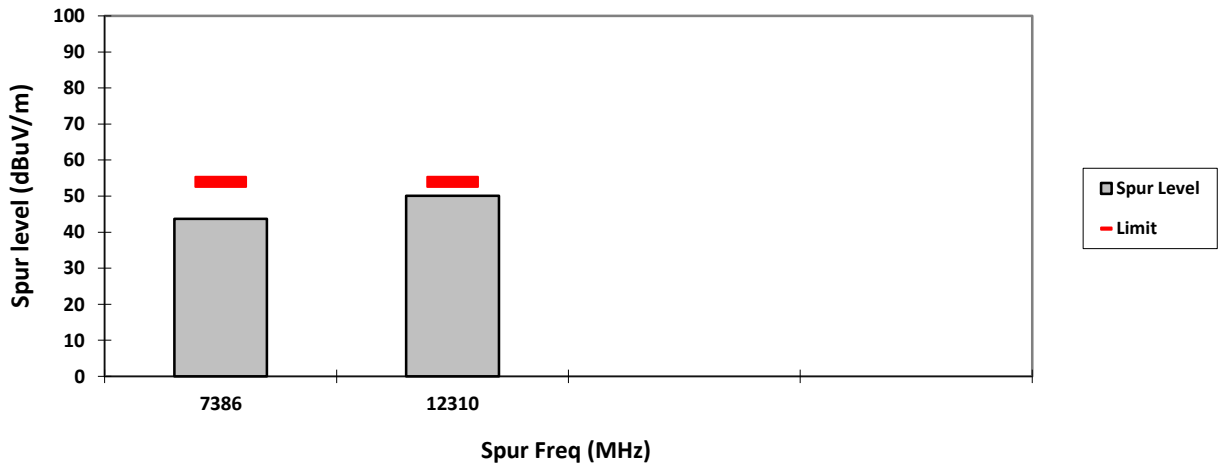
VERTICAL, PK



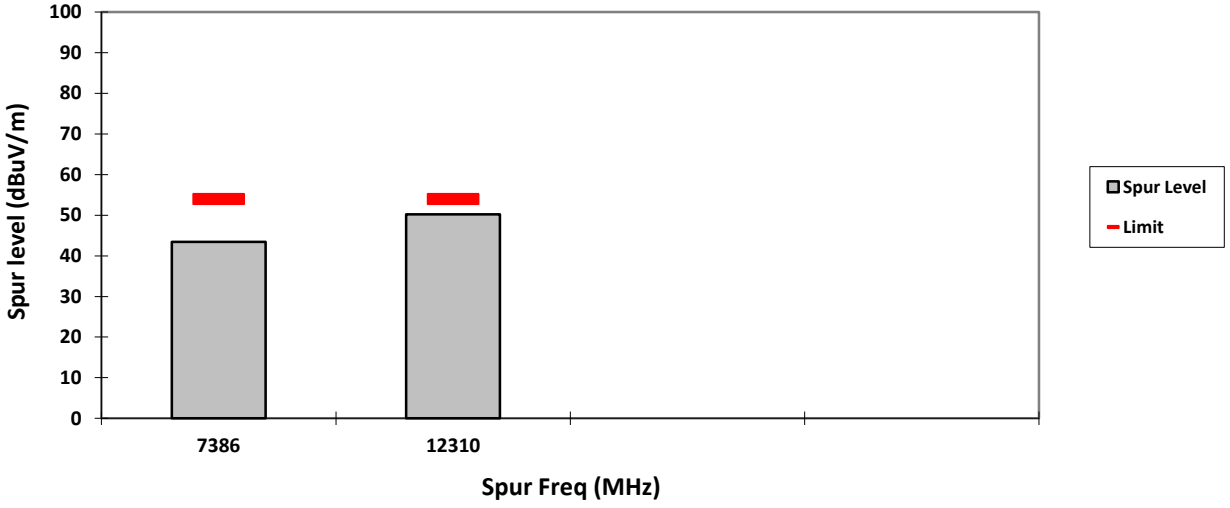
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



C

Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (13dBm) Accessory: AN000452A01
Test Channel: Low Test Frequency: 2422.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 40MHz)

Radiated Emission (Low Channel) tabular data

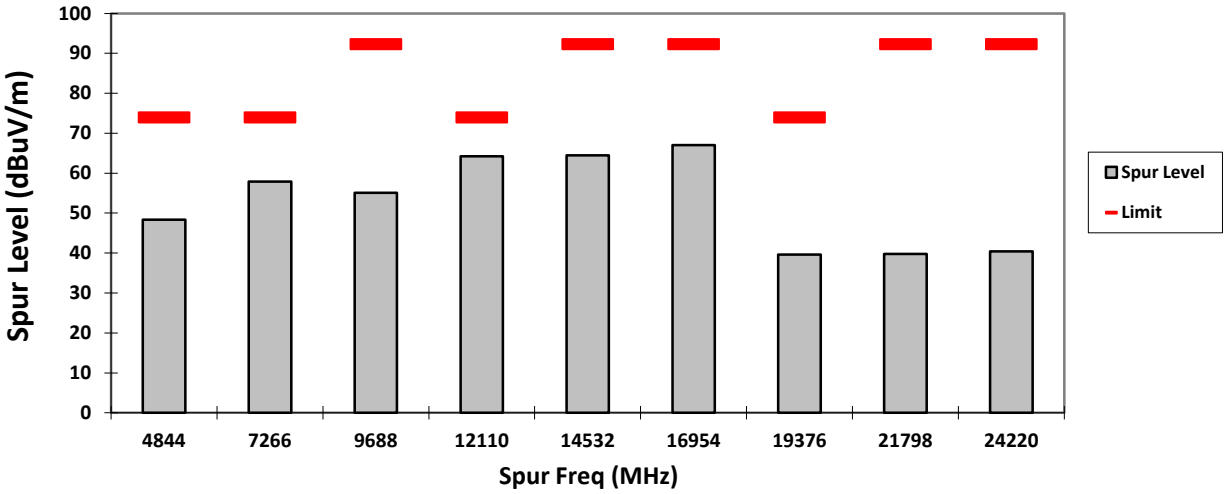
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4844	-	48.3405**	-	-	74.0000	-	-	25.6595	-	-
7266	-	57.9011**	44.6307**	-	74.0000	54.0000	-	16.0989	9.3693	-
9688	-	55.0944**	-	-	92.3391	-	-	37.2447	-	112.3391
12110	-	64.2611**	51.2187**	-	74.0000	54.0000	-	9.7389	2.7813	-
14532	-	64.4646**	-	-	92.3391	-	-	27.8745	-	112.3391
16954	-	67.0564**	-	-	92.3391	-	-	25.2827	-	112.3391
19376	-	39.5852**	-	-	74.0000	-	-	34.4148	-	-
21798	-	39.7606**	-	-	92.3391	-	-	52.5785	-	112.3391
24220	-	40.4128**	-	-	92.3391	-	-	51.9263	-	112.3391
Horizontal Radiated Emission Result										
4844	-	47.7531**	-	-	74.0000	-	-	26.2469	-	-
7266	-	56.9974**	44.1110**	-	74.0000	54.0000	-	17.0026	9.8890	-
9688	-	55.5865**	-	-	92.3391	-	-	36.7526	-	112.3391
12110	-	63.8798**	51.3366**	-	74.0000	54.0000	-	10.1202	2.6634	-
14532	-	63.9368**	-	-	92.3391	-	-	28.4023	-	112.3391
16954	-	67.3666**	-	-	92.3391	-	-	24.9725	-	112.3391
19376	-	38.8237**	-	-	74.0000	-	-	35.1763	-	-
21798	-	40.3788**	-	-	92.3391	-	-	51.9603	-	112.3391
24220	-	40.0267**	-	-	92.3391	-	-	52.3124	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

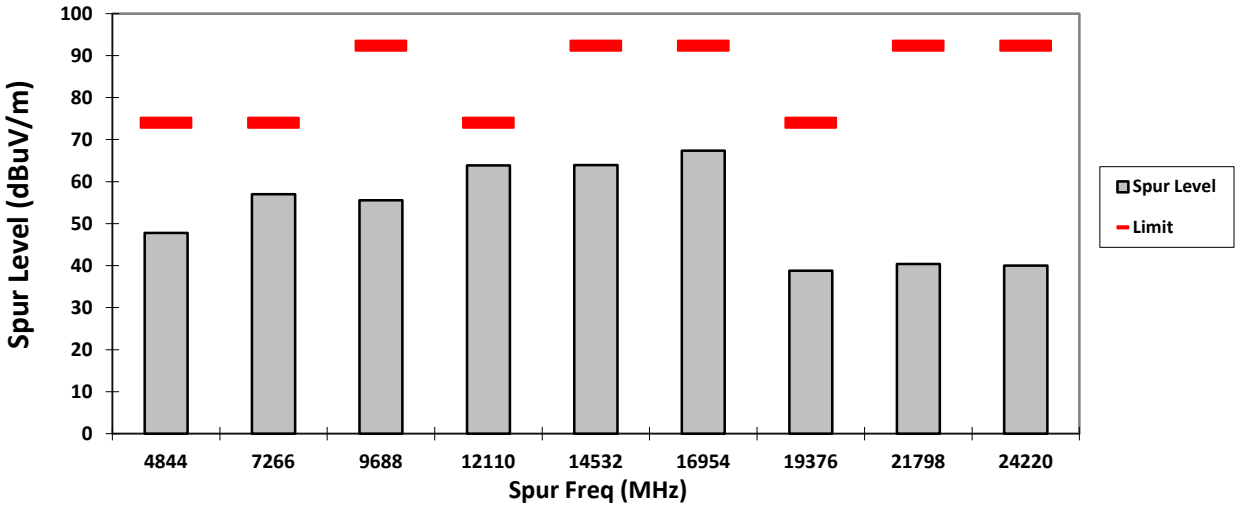
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

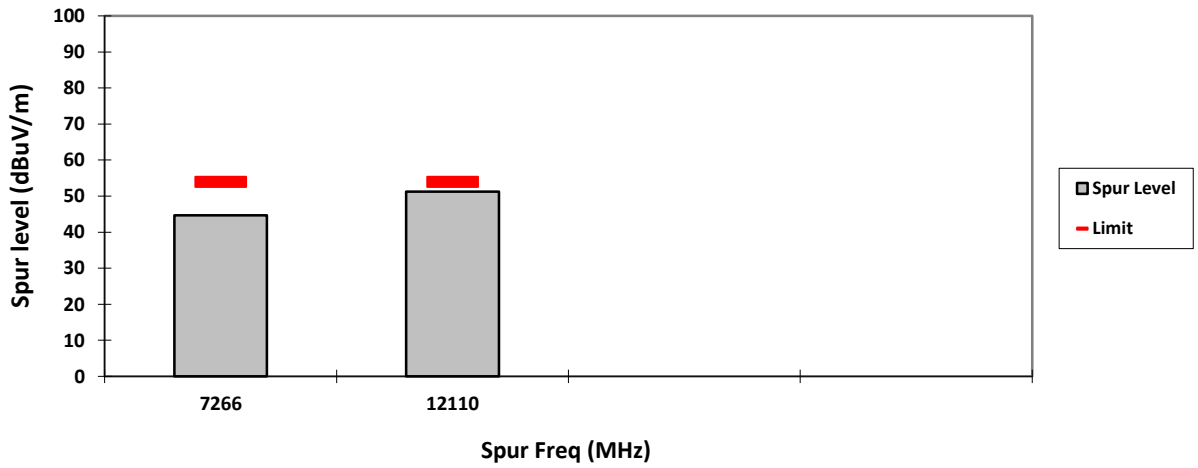
VERTICAL, PK



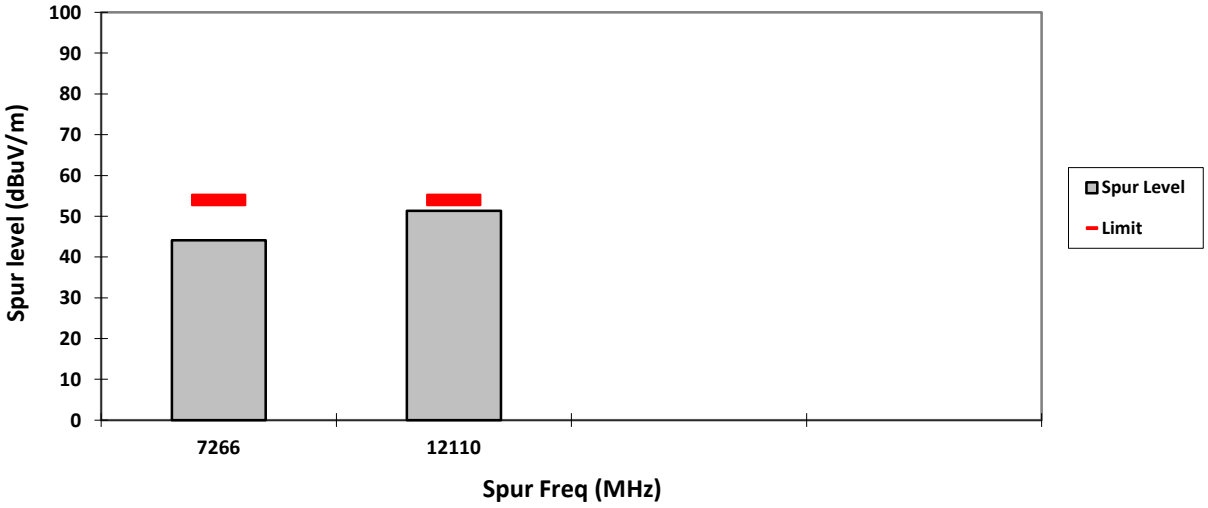
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softpot power (19dBm) Accessory: AN000452A01
Test Channel: Mid Test Frequency: 2437.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 40MHz)

Radiated Emission (Mid Channel) tabular data

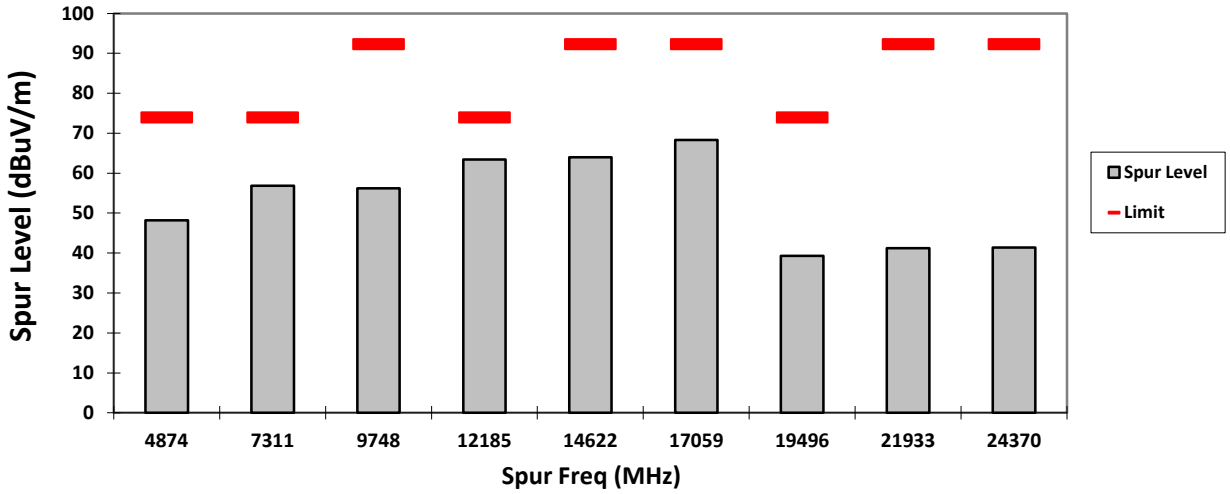
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4874	-	48.2308**	-	-	74.0000	-	-	25.7692	-	-
7311	-	56.8142**	43.7711**	-	74.0000	54.0000	-	17.1858	10.2289	-
9748	-	56.2054**	-	-	92.3391	-	-	36.1337	-	112.3391
12185	-	63.4404**	50.2301**	-	74.0000	54.0000	-	10.5596	3.7699	-
14622	-	63.9577**	-	-	92.3391	-	-	28.3814	-	112.3391
17059	-	68.2958**	-	-	92.3391	-	-	24.0433	-	112.3391
19496	-	39.2726**	-	-	74.0000	-	-	34.7274	-	-
21933	-	41.1968**	-	-	92.3391	-	-	51.1423	-	112.3391
24370	-	41.3907**	-	-	92.3391	-	-	50.9484	-	112.3391
Horizontal Radiated Emission Result										
4874	-	47.9084**	-	-	74.0000	-	-	26.0916	-	-
7311	-	56.4914**	43.7653**	-	74.0000	54.0000	-	17.5086	10.2347	-
9748	-	57.0730**	-	-	92.3391	-	-	35.2661	-	112.3391
12185	-	62.7547**	50.2302**	-	74.0000	54.0000	-	11.2453	3.7698	-
14622	-	62.4599**	-	-	92.3391	-	-	29.8792	-	112.3391
17059	-	68.3309**	-	-	92.3391	-	-	24.0082	-	112.3391
19496	-	39.2663**	-	-	74.0000	-	-	34.7337	-	-
21933	-	41.0928**	-	-	92.3391	-	-	51.2463	-	112.3391
24370	-	40.4136**	-	-	92.3391	-	-	51.9255	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

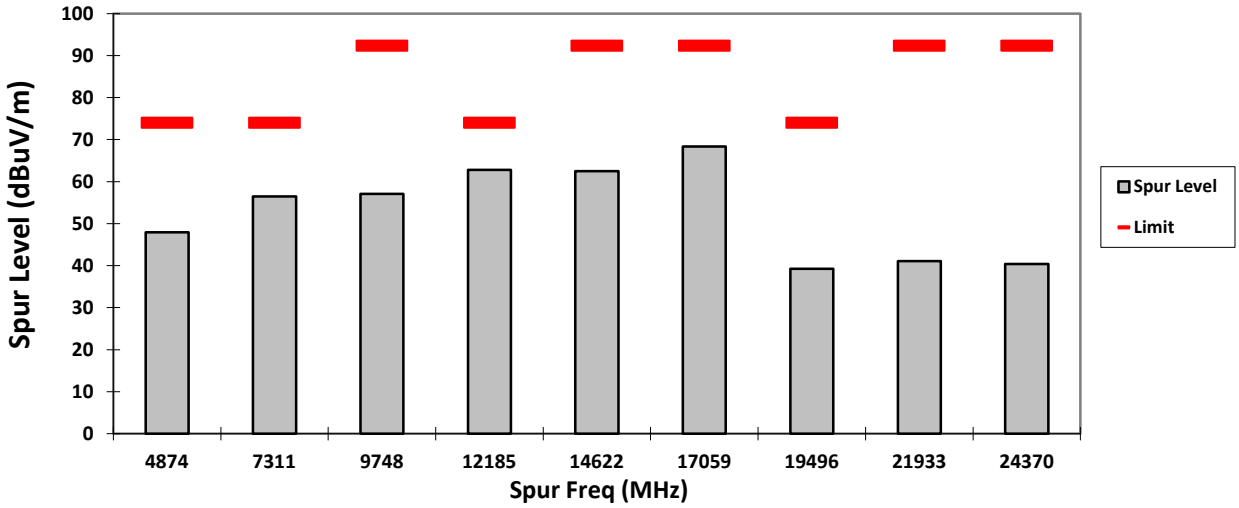
Temperature (degC): 23.3 **Humidity (%): 69.6**
Test Performed by: Nazrin & Rezza **Test Date: Thu, 14 Mar, 2024**
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

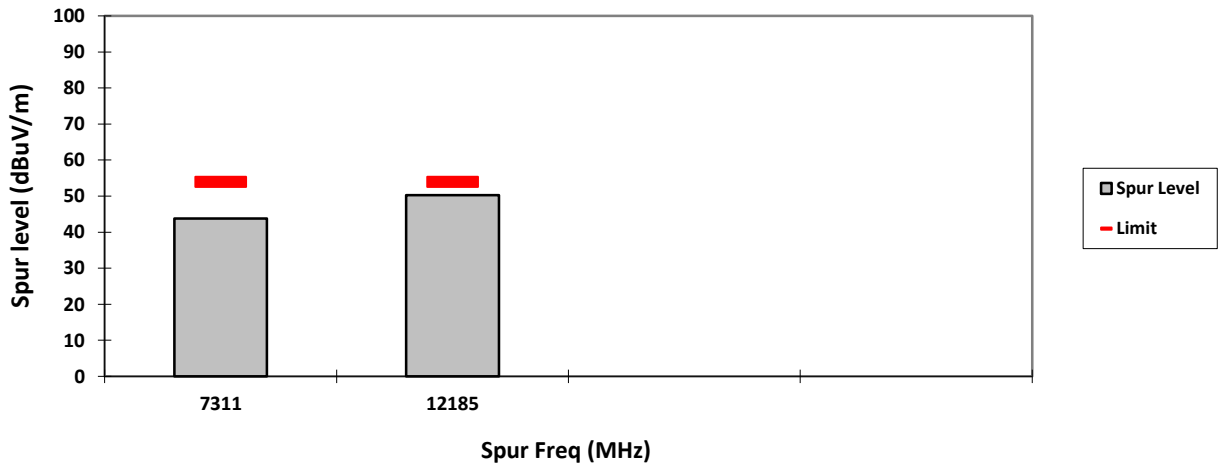
VERTICAL, PK



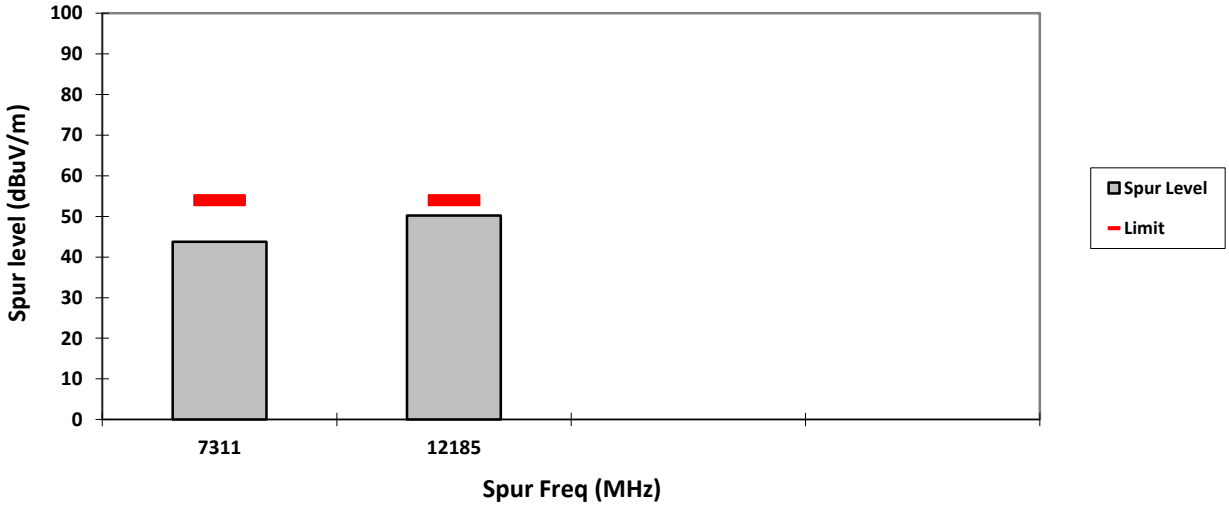
HORIZONTAL, PK



VERTICAL, AV



HORIZONTAL, AV



Test: WIFI SAC Transmitter Radiated Emission
Model#: H35XDT9PW8AN-H S/N: 022TAB0346 EMC SR ID#: 40793-EMC-00066
Battery: PMNN4818A Softport Power (12dBm) Accessory: AN000452A01
Test Channel: High Test Frequency: 2452.0000 MHz Test Standard: ANSI C63.10-2013
Worst Case Plane: X-Plane (802.11n 40MHz)

Radiated Emission (High Channel) tabular data

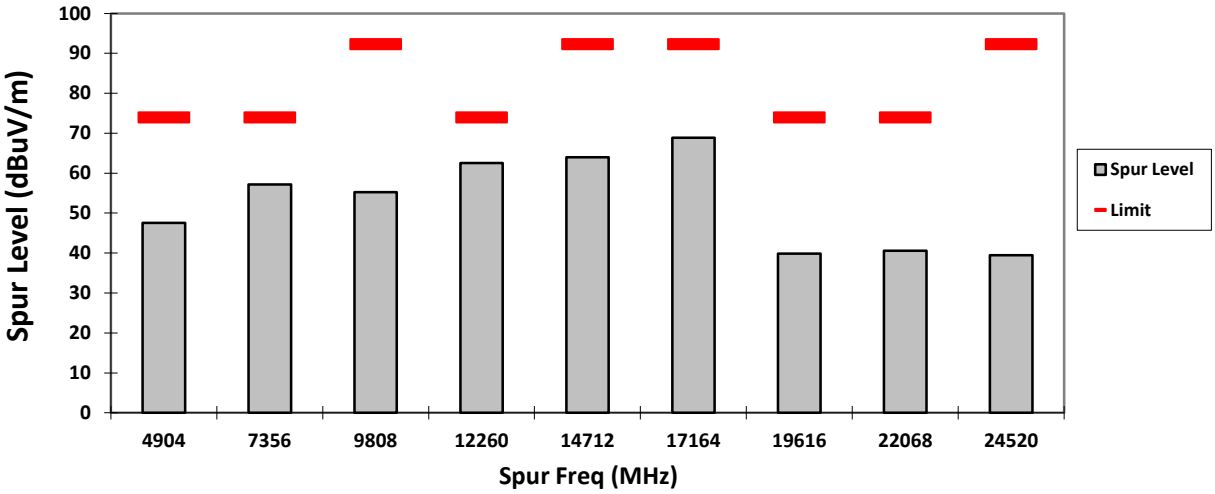
Vertical Radiated Emission Result										
Spur Freq (MHz)	Spur level QPK (dBµV/m)	Spur level PK (dBµV/m)	Spur level AV (dBµV/m)	Limit QPK (dBµV/m)	Limit PK (dBµV/m)	Limit AV (dBµV/m)	Margin QPK (dBµV/m)	Margin PK (dBµV/m)	Margin AV (dBµV/m)	Carrier PK Power (dBµV/m)
4904	-	47.5576**	-	-	74.0000	-	-	26.4424	-	-
7356	-	57.1410**	43.6197**	-	74.0000	54.0000	-	16.8590	10.3803	-
9808	-	55.2861**	-	-	92.3391	-	-	37.0530	-	112.3391
12260	-	62.5807**	50.0387**	-	74.0000	54.0000	-	11.4193	3.9613	-
14712	-	63.9728**	-	-	92.3391	-	-	28.3663	-	112.3391
17164	-	68.8345**	-	-	92.3391	-	-	23.5046	-	112.3391
19616	-	39.8436**	-	-	74.0000	-	-	34.1564	-	-
22068	-	40.5576**	-	-	74.0000	-	-	33.4424	-	-
24520	-	39.4356**	-	-	92.3391	-	-	52.9035	-	112.3391
Horizontal Radiated Emission Result										
4904	-	49.0100**	-	-	74.0000	-	-	24.9900	-	-
7356	-	56.5458**	43.7049**	-	74.0000	54.0000	-	17.4542	10.2951	-
9808	-	55.1850**	-	-	92.3391	-	-	37.1541	-	112.3391
12260	-	62.5506**	50.0308**	-	74.0000	54.0000	-	11.4494	3.9692	-
14712	-	64.5432**	-	-	92.3391	-	-	27.7959	-	112.3391
17164	-	68.9959**	-	-	92.3391	-	-	23.3432	-	112.3391
19616	-	39.4284**	-	-	74.0000	-	-	34.5716	-	-
22068	-	40.2584**	-	-	74.0000	-	-	33.7416	-	-
24520	-	40.5135**	-	-	92.3391	-	-	51.8256	-	112.3391

Remarks: Pass Result	Marginal Result	Fail Result

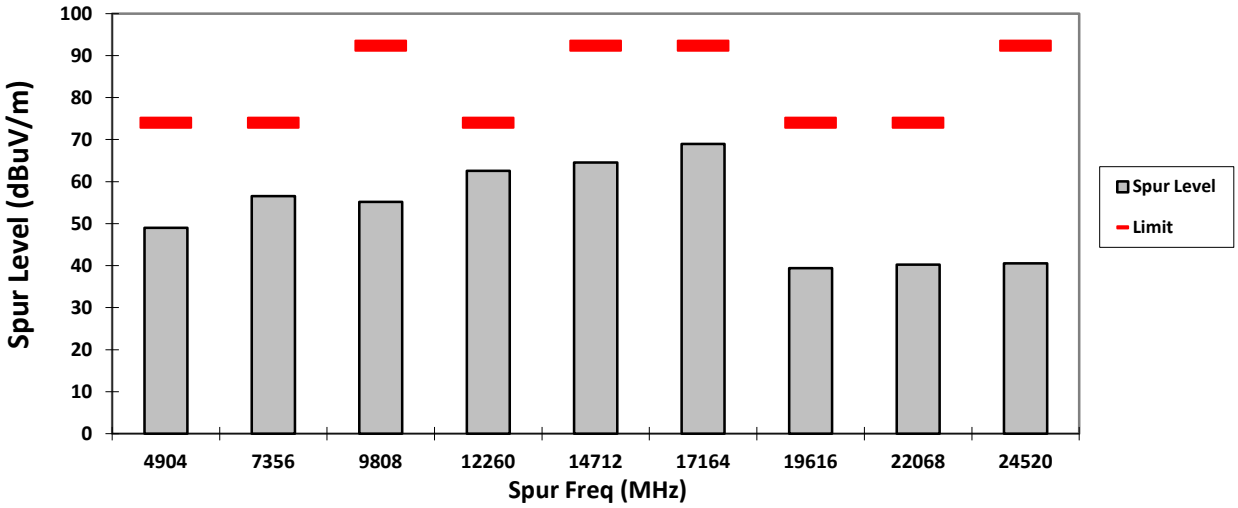
Temperature (degC): 23.3 Humidity (%): 69.6
Test Performed by: Nazrin & Rezza Test Date: Thu, 14 Mar, 2024
System MU: 5.88 dB (30-1000MHz), 5.84 dB (1000-18000MHz), 6.02 dB (18000MHz-40000MHz)

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.**

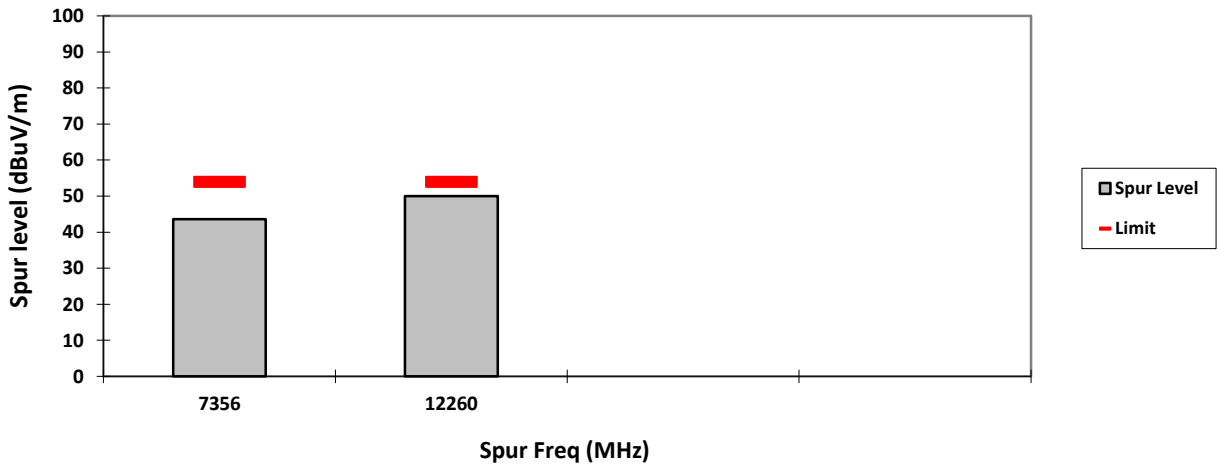
VERTICAL, PK



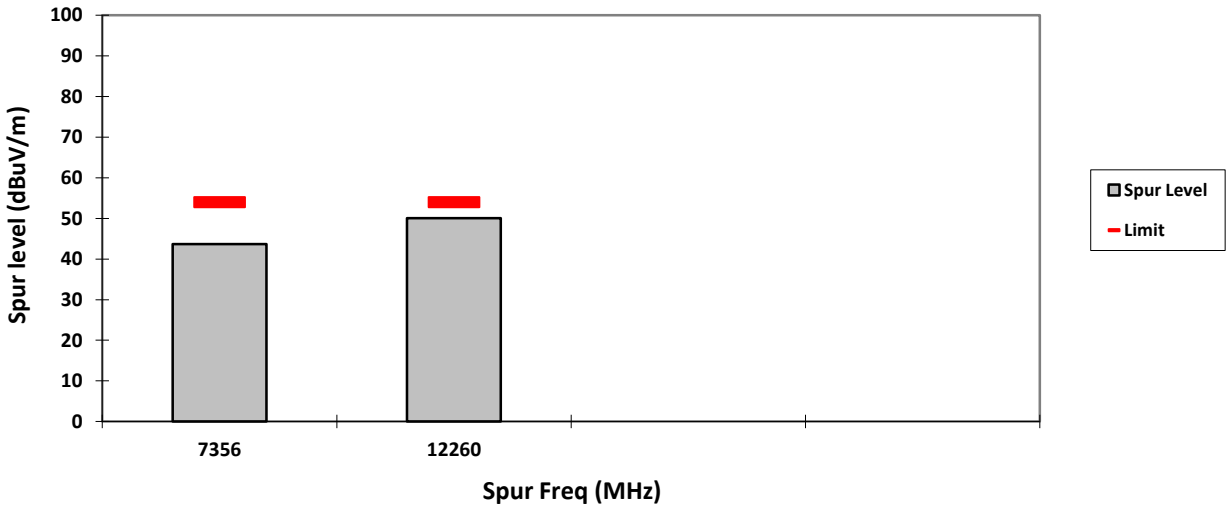
HORIZONTAL, PK



VERTICAL, AV

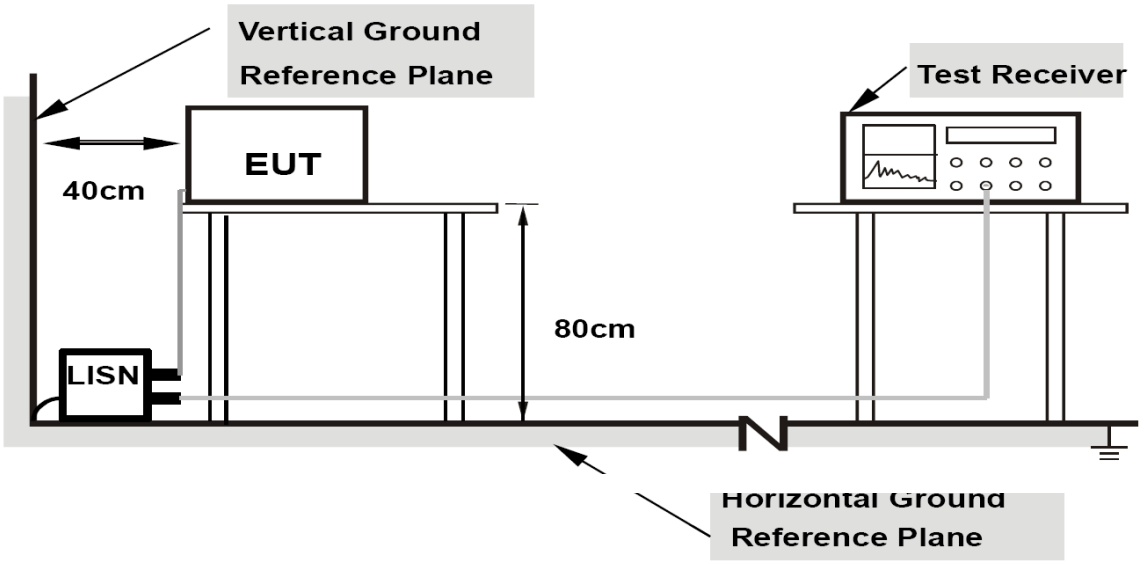


HORIZONTAL, AV



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.

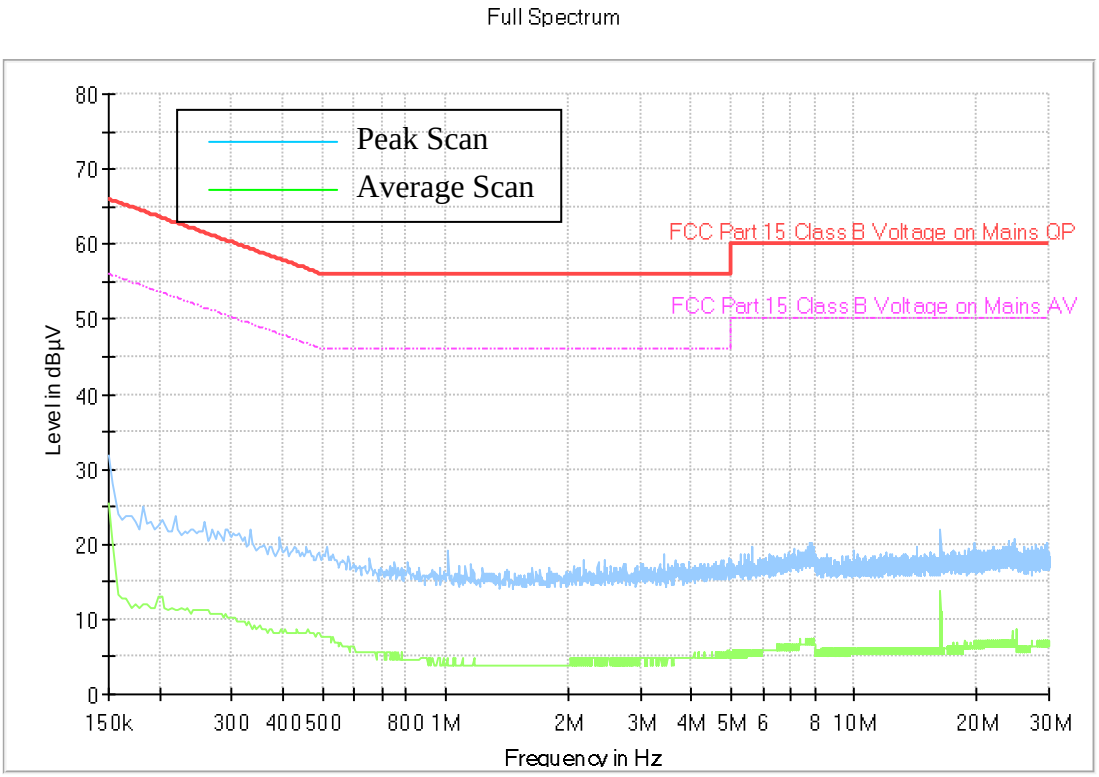
Limits for conducted disturbance at the mains ports of class B ITE

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.		

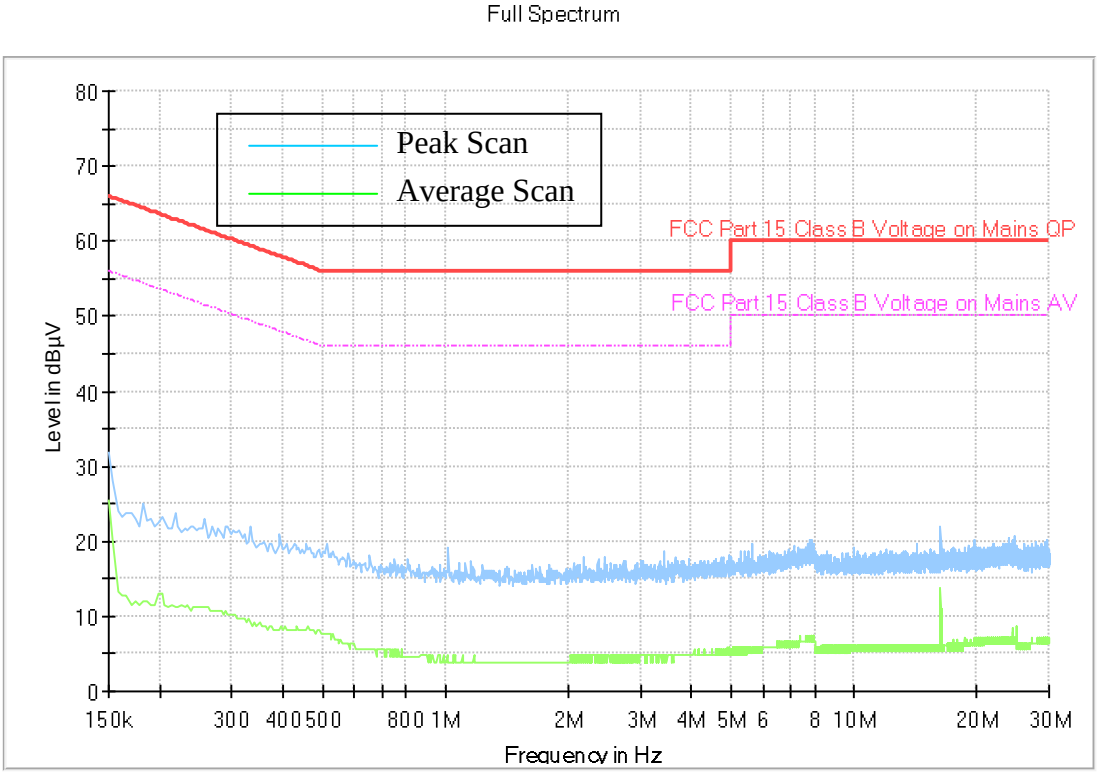
Table 2: Limits for Conducted Disturbance at the Mains Ports of Class B ITE

6.8.3. **Test Result**

1) Ambient SUC



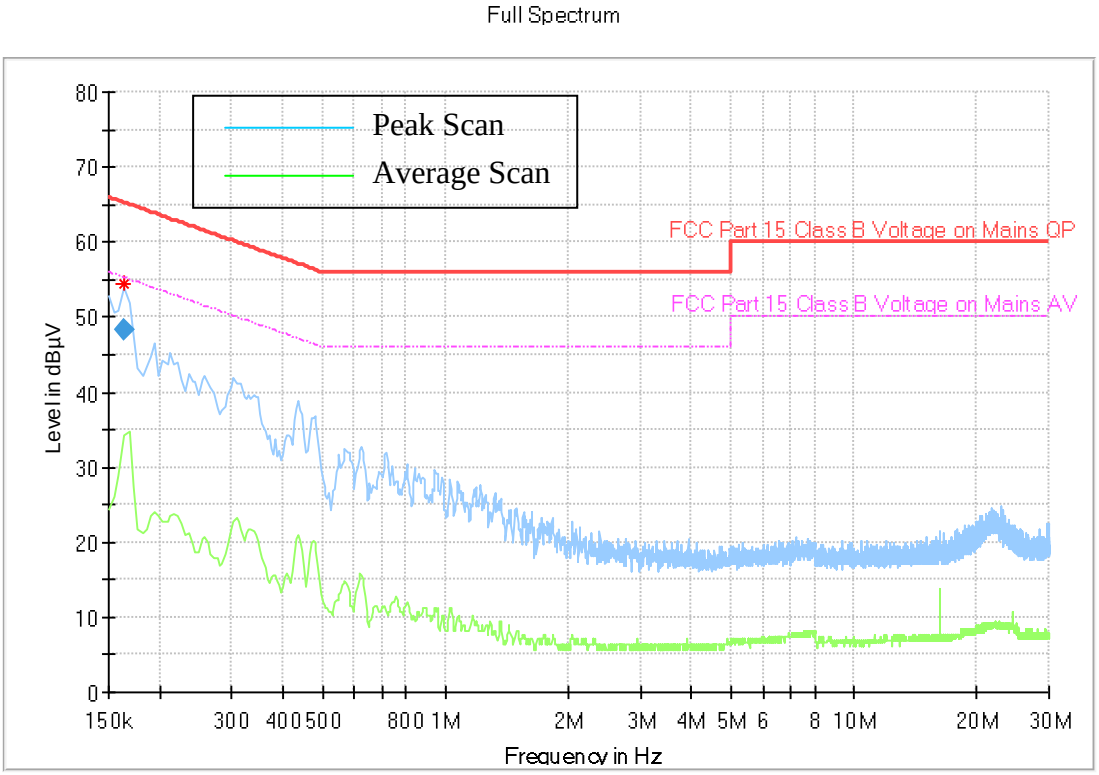
2) Ambient MUC



SUC

120 Vac, 60Hz

1) Charger Alone

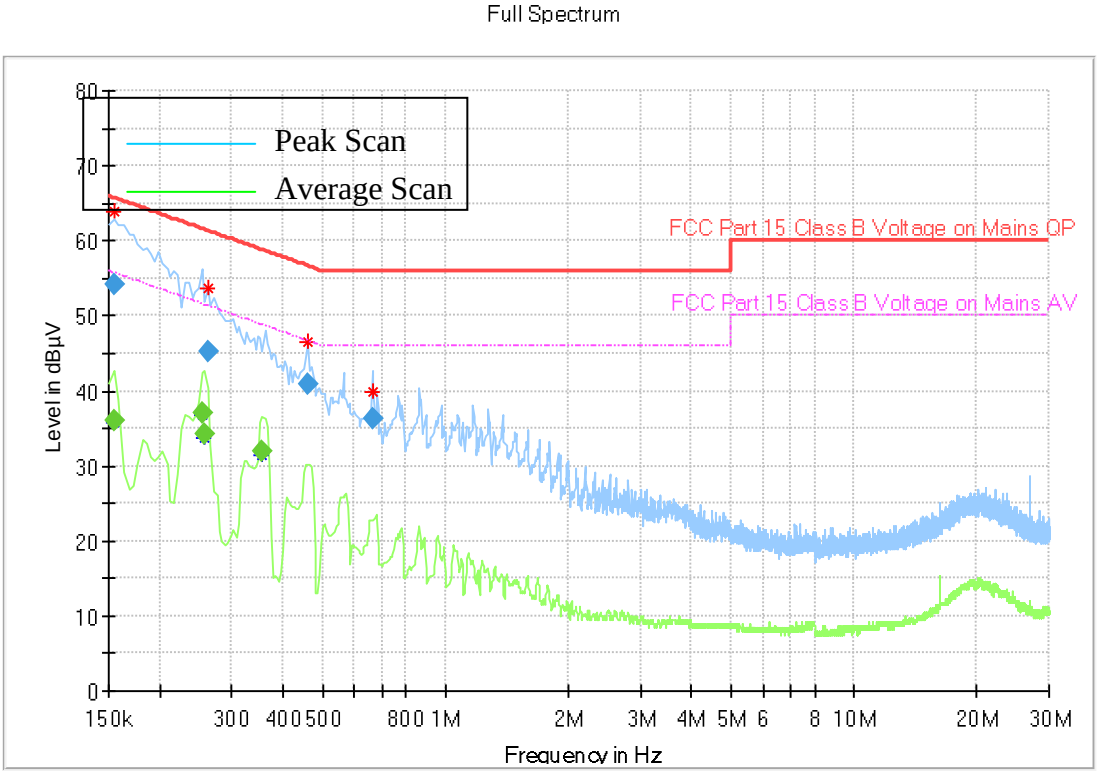


Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.163500	48.33	---	65.28	16.95	1000.0	9.000	N	ON	10.3	Pass

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

2) Charger + Radio Off

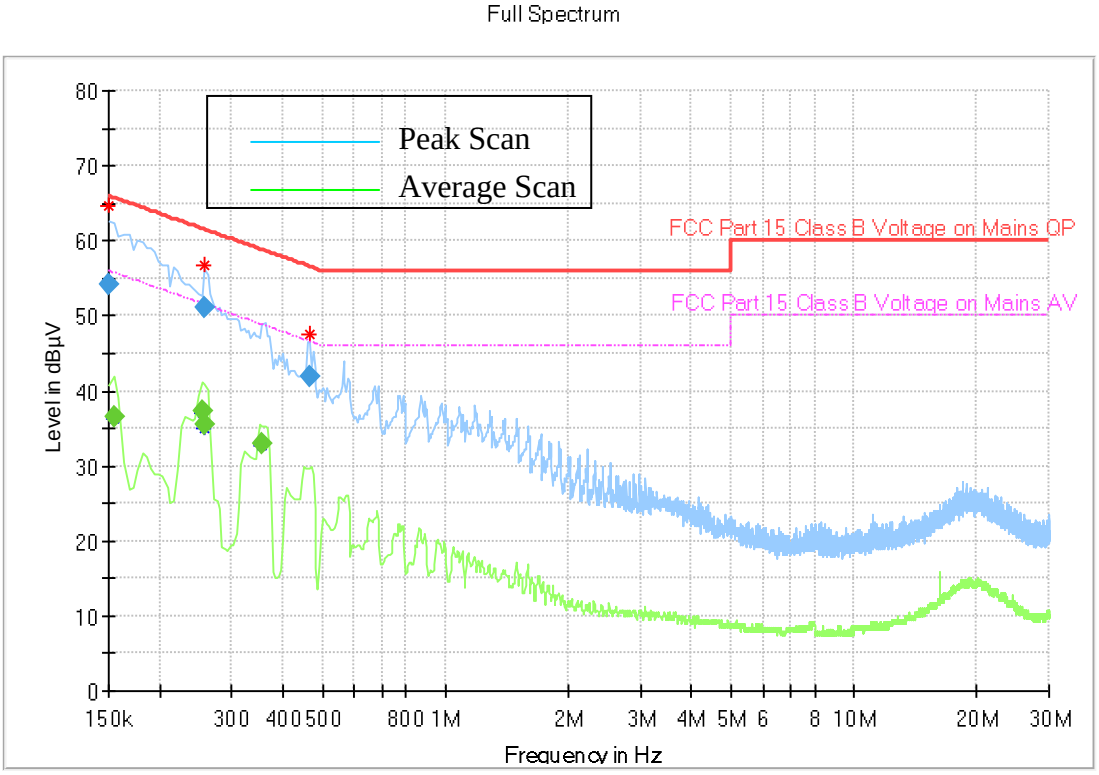


Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.154500	---	36.10	55.75	19.66	1000.0	9.000	L1	ON	10.3	Pass
0.154500	54.28	---	65.75	11.48	1000.0	9.000	L1	ON	10.3	Pass
0.253500	---	37.16	51.64	14.49	1000.0	9.000	L1	ON	10.3	Pass
0.258000	---	34.34	51.50	17.16	1000.0	9.000	L1	ON	10.3	Pass
0.262500	45.29	---	61.35	16.06	1000.0	9.000	L1	ON	10.3	Pass
0.357000	---	31.83	48.80	16.97	1000.0	9.000	L1	ON	10.3	Pass
0.460500	40.88	---	56.68	15.81	1000.0	9.000	L1	ON	10.3	Pass
0.663000	36.36	---	56.00	19.64	1000.0	9.000	N	ON	10.3	Pass

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

3) Charger + Radio Standby

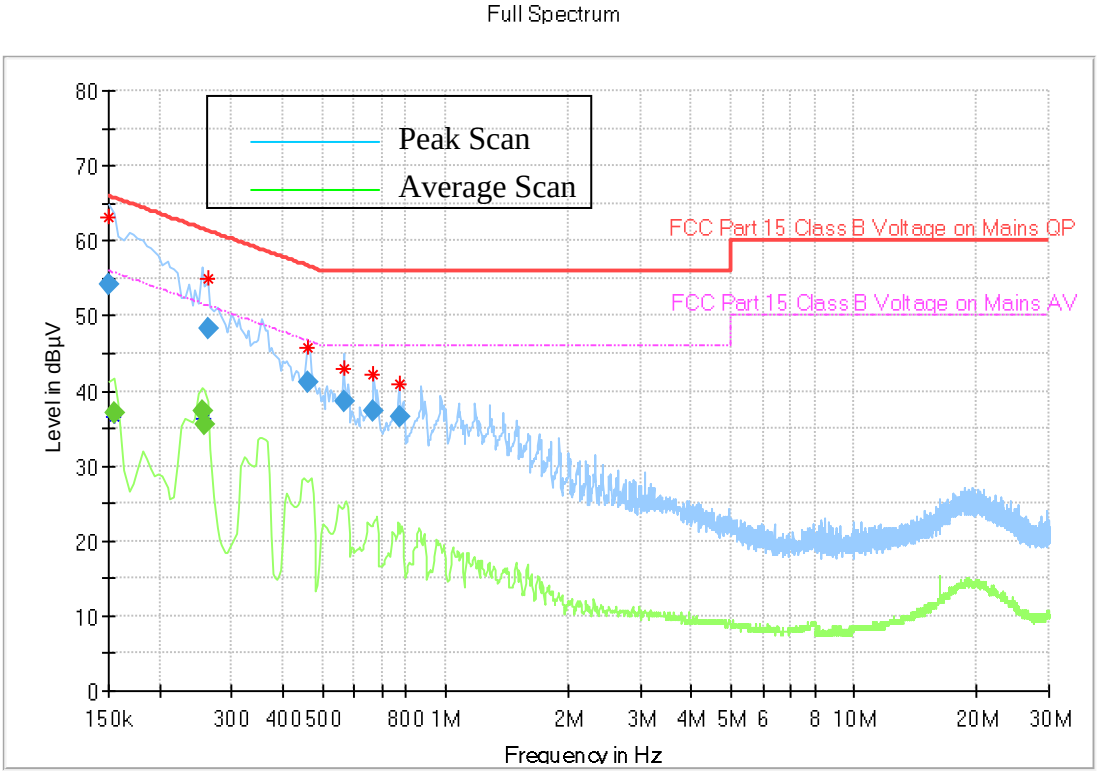


Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.150000	54.07	---	66.00	11.93	1000.0	9.000	L1	ON	10.3	Pass
0.154500	---	36.51	55.75	19.24	1000.0	9.000	L1	ON	10.3	Pass
0.253500	---	37.34	51.64	14.30	1000.0	9.000	L1	ON	10.3	Pass
0.258000	---	35.42	51.50	16.08	1000.0	9.000	L1	ON	10.3	Pass
0.258000	51.16	---	61.50	10.34	1000.0	9.000	L1	ON	10.3	Pass
0.357000	---	32.91	48.80	15.89	1000.0	9.000	L1	ON	10.3	Pass
0.465000	41.87	---	56.60	14.73	1000.0	9.000	L1	ON	10.3	Pass

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

4) Charger + Radio TX WiFi 2.4GHz 802.11n40



Quasipeak and Average Measurement

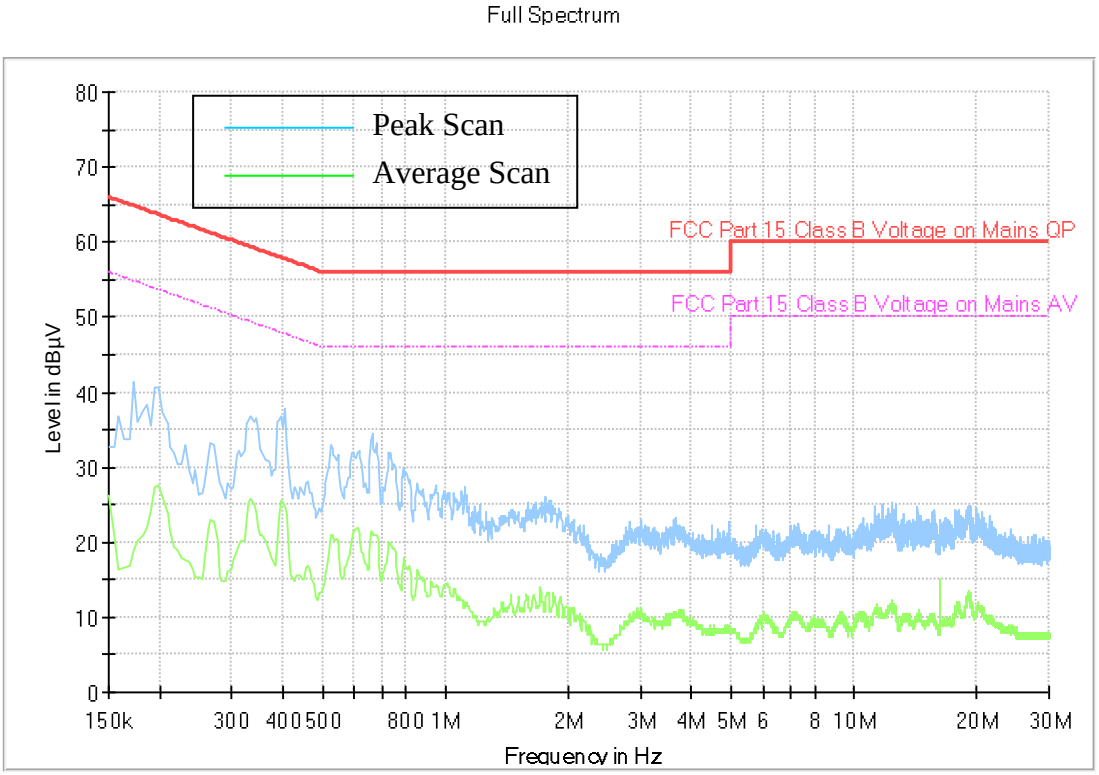
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.150000	54.23	---	66.00	11.77	1000.0	9.000	L1	ON	10.3	Pass
0.154500	---	37.05	55.75	18.70	1000.0	9.000	L1	ON	10.3	Pass
0.253500	---	37.30	51.64	14.34	1000.0	9.000	L1	ON	10.3	Pass
0.258000	---	35.41	51.50	16.09	1000.0	9.000	N	ON	10.3	Pass
0.262500	48.28	---	61.35	13.07	1000.0	9.000	L1	ON	10.3	Pass
0.460500	41.18	---	56.68	15.50	1000.0	9.000	L1	ON	10.3	Pass
0.564000	38.70	---	56.00	17.30	1000.0	9.000	L1	ON	10.3	Pass
0.667500	37.43	---	56.00	18.57	1000.0	9.000	L1	ON	10.3	Pass
0.771000	36.68	---	56.00	19.32	1000.0	9.000	L1	ON	10.3	Pass

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

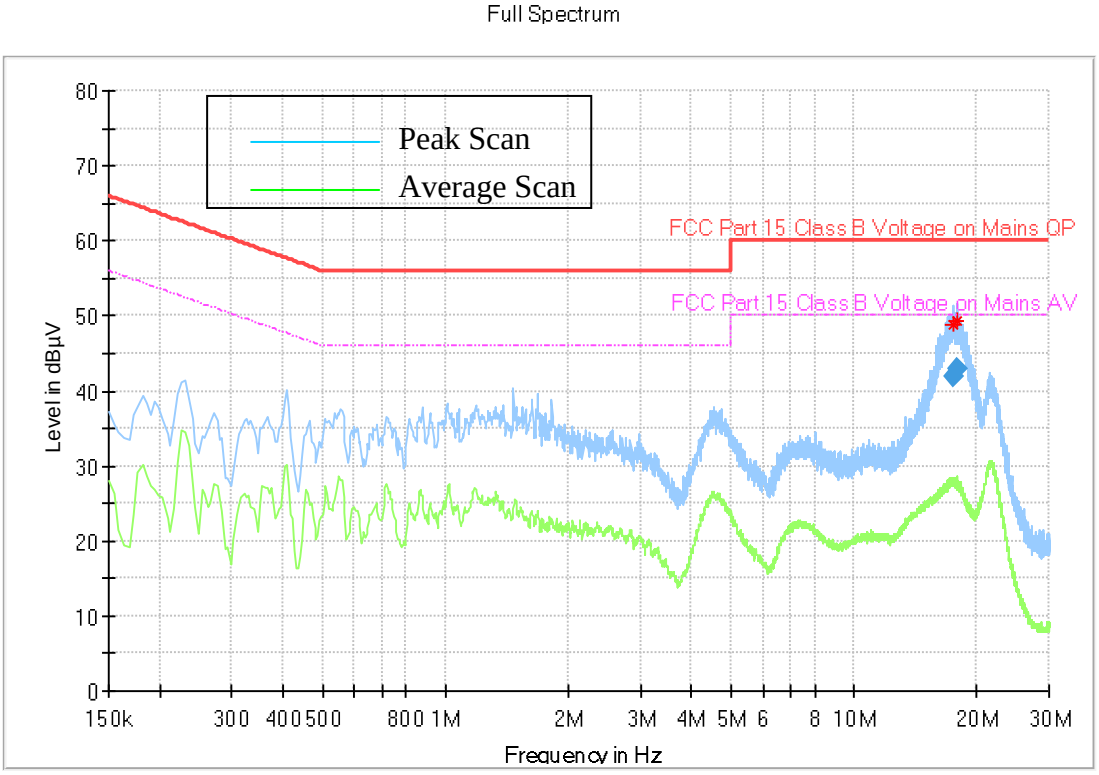
MUC

120 Vac, 60Hz

5) Charger Alone



6) Charger + Radio Off

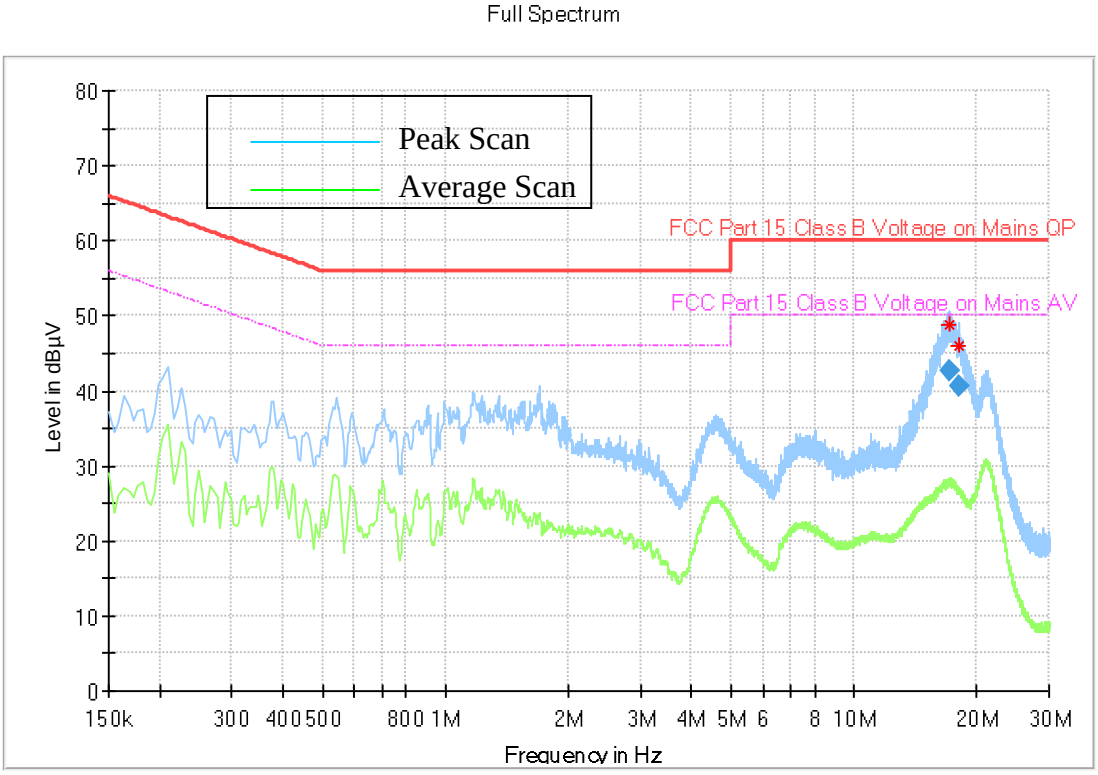


Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
17.448000	41.80	---	60.00	18.20	1000.0	9.000	L1	ON	10.8	Pass
17.884500	43.05	---	60.00	16.95	1000.0	9.000	N	ON	11.0	Pass

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

7) Charger + Radio Standby

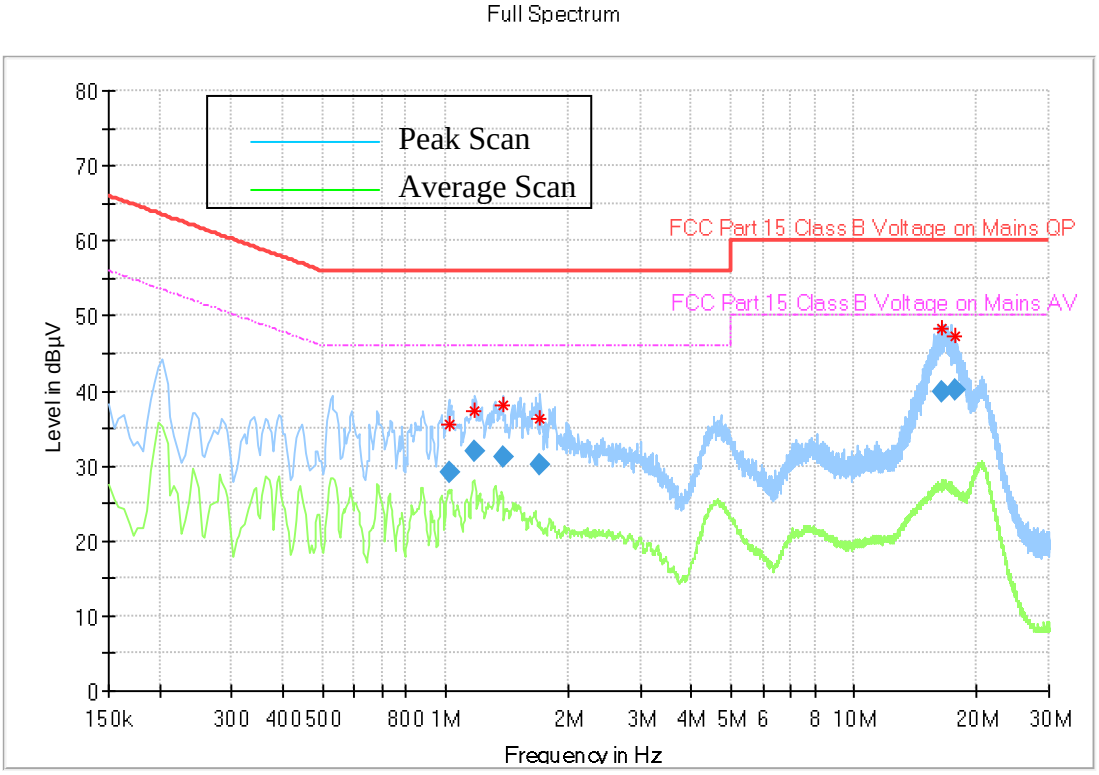


Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
17.074500	42.61	---	60.00	17.39	1000.0	9.000	N	ON	11.0	Pass
18.028500	40.59	---	60.00	19.41	1000.0	9.000	L1	ON	10.8	Pass

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

8) Charger + Radio TX WiFi 2.4GHz 802.11n40



Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
1.018500	29.19	---	56.00	26.81	1000.0	9.000	N	ON	10.3	Pass
1.180500	31.98	---	56.00	24.02	1000.0	9.000	N	ON	10.3	Pass
1.387500	31.07	---	56.00	24.93	1000.0	9.000	N	ON	10.3	Pass
1.707000	30.06	---	56.00	25.94	1000.0	9.000	N	ON	10.3	Pass
16.390500	39.97	---	60.00	20.03	1000.0	9.000	L1	ON	10.8	Pass
17.682000	40.04	---	60.00	19.96	1000.0	9.000	N	ON	11.0	Pass

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

END OF TEST REPORT