

Traffic:

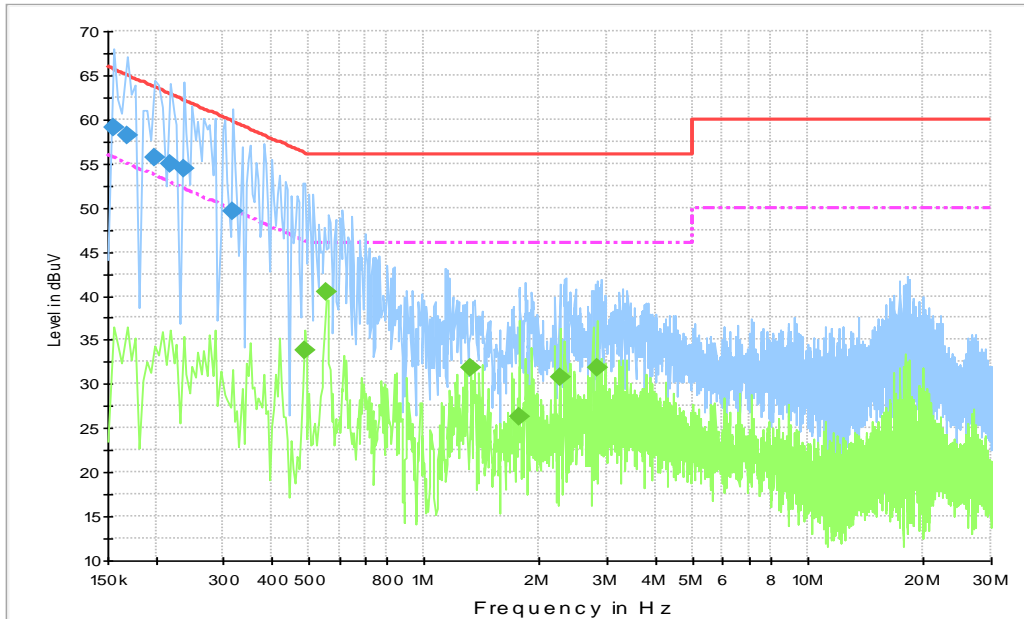


Fig.58 AC Powerline Conducted Emission-Traffic

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	59.0	1000.	9.000	19.6	6.8	65.8	0.1545
0.168000	58.1	1000.	9.000	19.7	6.9	65.1	0.1680
0.199500	55.6	1000.	9.000	19.6	8.0	63.6	0.1995
0.217500	55.0	1000.	9.000	19.7	7.9	62.9	0.2175
0.235500	54.4	1000.	9.000	19.7	7.9	62.3	0.2355
0.316500	49.5	1000.	9.000	19.7	10.2	59.8	0.3165

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.487500	33.8	1000.0	9.000	L1	19.8	18.4	46.2
0.555000	40.4	1000.0	9.000	L1	19.8	5.6	46.0
1.324500	31.8	1000.0	9.000	L1	19.7	14.2	46.0
1.765500	26.3	1000.0	9.000	L1	19.7	19.7	46.0
2.256000	30.8	1000.0	9.000	L1	19.6	15.2	46.0
2.809500	31.9	1000.0	9.000	L1	19.7	14.1	46.0

Idle:

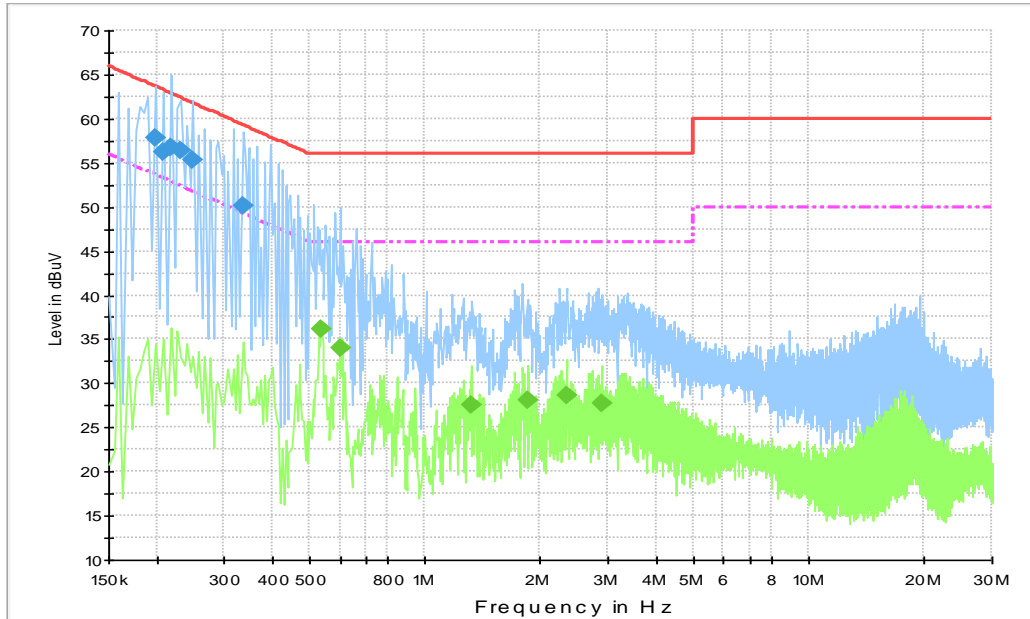


Fig.59 AC Powerline Conducted Emission-Idle

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.199500	57.8	1000.	9.000	L1	19.6	5.8	63.6
0.208500	56.3	1000.	9.000	N	19.6	7.0	63.3
0.217500	56.8	1000.	9.000	N	19.7	6.2	62.9
0.231000	56.4	1000.	9.000	N	19.7	6.0	62.4
0.249000	55.3	1000.	9.000	L1	19.7	6.5	61.8
0.334500	50.2	1000.	9.000	N	19.7	9.2	59.3

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.537000	36.1	1000.0	9.000	L1	19.8	9.9	46.0
0.600000	34.1	1000.0	9.000	L1	19.7	11.9	46.0
1.324500	27.6	1000.0	9.000	L1	19.7	18.4	46.0
1.855500	28.0	1000.0	9.000	L1	19.7	18.0	46.0
2.332500	28.7	1000.0	9.000	L1	19.6	17.3	46.0
2.877000	27.8	1000.0	9.000	L1	19.7	18.2	46.0

A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.60	17.48	P
	5200 MHz	Fig.61	17.52	P
	5240 MHz	Fig.62	17.56	P
802.11n HT20	5180 MHz	Fig.63	18.28	P
	5200 MHz	Fig.64	18.40	P
	5240 MHz	Fig.65	18.40	P
802.11ac HT40	5190 MHz	Fig.66	36.24	P
	5230 MHz	Fig.67	36.32	P
802.11ac HT80	5210 MHz	Fig.68	75.52	P

Conclusion: PASS
Test graphs as below:

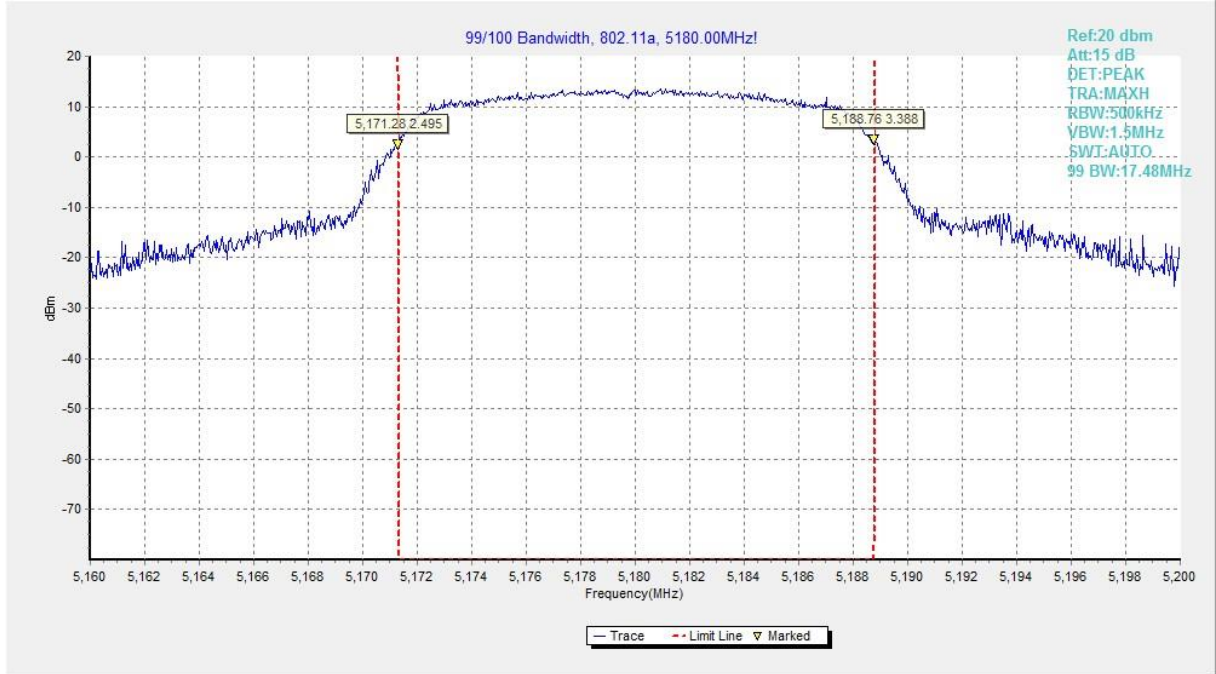


Fig.60 99% Occupied bandwidth (802.11a, 5180MHz)

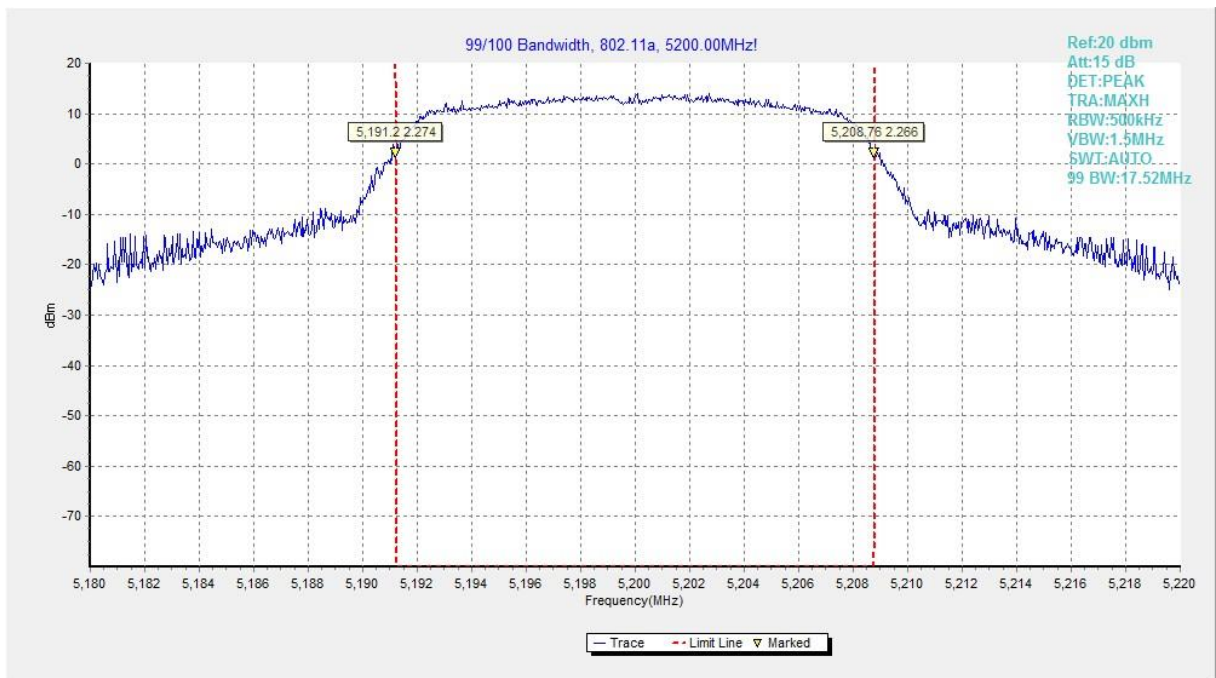


Fig.61 99% Occupied bandwidth (802.11a, 5200MHz)

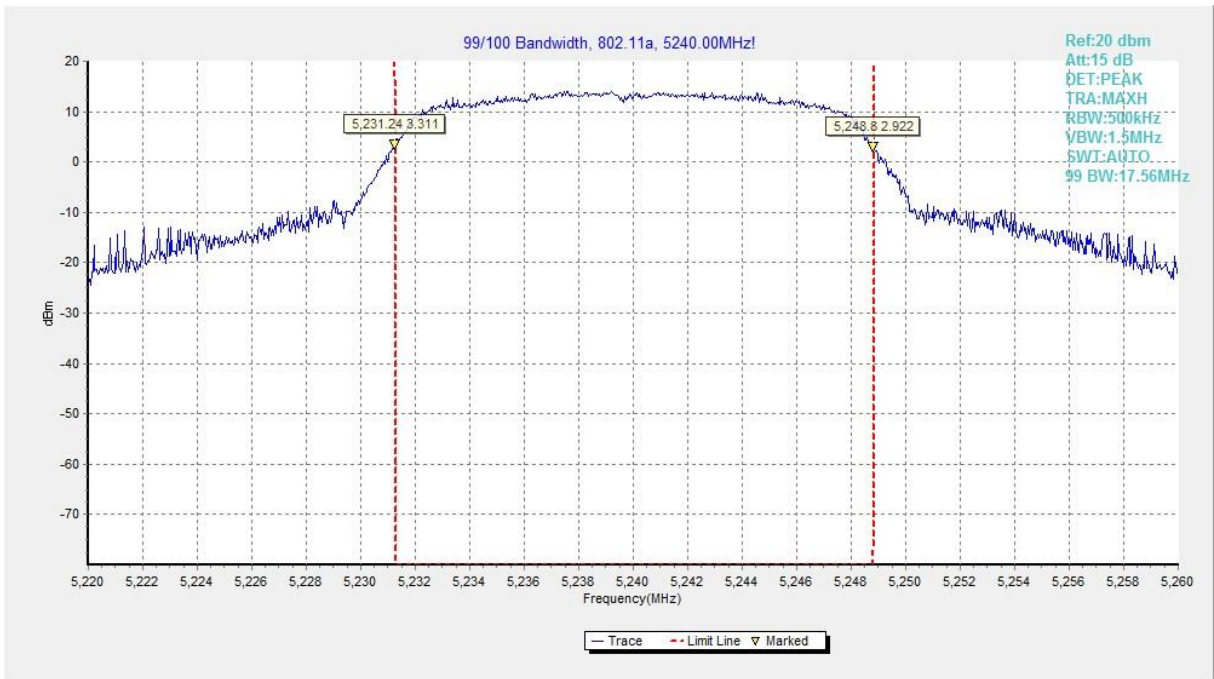


Fig.62 99% Occupied bandwidth (802.11a, 5240MHz)

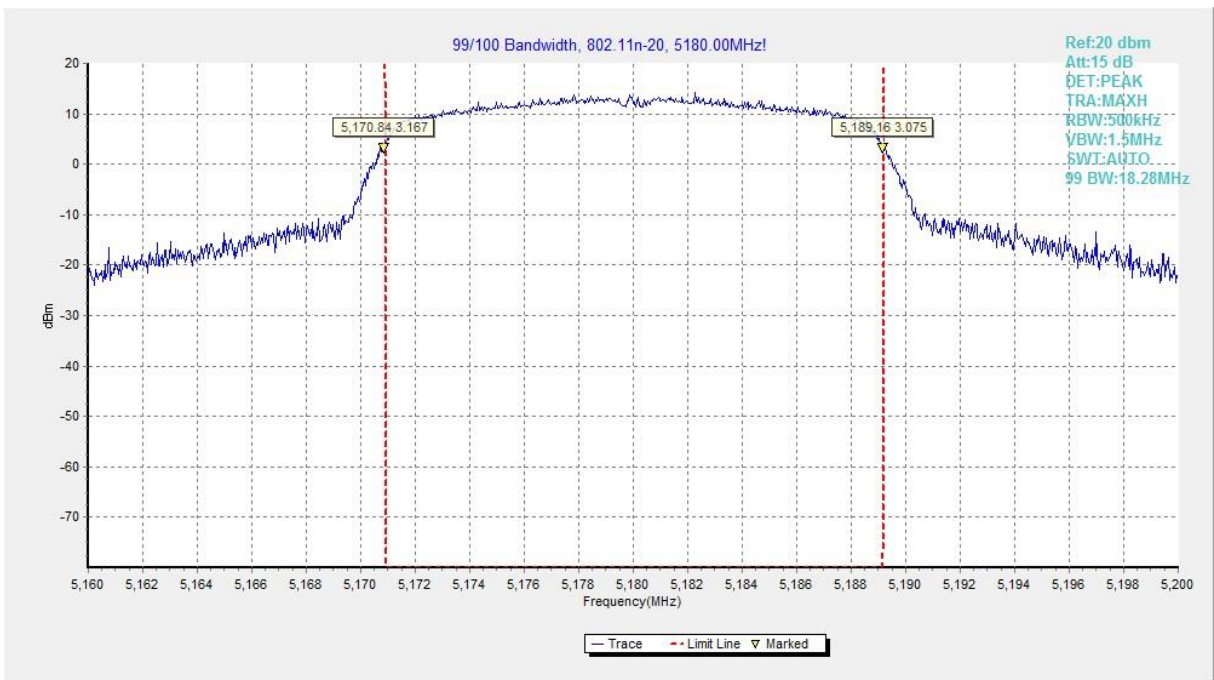


Fig.63 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

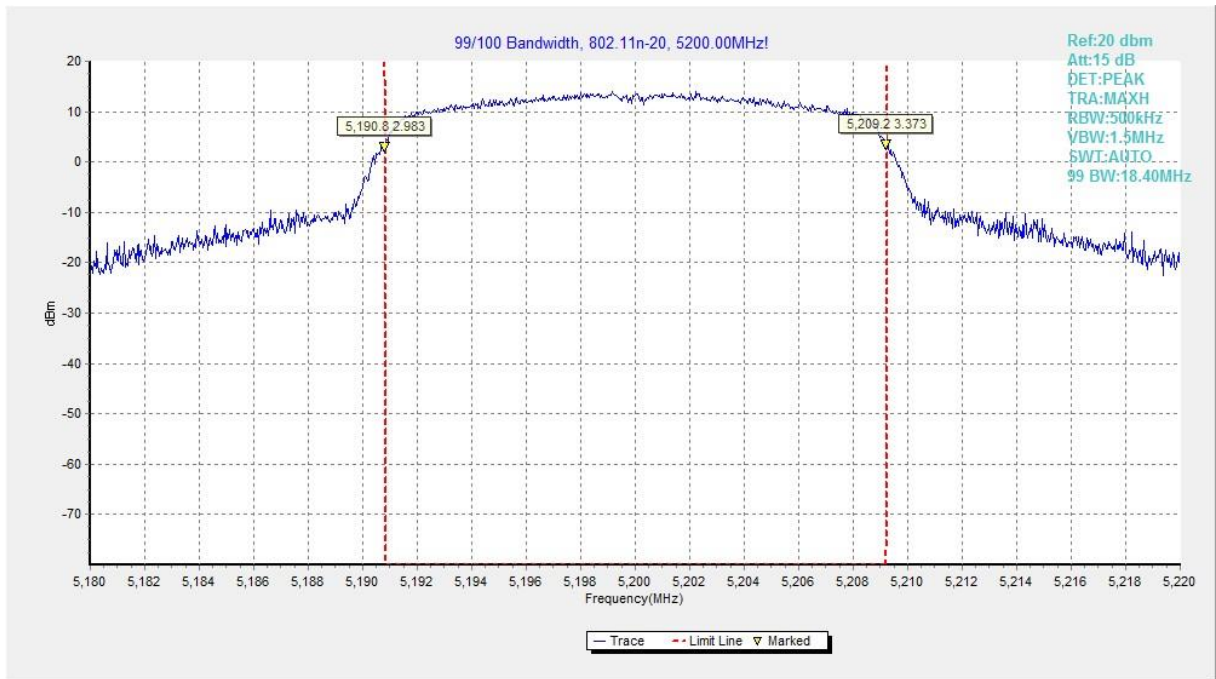


Fig.64 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

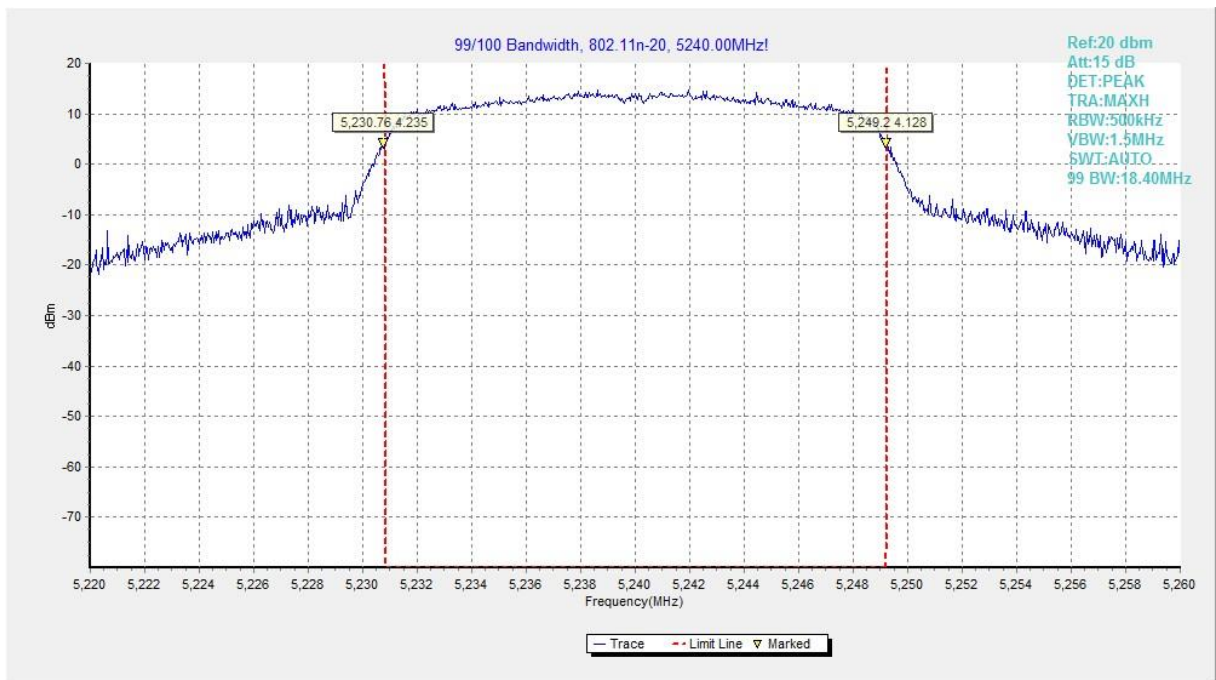


Fig.65 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

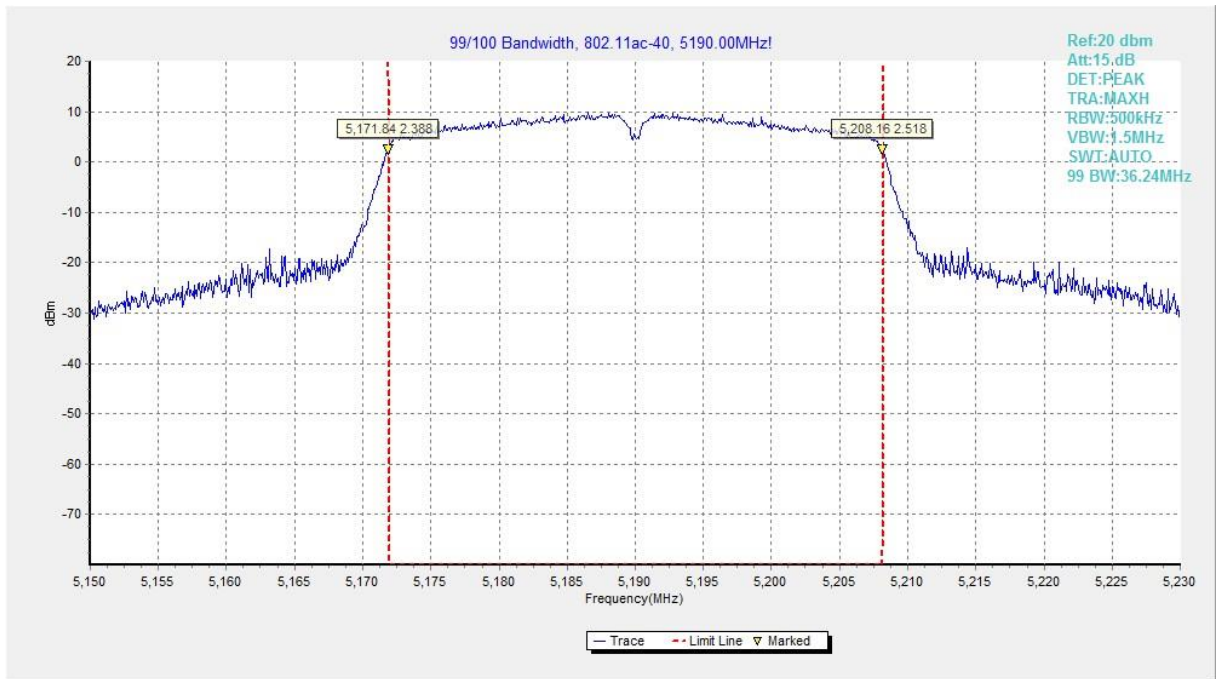


Fig.66 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)

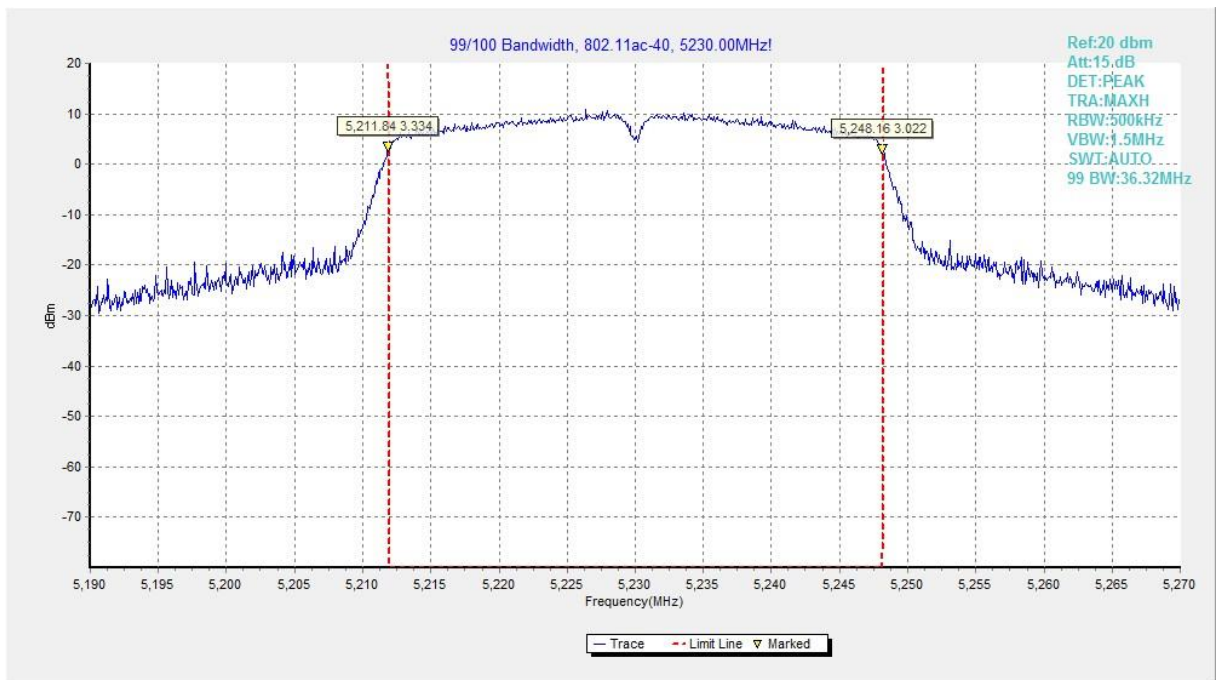


Fig.67 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)

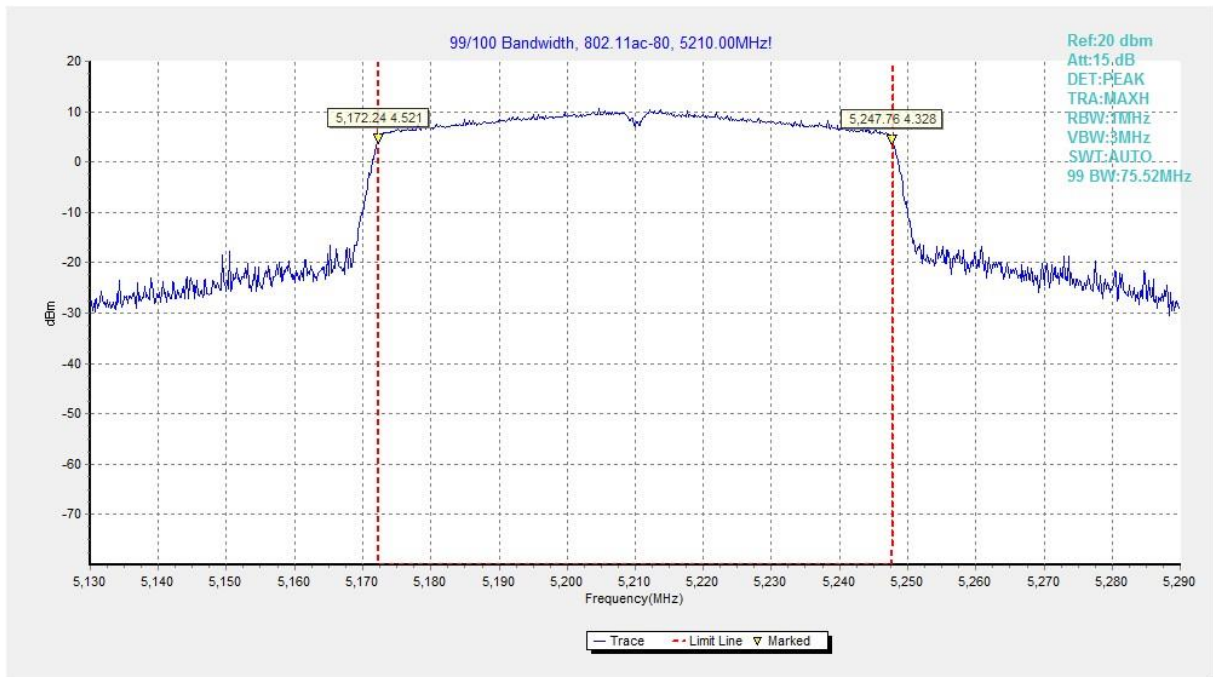


Fig.68 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)




A.9. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

ANNEX B: EUT parameters

Disclaimer: the worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate

<p>United States Department of Commerce National Institute of Standards and Technology</p>  	
<hr/> <h3>Certificate of Accreditation to ISO/IEC 17025:2017</h3> <hr/>	
<p>NVLAP LAB CODE: 600118-0</p>	
<p>Telecommunication Technology Labs, CAICT Beijing China</p>	
<p><i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i></p>	
<p>Electromagnetic Compatibility & Telecommunications</p>	
<p><i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).</i></p>	
<hr/> <p>2020-09-29 through 2021-09-30 <i>Effective Dates</i></p>	 <hr/> <p><i>[Signature]</i> For the National Voluntary Laboratory Accreditation Program</p>

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