TEST REPORT

Report No. .....:	**CTC2025421002**
FCC ID.....:	**2BM6KT2**
Applicant .....:	**Shenzhen Ningxin Juli Technical Service Co., Ltd.**
Address.....:	Floor 3, Building C, Shenli Industrial Park, Huaqing Avenue, Tsinghua Community, Longhua Street, Longhua District, Shenzhen China
Manufacturer.....:	Shenzhen Aoni Electronics Co., LTD
Address.....:	Building 5, Honghui Industrial Park, Liuxian Second Road, Xin 'an Street, Bao 'an District, Shenzhen China
Product Name .....:	**DASHCAM**
Trade Mark .....:	OMBAR
Model/Type reference.....:	T2
Listed Model(s) .....:	/
Standard .....:	**FCC CFR Title 47 Part 15 Subpart E Section 15.407**
Test Report Form No .....:	CTC-TR-062_A2
Master TRF.....:	Dated 2025-05-12
Date of receipt of test sample.....:	Jul. 4, 2025
Date of testing.....:	Jul. 4, 2025 ~ Jul. 31, 2025
Date of issue.....:	Aug. 18, 2025
Result.....:	**PASS**

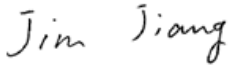
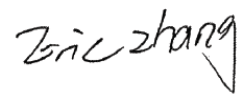
Compiled by: (Printed name+signature)	Jim Jiang	
Supervised by: (Printed name+signature)	Eric Zhang	
Approved by: (Printed name+signature)	Totti Zhao	

Table of Contents Page

1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.407: for 802.11a/n/ac/ax, the test procedure follows the FCC KDB 789033 D02 General UNII Test Procedures New Rules V02r01.
RSS-247 Issue 3: Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices.
RSS-Gen Issue 5: General Requirements for Compliance of Radio Apparatus.
ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Report No.	Date of issue	Description
01	CTC2025421002	Aug. 18, 2025	Original

1.3. Test Description

FCC Part 15 Subpart E (15.407) / RSS-247 Issue 3				
Test Item	Standard Section		Result	Test Engineer
	FCC	ISED		
Antenna Requirement	15.203	RSS-Gen 6.8	Pass	Jim Jiang
Conducted Emission	15.207	RSS-Gen 8.8	Pass	Jim Jiang
Band Edge Emissions	15.407(b)	RSS-247 6.2	Pass	Jim Jiang
26dB Bandwidth & 99% Bandwidth	15.407(a)	RSS-247 6.2.1.2	Pass	Jim Jiang
6dB Bandwidth (only for UNII-3)	15.407(e)	RSS-247 6.2.4.1	Pass	Jim Jiang
Peak Output Power	15.407(a)	RSS-247 6.2	Pass	Jim Jiang
Power Spectral Density	15.407(a)	RSS-247 6.2	Pass	Jim Jiang
Transmitter Radiated Spurious Emission	15.407(b) &15.209	RSS-Gen 8.9 RSS-247 6.2	Pass	Jim Jiang
Frequency Stability	15.407(g)	RSS-Gen 6.11	Pass	Jim Jiang
Dynamic Frequency Selection (DFS)	15.407(h)	RSS-247 6.3	N/A	N/A
Automatically Discontinue Transmission	15.407(c)	RSS-247 6.4(a)	Pass	Note 3

Note:

1. The measurement uncertainty is not included in the test result.
2. N/A: means this test item is not applicable for this device according to the technology characteristic of device.
3. During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

1.4. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Add: Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Innovation, Science and Economic Development Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.

1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 “Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1” and TR-100028-02 “Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2” and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.

Test Items	Measurement Uncertainty	Notes
Emission Bandwidth	±0.0196%	(1)
Maximum Conduct Output Power	±0.766dB	(1)
Power Spectral Density	±1.22dB	(1)
Band Edge Measurements	±1.328dB	(1)
Unwanted Emissions Measurement	9kHz-1GHz: ±0.746dB 1GHz-26GHz: ±1.328dB	(1)
Frequency Stability	±2.76%	(1)
Conducted Emissions 9kHz~30MHz	±3.08 dB	(1)
Radiated Emissions 30~1000MHz	±4.51 dB	(1)
Radiated Emissions 1~18GHz	±5.84 dB	(1)
Radiated Emissions 18~40GHz	±6.12 dB	(1)

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.6. Environmental Conditions

Normal Condition	Temperature	15 °C to 35 °C
	Relative Humidity	20 % to 75 %
	Air Pressure	101 kPa
	Voltage	The normal test voltage for the equipment shall be the nominal voltage for which the equipment was designed.
Extreme Condition	Temperature	Measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer.
	Voltage	Measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer.

Normal Condition	T_N=Normal Temperature	25 °C
Extreme Condition	T_L=Lower Temperature	-20 °C
	T_H=Higher Temperature	70 °C

2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Shenzhen Ningxin Juli Technical Service Co., Ltd.
Address:	Floor 3, Building C, Shenli Industrial Park, Huaqing Avenue, Tsinghua Community, Longhua Street, Longhua District, Shenzhen China
Manufacturer/ Factory:	Shenzhen Aoni Electronics Co., LTD
Address:	Building 5, Honghui Industrial Park, Liuxian Second Road, Xin 'an Street, Bao 'an District, Shenzhen China

2.2. General Description of EUT

Product Name:	DASHCAM
Trade Mark:	OMBAR
Model/Type reference:	T2
Listed Model(s):	/
Model Difference:	/
Sample ID:	CTC250704-002-S002, CTC250704-002-S003
Power Supply:	Type-C Input: DC5V 2.5A
Hardware Version:	/
Software Version:	/

5G Wi-Fi					
Operation Band:	☒U-NII-1	☐U-NII-2A	☐U-NII-2C	☒U-NII-3	
Operation Frequency:	U-NII-1	5180MHz~5240MHz			
	U-NII-3	5745MHz~5825MHz			
Support Bandwidth:	802.11a	☒ 20MHz			
	802.11n	☒ 20MHz	☒ 40MHz		
	802.11ac	☐ 20MHz	☐ 40MHz	☐ 80MHz	☐ 160MHz
Modulation:	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)				
Antenna Type:	Chip Antenna				
Antenna Gain:	U-NII-1: 2.3dBi, U-NII-3: 2.6dBi				

Note: The product does not support TPC.

2.3. Accessory Equipment Information

Equipment Information			
Name	Model	S/N	Manufacturer
Notebook	ThinkPad T460s	MP246QDR	Lenovo
Adapter	A2244	/	Apple
Cable Information			
Name	Shielded Type	Ferrite Core	Length
USB Cable	Unshielded	NO	100cm
Test Software Information			
Name	Version	/	/
SecureCRTPortable	7.1.1	/	/

2.4. Operation State

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting.

Operation Frequency List:

Operating Band	20MHz Bandwidth		40MHz Bandwidth	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII-1	36	5180	38	5190
	40	5200		
	44	5220	46	5230
	48	5240		
U-NII-3	149	5745	151	5755
	153	5765		
	157	5785	159	5795
	161	5805		
	165	5825		

Test channel is below:

Operating Band	Test Channel	20MHz Bandwidth		40MHz Bandwidth	
		Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII-1	CH_L	36	5180	38	5190
	CH_M	40	5200	/	/
	CH_H	48	5240	46	5230
U-NII-3	CH_L	149	5745	151	5755
	CH_M	157	5785	/	/
	CH_H	165	5825	159	5795

Data Rated:

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Test Mode	Data Rate (worst mode)
802.11a	6Mbps
802.11n(HT20)/ 802.11n(HT40)	HT-MCS0

Test Mode:

For RF test items:
The engineering test program was provided and enabled to make EUT continuous transmit.
For AC power line conducted emissions:
The EUT is powered by an adapter, and the phone is connected to the EUT using the RoadRec app.
For Radiated spurious emissions test item:
The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

2.5. Measurement Instruments List

RF Test System – SRD						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Calibrated Until
1	MXA Signal Analyzer	Keysight	N9020A	MY52091402	Dec. 13, 2024	Dec. 12, 2025
2	MXG Vector Signal Generator	Agilent	N5182A	MY47420864	Dec. 13, 2024	Dec. 12, 2025
3	PSG Analog Signal Generator	Agilent	E8257D	MY46521908	Dec. 13, 2024	Dec. 12, 2025
4	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 25, 2025	Mar. 24, 2026
5	USB Wideband Power Sensor	Keysight	U2021XA	MY55130006	Mar. 25, 2025	Mar. 24, 2026
6	Wideband Radio Communication Tester	R&S	CMW500	102257	May 25, 2024	May 24, 2025
7	RF Control Unit	Tonscend	JS0806-2	/	Aug. 22, 2024	Aug. 21, 2025
8	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 25, 2025	Mar. 24, 2026
9	RF Cable	HUBER+SUHNER	SUCOFLEX101PE	RF-08	Apr. 15, 2025	Apr. 16, 2026

Test Software		
Name	Manufacturer	Software Version
JS1120-3	Tonscend	V2.6.88.0346

Radiated emission						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Calibrated Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9163	01026	Dec. 25, 2024	Dec. 24, 2025
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Sep. 26, 2024	Sep. 25, 2025
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 13, 2024	Dec. 12, 2025
4	Broadband Amplifier	Schwarzbeck	BBV9743B	259	Dec. 13, 2024	Dec. 12, 2025
5	Mirowave Broadband Amplifier	Schwarzbeck	BBV9718C	111	Dec. 13, 2024	Dec. 12, 2025
6	RE33L-001	COMM	/	014 (9kHz-1GHz)	Feb. 09, 2025	Feb. 08, 2026
7	RE33L-002	COMM	/	015 (9kHz-1GHz)	Feb. 09, 2025	Feb. 08, 2026
8	RE33H-001	SUHBER SUCOFLEX	/	016 (1GHz-18GHz)	Feb. 09, 2025	Feb. 08, 2026
9	RE33H-002	HUBENR	/	017 (1GHz-18GHz)	Feb. 09, 2025	Feb. 08, 2026
10	RE33H-003	HUBENR	/	018 (1GHz-18GHz)	Feb. 09, 2025	Feb. 08, 2026
11	RE33H-003	HUBENR	/	019 (18GHz-40GHz)	Feb. 09, 2025	Feb. 08, 2026
12	3m chamber 3	YIHENG	EE106	/	Aug. 29, 2023	Aug. 28, 2026
13	SHF-EHF Horn Antenna	Schwarzbeck	BBHA 9170	013551	Dec. 13, 2024	Dec. 12, 2025

14	Low noise Amplifier	Tonscend	TAP180040048	AP24C8060348	Dec. 13, 2024	Dec. 12, 2025

Test Software		
Name	Manufacturer	Software Version
EZ-EMC	FARA	FA-03A2

Conducted emission						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Calibrated until
1	LISN	R&S	ENV216	101112	Dec. 13, 2024	Dec. 12, 2025
2	LISN	R&S	ENV216	101113	Dec. 13, 2024	Dec. 12, 2025
3	EMI Test Receiver	R&S	ESCI	100524	Dec. 13, 2024	Dec. 12, 2025
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 13, 2024	Dec. 12, 2025
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 13, 2024	Dec. 12, 2025
6	CE-001	COMM	/	001	Feb. 09, 2025	Feb. 08, 2026

Test Software		
Name	Manufacturer	Software Version
EMC32	R&S	6.10.10

Note: 1. The Cal. Interval was one year.
2. The Cal. Interval was three years of the antenna.
3. The cable loss has been calculated in test result which connection between each test instruments.

3. TEST ITEM AND RESULTS

3.1. Conducted Emission

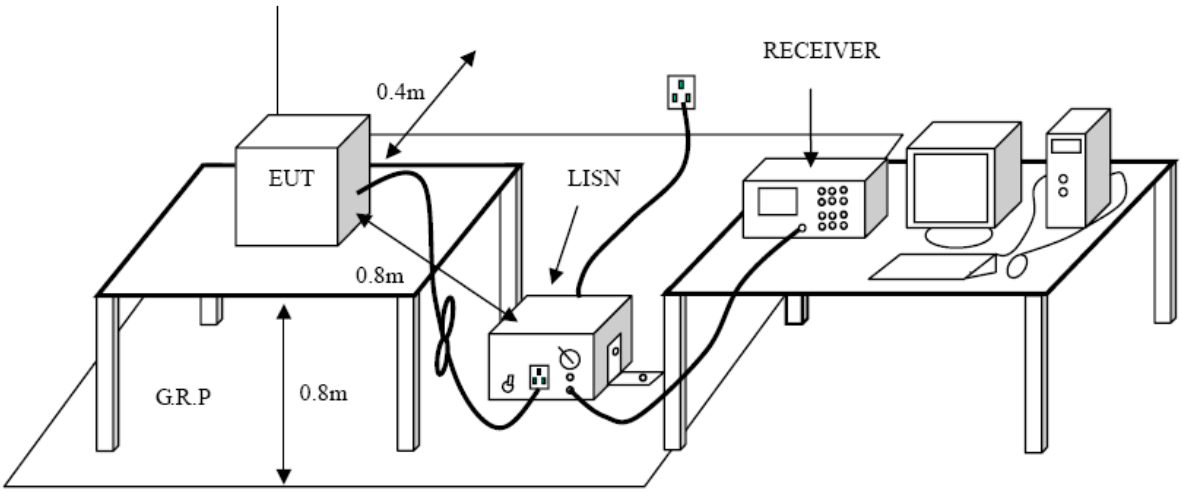
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.207 / RSS-Gen 8.8

Frequency (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46 *
0.5 - 5	56	46
5 - 30	60	50

* Decreases with the logarithm of the frequency.

Test Configuration



Test Procedure

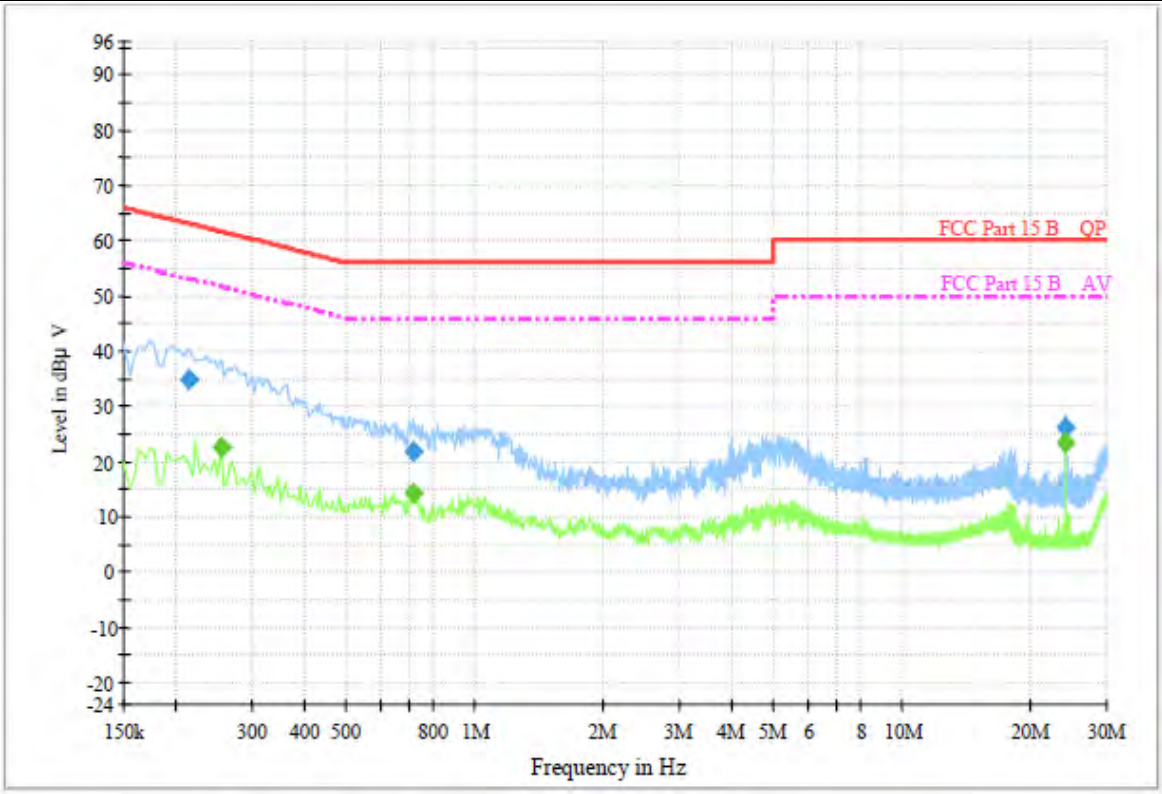
1. The EUT was setup according to ANSI C63.10:2013 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm / 50 μH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Voltage:	AC 120V/60Hz
Terminal:	Line
Remark:	Only worse case is reported.



Final Measurement Detector 1

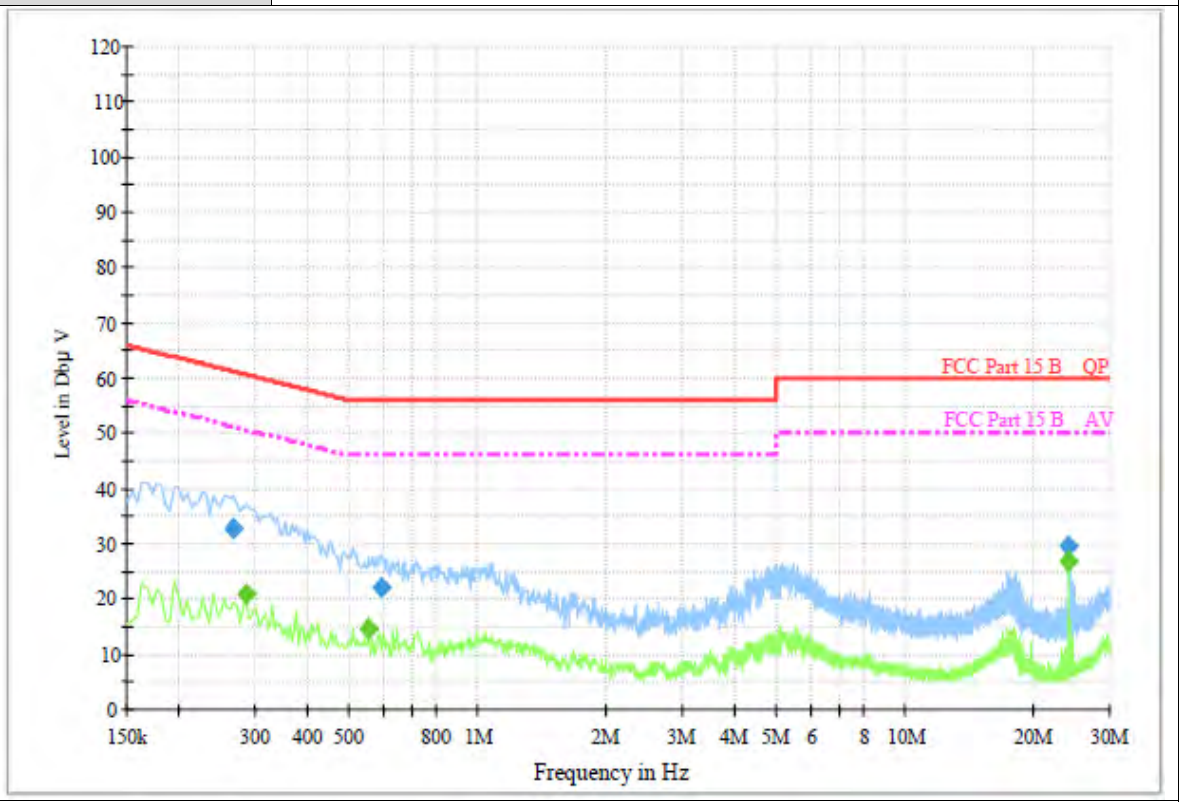
Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.213000	35.0	1000.00	9.000	On	L1	9.5	28.1	63.1	
0.717000	21.7	1000.00	9.000	On	L1	9.6	34.3	56.0	
24.013500	26.0	1000.00	9.000	On	L1	9.6	34.0	60.0	

Final Measurement Detector 2

Frequency (MHz)	Average (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.253500	22.5	1000.00	9.000	On	L1	9.5	29.1	51.6	
0.717000	14.2	1000.00	9.000	On	L1	9.6	31.8	46.0	
24.013500	23.3	1000.00	9.000	On	L1	9.6	26.7	50.0	

Emission Level = Read Level + Correct Factor

Test Voltage:	AC 120V/60Hz
Terminal:	Neutral
Remark:	Only worse case is reported.



Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.267000	32.9	1000.00	9.000	On	N	9.4	28.3	61.2	
0.591000	22.1	1000.00	9.000	On	N	9.5	33.9	56.0	
24.013500	29.8	1000.00	9.000	On	N	9.6	30.2	60.0	

Final Measurement Detector 2

Frequency (MHz)	Average (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.285000	20.8	1000.00	9.000	On	N	9.4	29.9	50.7	
0.555000	14.7	1000.00	9.000	On	N	9.5	31.3	46.0	
24.013500	26.8	1000.00	9.000	On	N	9.6	23.2	50.0	

Emission Level = Read Level + Correct Factor

3.2. Radiated Emission

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.209 / RSS-Gen 8.9

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F (kHz)	300
0.490~1.705	24000/F (kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Frequency Range (MHz)	dBμV/m (at 3 meters)	
	Peak	Average
Above 1000	74	54

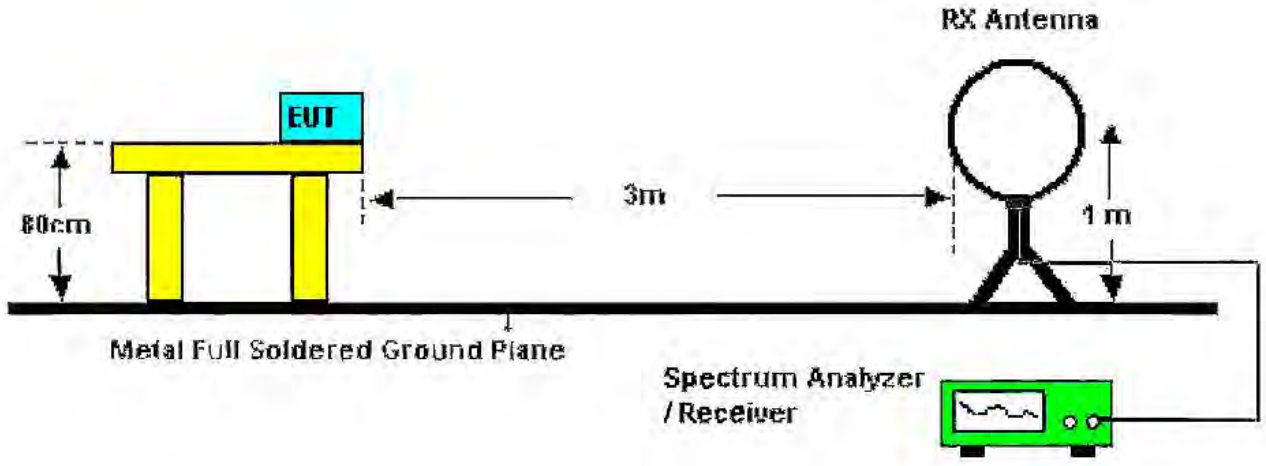
Note:
(1) The tighter limit applies at the band edges.
(2) Emission Level (dBμV/m)=20log Emission Level (μV/m).

Limits of unwanted emission out of the restricted bands
FCC CFR Title 47 Part 15 Subpart E Section 15. 407(b) / RSS-247 6.2

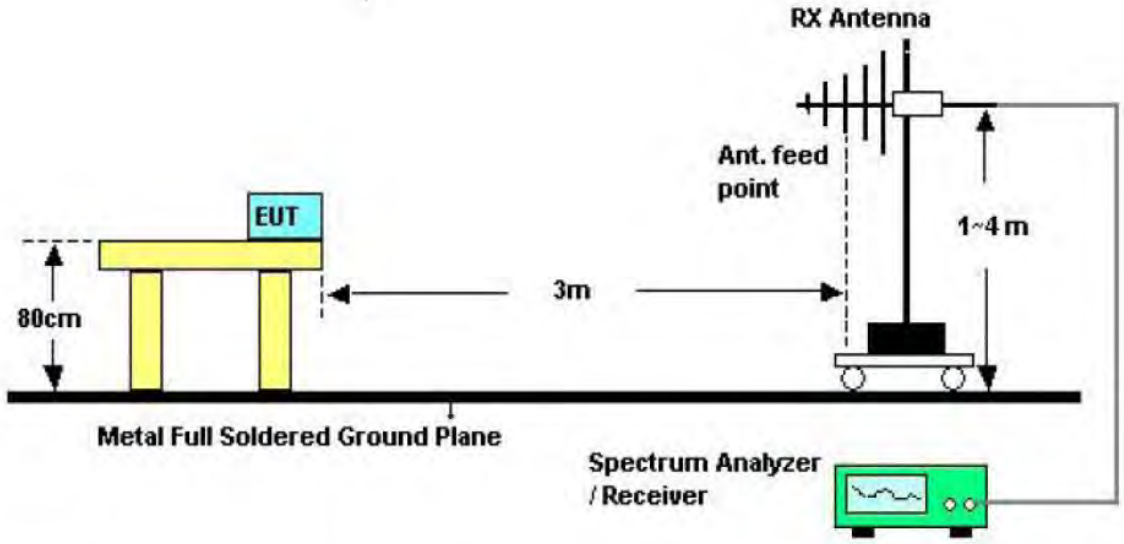
Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150~5250	-27	68.2
5250~5350	-27	68.2
5470~5725	-27	68.2
5725~5825	-27 (Note 2)	68.2
	10 (Note 2)	105.2
	15.6 (Note 2)	110.8
	27 (Note 2)	122.2

Note:
1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E=\frac{1000000\sqrt{30P}}{3}$ μV/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.

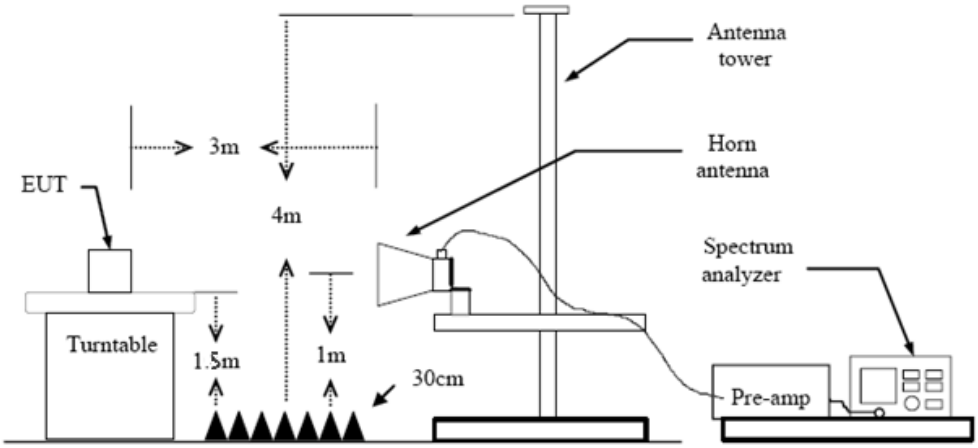
Test Configuration



Below 30MHz Test Setup



30-1000MHz Test Setup



Above 1GHz Test Setup

Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013.
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings

(1) Span shall wide enough to fully capture the emission being measured;
(2) 9k – 150kHz:
RBW=300 Hz, VBW=1 kHz, Sweep=auto, Detector function=peak, Trace=max hold
(3) 0.15M – 30MHz:
RBW=10 kHz, VBW=30 kHz, Sweep=auto, Detector function=peak, Trace=max hold
(4) 30M - 1 GHz:
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
(5) From 1 GHz to 40 GHz:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.
Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause Duty Cycle.

Test Mode

Please refer to the clause 2.4.

Test Result

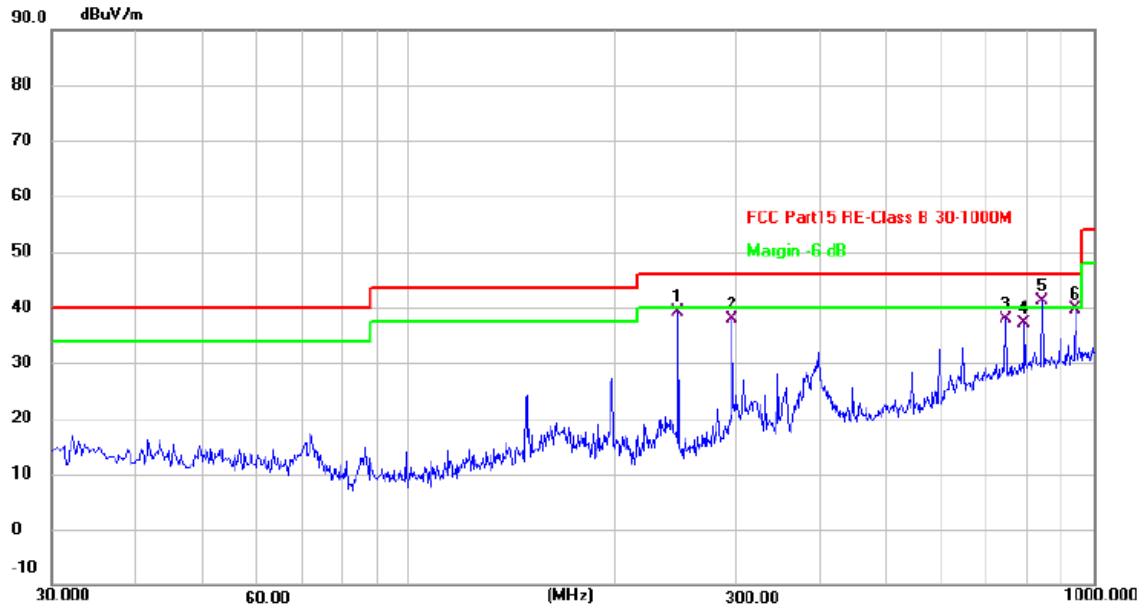
9 kHz~30 MHz

From 9 kHz to 30 MHz: The conclusion is 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

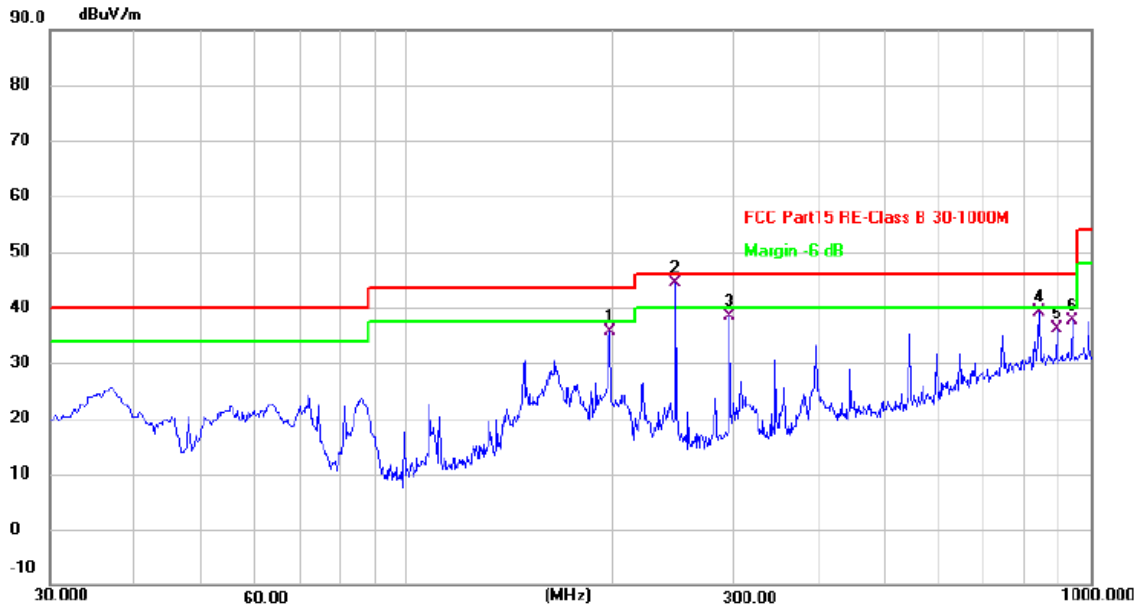
Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	247.6033	56.70	-17.67	39.03	46.00	-6.97	QP
2	297.0733	53.50	-15.61	37.89	46.00	-8.11	QP
3	742.6266	42.70	-4.80	37.90	46.00	-8.10	QP
4	792.0966	40.54	-3.42	37.12	46.00	-8.88	QP
5 *	841.5666	44.08	-3.03	41.05	46.00	-4.95	QP
6	940.5066	41.28	-1.53	39.75	46.00	-6.25	QP

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	198.1332	54.44	-18.89	35.55	43.50	-7.95	QP
2 *	247.6032	61.93	-17.67	44.26	46.00	-1.74	QP
3	297.0733	54.00	-15.61	38.39	46.00	-7.61	QP
4	841.5665	42.05	-3.03	39.02	46.00	-6.98	QP
5	891.0366	38.72	-2.54	36.18	46.00	-9.82	QP
6	940.5066	39.21	-1.53	37.68	46.00	-8.32	QP

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Above 1GHz

Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10360.207	40.18	13.75	53.93	74.00	-20.07	peak
2 *	10360.186	27.76	13.75	41.51	54.00	-12.49	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10360.024	26.88	13.75	40.63	54.00	-13.37	AVG
2	10360.162	40.05	13.75	53.80	74.00	-20.20	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5200MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10400.164	26.40	13.79	40.19	54.00	-13.81	AVG
2	10400.242	39.95	13.79	53.74	74.00	-20.26	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5200MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10399.896	39.76	13.79	53.55	74.00	-20.45	peak
2 *	10400.032	27.25	13.79	41.04	54.00	-12.96	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10479.868	40.23	13.87	54.10	74.00	-19.90	peak
2 *	10480.135	27.05	13.87	40.92	54.00	-13.08	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10479.795	39.69	13.87	53.56	74.00	-20.44	peak
2 *	10480.132	26.93	13.87	40.80	54.00	-13.20	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10359.907	27.14	13.75	40.89	54.00	-13.11	AVG
2	10359.961	40.17	13.75	53.92	74.00	-20.08	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10359.975	27.42	13.75	41.17	54.00	-12.83	AVG
2	10360.142	39.42	13.75	53.17	74.00	-20.83	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5200MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10399.964	39.75	13.79	53.54	74.00	-20.46	peak
2 *	10400.123	27.70	13.79	41.49	54.00	-12.51	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5200MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10400.132	27.33	13.79	41.12	54.00	-12.88	AVG
2	10400.351	39.69	13.79	53.48	74.00	-20.52	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10479.878	40.10	13.87	53.97	74.00	-20.03	peak
2 *	10480.202	27.15	13.87	41.02	54.00	-12.98	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10479.784	27.92	13.87	41.79	54.00	-12.21	AVG
2	10480.312	40.16	13.87	54.03	74.00	-19.97	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10379.960	40.37	13.77	54.14	74.00	-19.86	peak
2 *	10380.113	27.06	13.77	40.83	54.00	-13.17	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10379.758	27.49	13.77	41.26	54.00	-12.74	AVG
2	10379.764	40.07	13.77	53.84	74.00	-20.16	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10459.910	27.35	13.85	41.20	54.00	-12.80	AVG
2	10460.034	40.38	13.85	54.23	74.00	-19.77	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10459.796	39.56	13.85	53.41	74.00	-20.59	peak
2 *	10460.121	26.91	13.85	40.76	54.00	-13.24	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11489.890	39.81	14.94	54.75	74.00	-19.25	peak
2 *	11490.246	26.88	14.95	41.83	54.00	-12.17	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11489.873	26.68	14.94	41.62	54.00	-12.38	AVG
2	11489.910	39.98	14.94	54.92	74.00	-19.08	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5785MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11569.787	39.57	15.00	54.57	74.00	-19.43	peak
2 *	11570.130	26.82	15.01	41.83	54.00	-12.17	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5785MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11569.969	39.40	15.00	54.40	74.00	-19.60	peak
2 *	11570.103	26.45	15.01	41.46	54.00	-12.54	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5825MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11649.871	39.84	15.01	54.85	74.00	-19.15	peak
2 *	11649.969	26.70	15.01	41.71	54.00	-12.29	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5825MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11649.857	26.89	15.01	41.90	54.00	-12.10	AVG
2	11650.325	39.48	15.03	54.51	74.00	-19.49	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11489.747	26.51	14.94	41.45	54.00	-12.55	AVG
2	11490.212	39.27	14.95	54.22	74.00	-19.78	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5745MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11489.958	26.70	14.94	41.64	54.00	-12.36	AVG
2	11489.978	39.11	14.94	54.05	74.00	-19.95	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5785MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11569.769	25.96	15.00	40.96	54.00	-13.04	AVG
2	11570.318	39.10	15.01	54.11	74.00	-19.89	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5785MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11569.821	39.14	15.00	54.14	74.00	-19.86	peak
2 *	11570.142	25.85	15.01	40.86	54.00	-13.14	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5825MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11649.791	39.16	15.01	54.17	74.00	-19.83	peak
2 *	11650.125	26.31	15.03	41.34	54.00	-12.66	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5825MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11649.897	26.73	15.01	41.74	54.00	-12.26	AVG
2	11649.900	39.81	15.01	54.82	74.00	-19.18	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5755MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11510.100	26.57	14.96	41.53	54.00	-12.47	AVG
2	11510.122	40.14	14.96	55.10	74.00	-18.90	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5755MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11509.969	39.19	14.95	54.14	74.00	-19.86	peak
2 *	11510.313	26.45	14.96	41.41	54.00	-12.59	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5795MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11589.698	39.78	15.02	54.80	74.00	-19.20	peak
2 *	11590.211	26.48	15.03	41.51	54.00	-12.49	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5795MHz (U-NII-3)
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11589.749	26.17	15.02	41.19	54.00	-12.81	AVG
2	11590.235	39.52	15.03	54.55	74.00	-19.45	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

3.3. Band Edge Emissions

Limit

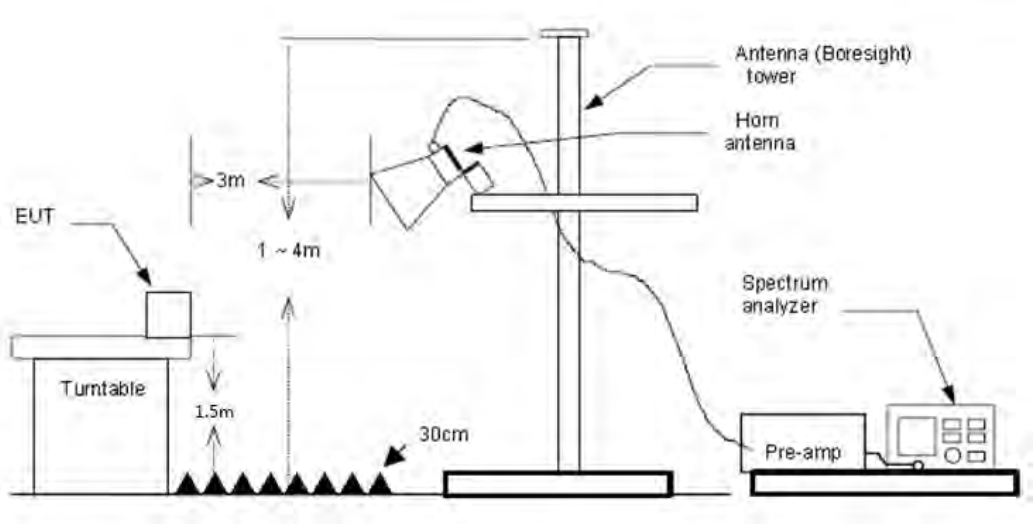
Limits of unwanted emission out of the restricted bands

FCC CFR Title 47 Part 15 Subpart E Section 15. 407(b) / RSS-247 6.2

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150~5250	-27	68.2
5250~5350	-27	68.2
5470~5725	-27	68.2
5725~5825	-27 (Note 2)	68.2
	10 (Note 2)	105.2
	15.6 (Note 2)	110.8
	27 (Note 2)	122.2

Note:
1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E=\frac{1000000\sqrt{30P}}{3}$ μV/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.

Test Configuration



Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
5. The receiver set as follow:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause Duty Cycle.

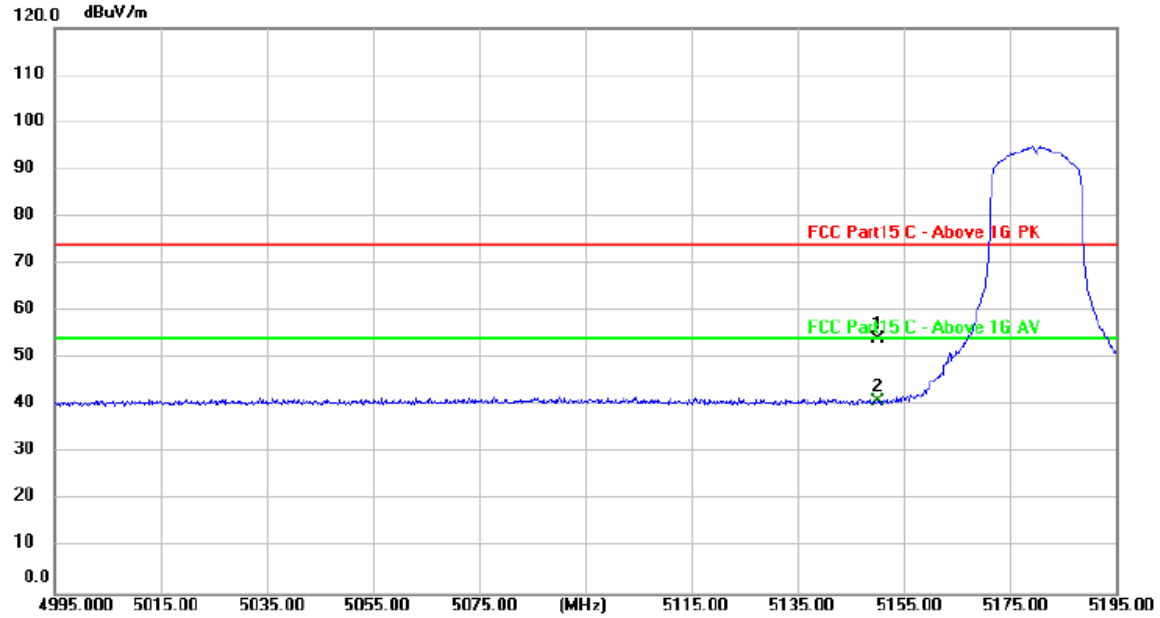
Test Mode

Please refer to the clause 2.4.

Test Result

Note: Pre-scan both 4500-5150MHz, 5350-5460MHz were investigated, report only shows the test data for worst case.

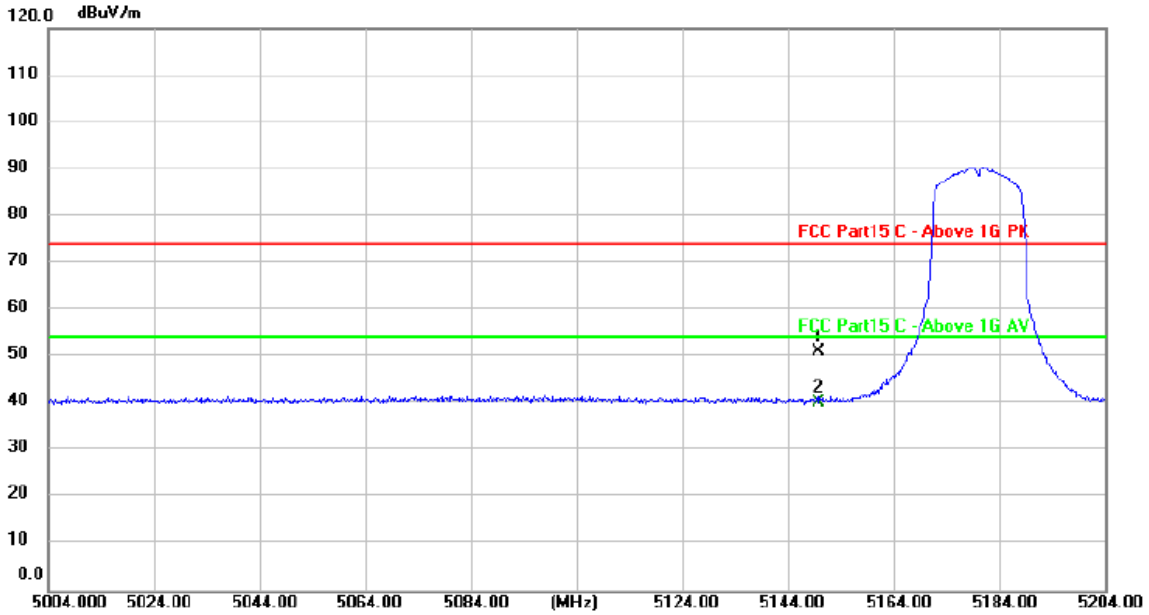
Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	16.89	37.23	54.12	74.00	-19.88	peak
2 *	5150.000	3.82	37.23	41.05	54.00	-12.95	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

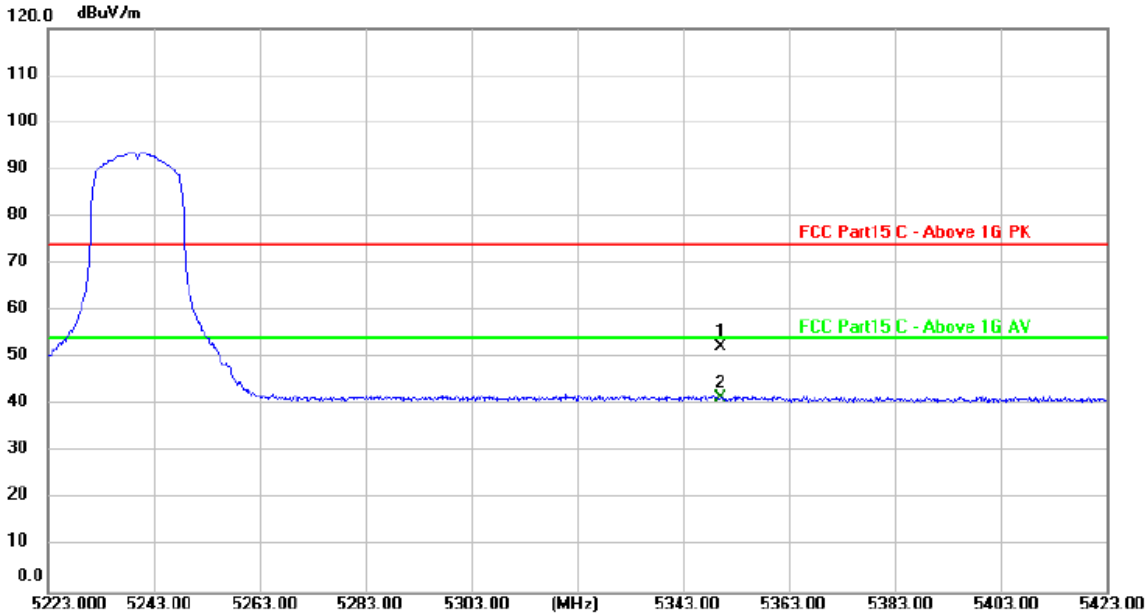
Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5180MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	14.01	37.23	51.24	74.00	-22.76	peak
2 *	5150.000	3.20	37.23	40.43	54.00	-13.57	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

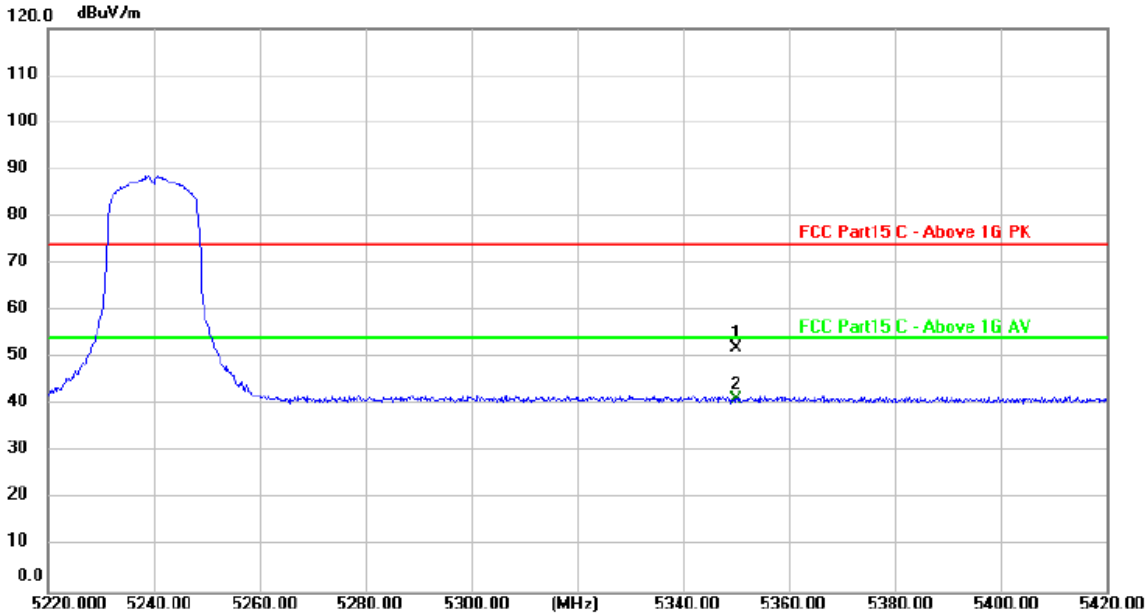
Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	14.79	37.43	52.22	74.00	-21.78	peak
2 *	5350.000	4.06	37.43	41.49	54.00	-12.51	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

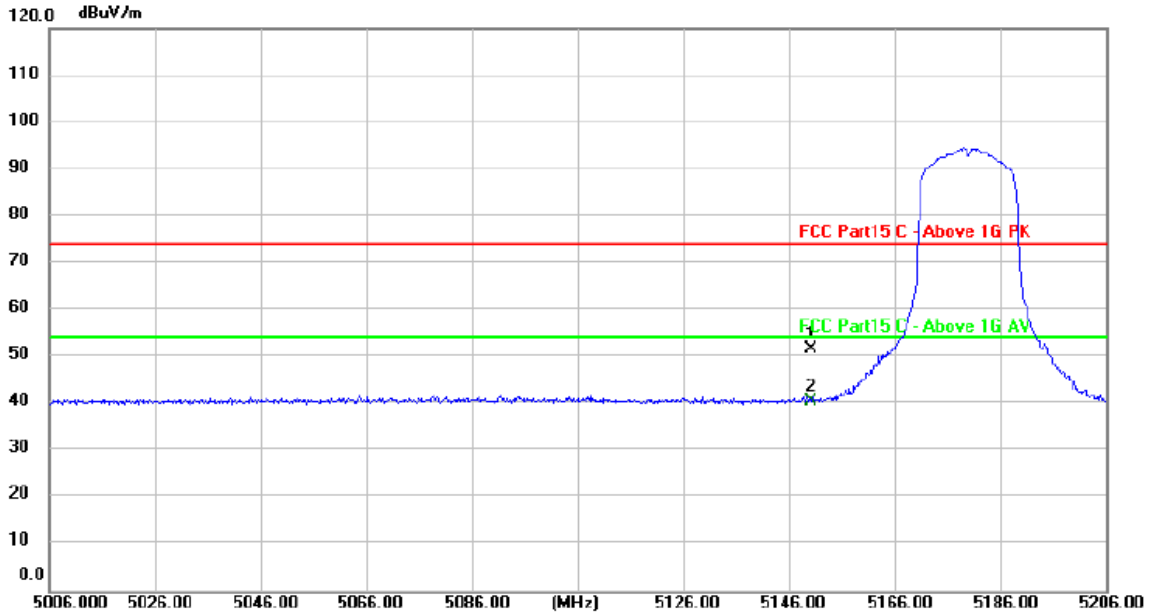
Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5240MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	14.57	37.43	52.00	74.00	-22.00	peak
2 *	5350.000	3.73	37.43	41.16	54.00	-12.84	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

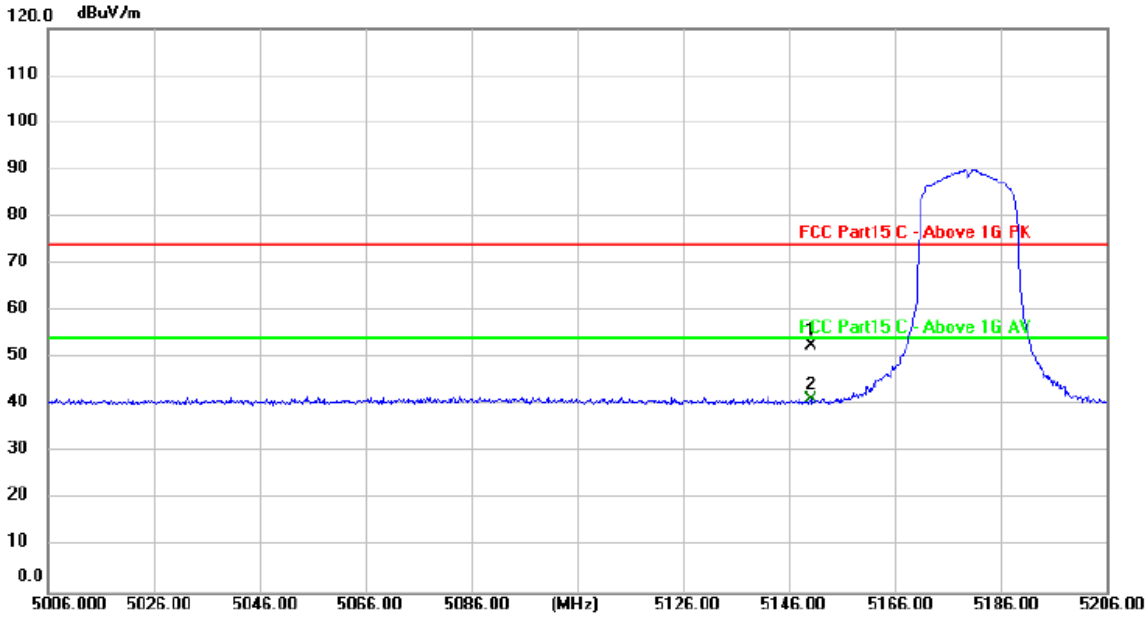
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	14.59	37.23	51.82	74.00	-22.18	peak
2 *	5150.000	3.53	37.23	40.76	54.00	-13.24	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

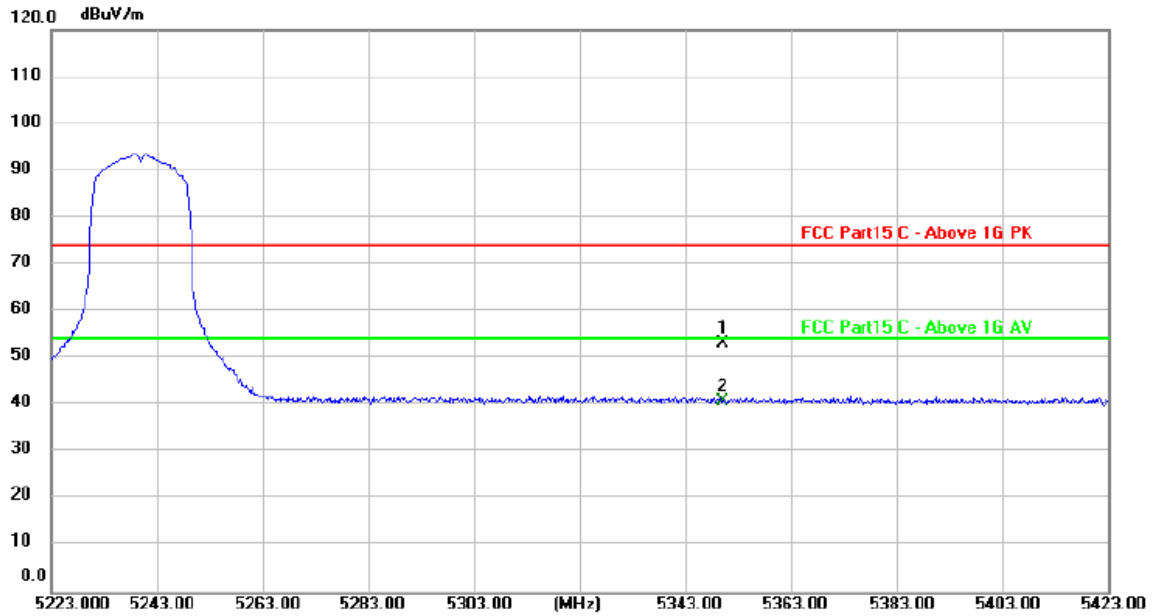
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5180MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	15.38	37.23	52.61	74.00	-21.39	peak
2 *	5150.000	3.98	37.23	41.21	54.00	-12.79	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

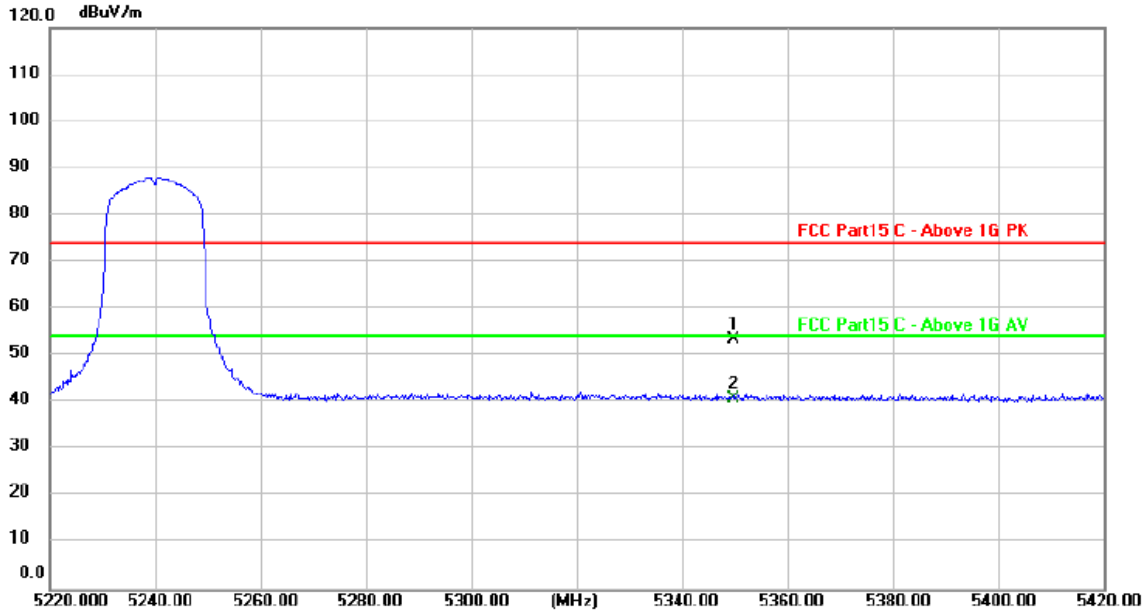
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	15.95	37.43	53.38	74.00	-20.62	peak
2 *	5350.000	3.60	37.43	41.03	54.00	-12.97	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

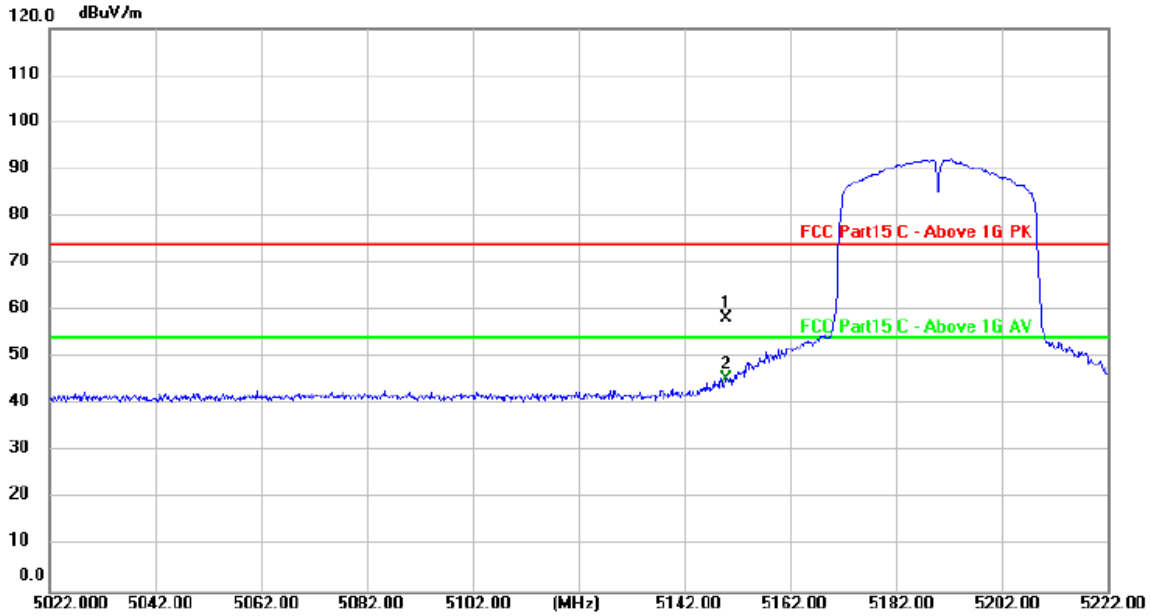
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5240MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	15.99	37.43	53.42	74.00	-20.58	peak
2 *	5350.000	3.52	37.43	40.95	54.00	-13.05	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

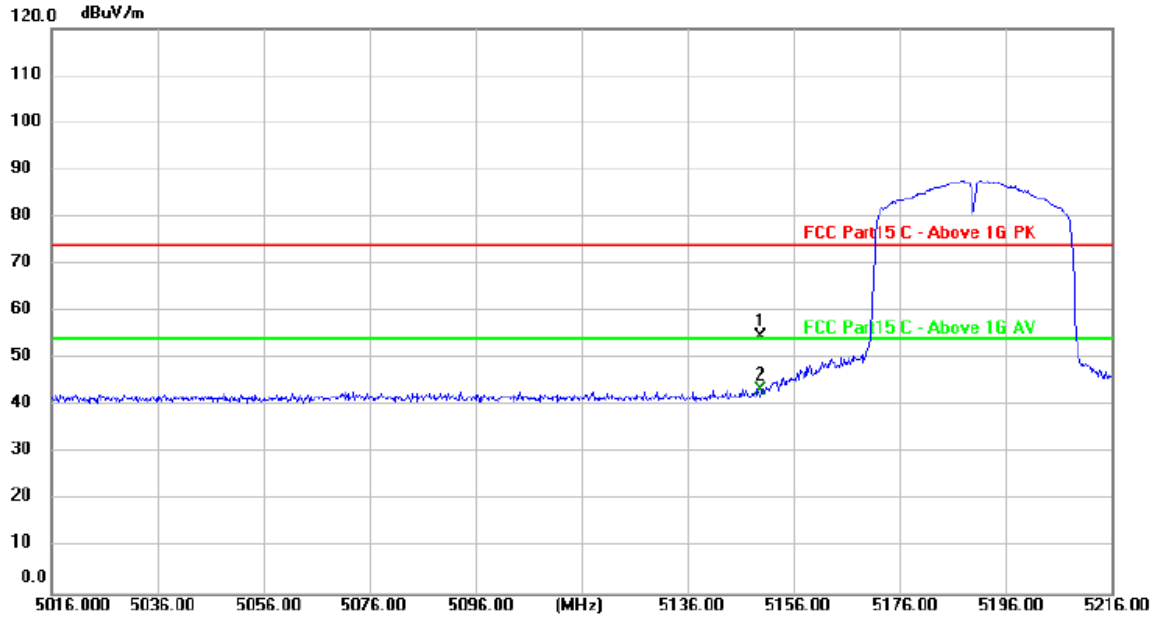
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	21.25	37.23	58.48	74.00	-15.52	peak
2 *	5150.000	8.30	37.23	45.53	54.00	-8.47	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

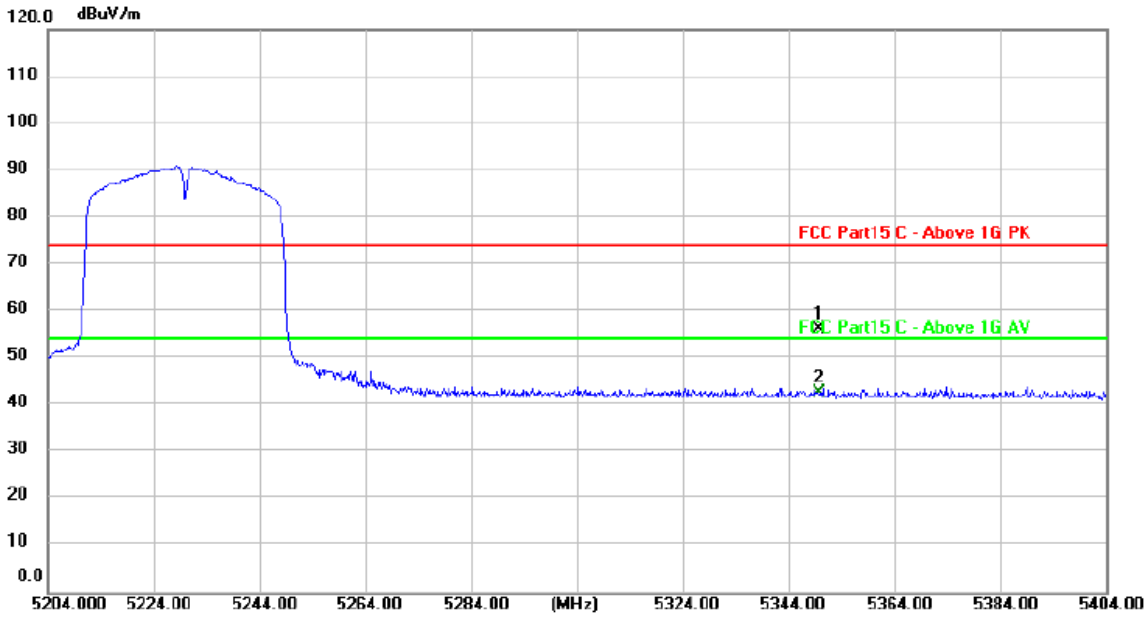
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5190MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5150.000	17.64	37.23	54.87	74.00	-19.13	peak
2 *	5150.000	6.15	37.23	43.38	54.00	-10.62	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

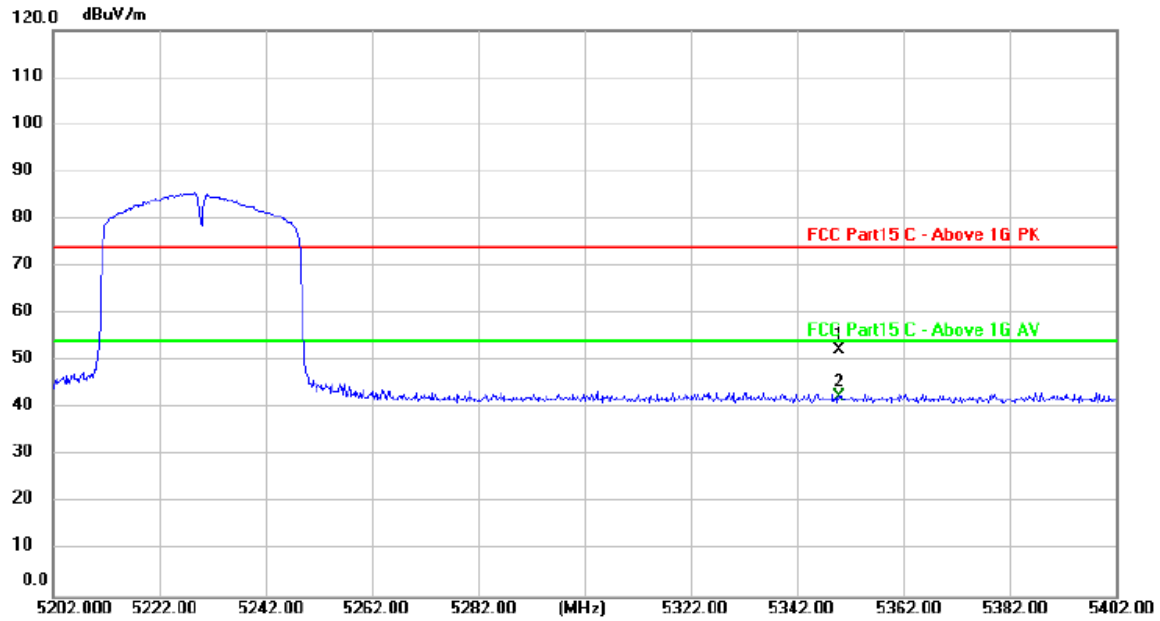
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	18.82	37.43	56.25	74.00	-17.75	peak
2 *	5350.000	5.37	37.43	42.80	54.00	-11.20	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

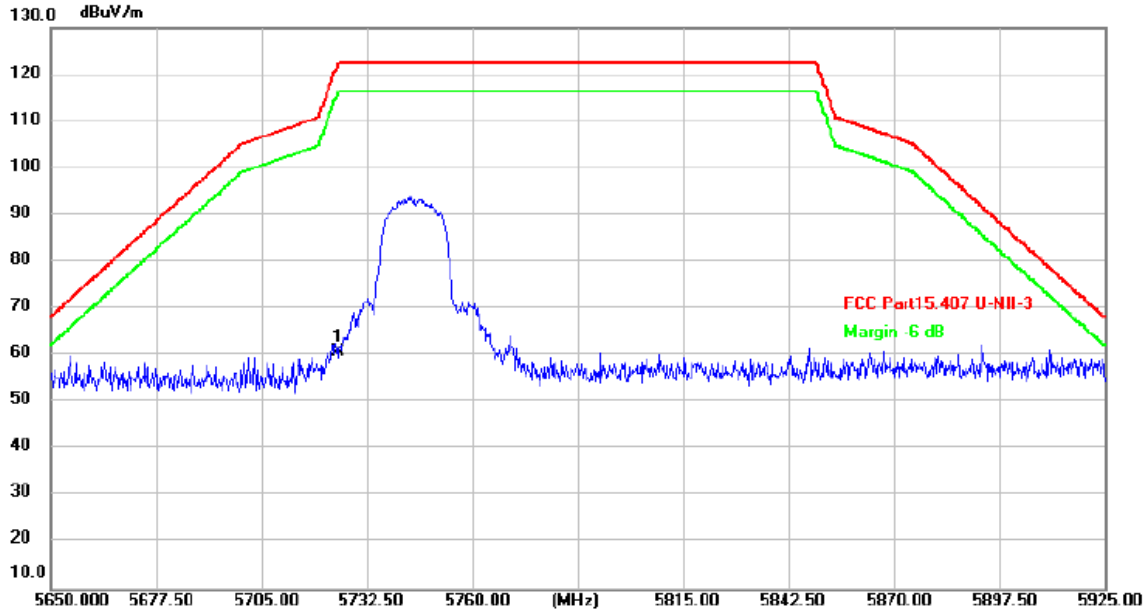
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5230MHz (U-NII-1)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5350.000	14.78	37.43	52.21	74.00	-21.79	peak
2 *	5350.000	4.95	37.43	42.38	54.00	-11.62	AVG

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

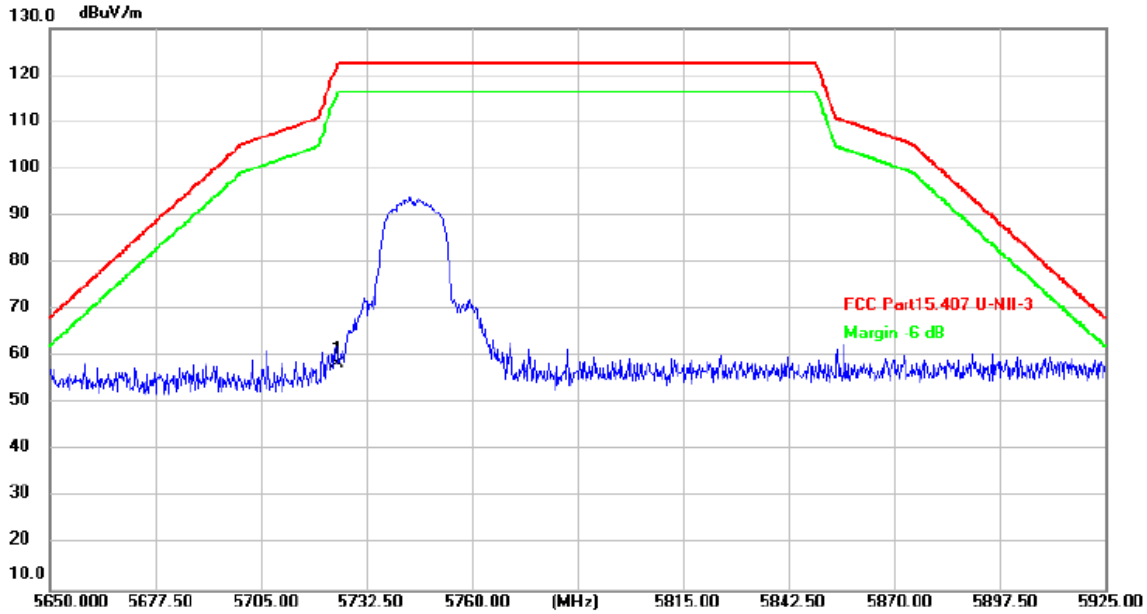
Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5745MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	22.74	38.16	60.90	122.20	-61.30	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

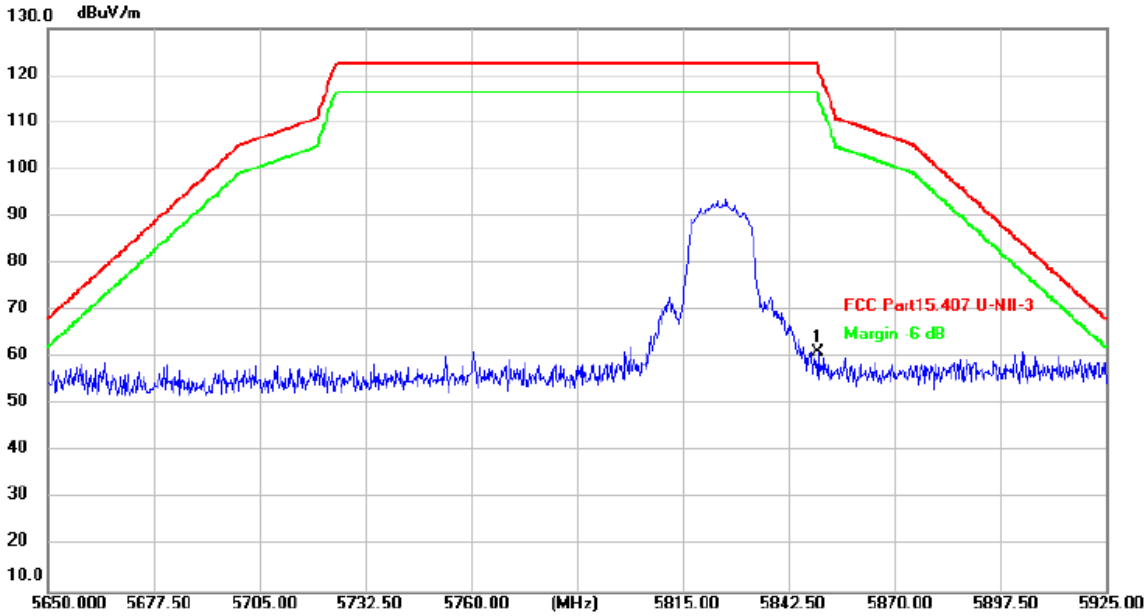
Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5745MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	20.28	38.16	58.44	122.20	-63.76	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

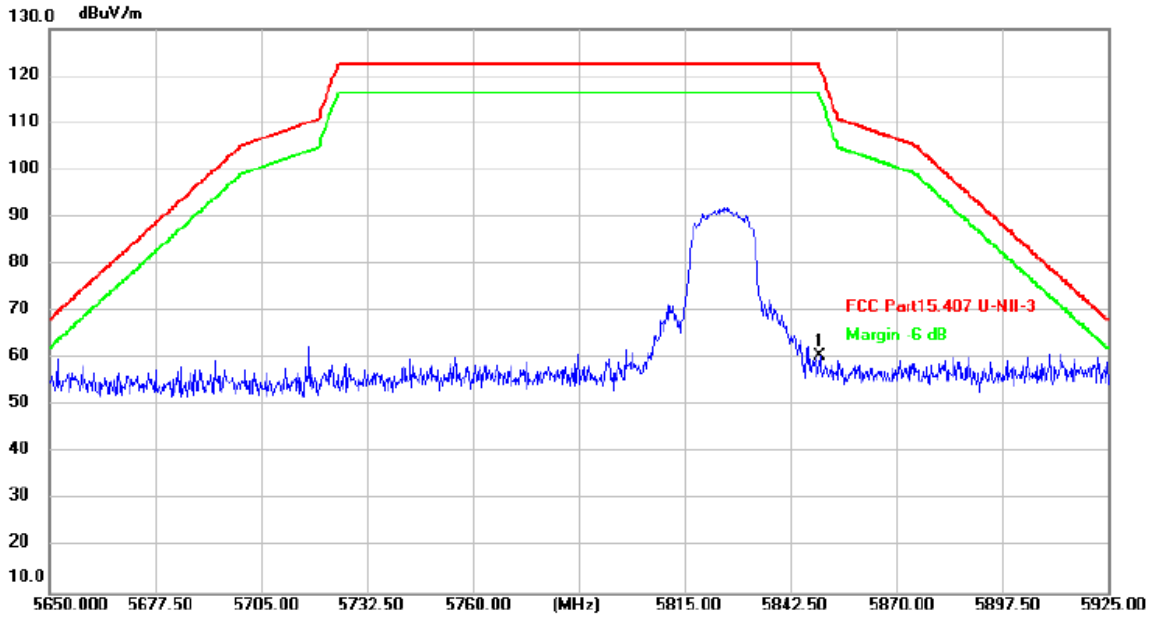
Ant. Pol.	Horizontal
Test Mode:	TX 802.11a Mode 5825MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	22.81	38.47	61.28	122.20	-60.92	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

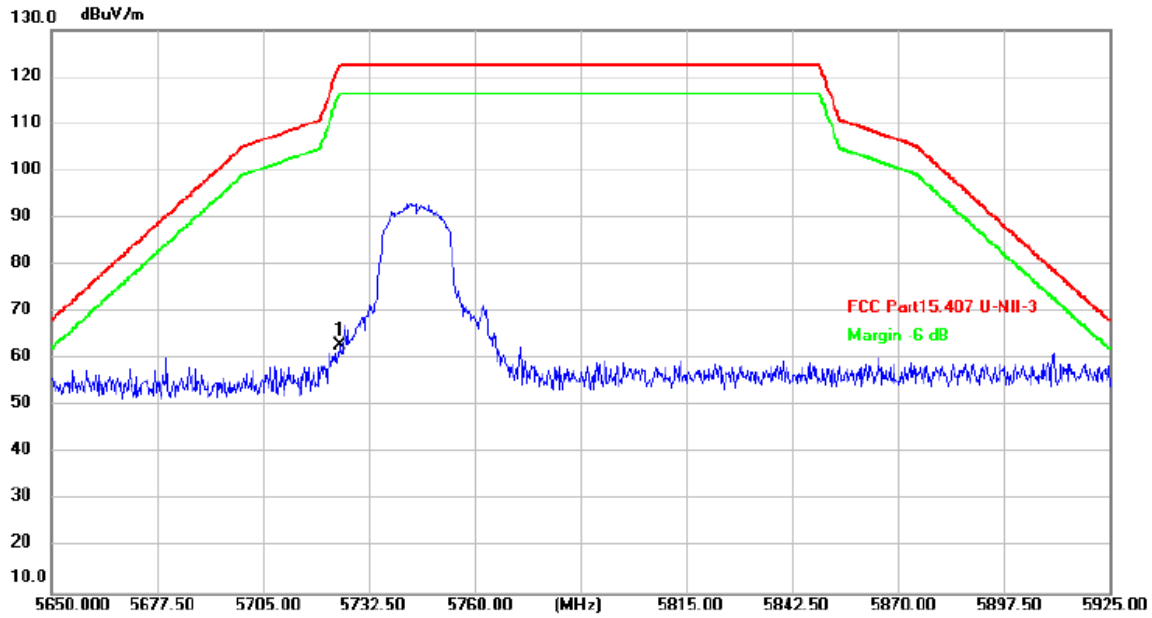
Ant. Pol.	Vertical
Test Mode:	TX 802.11a Mode 5825MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	22.11	38.47	60.58	122.20	-61.62	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

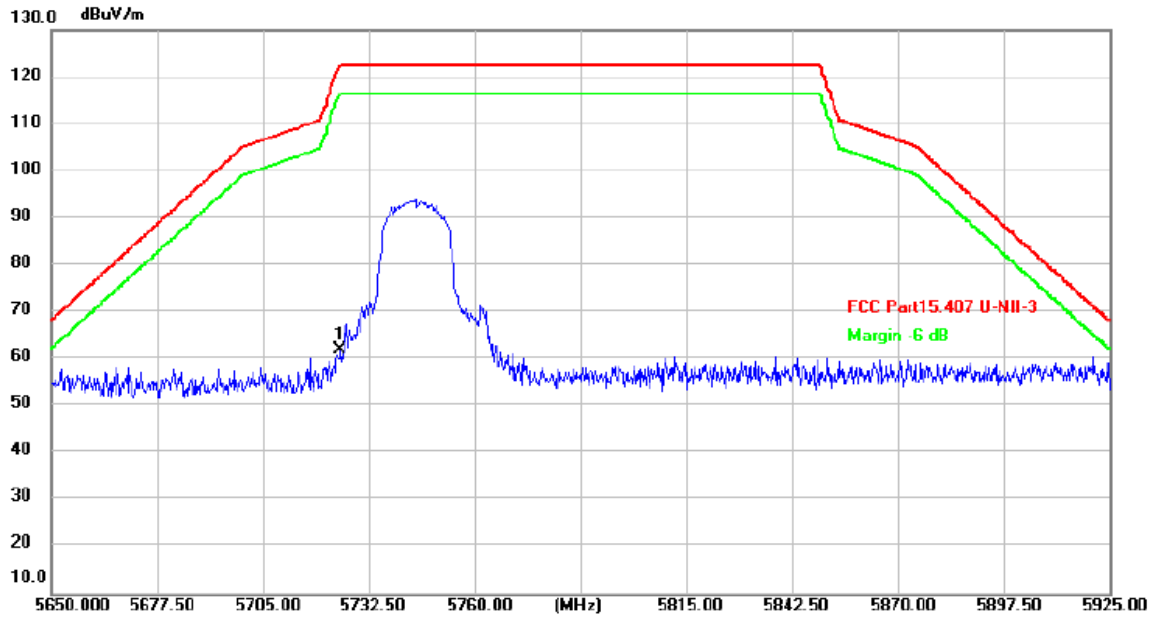
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5745MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	24.69	38.16	62.85	122.20	-59.35	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

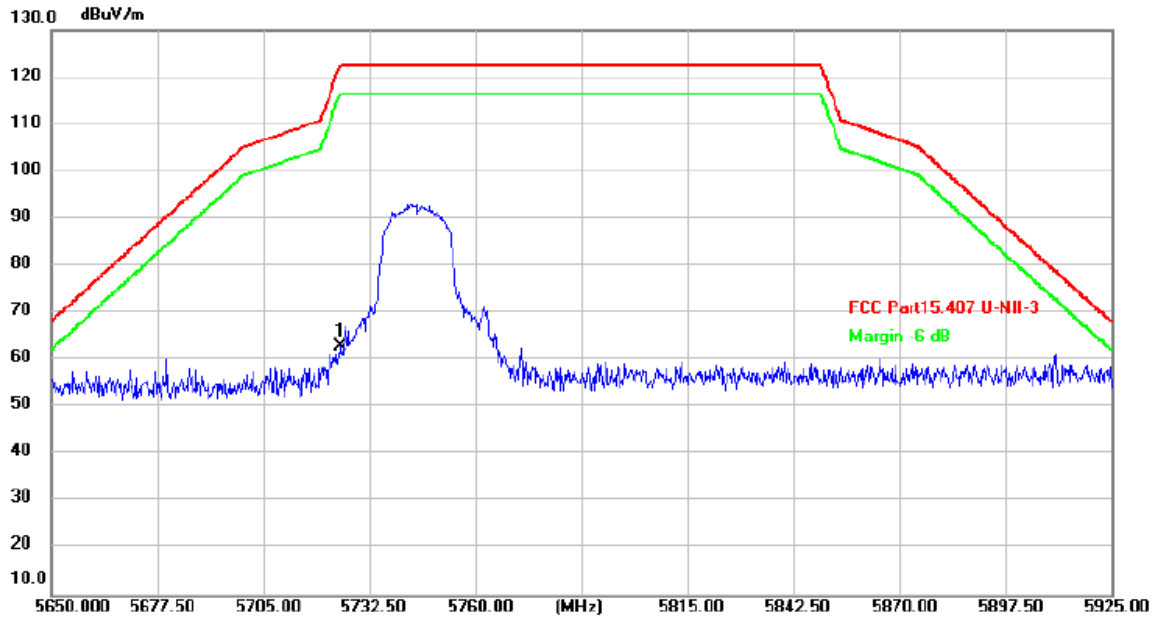
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5745MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	23.97	38.16	62.13	122.20	-60.07	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

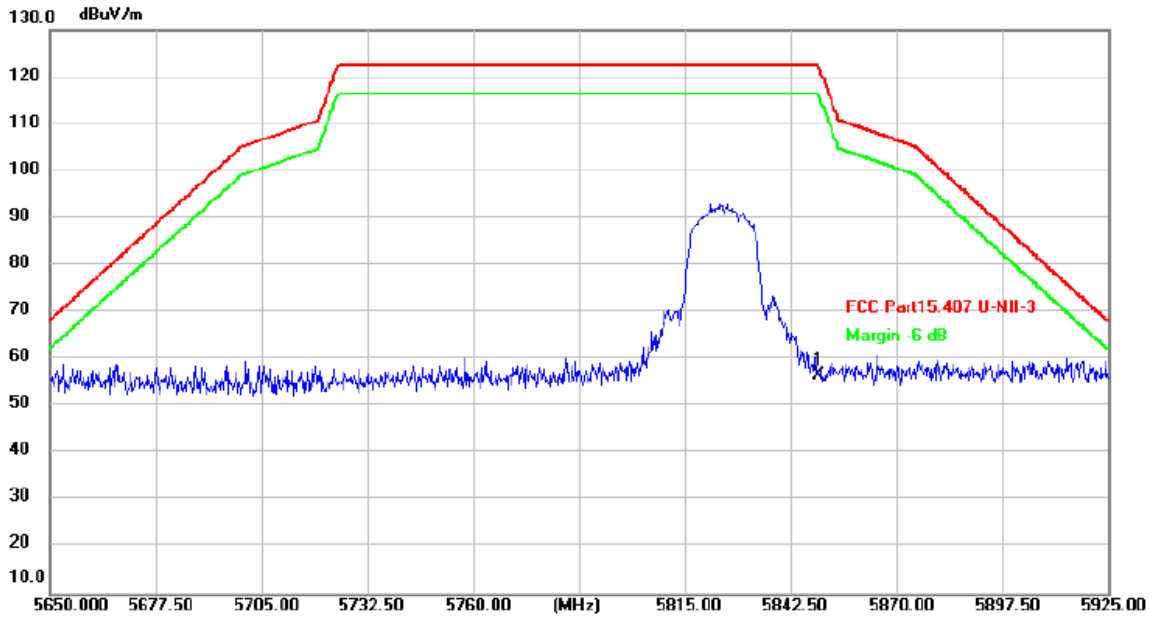
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT20) Mode 5825MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	24.69	38.16	62.85	122.20	-59.35	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

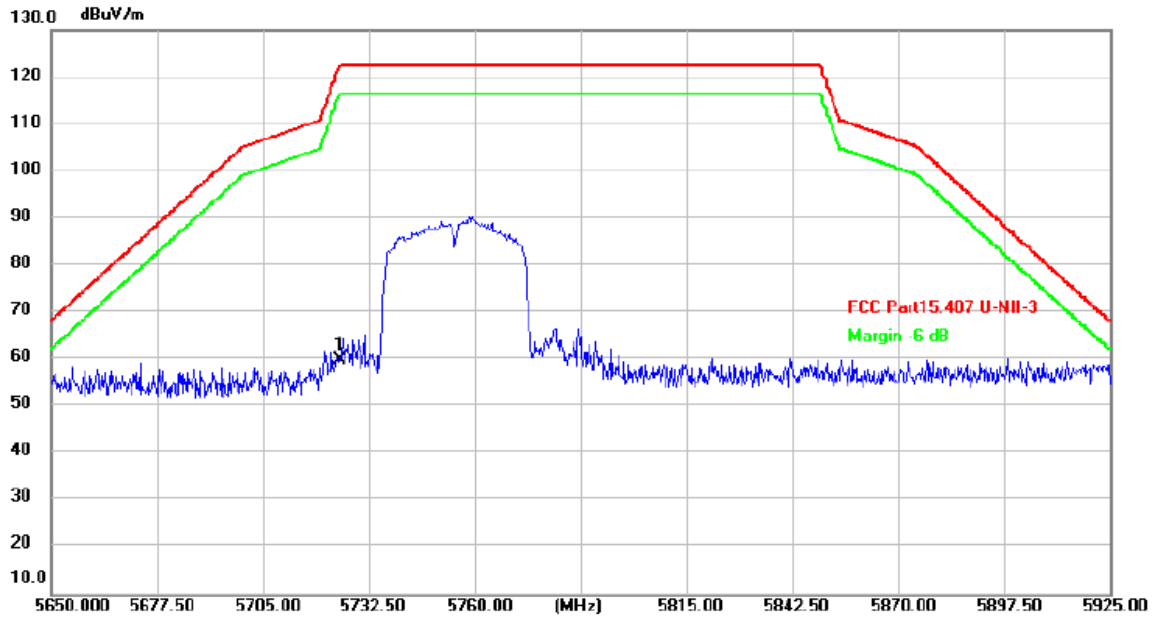
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT20) Mode 5825MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	18.15	38.47	56.62	122.20	-65.58	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

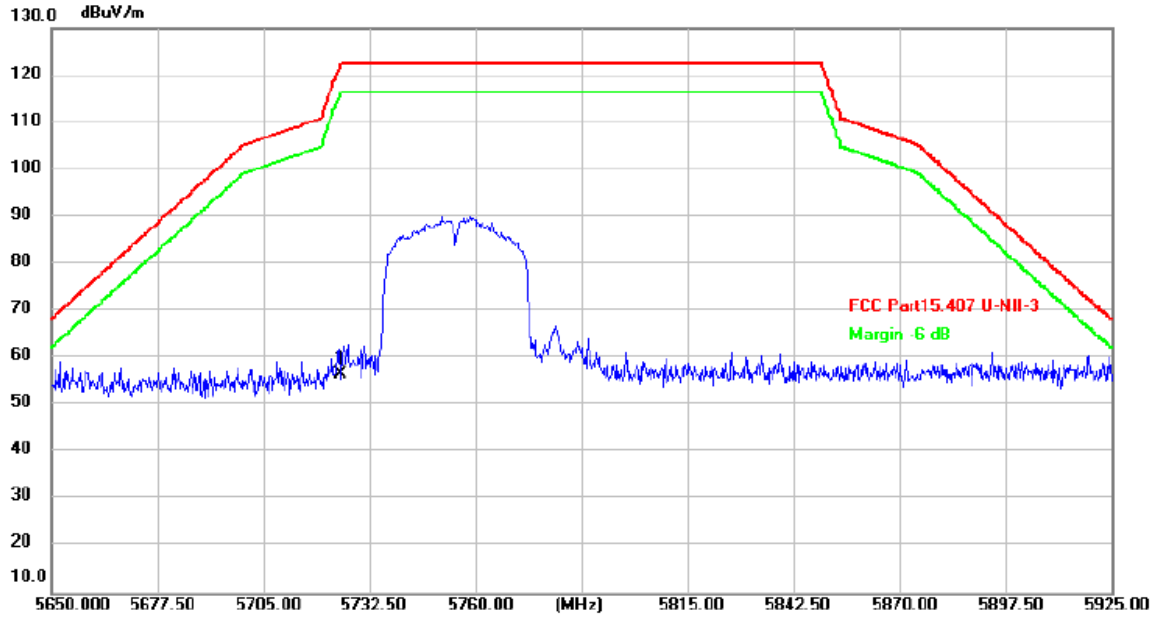
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5755MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	21.73	38.16	59.89	122.20	-62.31	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

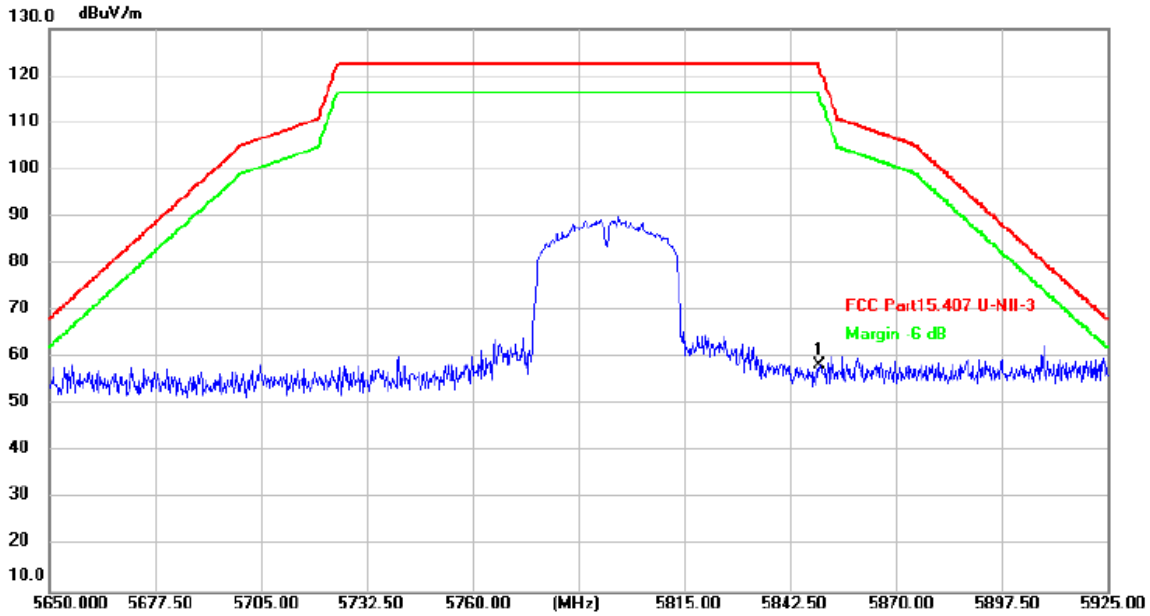
Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5755MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5725.000	18.37	38.16	56.53	122.20	-65.67	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

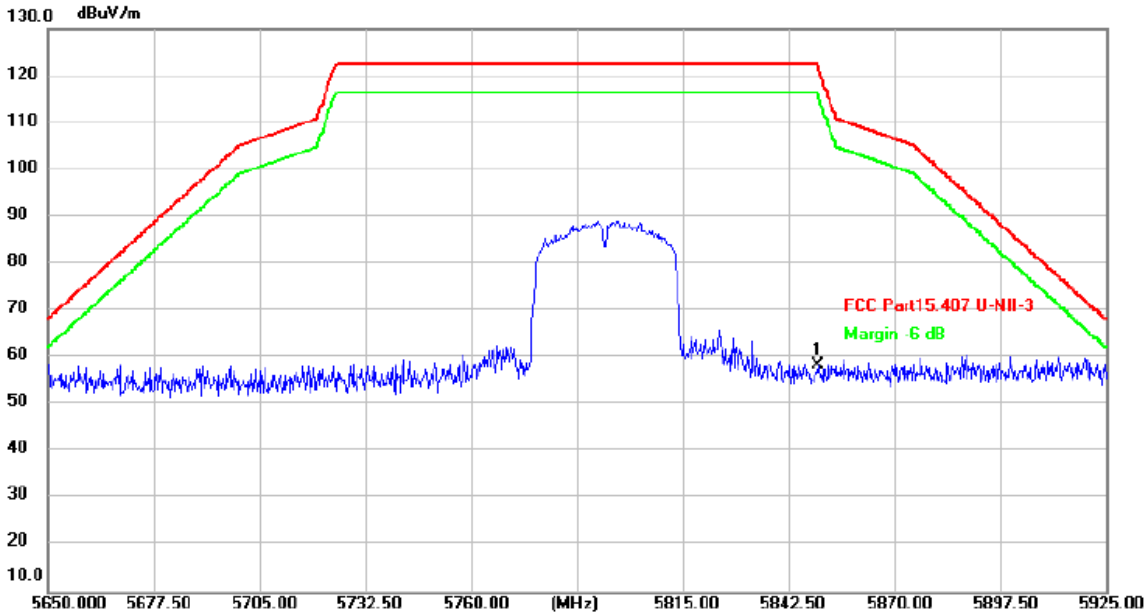
Ant. Pol.	Horizontal
Test Mode:	TX 802.11n(HT40) Mode 5795MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	19.96	38.47	58.43	122.20	-63.77	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX 802.11n(HT40) Mode 5795MHz (U-NII-3)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	5850.000	19.94	38.47	58.41	122.20	-63.79	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

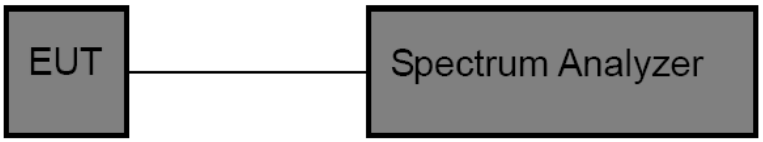
3.4. Bandwidth

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a) & (e) / RSS-247 6.2.1.2 & 6.2.4.1

Test Item	Limit	Frequency Range (MHz)
26dB Bandwidth& 99% Bandwidth	N/A	5150~5250
		5250~5350
		5500~5700
6 dB Bandwidth	≥500 kHz	5725~5850

Test Configuration



Test Procedure

Please refer to KDB789033 D02 for the measurement methods.

The setting of the spectrum analyzer as below:

26dB Bandwidth Test	
Spectrum Parameters	**Setting**
Attenuation	Auto
Span	>26 dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
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	≥ 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	≥ 3*RBW
Detector	Peak
Trace	Max Hold

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

Test Mode

Please refer to the clause 2.4.

Test Result

99% Bandwidth

Test Mode	Freq(MHz)	OCB [MHz]	Limit[MHz]	Verdict
IEEE 802.11a	5180	16.560	---	---
	5200	16.627	---	---
	5240	16.642	---	---
	5745	16.742	---	---
	5785	16.742	---	---
	5825	16.903	---	---
IEEE 802.11n_20	5180	17.629	---	---
	5200	17.631	---	---
	5240	17.801	---	---
	5745	17.716	---	---
	5785	17.667	---	---
	5825	17.708	---	---
IEEE 802.11n_40	5190	35.240	---	---
	5230	35.456	---	---
	5755	35.422	---	---
	5795	35.507	---	---

26dB Bandwidth

Test Mode	Freq(MHz)	26dB EBW [MHz]	Limit[MHz]	Verdict
IEEE 802.11a	5180	19.640	---	---
	5200	20.960	---	---
	5240	19.120	---	---
	5745	19.640	---	---
	5785	19.800	---	---
	5825	23.000	---	---
IEEE 802.11n_20	5180	20.200	---	---
	5200	20.160	---	---
	5240	19.920	---	---
	5745	20.640	---	---
	5785	22.320	---	---
	5825	19.800	---	---
IEEE 802.11n_40	5190	37.840	---	---
	5230	37.920	---	---
	5755	37.920	---	---
	5795	38.080	---	---

6dB Bandwidth

Test Mode	Freq(MHz)	6dB EBW [MHz]	Limit[MHz]	Verdict
IEEE 802.11a	5745	13.120	≥0.5	PASS
	5785	13.880	≥0.5	PASS
	5825	12.240	≥0.5	PASS
IEEE 802.11n_20	5745	14.760	≥0.5	PASS
	5785	15.040	≥0.5	PASS
	5825	13.720	≥0.5	PASS
IEEE 802.11n_40	5755	31.280	≥0.5	PASS
	5795	30.000	≥0.5	PASS

99% Bandwidth:

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11A_Ant1_5745

11A_Ant1_5785

11A_Ant1_5825

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

11N20SISO_Ant1_5745

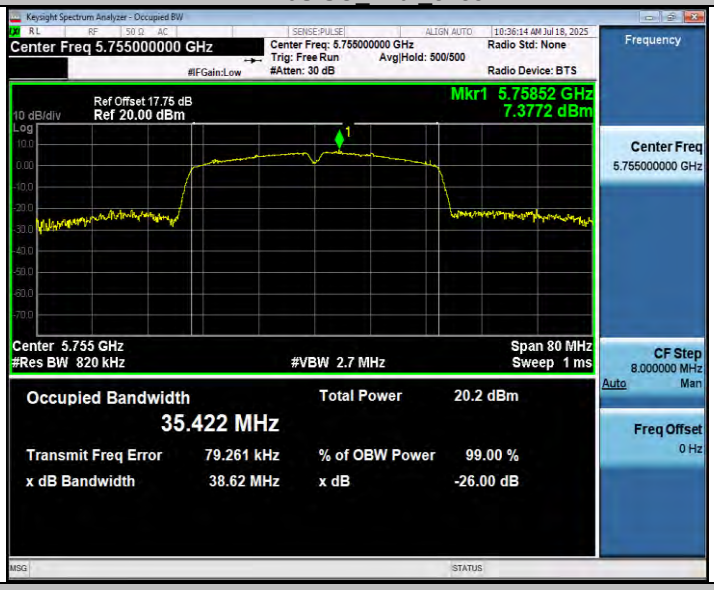
11N20SISO_Ant1_5785

11N20SISO_Ant1_5825

11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

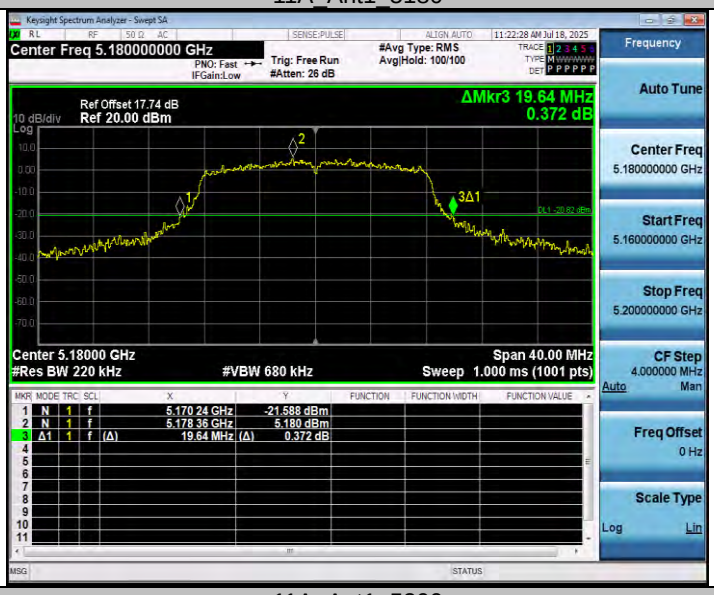


11N40SISO_Ant1_5795

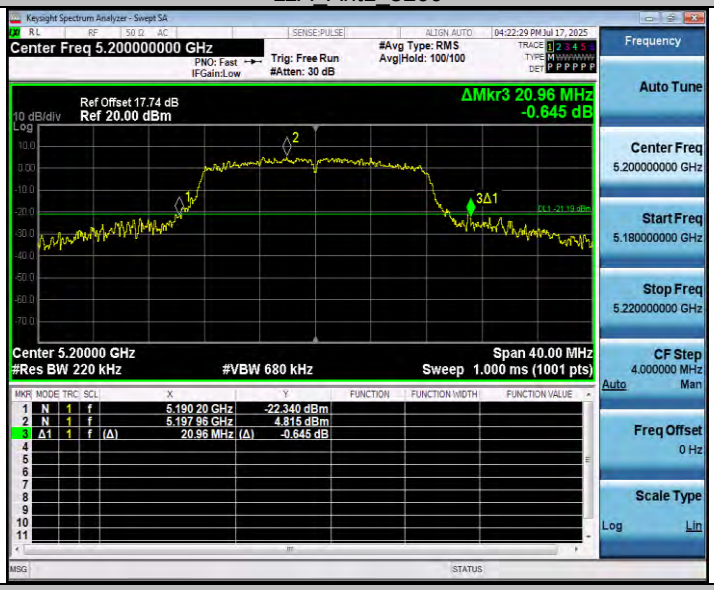

Keysight Spectrum Analyzer - Occupied BW
Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold: 500/500
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
10:38:29 AM Jul 18, 2025
Frequency
Ref Offset 17.75 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 5.7898 GHz
5.8974 dBm
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 820 kHz
#VBW 2.7 MHz
Span 80 MHz
Sweep 1 ms
CF Step
8.000000 MHz
Auto
Man
Occupied Bandwidth
35.507 MHz
Total Power 19.3 dBm
Transmit Freq Error 104.27 kHz
% of OBW Power 99.00 %
x dB Bandwidth 38.72 MHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

26dB Bandwidth:

11A_Ant1_5180

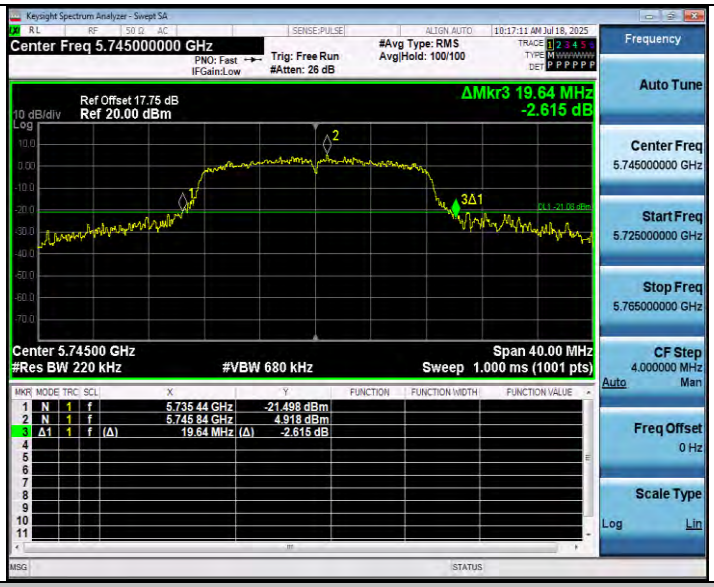


11A_Ant1_5200



11A_Ant1_5240

11A_Ant1_5745

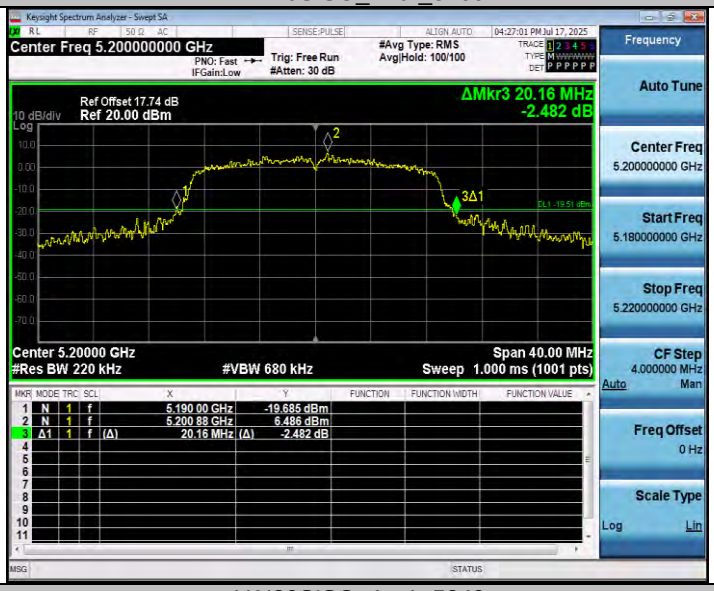


11A_Ant1_5785

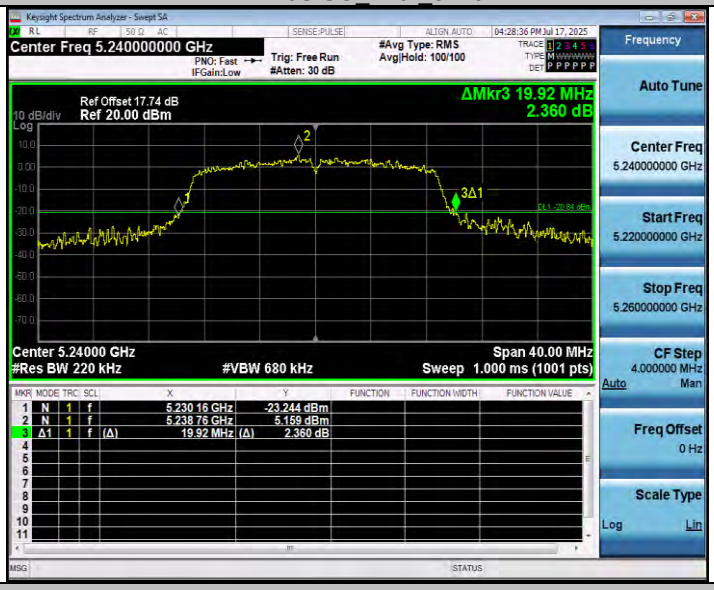
11A_Ant1_5825

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

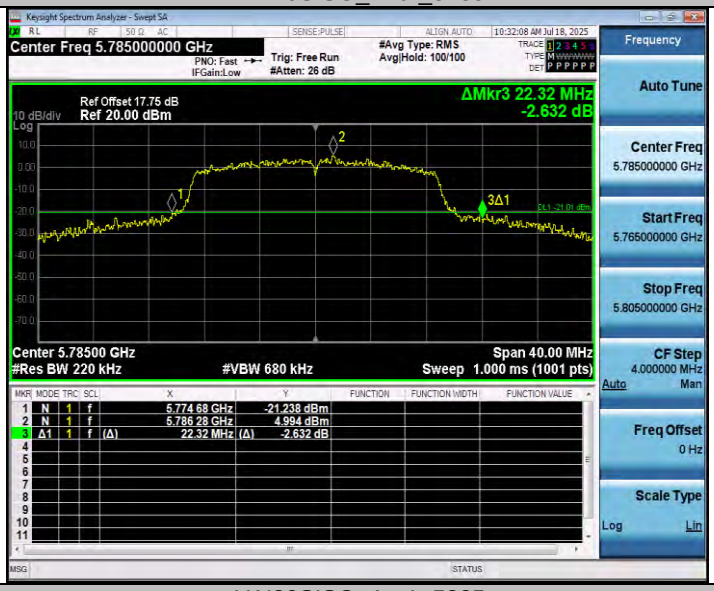


11N20SISO_Ant1_5240



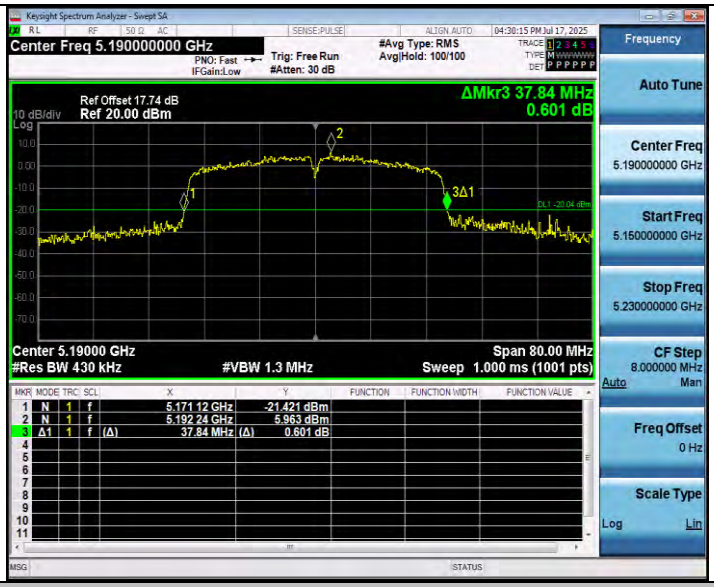
11N20SISO_Ant1_5745

11N20SISO_Ant1_5785



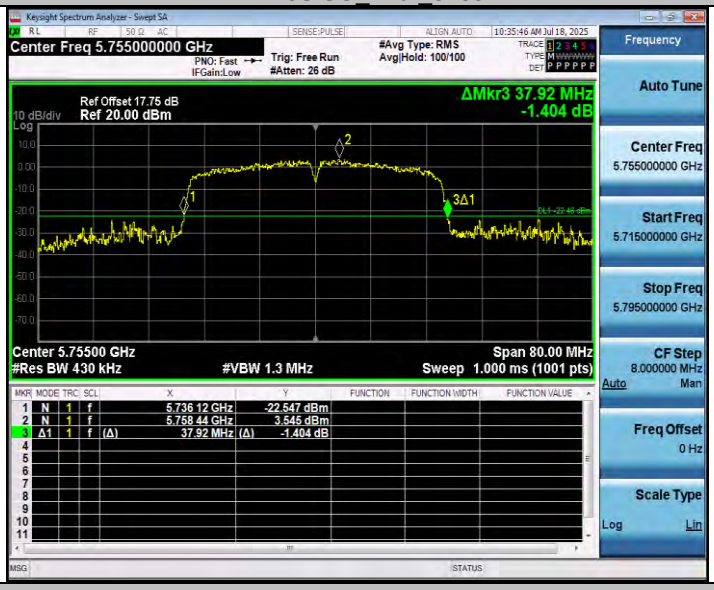
11N20SISO_Ant1_5825

11N40SISO_Ant1_5190

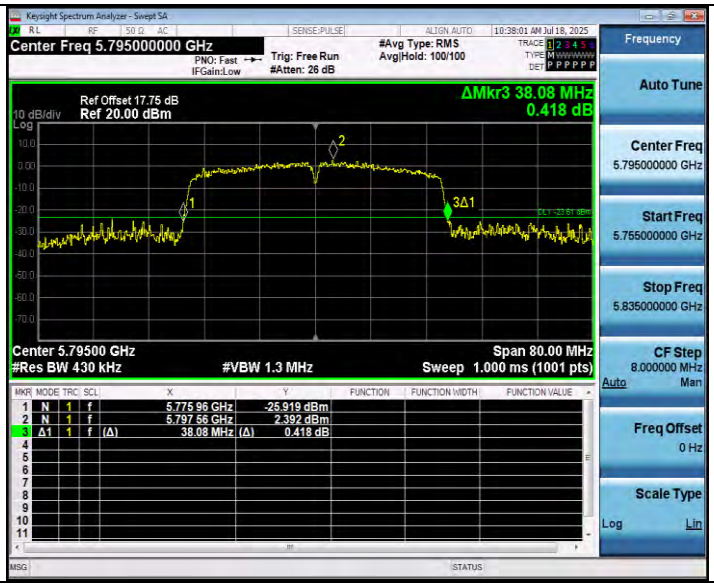


11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

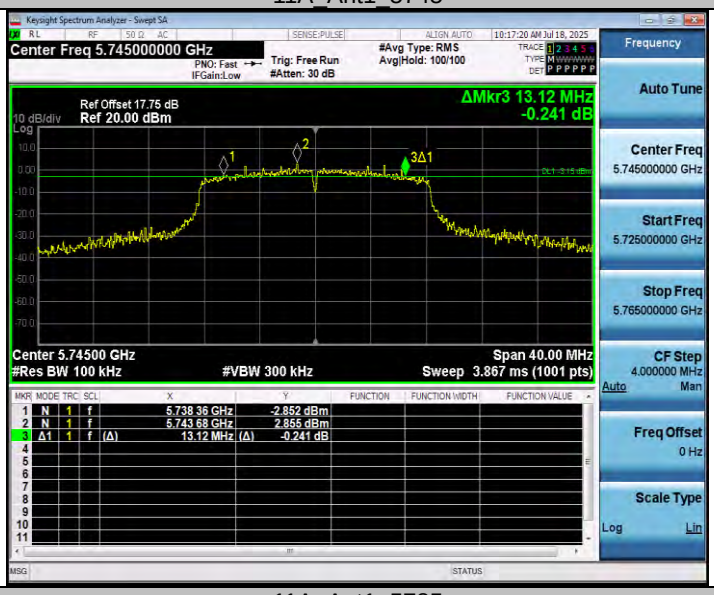


11N40SISO_Ant1_5795

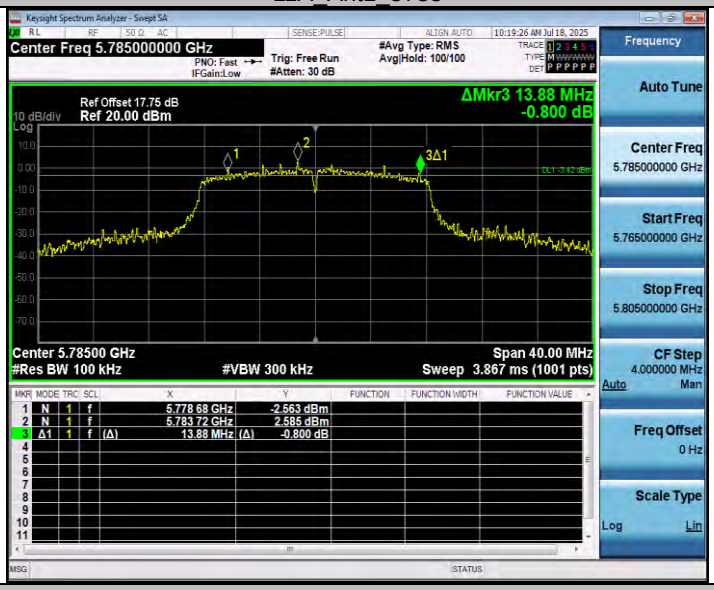

Keysight Spectrum Analyzer - Swept SA
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 26 dB
#Avg Type: RMS
Avg|Hold: 100/100
10:38:01 AM Jul 18, 2025
Ref Offset 17.75 dB
10 dB/div
Ref 20.00 dBm
Log
ΔMkr3 38.08 MHz
0.418 dB
Center 5.79500 GHz
#Res BW 430 kHz
#VBW 1.3 MHz
Span 80.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 1 f 5.775 96 GHz -25.919 dBm
2 N 1 f 5.797 56 GHz 2.392 dBm
3 Δ1 1 f (Δ) 38.08 MHz (Δ) 0.418 dB
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.755000000 GHz
Stop Freq
5.835000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

6dB Bandwidth:

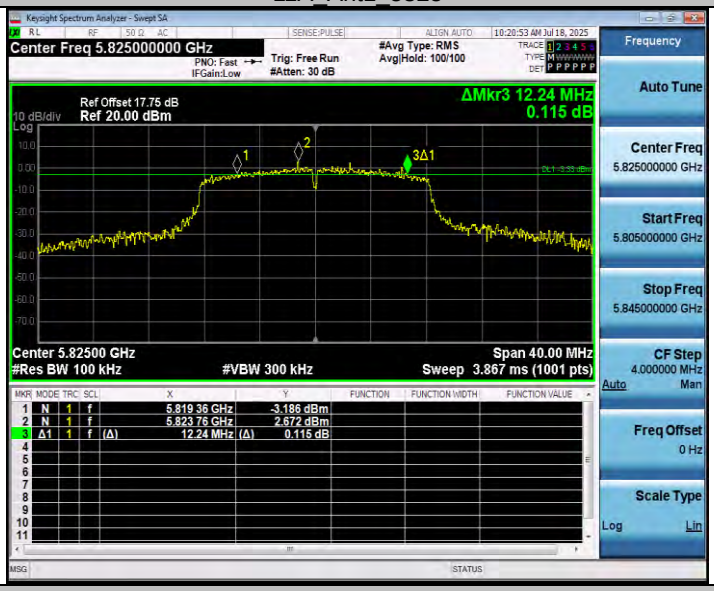
11A_Ant1_5745



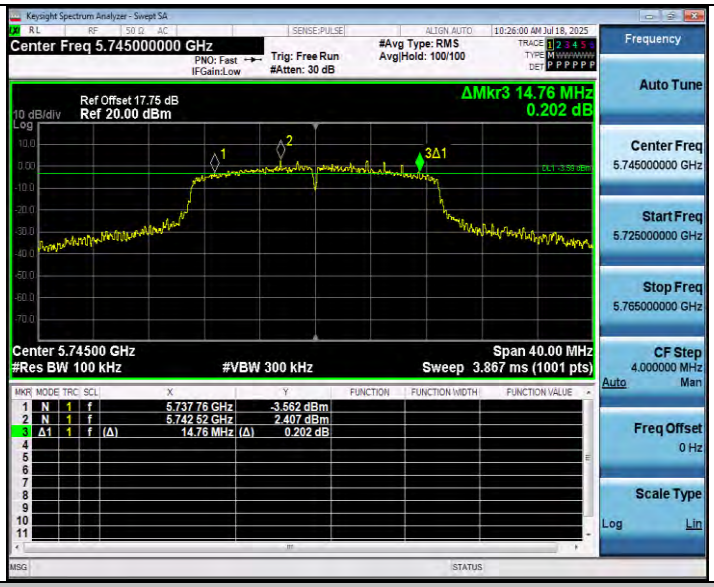
11A_Ant1_5785



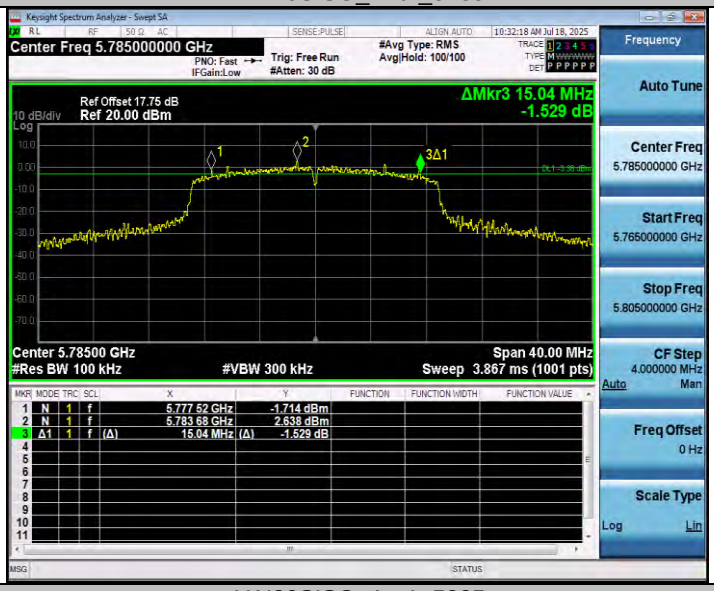
11A_Ant1_5825



11N20SISO_Ant1_5745

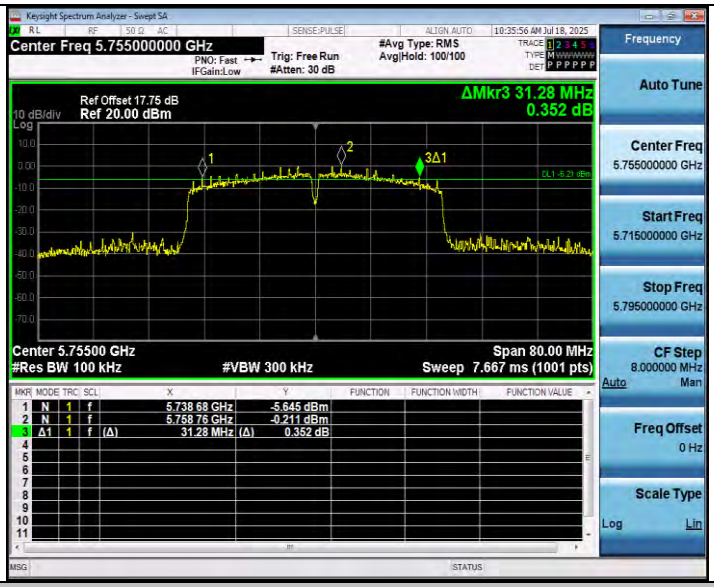


11N20SISO_Ant1_5785



11N20SISO_Ant1_5825

11N40SISO_Ant1_5755



11N40SISO_Ant1_5795

3.5. Peak Output Power

Limit

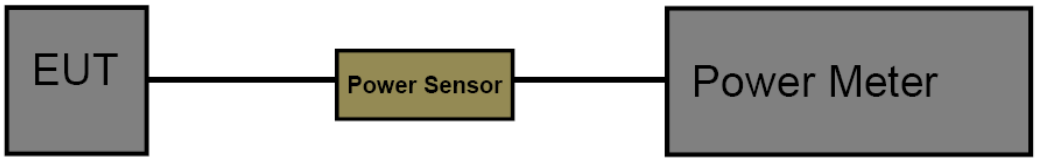
FCC CFR Title 47 Part 15 Subpart E Section 15.407(a)

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

RSS-247 6.2

IC Power&PSD Limit					
Frequency	Type of devices	Maximum Conducted Output Power	EIRP Output Power	Conducted Power Spectral Density	EIRP Power Spectral Density
5150MHz-5250MHz	in vehicles		30mW or 1.76 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)		
	Other Devices		200mW or 10 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)		10dBm/MHz
5250MHz-5350MHz	in vehicles		30mW or 1.76 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)		
	Other Devices	250mW or 11 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)	1W or 17 + 10 ×log10B dBm, whichever is less (B=99% OBW in MHz)	11dBm/Mhz	
5470MHz-5600MHz 5650MHz-5725MHz	ALL Devices	250mW or 11 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)	1W or 17 + 10 ×log10B dBm, whichever is less (B=99% OBW in MHz)	11dBm/Mhz	
5725MHz-5850MHz	ALL Devices	1W		30dBm/500KHz	

Test Configuration



Test Procedure

The measurement is according to section 3 of KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Freq(MHz)	Conducted Output Power [dBm]	Limit [dBm]	Verdict
IEEE 802.11a	5180	14.28	≤24	PASS
	5200	**14.71**	≤24	PASS
	5240	14.19	≤24	PASS
	5745	13.92	≤30	PASS
	5785	12.97	≤30	PASS
	5825	13.60	≤30	PASS
IEEE 802.11n_20	5180	14.27	≤24	PASS
	5200	14.37	≤24	PASS
	5240	14.10	≤24	PASS
	5745	13.70	≤30	PASS
	5785	13.82	≤30	PASS
	5825	13.40	≤30	PASS
IEEE 802.11n_40	5190	14.44	≤24	PASS
	5230	13.02	≤24	PASS
	5755	13.12	≤30	PASS
	5795	12.31	≤30	PASS

3.6. Power Spectral Density

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a)

For the 5.15~5.25GHz band:

- Outdoor AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).

- Indoor AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).

- Point-to-point AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>23dBi, then PSD =17-(G_{Tx}-23).

- Client devices

  The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
  If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.25~5.35GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.47~5.725GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.725~5.85GHz band:

- Point-to-multipoint systems (P2M)

  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.
  If G_{Tx}>6dBi, then PSD =30-(G_{Tx}-6).

- Point-to-point systems (P2P)

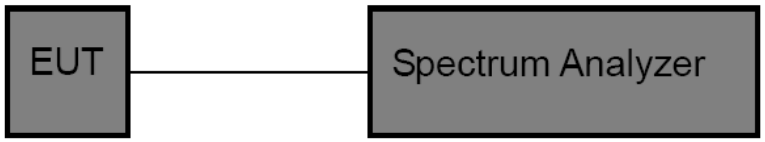
  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.

Note: G_{Tx}: EUT Antenna gain.

RSS-247 6.2

IC Power&PSD Limit					
Frequency	Type of devices	Maximum Conducted Output Power	EIRP Output Power	Conducted Power Spectral Density	EIRP Power Spectral Density
5150MHz-5250MHz	in vehicles		30mW or 1.76 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)		
	Other Devices		200mW or 10 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)		10dBm/MHz
5250MHz-5350MHz	in vehicles		30mW or 1.76 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)		
	Other Devices	250mW or 11 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)	1W or 17 + 10 ×log10B dBm, whichever is less (B=99% OBW in MHz)	11dBm/Mhz	
5470MHz-5600MHz 5650MHz-5725MHz	ALL Devices	250mW or 11 + 10 × log10B dBm, whichever is less (B=99% OBW in MHz)	1W or 17 + 10 ×log10B dBm, whichever is less (B=99% OBW in MHz)	11dBm/Mhz	
5725MHz-5850MHz	ALL Devices	1W		30dBm/500KHz	

Test Configuration



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 UNII 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 analyzer center frequency to transmitting frequency.
(3) Set the span to encompass the entire emissions bandwidth (EBW) (alternatively, the entire 99% OBW) of the signal.
(4) RBW=1MHz for devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz RBW=500kHz for devices operating in the band 5.725-5.85 GHz.
(5) Set the VBW to: ≥ 3 RBW
(6) Detector: AVG
(7) Trace: Max Hold and View
(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.

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

Test Mode

Please refer to the clause 2.4.

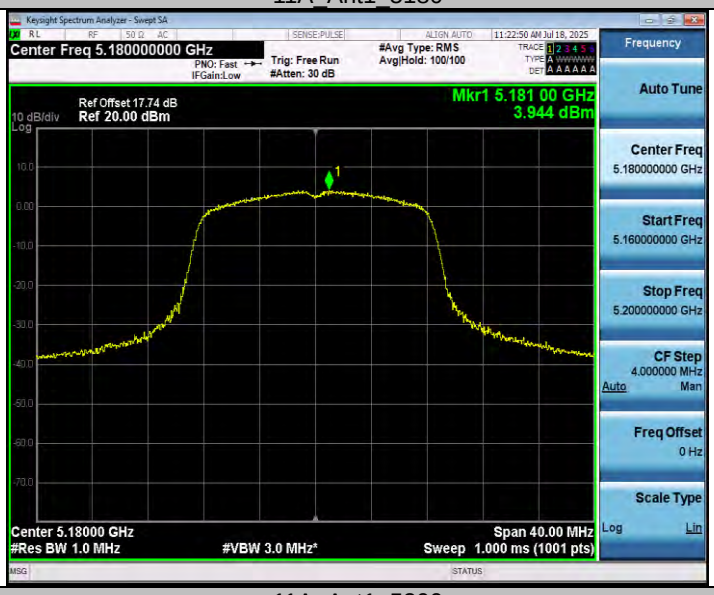
Test Result

Test Mode	Freq(MHz)	Conducted PSD [dBm/MHz]	Conducted PSD Limit [dBm/MHz]	Conducted PSD Limit [dBm/500kHz]	Verdict
IEEE 802.11a	5180	5.97	≤17	/	PASS
	5200	6.70	≤17	/	PASS
	5240	6.99	≤17	/	PASS
	5745	3.57	/	≤30	PASS
	5785	4.06	/	≤30	PASS
	5825	2.96	/	≤30	PASS
IEEE 802.11n_20	5180	5.97	≤17	/	PASS
	5200	6.25	≤17	/	PASS
	5240	6.37	≤17	/	PASS
	5745	3.08	/	≤30	PASS
	5785	4.02	/	≤30	PASS
	5825	2.99	/	≤30	PASS
IEEE 802.11n_40	5190	3.14	≤17	/	PASS
	5230	3.38	≤17	/	PASS
	5755	0.60	/	≤30	PASS
	5795	0.71	/	≤30	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

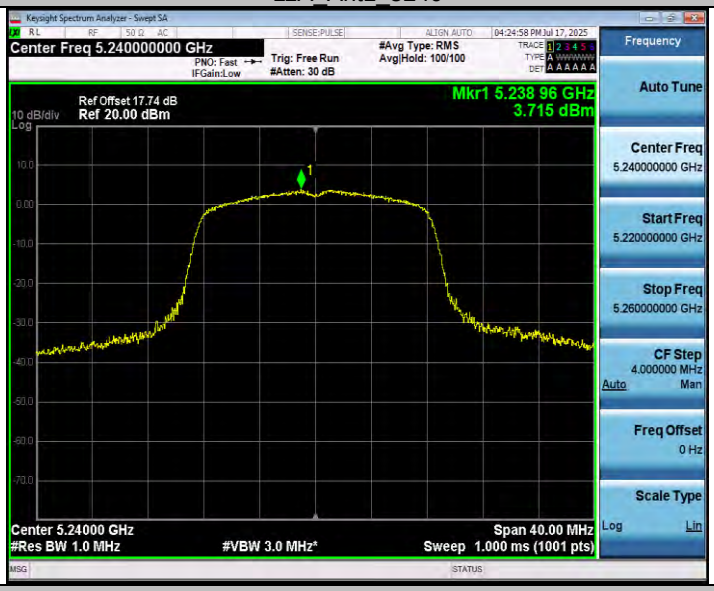
Test Graphs

11A_Ant1_5180

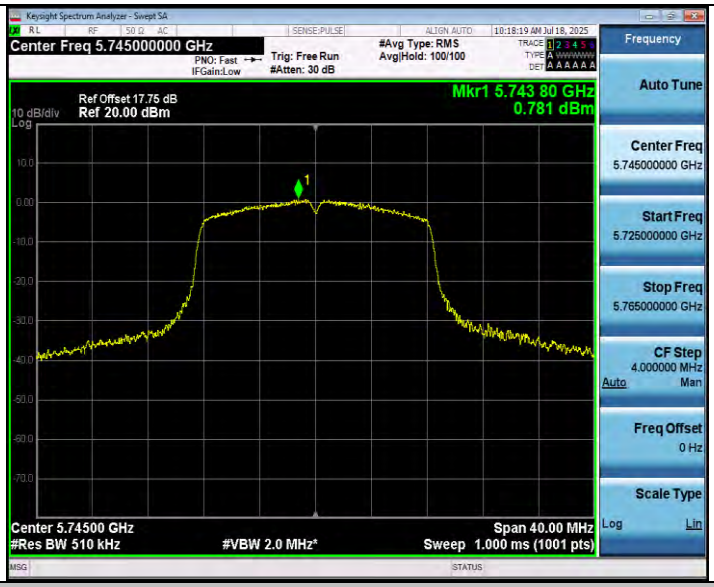


11A_Ant1_5200

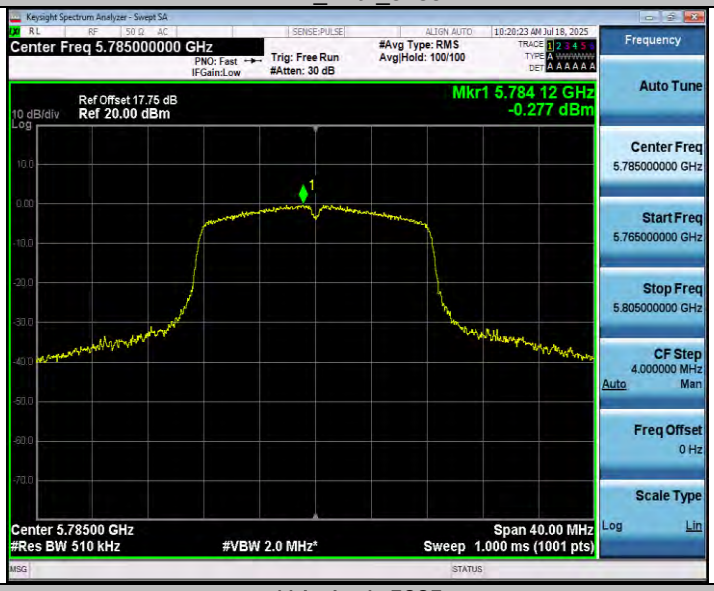
11A_Ant1_5240



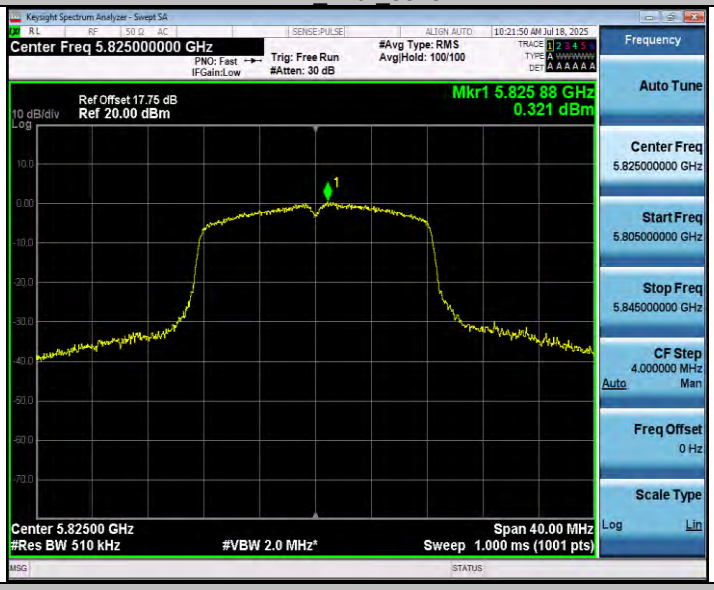
11A_Ant1_5745



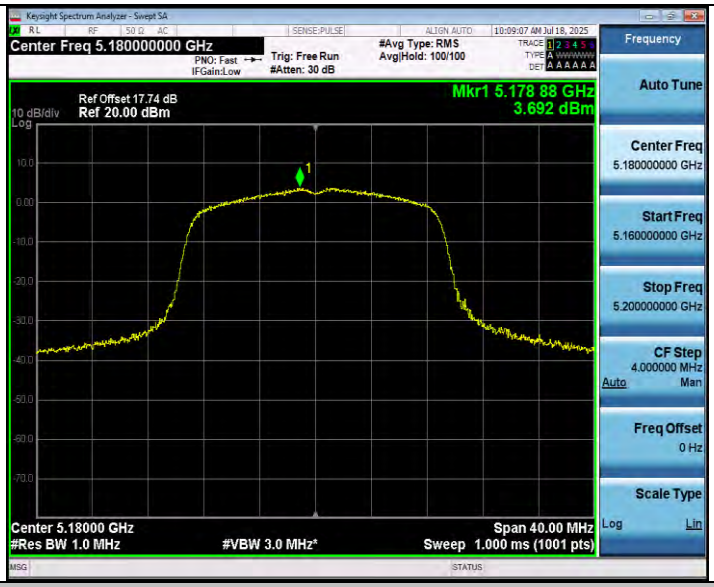
11A_Ant1_5785



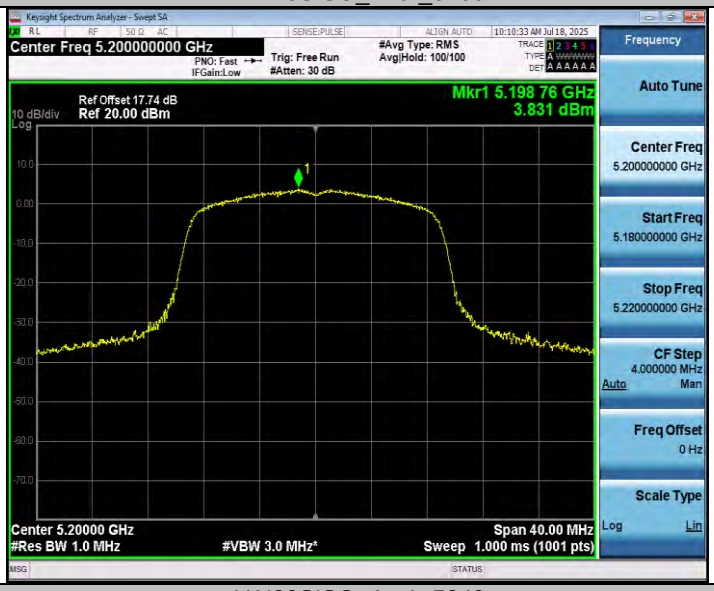
11A_Ant1_5825



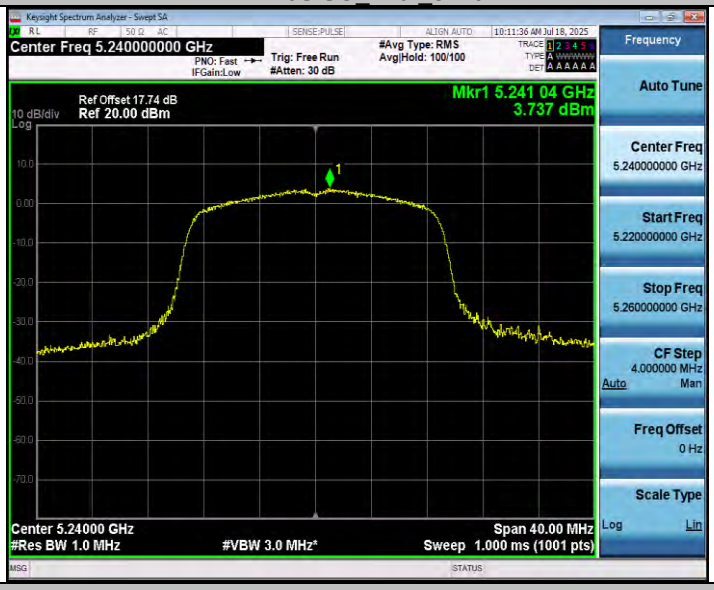
11N20SISO_Ant1_5180



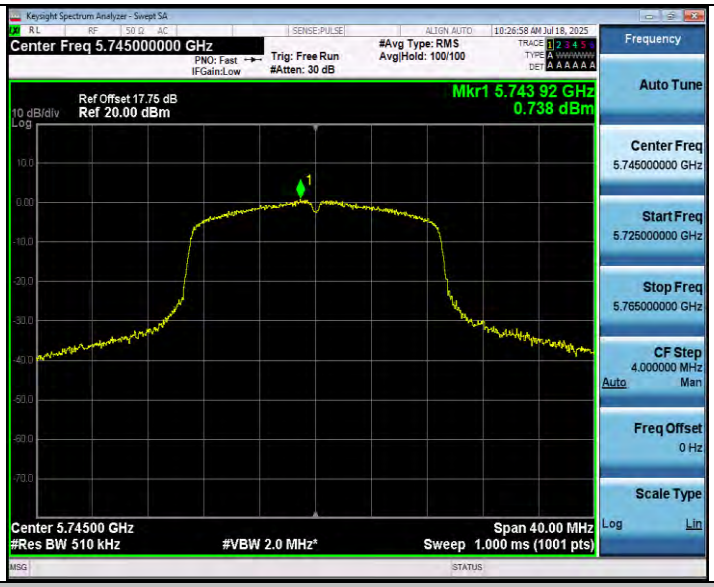
11N20SISO_Ant1_5200



11N20SISO_Ant1_5240

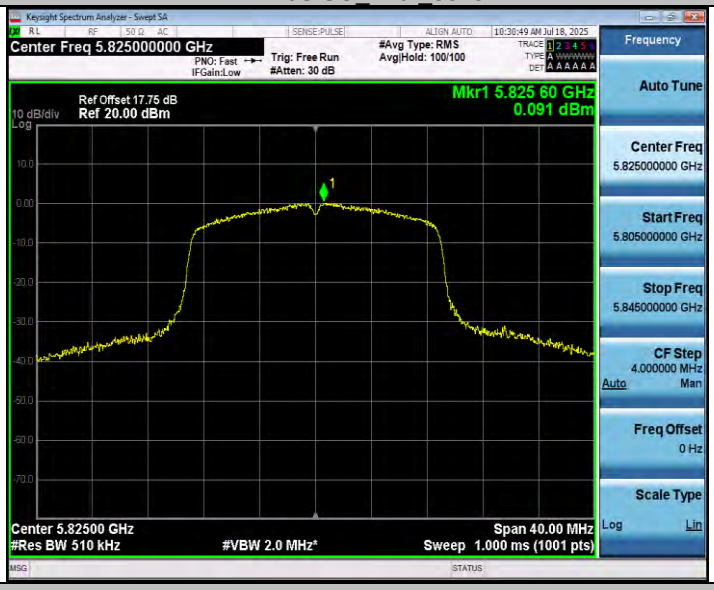


11N20SISO_Ant1_5745



11N20SISO_Ant1_5785

11N20SISO_Ant1_5825



11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

11N40SISO_Ant1_5795


Keysight Spectrum Analyzer - Swept SA
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
10:39:10 AM Jul 18, 2025
Ref Offset 17.75 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 5.797 72 GHz
-4.373 dBm
Center 5.79500 GHz
#Res BW 510 kHz
#VBW 2.0 MHz*
Span 80.00 MHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.755000000 GHz
Stop Freq
5.835000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

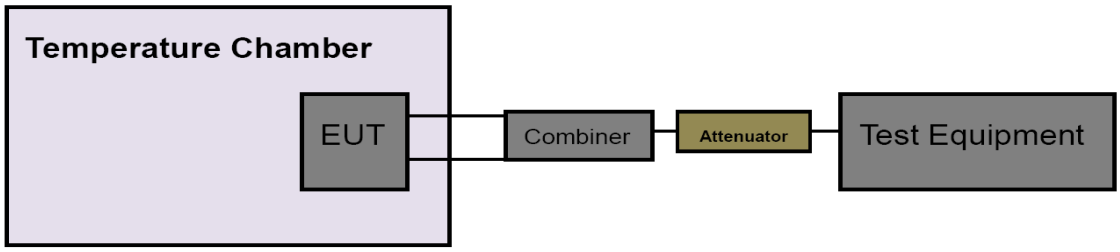
3.7. Frequency Stability

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(g) / RSS-Gen 6.11

Test Item	Limit	Frequency Range (MHz)
Frequency Stability	Specified in the user's manual, the transmitter center frequency tolerance shall be ±20 ppm maximum for the 5 GHz band (IEEE 802.11n specification)	5150~5250
		5250~5350
		5500~5700
		5725~5850

Test Configuration



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 analyzer center frequency to transmitting frequency.
(3) Set the span to encompass the entire emissions bandwidth (EBW) of the signal.
(4) Set the RBW to: 8MHz, VBW=8MHz with peak detector and max hold settings.
(5) The test extreme voltage is to change the primary supply voltage from 5Vdc percent of the nominal value.
(6) Extreme temperature is -20℃~70℃

NOTE: The EUT was set to continuously transmitting in continuously un-modulation transmitting mode.
NT is Normal Temperature, LT is Lower Temperature, HT is Higher Temperature, NV is Normal Voltage

Test Mode

Please refer to the clause 2.4.

Test Result

Voltage								
Test Mode	Antenna	Freq(MHz)	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Bandwidth 20MHz	Ant1	5180	NV	NT	-24500.00	-4.729730	20	PASS
			LV	NT	-24500.00	-4.729730	20	PASS
			HV	NT	-24500.00	-4.729730	20	PASS
		5200	NV	NT	-25000.00	-4.807692	20	PASS
			LV	NT	-25000.00	-4.807692	20	PASS
			HV	NT	-25000.00	-4.807692	20	PASS
		5240	NV	NT	-25000.00	-4.770992	20	PASS
			LV	NT	-25000.00	-4.770992	20	PASS
			HV	NT	-25000.00	-4.770992	20	PASS
		5745	NV	NT	-27500.00	-4.786771	20	PASS
			LV	NT	-28000.00	-4.873803	20	PASS
			HV	NT	-28000.00	-4.873803	20	PASS
		5785	NV	NT	-28500.00	-4.926534	20	PASS
			LV	NT	-28500.00	-4.926534	20	PASS
			HV	NT	-28500.00	-4.926534	20	PASS
		5825	NV	NT	-29000.00	-4.978541	20	PASS
			LV	NT	-29000.00	-4.978541	20	PASS
			HV	NT	-28500.00	-4.892704	20	PASS
Bandwidth 40MHz	Ant1	5190	NV	NT	-25000.00	-4.816956	20	PASS
			LV	NT	-25000.00	-4.816956	20	PASS
			HV	NT	-25500.00	-4.913295	20	PASS
		5230	NV	NT	-25000.00	-4.780115	20	PASS
			LV	NT	-25000.00	-4.780115	20	PASS
			HV	NT	-25000.00	-4.780115	20	PASS
		5755	NV	NT	-28000.00	-4.865334	20	PASS
			LV	NT	-28000.00	-4.865334	20	PASS
			HV	NT	-28000.00	-4.865334	20	PASS
		5795	NV	NT	-28500.00	-4.918033	20	PASS
			LV	NT	-28500.00	-4.918033	20	PASS
			HV	NT	-28500.00	-4.918033	20	PASS

Temperature								
Test Mode	Antenna	Freq(MHz)	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Bandwidth 20MHz	Ant1	5180	NV	-20	-24500.00	-4.729730	20	PASS
			NV	-10	-24500.00	-4.729730	20	PASS
			NV	0	-25000.00	-4.826255	20	PASS
			NV	10	-24500.00	-4.729730	20	PASS
			NV	20	-25000.00	-4.826255	20	PASS
			NV	30	-24500.00	-4.729730	20	PASS
			NV	40	-24500.00	-4.729730	20	PASS
			NV	50	-24500.00	-4.729730	20	PASS
			NV	60	-25000.00	-4.826255	20	PASS
			NV	70	-24500.00	-4.729730	20	PASS
		5200	NV	-20	-25000.00	-4.807692	20	PASS
			NV	-10	-25000.00	-4.807692	20	PASS
			NV	0	-25000.00	-4.807692	20	PASS
			NV	10	-25000.00	-4.807692	20	PASS
			NV	20	-25000.00	-4.807692	20	PASS
			NV	30	-25000.00	-4.807692	20	PASS
			NV	40	-25000.00	-4.807692	20	PASS
			NV	50	-25000.00	-4.807692	20	PASS
			NV	60	-25000.00	-4.807692	20	PASS
			NV	70	-25000.00	-4.807692	20	PASS
		5240	NV	-20	-25000.00	-4.770992	20	PASS
			NV	-10	-25000.00	-4.770992	20	PASS
			NV	0	-25000.00	-4.770992	20	PASS
			NV	10	-25000.00	-4.770992	20	PASS
			NV	20	-25000.00	-4.770992	20	PASS
			NV	30	-25000.00	-4.770992	20	PASS
			NV	40	-25000.00	-4.770992	20	PASS
			NV	50	-25000.00	-4.770992	20	PASS
			NV	60	-25000.00	-4.770992	20	PASS
			NV	70	-25000.00	-4.770992	20	PASS
		5745	NV	-20	-28000.00	-4.873803	20	PASS
			NV	-10	-28000.00	-4.873803	20	PASS
			NV	0	-28000.00	-4.873803	20	PASS
			NV	10	-28500.00	-4.960836	20	PASS
			NV	20	-28000.00	-4.873803	20	PASS
			NV	30	-28500.00	-4.960836	20	PASS
			NV	40	-28000.00	-4.873803	20	PASS
			NV	50	-28000.00	-4.873803	20	PASS
			NV	60	-28000.00	-4.873803	20	PASS
			NV	70	-28500.00	-4.960836	20	PASS
		5785	NV	-20	-28500.00	-4.926534	20	PASS
			NV	-10	-28500.00	-4.926534	20	PASS
			NV	0	-28500.00	-4.926534	20	PASS
			NV	10	-28500.00	-4.926534	20	PASS
			NV	20	-28500.00	-4.926534	20	PASS
			NV	30	-28500.00	-4.926534	20	PASS
			NV	40	-28500.00	-4.926534	20	PASS
			NV	50	-28500.00	-4.926534	20	PASS
			NV	60	-28500.00	-4.926534	20	PASS
			NV	70	-28500.00	-4.926534	20	PASS
		5825	NV	-20	-29000.00	-4.978541	20	PASS
			NV	-10	-29000.00	-4.978541	20	PASS
			NV	0	-28500.00	-4.892704	20	PASS
			NV	10	-28500.00	-4.892704	20	PASS
			NV	20	-29000.00	-4.978541	20	PASS
			NV	30	-29000.00	-4.978541	20	PASS
			NV	40	-29000.00	-4.978541	20	PASS
			NV	50	-29000.00	-4.978541	20	PASS
			NV	60	-28500.00	-4.892704	20	PASS
			NV	70	-28500.00	-4.892704	20	PASS
Bandwidth	Ant1	5190	NV	-20	-25000.00	-4.816956	20	PASS

40MHz			NV	-10	-25000.00	-4.816956	20	PASS
			NV	0	-25000.00	-4.816956	20	PASS
			NV	10	-25000.00	-4.816956	20	PASS
			NV	20	-25000.00	-4.816956	20	PASS
			NV	30	-25000.00	-4.816956	20	PASS
			NV	40	-25000.00	-4.816956	20	PASS
			NV	50	-25000.00	-4.816956	20	PASS
			NV	60	-25000.00	-4.816956	20	PASS
			NV	70	-25000.00	-4.816956	20	PASS
		5230	NV	-20	-25000.00	-4.780115	20	PASS
			NV	-10	-25000.00	-4.780115	20	PASS
			NV	0	-25000.00	-4.780115	20	PASS
			NV	10	-25000.00	-4.780115	20	PASS
			NV	20	-25000.00	-4.780115	20	PASS
			NV	30	-25000.00	-4.780115	20	PASS
			NV	40	-25000.00	-4.780115	20	PASS
			NV	50	-25000.00	-4.780115	20	PASS
			NV	60	-25000.00	-4.780115	20	PASS
			NV	70	-25000.00	-4.780115	20	PASS
		5755	NV	-20	-28000.00	-4.865334	20	PASS
			NV	-10	-28000.00	-4.865334	20	PASS
			NV	0	-28500.00	-4.952215	20	PASS
			NV	10	-28000.00	-4.865334	20	PASS
			NV	20	-28500.00	-4.952215	20	PASS
			NV	30	-28000.00	-4.865334	20	PASS
			NV	40	-28000.00	-4.865334	20	PASS
			NV	50	-28000.00	-4.865334	20	PASS
			NV	60	-28500.00	-4.952215	20	PASS
			NV	70	-28000.00	-4.865334	20	PASS
		5795	NV	-20	-28500.00	-4.918033	20	PASS
			NV	-10	-28500.00	-4.918033	20	PASS
			NV	0	-28500.00	-4.918033	20	PASS
			NV	10	-28500.00	-4.918033	20	PASS
			NV	20	-28500.00	-4.918033	20	PASS
			NV	30	-28500.00	-4.918033	20	PASS
			NV	40	-28500.00	-4.918033	20	PASS
			NV	50	-28500.00	-4.918033	20	PASS
			NV	60	-28500.00	-4.918033	20	PASS
			NV	70	-28500.00	-4.918033	20	PASS

3.8. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203
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 antenna that uses a unique coupling to the intentional radiator, 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.

Test Result

The directional gain of the antenna is less than 6dBi, please refer to the EUT internal photographs antenna photo.

3.9. Dynamic Frequency Selection

Requirement

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

Limit

1. DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

2. DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 μsec is selected, the number of pulses would be Round up $\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{3066}\right)\right\}$ = Round up {17.2} = 18.

Table 5a - Pulse Repetition Intervals Values for Test A

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355	738
13	1319.3	758
14	1285.3	778
15	1253.1	798
16	1222.5	818
17	1193.3	838
18	1165.6	858
19	1139	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066

Table 6 – Long Pulse Radar Test Waveform

Radar Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse Radar Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type wave forms, then each additional waveform must also be unique and not repeated from the previous waveforms.

Table 7 – Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

For the Frequency Hopping Radar Type, the same Burst parameters are used for each wave form. The hopping sequence is different for each wave form and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

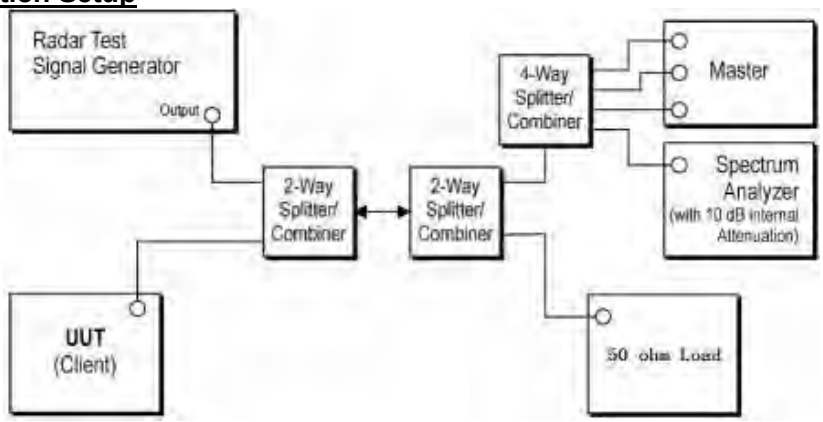
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250–5724MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

Calibration of Radar Waveform

Radar Waveform Calibration Procedure

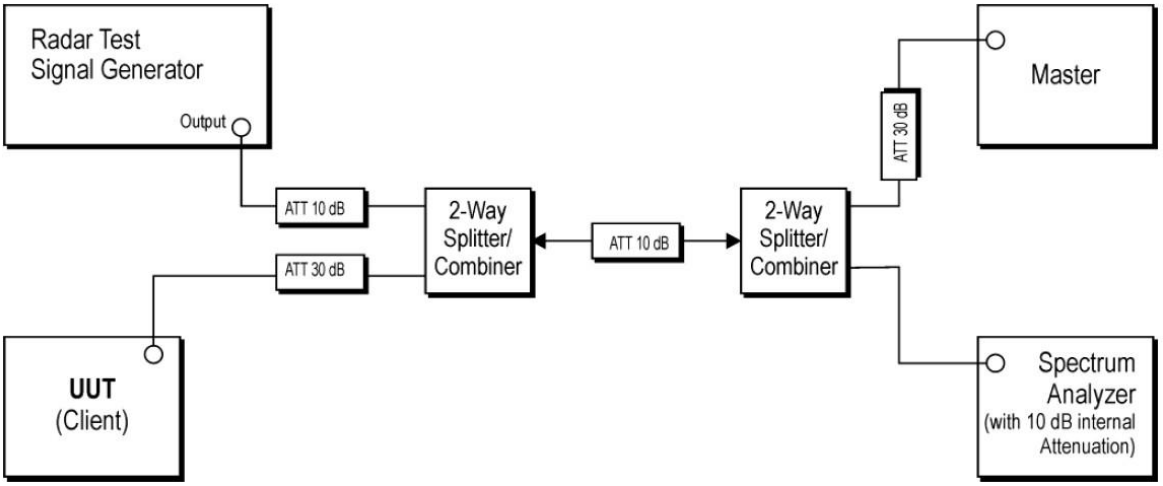
1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master.
2) The interference Radar Detection Threshold Level is -62dBm – 4.64dBi +1dB = -65.64dBm that had been taken into account the output power range and antenna gain.
3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB.
4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was -62dBm – 4.64dBi +1dB = -65.64dBm. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup



Test Configuration

Setup for Client with injection at the Master



Radar Waveform Calibration Result

Not Applicable.

Test Procedure

1. The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
2. The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device
3. A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
4. EUT will associate with the master at channel. The file “iperf.exe” specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
5. When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
6. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type
7. Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
8. Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Test Mode

Please refer to the clause 2.4.

Test Result

Not Applicable.

**************************THE END OF REPORT*************************