Prüfbericht-Nr.: *Test report no.:*	**CN21FUNV 001**	**Auftrags-Nr.:** *Order no.:*	170273579	**Seite 1 von 24** *Page 1 of 24*
Kunden-Referenz-Nr.: *Client Reference No.:*	N/A	**Auftragsdatum:** *Order date.:*	2021.04.30	
Auftraggeber: *Client:*	Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road, Hsin Tien, Taipei 231 Taiwan			
Prüfgegenstand: *Test item:*	LED fixed luminaires (NightWatcherProLED)			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	NW950-US			
Auftrags-Inhalt: *Order content:*	TÜV Rheinland FCC/IC approval			
Prüfgrundlage: *Test specification:*	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 FCC KDB Publication 447498 D01 v06		RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 November 2018 RSS-102 Issue 5 March 2015	
Wareneingangsdatum: *Date of sample receipt:*	2021.04.30			
Prüfmuster-Nr.: *Test sample No.:*	A003150148-001/002			
Prüfzeitraum: *Testing period:*	Refer to test report			
Ort der Prüfung: *Place of testing:*	Refer to section 2.1			
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Guangdong) Ltd.			
Prüfergebnis*: *Test result*:*	Pass			

geprüft von:
tested by:

Datum:
*Date:*2021.12.17

Stellung/*Position:* Storm Shu/PM

genehmigt von:
authorized by:

Ausstellungs Datum:
*Issue date:*2021.12.17

Stellung/*Position:* Amy Wang/TC

Sonstiges / *Other:*

FCC ID: 2A3OYNW950

IC: 5674A-NW950 HVIN: NW950

Zustand des Prüfgegenstandes bei Anlieferung:
Condition of the test item at delivery:
Prüfmuster vollständig und unbeschädigt
Test item complete and undamaged

* Legende:	1 = sehr gut 2 = gut P(ass) = entspricht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar	5 = mangelhalt N/T = nicht getestet
Legend:	1 = very good 2 = good P(ass) = passed a.m. test specifications(s)	3 = satisfactory F(ail) = failed a.m. test specifications(s)	4 = sufficient N/A = not applicable	5 = poor N/T = not tested

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.
V05

Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY
RESULT: Pass

5.1.4 6DB BANDWIDTH
RESULT: Pass

5.1.5 99% BANDWIDTH
RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH
RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION
RESULT: Pass

5.1.8 CONDUCTED EMISSION ON AC MAINS
RESULT: Pass

6.1.1 ELECTROMAGNETIC FIELDS
RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test setup

Appendix 2: Test Results of Wi-Fi

2 Test Sites

2.1 Test Facilities

SHENZHEN STS TEST SERVICES CO., LTD
Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
Signal Analyzer	R&S	FSV 40-N	101823	2021.09.30	2022.09.29
Active loop Antenna	ZHINAN	ZN30900C	16035	2021.04.11	2022.04.10
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2021.10.11	2023.10.10
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2021.10.08	2022.10.07
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2021.09.30	2022.09.29
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2021.09.28	2022.09.27
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
LISN	R&S	ENV216	101242	2021.09.30	2022.09.29
LISN	EMCO	3810/2NM	23625	2021.09.30	2022.09.29
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Power Sensor	Keysight	U2021XA	MY55520005	2021.09.30	2022.09.29
			MY55520006	2021.09.30	2022.09.29
			MY56120038	2021.09.30	2022.09.29
			MY56280002	2021.09.30	2022.09.29
Signal Analyzer	Agilent	N9020A	MY51110105	2021.03.04	2022.03.03
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Power Sensor	Keysight	U2021XA	MY55520005	2021.09.30	2022.09.29
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	Conducted emissions, 150K-30MHz	±2.80dB
4	All emissions, radiated 9K-30MHz	±2.84dB
5	All emissions, radiated 30M-1GHz	±4.39dB
6	All emissions, radiated 1G-6GHz	±5.10dB
7	All emissions, radiated>6G	±5.48dB

2.6 Sample Calculations

Calculation of test results for conducted emission measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2100	24.61	20.35	44.96	63.21	-18.25	QP
2	0.2100	4.92	20.35	25.27	53.21	-27.94	AVG

Frequency (MHz) = Emission frequency in MHz
Correct Factor = Insertion loss + Cable loss
Margin = Result (Result = Reading + Correct Factor) – Limit
Detector: QP= Quasi-Peak; AVG= Average
e.g.:
44.96dBuV (Result) = 24.61dBuV (Reading) + 20.35dB (Correct Factor)
-18.25dB (Margin) = 44.96dBuV (Result) – 63.21dBuV (Limit)

2.7 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix 2 of this report and delivered to the applicant. A copy has been retained in the SHENZHEN STS TEST SERVICES CO., LTD file for certification follow-up purposes.

2.8 Status of Facility Used for Testing

SHENZHEN STS TEST SERVICES CO., LTD is listed on the US Federal Communications Commission list of facilities approved to perform measurements, whose designation number is 625569.

3 General Product Information

The model NW950-US is LED fixed luminaires for indoor and outdoor use, constructed with one motion sensor, camera module and 2.4GHz Wi-Fi control module.

Therefore full tests were performed on NW950-US in appendix 2.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.1 Product Function and Intended Use

Refer to Technical Documentation and User Manual.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

Technical Specification	Value
Kind of Equipment	LED fixed luminaires (NightWatcherProLED)
Type Designation	NW950-US
Trade Mark	N/A
FCC ID	2A3OYNW950
IC	5674A-NW950
HVIN	NW950
Operating Frequency	2412 - 2462 MHz
Operating Temperature Range	-25ºC to +45ºC
Operating Voltage	AC 100-240V 50/60Hz 24W Max
Testing Voltage	AC 120V/60Hz
Technical Specification of Wi-Fi 802.11 b/g/n	
Operating Frequency	2412 - 2462 MHz for 802.11b/g/n(HT20)
Type of Modulation	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM)
Data Rate	1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n
Channel Number	11 channels for 802.11b/g/n(HT20)
Channel Separation	5 MHz
Antenna Type	PIFA Antenna
Gain	2.0 dBi

Table 3: RF Channel and Frequency of Wi-Fi 802.11 b/g/n

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
01	**2412.00**	05	2432.00	09	2452.00
02	2417.00	**06**	**2437.00**	10	2457.00
03	2422.00	07	2442.00	**11**	**2462.00**
04	2427.00	08	2447.00	--	--

3.3 Independent Operation Modes

The basic operation modes are:

A. On, Wi-Fi 802.11 b/g/n wireless transmitting mode
    1. Low channel
    2. Middle channel
    3. High channel

B. On, Wi-Fi connecting mode

C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Block Diagram
- FCC/IC Label and Location Info
- Model Difference Letter
- Operation Description
- Photo Document
- Schematics
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014

RF Function	Type	Mode Or Modulation type	Ant Gain(dBi)	Power Class	Software For Testing
WIFI(2.4G)	2.4G WIFI	802.11b	2	43	REALTEK 11n 8188FU USB WLAN NIC Massproduction Kit
		802.11g		43	
		802.11n(HT20)		43	

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Notebook Adapter	LENOVO	ADLX45DLC3A	N/A	N/A
Notebook	LENOVO	Think Pad E470	N/A	N/A
USB Cable	N/A	N/A	150cm	NO

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

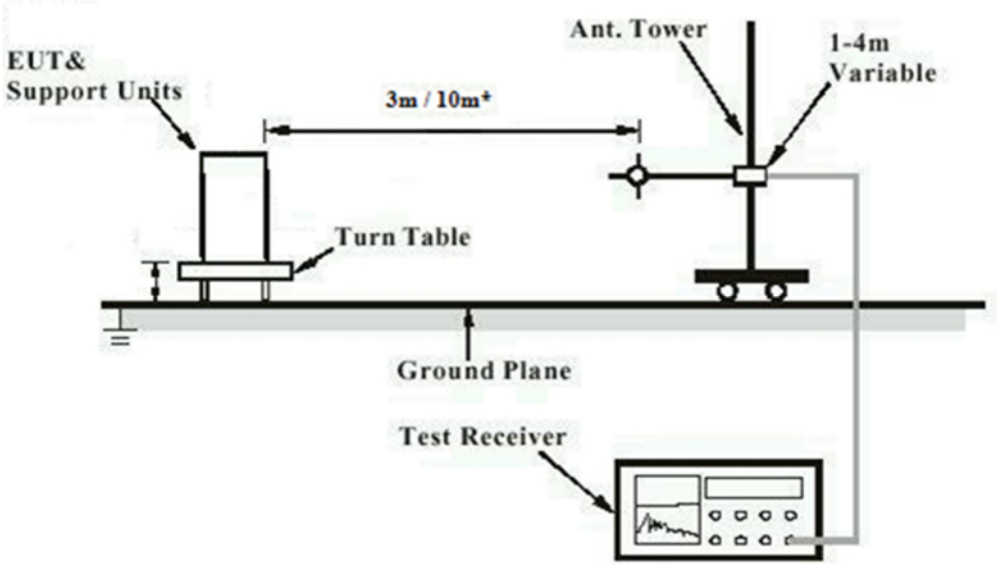


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

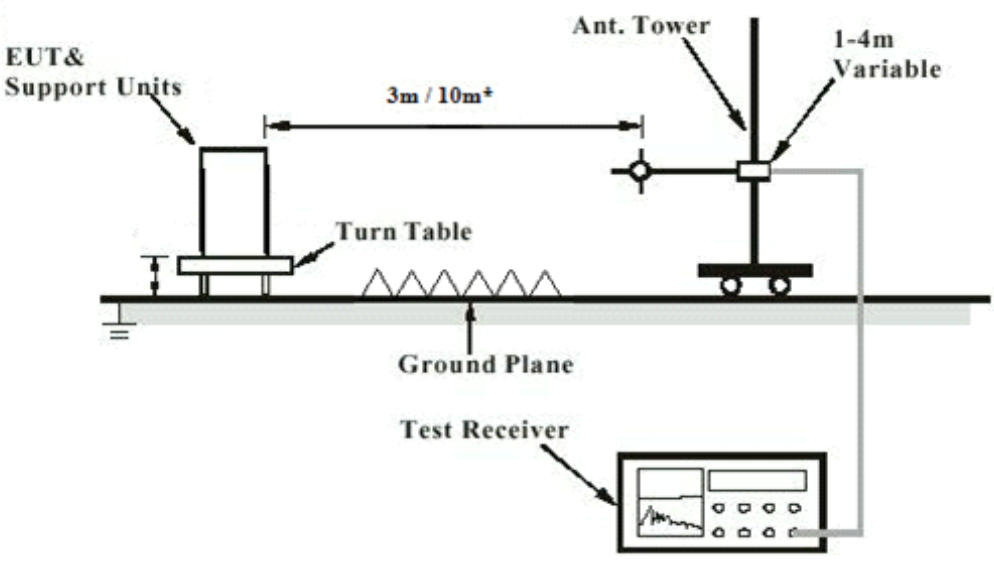


Diagram of Measurement Configuration for Mains Conduction Measurement

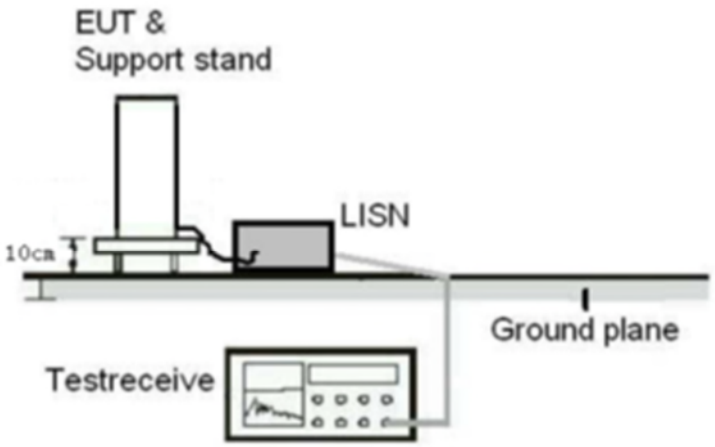
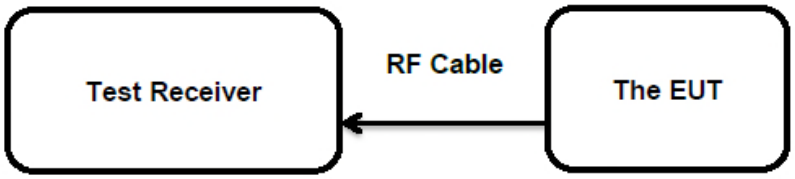


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has two internal antenna, the directional gain of Wi-Fi antenna is 2.0 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(b)(3)
		RSS-247 Clause 5.4(b)&(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	FHSS < 0.125 Watts, DSSS < 1.0 Watts
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	03.09.2021 & 01.11.2021
Input voltage	:	AC 120V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.5 ℃
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Table 5: Test Result of Maximum Peak Conducted Output Power

Mode	Test Channel	Frequency	Peak Conducted Output Power	Average Conducted Output Power	LIMIT
		(MHz)	(dBm)	(dBm)	dBm
TX 802.11b	CH01	2412	13.51	10.71	30
	CH06	2437	15.69	12.22	30
	CH11	2462	18.02	13.92	30
TX 802.11g	CH01	2412	15.66	5.83	30
	CH06	2437	17.66	7.22	30
	CH11	2462	18.08	8.29	30
TX 802.11n20	CH01	2412	14.94	5.68	30
	CH06	2437	16.39	7.02	30
	CH11	2462	18.22	8.39	30

EIRP

TX 802.11b Mode					
Test Channel	Frequency	Peak Power	Antenna Gain	EIRP Power	LIMIT
	(MHz)	(dBm)	(dBi)	(dBm)	dBm
CH01	2412	13.51	2.0	15.51	36.02
CH06	2437	15.69	2.0	17.69	36.02
CH11	2462	18.02	2.0	20.02	36.02
TX 802.11g Mode					
Test Channel	Frequency	Peak Power	Antenna Gain	EIRP Power	LIMIT
	(MHz)	(dBm)	(dBi)	(dBm)	dBm
CH01	2412	15.66	2.0	17.66	36.02
CH06	2437	17.66	2.0	19.66	36.02
CH11	2462	18.08	2.0	20.08	36.02
TX 802.11n20 Mode					
Test Channel	Frequency	Peak Power	Antenna Gain	EIRP Power	LIMIT
	(MHz)	(dBm)	(dBi)	(dBm)	dBm
CH01	2412	14.94	2.0	16.94	36.02
CH06	2437	16.39	2.0	18.39	36.02
CH11	2462	18.22	2.0	20.22	36.02

Note:

1) The cable loss is 2.0dB taken into account in results.
2) Antenna gain(G) of 802.11 b/g/n: 2.0 dBi,
   The Maximum peak conducted output power (e.i.r.p.)=$P_{(Peak\ power)}$+ G, which is far below the 4 W

This testing was carried out on all operation modes, but only the worst case was presented in this report.

5.1.3 Conducted Power Spectral Density

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(e)
Basic standard	:	ANSI C63.10: 2013
Limits	:	8 dBm/3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	03.09.2021 & 01.11.2021
Input voltage	:	AC 120V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.5 ℃
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Table 6: Test Result of Power Spectral Density

802.11 b

Frequency	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
2412 MHz	-19.210	≤8	PASS
2437 MHz	-20.500	≤8	PASS
2462 MHz	-20.930	≤8	PASS

802.11 g

Frequency	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
2412 MHz	-20.0300	≤8	PASS
2437 MHz	-20.9500	≤8	PASS
2462 MHz	-22.6900	≤8	PASS

802.11 n20

Frequency	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
2412 MHz	-20.5000	≤8	PASS
2437 MHz	-22.0000	≤8	PASS
2462 MHz	-23.5300	≤8	PASS

Note: The cable loss is 2.0dB taken into account in results.

5.1.4 6dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(2)
Basic standard	:	ANSI C63.10: 2013
Limits	:	More than 500 KHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	03.09.2021 & 01.11.2021
Input voltage	:	AC 120V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.5 ℃
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Table 7: Test Result of 6dB Bandwidth

802.11 b

Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
2412 MHz	9.088	12.851	≥500KHz	PASS
2437 MHz	9.088	12.851	≥500KHz	PASS
2462 MHz	9.088	12.822	≥500KHz	PASS

802.11 g

Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
2412 MHz	17.74	16.44	≥500KHz	PASS
2437 MHz	16.61	16.67	≥500KHz	PASS
2462 MHz	16.61	16.61	≥500KHz	PASS

802.11 n20

Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
2412 MHz	17.77	17.66	≥500KHz	PASS
2437 MHz	17.77	17.74	≥500KHz	PASS
2462 MHz	17.74	17.66	≥500KHz	PASS

5.1.5 99% Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	RSS-Gen Clause 6.6
Basic standard	:	ANSI C63.10: 2013
Limits	:	More than 500 KHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	03.09.2021 & 01.11.2021
Input voltage	:	AC 120V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.5 ℃
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Table 8: Test Result of 99% Bandwidth

802.11 b

Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
2412 MHz	9.088	12.851	≥500KHz	PASS
2437 MHz	9.088	12.851	≥500KHz	PASS
2462 MHz	9.088	12.822	≥500KHz	PASS

802.11 g

Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
2412 MHz	17.74	16.44	≥500KHz	PASS
2437 MHz	16.61	16.67	≥500KHz	PASS
2462 MHz	16.61	16.61	≥500KHz	PASS

802.11 n20

Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
2412 MHz	17.77	17.66	≥500KHz	PASS
2437 MHz	17.77	17.74	≥500KHz	PASS
2462 MHz	17.74	17.66	≥500KHz	PASS

5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	:	ANSI C63.10: 2013
Limits	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	03.09.2021 & 01.11.2021
Input voltage	:	AC 120V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.5 ℃
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to following test plot, and compliance is achieved as well.

For the measurement records, refer to the appendix 2.

5.1.7 Radiated Spurious Emission

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205
		RSS-247 Clause 3.3
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	03.09.2021 & 01.11.2021
Input voltage	:	AC 120V/60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.5 ℃
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Remark:
The Radiated Spurious Emission was carried out within frequency range 9kHz – 30MHz and 18GHz - 26.5GHz, and the measurements with active antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.

For the measurement records, refer to the appendix 2.

5.1.8 Conducted Emission on AC Mains

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.207(a) RSS-Gen Clause 8.8
Basic standard	:	ANSI C63.10: 2013
Frequency range	:	0.15 – 30MHz
Limits	:	FCC Part 15.207(a) RSS-Gen Table 3
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	Refer to test result
Input voltage	:	AC 120V/60Hz
Operation mode	:	B
Earthing	:	Not connected
Ambient temperature	:	24 ℃
Relative humidity	:	53 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix 2.

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT: **Pass**

Test Specification

Test standard : CFR47 FCC Part 2: Section 2.1091
CFR47 FCC Part 1: Section 1.1310
FCC KDB Publication 447498 D01 v06
RSS-102 Issue 5 March 2015

➢ **FCC requirements**

FCC requirement: Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20cm normally can be maintained between the user and the device.

Power Density: $S_{(mW/cm^2)}$= PG/4πR^2 or EIRP/4πR^2

Where:

S = power density (mW/cm^2)

P = power input to the antenna (mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (cm)

The nominal maximum conducted output power specified:

Wi-Fi 802.11 b/g/n: 18.22 dBm

From the peak RF output power, the minimum mobile separation distance, d=20 cm, as well as the antenna gain (2.0 dBi for Wi-Fi 802.11 b/g/n), the RF power density can be calculated as below:

For Wi-Fi 802.11 b/g/n: **$S_{(mW/cm^2)}$= PG/4πR^2 =** 0.021 mW/cm^2

Limits for Maximum Permissible Exposure (MPE) according to FCC Part 1.1310:

1.0 mW/cm^2

➢ **IC requirements:** The EUT shall comply with the requirement of RSS-102 section 2.5.2.

Exemption from Routine Evaluation Limits – RF Exposure Evaluation

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2}\ f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;

- RF exposure evaluation exempted power for Wi-Fi 802.11 b/g/n: 2.684 W

The nominal maximum conducted output power specified:

Wi-Fi 802.11 b/g/n: 18.22 dBm

Antenna Gain: 2.0 dBi for Wi-Fi 802.11 b/g/n

The Max. e.i.r.p. for Wi-Fi 802.11 b/g/n: 20.22 dBm = 0.105 W

So e.i.r.p. of Wi-Fi 802.11 b/g/n are less than the RF exposure evaluation exempted power.

"RF Radiation Exposure Statement Caution: This Transmitter must be installed to provide a separation distance of at least 20 cm from all persons."

7 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix 1.

8 List of Tables

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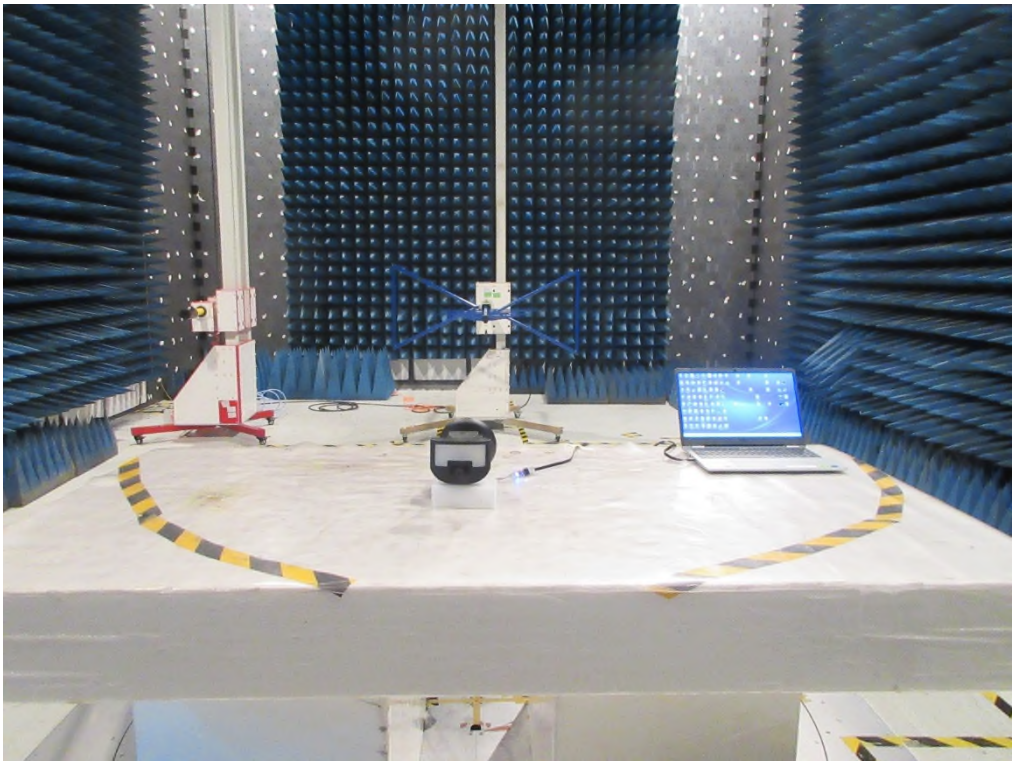
Appendix A.1: Photographs of the Test Set-Up

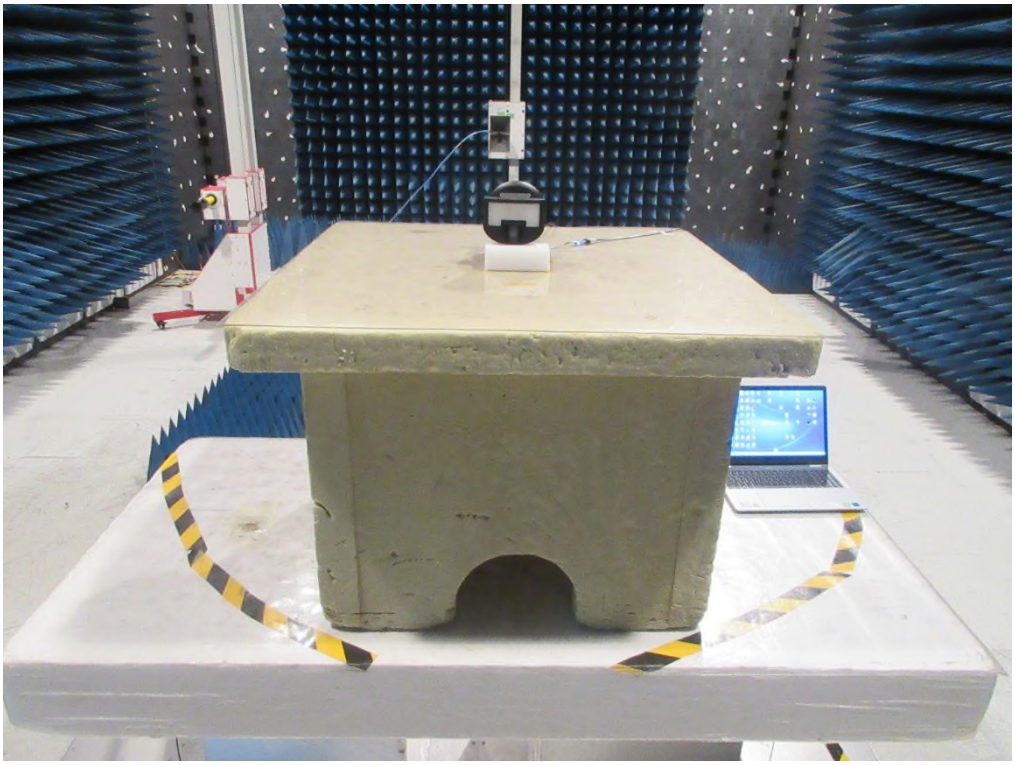
APPENDIX A.1: PHOTOGRAPHS OF THE TEST SET-UP 1

PHOTOGRAPH 1: SET-UP FOR RADIATED SPURIOUS EMISSION, 30MHZ - 1GHZ 2
PHOTOGRAPH 2: SET-UP FOR RADIATED SPURIOUS EMISSION, ABOVE 1GHZ 2
PHOTOGRAPH 3: SET-UP FOR CONDUCTED EMISSION ON AC MAINS 3

Photograph 1: Set-up for Radiated Spurious Emission, 30MHz - 1GHz

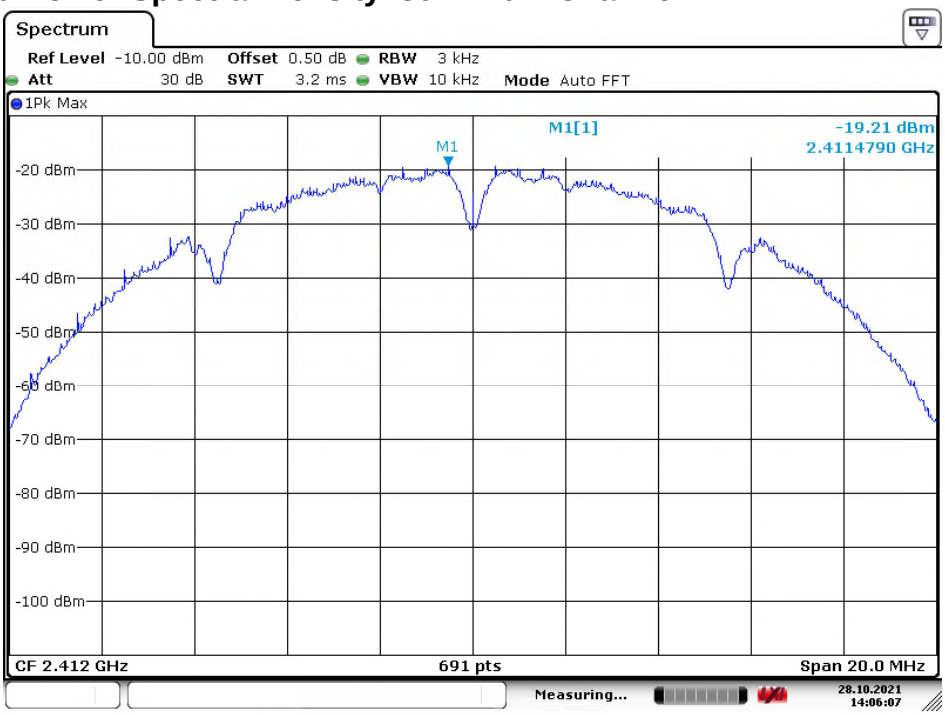


Photograph 2: Set-up for Radiated Spurious Emission, Above 1GHz



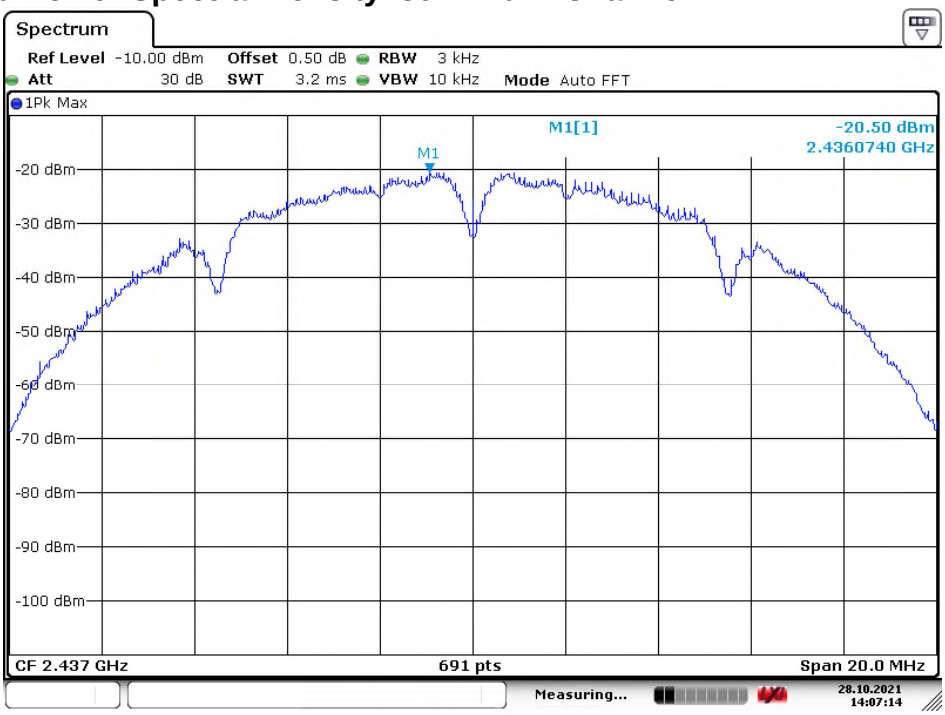
Photograph 3: Set-up for Conducted Emission on AC Mains

Conducted Power Spectral Density–802.11b-L Channel



Date: 28.OCT.2021 14:06:07

Conducted Power Spectral Density–802.11b-M Channel



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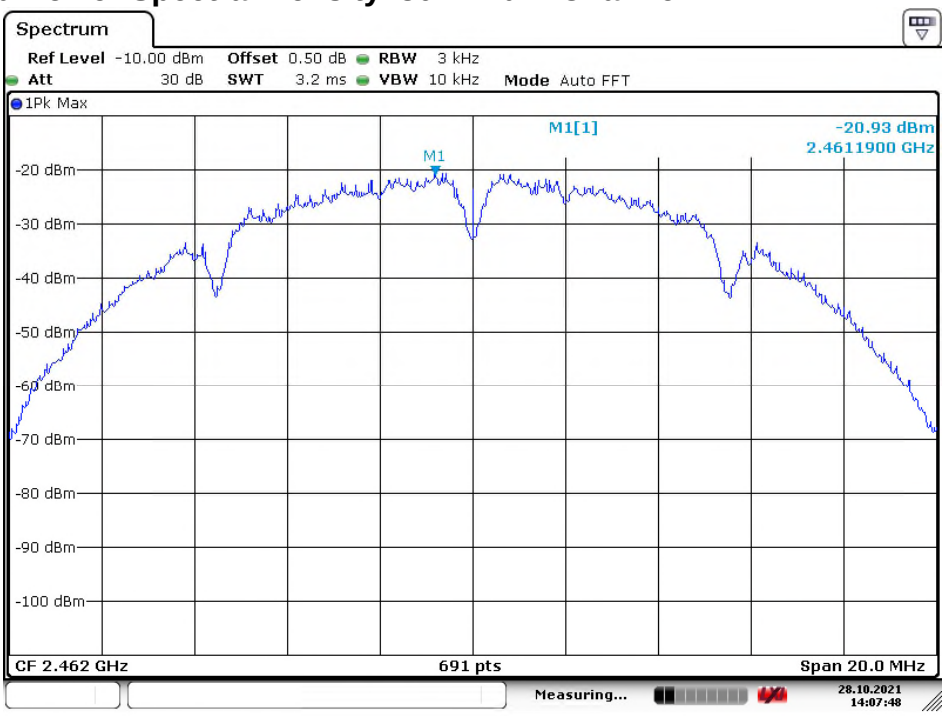
Conducted Power Spectral Density–802.11b-H Channel



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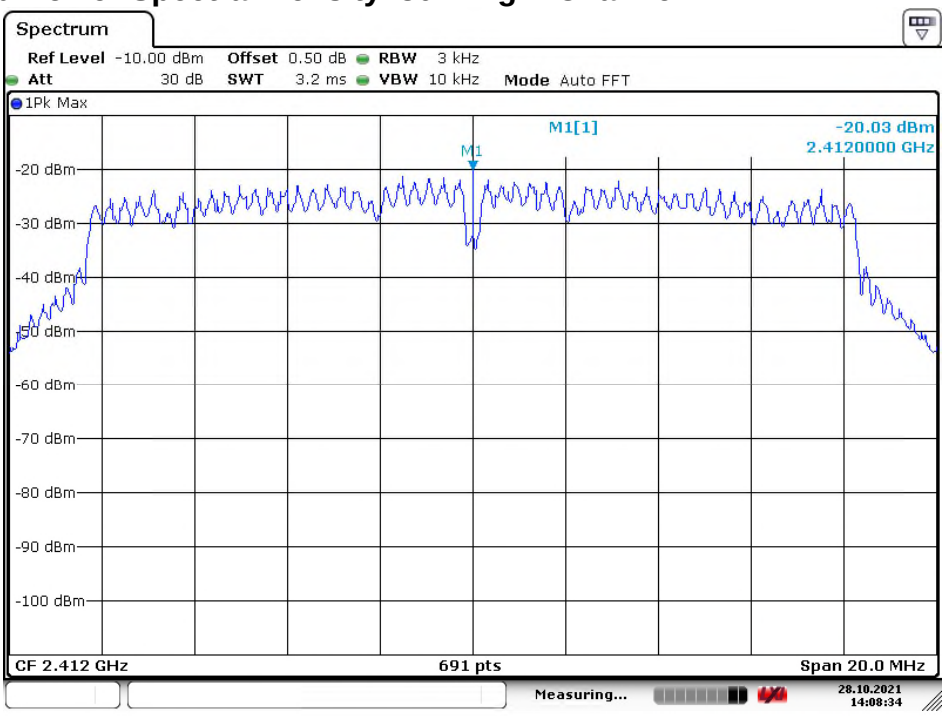
Conducted Power Spectral Density–802.11g-L Channel



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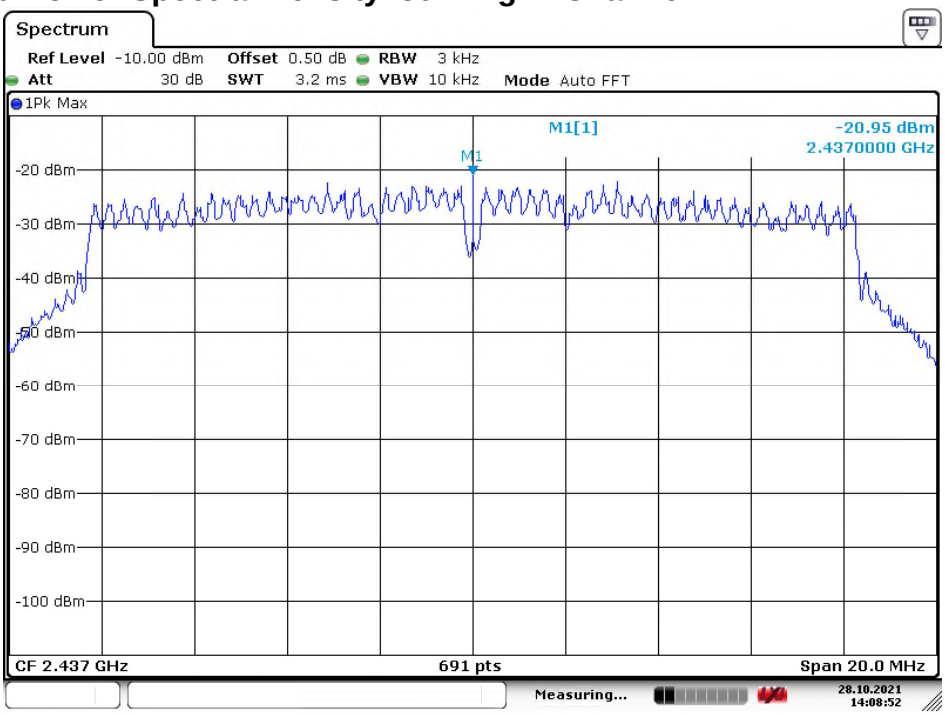
Conducted Power Spectral Density–802.11g-M Channel



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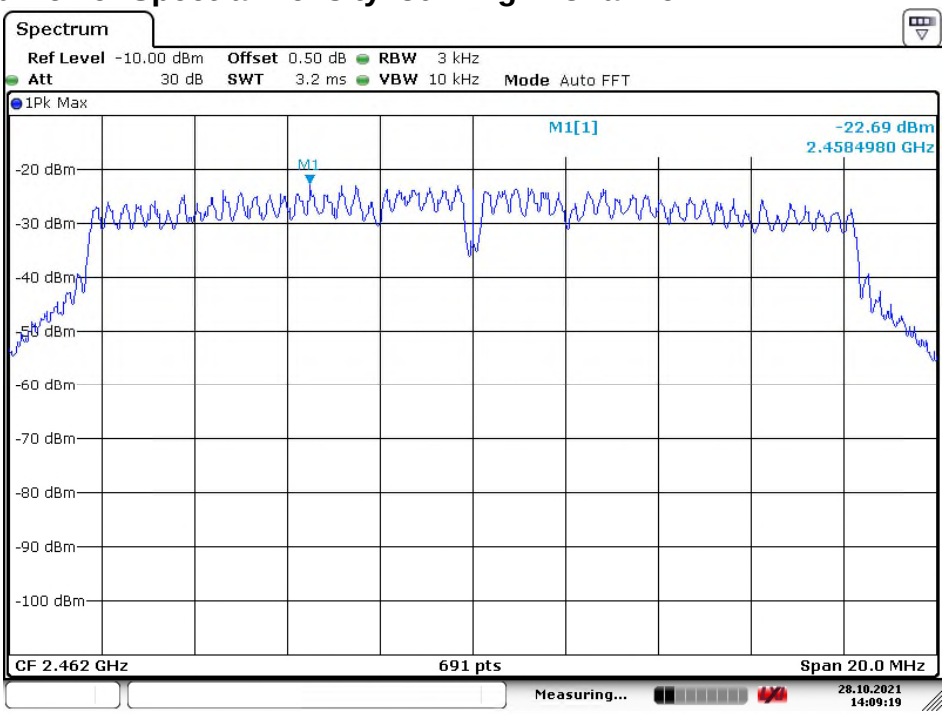
Conducted Power Spectral Density–802.11g-H Channel



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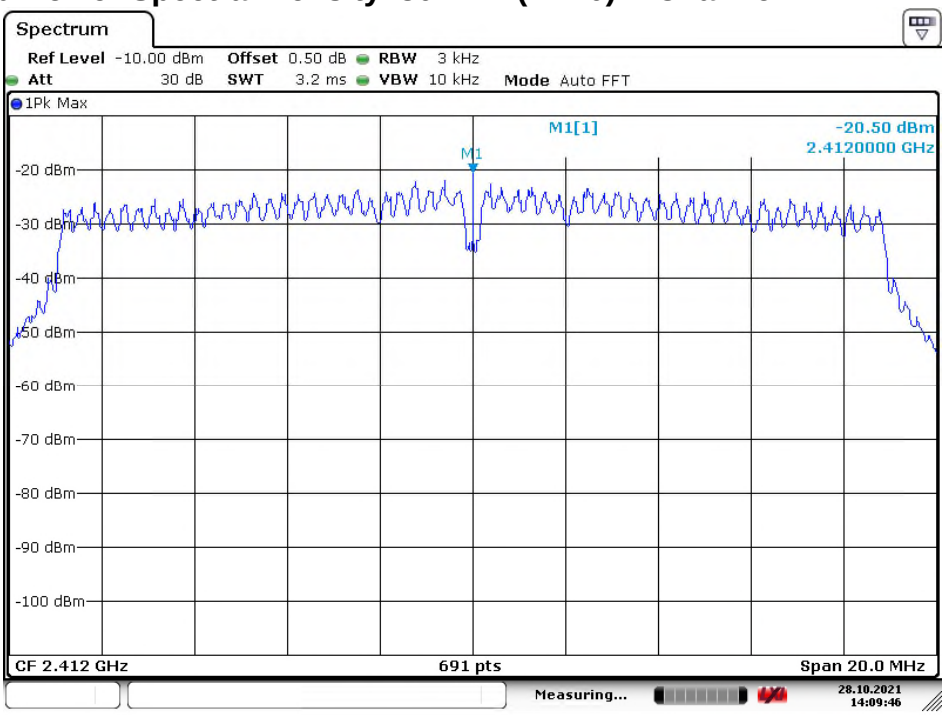
Conducted Power Spectral Density–802.11n(HT20)-L Channel



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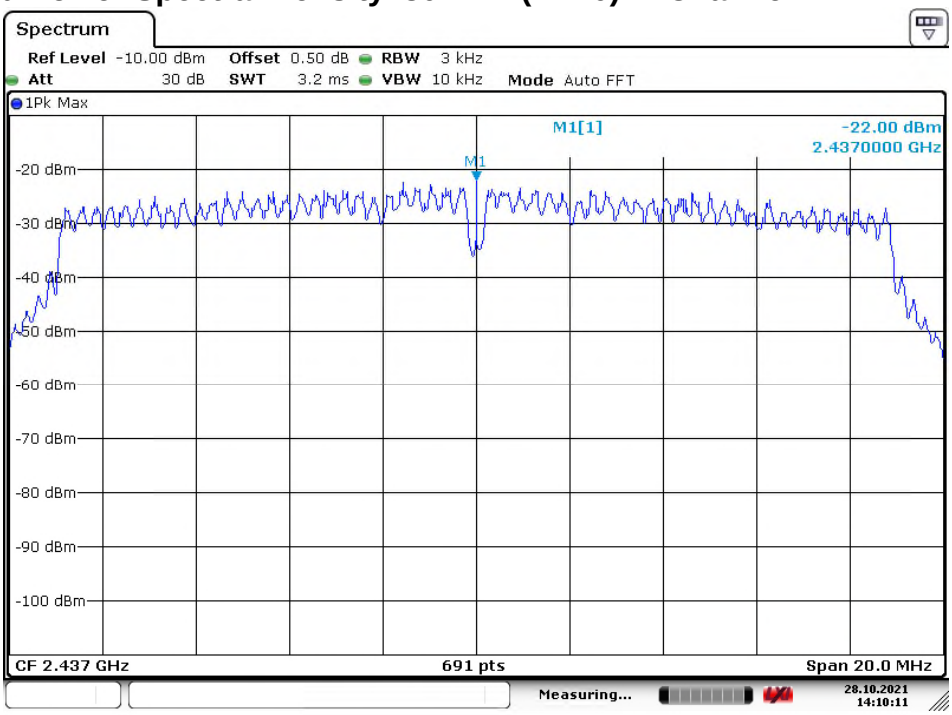
Conducted Power Spectral Density–802.11n(HT20)-M Channel



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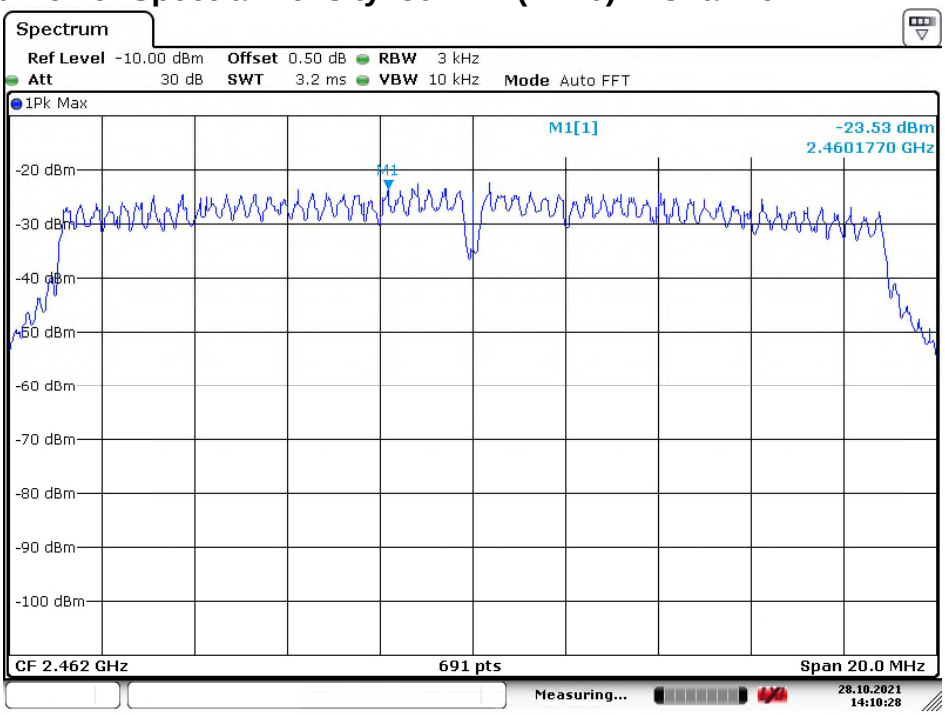
Conducted Power Spectral Density–802.11n(HT20)-H Channel



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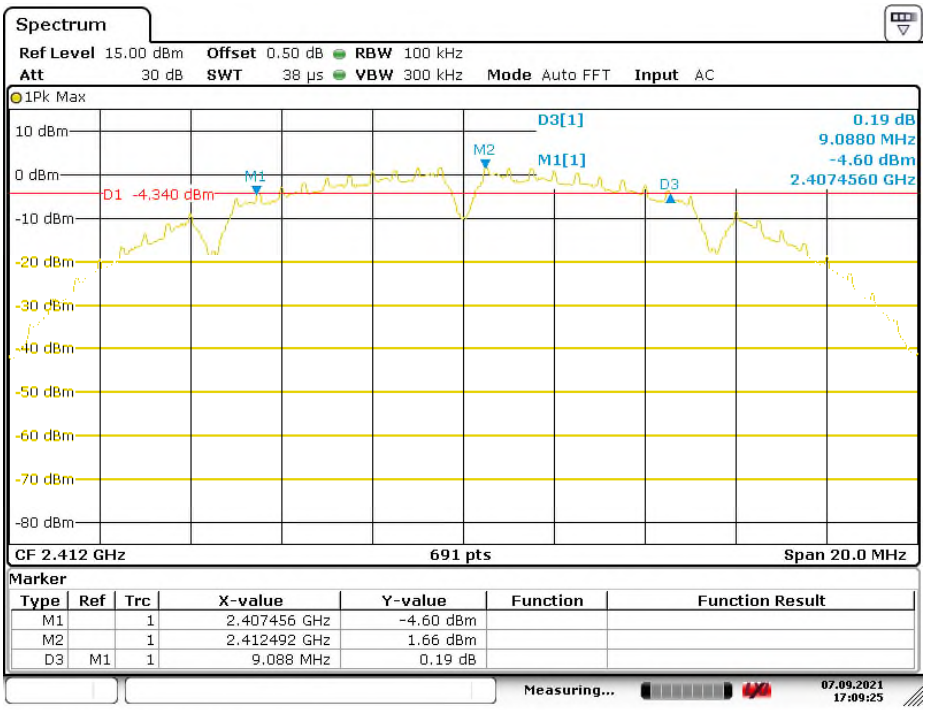
-6dB Bandwidth–802.11b-L Channel



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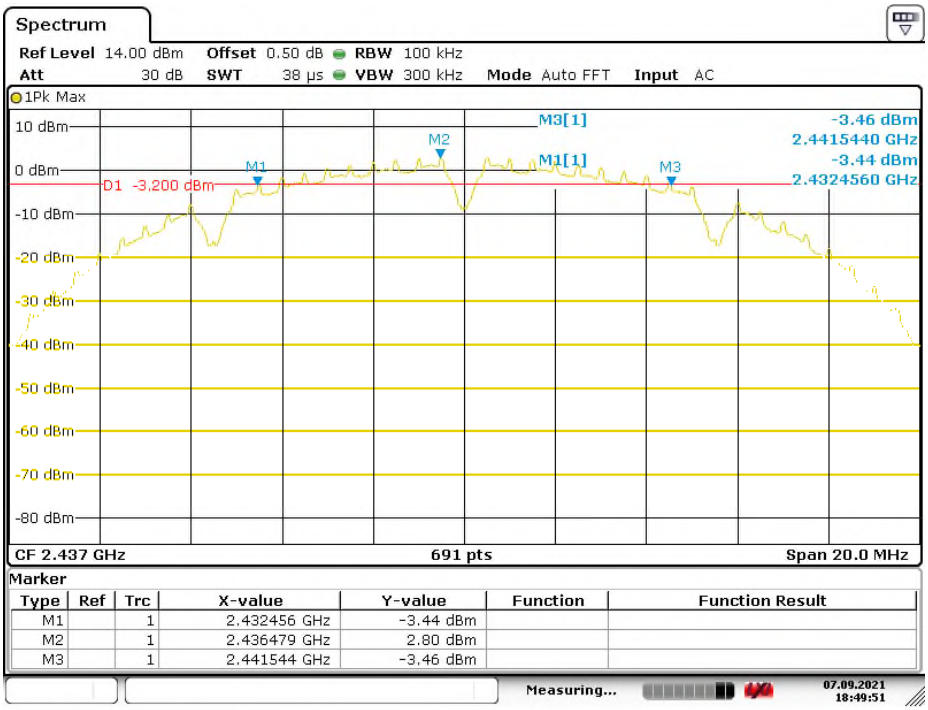
-6dB Bandwidth–802.11b-M Channel



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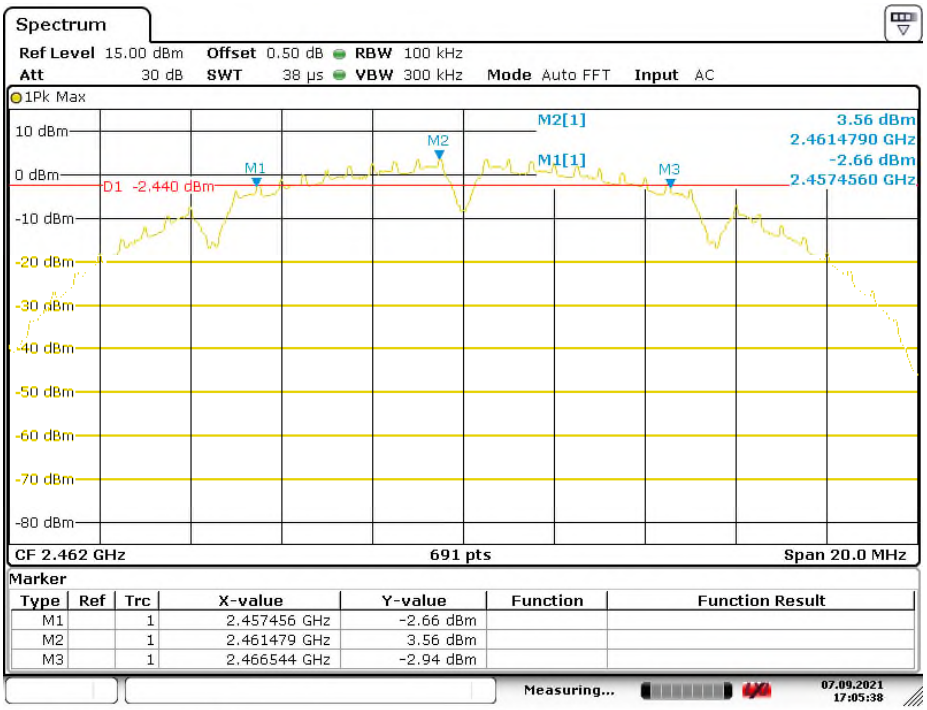
-6dB Bandwidth–802.11b-H Channel



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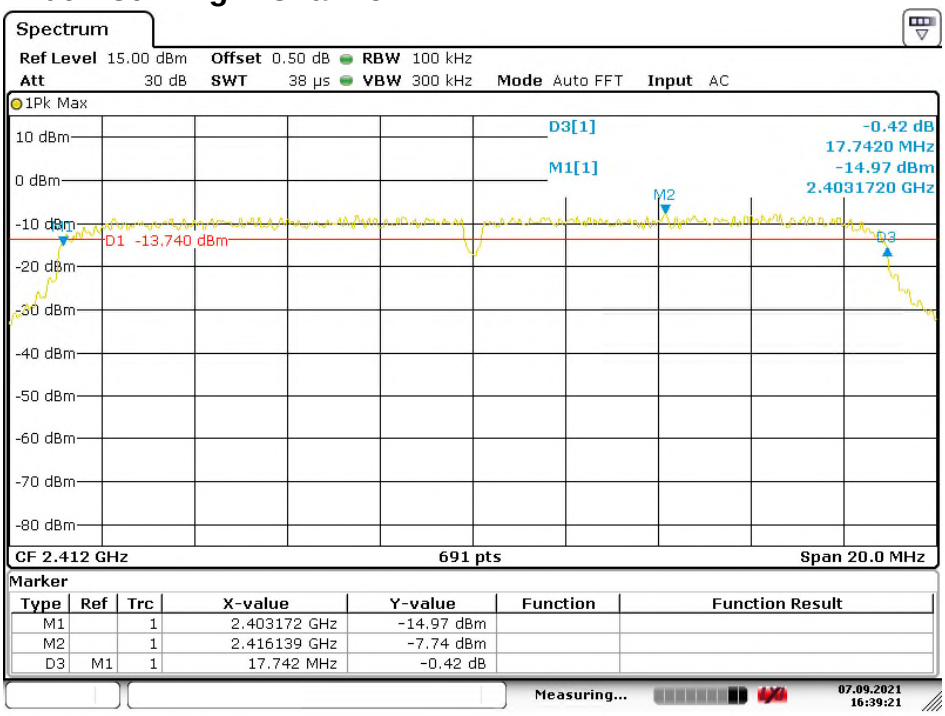
-6dB Bandwidth–802.11g-L Channel



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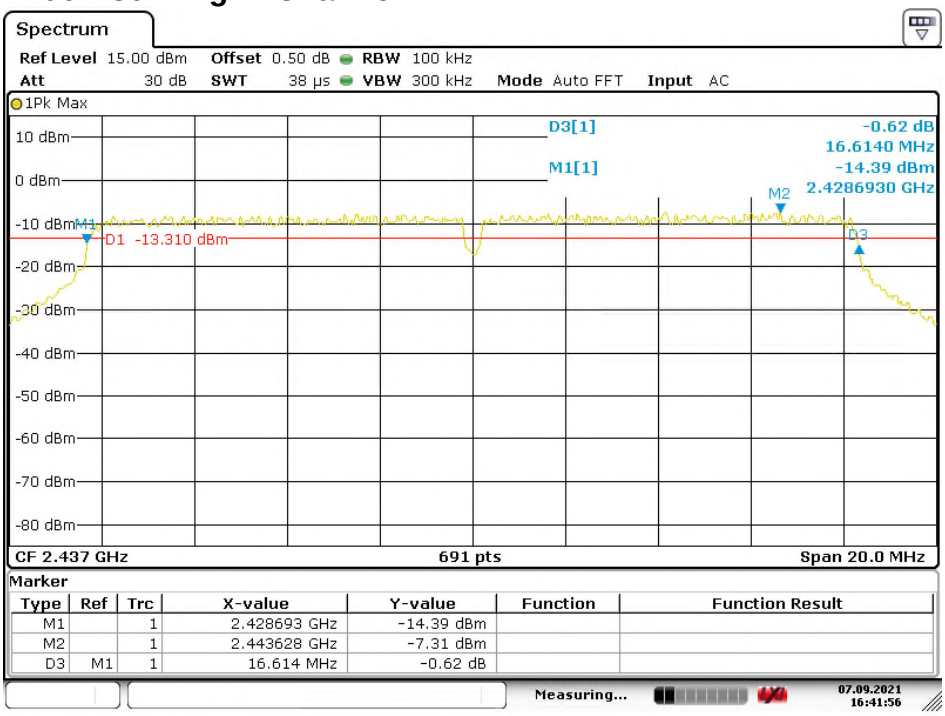
-6dB Bandwidth–802.11g-M Channel



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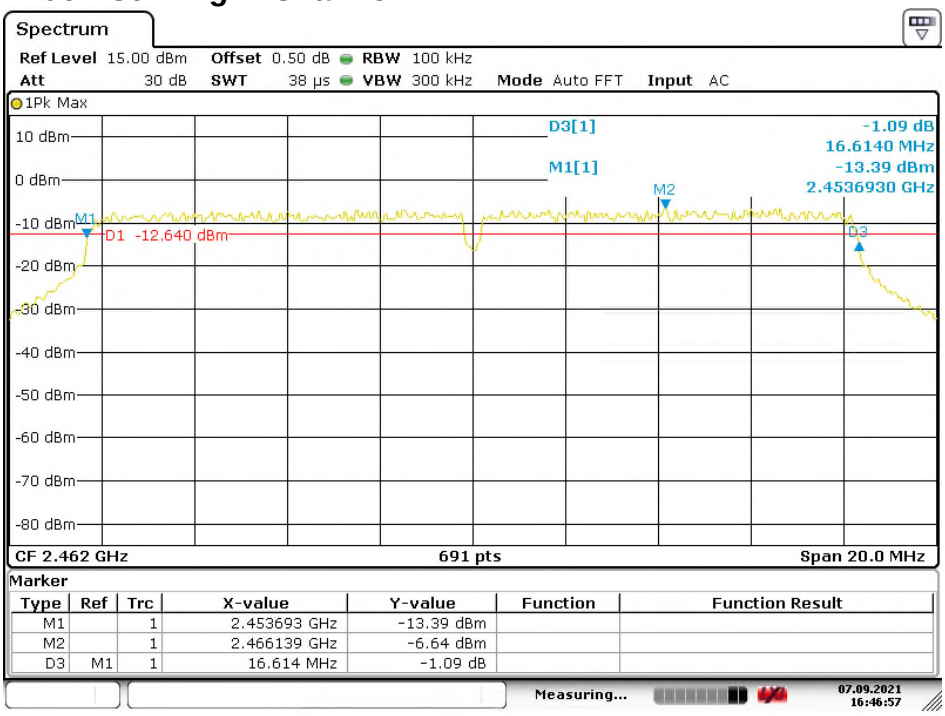
-6dB Bandwidth–802.11g-H Channel



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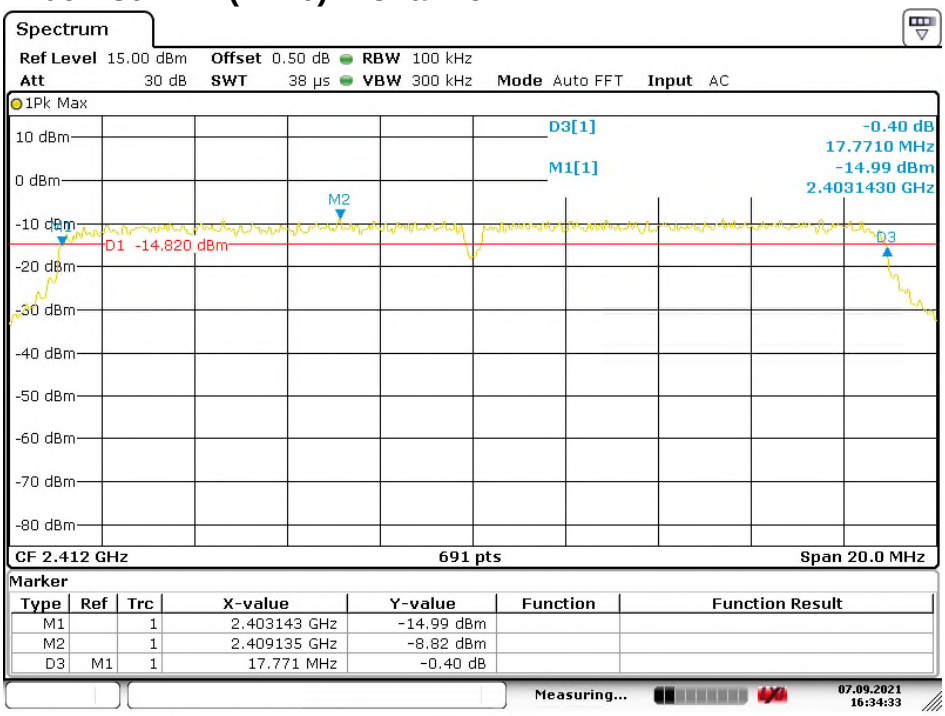
-6dB Bandwidth–802.11n(HT20)-L Channel



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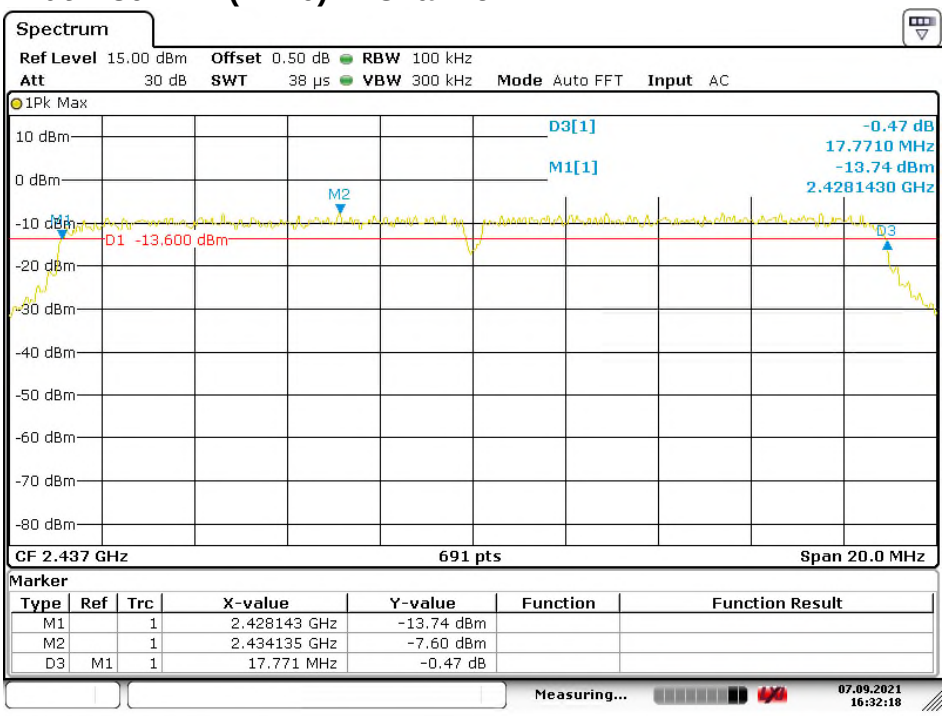

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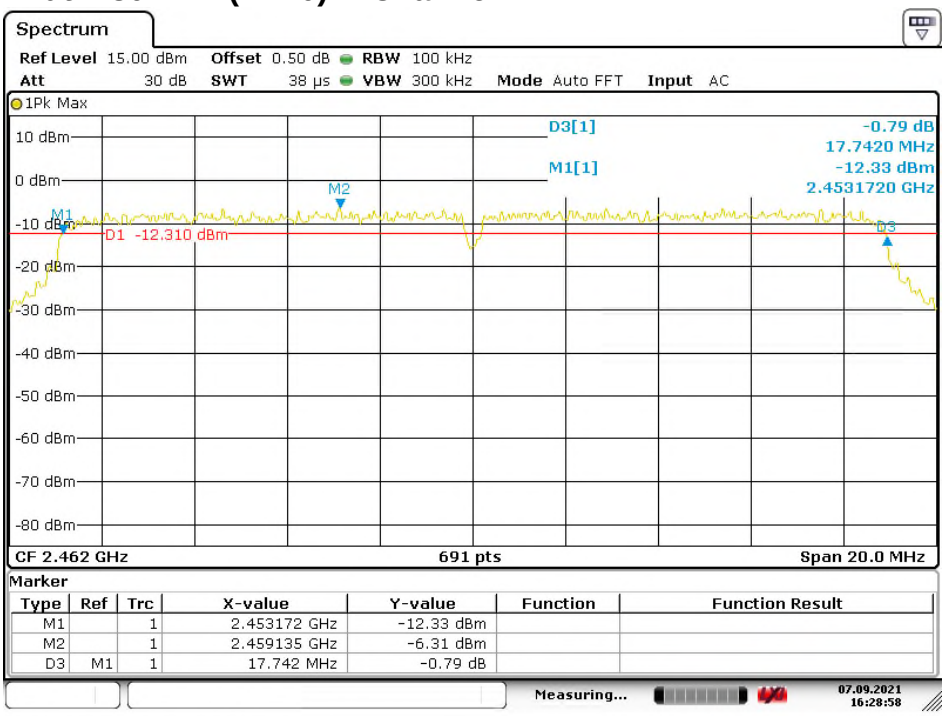
-6dB Bandwidth–802.11n(HT20)-H Channel



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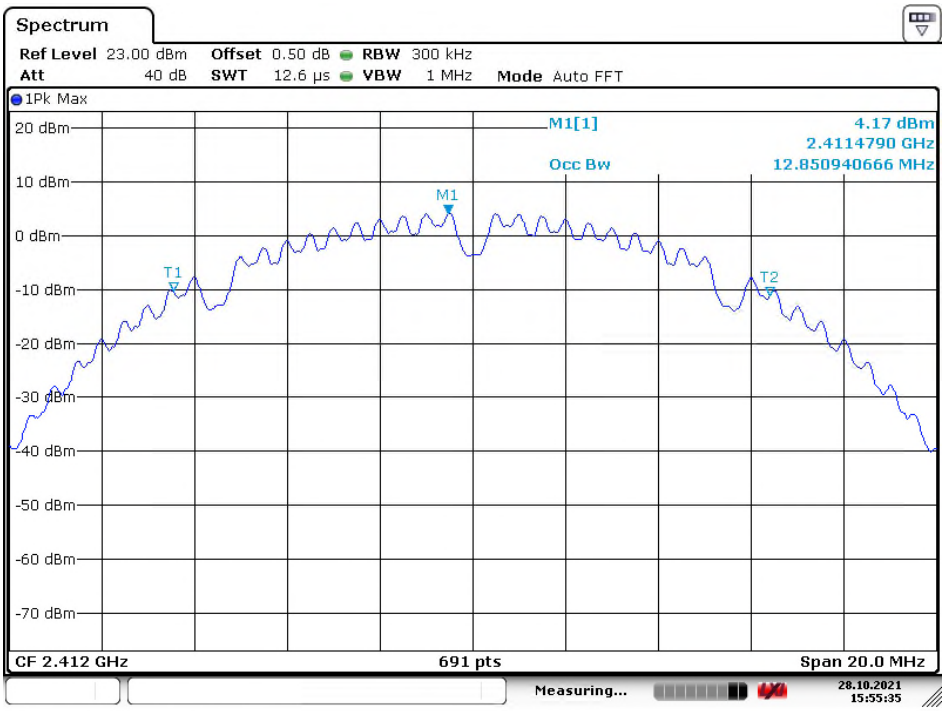
99% Bandwidth–802.11b-L Channel



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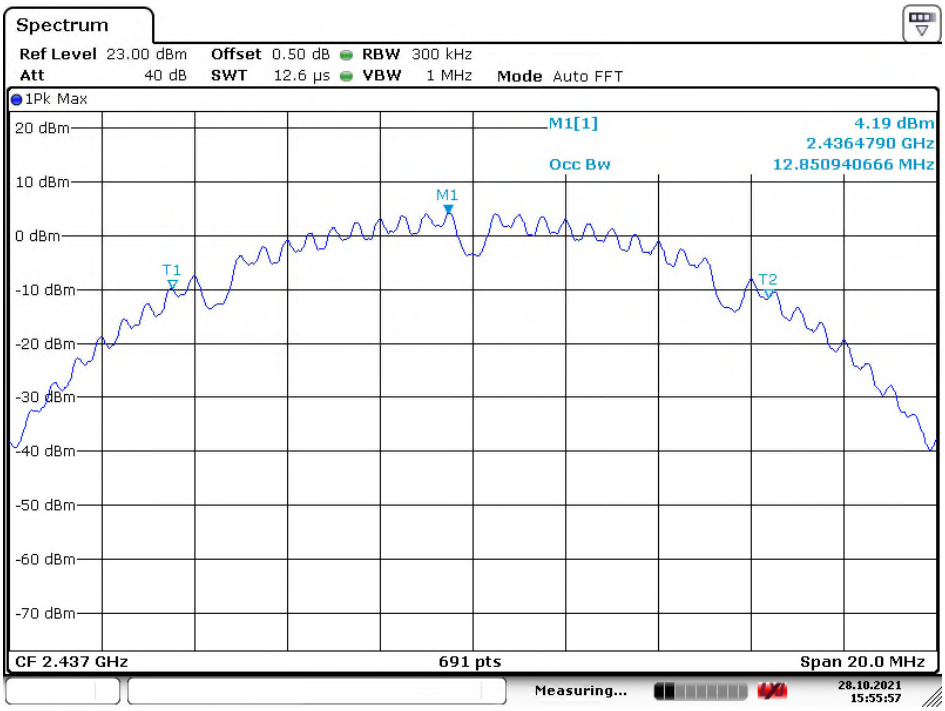

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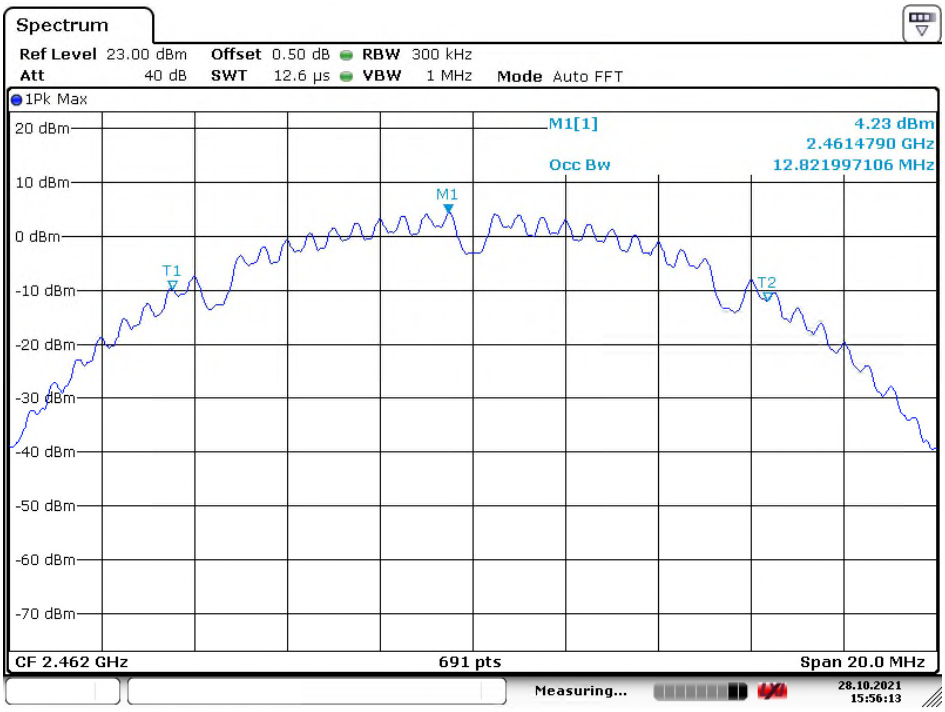

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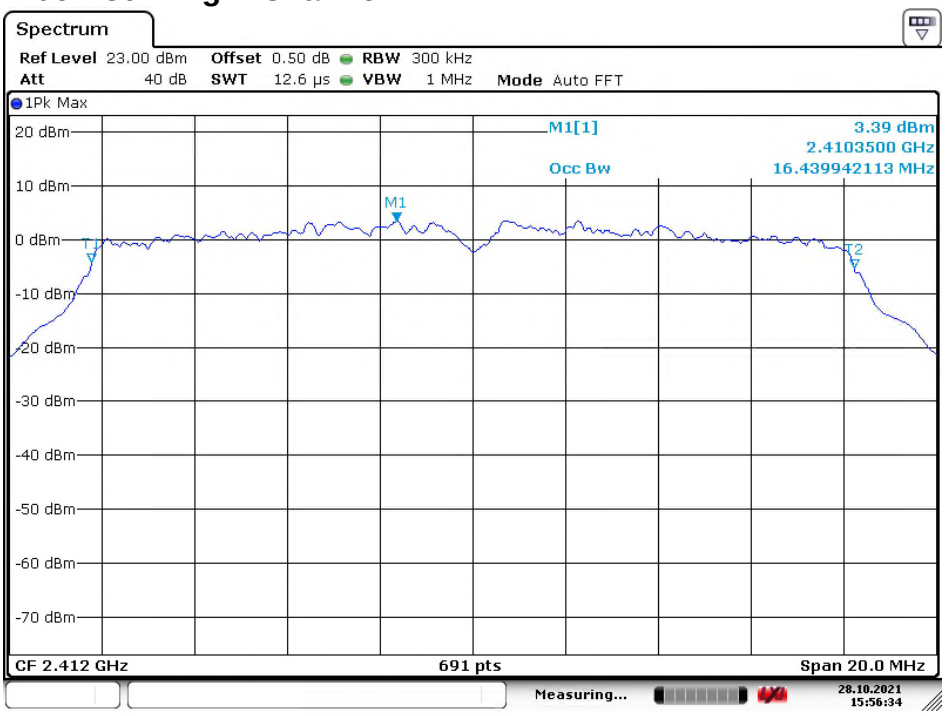

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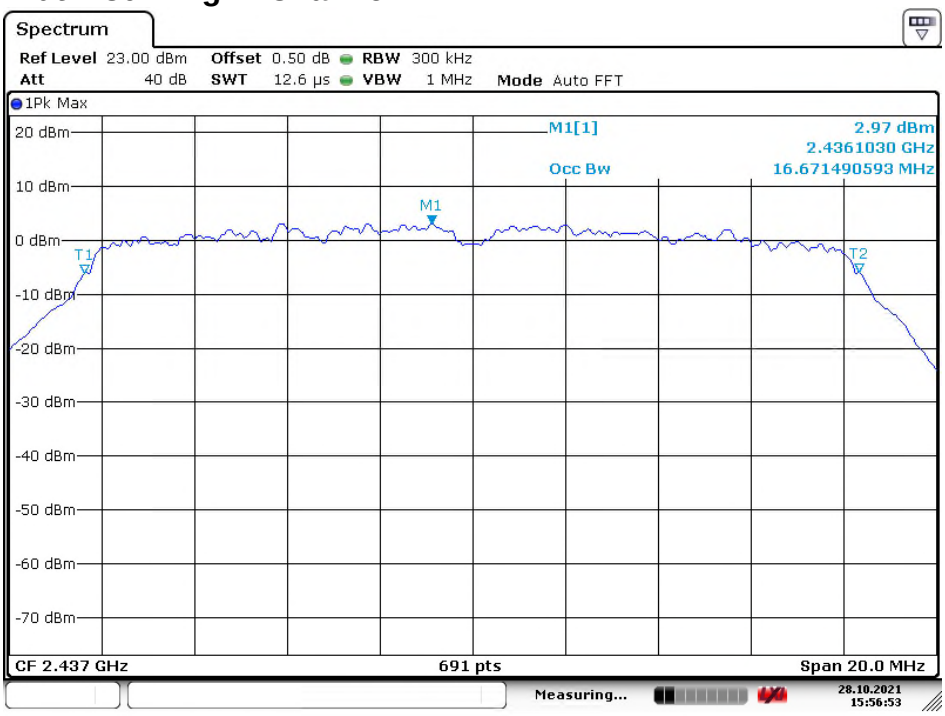

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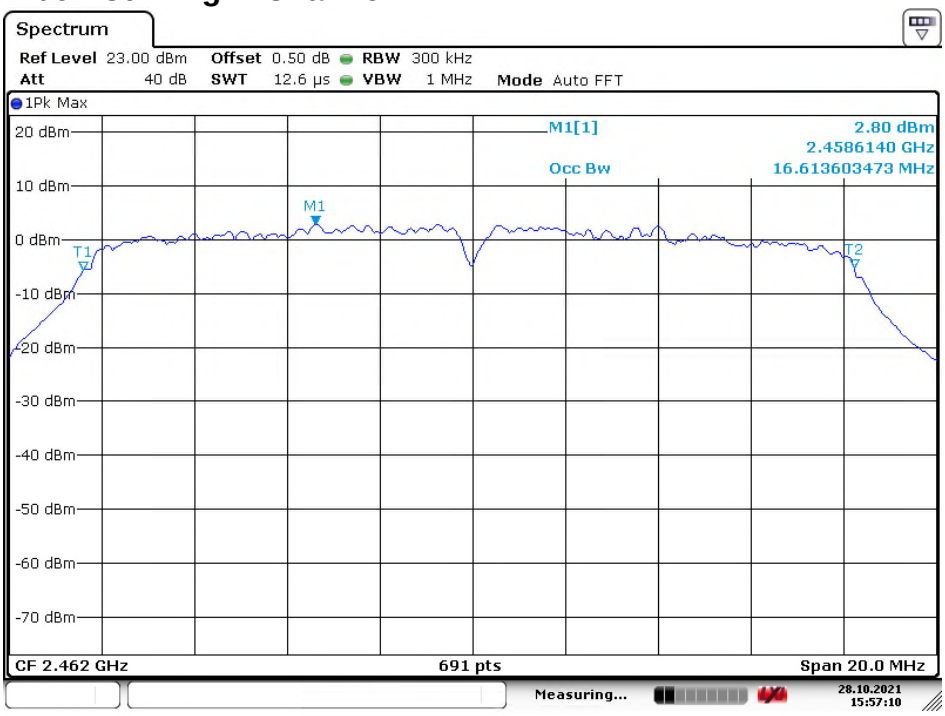

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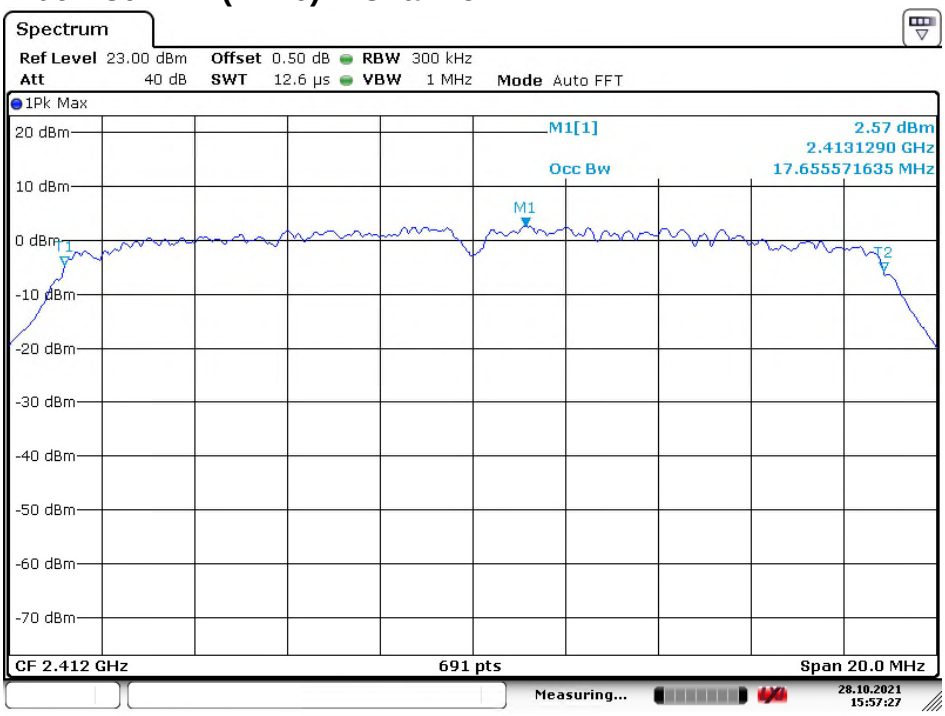
99% Bandwidth–802.11n(HT20)-L Channel



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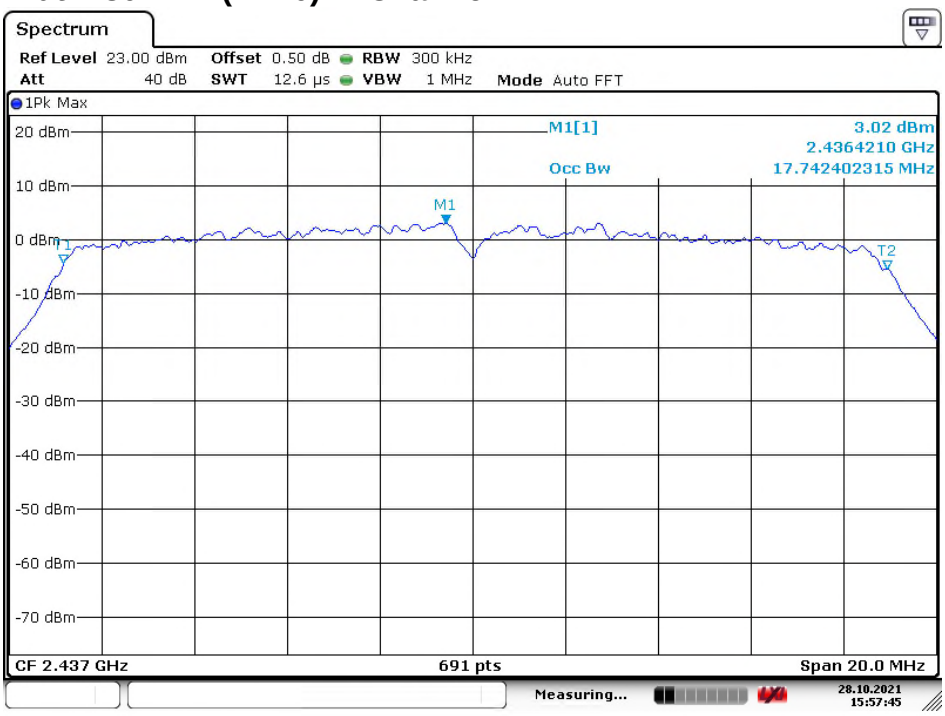
99% Bandwidth–802.11n(HT20)-M Channel



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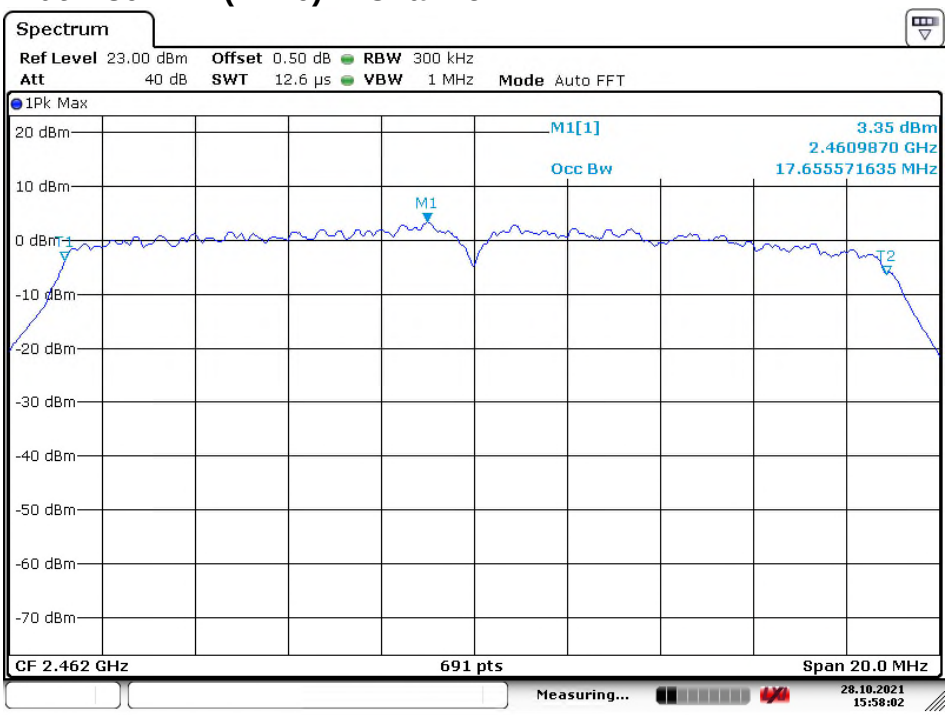

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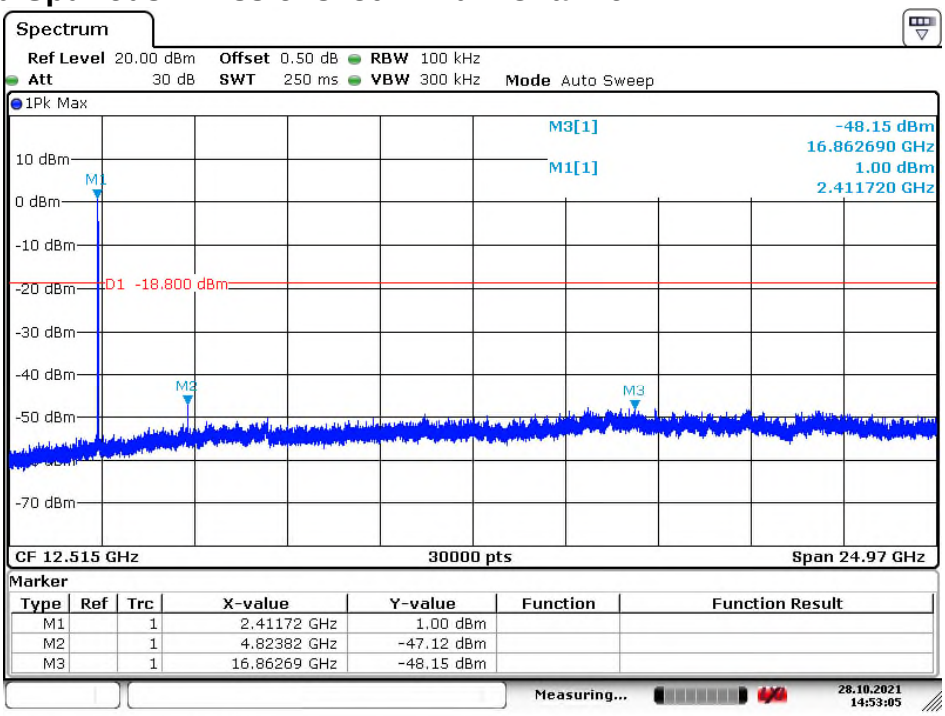
Conducted Spurious Emissions–802.11b-L Channel



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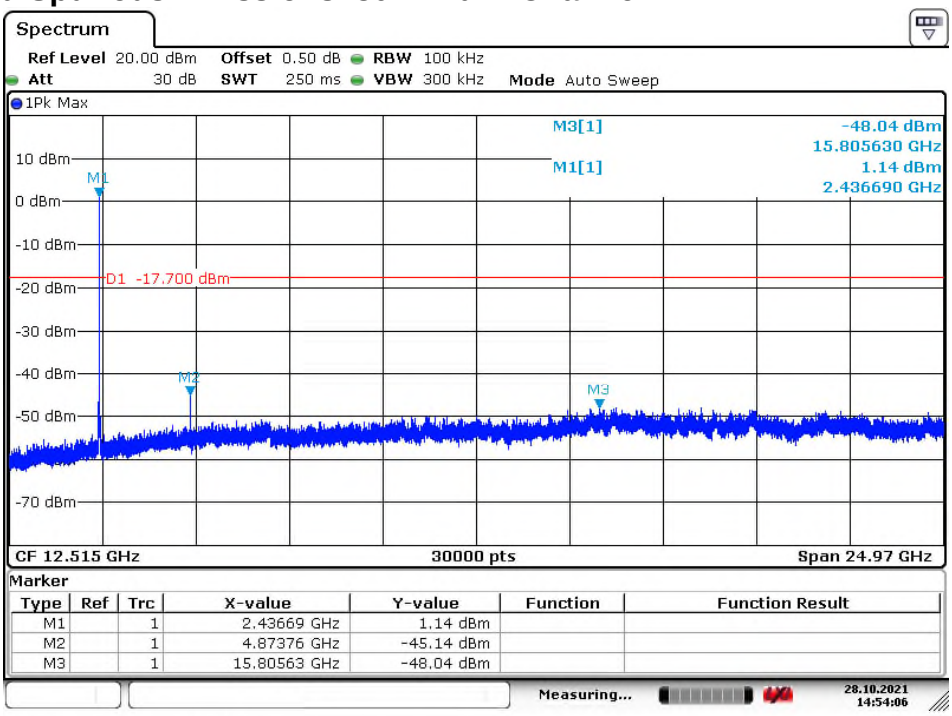
Conducted Spurious Emissions–802.11b-M Channel



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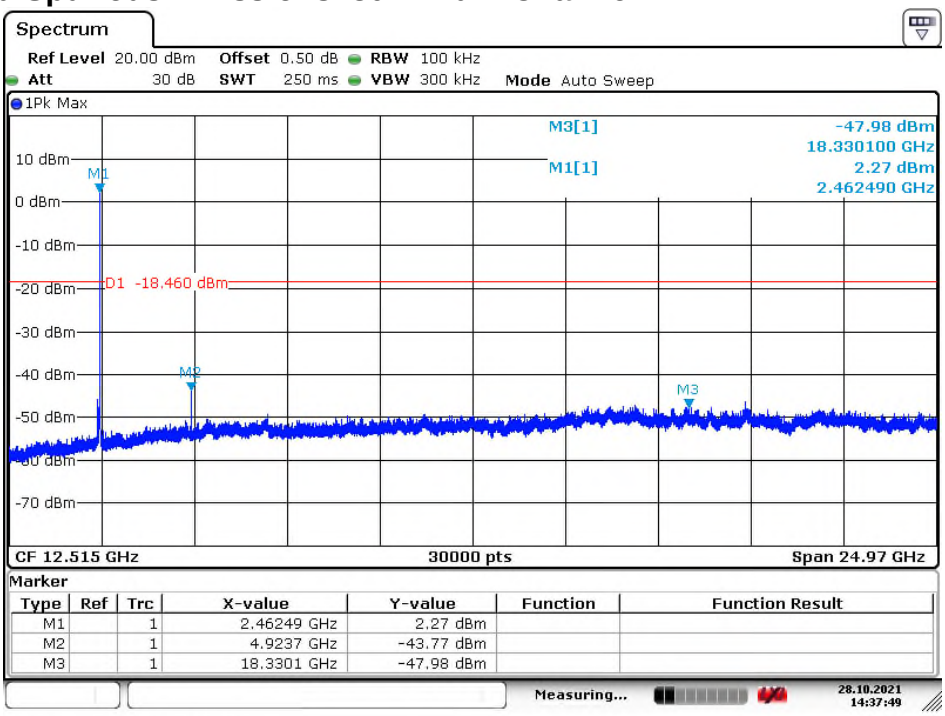
Conducted Spurious Emissions–802.11b-H Channel



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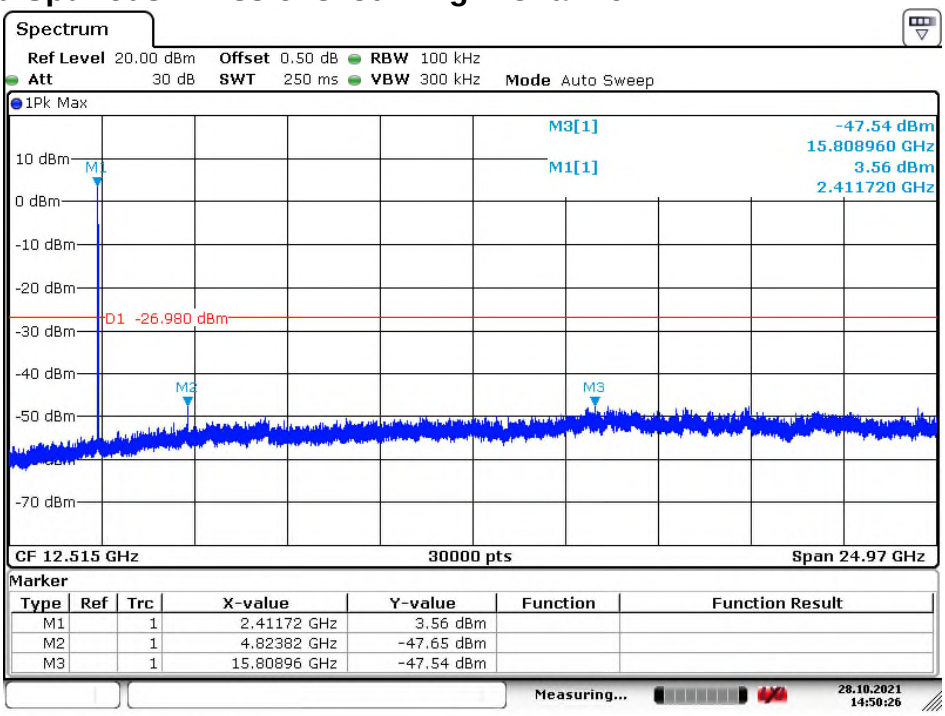
Conducted Spurious Emissions–802.11g-L Channel



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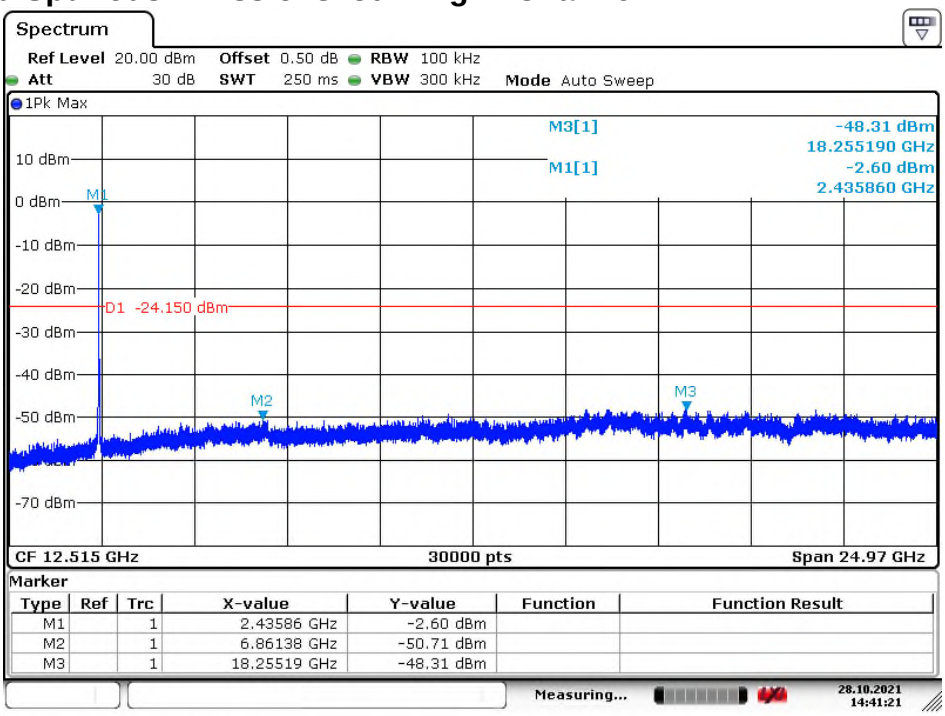
Conducted Spurious Emissions–802.11g-M Channel



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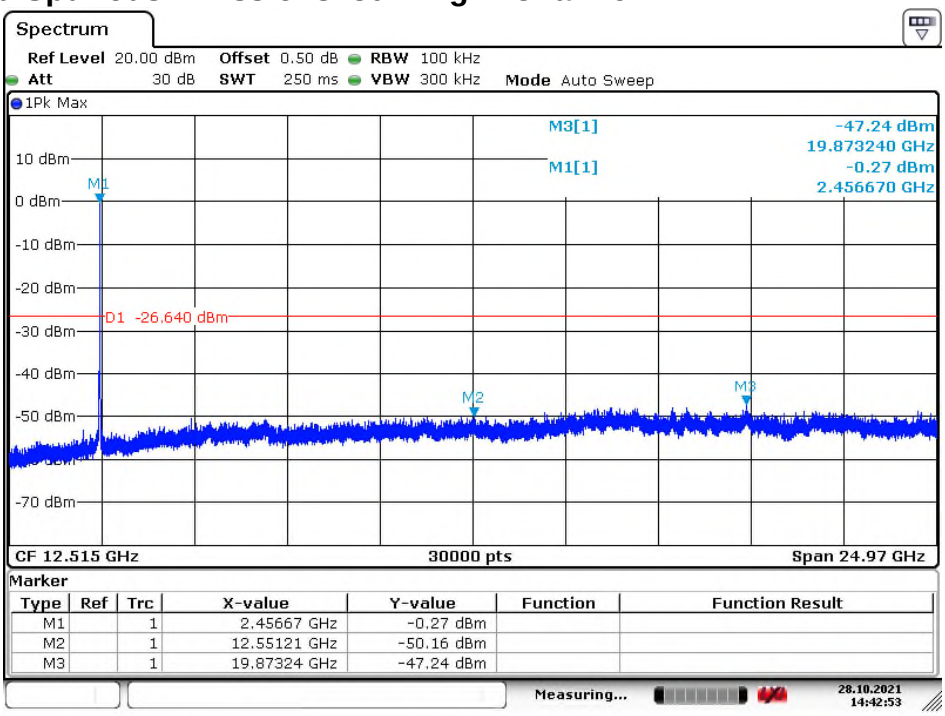
Conducted Spurious Emissions–802.11g-H Channel



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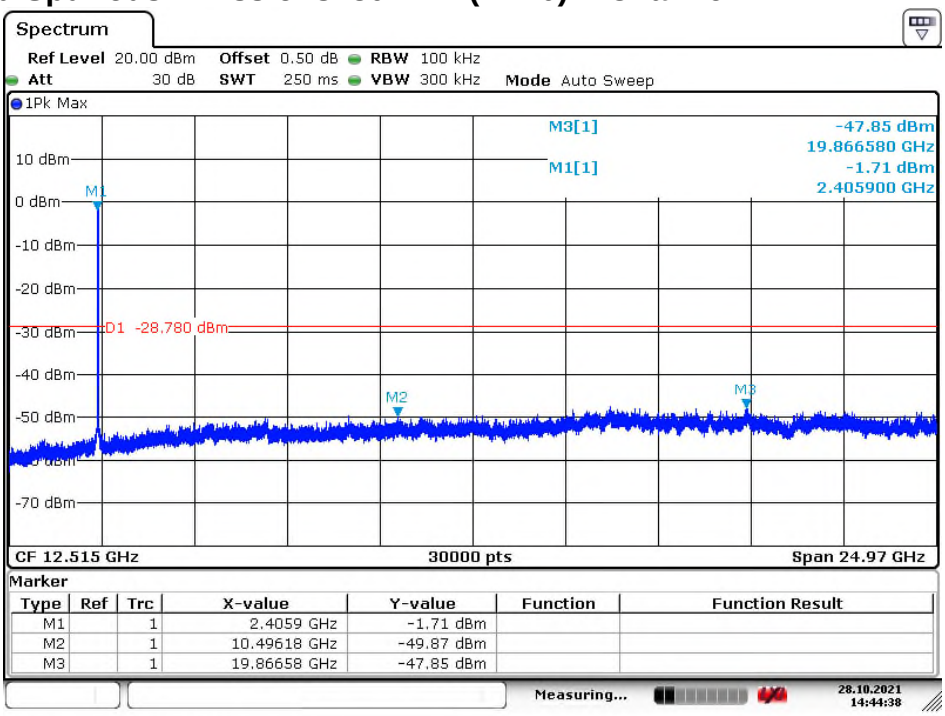
Conducted Spurious Emissions–802.11n(HT20)-L Channel



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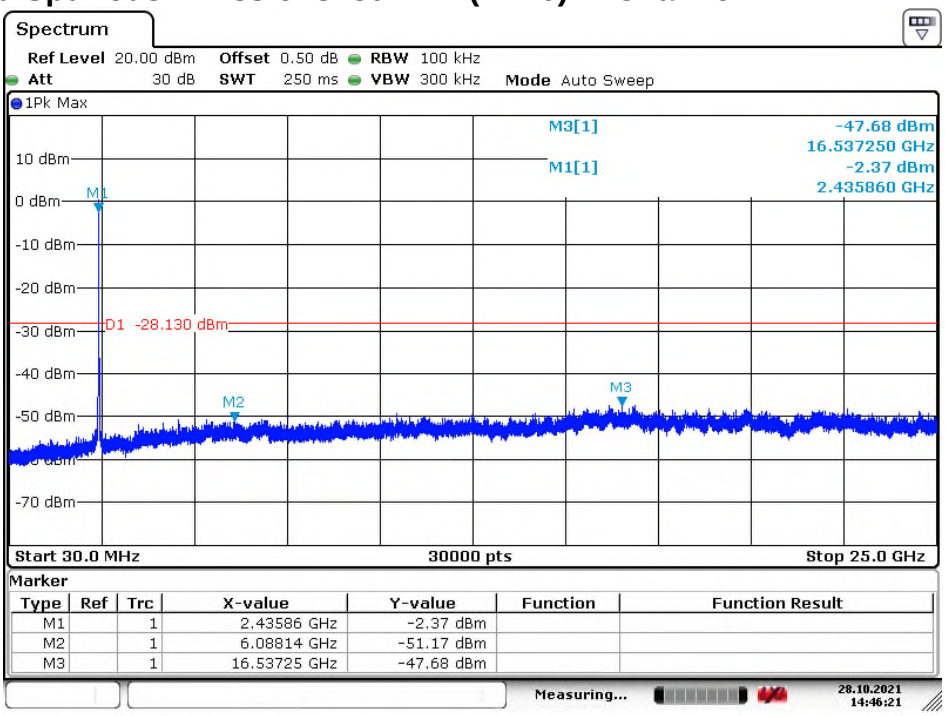
Conducted Spurious Emissions–802.11n(HT20)-M Channel



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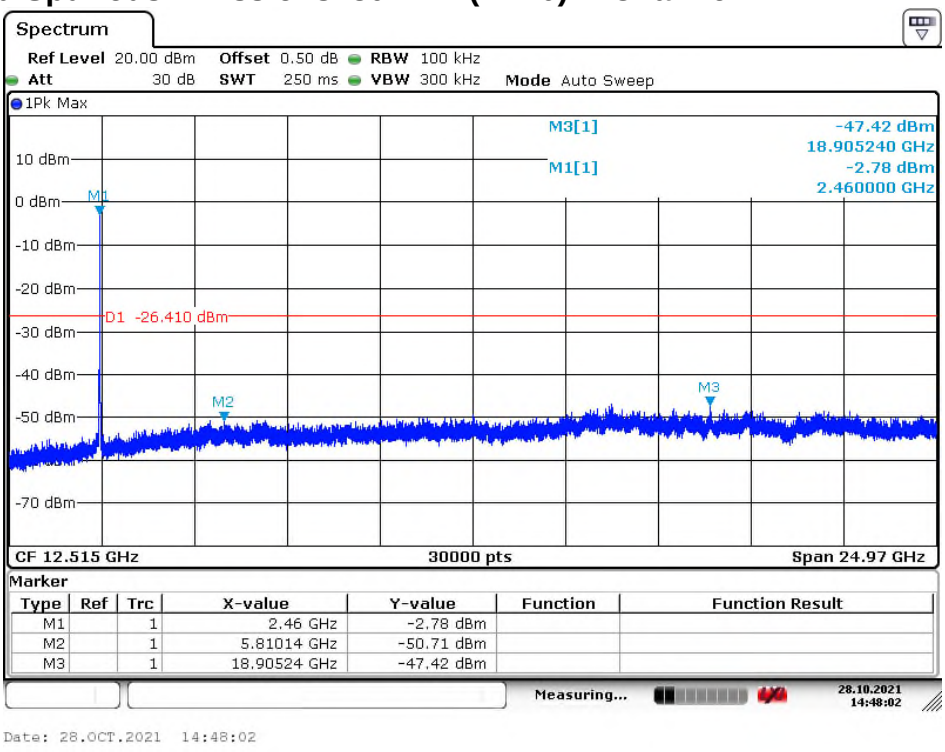
Conducted Spurious Emissions–802.11n(HT20)-H Channel



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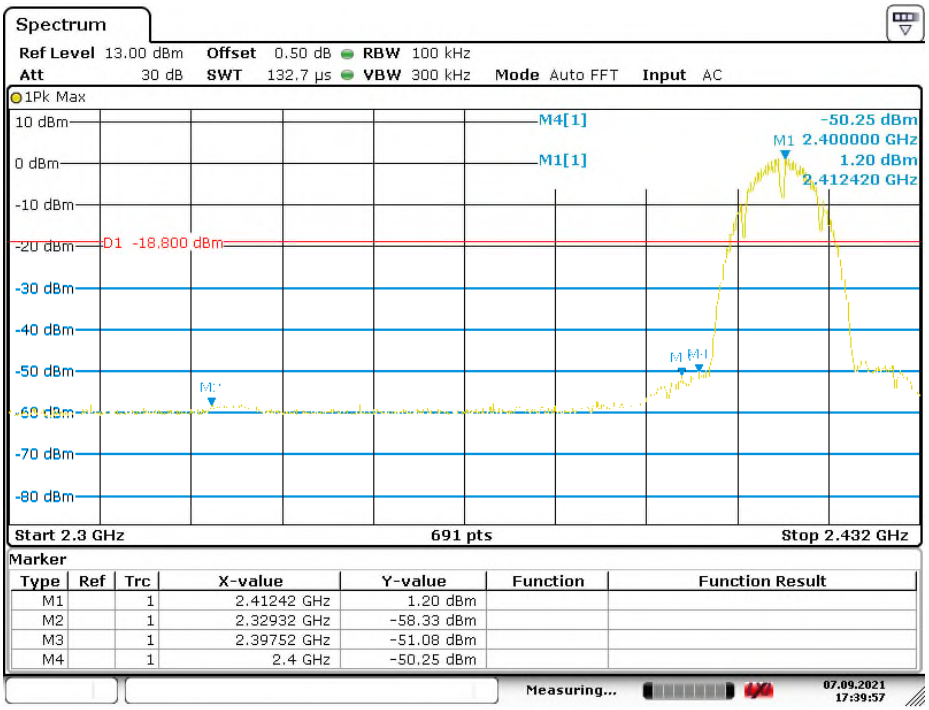
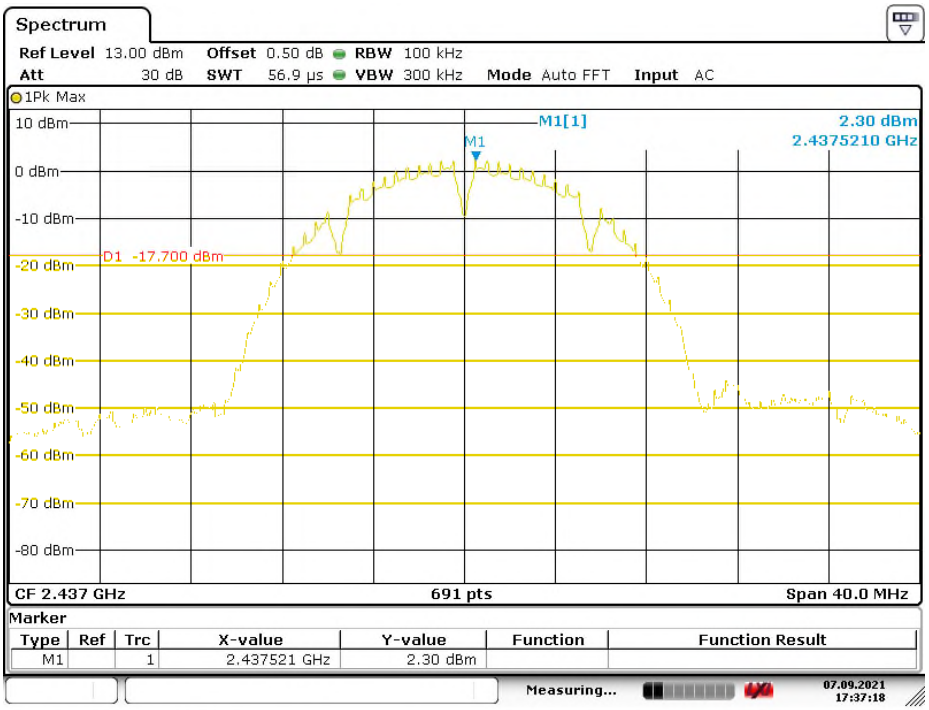
Band Edge–802.11b-L Channel



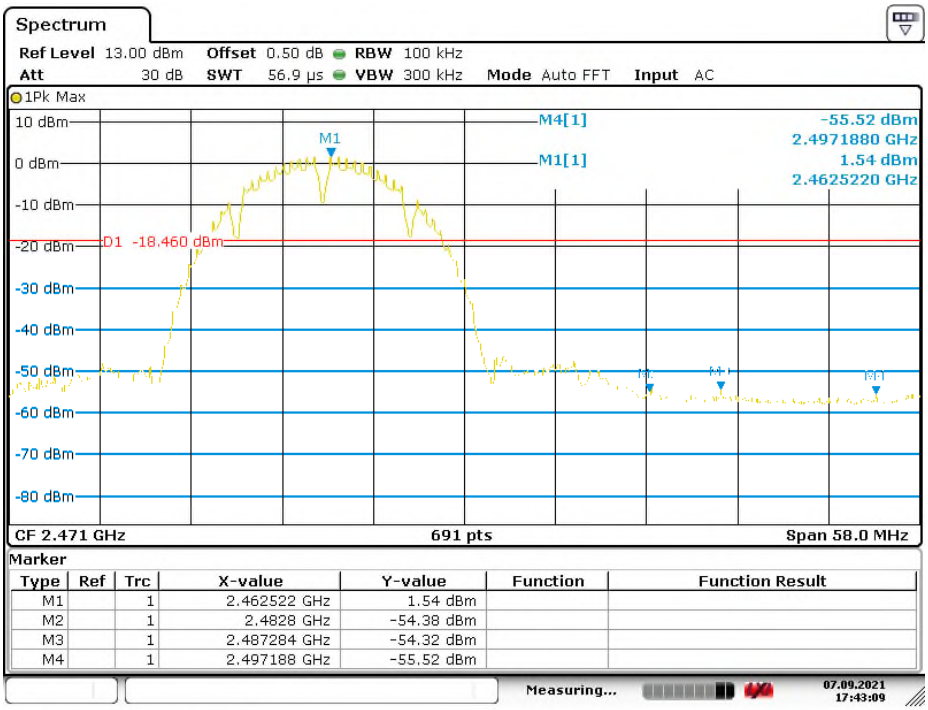
Date: 7.SEP.2021 17:39:58

Band Edge–802.11b-M Channel



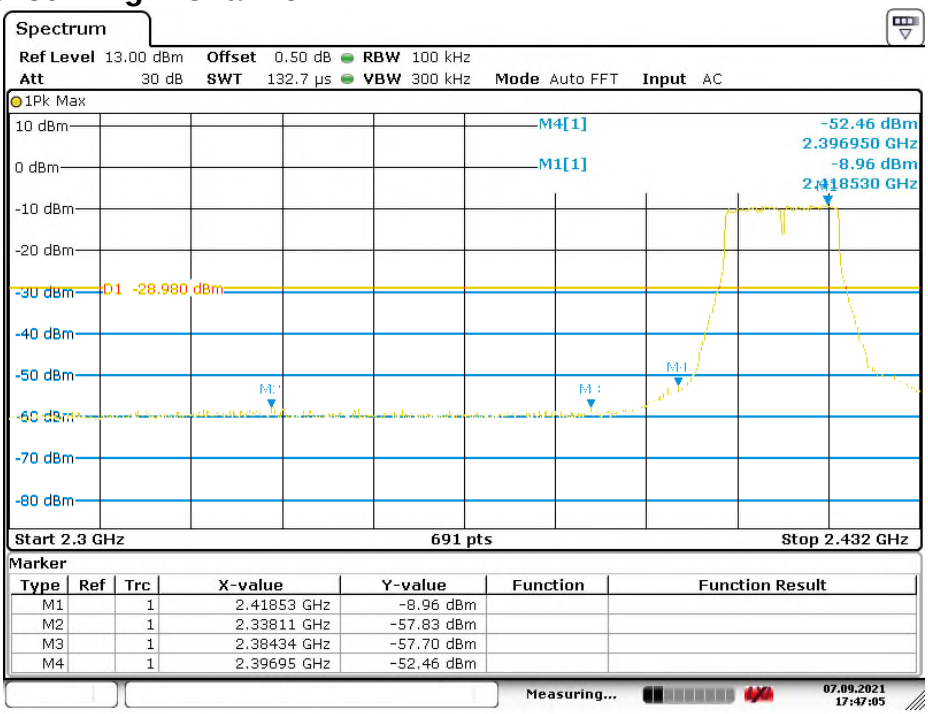
Date: 7.SEP.2021 17:37:19

Band Edge–802.11b-H Channel



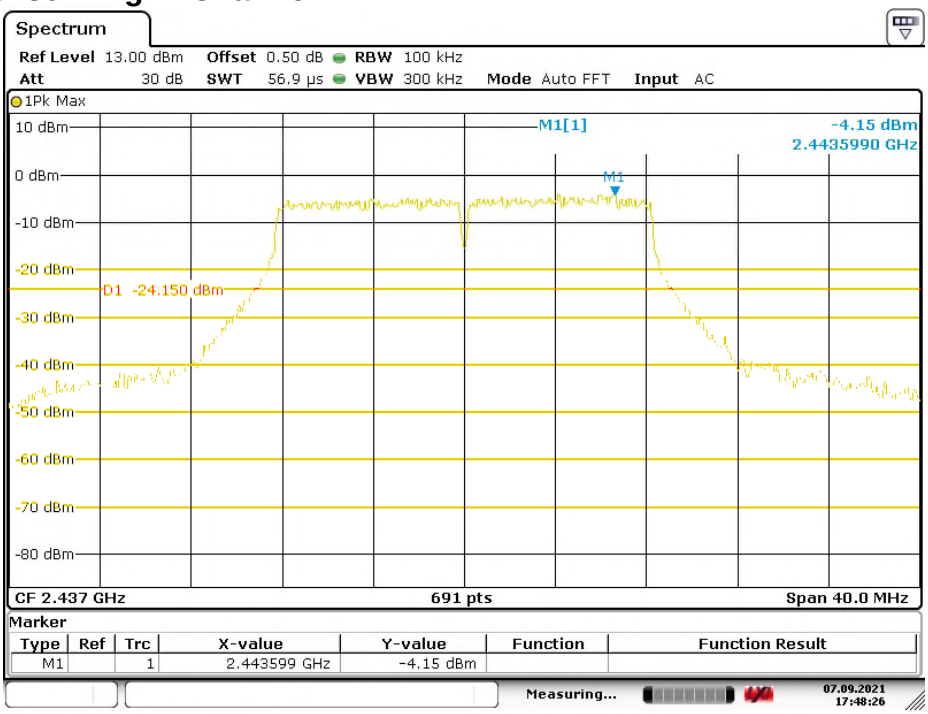
Date: 7.SEP.2021 17:43:10

Band Edge–802.11g-L Channel



Date: 7.SEP.2021 17:47:06

Band Edge–802.11g-M Channel



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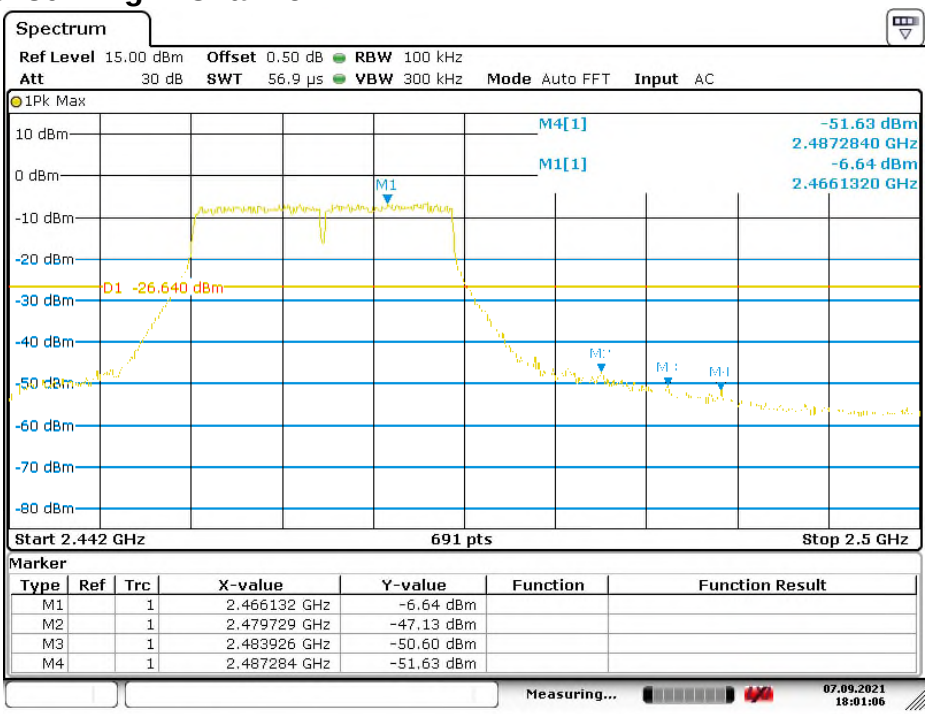
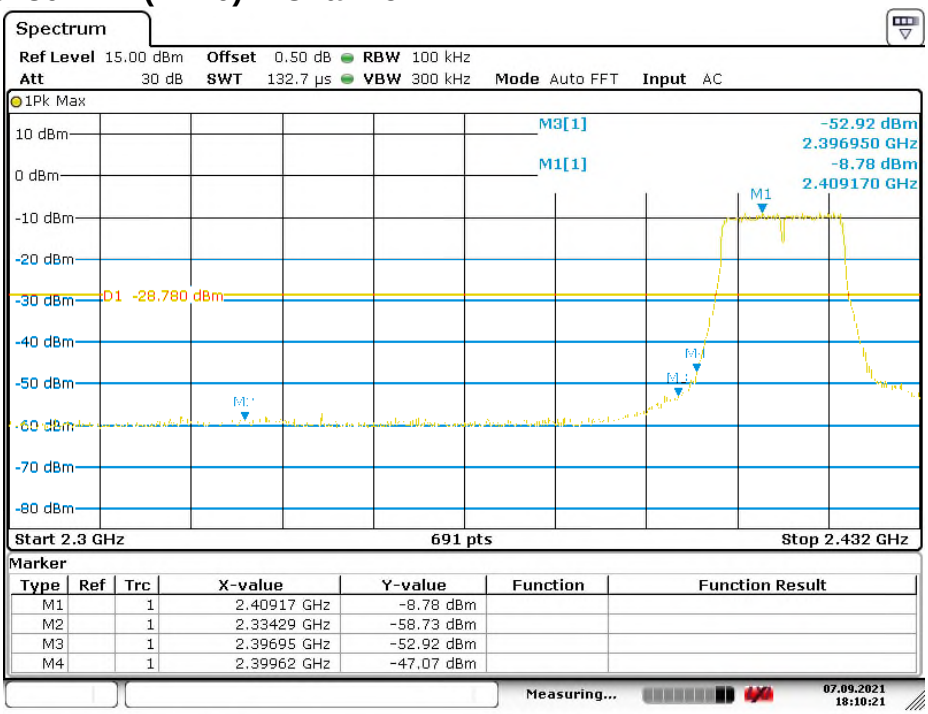
Band Edge–802.11g-H Channel



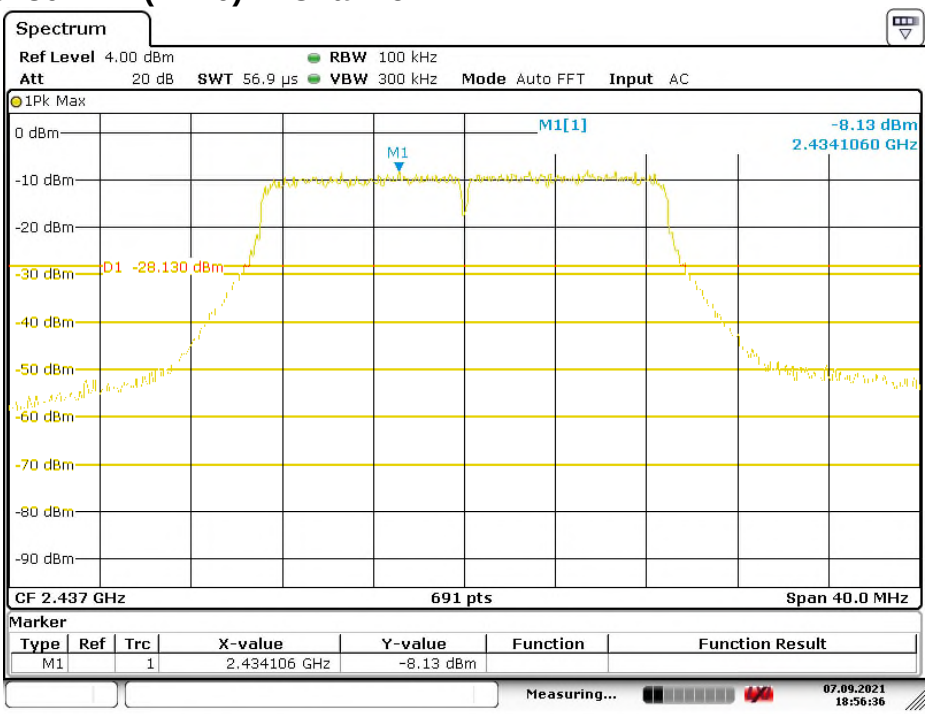
Date: 7.SEP.2021 18:01:06

Band Edge–802.11n(HT20)-L Channel



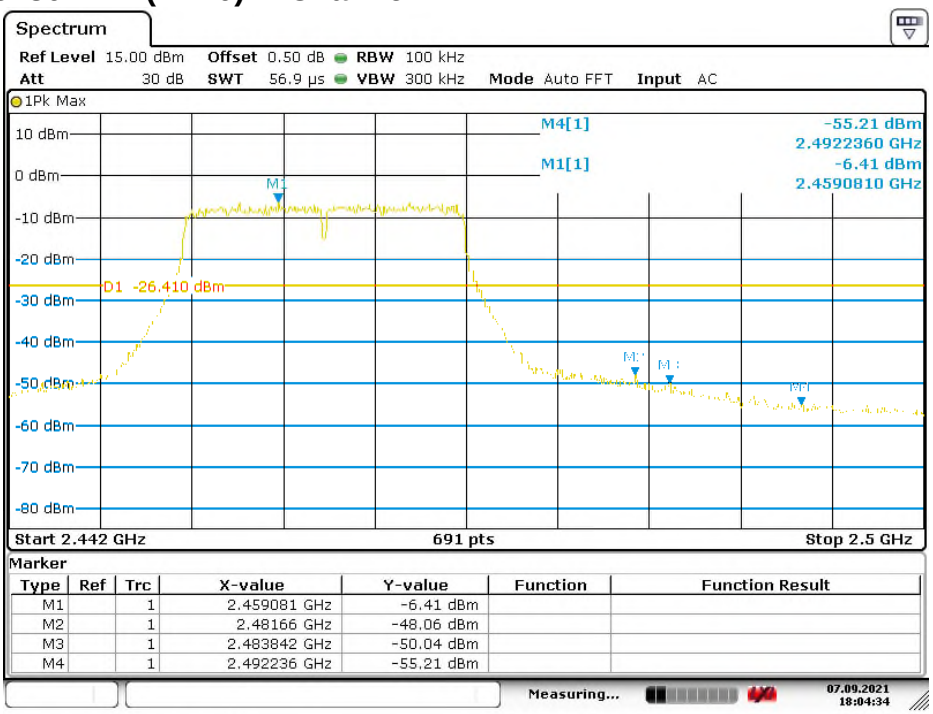
Date: 7.SEP.2021 18:10:22

Band Edge–802.11n(HT20)-M Channel



Date: 7.SEP.2021 18:56:36

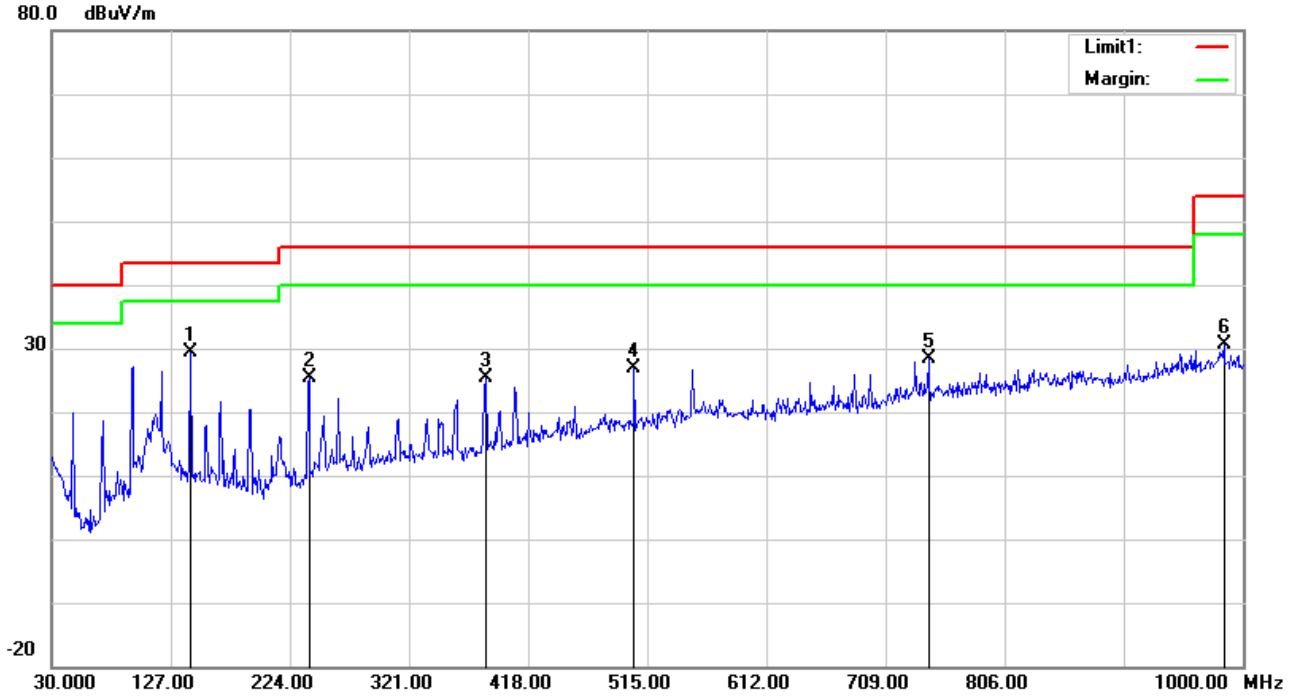
Band Edge–802.11n(HT20)-H Channel



Date: 7.SEP.2021 18:04:34

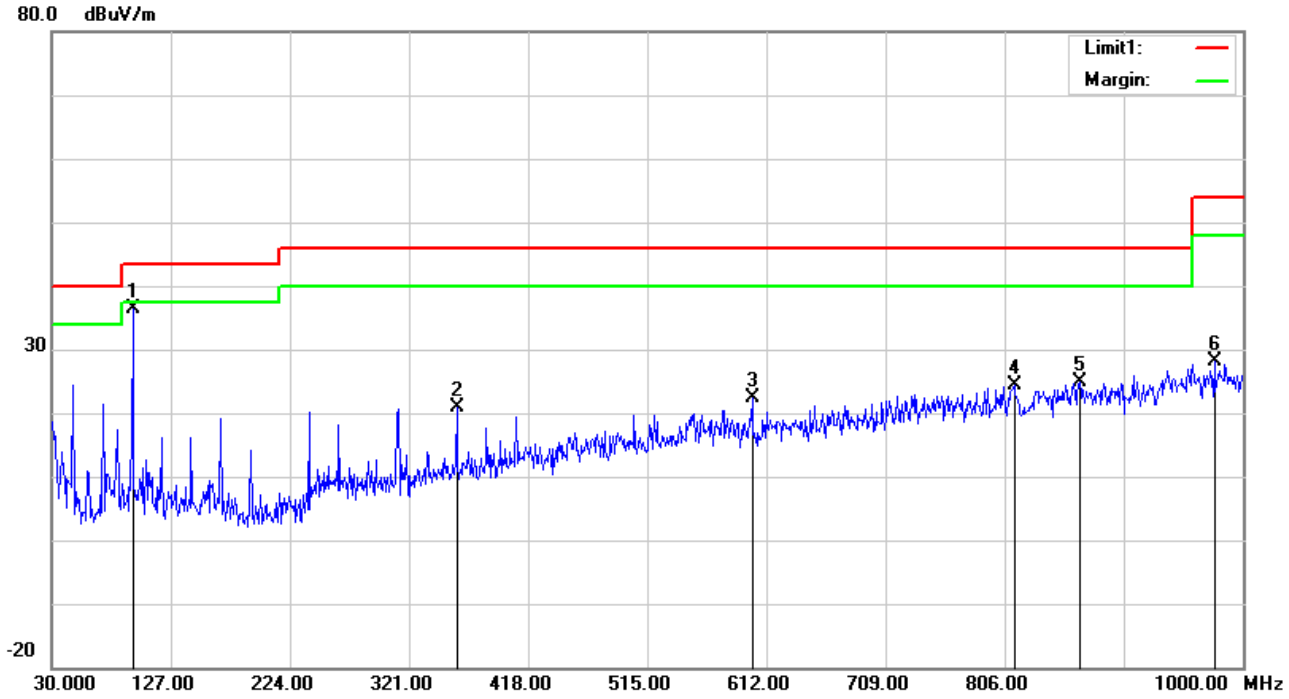
Radiateded Spurious Emissions (30MHz -1000MHz)
802.11b (worst case)

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/16**	**Time:10:57:41**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11b**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	143.4900	47.61	-18.23	29.38	43.50	-14.12	QP
2	239.5200	43.39	-18.10	25.29	46.00	-20.71	QP
3	384.0500	37.46	-11.99	25.47	46.00	-20.53	QP
4	504.3300	34.96	-7.98	26.98	46.00	-19.02	QP
5	743.9200	30.52	-2.13	28.39	46.00	-17.61	QP
6	984.4800	28.21	2.40	30.61	54.00	-23.39	QP

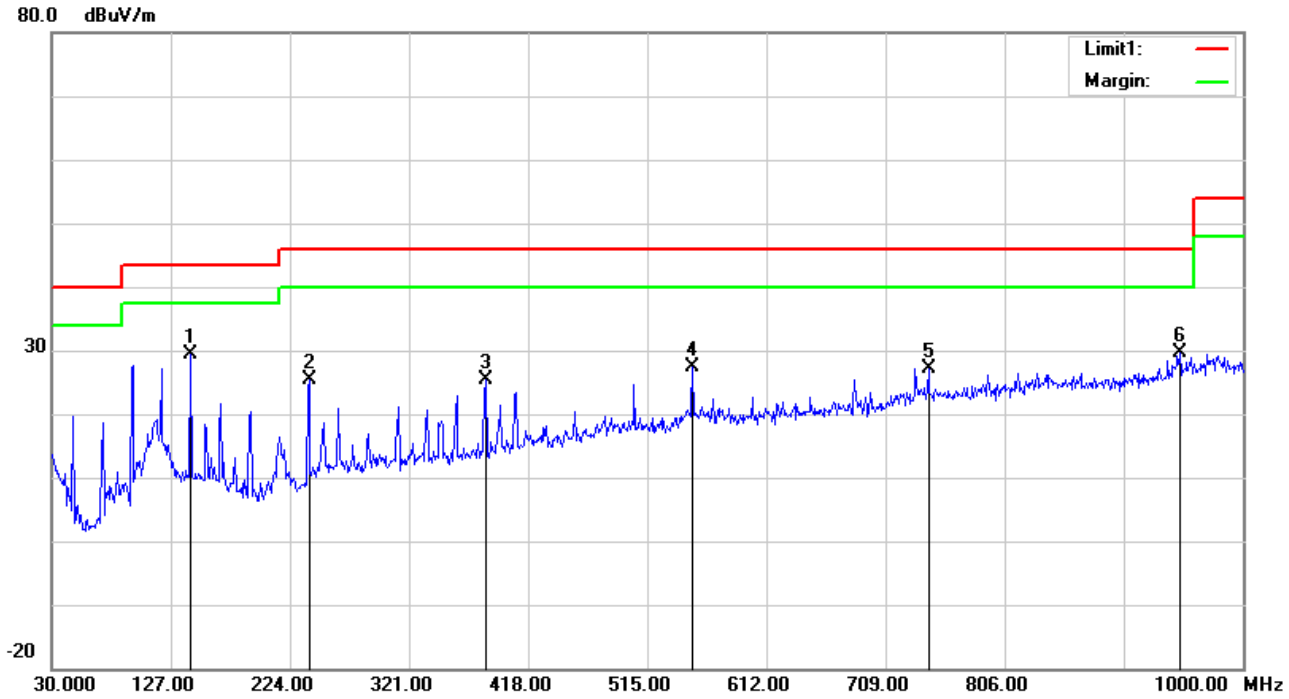
Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/16**	**Time:10:57:19**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11b**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	95.9600	56.94	-20.67	36.27	43.50	-7.23	QP
2	359.8000	33.85	-12.87	20.98	46.00	-25.02	QP
3	600.3600	28.24	-5.84	22.40	46.00	-23.60	QP
4	813.7600	26.25	-1.98	24.27	46.00	-21.73	QP
5	867.1100	25.46	-0.50	24.96	46.00	-21.04	QP
6	976.7200	25.70	2.45	28.15	54.00	-25.85	QP

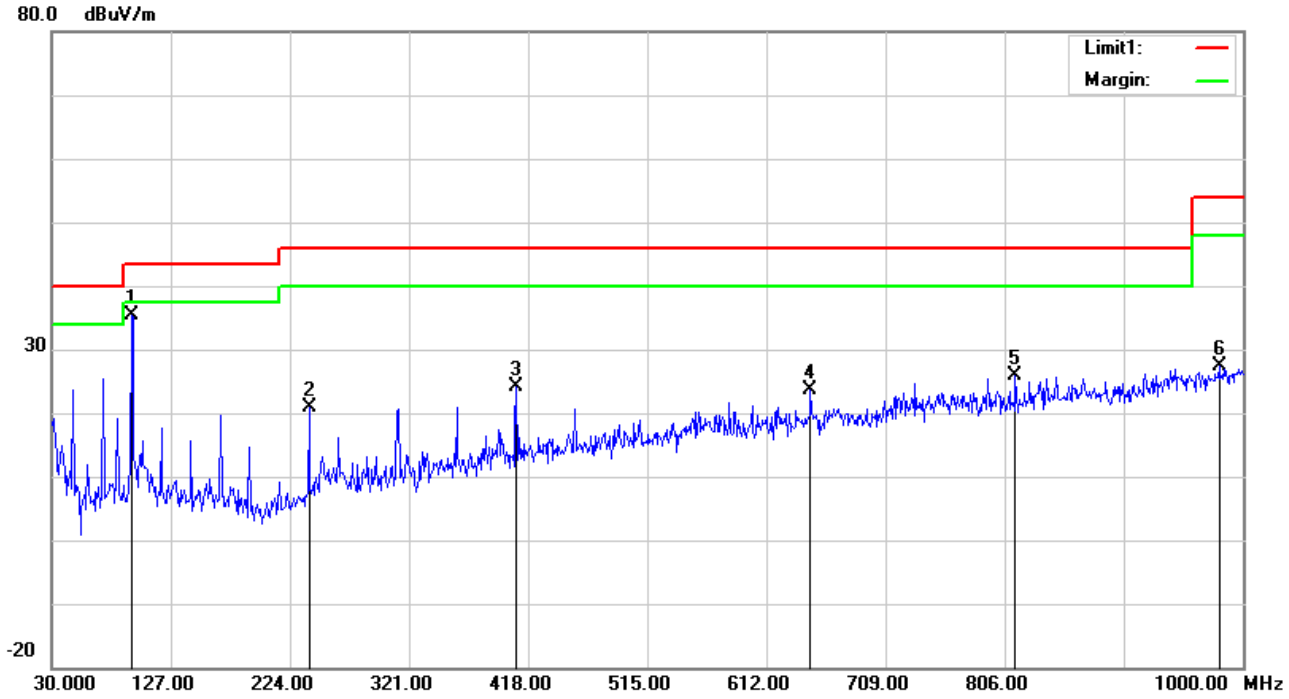
802.11g (worst case)

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/16**	**Time:12:59:08**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11g**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	143.4900	47.57	-18.23	29.34	43.50	-14.16	QP
2	239.5200	43.40	-18.10	25.30	46.00	-20.70	QP
3	384.0500	37.48	-11.99	25.49	46.00	-20.51	QP
4	551.8600	33.13	-5.72	27.41	46.00	-18.59	QP
5	743.9200	29.24	-2.13	27.11	46.00	-18.89	QP
6	948.5900	27.96	1.56	29.52	46.00	-16.48	QP

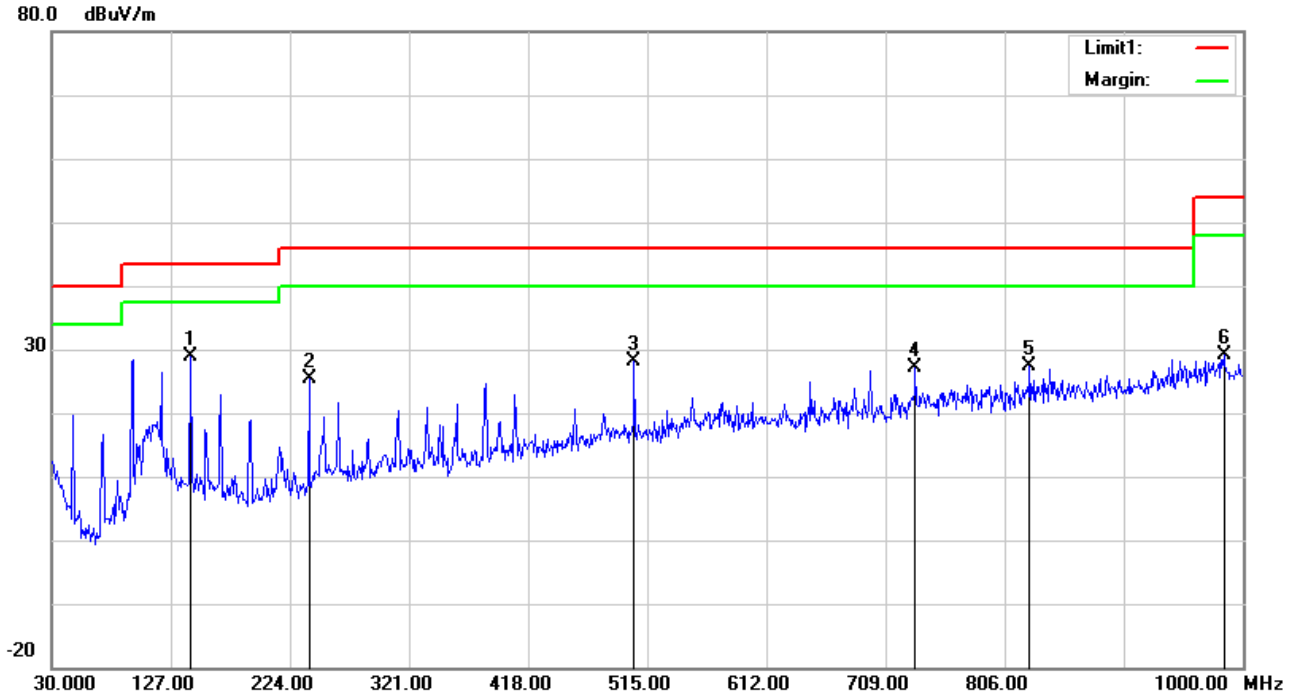
Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/16**	**Time:12:58:32**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11g**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	94.9900	56.25	-20.78	35.47	43.50	-8.03	QP
2	239.5200	38.87	-18.10	20.77	46.00	-25.23	QP
3	408.3000	34.74	-10.66	24.08	46.00	-21.92	QP
4	647.8900	28.47	-4.88	23.59	46.00	-22.41	QP
5	814.7300	27.82	-1.98	25.84	46.00	-20.16	QP
6	980.6000	24.83	2.63	27.46	54.00	-26.54	QP

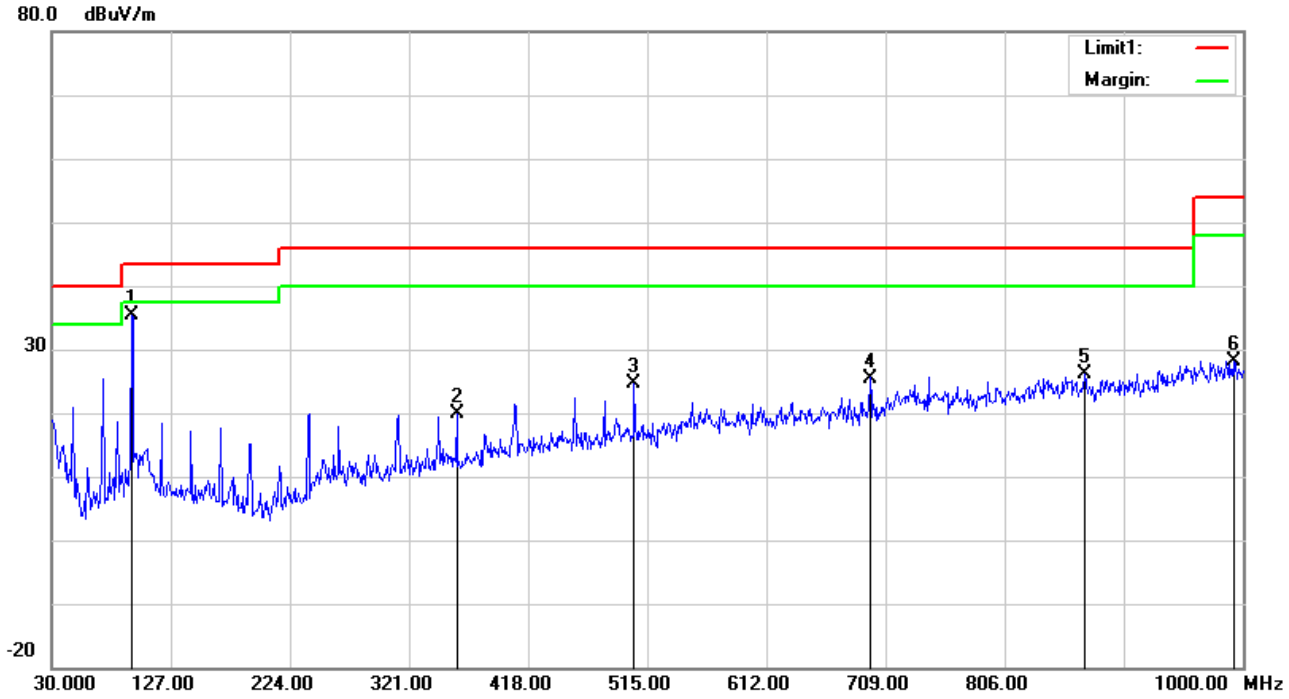
802.11n(HT20) (worst case)

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/16**	**Time:14:01:49**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11n(HT20)**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	143.4900	47.04	-18.23	28.81	43.50	-14.69	QP
2	239.5200	43.43	-18.10	25.33	46.00	-20.67	QP
3	504.3300	36.17	-7.98	28.19	46.00	-17.81	QP
4	733.2500	29.50	-2.35	27.15	46.00	-18.85	QP
5	826.3700	28.66	-1.19	27.47	46.00	-18.53	QP
6	984.4800	26.80	2.40	29.20	54.00	-24.80	QP

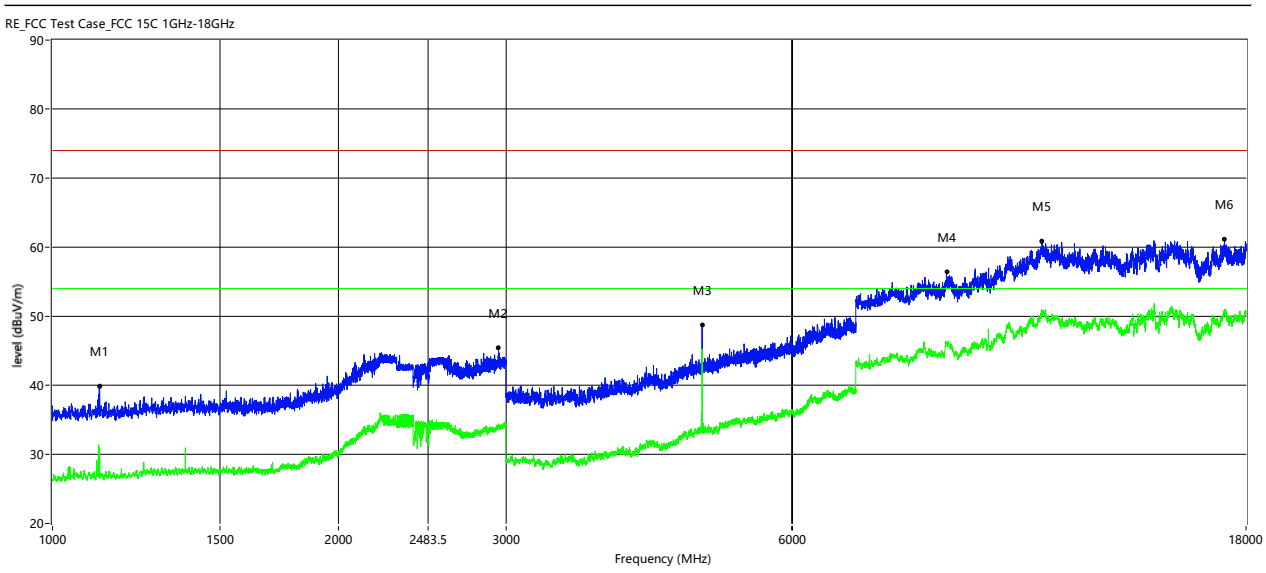
Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/16**	**Time:14:01:30**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11n(HT20)**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	94.9900	56.12	-20.78	35.34	43.50	-8.16	QP
2	359.8000	32.75	-12.87	19.88	46.00	-26.12	QP
3	504.3300	32.61	-7.98	24.63	46.00	-21.37	QP
4	696.3900	29.73	-4.23	25.50	46.00	-20.50	QP
5	870.9900	26.73	-0.55	26.18	46.00	-19.82	QP
6	992.2400	26.18	2.05	28.23	54.00	-25.77	QP

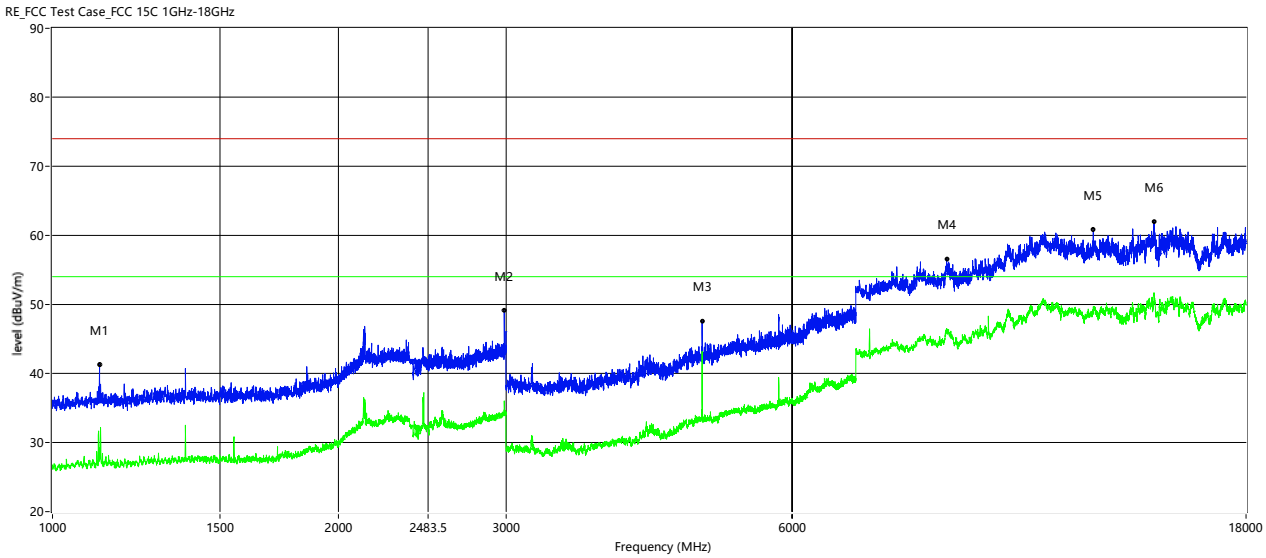
Radiateded Spurious Emissions ABOVE 1G

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11b_L	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



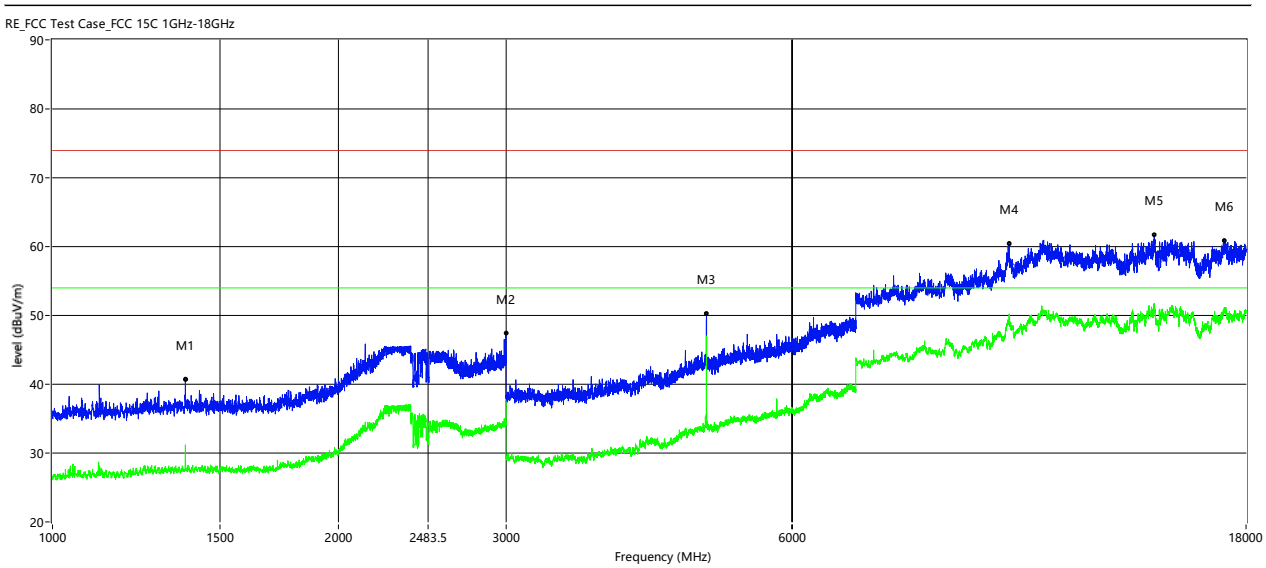
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1120.5	41.26	32.41	-1.44	39.82	30.97	74.00	54.00	-34.18	-23.03	-23.03	Horizontal
2946.5	39.56	28.23	5.88	45.44	34.11	74.00	54.00	-28.56	-19.89	-19.89	Horizontal
4824	55.62	52.03	-6.84	48.78	45.19	74.00	54.00	-25.22	-8.81	-8.81	Horizontal
8718.75	51.38	40.81	5.1	56.48	45.91	74.00	54.00	-17.52	-8.09	-8.09	Horizontal
10987.5	50.76	39.90	10.12	60.88	50.02	74.00	54.00	-13.12	-3.98	-3.98	Horizontal
17095.25	50.63	40.06	10.45	61.08	50.51	74.00	54.00	-12.92	-3.49	-3.49	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11b_L	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



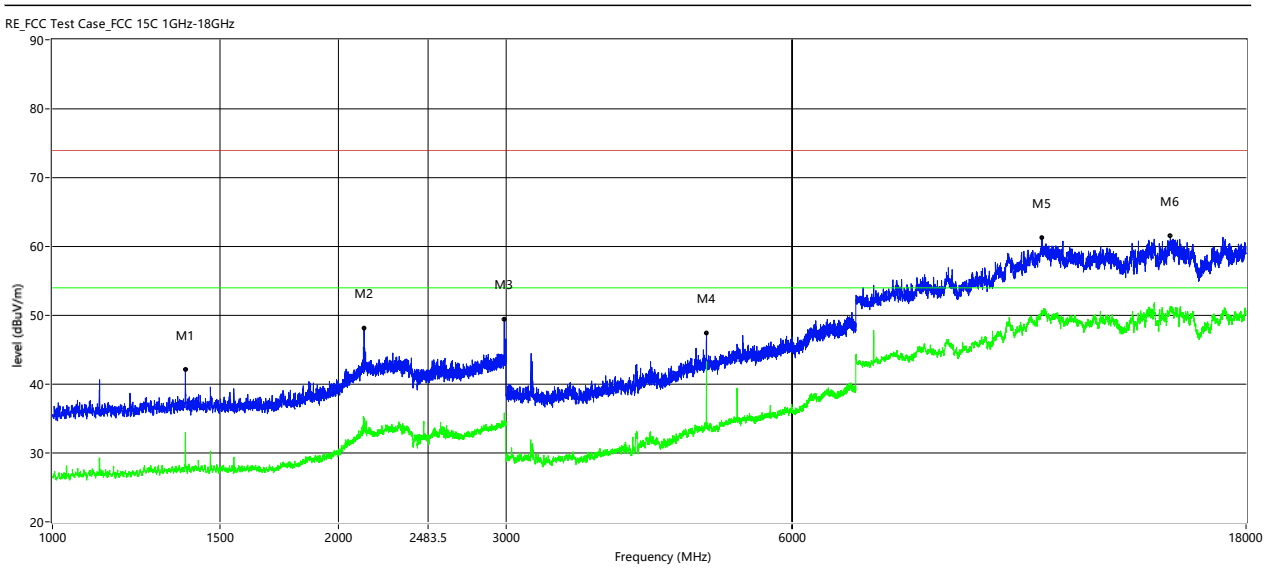
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	42.76	30.66	-1.44	41.32	29.22	74.00	54.00	-32.68	-24.78	-24.78	Vertical
2988	43.03	29.96	6.06	49.09	36.02	74.00	54.00	-24.91	-17.98	-17.98	Vertical
4824	54.36	49.98	-6.84	47.52	43.14	74.00	54.00	-26.48	-10.86	-10.86	Vertical
8721.5	51.48	41.40	5.09	56.57	46.49	74.00	54.00	-17.43	-7.51	-7.51	Vertical
12436.75	52.23	40.45	8.56	60.79	49.01	74.00	54.00	-13.21	-4.99	-4.99	Vertical
14397.5	50.65	39.24	11.41	62.06	50.65	74.00	54.00	-11.94	-3.35	-3.35	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11b_M	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



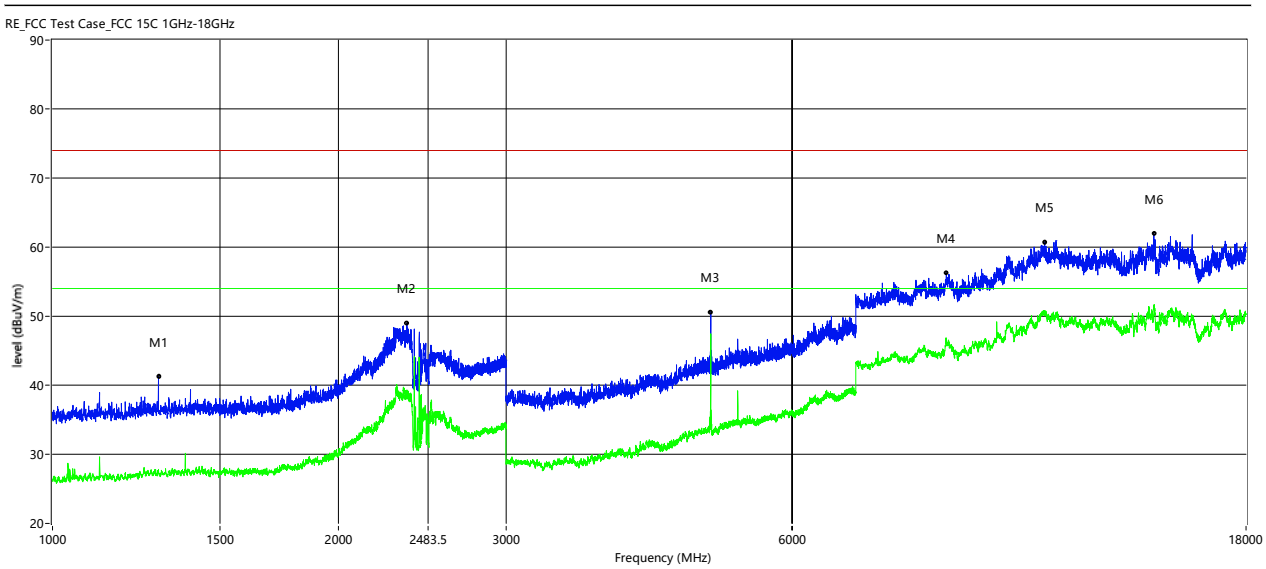
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin (dB)	ANT
1380	41.37	31.87	-0.71	40.66	31.16	74.00	54.00	-33.34	-22.84	-22.84	Horizontal
3000	41.36	31.43	6.11	47.47	37.54	74.00	54.00	-26.53	-16.46	-16.46	Horizontal
4874	56.79	53.56	-6.54	50.25	47.02	74.00	54.00	-23.75	-6.98	-6.98	Horizontal
10140.5	53.25	41.91	7.15	60.40	49.06	74.00	54.00	-13.60	-4.94	-4.94	Horizontal
14416.75	50.49	40.52	11.23	61.72	51.75	74.00	54.00	-12.28	-2.25	-2.25	Horizontal
17081.5	50.47	40.17	10.35	60.82	50.52	74.00	54.00	-13.18	-3.48	-3.48	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11b_M	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



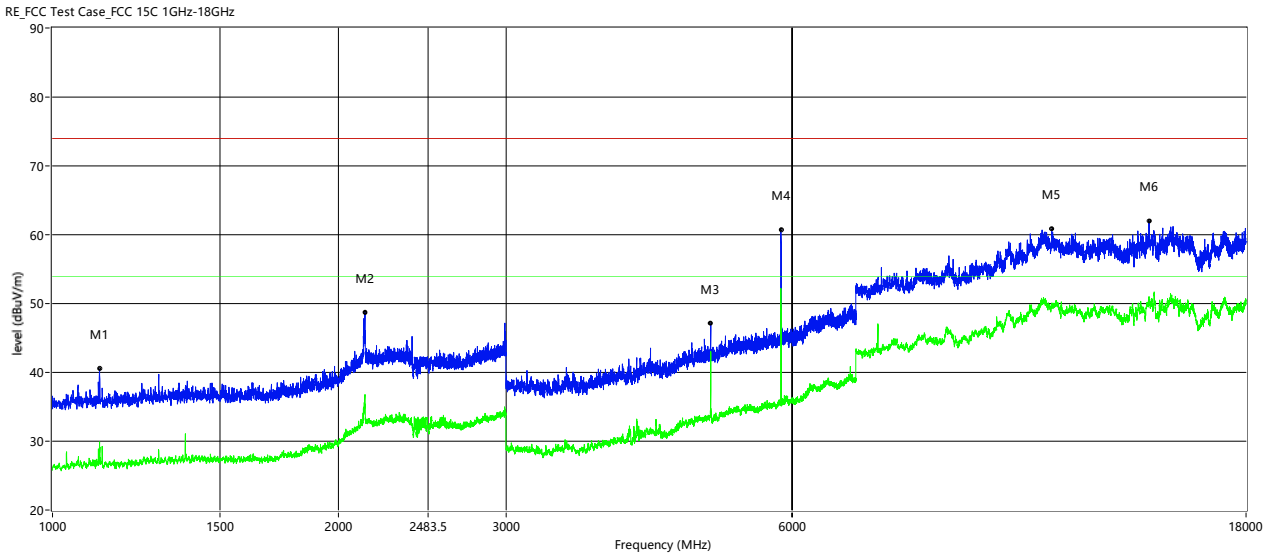
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1380	42.88	33.69	-0.71	42.17	32.98	74.00	54.00	-31.83	-21.02	-21.02	Vertical
2128	43.81	30.76	4.26	48.07	35.02	74.00	54.00	-25.93	-18.98	-18.98	Vertical
2987	43.39	29.76	6.05	49.44	35.81	74.00	54.00	-24.56	-18.19	-18.19	Vertical
4874	53.97	49.80	-6.54	47.43	43.26	74.00	54.00	-26.57	-10.74	-10.74	Vertical
10990.25	51.11	40.33	10.14	61.25	50.47	74.00	54.00	-12.75	-3.53	-3.53	Vertical
14988.75	51.17	40.80	10.34	61.51	51.14	74.00	54.00	-12.49	-2.86	-2.86	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11b_H	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



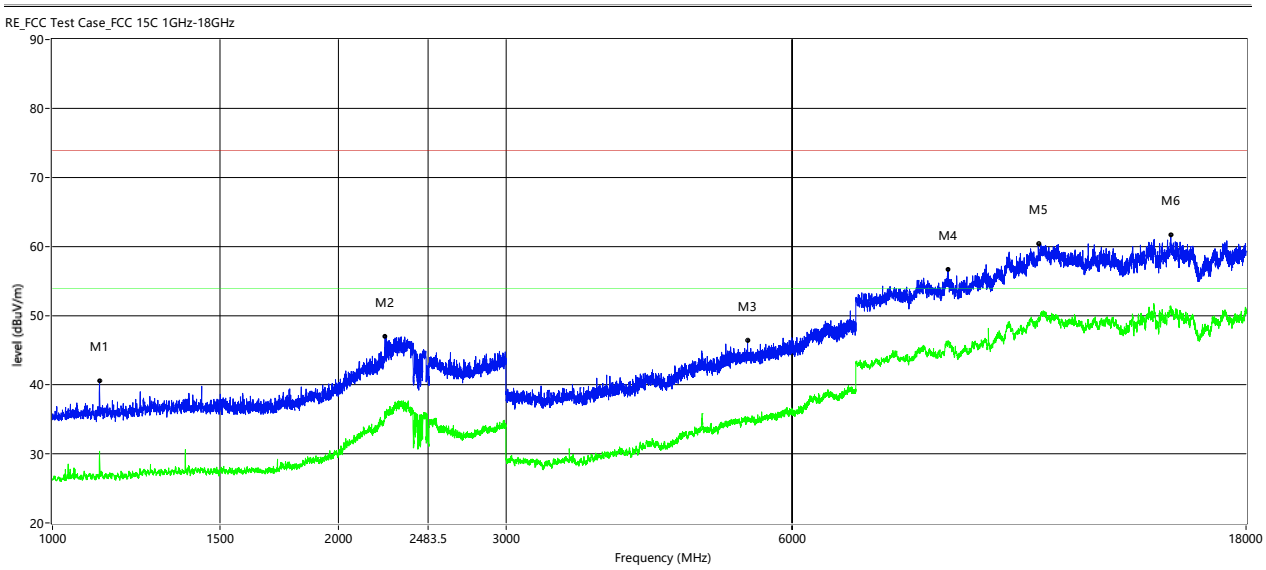
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin (dB)	ANT
1293	42.20	28.74	-0.93	41.27	27.81	74.00	54.00	-32.73	-26.19	-26.19	Horizontal
2360	44.66	34.61	4.3	48.96	38.91	74.00	54.00	-25.04	-15.09	-15.09	Horizontal
4924	56.98	53.81	-6.39	50.59	47.42	74.00	54.00	-23.41	-6.58	-6.58	Horizontal
8713.25	51.17	41.27	5.12	56.29	46.39	74.00	54.00	-17.71	-7.61	-7.61	Horizontal
11053.5	50.78	40.36	9.93	60.71	50.29	74.00	54.00	-13.29	-3.71	-3.71	Horizontal
14400.25	50.51	40.04	11.42	61.93	51.46	74.00	54.00	-12.07	-2.54	-2.54	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11b_H	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



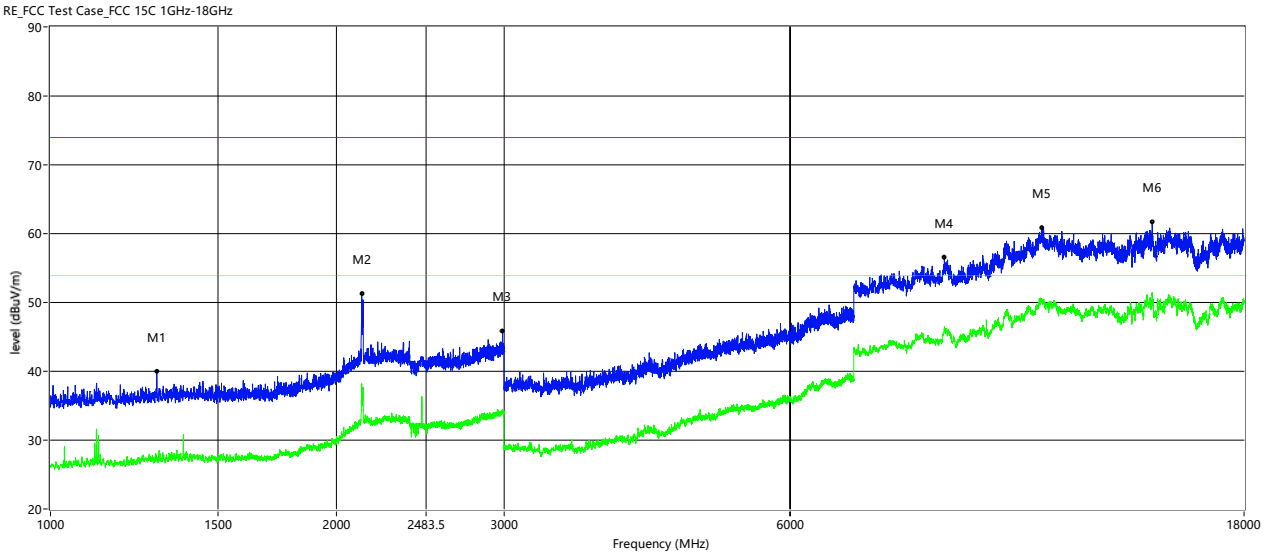
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	41.97	31.34	-1.44	40.53	29.90	74.00	54.00	-33.47	-24.10	-24.10	Vertical
2131.5	44.41	32.45	4.32	48.73	36.77	74.00	54.00	-25.27	-17.23	-17.23	Vertical
4924	53.47	49.40	-6.39	47.08	43.01	74.00	54.00	-26.92	-10.99	-10.99	Vertical
5838	64.84	55.54	-3.63	61.21	51.91	74.00	54.00	-12.79	-2.09	-2.09	Vertical
11248.75	51.25	40.53	9.57	60.82	50.10	74.00	54.00	-13.18	-3.90	-3.90	Vertical
14235.25	50.65	39.42	11.33	61.98	50.75	74.00	54.00	-12.02	-3.25	-3.25	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11g_L	Test Standard:	EN 300328
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



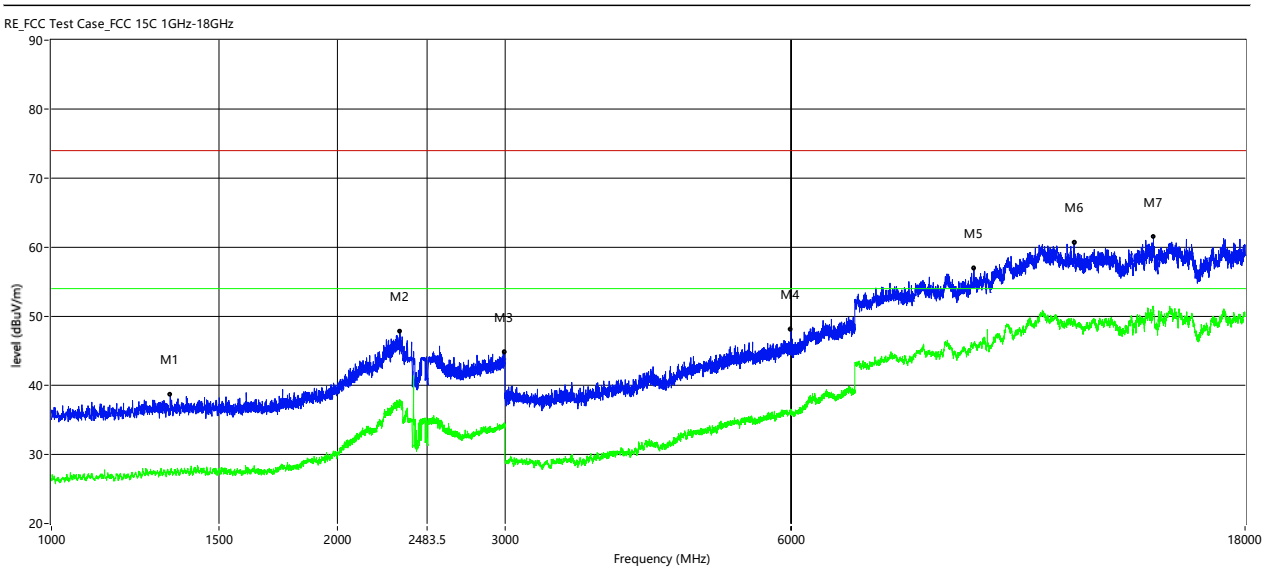
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	42.00	31.81	-1.44	40.56	30.37	74.00	54.00	-33.44	-23.63	-23.63	Horizontal
2238.5	42.54	31.58	4.52	47.06	36.10	74.00	54.00	-26.94	-17.90	-17.90	Horizontal
5385	51.28	39.80	-4.79	46.49	35.01	74.00	54.00	-27.51	-18.99	-18.99	Horizontal
8749	51.75	40.87	5.01	56.76	45.88	74.00	54.00	-17.24	-8.12	-8.12	Horizontal
10888.5	51.07	40.06	9.31	60.38	49.37	74.00	54.00	-13.62	-4.63	-4.63	Horizontal
15008	51.34	40.47	10.39	61.73	50.86	74.00	54.00	-12.27	-3.14	-3.14	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11g_L	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



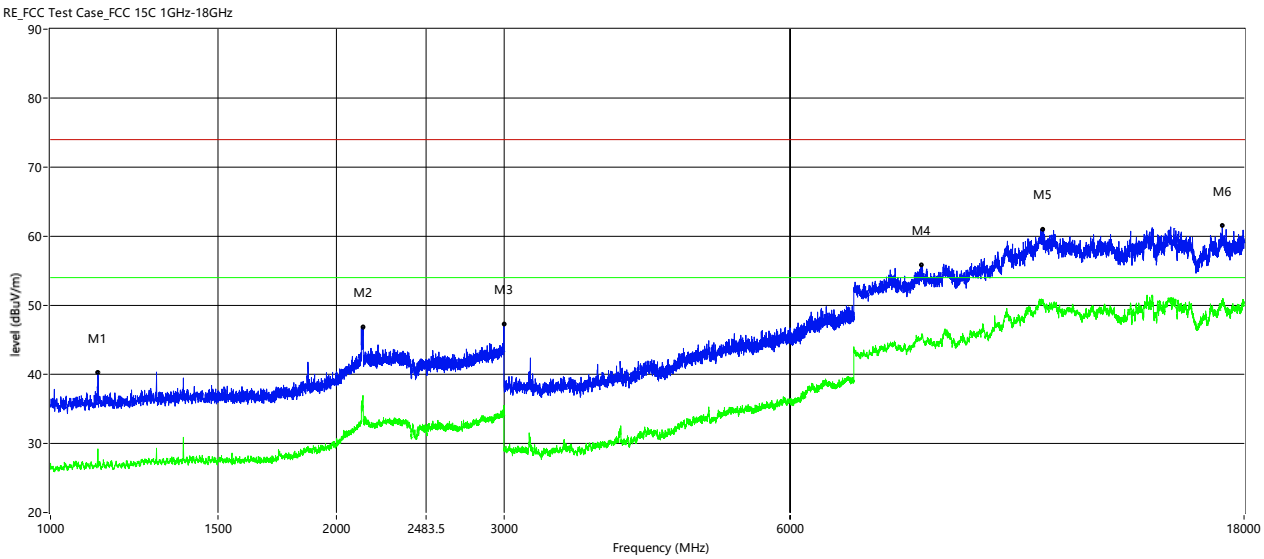
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1294	40.91	28.40	-0.93	39.98	27.47	74.00	54.00	-34.02	-26.53	-26.53	Vertical
2126	47.07	32.58	4.23	51.30	36.81	74.00	54.00	-22.70	-17.19	-17.19	Vertical
2989	39.86	28.30	6.06	45.92	34.36	74.00	54.00	-28.08	-19.64	-19.64	Vertical
8716	51.46	40.95	5.11	56.57	46.06	74.00	54.00	-17.43	-7.94	-7.94	Vertical
11039.75	50.88	40.08	10.01	60.89	50.09	74.00	54.00	-13.11	-3.91	-3.91	Vertical
14416.75	50.43	40.20	11.23	61.66	51.43	74.00	54.00	-12.34	-2.57	-2.57	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11g_M	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



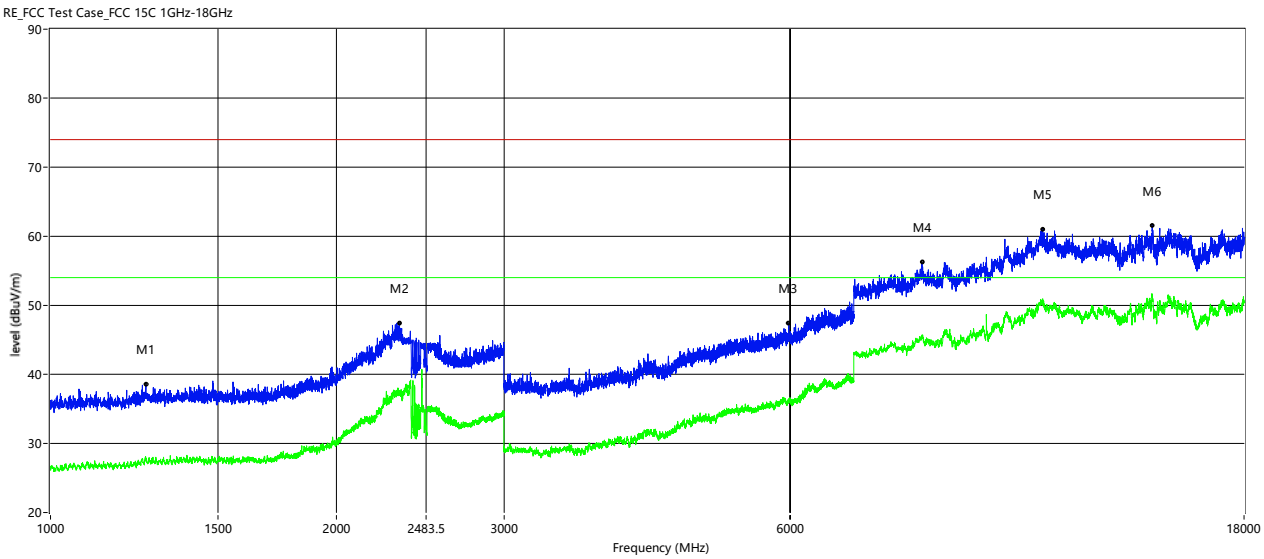
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1333.5	39.50	28.37	-0.84	38.66	27.53	74.00	54.00	-35.34	-26.47	-26.47	Horizontal
2326	43.45	33.24	4.48	47.93	37.72	74.00	54.00	-26.07	-16.28	-16.28	Horizontal
2993	38.81	28.04	6.08	44.89	34.12	74.00	54.00	-29.11	-19.88	-19.88	Horizontal
5991	51.13	39.34	-3.05	48.08	36.29	74.00	54.00	-25.92	-17.71	-17.71	Horizontal
9337.5	51.74	40.55	5.25	56.99	45.80	74.00	54.00	-17.01	-8.20	-8.20	Horizontal
11897.75	51.94	40.54	8.73	60.67	49.27	74.00	54.00	-13.33	-4.73	-4.73	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11g_M	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



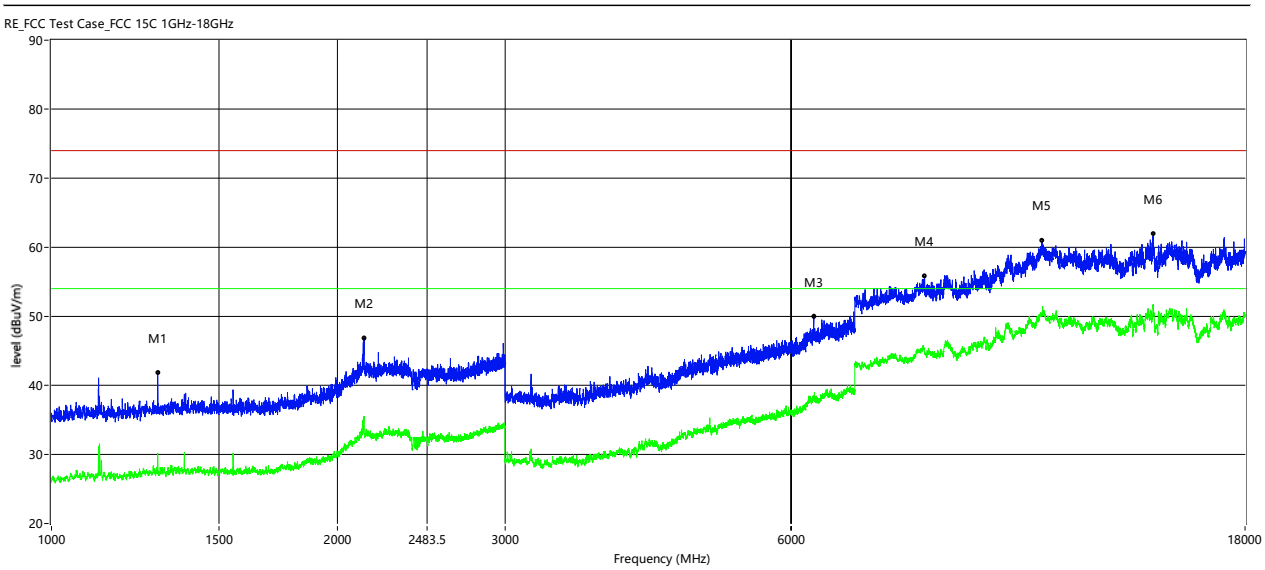
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1122	41.73	30.67	-1.44	40.29	29.23	74.00	54.00	-33.71	-24.77	-24.77	Vertical
2132.5	42.54	31.21	4.34	46.88	35.55	74.00	54.00	-27.12	-18.45	-18.45	Vertical
2999	41.18	29.41	6.11	47.29	35.52	74.00	54.00	-26.71	-18.48	-18.48	Vertical
8237.5	51.65	41.02	4.21	55.86	45.23	74.00	54.00	-18.14	-8.77	-8.77	Vertical
11047.999	51.04	40.41	9.96	61.00	50.37	74.00	54.00	-13.00	-3.63	-3.63	Vertical
17076	51.21	40.06	10.31	61.52	50.37	74.00	54.00	-12.48	-3.63	-3.63	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11g_H	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



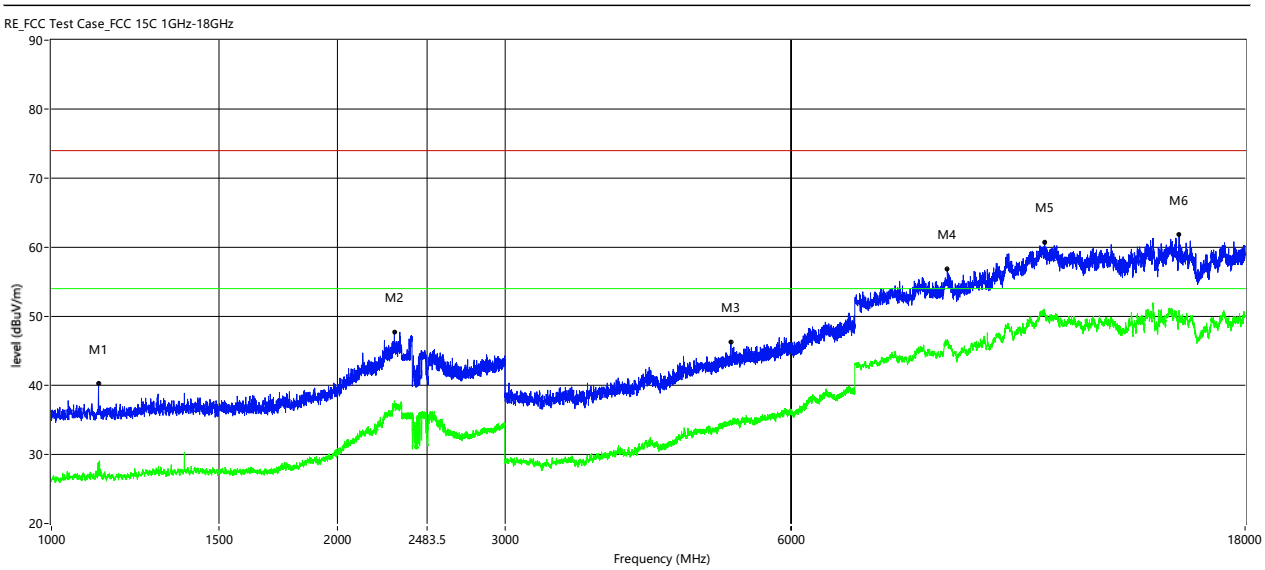
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1260	39.45	28.83	-0.92	38.53	27.91	74.00	54.00	-35.47	-26.09	-26.09	Horizontal
2327	43.00	32.52	4.47	47.47	36.99	74.00	54.00	-26.53	-17.01	-17.01	Horizontal
5977	50.48	39.31	-3.08	47.40	36.23	74.00	54.00	-26.60	-17.77	-17.77	Horizontal
8254	52.03	41.08	4.22	56.25	45.30	74.00	54.00	-17.75	-8.70	-8.70	Horizontal
11045.25	51.07	40.29	9.98	61.05	50.27	74.00	54.00	-12.95	-3.73	-3.73	Horizontal
14414	50.32	40.36	11.26	61.58	51.62	74.00	54.00	-12.42	-2.38	-2.38	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11g_H	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



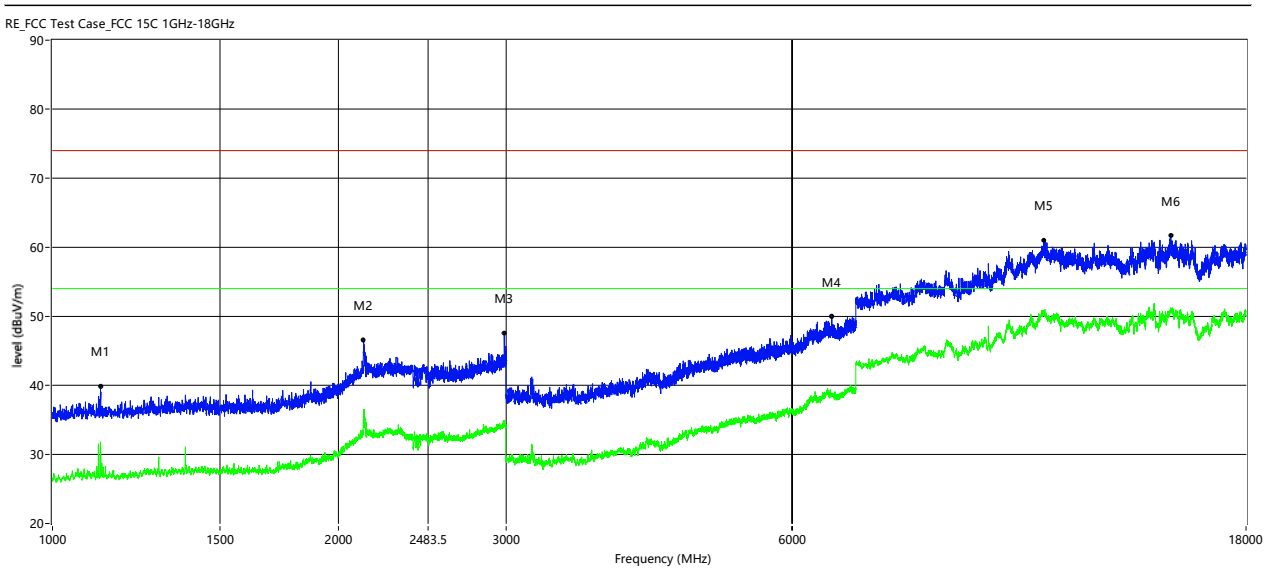
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1294	42.77	31.10	-0.93	41.84	30.17	74.00	54.00	-32.16	-23.83	-23.83	Vertical
2132.5	42.54	31.16	4.34	46.88	35.50	74.00	54.00	-27.12	-18.50	-18.50	Vertical
6334	51.35	39.34	-1.41	49.94	37.93	74.00	54.00	-24.06	-16.07	-16.07	Vertical
8289.75	51.56	40.36	4.24	55.80	44.60	74.00	54.00	-18.20	-9.40	-9.40	Vertical
11009.5	50.76	40.13	10.17	60.93	50.30	74.00	54.00	-13.07	-3.70	-3.70	Vertical
14422.25	50.78	39.83	11.16	61.94	50.99	74.00	54.00	-12.06	-3.01	-3.01	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11n(HT20)_L	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



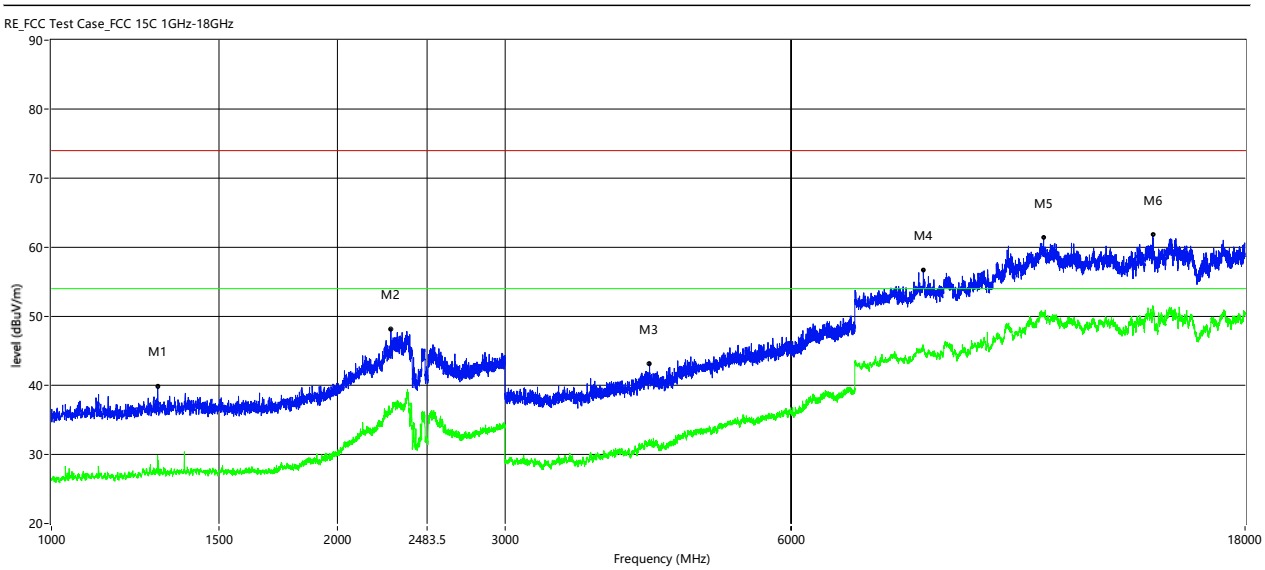
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	41.70	29.55	-1.44	40.26	28.11	74.00	54.00	-33.74	-25.89	-25.89	Horizontal
2295	43.07	33.17	4.59	47.66	37.76	74.00	54.00	-26.34	-16.24	-16.24	Horizontal
5184	51.27	39.43	-4.99	46.28	34.44	74.00	54.00	-27.72	-19.56	-19.56	Horizontal
8757.25	51.85	41.65	4.98	56.83	46.63	74.00	54.00	-17.17	-7.37	-7.37	Horizontal
11083.75	50.97	40.51	9.77	60.74	50.28	74.00	54.00	-13.26	-3.72	-3.72	Horizontal
15346.25	51.46	40.21	10.43	61.89	50.64	74.00	54.00	-12.11	-3.36	-3.36	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11n(HT20)_L	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



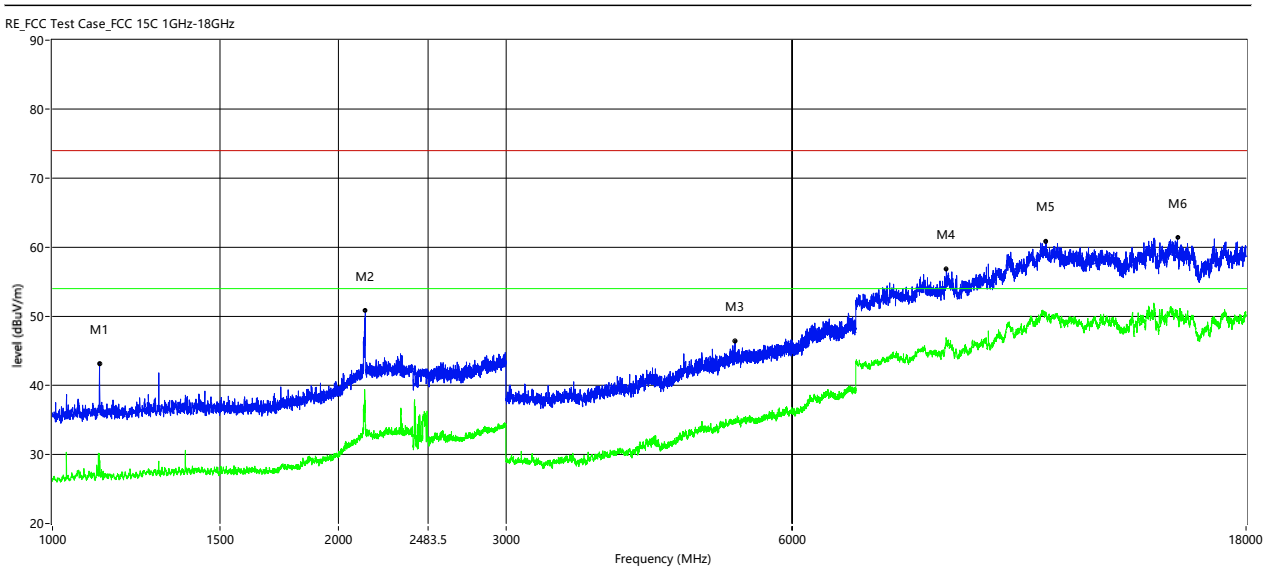
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1123.5	41.27	33.26	-1.44	39.83	31.82	74.00	54.00	-34.17	-22.18	-22.18	Vertical
2124.5	42.40	31.49	4.2	46.60	35.69	74.00	54.00	-27.40	-18.31	-18.31	Vertical
2988	41.56	28.88	6.06	47.62	34.94	74.00	54.00	-26.38	-19.06	-19.06	Vertical
6603	50.42	39.23	-0.45	49.97	38.78	74.00	54.00	-24.03	-15.22	-15.22	Vertical
11031.5	50.92	40.43	10.05	60.97	50.48	74.00	54.00	-13.03	-3.52	-3.52	Vertical
15005.25	51.31	40.48	10.4	61.71	50.88	74.00	54.00	-12.29	-3.12	-3.12	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11n(HT20)_M	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



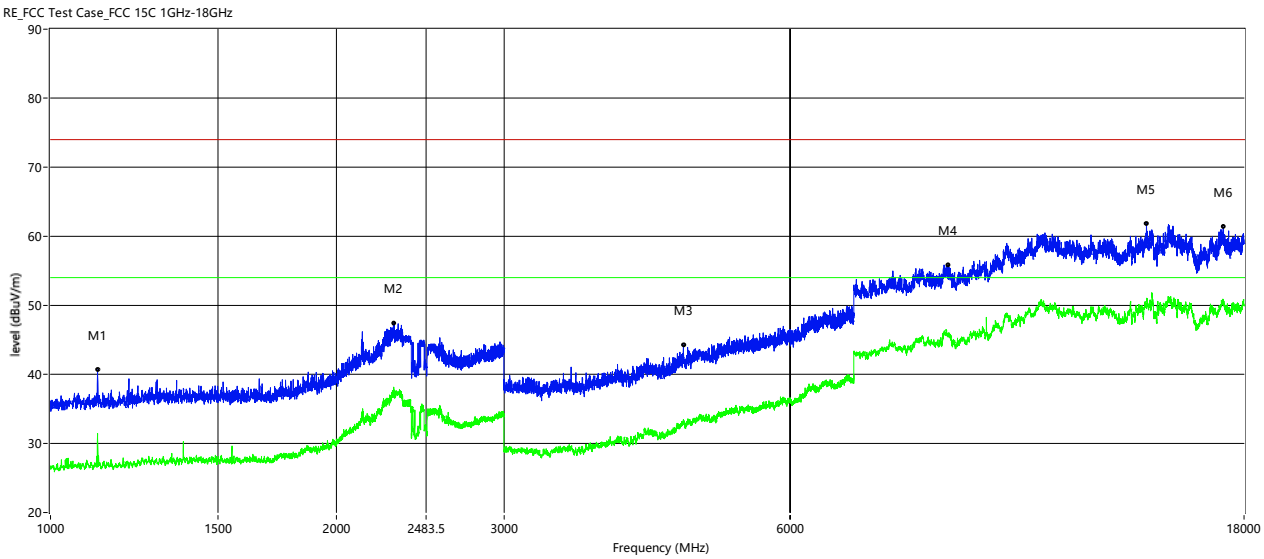
Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin (dB)	ANT
1294	40.73	30.57	-0.93	39.80	29.64	74.00	54.00	-34.20	-24.36	-24.36	Horizontal
2275.5	43.52	31.60	4.61	48.13	36.21	74.00	54.00	-25.87	-17.79	-17.79	Horizontal
4257	52.16	41.18	-8.99	43.17	32.19	74.00	54.00	-30.83	-21.81	-21.81	Horizontal
8262.25	52.46	41.14	4.22	56.68	45.36	74.00	54.00	-17.32	-8.64	-8.64	Horizontal
11053.5	51.47	40.11	9.93	61.40	50.04	74.00	54.00	-12.60	-3.96	-3.96	Horizontal
14400.25	50.38	40.01	11.42	61.80	51.43	74.00	54.00	-12.20	-2.57	-2.57	Horizontal

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11n(HT20)_M	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



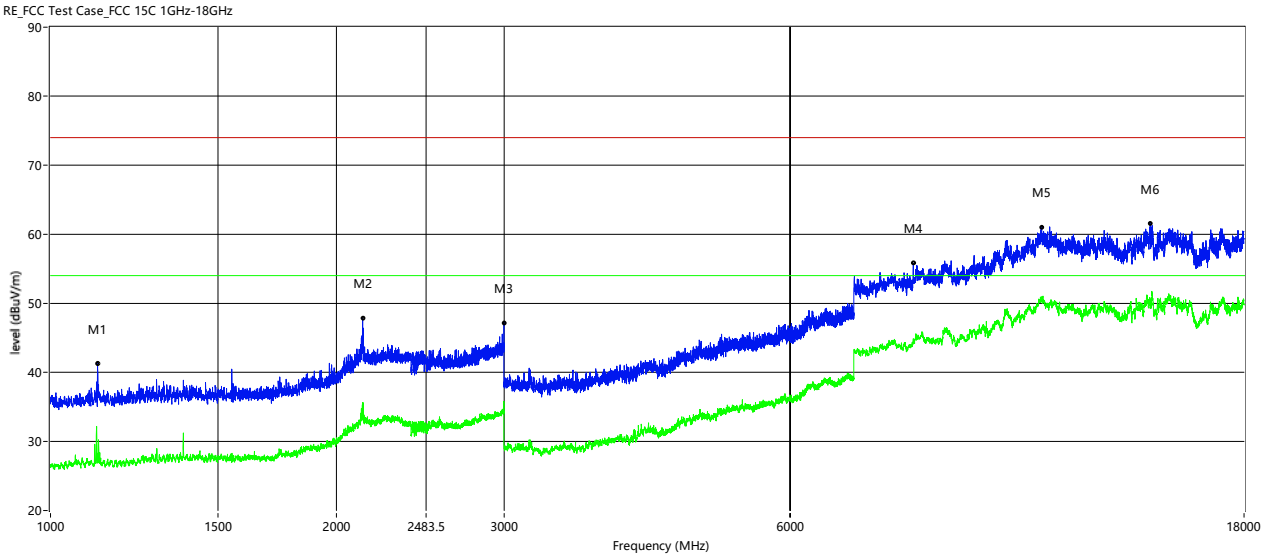
Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	44.59	30.23	-1.44	43.15	28.79	74.00	54.00	-30.85	-25.21	-25.21	Vertical
2133	46.56	33.48	4.35	50.91	37.83	74.00	54.00	-23.09	-16.17	-16.17	Vertical
5223	51.36	39.34	-4.91	46.45	34.43	74.00	54.00	-27.55	-19.57	-19.57	Vertical
8716	51.69	40.98	5.11	56.80	46.09	74.00	54.00	-17.20	-7.91	-7.91	Vertical
11094.75	51.20	40.55	9.71	60.91	50.26	74.00	54.00	-13.09	-3.74	-3.74	Vertical
15250	50.98	40.18	10.51	61.49	50.69	74.00	54.00	-12.51	-3.31	-3.31	Vertical

EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11n(HT20)_H	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



Frequency (MHz)	Peak Reading (dBuV/m)	Average Readingl (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	42.12	32.86	-1.44	40.68	31.42	74.00	54.00	-33.32	-22.58	-22.58	Horizontal
2295.5	42.89	32.53	4.59	47.48	37.12	74.00	54.00	-26.52	-16.88	-16.88	Horizontal
4631	51.81	41.00	-7.54	44.27	33.46	74.00	54.00	-29.73	-20.54	-20.54	Horizontal
8793	51.01	41.06	4.87	55.88	45.93	74.00	54.00	-18.12	-8.07	-8.07	Horizontal
14218.75	50.42	38.48	11.46	61.88	49.94	74.00	54.00	-12.12	-4.06	-4.06	Horizontal
17117.25	50.97	40.14	10.39	61.36	50.53	74.00	54.00	-12.64	-3.47	-3.47	Horizontal

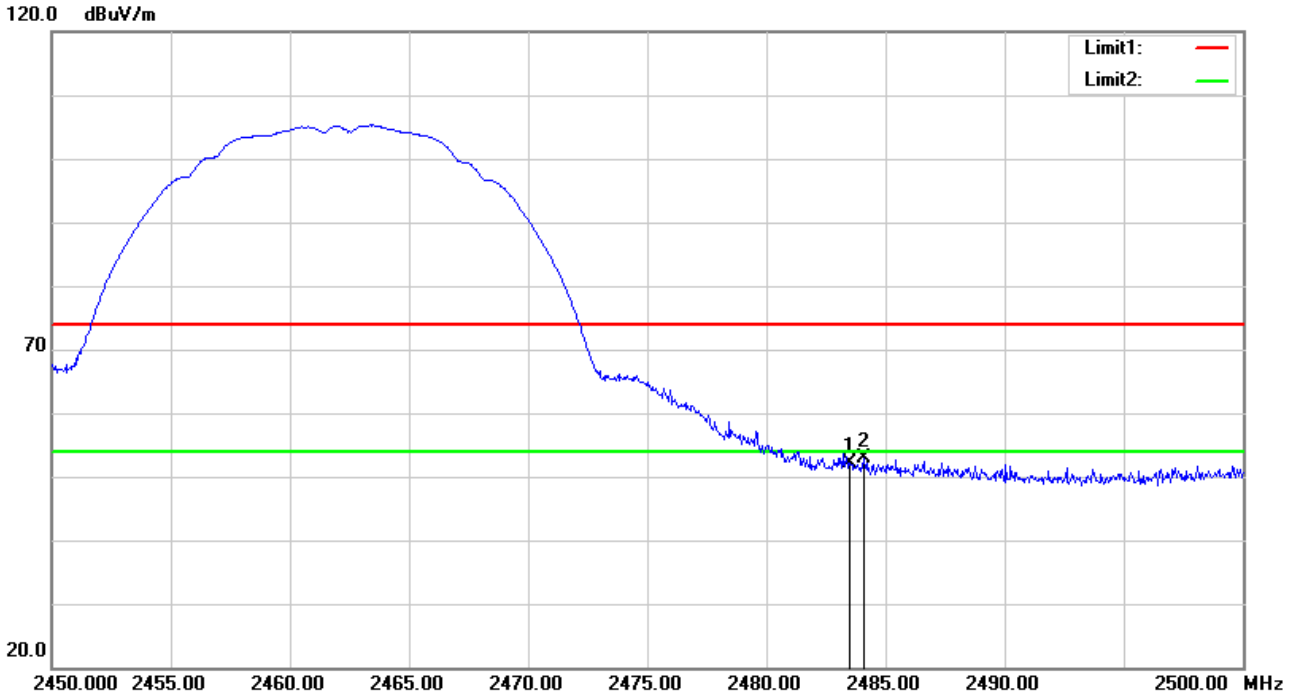
EUT Name:	Motion Sensor Light	Test Engineer:	Chris
Mode:	802.11n(HT20)_H	Test Standard:	FCC Part 15C
Model:	NW950-US	Work Addition:	
Temp.(oC):	23.4	Load:	
Hum.:	60%	Remark:	



Frequency (MHz)	Peak Reading (dBuV/m)	Average Level (dBuV/m)	Factor (dB)	Peak Level (dBuV/m)	Average Level (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Over Limit (dB)	AV Over Limit (dB)	Min Margin(dB)	ANT
1121	42.69	29.72	-1.44	41.25	28.28	74.00	54.00	-32.75	-25.72	-25.72	Vertical
2130	43.52	31.24	4.3	47.82	35.54	74.00	54.00	-26.18	-18.46	-18.46	Vertical
2999.5	41.09	29.67	6.11	47.20	35.78	74.00	54.00	-26.80	-18.22	-18.22	Vertical
8080.75	51.72	40.73	4.12	55.84	44.85	74.00	54.00	-18.16	-9.15	-9.15	Vertical
11028.75	50.95	40.31	10.06	61.01	50.37	74.00	54.00	-12.99	-3.63	-3.63	Vertical
14342.5	50.52	39.25	11.08	61.60	50.33	74.00	54.00	-12.40	-3.67	-3.67	Vertical

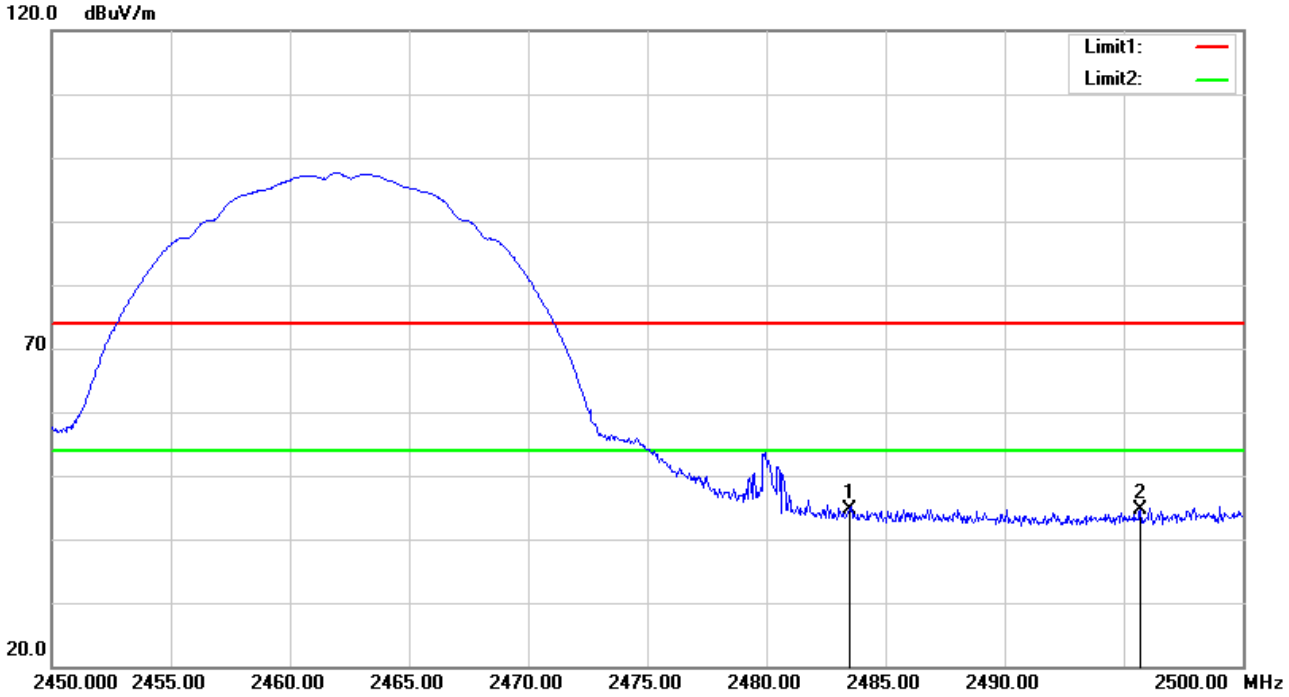
Radiation Restricted band

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:14:49:25**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11b_H**	**Test By:**	**Chris**



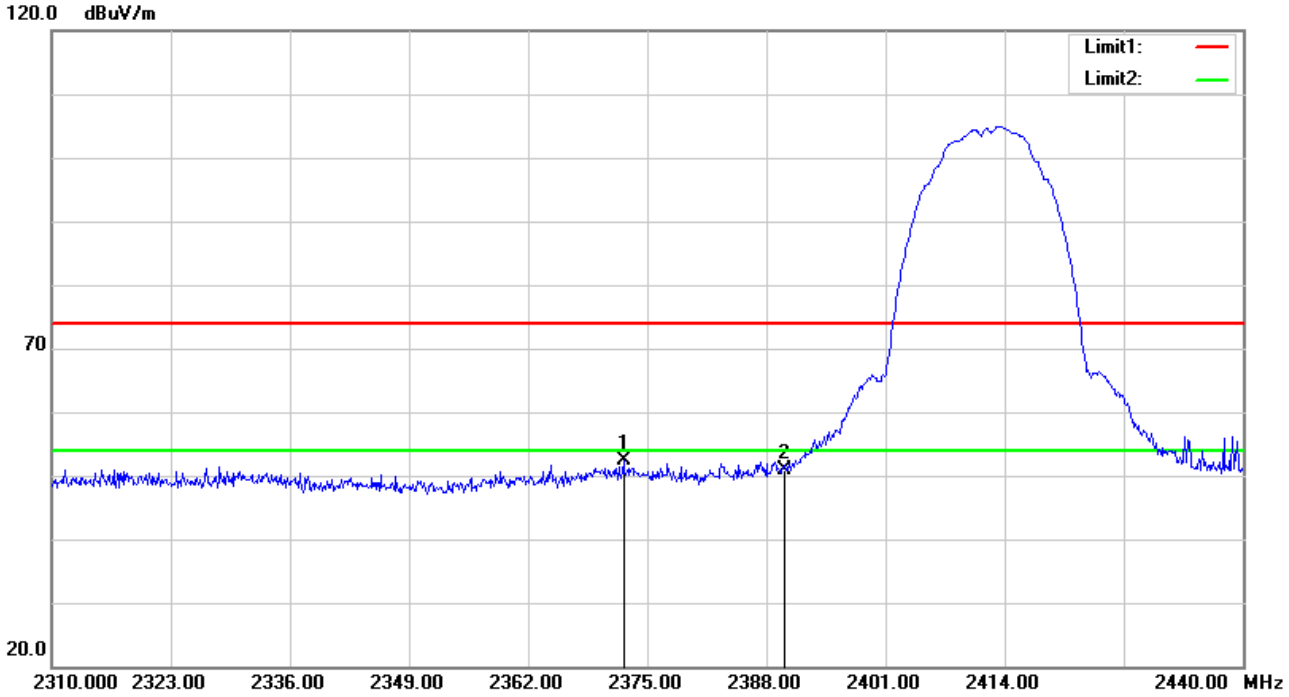
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	47.41	4.60	52.01	74.00	-21.99	peak
2	2484.100	48.21	4.61	52.82	74.00	-21.18	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:14:52:12**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11b_H**	**Test By:**	**Chris**



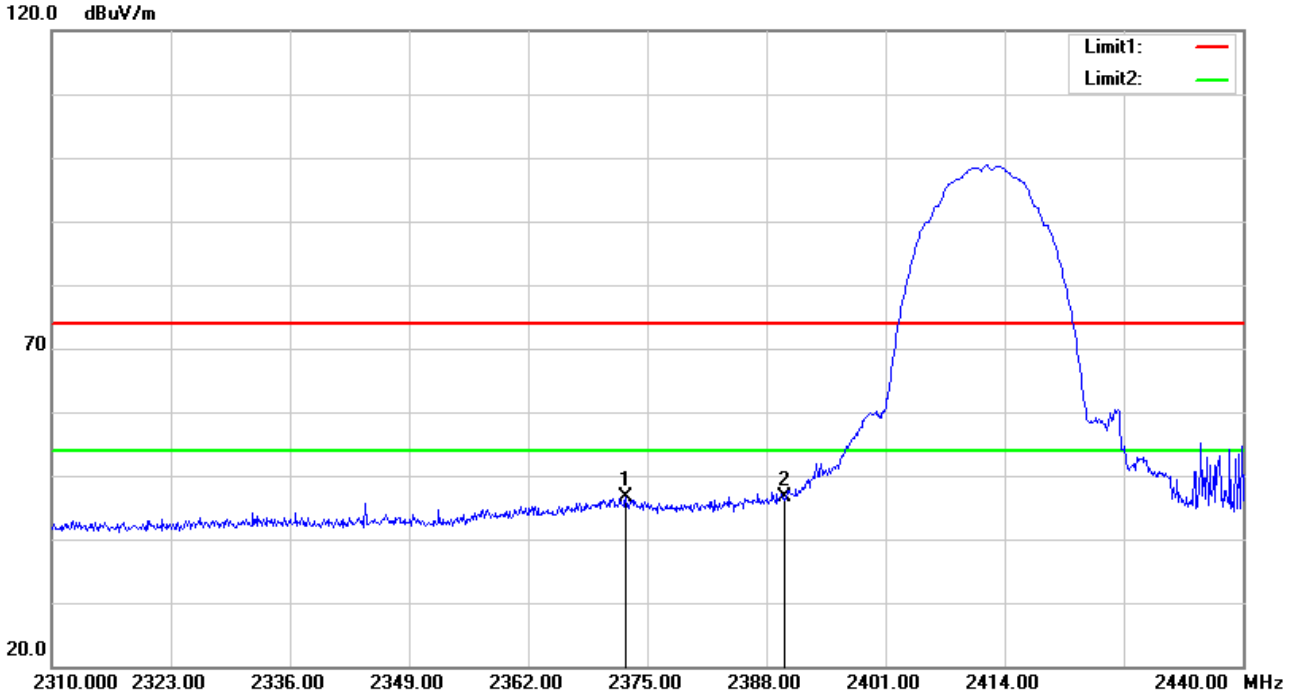
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	40.09	4.60	44.69	74.00	-29.31	peak
2	2495.700	40.10	4.64	44.74	74.00	-29.26	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:14:47:01**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11b_L**	**Test By:**	**Chris**



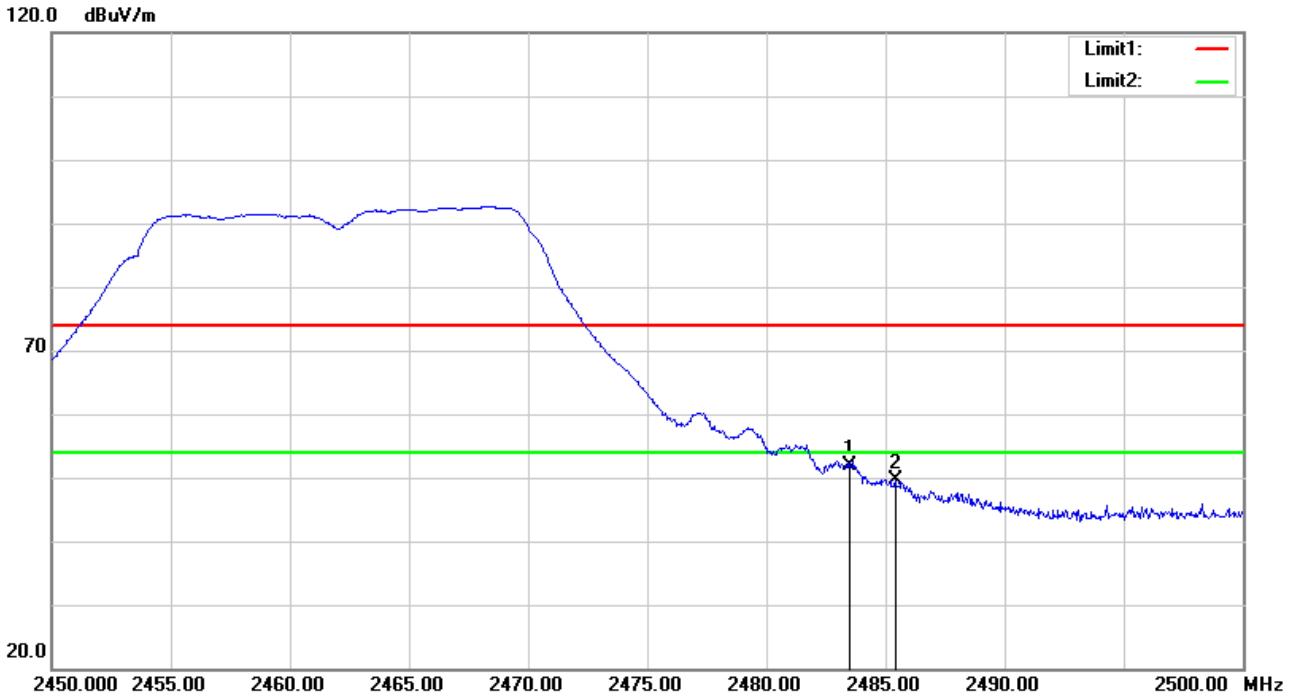
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2372.400	48.40	4.08	52.48	74.00	-21.52	peak
2	2390.000	46.50	4.34	50.84	74.00	-23.16	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:14:43:50**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11b_L**	**Test By:**	**Chris**



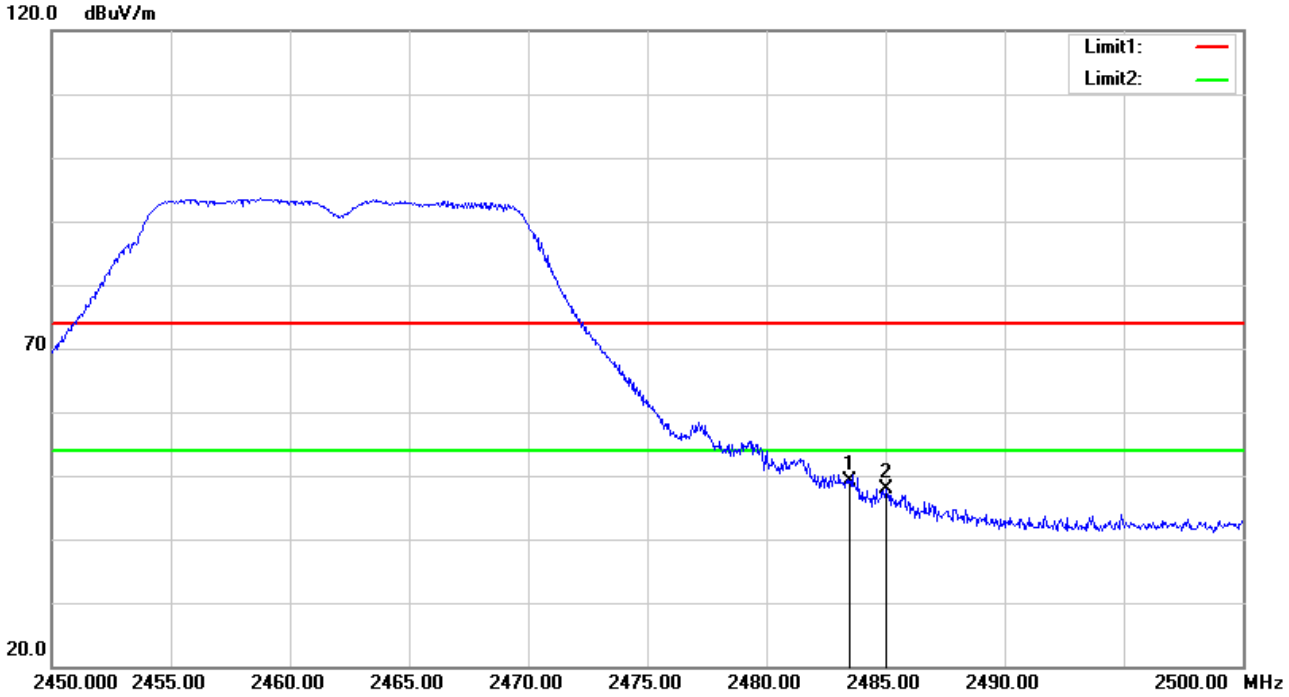
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2372.660	42.45	4.08	46.53	74.00	-27.47	peak
2	2390.000	42.17	4.34	46.51	74.00	-27.49	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:12:47:59**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11g_H**	**Test By:**	**Chris**



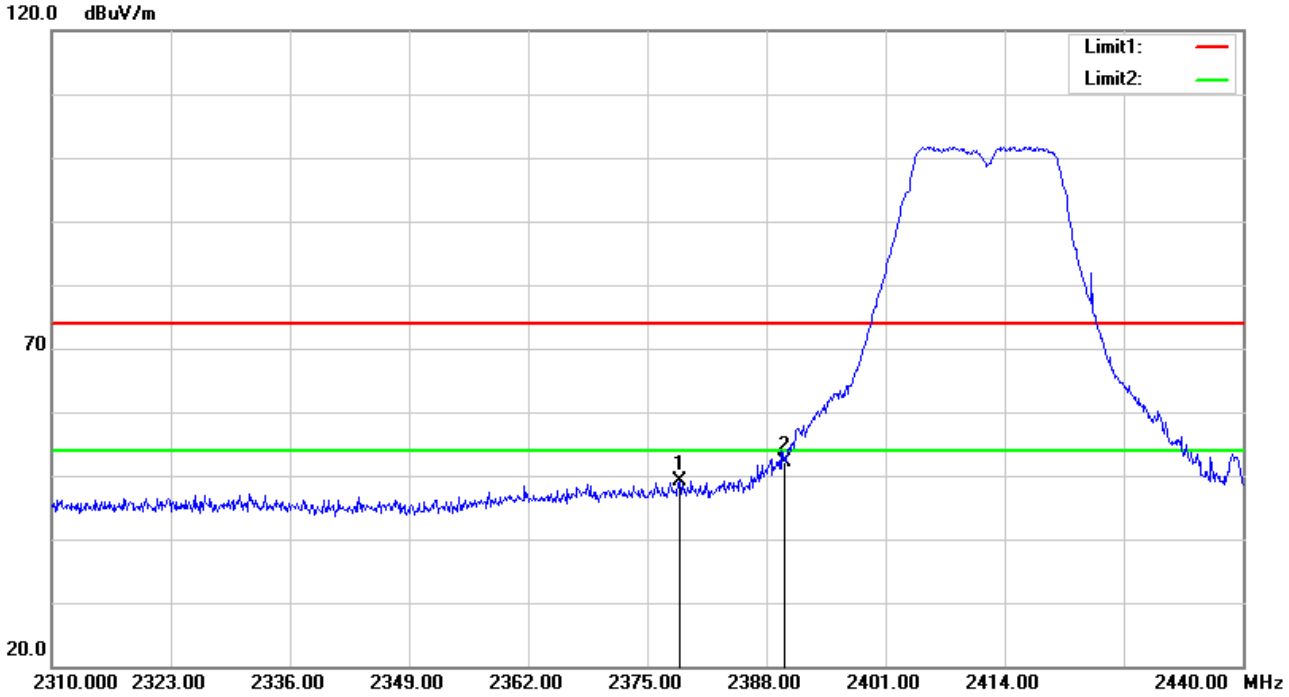
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	47.40	4.60	52.00	74.00	-22.00	peak
2	2485.400	44.94	4.61	49.55	74.00	-24.45	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:12:50:41**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11g_H**	**Test By:**	**Chris**



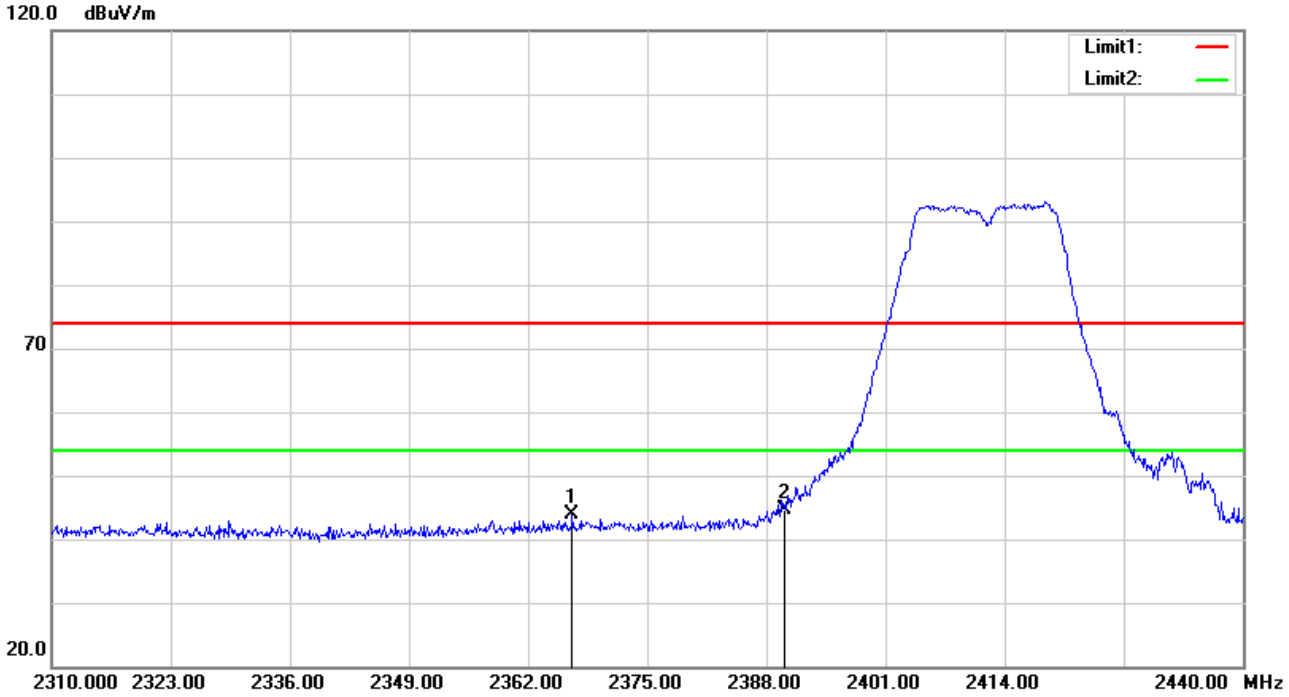
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	44.58	4.60	49.18	74.00	-24.82	peak
2	2485.050	43.32	4.61	47.93	74.00	-26.07	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:12:01:45**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11g_L**	**Test By:**	**Chris**



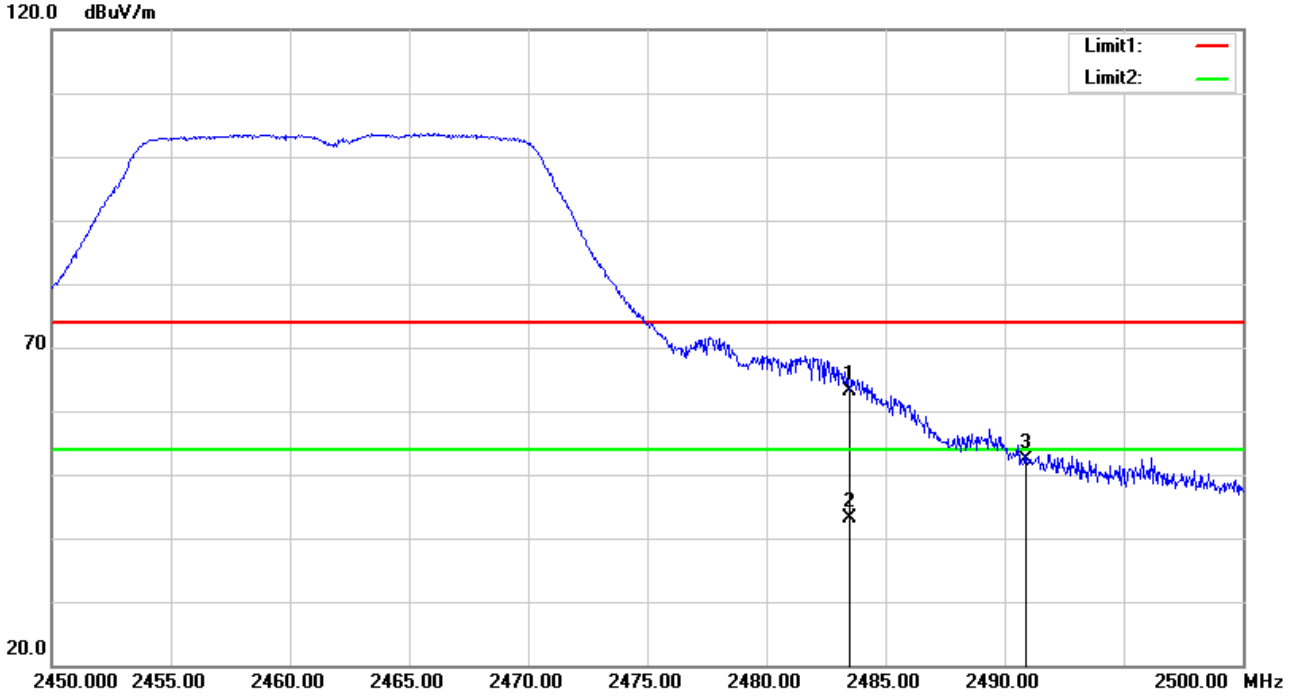
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2378.510	45.03	4.17	49.20	74.00	-24.80	peak
2	2390.000	47.81	4.34	52.15	74.00	-21.85	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:11:54:23**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11g_L**	**Test By:**	**Chris**



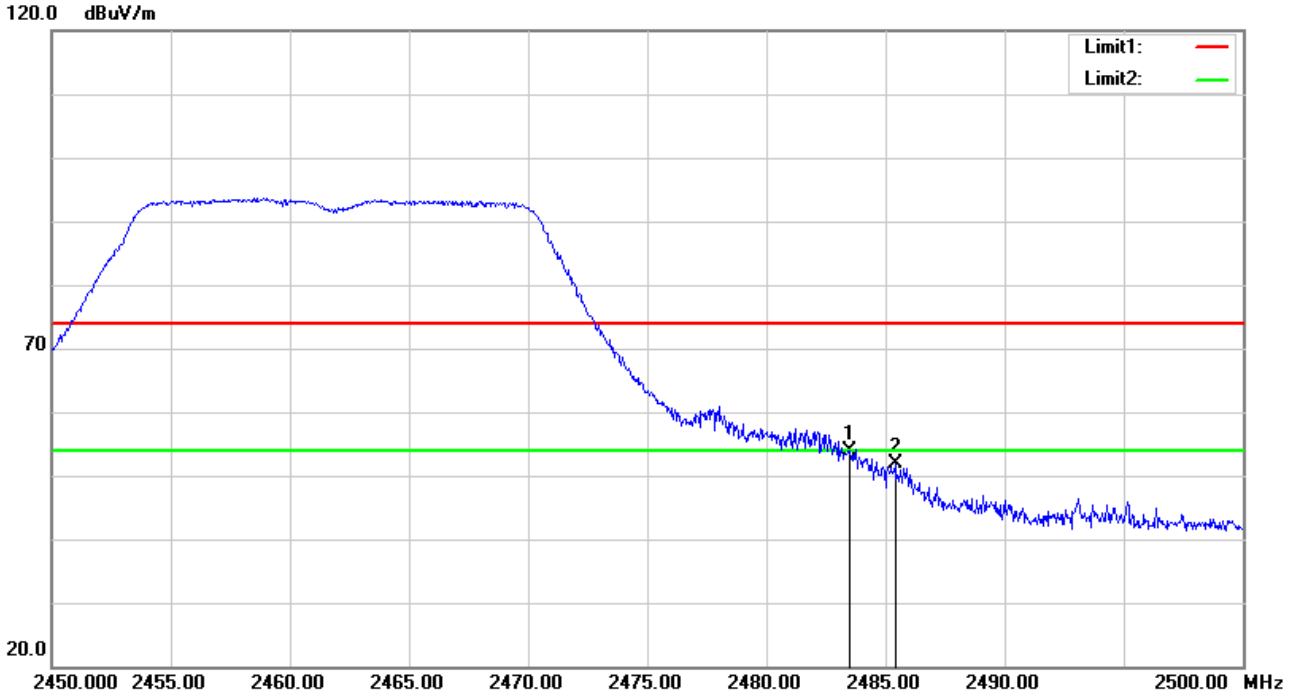
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2366.810	39.82	3.99	43.81	74.00	-30.19	peak
2	2390.000	40.41	4.34	44.75	74.00	-29.25	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:13:55:48**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11n(HT20)_H**	**Test By:**	**Chris**



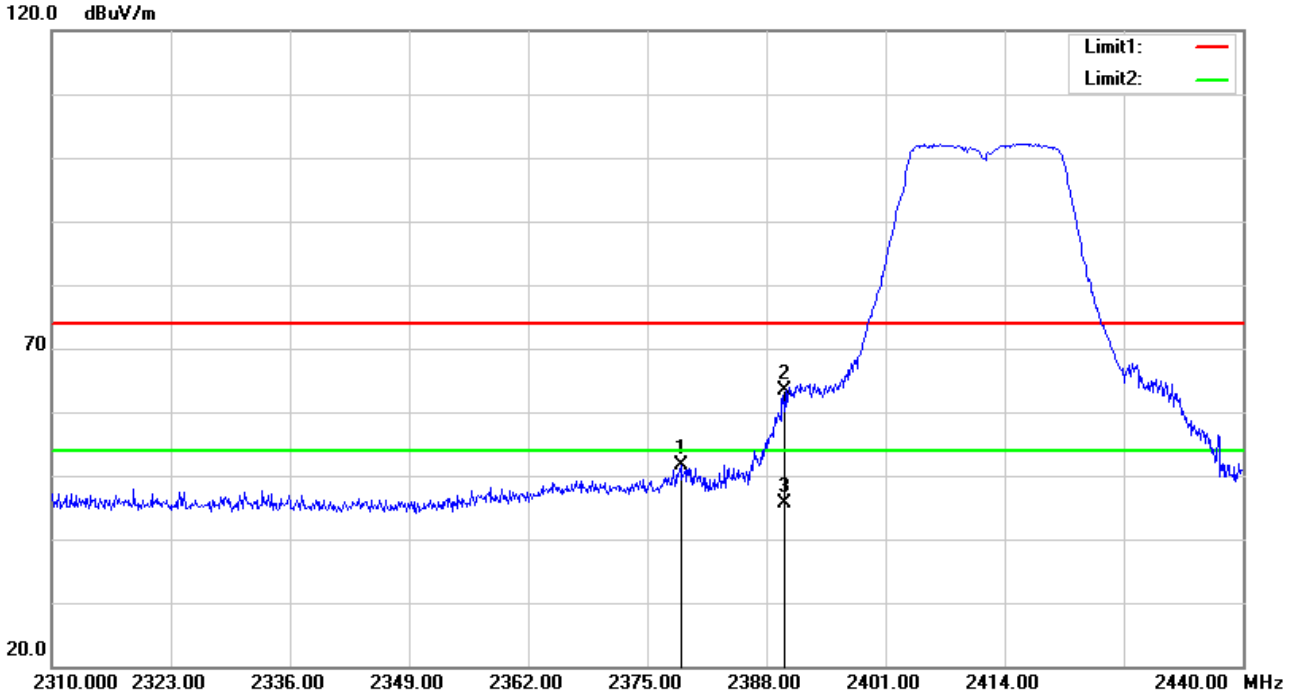
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	58.45	4.60	63.05	74.00	-10.95	peak
2	2483.500	38.57	4.60	43.17	54.00	-10.83	AVG
3	2490.900	47.85	4.63	52.48	74.00	-21.52	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:14:00:11**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11n(HT20)_H**	**Test By:**	**Chris**



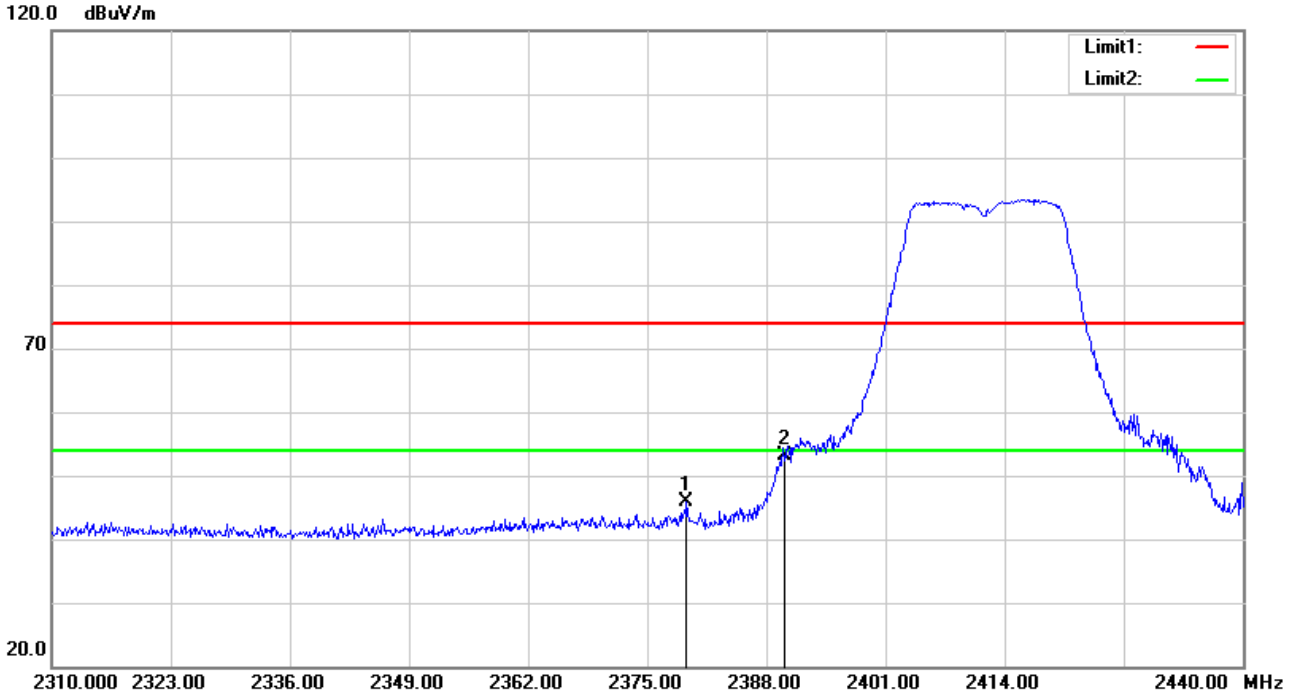
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	49.23	4.60	53.83	74.00	-20.17	peak
2	2485.400	47.27	4.61	51.88	74.00	-22.12	peak

Job No.:	**STS2109021**	**Ant.Polar.:**	**Horizontal**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:13:50:04**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11n(HT20)_L**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2378.640	47.49	4.17	51.66	74.00	-22.34	peak
2	2390.000	58.96	4.34	63.30	74.00	-10.70	peak
3	2390.000	41.24	4.34	45.58	54.00	-8.42	AVG

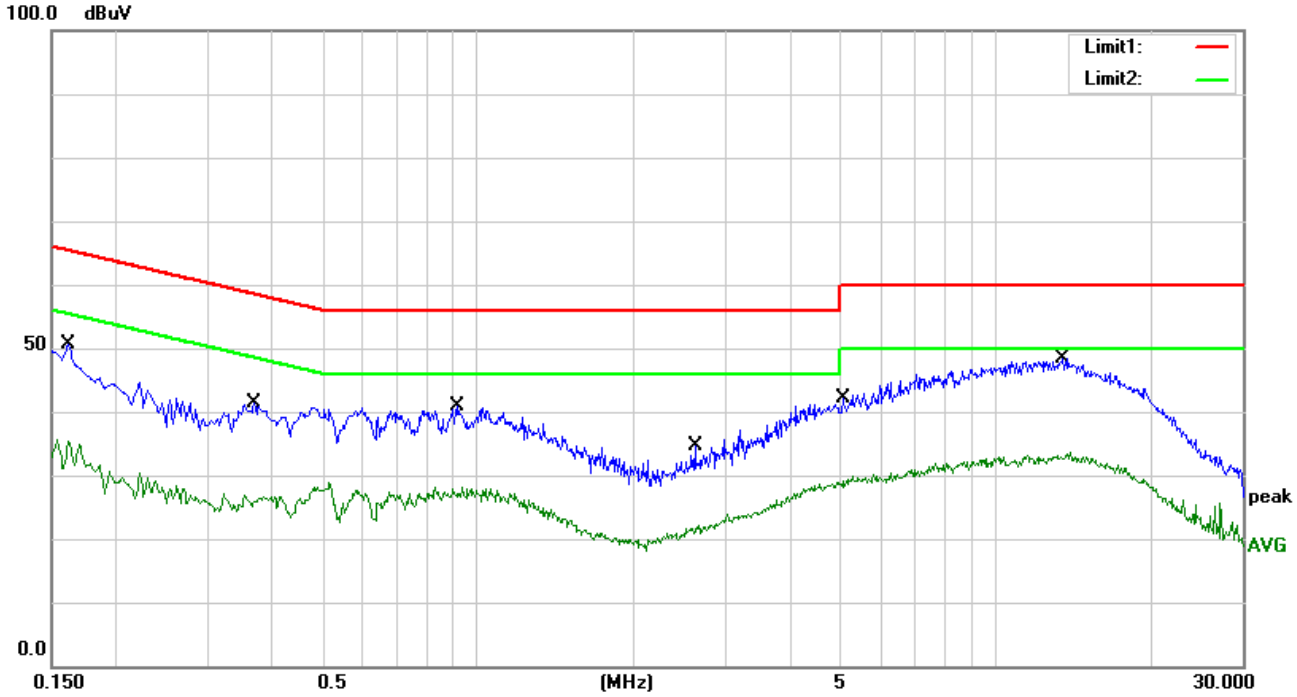
Job No.:	**STS2109021**	**Ant.Polar.:**	**Vertical**
Standard:	**FCC Part 15C_03M_QP**	**Date:2021/9/15**	**Time:13:07:40**
Test item:	**Radiated Spurious Emission**	**Temp.(C):**	**23.1(C)**
Name:	**Motion Sensor Light**	**Hum.(%RH):**	**60%RH**
Model:	**NW950-US**	**Power:**	**AC 120V/60Hz**
Mode:	**802.11n(HT20)_L**	**Test By:**	**Chris**



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2379.290	41.60	4.18	45.78	74.00	-28.22	peak
2	2390.000	48.79	4.34	53.13	74.00	-20.87	peak

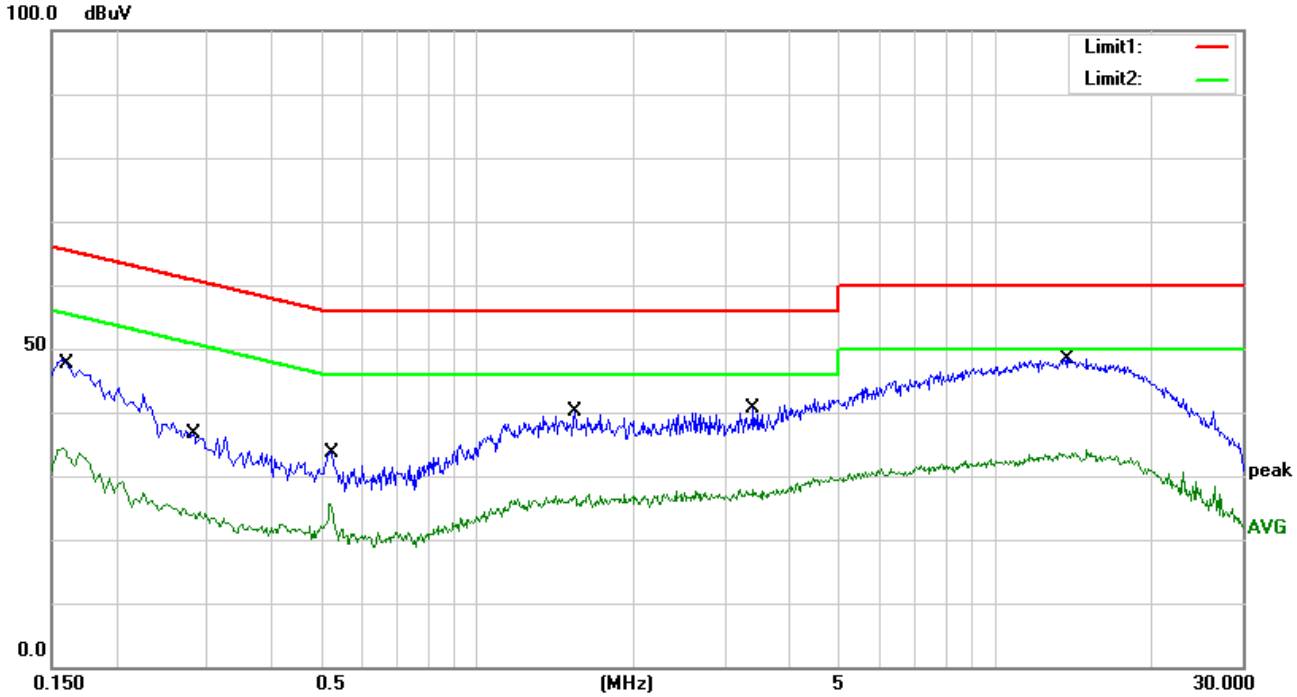
Conducted Emissions

Job No.:	STS2109021	LISN:	L1
Standard:	FCC Part15 CE-Class B_QP	Date:2021/9/9	Time:13:36:13
Test item:	Conducted Emission	Temp.(C):	25.2(C)
Company:	NightWatcherProLED	Hum.(%RH):	62%RH
Model:	NW950-US	Power:	AC 120V/60Hz
Mode:	Lighting + Recording + Wi-Fi connecting	Test By:	ALBERT



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1620	19.26	31.42	50.68	65.36	-14.68	QP
2	0.1620	3.96	31.42	35.38	55.36	-19.98	AVG
3	0.3700	9.68	31.72	41.40	58.50	-17.10	QP
4	0.3700	-5.85	31.72	25.87	48.50	-22.63	AVG
5	0.9140	8.76	32.23	40.99	56.00	-15.01	QP
6	0.9140	-4.94	32.23	27.29	46.00	-18.71	AVG
7	2.6340	2.48	32.11	34.59	56.00	-21.41	QP
8	2.6340	-10.43	32.11	21.68	46.00	-24.32	AVG
9	5.0820	8.95	33.28	42.23	60.00	-17.77	QP
10	5.0820	-4.16	33.28	29.12	50.00	-20.88	AVG
11	13.4860	19.42	29.01	48.43	60.00	-11.57	QP
12	13.4860	3.79	29.01	32.80	50.00	-17.20	AVG

Job No.:	STS2109021	LISN:	N
Standard:	FCC Part15 CE-Class B_QP	Date:2021/9/9	Time:13:38:55
Test item:	Conducted Emission	Temp.(C):	25.2(C)
Company:	NightWatcherProLED	Hum.(%RH):	62%RH
Model:	NW950-US	Power:	AC 120V/60Hz
Mode:	Lighting + Recording + Wi-Fi connecting	Test By:	ALBERT



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1620	15.90	31.42	47.32	65.36	-18.04	QP
2	0.1620	2.03	31.42	33.45	55.36	-21.91	AVG
3	0.2820	4.91	31.63	36.54	60.76	-24.22	QP
4	0.2820	-7.60	31.63	24.03	50.76	-26.73	AVG
5	0.5220	1.84	31.81	33.65	56.00	-22.35	QP
6	0.5220	-6.14	31.81	25.67	46.00	-20.33	AVG
7	1.5420	8.09	32.13	40.22	56.00	-15.78	QP
8	1.5420	-5.34	32.13	26.79	46.00	-19.21	AVG
9	3.4060	8.32	32.40	40.72	56.00	-15.28	QP
10	3.4060	-4.51	32.40	27.89	46.00	-18.11	AVG
11	13.8220	19.33	29.05	48.38	60.00	-11.62	QP
12	13.8220	4.29	29.05	33.34	50.00	-16.66	AVG