

FCC Radio Test Report

FCC ID: 2AX4E-Q10107LW

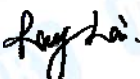
Original Grant

Report No. : TB-FCC176088
Applicant : Vitek Electronics International Co., Ltd
Equipment Under Test (EUT)
EUT Name : 10.1inch Tablet PC
Model No. : Q10107LW-ME
Series Model No. VK1001, VK1002, VK1003, VK1004, VK1005, VK1006, VK1007, VK1008
Brand Name : AOC, VTEX
Sample ID : TBBJ-20200916-08-1#& TBBJ-20200916-08-2#
Receipt Date : 2020-09-14
Test Date : 2020-09-15 to 2020-11-04
Issue Date : 2020-11-04
Standards : FCC Part 15, Subpart E 15.407
Test Method : ANSI C63.10: 2013
Conclusions : **PASS**

In the configuration tested, the EUT complied with the standards specified above,
The EUT technically complies with the FCC and IC requirements

Test/Witness Engineer :  Jack Deng

Test/Witness Engineer :  Ivan Su

Approved& Authorized :  Ray Lai



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

Contents

CONTENTS.....	2
1. GENERAL INFORMATION ABOUT EUT	5
1.1 Client Information.....	5
1.2 General Description of EUT (Equipment Under Test)	5
1.3 Block Diagram Showing the Configuration of System Tested.....	6
1.4 Description of Support Units	6
1.5 Description of Test Mode.....	7
1.6 Description of Test Software Setting	8
1.7 Measurement Uncertainty	9
1.8 Test Facility.....	9
2. TEST SUMMARY	10
3. TEST SOFTWARE.....	10
4. TEST EQUIPMENT	11
5. CONDUCTED EMISSION TEST	12
5.1 Test Standard and Limit.....	12
5.2 Test Setup.....	12
5.3 Test Procedure.....	13
5.4 Deviation From Test Standard.....	13
5.5 EUT Operating Mode	13
5.6 Test Data.....	13
6. RADIATED EMISSION TEST	14
6.1 Test Standard and Limit.....	14
6.2 Test Setup.....	15
6.3 Test Procedure.....	16
6.4 Deviation From Test Standard.....	17
6.5 EUT Operating Condition	17
6.6 Test Data.....	17
7. BAND EDGE EMISSIONS	18
7.1 Test Standard and Limit.....	18
7.2 Test Setup.....	18
7.3 Test Procedure.....	19
7.4 Deviation From Test Standard.....	19
7.5 EUT Operating Condition	19
7.6 Test Data.....	19
8. BANDWIDTH TEST.....	20
8.1 Test Standard and Limit.....	20
8.2 Test Setup.....	20
8.3 Test Procedure.....	20

8.4 Deviation From Test Standard.....	21
8.5 EUT Operating Condition	21
8.6 Test Data.....	21
9. OUTPUT POWER TEST.....	22
9.1 Test Standard and Limit.....	22
9.2 Test Setup.....	22
9.3 Test Procedure.....	22
9.4 Deviation From Test Standard.....	22
9.5 EUT Operating Condition	22
9.6 Test Date.....	22
10. POWER SPECTRAL DENSITY TEST	23
10.1 Test Standard and Limit	23
10.2 Test Setup.....	23
10.3 Test Procedure.....	23
10.4 Deviation From Test Standard.....	24
10.5 EUT Operating Condition	24
10.6 Test Data.....	24
11. FREQUENCY STABILITY MEASUREMENT	25
11.1 Test Standard and Limit	25
11.2 Test Setup.....	25
11.3 Test Procedure.....	25
11.4 Deviation From Test Standard.....	25
11.5 EUT Operating Condition	26
11.6 Test Data.....	26
12. ANTENNA REQUIREMENT.....	27
12.1 Standard Requirement.....	27
12.2 Antenna Connected Construction	27
12.3 Deviation From Test Standard.....	27
12.4 Result.....	27
ATTACHMENT A-- CONDUCTED EMISSION TEST DATA	28
ATTACHMENT B-- RADIATED EMISSION TEST DATA	30
ATTACHMENT C-- RESTRICTED BANDS REQUIREMENT AND BAND-EDGE TEST DATA	60
ATTACHMENT D--BANDWIDTH TEST DATA	88
ATTACHMENT E--AVG OUTPUT POWER TEST DATA	99
ATTACHMENT F-- POWER SPECTRAL DENSITY TEST DATA.....	102
ATTACHMENT G----FREQUENCY STABILITY MEASUREMENT DATA.....	109

Revision History

Report No.	Version	Description	Issued Date
TB-FCC176088	Rev.01	Initial issue of report	2020-11-04

1. General Information about EUT

1.1 Client Information

Applicant	:	Vitek Electronics International Co., Ltd
Address	:	Room 1104, 11/F., Witty Commercial Building, 1A-1L, Tung Choit St, Mong Kok, Kowloon, Hong Kong
Manufacturer	:	Vitek Electronics International Co., Ltd
Address	:	Room 1104, 11/F., Witty Commercial Building, 1A-1L, Tung Choit St, Mong Kok, Kowloon, Hong Kong

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	10.1inch Tablet PC
Models No.	:	Q10107LW-ME, VK1001, VK1002, VK1003, VK1004, VK1005, VK1006, VK1007, VK1008
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is appearance.
Product Description	:	Operation Frequency: U-NII-1: 5180MHz~5240MHz
		Antenna Gain: 2.1dBi PIFA Antenna
		Modulation Type: 802.11a: OFDM (QPSK, BPSK, 16QAM) 802.11n: OFDM (QPSK, BPSK, 16QAM, 64QAM) 802.11ac: OFDM (QPSK, BPSK, 16QAM, 64QAM, 256QAM)
		Bit Rate of Transmitter: 802.11a: 6/9/12/18/24/36/48/54 Mbps 802.11n: up to 150Mbps 802.11ac: at most 433.3 Mbps
Power Rating	:	Adapter(HTY15-0502000U) Input: AC 100-240V, 50/60Hz Output: DC 5V 2A DC 3.7V by 5000mAh Li-ion battery
Software Version	:	android 10.0 S107
Hardware Version	:	S706-9863A
Remark	:	The adapter and antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.

Note:

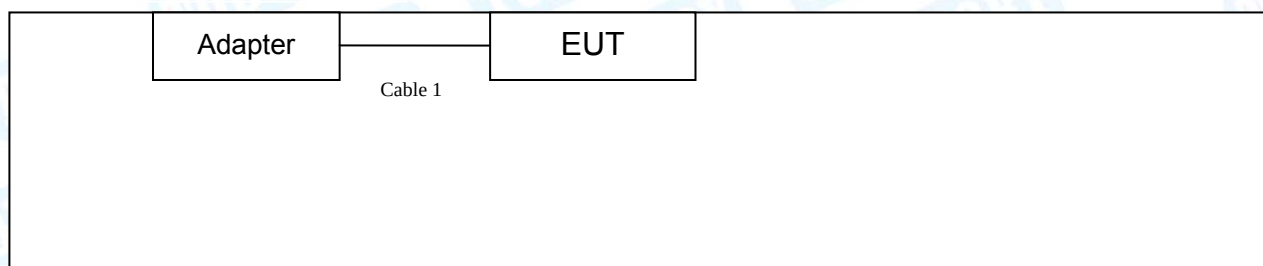
- (1) This Test Report is FCC Part 15, Subpart E(15.407) for 802.11a/n/ac, the test procedure follows the KDB 789033 D02 General U-NII Test Procedures New Rules v02r01. More detailed features description, please refer to the manufacturer's specifications or the User's Manual.

(2) Channel List:

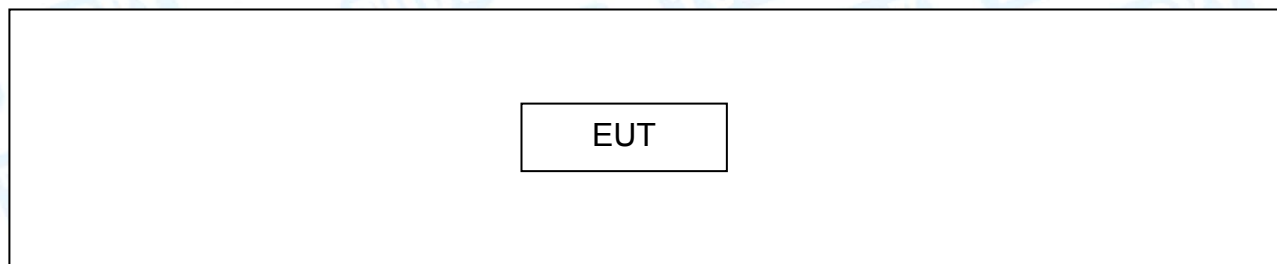
Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5180~5240MHz (U-NII-1)	36	5180 MHz	44	5220 MHz
	38	5190 MHz	46	5230 MHz
	40	5200 MHz	48	5240 MHz
	42	5210 MHz		
For 20 MHz Bandwidth, use channel 36, 40, 44, 48. For 40 MHz Bandwidth, use channel 38, 46. For 80 MHz Bandwidth, use channel 42.				

1.3 Block Diagram Showing the Configuration of System Tested

Charging + TX Mode



TX Mode



1.4 Description of Support Units

The EUT has been test as an independent unit.

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test		
Final Test Mode		Description
Mode 1		Charging + TX a Mode(5180MHz)
For Radiated Test Below 1GHz		
Final Test Mode		Description
Mode 2		Charging + TX a Mode(5180MHz)
For Radiated Test Above 1GHz		
Test Band	Final Test Mode	Description
U-NII-1	Mode 3	TX Mode 802.11a Mode Channel 36/40/48
	Mode 4	TX Mode 802.11n(HT20) Mode Channel 36/40/48
	Mode 5	TX Mode 802.11ac(VHT20) Mode Channel 36/40/48
	Mode 6	TX Mode 802.11n(HT40) Mode Channel 38/46
	Mode 7	TX Mode 802.11ac(VHT40) Mode Channel 38/46
	Mode 8	TX Mode 802.11ac(VHT80) Mode Channel 42

Note:

- (1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

802.11a Mode: OFDM (6 Mbps)
802.11n (HT20) Mode: MCS 0
802.11n (HT40) Mode: MCS 0
802.11ac(VHT20) Mode: MCS 0
802.11ac(VHT40) Mode: MCS 0
802.11ac(VHT80) Mode: MCS 0

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN.

Test Software: Engineering mode(***83781***)		
Test Mode: Continuously transmitting		
U-NII-1		
Mode	Frequency (MHz)	Parameters
802.11a	5180	DEF
	5200	DEF
	5240	DEF
802.11n(HT20)	5180	DEF
	5200	DEF
	5240	DEF
802.11ac(VHT20)	5180	DEF
	5200	DEF
	5240	DEF
802.11n(HT40)	5190	DEF
	5230	DEF
802.11ac(VHT40)	5190	DEF
	5230	DEF
802.11ac(VHT80)	5210	DEF

1.7 Measurement Uncertainty

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

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	± 3.50 dB ± 3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB

1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at: 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China.

At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A.

2. Test Summary

FCC Part 15 Subpart E(15.407)				
Standard Section	Test Item	Test Sample(s)	Judgment	Remark
FCC				
15.203	Antenna Requirement	TBBJ-20200916-08-2#	PASS	N/A
15.207	Conducted Emission	TBBJ-20200916-08-1#	PASS	N/A
15.407(b)	Band Edge Emissions	TBBJ-20200916-08-2#	PASS	N/A
15.407(a)	26dB Bandwidth&99% Bandwidth	TBBJ-20200916-08-2#	PASS	N/A
15.407(e)	6dB Bandwidth	TBBJ-20200916-08-2#	PASS	N/A
15.407(a)	AVG Output Power	TBBJ-20200916-08-2#	PASS	N/A
15.407(a)	Power Spectral Density	TBBJ-20200916-08-2#	PASS	N/A
15.209 15.407(b)	Transmitter Radiated Spurious Emission	TBBJ-20200916-08-1# TBBJ-20200916-08-2#	PASS	N/A
15.407(a)	Peak Excursion	TBBJ-20200916-08-2#	PASS	N/A
15.407(g)	Frequency Stability	TBBJ-20200916-08-2#	PASS	N/A
Note: “/” for no requirement for this test item. N/A is an abbreviation for Not Applicable.				

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0

4. Test Equipment

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 06, 2020	Jul. 05, 2021
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 06, 2020	Jul. 05, 2021
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 06, 2020	Jul. 05, 2021
LISN	Rohde & Schwarz	ENV216	101131	Jul. 06, 2020	Jul. 05, 2021
Radiation Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 06, 2020	Jul. 05, 2021
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 06, 2020	Jul. 05, 2021
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jul. 06, 2020	Jul. 05, 2021
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.01, 2020	Feb. 28, 2022
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.01, 2020	Feb. 28, 2022
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Mar.01, 2020	Feb. 28, 2022
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 07, 2020	Jul. 06, 2021
Pre-amplifier	Sonoma	310N	185903	Mar.01, 2020	Feb. 28, 2021
Pre-amplifier	HP	8449B	3008A00849	Mar.01, 2020	Feb. 28, 2021
Pre-amplifier	SKET	LNPA_1840G-50	SK201904032	Mar.01, 2020	Feb. 28, 2021
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.01, 2020	Feb. 28, 2021
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 06, 2020	Jul. 05, 2021
Spectrum Analyzer	Rohde & Schwarz	ESPI	100010/007	Jul. 06, 2020	Jul. 05, 2021
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 11, 2020	Sep. 10, 2021
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 11, 2020	Sep. 10, 2021
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 11, 2020	Sep. 10, 2021
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO26	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO29	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO31	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO33	Sep. 11, 2020	Sep. 10, 2021

5.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

Please refer to the Attachment A.

6. Radiated Emission Test

6.1 Test Standard and Limit

- 6.1.1 Test Standard
FCC Part 15.209
6.1.2 Test Limit

Radiated Emission Limits (9kHz~1000MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Distance of 3m (dBuV/m)	
	Peak	Average
Above 1000	74	54

Note:

- (1) The tighter limit applies at the band edges.
(2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

Limits of unwanted emission out of the restricted bands

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBuV/m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27(Note 2)	68.3
	10(Note 2)	105.3
	15.6(Note 2)	110.9
	27(Note 2)	122.3

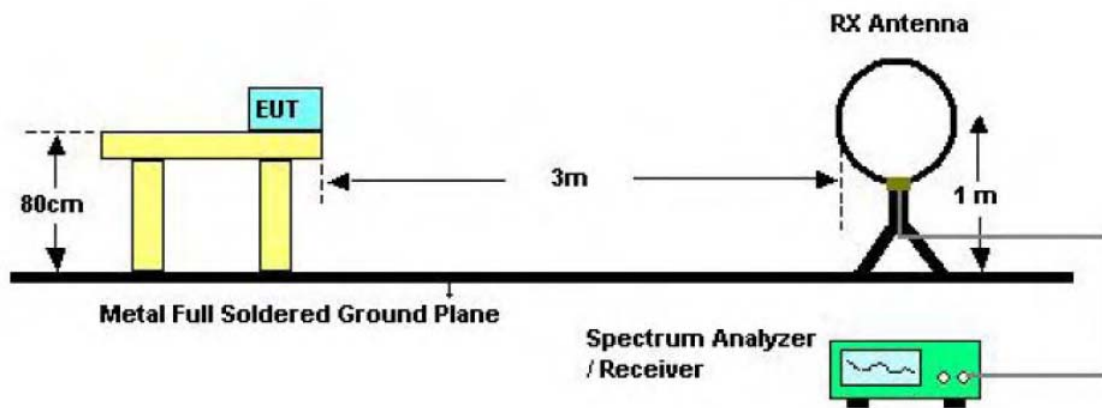
NOTE:

1, The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

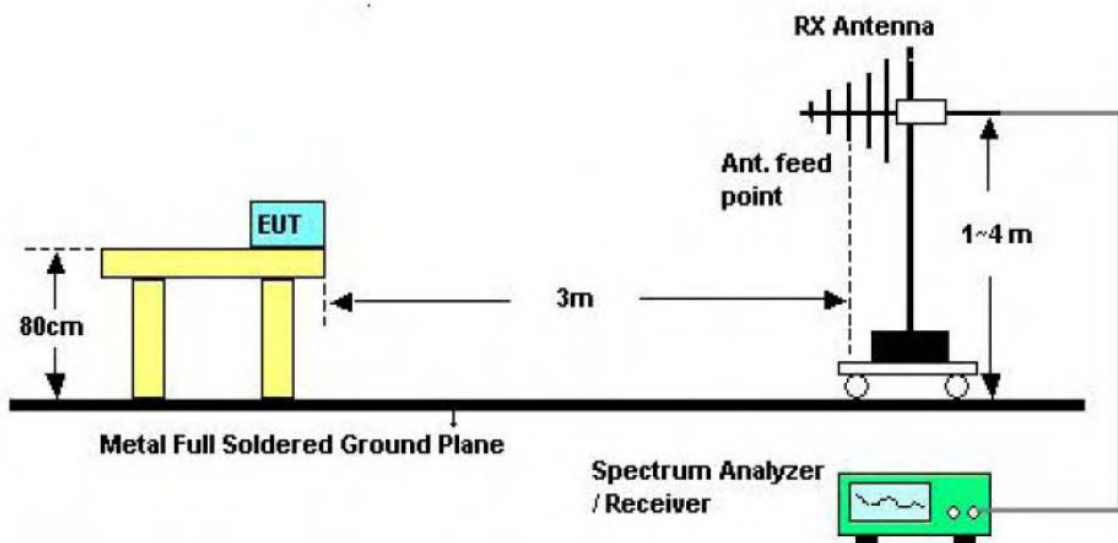
$$E = \frac{1000000\sqrt{30P}}{3} \text{ uV/m, where P is the eirp (Watts)}$$

2, According to FCC 16-24, All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.

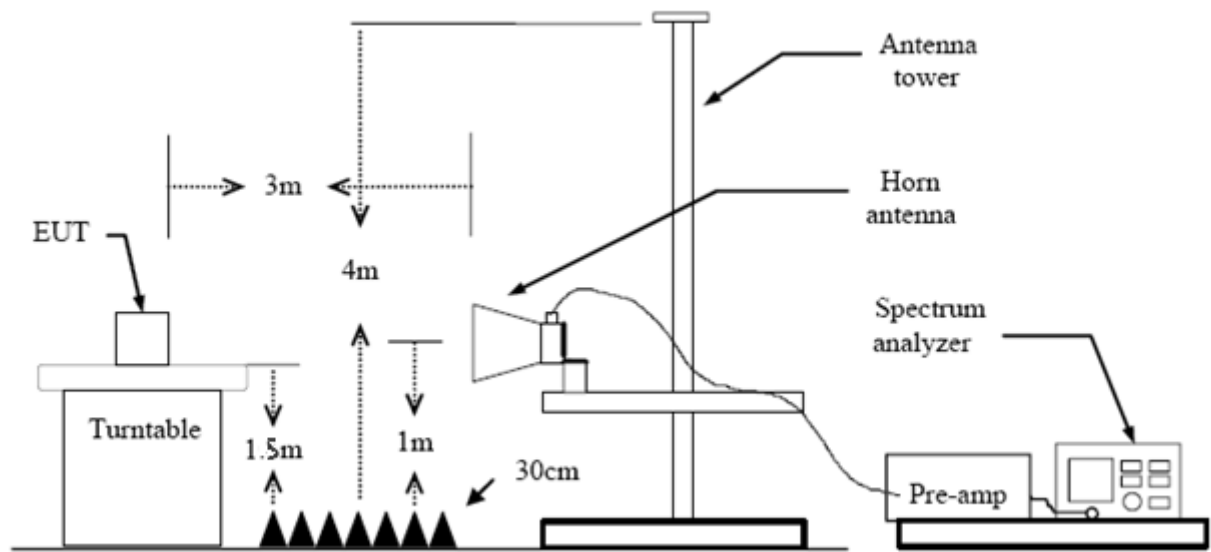
6.2 Test Setup



Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical Antenna Ore set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.6 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Please refer to the Attachment B.

7. Band Edge Emissions

7.1 Test Standard and Limit

7.1.1 Test Standard

FCC Part 15.407(b)

7.1.2 Test Limit

Limits of unwanted emission out of the restricted bands

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBuV/m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27(Note 2)	68.3
	10(Note 2)	105.3
	15.6(Note 2)	110.9
	27(Note 2)	122.3

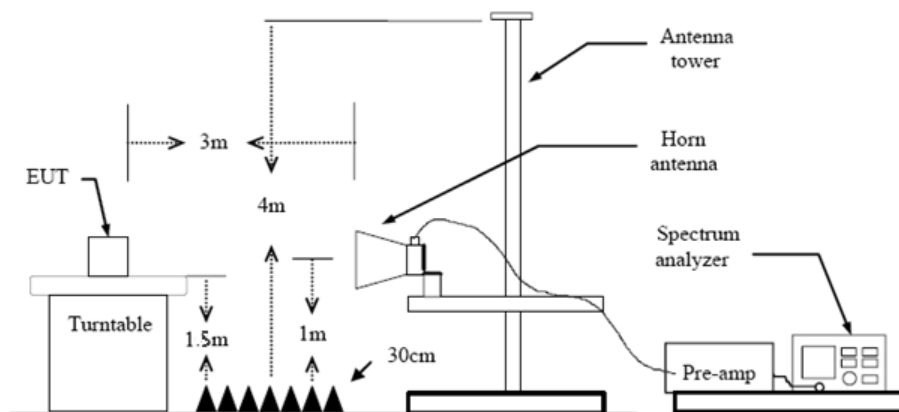
NOTE:

1, The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \text{ uV/m, where P is the eirp (Watts)}$$

2, According to FCC 16-24, All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.

7.2 Test Setup



7.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical Antenna 0re set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

7.6 Test Data

Please refer to the Attachment C.

8. Bandwidth Test

8.1 Test Standard and Limit

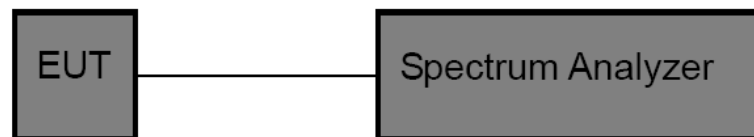
8.1.1 Test Standard

FCC Part 15.407

8.1.2 Test Limit

FCC Part 15 Subpart C(15.407)/RSS-210		
Test Item	Limit	Frequency Range (MHz)
26 Bandwidth	N/A	5150~5250
		5250~5350
		5500~5700
6 dB Bandwidth	>500kHz	5725~5850

8.2 Test Setup



8.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The setting of the spectrum analyser as below:

26dB Bandwidth Test	
Spectrum Parameters	Setting
Attenuation	Auto
Span	>26 dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	VBW>RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

6dB Bandwidth Test	
Spectrum Parameters	Setting
Attenuation	Auto
Span	>6 dB Bandwidth
RBW	100 kHz
VBW	VBW>=3*RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
99% Occupied Bandwidth Test	
Spectrum Parameters	Setting
Attenuation	Auto
RBW	1% to 5% of the OBW
VBW	≥ 3RBW
Detector	Peak
Trace	Max Hold

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

8.6 Test Data

Please refer to the Attachment D.

9. Output Power Test

9.1 Test Standard and Limit

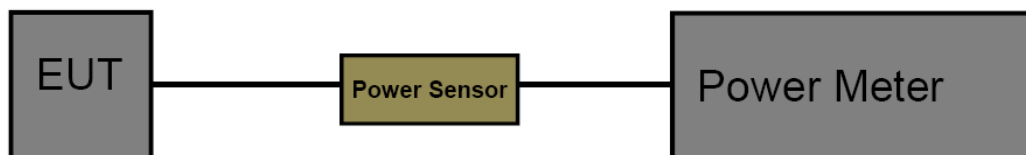
9.1.1 Test Standard

FCC Part 15.407 (a)

9.1.2 Test Limit

FCC Part 15 Subpart E(15.407)/RSS-210		
Test Item	Limit	Frequency Range(MHz)
Conducted Output Power	Fixed: 1 Watt (30dBm) Mobile and Portable: 250mW (24dBm)	5150~5250
	250mW (24dBm)	5250~5350
	250mW (24dBm)	5500~5700
	1 Watt (30dBm)	5725~5850

9.2 Test Setup



9.3 Test Procedure

The measurement is according to section 3 of KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.

The EUT was connected to RF power meter via a broadband power sensor as show the block above.

9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

9.6 Test Date

Please refer to the Attachment E.

10. Power Spectral Density Test

10.1 Test Standard and Limit

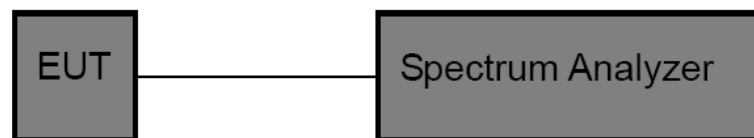
10.1.1 Test Standard

FCC Part 15.407 (a)

10.1.2 Test Limit

FCC Part 15 Subpart E(15.407)		
Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	Other than Mobile and Portable : 17dBm/MHz Mobile and Portable : 11dBm/MHz	5150~5250
	11dBm/MHz	5250~5350
	11dBm/MHz	5500~5700
	30dBm/500kHz	5725~5850

9.2 Test Setup



10.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser centre frequency to transmitting frequency.
- (3) Set the span to encompass the entire emissions bandwidth (EBW)(alternatively, the entire 99% OBW) of the signal.
- (4) Set the RBW to: 1 MHz
- (5) Set the VBW to: 3 MHz
- (6) Detector: RMS
- (7) Trace: Max Hold
- (7) Sweep time: auto
- (8) Trace average at least 100 traces in power averaging.

- (9) User the peak marker function to determine the maximum amplitude level within the RBW.
Apply correction to the result if different RBW is used.

10.4 Deviation From Test Standard

No deviation

10.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

10.6 Test Data

Please refer to the Attachment F.

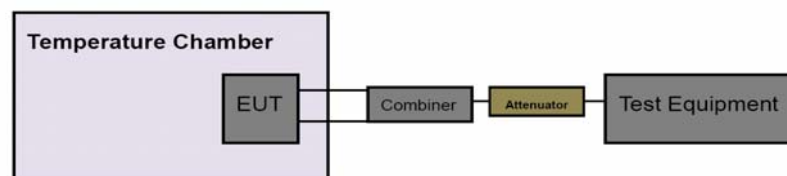
11. Frequency Stability Measurement

11.1 Test Standard and Limit

- 11.1.1 Test Standard
FCC Part 15.407
- 11.1.2 Test Limit

FCC Part 15 Subpart C(15.407)		
Test Item	Limit	Frequency Range(MHz)
Peak Excursion Measurement	Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual	5150~5250
		5250~5350
		5500~5700
		5725~5850

11.2 Test Setup



11.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser centre frequency to transmitting frequency.
- (3) Set the span to encompass the entire emissions bandwidth (EBW) of the signal.
- (4) Set the RBW to: 10 kHz, VBW=10 kHz with peak detector and maxhold settings.
- (5) The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- (6) Extreme temperature is 0°C~50°C

11.4 Deviation From Test Standard

No deviation

11.5 EUT Operating Condition

The EUT was set to continuously transmitting in continuously un-modulation transmitting mode.

11.6 Test Data

Please refer to the Attachment G.

12. Antenna Requirement

12.1 Standard Requirement

12.1.1 Standard

FCC Part 15.203

12.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

12.2 Antenna Connected Construction

The gains of the antenna used for transmitting is 2.1dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

12.3 Deviation From Test Standard

No deviation

12.4 Result

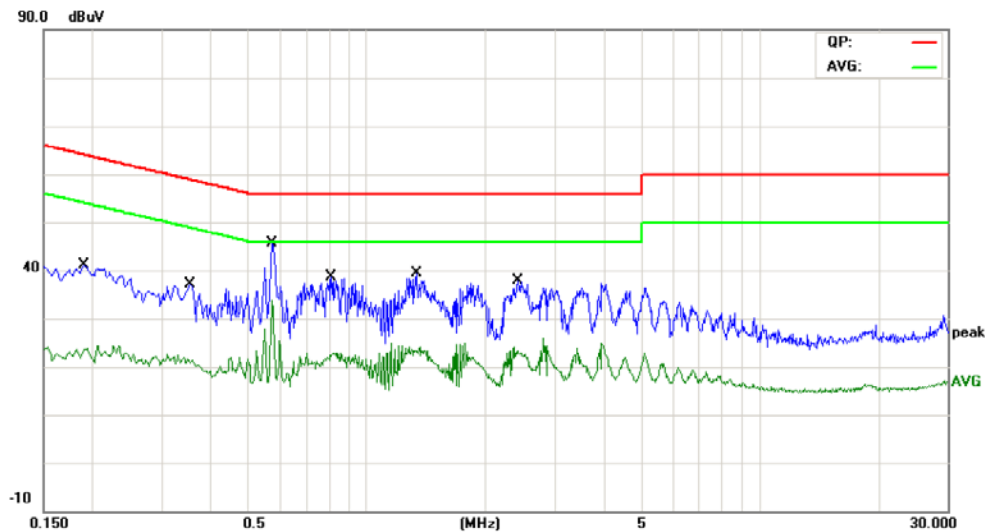
The EUT antennas are PIFA Antenna. It complies with the standard requirement.

Antenna Type
☒ Permanent attached antenna
☐ Unique connector antenna
☐ Professional installation antenna

Attachment A-- Conducted Emission Test Data

Remark: All channels have been tested and Shows only the worst channels.

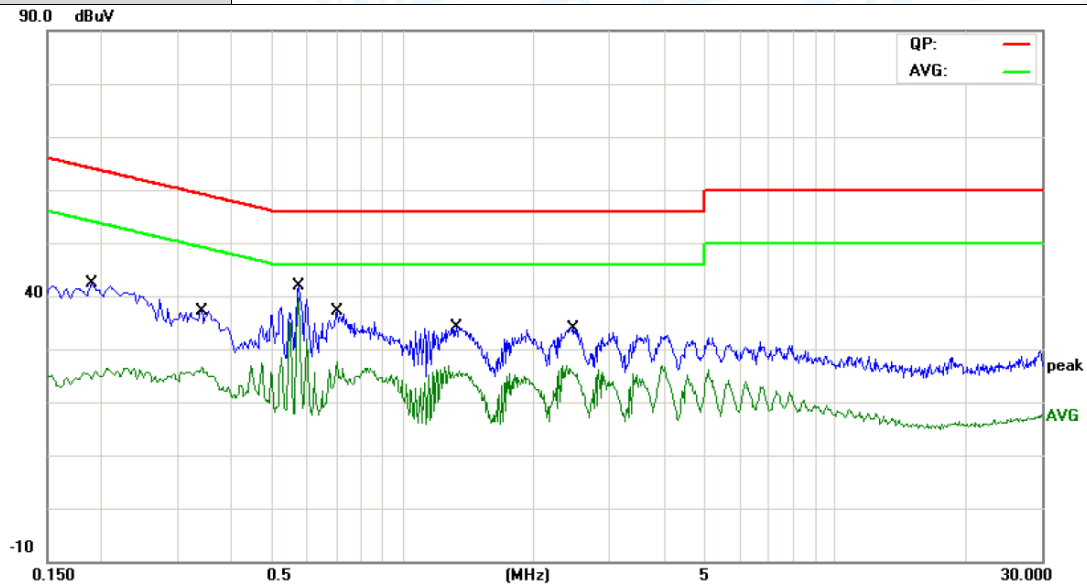
Temperature:	24.8 °C	Relative Humidity:	42%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Line		
Test Mode:	TX 802.11a Mode CH36		
Remark:	Only worse case is reported.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1900	25.05	9.70	34.75	64.03	-29.28	QP
2		0.1900	12.18	9.70	21.88	54.03	-32.15	AVG
3		0.3540	17.45	9.70	27.15	58.87	-31.72	QP
4		0.3540	10.82	9.70	20.52	48.87	-28.35	AVG
5		0.5740	29.52	9.70	39.22	56.00	-16.78	QP
6	*	0.5740	24.04	9.70	33.74	46.00	-12.26	AVG
7		0.8100	19.82	9.74	29.56	56.00	-26.44	QP
8		0.8100	12.07	9.74	21.81	46.00	-24.19	AVG
9		1.3340	21.20	9.77	30.97	56.00	-25.03	QP
10		1.3340	12.81	9.77	22.58	46.00	-23.42	AVG
11		2.4260	19.62	9.79	29.41	56.00	-26.59	QP
12		2.4260	12.45	9.79	22.24	46.00	-23.76	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	24.8 °C	Relative Humidity:	42%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Neutral		
Test Mode:	TX 802.11a Mode CH36		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1900	25.99	9.80	35.79	64.03	-28.24	QP
2		0.1900	14.41	9.80	24.21	54.03	-29.82	AVG
3		0.3420	22.70	9.80	32.50	59.15	-26.65	QP
4		0.3420	16.35	9.80	26.15	49.15	-23.00	AVG
5		0.5740	29.37	9.80	39.17	56.00	-16.83	QP
6	*	0.5740	28.72	9.80	38.52	46.00	-7.48	AVG
7		0.7019	22.65	9.80	32.45	56.00	-23.55	QP
8		0.7019	16.97	9.80	26.77	46.00	-19.23	AVG
9		1.3260	20.07	9.80	29.87	56.00	-26.13	QP
10		1.3260	15.14	9.80	24.94	46.00	-21.06	AVG
11		2.4739	19.71	9.80	29.51	56.00	-26.49	QP
12		2.4739	15.33	9.80	25.13	46.00	-20.87	AVG

Emission Level= Read Level+ Correct Factor

Attachment B-- Radiated Emission Test Data

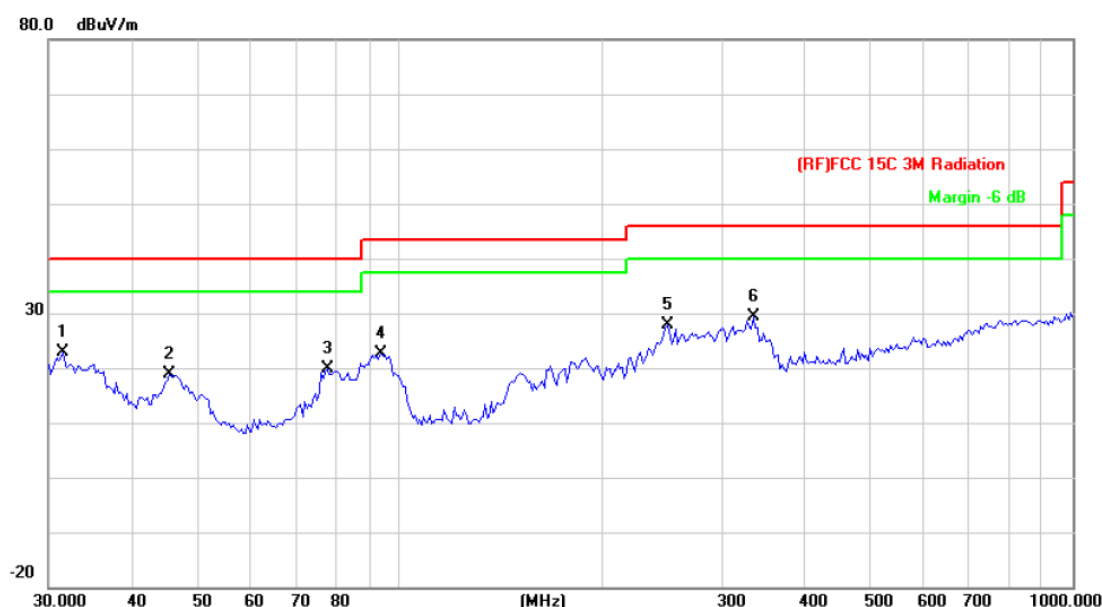
9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

30MHz~1GHz

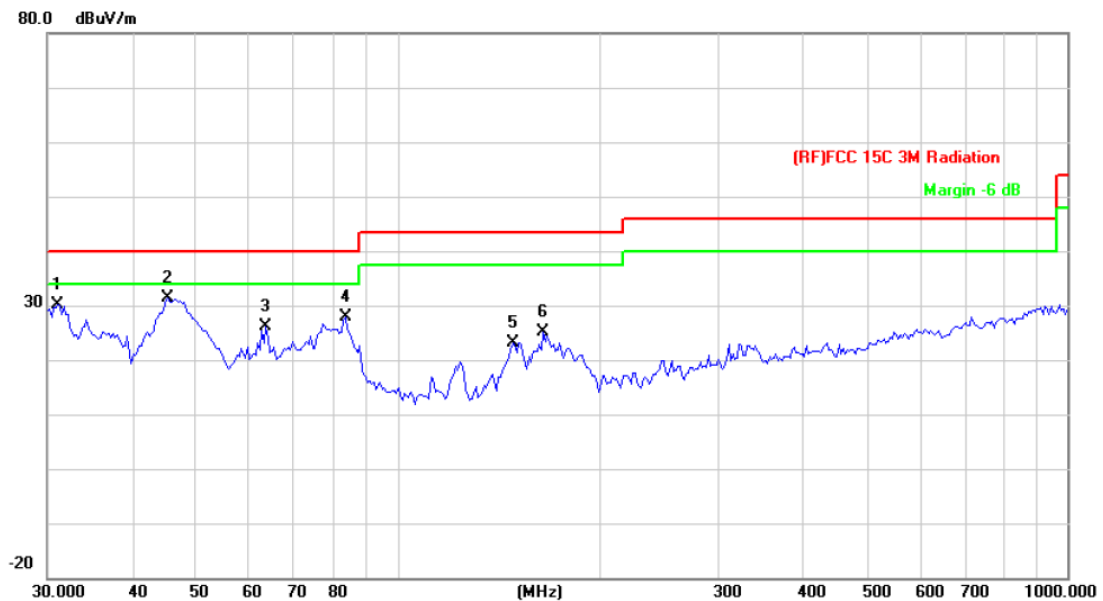
Temperature:	24.6 °C	Relative Humidity:	43%
Test Voltage:	AC 120V/60Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)		
Remark:	Only worse case is reported		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		31.5091	36.99	-14.08	22.91	40.00	-17.09	peak
2		45.3755	40.44	-21.54	18.90	40.00	-21.10	peak
3		77.8653	42.51	-22.66	19.85	40.00	-20.15	peak
4		93.4402	44.60	-21.89	22.71	43.50	-20.79	peak
5		249.4250	45.17	-17.25	27.92	46.00	-18.08	peak
6	*	334.8589	44.48	-15.14	29.34	46.00	-16.66	peak

Emission Level= Read Level+ Correct Factor

Temperature:	24.6 °C	Relative Humidity:	43%
Test Voltage:	AC 120V/60Hz		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)		
Remark:	Only worse case is reported.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		31.0703	43.96	-13.74	30.22	40.00	-9.78	peak
2	*	45.3755	52.85	-21.54	31.31	40.00	-8.69	peak
3		63.5356	50.02	-23.92	26.10	40.00	-13.90	peak
4		83.5220	50.03	-22.24	27.79	40.00	-12.21	peak
5		148.4410	44.71	-21.51	23.20	43.50	-20.30	peak
6		164.9072	45.66	-20.63	25.03	43.50	-18.47	peak

Emission Level= Read Level+ Correct Factor

5180MHz-5240MHz(U-NII-1)

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit. Only worse case is reported.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10359.680	21.18	20.50	41.68	54.00	-12.32	AVG
2		10359.684	33.18	20.50	53.68	68.30	-14.62	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit. Only worse case is reported.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10360.254	21.86	20.50	42.36	54.00	-11.64	AVG
2		10361.325	30.36	20.50	50.86	68.30	-17.44	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode 5200MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10399.874	20.69	20.56	41.25	54.00	-12.75	AVG
2		10400.569	32.69	20.56	53.25	68.30	-15.05	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode 5200MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10399.378	19.83	20.56	40.39	54.00	-13.61	AVG
2		10399.685	31.69	20.56	52.25	68.30	-16.05	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		10359.580	31.19	20.50	51.69	68.30	-16.61	peak
2	*	10360.251	20.18	20.50	40.68	54.00	-13.32	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
							Detector
1		10360.305	30.75	20.50	51.25	68.30	-17.05 peak
2	*	10361.023	19.76	20.50	40.26	54.00	-13.74 AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT20) Mode 5200MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		10399.154	30.33	20.56	50.89	68.30	-17.41	peak
2	*	10399.520	19.80	20.56	40.36	54.00	-13.64	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT20) Mode 5200MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		10400.256	30.40	20.56	50.96	68.30	-17.34	peak
2	*	10400.674	19.69	20.56	40.25	54.00	-13.75	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10480.268	20.18	20.68	40.86	54.00	-13.14	AVG
2		10480.693	30.68	20.68	51.36	68.30	-16.94	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT20) Mode 5180MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10359.258	19.98	20.50	40.48	54.00	-13.52	AVG
2		10360.855	30.86	20.50	51.36	68.30	-16.94	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT20) Mode 5180MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
							Detector
1		10359.840	30.75	20.50	51.25	68.30	-17.05 peak
2	*	10360.250	19.78	20.50	40.28	54.00	-13.72 AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT20) Mode 5200MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10399.580	19.32	20.56	39.88	54.00	-14.12	AVG
2		10400.256	30.83	20.56	51.39	68.30	-16.91	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT20) Mode 5200MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10379.256	18.79	20.53	39.32	54.00	-14.68	AVG
2		10400.525	30.30	20.56	50.86	68.30	-17.44	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11 ac(VHT20) Mode 5240MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10478.616	19.79	20.68	40.47	54.00	-13.53	AVG
2		10482.481	31.65	20.68	52.33	68.30	-15.97	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT20) Mode 5240MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10478.678	19.65	20.68	40.33	54.00	-13.67	AVG
2		10480.973	32.26	20.68	52.94	68.30	-15.36	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		10379.250	30.83	20.53	51.36	68.30	-16.94	peak
2	*	10380.562	20.35	20.53	40.88	54.00	-13.12	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10379.250	19.83	20.53	40.36	54.00	-13.64	AVG
2		10380.250	31.61	20.53	52.14	68.30	-16.16	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		10459.684	30.71	20.65	51.36	68.30	-16.94	peak
2	*	10460.532	20.60	20.65	41.25	54.00	-12.75	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1		10459.336	31.71	20.65	52.36	68.30	-15.94 peak
2	*	10460.256	20.23	20.65	40.88	54.00	-13.12 AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT40) Mode 5190MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
							Detector
1		10379.250	31.83	20.53	52.36	68.30	-15.94 peak
2	*	10379.500	19.33	20.53	39.86	54.00	-14.14 AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT40) Mode 5190MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		10379.500	31.40	20.53	51.93	68.30	-16.37	peak
2	*	10380.000	19.70	20.53	40.23	54.00	-13.77	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT40) Mode 5230MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	10460.077	23.96	20.68	44.64	54.00	-9.36	AVG
2		10460.661	35.16	20.68	55.84	68.30	-12.46	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT40) Mode 5230MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
							Detector
1		10459.350	30.68	20.65	51.33	68.30	-16.97 peak
2	*	10460.250	19.37	20.65	40.02	54.00	-13.98 AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT80) Mode 5210MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
							Detector
1		10419.860	30.77	20.59	51.36	68.30	-16.94 peak
2	*	10420.123	18.93	20.59	39.52	54.00	-14.48 AVG

Emission Level= Read Level+ Correct Factor

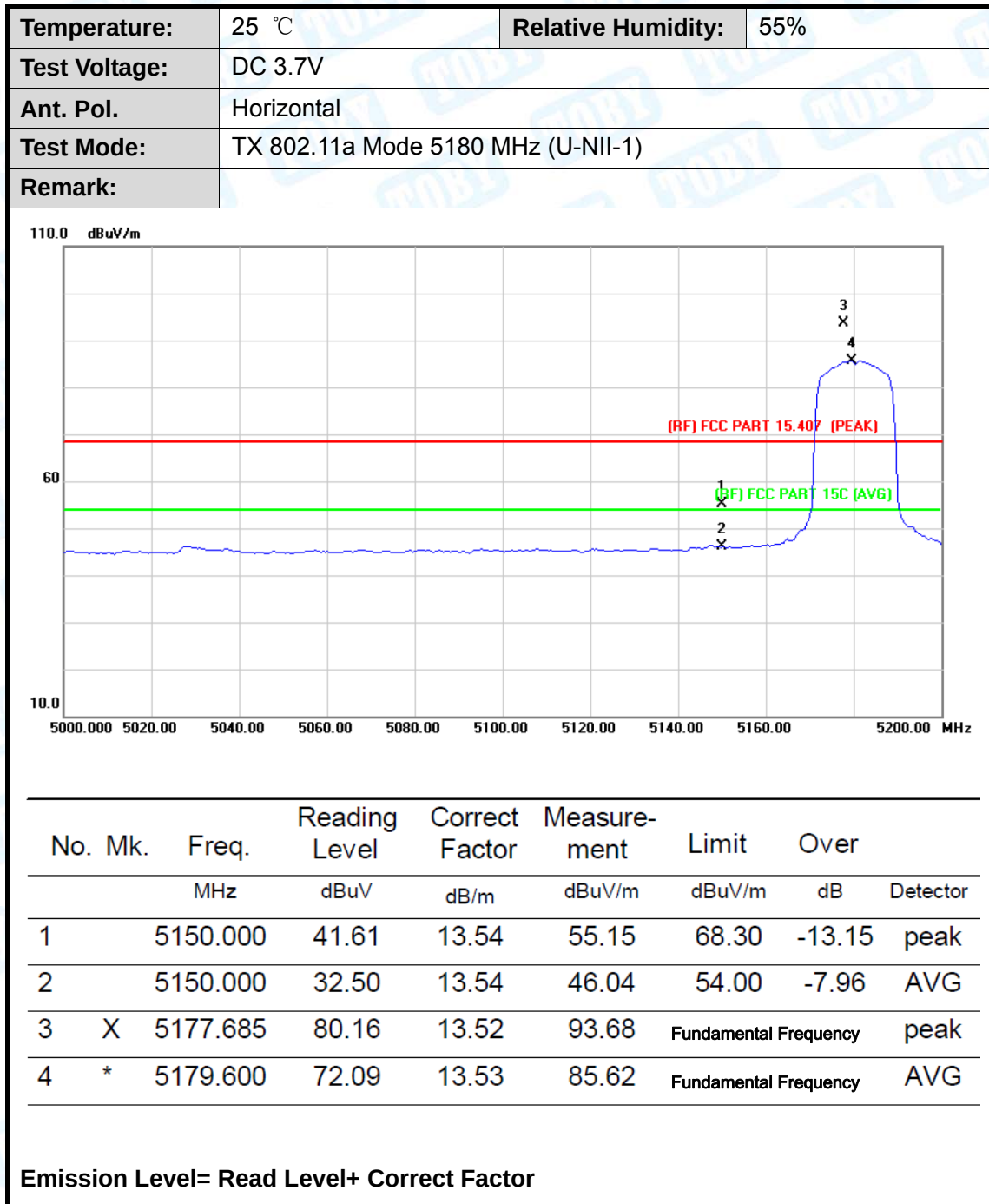
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT80) Mode 5210MHz (U-NII-1)		
Remark:	No report for the emission which more than 15 dB below the prescribed limit.		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
							Detector
1		10420.250	30.77	20.59	51.36	68.30	-16.94 peak
2	*	10420.860	20.30	20.59	40.89	54.00	-13.11 AVG

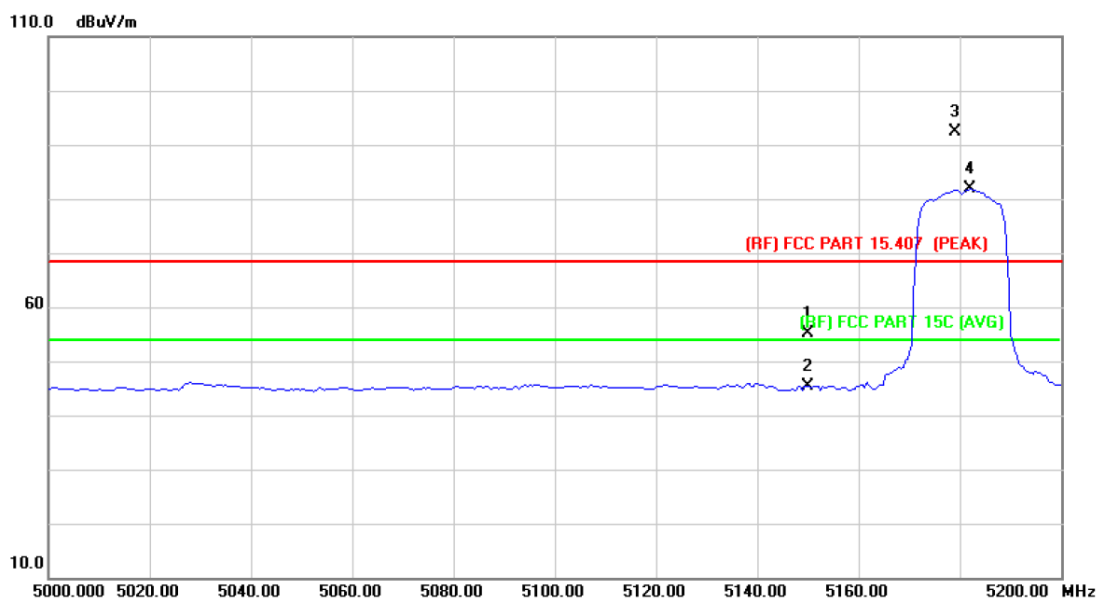
Emission Level= Read Level+ Correct Factor

Attachment C-- Restricted Bands Requirement and Band-edge Test Data

(1) Radiation Test



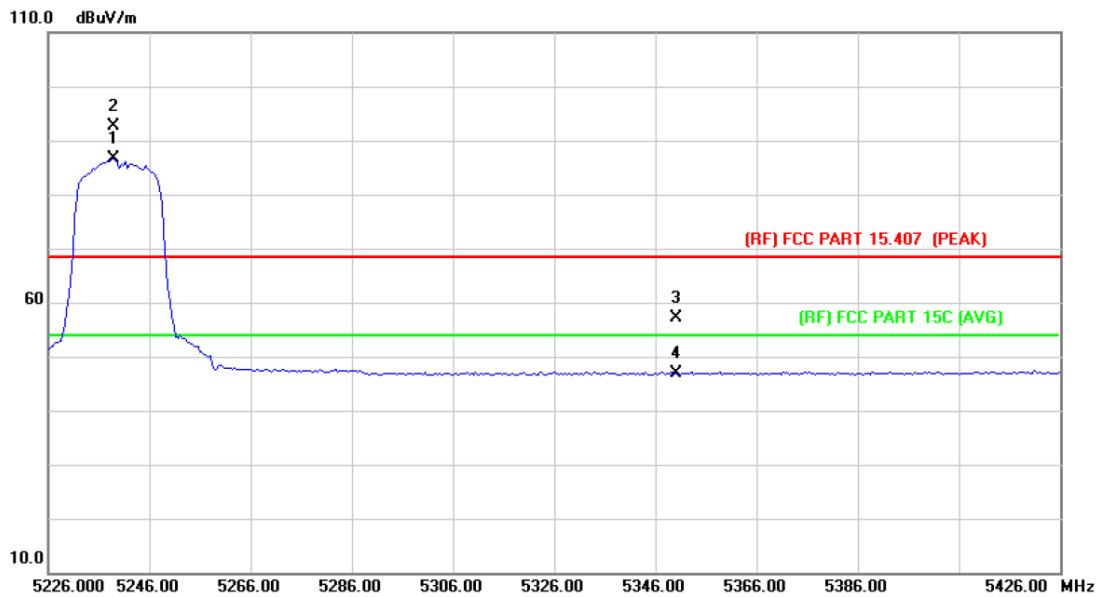
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode 5180 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	41.51	13.54	55.05	68.30	-13.25	peak
2		5150.000	31.73	13.54	45.27	54.00	-8.73	AVG
3	X	5179.040	78.82	13.53	92.35	Fundamental Frequency		peak
4	*	5182.000	68.43	13.52	81.95	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

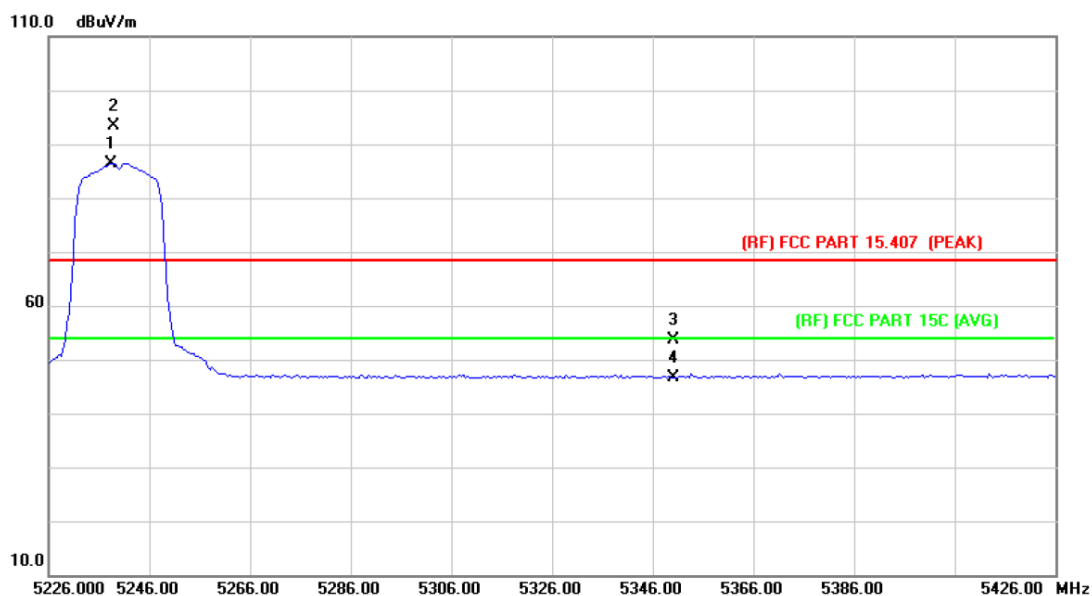
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode 5240 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5238.800	73.06	13.47	86.53	Fundamental Frequency		AVG
2	X	5238.970	79.21	13.47	92.68	Fundamental Frequency		peak
3		5350.000	43.72	13.40	57.12	68.30	-11.18	peak
4		5350.000	33.56	13.40	46.96	54.00	-7.04	AVG

Emission Level= Read Level+ Correct Factor

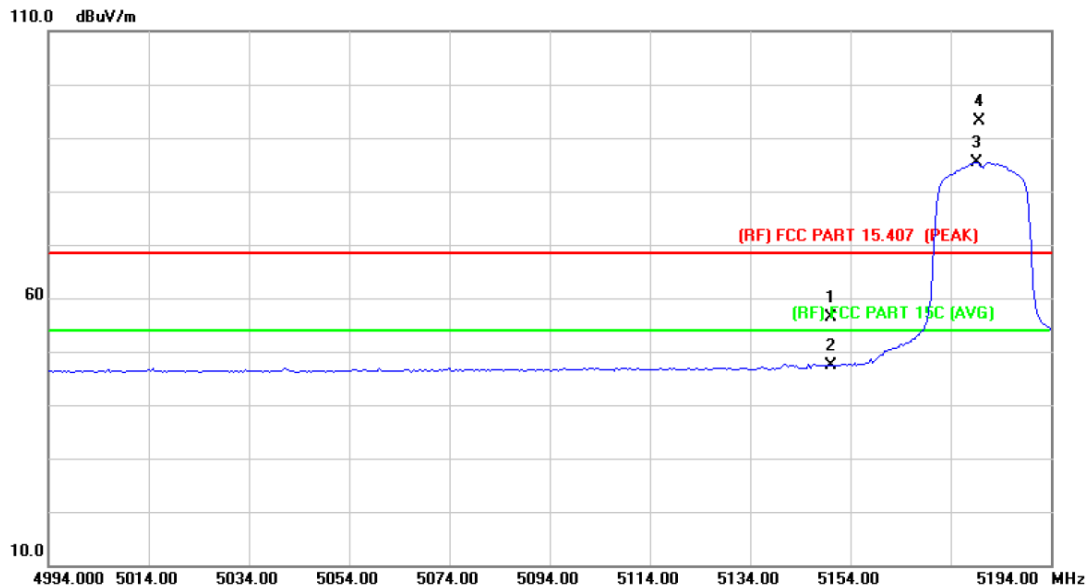
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode 5240 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5238.400	72.97	13.47	86.44	Fundamental Frequency		AVG
2	X	5238.970	80.02	13.47	93.49	Fundamental Frequency		peak
3		5350.000	40.29	13.40	53.69	68.30	-14.61	peak
4		5350.000	33.29	13.40	46.69	54.00	-7.31	AVG

Emission Level= Read Level+ Correct Factor

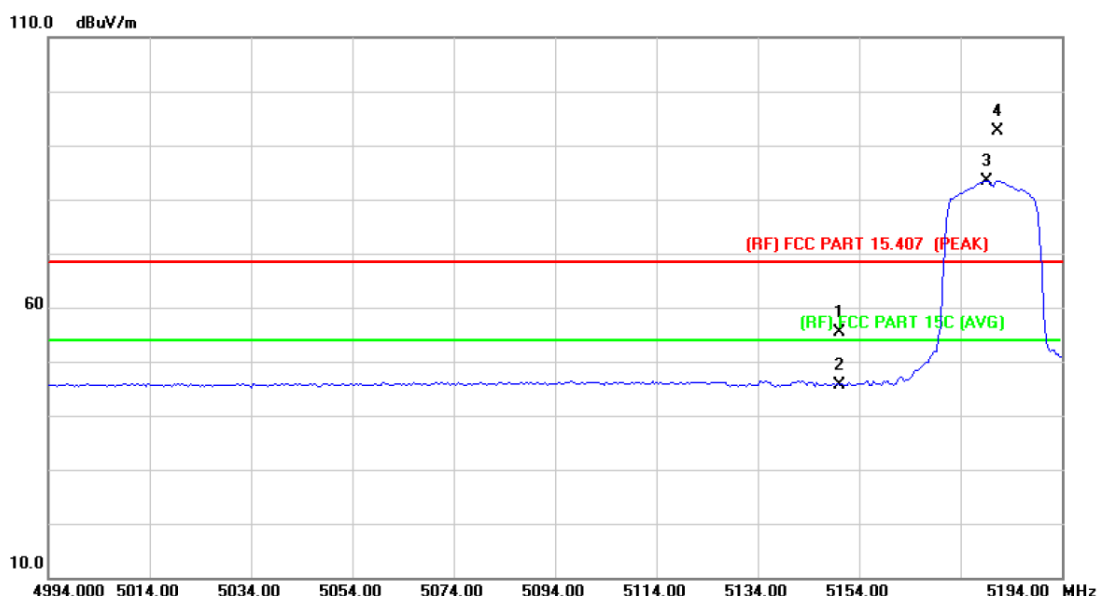
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT20) Mode 5180 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	42.73	13.54	56.27	68.30	-12.03	peak
2		5150.000	33.88	13.54	47.42	54.00	-6.58	AVG
3	*	5179.200	71.94	13.53	85.47	Fundamental Frequency		AVG
4	X	5179.830	79.59	13.53	93.12	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

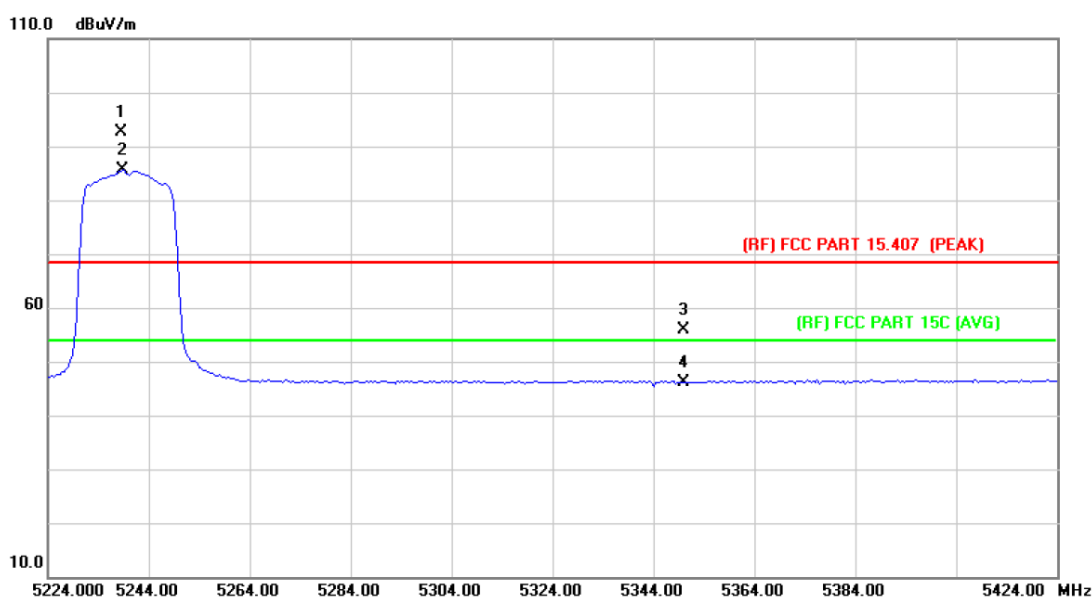
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT20) Mode 5180 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	41.94	13.54	55.48	68.30	-12.82	peak
2		5150.000	32.06	13.54	45.60	54.00	-8.40	AVG
3	*	5179.200	69.90	13.53	83.43	Fundamental Frequency		AVG
4	X	5181.430	79.03	13.53	92.56	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT20) Mode 5240 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5238.570	79.22	13.47	92.69	Fundamental Frequency		peak
2	*	5238.800	72.06	13.47	85.53	Fundamental Frequency		AVG
3		5350.000	42.37	13.40	55.77	68.30	-12.53	peak
4		5350.000	32.81	13.40	46.21	54.00	-7.79	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT20) Mode 5240 MHz (U-NII-1)		
Remark:			

110.0 dBuV/m

60

(RF) FCC PART 15.407 (PEAK)

(RF) FCC PART 15C (AVG)

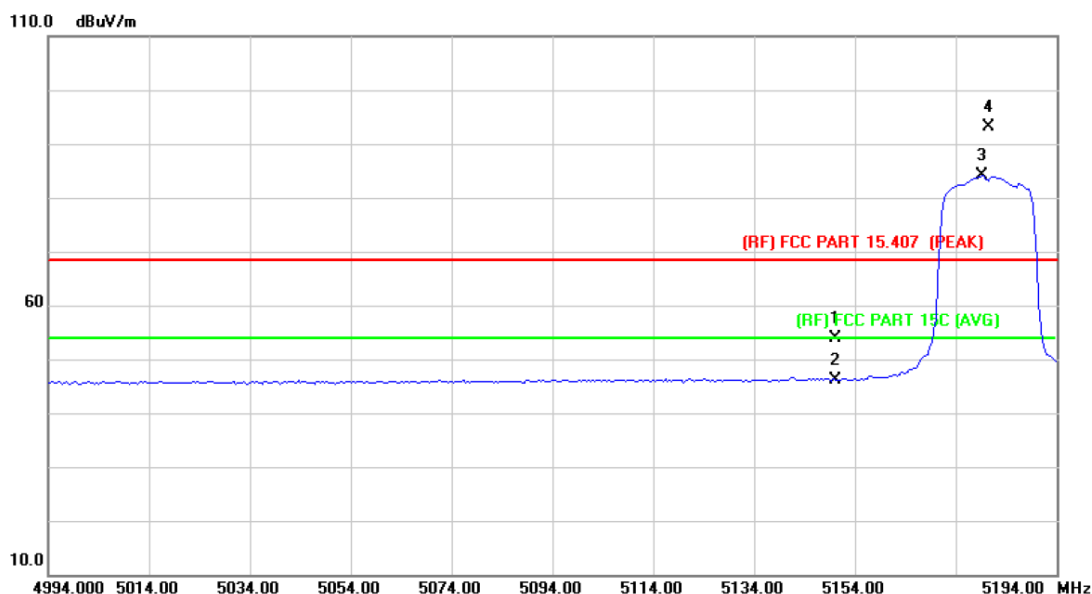
10.0

5224.000 5244.00 5264.00 5284.00 5304.00 5324.00 5344.00 5364.00 5384.00 5424.00 MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	*	5241.200	71.92	13.48	85.40	Fundamental Frequency		AVG
2	X	5241.760	79.39	13.48	92.87	Fundamental Frequency		peak
3		5350.000	40.29	13.40	53.69	68.30	-14.61	peak
4		5350.000	32.71	13.40	46.11	54.00	-7.89	AVG

Emission Level= Read Level+ Correct Factor

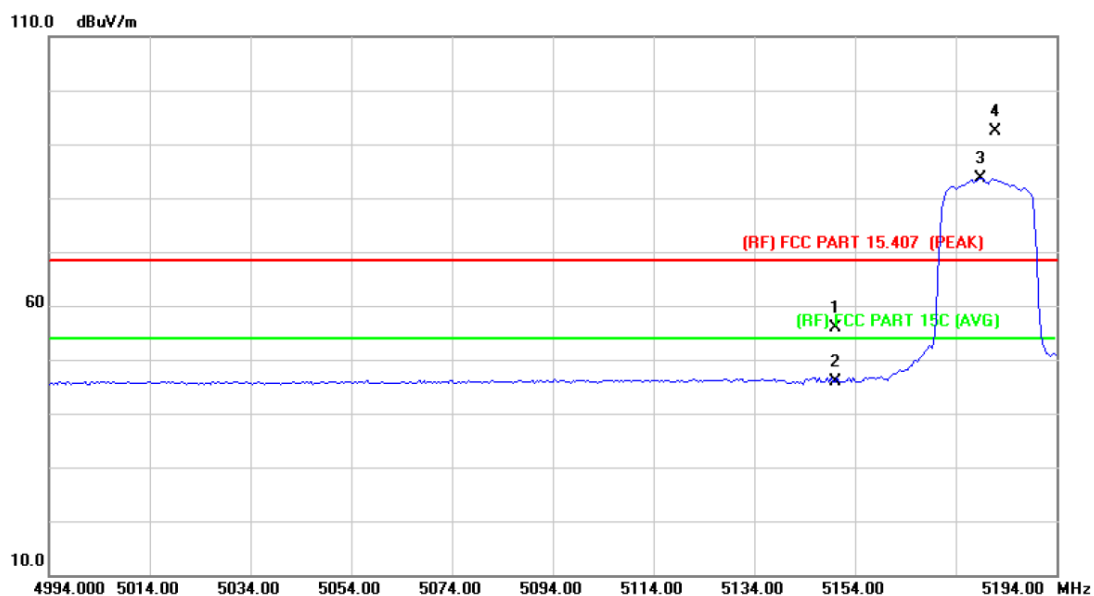
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT20) Mode 5180 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	40.35	13.54	53.89	68.30	-14.41	peak
2		5150.000	32.65	13.54	46.19	54.00	-7.81	AVG
3	*	5179.200	70.50	13.53	84.03	Fundamental Frequency		AVG
4	X	5180.630	79.72	13.53	93.25	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

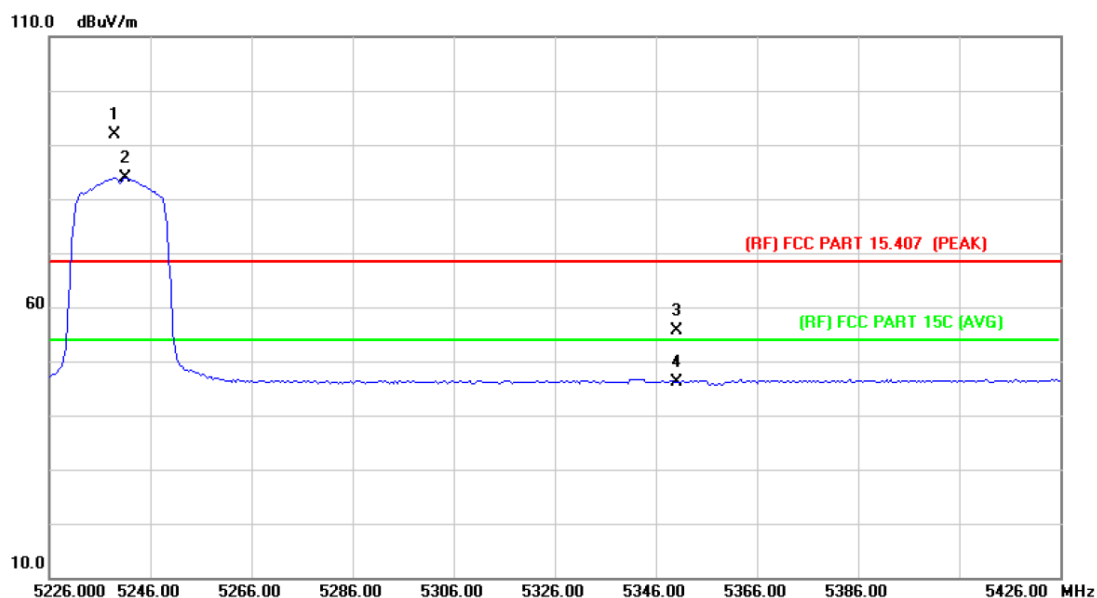
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT20) Mode 5180 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	42.33	13.54	55.87	68.30	-12.43	peak
2		5150.000	32.26	13.54	45.80	54.00	-8.20	AVG
3	*	5178.800	70.07	13.53	83.60	Fundamental Frequency		AVG
4	X	5181.820	78.83	13.52	92.35	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

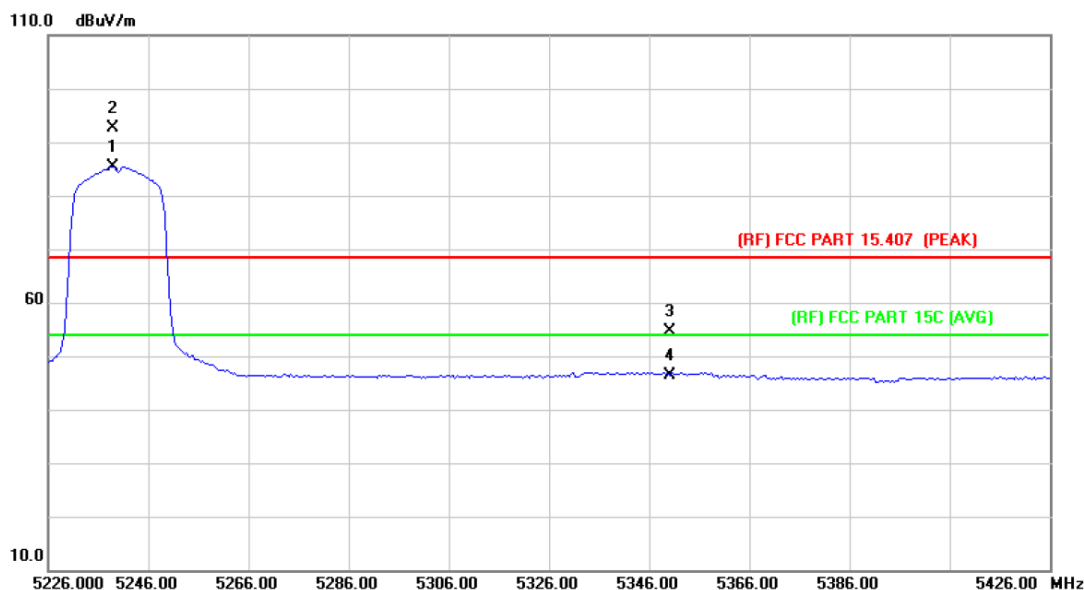
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT20) Mode 5240 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5238.970	78.42	13.47	91.89	68.30	-12.61	peak
2	*	5241.200	70.44	13.48	83.92	54.00	-7.90	AVG
3		5350.000	42.29	13.40	55.69	68.30	-12.61	peak
4		5350.000	32.70	13.40	46.10	54.00	-7.90	AVG

Emission Level= Read Level+ Correct Factor

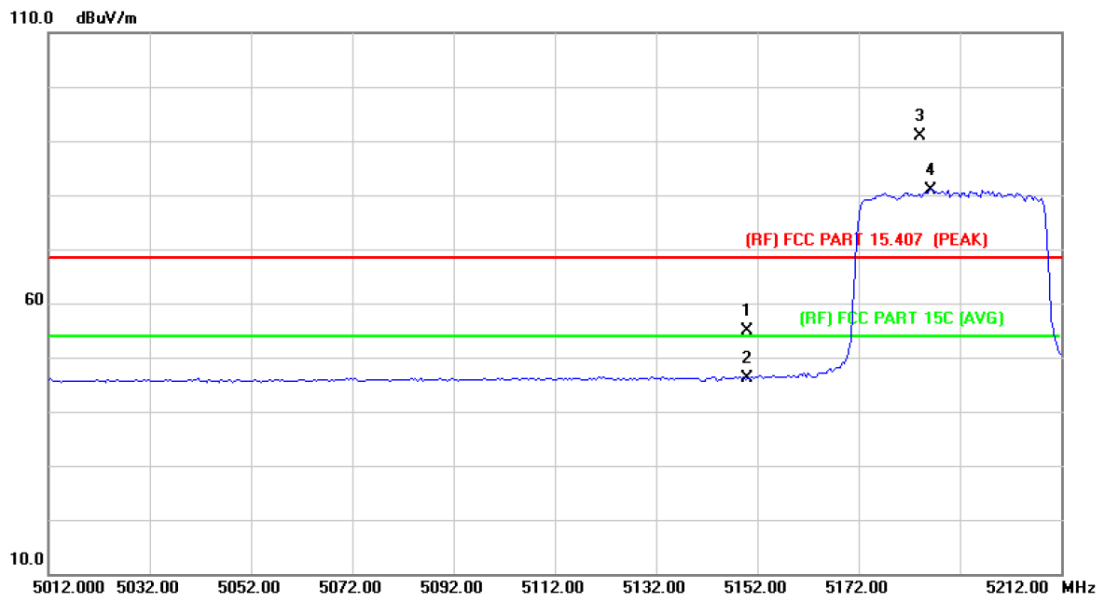
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT20) Mode 5240 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5238.800	71.98	13.47	85.45	Fundamental Frequency		AVG
2	X	5238.970	79.20	13.47	92.67	Fundamental Frequency		peak
3		5350.000	41.29	13.40	54.69	68.30	-13.61	peak
4		5350.000	33.08	13.40	46.48	54.00	-7.52	AVG

Emission Level= Read Level+ Correct Factor

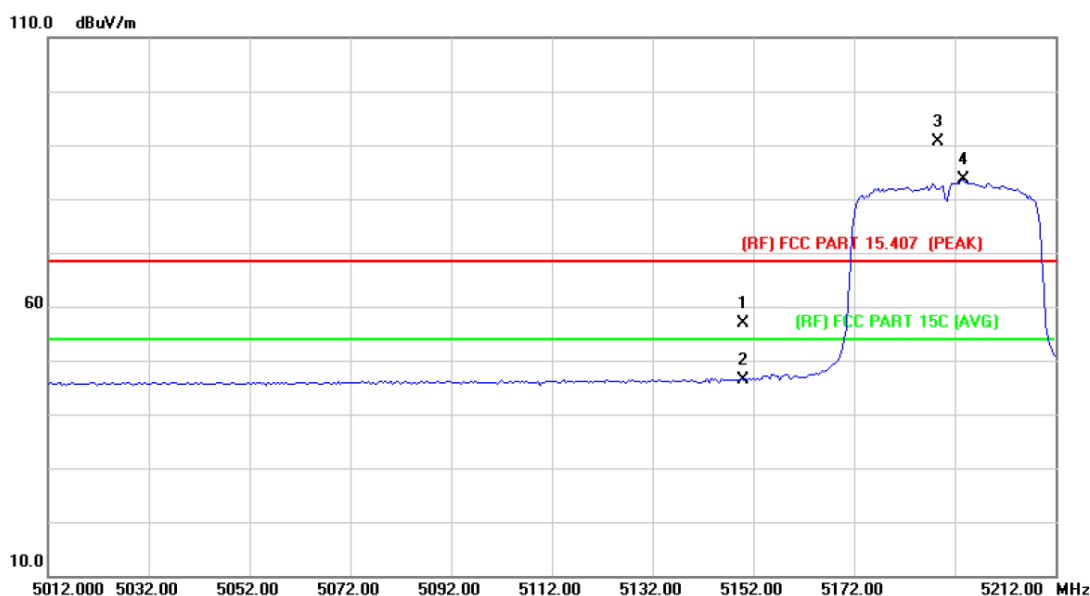
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT40) Mode 5190 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	41.35	13.54	54.89	68.30	-13.41	peak
2		5150.000	32.68	13.54	46.22	54.00	-7.78	AVG
3	X	5184.260	77.32	13.52	90.84	Fundamental Frequency		peak
4	*	5186.400	67.48	13.52	81.00	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

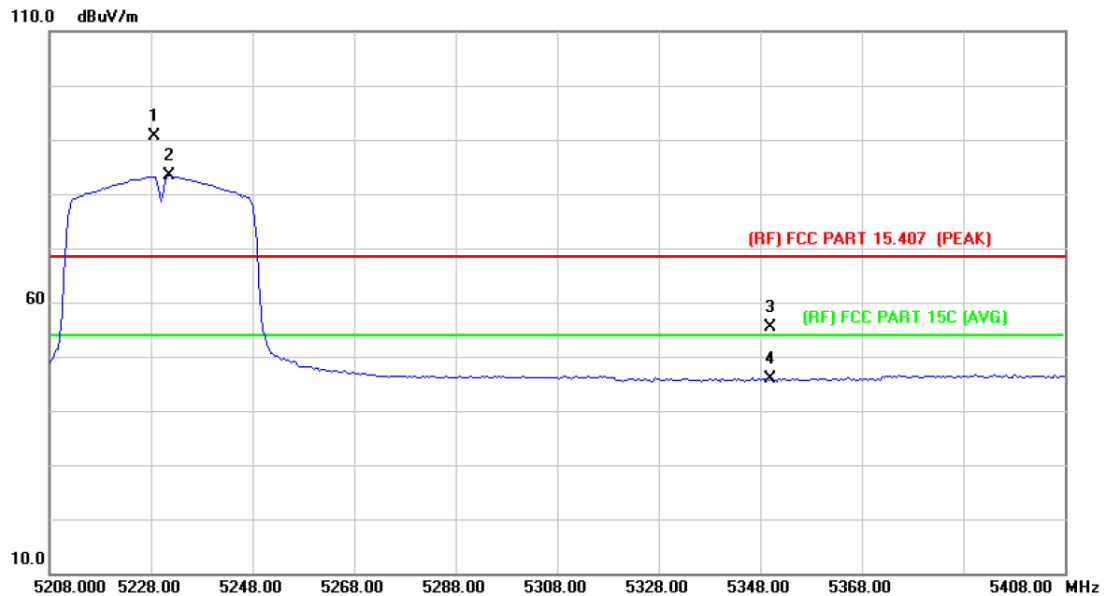
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT40) Mode 5190 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	43.33	13.54	56.87	68.30	-11.43	peak
2		5150.000	32.87	13.54	46.41	54.00	-7.59	AVG
3	X	5188.650	77.04	13.51	90.55	Fundamental Frequency		peak
4	*	5193.600	70.19	13.51	83.70	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

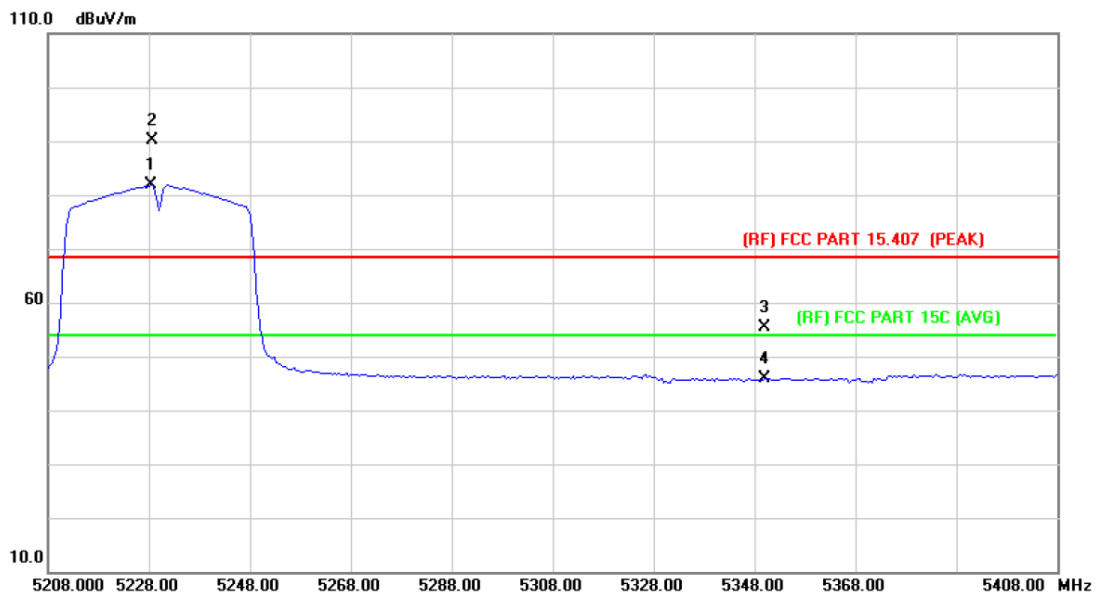
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(HT40) Mode 5230 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	X	5228.560	77.07	13.49	90.56	Fundamental Frequency		peak
2	*	5231.600	69.83	13.48	83.31	Fundamental Frequency		AVG
3		5350.000	42.09	13.40	55.49	68.30	-12.81	peak
4		5350.000	32.40	13.40	45.80	54.00	-8.20	AVG

Emission Level= Read Level+ Correct Factor

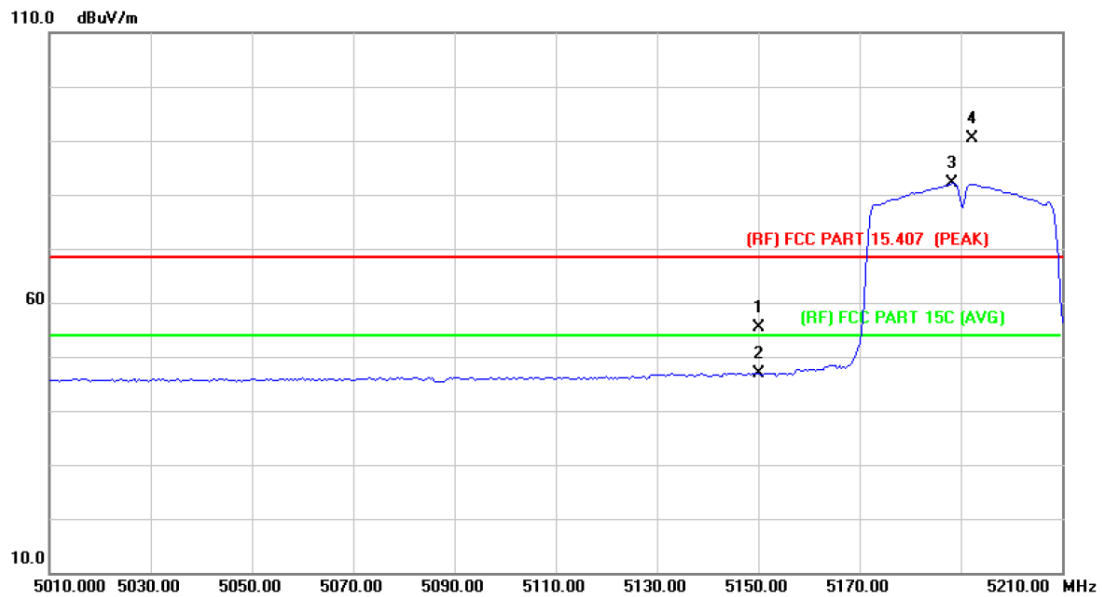
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(HT40) Mode 5230 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5228.400	68.30	13.49	81.79	Fundamental Frequency		AVG
2	X	5228.560	76.76	13.49	90.25	Fundamental Frequency		peak
3		5350.000	42.05	13.40	55.45	68.30	-12.85	peak
4		5350.000	32.49	13.40	45.89	54.00	-8.11	AVG

Emission Level= Read Level+ Correct Factor

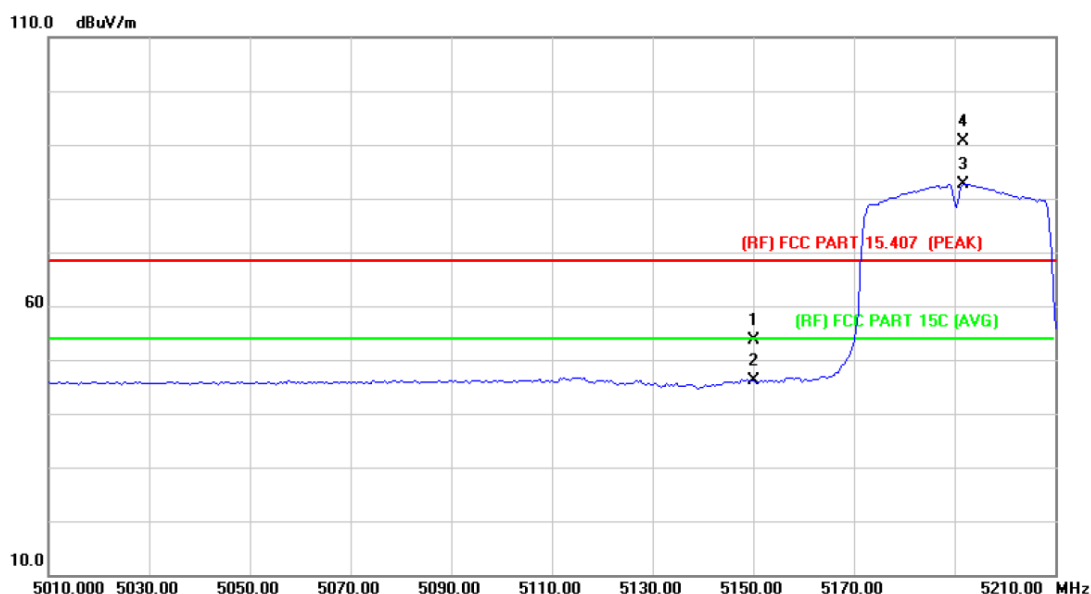
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT40) Mode 5190 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	41.81	13.54	55.35	68.30	-12.95	peak
2		5150.000	33.33	13.54	46.87	54.00	-7.13	AVG
3	*	5188.400	68.59	13.51	82.10	Fundamental Frequency		AVG
4	X	5192.240	76.86	13.51	90.37	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

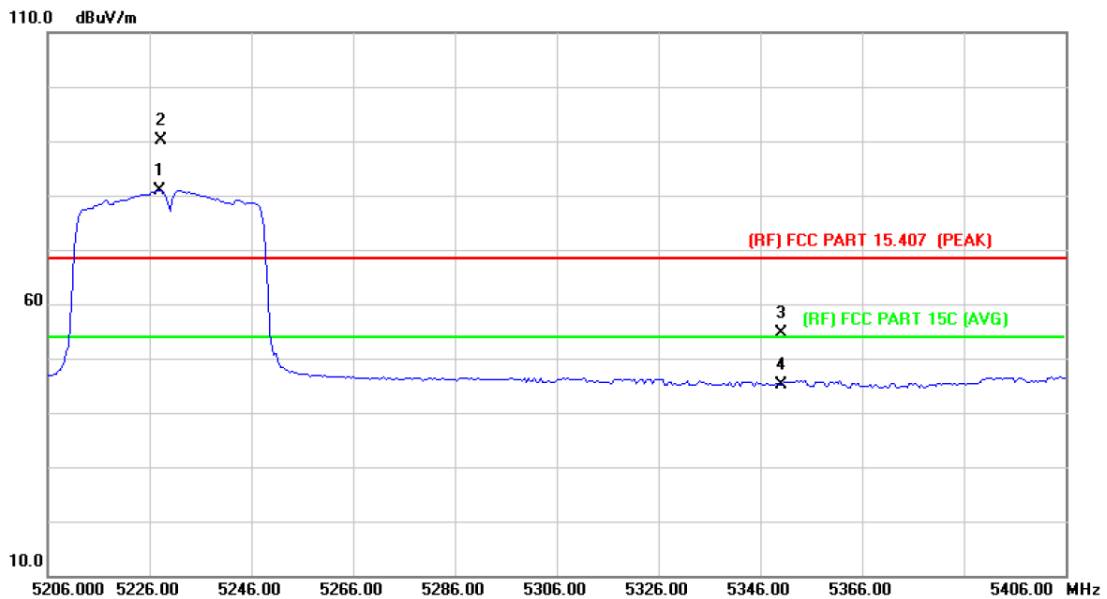
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT40) Mode 5190 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	40.13	13.54	53.67	68.30	-14.63	peak
2		5150.000	32.59	13.54	46.13	54.00	-7.87	AVG
3	*	5191.600	69.21	13.51	82.72	Fundamental Frequency ?		AVG
4	X	5191.840	77.16	13.51	90.67	Fundamental Frequency '		peak

Emission Level= Read Level+ Correct Factor

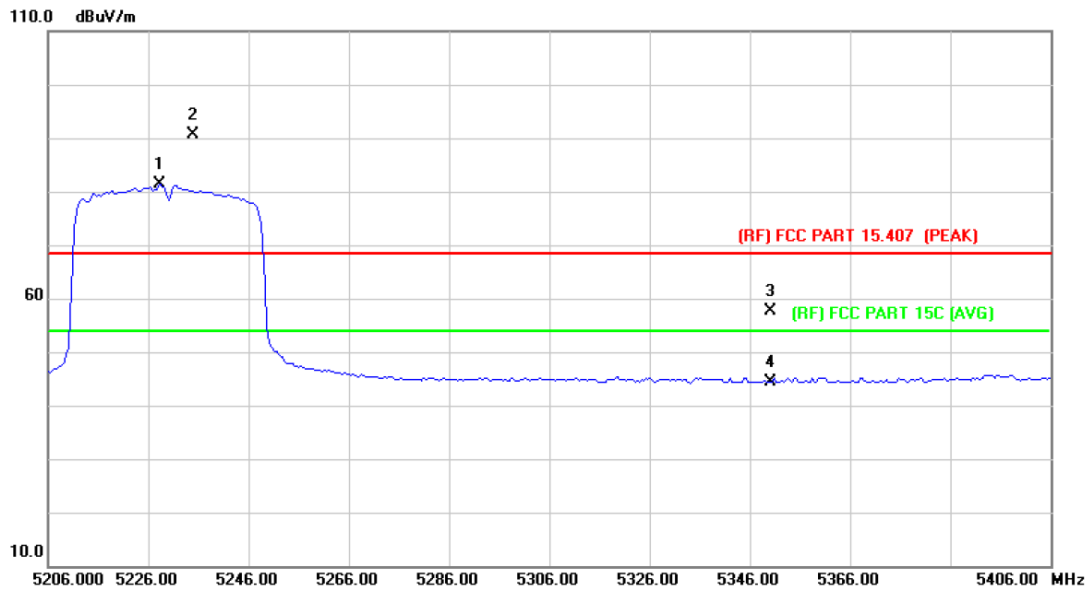
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT40) Mode 5230 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5228.000	67.32	13.49	80.81	Fundamental Frequency		AVG
2	X	5228.160	76.53	13.49	90.02	Fundamental Frequency		peak
3		5350.000	41.28	13.40	54.68	68.30	-13.62	peak
4		5350.000	31.77	13.40	45.17	54.00	-8.83	AVG

Emission Level= Read Level+ Correct Factor

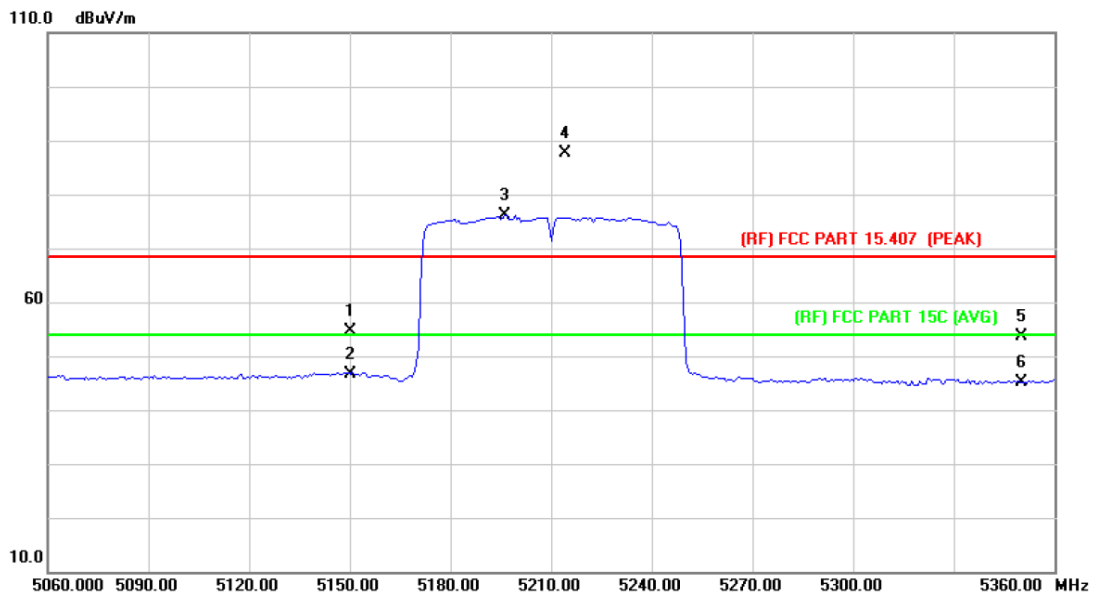
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT40) Mode 5230 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5228.400	67.79	13.49	81.28	Fundamental Frequency		AVG
2	X	5234.940	77.20	13.48	90.68	Fundamental Frequency		peak
3		5350.000	44.28	13.40	57.68	68.30	-10.62	peak
4		5350.000	31.09	13.40	44.49	54.00	-9.51	AVG

Emission Level= Read Level+ Correct Factor

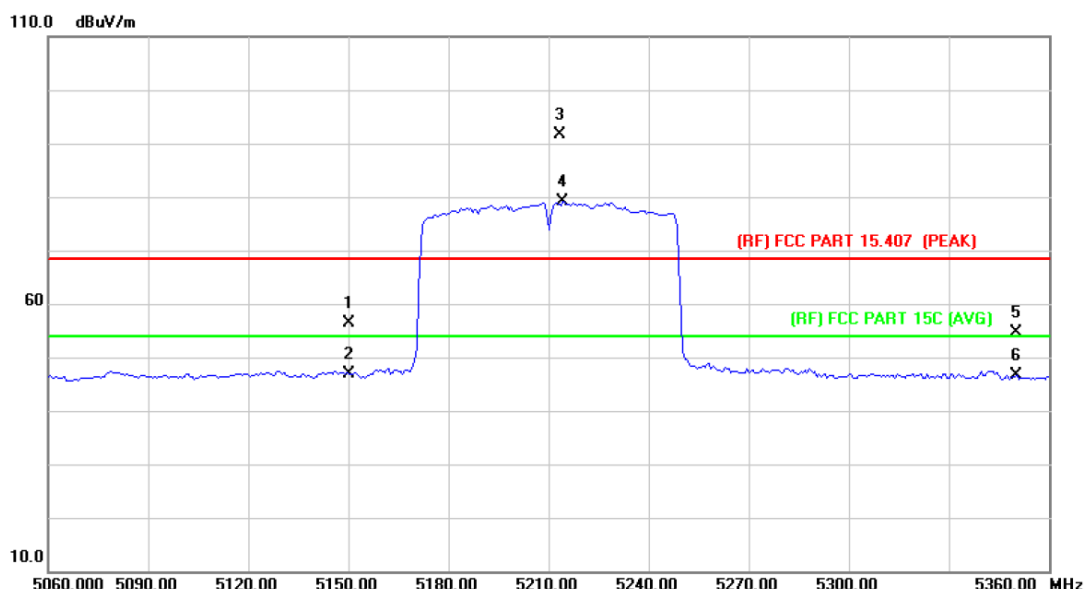
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(VHT80) Mode 5210 MHz (U-NII-1)		
Remark:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	41.13	13.54	54.67	68.30	-13.63	peak
2		5150.000	33.17	13.54	46.71	54.00	-7.29	AVG
3	*	5196.200	62.62	13.50	76.12	Fundamental Frequency		AVG
4	X	5214.360	74.19	13.49	87.68	Fundamental Frequency		peak
5		5350.000	40.28	13.40	53.68	68.30	-14.62	peak
6		5350.000	31.83	13.40	45.23	54.00	-8.77	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(VHT80) Mode 5210 MHz (U-NII-1)		
Remark:			

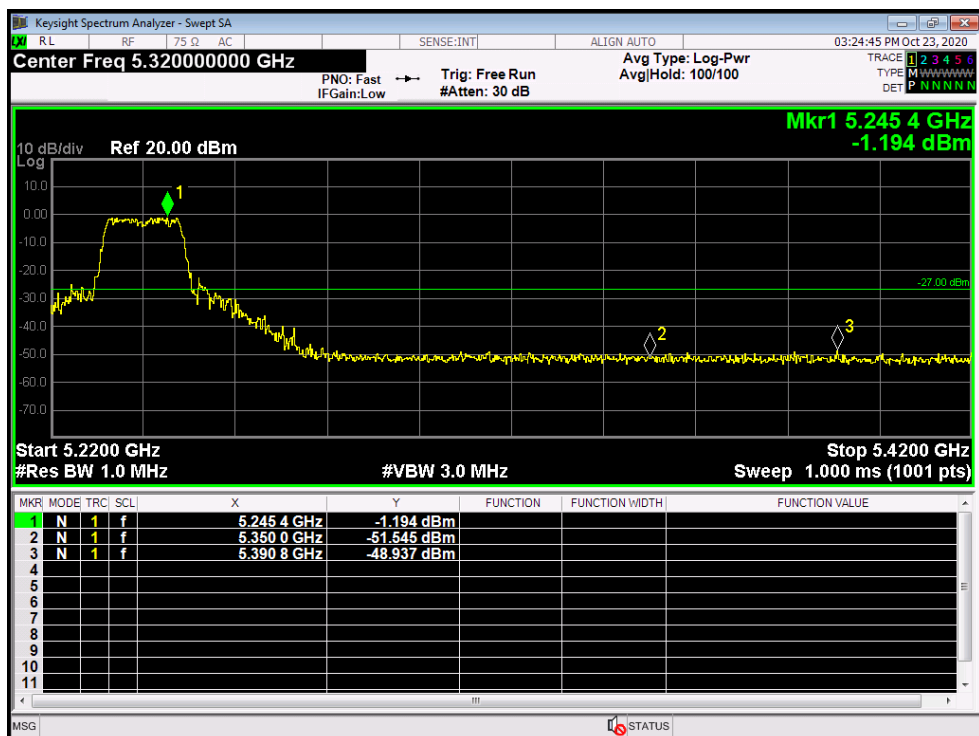
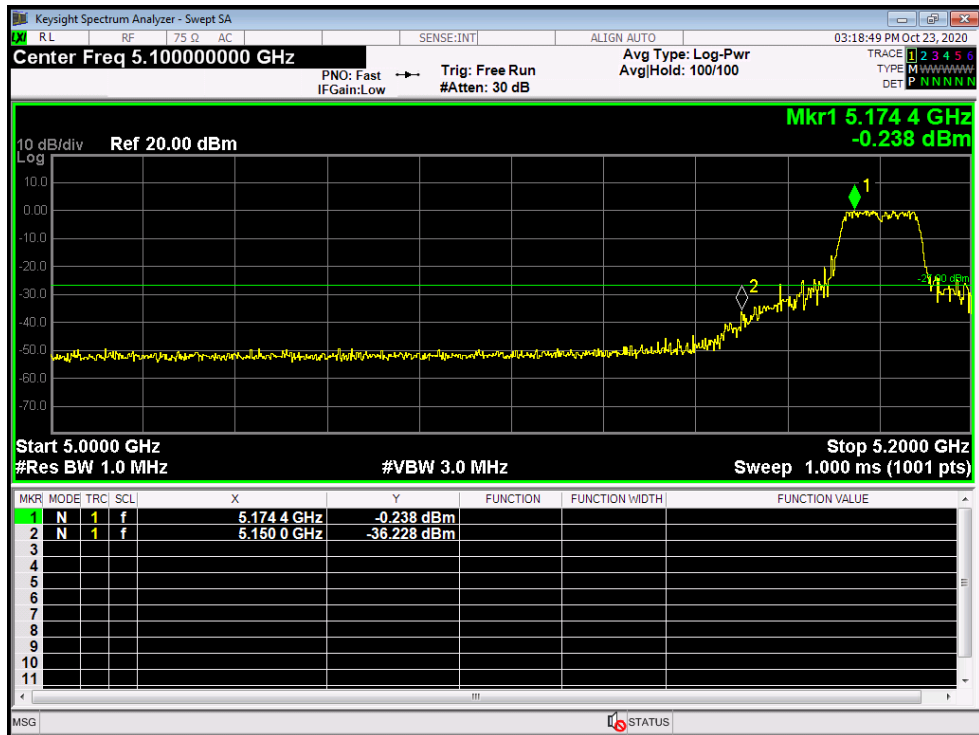


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5150.000	42.84	13.54	56.38	68.30	-11.92	peak
2		5150.000	33.40	13.54	46.94	54.00	-7.06	AVG
3	X	5213.590	78.19	13.49	91.68	Fundamental Frequency		peak
4	*	5214.200	65.75	13.49	79.24	Fundamental Frequency		AVG
5		5350.000	41.27	13.40	54.67	68.30	-13.63	peak
6		5350.000	33.20	13.40	46.60	54.00	-7.40	AVG

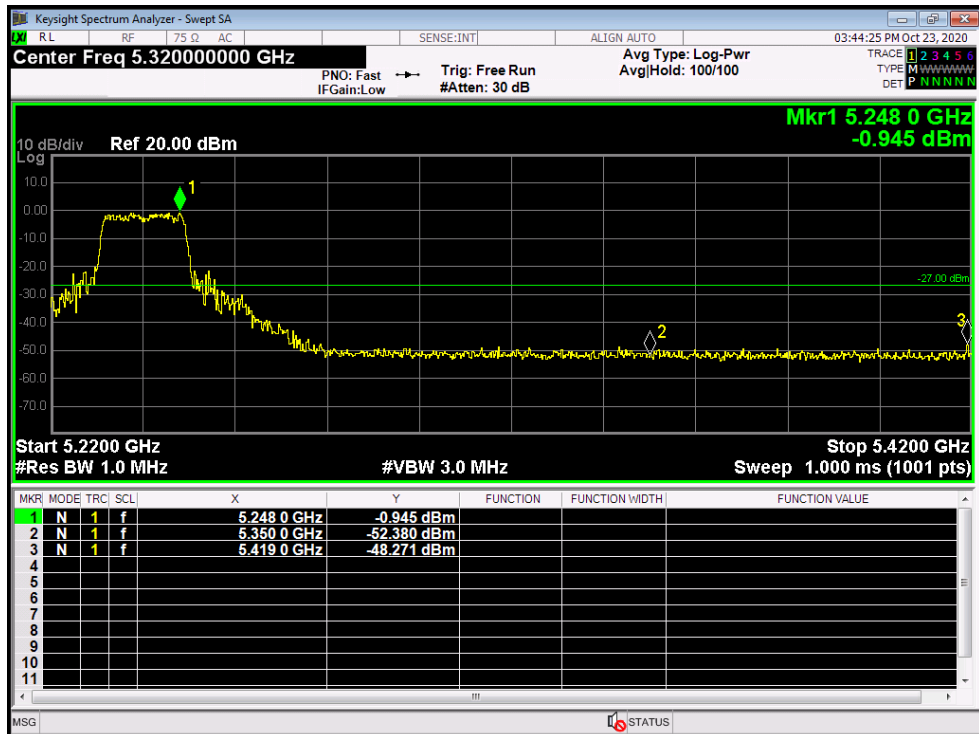
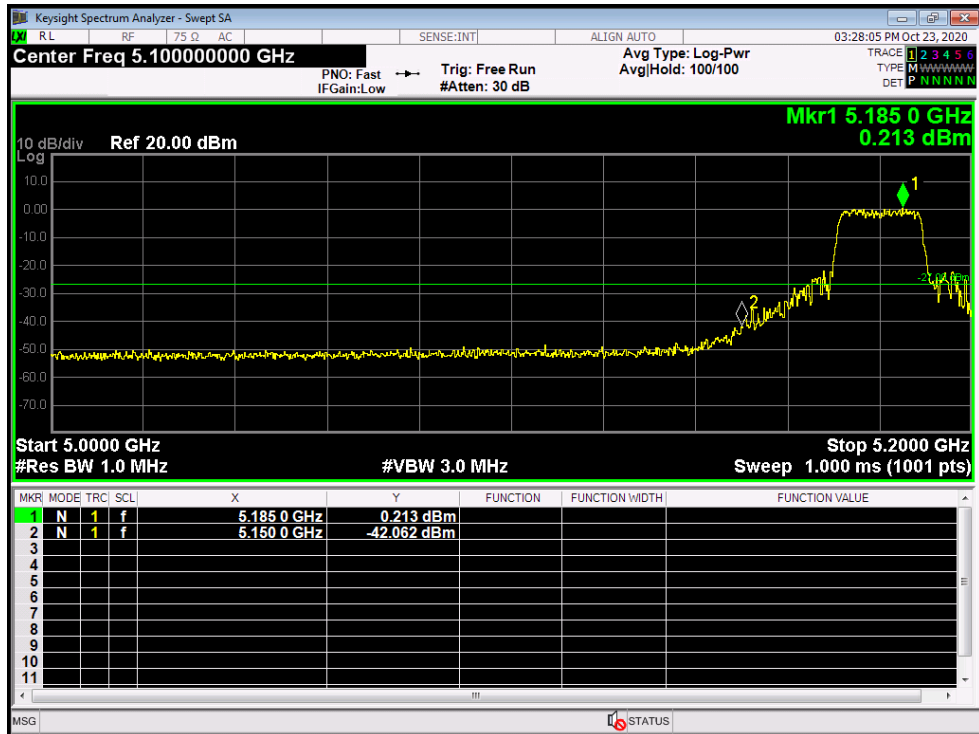
Emission Level= Read Level+ Correct Factor

(1) Conducted Test

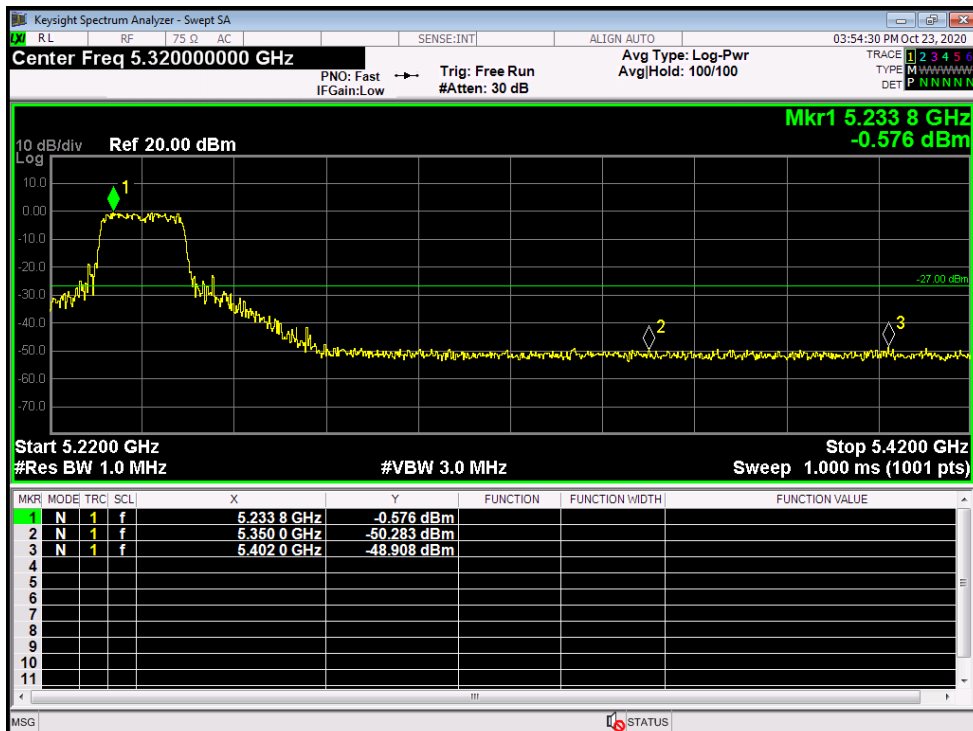
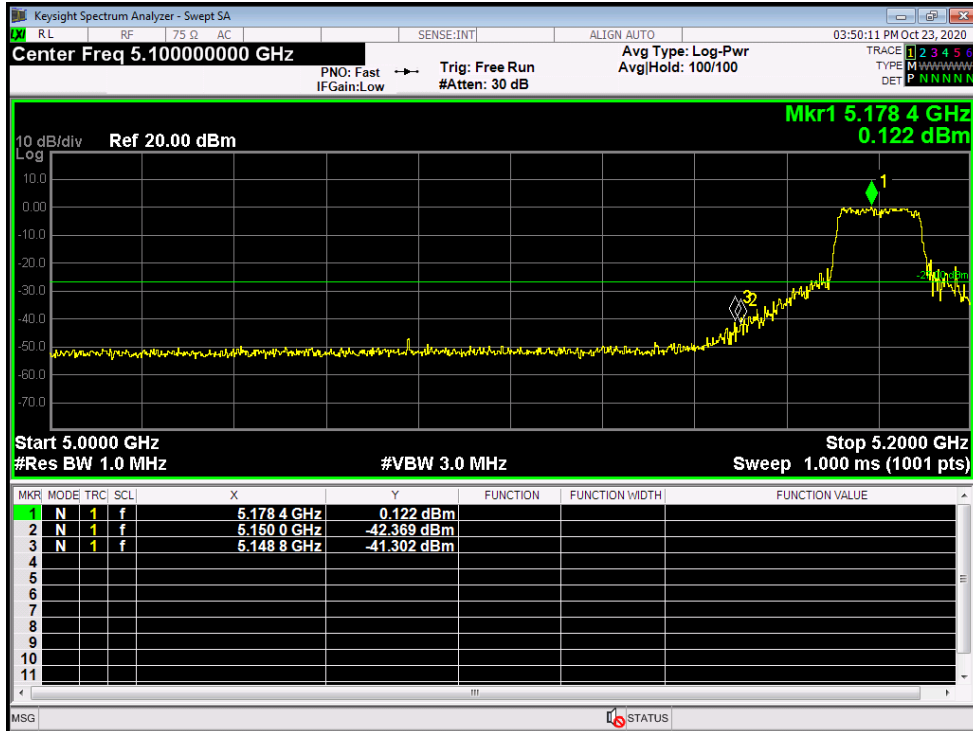
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11a mode(U-NII-1) / 5180MHz&5240MHz		
Remark:	The EUT is programmed in continuously transmitting mode		



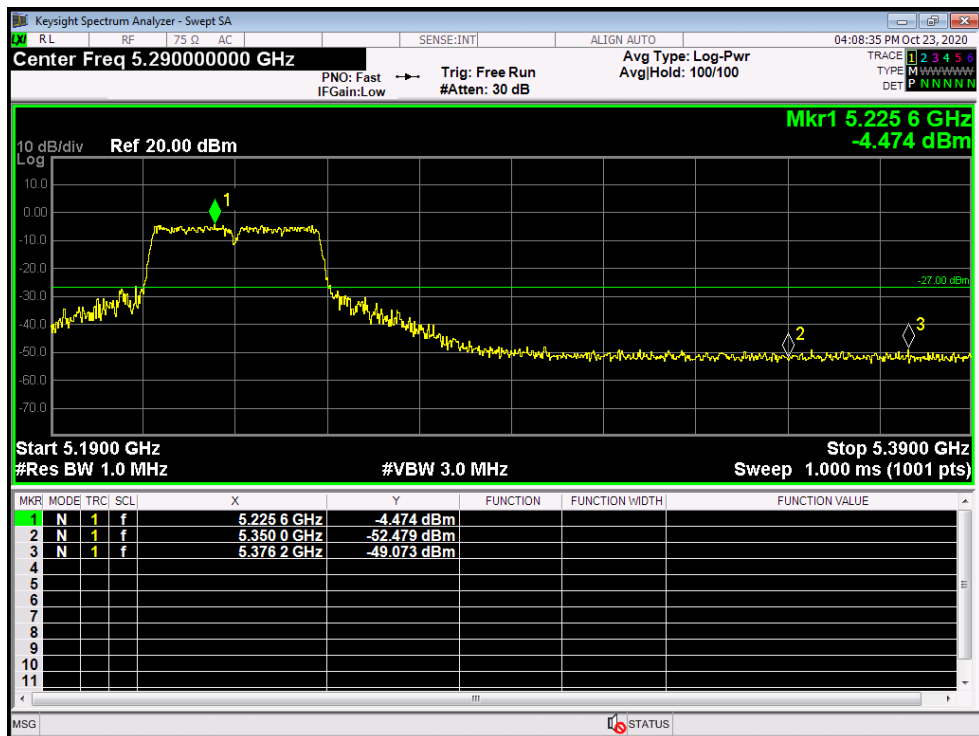
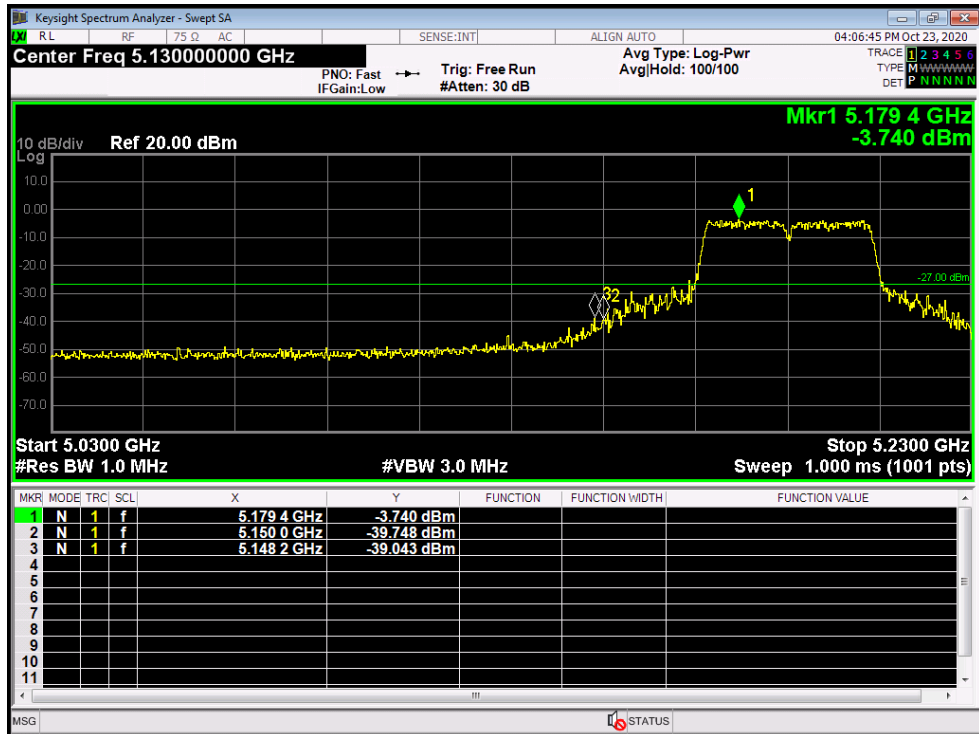
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11n(HT20) mode(U-NII-1) / 5180MHz&5240MHz		
Remark:	The EUT is programmed in continuously transmitting mode		



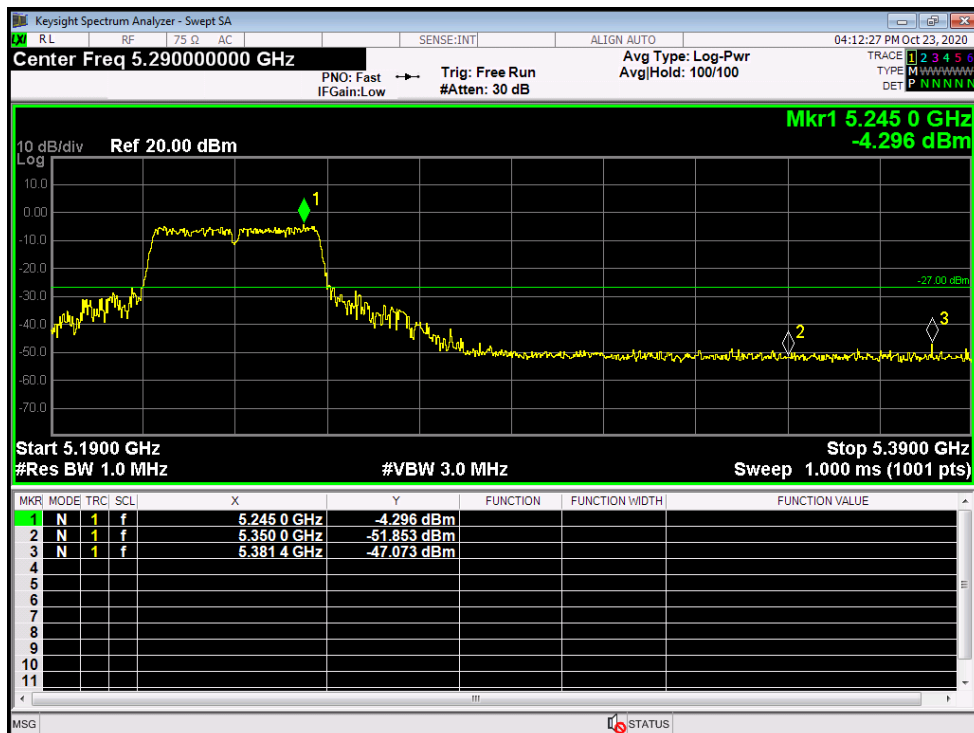
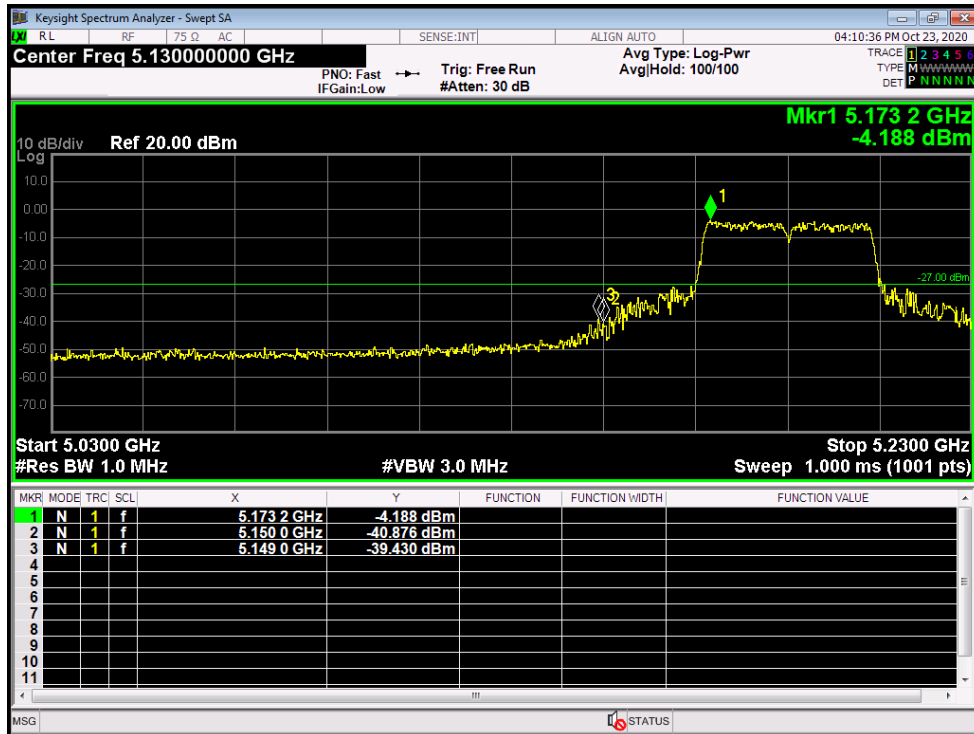
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11ac(VHT20) mode(U-NII-1) / 5180MHz&5240MHz		
Remark:	The EUT is programmed in continuously transmitting mode		



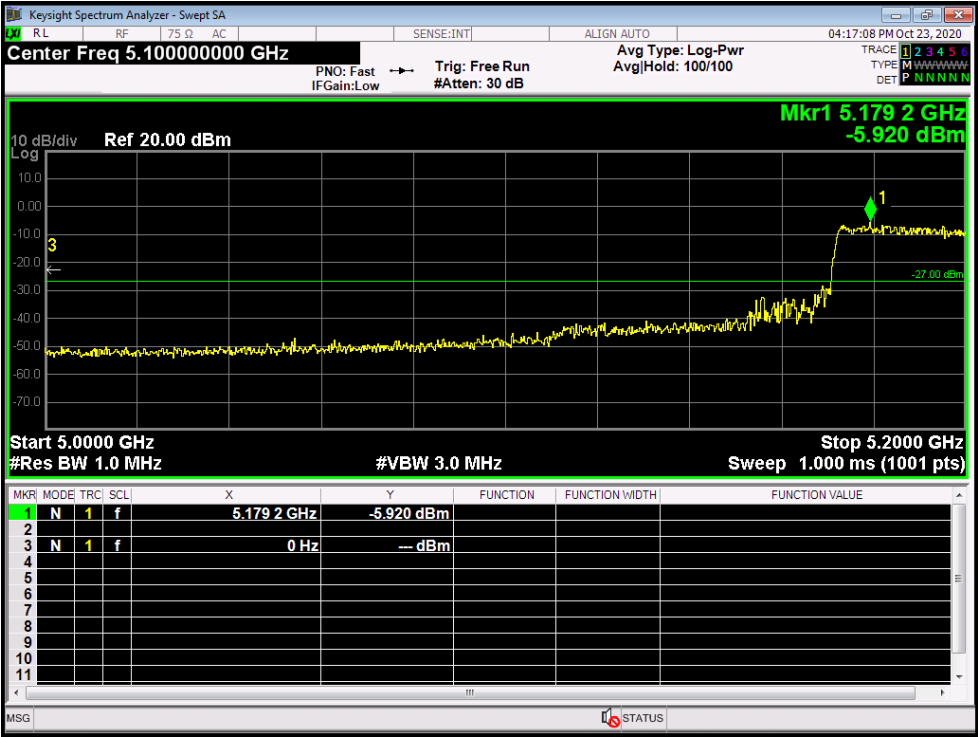
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11n(HT40) mode(U-NII-1) / 5190MHz&5230MHz		
Remark:	The EUT is programmed in continuously transmitting mode		



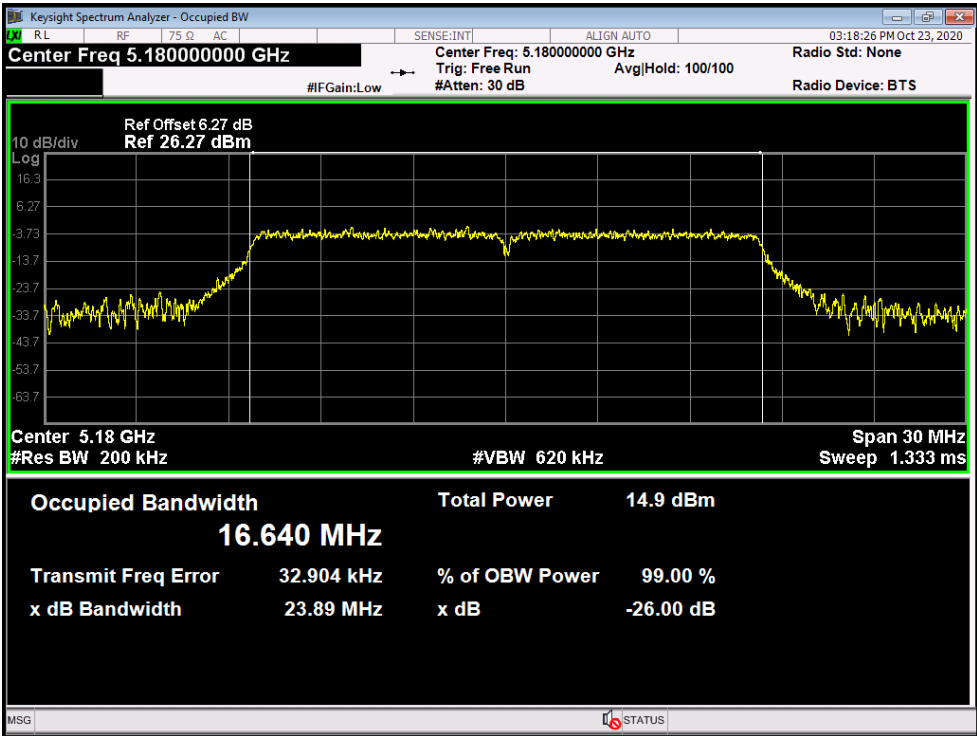
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11ac(VHT40) mode(U-NII-1) / 5190MHz&5230MHz		
Remark:	The EUT is programmed in continuously transmitting mode		



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11ac(VHT80) mode(U-NII-1) / 5210MHz		
Remark:	The EUT is programmed in continuously transmitting mode		

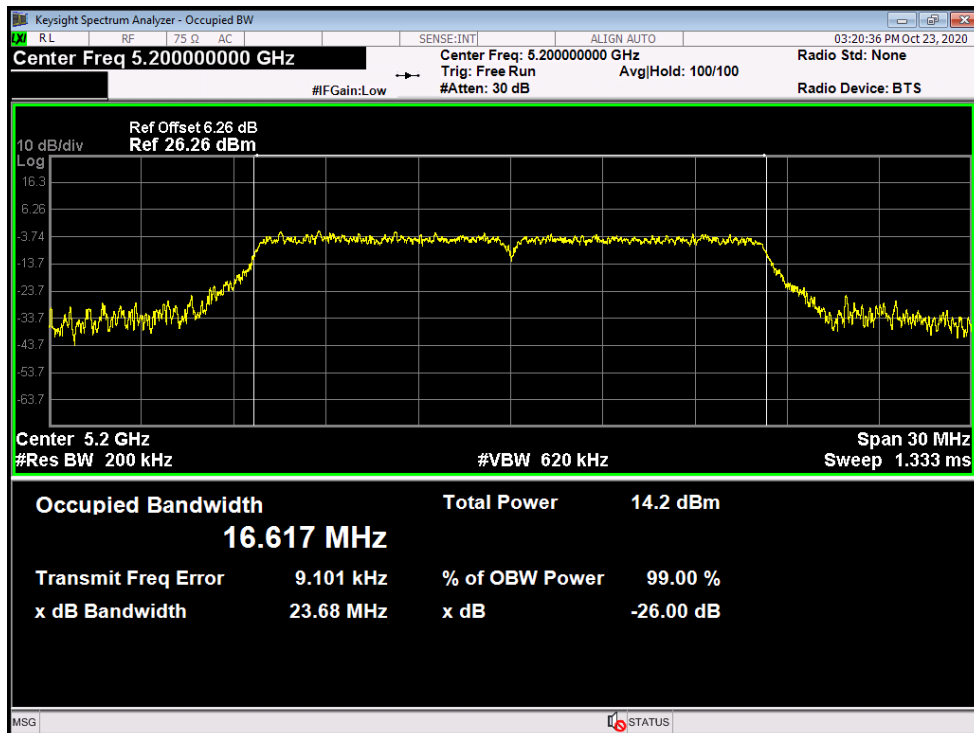


Attachment D--Bandwidth Test Data

Temperature:	25 °C	Relative Humidity:	55%																
Test Voltage:	DC 3.7V																		
Test Mode:	TX 802.11a Mode (U-NII-1)																		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)																
36	5180	23.89	16.64																
40	5200	23.68	16.617																
48	5240	27.12	16.664																
802.11a Mode																			
5180 MHz																			
 <table border="1"> <thead> <tr> <th colspan="2">Occupied Bandwidth</th> <th>Total Power</th> <th>14.9 dBm</th> </tr> </thead> <tbody> <tr> <td colspan="2">16.640 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>32.904 kHz</td> <td>% of OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>23.89 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> </tbody> </table>				Occupied Bandwidth		Total Power	14.9 dBm	16.640 MHz				Transmit Freq Error	32.904 kHz	% of OBW Power	99.00 %	x dB Bandwidth	23.89 MHz	x dB	-26.00 dB
Occupied Bandwidth		Total Power	14.9 dBm																
16.640 MHz																			
Transmit Freq Error	32.904 kHz	% of OBW Power	99.00 %																
x dB Bandwidth	23.89 MHz	x dB	-26.00 dB																

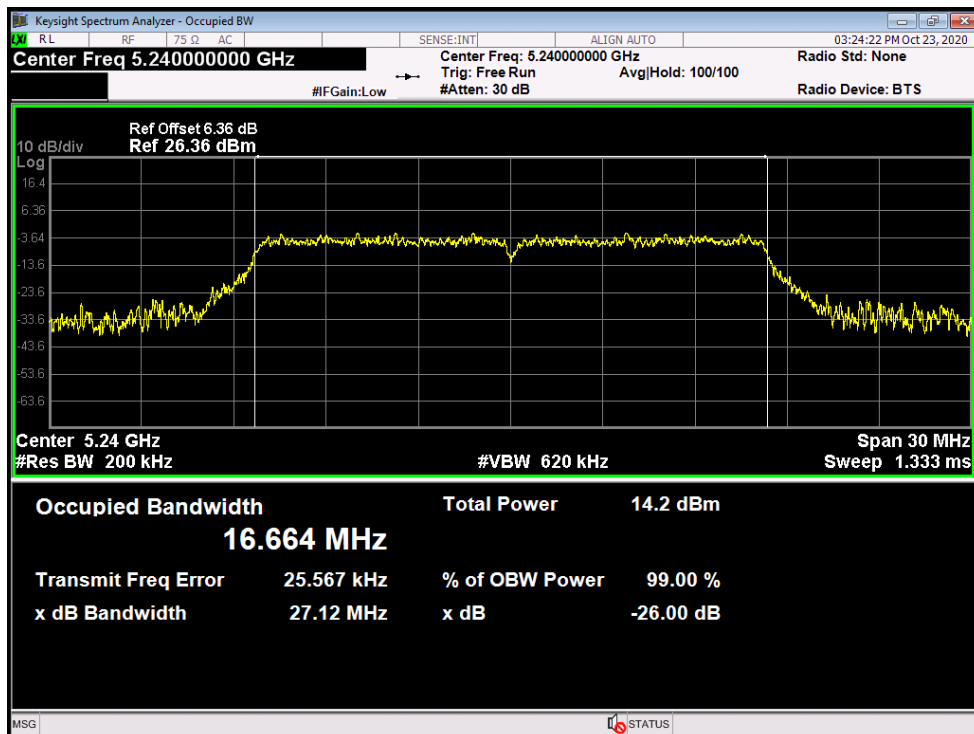
802.11a Mode

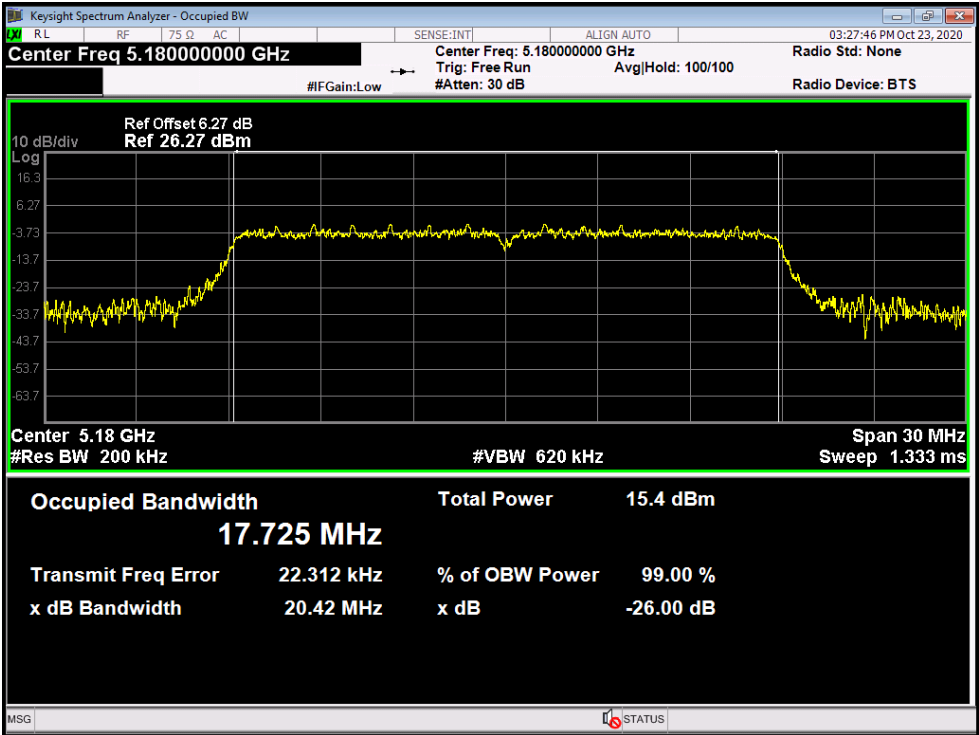
5200 MHz



802.11a Mode

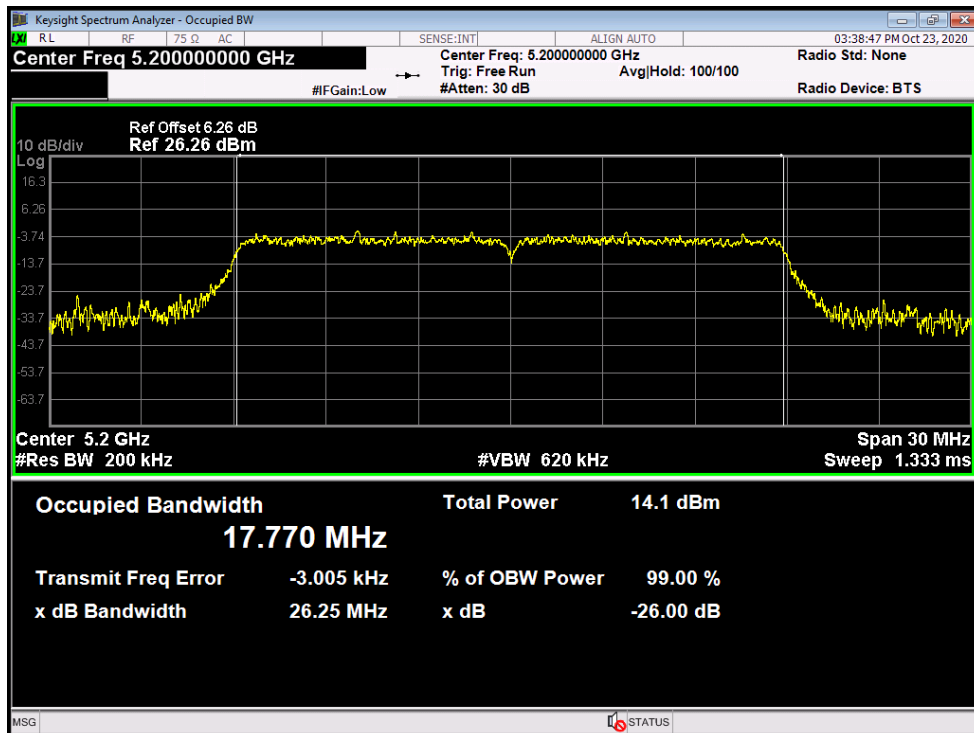
5240 MHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11n(HT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	20.42	17.725
40	5200	26.25	17.770
48	5240	22.28	17.743
802.11n(HT20) Mode			
5180 MHz			
 The screenshot shows a Keysight Spectrum Analyzer interface. The main display is a log-scale plot of power (dBm) versus frequency (MHz). The center frequency is set to 5.180000000 GHz. The plot shows a signal with a bandwidth of 17.725 MHz. The total power is 15.4 dBm. The occupied bandwidth is 17.725 MHz. The transmit frequency error is 22.312 kHz. The percentage of occupied bandwidth power is 99.00%. The x dB bandwidth is 20.42 MHz. The x dB is -26.00 dB. The interface also shows various settings like SENSE:INT, ALIGN:AUTO, and Radio Device: BTS.			

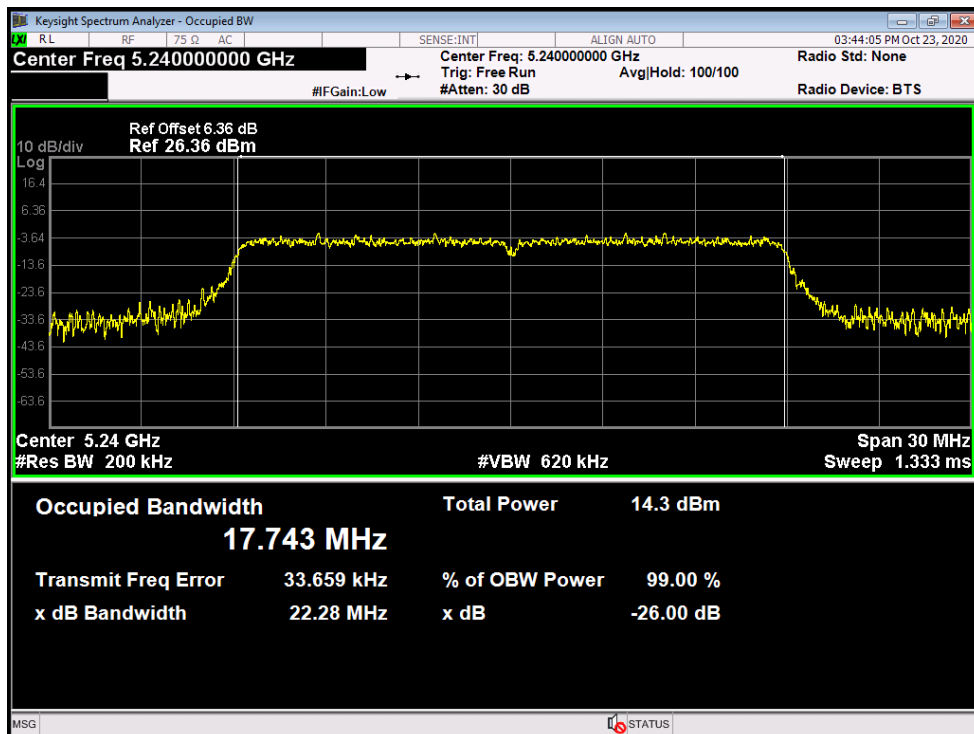
802.11n(HT20) Mode

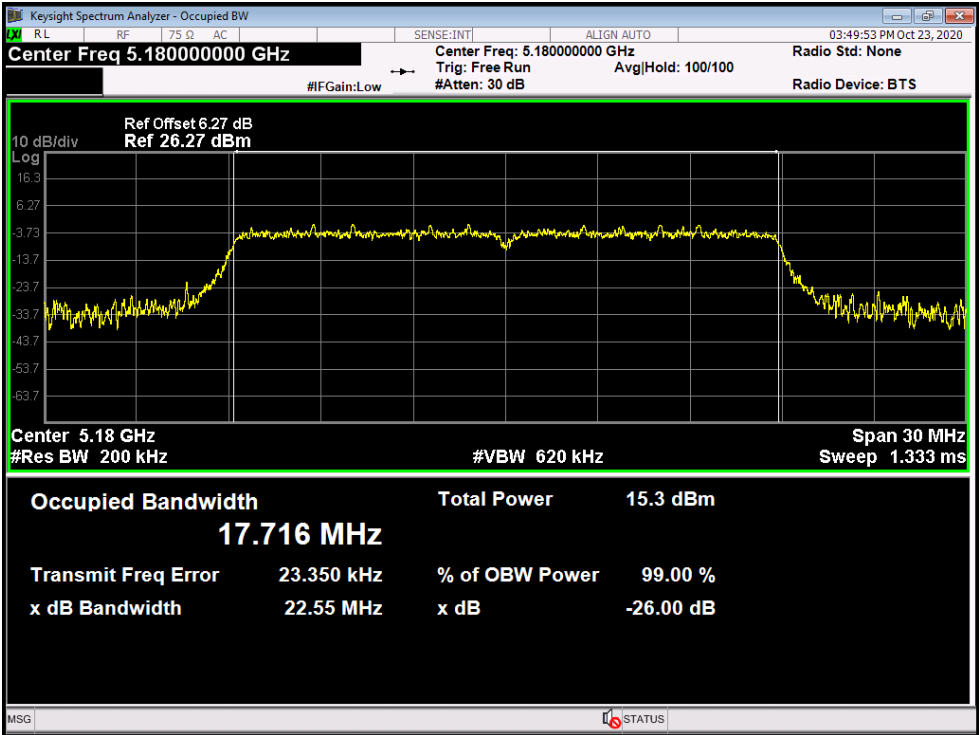
5200 MHz



802.11n(HT20) Mode

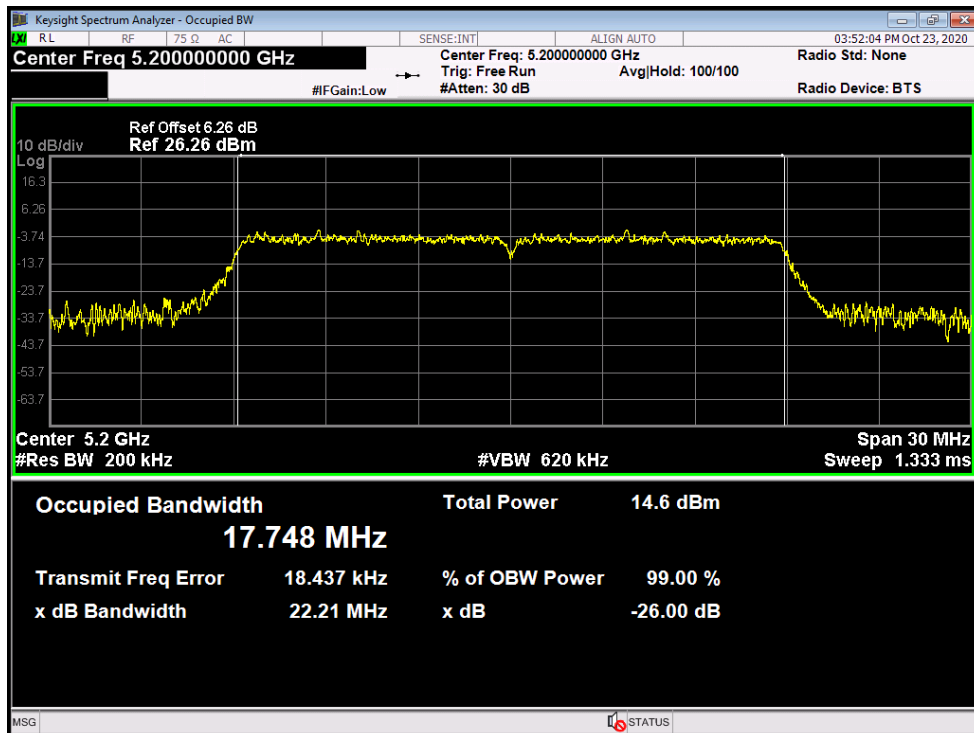
5240 MHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX 802.11ac(VHT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	22.55	17.716
40	5200	22.21	17.748
48	5240	25.95	17.762
802.11ac(VHT20) Mode			
5180 MHz			
 The screenshot displays a Keysight Spectrum Analyzer interface. The main plot shows a signal centered at 5.18 GHz with a span of 30 MHz. The signal is a flat-topped spectrum, characteristic of OFDM. The y-axis is in dBm, ranging from -63.7 to 16.3. The x-axis is in MHz. The signal level is approximately -13.7 dBm. The occupied bandwidth is 17.716 MHz, and the total power is 15.3 dBm. The resolution bandwidth (RBW) is 200 kHz, and the video bandwidth (VBW) is 620 kHz. The sweep time is 1.333 ms. The reference level is 26.27 dBm, and the reference offset is 6.27 dB. The signal is identified as 802.11ac(VHT20) Mode.			

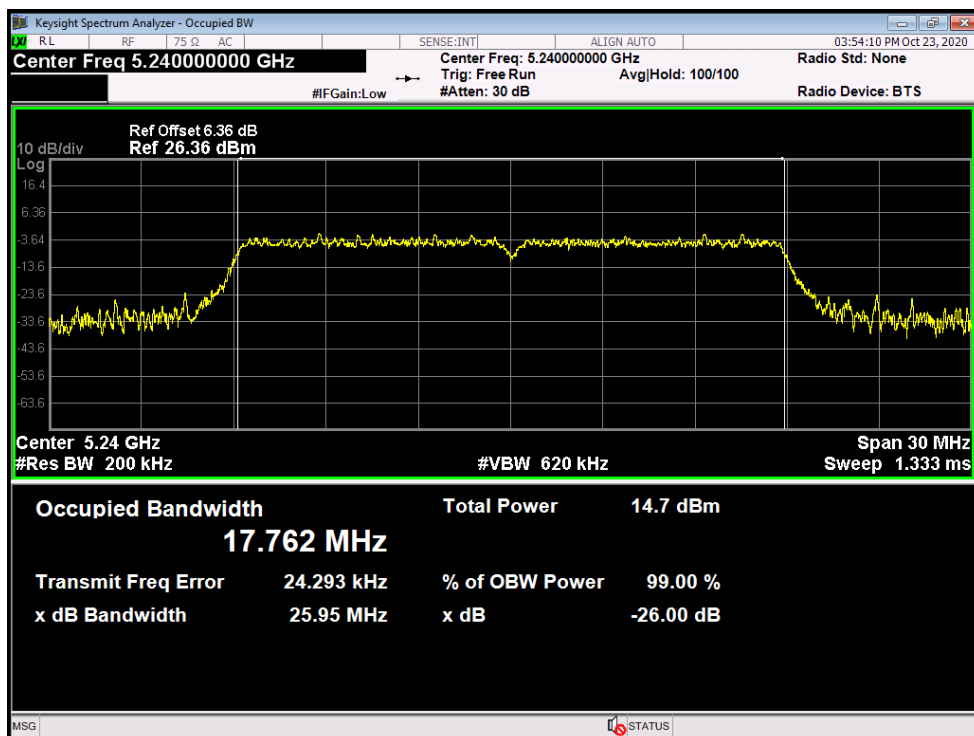
802.11ac(VHT20) Mode

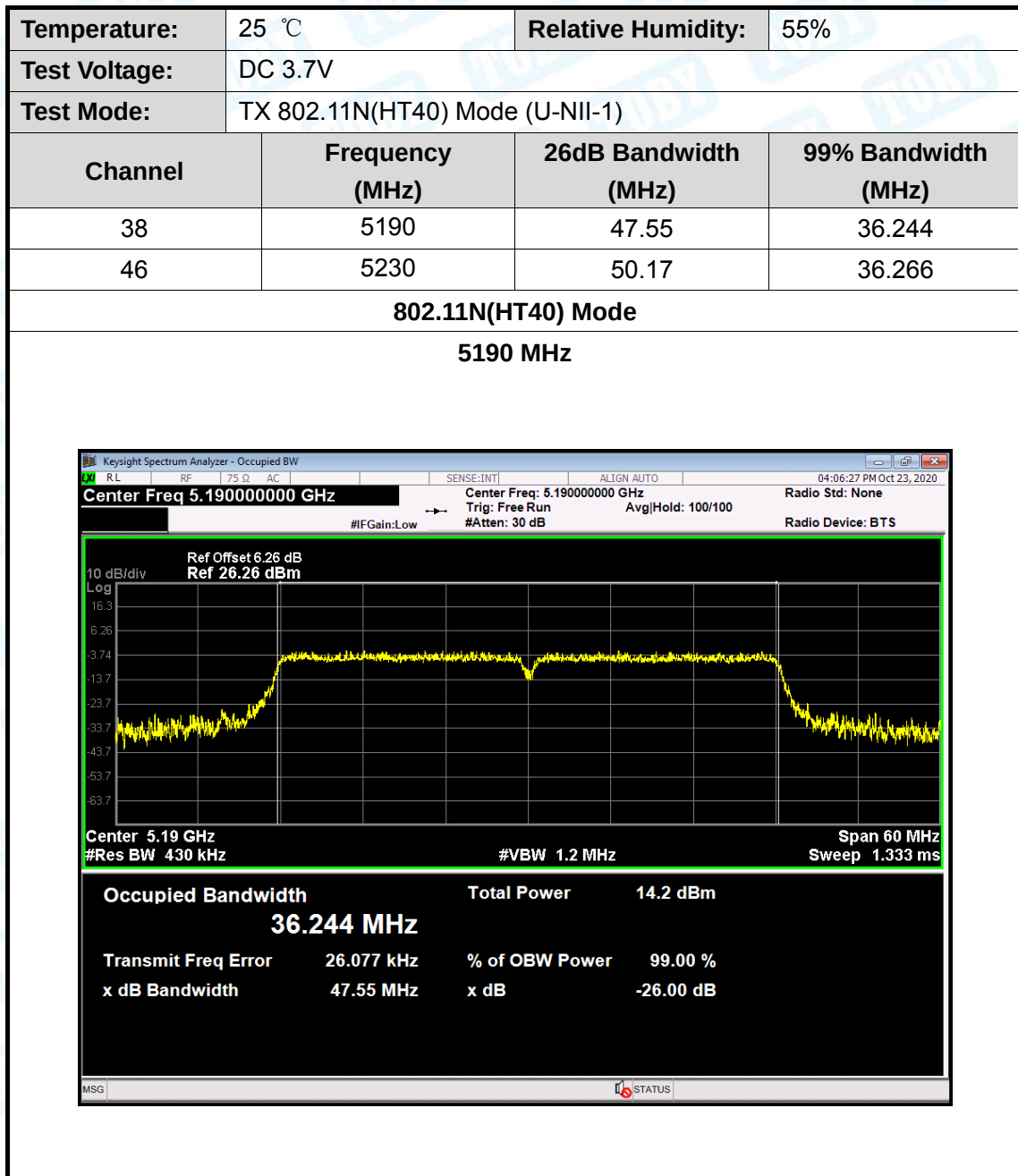
5200 MHz



802.11ac(VHT20) Mode

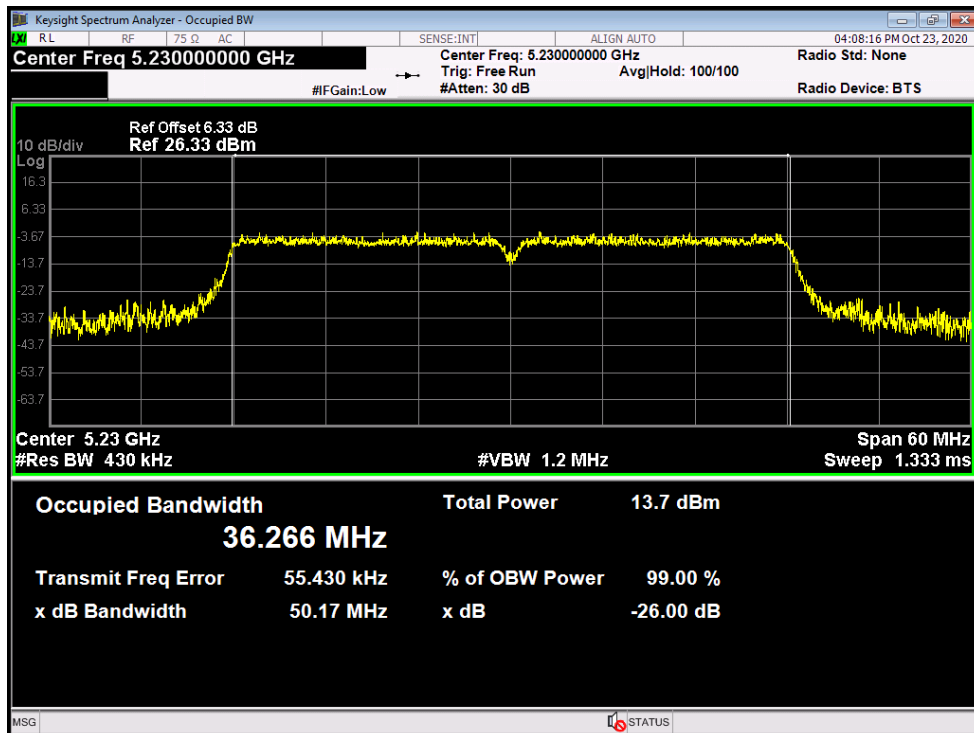
5240 MHz

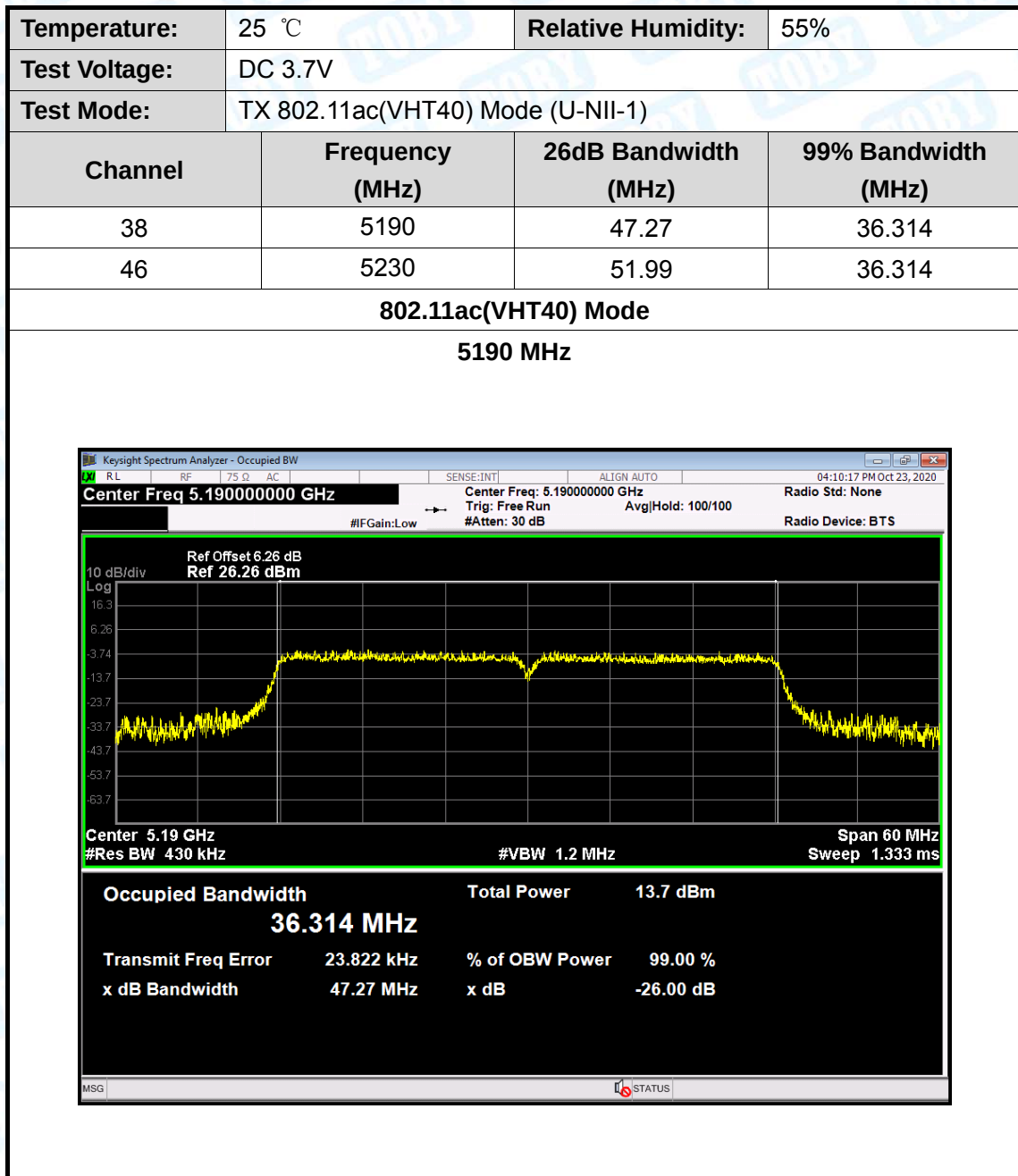


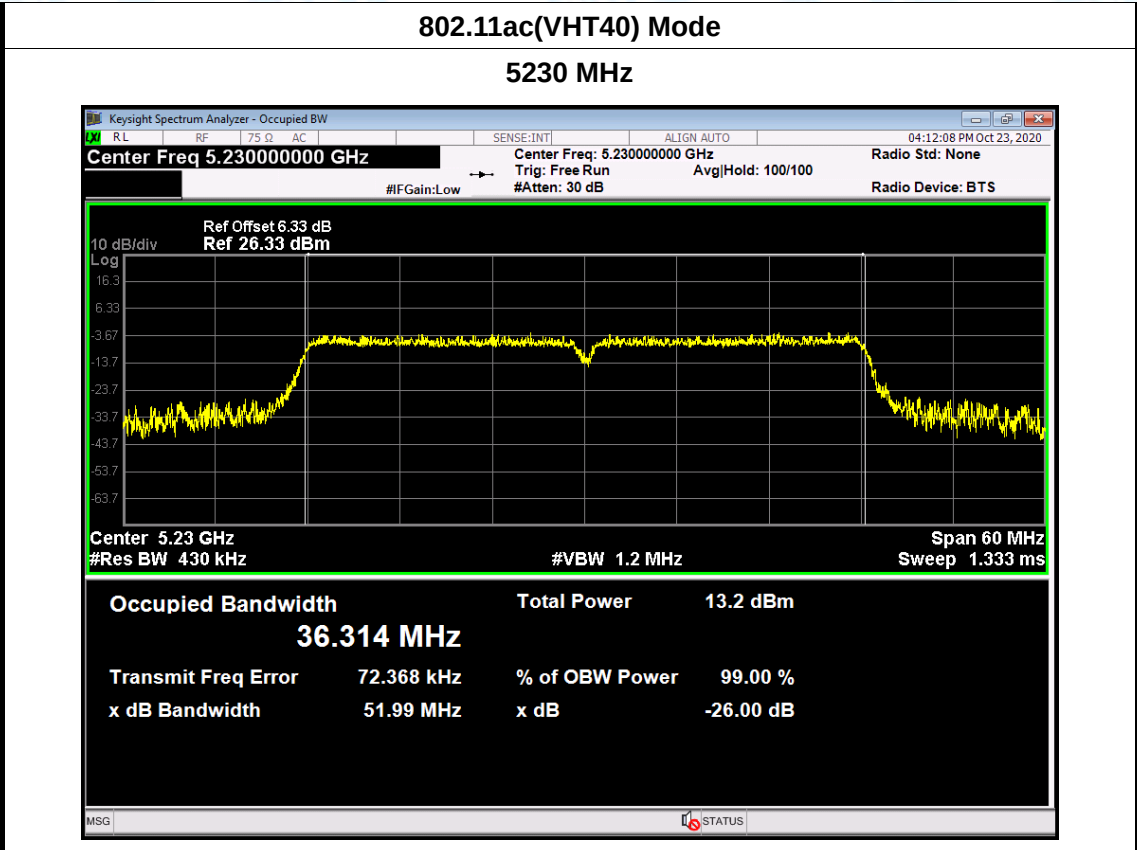


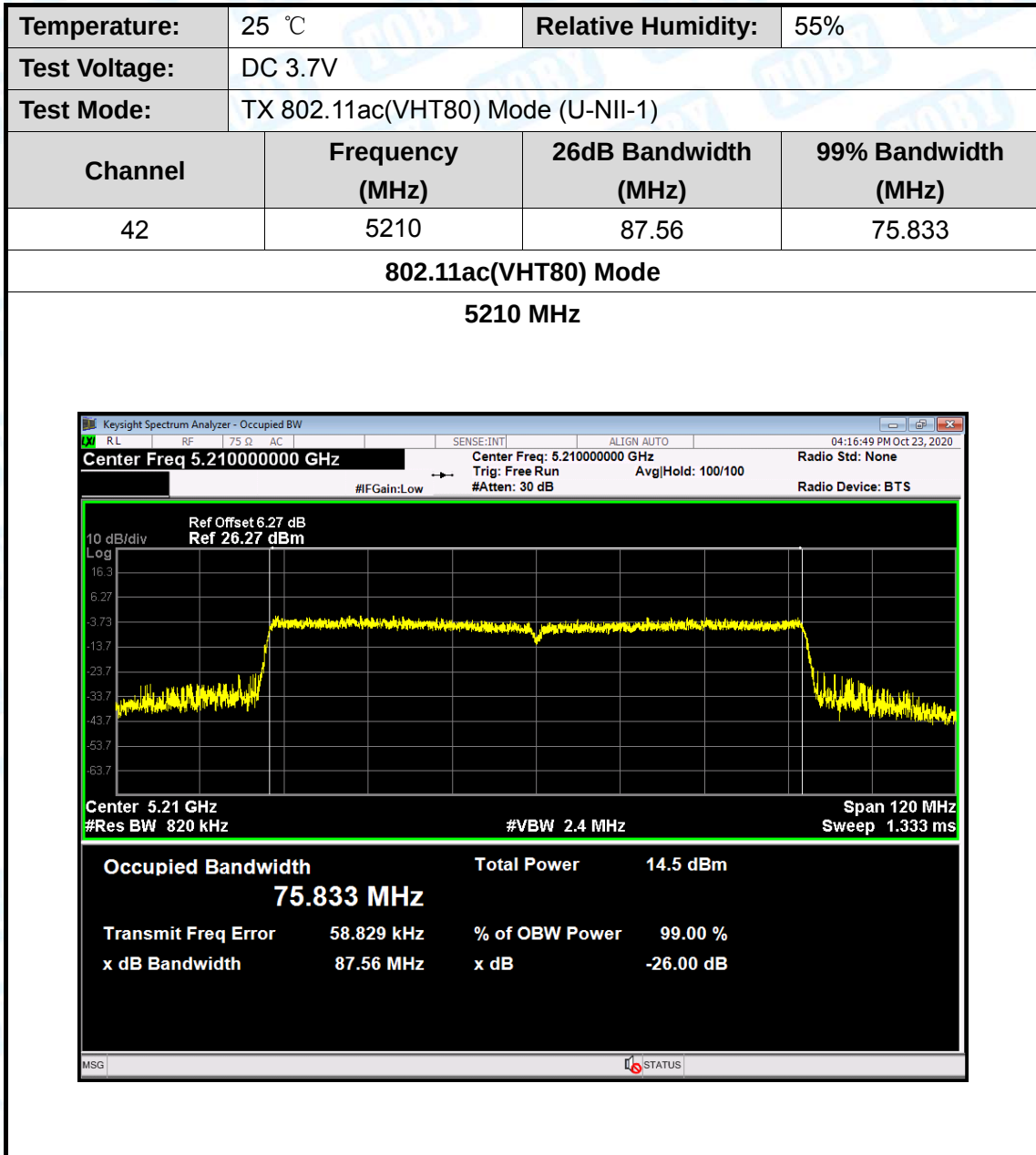
802.11N(HT40) Mode

5230 MHz









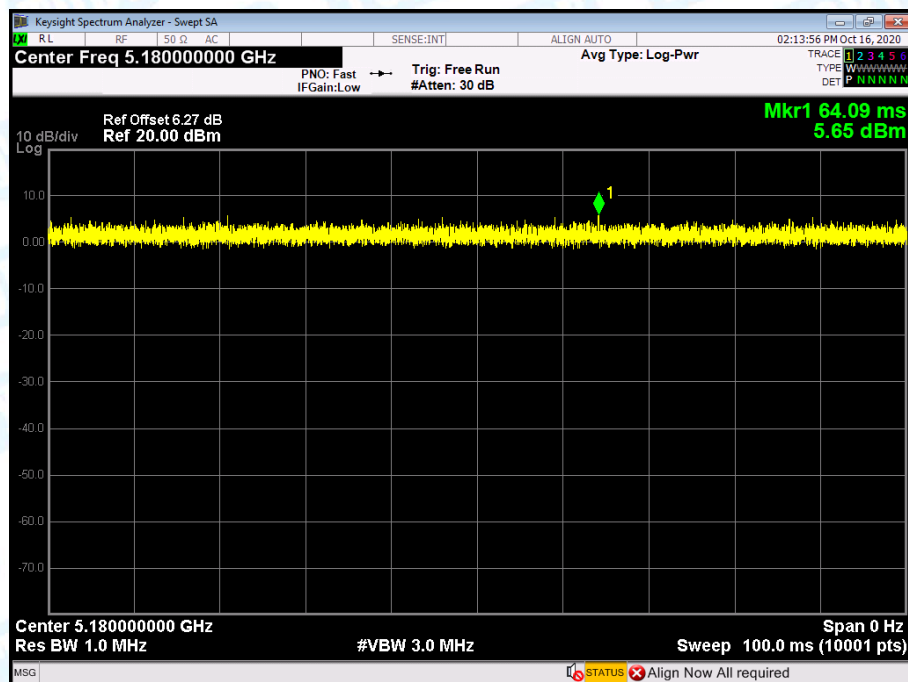
Attachment E--AVG Output Power Test Data

Temperature:	25 °C	Relative Humidity:	55%			
Test Voltage:	DC 3.7V					
U-NII-1						
Test Mode	Frequency (MHz)	Test Data			Limit (dBm)	
		Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)		
802.11a	5180	8.58	0	8.58	24	
	5200	8.09	0	8.09		
	5240	8.06	0	8.06		
802.11n (HT20)	5180	8.63	0	8.63		
	5200	7.89	0	7.89		
	5240	8.36	0	8.36		
802.11ac (VHT20)	5180	9.00	0	9.00		
	5200	8.08	0	8.08		
	5240	8.42	0	8.42		
802.11n (HT40)	5190	6.65	0	6.65		
	5230	6.39	0	6.39		
802.11 ac(VHT40)	5190	6.76	0	6.76		
	5230	6.45	0	6.45		
802.11 ac(VHT80)	5210	5.94	0	5.94		
Result: PASS						
Remark: the Directional Gain=1.15dBi<6 dBi. So P _{out} =P _{limit} =24dBm						

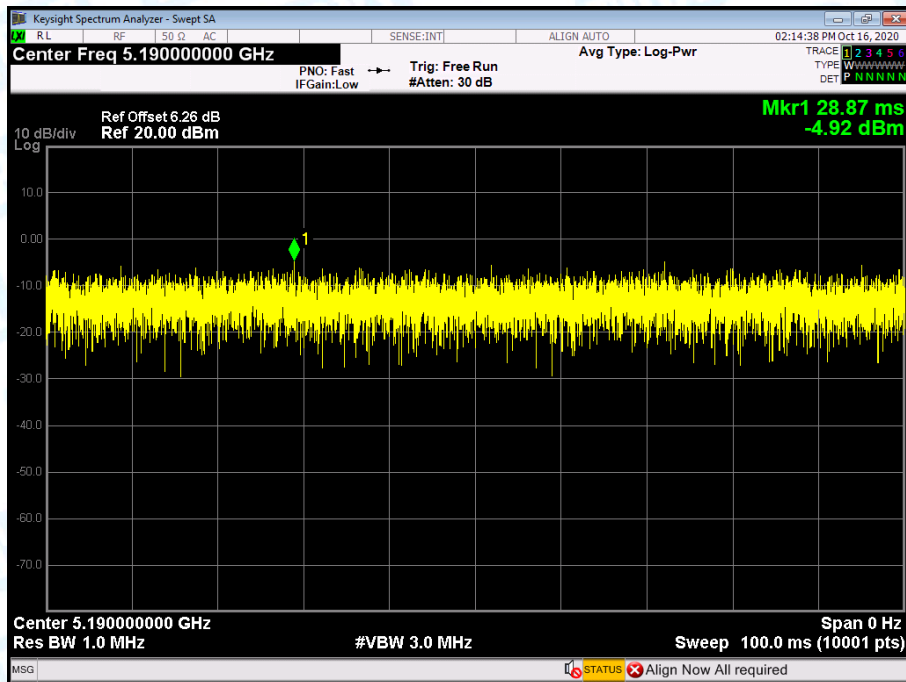
Test Mode		Duty cycle
U-NII-1	802.11 a	>98%
	802.11 n(HT20)	
	802.11 ac(VHT20)	
	802.11 n(HT40)	
	802.11 ac(VHT40)	
	802.11 ac(VHT80)	

Please see the next plots.

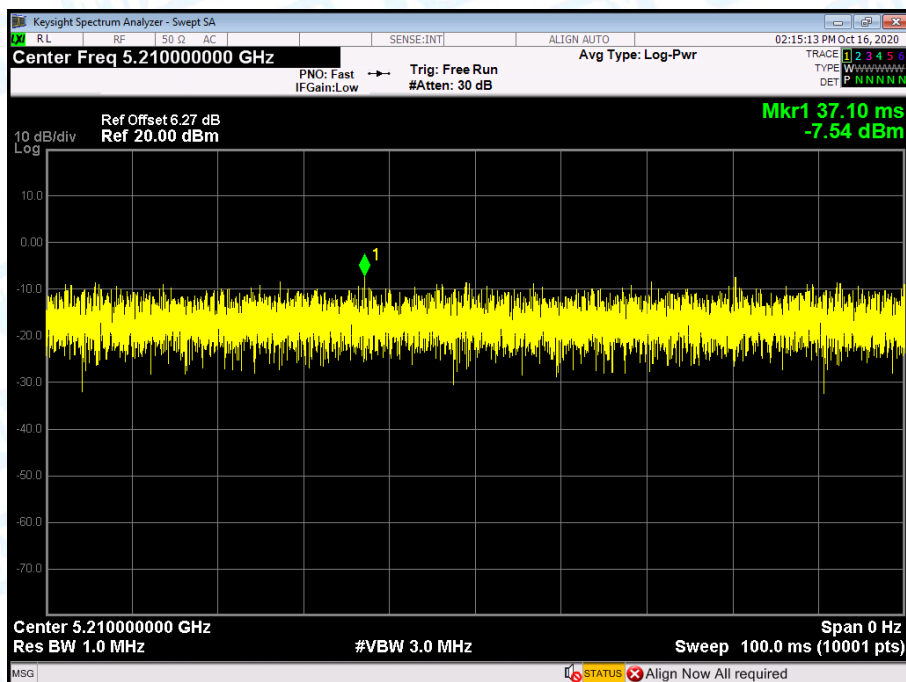
802.11 a 5180



802.11 n(HT40) 5190



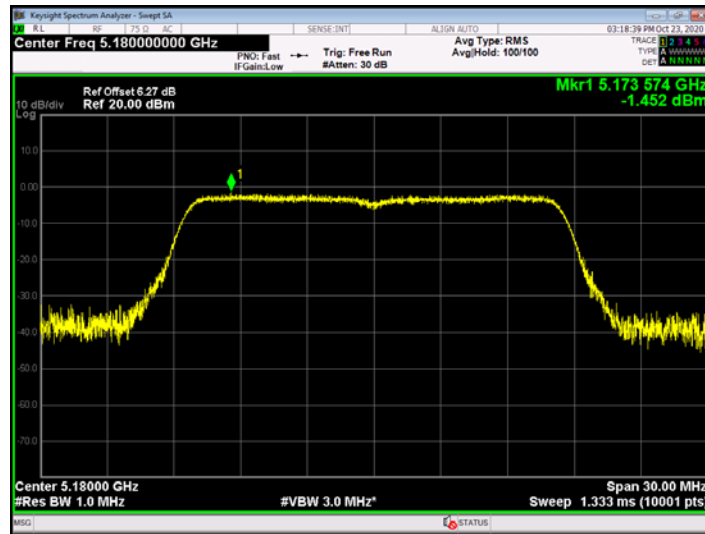
802.11 ac(VHT80) 5210



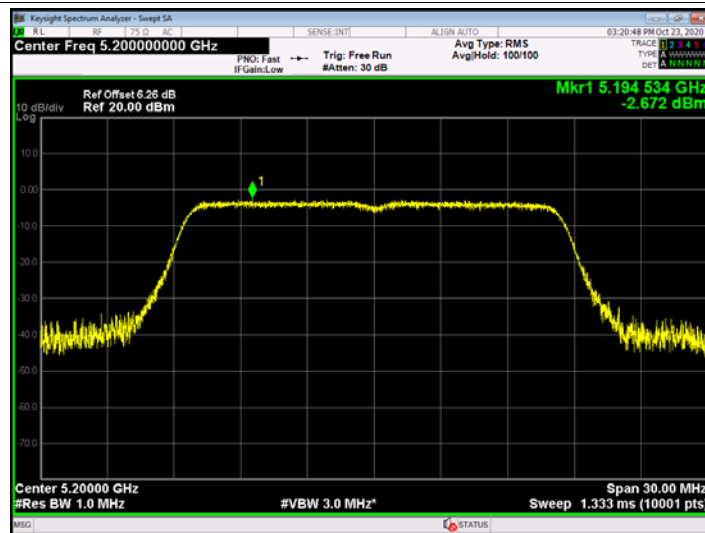
Attachment F-- Power Spectral Density Test Data

Temperature:	25 °C	Relative Humidity:	55%	
Test Voltage:	DC 3.7V			
U-NII-1				
Test Mode	Frequency (MHz)	Test Data	Limit (dBm/MHz)	
		Power Density (dBm/MHz)		
802.11a	5180	-1.452	11	
	5200	-2.672		
	5240	-2.667		
802.11n (HT20)	5180	-1.674		
	5200	-3.053		
	5240	-2.796		
802.11ac (VHT20)	5180	-1.793		
	5200	-2.134		
	5240	-2.418		
802.11n (HT40)	5190	-6.299		
	5230	-6.618		
802.11ac(VHT40)	5190	-6.666		
	5230	-7.542		
802.11ac(VHT80)	5210	-10.512		
Result: PASS				
Remark: the Directional Gain=1.15dBi<6 dBi. So P _{out} =P _{limit}				
Test plots please refer to below pages:				

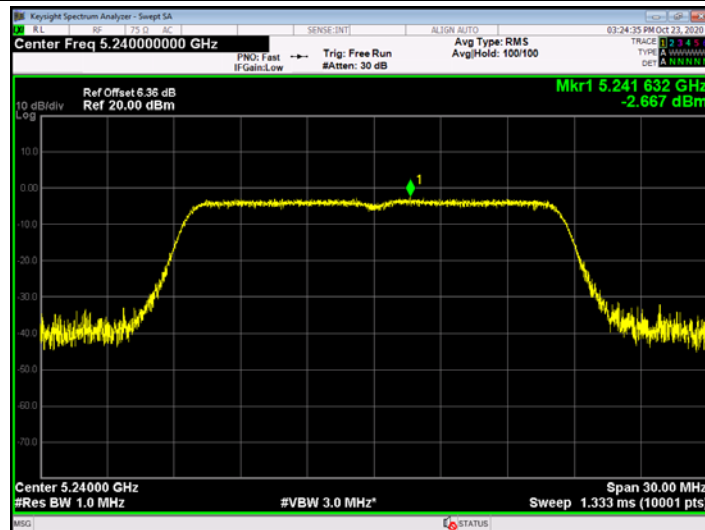
802.11 a 5180 MHz



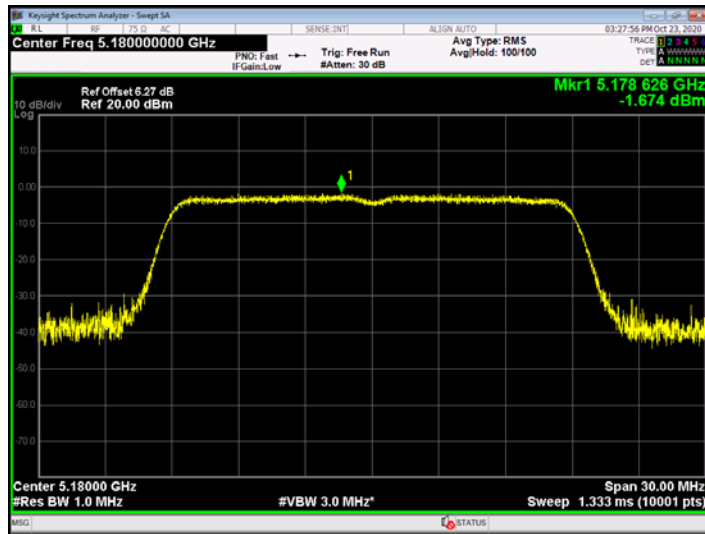
802.11 a 5200 MHz



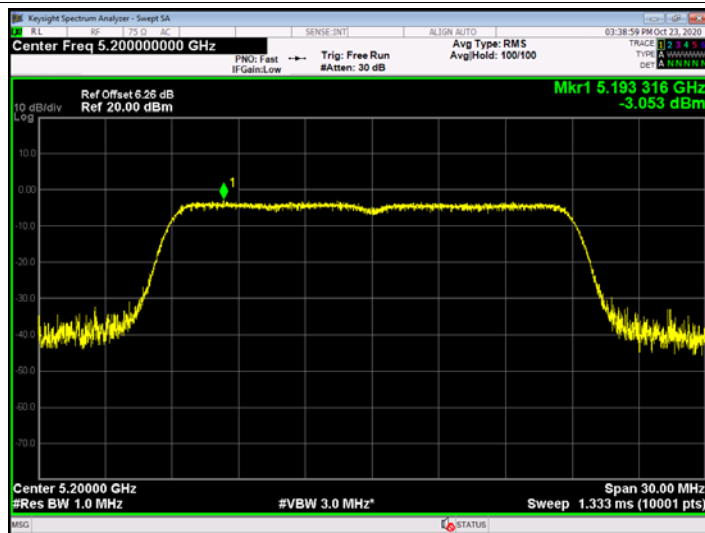
802.11 a 5240 MHz



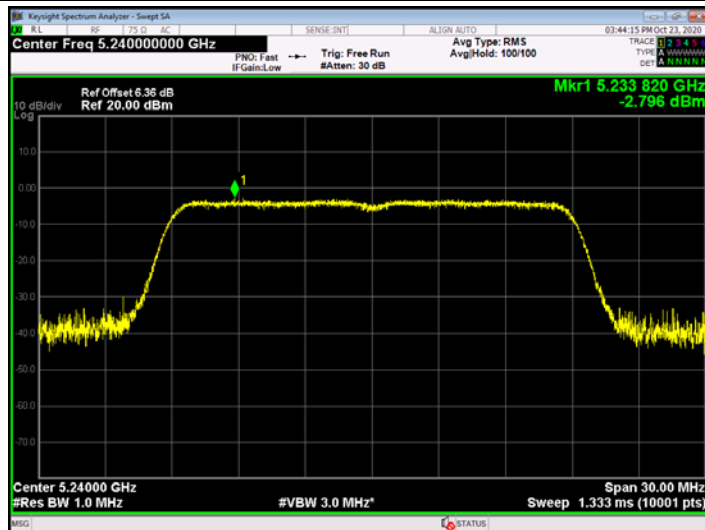
802.11 n(HT20) 5180 MHz



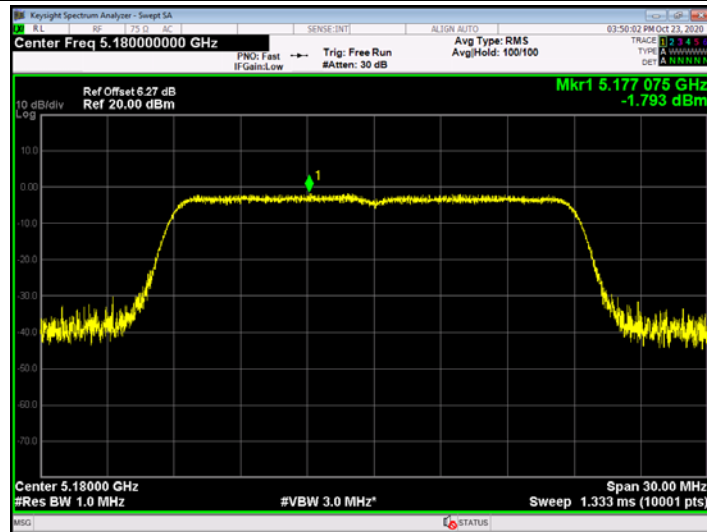
802.11 n(HT20) 5200 MHz



802.11 n(HT20) 5240 MHz



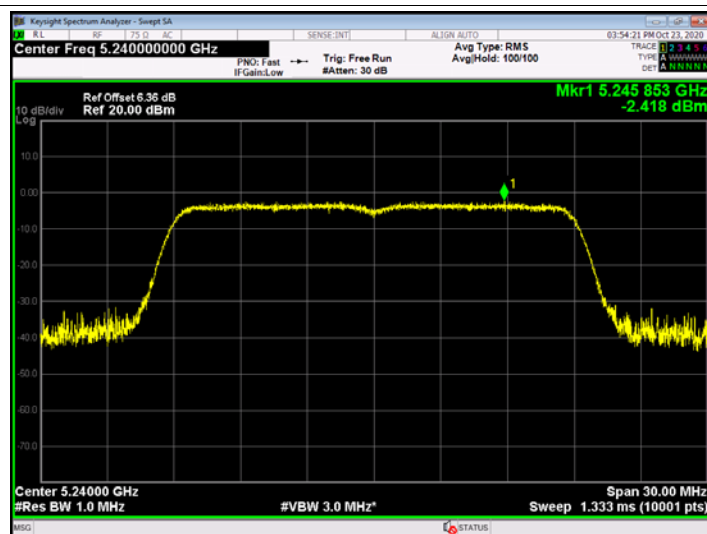
802.11 ac(VHT20) 5180 MHz



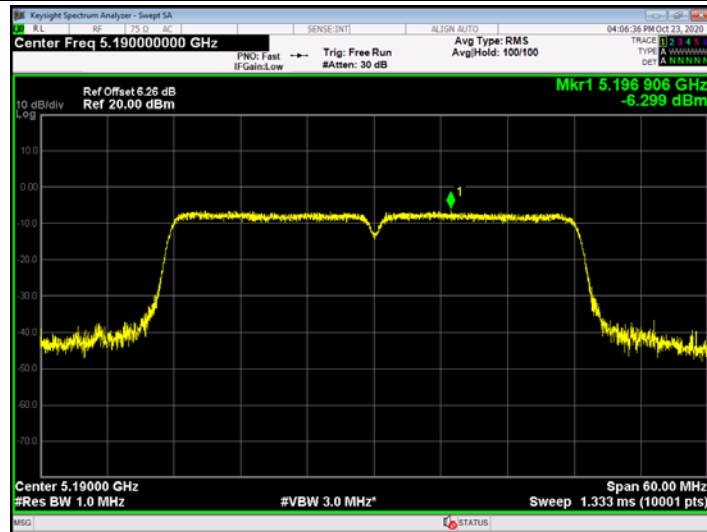
802.11 ac(VHT20) 5200 MHz



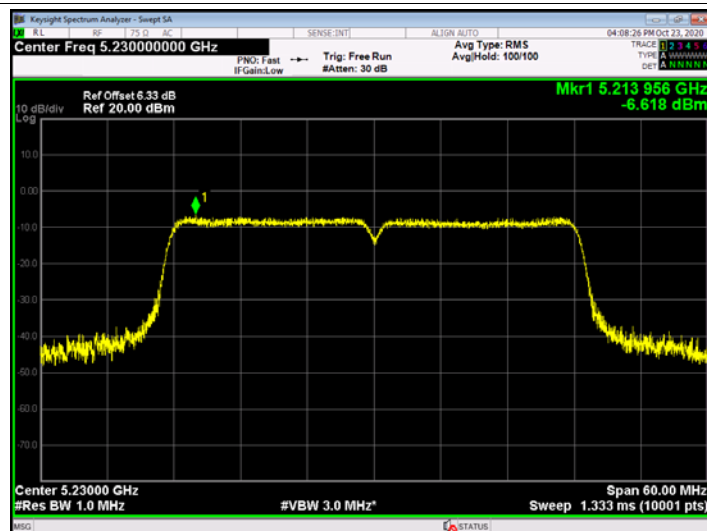
802.11 ac(VHT20) 5240 MHz



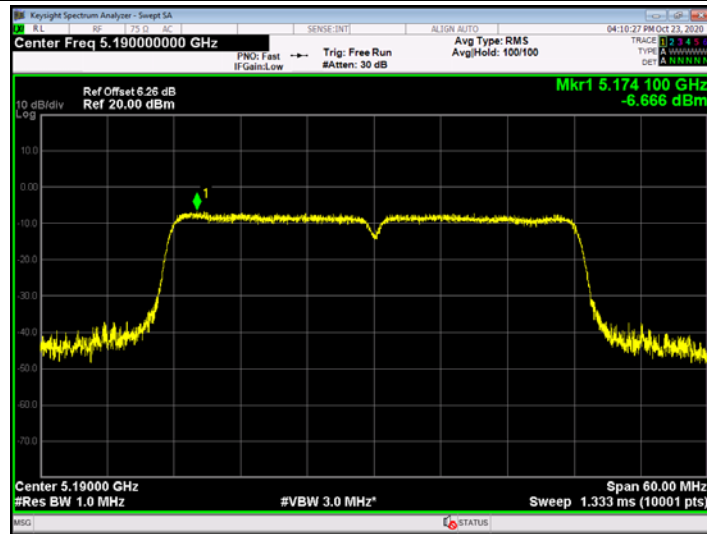
802.11 n(HT40) 5190 MHz



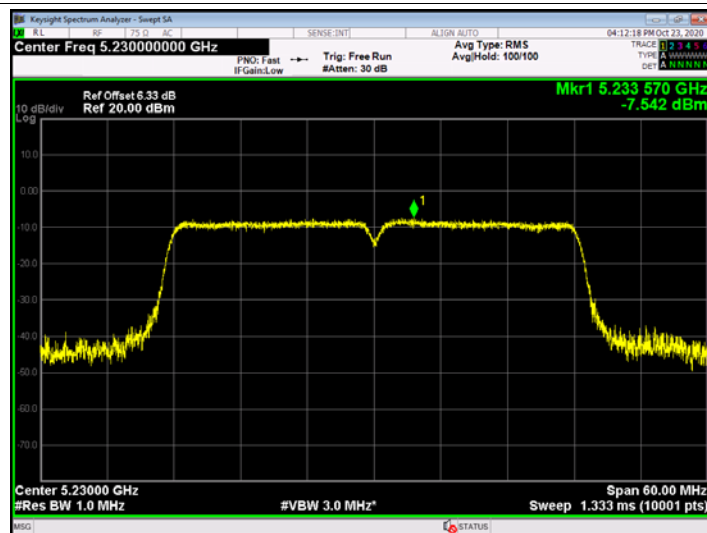
802.11 n(HT40) 5230 MHz



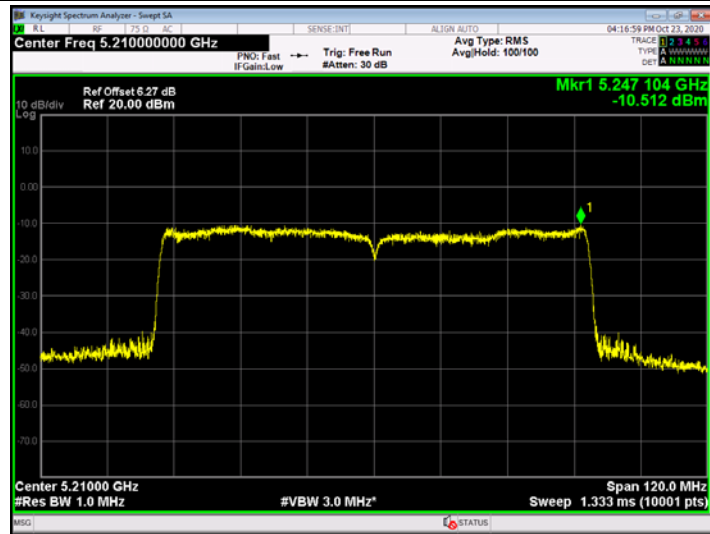
802.11 ac(VHT40) 5190 MHz



802.11 ac(VHT40) 5230 MHz



802.11 ac(VHT80) 5210 MHz



Attachment G----Frequency Stability Measurement Data

Only show the worst case 802.11 a Mode 5180MHz.

801.11a U-NII-1: 5180 MHz	
Voltage vs. Frequency Stability	
Voltage (V)	Measurement Frequency (MHz)
132	5180.0300
120	5180.0200
118	5180.0400
Limit Range (MHz)	5150-5250
Result	PASS
Temperature vs. Frequency Stability	
Temperature (°C)	Measurement Frequency (MHz)
0	5180.0400
10	5180.0500
20	5180.0300
30	5180.0200
40	5180.0400
50	5180.0300
Limit Range (MHz)	5150-5250
Result	PASS

-----END OF REPORT-----