

 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																																
<table><tr><td>Date/s Tested</td><td>: 18-June-2025 - 22-August-2025</td></tr><tr><td>Report Issue Date</td><td>: 29-August-2025</td></tr><tr><td>Test Location</td><td>: Motorola Penang Advanced Communication Laboratory (ACL)</td></tr><tr><td>Manufacturer/Location</td><td>: Motorola Solutions Malaysia Sdn Bhd Plot 2A Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia</td></tr><tr><td>Requestor</td><td>: Cheah Suit Chee</td></tr><tr><td>Product Type</td><td>: Portable</td></tr><tr><td>Product Marketing Name (PMN)</td><td>: R7</td></tr><tr><td>Hardware Version Identification Number (HVIN)</td><td>: AAH06JDN9RA1AN (IC Model: PMUD3491ABB)</td></tr><tr><td>Frequency Band</td><td>: 2.412-2.462 GHz</td></tr><tr><td>Max RF Output Power</td><td>: 802.11b - 31.62 mWatts 802.11g - 31.62 mWatts 802.11n(HT20) - 31.62 mWatts</td></tr><tr><td>Applicant Name</td><td>: Motorola Solutions Inc</td></tr><tr><td>Applicant Address</td><td>: Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia</td></tr><tr><td>FCC Registrations</td><td>: 461337</td></tr><tr><td>ISED Registrations</td><td>: MY0001</td></tr><tr><td>Firmware Version Identification Number (FVIN)</td><td>: I02.25.03.0031</td></tr></table> The equipment was tested accordance to the requirement listed below: <table><tr><td>(2.4GHz Wifi) 47CFR Part 15C ISED RSS 247 Issue 4 July 2025</td><td>PASS</td></tr></table>		Date/s Tested	: 18-June-2025 - 22-August-2025	Report Issue Date	: 29-August-2025	Test Location	: Motorola Penang Advanced Communication Laboratory (ACL)	Manufacturer/Location	: Motorola Solutions Malaysia Sdn Bhd Plot 2A Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia	Requestor	: Cheah Suit Chee	Product Type	: Portable	Product Marketing Name (PMN)	: R7	Hardware Version Identification Number (HVIN)	: AAH06JDN9RA1AN (IC Model: PMUD3491ABB)	Frequency Band	: 2.412-2.462 GHz	Max RF Output Power	: 802.11b - 31.62 mWatts 802.11g - 31.62 mWatts 802.11n(HT20) - 31.62 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 Identification Number (FVIN)	: I02.25.03.0031	(2.4GHz Wifi) 47CFR Part 15C ISED RSS 247 Issue 4 July 2025	PASS
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Prepared By:  NURUL NATASHA BINTI ABDUL HAMID Test Personnel	Approved Signatory:  HO SZE KHIAN Responsible Engineer																																

Table of Contents

1.0. General Information	3
1.1. Channel number and frequency information:	3
2.0. Summary of Test Results.....	5
3.0. Measurement Uncertainty	5
4.0. Equipment List	6
5.0. Transmitter Test Parameters	9
5.1. 6dB Channel Bandwidth.....	9
5.1.1. Test Setup.....	9
5.1.2. Test Limits:.....	9
5.1.3. Test Data:.....	10
5.2. Conducted RF Output Power	16
5.2.1. Test Setup.....	16
5.2.2. Test Limits:.....	16
5.2.3. Test Data:.....	17
5.3. Duty Cycle of the test signal	20
5.3.1. Test Setup.....	20
5.3.2. Test Data.....	21
5.4. Maximum Peak Power Spectral Density	23
5.4.1. Test Setup.....	23
5.4.2. Test Limits	23
5.4.3. Test Result.....	23
5.5. Conducted Spurious Emission	24
5.5.1. Test Setup.....	24
5.5.2. Test Limits:.....	24
5.5.3. Test Result.....	25
5.6. Band edge Conducted Spurious Emission	43
5.6.1. Test Setup.....	43
5.6.2. Test Limits:.....	43
5.6.3. Test Result.....	44
5.7. Radiated Emission within restricted Bands.....	47
5.7.1. Test Setup.....	47
5.7.2. Test Limits:.....	48
5.7.3. Test Data:.....	49
5.8. AC Powerline Conducted Emission	85
5.8.1. Test Setup.....	85
5.8.2. Test Limits:.....	85
5.8.3. Test Result.....	87

REVISION HISTORY

Revision History	Description	Date	Originator
Rev. A	Initial Report	29-August-2025	Nurul Natasha

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	CHIP
Temporary RF Connector	0.56dB

Note: The description and information regarding the EUT are provided by the customer. The laboratory shall not be held responsible for any inaccuracies or misinformation in the provided details that may result in incorrect test outcomes.

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

802.11b, g,n,ac

Mode	802.11b			802.11g			802.11n		
Channel	1	6	11	1	6	11	1	6	11
Resource Unit	NA			NA			NA		
Frequency	2412	2437	2462	2412	2437	2462	2412	2437	2462
Bandwidth	20 MHz			20MHz			20MHz		

The EUT contains following accessory devices and data cable:

Item	Brand	Model or P/N
VHF WHIP ANT ,136-174MHZ	MOTOROLA	PMAD4147A
BATTERY PACK, BATT IMPRES LIION TIA4950 IP68 3200T	MOTOROLA	PMNN4810A

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 C63.10-2020 + Corr.1 2023

Deviation from standard

Not applicable as no deviation from standard test method

Modifications to EUT

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

2.0. Summary of Test Results

FCC Clause	IC Clause	Test Item	Result	Remark	Serial number tested	Tested by
15.247 (a)(2)	RSS-247 5.2(a)	DTS & 99% Channel Bandwidth	Pass	Highest 99% OCB: 802.11b: 13.516MHz (13M5G1D) 802.11g: 16.738MHz (16M7D1D) 802.11n(HT20): 17.693MHz (17M7D1D)	865EBHB815	Natasha
15.247 (b)(3)	RSS-247 5.4(d)	Conducted RF Output Power (Average)	Pass	Highest output power: 802.11b: 13.523dBm (22.51mW) 802.11g: 13.567dBm (22.74mW) 802.11n(HT20): 13.642dBm (23.13mW)	865EBHB815	Natasha
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	Worst case emission: -40.72 dBm	865EBHB815	Natasha
15.247 (d)	RSS-247 5.5	Band edge Conducted Spurious Emission	Pass	Worst case emission: -33.20 dBm	865EBHB815	Natasha
15.205, 15.209, 15.247 (d)	RSS-247 5.5	Radiated Emission within Restricted Bands	Pass	Worst case emission: RBE: 68.4510dBuV/m (Margin: 5.549dB) RSE: 50.1315dBuV/m (Margin: 23.8685dB), Noise floor	865EBHC375	Rezza & Fuad
15.207	RSS-Gen 8.8	AC Power Line Conducted Emission	NA	Meet the limit requirement.	865EBHC375	Shidee
15.203		Antenna requirement	NA	Internal antenna is not accessible to the end-user	NA	NA

NA → Not Available

3.0. Measurement Uncertainty

Measurement	Frequency	Expended Uncertainty (k=1.96) (±dB)
AC Power Line Conducted Spurious Emission	150KHz ~ 30MHz	3.44
Radiated Emissions up to 1 GHz	30MHz ~ 1000MHz	6.00
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.14
	18GHz ~ 40GHz	5.36
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	92005573	21-Apr-25	21-Apr-26
SPECTRUM ANALYZER	E4440A	MY46186938	29-Oct-24	29-Oct-25
POWER SUPPLY	6652A	3541A02371	11-Sep-24	11-Sep-25

Radiated Emission Station (SW Version: EMC FCC IC RE v1.7.1)

Description	Model	Serial Number	Calibration Date	Calibration Due Date
DRG HORN FREQ.	SAS-571	566	09-Jan-25	09-Jan-26
DRG HORN FREQ.	SAS-571	719	09-Oct-24	09-Oct-25
DC Power Supply	N7977A	MY54420118	16-Apr-25	16-Apr-26
SIGNAL GENERATOR	SMB 100A	180683	20-Dec-24	20-Dec-27
EMI TEST RECEIVER	ESW44	101731	10-Aug-25	10-Aug-26
BILOG ANTENNA	CBL6112B	2964	08-Oct-24	08-Oct-25
BILOG ANTENNA	CBL6112D	30991	18-Mac-25	18-Mac-26
DATA LOGGER THERMOHYGROMETER	SDL500	A.016800	30-Jun-25	30-Jun-26
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170143	30-Sep-24	30-Sep-25
PREAMPLIFIER 1-18GHz	EMC0518A45SE	980890	05-Aug-24	04-Nov-25
PREAMPLIFIER	PAM-0118P	269	27-Aug-24	27-Aug-25
LOOP ANTENNA	6502	00208416	08-Oct-24	08-Oct-25
5m SEMI-ANECHOIC CHAMBER	S800-HX	J2308	Not Required	Not Required
SYSTEM CONTROLLER	SC104V	050806-1	Not Required	Not Required
TURNTABLE FLUSH MOUNT 2M	FM2011	FM2011-001	Not Required	Not Required
ANTENNA POSITIONING TOWER	TLT2	090308-5	Not Required	Not Required
PREAMPLIFIER 18-40GHz	JS44-18004000-33-8P	2034566	Not Required	Not Required

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

Description	Model	Serial Number	Calibration Date	Calibration Due Date
DATA LOGGER	DSB	16344143	16-Jul-25	16-Jul-26
V-NETWORK 2-LINE	ENV216	101135	04-Mar-25	04-Mar-26
EMI TEST RECEIVER	ESIB26	100017	06-Jan-25	06-Jan-26
PROGRAMMABLE AC SOURCE	61604	616040003502	17-Dec-24	17-Dec-25

Radiated Emission Test (Above 1GHz)

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

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

EUT Configure Mode	Modulation	Available Channel	Tested Channel	Modulation Technology	Data Modulation Type	Date Rate (Mbps)	Mode	Environmental Conditions
Test Mode	802.11b	1 to 11	1,6,11	DSSS	QPSK	2	SISO	24.1°C, 65.9%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	24.1°C, 65.9%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO CDD (MIMO)	24.1°C, 65.9%RH

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	24.1°C, 65.9%RH
Test Mode	802.11g	1 to 11	1,6,11	OFDM	BPSK	6	SISO	24.1°C, 65.9%RH
Test Mode	802.11n (HT20)	1 to 11	1,6,11	OFDM	BPSK	6.5	SISO CDD (MIMO)	24.1°C, 65.9%RH

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	Data Rate (Mbps)	Environmental Conditions
Application Mode	802.11bgn mixed	1 to 11	AUTO	DSSS, OFDM	AUTO	AUTO	21.5 °C, 57.8 %RH

Antenna Port Conducted Measurement:

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

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

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

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

Duty Cycle of Test Signal

802.11b, 802.11g and 802.11n: Duty cycle of test signal is $\geq 96\%$. (Refer to Clause 6.3 for duty cycle test signal)

Final Reported Test Results

The final reported test results are calculated using the following equation:

Reported RF Measurement Results = Measured Measurement Results + Correction Factor

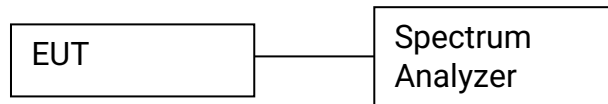
Where:

- **Measured Measurement Results** is the measured test results
- **Correction Factor** is the cumulative loss of all cables used during measurement, including temporary RF connector and antenna gain.

5.0. Transmitter Test Parameters

5.1. 6dB Channel Bandwidth

5.1.1. 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.

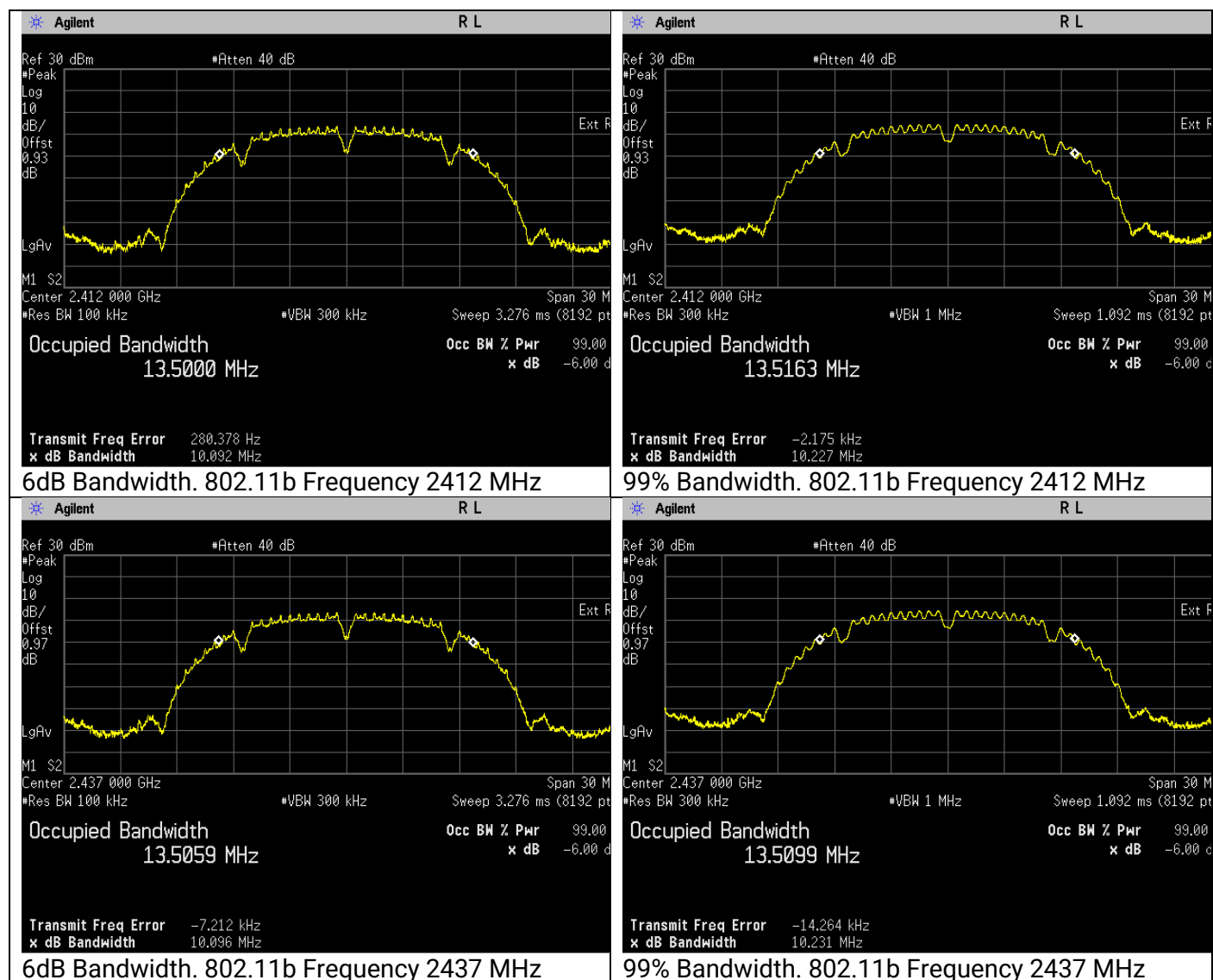
5.1.2. Test Limits:

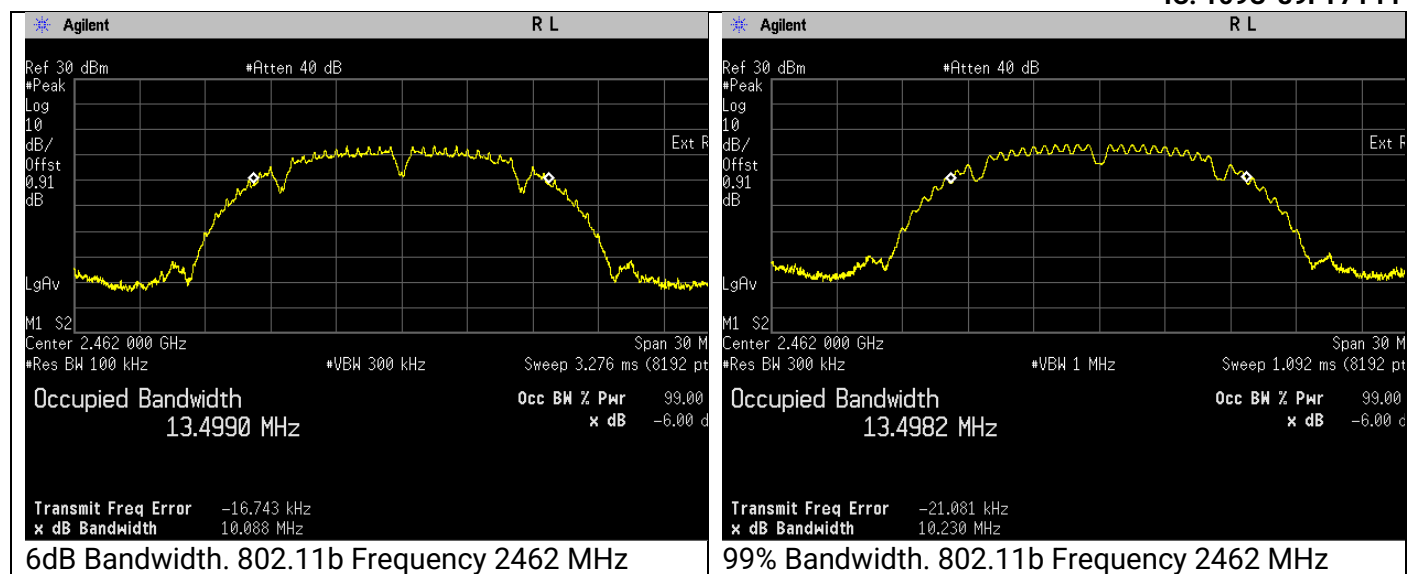
Normal Condition (25 ° C)
≥500 kHz

5.1.3. Test Data:

802.11b

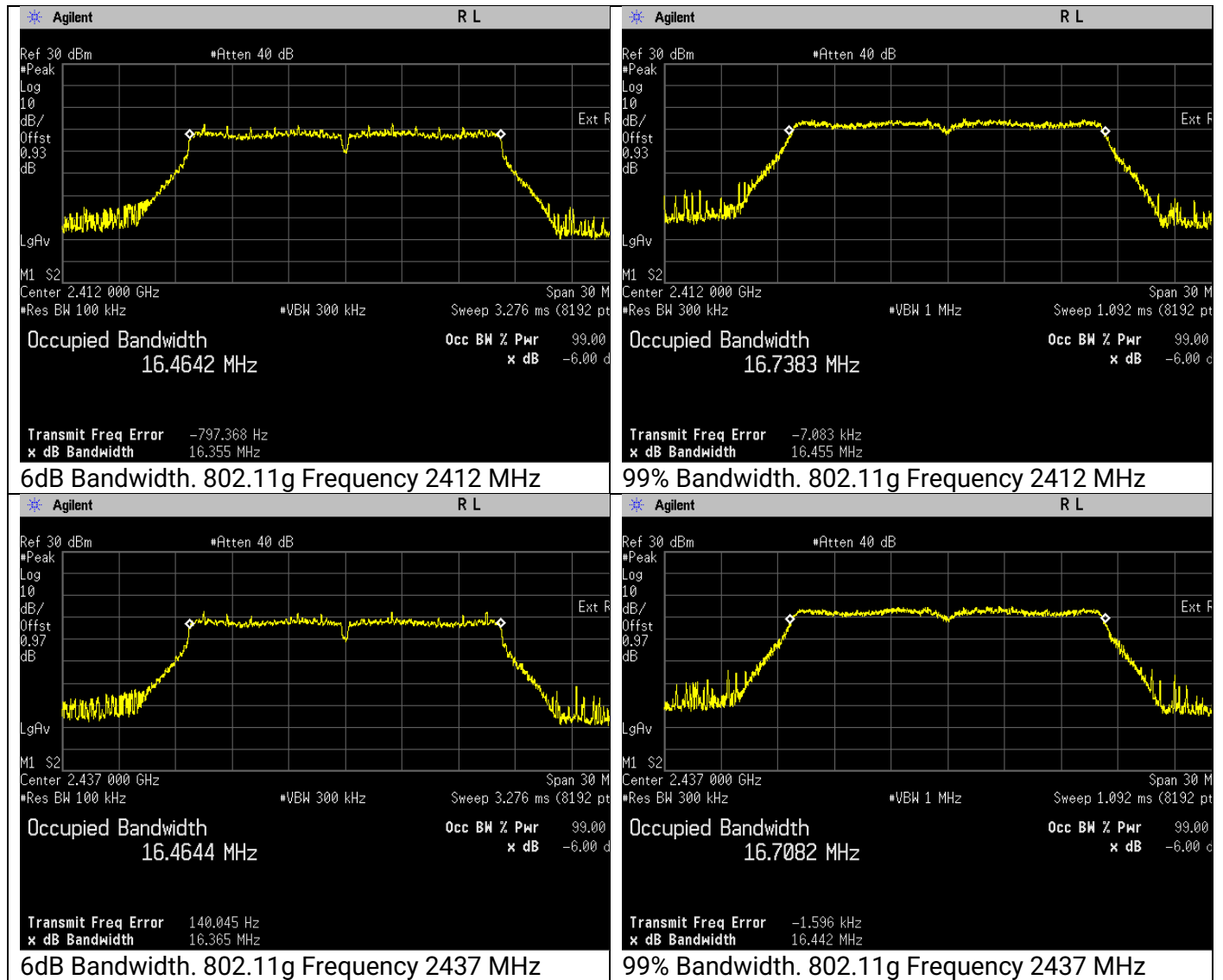
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11b	DSSS	QPSK	1	2412	10.092	13.516	Pass
802.11b	DSSS	QPSK	1	2437	10.096	13.510	Pass
802.11b	DSSS	QPSK	1	2462	10.088	13.498	Pass

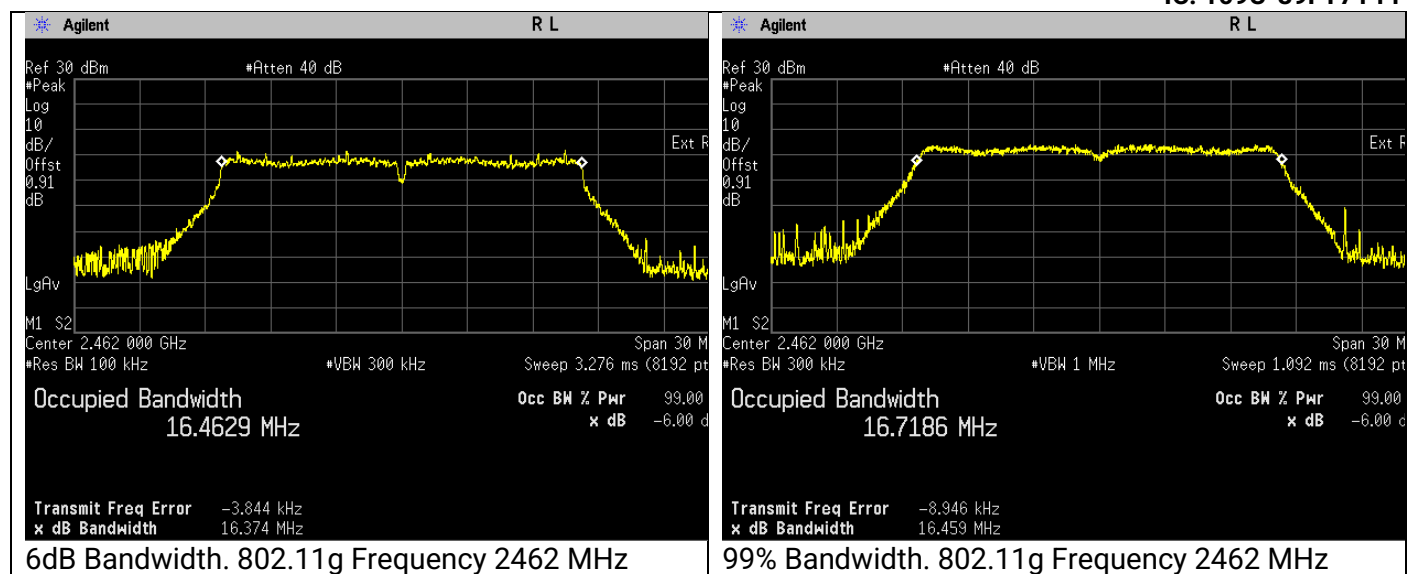




802.11 g

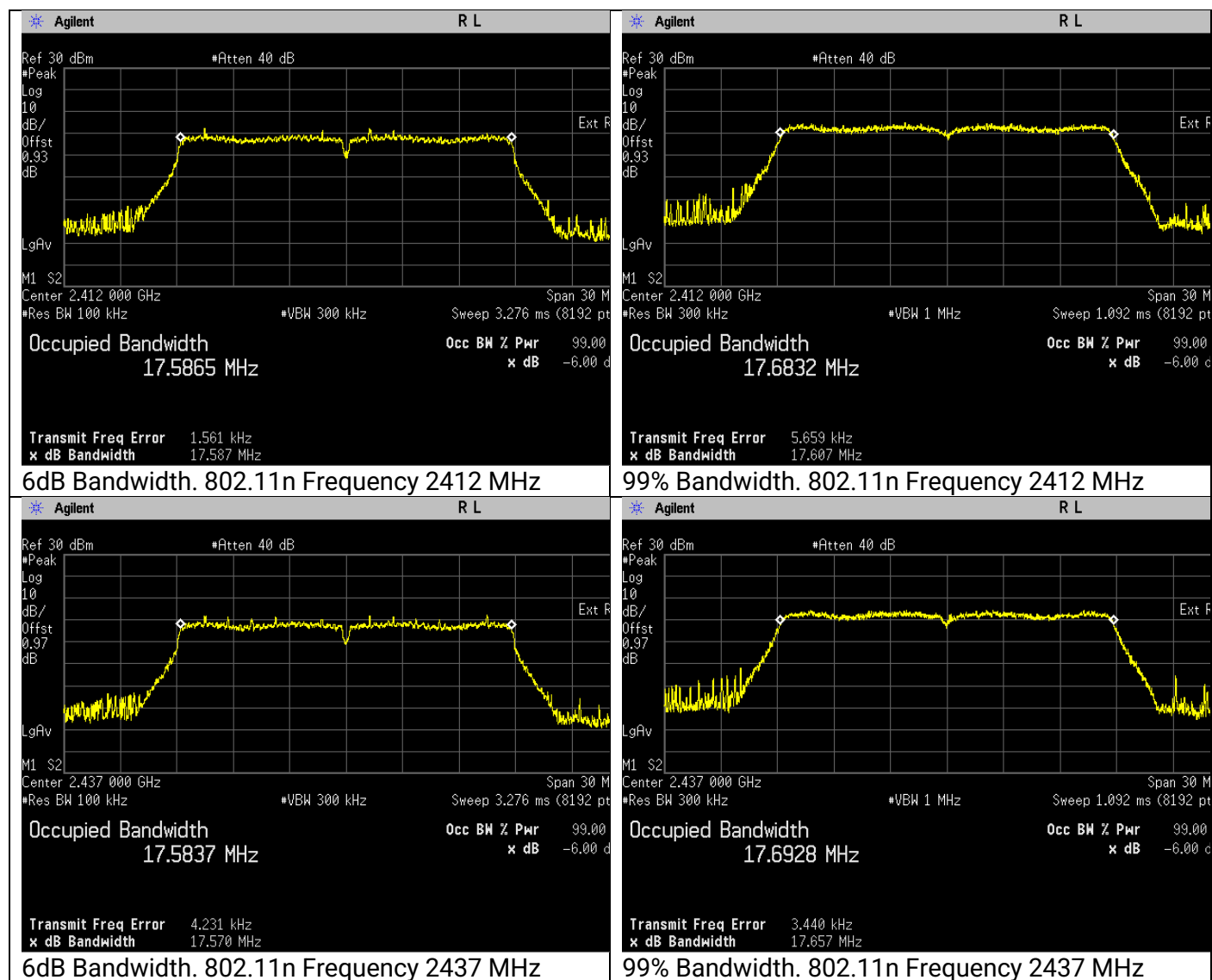
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11g	OFDM	BPSK	6	2412	16.355	16.738	Pass
802.11g	OFDM	BPSK	6	2437	16.365	16.708	Pass
802.11g	OFDM	BPSK	6	2462	16.374	16.719	Pass

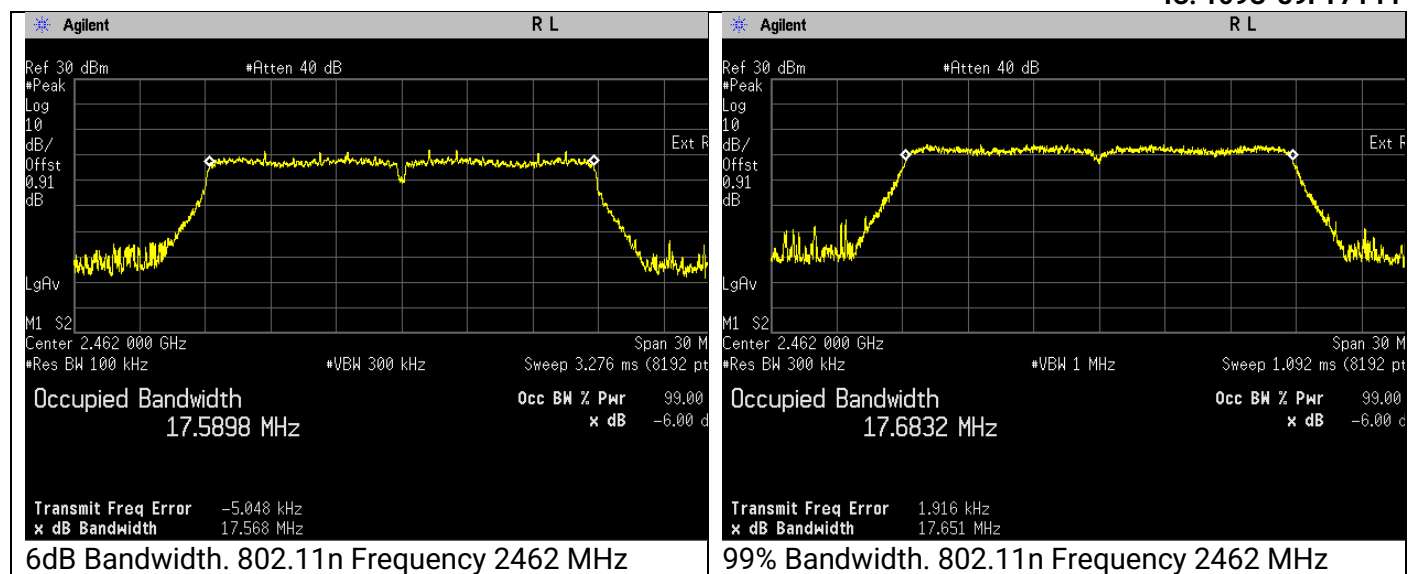




802.11n (HT20)

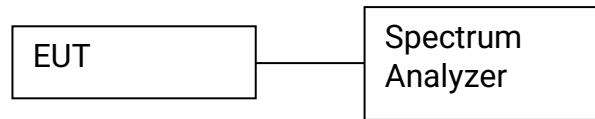
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Status
802.11n	OFDM	BPSK	6.5	2412	17.587	17.683	Pass
802.11n	OFDM	BPSK	6.5	2437	17.570	17.693	Pass
802.11n	OFDM	BPSK	6.5	2462	17.568	17.683	Pass





5.2. Conducted RF Output Power

5.2.1. Test Setup



Average

- a) Check and ensure the spectrum analyzer well calibrate.
- b) Turn on the DUT and set DUT to transmit maximum power.
- c) Measure the duty cycle of transmitter output signal.
- d) Setting of Spectrum analyzer :
 - a. Set the RBW = 300 kHz.
 - b. Set the VBW $\geq [3 \times \text{RBW}]$.
 - c. Set the span $\geq [1.5 \times \text{OBW bandwidth}]$.
 - d. Detector = average.
 - e. Sweep time = auto couple.
 - f. Trace mode = free run.
 - g. Allow trace to fully stabilize.
- e) Add in duty cycle correction into final test result.
- f) Duty cycle correction is calculated as below:
 $10 \log (1/x)$
- g) Measure every antenna port by repeat the step above for MIMO measurement.

5.2.2. Test Limits:

Normal Condition (25 ° C)
$\leq 1 \text{ Watt}(30 \text{ dBm})$

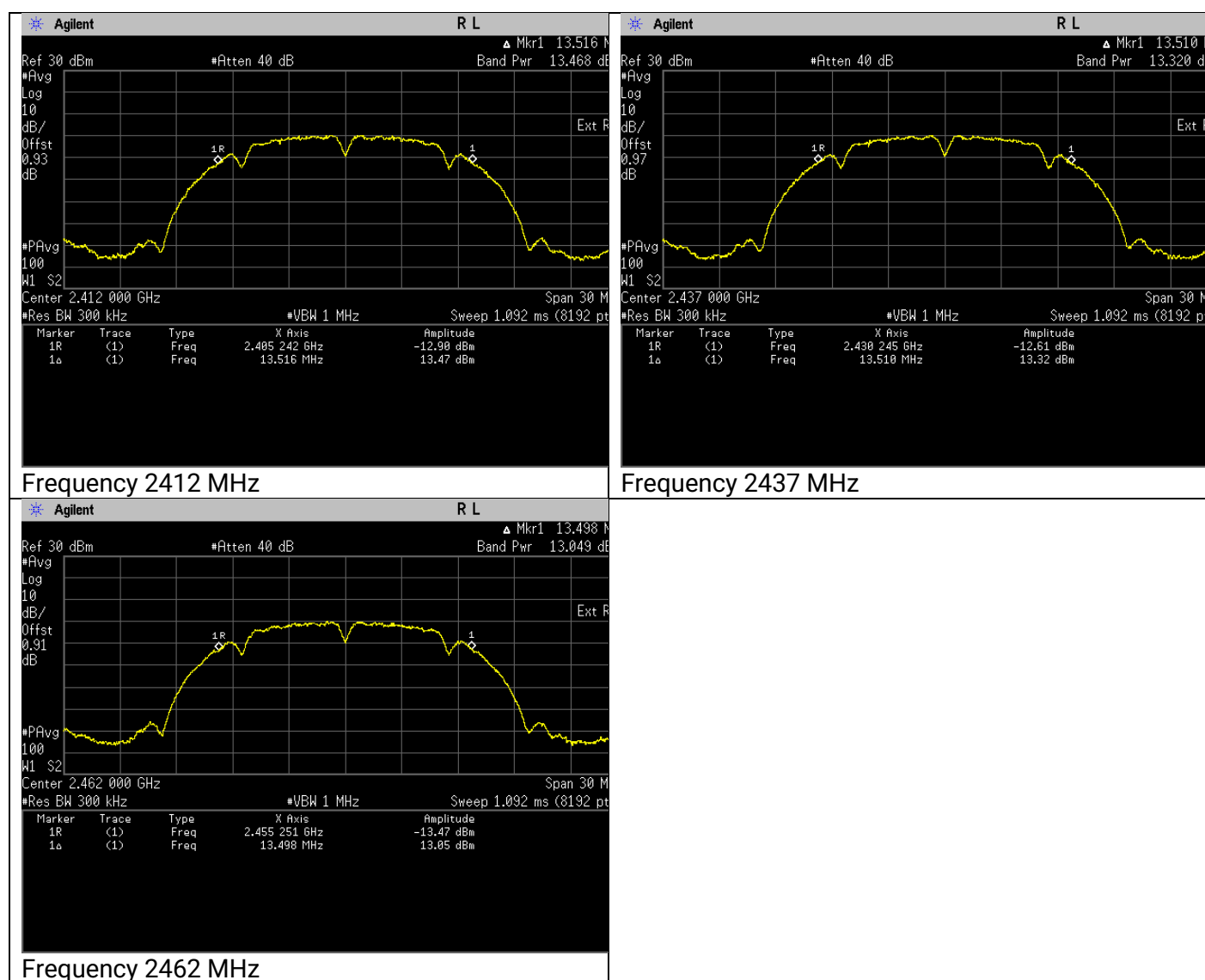
5.2.3. Test Data:

Test was conducted with average power.

802.11b

Output Power = Band Power + Duty Cycle Factor
= Band Power + 0.055

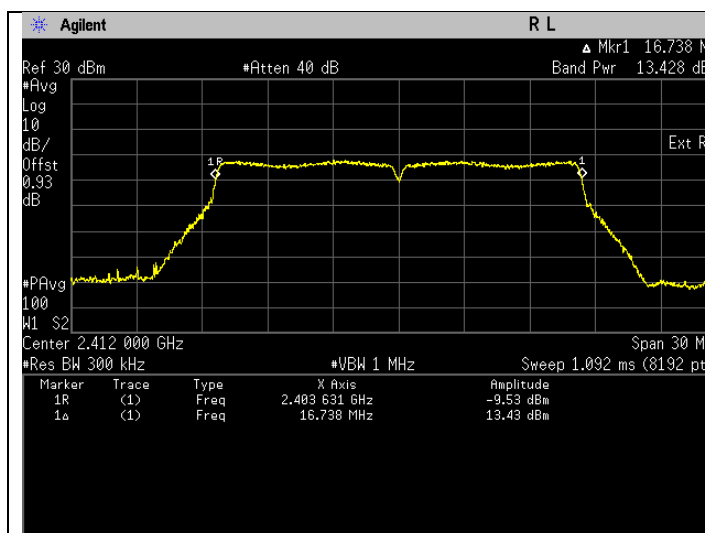
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11b	DSSS	QPSK	1	2412	13.523	Pass
802.11b	DSSS	QPSK	1	2437	13.375	Pass
802.11b	DSSS	QPSK	1	2462	13.104	Pass



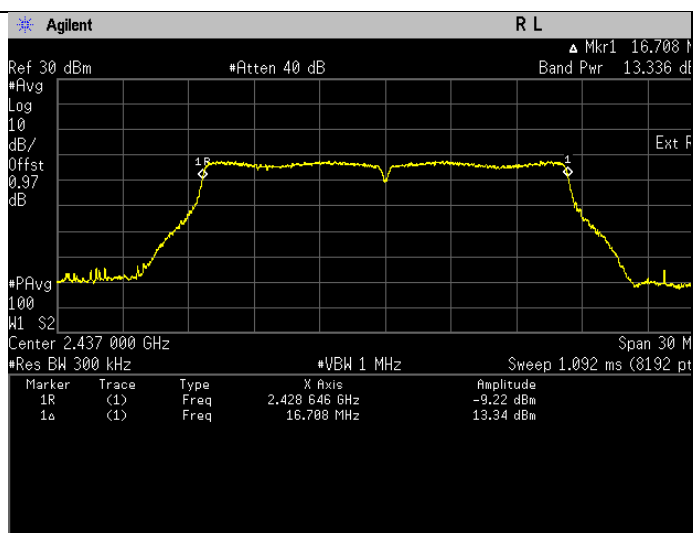
802.11g

Output Power = Band Power + Duty Cycle Factor
= Band Power + 0.139

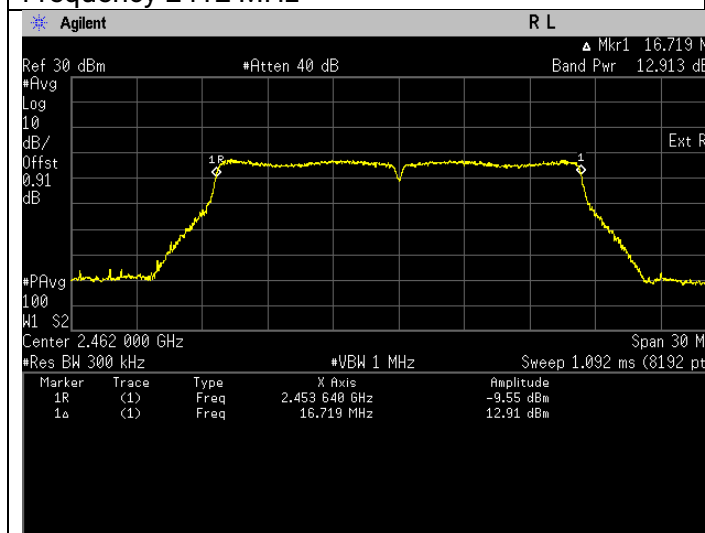
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11g	OFDM	BPSK	6	2412	13.567	Pass
802.11g	OFDM	BPSK	6	2437	13.475	Pass
802.11g	OFDM	BPSK	6	2462	13.052	Pass



Frequency 2412 MHz



Frequency 2437 MHz

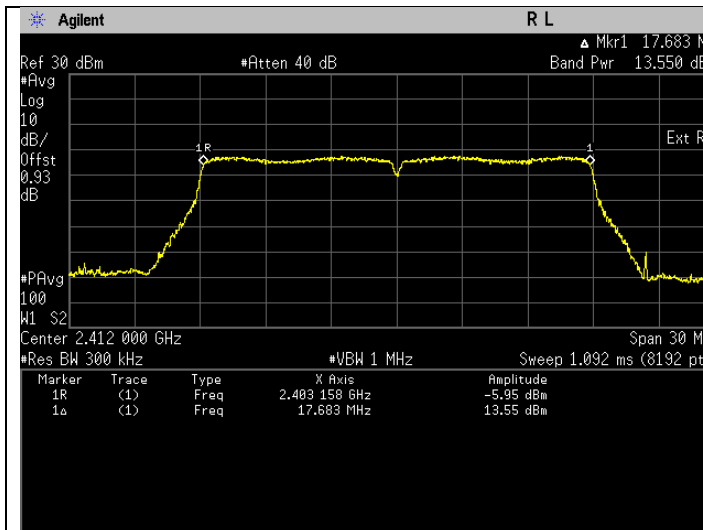


Frequency 2462 MHz

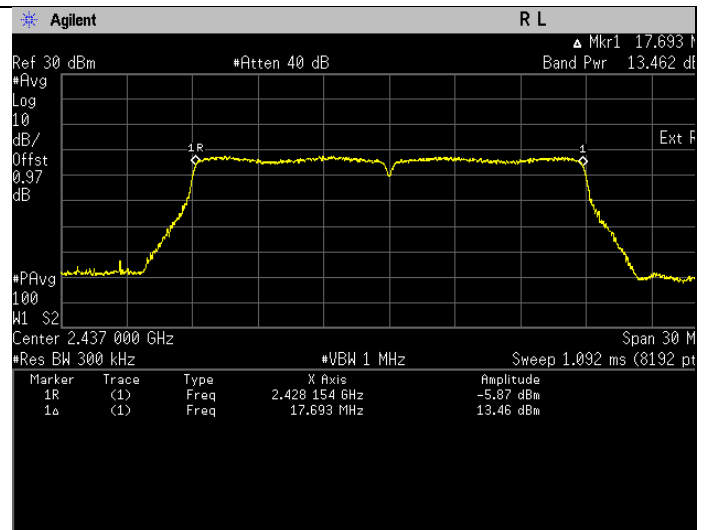
802.11n (HT20)

Output Power = Band Power + Duty Cycle Factor
 = Band Power + 0.092

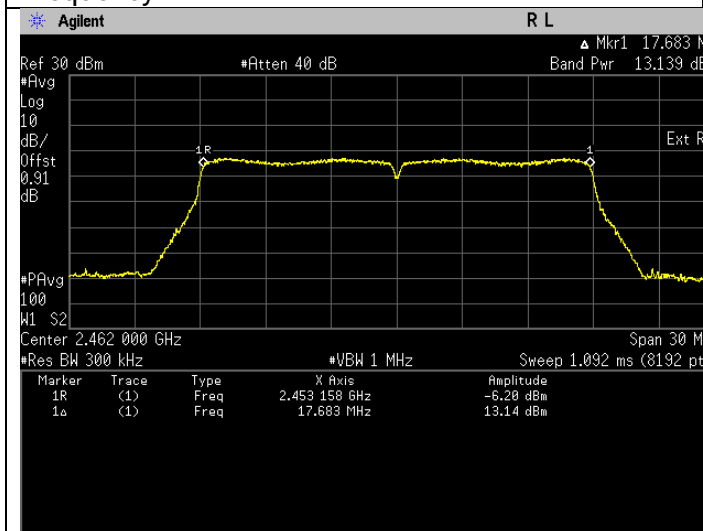
Test Conditions				Test Frequency	Results	
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Output Power (dBm)	Status
802.11n	OFDM	BPSK	6.5	2412	13.642	Pass
802.11n	OFDM	BPSK	6.5	2437	13.554	Pass
802.11n	OFDM	BPSK	6.5	2462	13.231	Pass



Frequency 2412 MHz



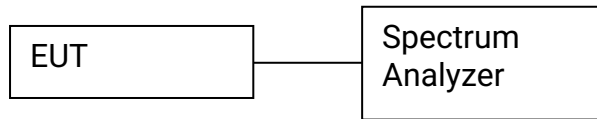
Frequency 2437 MHz



Frequency 2462 MHz

5.3.Duty Cycle of the test signal

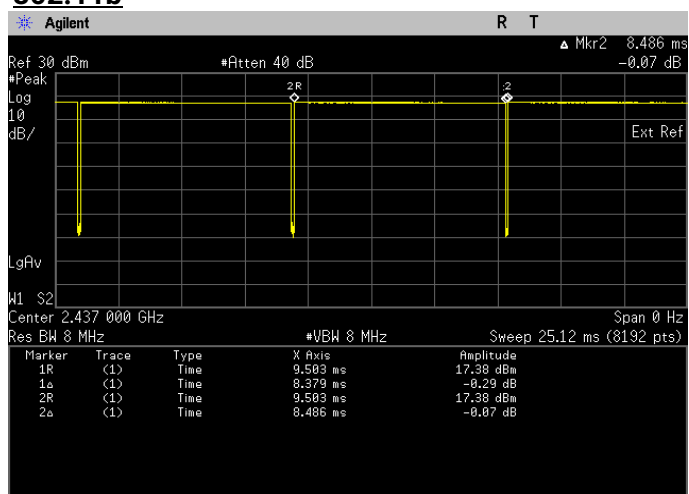
5.3.1. Test Setup



- 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 $\geq$ RBW.
 - c. Set the span $\geq [1.5 \times \text{DTS bandwidth}]$.
 - 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.

5.3.2. Test Data

802.11b

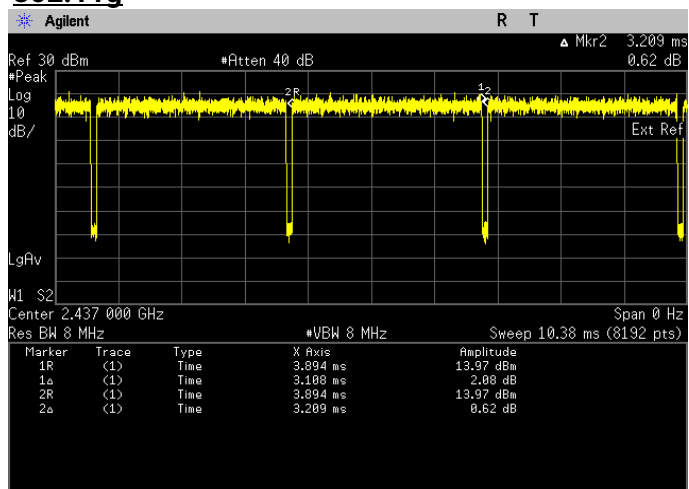


On time (ms)	8.379
On + Off Time (ms)	8.486
Duty Cycle	0.9874
Duty Cycle factor	0.055

*Duty cycle = On time/ On +off time

*Duty Cycle factor = $10 \cdot \log(1/\text{Duty Cycle})$

802.11g

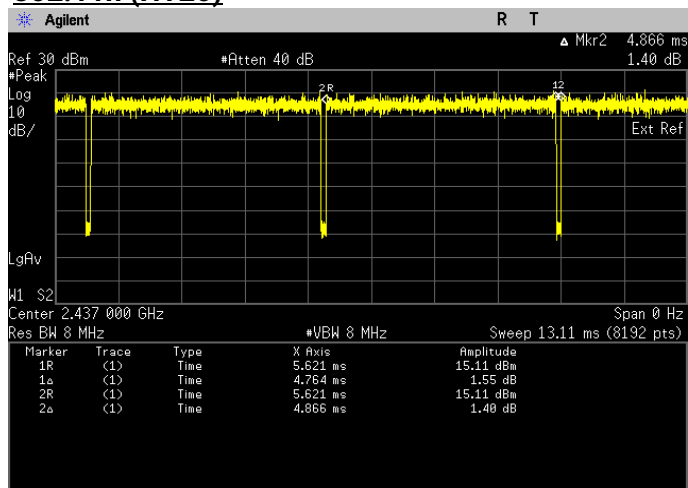


On time (ms)	3.108
On + Off Time (ms)	3.209
Duty Cycle	0.9685
Duty Cycle factor	0.139

*Duty cycle = On time/ On +off time

*Duty Cycle factor = $10 \cdot \log(1/\text{Duty Cycle})$

802.11n (HT20)



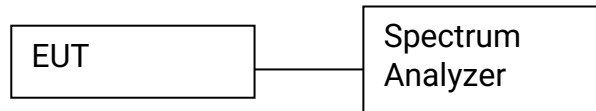
On time (ms)	4.764
On + Off Time (ms)	4.866
Duty Cycle	0.9790
Duty Cycle factor	0.092

*Duty cycle = On time/ On +off time

*Duty Cycle factor = $10 \cdot \log(1/\text{Duty Cycle})$

5.4. Maximum Peak Power Spectral Density

5.4.1. 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 $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
 - d. Set the VBW $\geq [3 \times \text{RBW}]$.
 - 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.

5.4.2. Test Limits

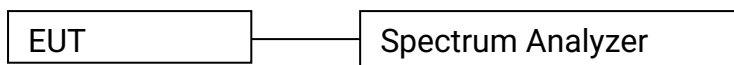
Normal Condition (25 ° C)
$\leq 8 \text{ dBm/3kHz}$

5.4.3. Test Result

NA

5.5. Conducted Spurious Emission

5.5.1. 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.

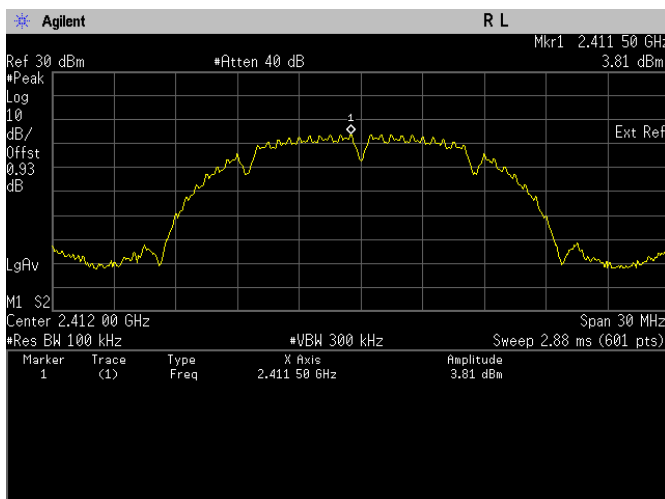
5.5.2. Test Limits:

Normal Condition (25 ° C)
Shall be at least 30 dB below max power. (Average detector)

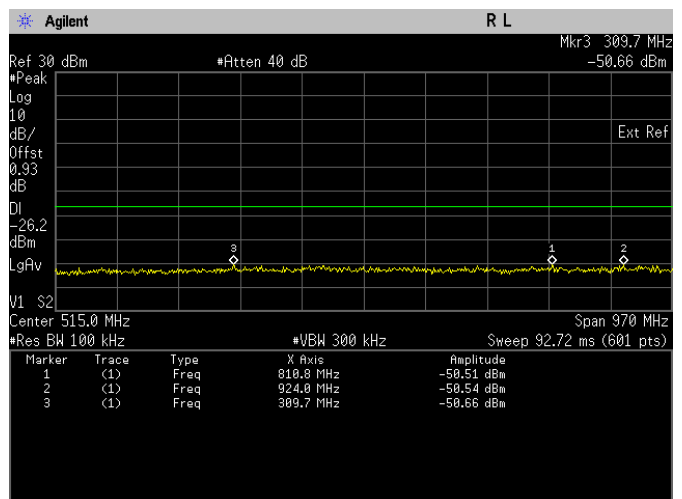
5.5.3. Test Result

802.11b

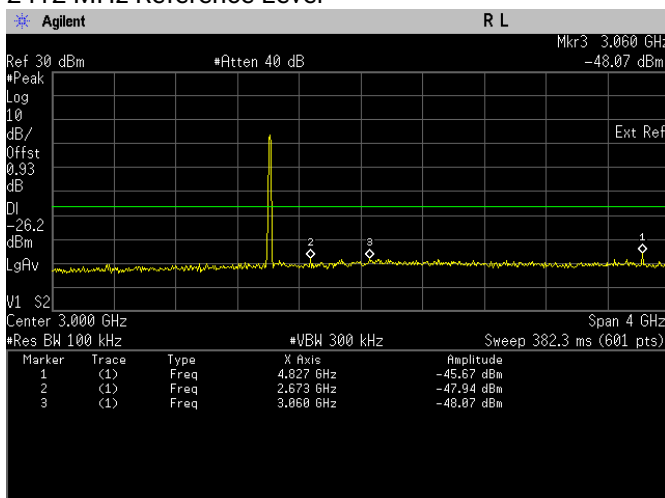
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11b	DSSS	QPSK	1	2412	13742.000	-40.72	Pass
					24808.000	-41.72	Pass
					24867.000	-41.89	Pass
802.11b	DSSS	QPSK	1	2437	24792.000	-41.57	Pass
					24825.000	-41.67	Pass
					24217.000	-41.98	Pass
802.11b	DSSS	QPSK	1	2462	24875.000	-41.87	Pass
					13608.000	-41.89	Pass
					24858.000	-41.93	Pass



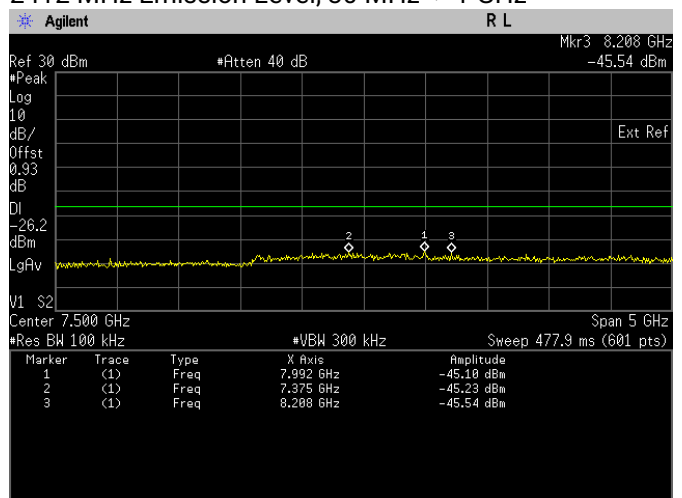
Conducted Emissions (Average). 802.11b, Frequency 2412 MHz Reference Level



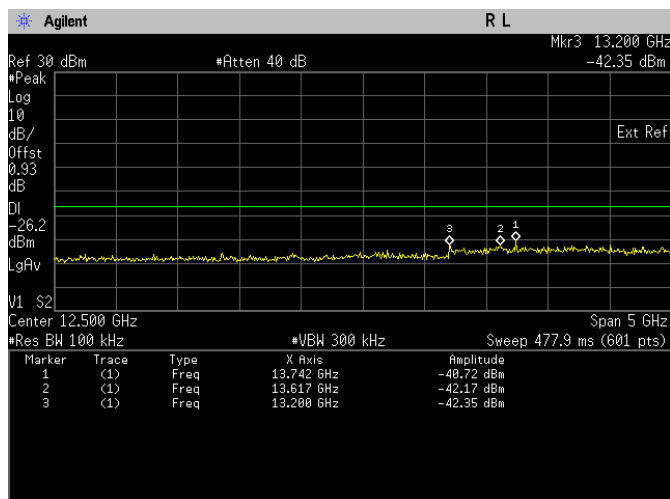
Conducted Emissions (Average). 802.11b, Frequency 2412 MHz Emission Level, 30 MHz -> 1 GHz



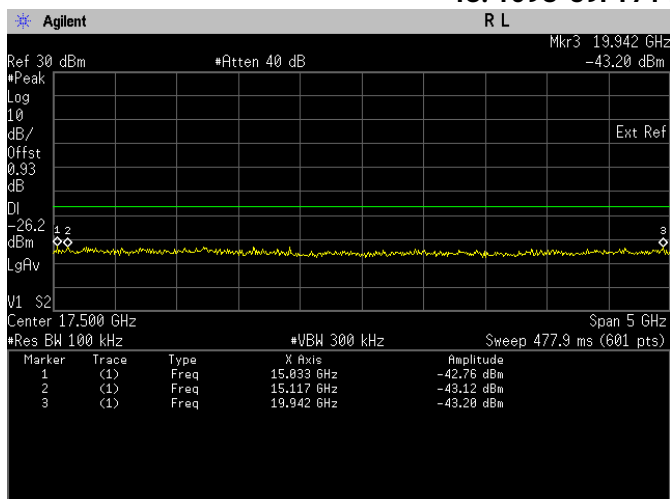
Conducted Emissions (Average). 802.11b, Frequency 2412 MHz Emission Level, 1 GHz -> 5 GHz



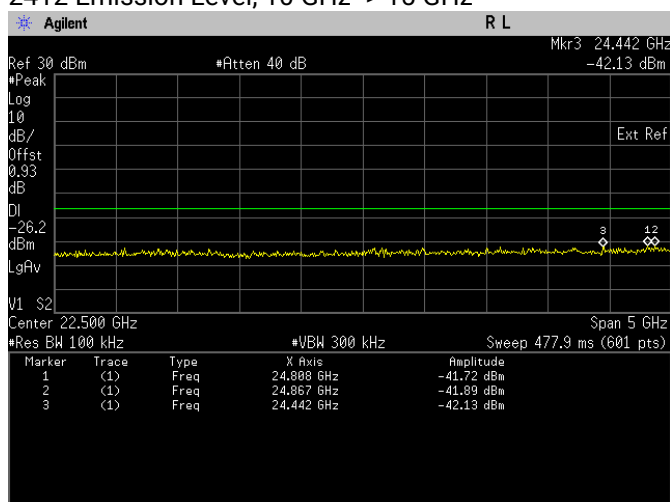
Conducted Emissions (Average). 802.11b, Frequency 2412 MHz Emission Level, 5 GHz -> 10 GHz



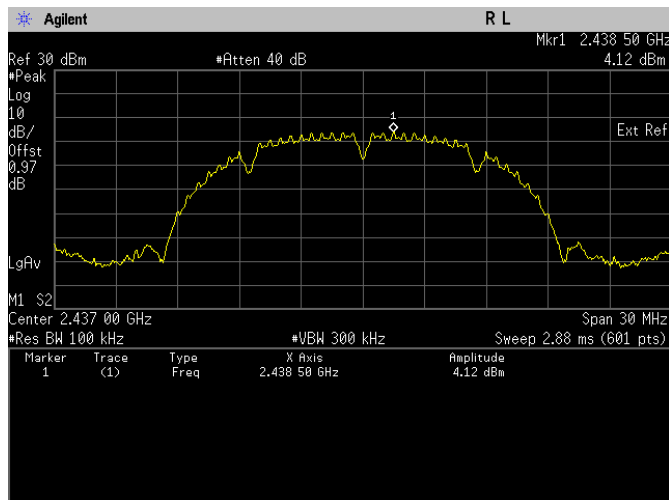
Conducted Emissions (Average). 802.11b, Frequency 2412 Emission Level, 10 GHz -> 15 GHz



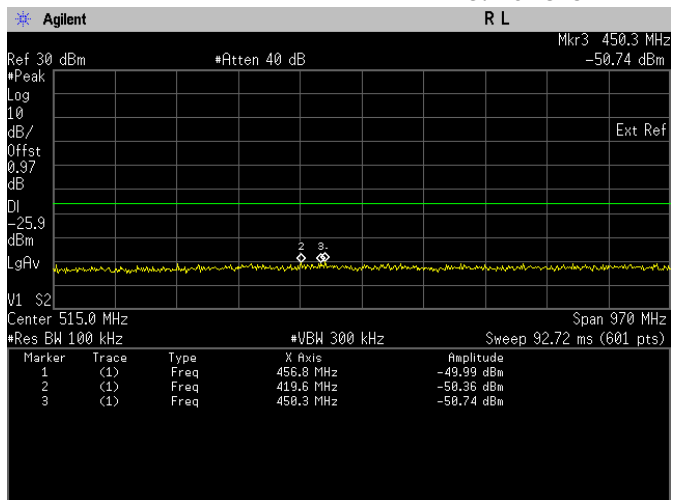
Conducted Emissions (Average). 802.11b, Frequency 2412 MHz Emission Level, 15 GHz -> 20 GHz



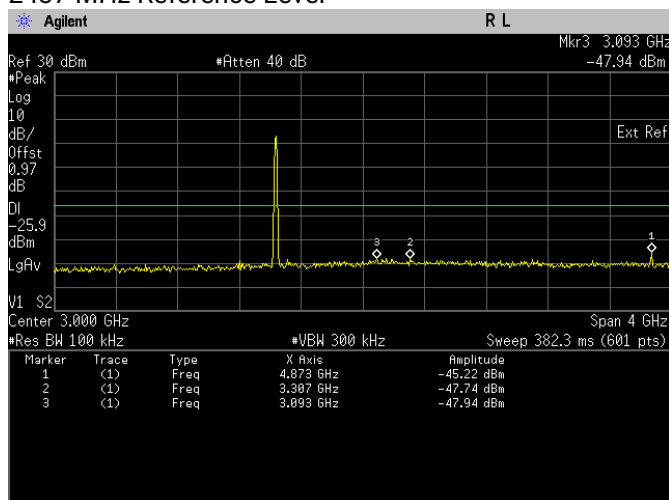
Conducted Emissions (Average). 802.11b, Frequency 2412 MHz Emission Level, 20 GHz -> 25 GHz



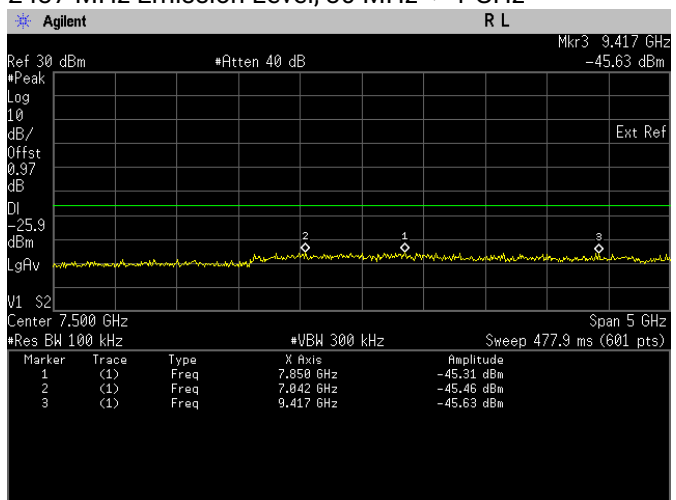
Conducted Emissions (Average). 802.11b, Frequency 2437 MHz Reference Level



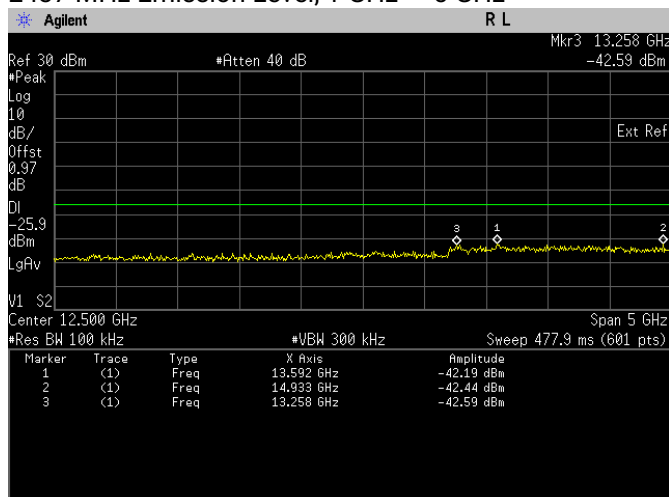
Conducted Emissions (Average). 802.11b, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



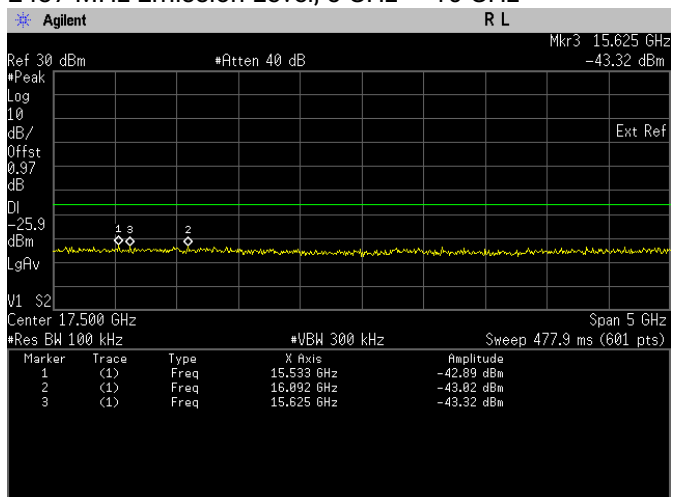
Conducted Emissions (Average). 802.11b, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



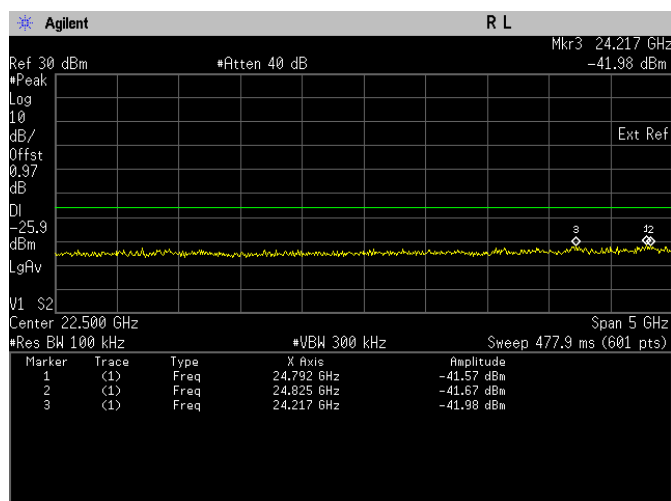
Conducted Emissions (Average). 802.11b, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



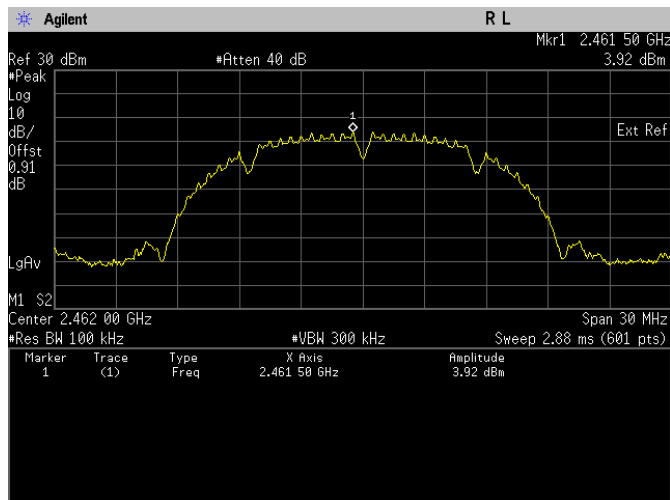
Conducted Emissions (Average). 802.11b, Frequency 2437 Emission Level, 10 GHz -> 15 GHz



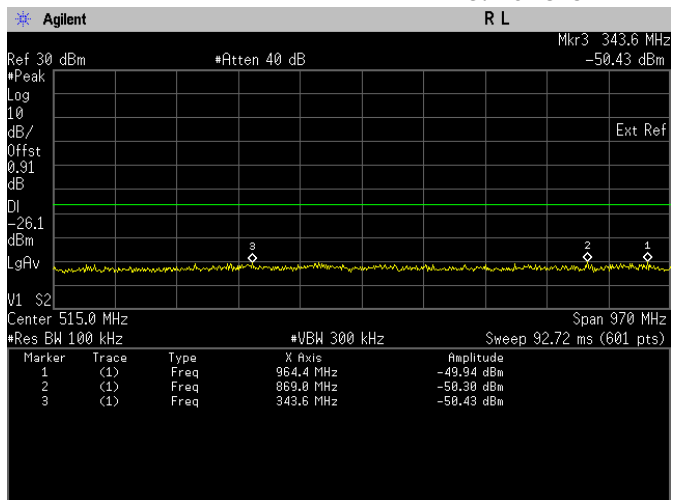
Conducted Emissions (Average). 802.11b, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



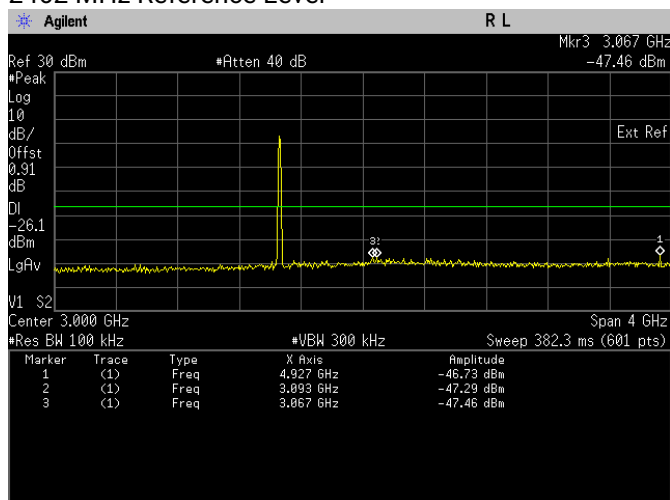
Conducted Emissions (Average). 802.11b, Frequency
2437 MHz Emission Level, 20 GHz -> 25 GHz



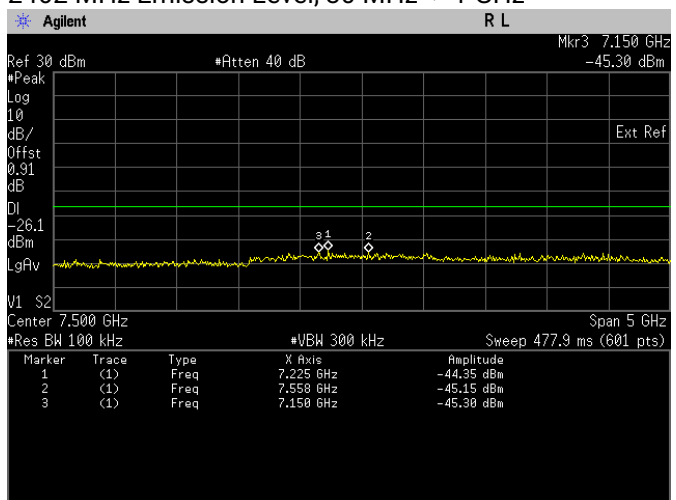
Conducted Emissions (Average). 802.11b, Frequency 2462 MHz Reference Level



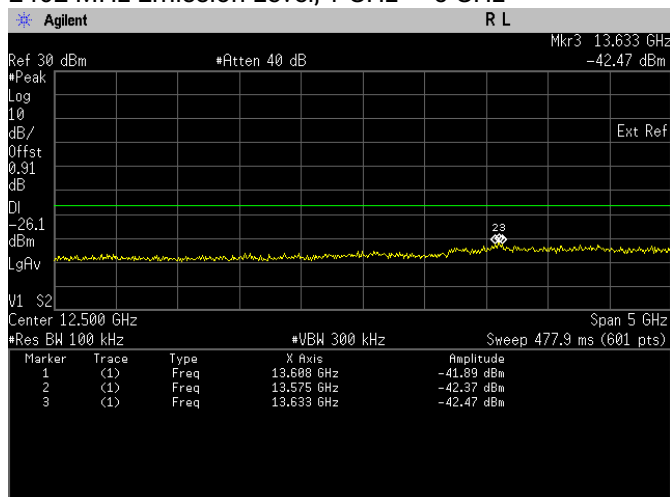
Conducted Emissions (Average). 802.11b, Frequency 2462 MHz Emission Level, 30 MHz -> 1 GHz



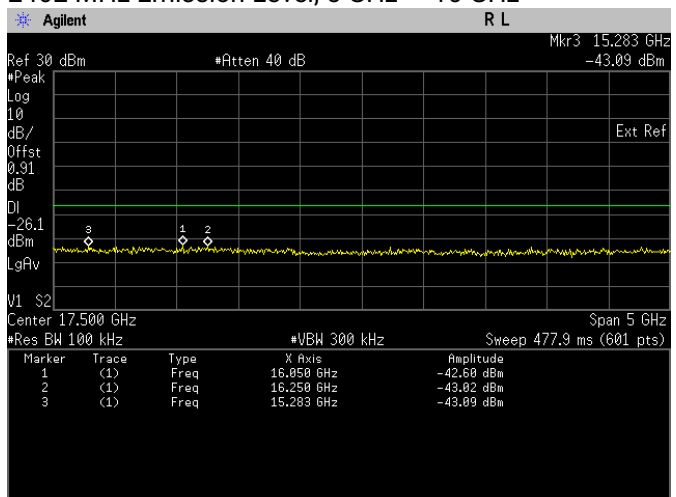
Conducted Emissions (Average). 802.11b, Frequency 2462 MHz Emission Level, 1 GHz -> 5 GHz



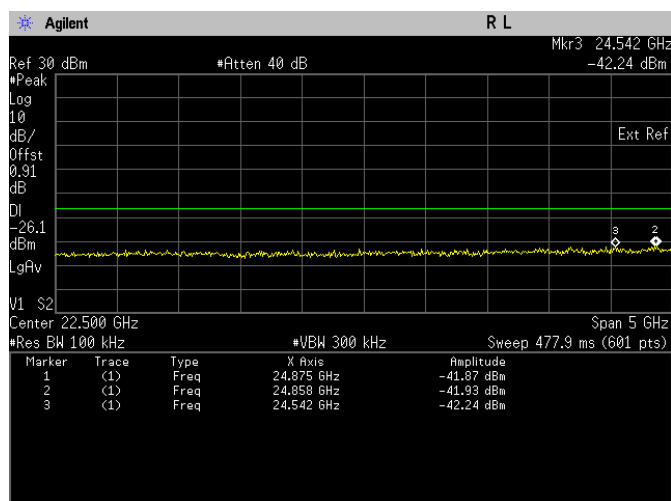
Conducted Emissions (Average). 802.11b, Frequency 2462 MHz Emission Level, 5 GHz -> 10 GHz



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



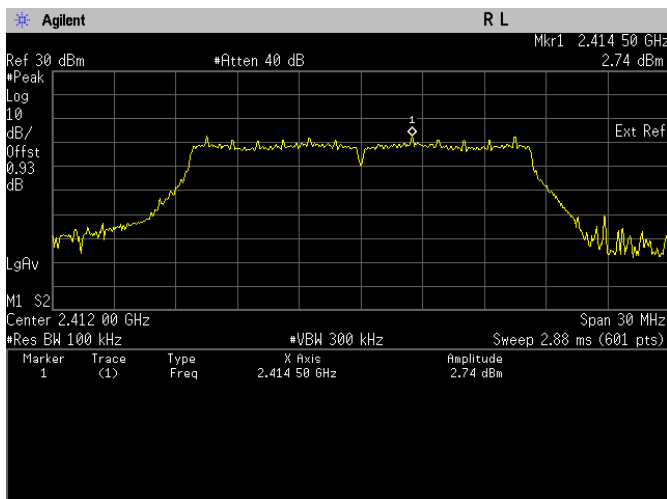
Conducted Emissions (Average). 802.11b, Frequency 2462 MHz Emission Level, 15 GHz -> 20 GHz



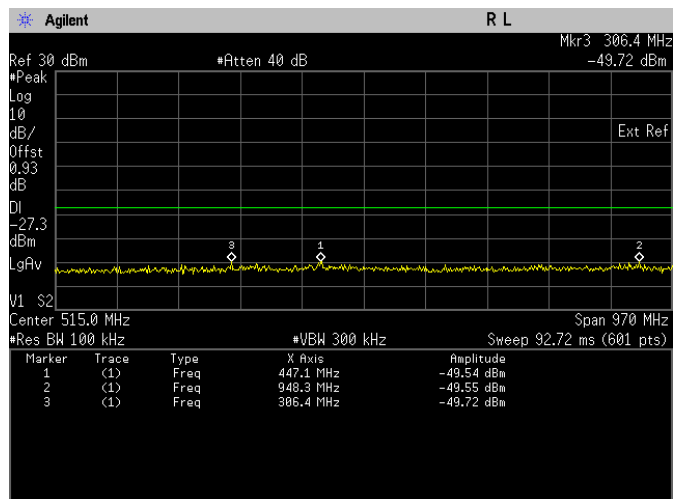
Conducted Emissions (Average). 802.11b, Frequency
2462 MHz Emission Level, 20 GHz -> 25 GHz

802.11g

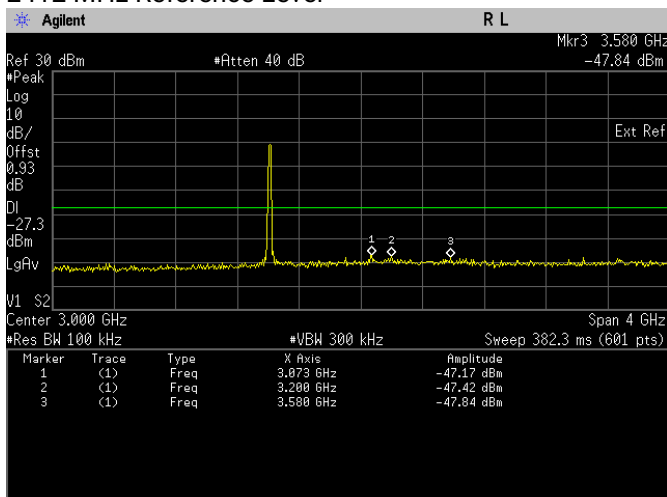
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11g	OFDM	BPSK	6	2412	24208.000	-41.78	Pass
					24892.000	-41.91	Pass
					23625.000	-41.97	Pass
802.11g	OFDM	BPSK	6	2437	24867.000	-41.77	Pass
					24800.000	-41.82	Pass
					24542.000	-41.90	Pass
802.11g	OFDM	BPSK	6	2462	15108.000	-42.04	Pass
					15483.000	-42.32	Pass
					24633.000	-42.33	Pass



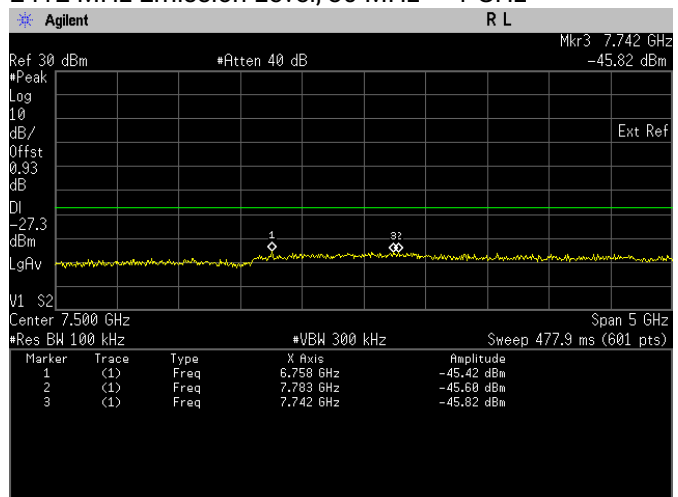
Conducted Emissions (Average). 802.11g, Frequency 2412 MHz Reference Level



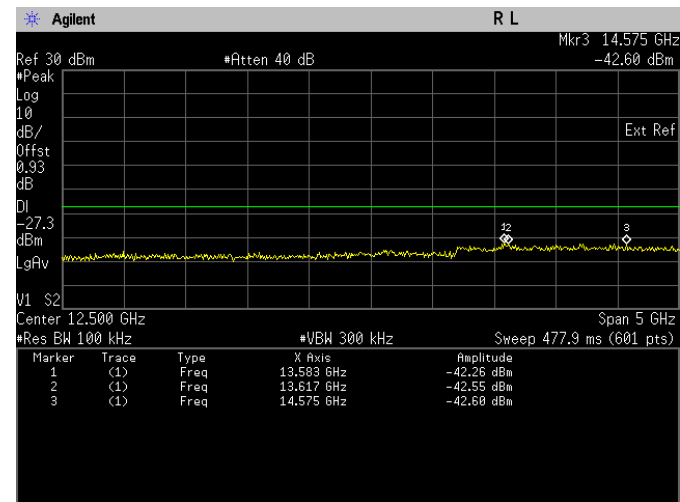
Conducted Emissions (Average). 802.11g, Frequency 2412 MHz Emission Level, 30 MHz -> 1 GHz



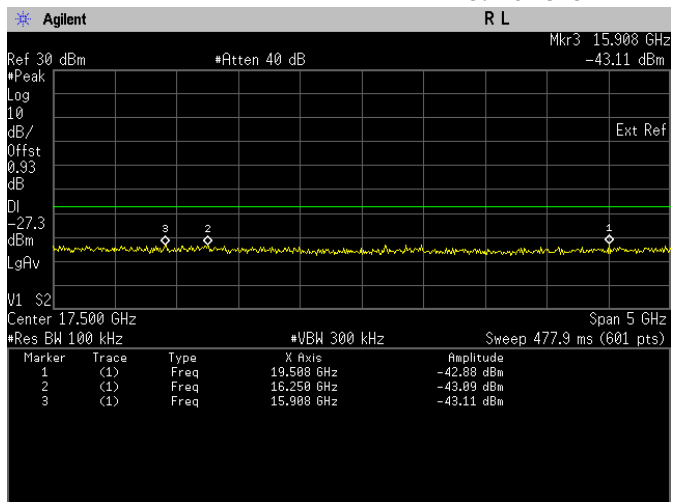
Conducted Emissions (Average). 802.11g, Frequency 2412 MHz Emission Level, 1 GHz -> 5 GHz



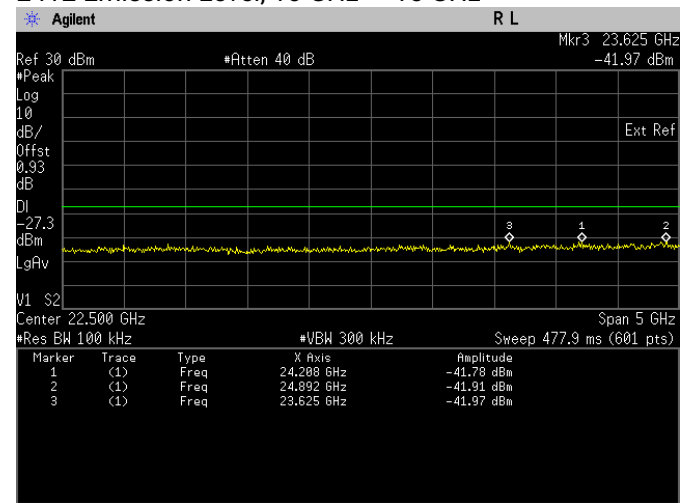
Conducted Emissions (Average). 802.11g, Frequency 2412 MHz Emission Level, 5 GHz -> 10 GHz



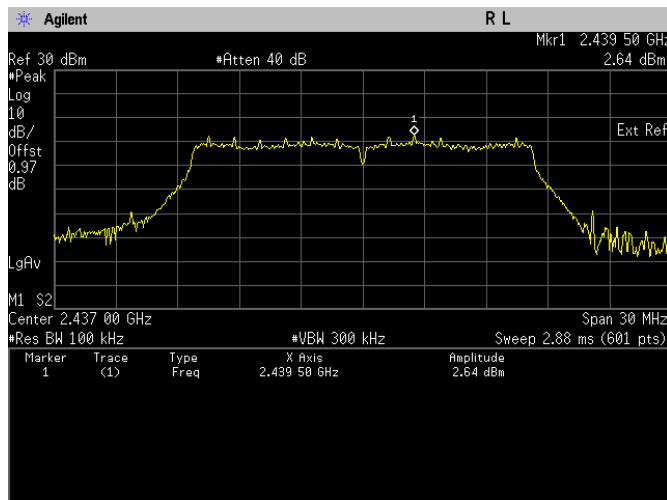
Conducted Emissions (Average). 802.11g, Frequency 2412 Emission Level, 10 GHz -> 15 GHz



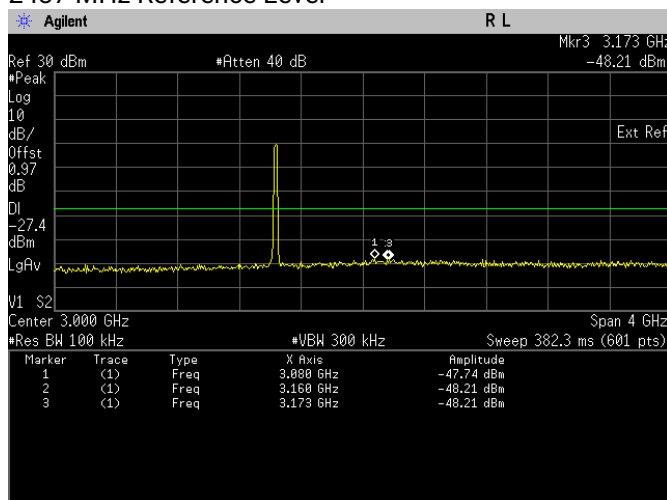
Conducted Emissions (Average). 802.11g, Frequency 2412 MHz Emission Level, 15 GHz -> 20 GHz



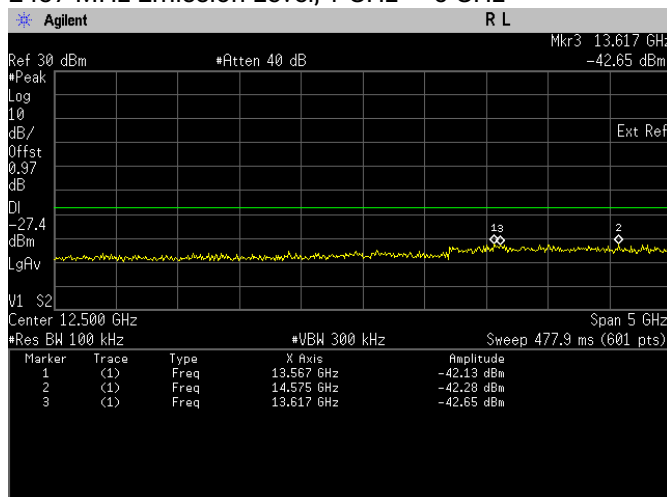
Conducted Emissions (Average). 802.11g, Frequency 2412 MHz Emission Level, 20 GHz -> 25 GHz



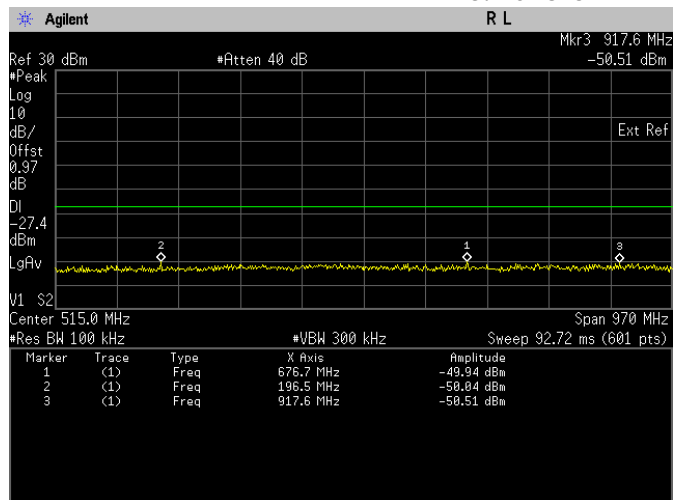
Conducted Emissions (Average). 802.11g, Frequency 2437 MHz Reference Level



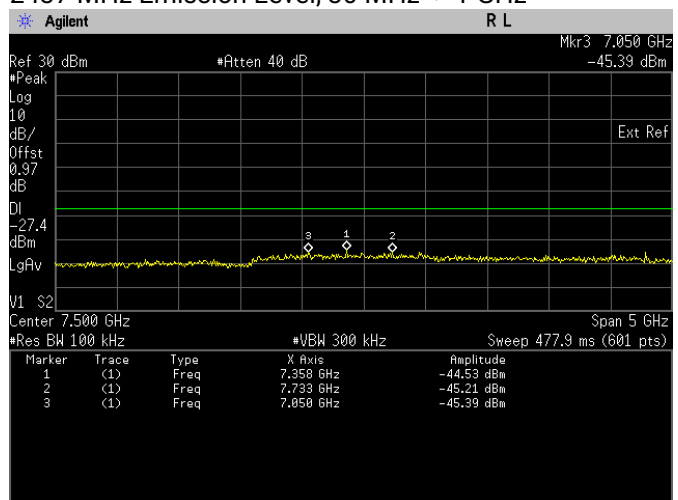
Conducted Emissions (Average). 802.11g, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



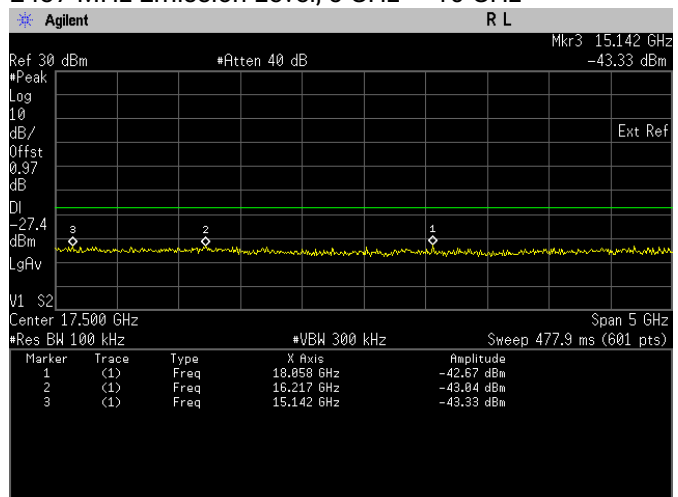
Conducted Emissions (Average). 802.11g, Frequency 2437 Emission Level, 10 GHz -> 15 GHz



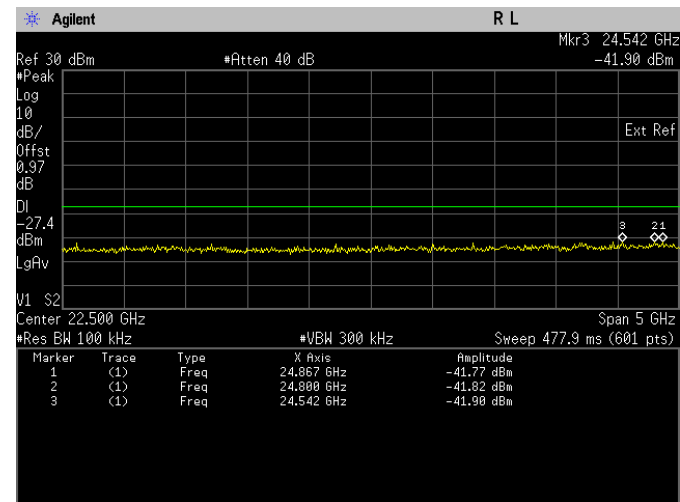
Conducted Emissions (Average). 802.11g, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



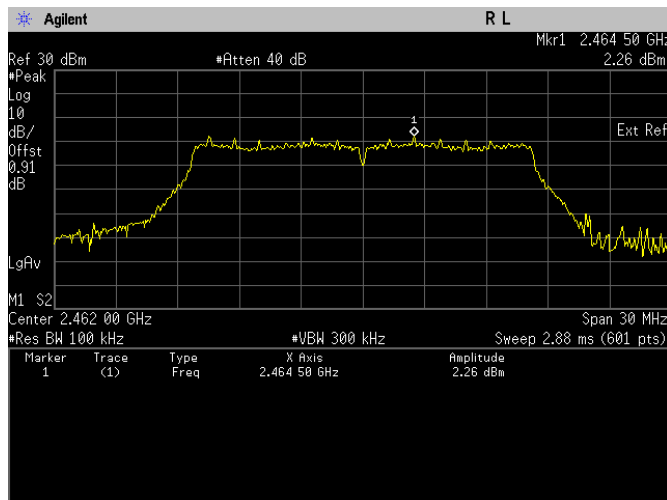
Conducted Emissions (Average). 802.11g, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



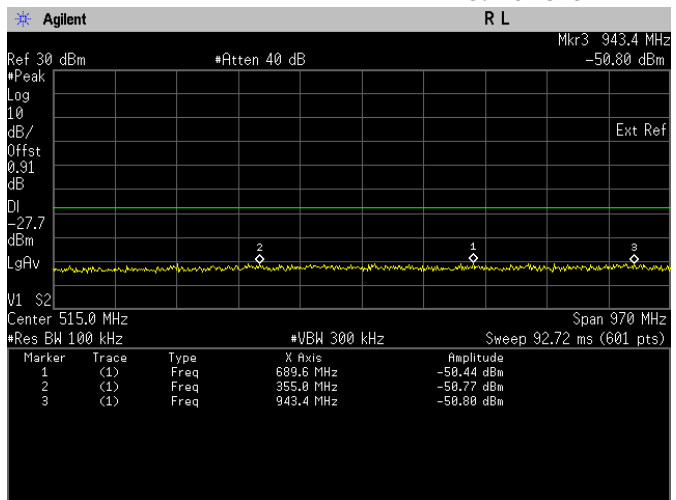
Conducted Emissions (Average). 802.11g, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



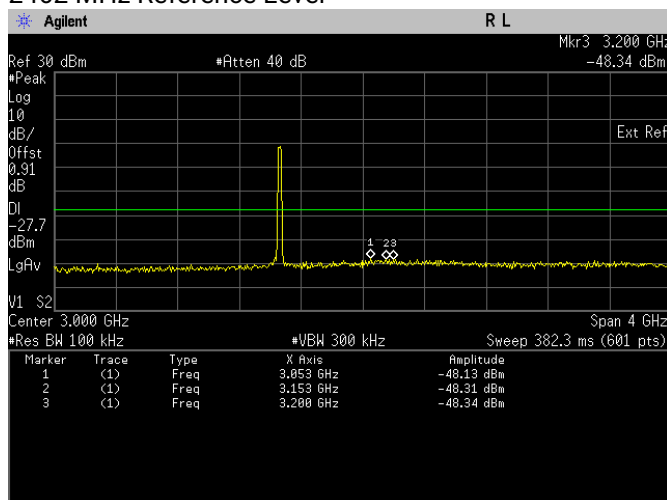
Conducted Emissions (Average). 802.11g, Frequency
2437 MHz Emission Level, 20 GHz -> 25 GHz



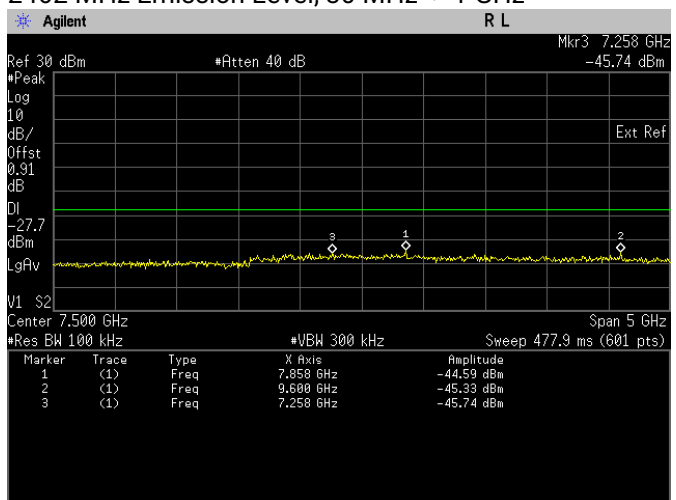
Conducted Emissions (Average). 802.11g, Frequency 2462 MHz Reference Level



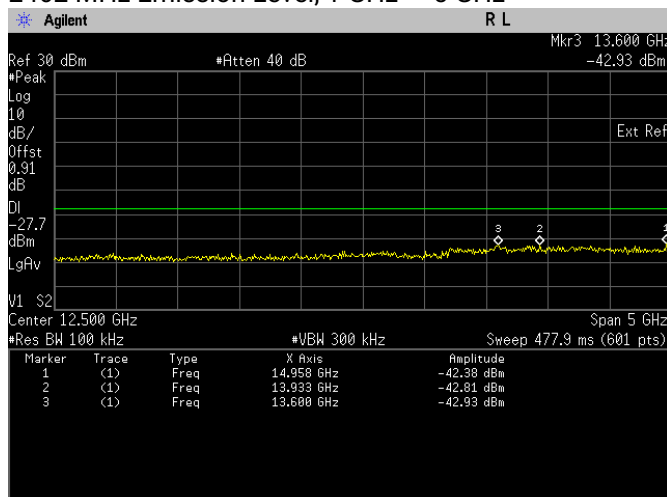
Conducted Emissions (Average). 802.11g, Frequency 2462 MHz Emission Level, 30 MHz -> 1 GHz



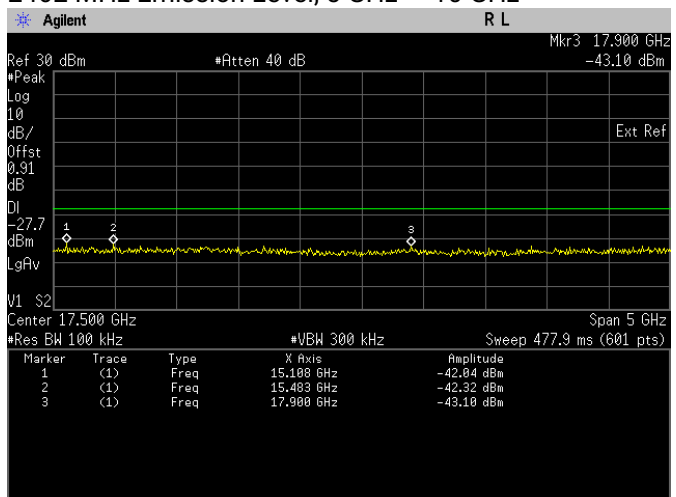
Conducted Emissions (Average). 802.11g, Frequency 2462 MHz Emission Level, 1 GHz -> 5 GHz



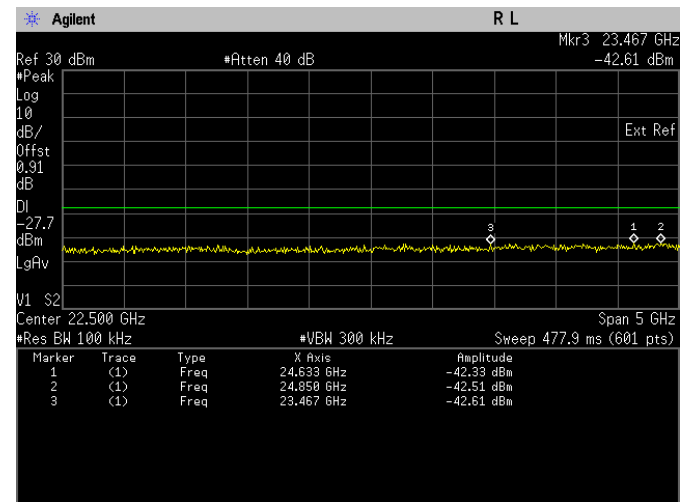
Conducted Emissions (Average). 802.11g, Frequency 2462 MHz Emission Level, 5 GHz -> 10 GHz



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



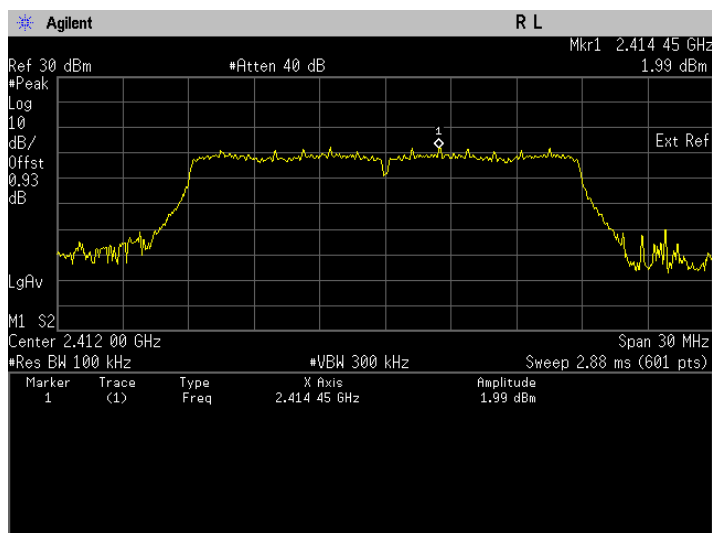
Conducted Emissions (Average). 802.11g, Frequency 2462 MHz Emission Level, 15 GHz -> 20 GHz



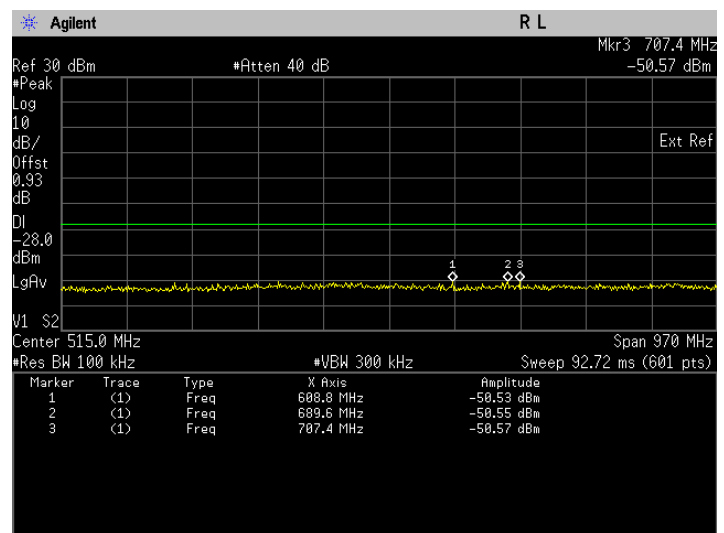
Conducted Emissions (Average). 802.11g, Frequency
2462 MHz Emission Level, 20 GHz -> 25 GHz

802.11n (HT20)

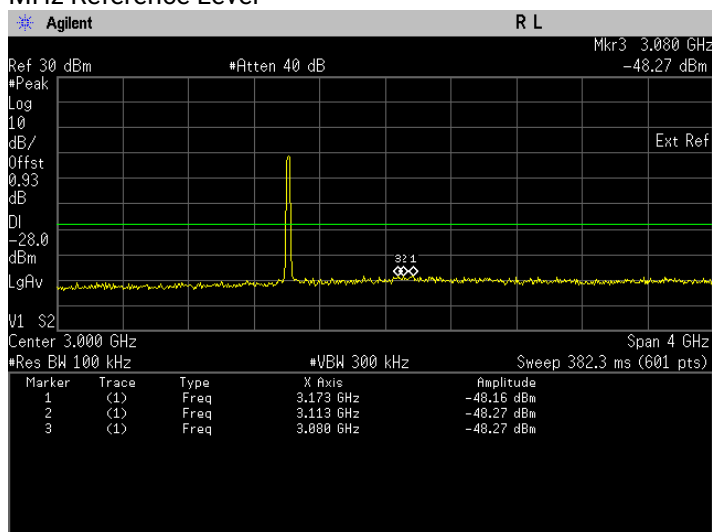
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Spurs (MHz)	Level (dBm)	Status
802.11n	OFDM	BPSK	6.5	2412	24817.000	-40.96	Pass
					24908.000	-41.63	Pass
					23917.000	-41.90	Pass
802.11n	OFDM	BPSK	6.5	2437	13583.000	-41.68	Pass
					24833.000	-41.98	Pass
					24558.000	-42.07	Pass
802.11n	OFDM	BPSK	6.5	2462	24775.000	-41.57	Pass
					24067.000	-42.16	Pass
					13625.000	-42.16	Pass



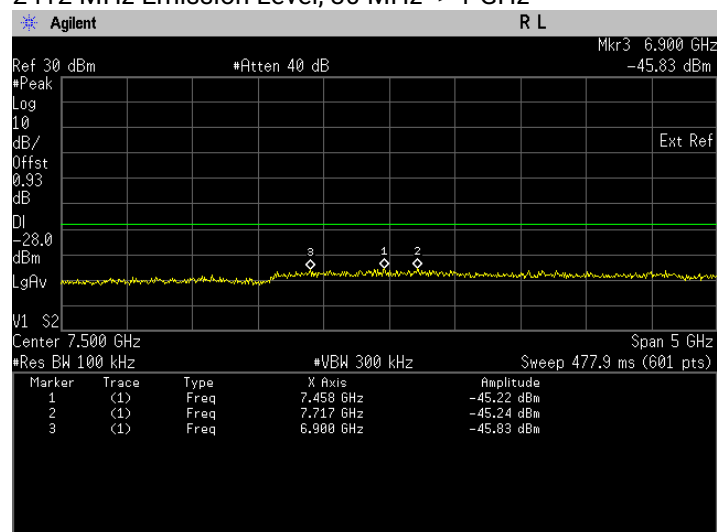
Conducted Emissions (Average). 802.11n, Frequency 2412 MHz Reference Level



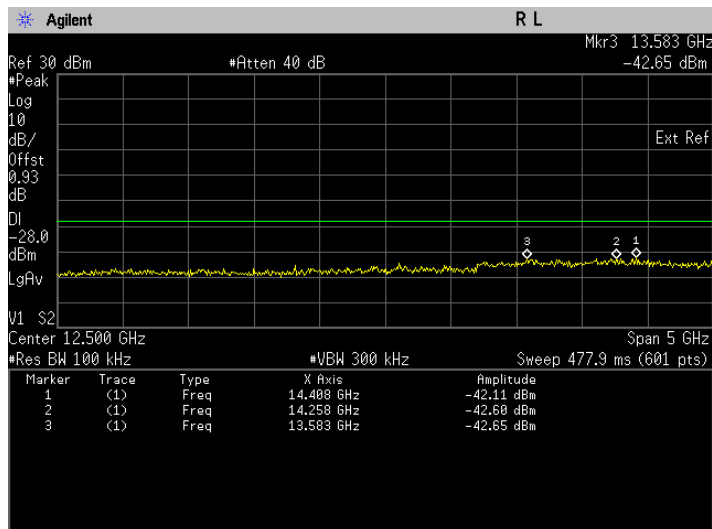
Conducted Emissions (Average). 802.11n, Frequency 2412 MHz Emission Level, 30 MHz -> 1 GHz



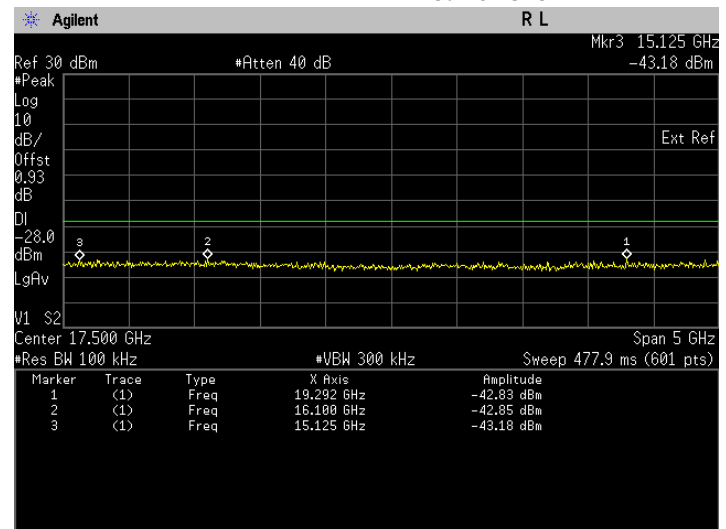
Conducted Emissions (Average). 802.11n, Frequency 2412 MHz Emission Level, 1 GHz -> 5 GHz



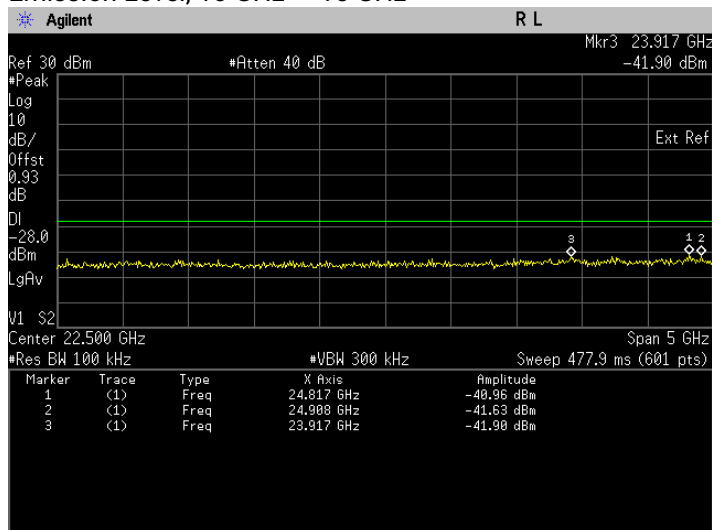
Conducted Emissions (Average). 802.11n, Frequency 2412 MHz Emission Level, 5 GHz -> 10 GHz



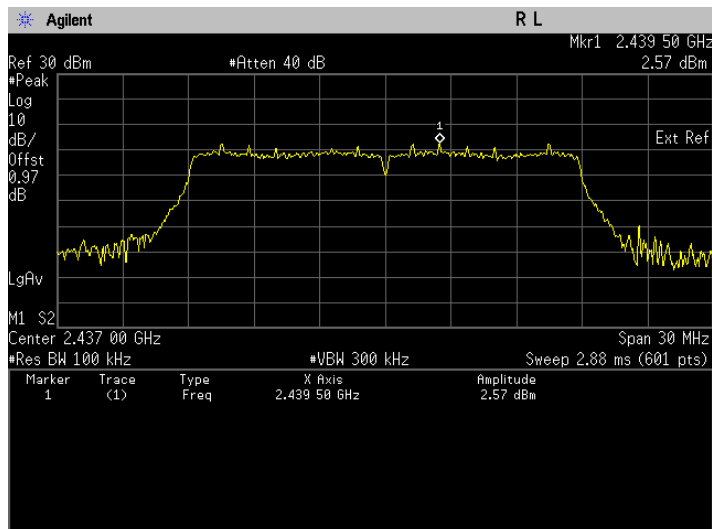
Conducted Emissions (Average). 802.11n, Frequency 2412 Emission Level, 10 GHz -> 15 GHz



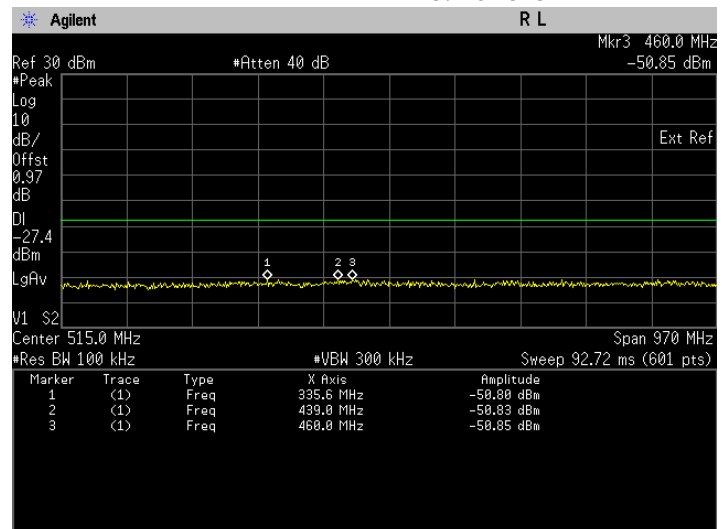
Conducted Emissions (Average). 802.11n, Frequency 2412 MHz Emission Level, 15 GHz -> 20 GHz



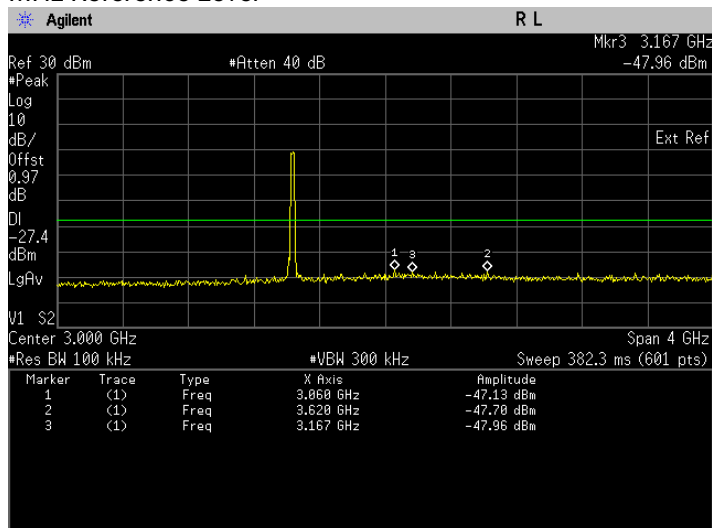
Conducted Emissions (Average). 802.11n, Frequency 2412 MHz Emission Level, 20 GHz -> 25 GHz



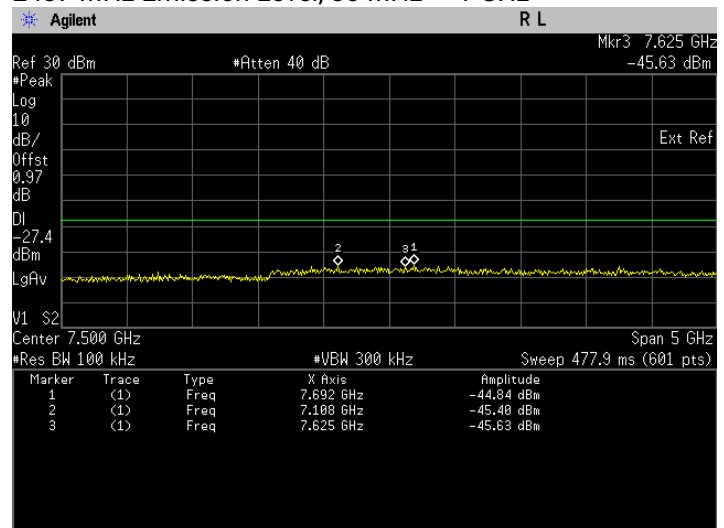
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Reference Level



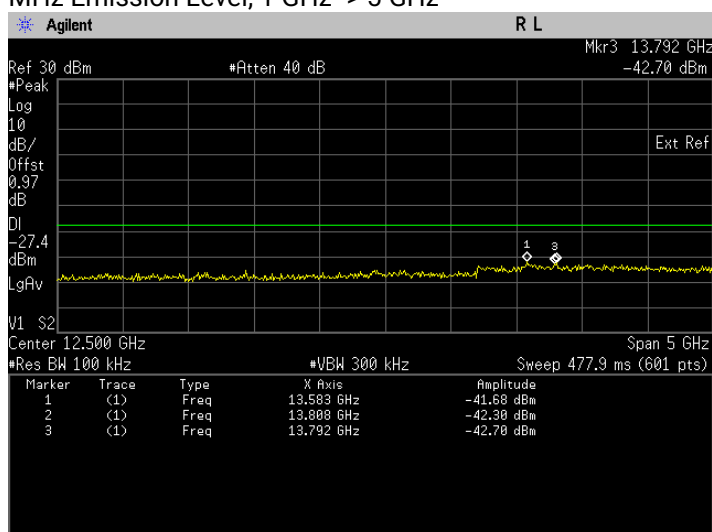
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Emission Level, 30 MHz -> 1 GHz



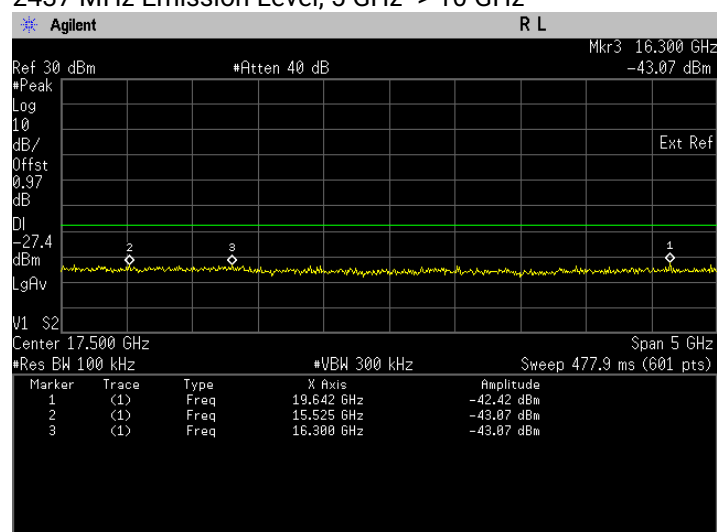
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Emission Level, 1 GHz -> 5 GHz



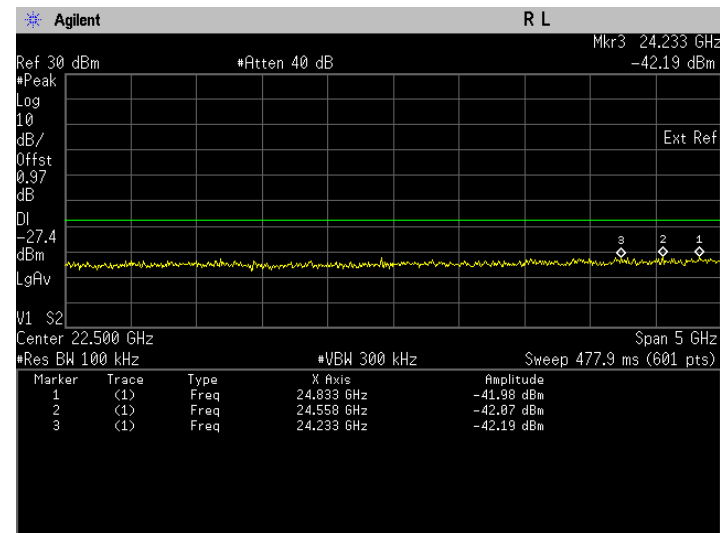
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Emission Level, 5 GHz -> 10 GHz



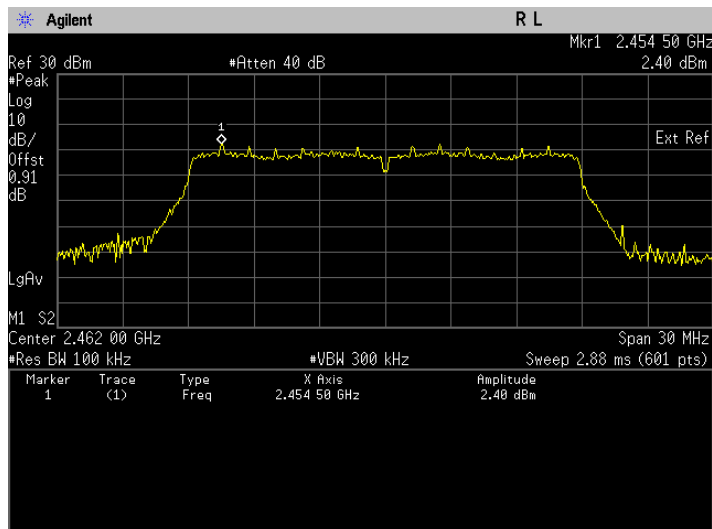
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Emission Level, 10 GHz -> 15 GHz



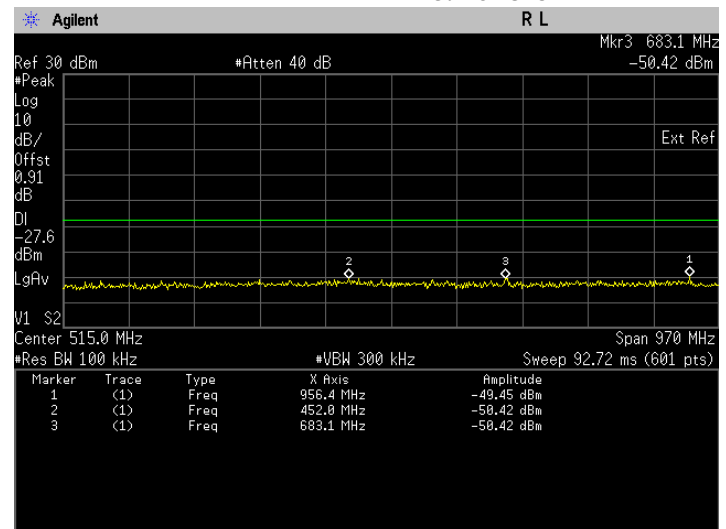
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Emission Level, 15 GHz -> 20 GHz



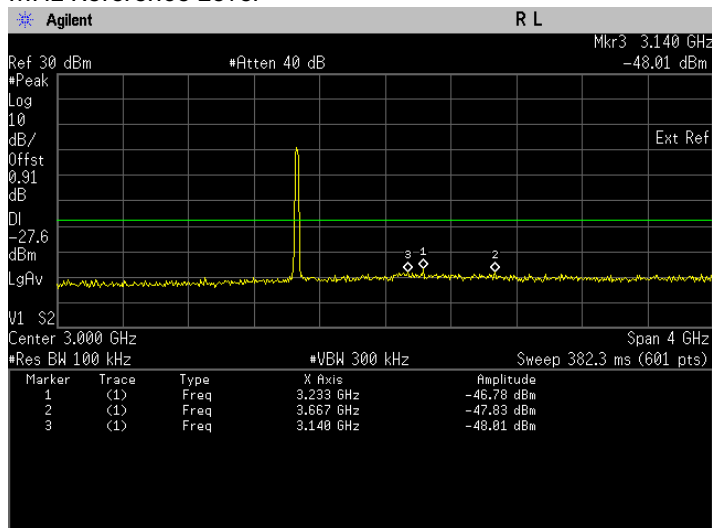
Conducted Emissions (Average). 802.11n, Frequency 2437 MHz Emission Level, 20 GHz -> 25 GHz



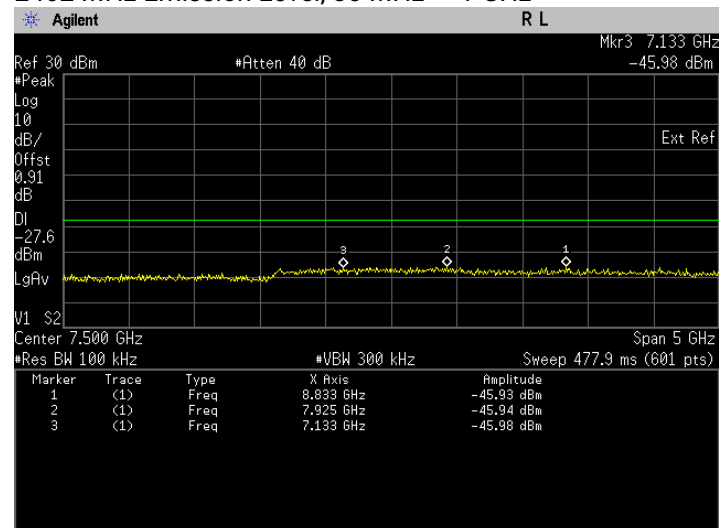
Conducted Emissions (Average). 802.11n, Frequency 2462 MHz Reference Level



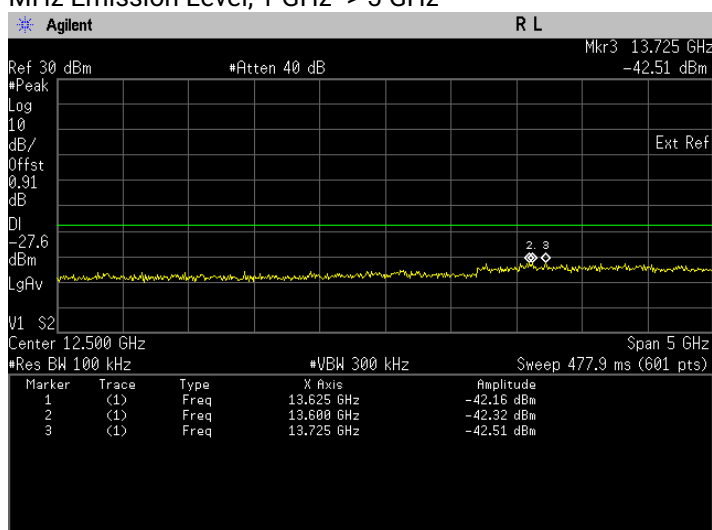
Conducted Emissions (Average). 802.11n, Frequency 2462 MHz Emission Level, 30 MHz -> 1 GHz



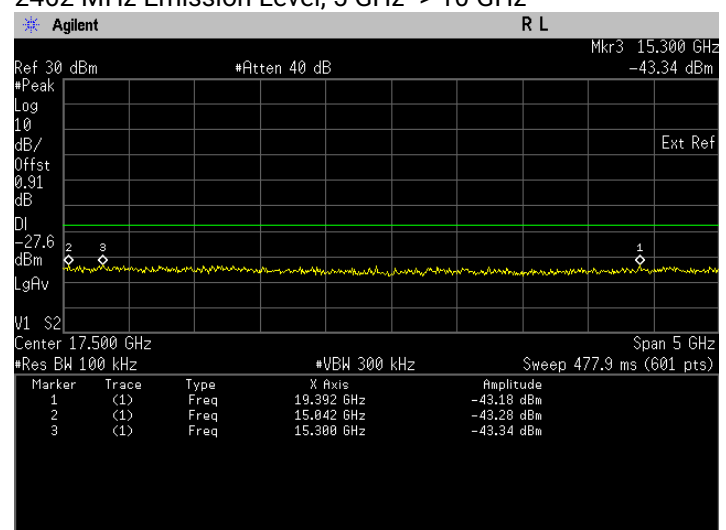
Conducted Emissions (Average). 802.11n, Frequency 2462 MHz Emission Level, 1 GHz -> 5 GHz



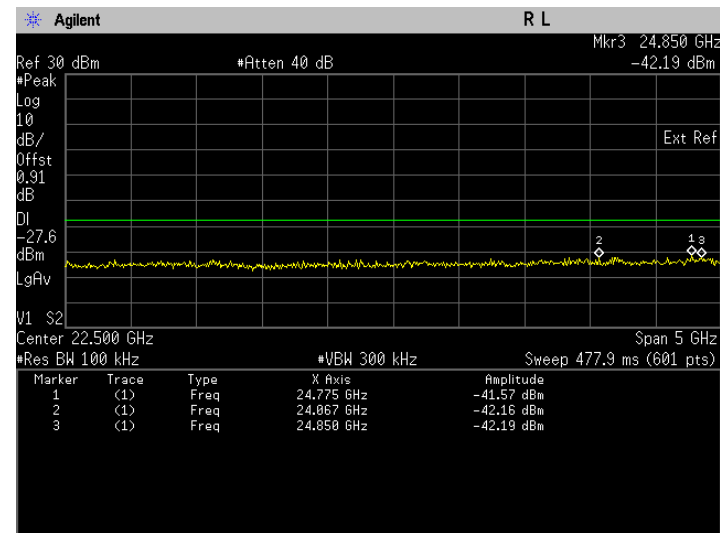
Conducted Emissions (Average). 802.11n, Frequency 2462 MHz Emission Level, 5 GHz -> 10 GHz



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



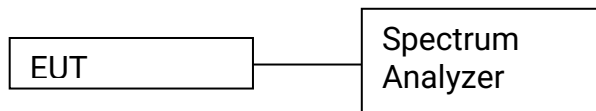
Conducted Emissions (Average). 802.11n, Frequency 2462 MHz Emission Level, 15 GHz -> 20 GHz



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

5.6. Band edge Conducted Spurious Emission

5.6.1. 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.

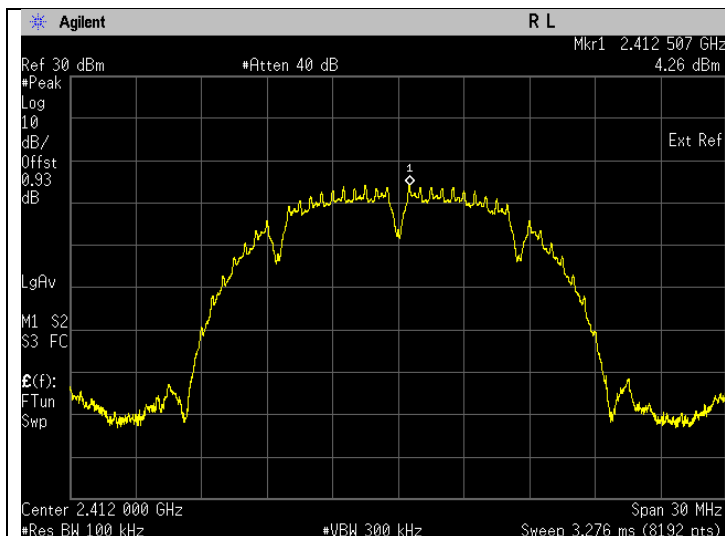
5.6.2. Test Limits:

Normal Condition (25 ° C)
Shall be at least 30 dB below max power. (Average detector)

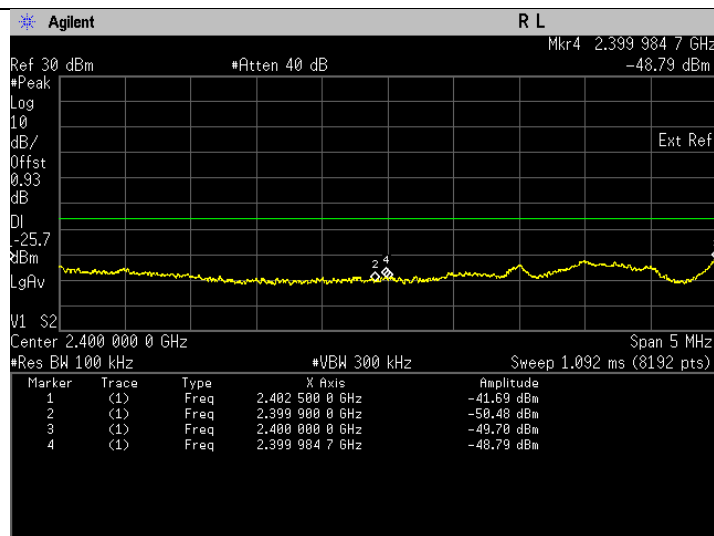
5.6.3. Test Result

802.11b

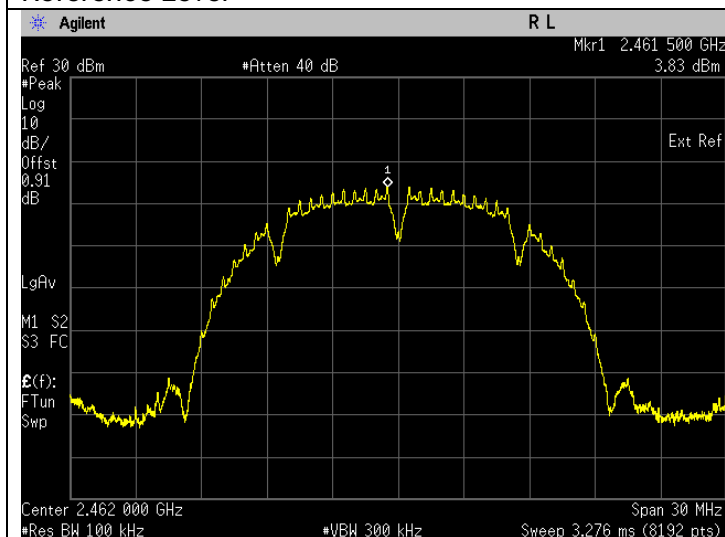
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11b	DSSS	QPSK	1	2412	2399.98	-48.79	Pass
802.11b	DSSS	QPSK	1	2462	2483.53	-49.91	Pass



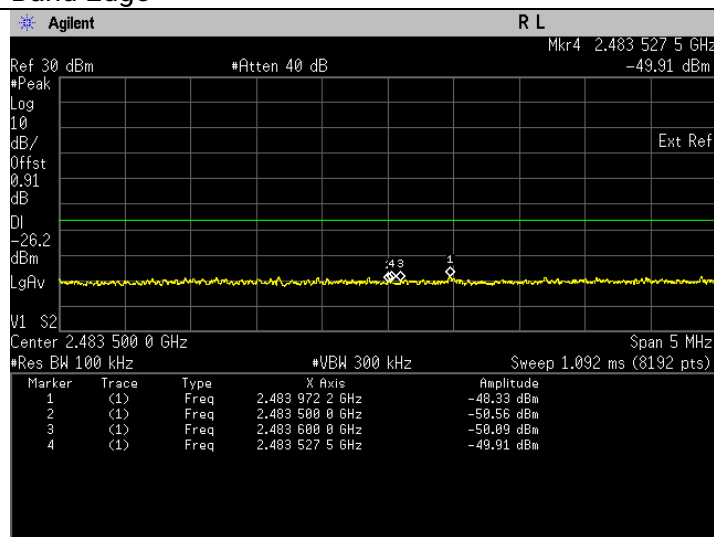
Band Edge (Average). 802.11b Frequency 2412 MHz
Reference Level



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



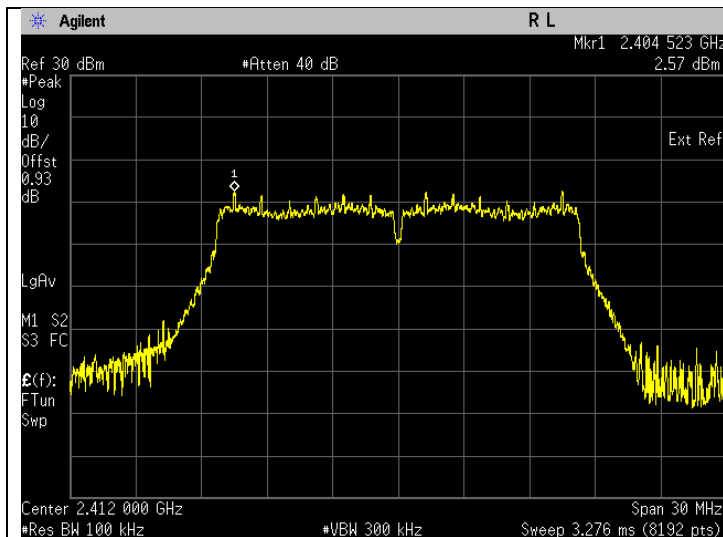
Band Edge (Average). 802.11b Frequency 2462 MHz
Reference Level



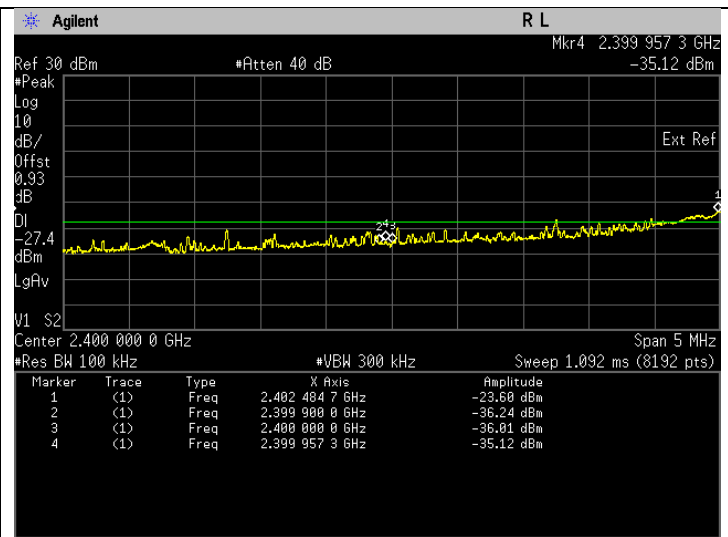
Band Edge (Average). 802.11b Frequency 2462 MHz
Band Edge

802.11g

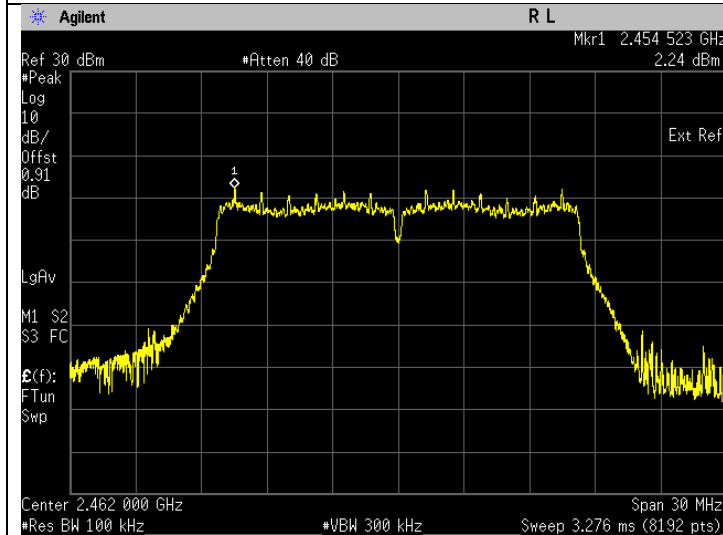
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11g	OFDM	BPSK	6	2412	2399.96	-35.12	Pass
802.11g	OFDM	BPSK	6	2462	2483.58	-44.10	Pass



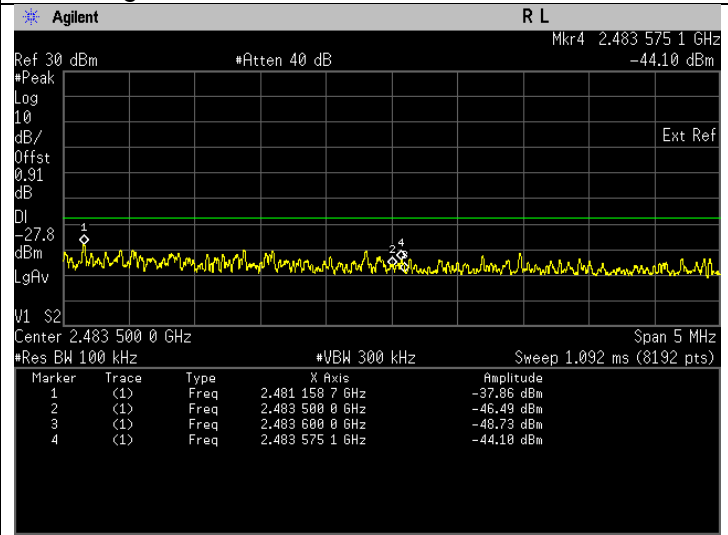
Band Edge (Average). 802.11g Frequency 2412 MHz
Reference Level



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



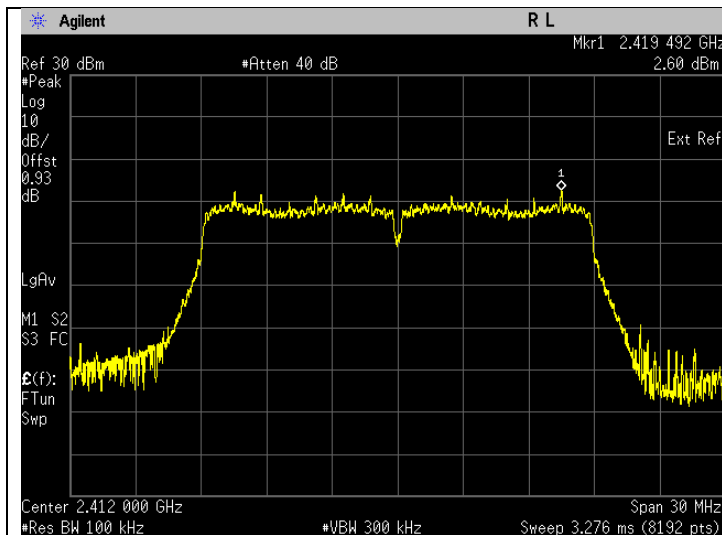
Band Edge (Average). 802.11g Frequency 2462 MHz
Reference Level



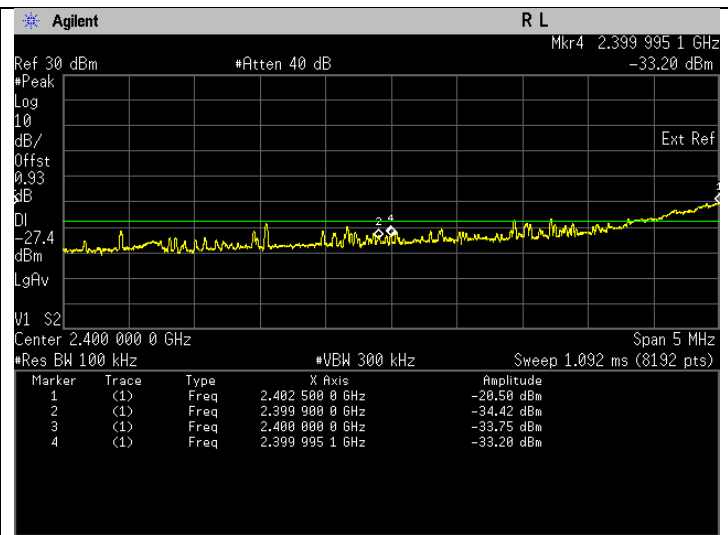
Band Edge (Average). 802.11g Frequency 2462 MHz
Band Edge

802.11n (HT20)

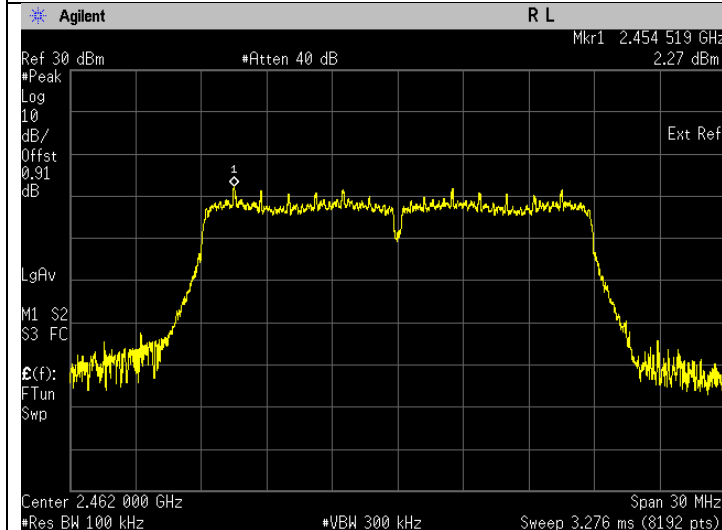
Test Conditions				Test Frequency	Results		
Standard	Modulation Type	Modulation Technology	Data Rate (mbps)	Tx (MHz)	Frequencies (MHz)	Power (dBm)	Status
802.11n	OFDM	BPSK	6.5	2412	2400.00	-33.20	Pass
802.11n	OFDM	BPSK	6.5	2462	2483.60	-42.15	Pass



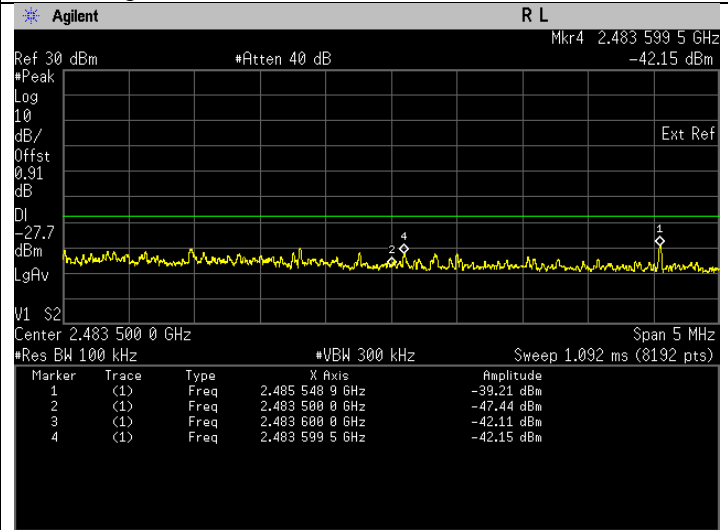
Band Edge (Average). 802.11n Frequency 2412 MHz
Reference Level



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



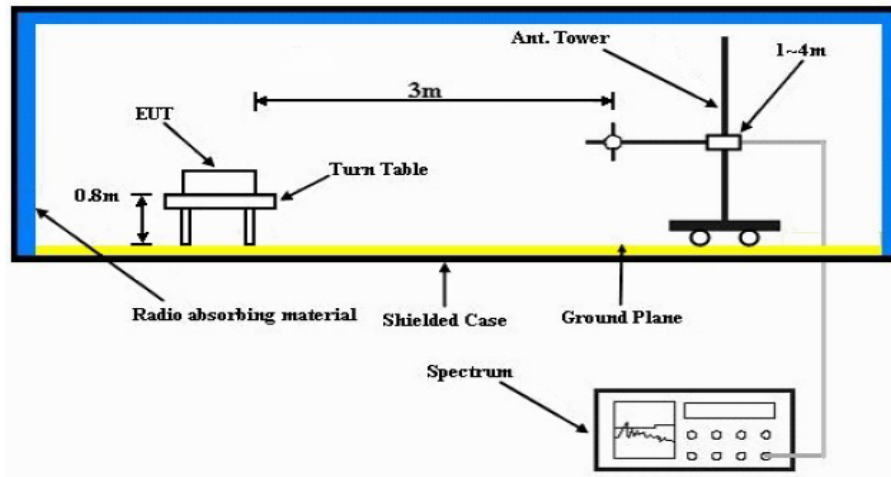
Band Edge (Average). 802.11n Frequency 2462 MHz
Reference Level



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

5.7. Radiated Emission within restricted Bands

5.7.1. Test Setup



- 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.
- The EUT is set 3m away from the interference-receiving antenna, which is mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- The test-receiver system is set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1GHz.
- 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.
- All modes of operation were investigated and the worst-case emissions are reported.

5.7.2. 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:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 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.

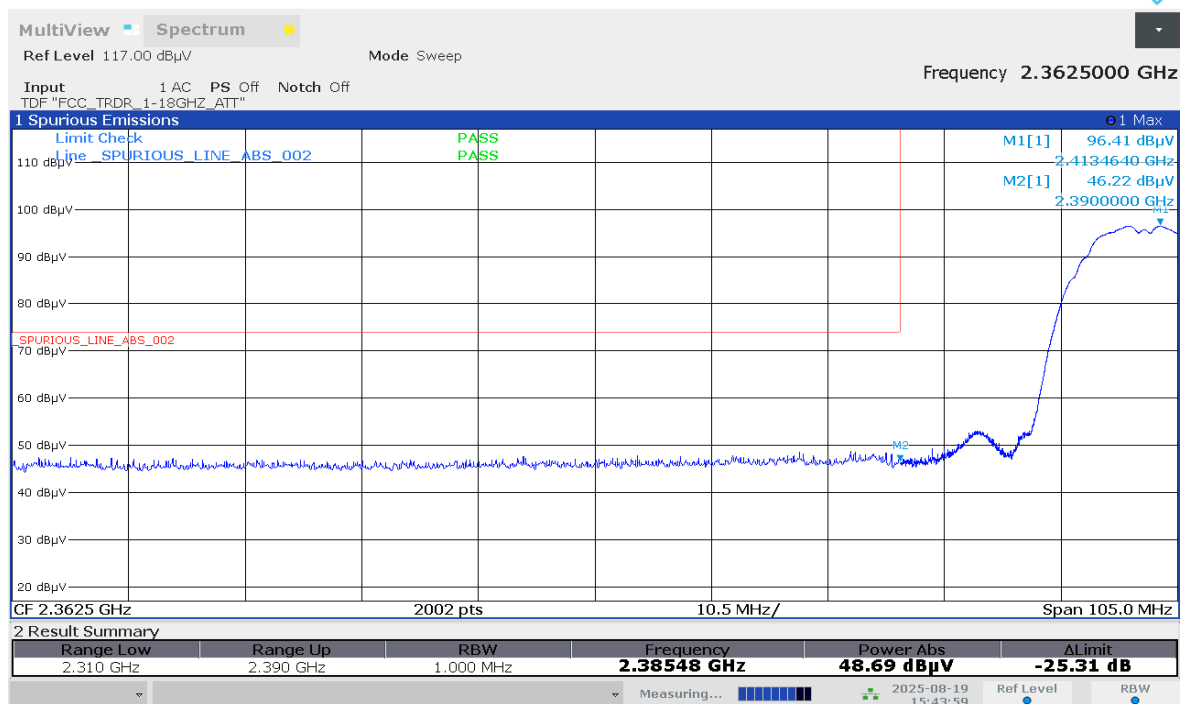
Test: WIFI SAC Restricted Band Edge	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Low	Test Frequency: 2412.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11b	

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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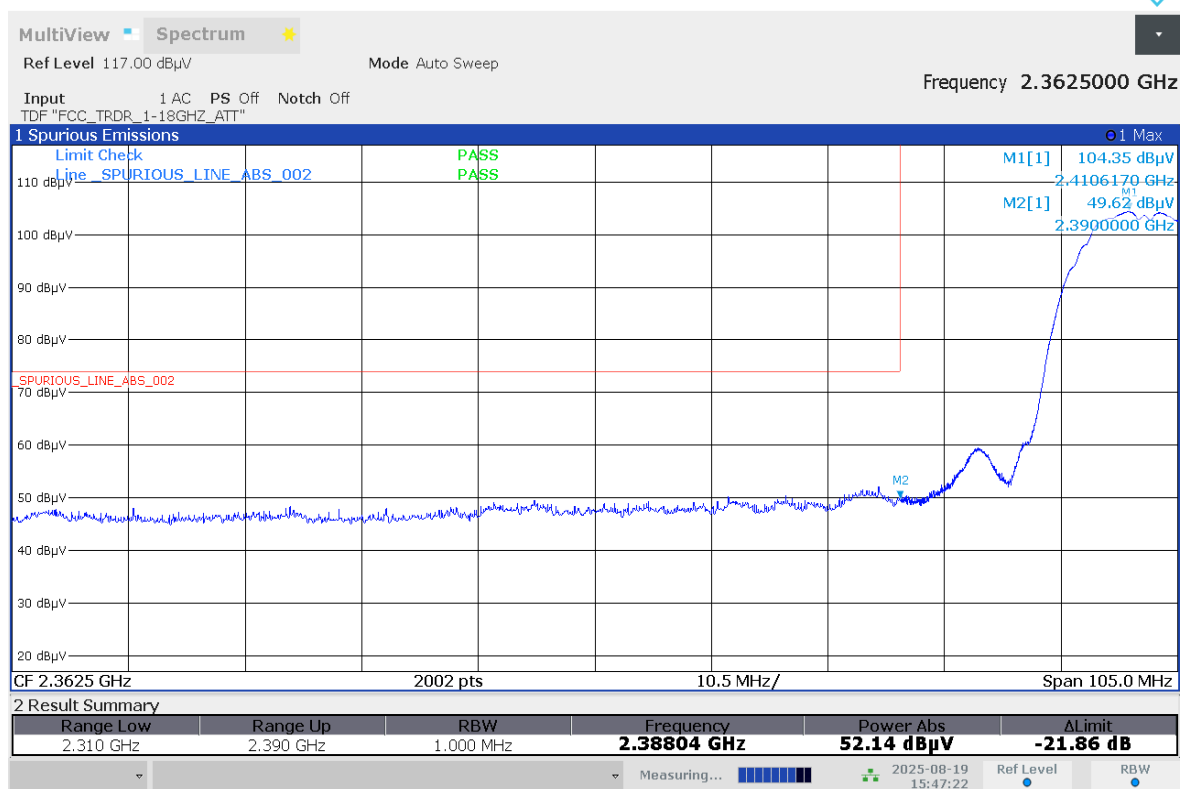
Humidity (%): 65.9
Test Date: Tue, 19 Aug, 2025

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



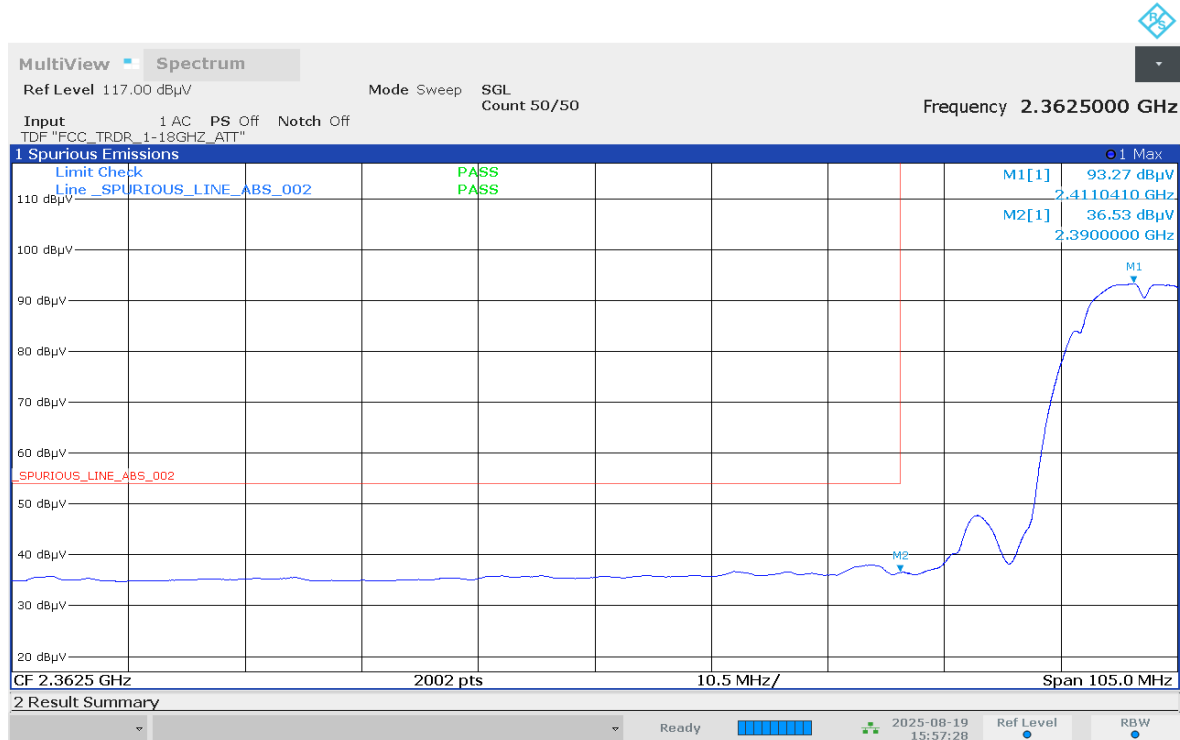
03:43:59 PM 08/19/2025

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



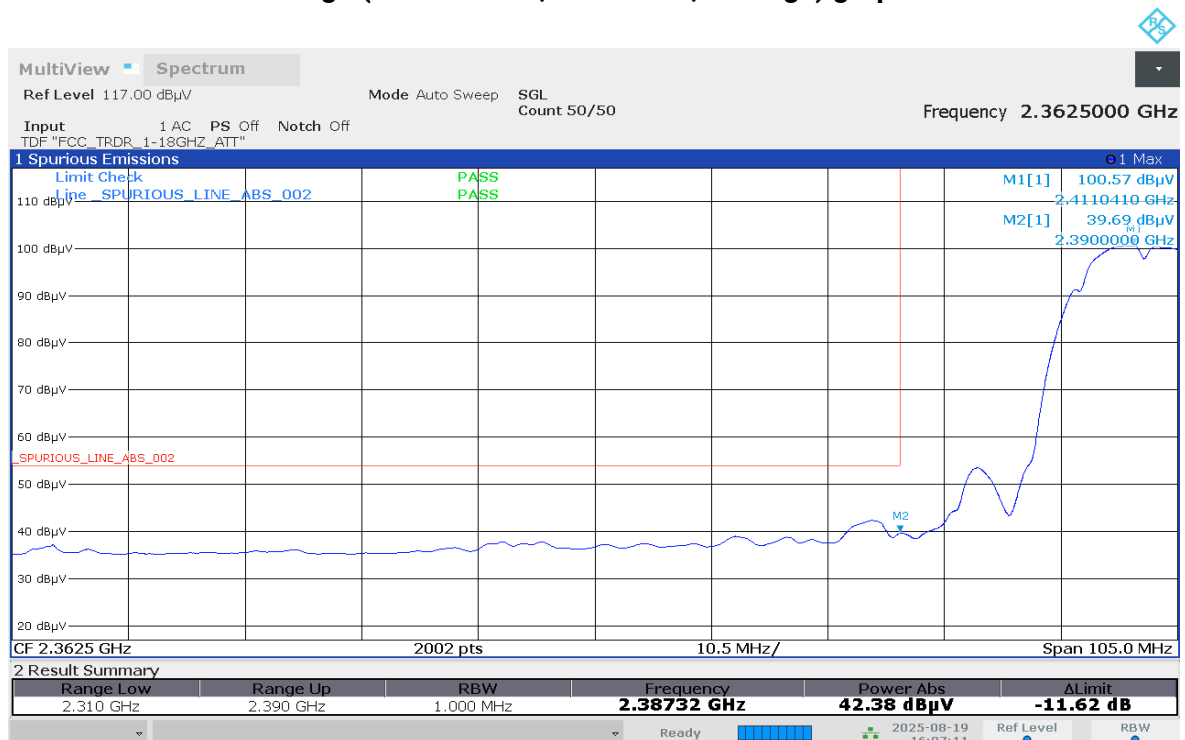
03:47:22 PM 08/19/2025

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



03:57:28 PM 08/19/2025

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



04:07:12 PM 08/19/2025

Test: WIFI SAC Restricted Band Edge	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: High	Test Frequency: 2462.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11b	

Restricted Band Edge (High Channel) tabular data

[illegible]

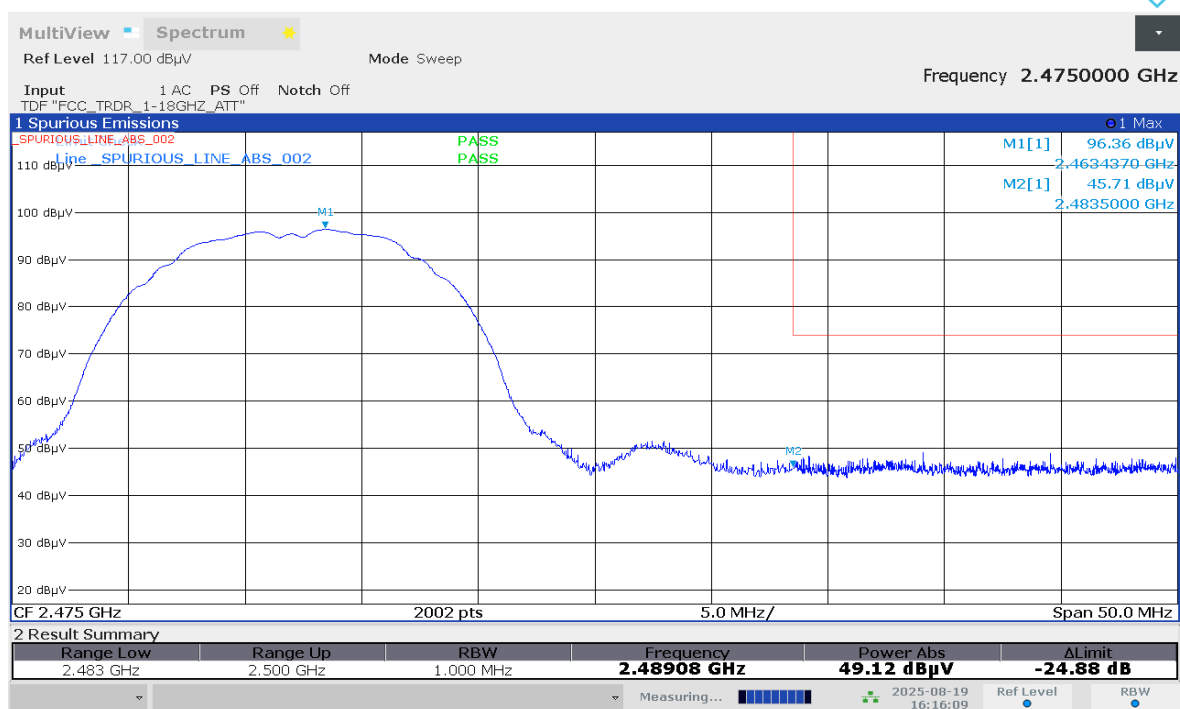
Remarks: Pass Result	Marginal Result	Fail Result
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Temperature (degC): 24.1
Test Performed by: Rezza & Fuad

Humidity (%): 65.9
Test Date: Tue, 19 Aug, 2025

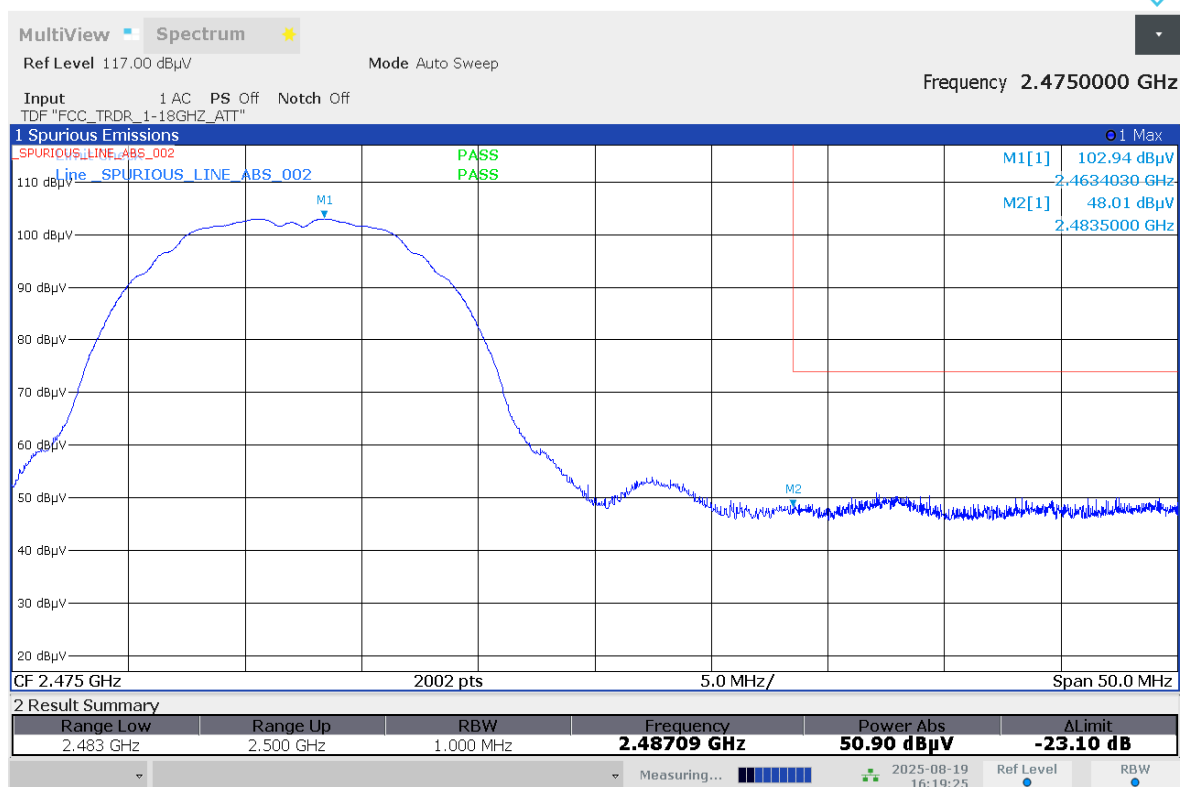
System MU: 5.14dB

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



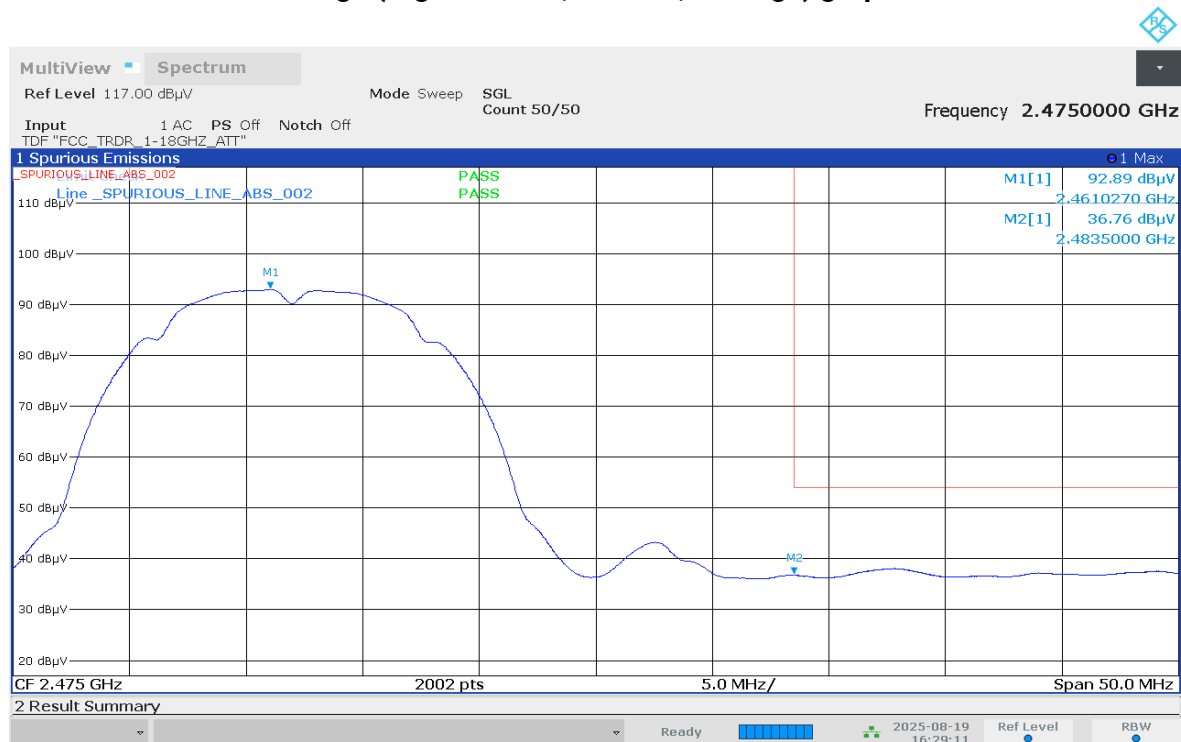
04:16:09 PM 08/19/2025

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



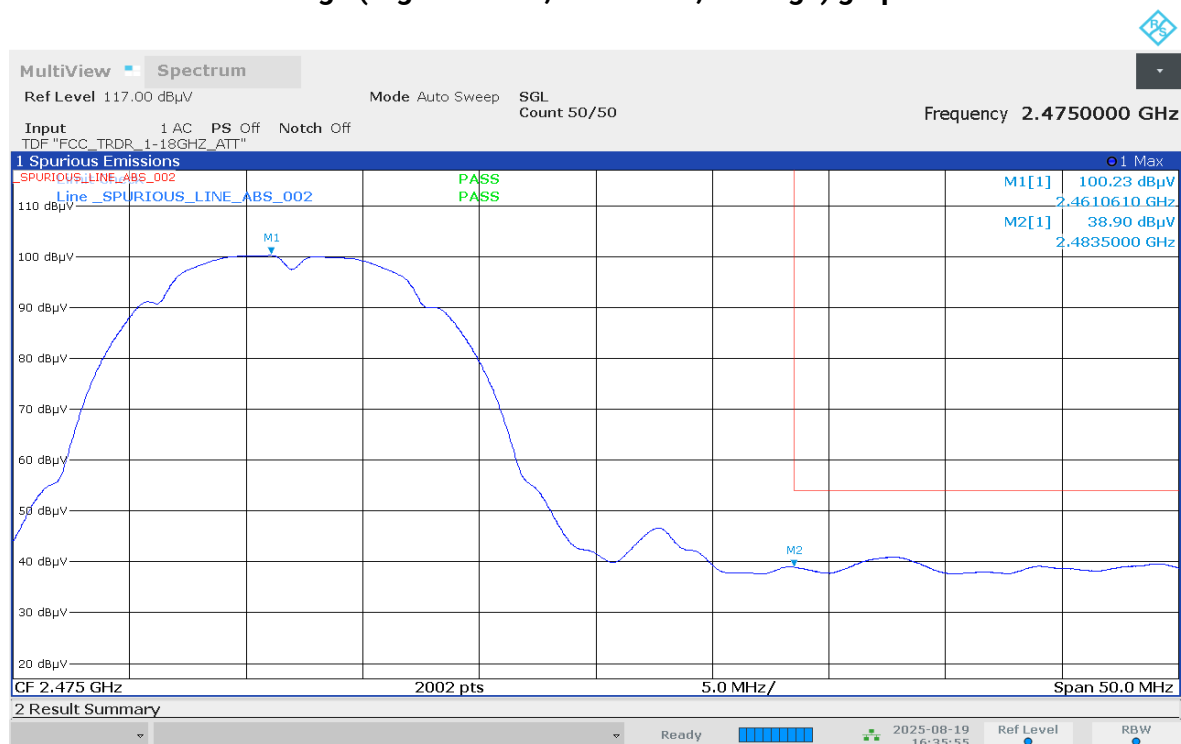
04:19:26 PM 08/19/2025

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



04:29:12 PM 08/19/2025

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



04:35:56 PM 08/19/2025

Test: WIFI SAC Restricted Band Edge	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Low	Test Frequency: 2412.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11g	

Restricted Band Edge (Low Channel) tabular data

[illegible]

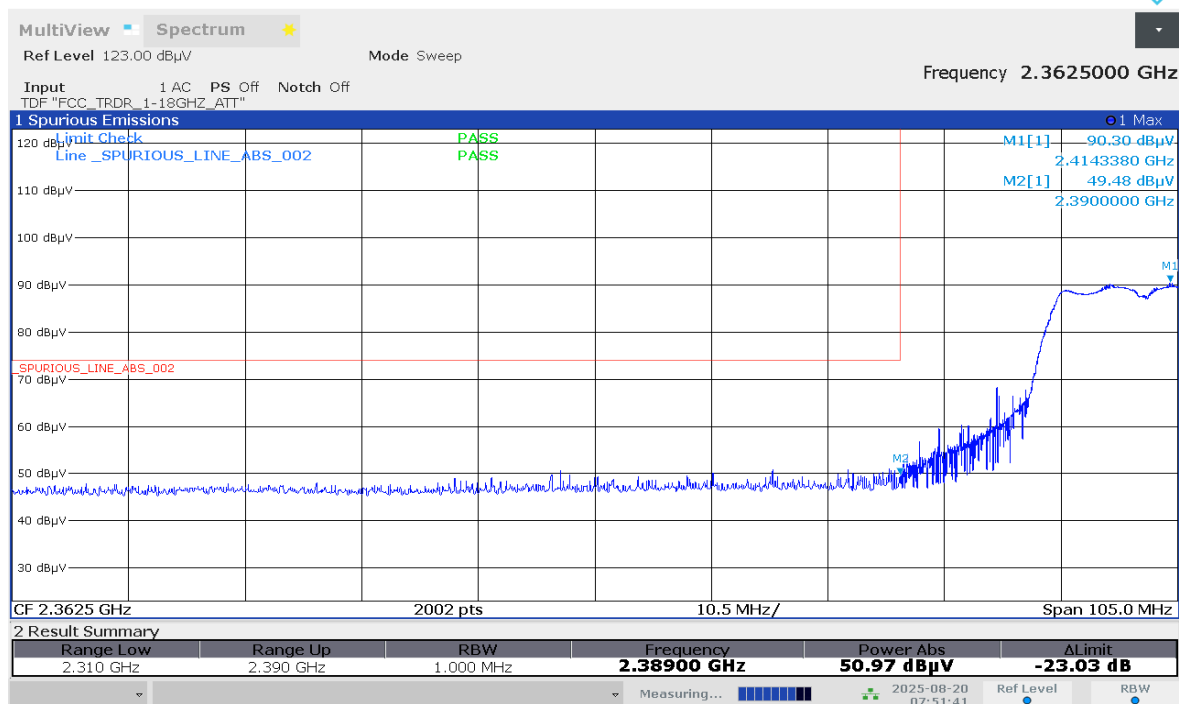
Remarks: Pass Result	Marginal Result	Fail Result
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Temperature (degC): 24.1
Test Performed by: Rezza & Fuad

System MU: 5.14dB

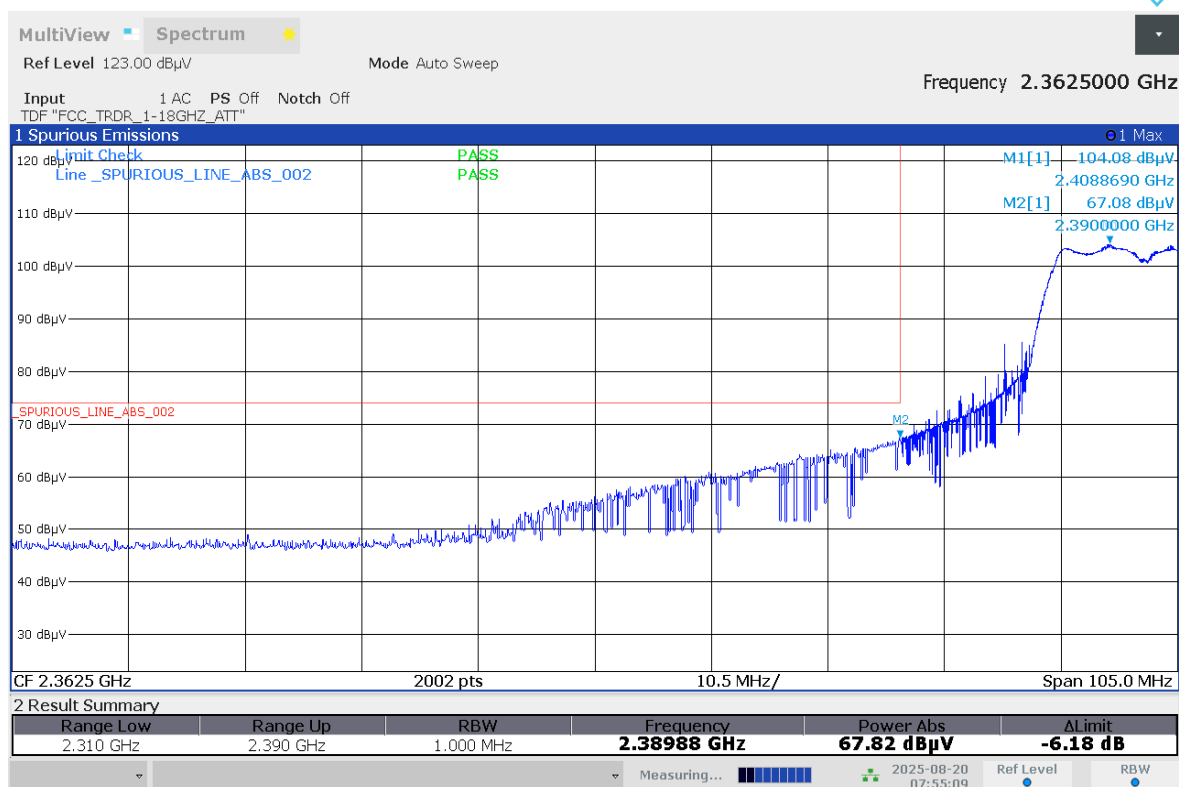
Humidity (%): 65.9
Test Date: Wed, 20 Aug, 2025

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



07:51:42 AM 08/20/2025

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



07:55:09 AM 08/20/2025

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



07:36:00 PM 08/19/2025

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



07:39:36 PM 08/19/2025

Test: WIFI SAC Restricted Band Edge	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: High	Test Frequency: 2462.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11g	

Restricted Band Edge (High Channel) tabular data

[illegible]

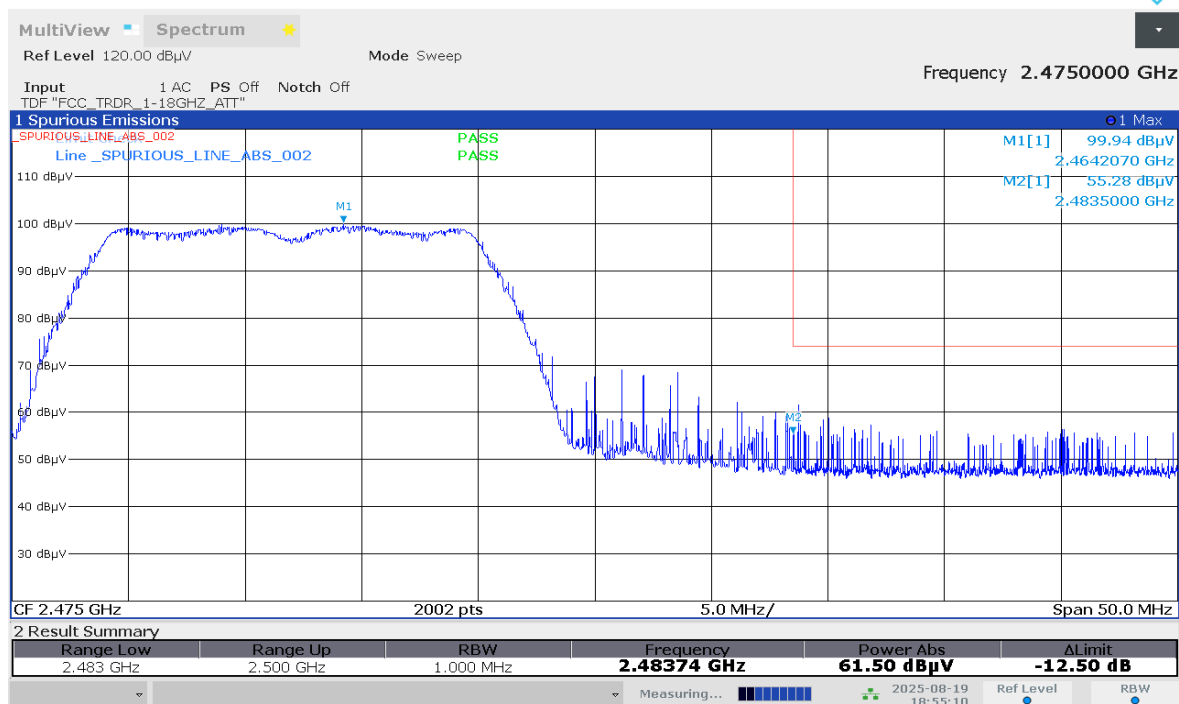
Remarks: Pass Result	Marginal Result	Fail Result
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Temperature (degC): 24.1
Test Performed by: Rezza & Fuad

System MU: 5.14dB

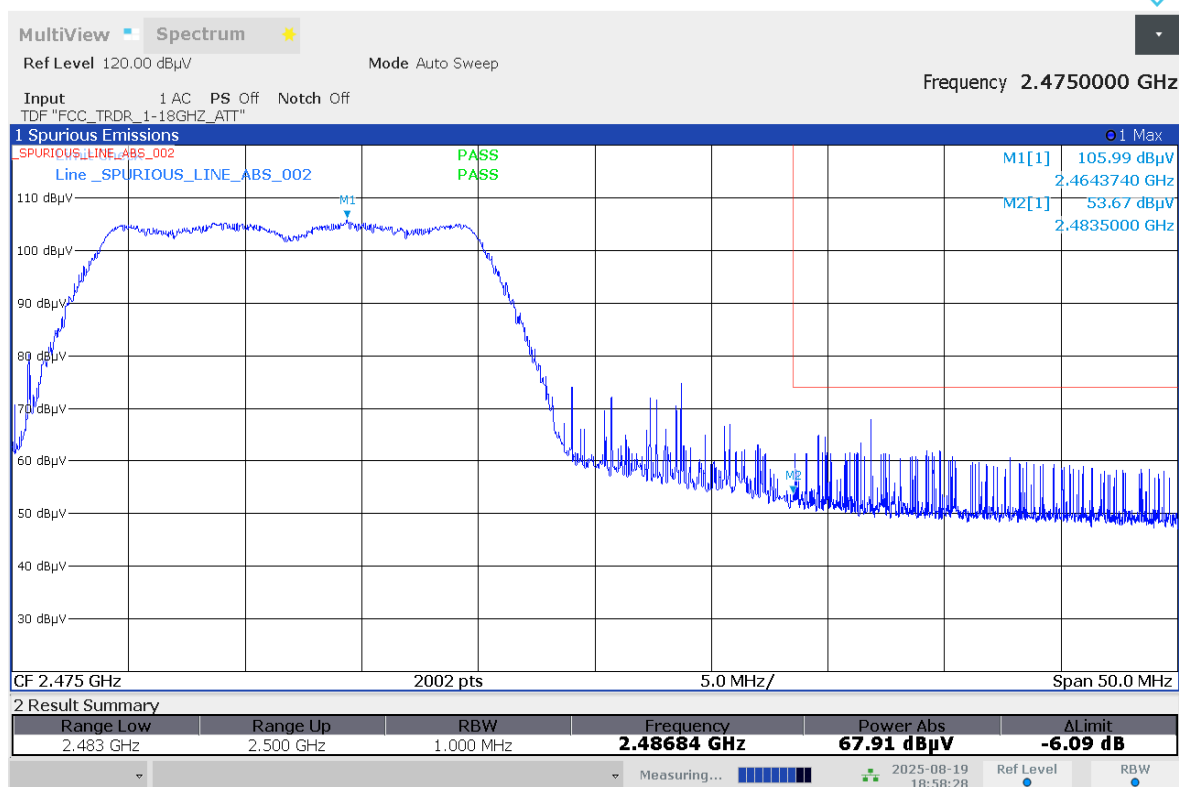
Humidity (%): 65.9
Test Date: Tue, 19 Aug, 2025

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



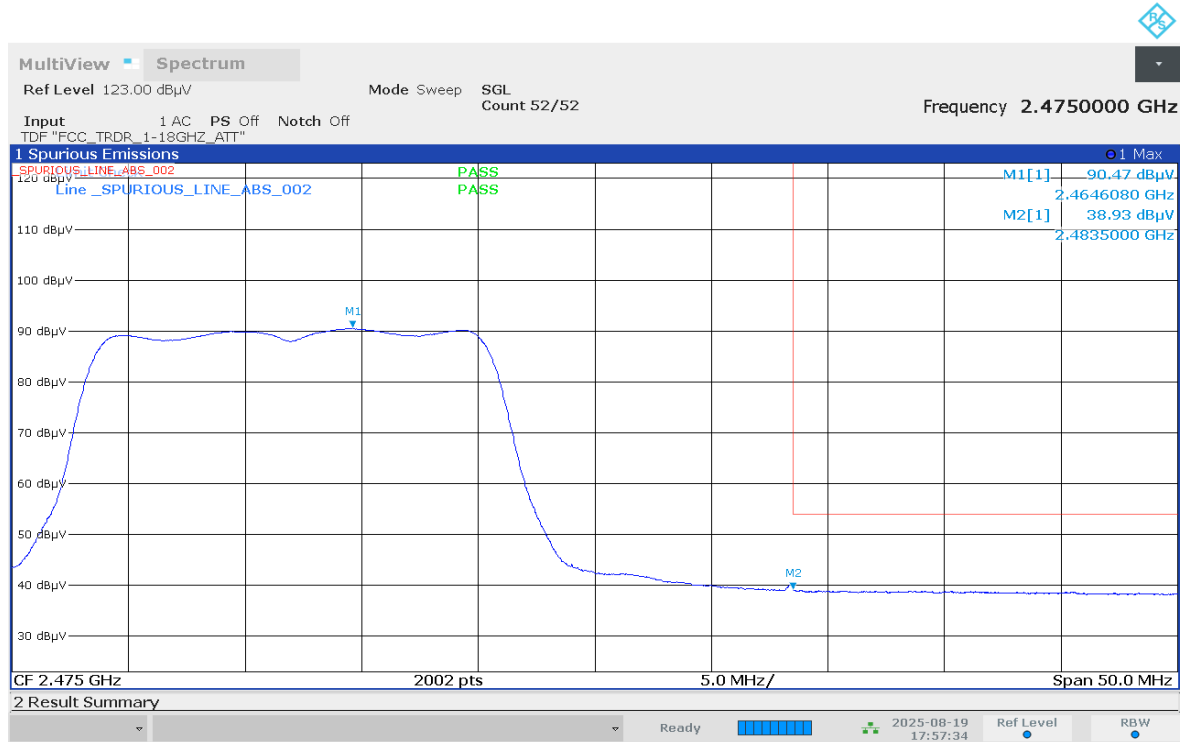
06:55:11 PM 08/19/2025

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



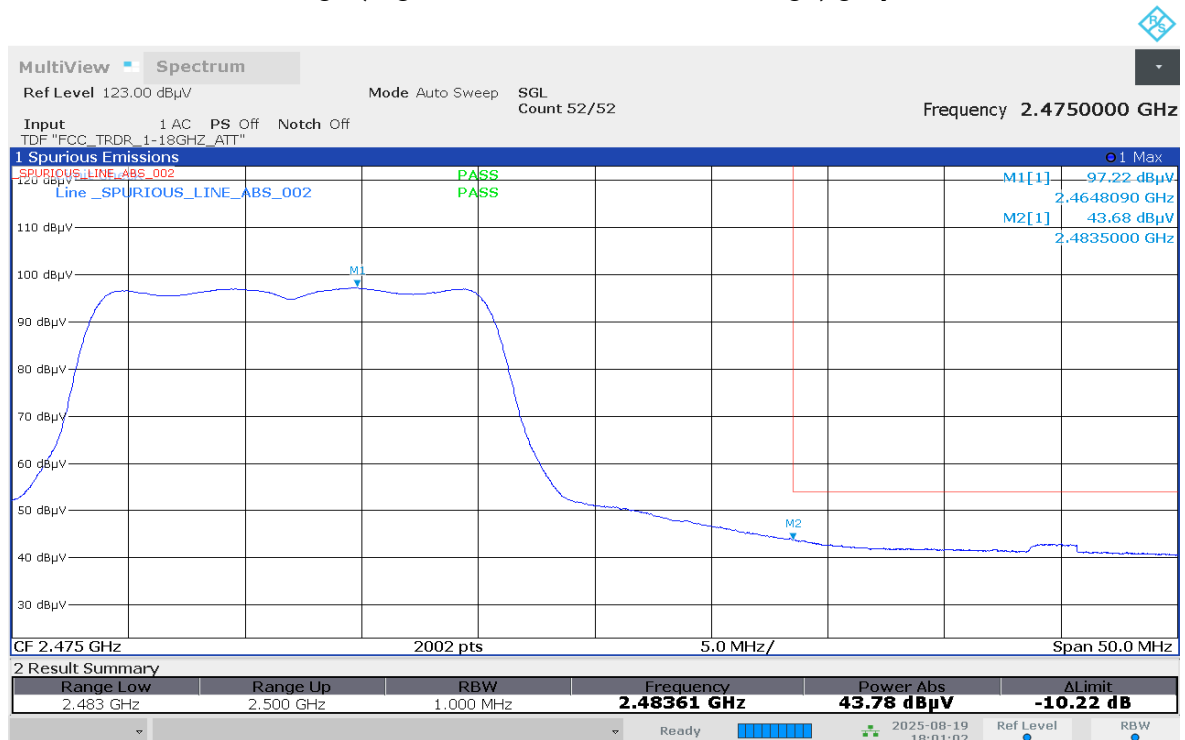
06:58:29 PM 08/19/2025

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



05:57:34 PM 08/19/2025

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



06:01:03 PM 08/19/2025

Test: WIFI SAC Restricted Band Edge	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Low	Test Frequency: 2412.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11n20	

Restricted Band Edge (Low Channel) tabular data

[illegible]

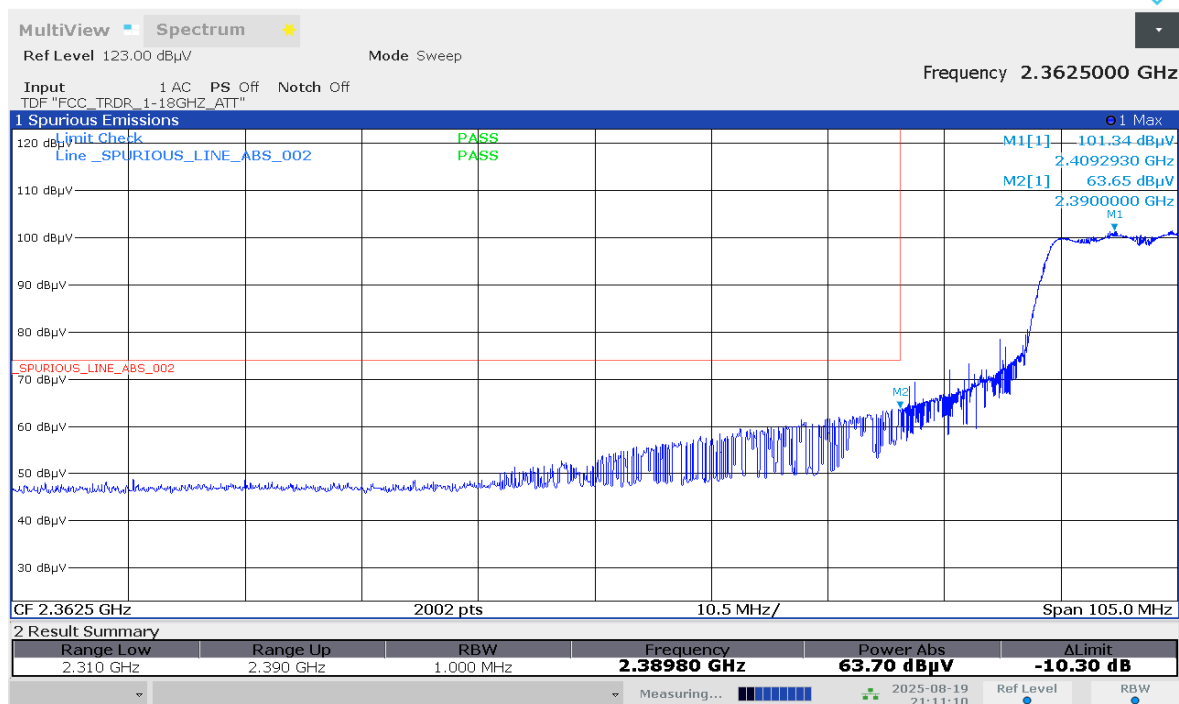
Remarks: Pass Result	Marginal Result	Fail Result
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Temperature (degC): 24.1
Test Performed by: Rezza & Fuad

System MU: 5.14dB

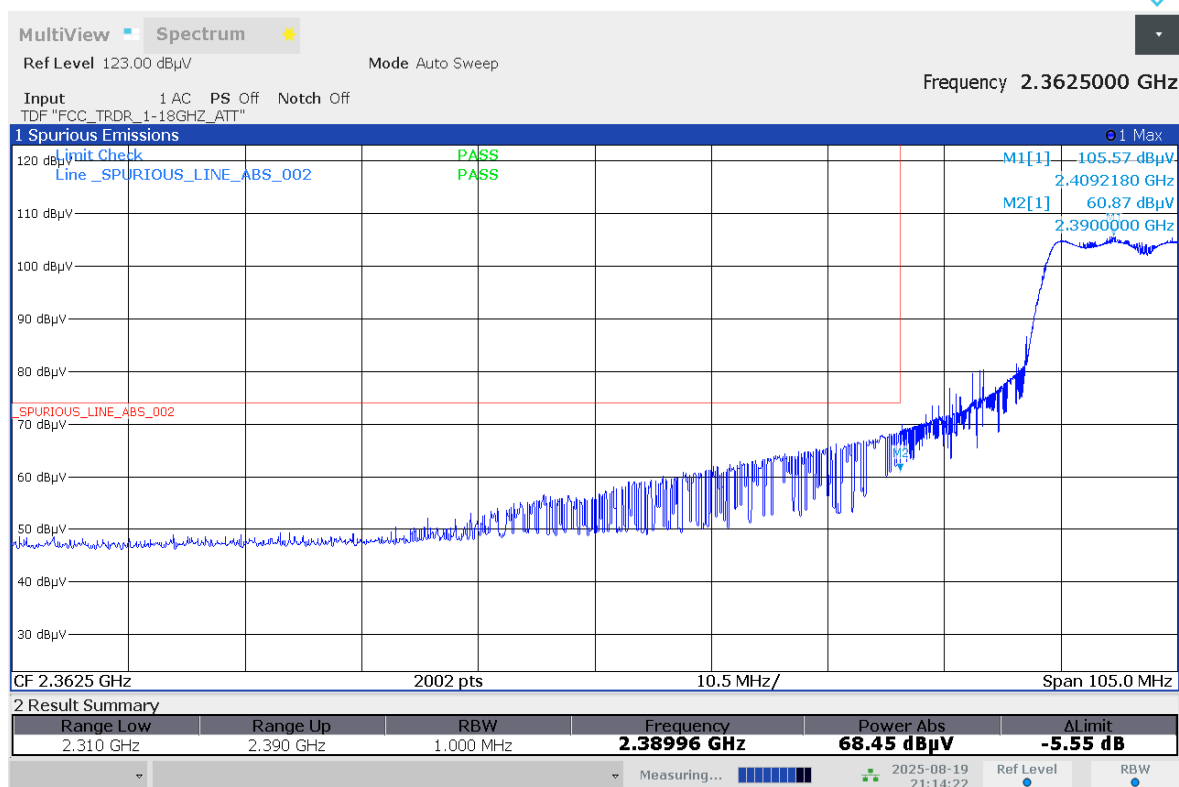
Humidity (%): 65.9
Test Date: Wed, 20 Aug, 2025

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



09:11:11 PM 08/19/2025

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



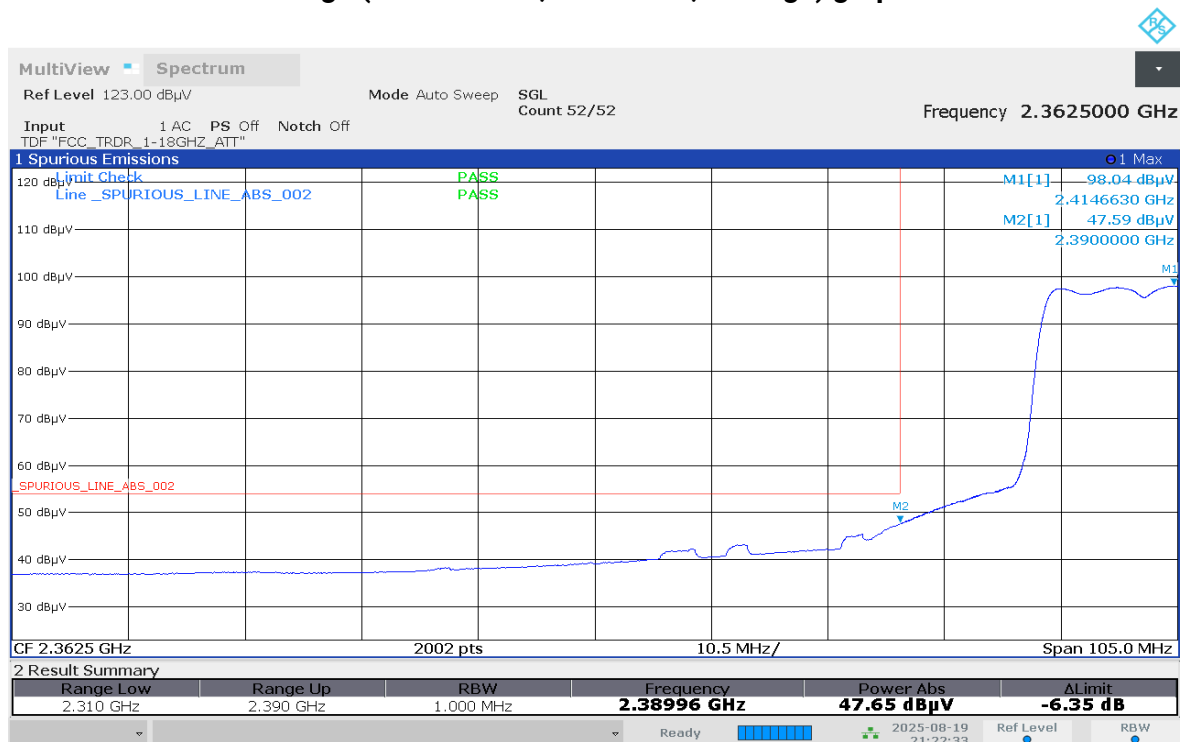
09:14:23 PM 08/19/2025

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



09:18:59 PM 08/19/2025

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



09:22:34 PM 08/19/2025

Test: WIFI SAC Restricted Band Edge	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: High	Test Frequency: 2462.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11n20	

Restricted Band Edge (High Channel) tabular data

[illegible]

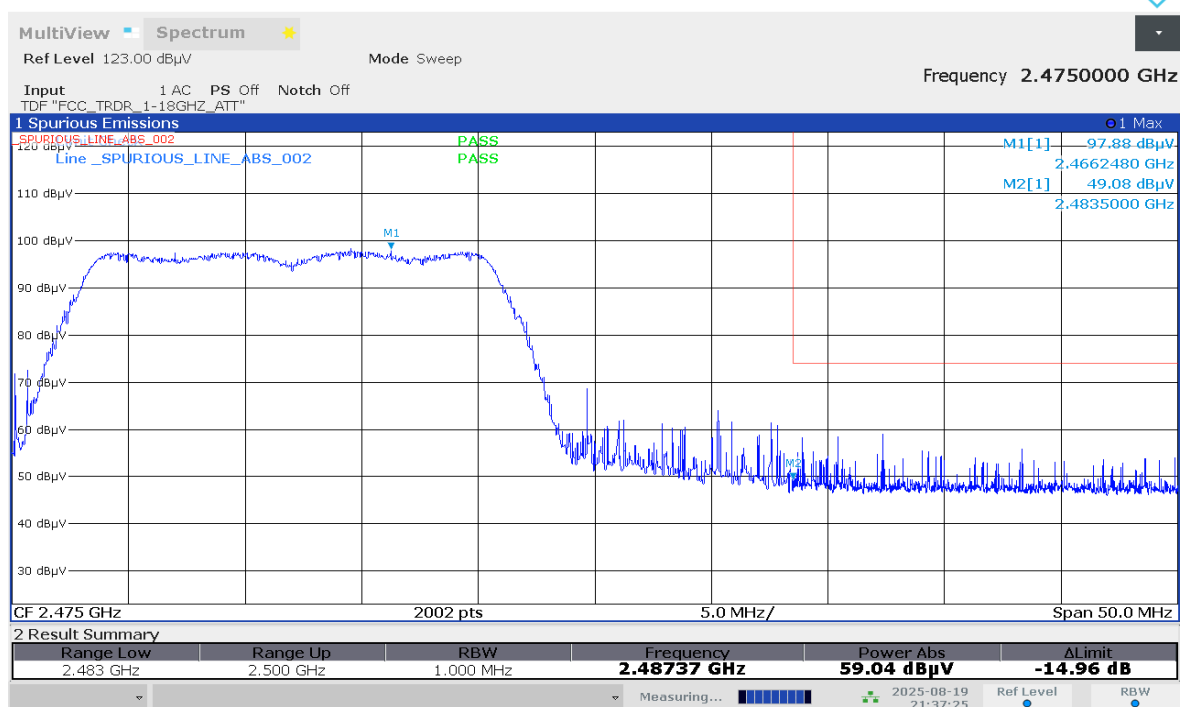
Remarks: Pass Result	Marginal Result	Fail Result
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Temperature (degC): 24.1
Test Performed by: Rezza & Fuad

System MU: 5.14dB

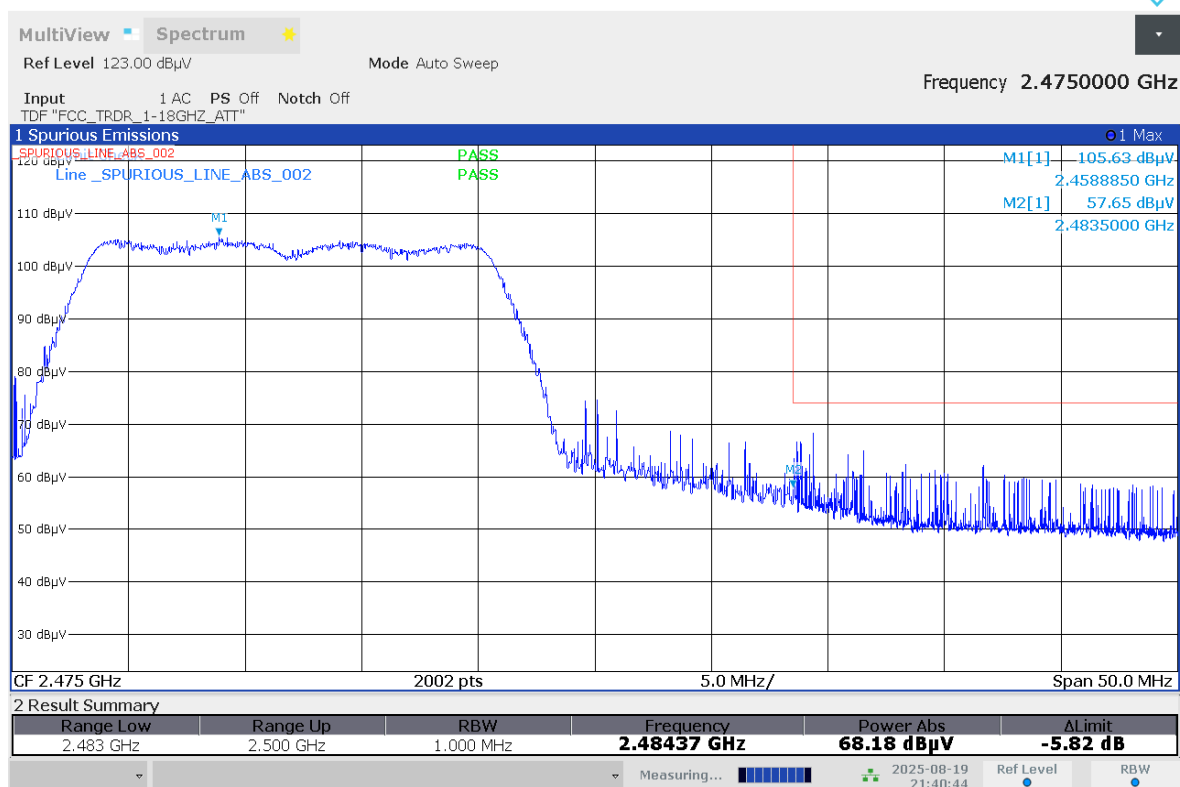
Humidity (%): 65.9
Test Date: Wed, 20 Aug, 2025

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



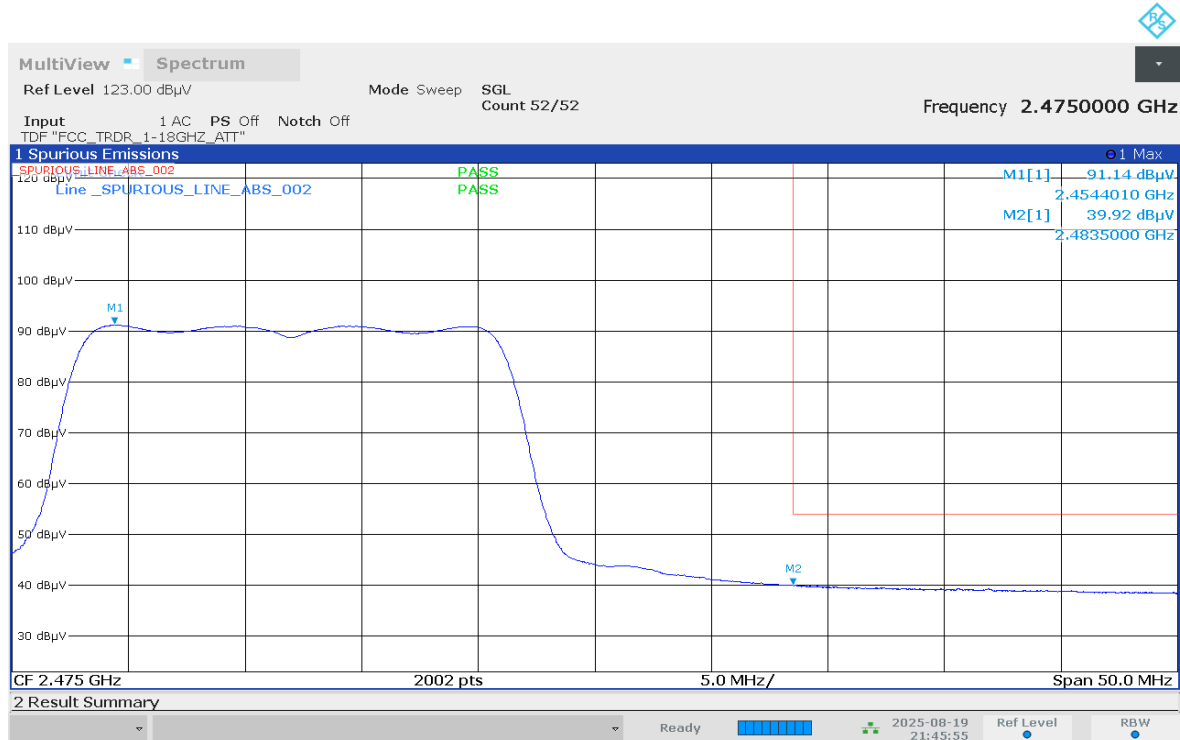
09:37:26 PM 08/19/2025

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



09:40:44 PM 08/19/2025

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



09:45:55 PM 08/19/2025

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



09:49:26 PM 08/19/2025

Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Low	Test Frequency: 2412.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11b	Channel Bandwidth: 20 MHz

Radiated Emission (Low Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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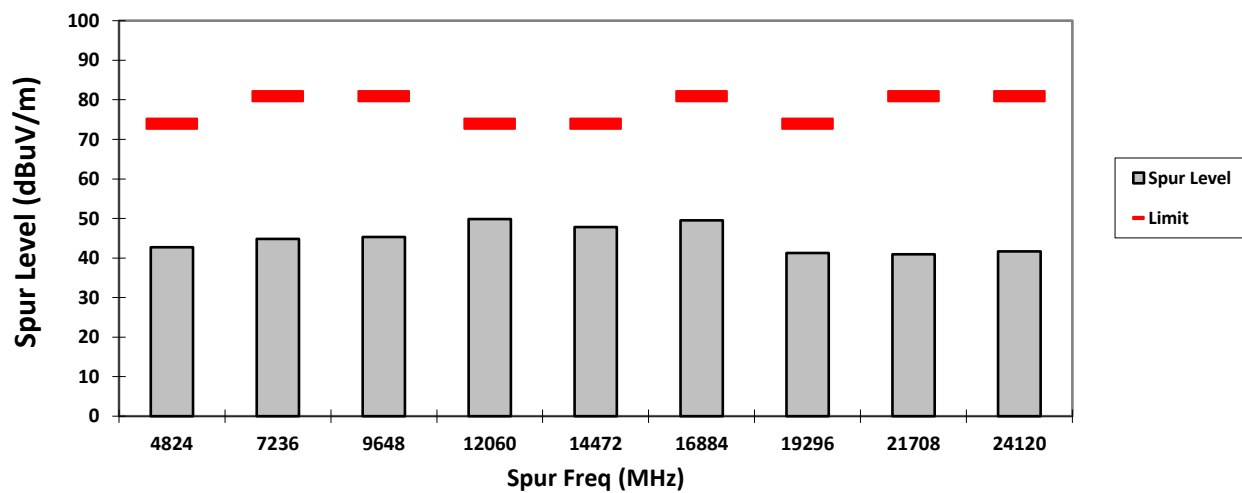
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

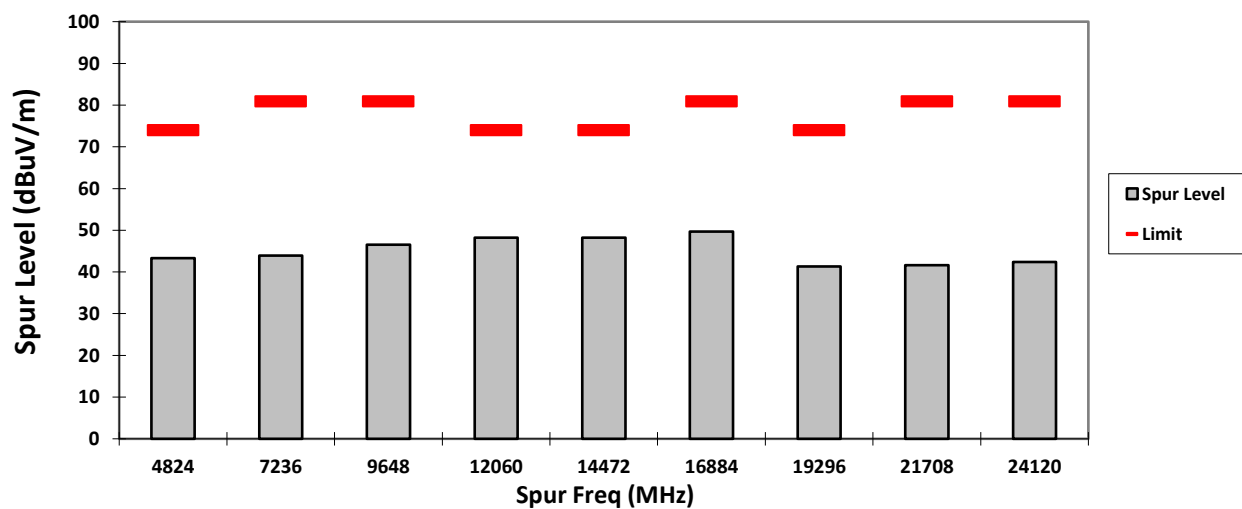
Note:

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Mid	Test Frequency: 2437.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11b	Channel Bandwidth: 20 MHz

Radiated Emission (Mid Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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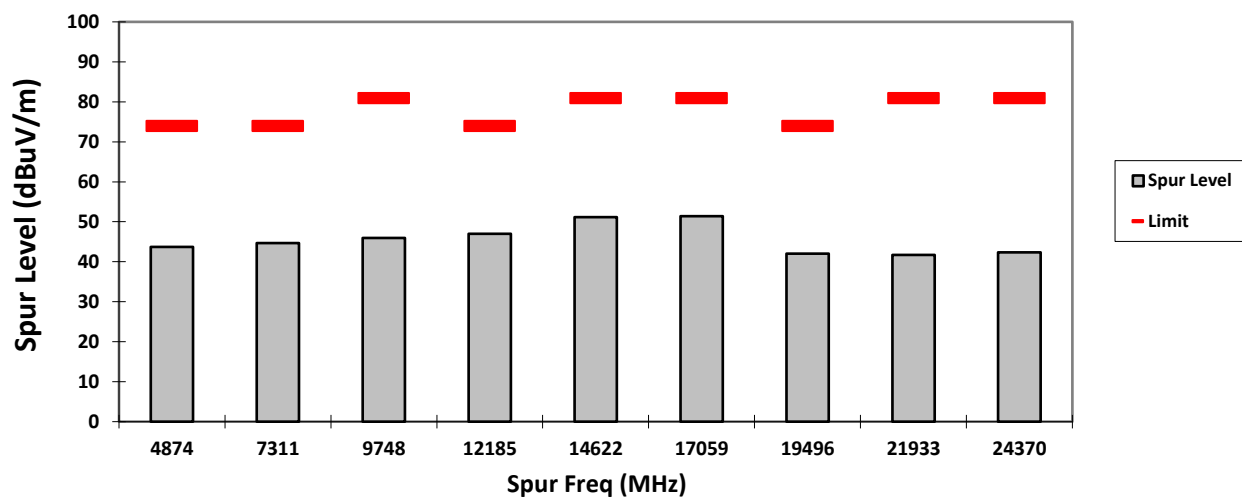
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

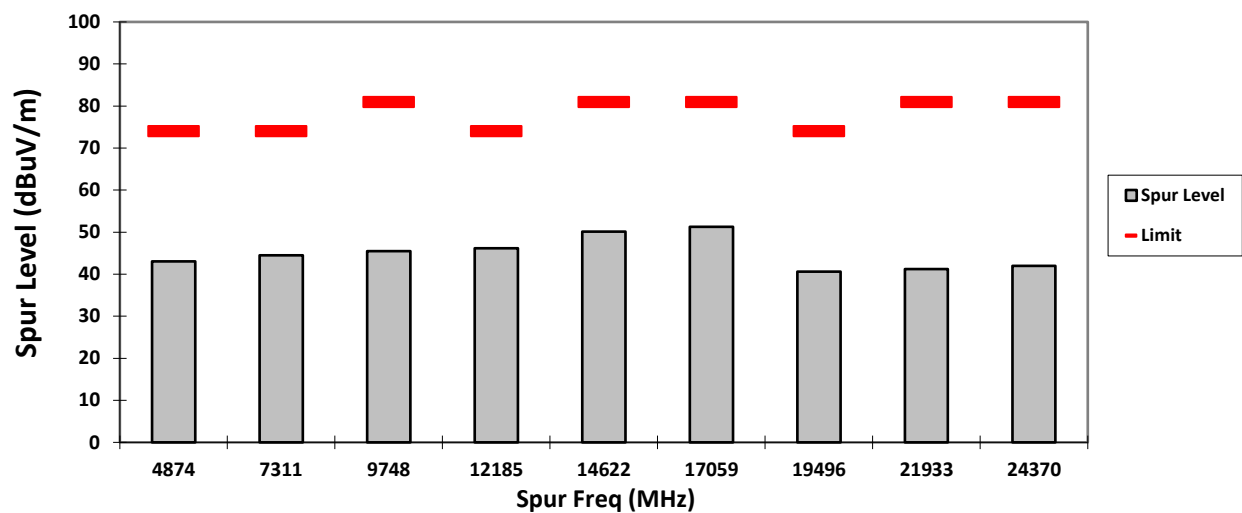
Note:

- 3) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 4) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: High	Test Frequency: 2462.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11b	Channel Bandwidth: 20 MHz

Radiated Emission (High Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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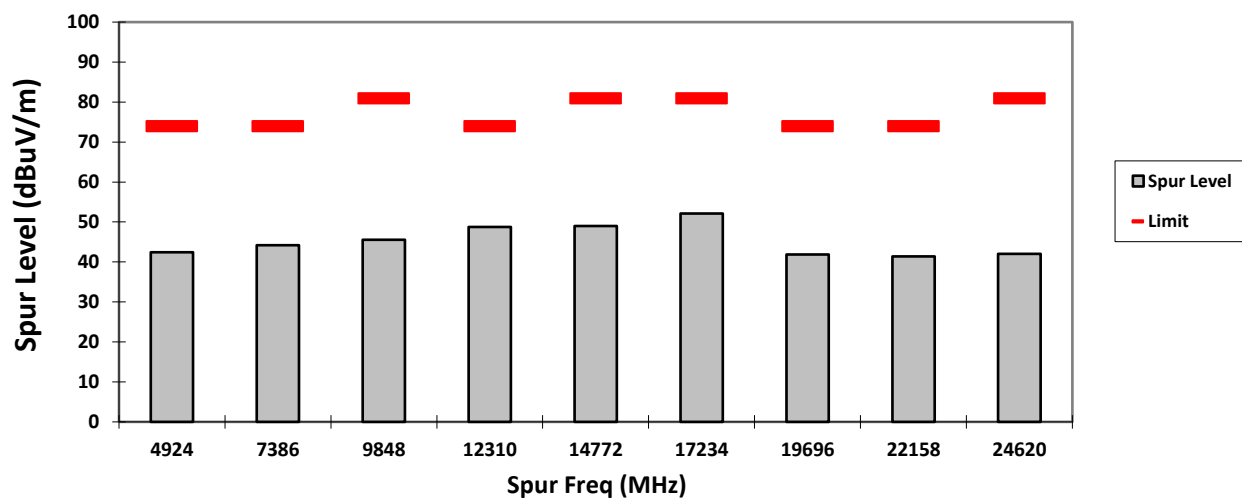
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

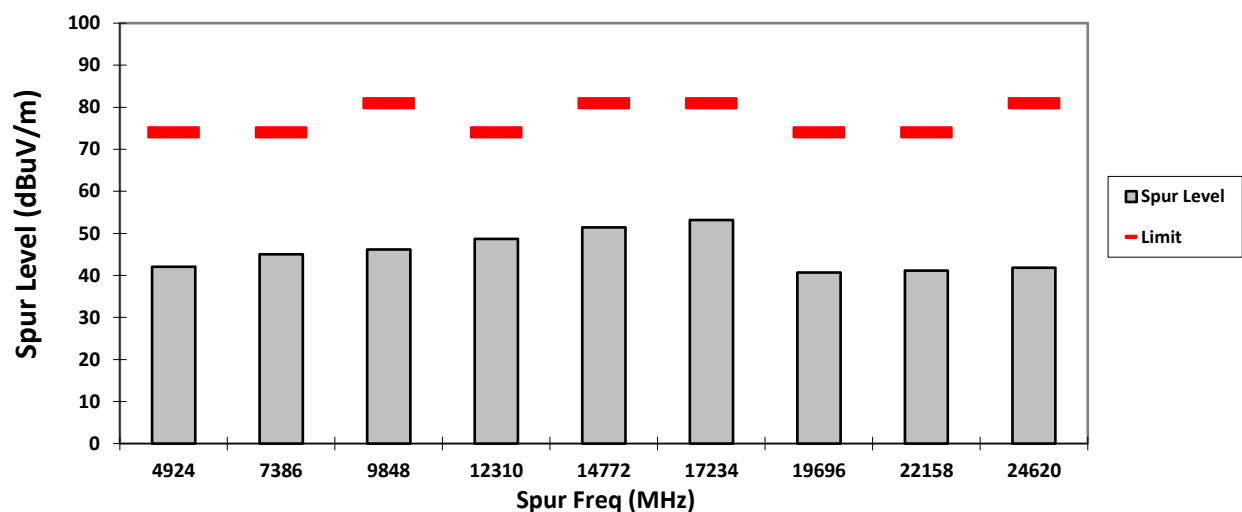
Note:

- 5) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 6) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Low	Test Frequency: 2412.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11g	Channel Bandwidth: 20 MHz

Radiated Emission (Low Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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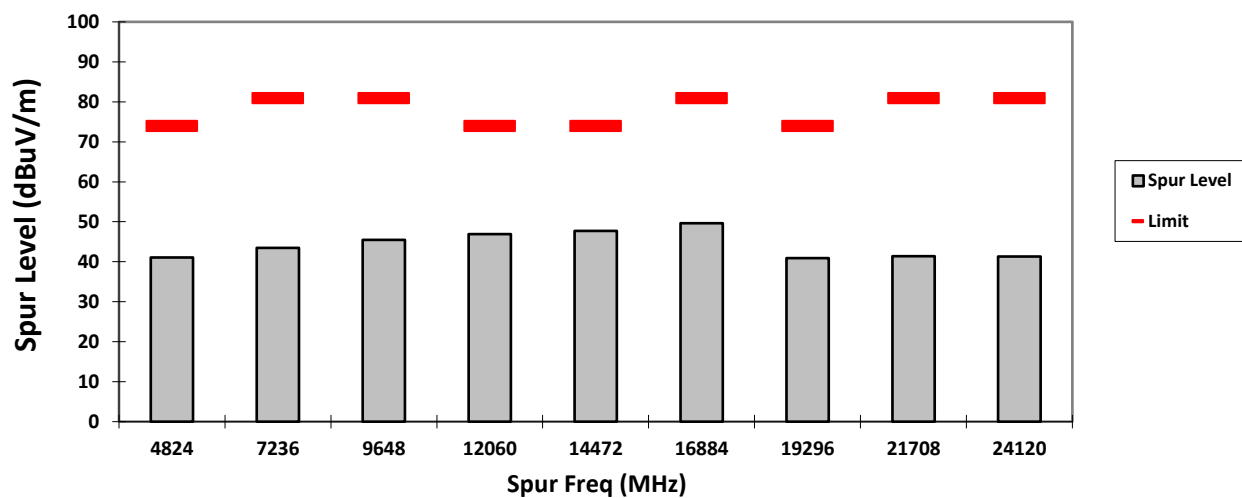
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

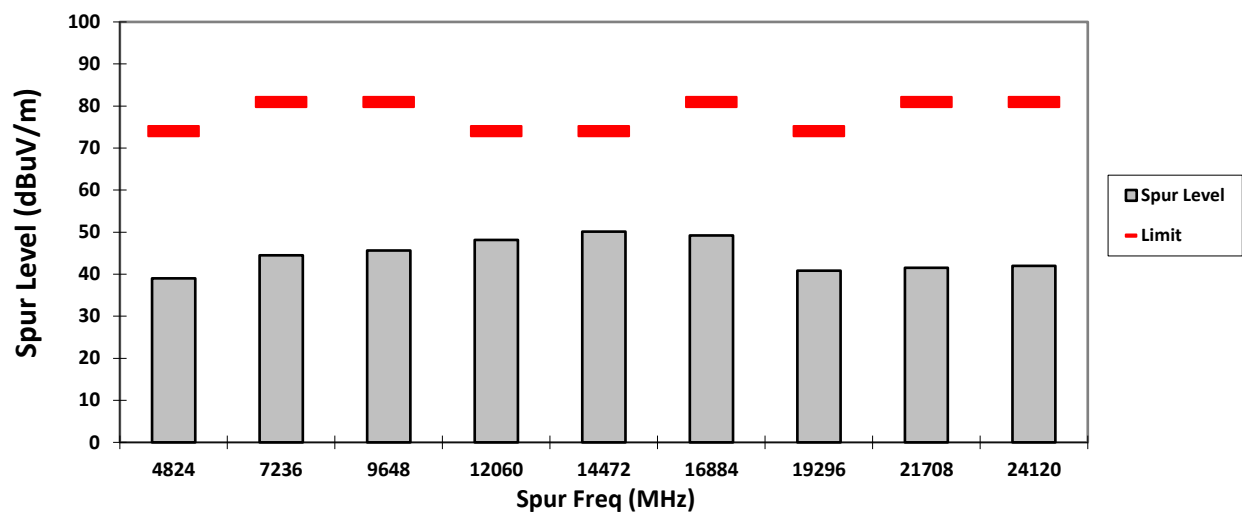
Note:

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Mid	Test Frequency: 2437.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11g	Channel Bandwidth: 20 MHz

Radiated Emission (Mid Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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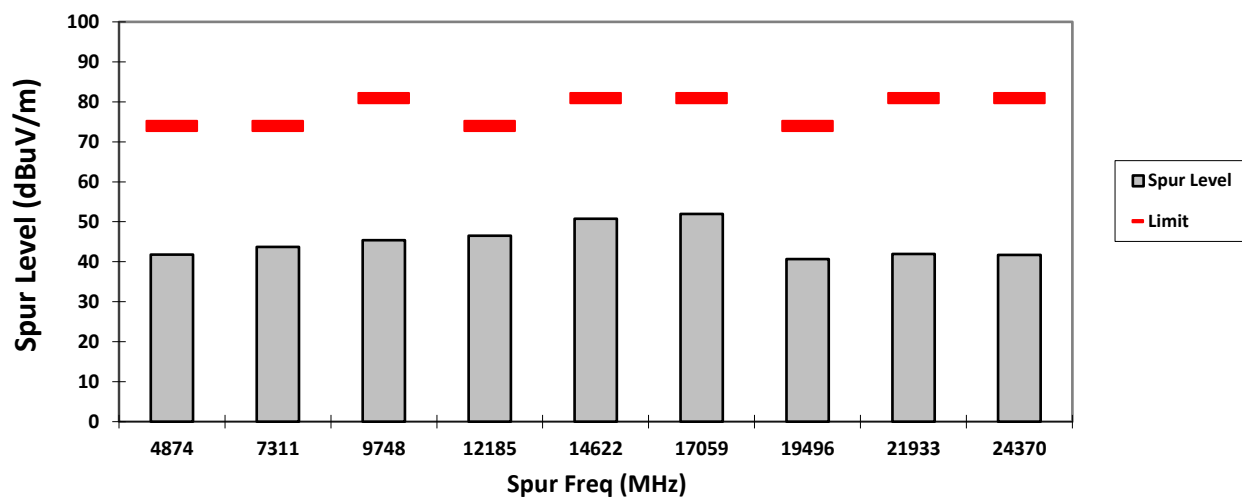
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.

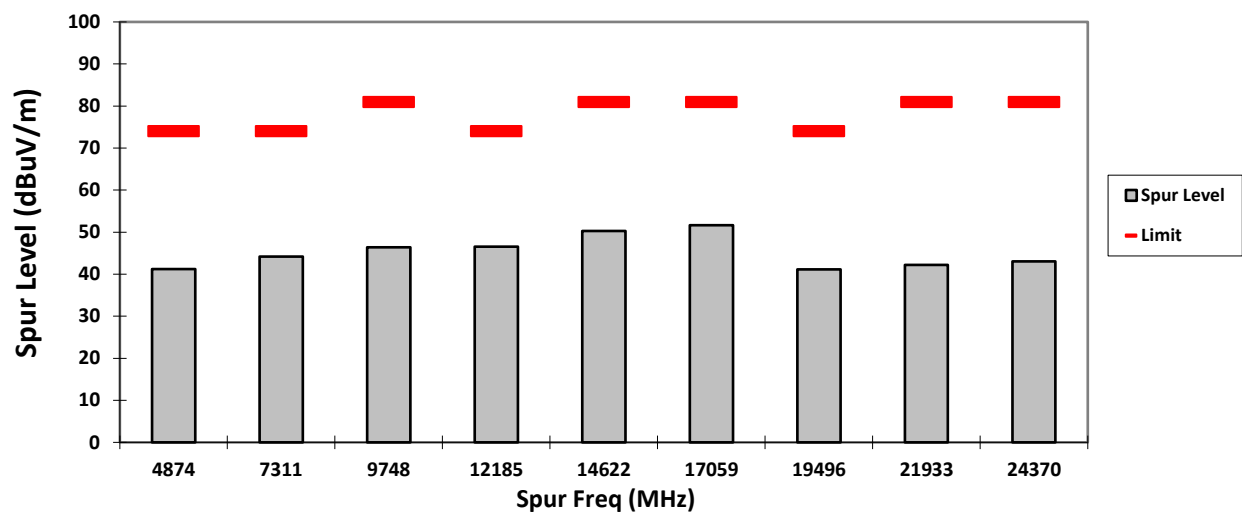
Note:

- 3) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 4) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: High	Test Frequency: 2462.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11g	Channel Bandwidth: 20 MHz

Radiated Emission (High Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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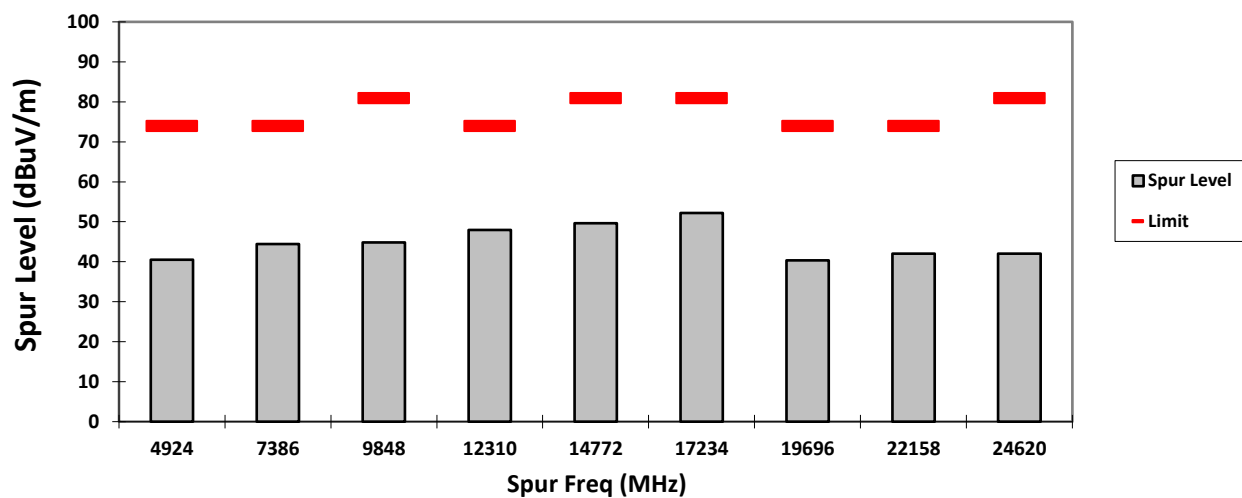
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

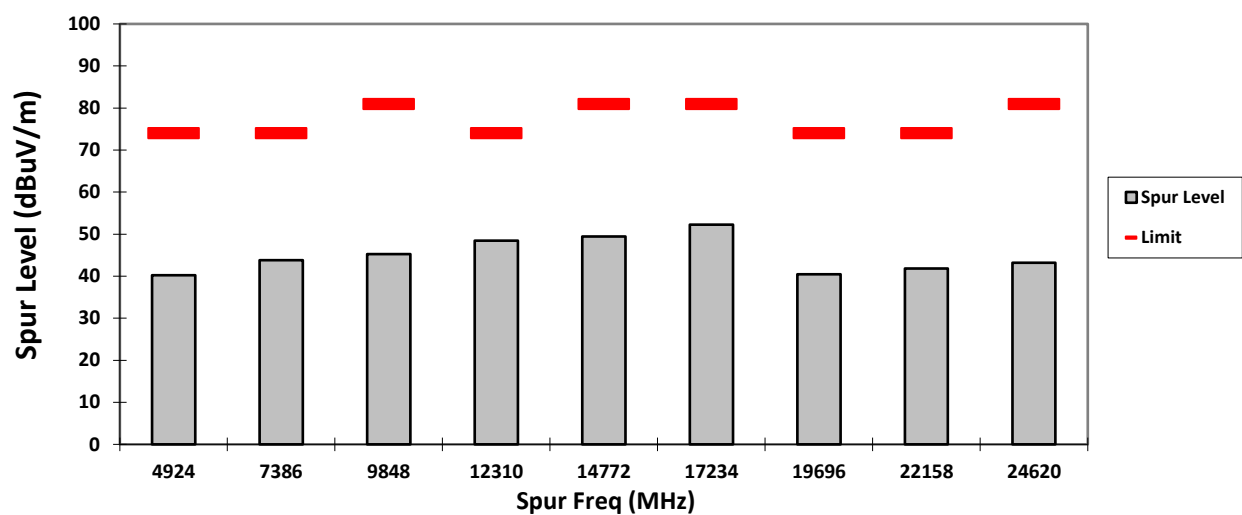
Note:

- 5) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 6) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Low	Test Frequency: 2412.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11n20	Channel Bandwidth: 20 MHz

Radiated Emission (Low Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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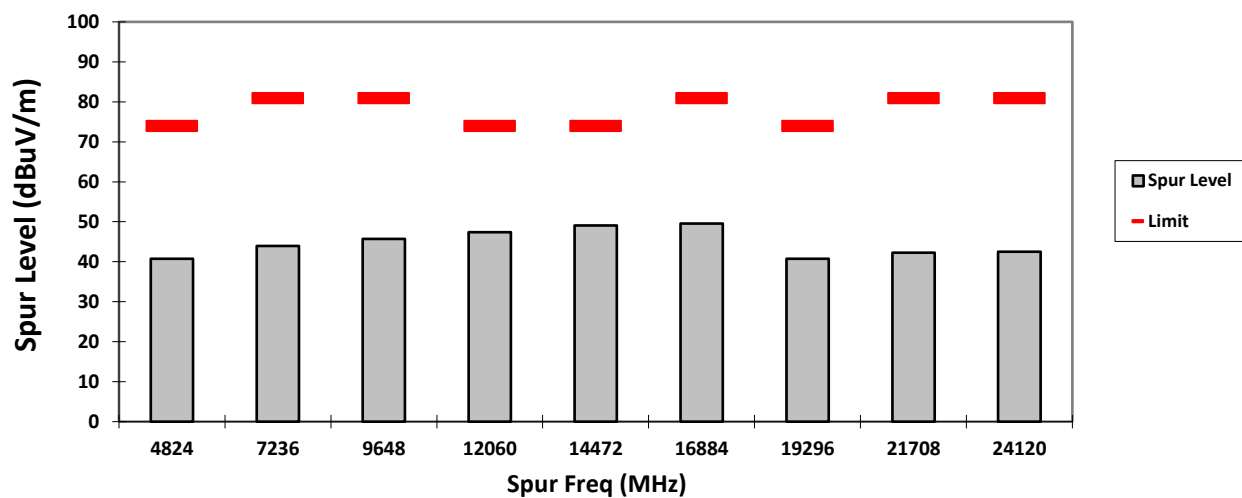
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

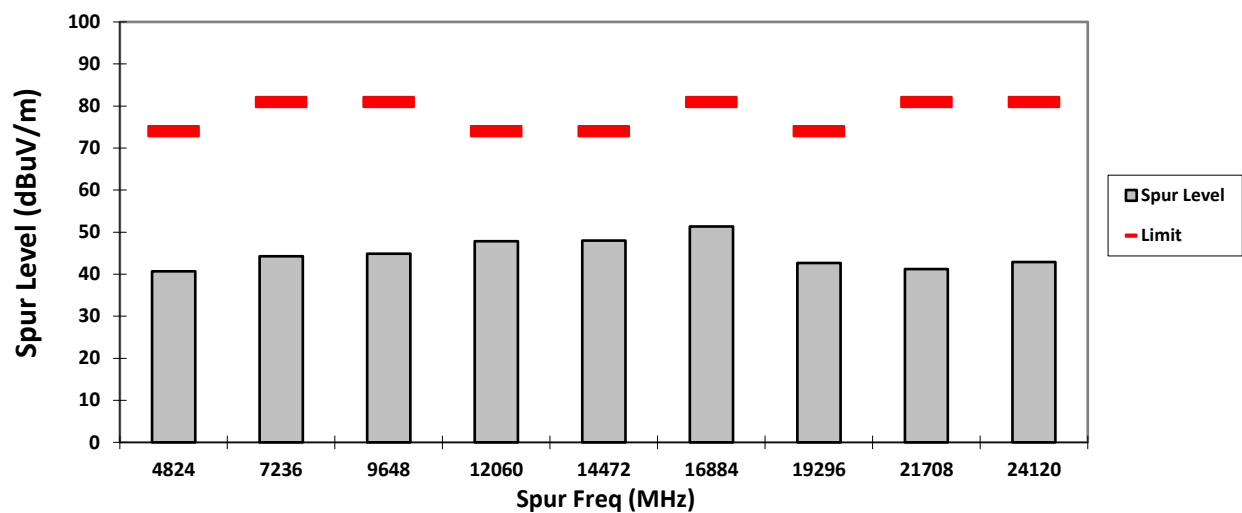
Note:

- 1) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 2) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: Mid	Test Frequency: 2437.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11n20	Channel Bandwidth: 20 MHz

Radiated Emission (Mid Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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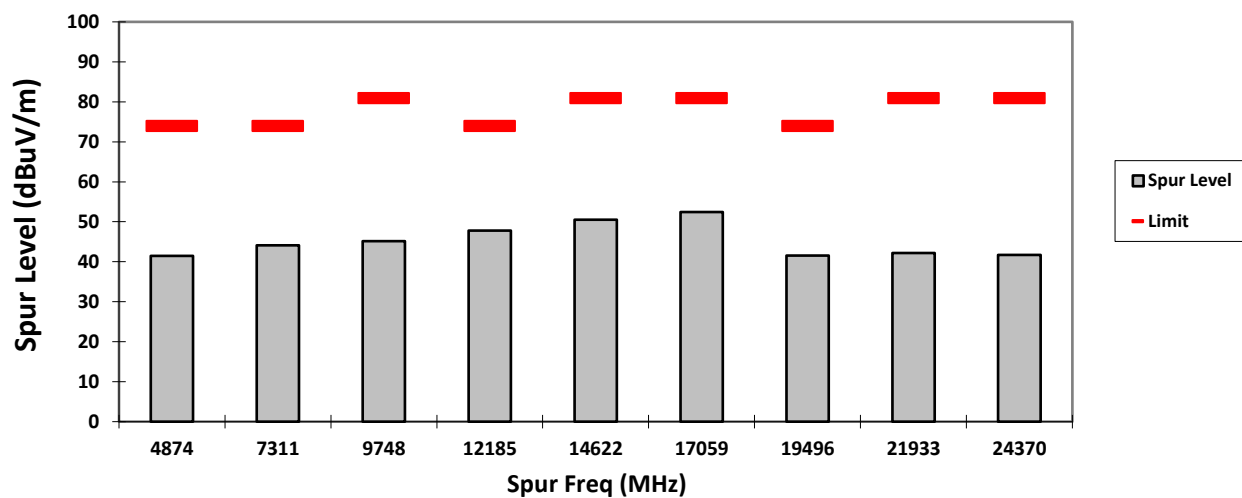
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

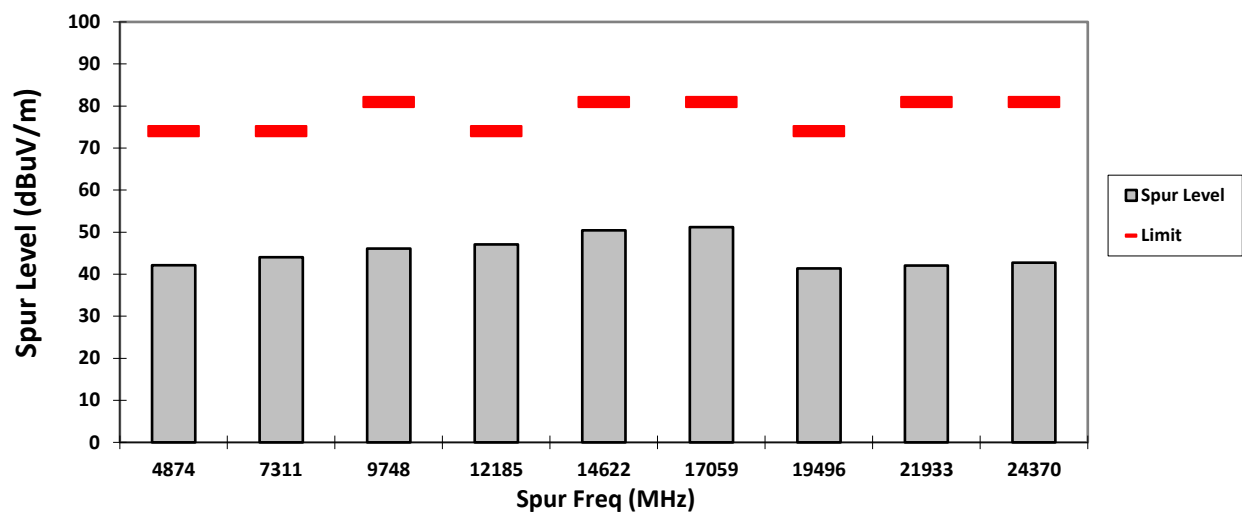
Note:

- 3) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 4) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK



HORIZONTAL, PK



Test: WIFI SAC Transmitter Radiated Emission	EMC SR ID: 0591P02-EMC-00004
Model Number: AAH06JDN9RA1AN	S/N: 865EBHC375
Battery: PMNN4810A	Softpot power: 14
Accessory: PMAD4147A	
Test Channel: High	Test Frequency: 2462.0000 MHz
Test Standard: ANSI C63.10-2013	Worst Case Plane: Z-Plane
Modulation: 802.11n20	Channel Bandwidth: 20 MHz

Radiated Emission (High Channel) tabular data

[illegible]

Remarks: Pass Result	Marginal Result	Fail Result
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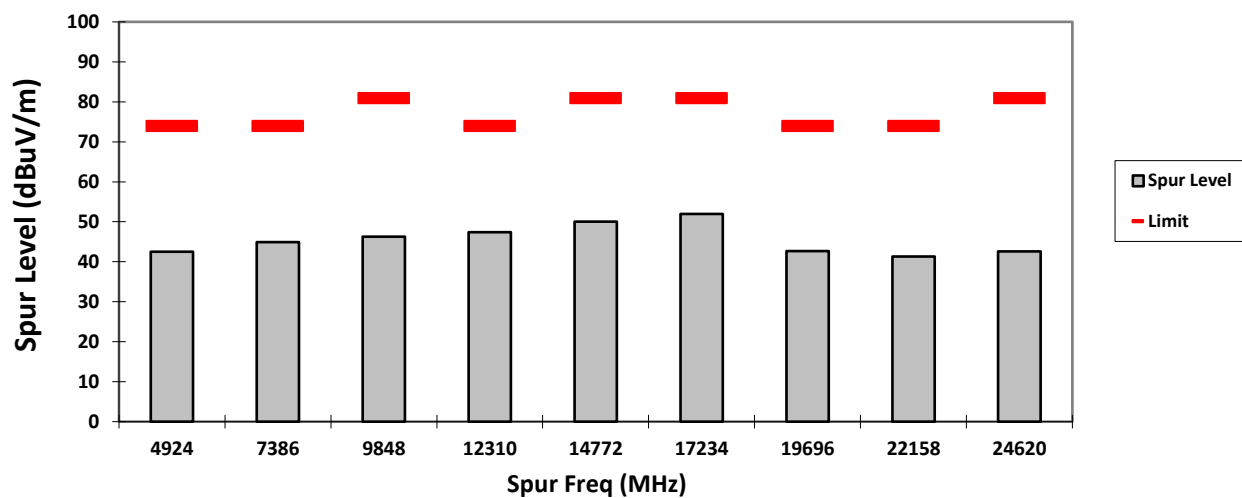
Temperature (degC): 24.1 Humidity (%): 65.9
Test Performed by: Rezza & Fuad Test Date: Wed, 20 Aug, 2025
System MU: 6.00 dB (30-1000MHz), 5.14 dB (1000-18000MHz), 5.36 dB (18000MHz-40000MHz)

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.**

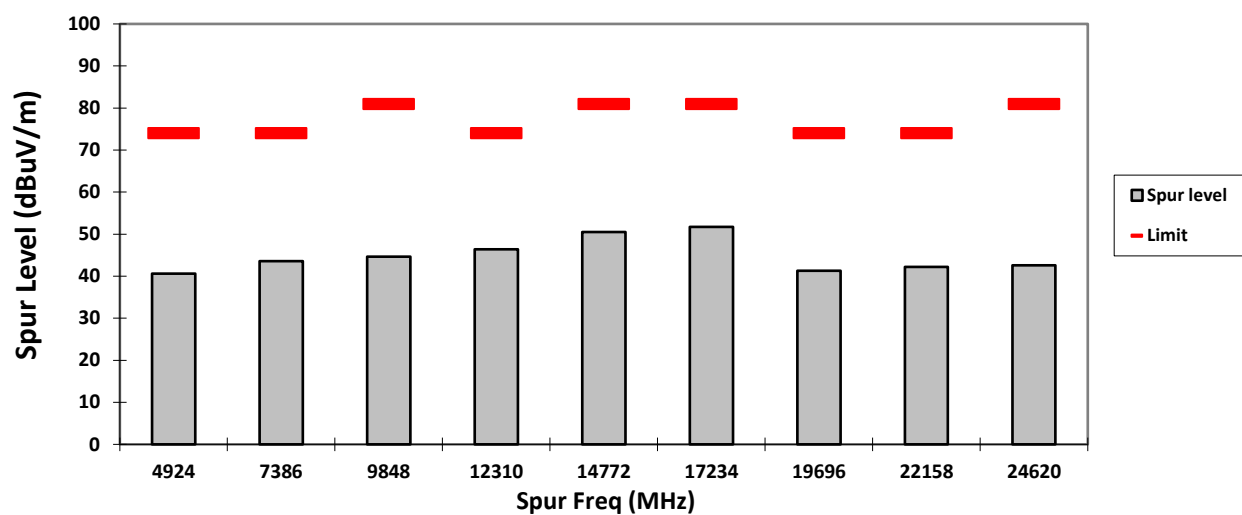
Note:

- 5) If the peak values is less than the QP limit, the QP result deemed to comply with QP limit.
- 6) If the peak values is less than the AV limit, the average result deemed to comply with AV limit.

VERTICAL, PK

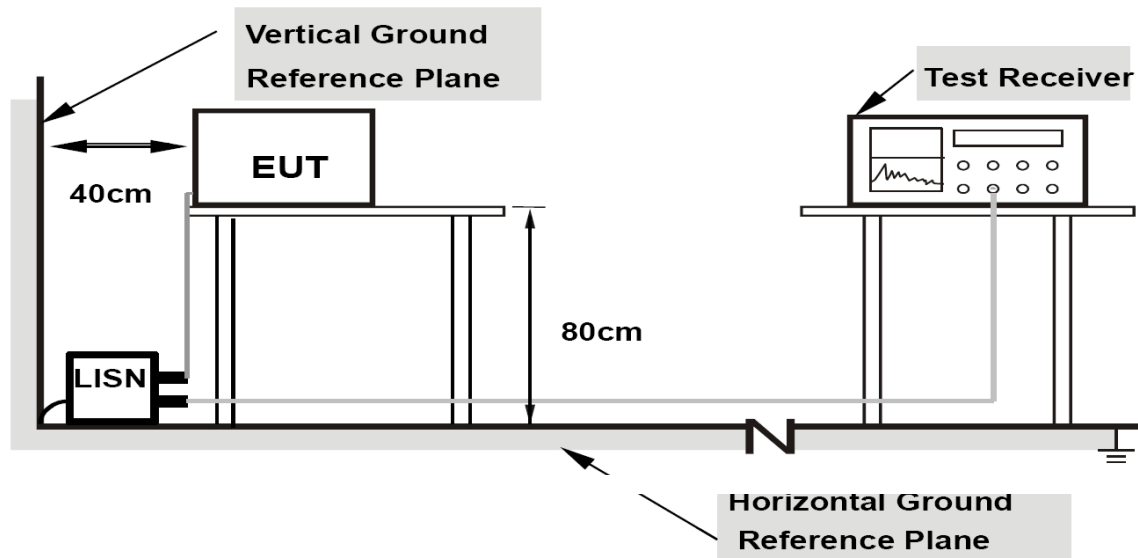


HORIZONTAL, PK



5.8. AC Powerline Conducted Emission

5.8.1. 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.

5.8.2. 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(μ V)	
	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(μ V)	
	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

5.8.3. Test Result

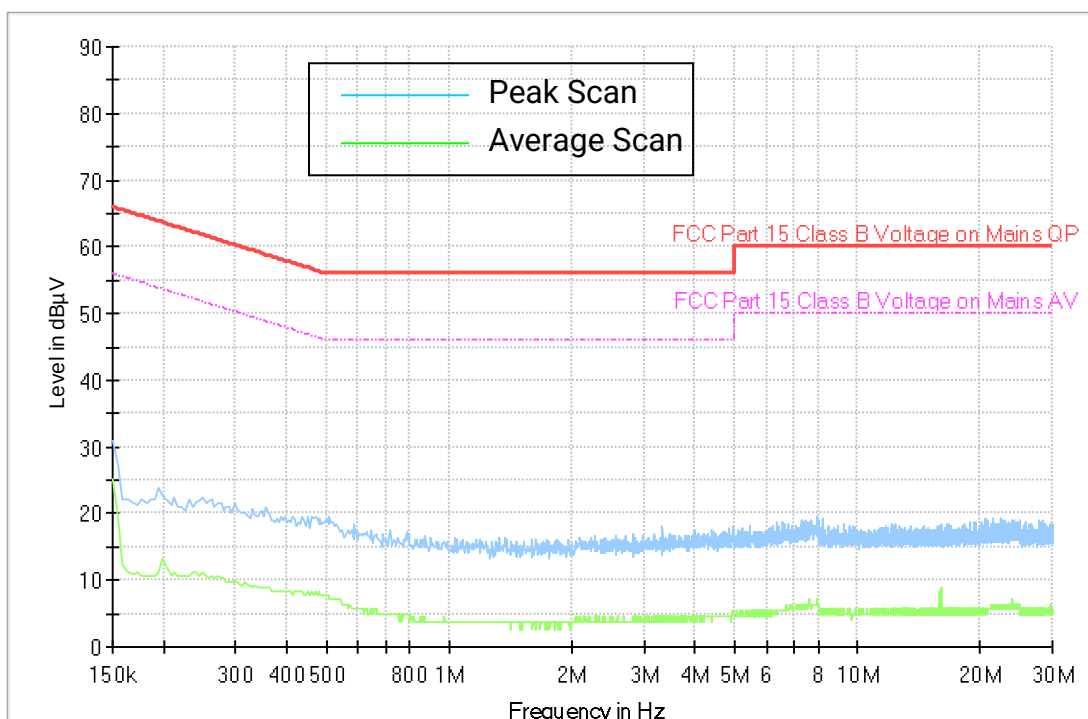
EUT Information

Report ID: 0591P02-EMC-00004
Temperature: 21.5 °C
Humidity: 57.8 %RH
Tester: Shidee
Date of Test: 18 August 2025

120 VAC, 60Hz

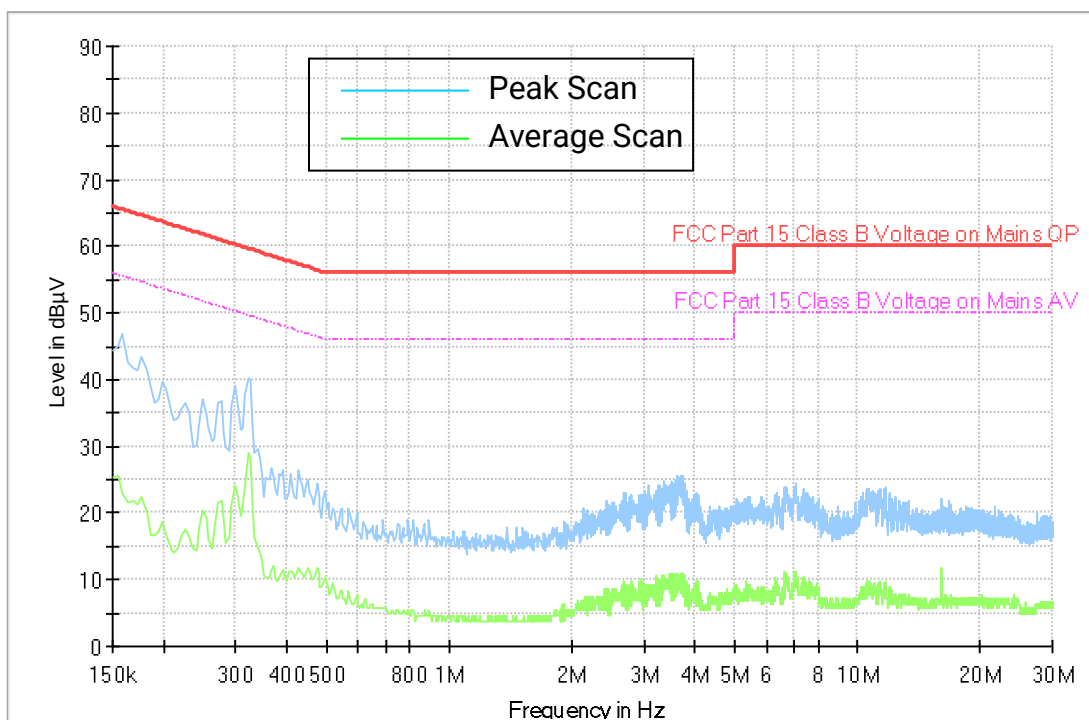
1) Ambient

Full Spectrum



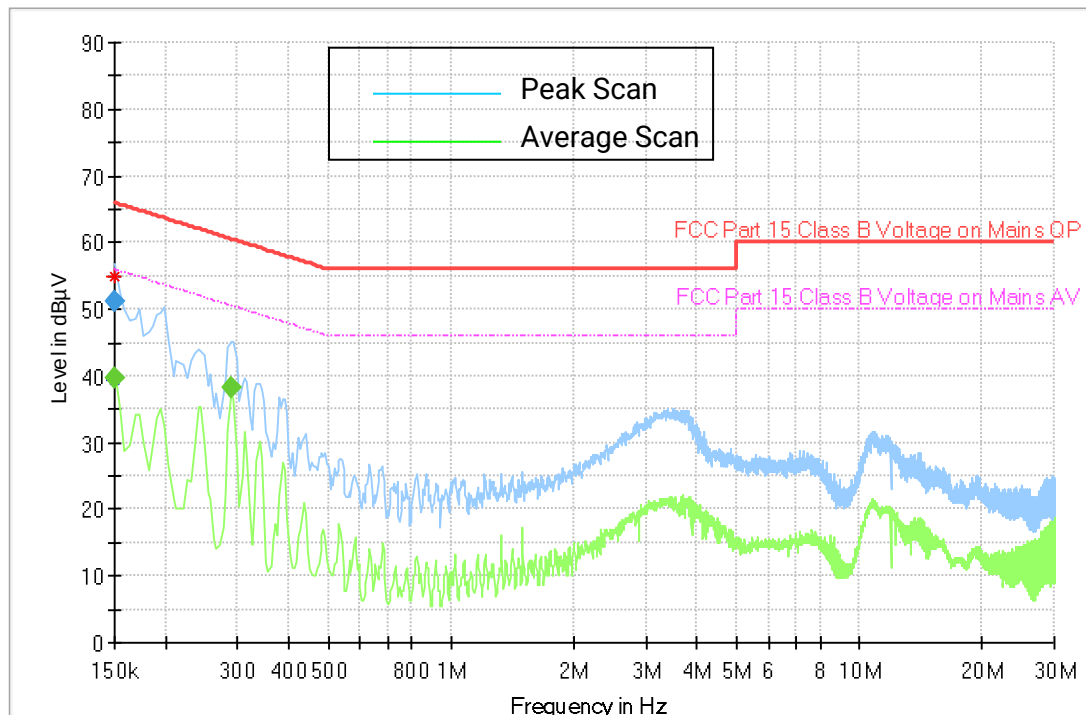
2) Charger Alone

Full Spectrum



3) Charger + Radio Off

Full Spectrum

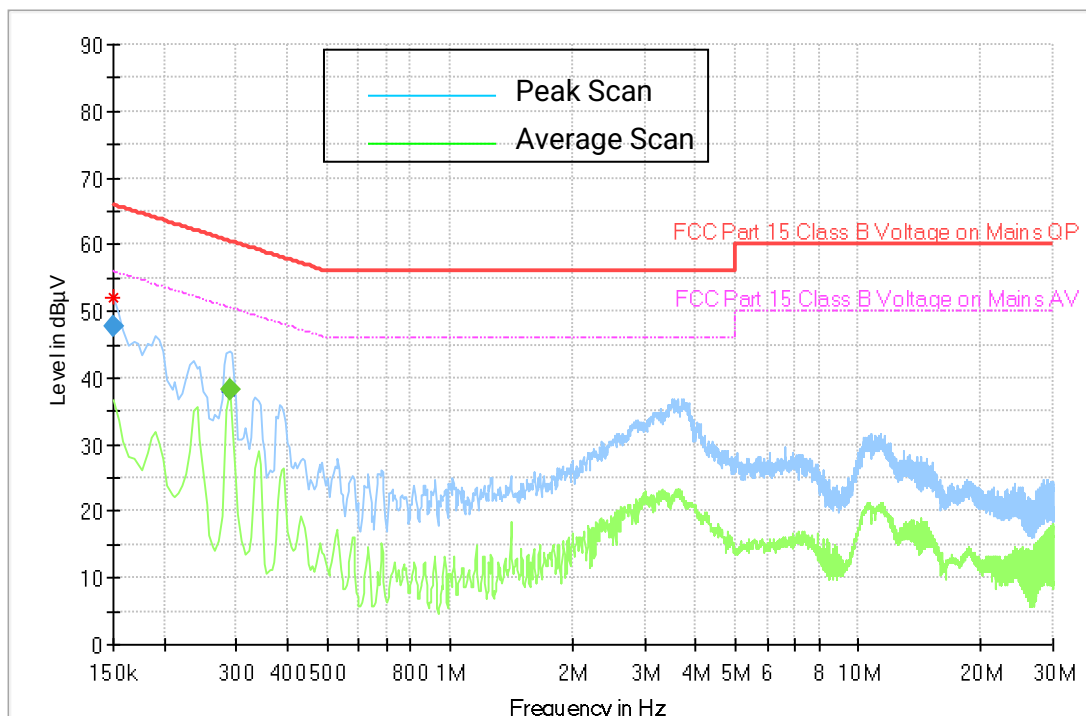


QuasiPeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	39.56	56.00	16.44	L1	ON	10.3
0.150000	51.16	---	66.00	14.84	N	ON	10.3
0.289500	---	38.22	50.54	12.32	L1	ON	10.3

4) Charger + Radio Standby

Full Spectrum

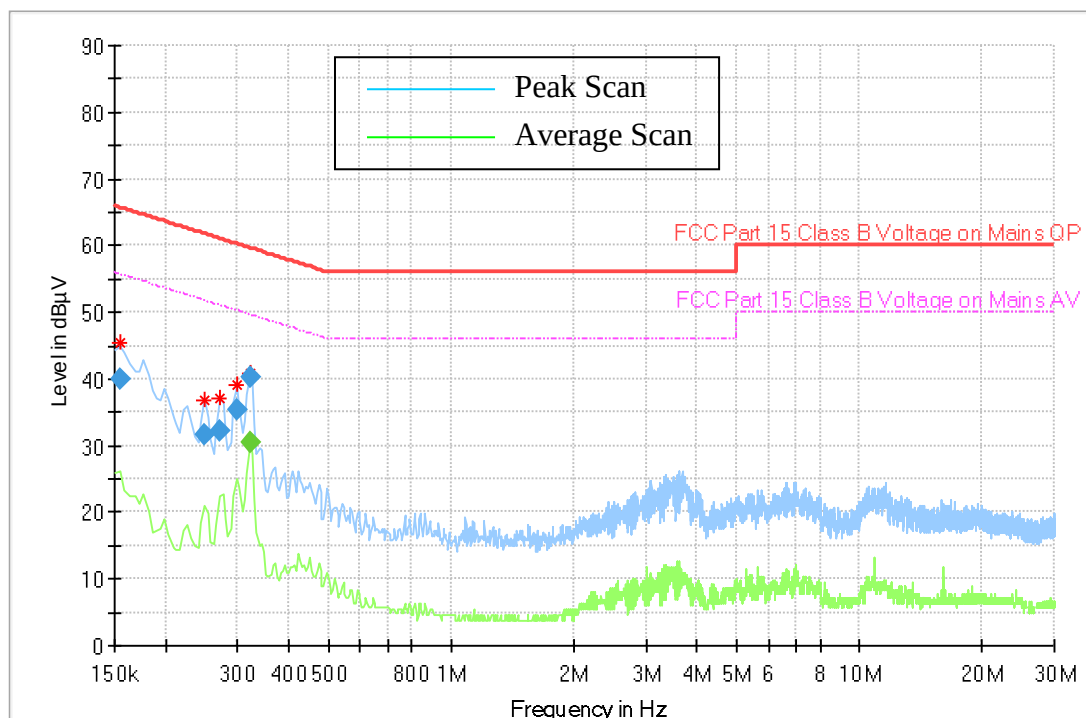


QuasiPeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	47.76	---	66.00	18.24	L1	ON	10.3
0.289500	---	38.15	50.54	12.39	L1	ON	10.3

5) Charger + Radio TX WiFi 2.4GHz 802.11n20

Full Spectrum



QuasiPeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	40.05	---	65.75	25.71	L1	ON	10.3
0.249000	31.67	---	61.79	30.12	L1	ON	10.3
0.271500	32.34	---	61.07	28.74	L1	ON	10.3
0.298500	35.31	---	60.28	24.97	L1	ON	10.2
0.321000	---	30.55	49.68	19.13	L1	ON	10.3
0.321000	40.23	---	59.68	19.45	L1	ON	10.3

END OF TEST REPORT