

Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

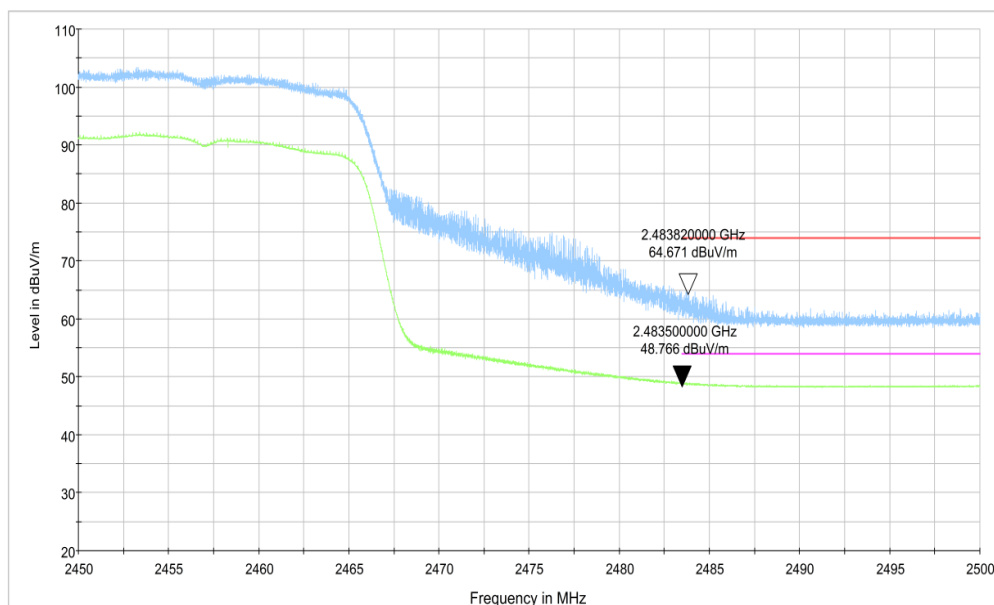


Fig.A.6.2.10 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch10, 2.45 GHz - 2.50GHz

A.7. AC Power-line Conducted Emission

Method of Measurement:

See Clause 6.2 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

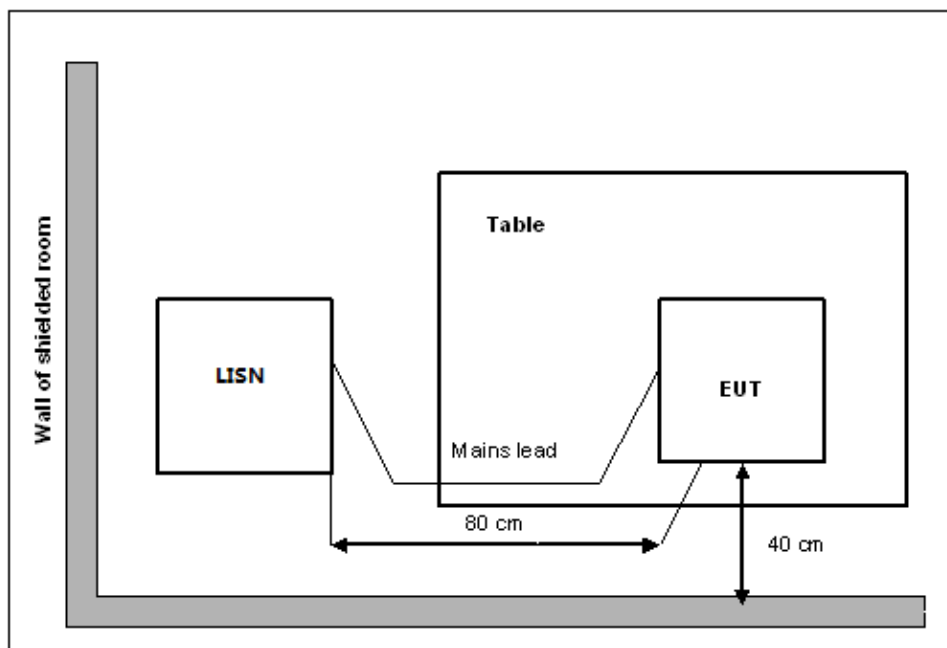
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: Pass

Test graphs as below:

Result for Traffic:

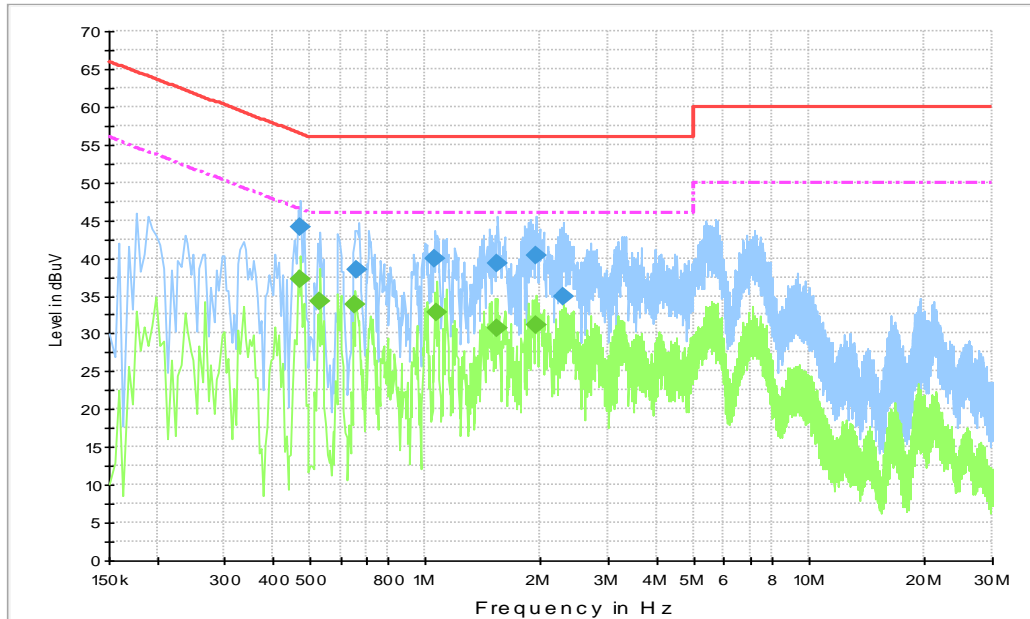


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)
0.474000	44.1	5000.0	9.000	L1	19.9	12.3	56.4
0.663000	38.5	5000.0	9.000	L1	19.8	17.5	56.0
1.063500	40.0	5000.0	9.000	L1	19.7	16.0	56.0
1.545000	39.4	5000.0	9.000	L1	19.7	16.6	56.0
1.950000	40.4	5000.0	9.000	L1	19.7	15.6	56.0
2.283000	35.0	5000.0	9.000	N	19.6	21.0	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.474000	37.3	5000.0	9.000	L1	19.9	9.2	46.4
0.532500	34.2	5000.0	9.000	L1	19.8	11.8	46.0
0.658500	33.8	5000.0	9.000	L1	19.8	12.2	46.0
1.072500	32.8	5000.0	9.000	L1	19.7	13.2	46.0
1.531500	30.8	5000.0	9.000	L1	19.7	15.2	46.0
1.950000	31.1	5000.0	9.000	L1	19.7	14.9	46.0

Result for Idle:

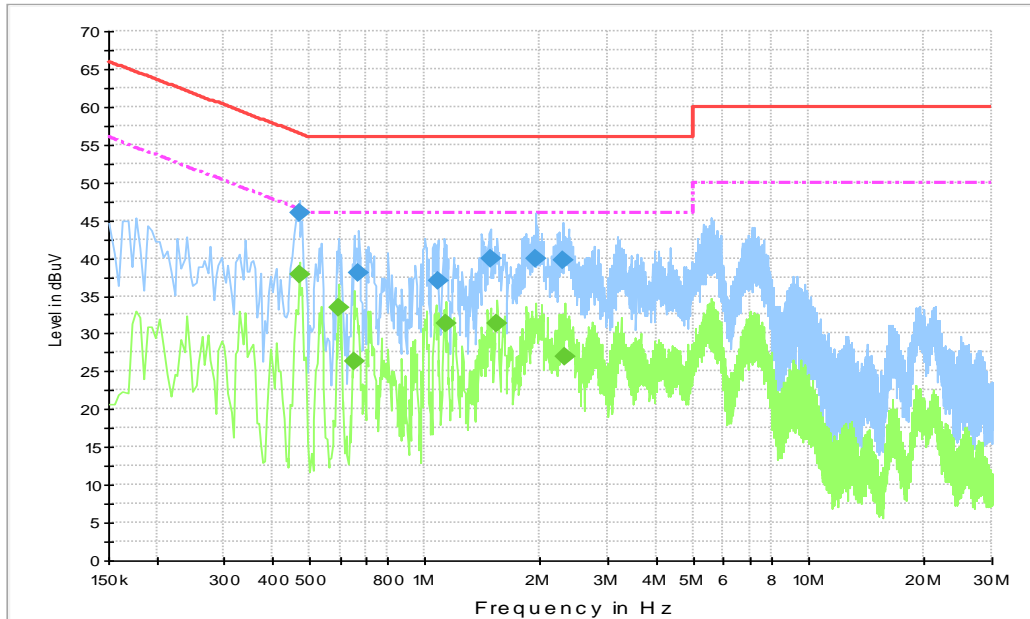


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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)
0.469500	45.9	5000.	9.000	L1	19.9	10.6	56.5
0.672000	38.0	5000.	9.000	L1	19.8	18.0	56.0
1.077000	36.9	5000.	9.000	L1	19.7	19.1	56.0
1.477500	40.0	5000.	9.000	L1	19.7	16.0	56.0
1.941000	40.0	5000.	9.000	L1	19.7	16.0	56.0
2.296500	39.7	5000.	9.000	L1	19.6	16.3	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.469500	37.8	5000.0	9.000	L1	19.9	8.7	46.5
0.595500	33.4	5000.0	9.000	L1	19.8	12.6	46.0
0.654000	26.2	5000.0	9.000	N	19.8	19.8	46.0
1.135500	31.3	5000.0	9.000	L1	19.7	14.7	46.0
1.545000	31.3	5000.0	9.000	L1	19.7	14.7	46.0
2.314500	27.0	5000.0	9.000	N	19.6	19.0	46.0

Note: The measurement results showed here are worst cases of the combinations of different AE

ANNEX B: EUT parameters

Disclaimer: The antenna gain 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

United States Department of Commerce National Institute of Standards and Technology	
	
<hr/> Certificate of Accreditation to ISO/IEC 17025:2017 <hr/>	
NVLAP LAB CODE: 600118-0	
Telecommunication Technology Labs, CAICT Beijing China	
<i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i>	
Electromagnetic Compatibility & Telecommunications	
<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>	
<hr/> 2021-09-29 through 2022-09-30 <i>Effective Dates</i>	 <hr/> <i>John S. Haman</i> For the National Voluntary Laboratory Accreditation Program

END OF REPORT