

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART E

INDUSTRY CANADA RSS-247

Test Standard	FCC Part 15.407+ IC RSS-247 issue 2 and IC RSS-GEN issue 5
Brand name	ICON/iFit
Product name	Tablet
Model No.	MP21-ARGON-C
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:



Kevin Tsai
Deputy Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Report No.: T200521W01-RP4

Page: 2 / 134

Rev.: 02

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 8, 2020	Initial Issue	ALL	Allison Chen
01	July 10, 2020	See the following note Rev.(01)	P.134	Allison Chen
02	July 13, 2020	See the following note Rev.(02)	P.6, 20-23	Allison Chen

Rev.(01)

1. Revised description for summary of spot check.

Rev.(02)

1. Revised antenna information and output power in section 1.3 and 4.2.



Report No.: T200521W01-RP4

Page: 3 / 134

Rev.: 02

Table of contents

1. GENERAL INFORMATION	4
1.1 EUT INFORMATION	4
1.2 EUT CHANNEL INFORMATION	5
1.3 ANTENNA INFORMATION	6
1.4 MEASUREMENT UNCERTAINTY	6
1.5 FACILITIES AND TEST LOCATION	7
1.6 INSTRUMENT CALIBRATION.....	8
1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT	9
1.8 TEST METHODOLOGY AND APPLIED STANDARDS	9
2. TEST SUMMERY	10
3. DESCRIPTION OF TEST MODES	11
3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION.....	11
3.2 THE WORST MODE OF MEASUREMENT	12
3.3 EUT DUTY CYCLE	13
4. TEST RESULT	14
4.1 AC POWER LINE CONDUCTED EMISSION	14
4.2 OUTPUT POWER MEASUREMENT.....	17
4.3 RADIATION BANDEDGE AND SPURIOUS EMISSION	24
4.4 TEST DATA RE-USE SUMMARY	133
APPENDIX-A TEST PHOTO	A-1
APPENDIX 1 - PHOTOGRAPHS OF EUT	



Report No.: T200521W01-RP4

Page: 4 / 134

Rev.: 02

1. GENERAL INFORMATION

1.1 EUT INFORMATION

FCC Applicant	Compal Electronics Inc No.581 & 581-1, Ruiguang Rd., Neihu District, Taipei city, 11492 Taiwan
IC Applicant	COMPAL ELECTRONICS INC. No. 581 & 581-1, Ruiguang Rd., Neihu District Taipei R.O.C. 114 Taiwan
Manufacturer	Compal Electronics Inc No.581 & 581-1, Ruiguang Rd., Neihu District, Taipei city, 11492 Taiwan
Equipment	Tablet
Model No.	MP21-ARGON-C
Model Discrepancy	N/A
Trade Name	ICON/iFit
Received Date	May 21, 2020
Date of Test	June 2 ~ July 7, 2020
Power Operation	EUT Power from Host device (DC12V)
HW Version	LA-J301P
SW Version	Android 8

1.2 EUT CHANNEL INFORMATION

Frequency Range	<table border="1"> <tr><td colspan="2">UNII-1</td></tr> <tr><td>IEEE 802.11a</td><td>5180 ~ 5240 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5180 ~ 5240 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5190 ~ 5230 MHz</td></tr> <tr><td colspan="2">UNII-2a</td></tr> <tr><td>IEEE 802.11a</td><td>5260 ~ 5320 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5260 ~ 5320 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5270 ~ 5310 MHz</td></tr> <tr><td colspan="2">UNII-2c</td></tr> <tr><td>IEEE 802.11a</td><td>5500 ~ 5700 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5500 ~ 5700 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5510 ~ 5670 MHz</td></tr> <tr><td colspan="2">UNII-3</td></tr> <tr><td>IEEE 802.11a</td><td>5745 ~ 5825 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5745 ~ 5825 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5755 ~ 5795 MHz</td></tr> </table>	UNII-1		IEEE 802.11a	5180 ~ 5240 MHz	IEEE 802.11n HT 20 MHz	5180 ~ 5240 MHz	IEEE 802.11n HT 40 MHz	5190 ~ 5230 MHz	UNII-2a		IEEE 802.11a	5260 ~ 5320 MHz	IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz	IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz	UNII-2c		IEEE 802.11a	5500 ~ 5700 MHz	IEEE 802.11n HT 20 MHz	5500 ~ 5700 MHz	IEEE 802.11n HT 40 MHz	5510 ~ 5670 MHz	UNII-3		IEEE 802.11a	5745 ~ 5825 MHz	IEEE 802.11n HT 20 MHz	5745 ~ 5825 MHz	IEEE 802.11n HT 40 MHz	5755 ~ 5795 MHz
UNII-1																																	
IEEE 802.11a	5180 ~ 5240 MHz																																
IEEE 802.11n HT 20 MHz	5180 ~ 5240 MHz																																
IEEE 802.11n HT 40 MHz	5190 ~ 5230 MHz																																
UNII-2a																																	
IEEE 802.11a	5260 ~ 5320 MHz																																
IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz																																
IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz																																
UNII-2c																																	
IEEE 802.11a	5500 ~ 5700 MHz																																
IEEE 802.11n HT 20 MHz	5500 ~ 5700 MHz																																
IEEE 802.11n HT 40 MHz	5510 ~ 5670 MHz																																
UNII-3																																	
IEEE 802.11a	5745 ~ 5825 MHz																																
IEEE 802.11n HT 20 MHz	5745 ~ 5825 MHz																																
IEEE 802.11n HT 40 MHz	5755 ~ 5795 MHz																																
Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM																																

Remark:

Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Type	☒ PIFA ☐ PCB ☐ Dipole ☐ Coils	
Antenna Gain	Band	Gain (dBi)
	UNII-1	0.15
	UNII-2a	0.15
	UNII-2c	0.19
	UNII-3	-0.86
Antenna Connector	IPEX	

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

Remark:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.



Report No.: T200521W01-RP4

Page: 7 / 134

Rev.: 02

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

Test site	Test Engineer	Remark
AC Conduction Room	Dally Hong	-
Radiation	Jerry Chang	-
RF Conducted	Jane Wang	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.6 INSTRUMENT CALIBRATION

RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Coaxial Cable	Woken	WC12	CC001	06/28/2019	06/27/2020
Signal Analyzer	R&S	FSV 40	101073	09/25/2019	09/24/2020
Power Meter	Anritsu	ML2487A	6K00003260	05/21/2020	05/20/2021
Power Sensor	Anritsu	MA2490A	032910	05/21/2020	05/20/2021
Software	N/A				

3M 966 Chamber Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Bilog Antenna	Sunol Sciences	JB3	A030105	07/26/2019	07/25/2020
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/25/2020	02/24/2021
Coaxial Cable	EMCI	EMC105	190914+25111	09/20/2019	09/19/2020
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/15/2020	01/14/2021
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	10/04/2019	10/03/2020
High Pass Filters	MICRO TRONICS	HPM13195	003	02/25/2020	02/24/2021
Horn Antenna	ETS LINDGREN	3116	00026370	12/18/2019	12/17/2020
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/25/2020	02/24/2021
Pre-Amplifier	HP	8449B	3008A00965	02/25/2020	02/24/2021
Pre-Amplifier	MITEQ	AMF-6F-18004000-37-8P	985646	06/18/2019	06/17/2020
Signal Analyzer	R&S	FSV 40	101073	09/25/2019	09/24/2020
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

Conducted Emission Room # B					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
CABLE	EMCI	CFD300-NL	CERF	06/27/2019	06/26/2020
EMI Test Receiver	R&S	ESCI	100064	07/26/2019	07/25/2020
LISN	SCHAFFNER	NNB 41	03/10013	02/13/2020	02/12/2021
Software	EZ-EMC(CCS-3A1-CE)				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

For Section 4.4: Test data re-use summary

RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Coaxial Cable	Woken	WC12	CC001	06/29/2020	06/28/2021
Signal Analyzer	R&S	FSV 40	101073	09/25/2019	09/24/2020
Power Meter	Anritsu	ML2487A	6K00003260	05/21/2020	05/20/2021
Power Seneor	Anritsu	MA2490A	32910	05/21/2020	05/20/2021
Software	N/A				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

Support Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
1.	Adapter	WEIHAI POWER	HAS060123-EA	N/A	N/A

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02, RSS-247 Issue 2 and RSS-GEN Issue 5.



Report No.: T200521W01-RP4

Page: 10 / 134

Rev.: 02

2. TEST SUMMERY

FCC Standard Sec.	IC Standard Sec.	Chapter	Test Item	Result
15.203	-	1.3	Antenna Requirement	Pass
15.207	RSS-Gen(8.8)	4.1	AC Conducted Emission	Pass
15.407(a)	RSS-247(6.2.1.1) RSS-247(6.2.2.1) RSS-247(6.2.3.1) RSS-247(6.2.4.1)	4.2	Output Power Measurement	Pass
15.407(b)	RSS-247(6.2.1.2) RSS-247(6.2.2.2) RSS-247(6.2.3.2) RSS-247(6.2.4.2)	4.3	Radiation Band Edge	Pass
15.407(b)	RSS-247(6.2.1.2) RSS-247(6.2.2.2) RSS-247(6.2.3.2) RSS-247(6.2.4.2)	4.3	Radiation Spurious Emission	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

Operation mode	1. IEEE 802.11a mode: 6Mbps 2. IEEE 802.11n HT 20 MHz mode: MCS0 3. IEEE 802.11n HT 40 MHz mode: MCS0																																	
Operating Frequency	<table><tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th></tr><tr><td rowspan="3">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5190, 5230</td></tr><tr><td rowspan="3">U-NII-2a</td><td>IEEE 802.11a</td><td>5260, 5280, 5320</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5260, 5280, 5320</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5270, 5310</td></tr><tr><td rowspan="3">U-NII-2c</td><td>IEEE 802.11a</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5510, 5550, 5670</td></tr><tr><td rowspan="3">U-NII-3</td><td>IEEE 802.11a</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11n HT 20 MHz</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11n HT 40 MHz</td><td>5755, 5795</td></tr></table>				Mode	Frequency Range (MHz)	U-NII-1	IEEE 802.11a	5180, 5220, 5240	IEEE 802.11n HT 20 MHz	5180, 5220, 5240	IEEE 802.11n HT 40 MHz	5190, 5230	U-NII-2a	IEEE 802.11a	5260, 5280, 5320	IEEE 802.11n HT 20 MHz	5260, 5280, 5320	IEEE 802.11n HT 40 MHz	5270, 5310	U-NII-2c	IEEE 802.11a	5500, 5580, 5700	IEEE 802.11n HT 20 MHz	5500, 5580, 5700	IEEE 802.11n HT 40 MHz	5510, 5550, 5670	U-NII-3	IEEE 802.11a	5745, 5785, 5825	IEEE 802.11n HT 20 MHz	5745, 5785, 5825	IEEE 802.11n HT 40 MHz	5755, 5795
	Mode	Frequency Range (MHz)																																
U-NII-1	IEEE 802.11a	5180, 5220, 5240																																
	IEEE 802.11n HT 20 MHz	5180, 5220, 5240																																
	IEEE 802.11n HT 40 MHz	5190, 5230																																
U-NII-2a	IEEE 802.11a	5260, 5280, 5320																																
	IEEE 802.11n HT 20 MHz	5260, 5280, 5320																																
	IEEE 802.11n HT 40 MHz	5270, 5310																																
U-NII-2c	IEEE 802.11a	5500, 5580, 5700																																
	IEEE 802.11n HT 20 MHz	5500, 5580, 5700																																
	IEEE 802.11n HT 40 MHz	5510, 5550, 5670																																
U-NII-3	IEEE 802.11a	5745, 5785, 5825																																
	IEEE 802.11n HT 20 MHz	5745, 5785, 5825																																
	IEEE 802.11n HT 40 MHz	5755, 5795																																

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. For Canada the EUT Frequency Range 5600~5650MHz will be disabled.

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT power by Host Device.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Host Device.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Host Device.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☒ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

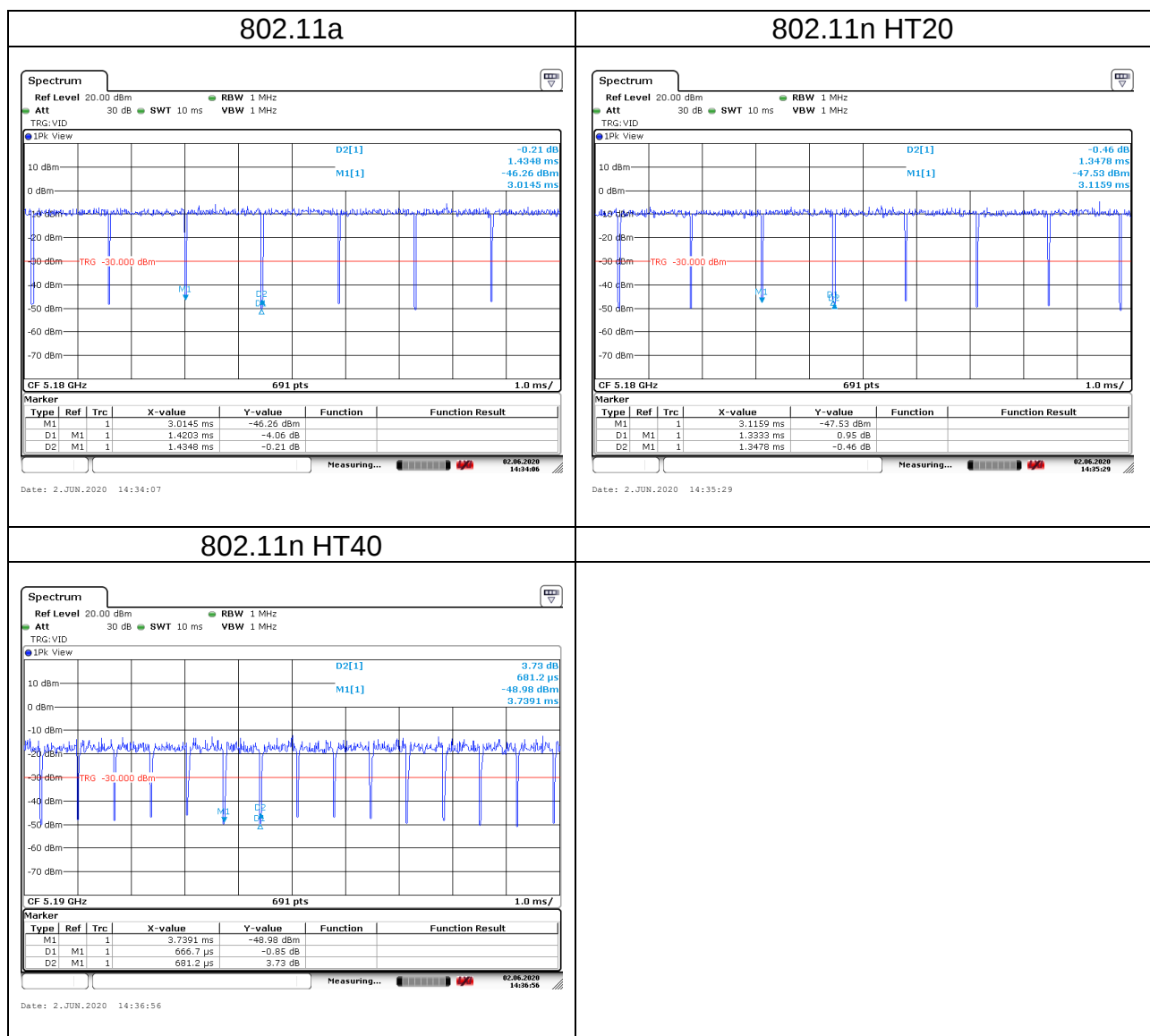
Remark:

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Y-Plane) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

Report No.: T200521W01-RP4

3.3 EUT DUTY CYCLE

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) $=10 \cdot \log(1/\text{Duty Cycle})$	1/T (kHz)	VBW setting (kHz)
802.11a	98.99%	0.04	N/A	10Hz
802.11n HT20	98.92%	0.05	N/A	10Hz
802.11n HT40	97.87%	0.09	1.50	2.00



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

Frequency Range (MHz)	Limits(dBμV)	
	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

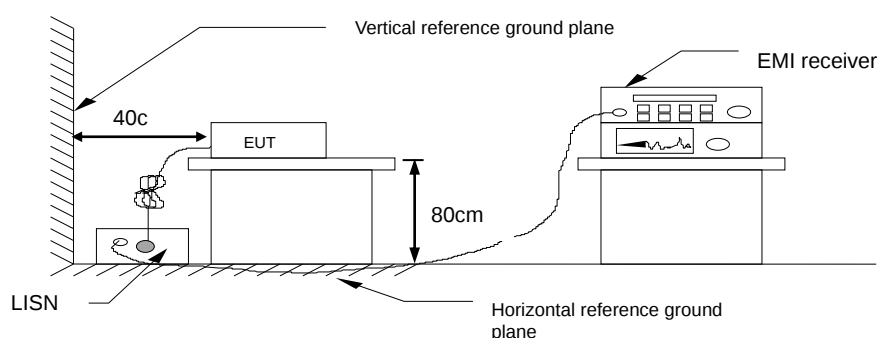
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup

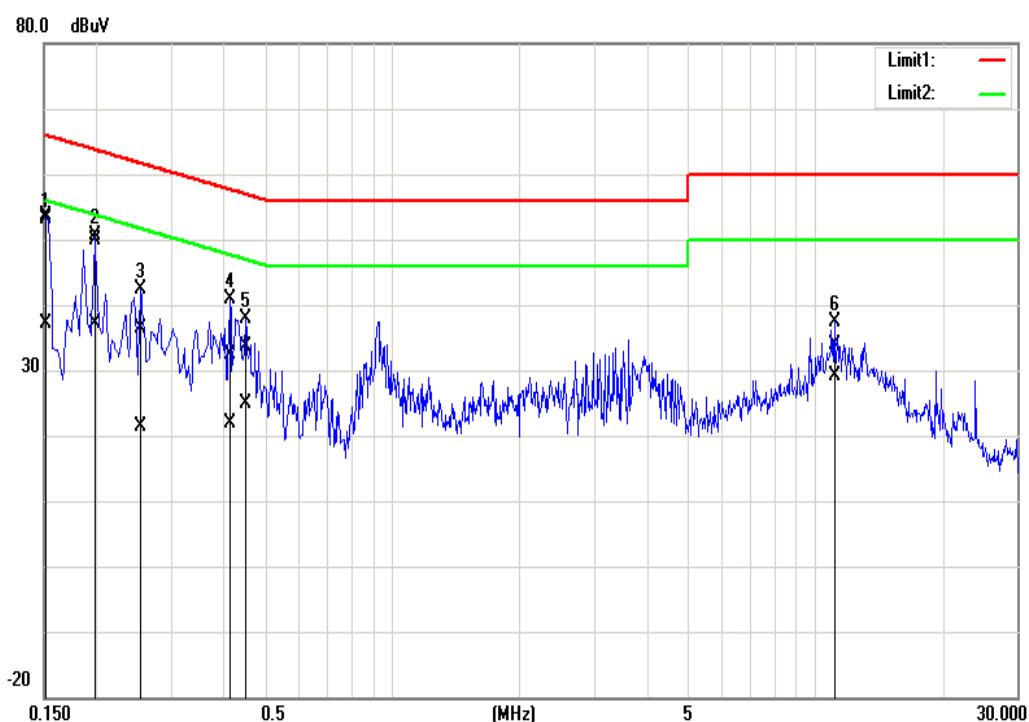


4.1.4 Test Result

Pass.

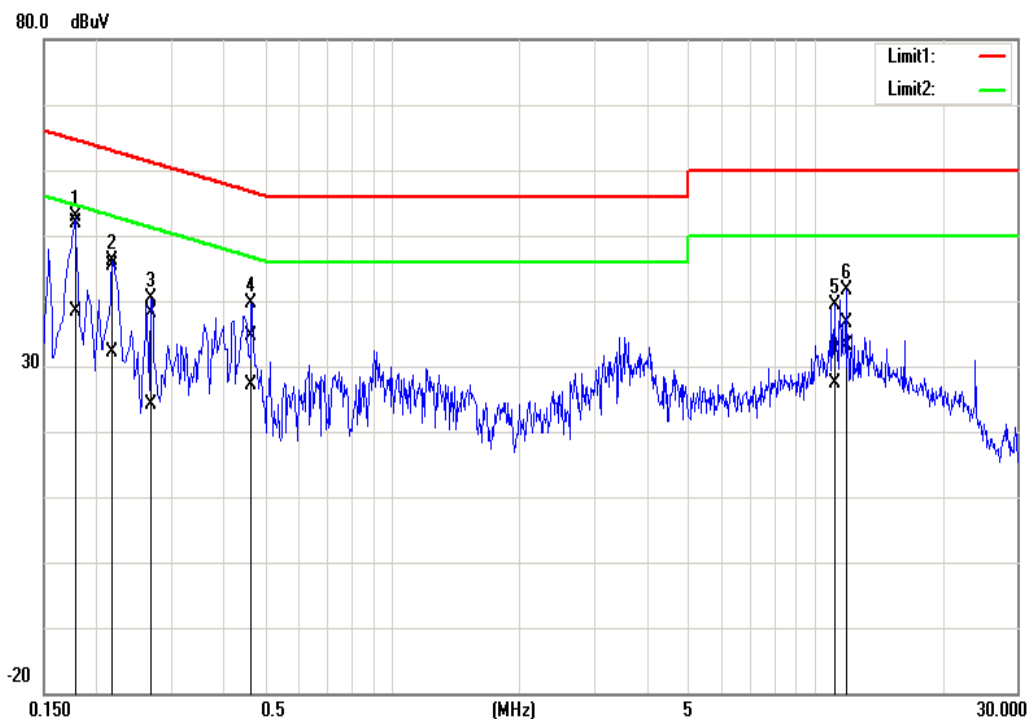
Test Data

Test Mode:	Mode 1	Temp/Hum	24(°C)/ 50%RH
Phase:	Line	Test Date	June 15, 2020
		Test Engineer	Dally Hong



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1524	43.41	26.92	10.22	53.63	37.14	65.87	55.87	-12.24	-18.73	Pass
0.1980	39.68	26.90	10.21	49.89	37.11	63.69	53.69	-13.80	-16.58	Pass
0.2540	26.12	11.25	10.21	36.33	21.46	61.63	51.63	-25.30	-30.17	Pass
0.4140	22.19	11.66	10.22	32.41	21.88	57.57	47.57	-25.16	-25.69	Pass
0.4500	23.30	14.71	10.22	33.52	24.93	56.88	46.88	-23.36	-21.95	Pass
11.1020	23.58	18.73	10.41	33.99	29.14	60.00	50.00	-26.01	-20.86	Pass

Test Mode:	Mode 1	Temp/Hum	24(°C)/ 50%RH
Phase:	Neutral	Test Date	June 15, 2020
		Test Engineer	Dally Hong



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1780	41.60	28.31	10.19	51.79	38.50	64.58	54.58	-12.79	-16.08	Pass
0.2180	35.31	21.84	10.19	45.50	32.03	62.89	52.89	-17.39	-20.86	Pass
0.2700	27.83	13.82	10.19	38.02	24.01	61.12	51.12	-23.10	-27.11	Pass
0.4660	24.40	16.97	10.19	34.59	27.16	56.58	46.58	-21.99	-19.42	Pass
11.1020	22.07	17.02	10.38	32.45	27.40	60.00	50.00	-27.55	-22.60	Pass
11.8420	26.12	22.64	10.39	36.51	33.03	60.00	50.00	-23.49	-16.97	Pass

4.2 OUTPUT POWER MEASUREMENT

4.2.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3), and RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

FCC:

UNII-1 :

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW(24 dBm), whichever power is less. B is the 99% emission bandwidth in megahertz, provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-2a and 2c:

the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. and The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC:**UNII-1 :**

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

UNII-2a and 2c:

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

Devices, other than devices installed in vehicles, shall comply with the following:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

UNII-2c (5470-5600 MHz and 5650-5725 MHz)

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-1 Limit	☒ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 24 – (DG – 6)]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 24 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi : 30dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)]

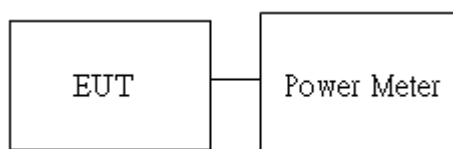
4.2.2 Test Procedure

Test method Refer as KDB 789033 D02, Section E.3.b for BW 20MHz and 40MHz, E.2.b for BW 80MHz.

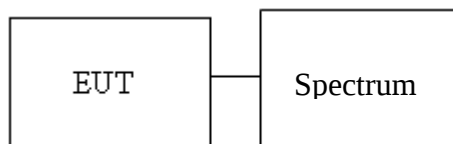
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.2.3 Test Setup

For BW 20MHz and 40MHz



For BW 80MHz





Report No.: T200521W01-RP4

Page: 20 / 134

Rev.: 02

4.2.4 Test Result

Conducted output power :

UNII-1										
Config	CH	Freq. (MHz)	Power Set	AV Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
IEEE 802.11a Data rate: 6Mbps	36	5180	17.0	16.06	16.21	0.0404	0.0418	0.15	24	23
	44	5220	17.0	16.08	16.23	0.0406	0.0420			
	48	5240	17.0	16.43	16.58	0.0440	0.0455			
IEEE 802.11n HT20 Data rate: MCS0	36	5180	17.0	16.34	16.49	0.0431	0.0446			
	44	5220	17.0	16.07	16.22	0.0405	0.0419			
	48	5240	17.0	16.32	16.47	0.0429	0.0444			
IEEE 802.11n HT40 Data rate: MCS0	38	5190	15.0	14.98	15.13	0.0315	0.0326			
	46	5230	17.0	16.37	16.52	0.0434	0.0449			



Report No.: T200521W01-RP4

Page: 21 / 134

Rev.: 02

UNII-2a										
Config	CH	Freq. (MHz)	Power Set	AV Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
IEEE 802.11a Data rate: 6Mbps	52	5260	17.0	15.93	16.08	0.0392	0.0406	0.15	24	30
	56	5280	17.0	15.85	16.00	0.0385	0.0398			
	64	5320	17.0	15.73	15.88	0.0374	0.0387			
IEEE 802.11n HT20 Data rate: MCS0	52	5260	17.0	15.95	16.10	0.0394	0.0407			
	56	5280	17.0	15.98	16.13	0.0396	0.0410			
	64	5320	17.0	15.84	15.99	0.0384	0.0397			
IEEE 802.11n HT40 Data rate: MCS0	54	5270	17.0	15.89	16.04	0.0388	0.0402			
	62	5310	15.0	14.64	14.79	0.0291	0.0301			



Report No.: T200521W01-RP4

Page: 22 / 134

Rev.: 02

UNII-2c										
Config	CH	Freq. (MHz)	Power Set	AV Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
IEEE 802.11a Data rate: 6Mbps	100	5500	17.0	15.87	16.06	0.0386	0.0404	0.19	24	30
	116	5580	17.0	15.92	16.11	0.0391	0.0408			
	140	5700	15.5	15.20	15.39	0.0331	0.0346			
IEEE 802.11n HT20 Data rate: MCS0	100	5500	16.0	15.73	15.92	0.0374	0.0391			
	116	5580	17.0	15.97	16.16	0.0395	0.0413			
	140	5700	14.0	13.74	13.93	0.0237	0.0247			
IEEE 802.11n HT40 Data rate: MCS0	102	5510	12.0	12.06	12.25	0.0161	0.0168			
	110	5550	17.0	16.46	16.65	0.0443	0.0462			
	134	5670	14.0	13.98	14.17	0.0250	0.0261			



Report No.: T200521W01-RP4

Page: 23 / 134

Rev.: 02

UNII-3									
Config	CH	Freq. (MHz)	Power Set	AV Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)
IEEE 802.11a Data rate: 6Mbps	149	5745	15.0	13.26	12.40	0.0212	0.0174	-0.86	30
	157	5785	15.0	13.29	12.43	0.0213	0.0175		
	165	5825	15.0	13.23	12.37	0.0210	0.0173		
IEEE 802.11n HT20 Data rate: MCS0	149	5745	15.0	13.26	12.40	0.0212	0.0174		
	157	5785	15.0	13.37	12.51	0.0217	0.0178		
	165	5825	15.0	13.23	12.37	0.0210	0.0173		
IEEE 802.11n HT40 Data rate: MCS0	151	5755	15.0	13.28	12.42	0.0213	0.0175		
	159	5795	15.0	13.20	12.34	0.0209	0.0171		

4.3 RADIATION Bandedge and Spurious Emission

4.3.1 Test Limit

According to §15.407, §15.209 and §15.205,
According to RSS-247 section 6.2.1.2 and section 6.2.4.2

Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

RSS-Gen Table 3 and Table 5 – General Field Strength Limits for Transmitters and Receivers at Frequencies Above 30 MHz ^(Note)

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

Note: Measurements for compliance with the limits in table 3 may be performed at distances other than 3 metres, in accordance with Section 6.6.

RSS-Gen Table 6: General Field Strength Limits for Transmitters at Frequencies Below 30 MHz (Transmit)

Frequency	Magnetic field strength (H-Field) ($\mu\text{A/m}$)	Measurement Distance (m)
9-490 kHz ^{Note}	6.37/F (F in kHz)	300
490-1,705 kHz	63.7/F (F in kHz)	30
1.705-30 MHz	0.08	30

Note: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector..

UNII-1 :

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

UNII-2a and 2c :

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices' unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled "for indoor use only." Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

UNII-3:

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.
For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz

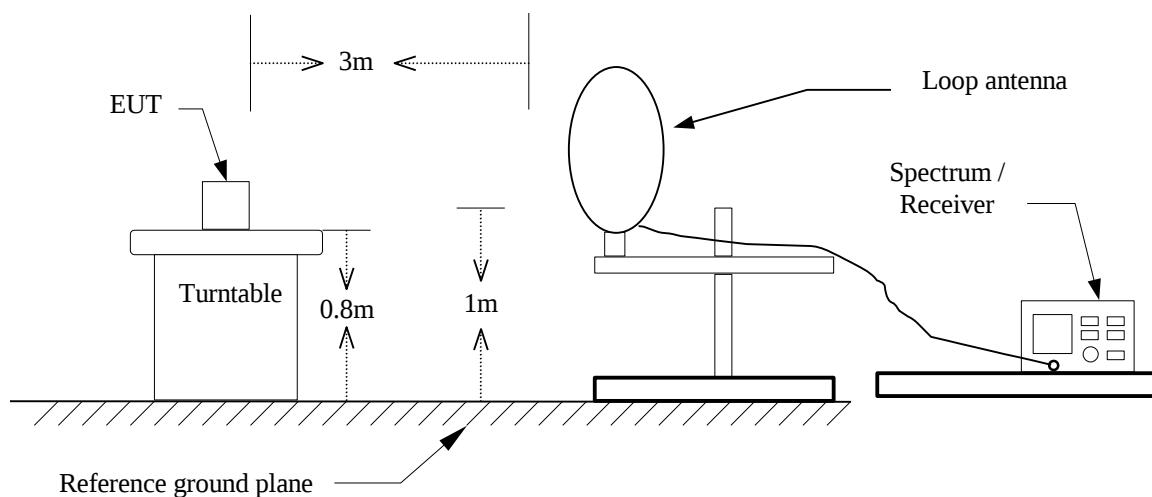
4.3.2 Test Procedure

Test method Refer as KDB 789033 D02.

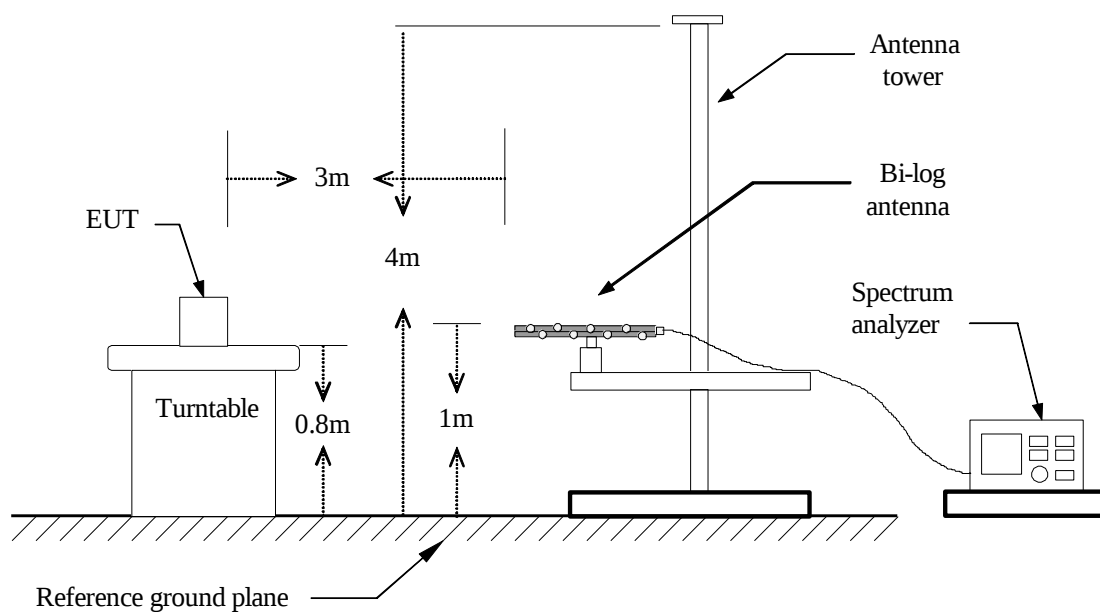
1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.
3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.
4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)
5. The SA setting following :
 - (1) Below 1G : RBW = 100kHz, VBW $\geq 3 \times$ RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2) Above 1G :
 - (2.1) For Peak measurement : RBW = 1MHz, VBW $\geq 3 \times$ RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2.2) For Average measurement : RBW = 1MHz, VBW
 - If Duty Cycle $\geq 98\%$, VBW=10Hz.
 - If Duty Cycle $< 98\%$, VBW=1/T.

4.3.3 Test Setup

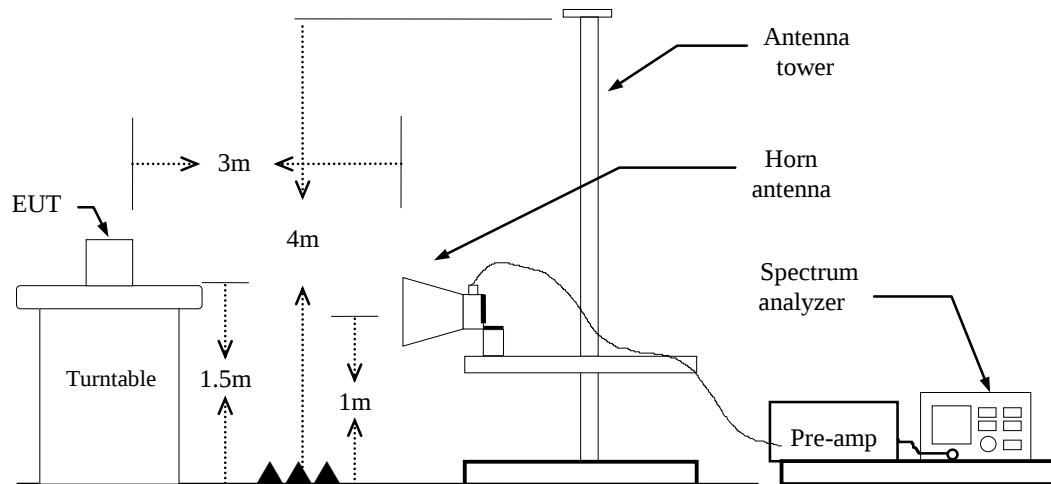
9kHz ~ 30MHz



30MHz ~ 1GHz



Above 1 GHz

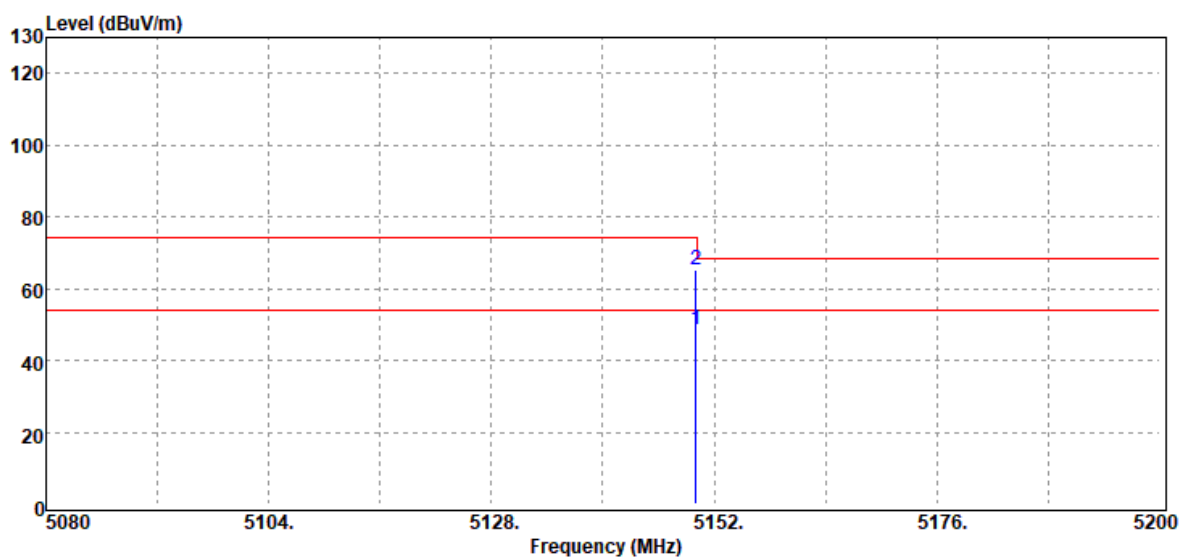


4.3.4 Test Result

Band Edge Test Data

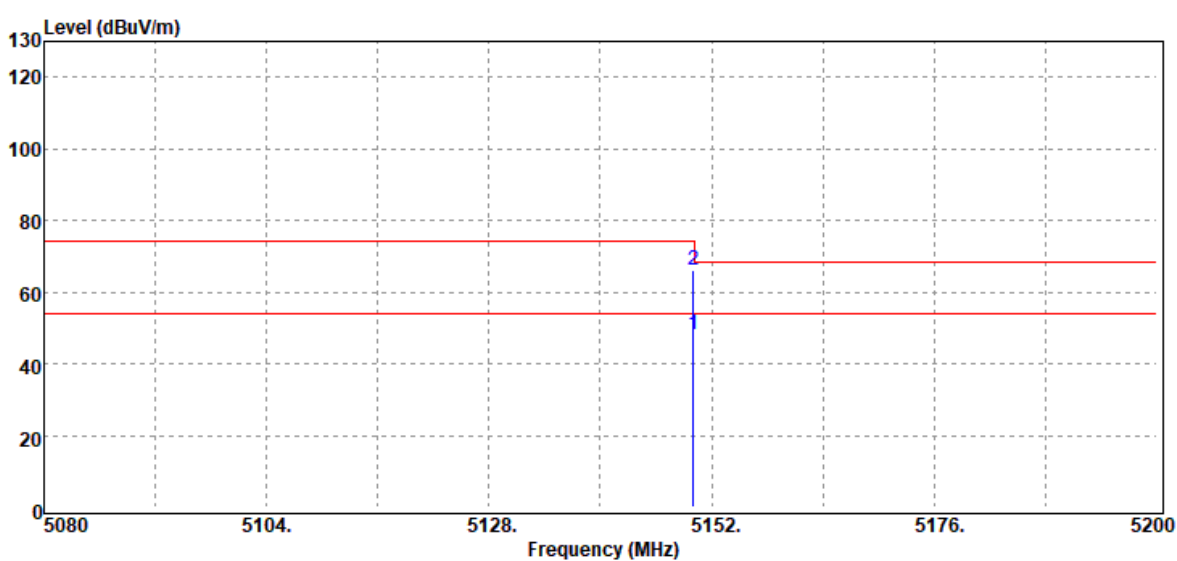
Test Data for UNII-1

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



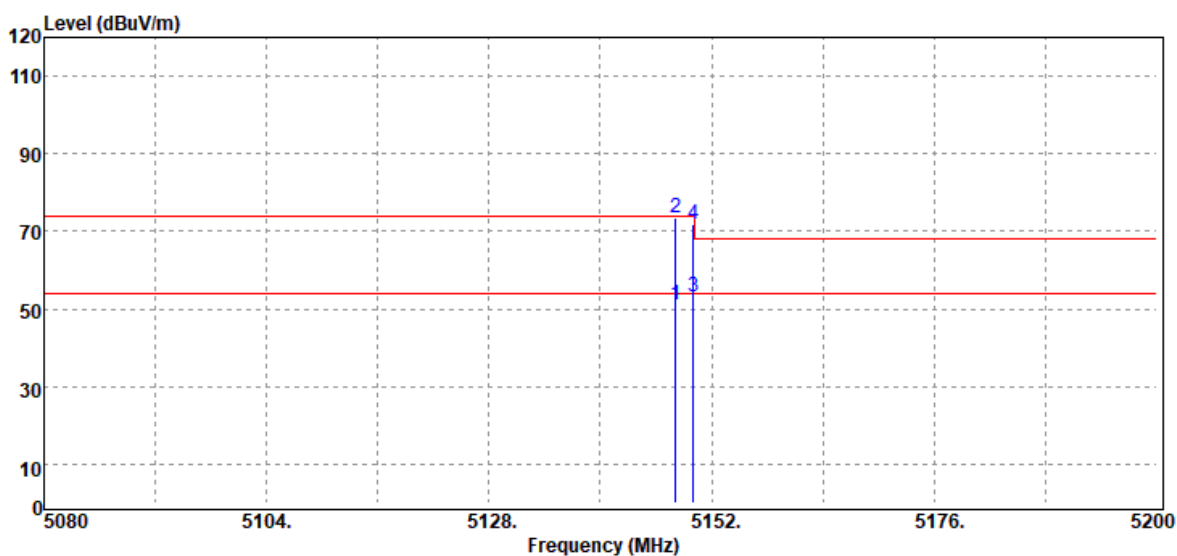
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Average	42.94	5.58	48.52	54.00	-5.48
5150.00	Peak	59.66	5.58	65.24	74.00	-8.76

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak / Average		



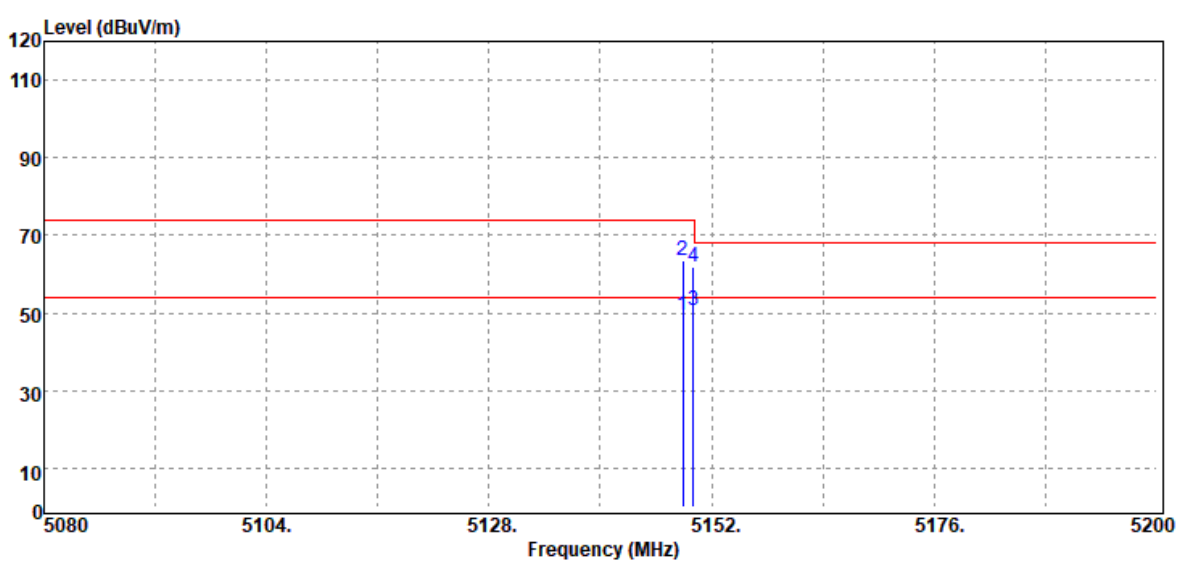
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Average	42.70	5.58	48.28	54.00	-5.72
5150.00	Peak	60.66	5.58	66.24	74.00	-7.76

Test Mode	IEEE 802.11n 20 MHz / 5180MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



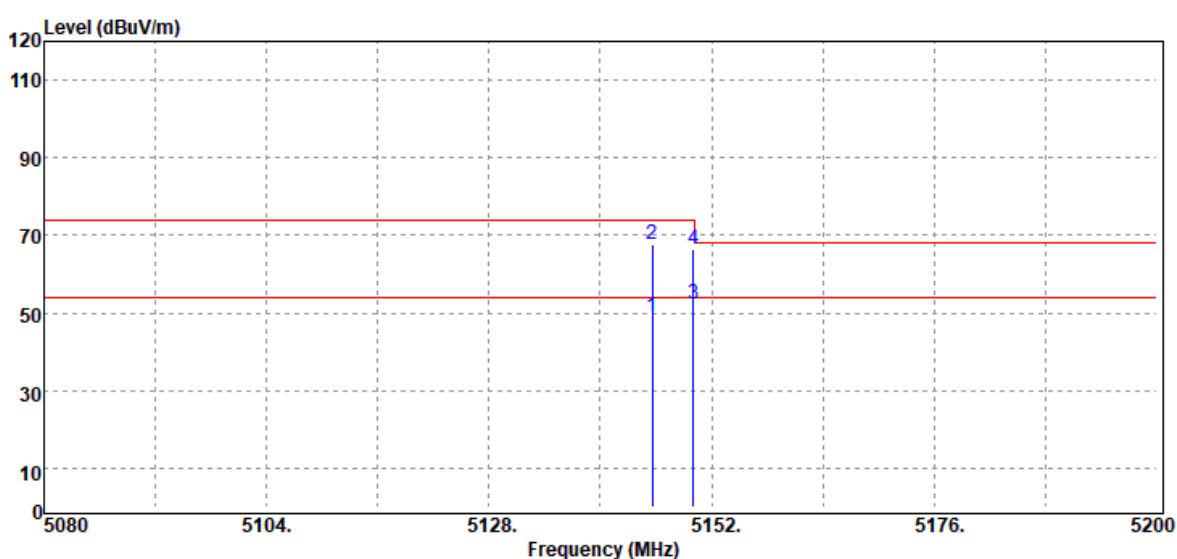
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5148.16	Average	45.63	5.57	51.20	54.00	-2.80
5148.16	Peak	67.97	5.57	73.54	74.00	-0.46
5150.00	Average	47.58	5.58	53.16	54.00	-0.84
5150.00	Peak	66.06	5.58	71.64	74.00	-2.36

Test Mode	IEEE 802.11n 20 MHz / 5180MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



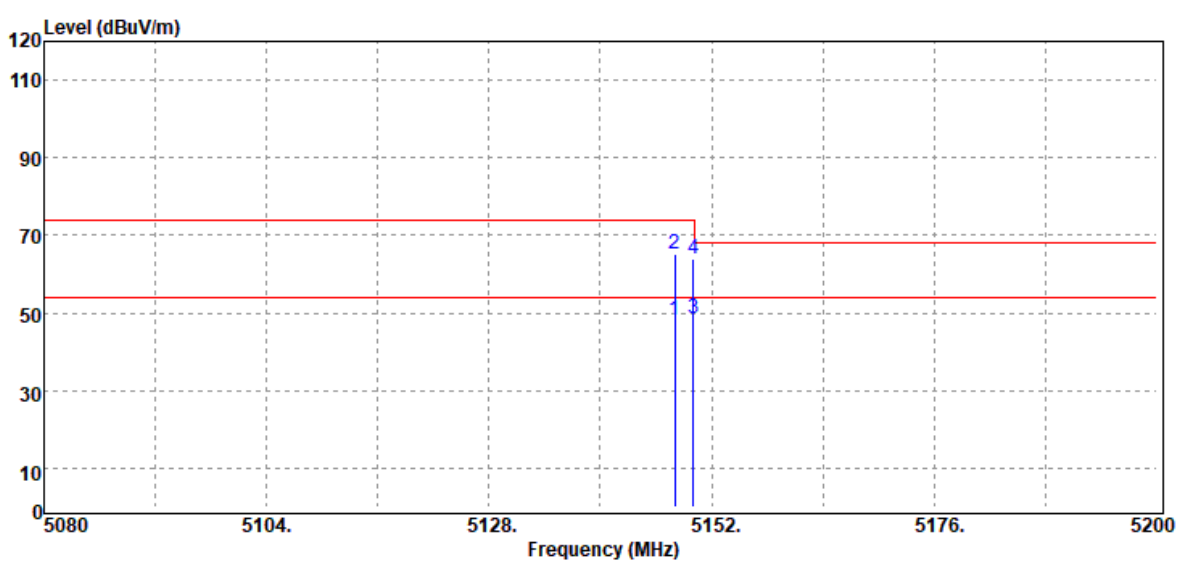
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5148.88	Average	43.90	5.57	49.47	54.00	-4.53
5148.88	Peak	57.76	5.57	63.33	74.00	-10.67
5150.00	Average	45.09	5.58	50.67	54.00	-3.33
5150.00	Peak	56.09	5.58	61.67	74.00	-12.33

Test Mode	IEEE 802.11n 40 MHz / 5190MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5145.64	Average	43.27	5.55	48.82	54.00	-5.18
5145.64	Peak	62.34	5.55	67.89	74.00	-6.11
5150.00	Average	46.64	5.58	52.22	54.00	-1.78
5150.00	Peak	60.74	5.58	66.32	74.00	-7.68

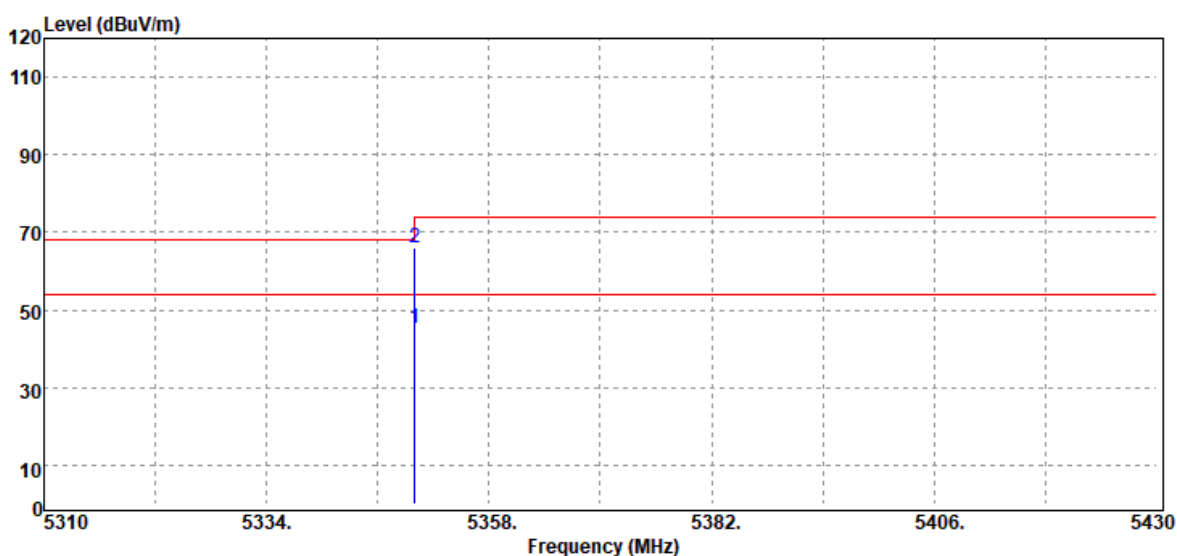
Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5148.04	Average	42.68	5.57	48.25	54.00	-5.75
5148.04	Peak	59.49	5.57	65.06	74.00	-8.94
5150.00	Average	43.13	5.58	48.71	54.00	-5.29
5150.00	Peak	58.29	5.58	63.87	74.00	-10.13

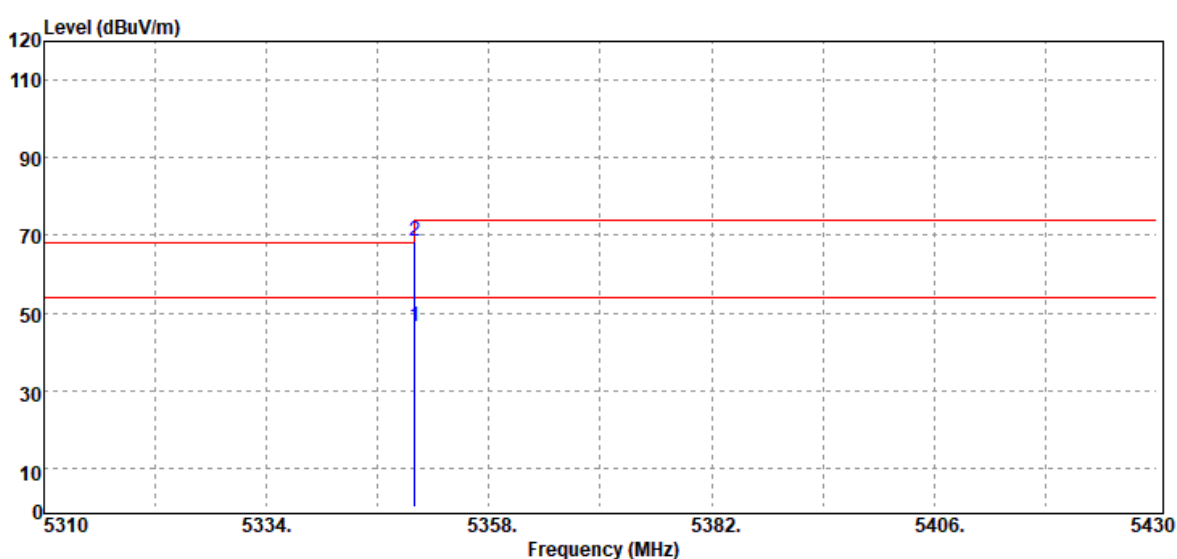
Test Data for UNII-2a

Test Mode	IEEE 802.11a / 5320 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



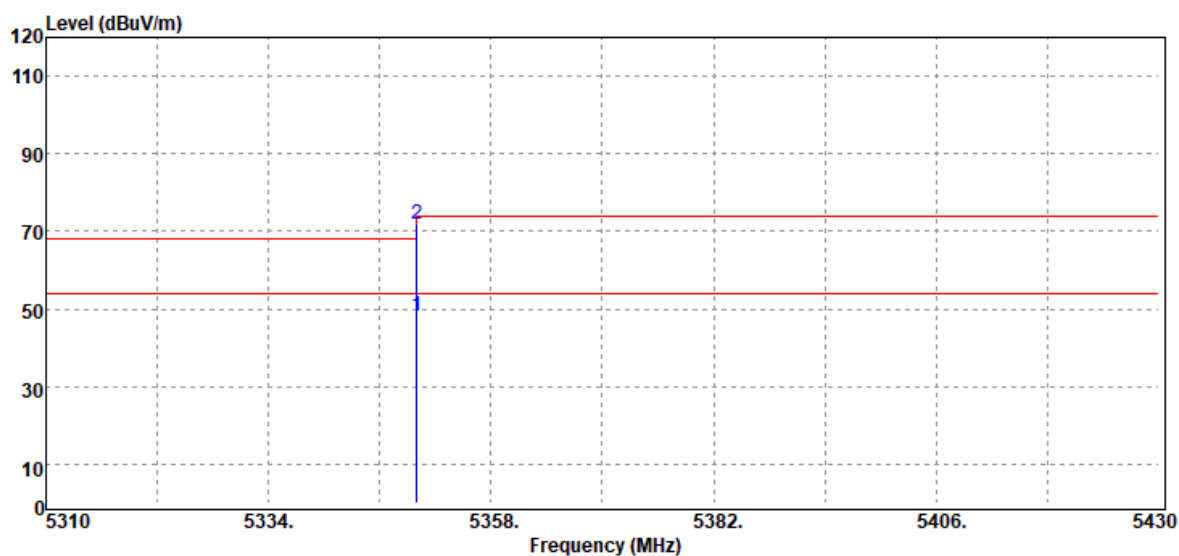
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5350.00	Average	39.50	5.82	45.32	54.00	-8.68
5350.00	Peak	60.16	5.82	65.98	74.00	-8.02

Test Mode	IEEE 802.11a / 5320 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



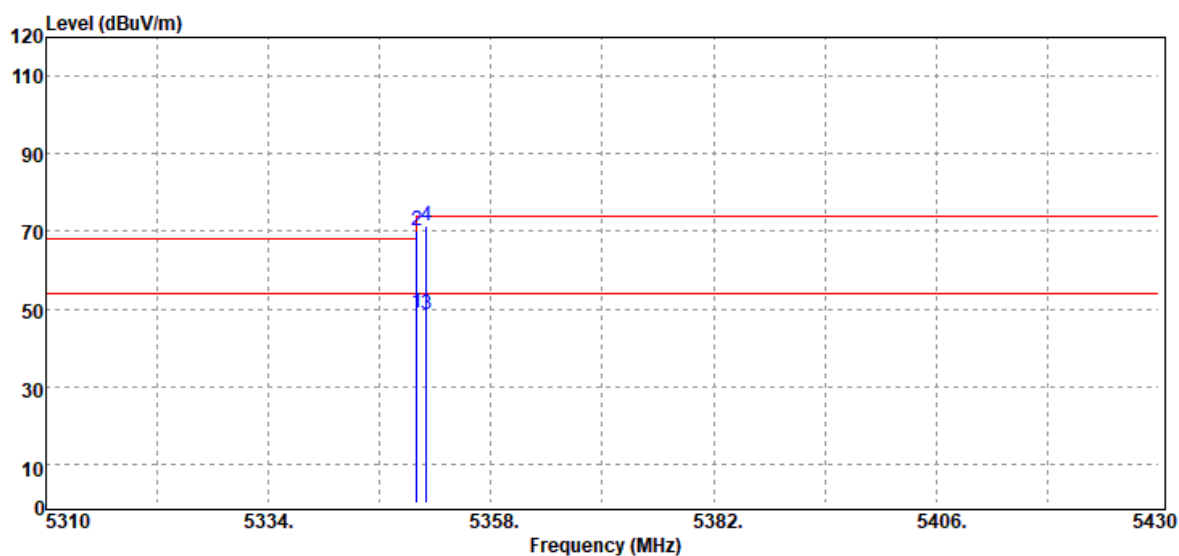
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5350.00	Average	40.53	5.82	46.35	54.00	-7.65
5350.00	Peak	62.86	5.82	68.68	74.00	-5.32

Test Mode	IEEE 802.11n 20 MHz / 5320MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



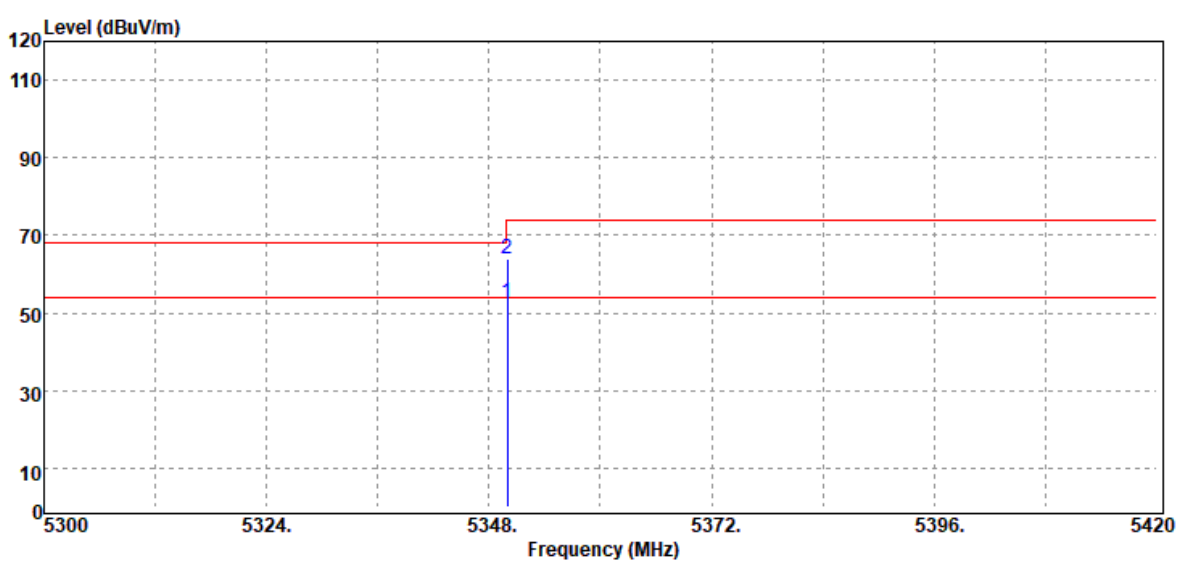
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5350.00	Average	42.16	5.82	47.98	54.00	-6.02
5350.00	Peak	66.07	5.82	71.89	74.00	-2.11

Test Mode	IEEE 802.11n 20 MHz / 5320MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



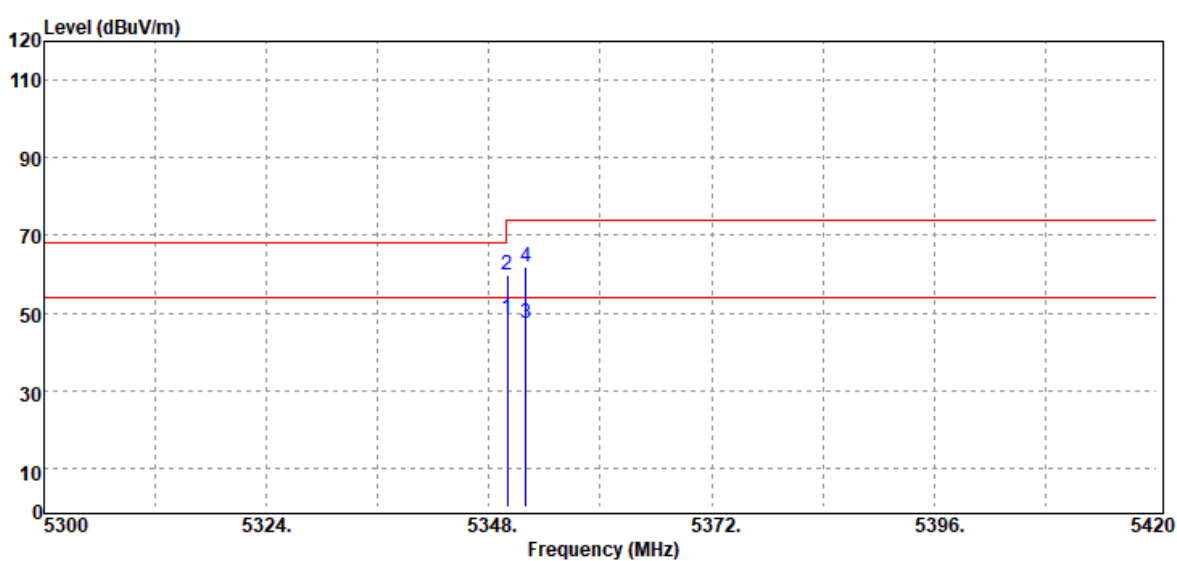
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5350.00	Average	43.25	5.82	49.07	54.00	-4.93
5350.00	Peak	64.20	5.82	70.02	74.00	-3.98
5351.04	Average	42.80	5.82	48.62	54.00	-5.38
5351.04	Peak	65.55	5.82	71.37	74.00	-2.63

Test Mode	IEEE 802.11n 40 MHz / 5310MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5350.00	Average	46.80	5.82	52.62	54.00	-1.38
5350.00	Peak	58.04	5.82	63.86	74.00	-10.14

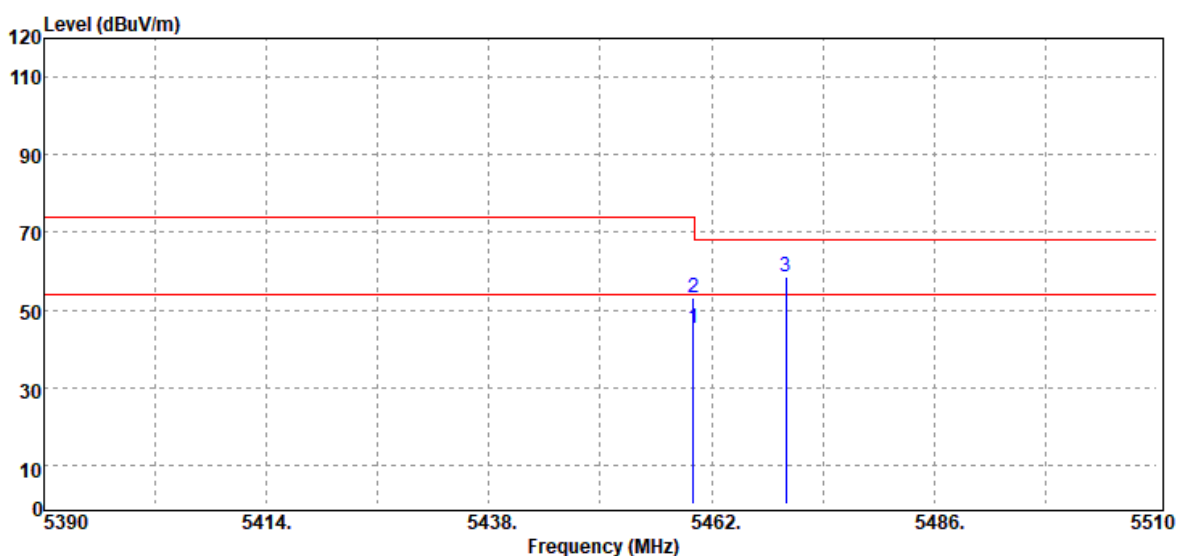
Test Mode	IEEE 802.11n 40 MHz / 5310MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5350.00	Average	42.79	5.82	48.61	54.00	-5.39
5350.00	Peak	54.17	5.82	59.99	74.00	-14.01
5351.96	Average	41.53	5.83	47.36	54.00	-6.64
5351.96	Peak	55.88	5.83	61.71	74.00	-12.29

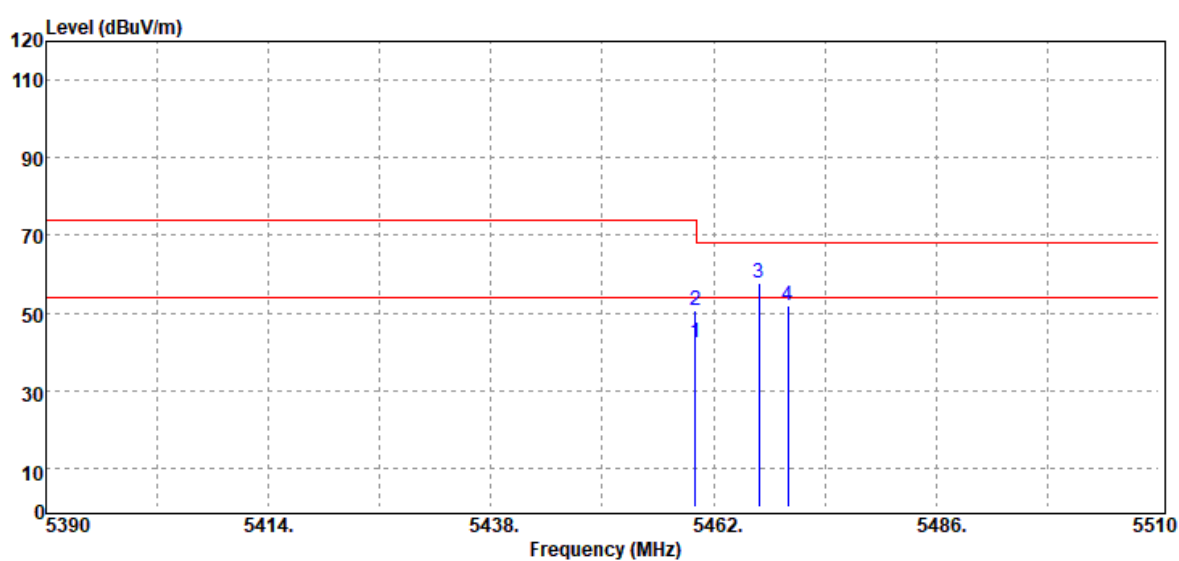
Test Data for UNII-2c

Test Mode	IEEE 802.11a / 5500MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



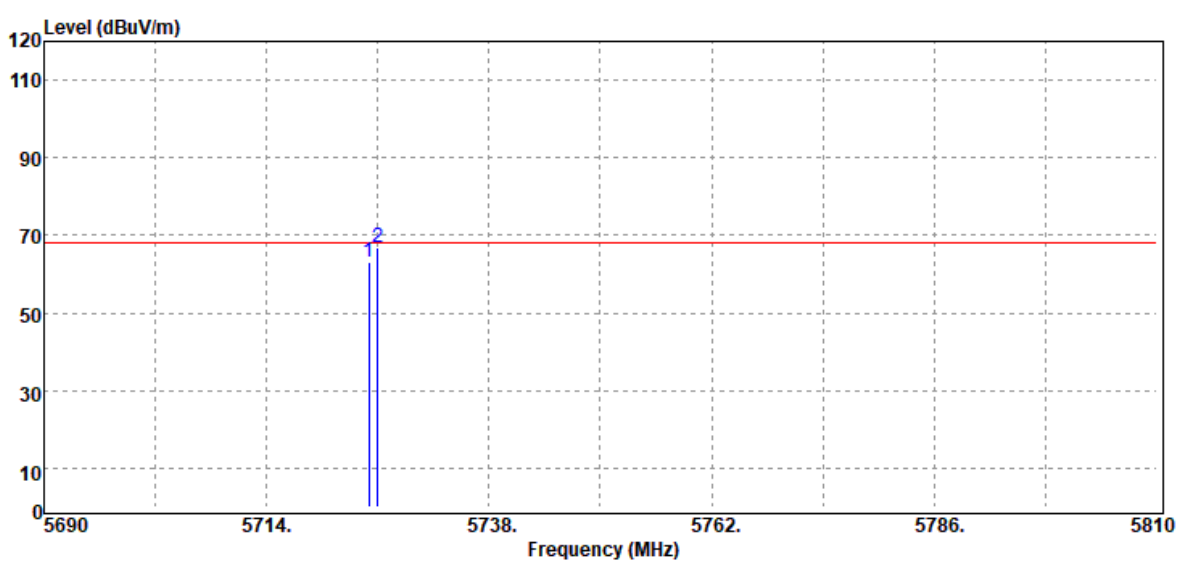
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5460.00	Average	39.11	6.11	45.22	54.00	-8.78
5460.00	Peak	47.08	6.11	53.19	74.00	-20.81
5470.00	Peak	52.33	6.14	58.47	68.20	-9.73

Test Mode	IEEE 802.11a / 5500MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



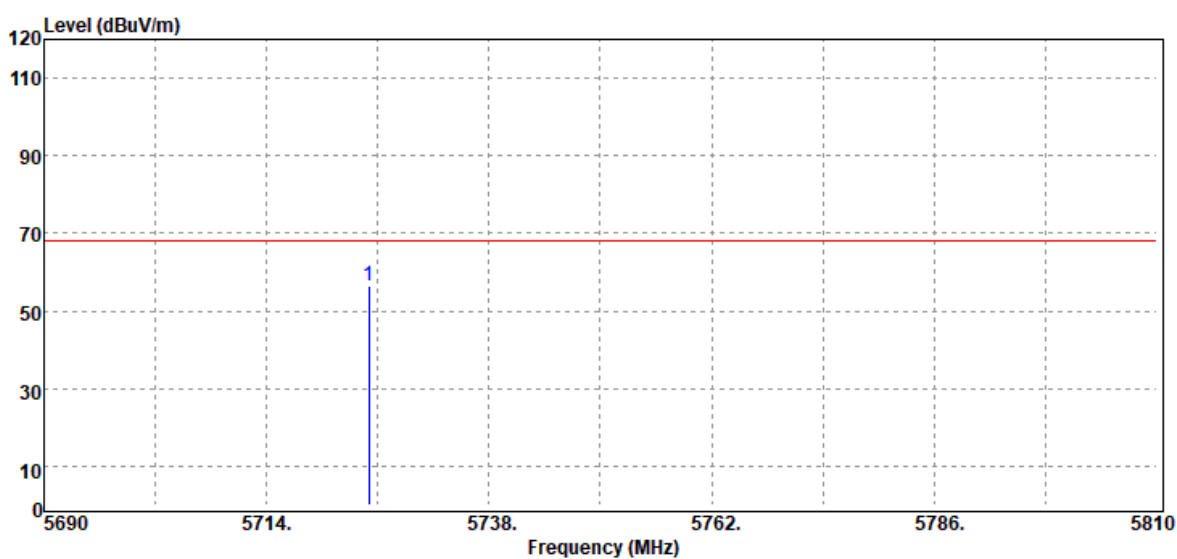
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5460.00	Average	36.05	6.11	42.16	54.00	-11.84
5460.00	Peak	44.72	6.11	50.83	74.00	-23.17
5466.92	Peak	51.74	6.12	57.86	68.20	-10.34

Test Mode	IEEE 802.11a / 5700 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



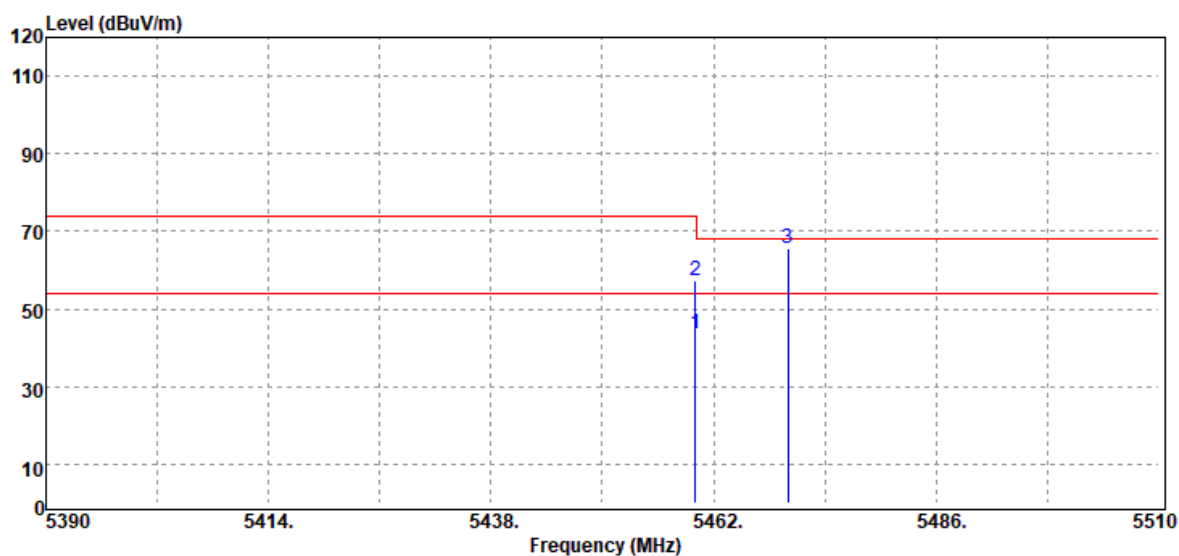
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5725.00	Peak	56.22	6.98	63.20	68.20	-5.00
5726.00	Peak	60.02	6.98	67.00	68.20	-1.20

Test Mode	IEEE 802.11a / 5700 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



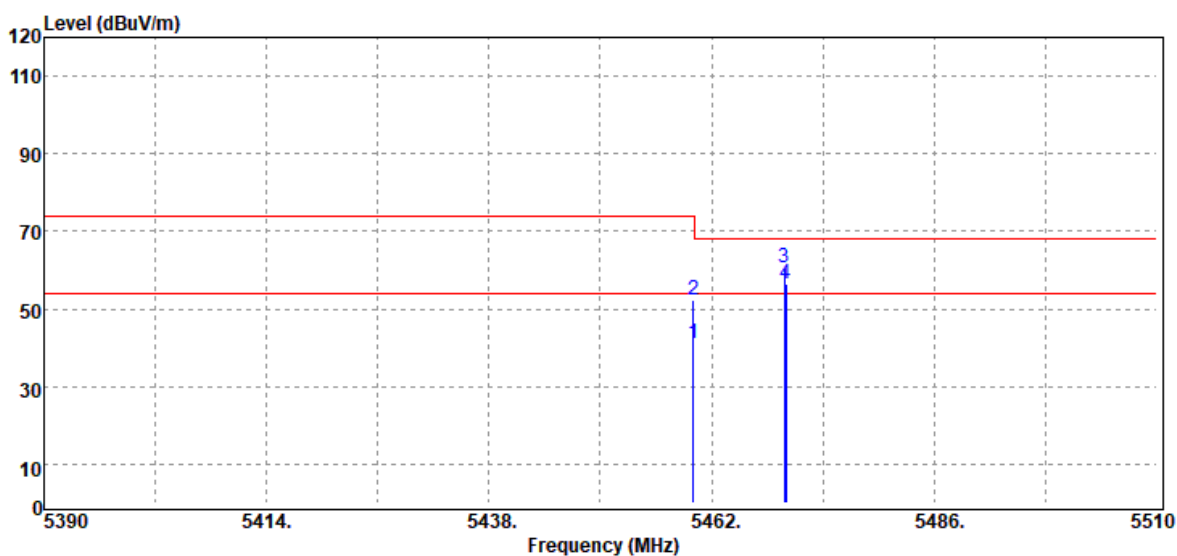
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5725.00	Peak	49.38	6.98	56.36	68.20	-11.84

Test Mode	IEEE 802.11n 20 MHz / 5500MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



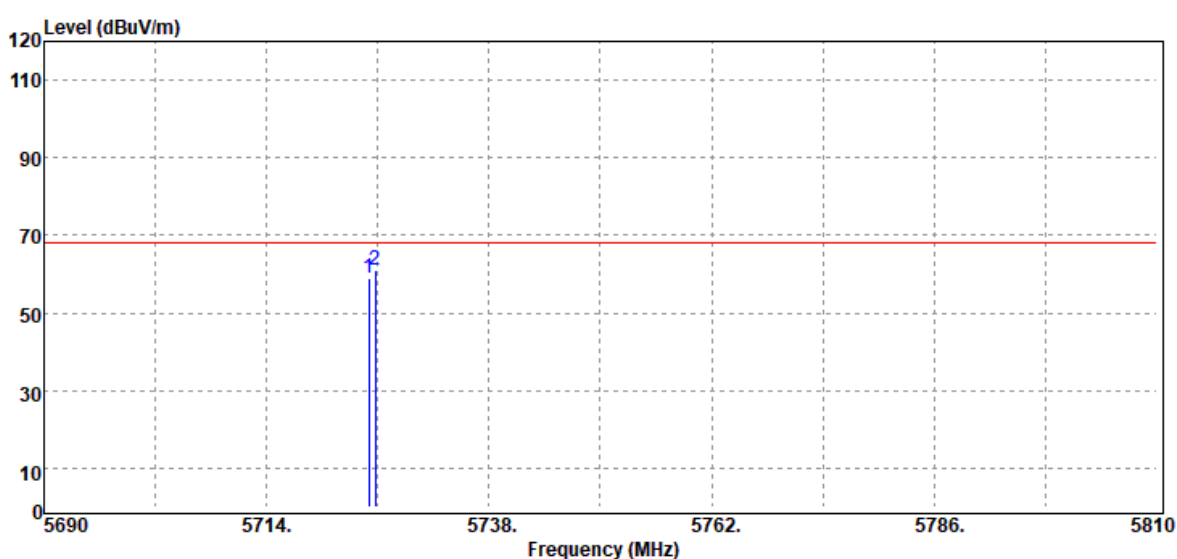
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5460.00	Average	37.40	6.11	43.51	54.00	-10.49
5460.00	Peak	51.12	6.11	57.23	74.00	-16.77
5470.00	Peak	59.66	6.14	65.80	68.20	-2.40

Test Mode	IEEE 802.11n 20 MHz / 5500MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



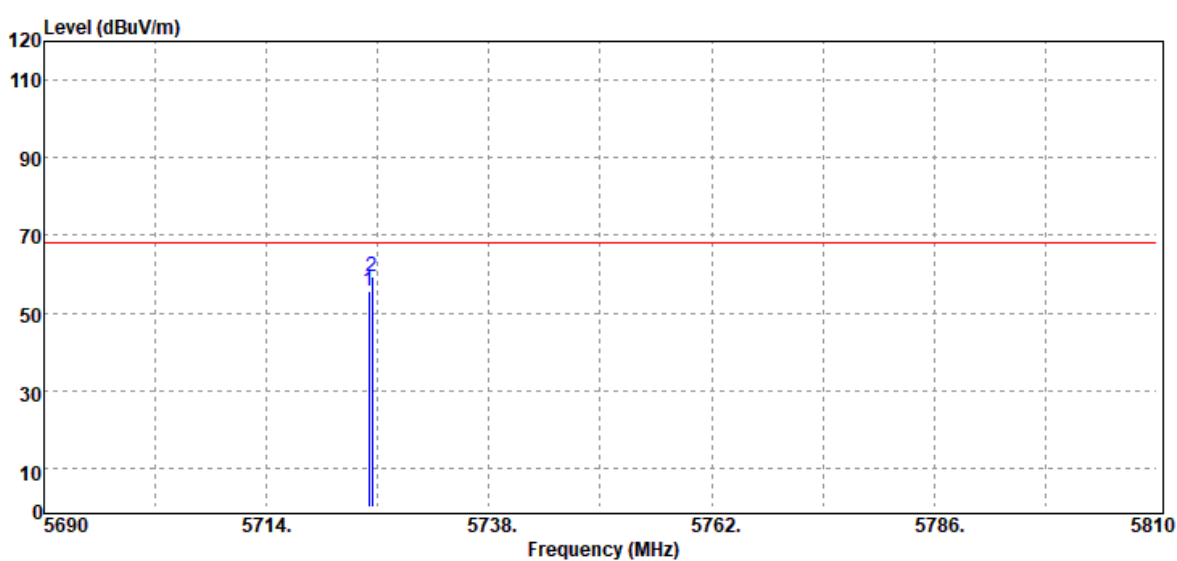
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5460.00	Average	34.82	6.11	40.93	54.00	-13.07
5460.00	Peak	46.04	6.11	52.15	74.00	-21.85
5469.80	Peak	54.52	6.14	60.66	68.20	-7.54
5470.00	Peak	50.15	6.14	56.29	68.20	-11.91

Test Mode	IEEE 802.11n 20 MHz / 5700 MHz	Temperature	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



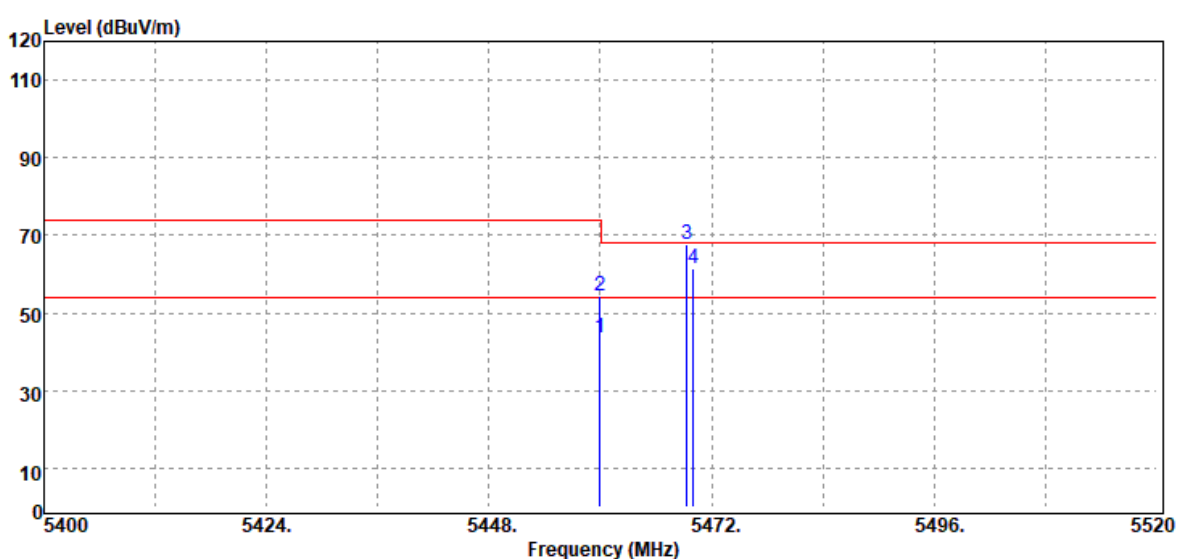
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5725.00	Peak	51.98	6.98	58.96	68.20	-9.24
5725.76	Peak	54.03	6.98	61.01	68.20	-7.19

Test Mode	IEEE 802.11n 20 MHz / 5700 MHz	Temperature	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



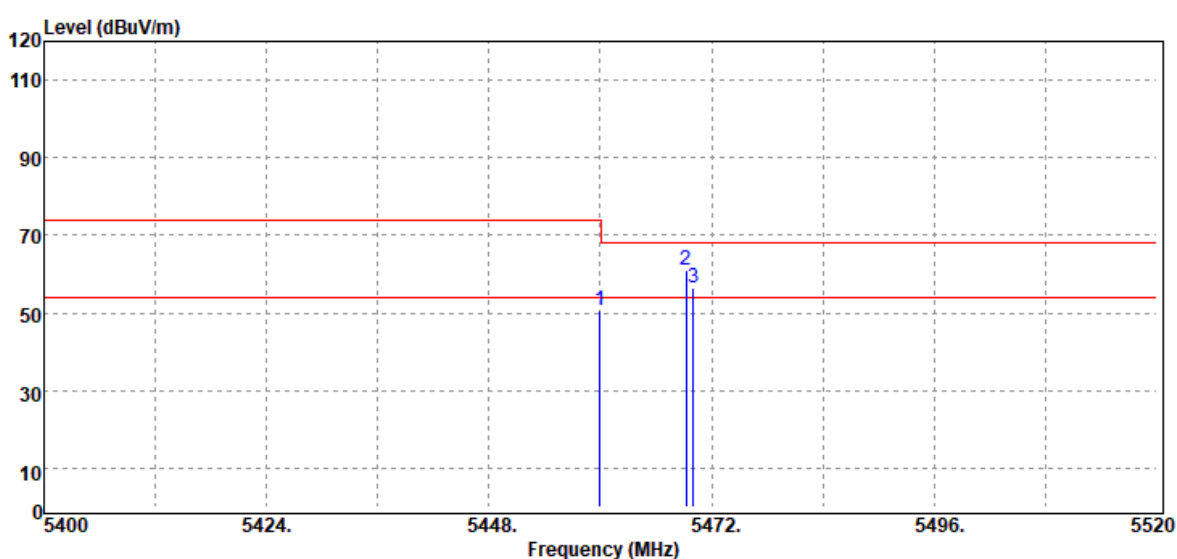
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5725.00	Peak	48.80	6.98	55.78	68.20	-12.42
5725.40	Peak	52.25	6.98	59.23	68.20	-8.97

Test Mode	IEEE 802.11n 40 MHz / 5510 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



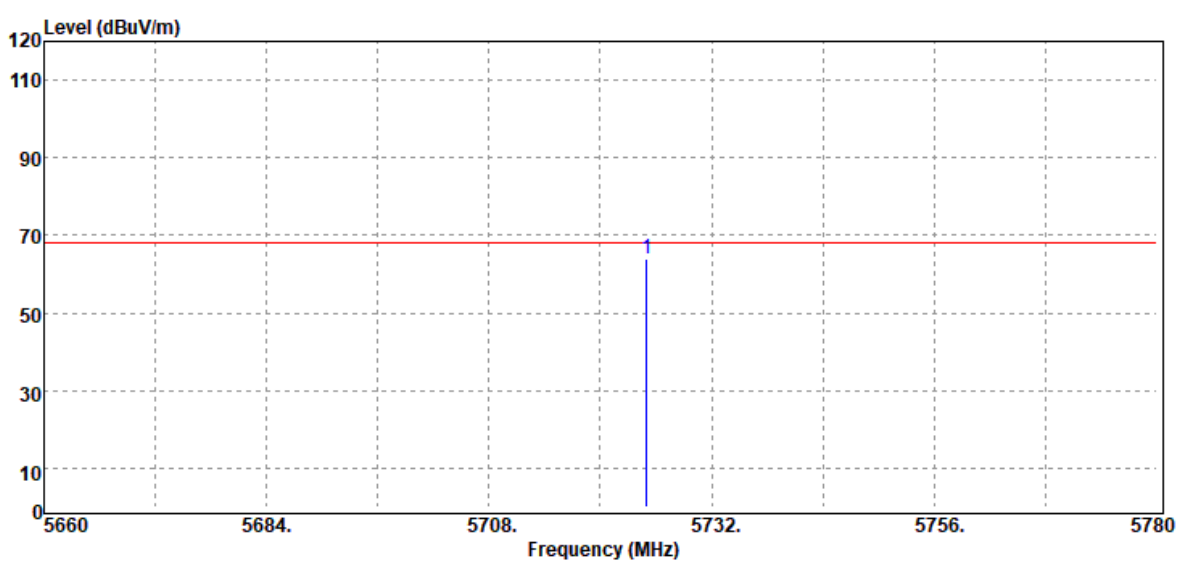
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5460.00	Average	37.45	6.11	43.56	54.00	-10.44
5460.00	Peak	48.28	6.11	54.39	74.00	-19.61
5469.36	Peak	61.55	6.14	67.69	68.20	-0.51
5470.00	Peak	55.18	6.14	61.32	68.20	-6.88

Test Mode	IEEE 802.11n 40 MHz / 5510 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



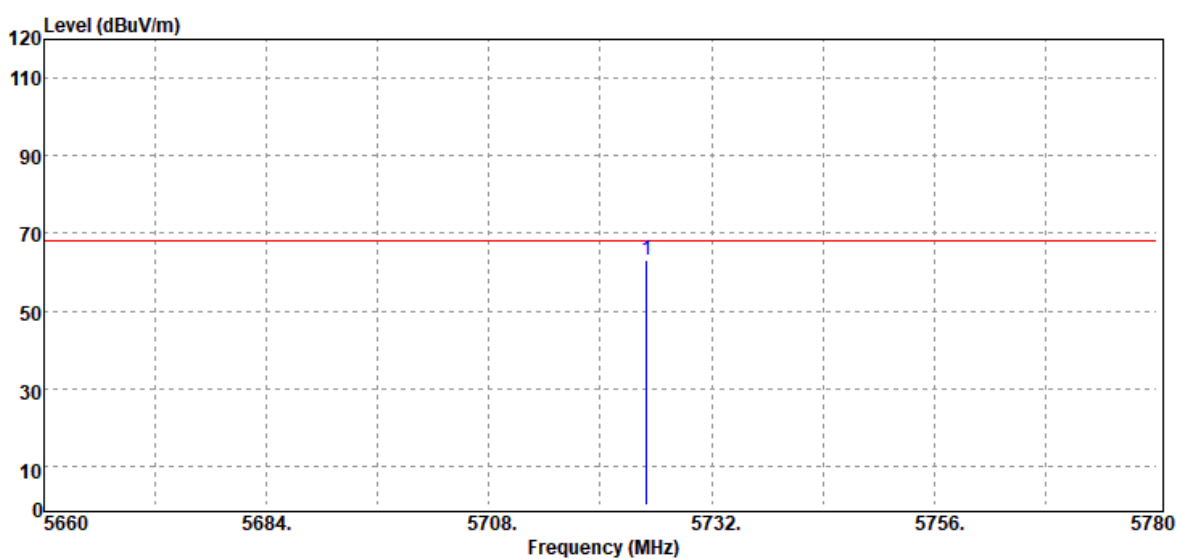
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5460.00	Peak	44.35	6.11	50.46	74.00	-23.54
5469.24	Peak	54.77	6.14	60.91	68.20	-7.29
5470.00	Peak	50.47	6.14	56.61	68.20	-11.59

Test Mode	IEEE 802.11n 40 MHz / 5670 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5725.00	Peak	57.07	6.98	64.05	68.20	-4.15

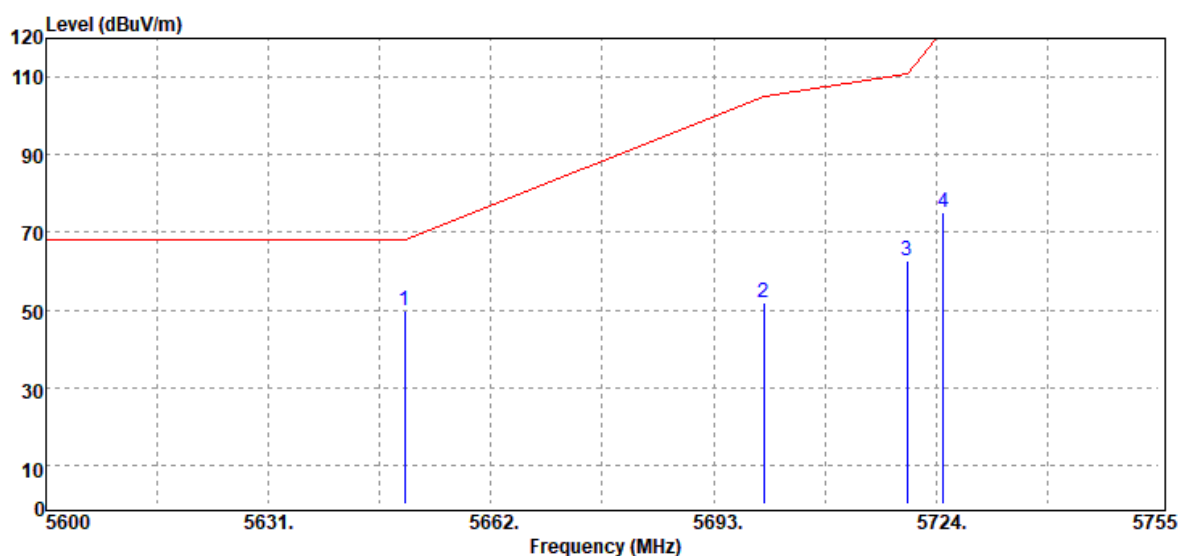
Test Mode	IEEE 802.11n 40 MHz / 5670 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5725.00	Peak	56.27	6.98	63.25	68.20	-4.95

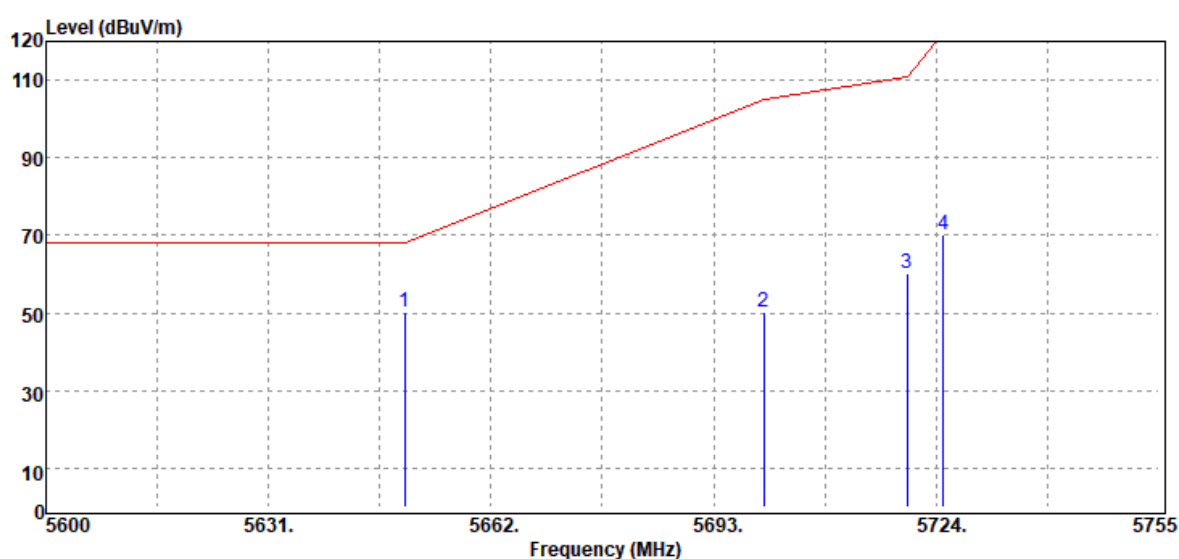
Test Data for UNII-3

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



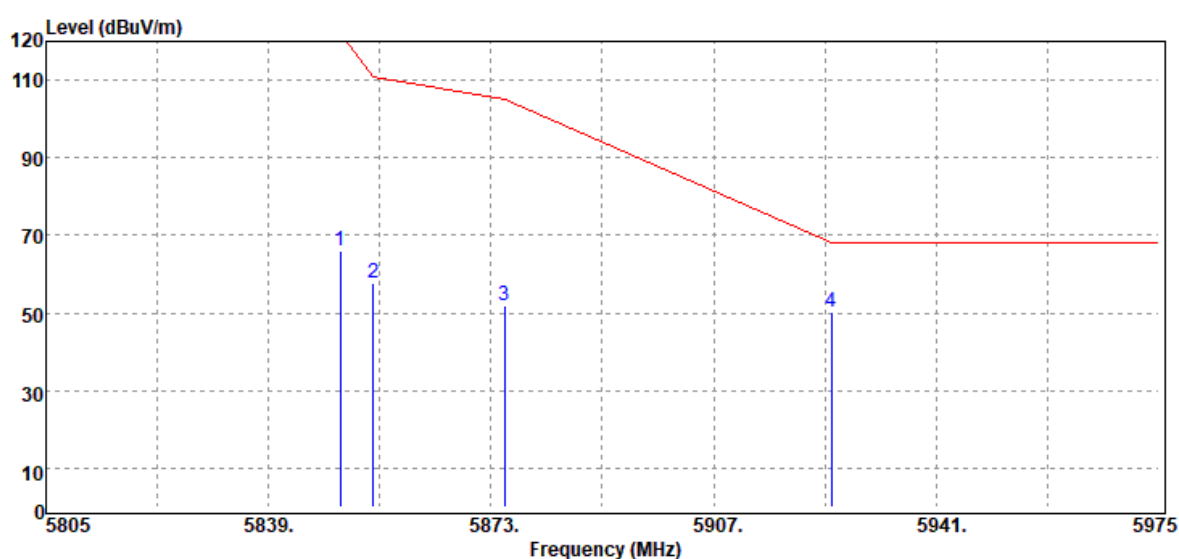
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	43.37	6.61	49.98	68.20	-18.22
5700.00	Peak	45.18	6.92	52.10	105.20	-53.10
5720.00	Peak	55.66	6.97	62.63	110.80	-48.17
5725.00	Peak	68.27	6.98	75.25	122.20	-46.95

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



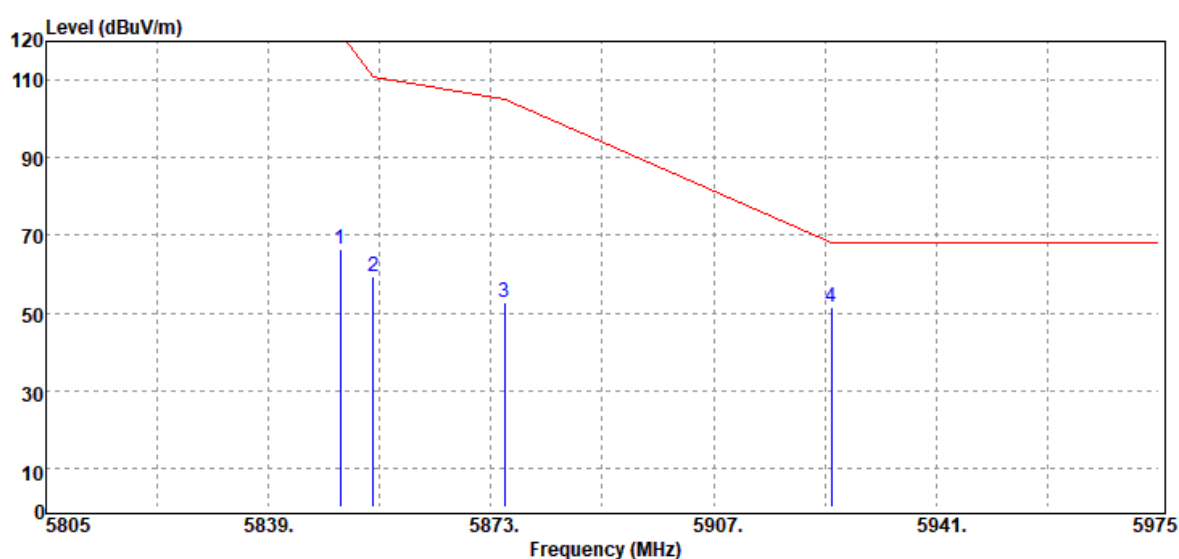
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	43.67	6.61	50.28	68.20	-17.92
5700.00	Peak	43.48	6.92	50.40	105.20	-54.80
5720.00	Peak	53.22	6.97	60.19	110.80	-50.61
5725.00	Peak	63.34	6.98	70.32	122.20	-51.88

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



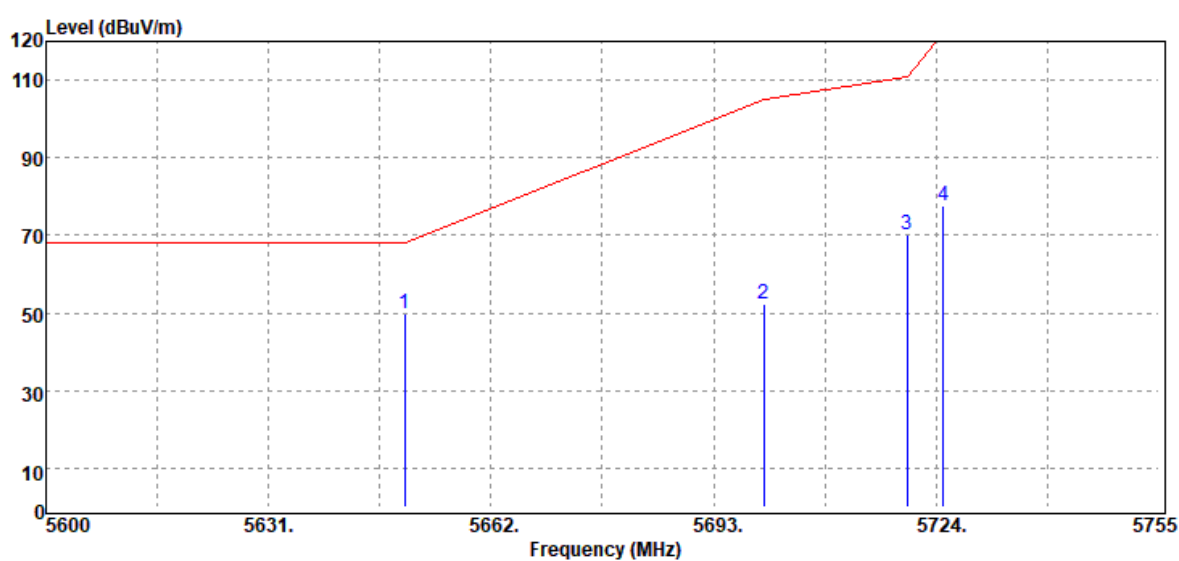
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	58.92	7.11	66.03	122.20	-56.17
5855.00	Peak	50.55	7.11	57.66	110.80	-53.14
5875.00	Peak	44.83	7.10	51.93	105.20	-53.27
5925.00	Peak	43.19	7.12	50.31	68.20	-17.89

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 8, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



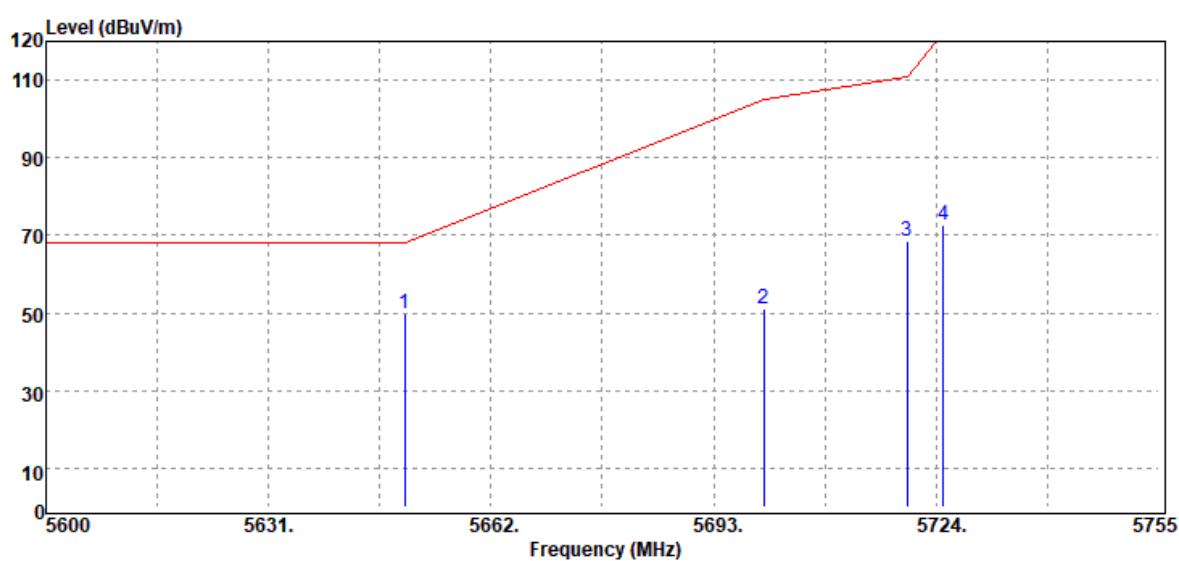
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	59.40	7.11	66.51	122.20	-55.69
5855.00	Peak	52.20	7.11	59.31	110.80	-51.49
5875.00	Peak	45.80	7.10	52.90	105.20	-52.30
5925.00	Peak	44.41	7.12	51.53	68.20	-16.67

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



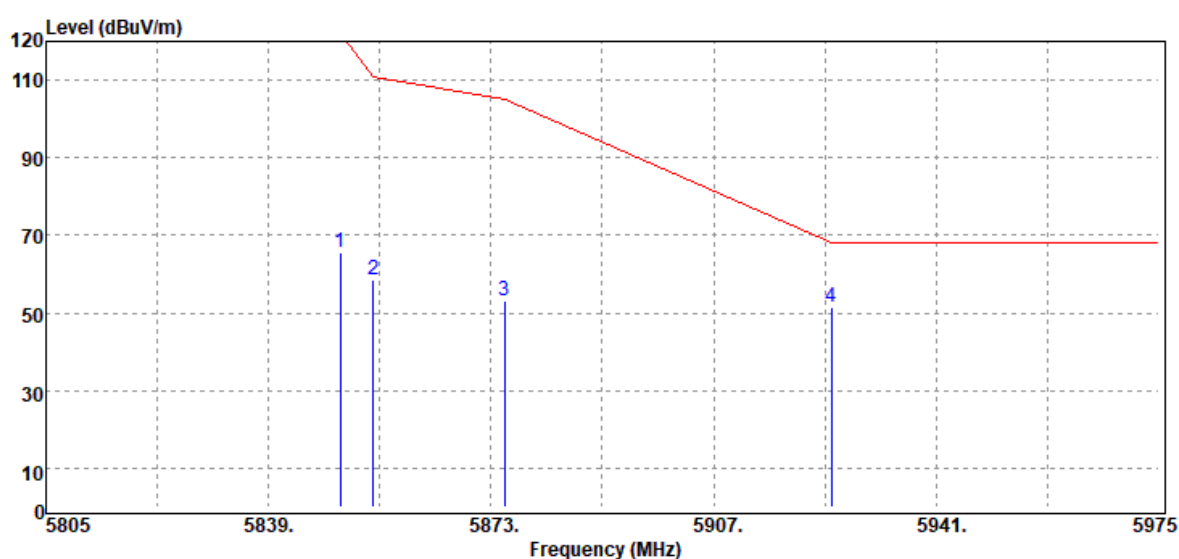
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	43.16	6.61	49.77	68.20	-18.43
5700.00	Peak	45.38	6.92	52.30	105.20	-52.90
5720.00	Peak	63.26	6.97	70.23	110.80	-40.57
5725.00	Peak	70.77	6.98	77.75	122.20	-44.45

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



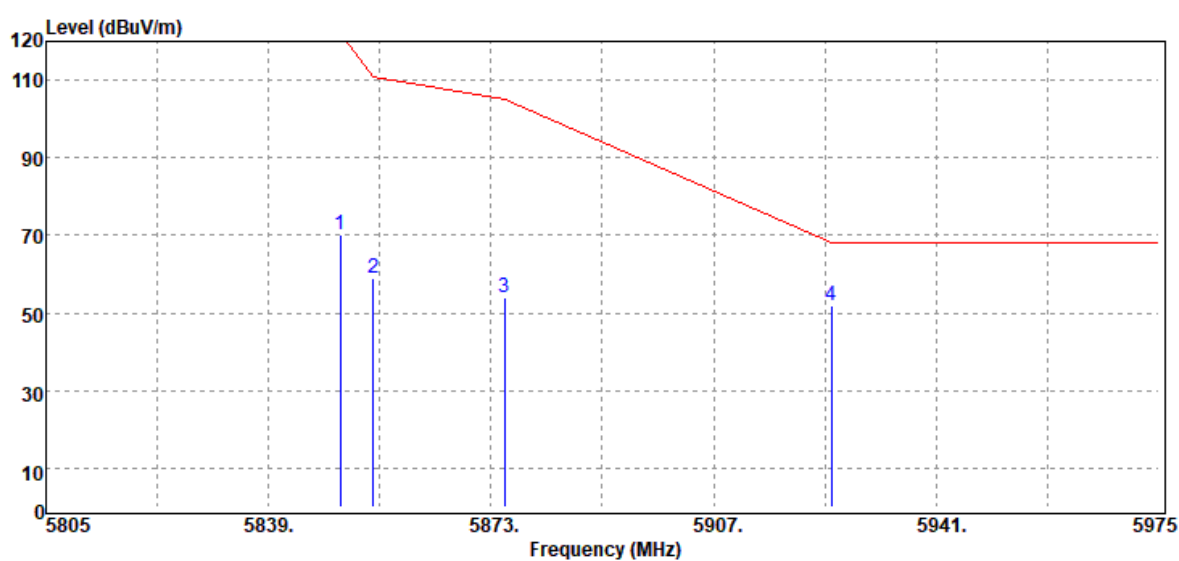
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	43.23	6.61	49.84	68.20	-18.36
5700.00	Peak	44.35	6.92	51.27	105.20	-53.93
5720.00	Peak	61.60	6.97	68.57	110.80	-42.23
5725.00	Peak	65.80	6.98	72.78	122.20	-49.42

Test Mode	IEEE 802.11n 20 MHz / 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



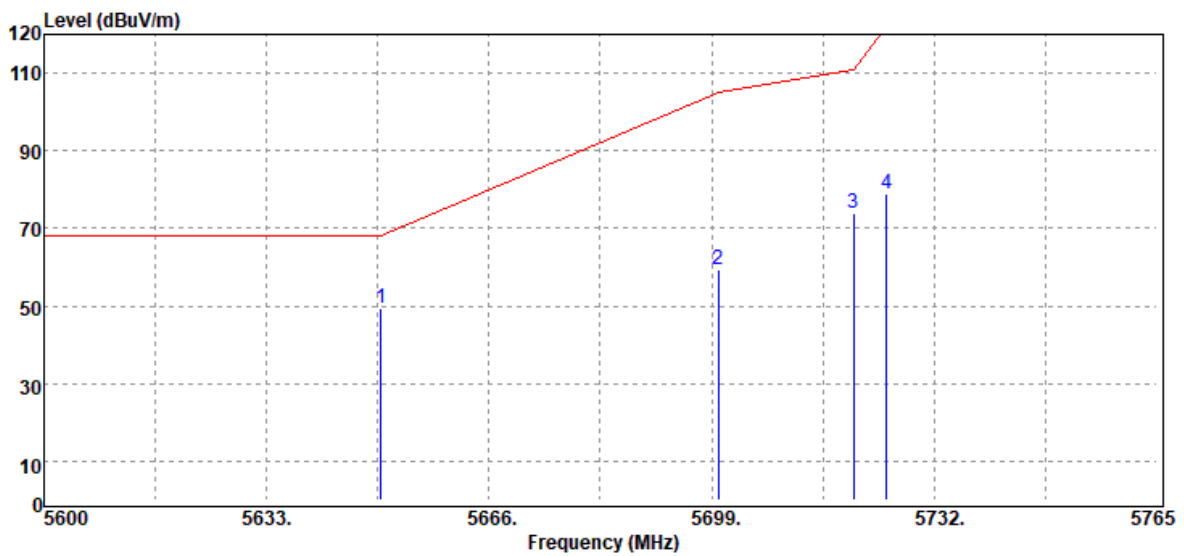
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	58.69	7.11	65.80	122.20	-56.40
5855.00	Peak	51.27	7.11	58.38	110.80	-52.42
5875.00	Peak	46.12	7.10	53.22	105.20	-51.98
5925.00	Peak	44.53	7.12	51.65	68.20	-16.55

Test Mode	IEEE 802.11n 20 MHz / 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



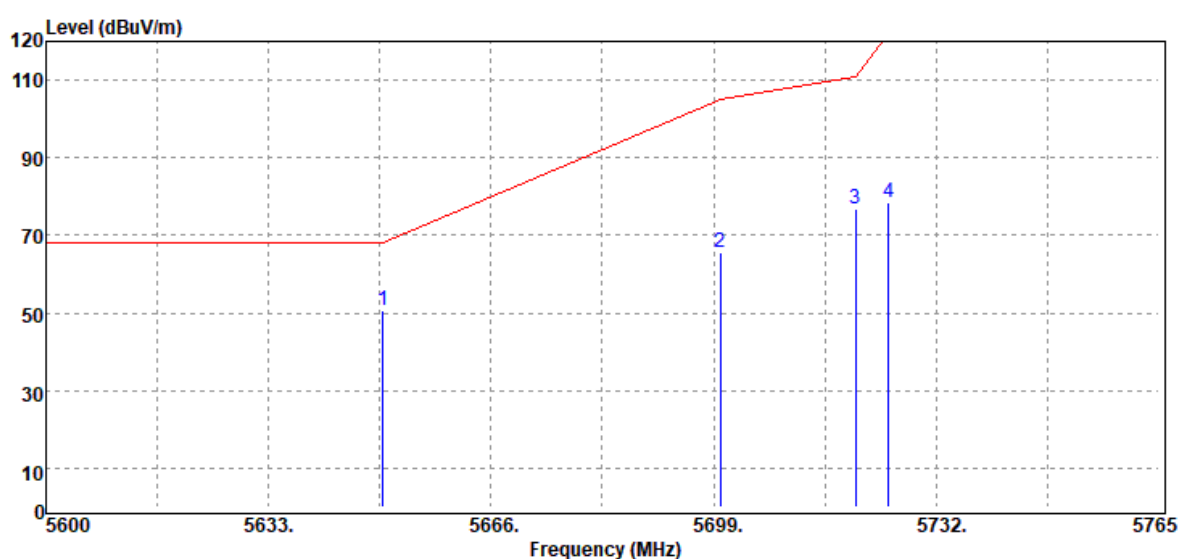
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	63.01	7.11	70.12	122.20	-52.08
5855.00	Peak	51.80	7.11	58.91	110.80	-51.89
5875.00	Peak	46.68	7.10	53.78	105.20	-51.42
5925.00	Peak	44.93	7.12	52.05	68.20	-16.15

Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



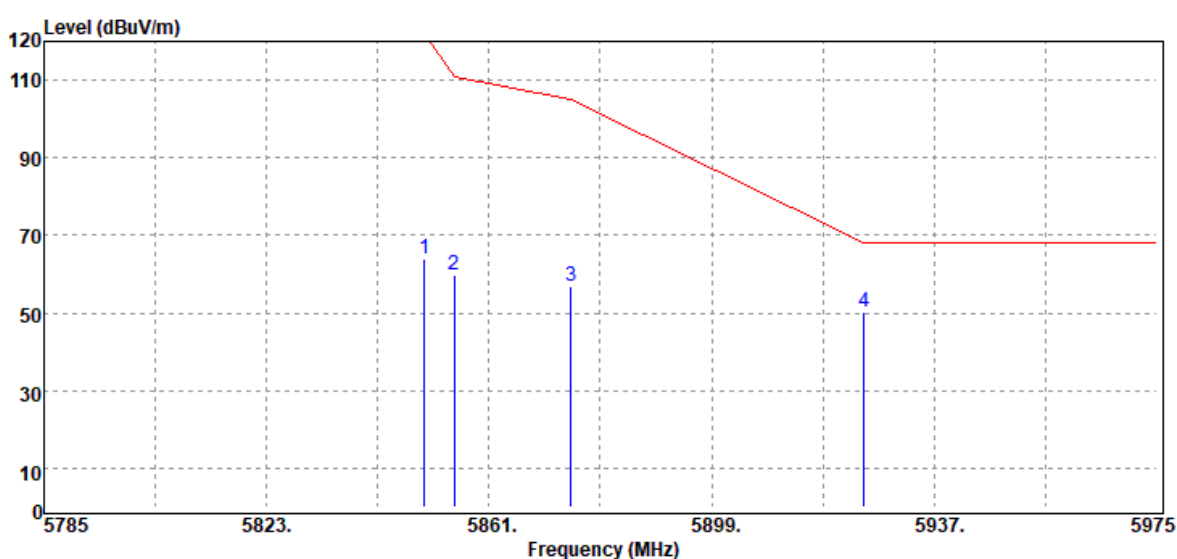
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	42.79	6.61	49.40	68.20	-18.80
5700.00	Peak	52.35	6.92	59.27	105.20	-45.93
5720.00	Peak	67.14	6.97	74.11	110.80	-36.69
5725.00	Peak	71.92	6.98	78.90	122.20	-43.30

Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



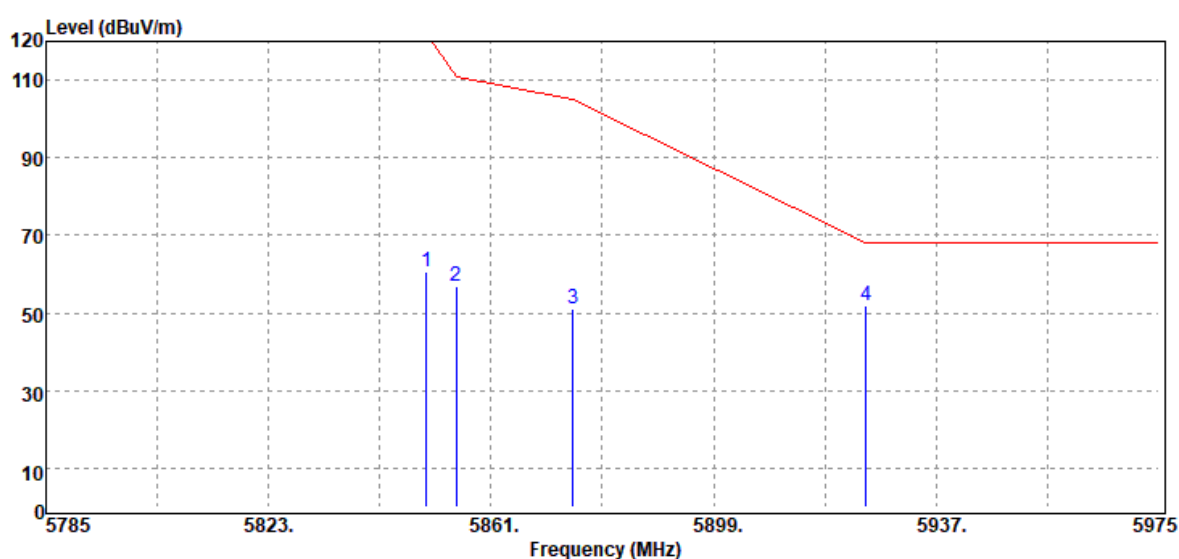
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	44.15	6.61	50.76	68.20	-17.44
5700.00	Peak	58.50	6.92	65.42	105.20	-39.78
5720.00	Peak	69.68	6.97	76.65	110.80	-34.15
5725.00	Peak	71.53	6.98	78.51	122.20	-43.69

Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	57.00	7.11	64.11	122.20	-58.09
5855.00	Peak	52.49	7.11	59.60	110.80	-51.20
5875.00	Peak	49.79	7.10	56.89	105.20	-48.31
5925.00	Peak	43.15	7.12	50.27	68.20	-17.93

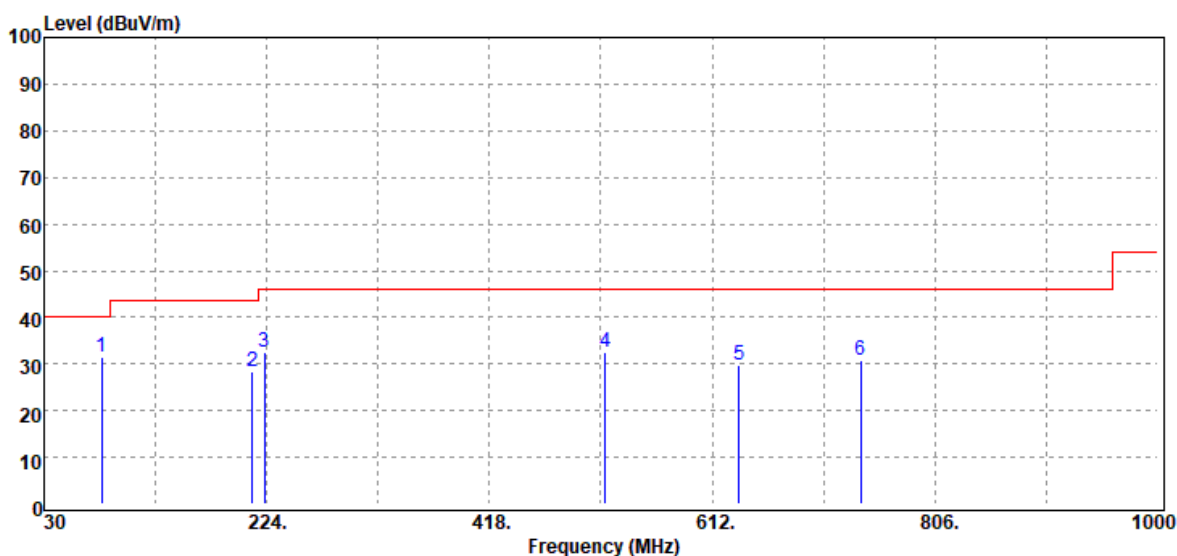
Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Band Edge	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	53.56	7.11	60.67	122.20	-61.53
5855.00	Peak	49.75	7.11	56.86	110.80	-53.94
5875.00	Peak	43.90	7.10	51.00	105.20	-54.20
5925.00	Peak	44.70	7.12	51.82	68.20	-16.38

Below 1G Test Data

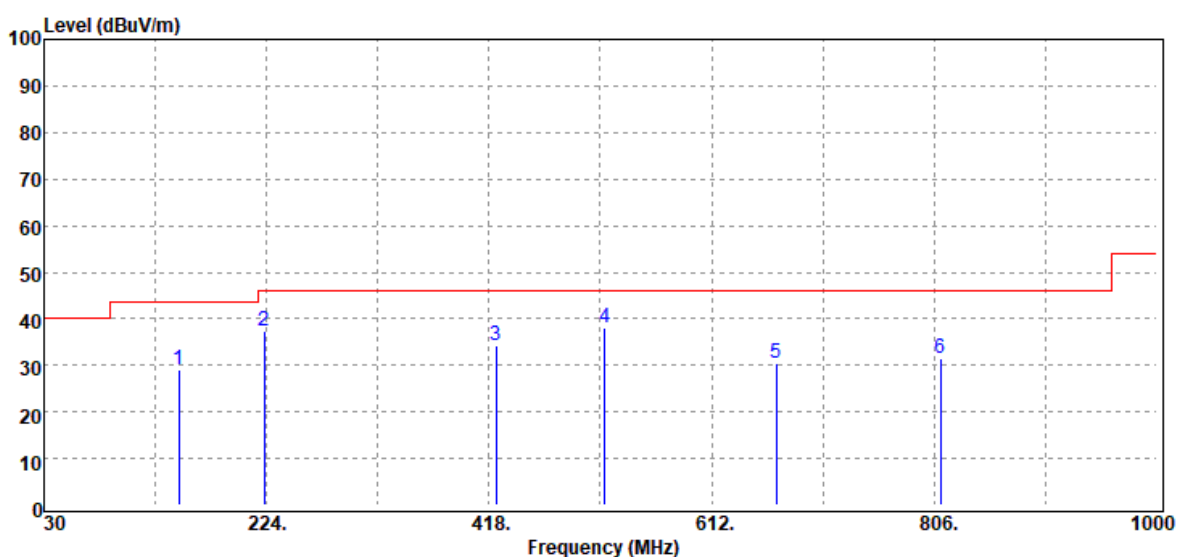
Test Mode	Mode 1	Temp/Hum	24.6(°C)/ 51%RH
Test Item	30MHz-1GHz	Test Date	June 3, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
80.44	Peak	46.87	-15.52	31.35	40.00	-8.65
211.39	Peak	40.35	-11.89	28.46	43.50	-15.04
222.06	Peak	44.13	-11.63	32.50	46.00	-13.50
518.88	Peak	35.73	-3.06	32.67	46.00	-13.33
635.28	Peak	30.37	-0.49	29.88	46.00	-16.12
741.01	Peak	29.97	0.74	30.71	46.00	-15.29

Note: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)
2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.

Test Mode	Mode 1	Temp/Hum	24.6(°C)/ 51%RH
Test Item	30MHz-1GHz	Test Date	June 3, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



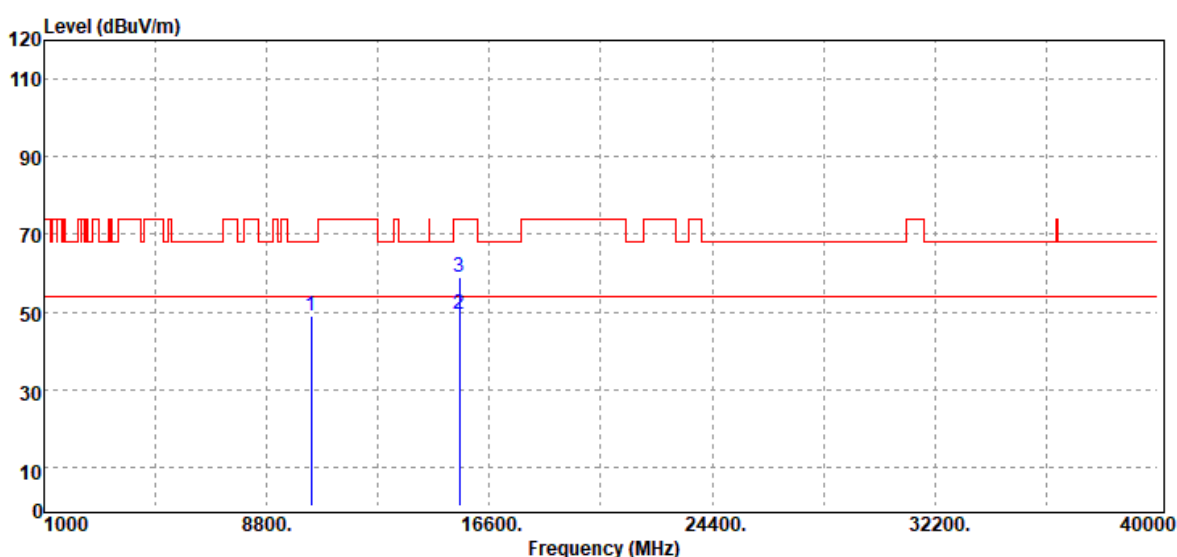
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
147.37	Peak	39.45	-10.26	29.19	43.50	-14.31
222.06	Peak	49.11	-11.63	37.48	46.00	-8.52
423.82	Peak	39.07	-4.97	34.10	46.00	-11.90
518.88	Peak	41.00	-3.06	37.94	46.00	-8.06
668.26	Peak	30.85	-0.48	30.37	46.00	-15.63
811.82	Peak	29.29	2.09	31.38	46.00	-14.62

Note: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)
2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.

Above 1G

Test Data for UNII-1

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

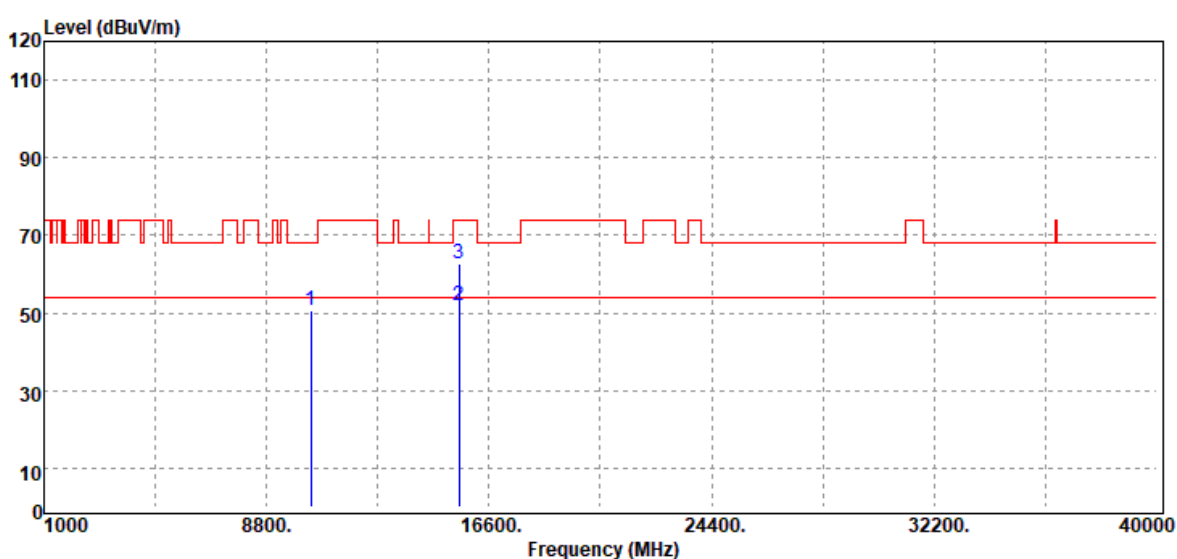


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Peak	34.10	15.04	49.14	68.20	-19.06
15540.00	Average	30.98	18.63	49.61	54.00	-4.39
15540.00	Peak	40.29	18.63	58.92	74.00	-15.08
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

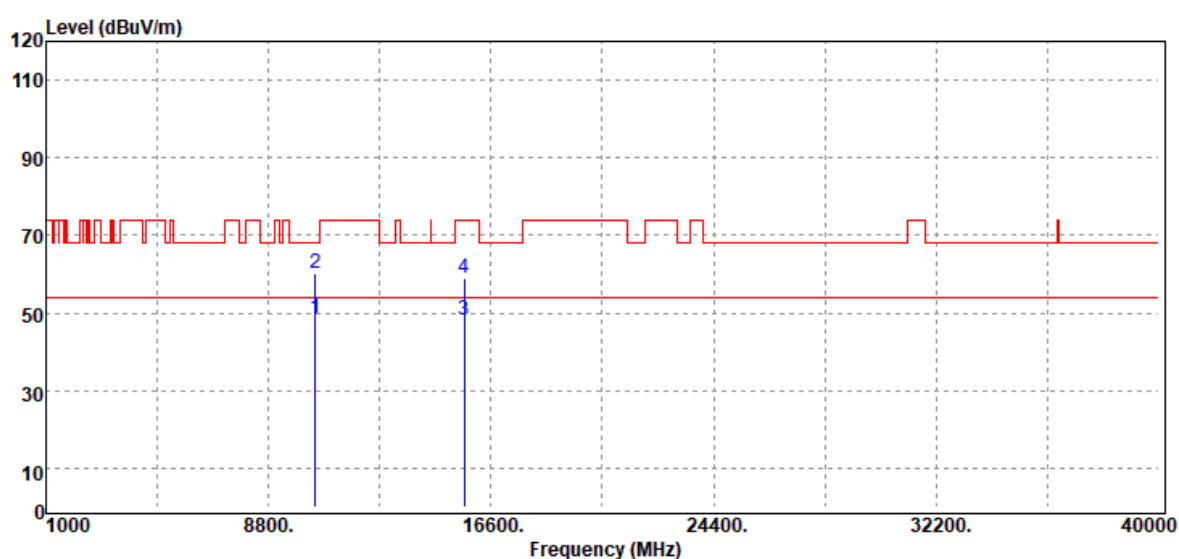


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Peak	35.71	15.04	50.75	68.20	-17.45
15540.00	Average	33.11	18.63	51.74	54.00	-2.26
15540.00	Peak	43.96	18.63	62.59	74.00	-11.41
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5220 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonics	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

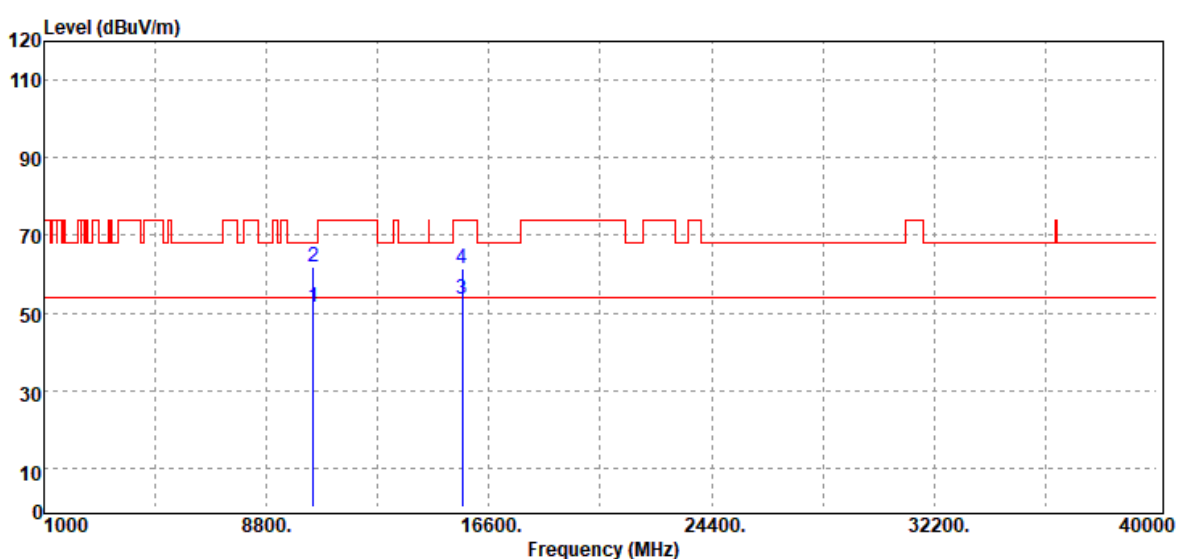


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10440.00	Average	33.36	15.11	48.47	54.00	-5.53
10440.00	Peak	45.28	15.11	60.39	68.20	-7.81
15660.00	Average	29.49	18.58	48.07	54.00	-5.93
15660.00	Peak	40.42	18.58	59.00	74.00	-15.00

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5220 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

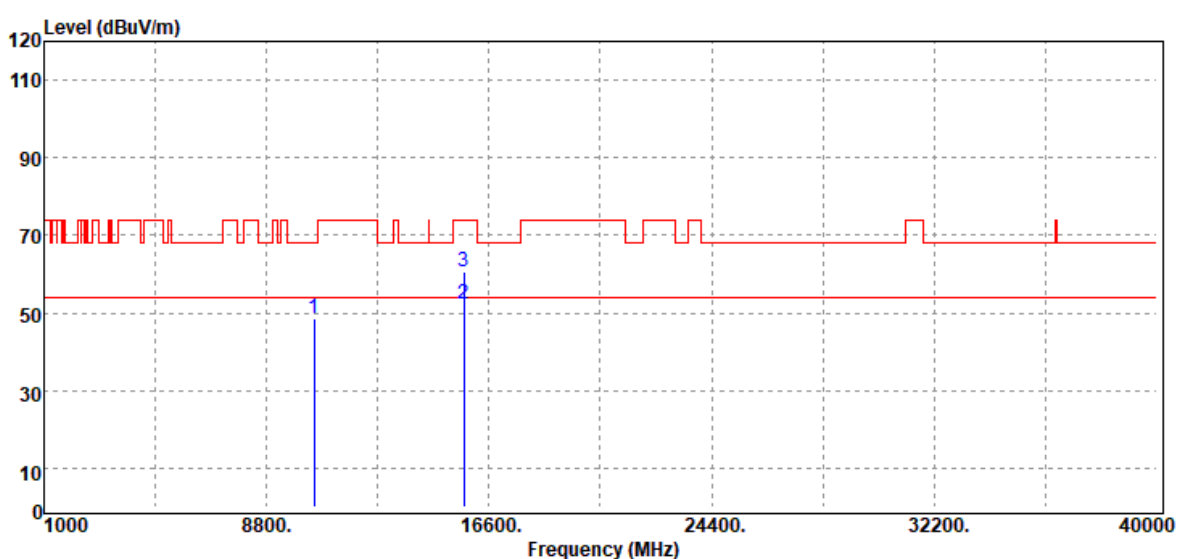


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10440.00	Average	36.48	15.11	51.59	54.00	-2.41
10440.00	Peak	46.83	15.11	61.94	68.20	-6.26
15660.00	Average	35.04	18.58	53.62	54.00	-0.38
15660.00	Peak	42.81	18.58	61.39	74.00	-12.61

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5240MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

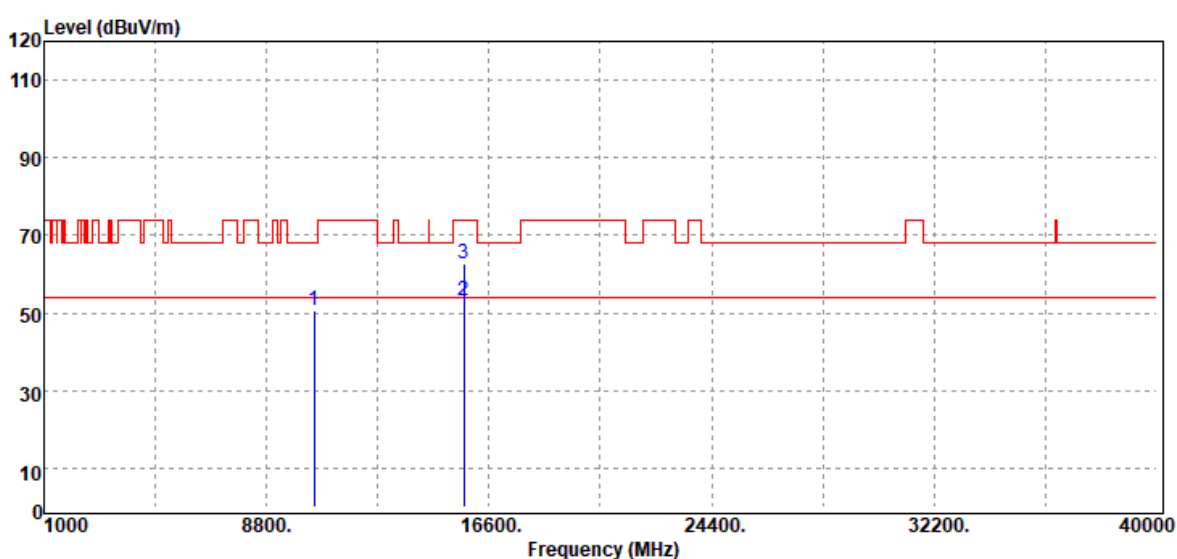


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10480.00	Peak	33.42	15.09	48.51	68.20	-19.69
15720.00	Average	33.44	18.76	52.20	54.00	-1.80
15720.00	Peak	41.71	18.76	60.47	74.00	-13.53
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5240MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

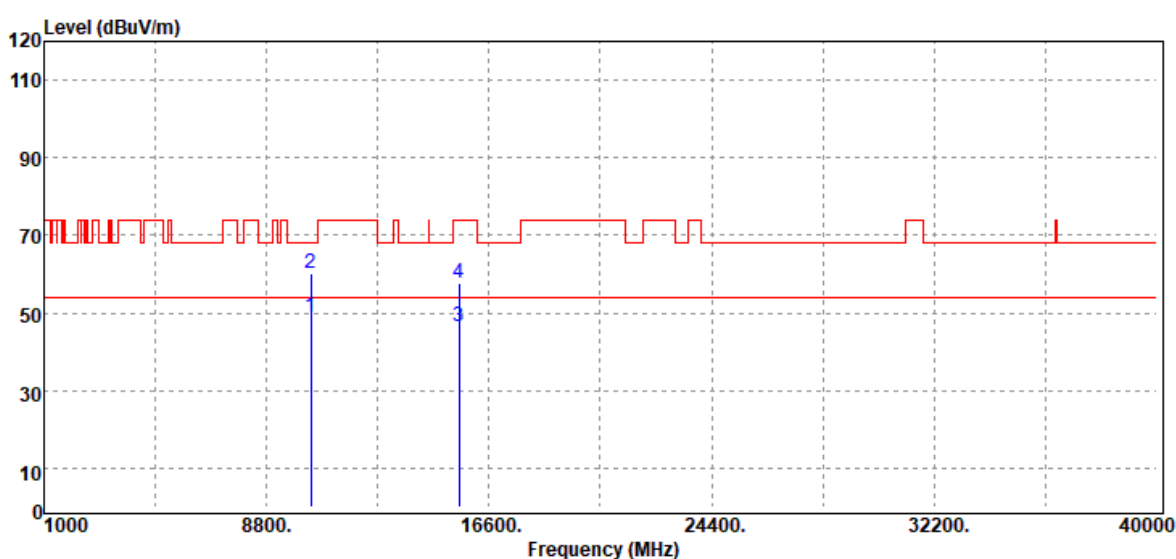


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10480.00	Peak	35.50	15.09	50.59	68.20	-17.61
15720.00	Average	34.18	18.76	52.94	54.00	-1.06
15720.00	Peak	43.93	18.76	62.69	74.00	-11.31
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5180MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

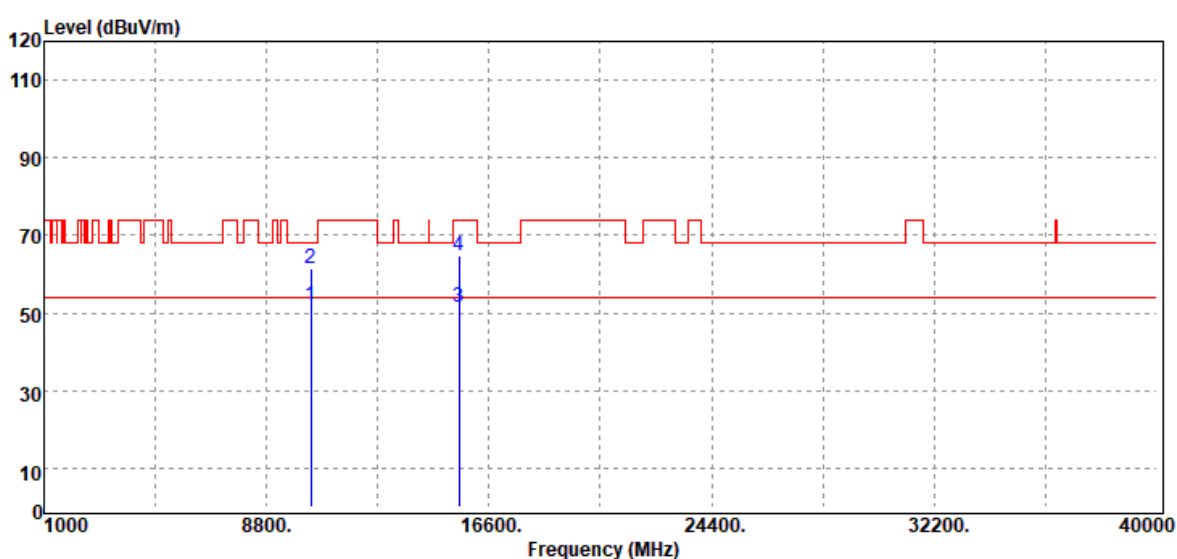


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Average	33.86	15.04	48.90	54.00	-5.10
10360.00	Peak	45.30	15.04	60.34	68.20	-7.86
15540.00	Average	27.81	18.63	46.44	54.00	-7.56
15540.00	Peak	38.96	18.63	57.59	74.00	-16.41

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz/ 5180MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

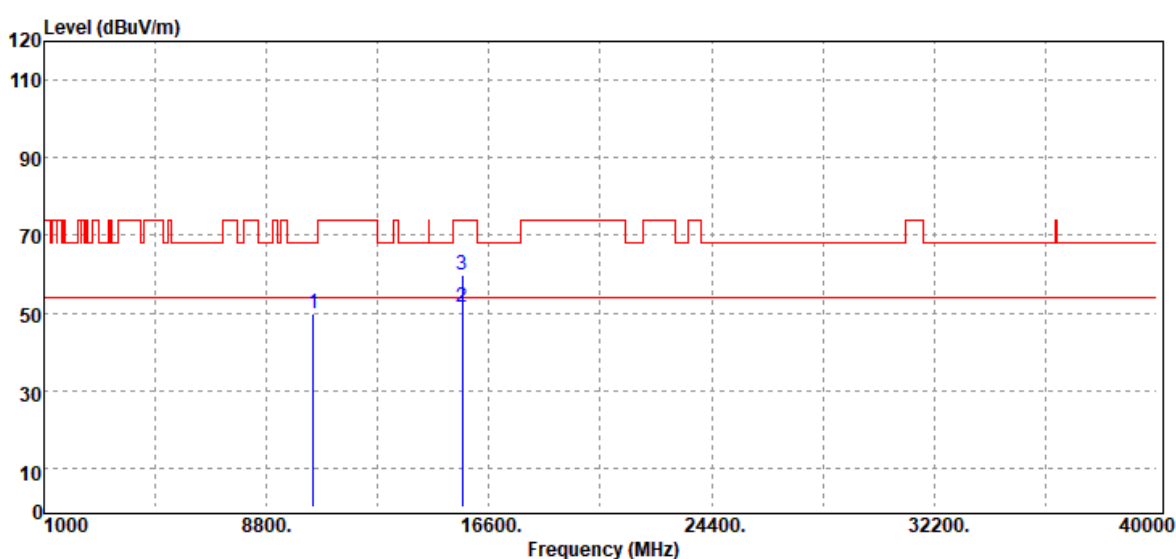


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Average	36.80	15.04	51.84	54.00	-2.16
10360.00	Peak	46.25	15.04	61.29	68.20	-6.91
15540.00	Average	32.97	18.63	51.60	54.00	-2.40
15540.00	Peak	45.94	18.63	64.57	74.00	-9.43

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5220MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

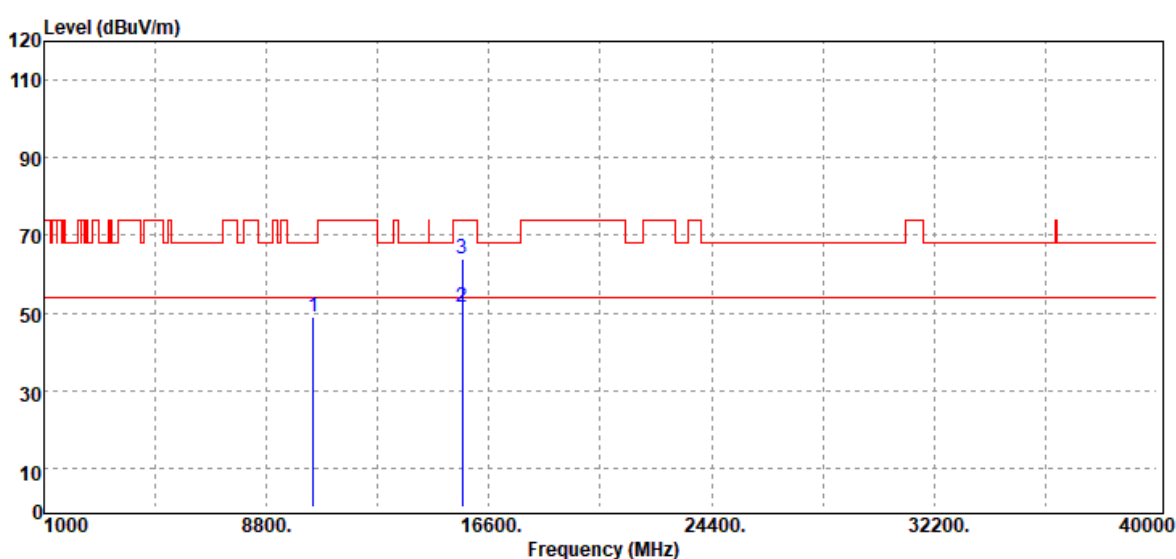


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10440.00	Peak	34.57	15.11	49.68	68.20	-18.52
15660.00	Average	33.03	18.58	51.61	54.00	-2.39
15660.00	Peak	41.07	18.58	59.65	74.00	-14.35
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5220MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

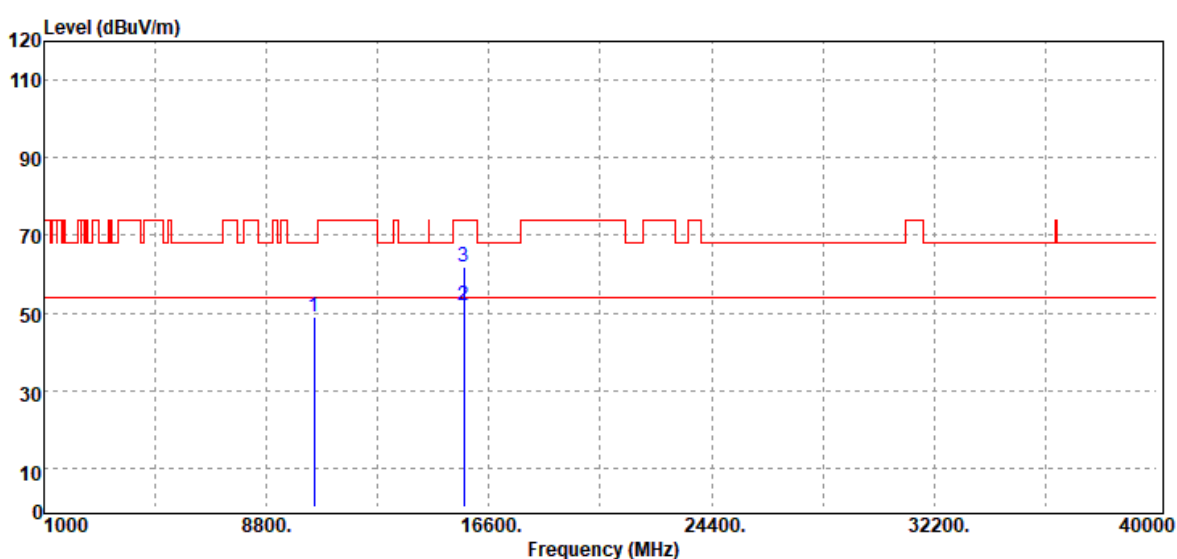


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10440.00	Peak	33.94	15.11	49.05	68.20	-19.15
15660.00	Average	33.04	18.58	51.62	54.00	-2.38
15660.00	Peak	45.40	18.58	63.98	74.00	-10.02
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5240MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

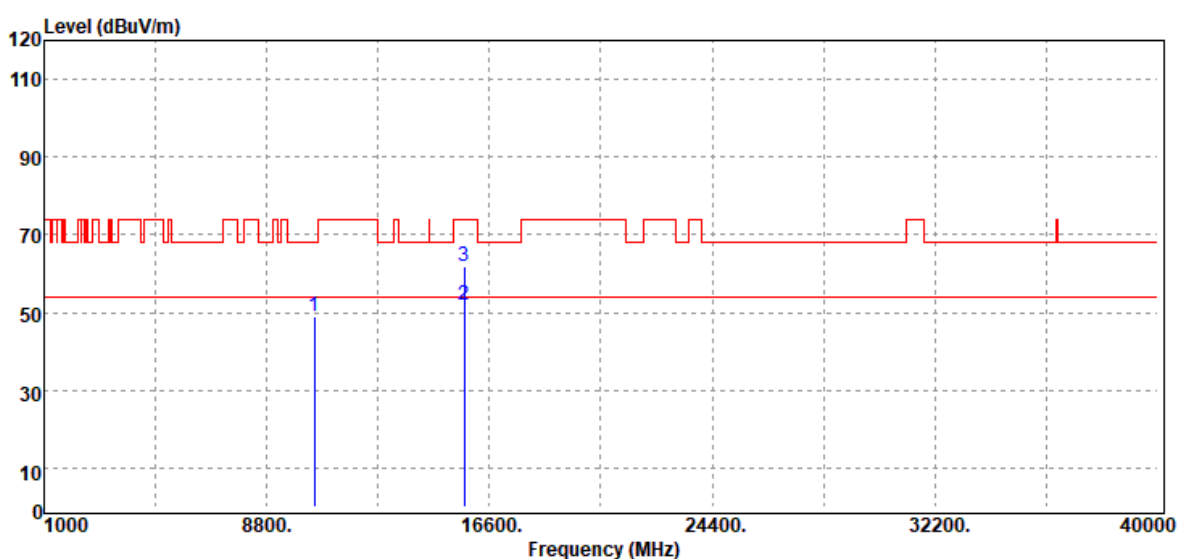


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10480.00	Peak	33.88	15.09	48.97	68.20	-19.23
15720.00	Average	33.17	18.76	51.93	54.00	-2.07
15720.00	Peak	43.30	18.76	62.06	74.00	-11.94
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5240MHZ	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10480.00	Peak	33.79	15.09	48.88	68.20	-19.32
15720.00	Average	33.05	18.76	51.81	54.00	-2.19
15720.00	Peak	43.20	18.76	61.96	74.00	-12.04
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10380.00	Peak	33.94	14.99	48.93	68.20	-19.27
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		

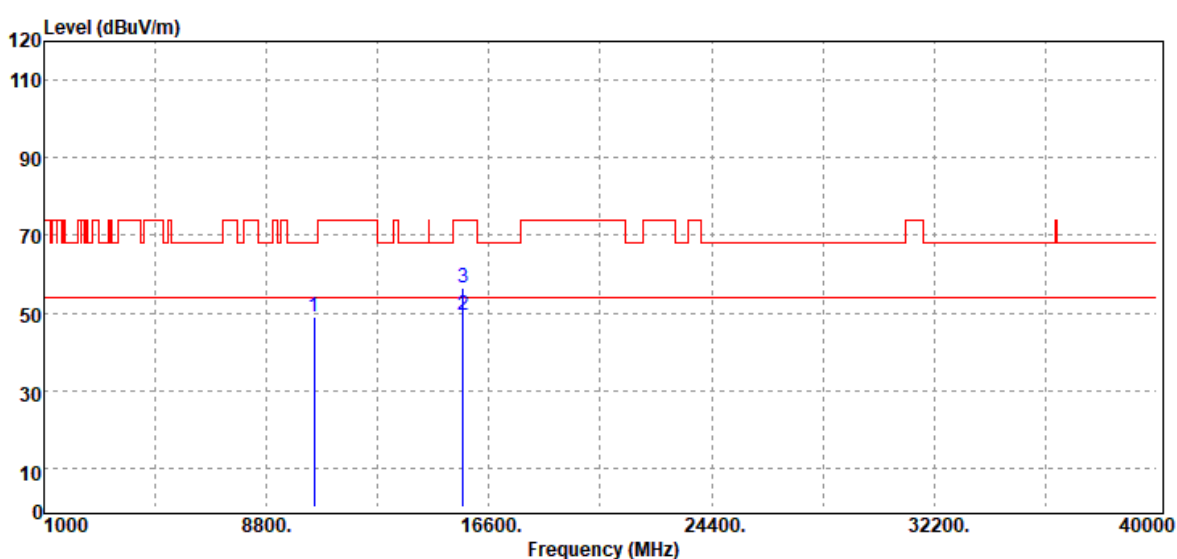


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10380.00	Peak	34.47	14.99	49.46	68.20	-18.74
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5230MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

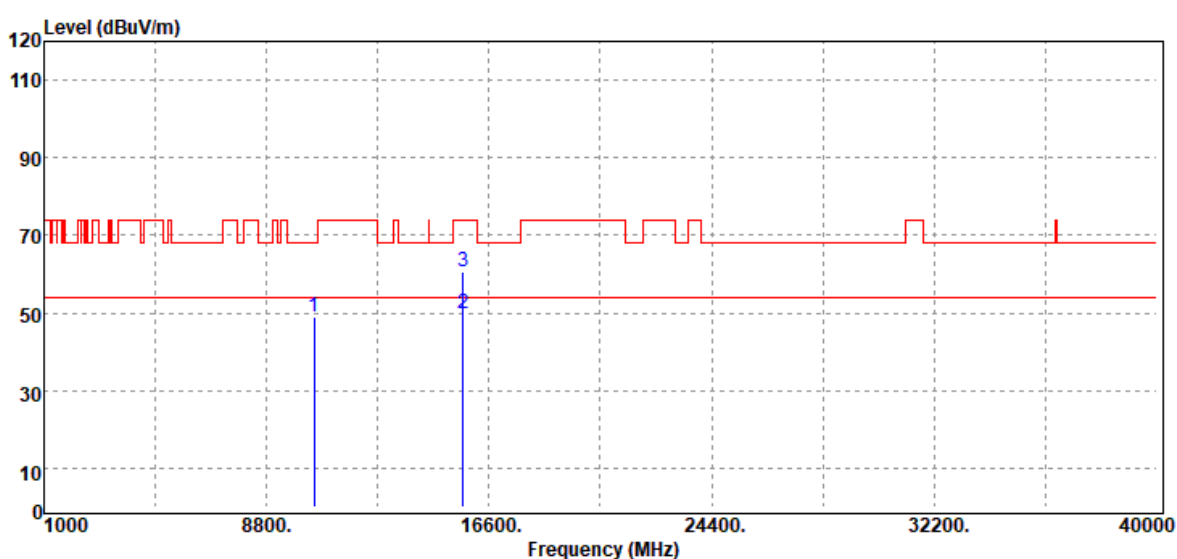


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10460.00	Peak	34.02	15.13	49.15	68.20	-19.05
15690.00	Average	30.76	18.78	49.54	54.00	-4.46
15690.00	Peak	37.49	18.78	56.27	74.00	-17.73
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 40 MHz / 5230MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



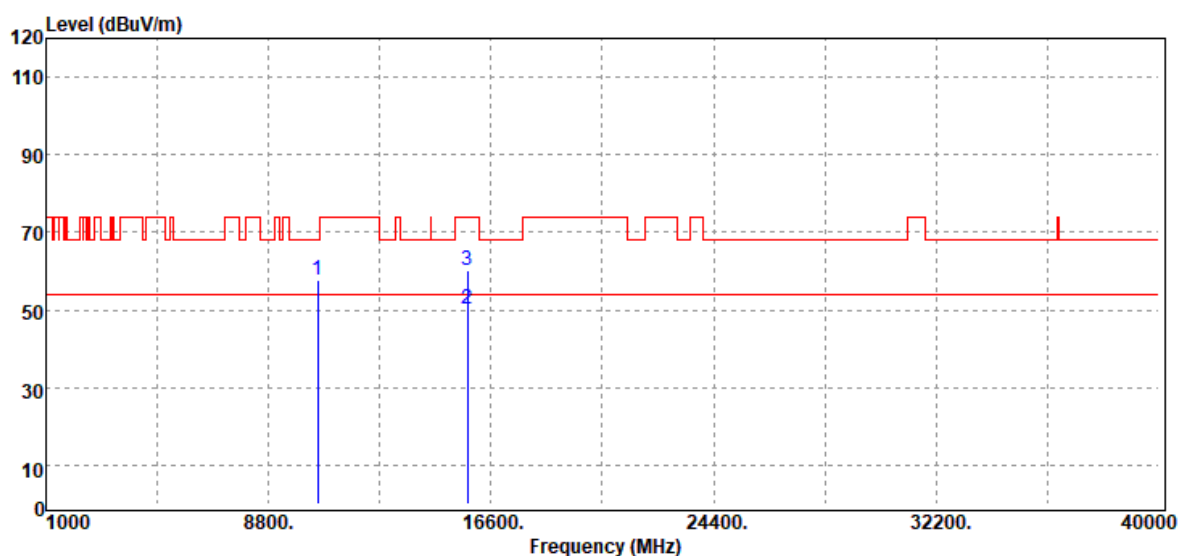
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10460.00	Peak	33.91	15.13	49.04	68.20	-19.16
15690.00	Average	31.04	18.78	49.82	54.00	-4.18
15690.00	Peak	41.91	18.78	60.69	74.00	-13.31
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Data for UNII-2a

Test Mode	IEEE 802.11a / 5260 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

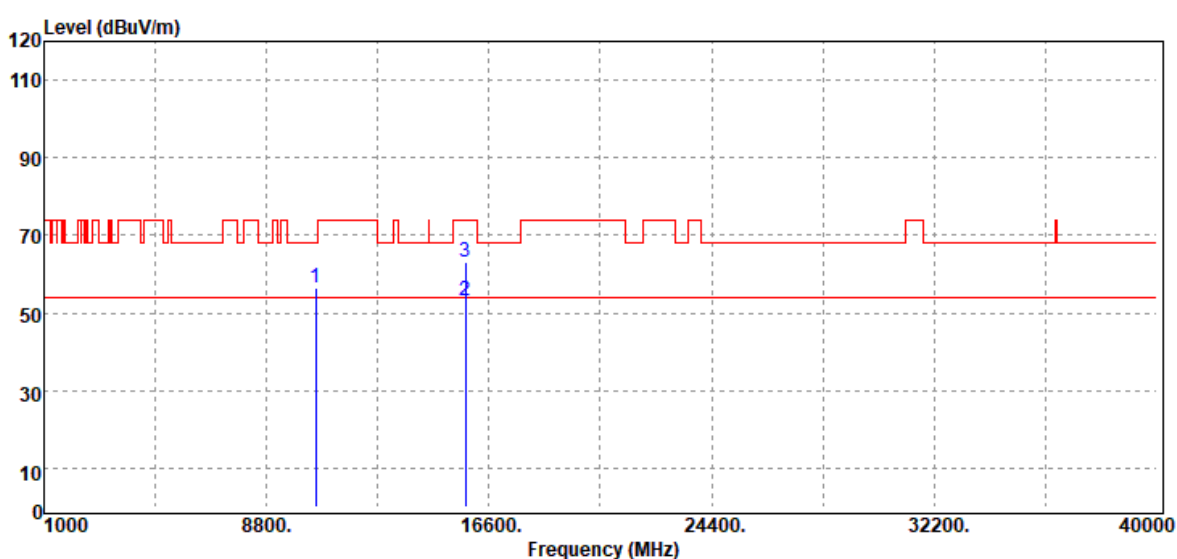


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10520.00	Peak	42.54	15.05	57.59	68.20	-10.61
15780.00	Average	31.50	18.72	50.22	54.00	-3.78
15780.00	Peak	41.56	18.72	60.28	74.00	-13.72
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5260 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

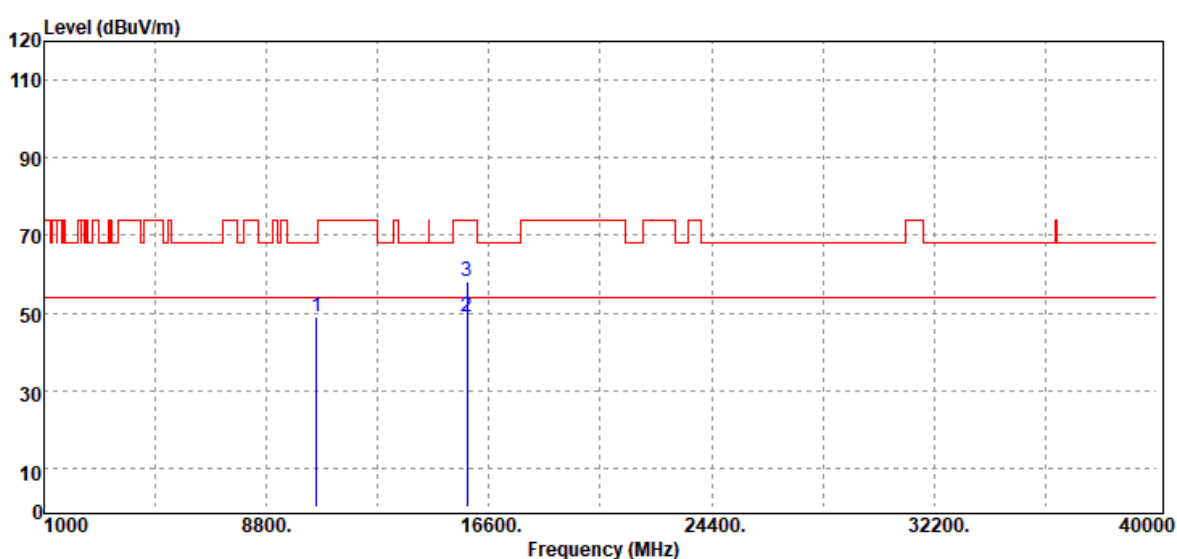


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10520.00	Peak	41.63	15.05	56.68	68.20	-11.52
15780.00	Average	34.26	18.72	52.98	54.00	-1.02
15780.00	Peak	44.19	18.72	62.91	74.00	-11.09
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5280 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

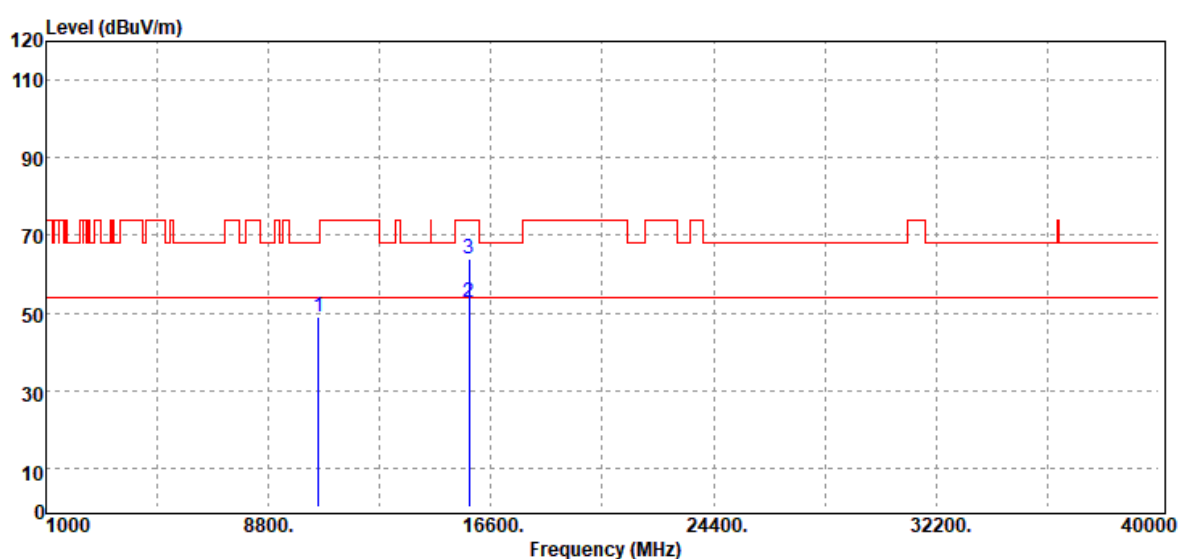


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10560.00	Peak	33.84	15.05	48.89	68.20	-19.31
15840.00	Average	30.14	19.05	49.19	54.00	-4.81
15840.00	Peak	39.11	19.05	58.16	74.00	-15.84
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5280 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

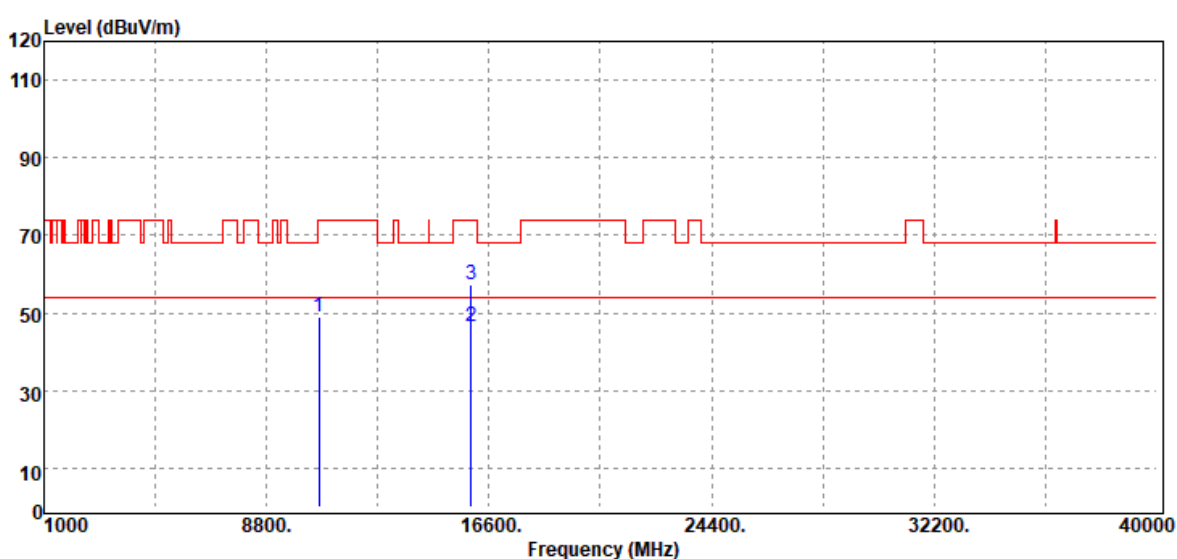


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10560.00	Peak	33.87	15.05	48.92	68.20	-19.28
15840.00	Average	33.84	19.05	52.89	54.00	-1.11
15840.00	Peak	44.81	19.05	63.86	74.00	-10.14
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5320 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

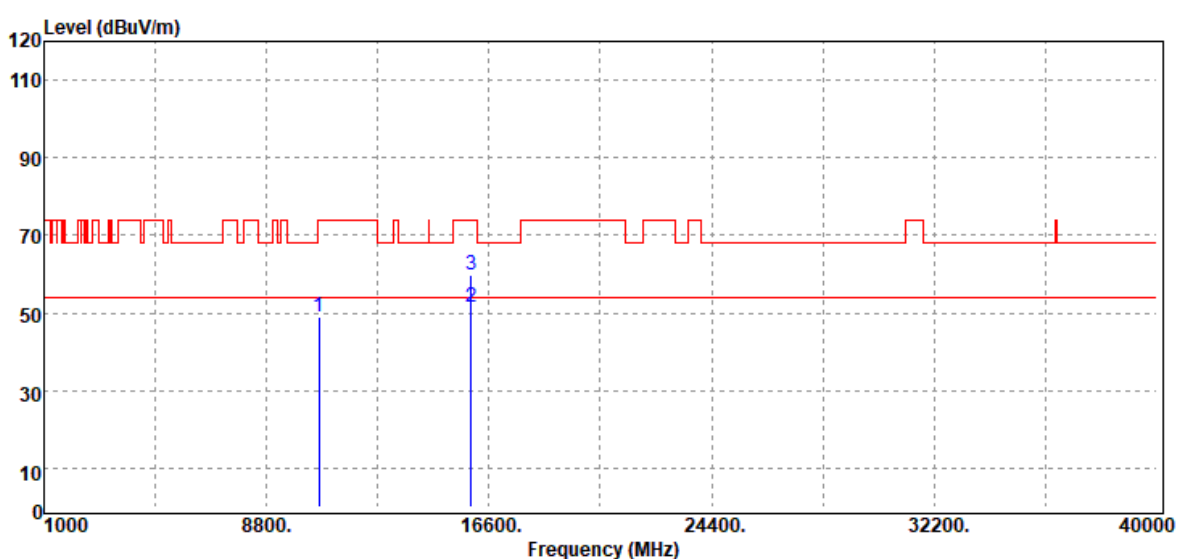


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10640.00	Peak	33.41	15.51	48.92	74.00	-25.08
15960.00	Average	26.91	19.73	46.64	54.00	-7.36
15960.00	Peak	37.37	19.73	57.10	74.00	-16.90
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5320 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

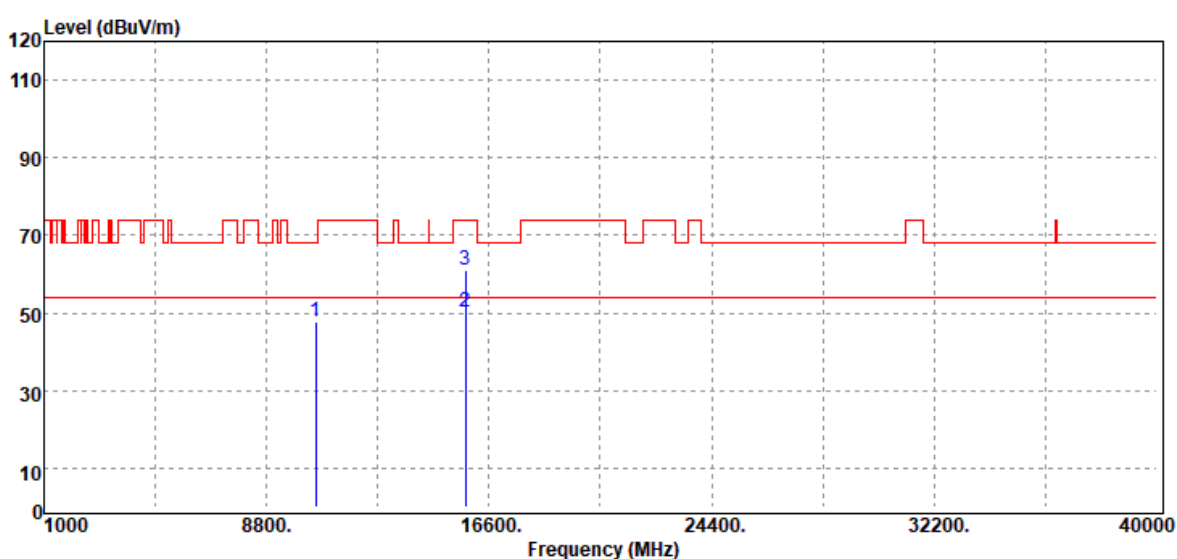


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10640.00	Peak	33.52	15.51	49.03	74.00	-24.97
15960.00	Average	31.74	19.73	51.47	54.00	-2.53
15960.00	Peak	40.04	19.73	59.77	74.00	-14.23
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5260 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

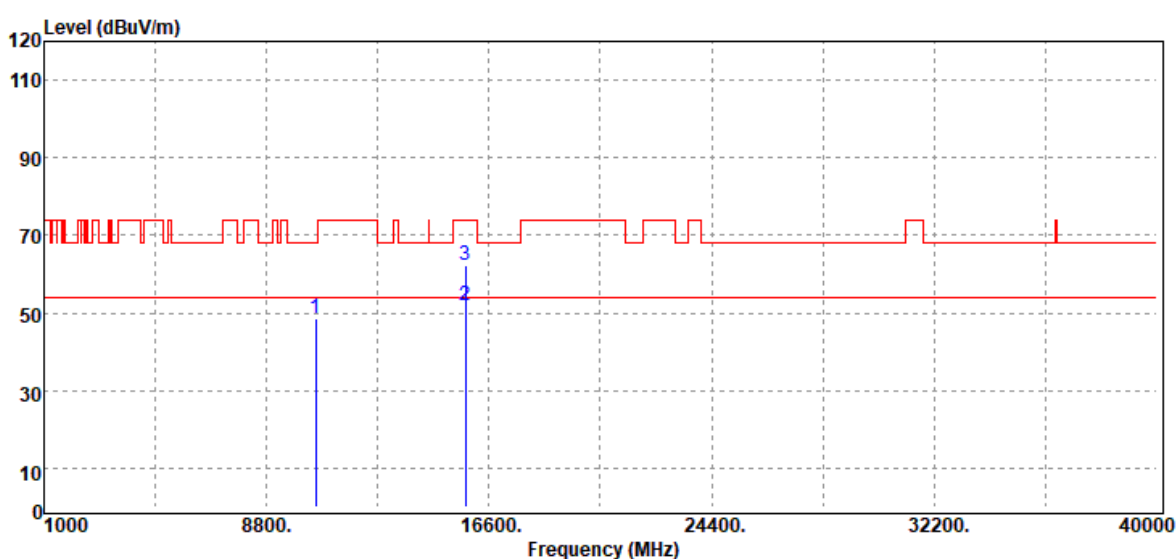


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10520.00	Peak	32.76	15.05	47.81	68.20	-20.39
15780.00	Average	31.55	18.72	50.27	54.00	-3.73
15780.00	Peak	42.20	18.72	60.92	74.00	-13.08
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5260 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

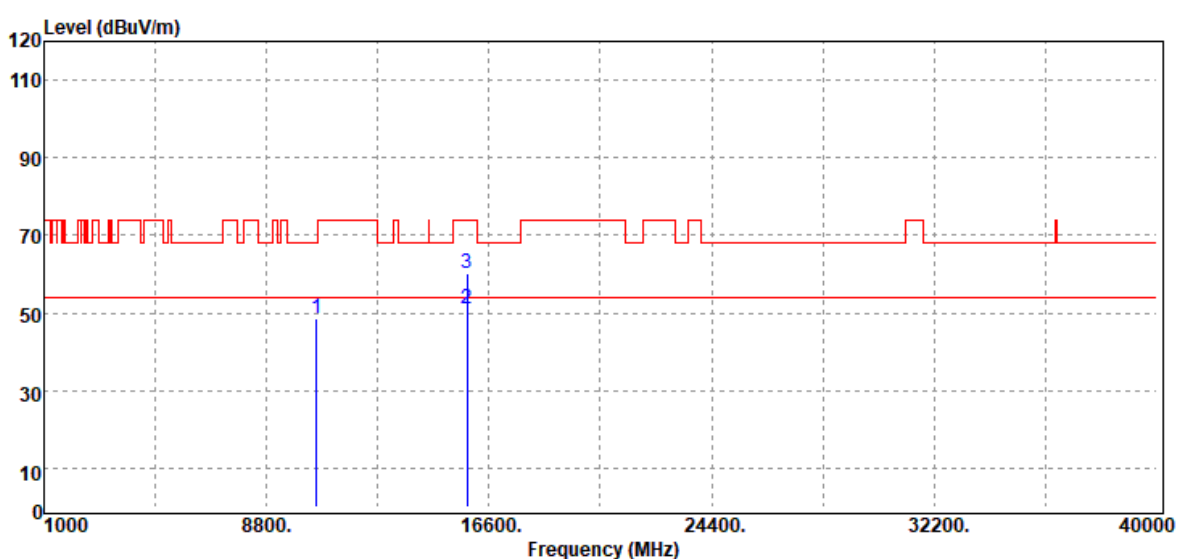


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10520.00	Peak	33.62	15.05	48.67	68.20	-19.53
15780.00	Average	33.18	18.72	51.90	54.00	-2.10
15780.00	Peak	43.47	18.72	62.19	74.00	-11.81
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5280 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

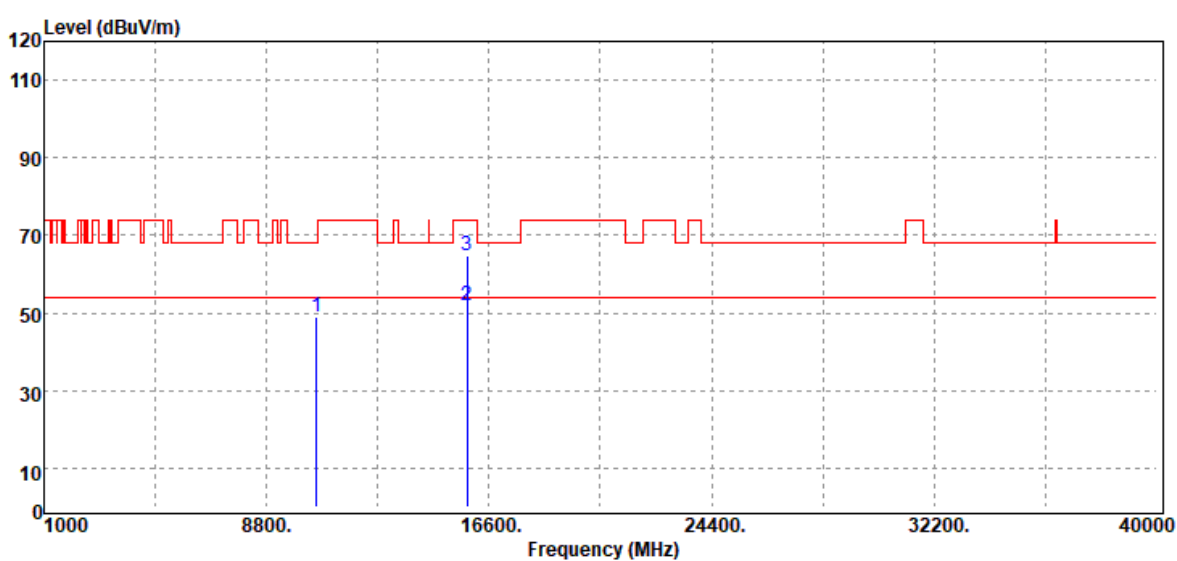


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10560.00	Peak	33.55	15.05	48.60	68.20	-19.60
15840.00	Average	31.94	19.05	50.99	54.00	-3.01
15840.00	Peak	41.04	19.05	60.09	74.00	-13.91
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5280 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

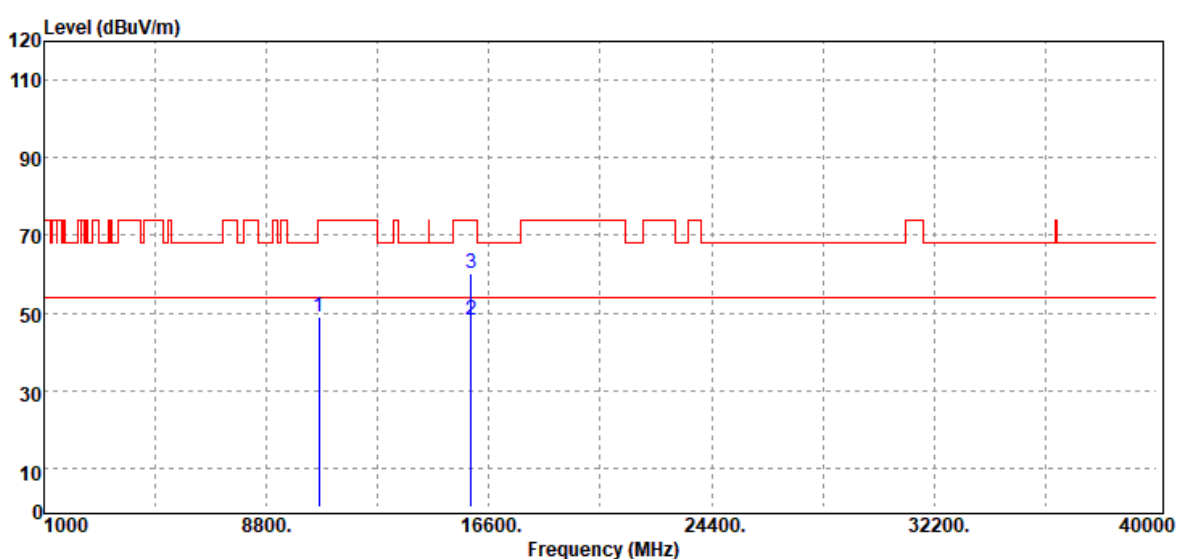


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10560.00	Peak	33.83	15.05	48.88	68.20	-19.32
15840.00	Average	32.70	19.05	51.75	54.00	-2.25
15840.00	Peak	45.70	19.05	64.75	74.00	-9.25
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5320 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

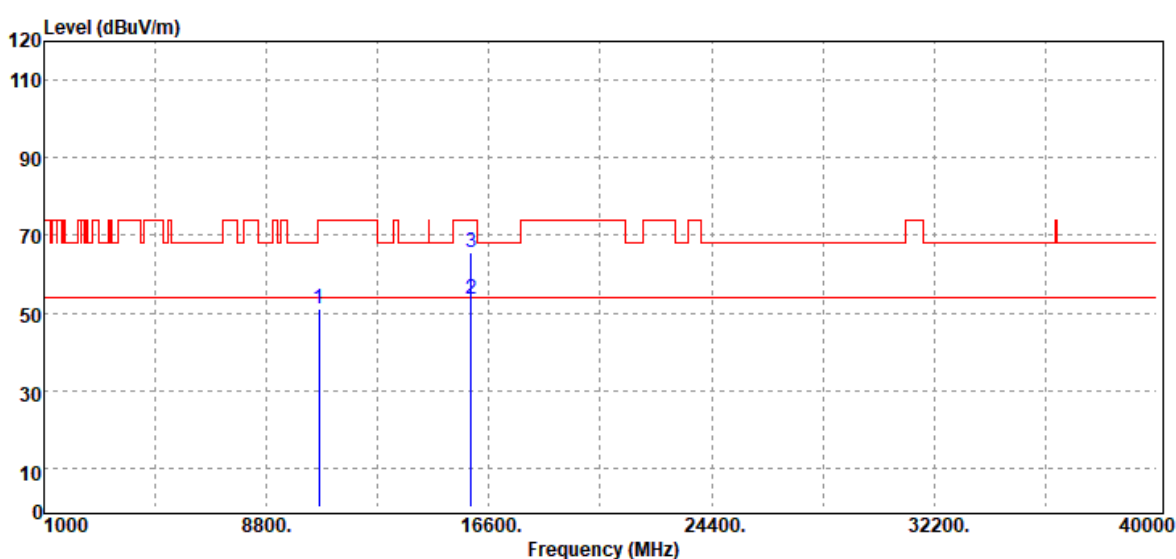


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10640.00	Peak	33.69	15.51	49.20	74.00	-24.80
15960.00	Average	28.61	19.73	48.34	54.00	-5.66
15960.00	Peak	40.67	19.73	60.40	74.00	-13.60
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5320 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

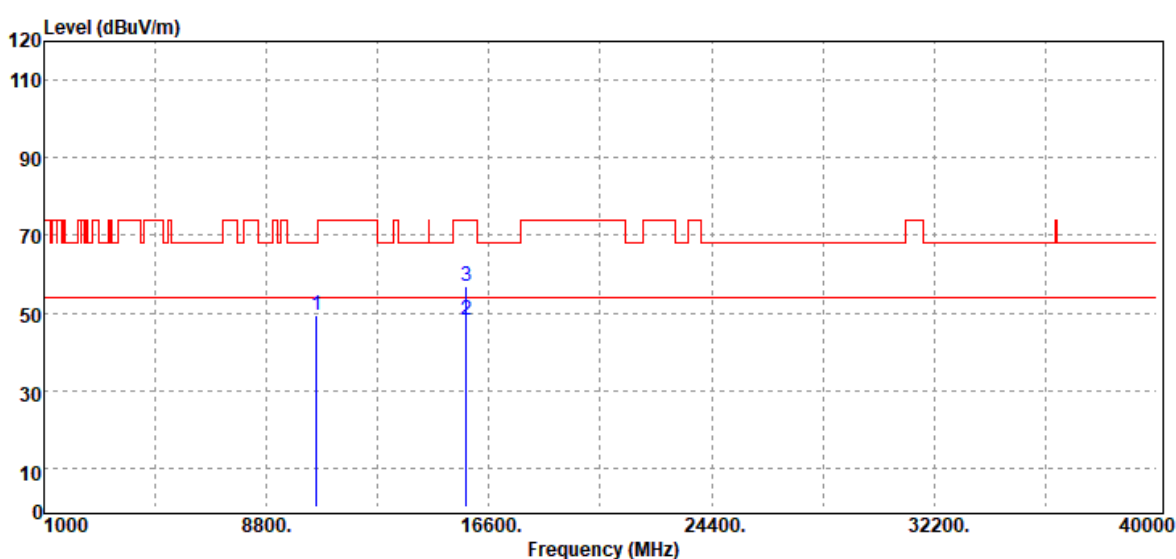


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10640.00	Peak	35.58	15.51	51.09	74.00	-22.91
15960.00	Average	33.83	19.73	53.56	54.00	-0.44
15960.00	Peak	45.84	19.73	65.57	74.00	-8.43
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 40 MHz / 5270 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

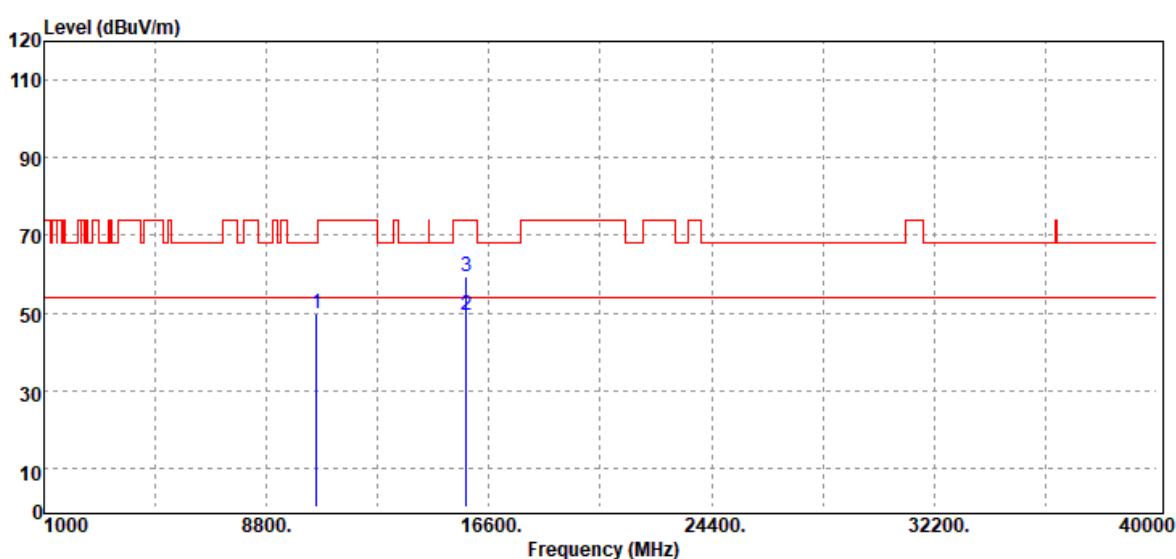


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10540.00	Peak	34.44	15.05	49.49	68.20	-18.71
15810.00	Average	29.15	18.86	48.01	54.00	-5.99
15810.00	Peak	37.95	18.86	56.81	74.00	-17.19
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 40 MHz / 5270 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10540.00	Peak	34.72	15.05	49.77	68.20	-18.43
15810.00	Average	30.58	18.86	49.44	54.00	-4.56
15810.00	Peak	40.37	18.86	59.23	74.00	-14.77
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 40 MHz / 5310 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

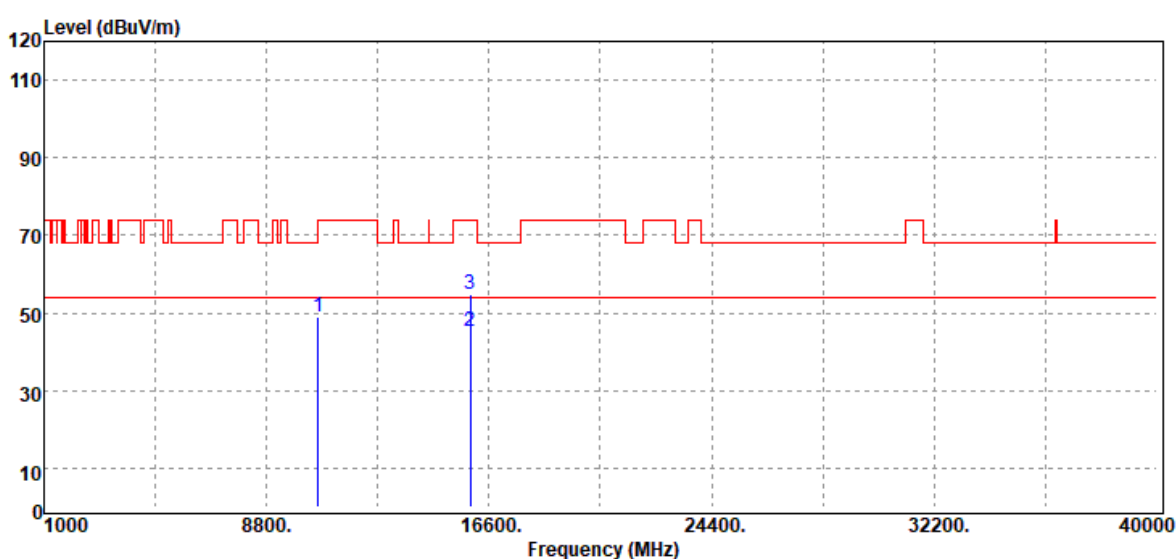


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10620.00	Peak	33.88	15.28	49.16	74.00	-24.84
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5310 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



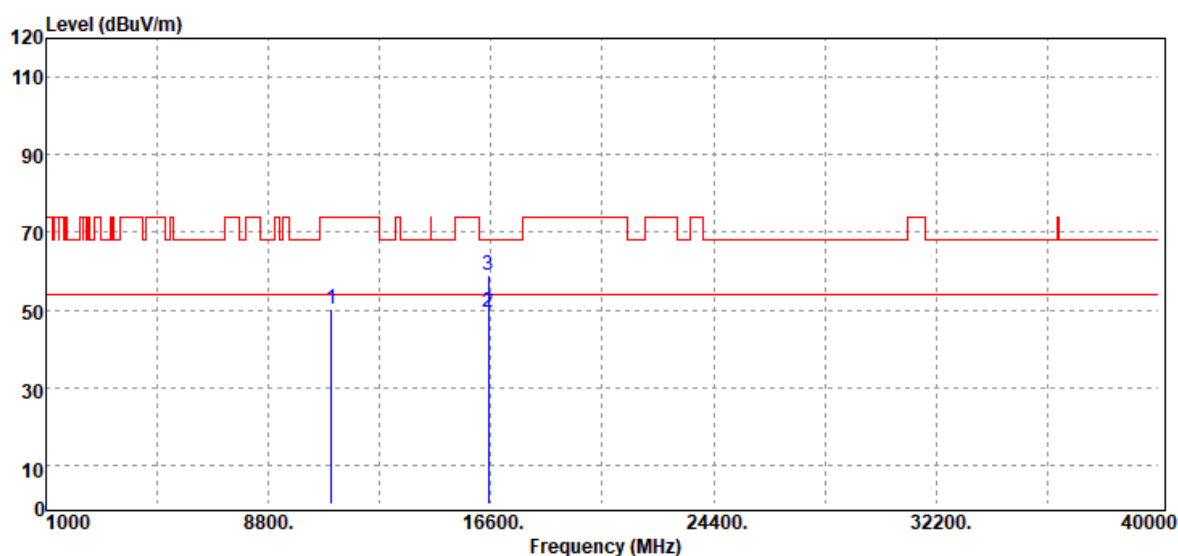
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10620.00	Peak	33.55	15.28	48.83	74.00	-25.17
15930.00	Average	25.41	19.75	45.16	54.00	-8.84
15930.00	Peak	34.91	19.75	54.66	74.00	-19.34
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Data for UNII-2c

Test Mode	IEEE 802.11a / 5500 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

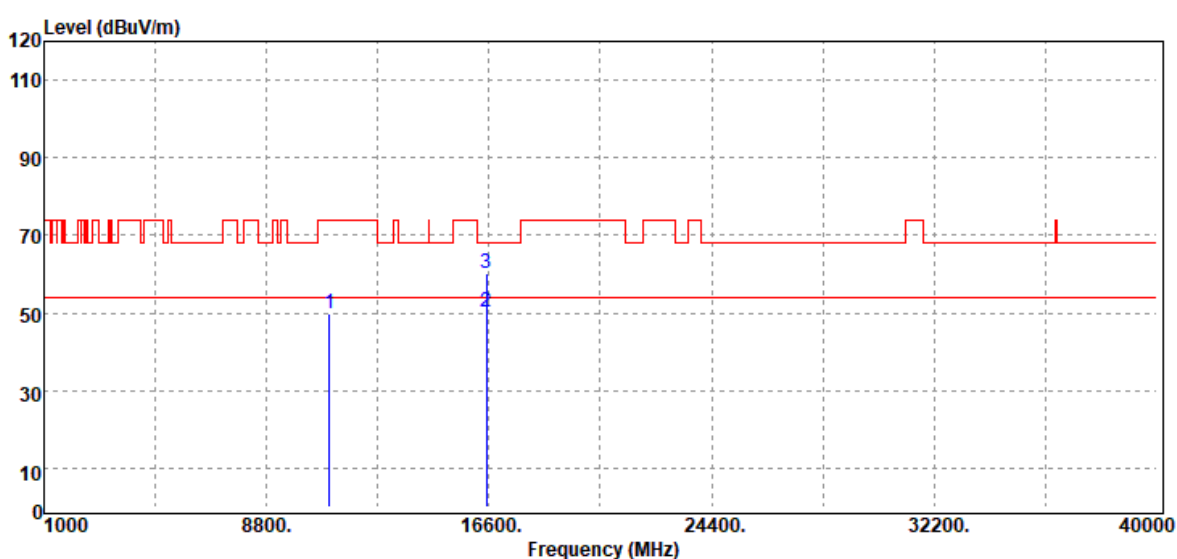


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11000.00	Peak	34.08	16.02	50.10	74.00	-23.90
16500.00	Average	26.41	22.99	49.40	54.00	-4.60
16500.00	Peak	36.01	22.99	59.00	68.20	-9.20
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5500 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

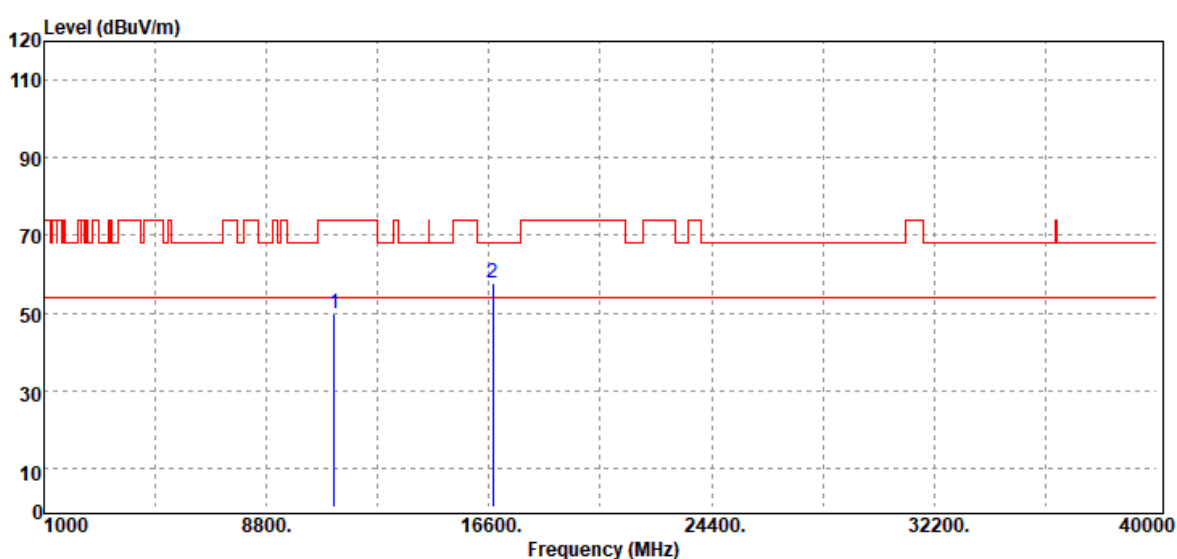


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11000.00	Peak	33.97	16.02	49.99	74.00	-24.01
16500.00	Average	27.11	22.99	50.10	54.00	-3.90
16500.00	Peak	37.34	22.99	60.33	68.20	-7.87
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5580 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

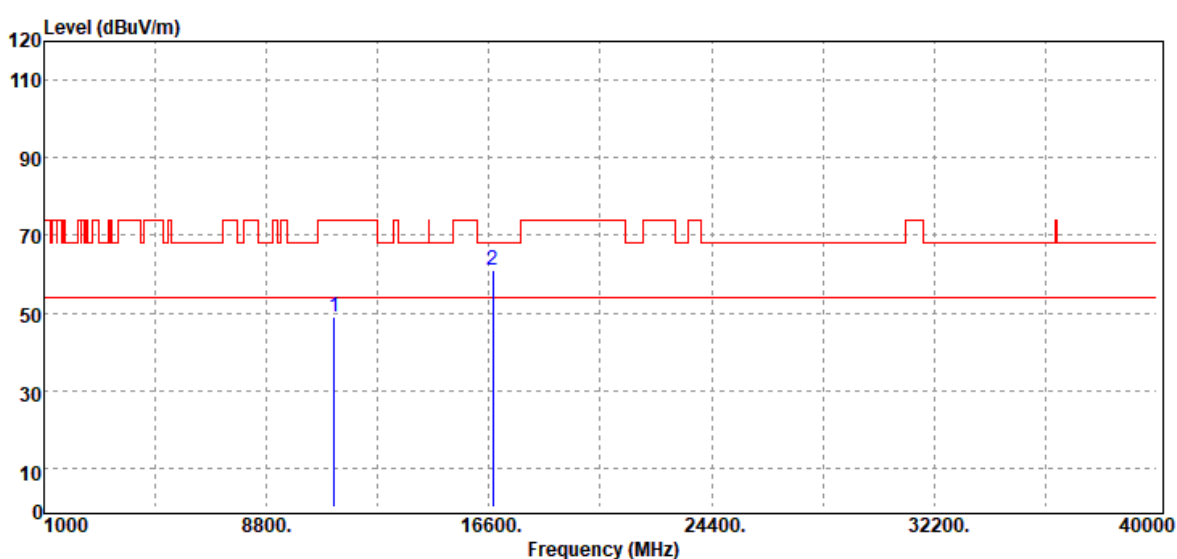


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11160.00	Peak	32.99	16.70	49.69	74.00	-24.31
16740.00	Peak	32.34	25.38	57.72	68.20	-10.48
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5580 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

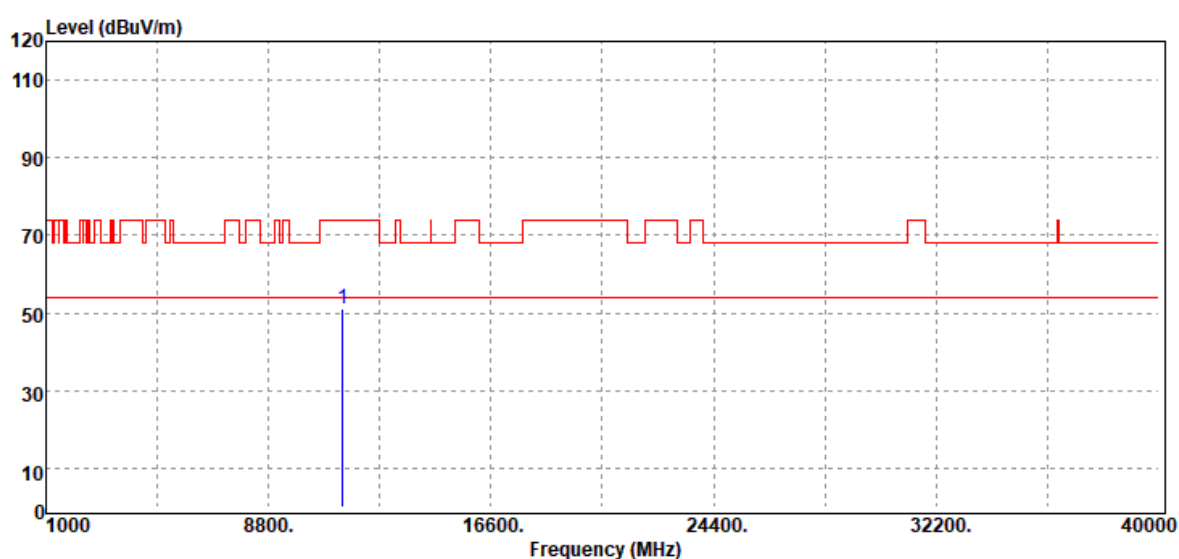


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11160.00	Peak	32.19	16.70	48.89	74.00	-25.11
16740.00	Peak	35.61	25.38	60.99	68.20	-7.21
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5700 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

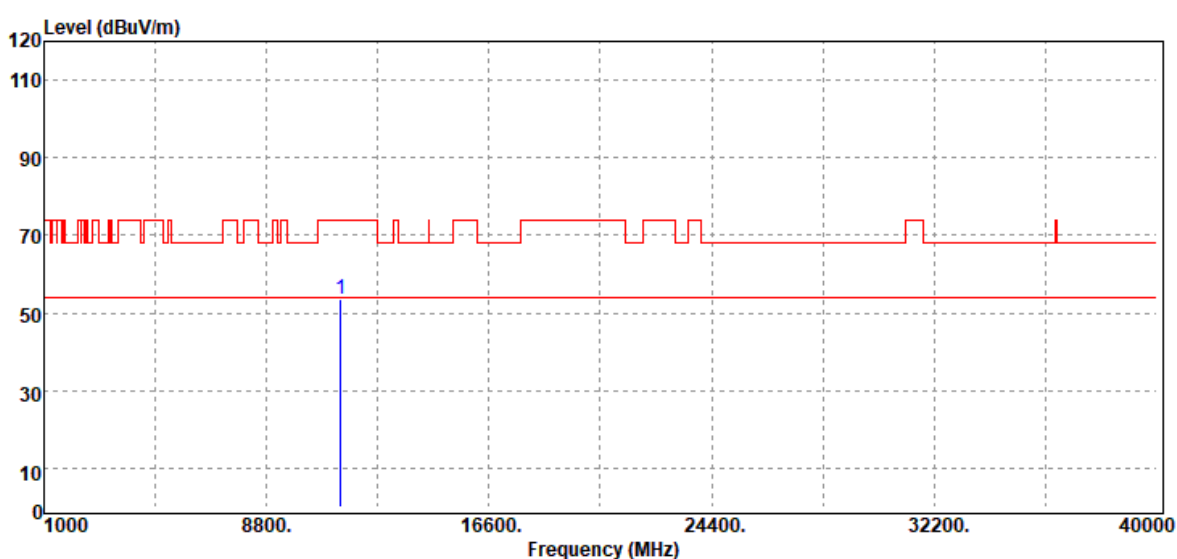


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11400.00	Peak	34.94	16.18	51.12	74.00	-22.88
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11a / 5700 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		

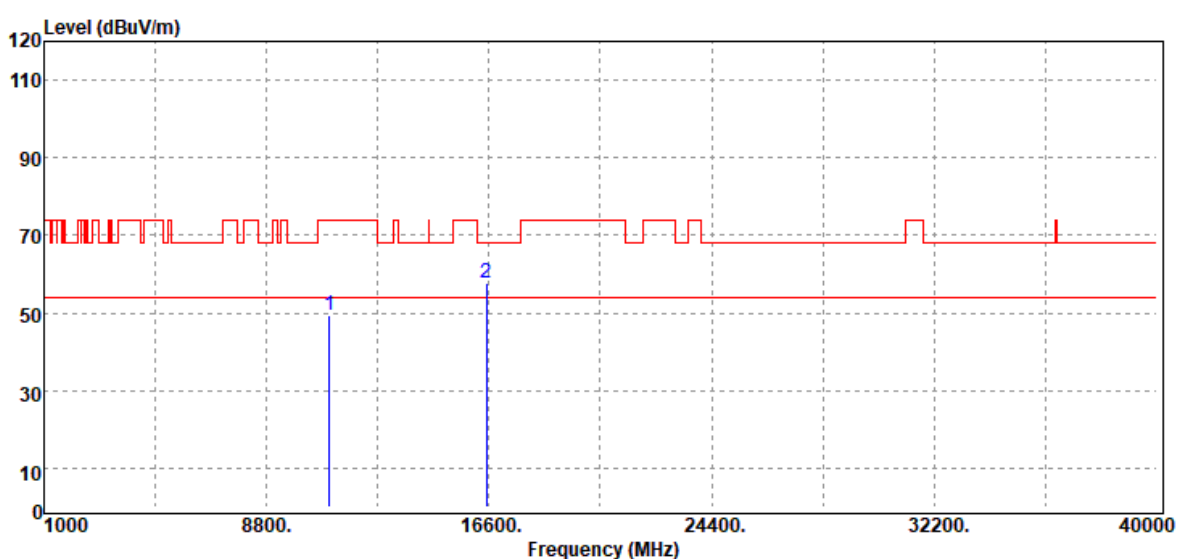


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11400.00	Peak	37.31	16.18	53.49	74.00	-20.51
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 20 MHz / 5500 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

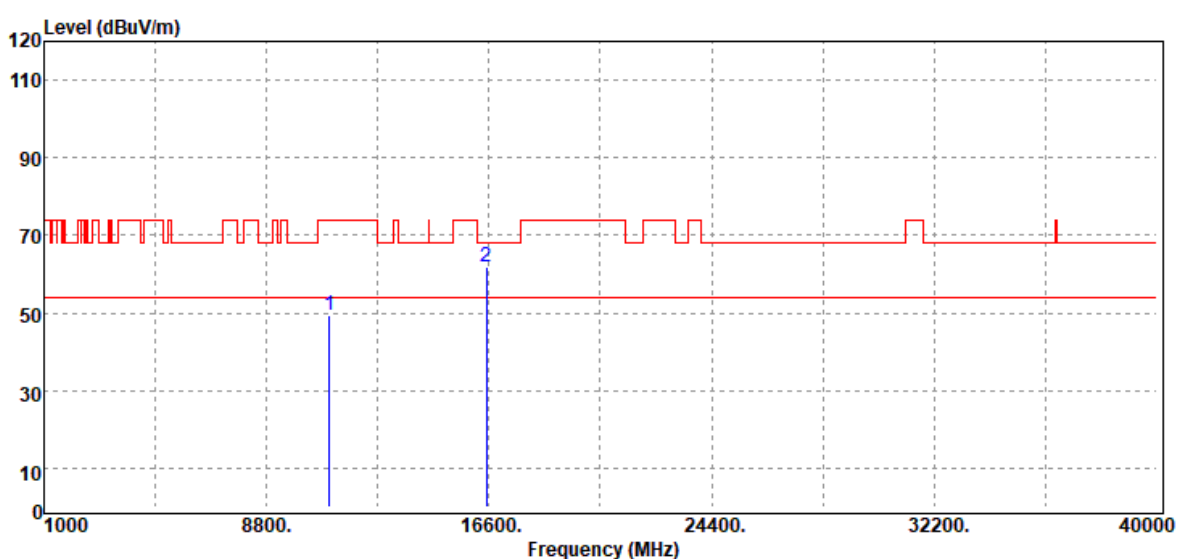


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11000.00	Peak	33.58	16.02	49.60	74.00	-24.40
16500.00	Peak	34.60	22.99	57.59	68.20	-10.61
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5500 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

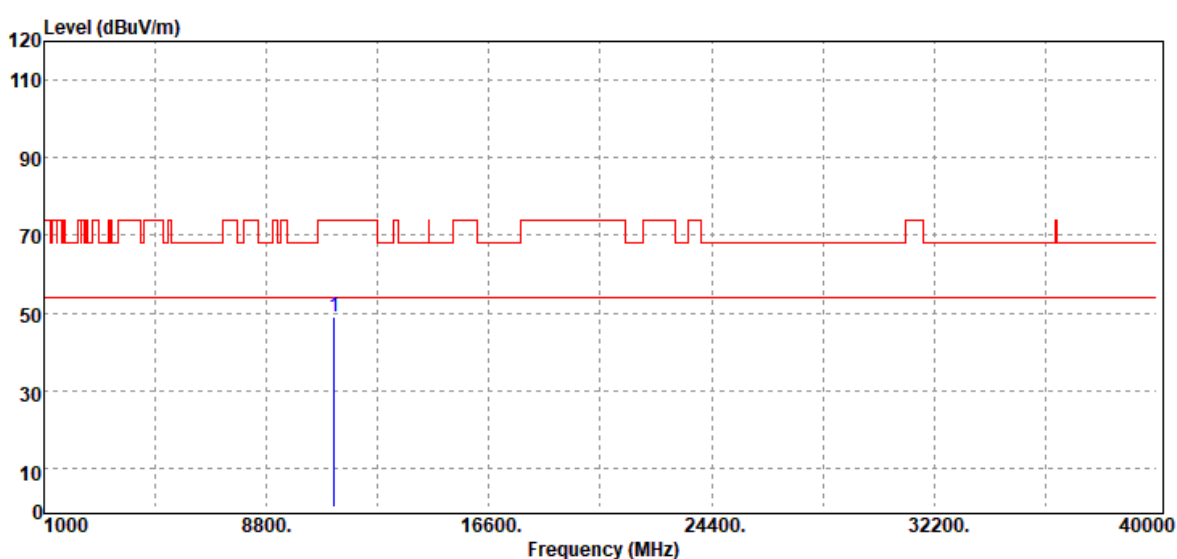


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11000.00	Peak	33.27	16.02	49.29	74.00	-24.71
16500.00	Peak	38.73	22.99	61.72	68.20	-6.48
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5580 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

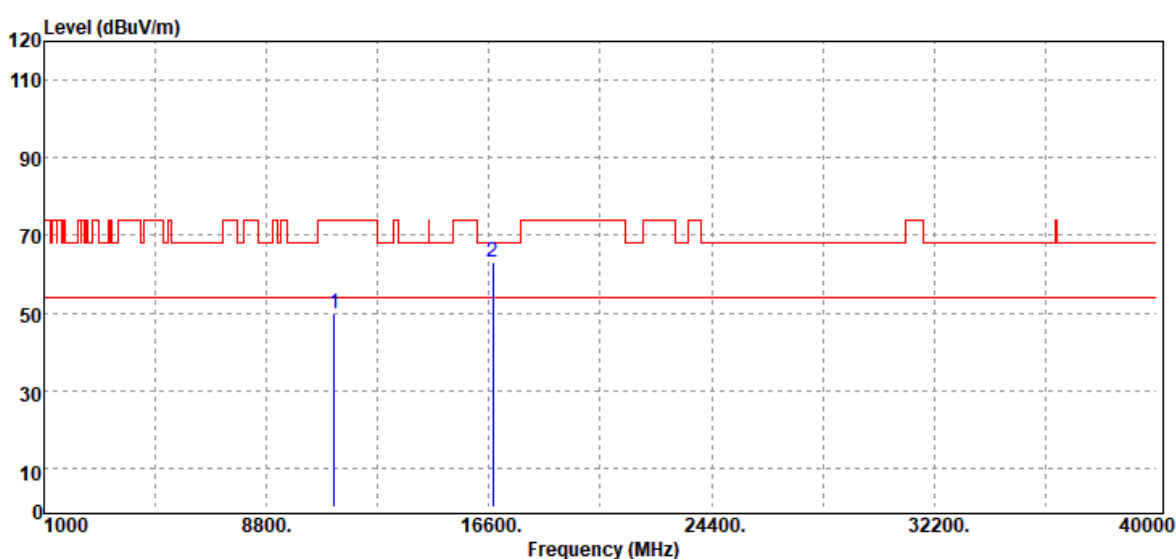


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11160.00	Peak	32.36	16.70	49.06	74.00	-24.94
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 20 MHz / 5580 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

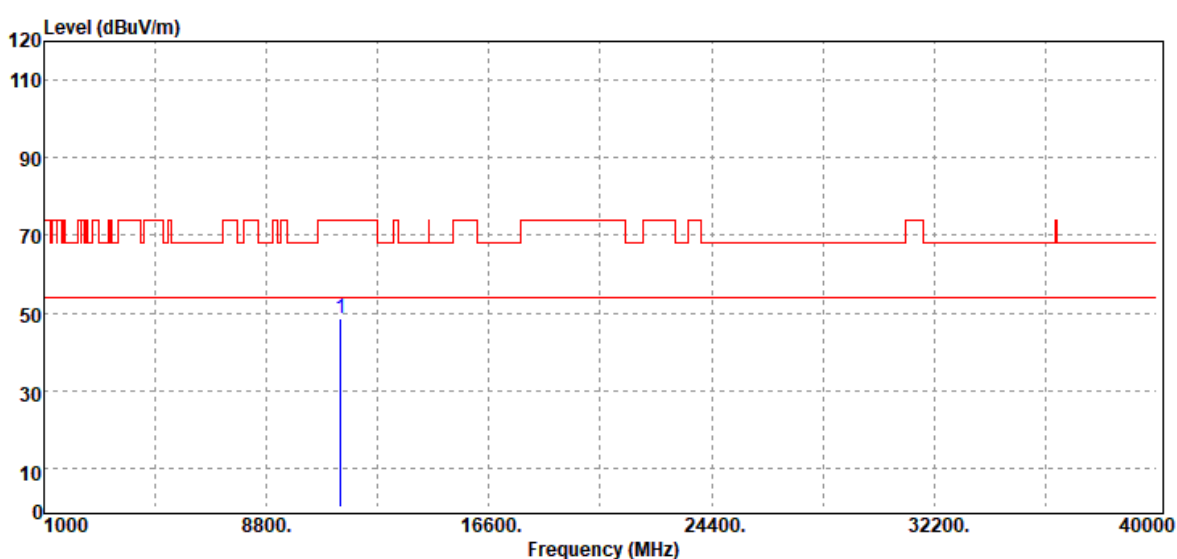


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11160.00	Peak	32.97	16.70	49.67	74.00	-24.33
16740.00	Peak	37.62	25.38	63.00	68.20	-5.20
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz / 5700 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

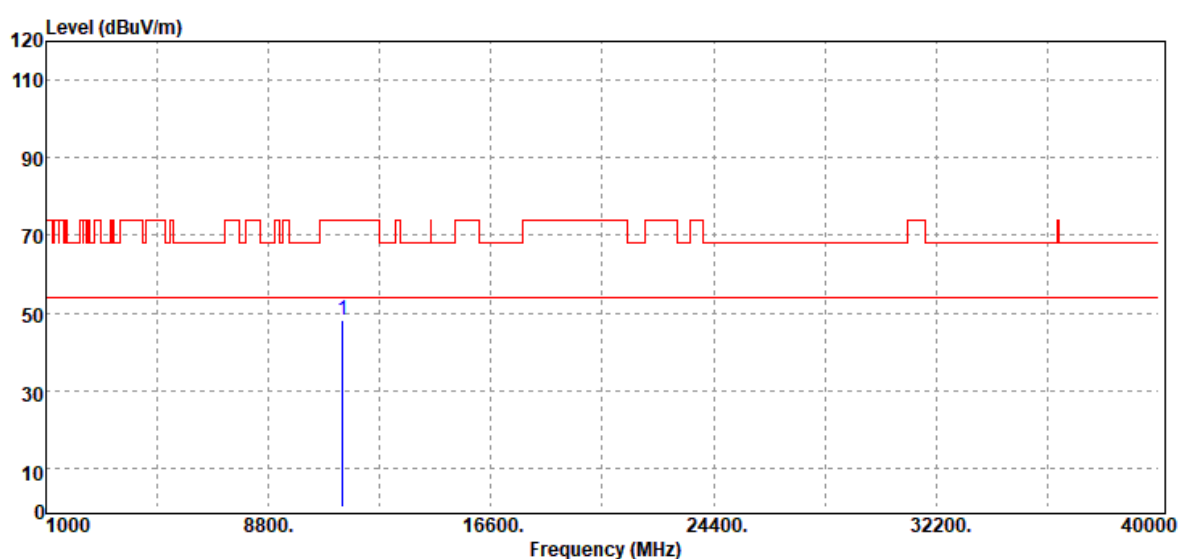


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11400.00	Peak	32.26	16.18	48.44	74.00	-25.56
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 20 MHz / 5700 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		

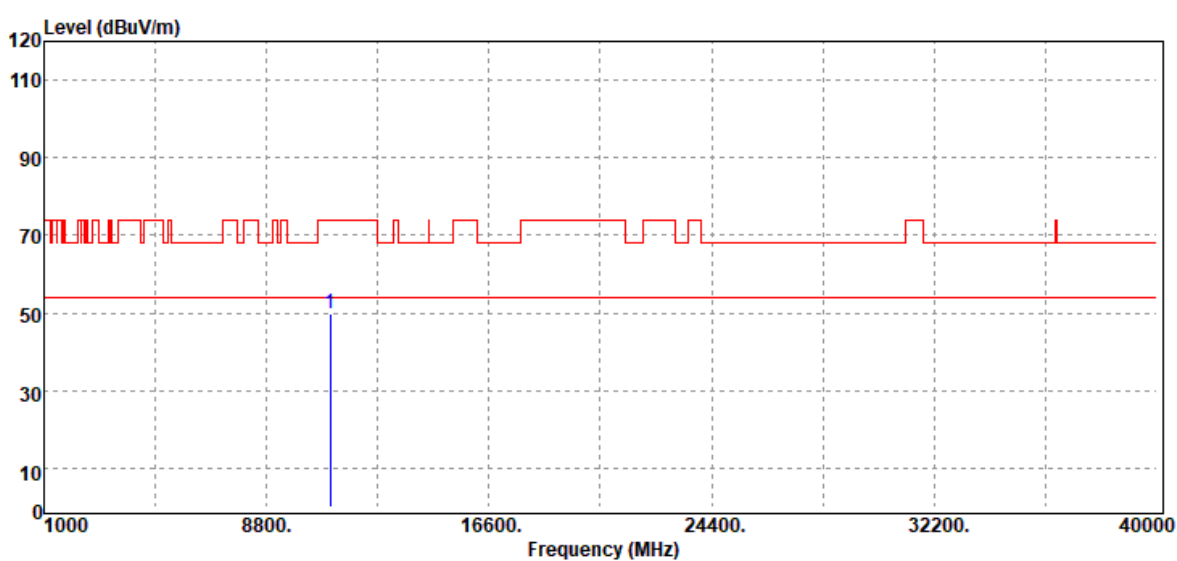


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11400.00	Peak	31.88	16.18	48.06	74.00	-25.94
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5510 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

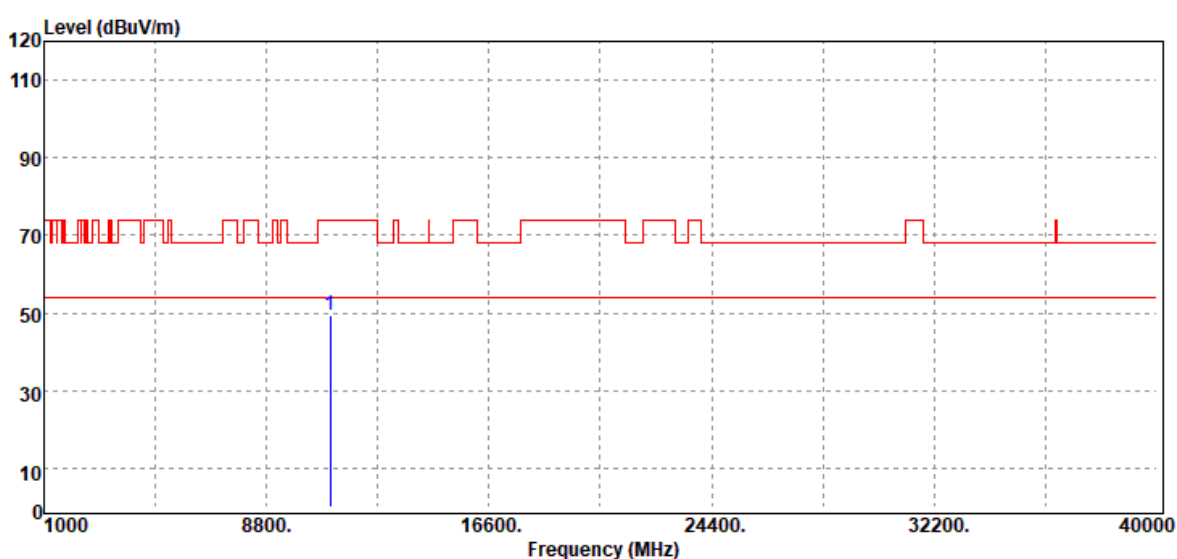


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11020.00	Peak	33.77	16.18	49.95	74.00	-24.05
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5510 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		

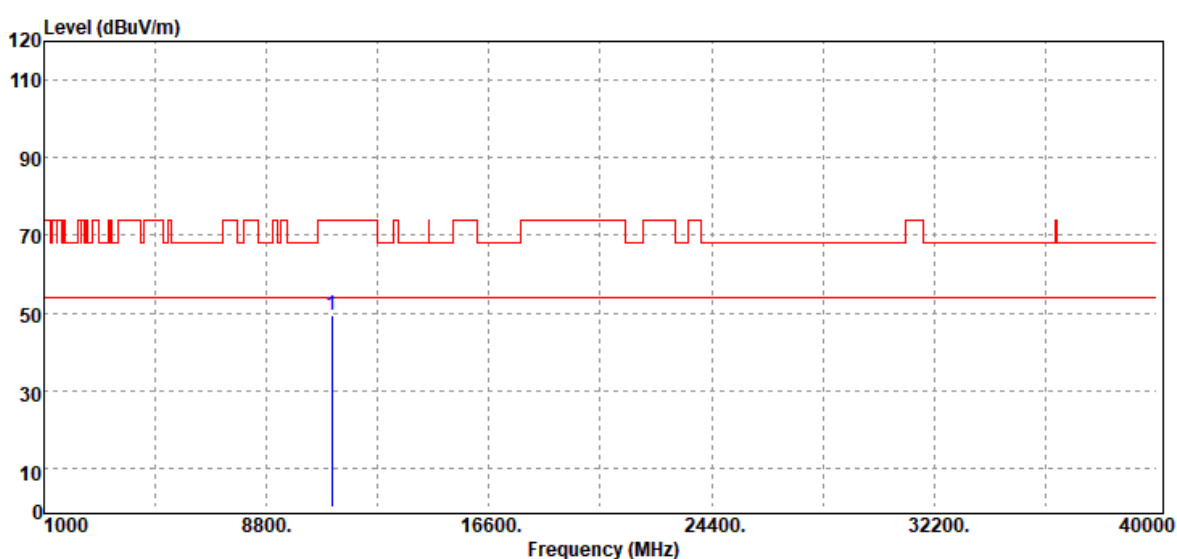


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11020.00	Peak	33.20	16.18	49.38	74.00	-24.62
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5550 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

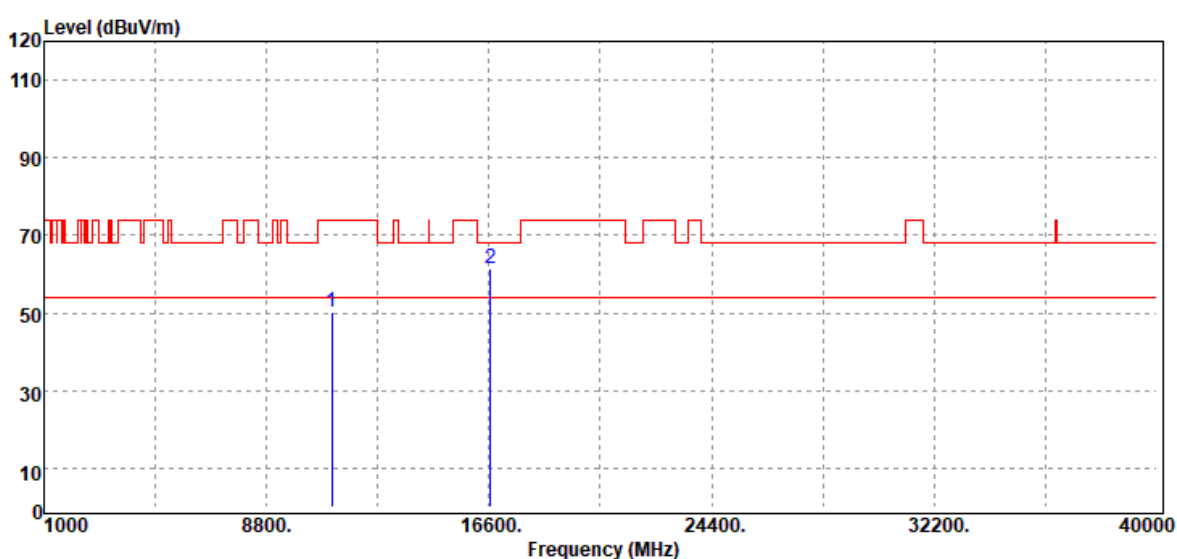


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11100.00	Peak	32.98	16.55	49.53	74.00	-24.47
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5550 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

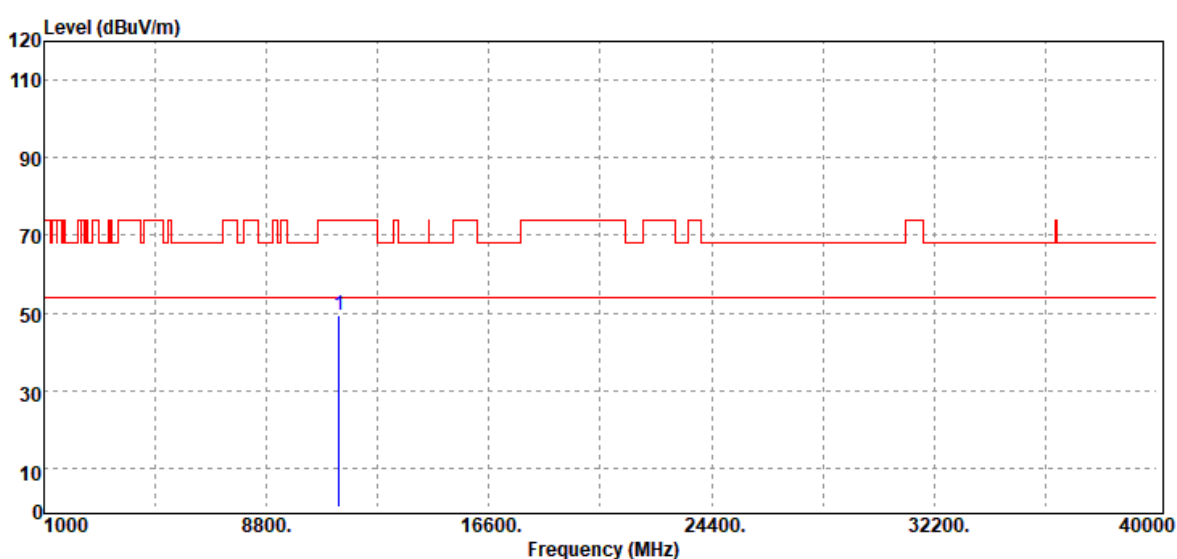


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11100.00	Peak	33.53	16.55	50.08	74.00	-23.92
16650.00	Peak	37.10	24.34	61.44	68.20	-6.76
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 40 MHz / 5670 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

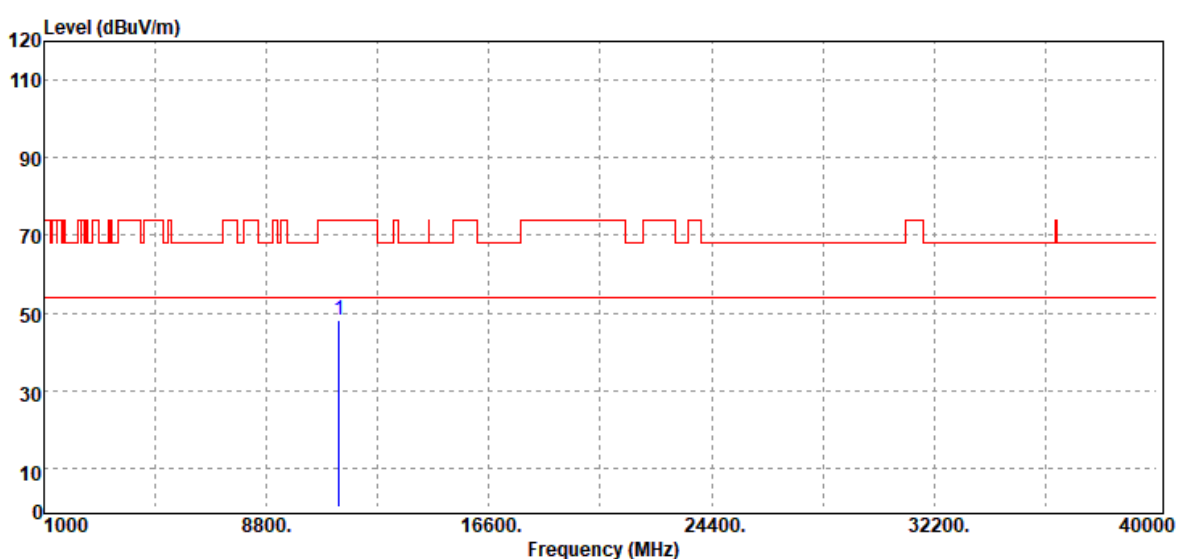


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11340.00	Peak	32.78	16.43	49.21	74.00	-24.79
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz / 5670 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



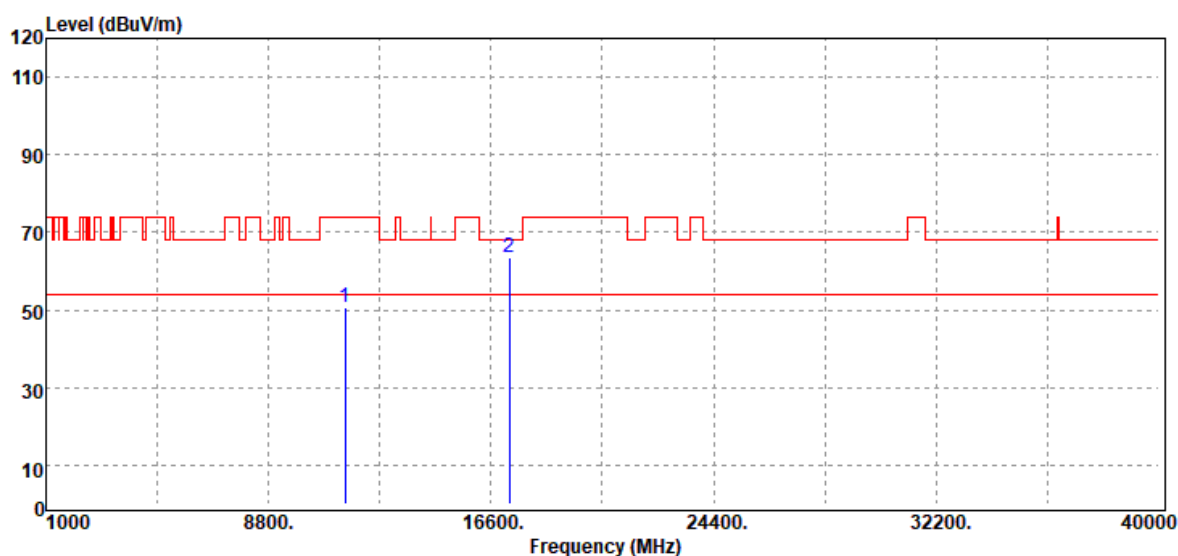
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11340.00	Peak	31.72	16.43	48.15	74.00	-25.85
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Data for UNII-3

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

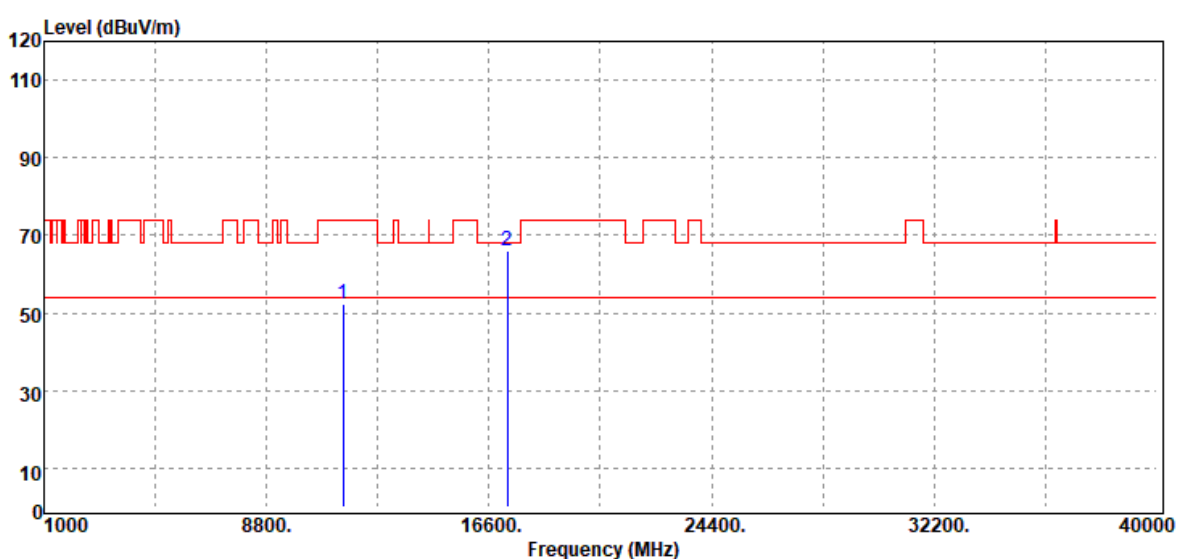


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11490.00	Peak	34.60	16.01	50.61	74.00	-23.39
17235.00	Peak	34.64	28.86	63.50	68.20	-4.70
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

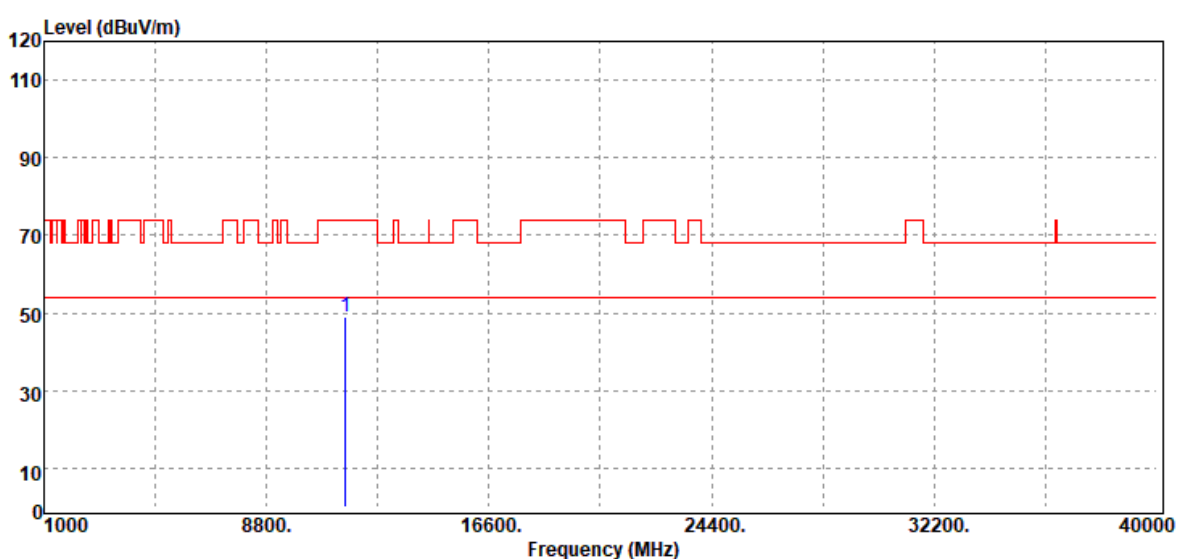


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11490.00	Peak	36.14	16.01	52.15	74.00	-21.85
17235.00	Peak	37.20	28.86	66.06	68.20	-2.14
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11a / 5785 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

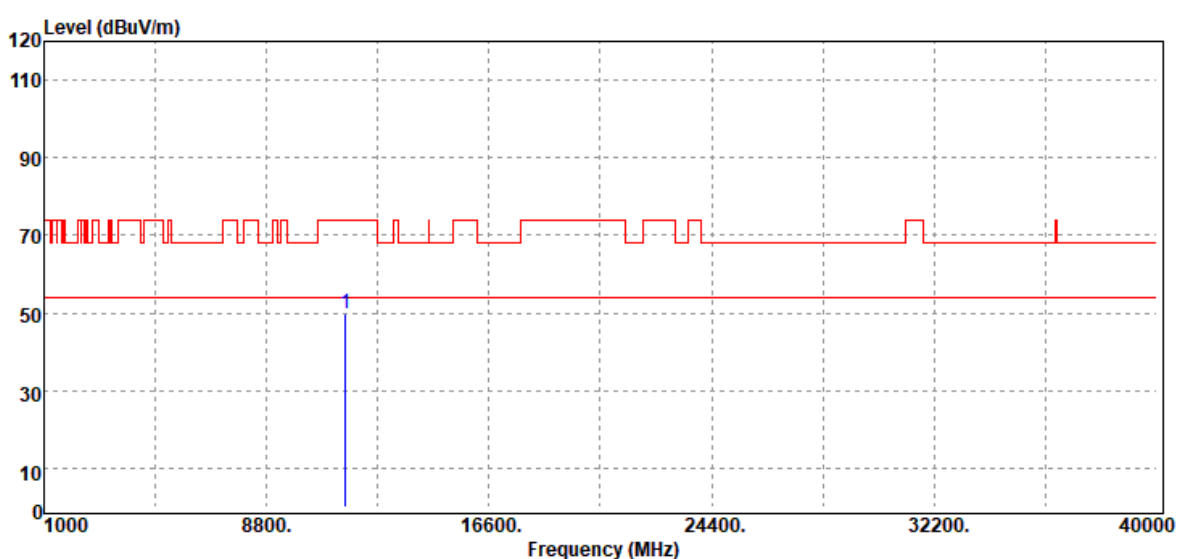


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11570.00	Peak	32.93	16.08	49.01	74.00	-24.99
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11a / 5785 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11570.00	Peak	33.85	16.08	49.93	74.00	-24.07
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

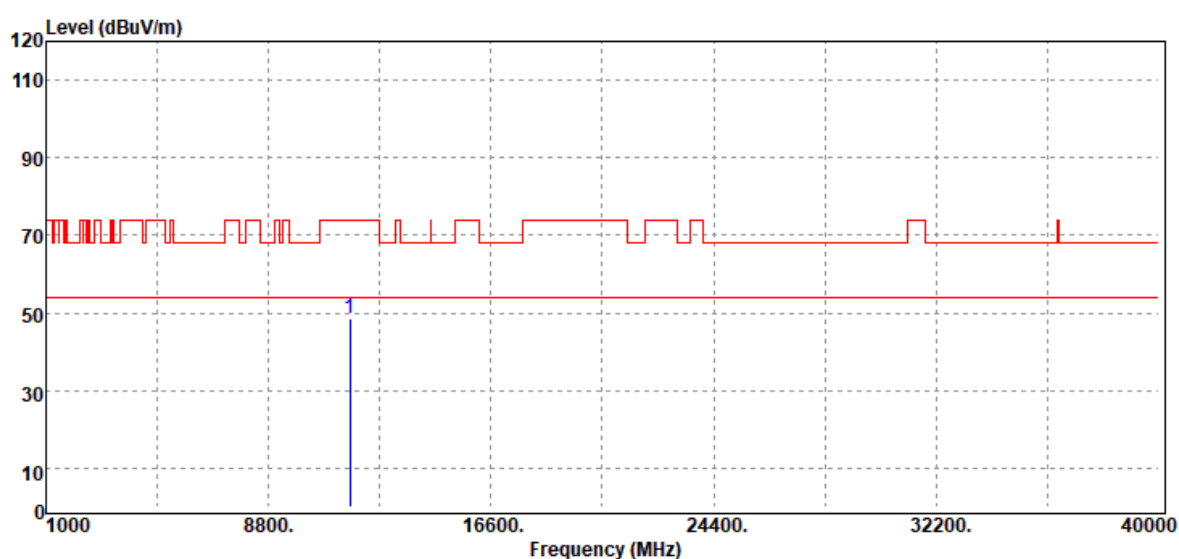


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11650.00	Peak	32.99	16.06	49.05	74.00	-24.95
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 12, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11650.00	Peak	32.59	16.06	48.65	74.00	-25.35
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

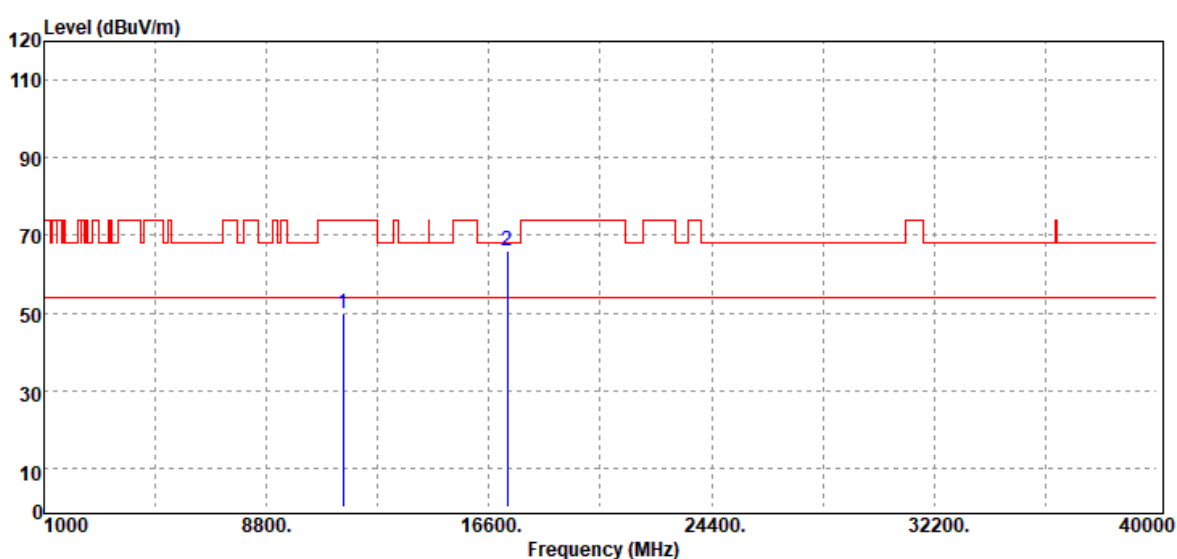


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11490.00	Peak	33.20	16.01	49.21	74.00	-24.79
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 9, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		

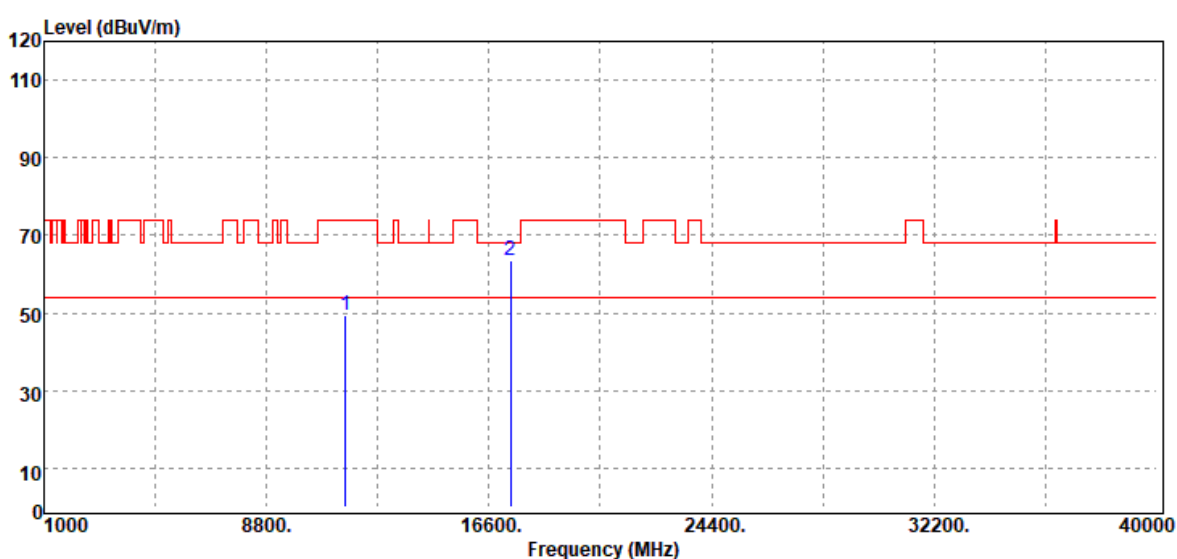


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11490.00	Peak	33.93	16.01	49.94	74.00	-24.06
17235.00	Peak	37.07	28.86	65.93	68.20	-2.27
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz/ 5785 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		

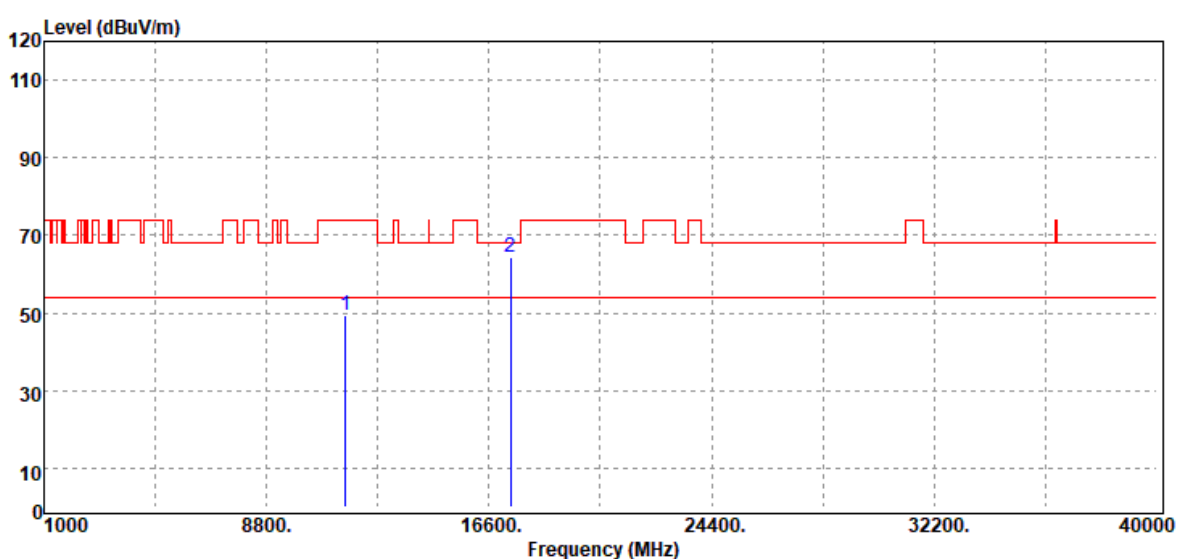


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11570.00	Peak	33.47	16.08	49.55	74.00	-24.45
17355.00	Peak	34.13	29.32	63.45	68.20	-4.75
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz/ 5785 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11570.00	Peak	33.33	16.08	49.41	74.00	-24.59
17355.00	Peak	35.17	29.32	64.49	68.20	-3.71
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Mode	IEEE 802.11n 20 MHz/ 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11650.00	Peak	32.86	16.06	48.92	74.00	-25.08
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 20 MHz/ 5825 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11650.00	Peak	32.33	16.06	48.39	74.00	-25.61
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11510.00	Peak	32.33	16.01	48.34	74.00	-25.66
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		

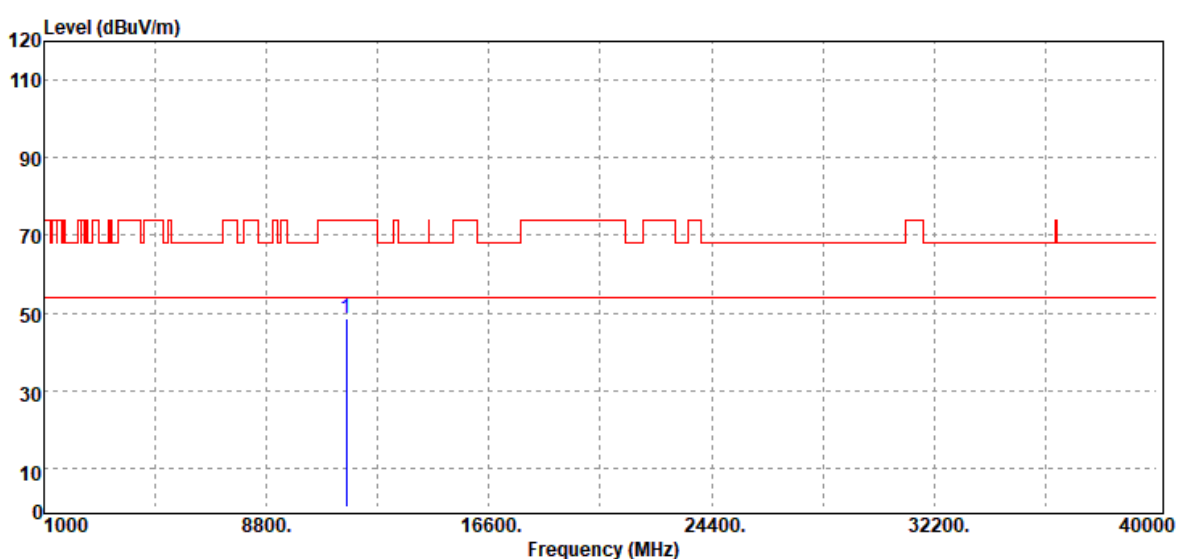


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11510.00	Peak	32.05	16.01	48.06	74.00	-25.94
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		

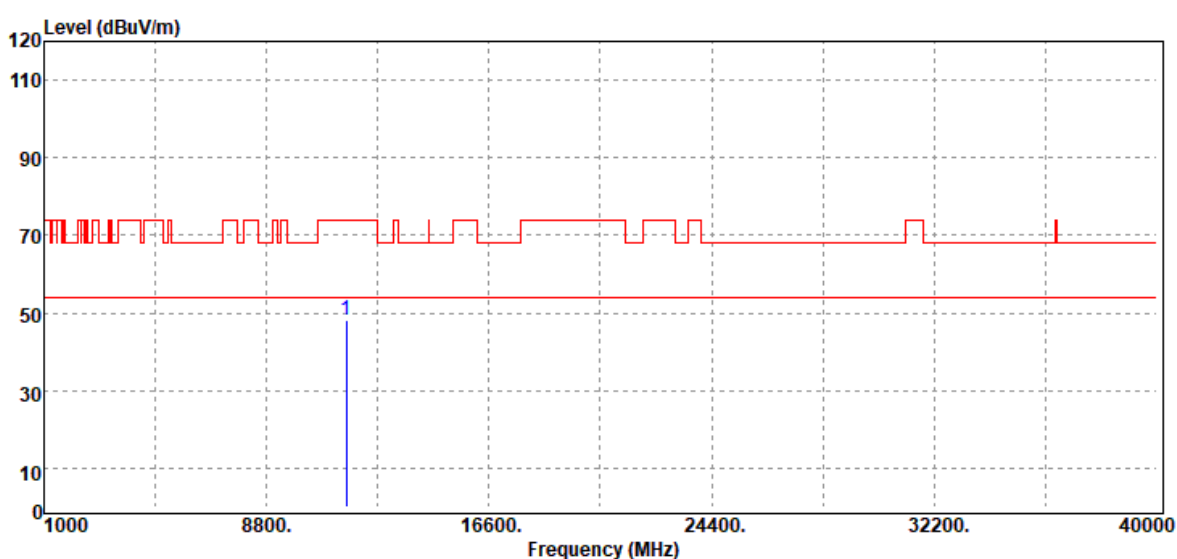


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11590.00	Peak	32.62	16.02	48.64	74.00	-25.36
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	24.6(°C)/ 51%RH
Test Item	Harmonic	Test Date	June 10, 2020
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11590.00	Peak	32.21	16.02	48.23	74.00	-25.77
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Report No.: T200521W01-RP4

Page: 133 / 134

Rev.: 02

4.4 TEST DATA RE-USE SUMMARY

Introduction Section:

The application re-uses data collected on a similar device. The subject device of this application (Model: MP21-ARGON-C, FCC ID: GKR402550, IC: 2533B-402550) is electrically identical to the reference device (Model: MP10-ARGON-C, FCC ID: GKR402547, IC: 2533B-402547) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

Differences Brief Description:

The WLAN, and BT hardware of this device are identical to the implementation in FCC ID: GKR402550.

IC: 2533B-402550

The Product Equality Declaration document includes detailed information about the changes between the devices. The data from that application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the summary table below.



Report No.: T200521W01-RP4

Page: 134 / 134

Rev.: 02

Spot Check Verification Result Summary

Equipment Class	Reference FCC ID / IC No.	Folder Test	Report Title/ Section
NII-WLAN	GKR402547 / 2533B-402547	T200505W01-RP4	All Section (Except for AC Conducted Emission, Output Power Measurement, Radiation Band Edge, Radiation Spurious Emission)

Summary of the spot check for Unlicensed bands and Licensed bands

In order to confirm hardware similarity of the subject device with the reference device, we used same setting power to conducted measurement were performed on the subject device for the conducted power density, the test result were similar with FCC ID: GKR402547 / IC: 2533B-402547.

WLAN

Report	Test Item	Band	Mode	CH.	GKR402547 / 2533B-402547	GKR402550 / 2533B-402550	Gap (dB)
NII (WLAN)	Conducted Power Density	1	a	Ch 48	0.629	0.463	0.166
			n20	Ch 36	0.715	0.648	0.067
			n40	Ch 46	-3.037	-3.125	0.088
		2a	a	Ch 52	0.99	0.46	0.53
			n20	Ch 56	0.705	0.514	0.191
			n40	Ch 54	-3.661	-3.727	0.066
		2c	a	Ch 116	0.249	0.165	0.084
			n20	Ch 116	-0.074	-0.143	0.069
			n40	Ch 110	-2.813	-3.016	0.203
		3	a	Ch 157	-3.179	-3.244	0.065
			n20	Ch 157	-3.039	-3.126	0.087
			n40	Ch 151	-6.071	-6.346	0.275

- End of Test Report -