

Testo SE & Co. KGaA

TEST REPORT

SCOPE OF WORK

EMC TESTING–0560 8621, 0560 8622

REPORT NUMBER

260331111GZU-004

ISSUE DATE

04-August-2026

[REVISED DATE]

[-----]

PAGES

70

DOCUMENT CONTROL NUMBER

FCC WIFI 5G
© 2017 INTERTEK



TEST REPORT

Applicant Name & : Testo SE & Co. KGaA
Address : Celsiusstrasse 2, 79822 Titisee-Neustadt, Germany
Manufacturing Site : Uni-Trend Technology (China) Co., Ltd
No 6, Gong Ye Bei 1 st Road, Songshan Lake National High-Tech
Industrial Development Zone, Dongguan City, Guangdong Province,
523808, CHINA
Intertek Report No: 260331111GZU-004
FCC ID: WAF-0560862X

Test standards

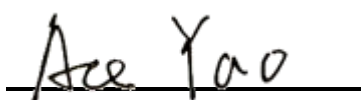
47 CFR PART 15 Subpart E: 2024 section 15.407

Sample Description

Product : testo 862-1, testo 862-2
Model No. : 0560 8621, 0560 8622
Electrical Rating : Powered by 3.7Vdc ,2250mAh, 8.325Wh, charging current 5V/2A.
Serial No. : N/A
Date Received : 31 March 2026
Date Test : 20 April 2026-24 April 2026
Conducted

Prepared and Checked By

Approved By:



Ace Yao

Project Engineer



Dean Liu

Sr. Project Engineer

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

TEST REPORT

CONTENT

TEST REPORT	1
CONTENT	3
1.0 TEST RESULT SUMMARY	4
2.0 GENERAL DESCRIPTION	6
2.1 PRODUCT DESCRIPTION	6
2.2 RELATED SUBMITTAL(S) GRANTS	7
2.3 TEST METHODOLOGY	7
2.4 TEST FACILITY	8
3.0 SYSTEM TEST CONFIGURATION	8
3.1 JUSTIFICATION	8
3.2 EUT EXERCISING SOFTWARE	9
3.3 SPECIAL ACCESSORIES	9
3.4 MEASUREMENT UNCERTAINTY	9
3.5 EQUIPMENT MODIFICATION	10
3.6 SUPPORT EQUIPMENT LIST AND DESCRIPTION	10
4.0 MEASUREMENT RESULTS	11
4.1 ANTENNA REQUIREMENT	11
4.2 DUTY CYCLE	12
4.3 26 dB BANDWIDTH	17
4.4 6 dB BANDWIDTH	26
4.5 MAXIMUM CONDUCTED OUTPUT POWER	26
4.6 MAXIMUM POWER SPECTRAL DENSITY	28
4.7 RADIATED SPURIOUS EMISSIONS	37
4.8 BAND EDGES REQUIREMENT	54
4.10 CONDUCTED EMISSION TEST	67
5.0 TEST EQUIPMENT LIST	70

TEST REPORT

1.0 TEST RESULT SUMMARY

Test Item	Test Requirement	Test Method	Result	
Antenna Requirement	FCC PART 15 C clause 15.203	FCC PART 15 C clause 15.247 (c) and clause 15.203	PASS	
26 dB Bandwidth / 99% Occupied Bandwidth	FCC PART 15 E clause 15.407(a)	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01,Clause C&D	PASS	
6 dB Bandwidth	FCC PART 15 E clause 15.407(e) Only for band IV	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01,Clause C	N/A	
Maximum Conducted Output Power	FCC PART 15 E clause 15.407(a)	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01,Clause E	PASS	
Maximum Power Spectral Density	FCC PART 15 E clause 15.407(a)	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01,Clause F	PASS	
Radiated spurious emission	FCC PART 15 E clause 15.407(b)	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01,Clause G	PASS	
Band Edge	FCC PART 15 E clause 15.407(b)	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01,Clause G	PASS	
Conducted Emissions at Mains Terminals	FCC PART 15 E section 15.207	ANSI C63.10: Clause 6.2	PASS	
Remark: N/A: not applicable. Refer to the relative section for the details. EUT: In this whole report EUT means Equipment Under Test. Tx: In this whole report Tx (or tx) means Transmitter. Rx: In this whole report Rx (or rx) means Receiver. RF: In this whole report RF means Radio Frequency. ANSI C63.10: the detail version is ANSI C63.10:2020 in the whole report Both of models are same except for model name, product name as well as the following: The differences between two products are as follows:				
Product	Model	Imaging resolutions	Infrared module crystal frequency	Drive circuit of infrared module
testo 862-1	0560 8621	160*120	27MHz	Has a DVP to MIPI circuit
testo 862-2	0560 8622	256*192	24MHz	N/A

TEST REPORT

Pre-scanning, the worst data for the model 0560 8622 was recorded.

TEST REPORT

2.0 General Description

2.1 Product Description

Operating Frequency:	Band I(U-NII-1): 5150 MHz to 5250 MHz,
Type of Modulation:	802.11 a: OFDM (BPSK/QPSK/16QAM/64QAM) 802.11 n: OFDM (BPSK/QPSK/16QAM/64QAM) 802.11 ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)
Transmit Data Rate:	802.11a :6/9/12/18/24/36/48/54 Mbps 802.11n HT20: MCS0: 7.2Mbps, MCS1:14.2Mbps, MCS2:21.7Mbps, MCS3:28.9Mbps, MCS4:43.3Mbps, MCS5:57.8Mbps, MCS6:65.0Mbps, MCS7:72.2Mbps 802.11n HT40: MCS0:15Mbps, MCS1:30Mbps, MCS2:45Mbps, MCS3:60Mbps, MCS4:90Mbps, MCS5:120Mbps, MCS6:135Mbps, MCS7:150Mbps 802.11ac VHT20: MCS0: 7.2Mbps, MCS1:14.2Mbps, MCS2:21.7Mbps, MCS3:28.9Mbps, MCS4:43.3Mbps, MCS5:57.8Mbps, MCS6:65.0Mbps, MCS7:72.2Mbps, MCS8: 86.7Mbps 802.11ac VHT40: MCS0:15Mbps, MCS1:30Mbps, MCS2:45Mbps, MCS3:60Mbps, MCS4:90Mbps, MCS5:120Mbps, MCS6:135Mbps, MCS7:150Mbps, MCS8:180Mbps, MCS9:200Mbps 802.11ac VHT80: MCS0:32.5Mbps, MCS1:65Mbps, MCS2:97.5Mbps, MCS3:130Mbps, MCS4:195Mbps, MCS5:260Mbps, MCS6:292.5Mbps, MCS7:325Mbps, MCS8:390Mbps, MCS9:433.3Mbps
Number of Channels	4 channels for 5180 MHz ~ 5240 MHz (802.11 a/n HT20/ac VHT20); 2 channels for 5190 MHz ~ 5230 MHz (802.11 n HT40/ac VHT40); 1 channels for 5210 MHz (802.11ac VHT80);
Channel Separation:	20 MHz
Antenna Type	FPC antenna
Antenna gain:	1.28 dBi
Function:	Thermal imager with 5 GHz WIFI
EUT Power Supply:	AC 120V 60 Hz
Power cord:	1 m unscreened USB cable

Channels and frequencies list:

Band I 5150 MHz to 5250 MHz

For 802.11a/n HT20/ac VHT20: test frequencies are lowest channel 36: 5180 MHz, middle channel 44: 5220 MHz and highest channel 48: 5240.

For 802.11n HT40/ac VHT40: test frequencies are lowest channel 38: 5190 MHz and highest channel 46: 5230 MHz

TEST REPORT

For 802.11ac VHT80: test frequencies is channel 42: 5210 MHz

For 802.11a/n HT20/ac VHT20:

Band I (5150MHz-5250MHz)	
Channel	Frequency (MHz)
36	5180
40	5200
44	5220
48	5240

For 802.11n HT40/ac VHT40:

Band I(5150MHz-5250MHz)	
Channel	Frequency (MHz)
38	5190
46	5230

For 802.11ac VHT80:

Band I(5150MHz-5250MHz)	
Channel	Frequency (MHz)
42	5210

2.2 Related Submittal(s) Grants

Unlicensed National Information Infrastructure Devices (WIFI transmitter portion).

2.3 Test Methodology

The EUT was performed according to the procedures in FCC Part 15 E, Section 15.203, 15.207, 15.209, 15.407 and ANSI C63.4:2014, method of measurement: reference to FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10:2020. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans and final tests were performed in the semi-anechoic chamber to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise.

TEST REPORT

2.4 Test Facility

All tests were performed at:

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Room102/104, No 203, KeZhu Road, Science City, GETDD Guangzhou, China

A2LA Certificate Number 0078.10

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch is accredited by A2LA and Listed in FCC website. FCC accredited test labs may perform both Certification testing under Parts 15 and 18 and Declaration of Conformity testing.

3.0 System Test Configuration

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, AC power line was manipulated to produce worst case emissions. It was powered by AC 120V/60Hz supply.

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. The spurious emissions more than 20 dB below the permissible value are not reported.

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in the following table:

Frequency range of radiated emission measurements

Lowest frequency generated in the device	Upper frequency range of measurement
9 kHz to below 10 GHz	10th harmonic of highest fundamental frequency or to 40 GHz, whichever is lower
At or above 10 GHz to below 30 GHz	5th harmonic of highest fundamental frequency or to 100 GHz, whichever is lower
At or above 30 GHz	5th harmonic of highest fundamental frequency or to 200 GHz, whichever is lower, unless otherwise specified

TEST REPORT

Number of fundamental frequencies to be tested in EUT transmit band

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

3.2 EUT Exercising Software

Description	Manufacturer	Model No.	SN/Version	Supplied by
For fixing frequency	Takashi Teranishi	Teraterm	Version:4.9	Applicant

3.3 Special Accessories

No special accessories used.

3.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	20 dB Bandwidth	2.31%
	6dB Bandwidth	
	99% Bandwidth	
2	Carrier Frequencies Separated	2.31%
3	Dwell Time	1.19%
4	Maximum Peak Conducted Output Power	1.98 dB
5	Peak Power Spectral Density	1.98 dB
6	Out of Band Conducted Emissions	1.98 dB
7	Band edges measurement	1.98 dB
8	Radiated Emissions	3.64 dB (9 kHz-30 MHz)
		4.26 dB (30 MHz-1 GHz)
		4.96 dB (1 GHz-18 GHz)
		5.16 dB (18 GHz-40 GHz)
9	Conducted Emissions at Mains Terminals	2.23 dB
10	Temperature	0.81 °C
11	Humidity	1.73%
12	Time	1.19%

TEST REPORT

The measurement uncertainty describes the overall uncertainty of the given measured value during the operation of the EUT.

Measurement uncertainty is calculated in accordance with ETSI TR 100 028-2001.

The measurement uncertainty is given with a confidence of 95%, $k=2$.

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance – Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value

3.5 Equipment Modification

Any modifications installed previous to testing by Testo SE & Co. KGaA will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Guangzhou Branch.

3.6 Support Equipment List and Description

This product was tested with corresponding support equipment as below:

Cable

Description	Model No.	Connector type	Cable length/type	Supplied by
Antenna cable	RF-01	SMA	0.2 m(shielded)	Intertek
USB charging cable	--	USB C	1 m(unshielded)	Intertek

Support equipment

Description	Model No.	Rating	Supplied by
NoteBook	Latitude 5420	100-240VAC,50/60Hz	Intertek
Control board	Applicant	--	Applicant
Adapter	SAG0503000P	100-240~, 50/60Hz	Applicant

Remark:

After the frequency was fixed, Notebook and Fix board were removed out of the Chamber before test.

TEST REPORT

4.0 Measurement Results

4.1 Antenna Requirement

Standard requirement:

15.203 requirement:

For intentional device. According to 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.

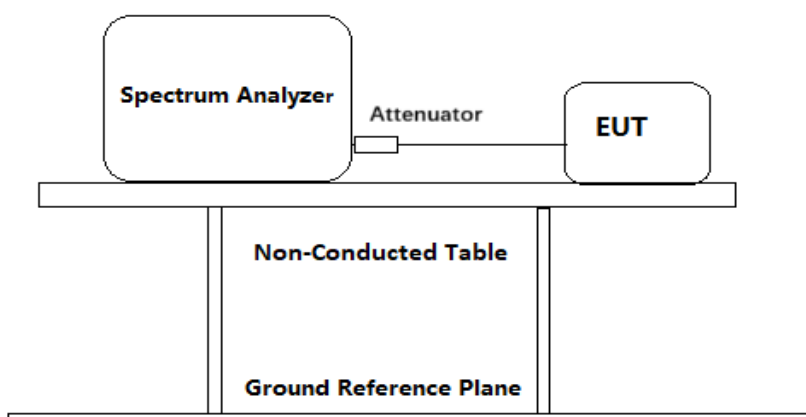
EUT Antenna

The antenna is an integral antenna and no consideration of replacement. The best case gain of the antenna is 1.28 dBi as provided by applicant.

TEST REPORT

4.2 Duty Cycle

Test Requirement:	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause B
Test Method:	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause B
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	



Test Procedure:

1. Remove the antenna from the EUT and then connect a low attention attenuation RF cable (cable loss =1 dB, with 10dB attenuator) from the antenna port to the spectrum.
2. Set the spectrum analyser:
 - a) Set $RBW \geq 1\text{MHz}$
 - b) Set the $VBW \geq [3 \times RBW]$
 - c) Detector =peak
 - d) Span = Zero span
 - e) Sweep time = 100ms
 - f) Trace mode = Free run
3. Repeat until all the test status is investigated.
4. Report the worst case.

Used Test Equipment List

Spectrum Analyzer. Refer to Clause 5 Test Equipment List for details.

TEST REPORT

Test result:

Band I (5150MHz-5250MHz)

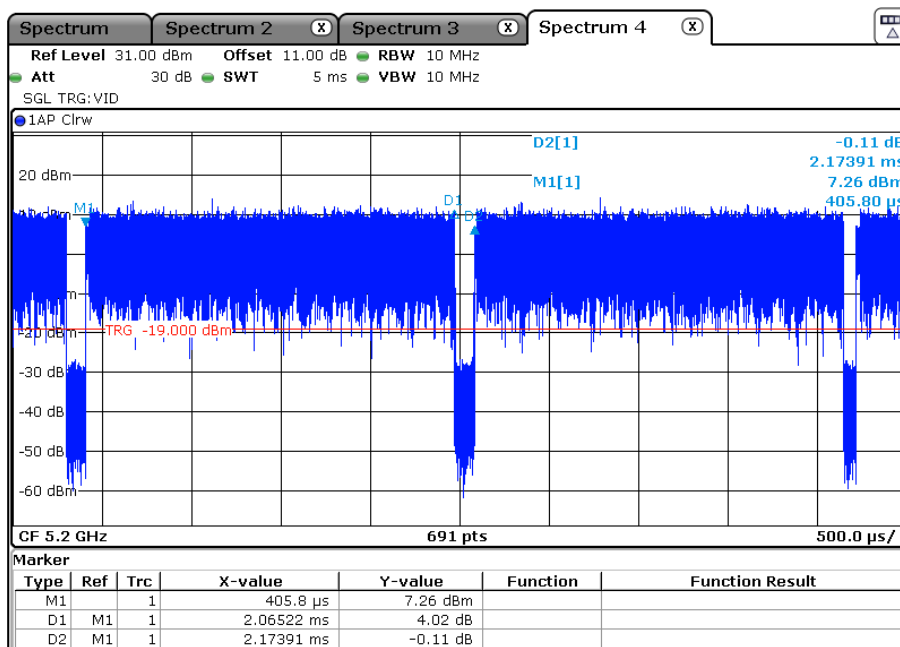
Channel No.	Frequency (MHz)	Mode	On time (ms)	Period (ms)	Duty Cycle (%)
40	5200	802.11a	2.07	2.17	95.39
40	5200	802.11n HT20	1.92	2.01	95.52
38	5230	802.11n HT40	0.95	1.03	92.23
40	5200	802.11ac VHT20	1.92	1.98	96.97
38	5230	802.11ac VHT40	2.06	2.13	96.71
42	5210	802.11ac VHT80	1.92	2.00	96.00

TEST REPORT

Result plot as follows

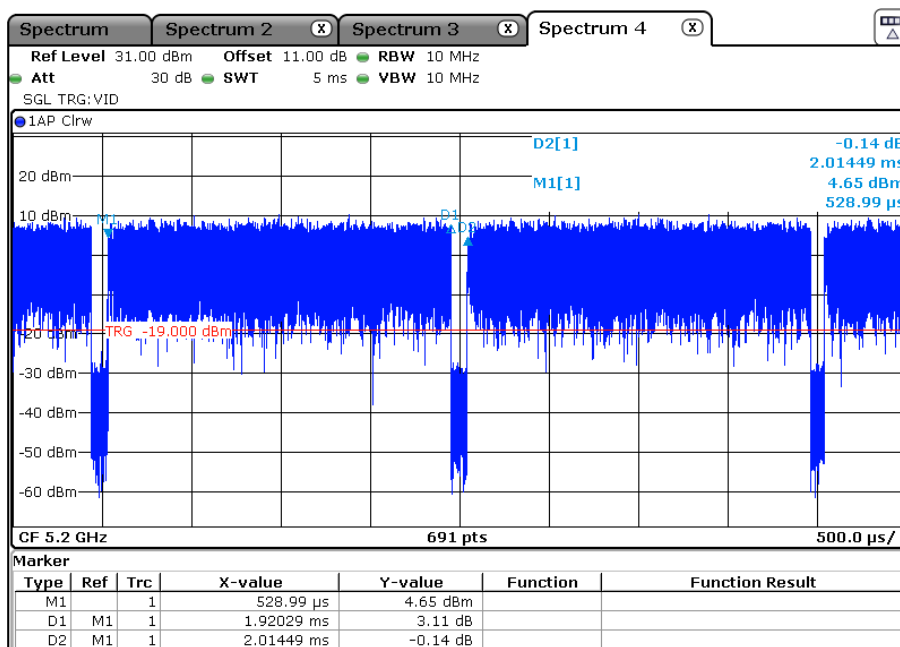
802.11a

Channel 40: 5200 MHz:



802.11n HT20

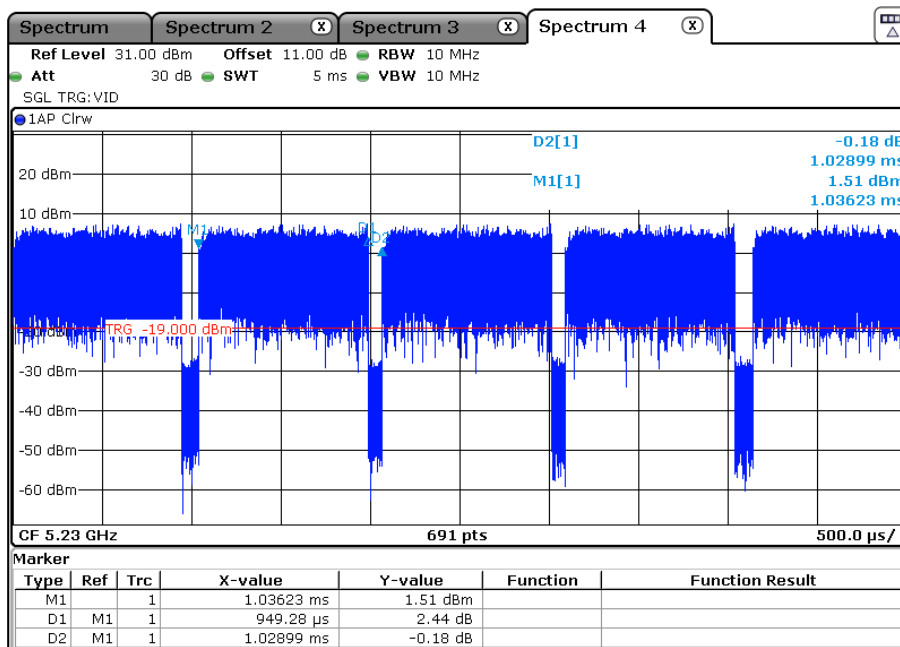
Channel 40: 5200 MHz:



TEST REPORT

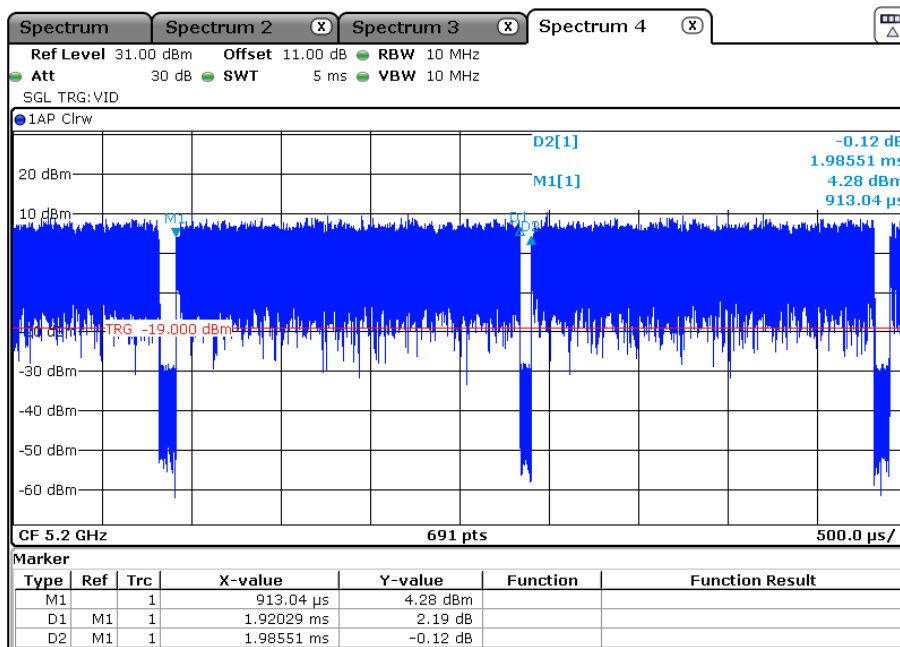
802.11n HT40

Channel 38: 5230 MHz:



802.11ac VHT20

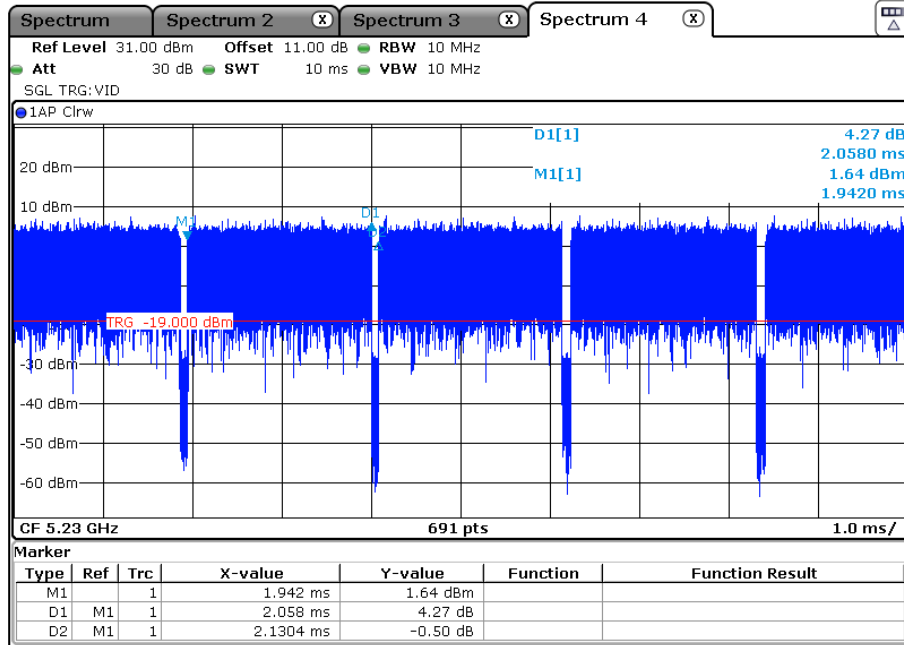
Channel 40: 5200 MHz:



TEST REPORT

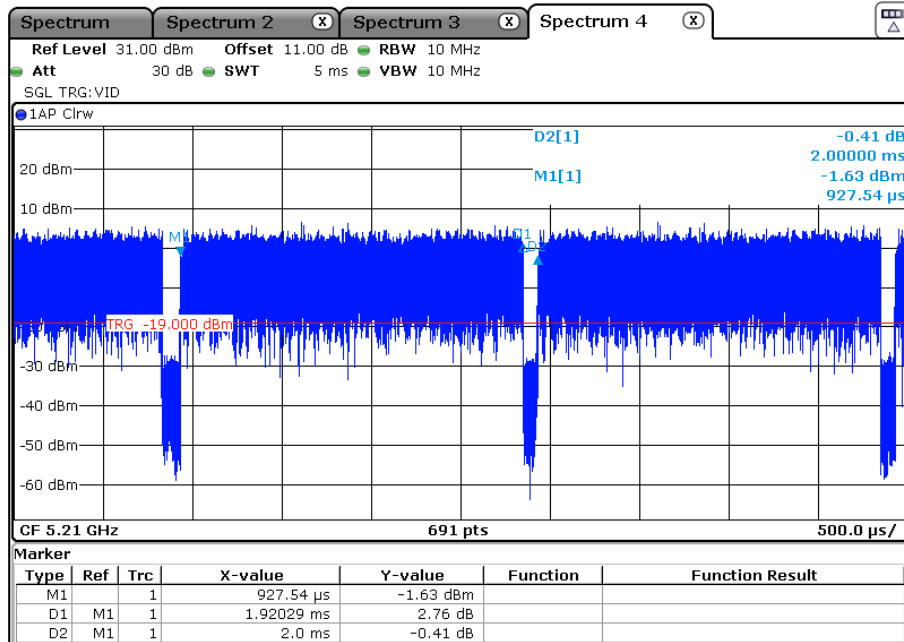
802.11ac VHT40

Channel 38: 5230 MHz:



802.11ac VHT80

Channel 42: 5210 MHz:

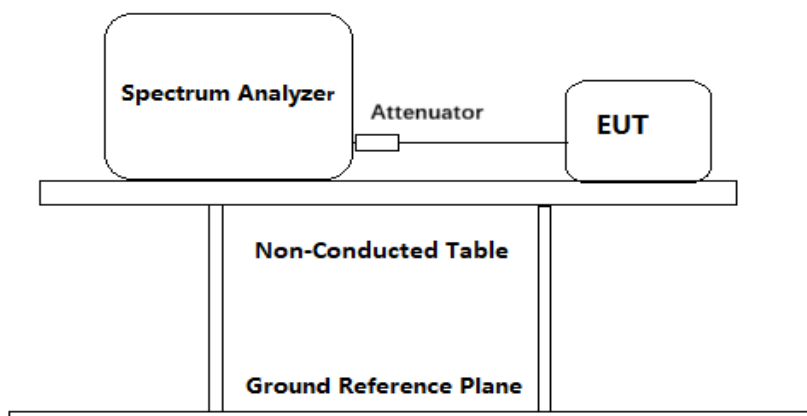


TEST REPORT

4.3 26 dB Bandwidth

Test Requirement: FCC PART 15 E clause 15.407(a)
Test Method: FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause C&D
Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1. Remove the antenna from the EUT and then connect a low attention attenuation RF cable (cable loss =1 dB, with 10dB attenuator) from the antenna port to the spectrum.
2. Set the spectrum analyzer:
Emission Bandwidth (EBW)
 - a) Set the RBW = approximately 1% of the emission bandwidth.
 - b) Set the VBW > RBW.
 - c) Detector = peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow trace to fully stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.
3. Repeat until all the test status is investigated.
4. Report the worst case.

Used Test Equipment List

TEST REPORT

Spectrum Analyzer. Refer to Clause 5 Test Equipment List for details.

Band I (5150MHz – 5250MHz)

Channel No.	Frequency (MHz)	Mode	Data Rate	Result
36	5180	802.11a	6 Mbps	21.5
40	5200		6 Mbps	21.0
48	5240		6 Mbps	21.5
36	5180	802.11n HT20	7.2 Mbps	21.7
40	5200		7.2 Mbps	21.9
48	5240		7.2 Mbps	21.4
38	5190	802.11n HT40	15 Mbps	42.0
46	5230		15 Mbps	42.1
36	5180	802.11 ac VHT20	7.2 Mbps	21.7
40	5200		7.2 Mbps	21.5
48	5240		7.2 Mbps	21.5
38	5190	802.11ac VHT40	15 Mbps	42.3
46	5230		15 Mbps	48.1
42	5210	802.11ac VHT80	32.5 Mbps	82.4

Test result: The unit does meet the FCC requirements.

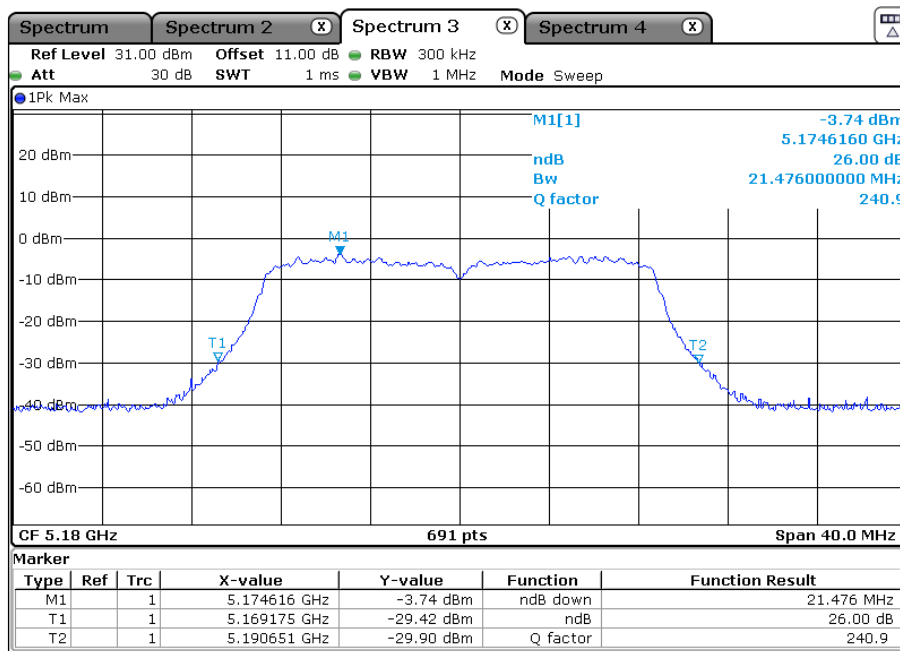
TEST REPORT

Result plot as follows

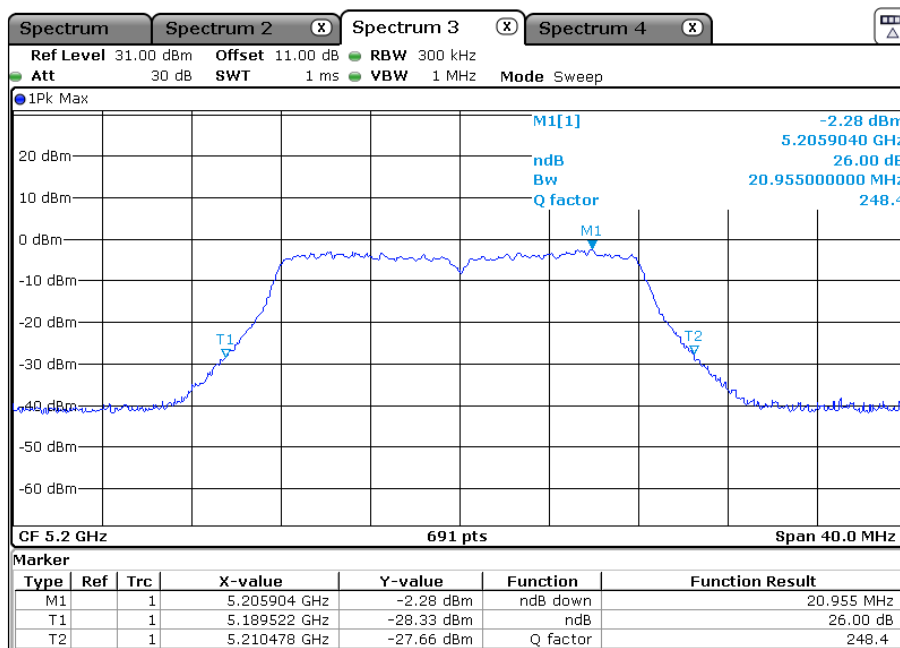
Band I 5150 MHz to 5250 MHz

802.11a

Channel 36: 5180 MHz:

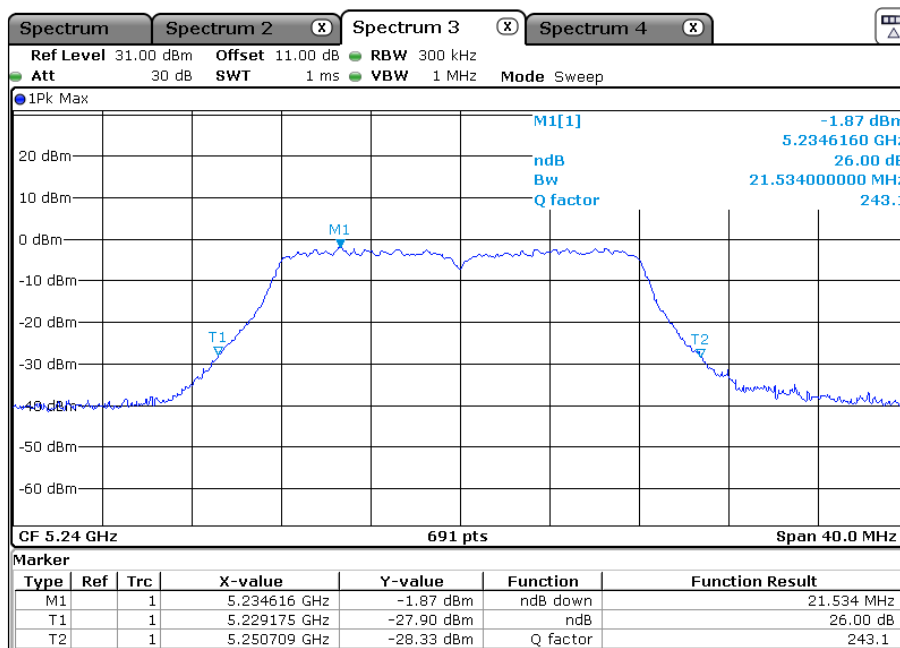


Channel 40: 5200 MHz:

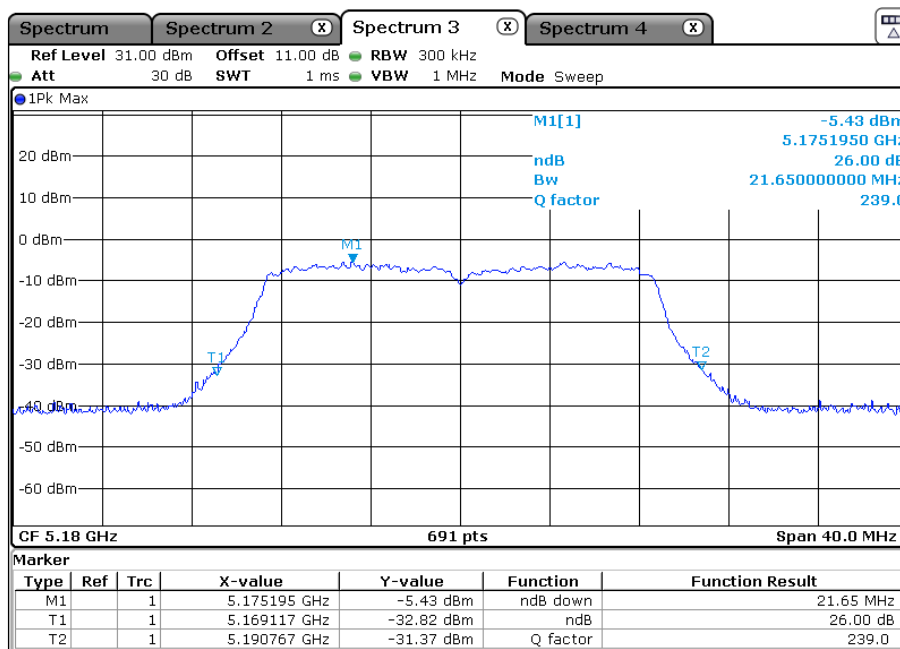


Channel 48: 5240 MHz:

TEST REPORT

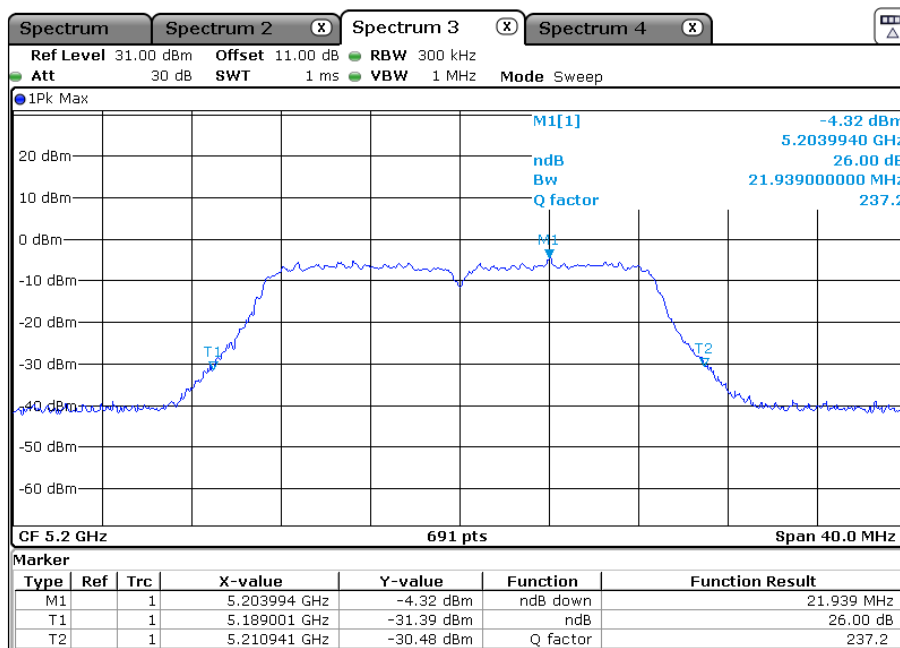


802.11n HT20
Channel 36: 5180 MHz:

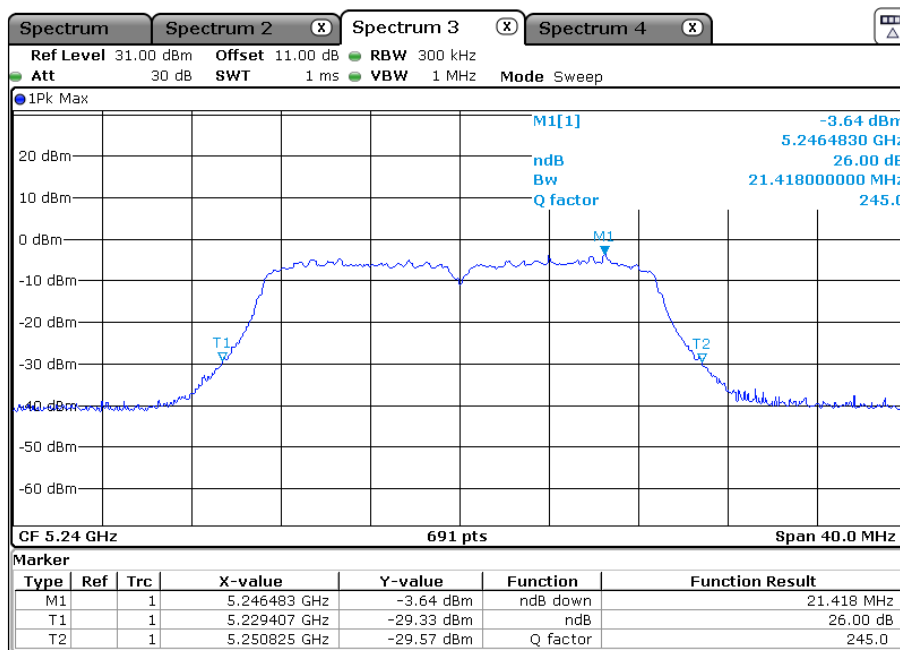


Channel 40: 5200 MHz:

TEST REPORT



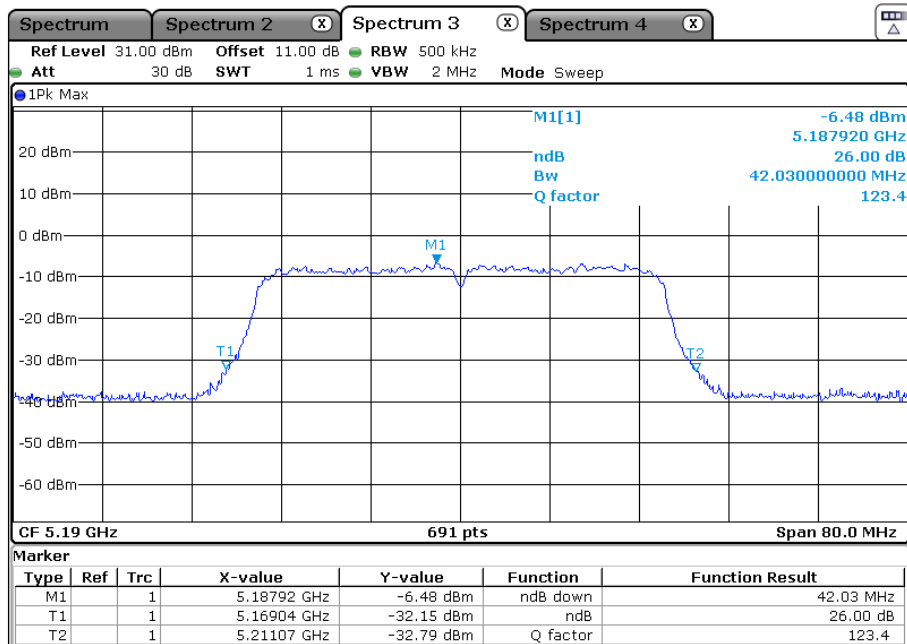
Channel 48: 5240 MHz:



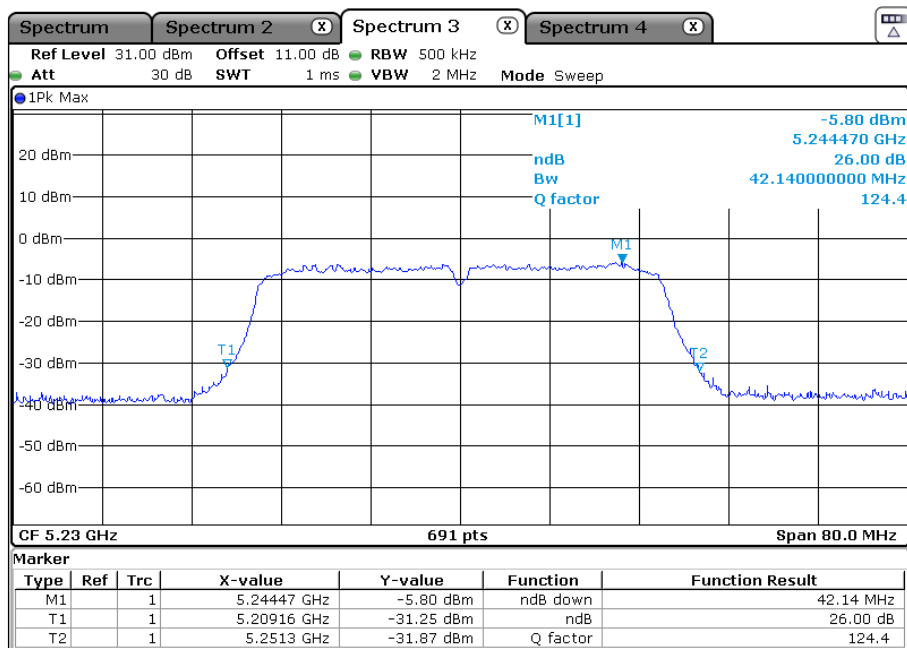
TEST REPORT

802.11n HT40

Channel 38: 5190 MHz:



Channel 46: 5230 MHz:



802.11ac VHT20

Channel 36: 5180 MHz:

Spectrum 2 **Spectrum 3** **Spectrum 4**

Ref Level 31.00 dBm Offset 11.00 dB RBW 300 kHz
 Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep

1Pk Max

M1[1] -6.07 dBm
 5.1864830 GHz
 ndB 26.00 dB
 Bw 21.708000000 MHz
 Q factor 238.9

M1

T1

T2

CF 5.18 GHz 691 pts Span 40.0 MHz

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.186483 GHz	-6.07 dBm	ndB down	21.708 MHz
T1		1	5.169233 GHz	-32.10 dBm	ndB	26.00 dB
T2		1	5.190941 GHz	-32.33 dBm	Q factor	238.9

Spectrum **Spectrum 2** **Spectrum 3** **Spectrum 4**

Ref Level 31.00 dBm Offset 11.00 dB RBW 300 kHz
Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep

1Pk Max

M1[1] -5.67 dBm
5.1946160 GHz
26.00 dB
21.534000000 MHz
241.2

ndB
Bw
Q factor

T1 M1 T2

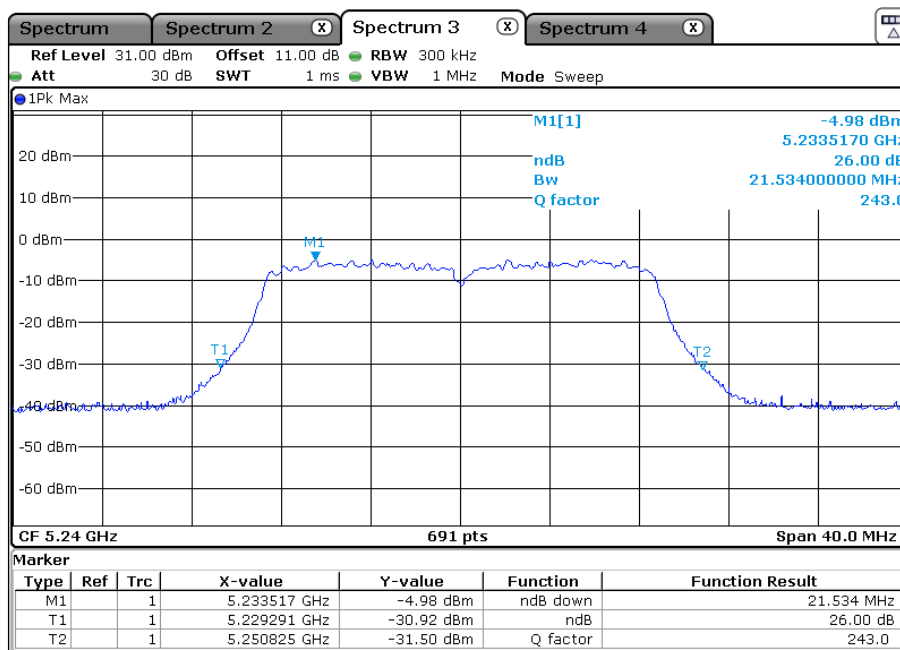
CF 5.2 GHz 691 pts Span 40.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.194616 GHz	-5.67 dBm	ndB down	21.534 MHz
T1		1	5.189175 GHz	-31.23 dBm	ndB	26.00 dB
T2		1	5.210709 GHz	-31.74 dBm	Q factor	241.2

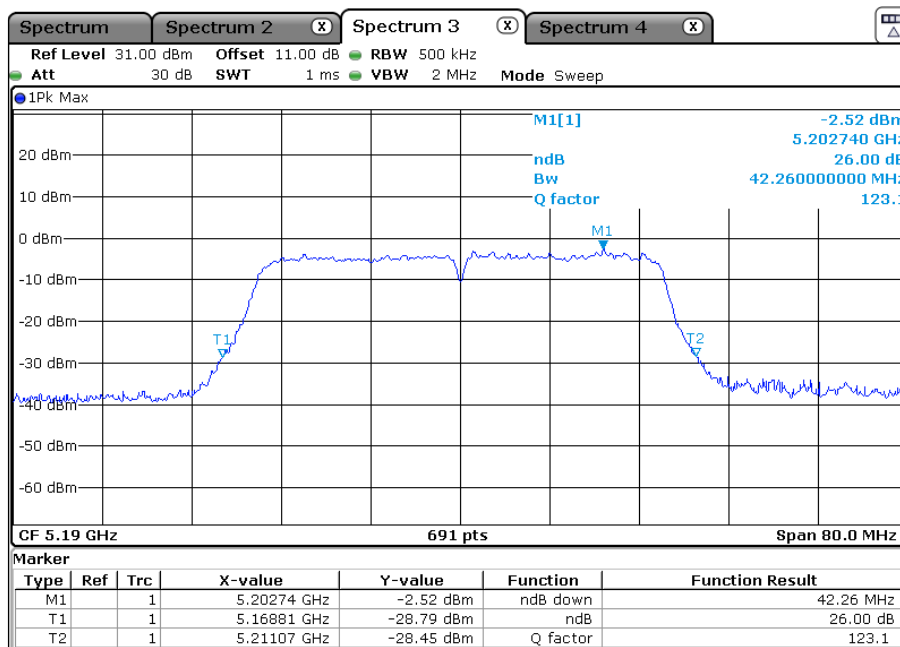
FCC WIFI 5G

TEST REPORT



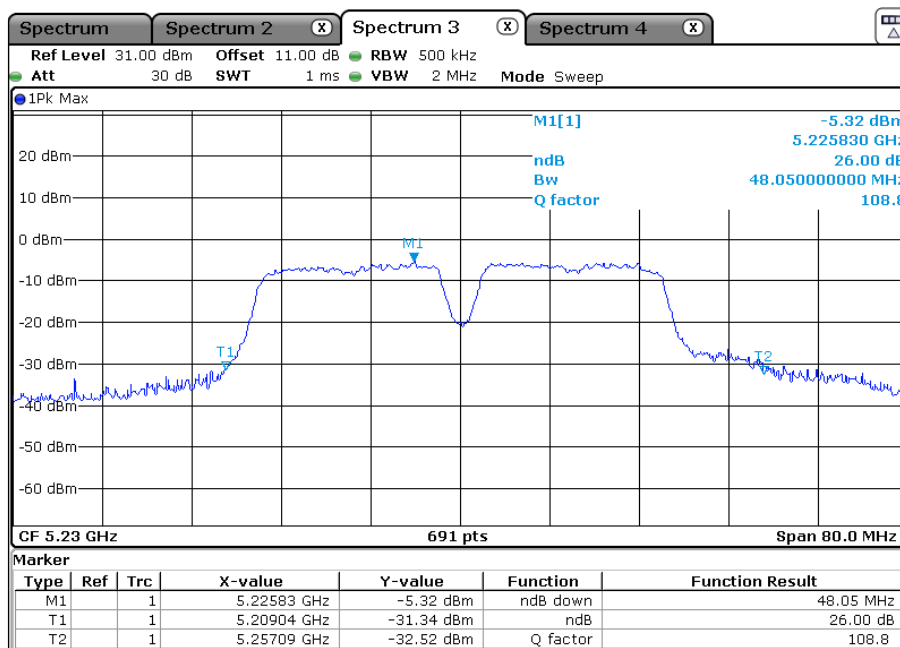
802.11ac VHT40

Channel 38: 5190 MHz:



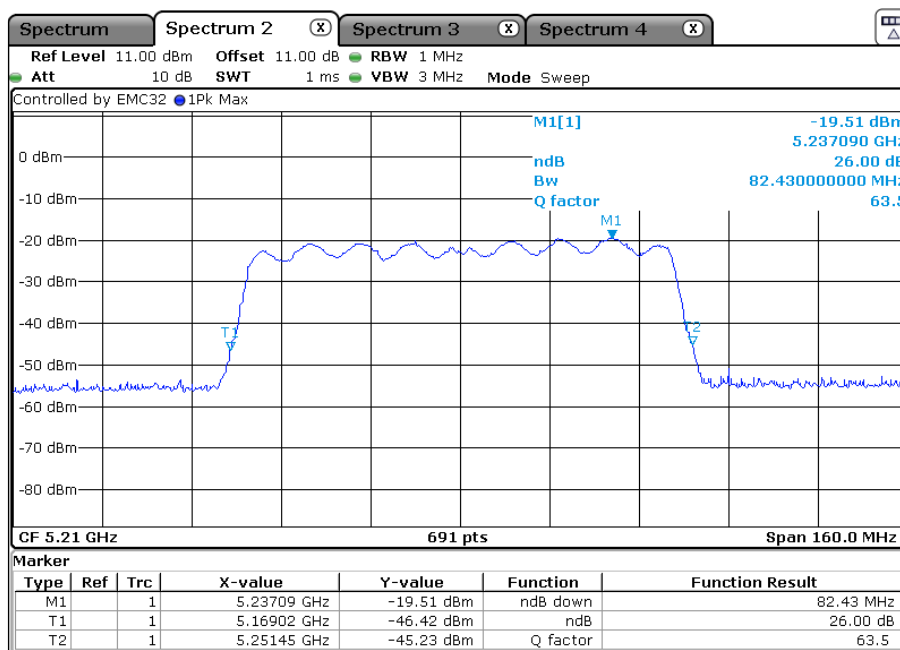
Channel 46: 5230 MHz:

TEST REPORT



802.11ac VHT80

Channel 42: 5210 MHz:



TEST REPORT

4.4 6 dB Bandwidth

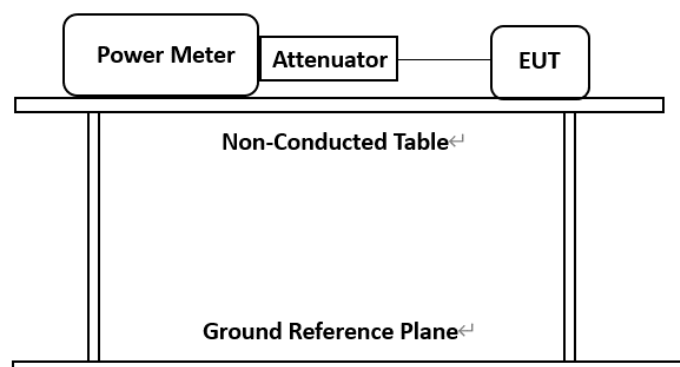
Result:N/A

Remark: It only applicable to the 5.725–5.85 GHz band

4.5 Maximum Conducted Output Power

Test Requirement: FCC Part 15 E clause 15.407(a)
Test Method: FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause E
Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1. Remove the antenna from the EUT and then connect a low attention attenuation RF cable (cable loss =1 dB, with a 10dB attenuator) from the antenna port to the power meter.
2. The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
3. If the EUT is transmitting at all times, it must be transmitting at its maximum power control level.
4. If the EUT does not transmit continuously, measure the duty cycle and adjust the measurement in dBm by adding $10\log(1/x)$ where x is the duty cycle of transmitter output signal. This measurement is an average over both the ON and OFF periods of the transmitter.
5. Report the worst case.

Used Test Equipment List

Power Sensor. Refer to Clause 5 Test Equipment List for details.

TEST REPORT

Test result:

Maximum Conducted Output Power Band I (5150MHz-5250MHz)

Channel No.	Frequency (MHz)	Mode	Data Rate	Maximum Conducted output power (dBm)Total	Limit dBm	Result
36	5180	802.11a	6 Mbps	7.3	250m W (24dBm)	Pass
40	5200		6 Mbps	7.8		Pass
48	5240		6 Mbps	8.4		Pass
36	5180	802.11n HT20	7.2 Mbps	7.1		Pass
40	5200		7.2 Mbps	7.6		Pass
48	5240		7.2 Mbps	8.3		Pass
38	5190	802.11n HT40	15 Mbps	7.3		Pass
46	5230		15 Mbps	8.1		Pass
36	5180	802.11ac VHT20	7.2 Mbps	6.6		Pass
40	5200		7.2 Mbps	7.1		Pass
48	5240		7.2 Mbps	8.0		Pass
38	5190	802.11ac VHT40	15 Mbps	6.9		Pass
46	5230		15 Mbps	7.9		Pass
42	5210	802.11ac VHT80	32.5 Mbps	7.1		Pass

The measured power in the table has considered the compensation of cable loss, attenuator and duty cycle.

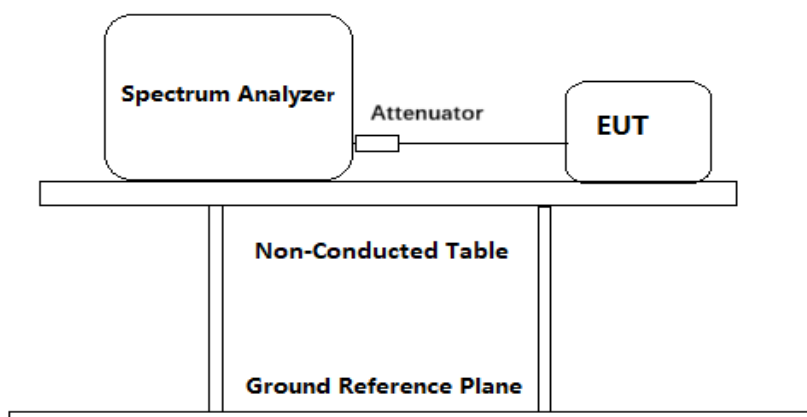
The unit does meet the FCC requirements.

TEST REPORT

4.6 Maximum Power Spectral Density

Test Requirement: FCC Part 15 E clause 15.407(a)
 Test Method: FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause F
 Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1. Remove the antenna from the EUT and then connect a low attention attenuation RF cable (cable loss =1dB, with 10 dB attenuator) from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer:
 - For 5.15–5.25 GHz, 5.25–5.35 GHz, and 5.47–5.725 GHz
 - a) Set span to encompass the entire EBW of the signal.
 - b) Set RBW = 1 MHz.
 - c) Set VBW $\geq$ 3 MHz.
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
 - e) Sweep time = auto.
 - f) Detector = Power averaging (rms), if available. Otherwise, use sample detector mode.
 - g) If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle $\geq$ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
 - h) Trace average at least 100 traces in power averaging (rms) mode.
 - i) Add $[10 \log (1 / D)]$, where D is the duty cycle, to the peak of the spectrum.

TEST REPORT

3. Measure the Power Spectral Density of the test frequency with special test status.
4. Repeat until all the test status is investigated.
5. Report the worst case.

Used Test Equipment List

Spectrum Analyzer. Refer to Clause 5 Test Equipment List for details.

Band I (5150MHz-5250MHz)

Channel No.	Frequency (MHz)	Mode	Maximum PSD (dBm/MHz)	10 log (1/D)	Average PSD (dBm/3kHz)	Limit dBm/MHz	Result
36	5180	802.11a	1.6	0.2	1.8	10 (dBm/MHz)	Pass
40	5200		1.5	0.2	1.7		Pass
48	5240		2.3	0.2	2.5		Pass
36	5180	802.11n HT20	1.6	0.2	1.8		Pass
40	5200		1.3	0.2	1.5		Pass
48	5240		1.2	0.2	1.4		Pass
38	5190	802.11n HT40	-2.8	0.4	-2.4		Pass
46	5230		-1.7	0.4	-1.3		Pass
36	5180	802.11ac VHT20	-0.1	0.4	0.3		Pass
40	5200		0.4	0.1	0.5		Pass
48	5240		1.7	0.1	1.8		Pass
38	5190	802.11ac VHT40	-3.1	0.1	-3		Pass
46	5230		-1.9	0.1	-1.8		Pass
42	5210	802.11ac VHT80	-4.8	0.2	-4.6		Pass

Note: Average PSD= Measured PSD+10 log (1/D)

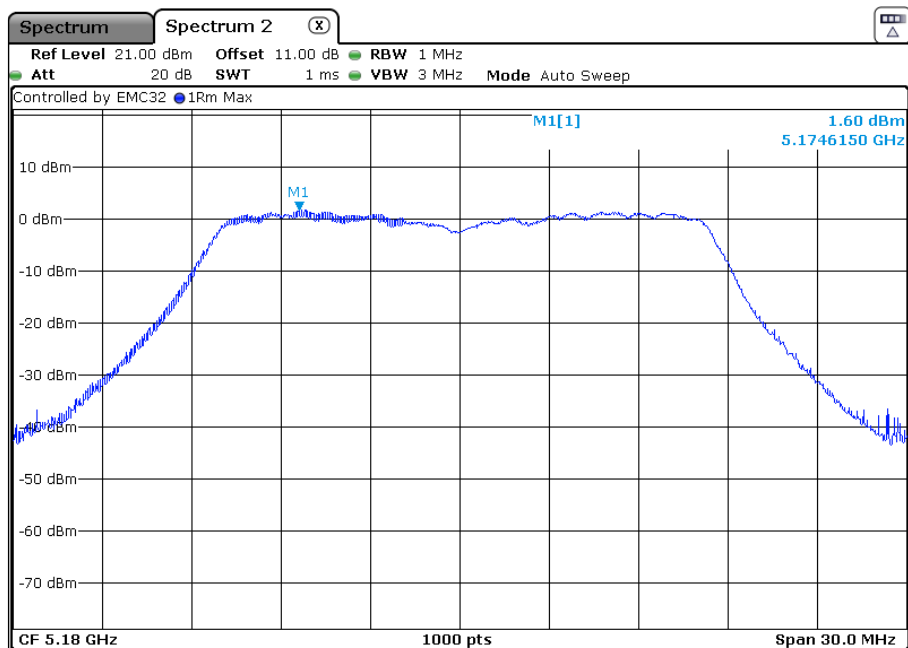
TEST REPORT

Result plot as follows:

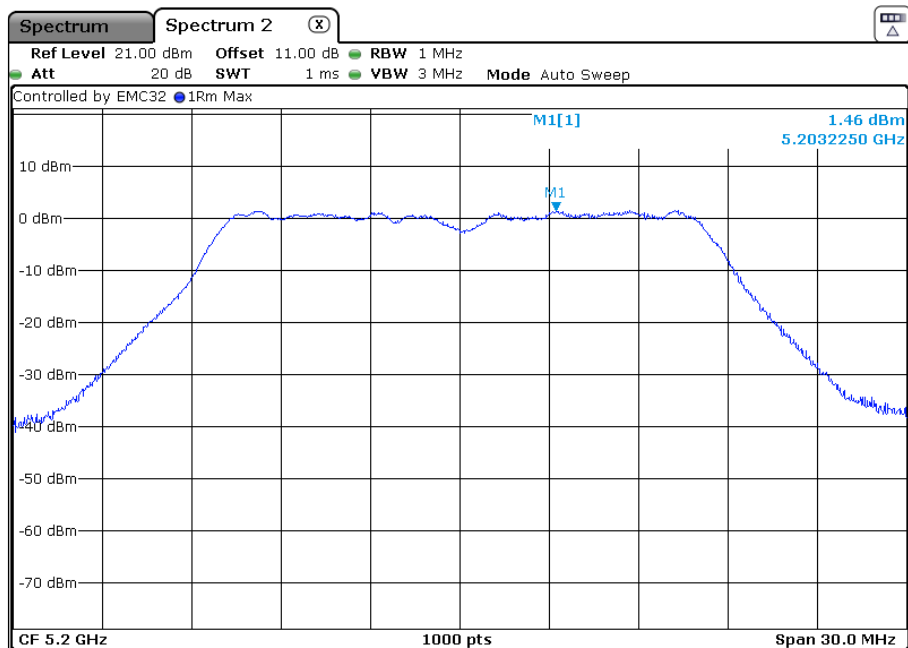
Band I 5150 MHz to 5250 MHz

802.11a

Channel 36: 5180 MHz:

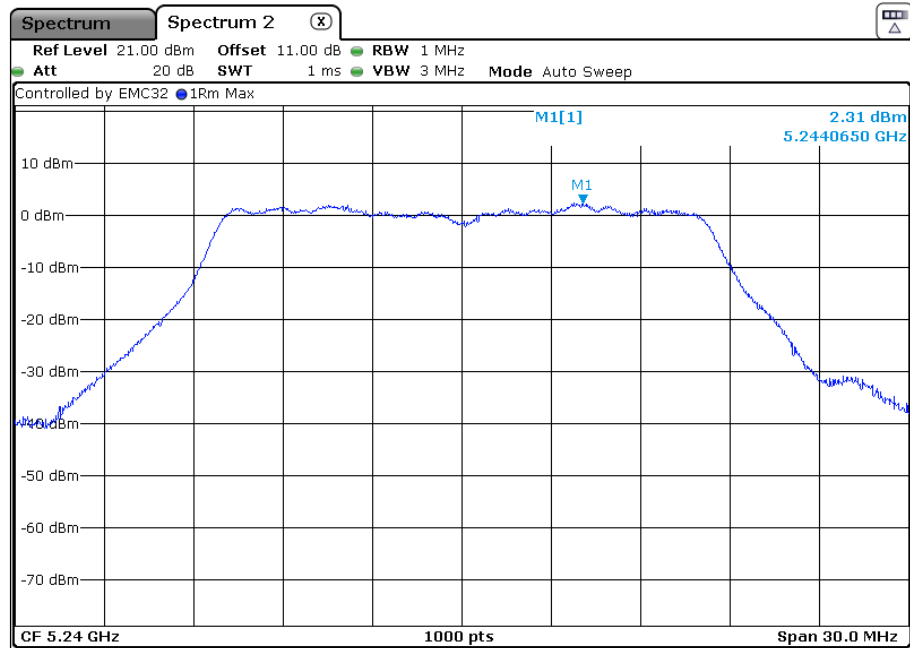


Channel 40: 5200 MHz:



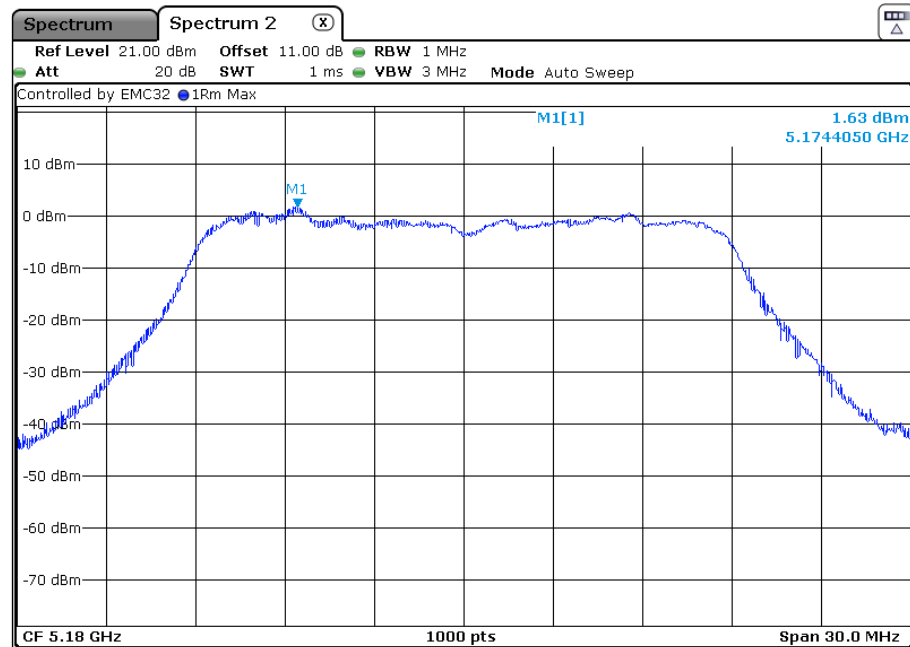
TEST REPORT

Channel 48: 5240 MHz:



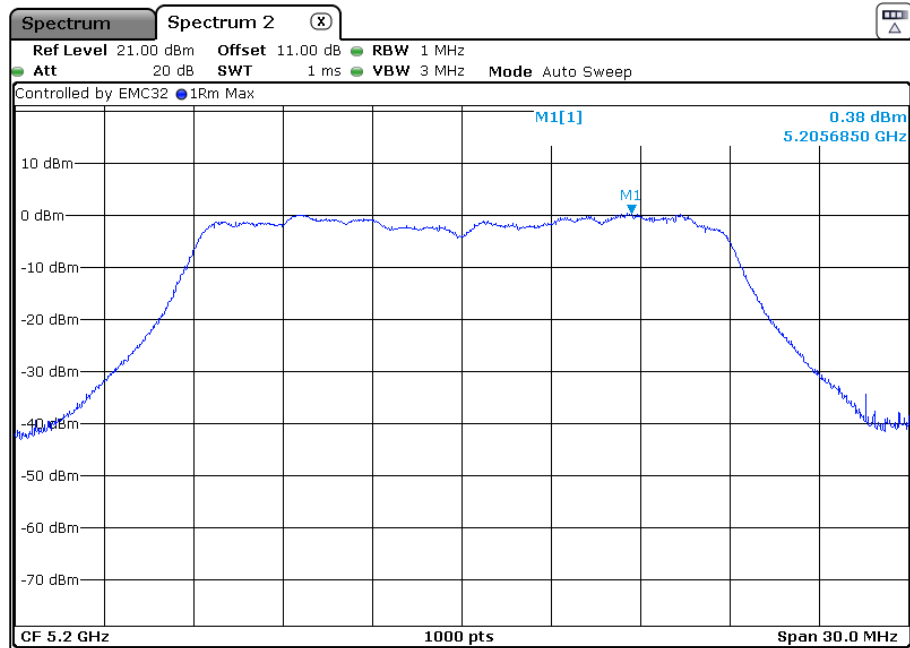
802.11n HT20

Channel 36: 5180 MHz:

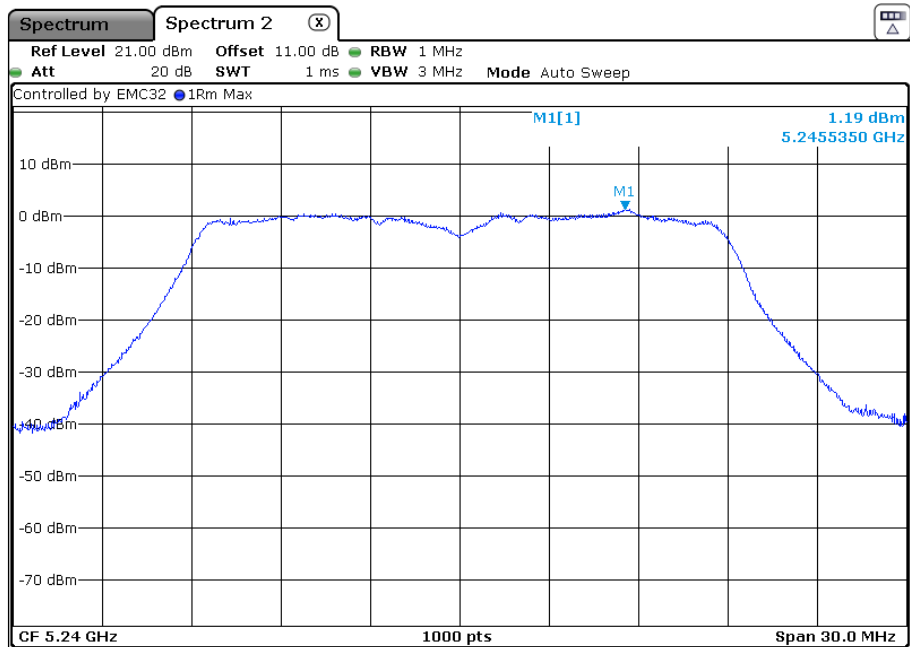


TEST REPORT

Channel 40: 5200 MHz:



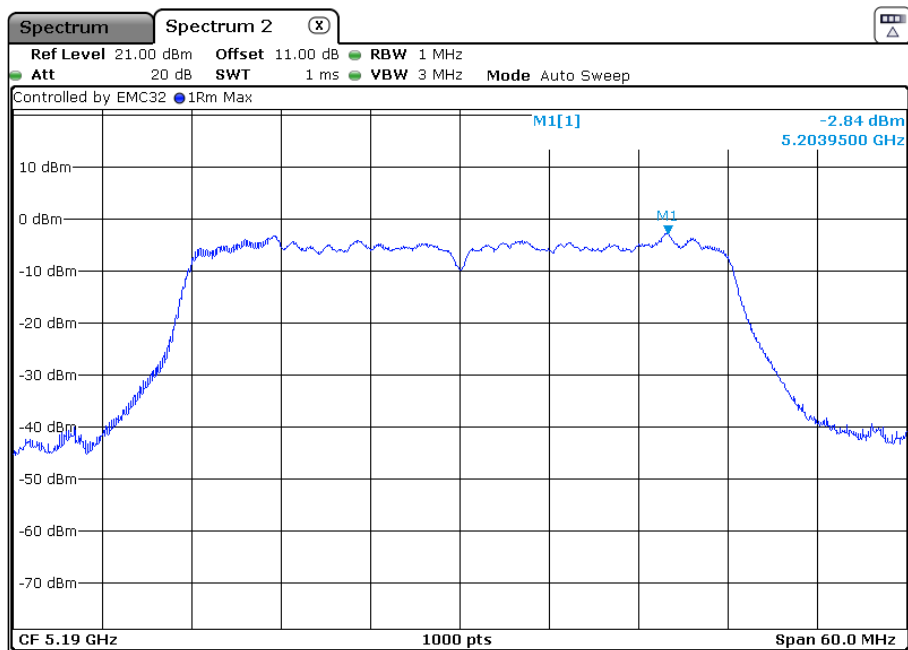
Channel 48: 5240 MHz:



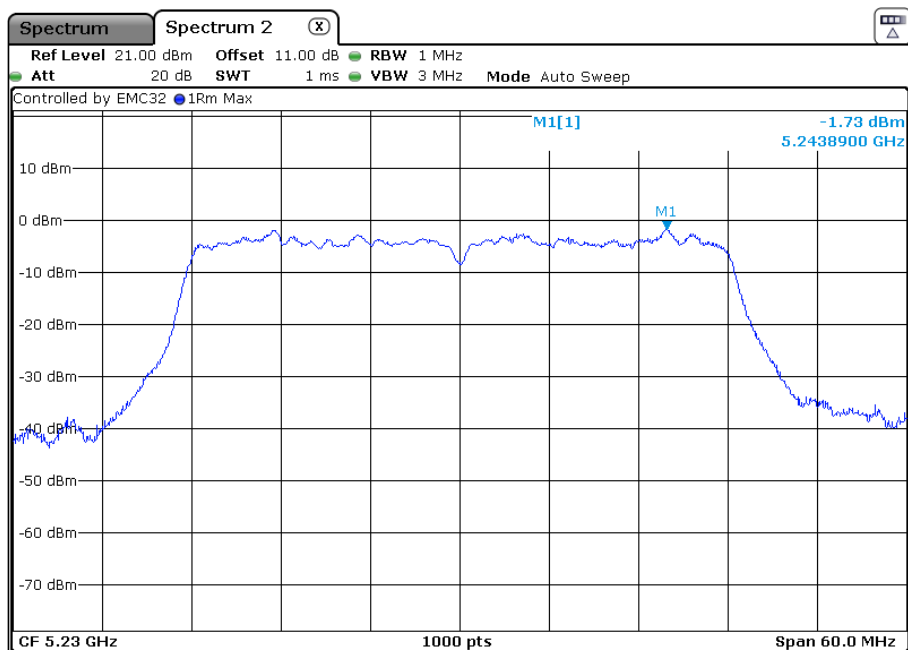
TEST REPORT

802.11n HT40

Channel 38: 5190 MHz:



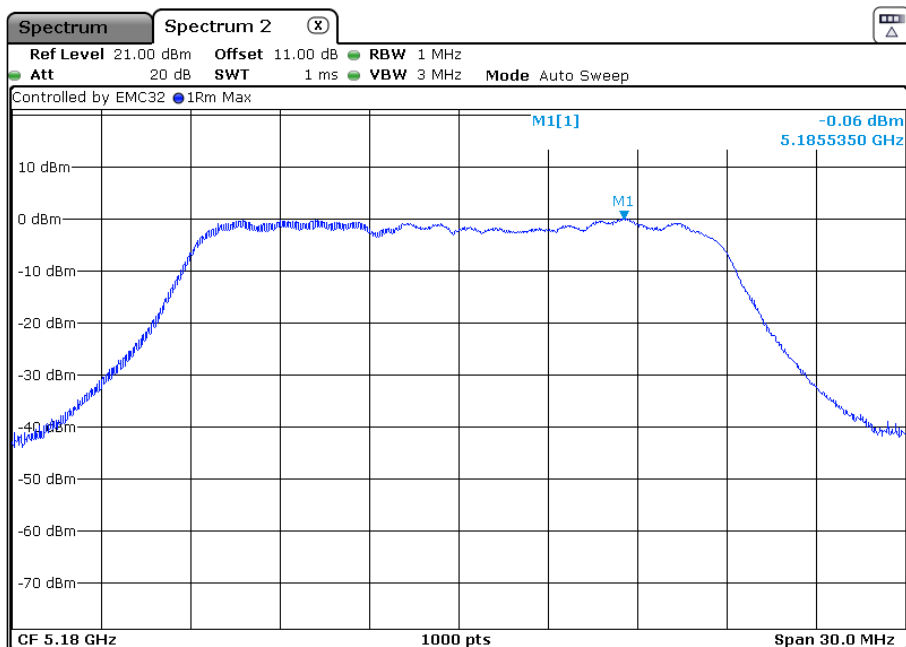
Channel 46: 5230 MHz:



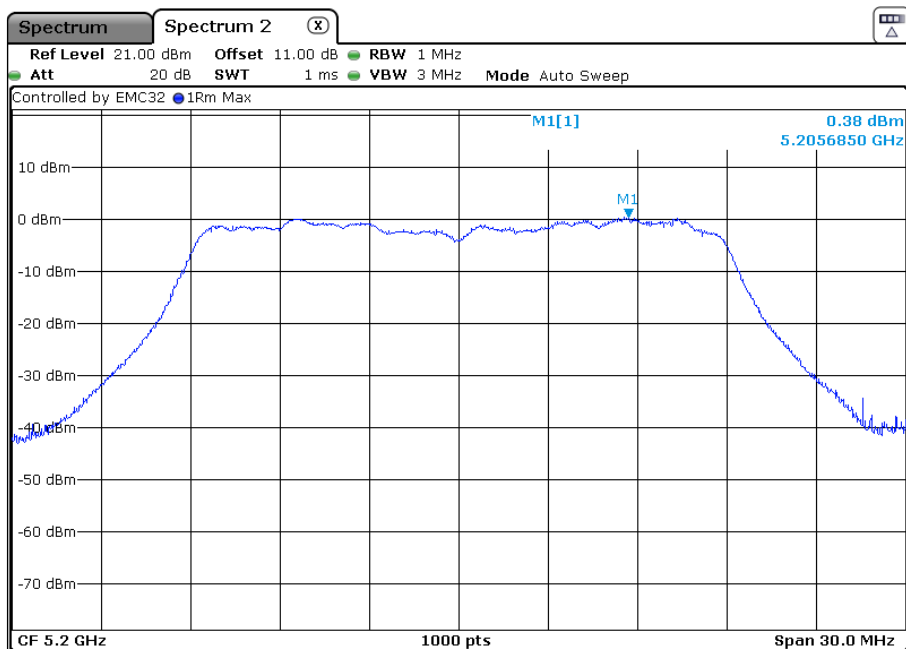
TEST REPORT

802.11ac VHT20

Channel 36: 5180 MHz:

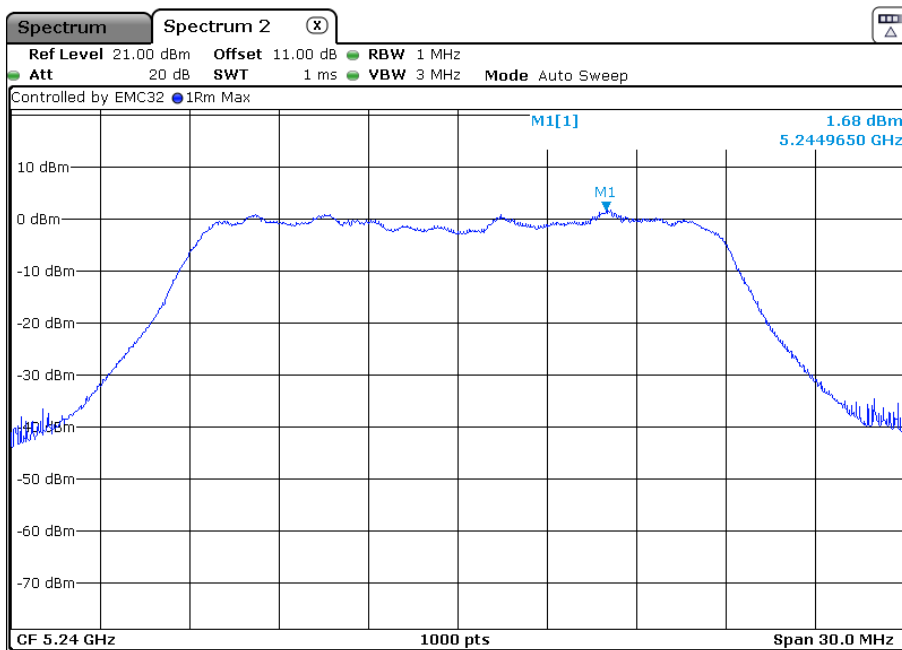


Channel 40: 5200 MHz:



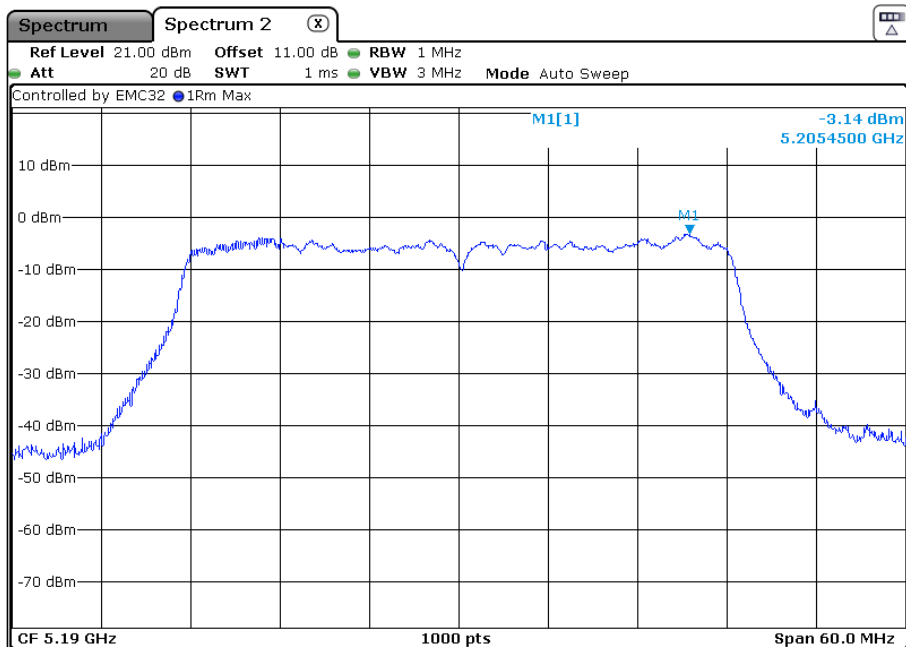
TEST REPORT

Channel 48: 5240 MHz:



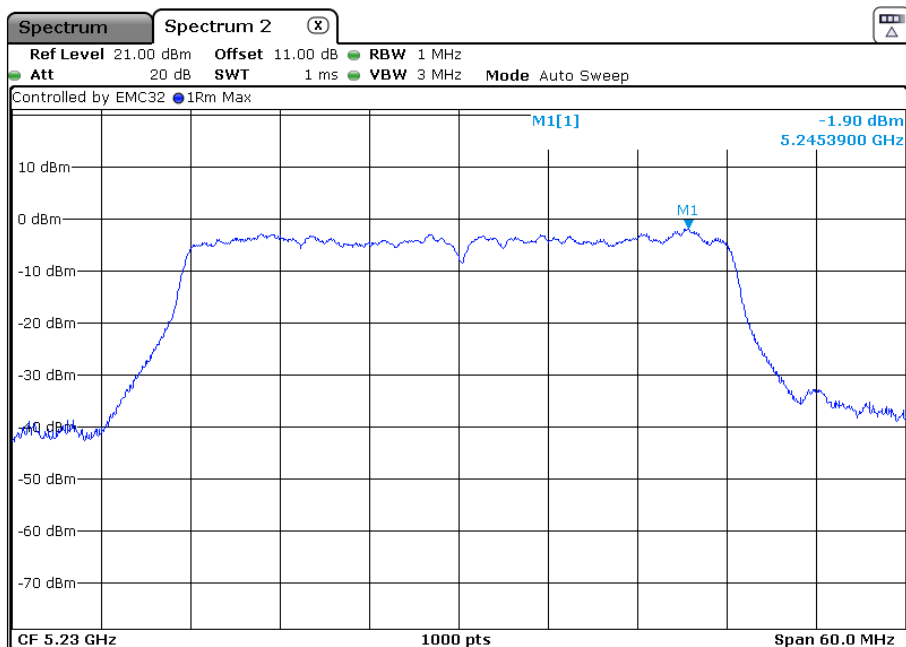
802.11ac VHT40

Channel 38: 5190 MHz:



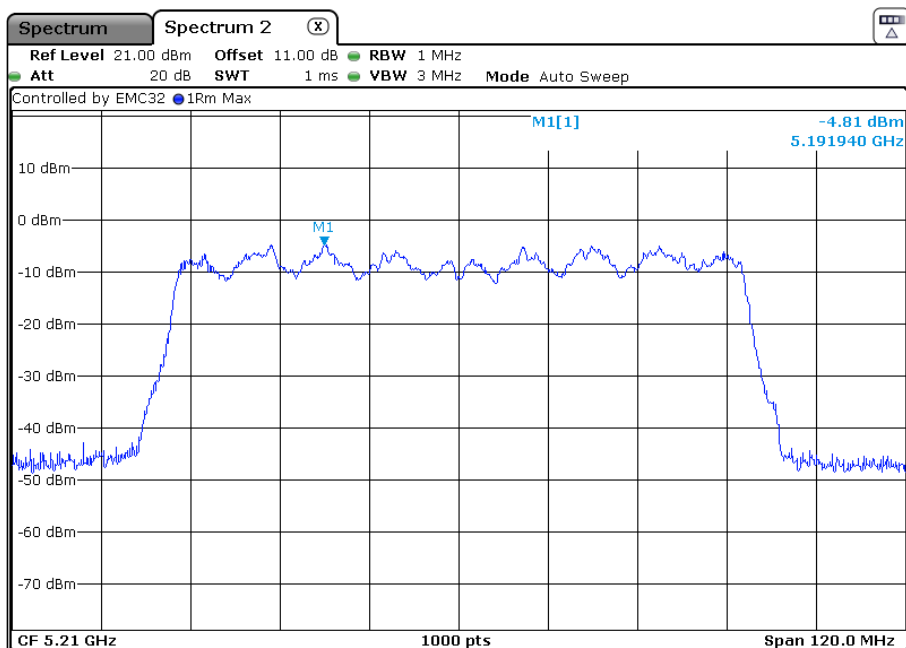
TEST REPORT

Channel 46: 5230 MHz:



802.11ac VHT80

Channel 42: 5210 MHz:



TEST REPORT

4.7 Radiated Spurious Emissions

Test Requirement:	FCC Part 15 E clause 15.407(b) In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).
Test Method:	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause G
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	40.0 dB μ V/m between 30MHz & 88MHz; 43.5 dB μ V/m between 88MHz & 216MHz; 46.0 dB μ V/m between 216MHz & 960MHz; 54.0 dB μ V/m above 960MHz.
Detector:	For Peak and Quasi-Peak value: RBW = 1 MHz for $f \geq 1$ GHz, 200 Hz for 9 kHz to 150 kHz 9 kHz for 150 kHz to 30 MHz 120 kHz for 30 MHz to 1GHz VBW $\geq$ RBW Sweep = auto Detector function = peak for $f \geq 1$ GHz, QP for $f < 1$ GHz Trace = max hold For AV value: RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz VBW=10 Hz Sweep = auto Trace = max hold
Field Strength Calculation:	The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below: FS = RA + AF + CF - AG + PD + AV FS = RA + Correct Factor + AV FS = Field Strength in dB μ V/m RA = Receiver Amplitude (including preamplifier) in dB μ V
Where:	

TEST REPORT

AF = Antenna Factor in dB
CF = Cable Attenuation Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB
AV = Average Factor in -dB
Correct Factor = AF + CF - AG + PD

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

$$FS = RA + AF + CF - AG + PD + AV$$

Assume a receiver reading of 62.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dB μ V/m.

$$RA = 62.0 \text{ dB}\mu\text{V}$$

$$AF = 7.4 \text{ dB}$$

$$CF = 1.6 \text{ dB}$$

$$AG = 29.0 \text{ dB}$$

$$PD = 0 \text{ dB}$$

$$AV = -10 \text{ dB}$$

$$\text{Correct Factor} = 7.4 + 1.6 - 29.0 + 0 = -20 \text{ dB}$$

$$FS = 62 + (-20) + (-10) = 32 \text{ dB}\mu\text{V/m}$$

TEST REPORT

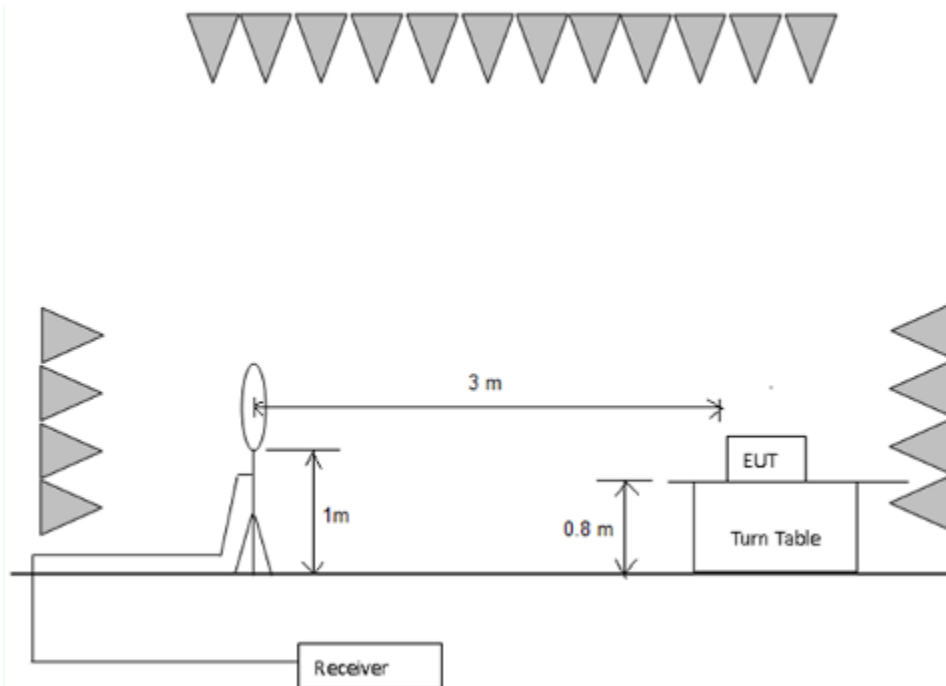
Section 15.205 Restricted bands of operation.

(a) Except as shown in paragraph (d) of this section. Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
10.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		

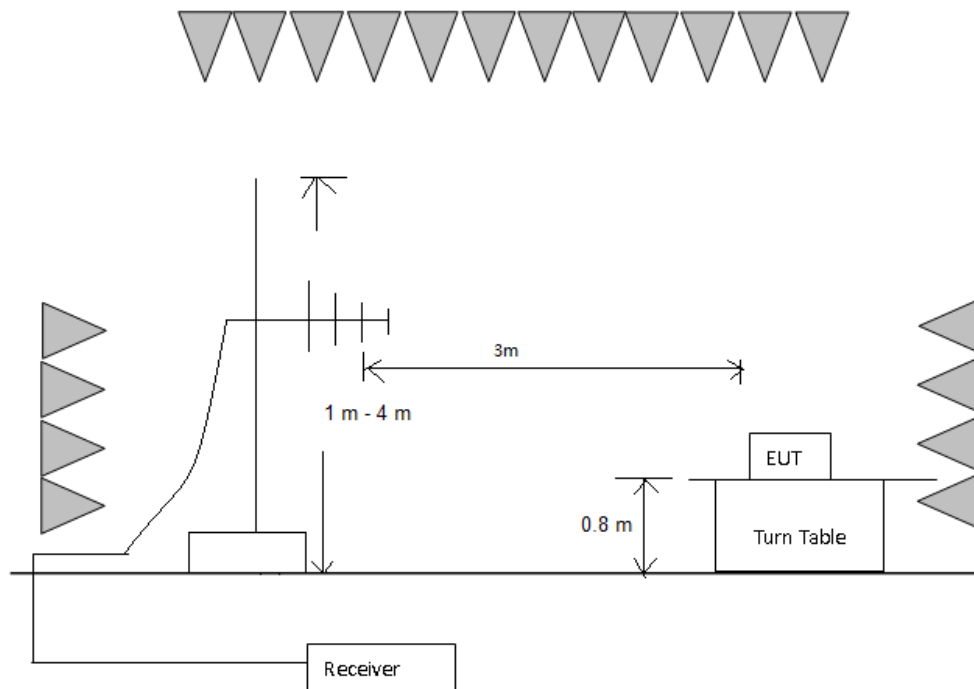
Test Configuration:

1) 9 kHz to 30 MHz emissions:

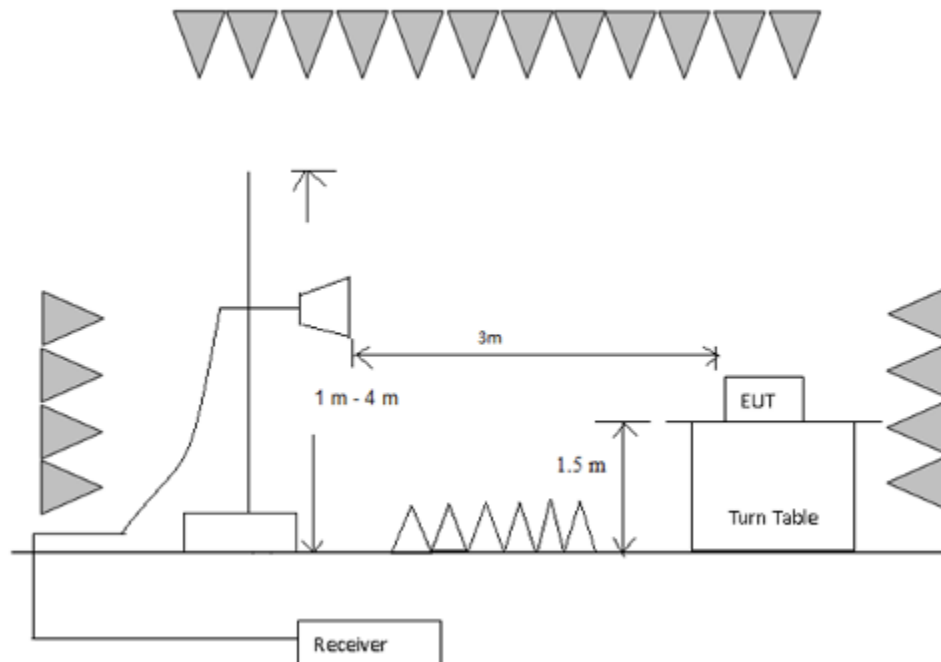


2) 30 MHz to 1 GHz emissions:

TEST REPORT



3) 1 GHz to 40 GHz emissions:



Test Procedure:

Test site with RF absorbing material covering the ground plane that met the site validation criterion called out in CISPR 16-1-4:2010 was used to perform radiated emission test above 1 GHz.

The receiver was scanned from 9 kHz to 25 GHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional

TEST REPORT

radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.

Used Test Equipment List:

3m Semi-Anechoic Chamber, EMI Test Receiver (9 kHz~7 GHz), Signal and Spectrum Analyzer (10 Hz~40 GHz), Loop antenna (9 kHz-30 MHz). TRILOG Super Broadband test Antenna(30 MHz-3 GHz) (RX), Double-Ridged Waveguide Horn Antenna (800 MHz-18 GHz)(RX) and High Frequency Antenna & preamplifier(18 GHz~26.5 GHz) (RX). Refer to Clause 5 Test Equipment List for details.

Test result:

9 kHz~30 MHz Field Strength of Unwanted Emissions for Quasi-Peak Measurement

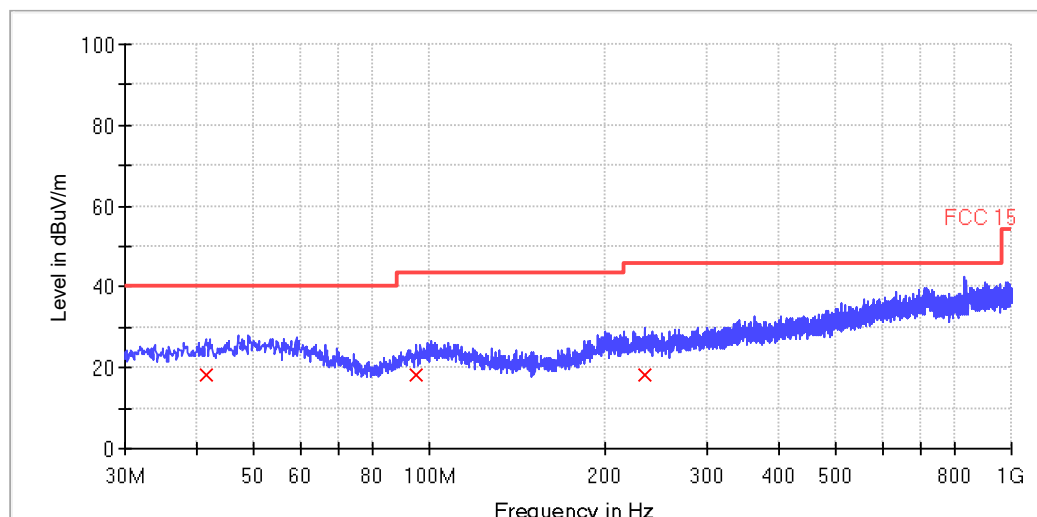
The measurements with active loop antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.

30 MHz~1 GHz Spurious Emissions .Quasi-Peak Measurement.

Pretest on the lowest channel, middle channel and highest channel for each mode of the Band I.

The below data test on mode 802.11a channel 48: 5240MHz was the worst case of all test record.

Horizontal:



QP

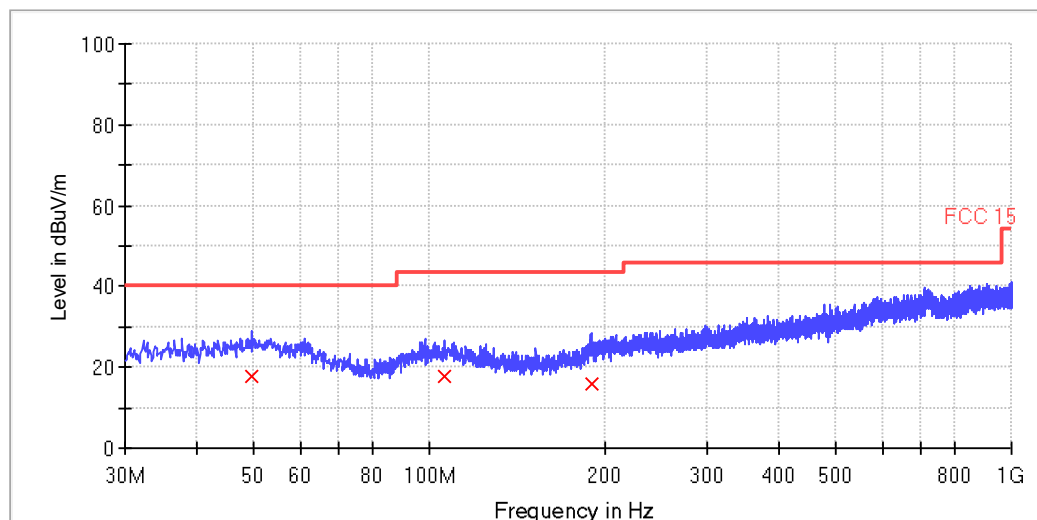
TEST REPORT

Frequency (MHz)	Quasi Peak (dBuV/m)	Bandwidth (kHz)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
41.240000	18.1	120.000	H	20.4	21.9	40.0
94.800000	18.0	120.000	H	18.0	25.5	43.5
234.480000	18.3	120.000	H	20.2	27.7	46.0

Remark:

1. Corr. (dB) = Antenna Factor (dB) + Cable Loss (dB)
2. Quasi Peak (dBμV/m) = Corr. (dB) + Read Level (dBμV)
3. Margin (dB) = Limit QPK (dBμV/m) – Quasi Peak (dBμV/m)

Vertical:



QP

Frequency (MHz)	Quasi Peak (dBuV/m)	Bandwidth (kHz)	Pol	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV/m)
49.480000	17.7	120.000	V	21.7	22.3	40.0
106.240000	17.6	120.000	V	19.0	25.9	43.5
189.480000	16.0	120.000	V	18.3	27.5	43.5

Remark:

1. Corr. (dB) = Antenna Factor (dB) + Cable Loss (dB)
2. Quasi Peak (dBμV/m) = Corr. (dB) + Read Level (dBμV)
3. Margin (dB) = Limit QPK (dBμV/m) – Quasi Peak (dBμV/m)

TEST REPORT

1~40 GHz Radiated Emissions.

We tested all modes, the worst case was 802.11a, the data was recorded as below:

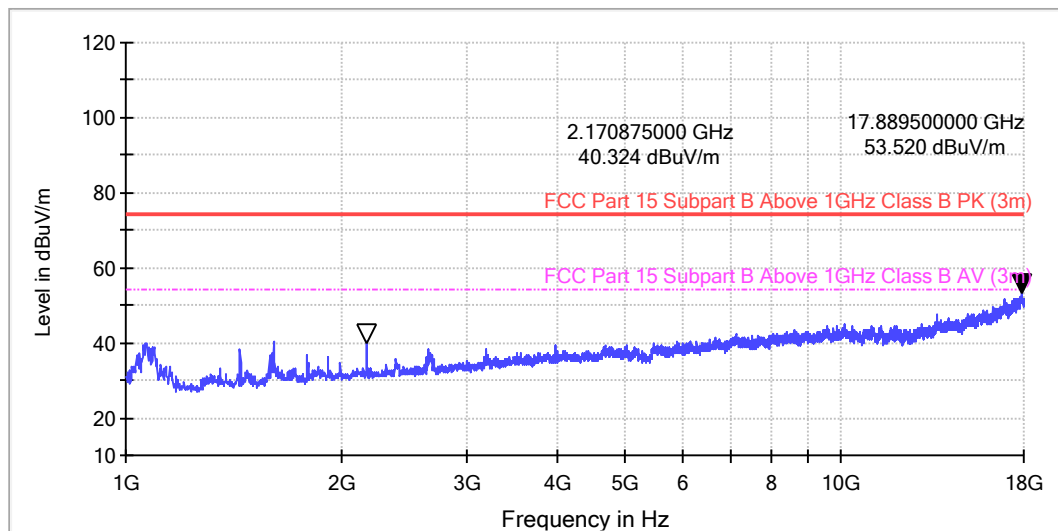
Band I 5150 MHz to 5250 MHz

802.11a mode

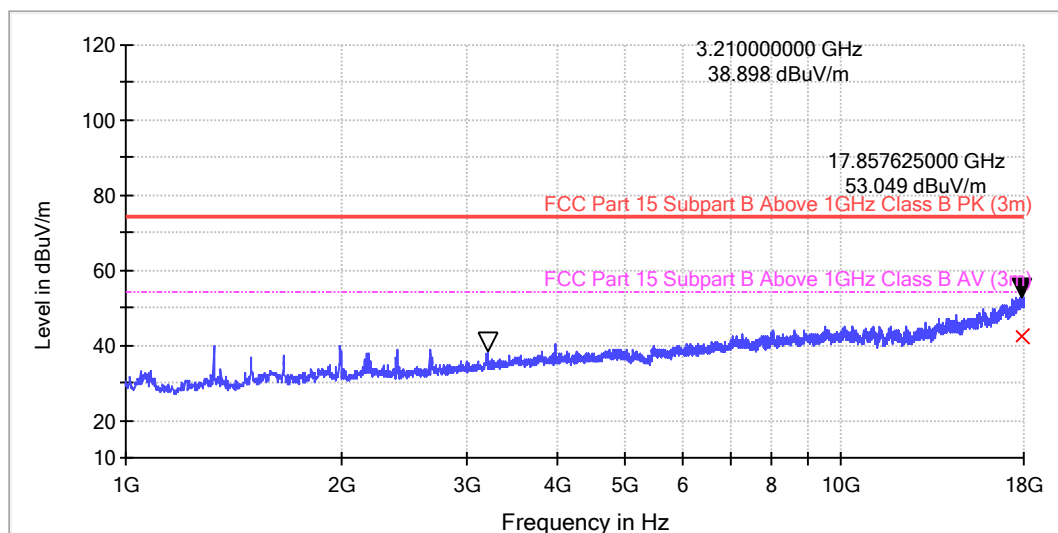
Channel 36: 5180 MHz:

1-18GHz

Horizontal



Vertical



TEST REPORT

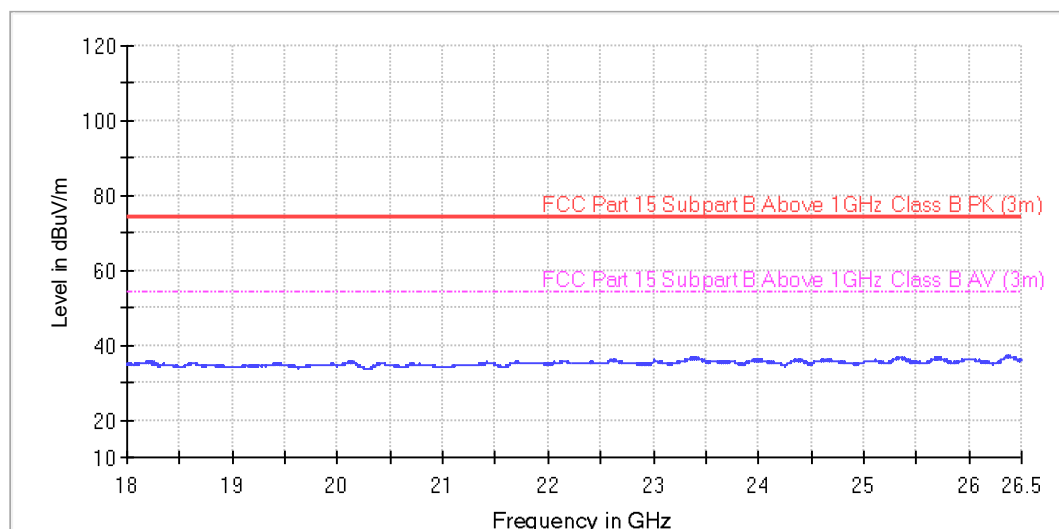
Peak Measurement:

Frequency (MHz)	Reading Level (dB μ V)	Correction factors (dB/m)	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Antenna polarization
2170.9	48.8	-8.5	40.3	68.2	H
17889.5	33.4	20.1	53.5	74	H
3210.0	43.5	-4.6	38.9	68.2	V
17857.6	33.0	20.0	53.0	74	V

Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

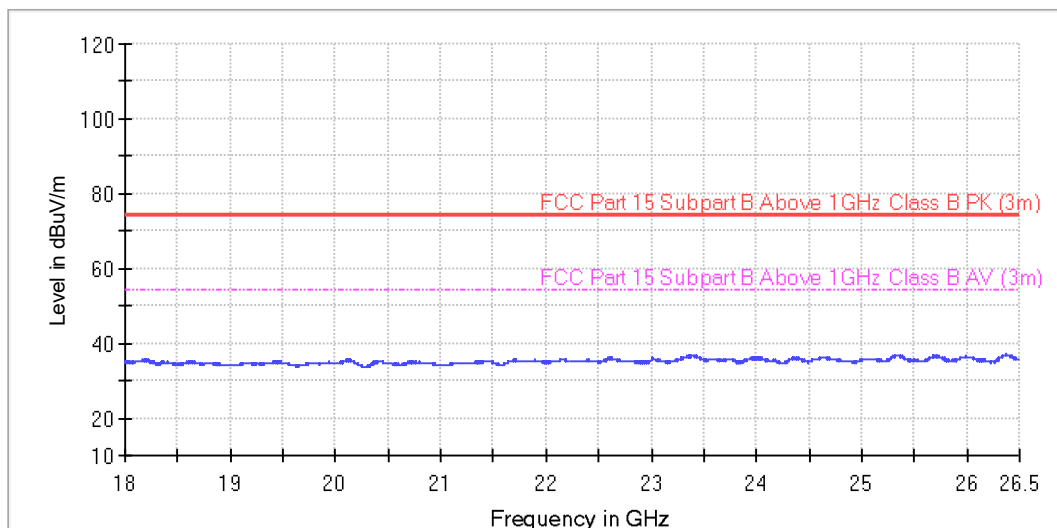
18-26.5GHz

Horizontal



Vertical

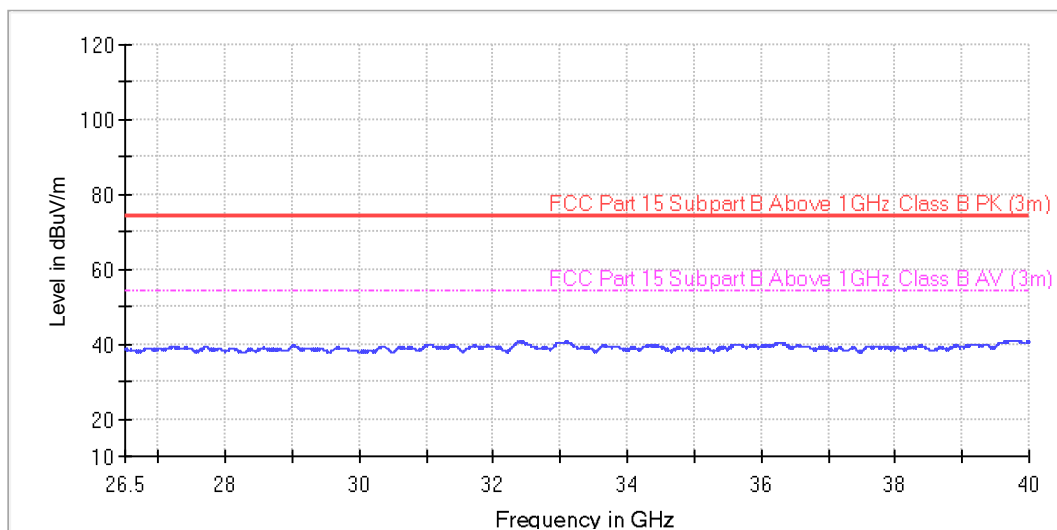
TEST REPORT



The ambient noise floor 18-26.5 GHz was measured in peak detector mode with RBW = 1 MHz, VBW = 10 Hz. The measured noise floor maintains a margin of at least 6 dB below the applicable average limit.

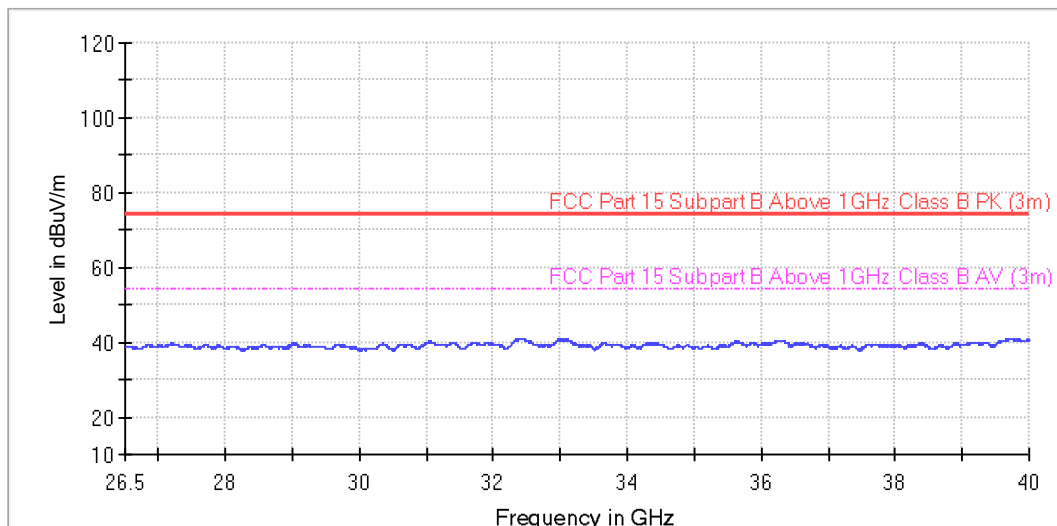
26.5-40GHz

Horizontal



TEST REPORT

Vertical

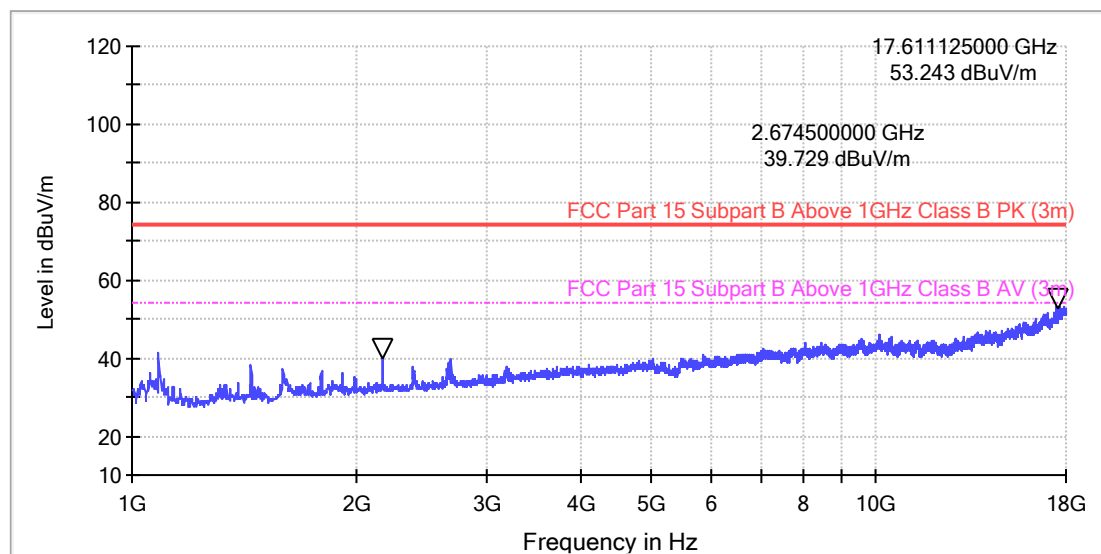


The ambient noise floor 26.5-40 GHz was measured in peak detector mode with RBW = 1 MHz, VBW = 10 Hz. The measured noise floor maintains a margin of at least 6 dB below the applicable average limit.

Channel 44: 5200MHz:

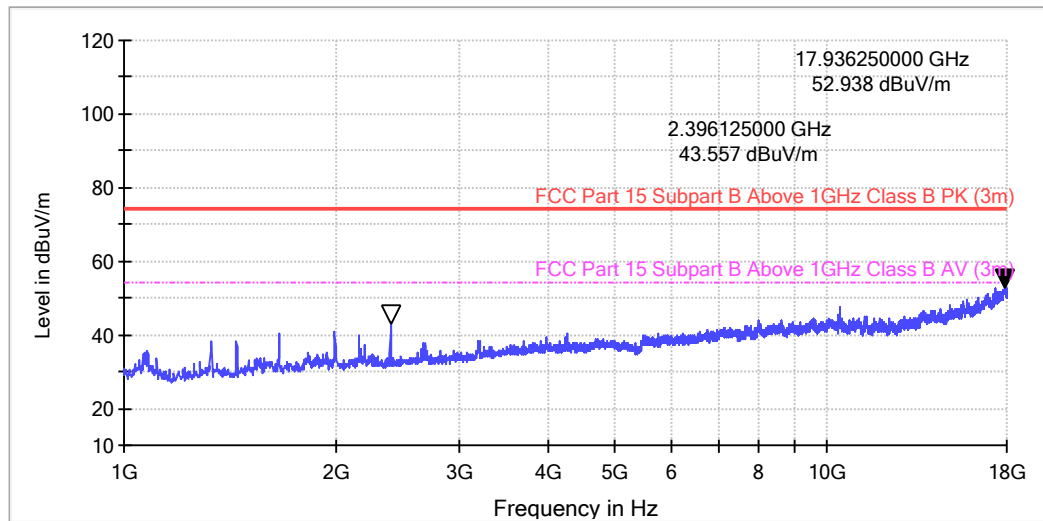
1-18GHz

Horizontal



TEST REPORT

Vertical



Peak Measurement:

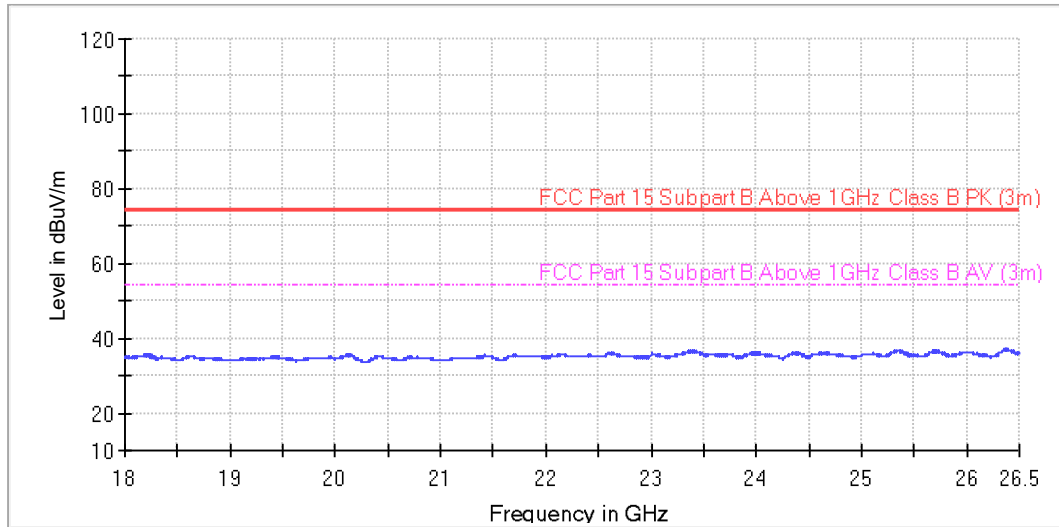
Frequency (MHz)	Reading Level (dBμV)	Correction factors (dB/m)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
2170.9	48.7	-8.5	40.2	68.2	H
17611.3	33.7	19.5	53.2	68.2	H
2396.1	51.3	-7.7	43.6	68.2	V
17936.3	32.7	20.2	52.9	74	V

Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

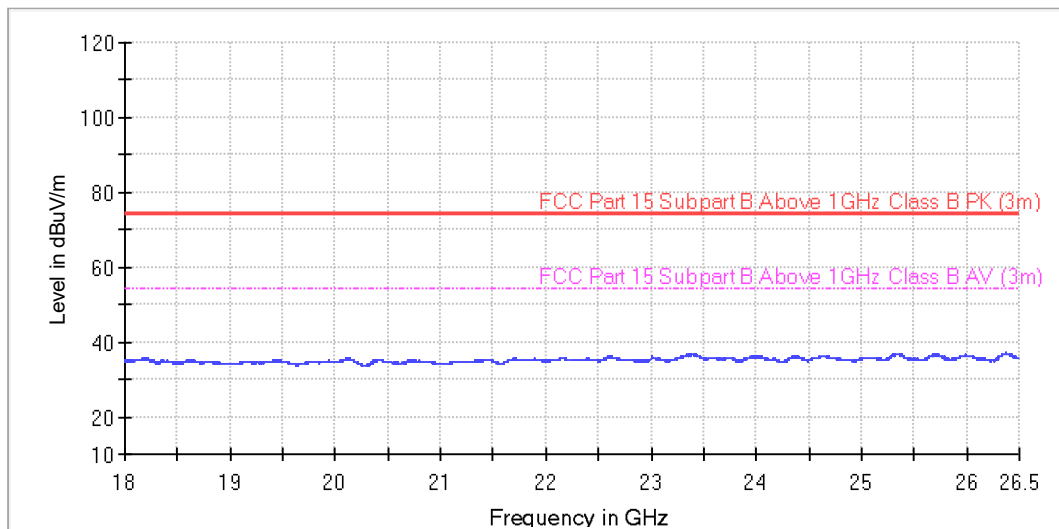
18-26.5GHz

Horizontal

TEST REPORT



Vertical

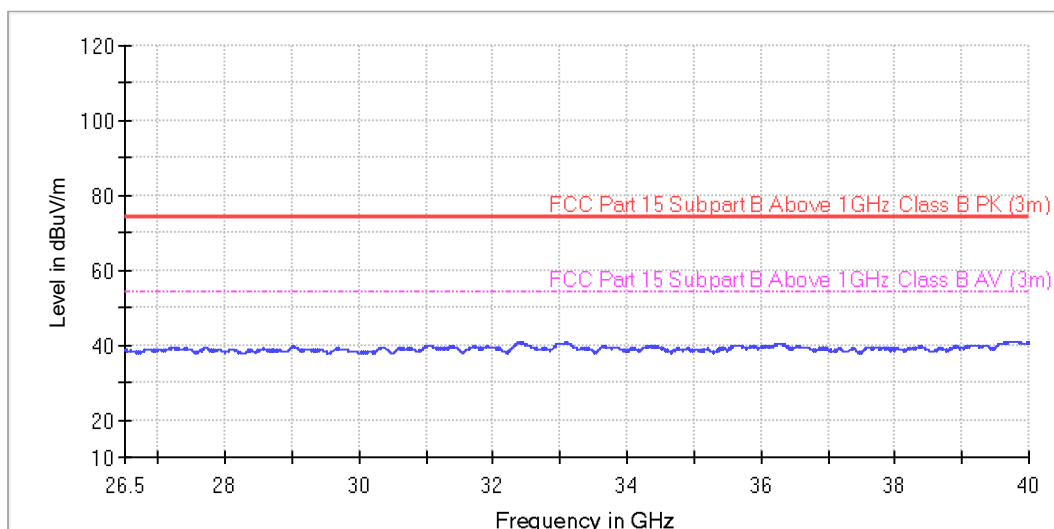


The ambient noise floor 18-26.5 GHz was measured in peak detector mode with RBW = 1 MHz, VBW = 10 Hz. The measured noise floor maintains a margin of at least 6 dB below the applicable average limit.

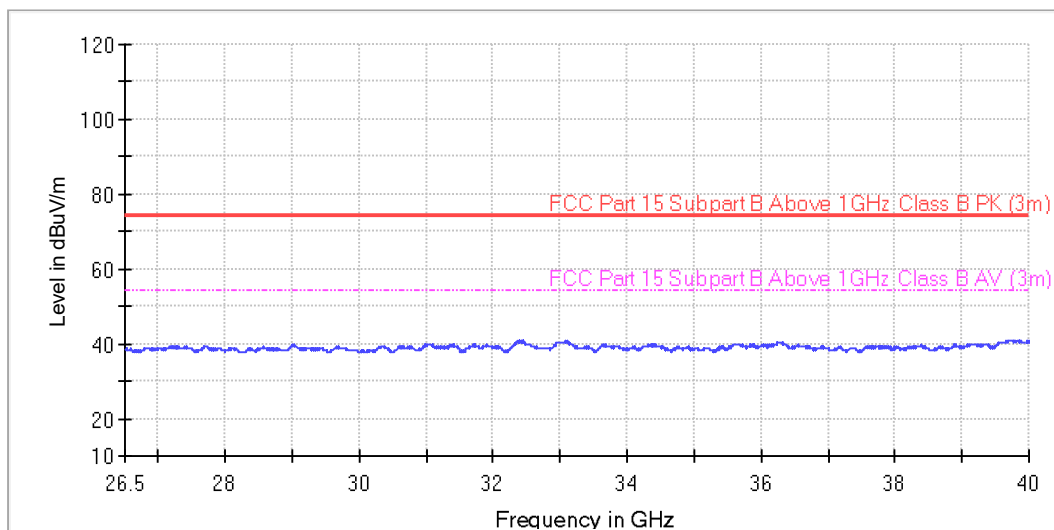
TEST REPORT

26.5-40GHz

Horizontal



Vertical



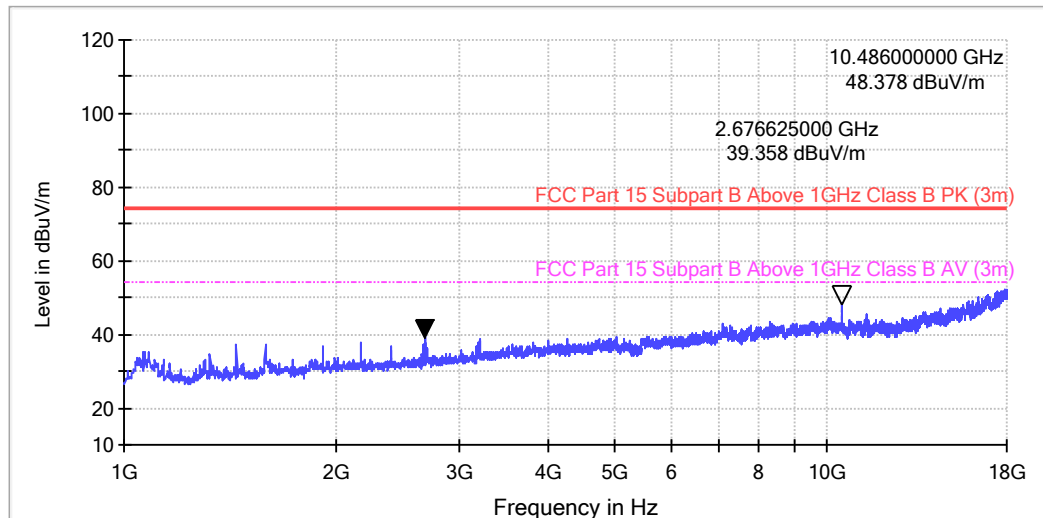
The ambient noise floor 26.5-40 GHz was measured in peak detector mode with RBW = 1 MHz, VBW = 10 Hz. The measured noise floor maintains a margin of at least 6 dB below the applicable average limit.

TEST REPORT

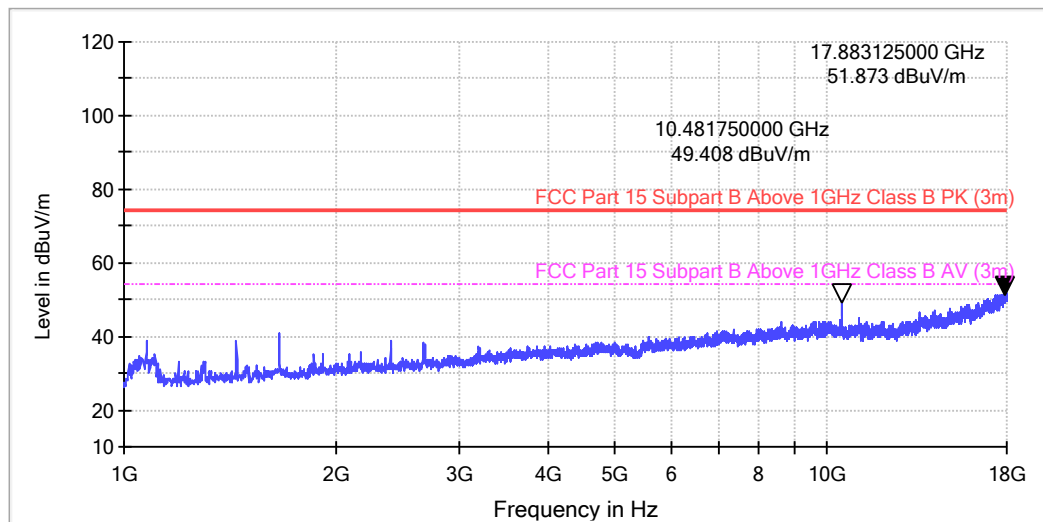
Channel 48: 5240 MHz:

1-18GHz

Horizontal



Vertical



Peak Measurement:

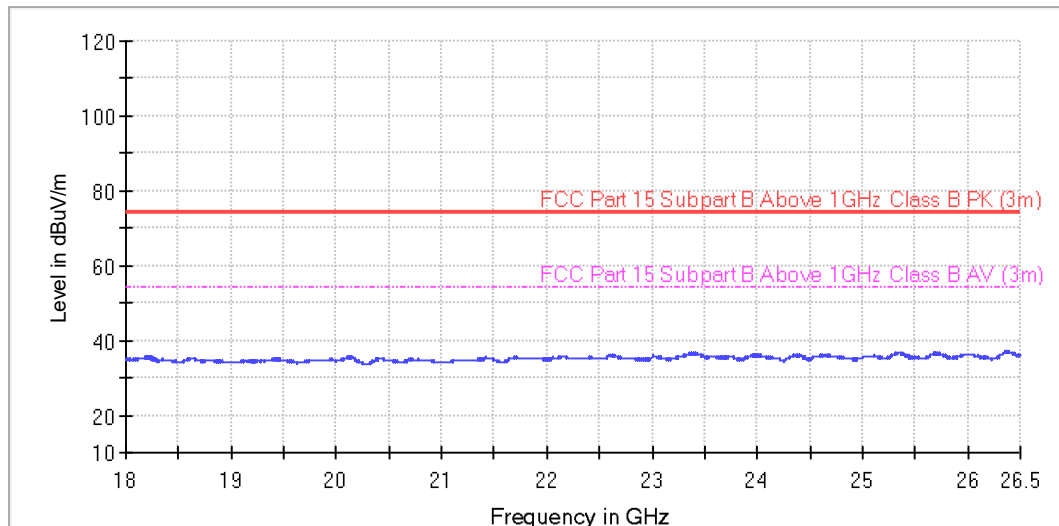
Frequency (MHz)	Reading Level (dBμV)	Correction factors (dB/m)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
2676.6	46.1	-6.7	39.4	74	H
10486.0	40.7	7.7	48.4	68.2	H
10481.8	41.7	7.7	49.4	68.2	V
17883.1	31.8	20.1	51.9	74	V

TEST REPORT

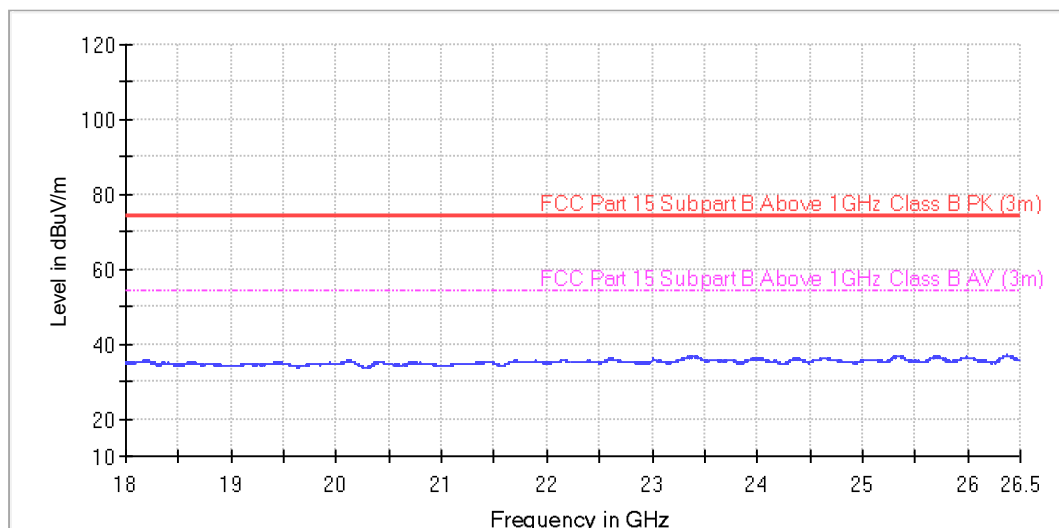
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

18-26.5GHz

Horizontal



Vertical

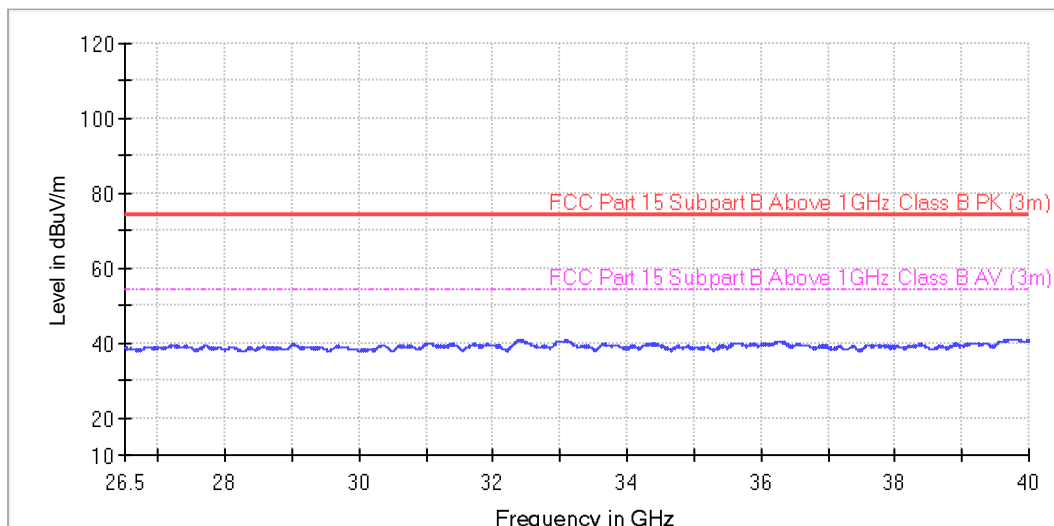


The ambient noise floor 18-26.5 GHz was measured in peak detector mode with RBW = 1 MHz, VBW = 10 Hz. The measured noise floor maintains a margin of at least 6 dB below the applicable average limit.

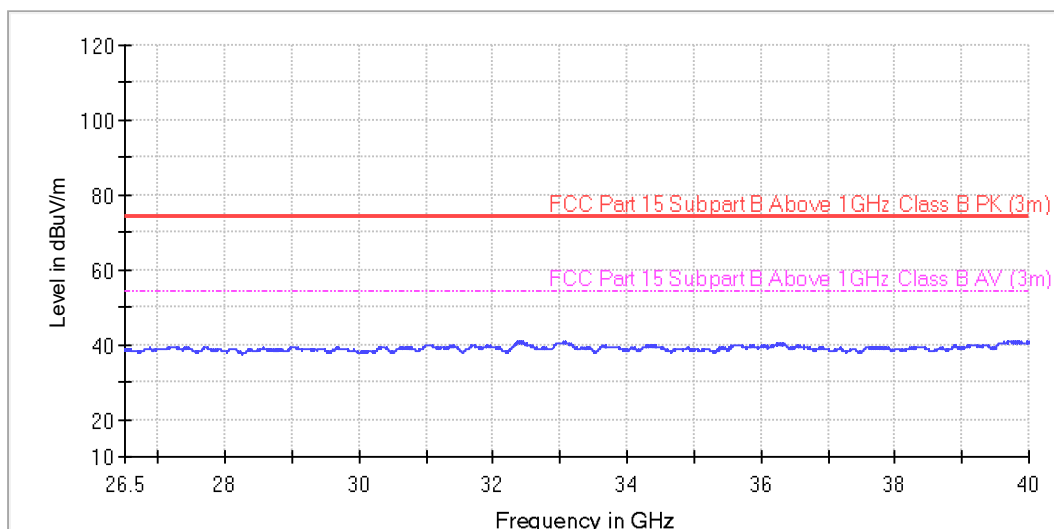
TEST REPORT

26.5-40GHz

Horizontal



Vertical



The ambient noise floor 26.5-40 GHz was measured in peak detector mode with RBW = 1 MHz, VBW = 10 Hz. The measured noise floor maintains a margin of at least 6 dB below the applicable average limit.

TEST REPORT

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Loss – Preamplifier Factor.

As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

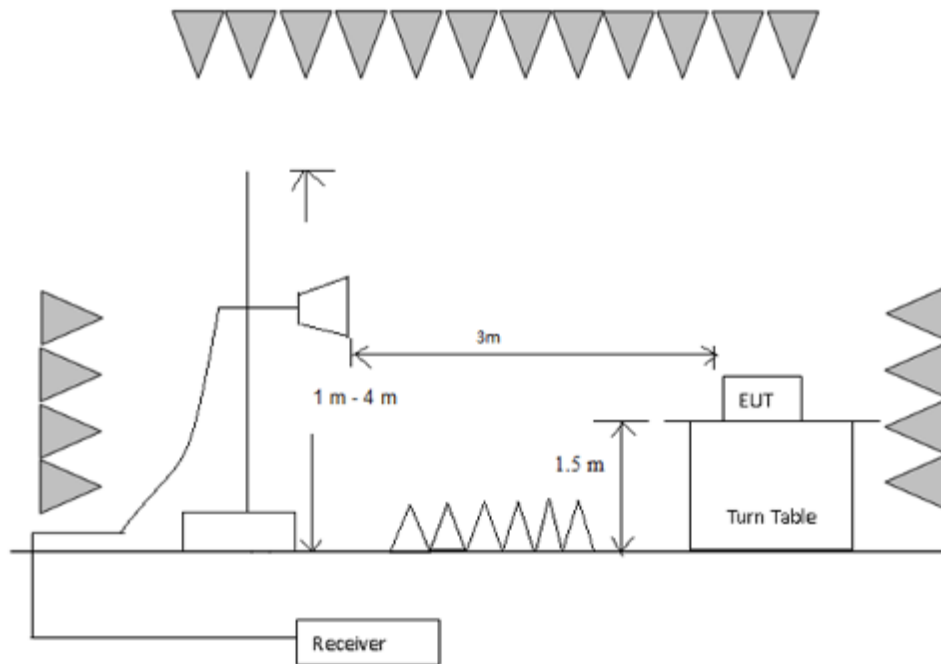
No any other emissions level which are attenuated less than 20dB below the limit.

TEST REPORT

4.8 Band Edges Requirement

Test Requirement:	FCC Part 15 E clause 15.407(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits.
Test Method:	FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Clause G
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	(1) For transmitters operating in the 5.15–5.25 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (4) For transmitters operating in the 5.725–5.85 GHz band: 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 25 MHz 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 27 dBm/MHz at the band edge.
Test Configuration:	
4) 1 GHz to 40 GHz emissions:	

TEST REPORT

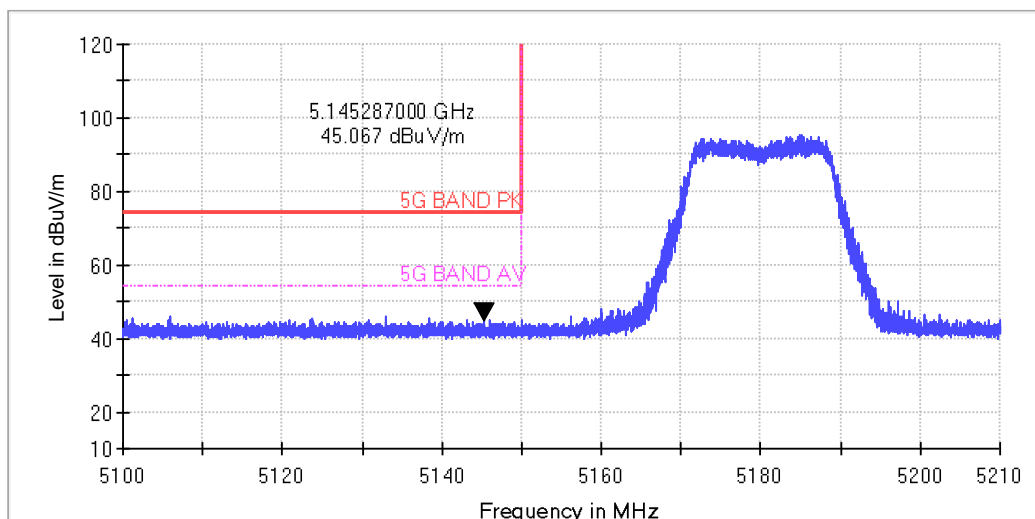


Test result:

5180MHz

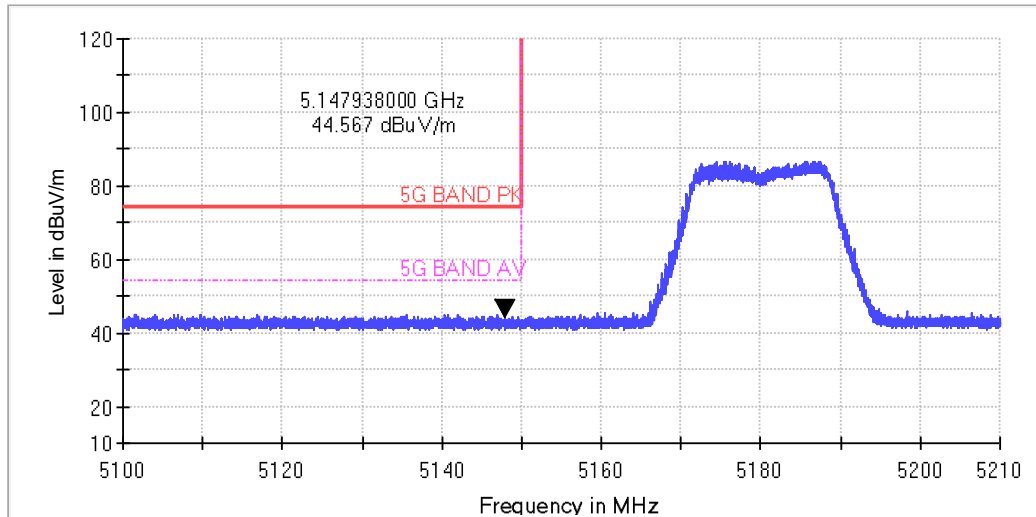
802.11a

Horizontal



TEST REPORT

Vertical



Peak Measurement:

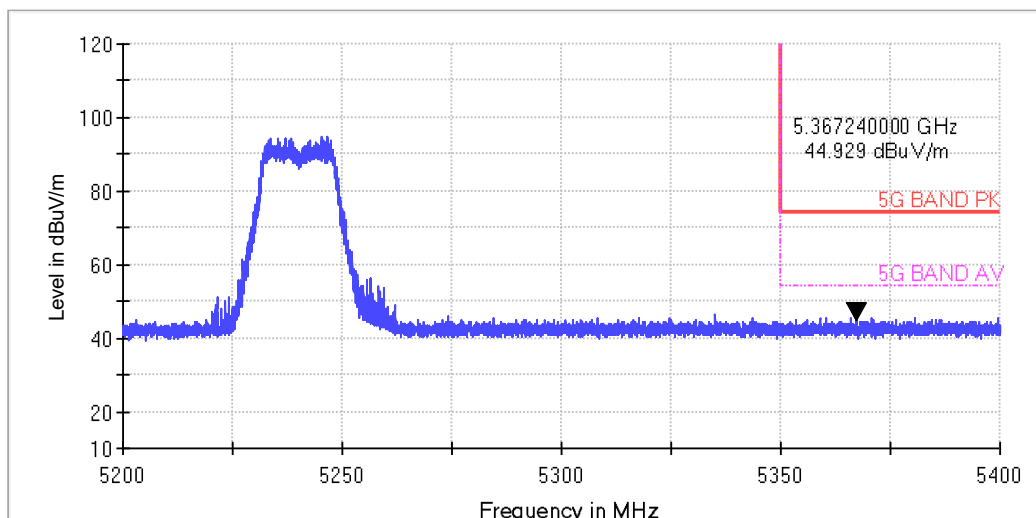
Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5145.3	44.9	0.2	45.1	74	H
5147.9	44.4	0.2	44.6	74	V

Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

5240MHz

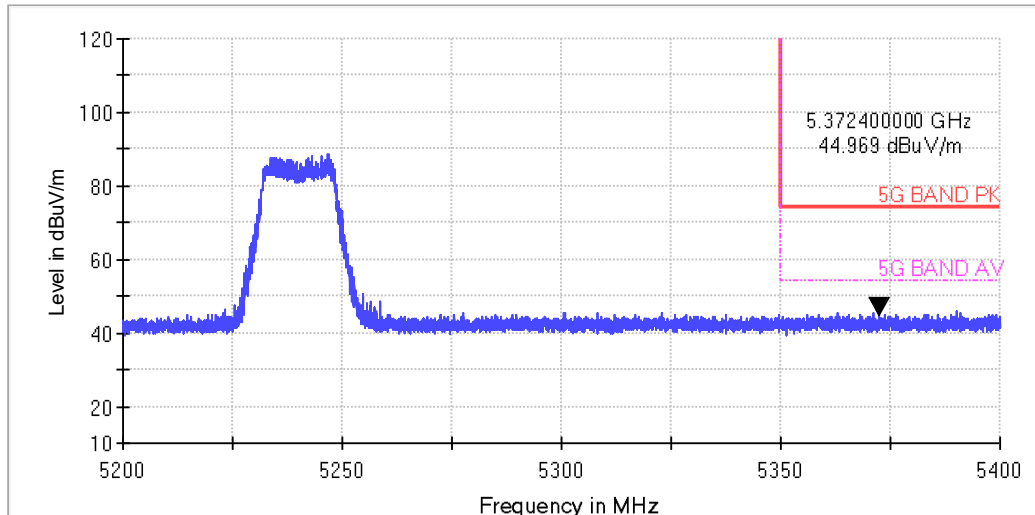
802.11a

Horizontal



TEST REPORT

Vertical



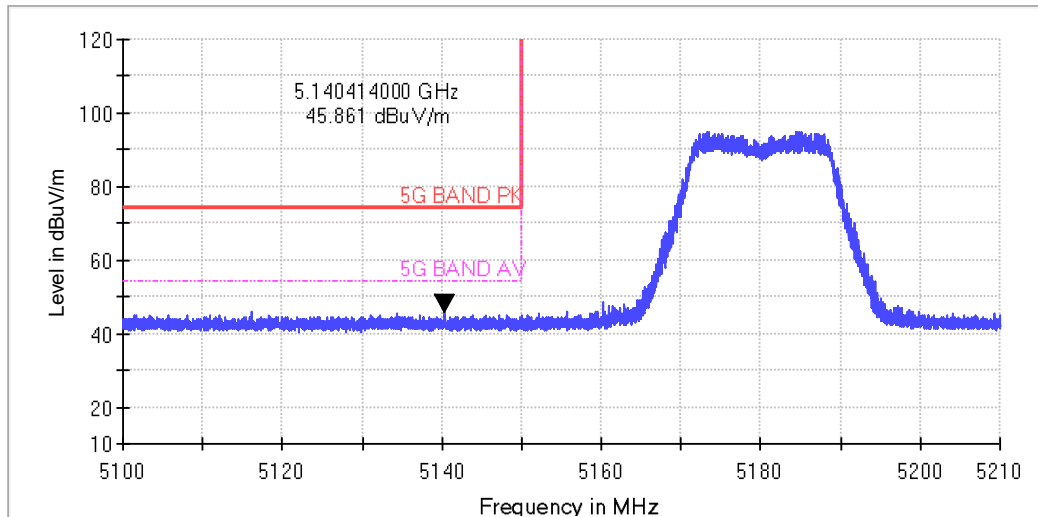
Peak Measurement:

Frequency (MHz)	Reading Level (dB μ V)	Correct Factor	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Antenna polarization
5367.2	44.5	0.4	44.9	74	H
5372.4	44.5	0.5	45.0	74	V

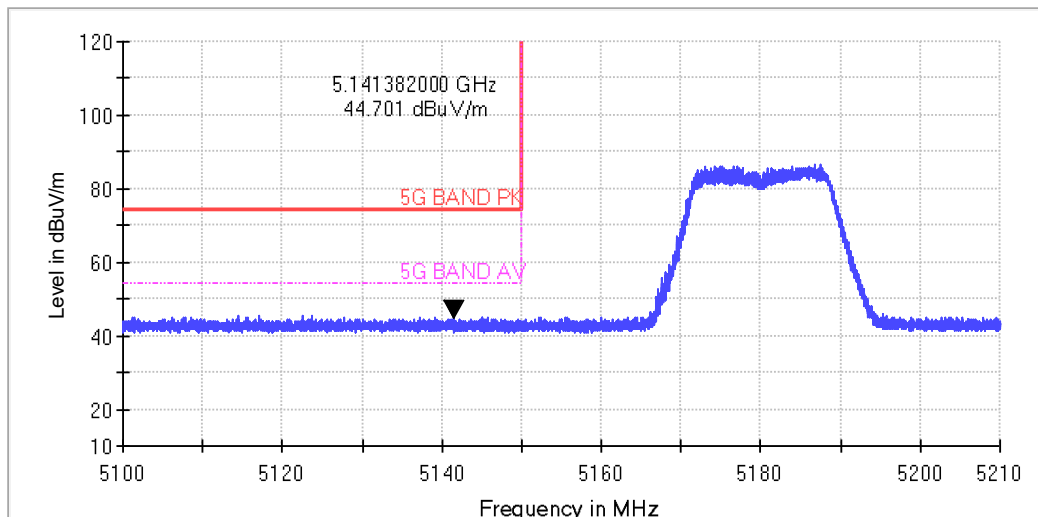
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

5180MHz
802.11n HT20
Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5140.4	45.7	0.2	45.9	74	H
5141.4	44.5	0.2	44.7	74	V

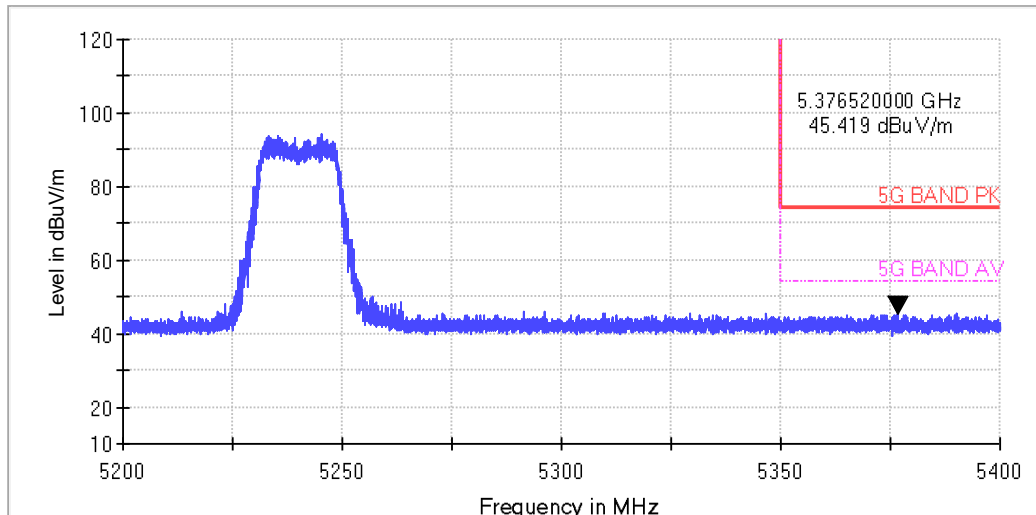
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

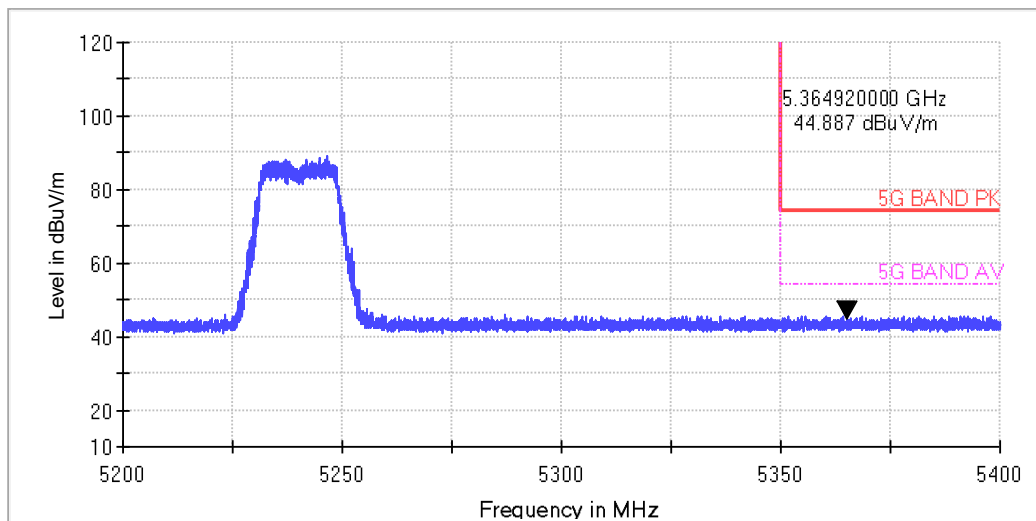
5240MHz

802.11n HT20

Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5376.5	44.9	0.5	45.4	74	H
5364.9	44.5	0.4	44.9	74	V

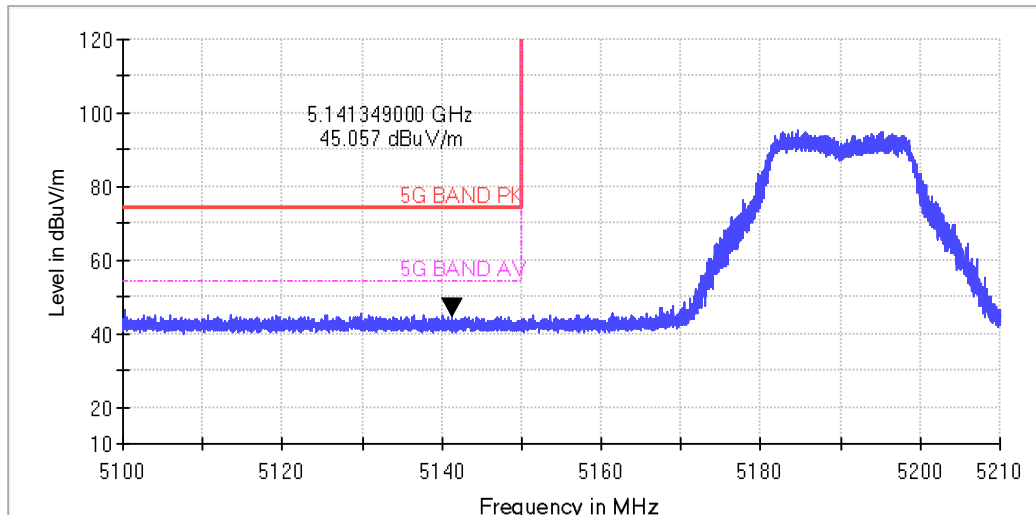
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

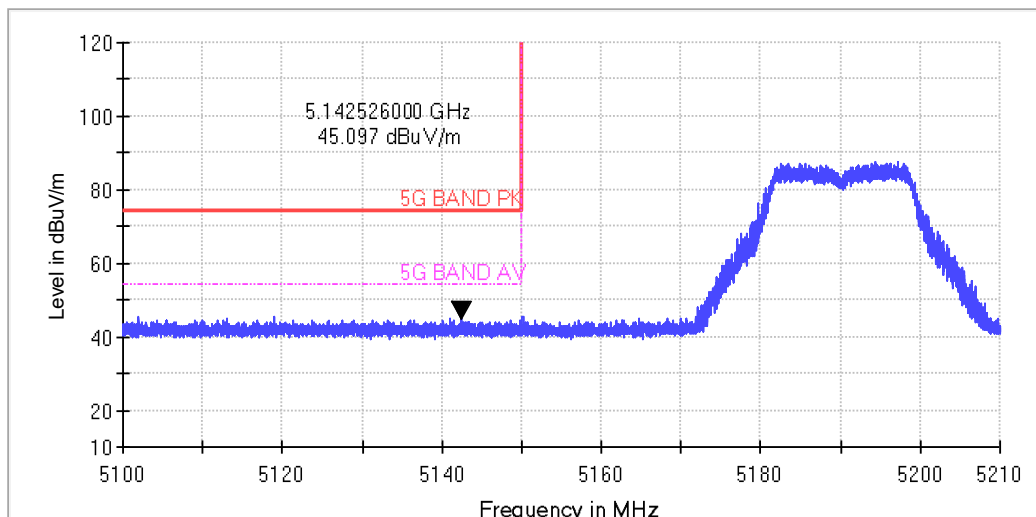
5190MHz

802.11n HT40

Horizontal



Vertical



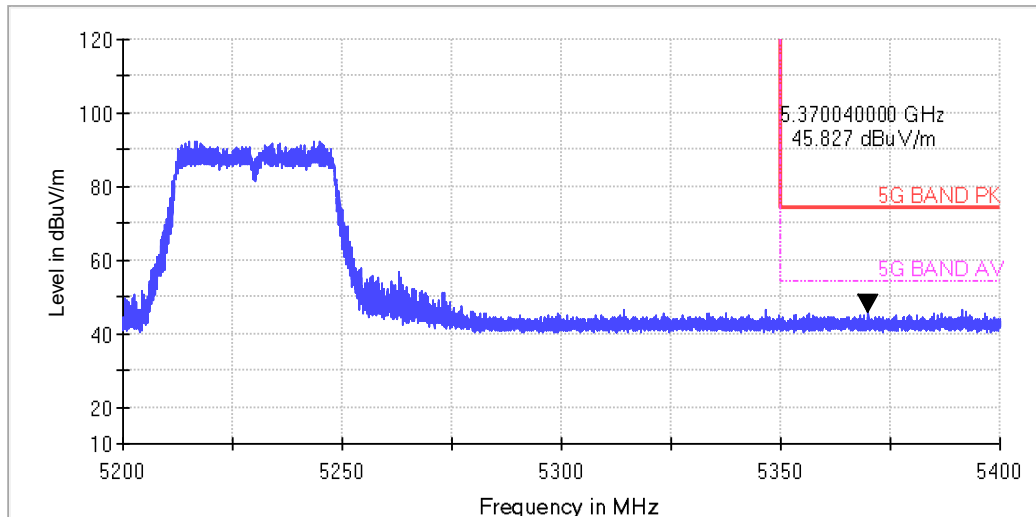
Peak Measurement:

Frequency (MHz)	Reading Level (dB μ V)	Correct Factor	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Antenna polarization
5141.3	44.9	0.2	45.1	74	H
5142.5	44.9	0.2	45.1	74	V

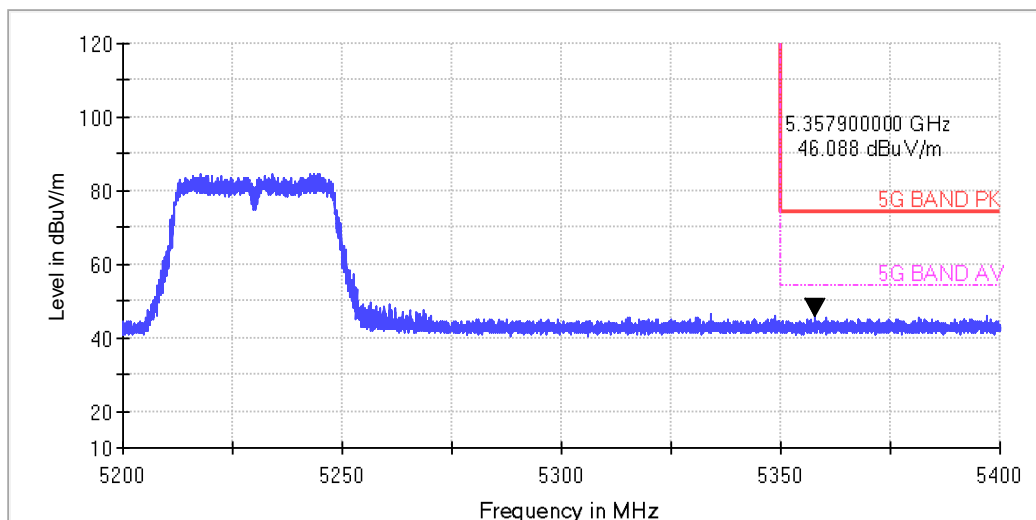
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

5230MHz
802.11n HT40
Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5370.0	45.4	0.4	45.8	74	H
5357.9	45.7	0.4	46.1	74	V

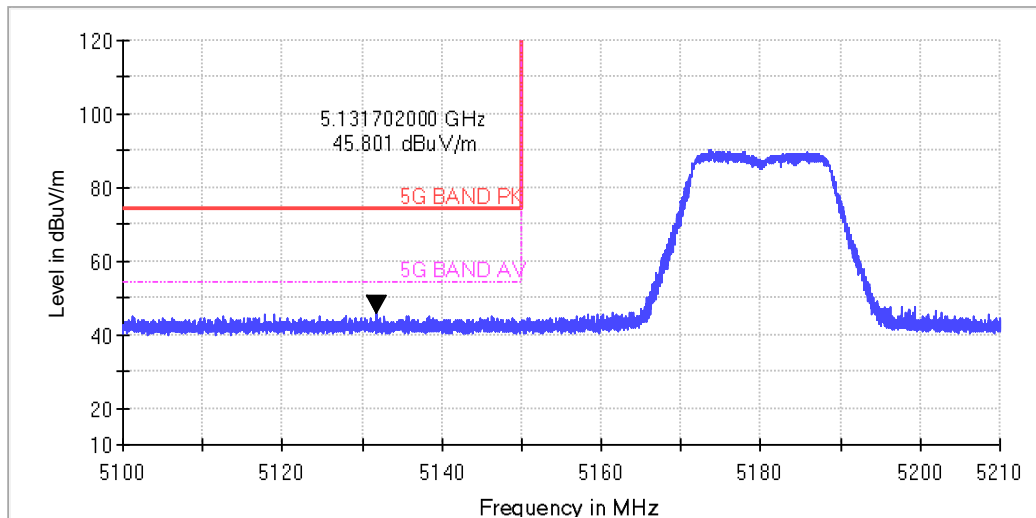
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

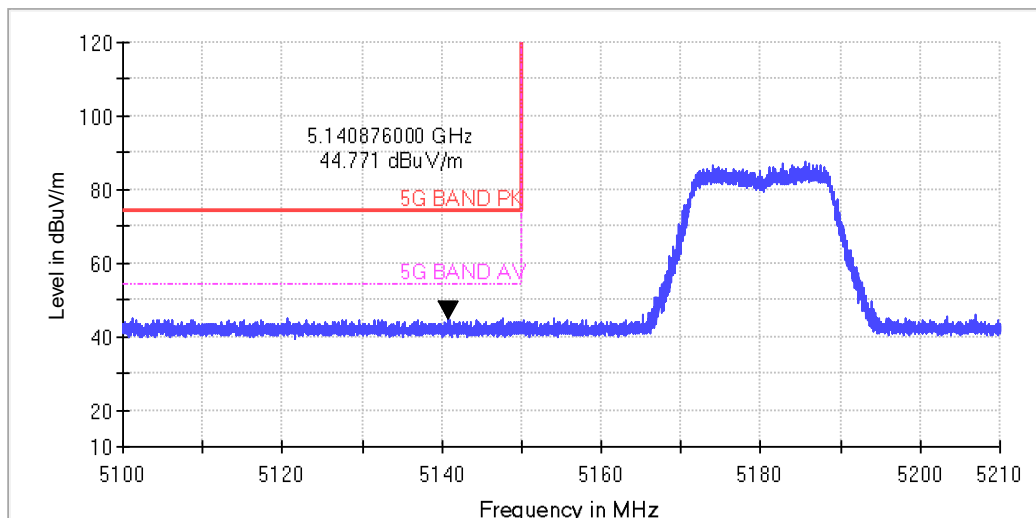
5180MHz

802.11ac VHT20

Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5131.7	45.6	0.2	45.8	74	H
5140.9	44.6	0.2	44.8	74	V

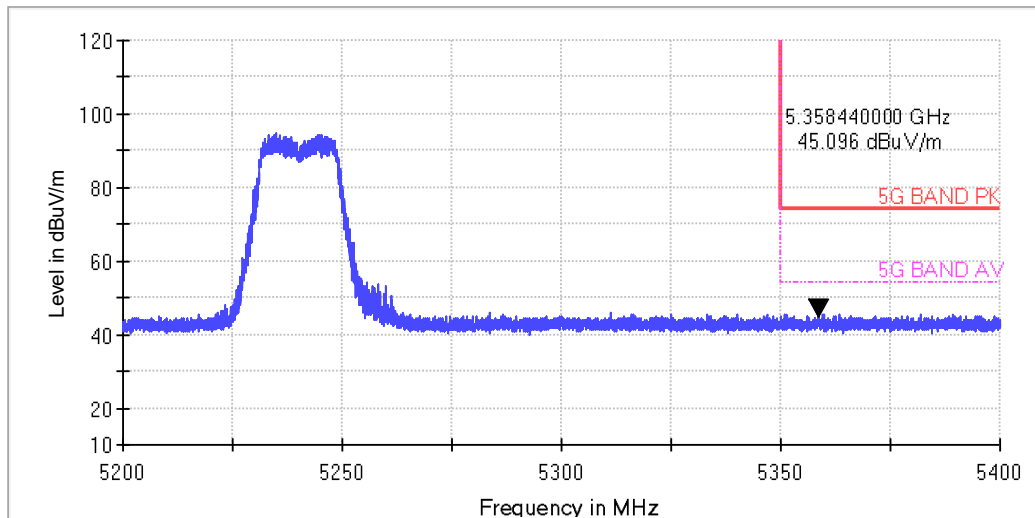
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

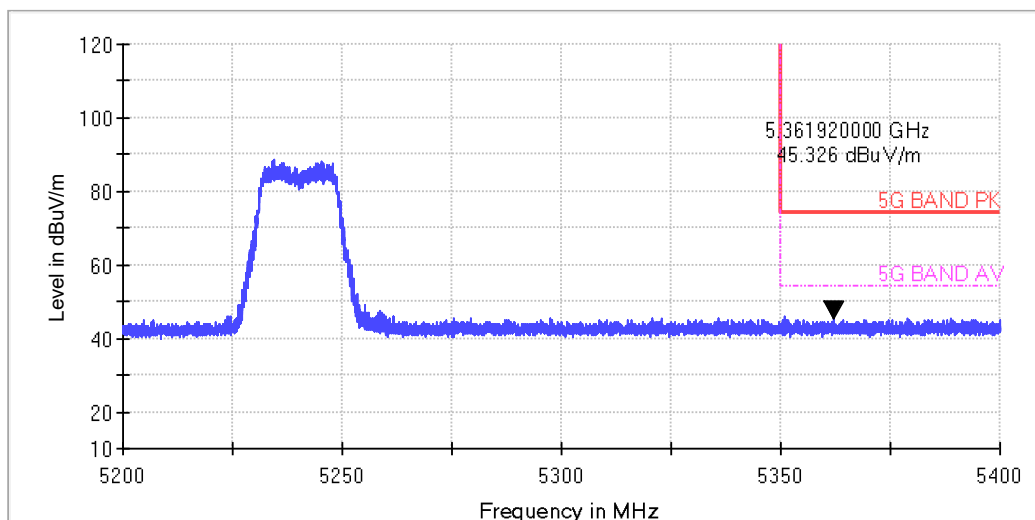
5240MHz

802.11ac VHT20

Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5358.4	44.7	0.4	45.1	74	H
5361.9	44.9	0.4	45.3	74	V

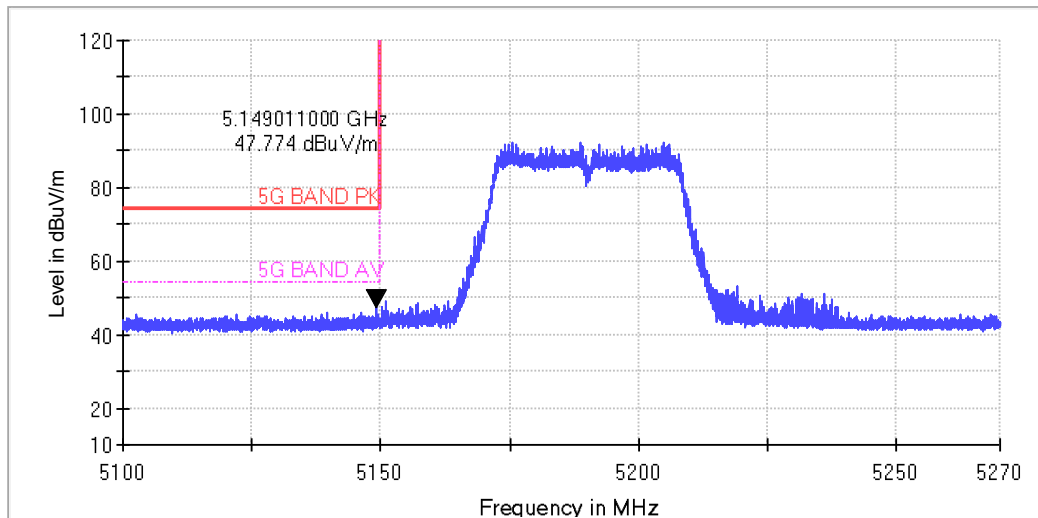
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

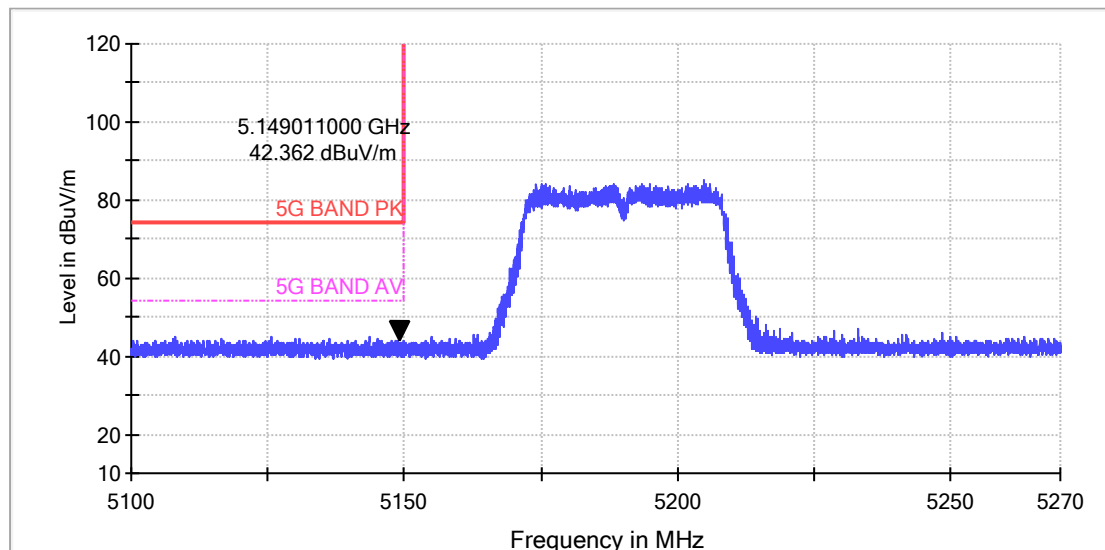
5190MHz

802.11ac VHT40

Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dB μ V)	Correct Factor	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Antenna polarization
5149.0	47.6	0.2	47.8	74	H
5149.0	42.2	0.2	42.4	74	V

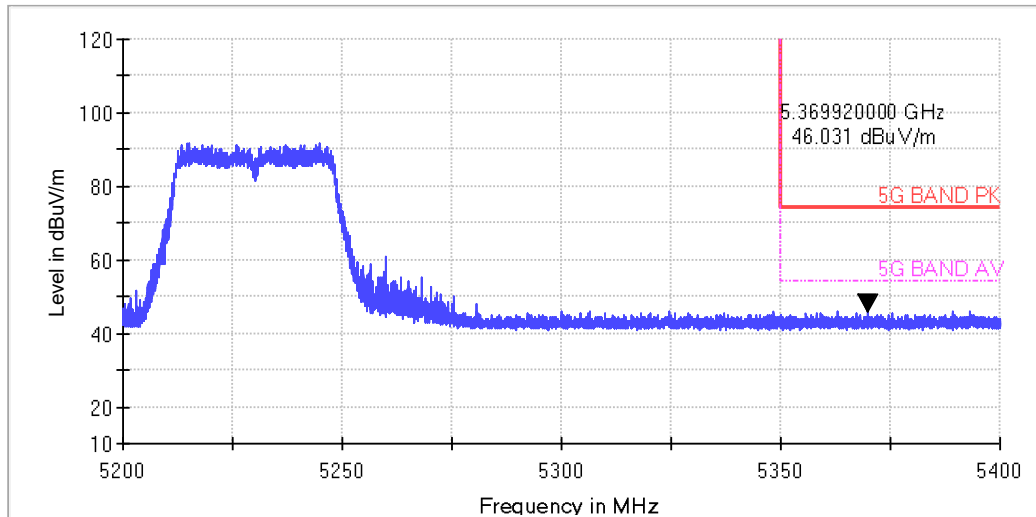
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

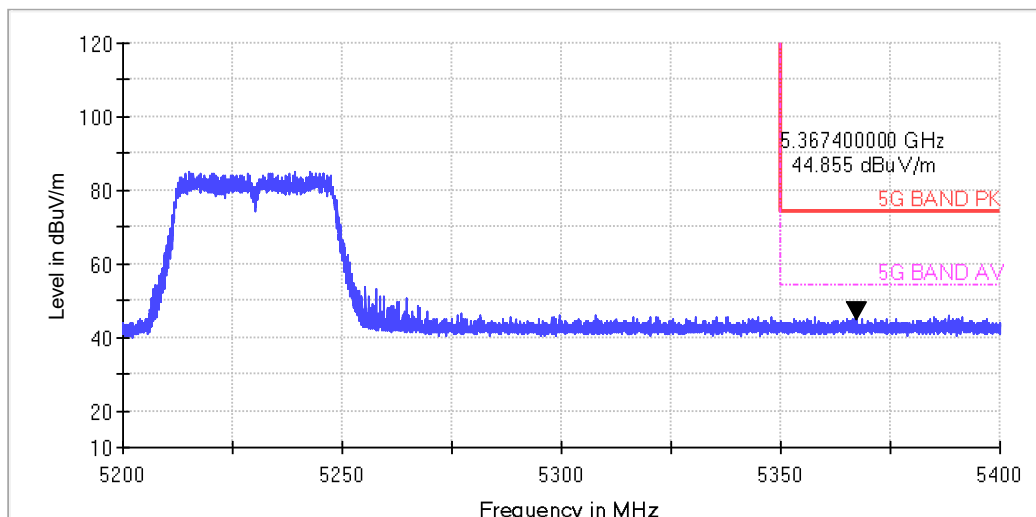
5230MHz

802.11ac VHT40

Horizontal



Vertical



Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Correct Factor	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
5369.9	45.6	0.4	46.0	74	H
5367.4	44.5	0.4	44.9	74	V

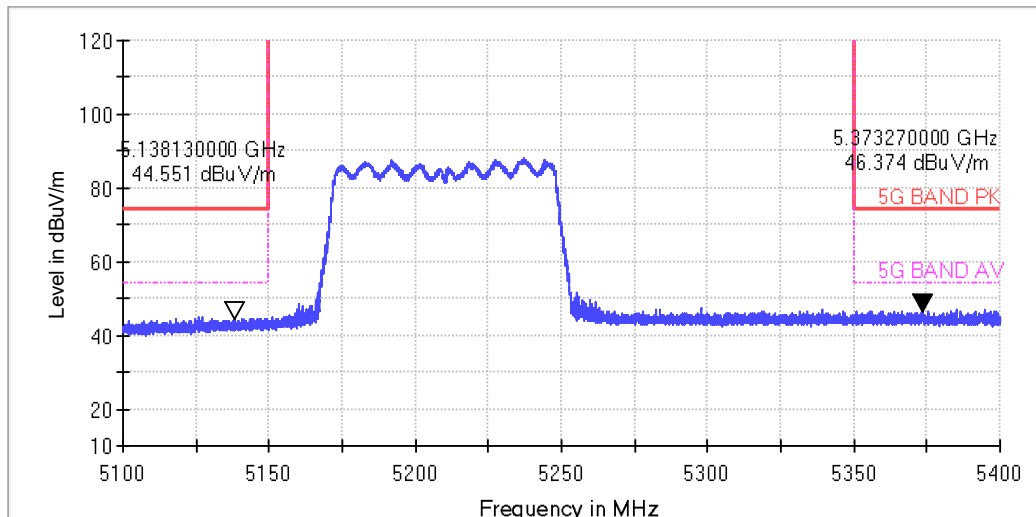
Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

TEST REPORT

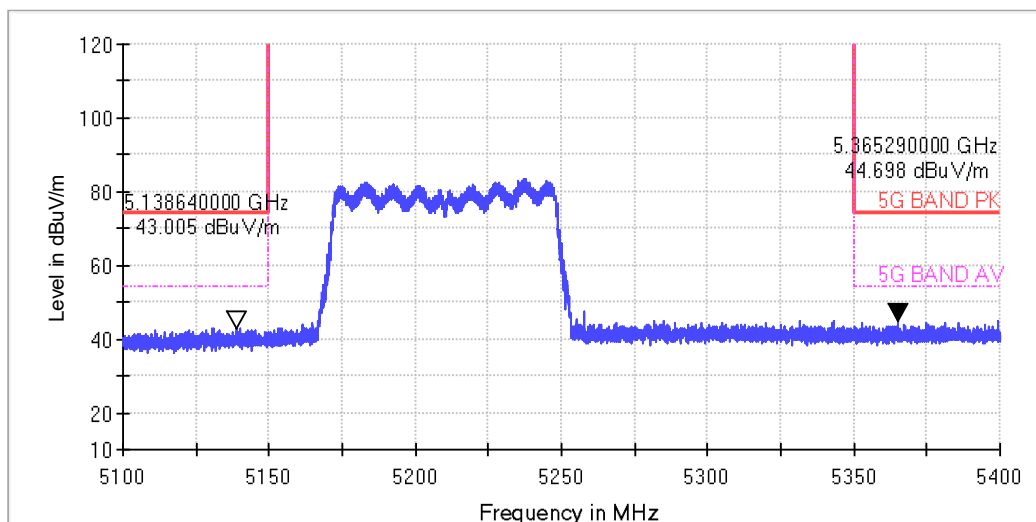
5210MHz

802.11ac VHT80

Horizontal



Vertical



Peak Measurement:

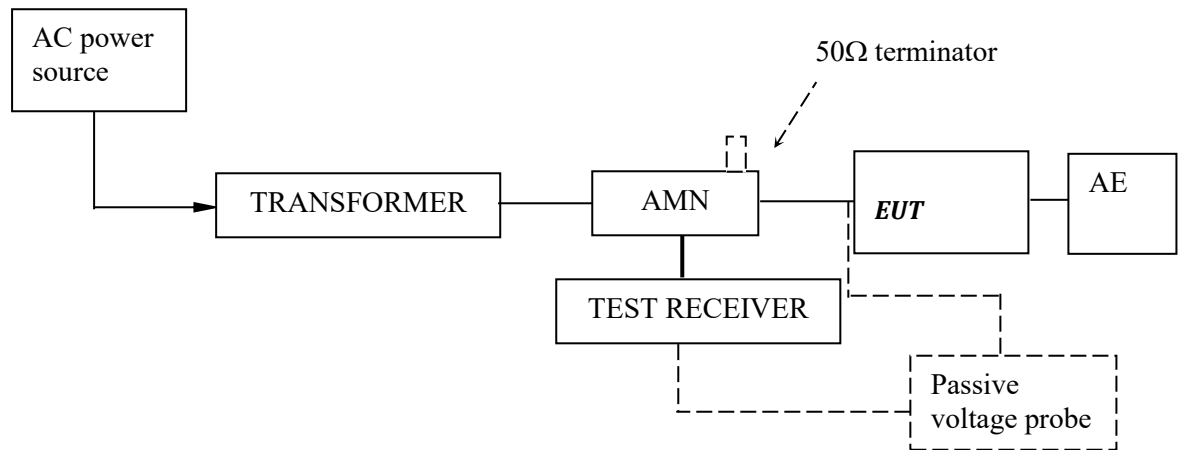
Frequency (MHz)	Reading Level (dB μ V)	Correct Factor	Emission Level (dB μ V/m)	Limit (dB μ V/m)	Antenna polarization
5138.1	44.4	0.2	44.6	74	H
5373.3	46.0	0.4	46.4	74	H
5138.6	42.8	0.2	43.0	74	V
5365.3	44.3	0.4	44.7	74	V

TEST REPORT

Remark: When the peak emission level was below AV limit, the AV emission level was not recorded.

4.10 Conducted Emission Test

Test Configuration:



Test Setup and Procedure:

Test was performed according to ANSI C63.10 Clause 6.2. The EUT was set to achieve the maximum emission level. The mains terminal disturbance voltage was measured with the EUT in a shielded room. The EUT was connected to AC power source through an Artificial Mains Network which provides a 50Ω linear impedance. Artificial hand is used if appropriate (for handheld apparatus). The load/control terminal disturbance voltage was measured with passive voltage probe if appropriate.

The table-top EUT was placed on a 0.8m high non-metallic table above earthed ground plane (Ground Reference Plane). And for floor standing EUT, was placed on a 0.1m high non-metallic supported on GRP. The EUT keeps a distance of at least 0.8m from any other of the metallic surface. The Artificial Mains Network is situated at a distance of 0.8m from the EUT.

During the test, mains lead of EUT excess 0.8m was folded back and forth parallel to the lead so as to form a horizontal bundle with a length between 0.3m and 0.4m.

The bandwidth of test receiver was set at 9 kHz. The frequency range from 150 kHz to 30MHz was checked.

TEST REPORT

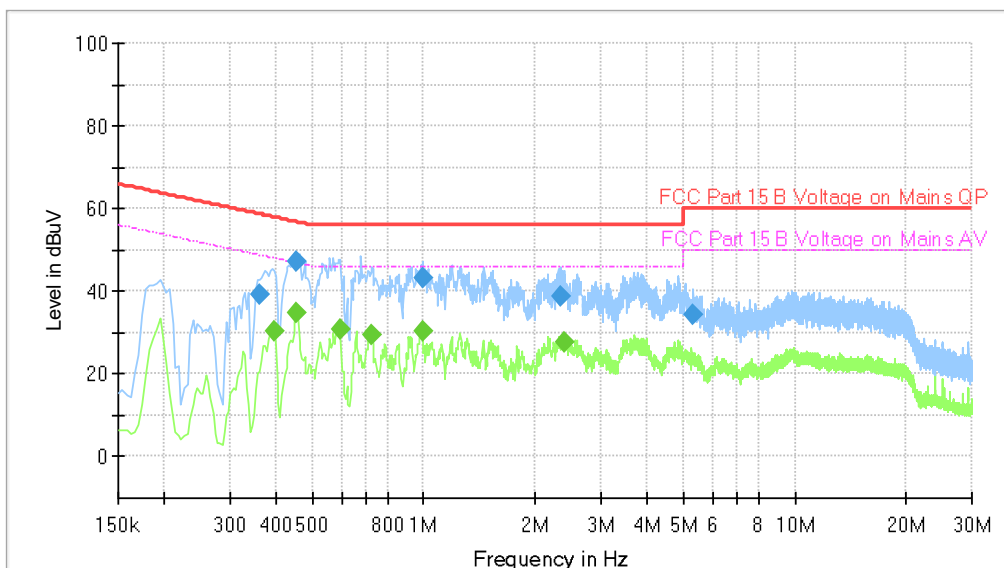
Test Data and Curve

At main terminal: Pass

Tested Wire: Live

Operation Mode: transmitting mode

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.362000	39.23	---	58.68	19.45	1000.0	9.000	L1	ON	9.6
0.394000	---	30.57	47.98	17.41	1000.0	9.000	L1	ON	9.6
0.454000	47.40	---	56.80	9.40	1000.0	9.000	L1	ON	9.6
0.454000	---	34.64	46.80	12.16	1000.0	9.000	L1	ON	9.6
0.594000	---	30.62	46.00	15.38	1000.0	9.000	L1	ON	9.6
0.726000	---	29.55	46.00	16.45	1000.0	9.000	L1	ON	9.6
0.990000	---	30.20	46.00	15.80	1000.0	9.000	L1	ON	9.6
0.994000	43.06	---	56.00	12.94	1000.0	9.000	L1	ON	9.6
2.326000	38.58	---	56.00	17.42	1000.0	9.000	L1	ON	9.6
2.382000	---	27.84	46.00	18.16	1000.0	9.000	L1	ON	9.6
5.338000	34.22	---	60.00	25.78	1000.0	9.000	L1	ON	9.7

Remark:

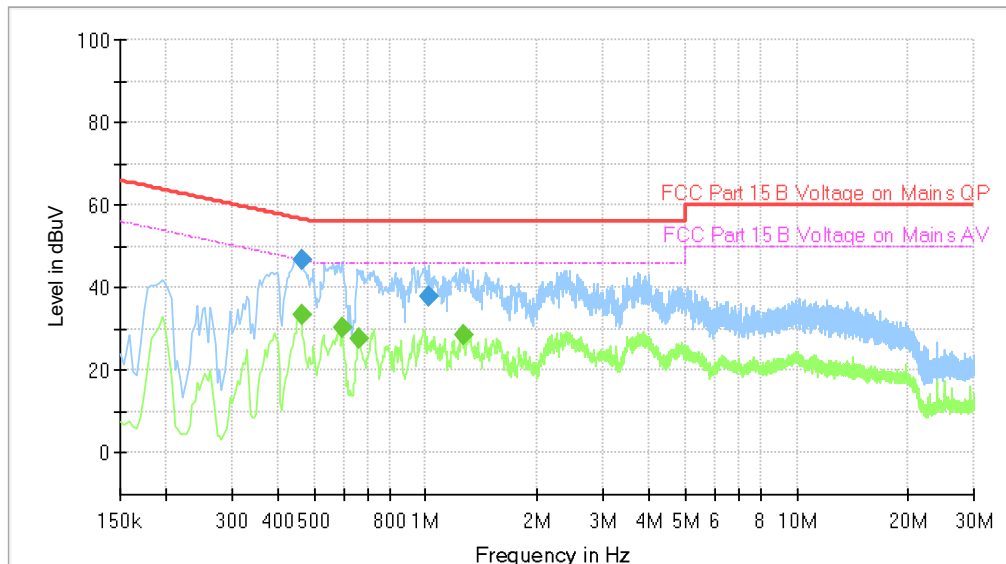
1. Corr. (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Level (dBμV) = Corr. (dB) + Read Level (dBμV)
3. Margin (dB) = Limit (dBμV) - Level (dBμV)

TEST REPORT

Tested Wire: Neutral

Operation Mode: transmitting mode

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.462000	---	33.67	46.66	12.98	1000.0	9.000	N	ON	9.6
0.462000	46.86	---	56.66	9.80	1000.0	9.000	N	ON	9.6
0.594000	---	30.26	46.00	15.74	1000.0	9.000	N	ON	9.6
0.662000	---	27.70	46.00	18.30	1000.0	9.000	N	ON	9.6
1.022000	37.77	---	56.00	18.23	1000.0	9.000	N	ON	9.6
1.258000	---	28.49	46.00	17.52	1000.0	9.000	N	ON	9.6

Remark:

1. Corr. (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Level (dBμV) = Corr. (dB) + Read Level (dBμV)
3. Margin (dB) = Limit (dBμV) - Level (dBμV)

TEST REPORT

5.0 Test Equipment List

Radiated Emission/Radio					
Equipment No.	Equipment	Model	Manufacturer	Cal. Due date (YYYY-MM-DD)	Calibration Interval
EM030-04	3m Semi-Anechoic Chamber	9×6×6 m ³	ETS•LINDGRE N	2027-04-08	1Y
EM031-02	EMI Test Receiver (9 kHz~7 GHz)	R&S ESR7	R&S	2026-11-05	1Y
EM031-03	Signal and Spectrum Analyzer (10 Hz~40 GHz)	R&S FSV40	R&S	2026-11-05	1Y
EM011-04	Loop antenna (9 kHz-30 MHz)	HFH2-Z2	R&S	2026-07-08	1Y
EM033-01	TRILOG Super Broadband test Antenna(30 MHz-3 GHz) (RX)	VULB 9163	SCHWARZBECK	2026-07-15	1Y
EM033-02	Bouble-Ridged Waveguide Horn Antenna (800 MHz-18 GHz)(RX)	R&S HF907	R&S	2026-07-07	1Y
EM033-03	High Frequency Antenna & preamplifier(18 GHz~26.5 GHz) (RX)	R&S SCU-26	R&S	2026-04-27	1Y
EM033-04	High Frequency Antenna & preamplifier (26 GHz-40 GHz)	R&S SCU-40	R&S	2026-04-27	1Y
EM031-02-01	Coaxial cable(9 kHz-1 GHz)	N/A	R&S	2027-04-08	1Y
EM033-02-02	Coaxial cable(1 GHz-18 GHz)	N/A	R&S	2027-04-08	1Y
EM033-04-02	Coaxial cable(18 GHz~40 GHz)	N/A	R&S	2026-04-26	1Y
EM031-01	Signal Generator (9 kHz~6 GHz)	SMB100A	R&S	2026-11-09	1Y
EM040-01	Band Reject/Notch Filter	WRHFV	Wainwright	N/A	1Y
EM040-02	Band Reject/Notch Filter	WRCGV	Wainwright	N/A	1Y
EM040-03	Band Reject/Notch Filter	WRCGV	Wainwright	N/A	1Y
EM022-03	2.45 GHz Filter	BRM50702	Micro-Tronics	2026-05-14	1Y
SA016-29	Climatic Test Chamber	MHU-80L	JIANQIAO	2027-01-04	1Y
EM046-05	Power Sensor	NPR6A	R&S	2027-04-08	1Y
EM046-06	Power Sensor	NPR6A	R&S	2026-05-14	1Y
EM031-04-01	EMC32	V10.01.00	R&S	N/A	N/A
EM045-01-10	10dB Attenuator	N/A	R&S	2026-12-17	1Y
EM046-06-01	Power Viewer	V11.0.5.11.2018	R&S	N/A	N/A
EM040-06	5.8 GHz Filter	BRC50705	Micro-Tronics	2026-07-14	1Y

Conducted Disturbance-Mains Terminal(2)					
Equipment No.	Equipment	Model	Manufacturer	Cal. Due date	Calibration
				(DD-MM-YYYY)	Interval
EM031-04	EMI receiver	ESR3	R&S	04/01/2027	1Y
EM006-06	LISN	ENV216	R&S	01/09/2026	1Y
SA047-111	Digital Temperature-Humidity Recorder	RS210	YIJIE	20/10/2026	1Y
EM004-03	EMC shield Room	8m×4m×3m	Zhongyu	04/01/2027	1Y
EM031-04-01	EMC32	V10.01.00	R&S	N/A	N/A

*****End of the test report*****