RF
TEST REPORT

Report No.	**: 160701036SZN-002**
Model No.	**: OCO2**
Additional Models	**: GTC100**
Issued Date	**: 05 September 2016**

Applicant: **Oco Group Inc.**
3524 Silverside Rd Set 35B Wilmington, Delaware, 19810, USA.

Test Method/ Standard: **FCC Part 15 Subpart E;**
KDB 789033 D02 v01r03;
KDB 662911 D01 v02r01;
ANSI C63.10-2013

Test By: **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch**
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The test report was prepared by: Sign on File
Harry Wu / Engineer

The test report was reviewed by:

Digitally signed by Kidd Yang
Location: Intertek Testing Services

Name Kidd Yang
Title Senior Project Engineer

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15.407 a (1)/(3)	Power Spectrum Density test	4	Pass
15.407 e	6dB Bandwidth	5	Pass
15.407 b, 15.205, 15.209	Radiated spurious emission test	6	Pass
15.207	AC line conducted emission test	7	Pass
15.407 g	Frequency Stability	8	Pass

1. General information

1.1 Identification of the EUT

Product:	IP-Camera
Model No.:	OCO2
Additional Models:	GTC100
Model declaration:	All models are the same in hardware and electronic aspects excepting the different model number and trade name only be used for market stratagem.
Type of Device:	Client device
Nominal Channel Bandwidth:	802.11a/n-HT20 (20 MHz), 802.11ac (20MHz)
Operating Frequency:	1. 5180 MHz ~ 5240 MHz 2. 5745 MHz ~ 5825 MHz
Channel Number:	4 channels for 5180 MHz ~ 5240 MHz for 802.11a/n/ac-HT20; 5 channels for 5745 MHz ~ 5825 MHz for 802.11a/n/ac-HT20;
Rated Power:	5Vdc, 2.0A from adapter (Model No.: HNBM050150UX)
Test Date(s):	08 July 2016 to 11 August 2016
Note 1:	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.
Note 2:	When determining the test conclusion, the Measurement Uncertainty of test has been considered.

1.2 Additional information about the EUT

The EUT is a IP-Camera with WiFi function operating in 5GHz and 2.4GHz band.
For more detail features, please refer to User's description as file name “descri.pdf”.

1.3 Antenna description (15.203)

The EUT uses Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

Model No.:	Antenna Type	Gain
OCO2	Integral Ant. (internal)	0dBi

1.4 Peripherals equipment

Description	Manufacturer	Model No.
AC/DC adaptor (Provided by Applicant)	Aquil Star Precision Industrial(Shenzhen) Co., Ltd.	HNBM050150UX (Input: AC 100-240V, 50/60Hz, 0.35A Output: DC 5.0V, 2.0A)
Laptop (Provided by Intertek)	Lenovo	X1
USB Cable (Provided by Intertek)	N/A	Unshielded, Length 300cm

2. Test specifications

2.1 Test standard

The EUT was performed according to the procedures in FCC Part 15 E, Section15.203, 15.207, 15.209, 15.407 and ANSI C63.10/2013, method of measurement: KDB 789033.

The test of radiated measurements according to FCC Part15 Section 15.33(a) had been conducted and the field strength of this frequency band was all meet limit requirement, thus we evaluate the EUT pass the specified test.

The AC power conducted emissions was invested over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz (15.207 paragraph).

Radiated emissions were invested cover the frequency range from 9KHz to 30MHz using a receiver RBW of 9kHz, from 30 MHz to 1000 MHz using a receiver RBW of 120 kHz record QP reading, and the frequency over 1 GHz using a spectrum analyzer RBW of 1 MHz, VBW of 3MHz, Detector=Peak record for Peak reading, RBW of 1 MHz, VBW of 3MHz, Detector=RMS record for Average reading recorded on the report.

The EUT setup configurations please refer to the photo of radiated setup photos.pdf & conducted setup photos.pdf.

2.2 Operation mode

The EUT was supplied by adapter with 5Vdc, 2.0A and it was run in TX mode that was controlled by client provided RF testing program.

The EUT was transmitted continuously during the test. And the worst case test result was showed in the report.

With individual verifying, the maximum output power was found at 6 Mbps data rate for 802.11a mode, 6.5 Mbps data rate for 802.11n-HT20 mode, 6.5Mbps data rate for 802.11ac-HT20 mode. The final tests were executed under these conditions and recorded in this report individually.

Table for Parameters of Test Software Setting
During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3. Maximum Output Power test (FCC 15.407)

3.1 Operating environment

Temperature: 25 ℃
Relative Humidity: 50 %
Atmospheric Pressure: 1023 hPa

3.2 Test setup & procedure

The power output per FCC §15.407(a) was measured on the EUT using a 50 ohm SMA cable connected to Power Meter and the measurement method refer to 789033 D02. Power was read directly and cable loss correction (0.5dB) was added to the reading to obtain power at the EUT antenna terminals.

3.3 Limit

Operating Frequency (MHz)	Max Conducted TX Power	Max EIRP
5150~5250	30dBm (1W) for master device	*2 4W (36dBm) with 6dBi antenna
	*1 24dBm (250mW) for client device	
5725~5850	*1 30dBm (1W)	*2 4W (36dBm) with 6dBi antenna

Remark: *1 The device declare as Client device.

*2 1).Tx Power Reduction (dBm-by-dBi) required when antenna exceeds 6dBi.

3.4 Measured data of Maximum Output Power test results

5150 MHz ~ 5250 MHz

Max Conducted TX Power

SISO Mode

Mode	Channel	Data Rate (Mbps)	Output Power (dBm)	Limit (dBm)
802.11a	36	6	10.2	24
	40		10.2	24
	48		10.9	24
802.11n-HT20	36	6.5	10.2	24
	40		10.2	24
	48		10.3	24
802.11ac-HT20	36	6.5	10.2	24
	40		10.6	24
	48		9.9	24

Max EIRP

SISO Mode

Mode	Channel	Data Rate (Mbps)	Duty cycle	Output Power (dBm)	Gain (dBi)	E.I.R.P (dBm)	Limit (dBm)
802.11a	36	6	99%	10.2	0	10.2	36
	40			10.2	0	10.2	36
	48			10.9	0	10.9	36
802.11n-HT20	36	6.5	99%	10.2	0	10.2	36
	40			10.2	0	10.2	36
	48			10.3	0	10.3	36
802.11ac-HT20	36	6.5	99%	10.2	0	10.2	36
	40			10.6	0	10.6	36
	48			9.9	0	9.9	36

5725 MHz ~ 5850 MHz

Max Conducted TX Power

SISO Mode

Mode	Channel	Data Rate (Mbps)	Output Power (dBm)	Limit (dBm)
802.11a	149	6	10.5	30
	157		10.1	30
	165		10.0	30
802.11n-HT20	149	6.5	10.8	30
	157		10.6	30
	165		10.2	30
802.11ac-HT20	149	6.5	10.8	30
	157		10.5	30
	165		10.4	30

Max EIRP

SISO Mode

Mode	Channel	Data Rate (Mbps)	Duty cycle	Output Power (dBm)	Gain (dBi)	E.I.R.P (dBm)	Limit (dBm)
802.11a	149	6	99%	10.5	0	10.5	36
	157			10.1	0	10.1	36
	165			10.0	0	10.0	36
802.11n-HT20	149	6.5	99%	10.8	0	10.8	36
	157			10.6	0	10.6	36
	165			10.2	0	10.2	36
802.11n-HT20	149	6.5	99%	10.8	0	10.8	36
	157			10.5	0	10.5	36
	165			10.4	0	10.4	36

4. Power Spectrum Density test (FCC 15.407)

4.1 Operating environment

Temperature:	25	℃
Relative Humidity:	50	%
Atmospheric Pressure:	1023	hPa

4.2 Test setup & procedure

Method of Measurement:

The power spectrum density per FCC §15.407(a) was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set at 1MHz/500KHz, the video bandwidth set at 3 MHz/2MHz (measurement method refer to KDB 789033 D02). Power spectrum density was read directly and cable loss (0.5 dB) reading to obtain power at the EUT antenna terminals.

4.3 Limit

Operating Frequency (MHz)	Max Conducted Power Spectral Density
5150~5250	17dBm/MHz for master device
	*1 11dBm/MHz for mobile/portable client device
5725~5850	30dBm/500KHz for master device

Remark: *1 The device declare as Client device.

1).Tx Power Reduction (dBm-by-dBi) required when antenna exceeds 6dBi.

4.4 Measured data of Power Spectrum Density test results

5150 MHz ~ 5250 MHz

SISO Mode

Mode	Channel	Data Rate (Mbps)	PSD (dBm/MHz)	Limit (dBm/MHz)
802.11a	36	6	6.81	11
	40		7.17	11
	48		7.75	11
802.11n-HT20	36	6.5	6.14	11
	40		5.63	11
	48		6.59	11
802.11ac-HT20	36	6.5	5.96	11
	40		6.75	11
	48		6.54	11

5725 MHz ~ 5850 MHz

SISO Mode

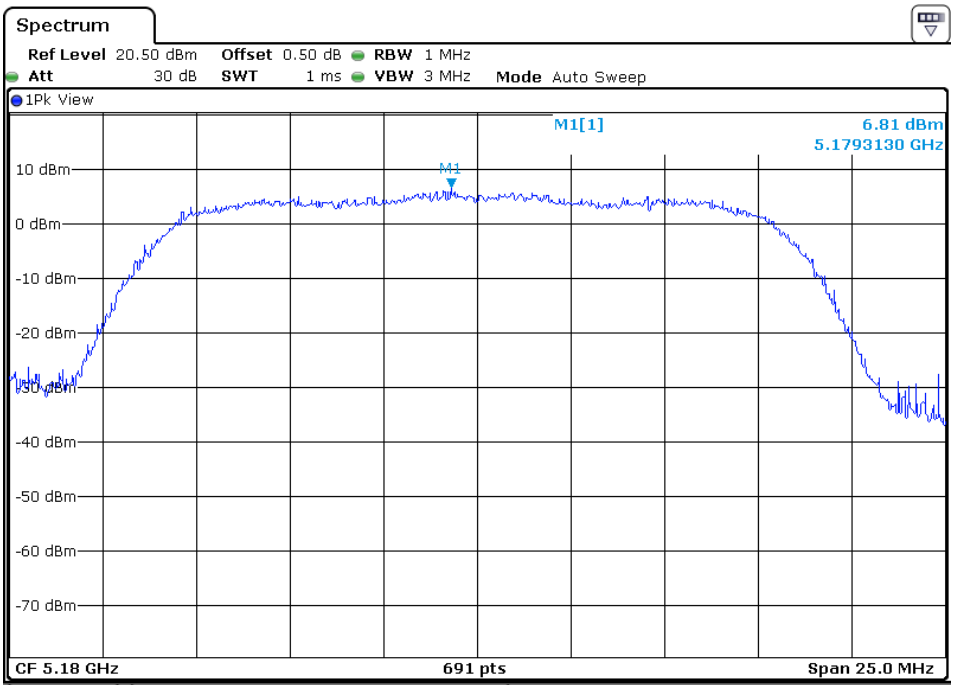
Mode	Channel	Data Rate (Mbps)	PSD (dBm/500KHz)	Limit (dBm/500KHz)
802.11a	149	6	6.41	30
	157		6.12	30
	165		6.40	30
802.11n-HT20	149	6.5	5.26	30
	157		4.79	30
	165		4.79	30
802.11ac-HT20	149	6.5	5.22	30
	157		4.91	30
	165		4.83	30

Please refer the below graph.

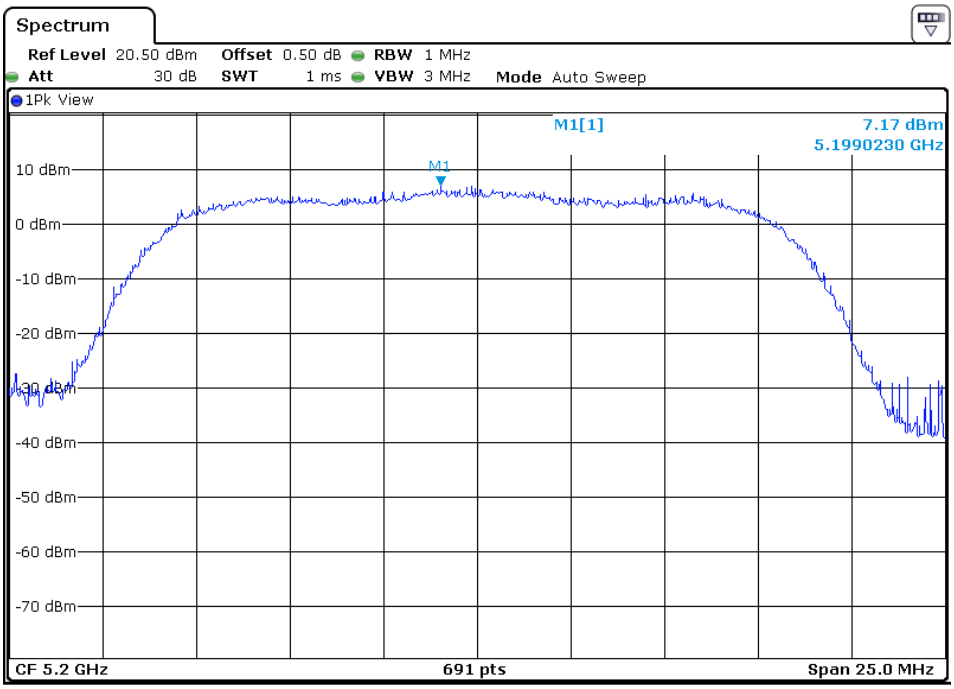
5150 MHz ~ 5250 MHz

802.11a

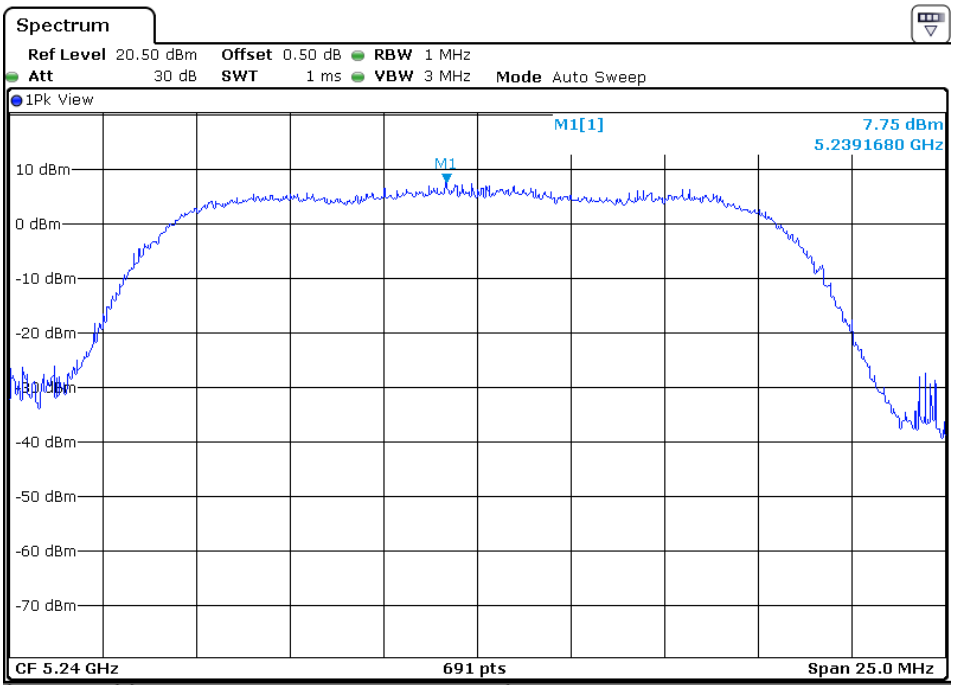
5180MHz



5200MHz

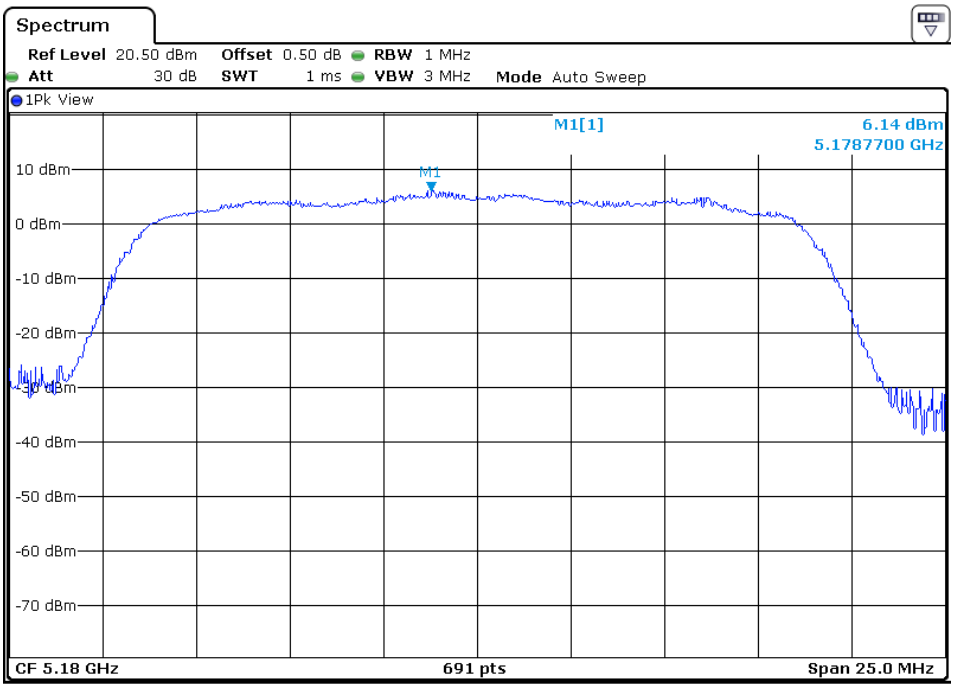


5240MHz

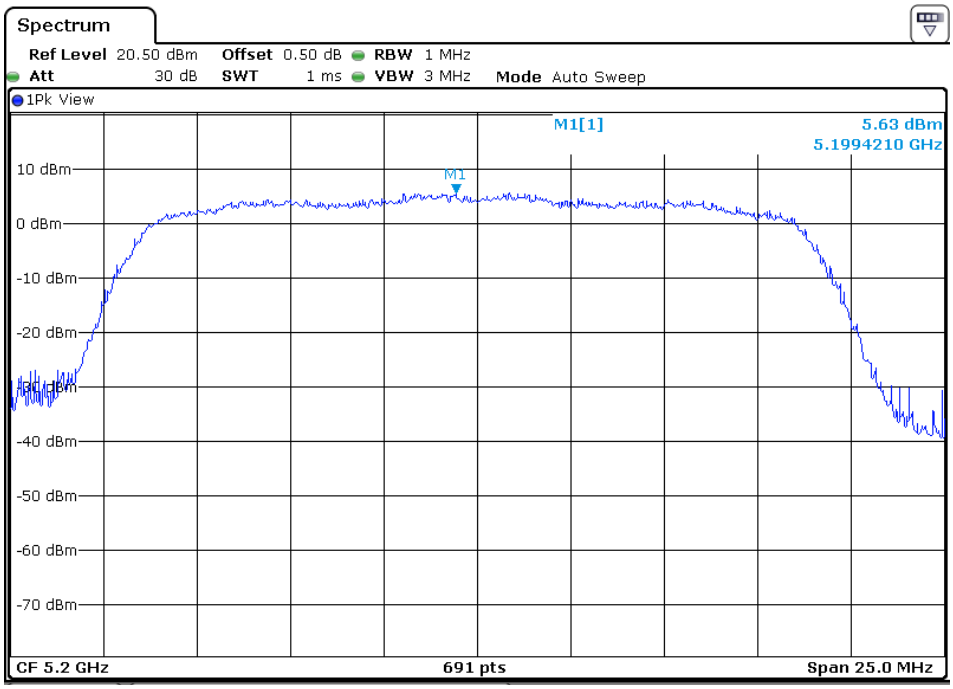


802.11n-HT20

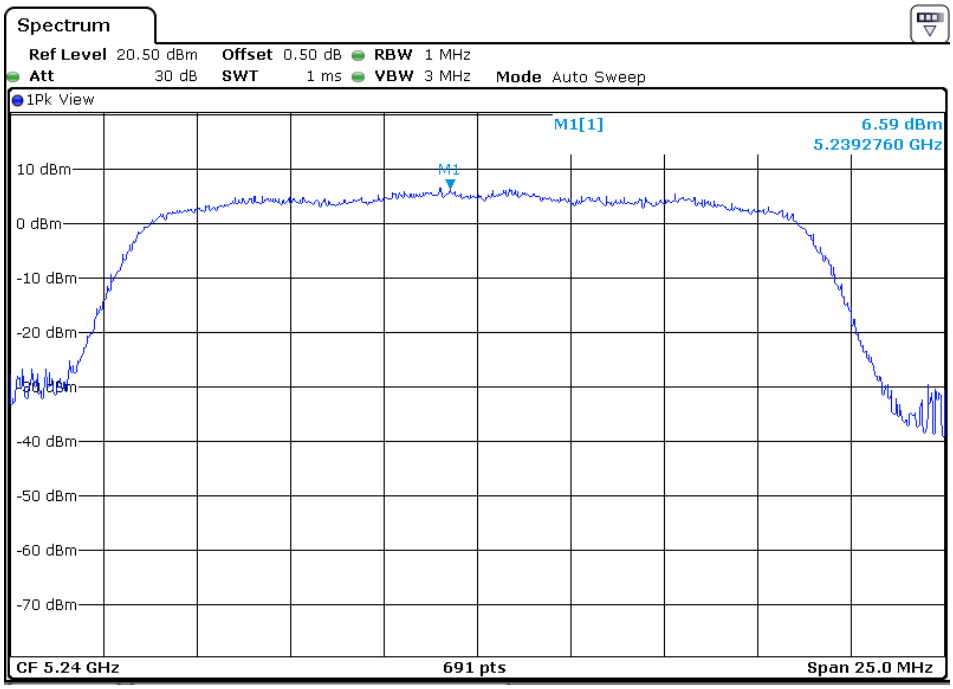
5180MHz



5200MHz

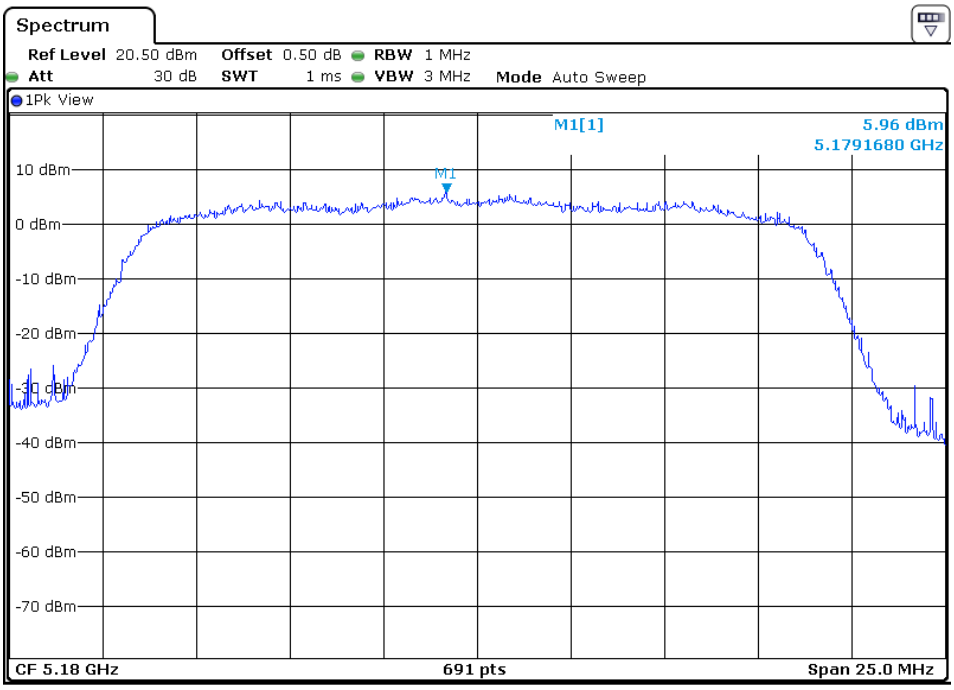


5240MHz

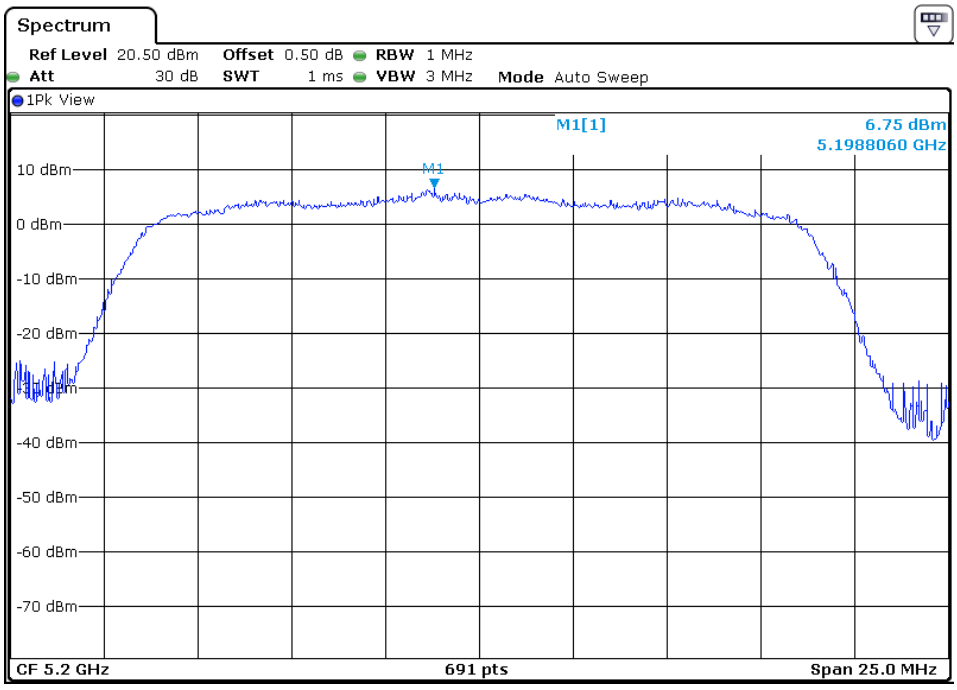


802.11ac-HT20

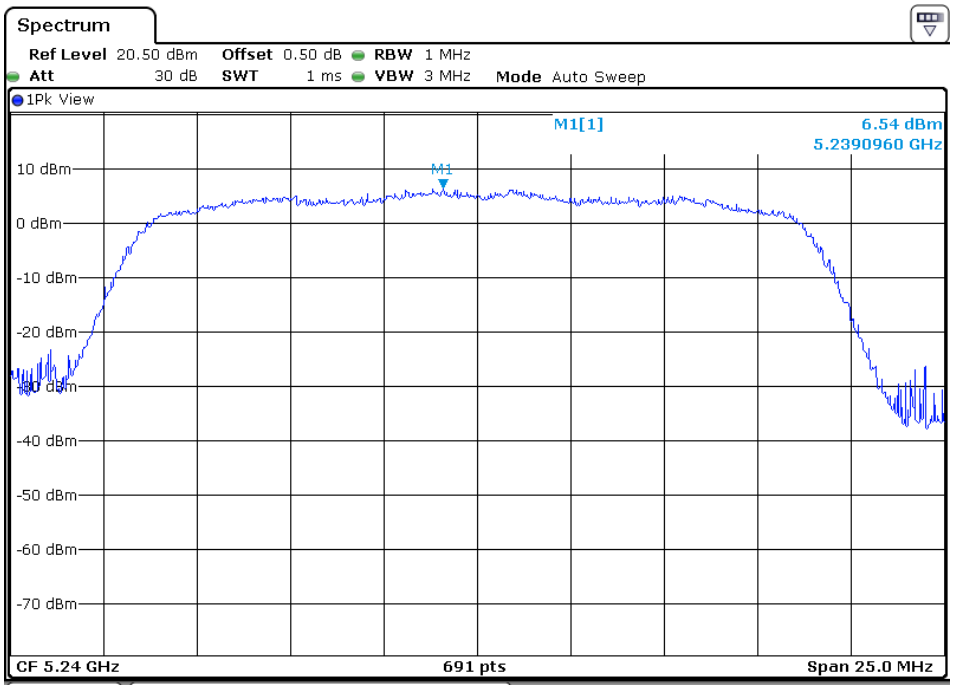
5180MHz



5200MHz



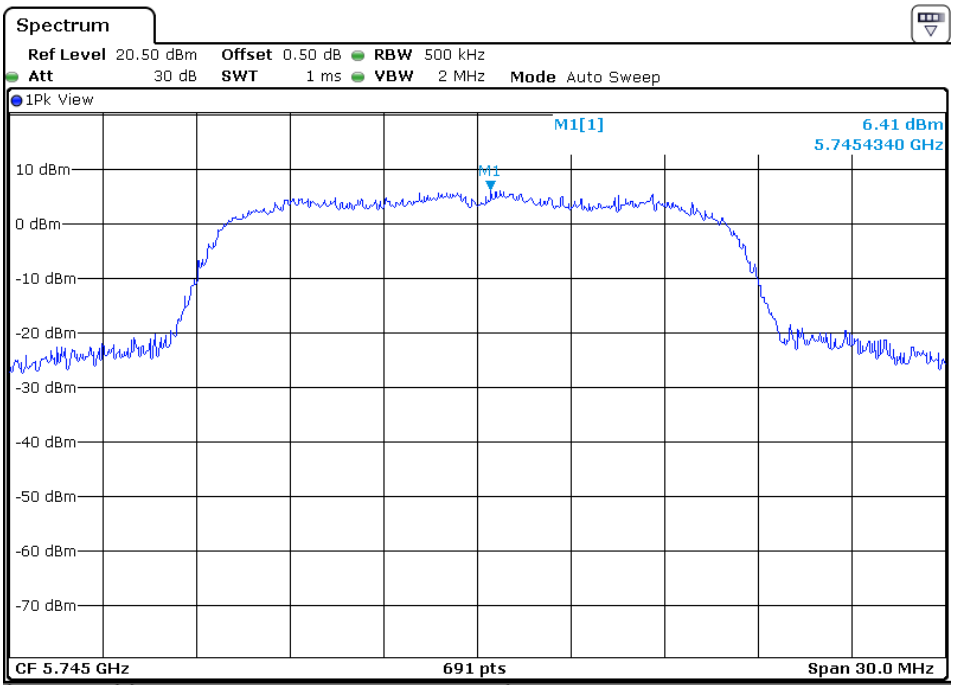
5240MHz



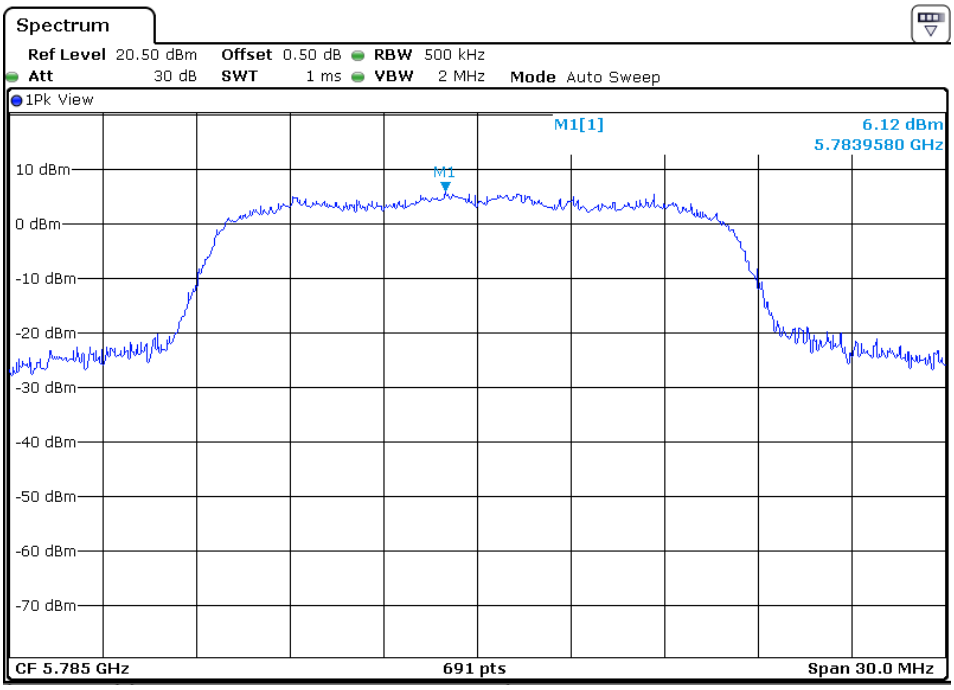
5725 MHz ~ 5850 MHz

802.11a

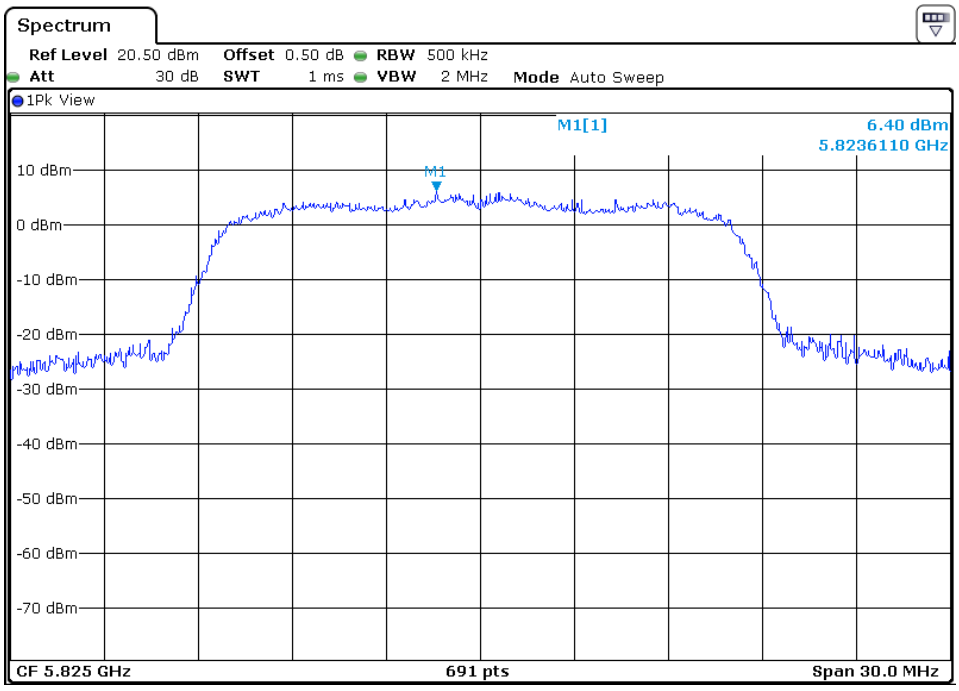
5745MHz



5785MHz

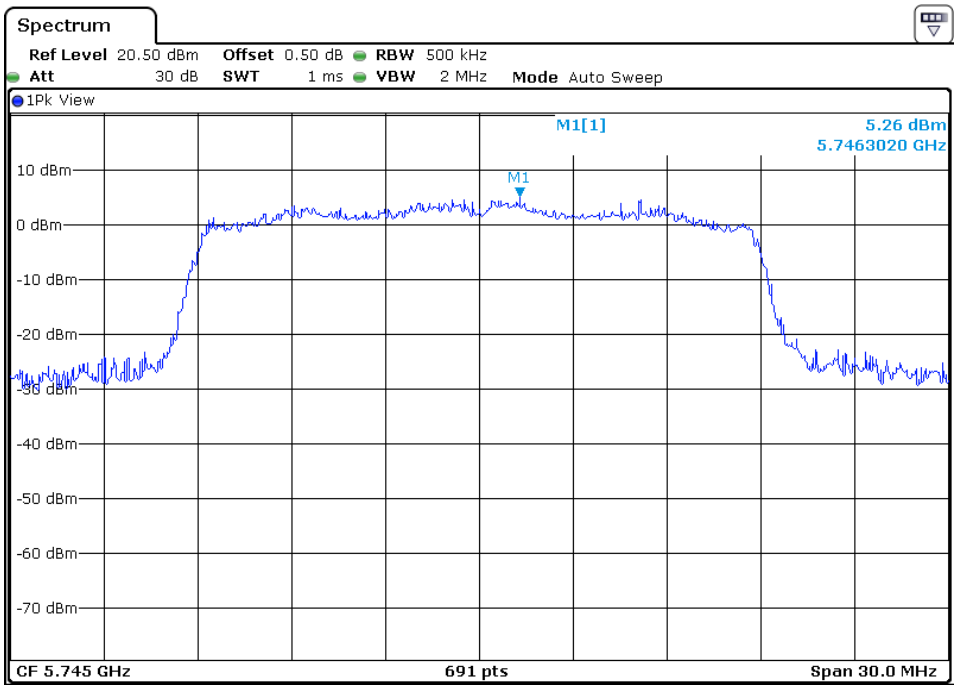


5825MHz

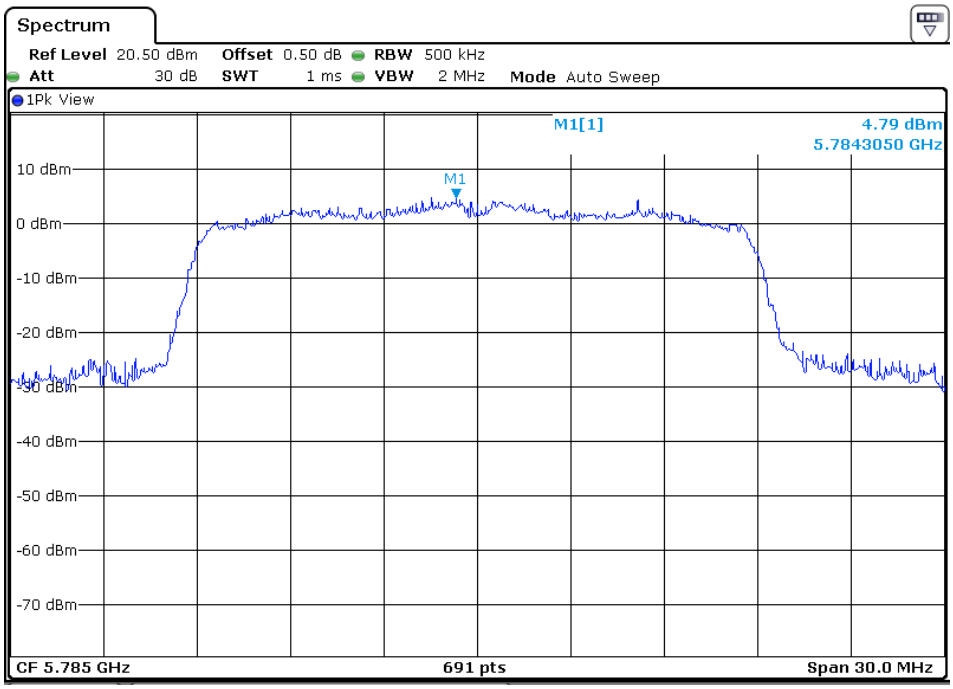


802.11n-HT20

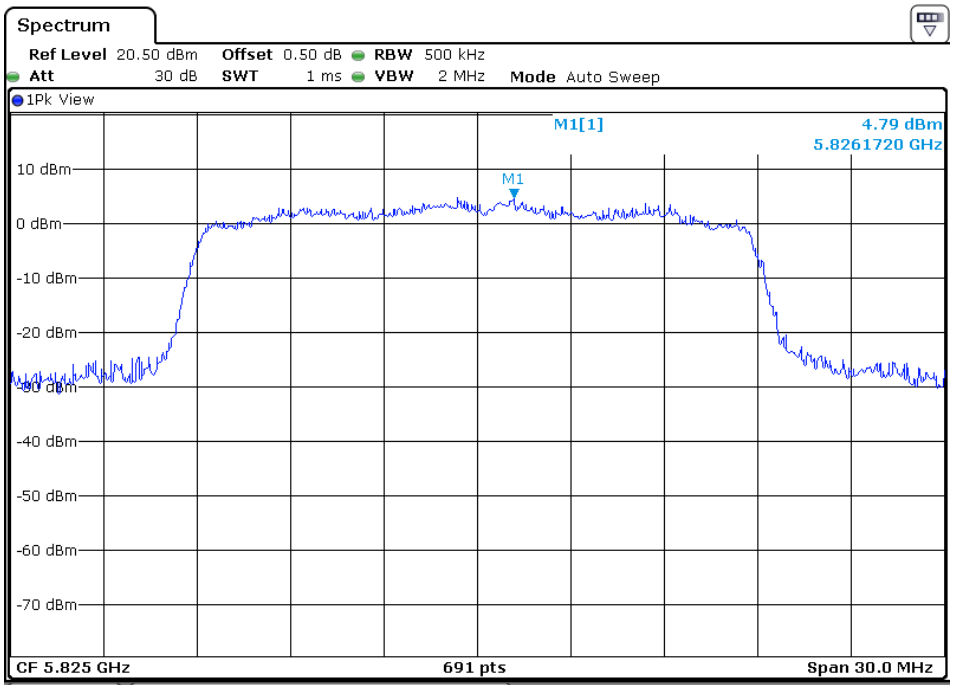
5745MHz



5785MHz

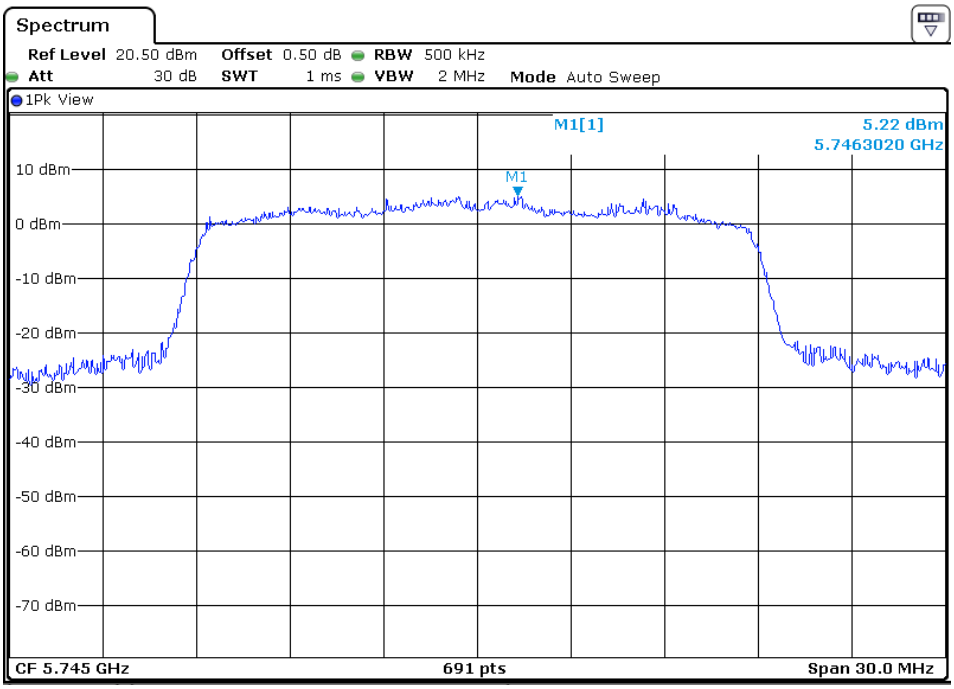


5825MHz

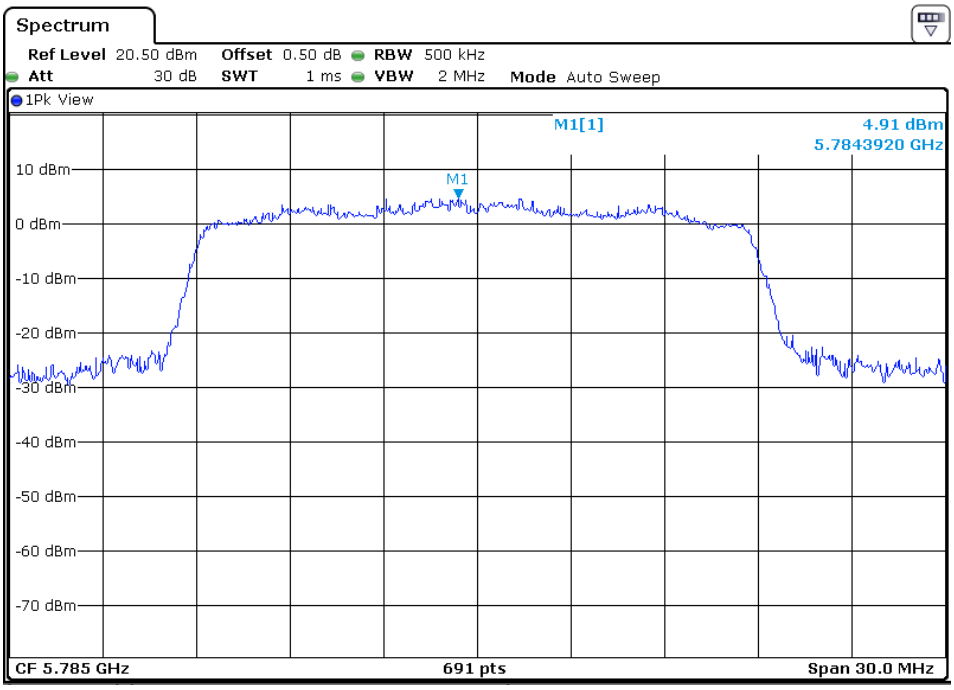


802.11ac-HT20

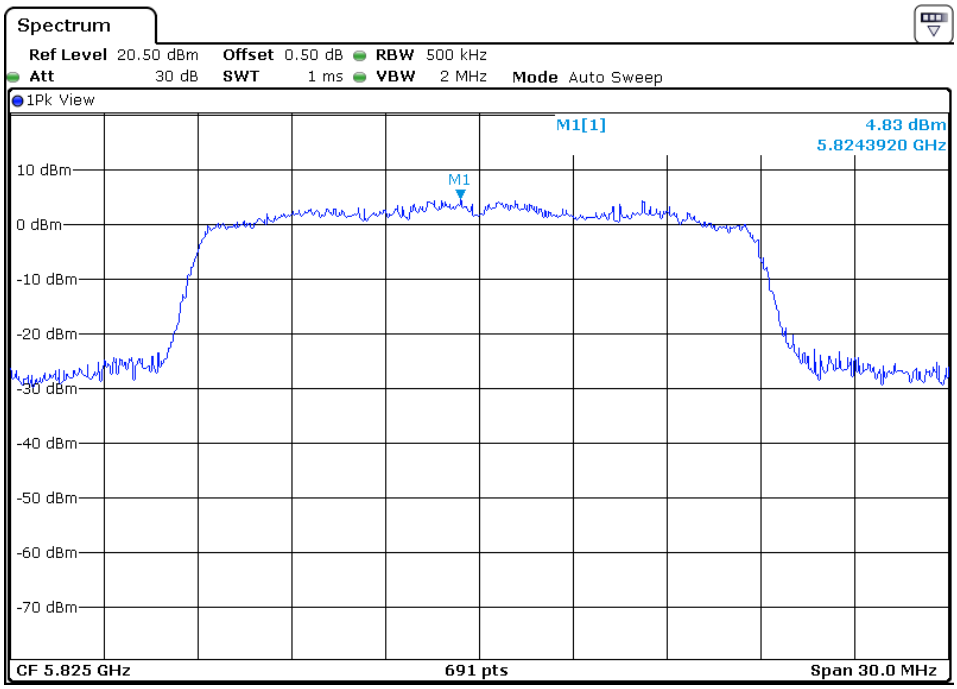
5745MHz



5785MHz



5825MHz



5. Minimum 6 dB RF Bandwidth (FCC 15.407)

5.1 Operating environment

Temperature:	25	℃
Relative Humidity:	50	%
Atmospheric Pressure:	1023	hPa

5.2 Test setup & procedure

The Minimum 6 dB RF Bandwidth per 789033 D02 was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set at 100KHz, and set the video bandwidth (VBW) ≥ 3 x RBW. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

For 26dB down Emission Bandwidth

The 26dB down Emission Bandwidth per 789033 D02 was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set RBW = approximately 1% of the emission bandwidth. Set the VBW > RBW, Detector = Peak, Trace mode = max hold (Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%).

For 99% Occupied Bandwidth

The 99% Occupied Bandwidth per 789033 D02 was measured from the antenna port of the EUT using a 50 ohm spectrum analyzer with the resolution bandwidth set center frequency to the nominal EUT channel center frequency, set span = 1.5 times to 5.0 times the OBW, set RBW = 1 % to 5 % of the OBW, set VBW ≥ 3x RBW, The 99% occupied bandwidth was determined from where the channel output spectrum intersected the display line.

5.3 Limit

Operating Frequency (MHz)	Minimum 6 dB RF Bandwidth Limit
5150~5250	N/A
5725~5850	≥500KHz

Note: 99% Occupied Bandwidth within the U-NII-1 band and 26dB Emission Bandwidth for reference.

5.4 Measured data of Minimum 6 dB RF Bandwidth test results

SISO Mode

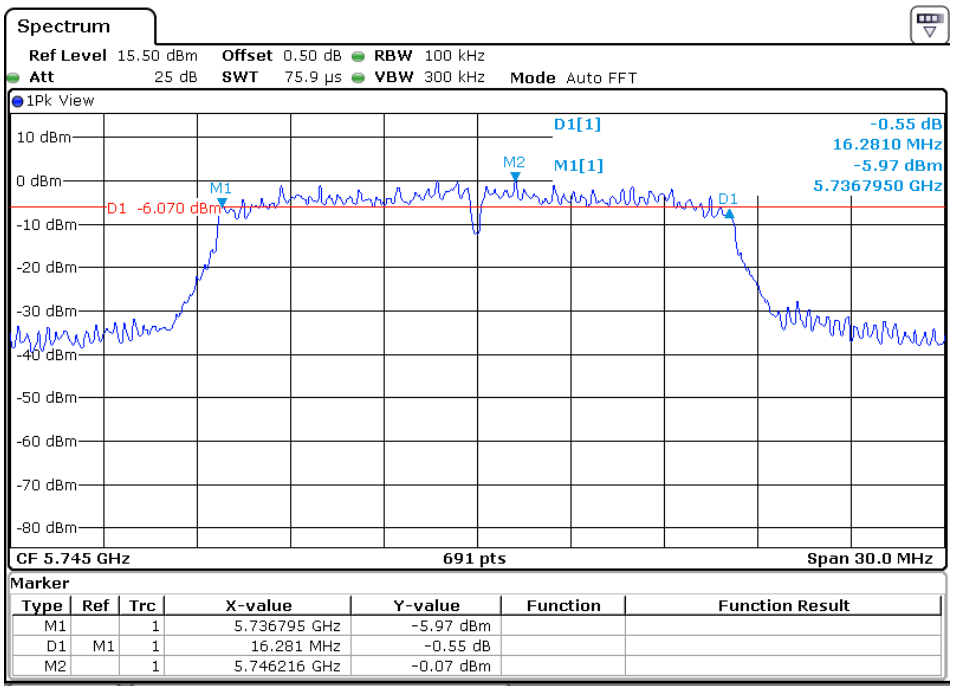
Mode	Channel	Data Rate (Mbps)	6 dB Bandwidth (MHz)	Result
802.11a	149	6	16.281	Pass
	157		16.324	Pass
	165		15.933	Pass
802.11n-HT20	149	6.5	17.496	Pass
	157		17.149	Pass
	165		17.540	Pass
802.11ac-HT20	149	6.5	17.583	Pass
	157		17.583	Pass
	165		17.410	Pass

Please refer the below graph.

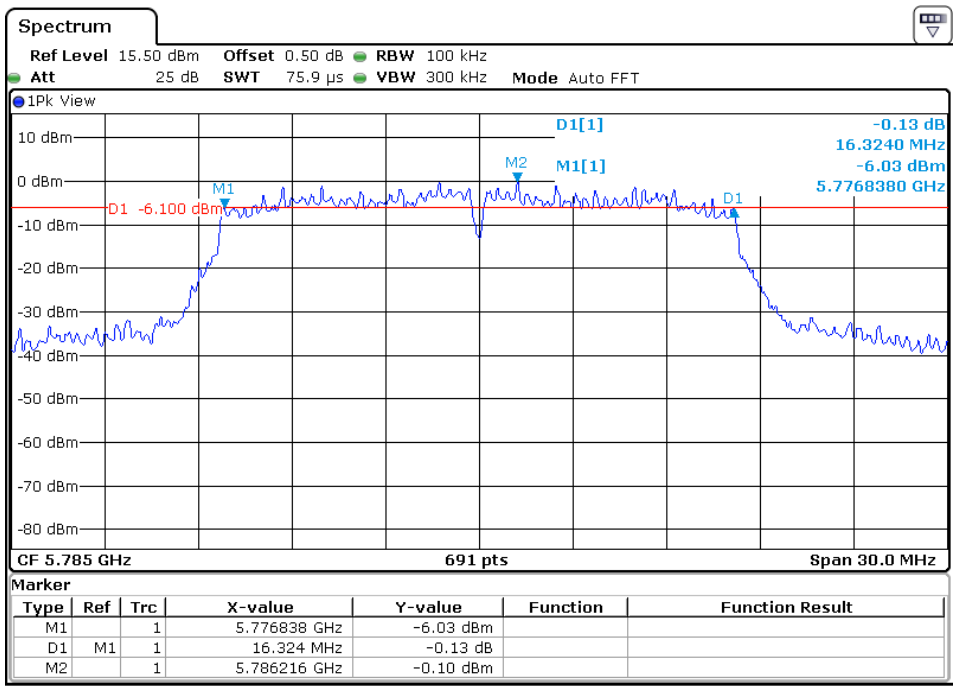
5725 MHz ~ 5850 MHz

802.11a

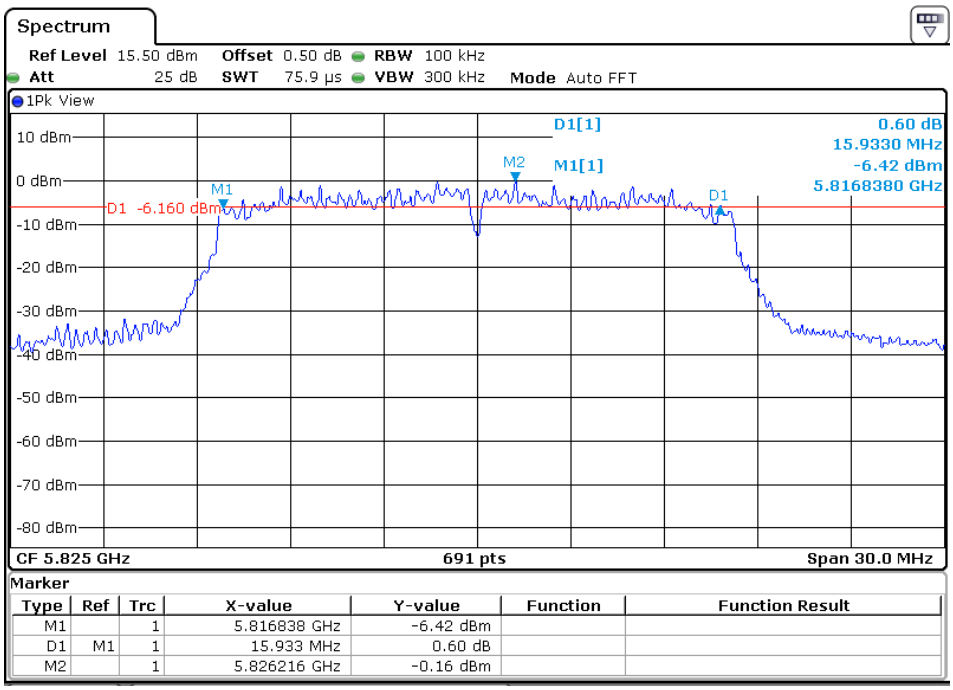
5745MHz



5785MHz

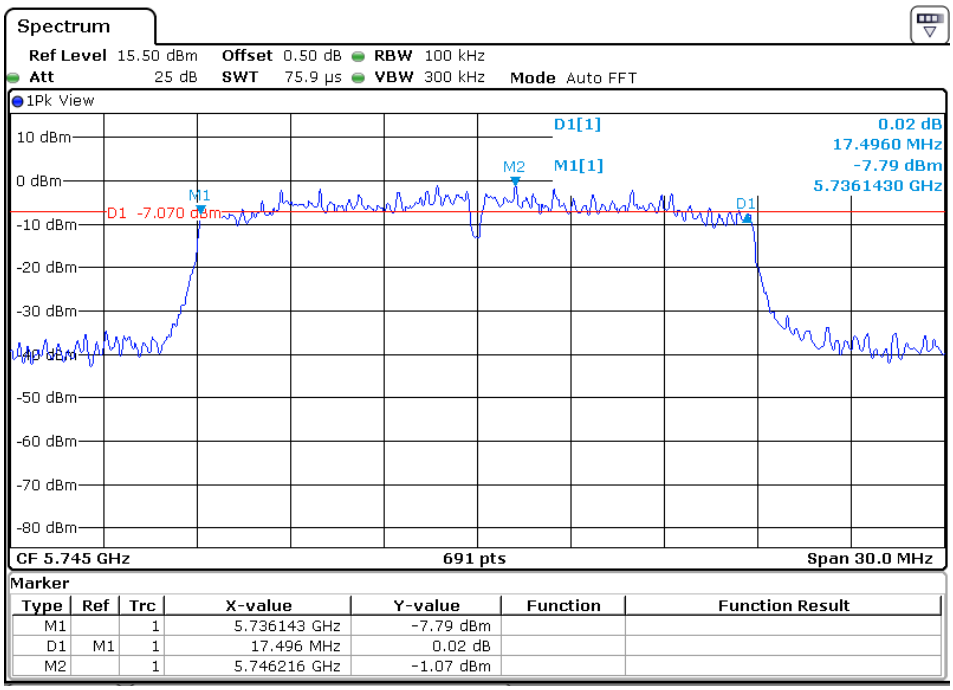


5825MHz

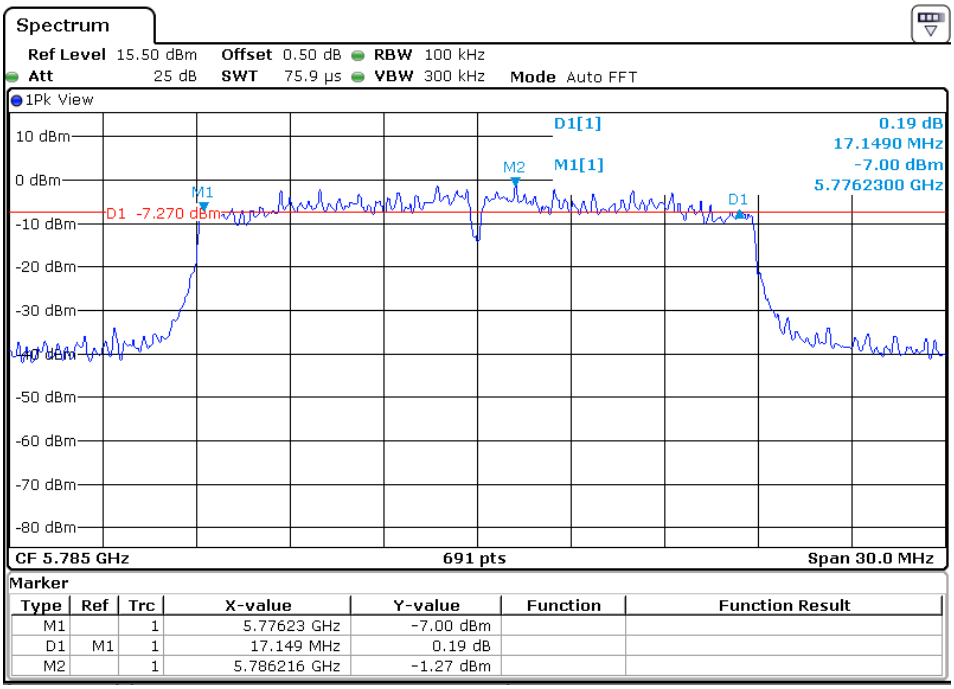


802.11n-HT20

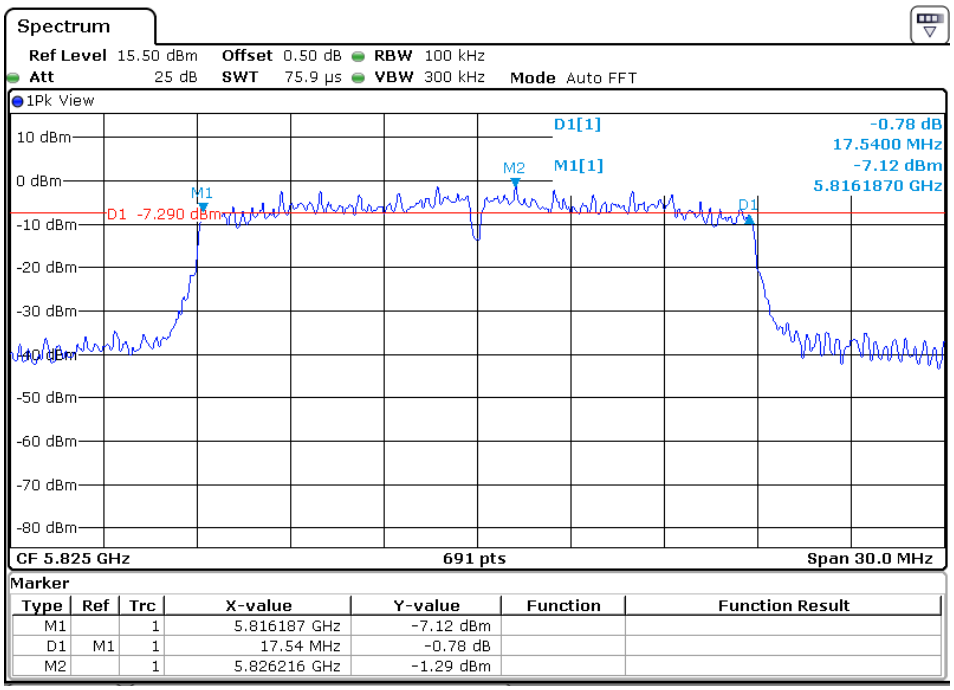
5745MHz



5785MHz

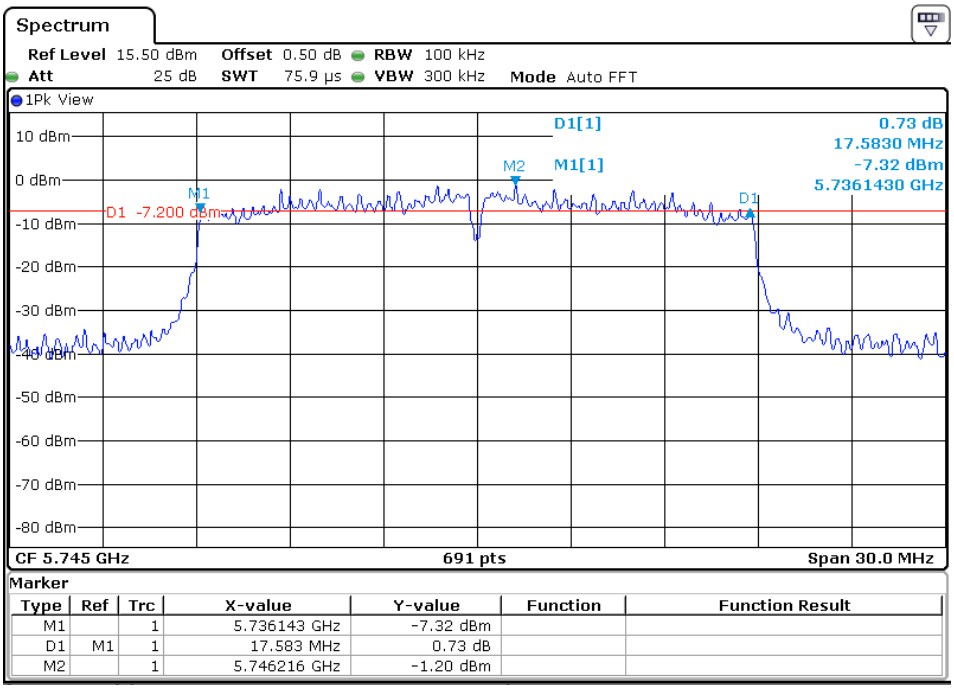


5825MHz

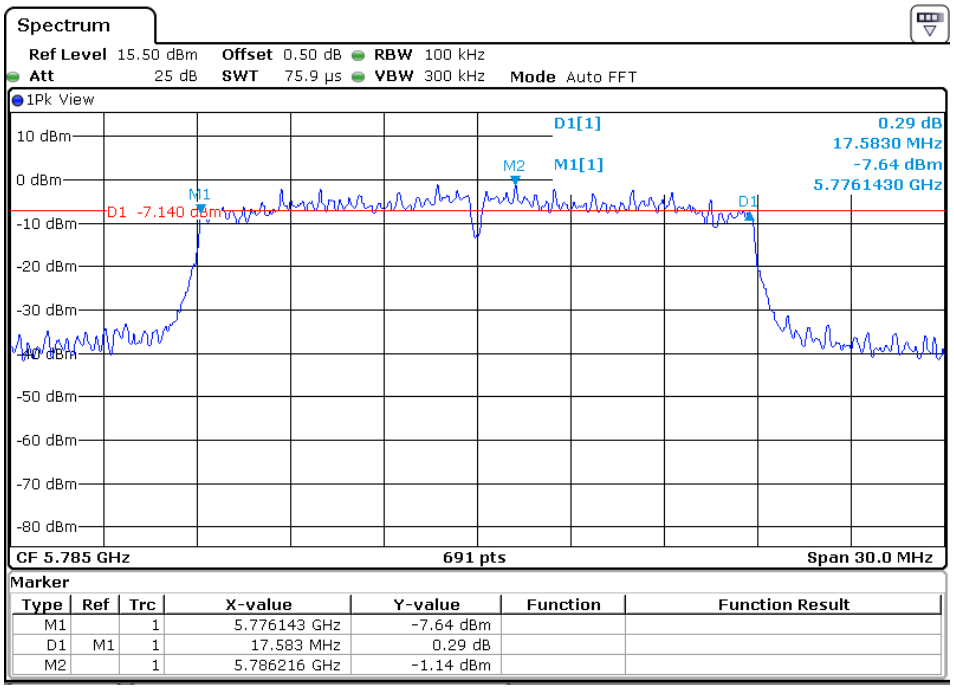


802.11ac-HT20

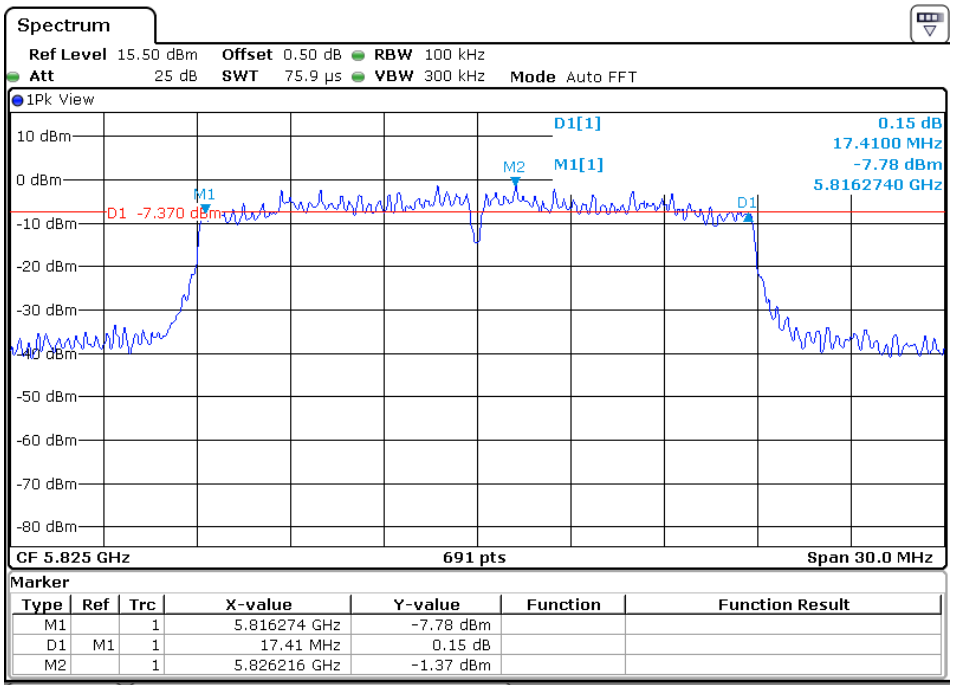
5745MHz



5785MHz



5825MHz


Spectrum
Ref Level 15.50 dBm Offset 0.50 dB RBW 100 kHz
Att 25 dB SWT 75.9 µs VBW 300 kHz Mode Auto FFT
1Pk View
D1[1] 0.15 dB
17.4100 MHz
M1[1] -7.78 dBm
5.8162740 GHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
M1
D1 -7.370 dBm
M2
D1
CF 5.825 GHz
691 pts
Span 30.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 5.816274 GHz -7.78 dBm
D1 M1 1 17.41 MHz 0.15 dB
M2 1 5.826216 GHz -1.37 dBm

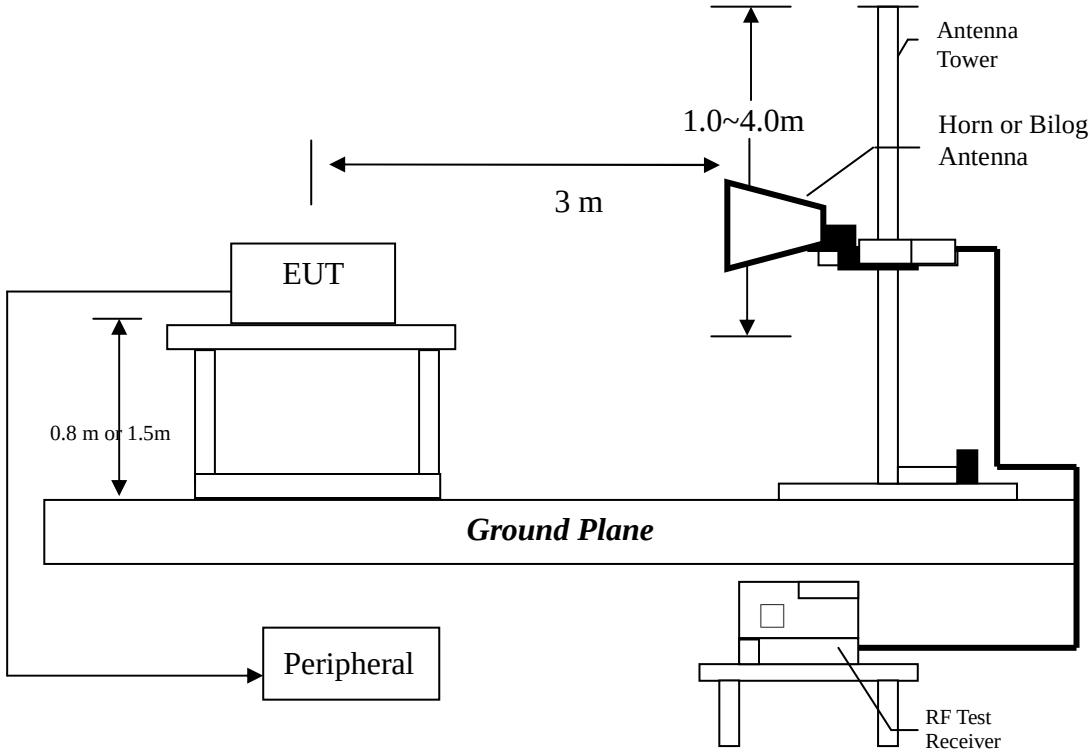
6. Radiated Emission test (FCC 15.205 & 15.209 & 15.407)

6.1 Operating environment

Temperature:	23	℃
Relative Humidity:	58	%
Atmospheric Pressure	1023	hPa

6.2 Test setup & procedure

The Diagram below shows the test setup, which is utilized to make these measurements.



Radiated emission measurements were performed from 9KHz to tenth harmonic or 40GHz.
The EUT for testing is arranged on a styrene turntable with the height of 0.8m up to 1GHz and 1.5m above 1GHz. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.

The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance.

Testing settings (refer to KDB 789033 D02)
Peak Measurements below 1GHz
1, Analyzer center frequency was set to the frequency of the radiated spurious emission.
2, Span=encompass the entire emission
3, RBW=120KHz
4, Detector=Quasi-Peak
5, Trace was allowed to stabilize

Peak Measurements above 1GHz
1, Analyzer center frequency was set to the frequency of the radiated spurious emission.
2, Span=encompass the entire emission
3, RBW=1MHz
4, VBW=3MHz
4, Detector= Peak (Max-hold)
5, Trace was allowed to stabilize

Average Measurements above 1GHz
1, Analyzer center frequency was set to the frequency of the radiated spurious emission.
2, Span=encompass the entire emission
3, RBW=1MHz
4, VBW=3MHz
4, Detector= RMS (Max-hold)
5, Trace was allowed to stabilize

6.3 Limit

The spurious Emission shall test through the 10th harmonic or 40GHz (whichever is lower). In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

Notes:
1, All emission out-side of the 5.15-5.35GHz & 5.47-5.725GHz band shall not exceed an EIRP of -27dBm/MHz (68.2dBuV/m, test distance: 3 meter), for band 5.725-5.85GHz shall not exceed an≤-17dBm/MHz (78.2dBuV/m, test distance: 3 meter) within 5715-5725MHz and 5850-5860MHz, ≤-27dBm/MHz (68.2dBuV/m, test distance: 3 meter) outside 5715-5860MHz.
2, The spectrum is measured from 9KHz to the 10^{th} harmonic of the fundamental frequency of the transmitter using QP detector below 1GHz, above 1GHz, average & peak measurements were taken using for test. The worst-case emission are reported however emission whose levels were not within 20dB of the respective limited were not reported.
3, The test was performed on EUT under 802.11a/n-HT20/ac-HT20 continuously transmitting mode.

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

Where FS = Field Strength in dBµV/m
RA = Receiver Amplitude (including preamplifier) in dBµV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB

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

Example
Assume a receiver reading of 62.0 dBµV 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. The net field strength for comparison to the appropriate emission limit is 32 dBµV/m. This value in dBµV/m was converted to its corresponding level in µV/m.

RA = 62.0 dBµV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 dBµV/m

Level in mV/m = Common Antilogarithm [(42 dBµV/m)/20] = 125.9 µV/m

6.4 Radiated spurious emission test data

6.4.1 Measurement results: frequencies equal to or less than 1 GHz

The worst case occurred at 802.11n-HT20, Channel 36/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	31.225	25.6	20.0	18.1	23.7	40.0	-16.3
Horizontal	145.328	32.9	20.0	11.4	24.3	43.5	-19.2
Horizontal	954.260	27.0	20.0	29.5	36.5	46.0	-9.5
Vertical	42.640	32.7	20.0	13.4	26.1	40.0	-13.9
Vertical	61.529	37.1	20.0	8.7	25.8	40.0	-14.2
Vertical	890.510	30.2	20.0	28.2	38.4	46.0	-7.6

6.4.2 Measurement results: frequency above 1GHz

Test Condition : 802.11a, SISO, Channel 36/6Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10360.000	56.0	36.3	38.9	58.6	68.2	-9.6
Horizontal	15540.000	52.6	34.7	41.0	58.9	68.2	-9.3
Horizontal	5149.300	58.8	36.1	35.5	58.2	68.2	-10.0

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15540	40.4	34.7	41.0	46.7	54.0	-7.3
Horizontal	*5149.3	47.0	36.1	35.5	46.4	54.0	-7.6

Test Condition : 802.11a, SISO, Channel 40/6Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10400.000	56.7	36.3	38.9	59.3	68.2	-8.9
Horizontal	15600.000	53.5	34.7	41.0	59.8	68.2	-8.4

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15600	39.8	34.7	41.0	46.1	54.0	-7.9

Test Condition : 802.11a, SISO, Channel 48/6Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10480.000	60.1	36.3	38.9	62.7	68.2	-5.5
Horizontal	15720.000	51.8	34.7	41.0	58.1	68.2	-10.1
Horizontal	5351.780	58.6	35.9	36.4	59.1	68.2	-9.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15720.000	38.5	34.7	41.0	44.8	54.0	-9.2
Horizontal	*5351.780	45.7	35.9	36.4	46.2	54.0	-7.8

Test Condition : 802.11n-HT20, SISO, Channel 36/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10360.000	57.0	36.3	38.9	59.6	68.2	-8.6
Horizontal	15540.000	50.5	34.7	41.0	56.8	68.2	-11.4
Horizontal	5148.569	58.9	36.1	35.5	58.3	68.2	-9.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15540	40.5	34.7	41.0	46.8	54.0	-7.2
Horizontal	*5148.569	46.7	36.1	35.5	46.1	54.0	-7.9

Test Condition : 802.11n-HT20, SISO, Channel 40/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10400.000	57.9	36.3	38.9	60.5	68.2	-7.7
Horizontal	15600.000	55.3	34.7	41.0	61.6	68.2	-6.6

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15600	41.2	34.7	41.0	47.5	54.0	-6.5

Test Condition : 802.11n-HT20, SISO, Channel 48/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10480.000	57.6	36.3	38.9	60.2	68.2	-8.0
Horizontal	15720.000	57.2	34.7	41.0	63.5	68.2	-4.7
Horizontal	5351.594	57.9	35.9	36.4	58.4	68.2	-9.8

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15720	40.0	34.7	41.0	46.3	54.0	-7.7
Horizontal	*5351.594	48.2	35.9	36.4	48.7	54.0	-5.3

Test Condition : 802.11ac-HT20, SISO, Channel 36/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10360.000	55.3	36.3	38.9	57.9	68.2	-10.3
Horizontal	15540.000	51.9	34.7	41.0	58.2	68.2	-10.0
Horizontal	5148.550	58.7	36.1	35.5	58.1	68.2	-10.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15540	40.6	34.7	41.0	46.9	54.0	-7.1
Horizontal	*5148.550	47.7	36.1	35.5	47.1	54.0	-6.9

Test Condition : 802.11ac-HT20, SISO, Channel 40/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10400.000	55.3	36.3	38.9	57.9	68.2	-10.3
Horizontal	15600.000	51.9	34.7	41.0	58.2	68.2	-10.0

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15600	40.9	34.7	41.0	47.2	54.0	-6.8

Test Condition : 802.11ac-HT20, SISO, Channel 48/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	10480.000	55.7	36.3	38.9	58.3	68.2	-9.9
Horizontal	15720.000	53.2	34.7	41.0	59.5	68.2	-8.7
Horizontal	5351.598	58.4	35.9	36.4	58.9	68.2	-9.3

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*15720	40.0	34.7	41.0	46.3	54.0	-7.7
Horizontal	*5351.98	46.2	35.9	36.4	46.7	54.0	-7.3

Test Condition : 802.11a, SISO, Channel 149/6Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11490.000	54.5	35.3	41.2	60.4	68.2	-7.8
Horizontal	17235.000	55.6	33.9	39.2	60.9	68.2	-7.3
Horizontal	5716.399	69.2	36.7	27.2	59.7	78.2	-18.5

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11490	41.6	35.3	41.2	47.5	54.0	-6.5

Test Condition : 802.11a, SISO, Channel 157/6Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11570.000	53.0	35.3	41.2	58.9	68.2	-9.3
Horizontal	17355.000	54.1	33.9	39.2	59.4	68.2	-8.8

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11570	43.3	35.3	41.2	49.2	54.0	-4.8

Test Condition : 802.11a, SISO, Channel 165/6Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11650.000	53.6	35.3	41.2	59.5	68.2	-8.7
Horizontal	17475.000	55.0	33.9	39.2	60.3	68.2	-7.9
Horizontal	5856.399	68.1	36.7	27.7	59.1	78.2	-19.1

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11650	41.5	35.3	41.2	47.4	54.0	-6.6

Test Condition : 802.11n-HT20, SISO, Channel 149/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11490.000	54.4	35.3	41.2	60.3	68.2	-7.9
Horizontal	17235.000	56.1	33.9	39.2	61.4	68.2	-6.8
Horizontal	5718.024	70.8	36.7	27.2	61.3	78.2	-16.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11490	41.8	35.3	41.2	47.7	54.0	-6.3

Test Condition : 802.11n-HT20, SISO, Channel 157/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11570.000	53.5	35.3	41.2	59.4	68.2	-8.8
Horizontal	17355.000	55.0	33.9	39.2	60.3	68.2	-7.9

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11570	42.0	35.3	41.2	47.9	54.0	-6.1

Test Condition : 802.11n-HT20, SISO, Channel 165/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11650.000	55.4	35.3	41.2	61.3	68.2	-6.9
Horizontal	17475.000	55.1	33.9	39.2	60.4	68.2	-7.8
Horizontal	5855.892	68.5	36.7	27.7	59.5	78.2	-18.7

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11650	42.6	35.3	41.2	48.5	54.0	-5.5

Test Condition : 802.11ac-HT20, SISO, Channel 149/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11490.000	53.6	35.3	41.2	59.5	68.2	-8.7
Horizontal	17235.000	55.9	33.9	39.2	61.2	68.2	-7.0
Horizontal	5718.140	71.5	36.7	27.2	62.0	78.2	-16.2

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11490	42.1	35.3	41.2	48.0	54.0	-6.0

Test Condition : 802.11ac-HT20, SISO, Channel 157/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11570.000	53.9	35.3	41.2	59.8	68.2	-8.4
Horizontal	17355.000	54.9	33.9	39.2	60.2	68.2	-8.0

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11570	43.0	35.3	41.2	48.9	54.0	-5.1

Test Condition : 802.11ac-HT20, SISO, Channel 165/6.5Mbps

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	11650.000	53.5	35.3	41.2	59.4	68.2	-8.8
Horizontal	17475.000	54.8	33.9	39.2	60.1	68.2	-8.1
Horizontal	5855.916	72.0	36.7	27.7	63.0	78.2	-15.2

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	*11650	42.4	35.3	41.2	48.3	54.0	-5.7

Note:

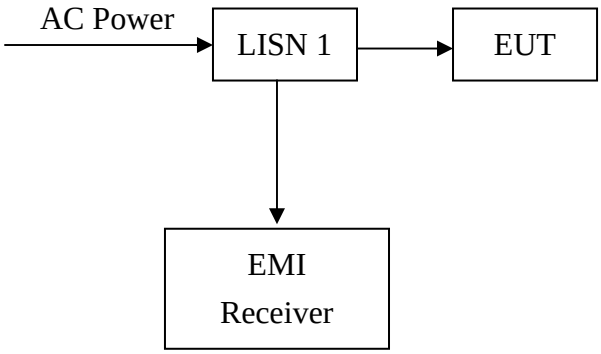
* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

7. Power Line Conducted Emission test

7.1 Operating environment

Temperature:	23	℃
Relative Humidity:	55	%
Atmospheric Pressure	1023	hPa

7.2 Test setup & procedure



The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50 ohm/50 uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50 ohm/50 uH coupling impedance with 50 ohm termination.
Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10/2013 on conducted measurement. The bandwidth of the field strength meter (R & S Test Receiver ESCI 30) is set at 9 kHz.

7.3 Limit

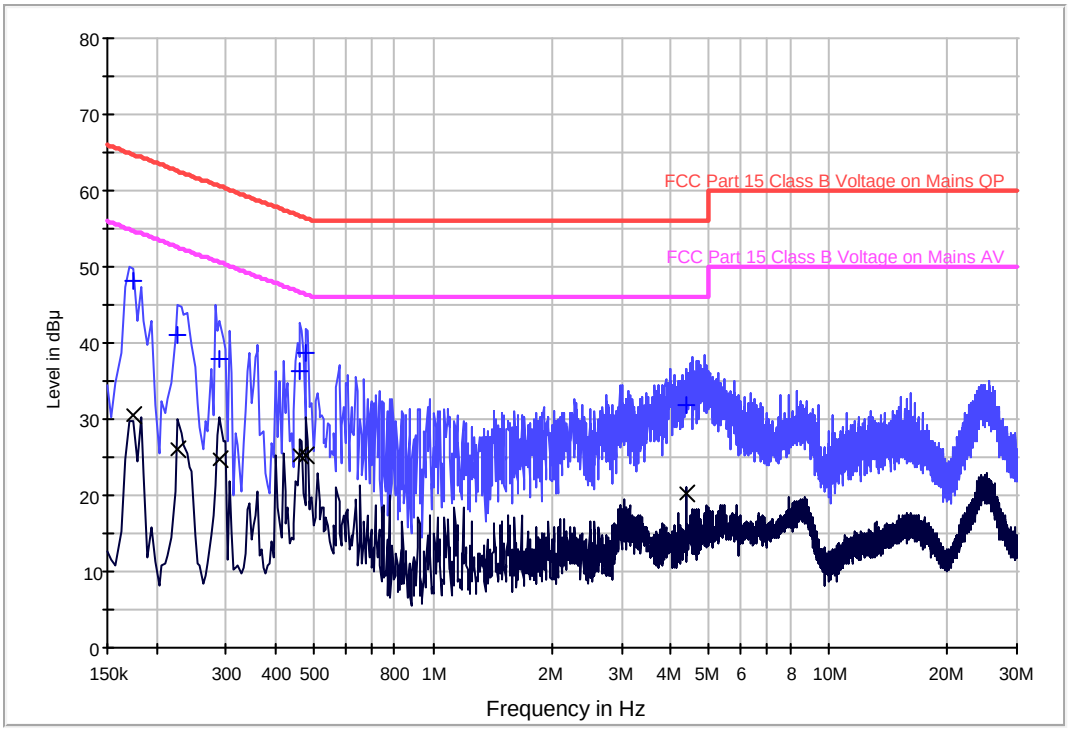
Freq. (MHz)	Conducted Limit (dBuV)	
	Q.P.	Ave.
0.15~0.50	66 – 56*	56 – 46*
0.50~5.00	56	46
5.00~30.0	60	50

*Decreases with the logarithm of the frequency.

7.4 Power Line Conducted Emission test data

The worst case test was performed on EUT under 802.11 n-HT20 Link.

Phase: Line
Test Condition: 802.11n-HT20



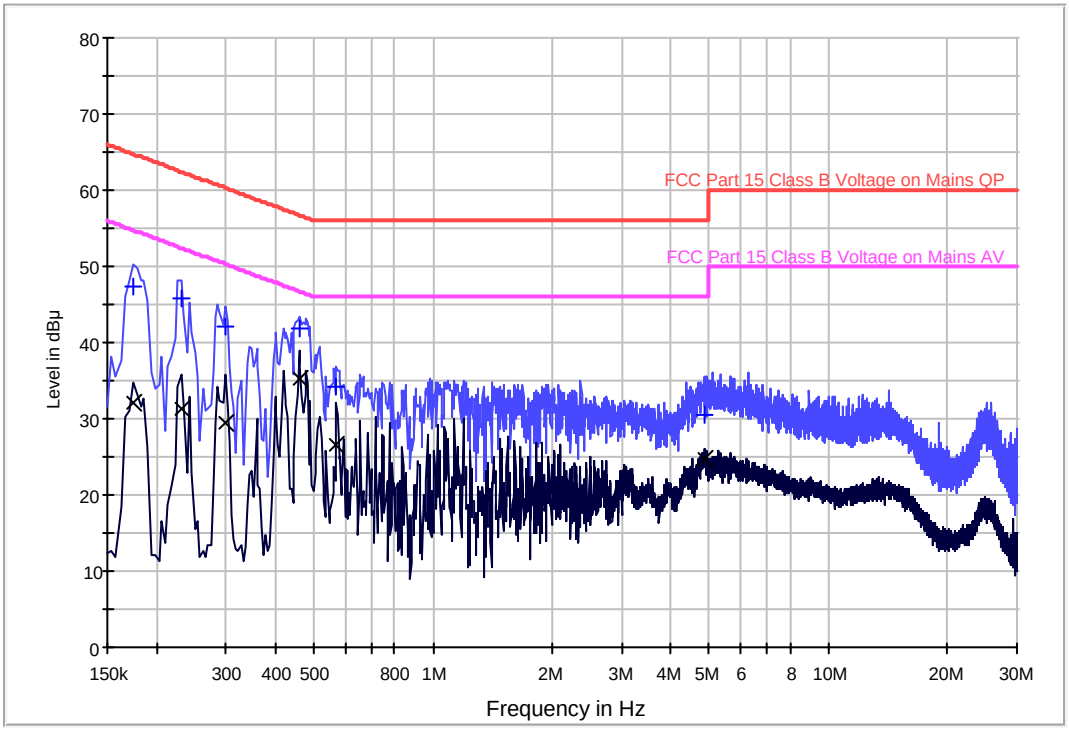
Limit and Margin QP

Frequency (MHz)	QuasiPeak (dB µV)	Line	Corr. (dB)	Margin (dB)	Limit (dB µV)
0.174000	48.1	L1	9.5	16.7	64.8
0.226000	41.2	L1	9.5	21.4	62.6
0.290000	37.9	L1	9.6	22.6	60.5
0.462000	36.4	L1	9.6	20.3	56.7
0.478000	38.6	L1	9.6	17.8	56.4
4.390000	31.7	L1	9.7	24.3	56.0

Limit and Margin AV

Frequency (MHz)	Average (dB µV)	Line	Corr. (dB)	Margin (dB)	Limit (dB µV)
0.174000	30.5	L1	9.5	24.3	54.8
0.226000	26.2	L1	9.5	26.4	52.6
0.290000	24.7	L1	9.6	25.8	50.5
0.462000	25.2	L1	9.6	21.5	46.7
0.478000	25.2	L1	9.6	21.2	46.4
4.390000	20.4	L1	9.7	25.6	46.0

Phase: : Neutral
Test Condition: : 802.11n-HT20



Limit and Margin QP

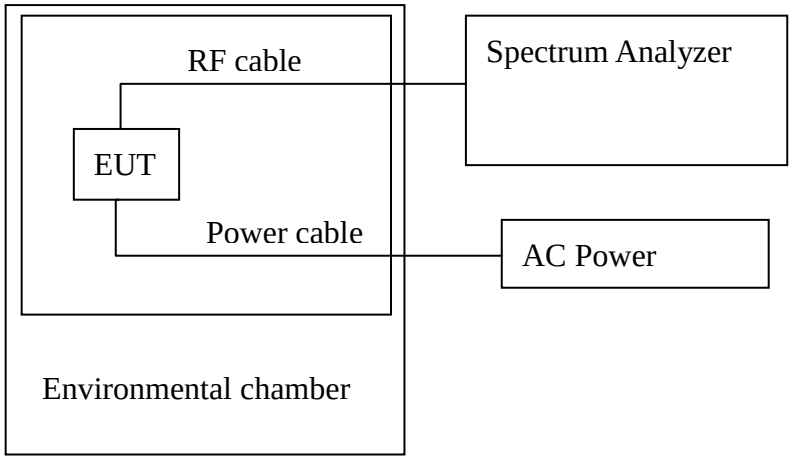
Frequency (MHz)	QuasiPeak (dB µV)	Line	Corr. (dB)	Margin (dB)	Limit (dB µV)
0.174000	47.4	N	9.6	17.4	64.8
0.230000	45.8	N	9.6	16.6	62.4
0.298000	42.0	N	9.6	18.3	60.3
0.458000	41.7	N	9.6	15.0	56.7
0.570000	34.2	N	9.6	21.8	56.0
4.870000	30.6	N	9.6	25.4	56.0

Limit and Margin AV

Frequency (MHz)	Average (dB µV)	Line	Corr. (dB)	Margin (dB)	Limit (dB µV)
0.174000	32.2	N	9.6	22.6	54.8
0.230000	31.4	N	9.6	21.0	52.4
0.298000	29.4	N	9.6	20.9	50.3
0.458000	35.4	N	9.6	11.3	46.7
0.570000	26.7	N	9.6	19.3	46.0
4.870000	24.7	N	9.6	21.3	46.0

8. Frequency Stability Test

8.1 Test setup & procedure



Note1:The frequency stability is measured with the temperature variation range of 0˚C to +40˚C (10˚C increment), and voltage supply variation range of 85% to 115% of nominal AC supply voltage.

2: To ensure emission at the band-edge is maintained within the authorized band, the frequency 802.11a/n-HT20/ac-HT20 are selected to test and the worst case was reported.

8.2 Frequency Stability Test Data

20˚C is taken as temperature in normal condition.

Model: 802.11a, Operation frequency: 5180MHz, Channel: 36, Rate: 6Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5180.000130	130	Pass
	+10	5179.999574	-426	Pass
	+20	5179.999836	-164	Pass
	+30	5179.999515	-485	Pass
	+40	5179.999920	-80	Pass
102	+20	5180.000116	116	Pass
138	+20	5180.000112	112	Pass

Model: 802.11a, Operation frequency: 5240MHz, Channel: 48, Rate: 6Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5180.000123	123	Pass
	+10	5179.999525	-475	Pass
	+20	5179.999859	-141	Pass
	+30	5179.999513	-487	Pass
	+40	5179.999575	-425	Pass
102	+20	5180.000149	149	Pass
138	+20	5180.000126	126	Pass

Model: 802.11n-HT20, Operation frequency: 5180MHz, Channel: 36, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5180.000128	128	Pass
	+10	5179.999525	-475	Pass
	+20	5179.999810	-190	Pass
	+30	5179.999526	-474	Pass
	+40	5179.999579	-421	Pass
102	+20	5180.000143	143	Pass
138	+20	5180.000127	127	Pass

Model: 802.11n-HT20, Operation frequency: 5240MHz, Channel: 48, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5240.000125	125	Pass
	+10	5240.000121	121	Pass
	+20	5240.000154	154	Pass
	+30	5240.000125	125	Pass
	+40	5240.000129	129	Pass
102	+20	5240.000181	181	Pass
138	+20	5240.000146	146	Pass

Model: 802.11ac-HT20, Operation frequency: 5180MHz, Channel: 36, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5180.000125	125	Pass
	+10	5179.999545	-455	Pass
	+20	5179.999853	-147	Pass
	+30	5179.999505	-495	Pass
	+40	5179.999250	-750	Pass
102	+20	5180.000185	185	Pass
138	+20	5180.000154	154	Pass

Model: 802.11ac-HT20, Operation frequency: 5240MHz, Channel: 48, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5240.000196	196	Pass
	+10	5240.000151	151	Pass
	+20	5240.000147	147	Pass
	+30	5240.000128	128	Pass
	+40	5240.000185	185	Pass
102	+20	5240.000162	162	Pass
138	+20	5240.000149	149	Pass

Model: 802.11a, Operation frequency: 5745MHz, Channel: 149, Rate: 6Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5745.000194	194	Pass
	+10	5745.000167	167	Pass
	+20	5745.000124	124	Pass
	+30	5745.000253	253	Pass
	+40	5745.000208	208	Pass
102	+20	5745.000193	193	Pass
138	+20	5745.000122	122	Pass

Model: 802.11a, Operation frequency: 5825MHz, Channel: 165, Rate: 6Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5825.000165	165	Pass
	+10	5825.000245	245	Pass
	+20	5825.000213	213	Pass
	+30	5825.000135	135	Pass
	+40	5825.000226	226	Pass
102	+20	5825.000252	252	Pass
138	+20	5825.000205	205	Pass

Model: 802.11n-HT20, Operation frequency: 5745MHz, Channel: 149, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5745.000145	145	Pass
	+10	5745.000243	243	Pass
	+20	5745.000225	225	Pass
	+30	5745.000196	196	Pass
	+40	5745.000159	159	Pass
102	+20	5745.000245	245	Pass
138	+20	5745.000141	141	Pass

Model: 802.11n-HT20, Operation frequency: 5825MHz, Channel: 165, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5825.000223	223	Pass
	+10	5825.000242	242	Pass
	+20	5825.000127	127	Pass
	+30	5825.000215	215	Pass
	+40	5825.000160	160	Pass
102	+20	5825.000243	243	Pass
138	+20	5825.000121	121	Pass

Model: 802.11ac-HT20, Operation frequency: 5745MHz, Channel: 149, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5745.000152	152	Pass
	+10	5745.000235	235	Pass
	+20	5745.000247	247	Pass
	+30	5745.000245	245	Pass
	+40	5745.000256	256	Pass
102	+20	5745.000251	251	Pass
138	+20	5745.000221	221	Pass

Model: 802.11ac-HT20, Operation frequency: 5825MHz, Channel: 165, Rate: 6.5Mbps

Input voltage (VAC)	Temperature (˚C)	Measured Frequency (MHz)	Frequency deviation (Hz)	Result
120	0	5825.000204	204	Pass
	+10	5825.000235	235	Pass
	+20	5825.000156	156	Pass
	+30	5825.000245	245	Pass
	+40	5825.000233	233	Pass
102	+20	5825.000226	226	Pass
138	+20	5825.000245	245	Pass

Note: All emissions are maintained within the band of operation under all conditions of normal operation as specified in the user manual. It fulfills the requirement of 15.407(g).

Appendix A: Test equipment list

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ182-02	RF Power Meter	Anritsu	ML2496A	1302005	1-Apr-2016	1-Apr-2017
SZ182-02-01	Pulse Power Sensor	Anritsu	MA2411B	1207429	23-May-2016	23-May-2017
SZ070-24	Open Switch and Control Unit with TS8997 option for power measurement test	R&S	OSP120+B157	--	3-Nov-2015	3-Nov-2016
SZ061-12	BiConiLog Antenna	ETS	3142C	00066460	15-Sep-2015	15-Sep-2016
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	29-Apr-2016	29-Apr-2017
SZ061-09	Horn Antenna	ETS	3115	00092346	31-Oct-2015	31-Oct-2016
SZ061-07	Pyramidal Horn Antenna	ETS	3160-09	00083067	29-Mar-2016	29-Mar-2017
SZ061-13	Pyramidal Horn Antenna	ETS	3160-10	00084329	03-Sep-2015	03-Sep-2016
SZ185-01	EMI Receiver	R&S	ESCI	100547	23-Jan-2016	23-Jan-2017
SZ056-06	EXA Spectrum Analyzer	R&S	FSV40	101101	2-Jul-2016	2-Jul-2017
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	23-Jan-2016	23-Jan-2017
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	16-Apr-2016	16-Apr-2018
SZ062-02	RF Cable	RADIALL	RG 213U	--	8-Jul-2016	8-Jan-2017
SZ062-05	RF Cable	RADIALL	0.04-26.5GHz	--	6-Apr-2016	6-Oct-2016
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	6-Apr-2016	6-Oct-2016
SZ067-21	Notch Filter	Micro-Tronics	High-pass filter	--	23-Jan-2016	23-Jan-2017
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	23-May-2016	23-May-2017
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	3-Nov-2015	3-Nov-2016
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	3-Nov-2015	3-Nov-2016
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	1-Jul-2016	1-Jul-2017
SZ188-03	Shielding Room	ETS	RFD-100	4100	23-Aug-2014	23-Aug-2016
SZ016-12	Programmable Temperature & Humidity Chamber	Taili	MHK-120NK	AB0105	23-Jan-2016	23-Jan-2017
SZ006-12	AC Power Source	Apcpowers	AFC-11005GS	F312020082	6-Jul-2016	6-Jan-2017

Expanded uncertainty of radiated emission measurement is ±4.9 dB.
Expanded uncertainty of conducted emission measurement is ±3.6 dB.