802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17789.5	58.2	-25.5	46.7	37	V	74	15.8
17866.5	57.7	-25.5	46.7	36.5	V	74	16.3
17903	57.3	-25.5	46.7	36.1	V	74	16.7
17954	57.3	-25.5	46.7	36.1	V	74	16.7
17943	57.2	-25.5	46.7	36	V	74	16.8
2389.5	62.9	-20	28.1	54.9	H	74	11.1

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17908	58.1	-25.5	46.7	36.9	V	74	15.9
17991	57.6	-25.5	46.7	36.4	V	74	16.4
17937.5	57.5	-25.5	46.7	36.3	V	74	16.5
17836	57.2	-25.5	46.7	36	V	74	16.8
17906	57.2	-25.5	46.7	36	V	74	16.8
17863	57.1	-25.5	46.7	35.9	V	74	16.9

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17986.5	57.6	-25.5	46.7	36.4	V	74	16.4
17986	57.5	-25.5	46.7	36.3	V	74	16.5
17878.5	57.3	-25.5	46.7	36.1	V	74	16.7
17913.5	57.3	-25.5	46.7	36.1	V	74	16.7
17997	57.3	-25.5	46.7	36.1	V	74	16.7
2485.3	61.7	-20	28.3	53.4	H	74	12.3

802.11n-HT20

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17967.5	58.2	-25.5	46.7	37	V	74	15.8
17944.5	57.1	-25.5	46.7	35.9	V	74	16.9
17923.5	57	-25.5	46.7	35.8	V	74	17
17949.5	56.9	-25.5	46.7	35.7	V	74	17.1
17986.5	56.9	-25.5	46.7	35.7	V	74	17.1
2389.4	61.5	-20	28.1	53.5	H	74	12.5

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17890.5	57.9	-25.5	46.7	36.7	V	74	16.1
17910.5	57.4	-25.5	46.7	36.2	V	74	16.6
17962	57.4	-25.5	46.7	36.2	V	74	16.6
17964	57.4	-25.5	46.7	36.2	V	74	16.6
17988.5	57.4	-25.5	46.7	36.2	V	74	16.6
17979	57.3	-25.5	46.7	36.1	V	74	16.7

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17984	57.6	-25.5	46.7	36.4	V	74	16.4
17834.5	57.2	-25.5	46.7	36	V	74	16.8
17925.5	57.2	-25.5	46.7	36	V	74	16.8
17954.5	57.2	-25.5	46.7	36	V	74	16.8
17946	57.1	-25.5	46.7	35.9	V	74	16.9
2485.2	59.7	-20	28.3	51.4	H	74	14.3

Test graphs as below:

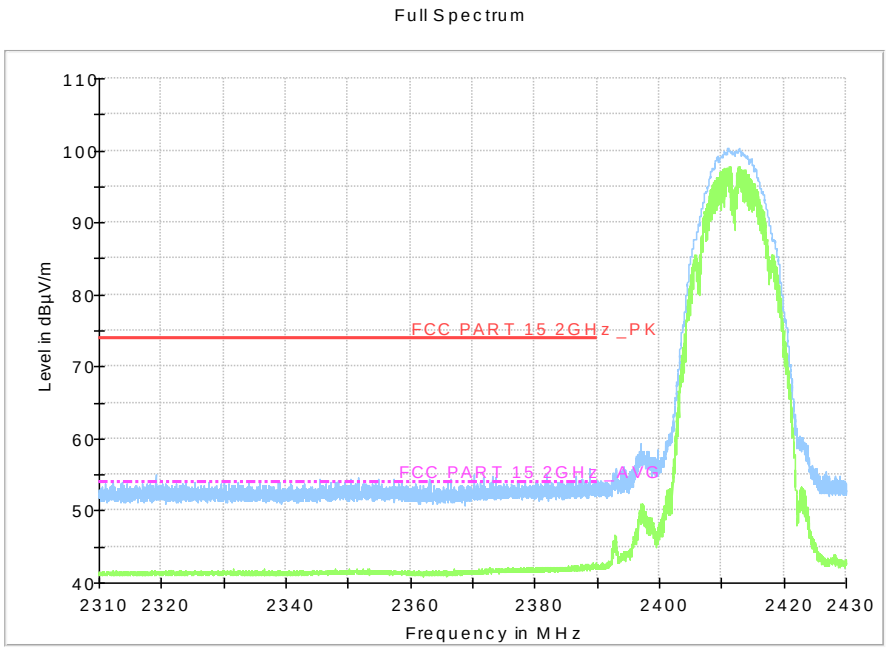


Fig.B.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

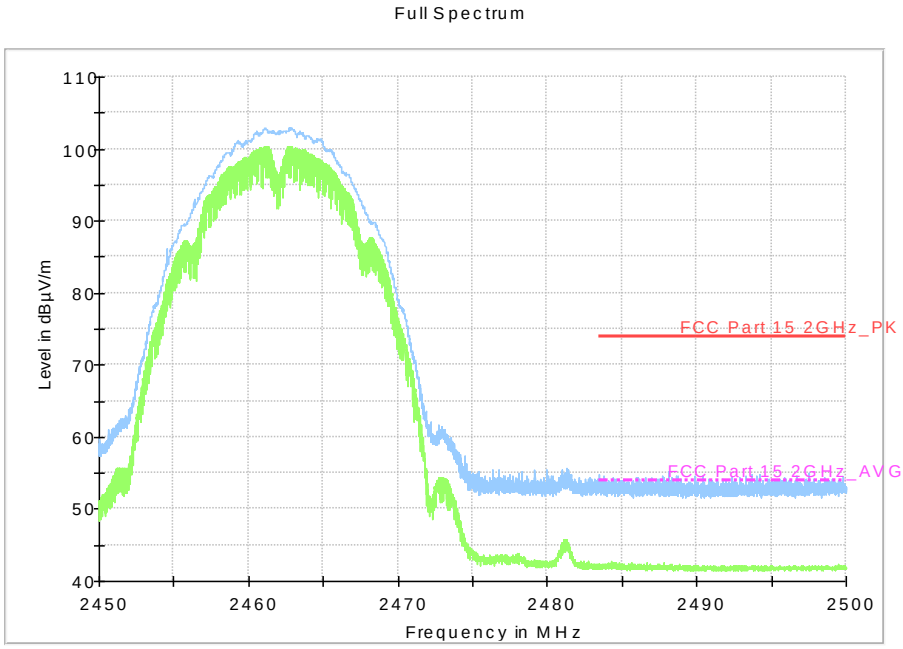


Fig.B.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

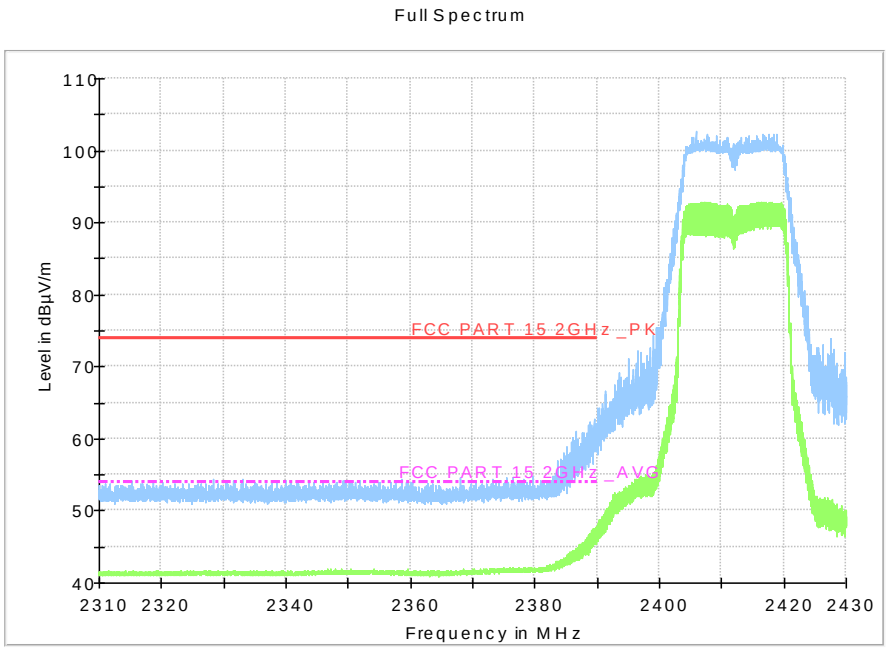


Fig.B.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31GHz - 2.43GHz

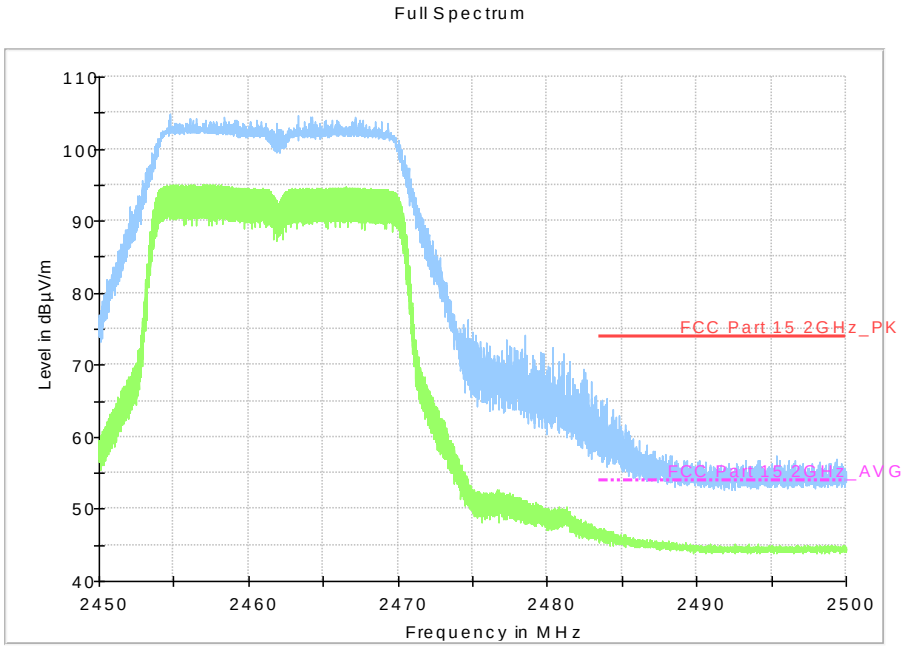


Fig.B.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

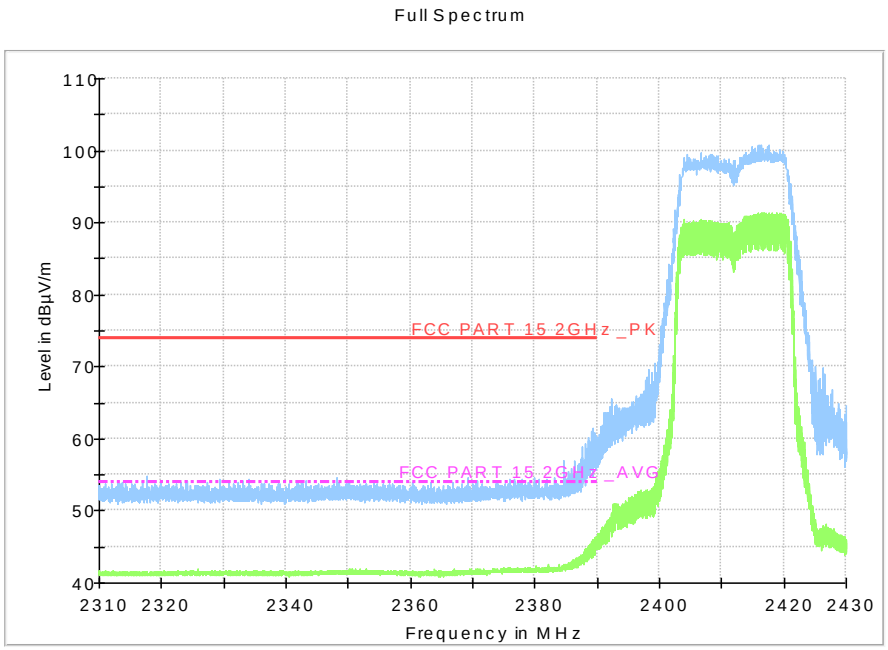


Fig.B.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.43GHz

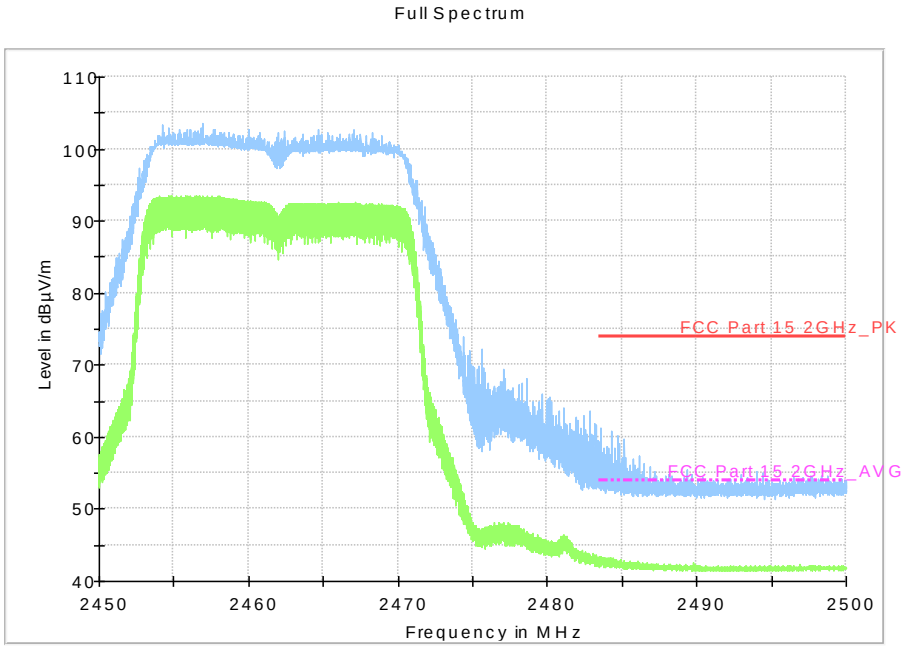


Fig.B.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

B.7. AC Power-line Conducted Emission

Method of Measurement: See ANSI C63.10-2013-clause 6.2

1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.

2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.

3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.

4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

5 If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.36 Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

Measurement Result and limit:

EUT1 with AE3

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.B.7.1	Fig.B.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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.B.7.1	Fig.B.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.				

Note:The measurement results showed here are worst cases.

EUT1 with AE7

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	67 to 56	Fig.B.7.3	Fig.B.7.4	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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.B.7.3	Fig.B.7.4	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:

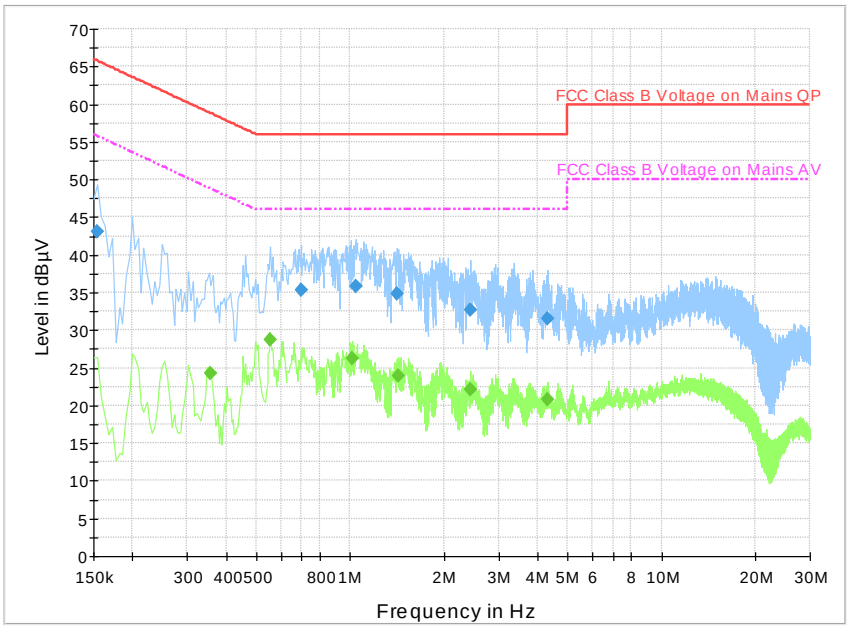


Fig.B.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	43.1	L1	19.7	22.6	65.8
0.694500	35.4	N	19.4	20.6	56.0
1.041000	35.9	L1	19.6	20.1	56.0
1.410000	34.9	N	19.6	21.1	56.0
2.440500	32.8	L1	19.6	23.2	56.0
4.317000	31.5	L1	19.8	24.5	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.357000	24.3	N	19.6	24.5	48.8
0.555000	28.7	L1	19.6	17.3	46.0
1.014000	26.3	N	19.6	19.7	46.0
1.432500	24.0	L1	19.6	22.0	46.0
2.440500	22.1	L1	19.6	23.9	46.0
4.308000	20.9	N	19.7	25.1	46.0

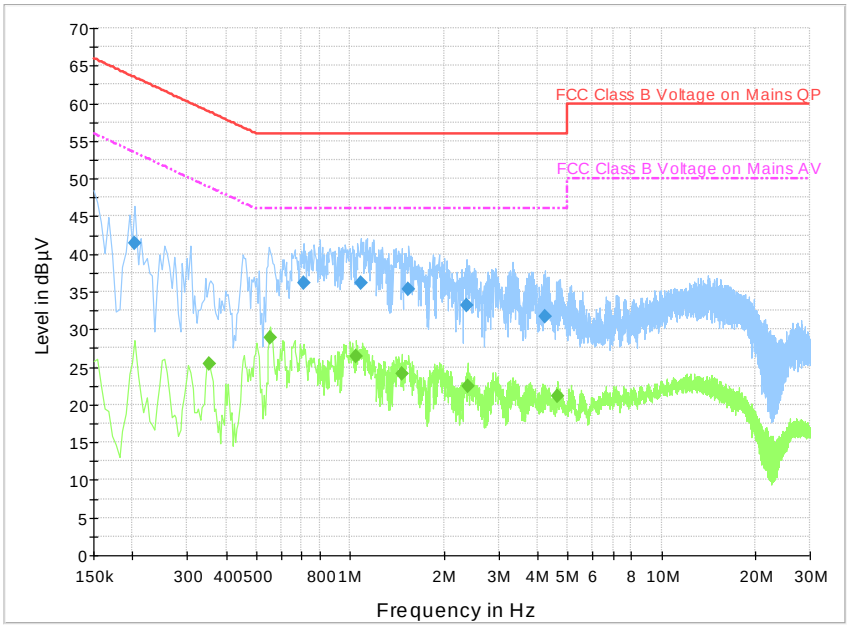


Fig.B.7.2 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.204000	41.4	L1	19.6	22.1	63.4
0.708000	36.1	L1	19.6	19.9	56.0
1.081500	36.1	N	19.6	19.9	56.0
1.540500	35.3	L1	19.6	20.7	56.0
2.373000	33.2	N	19.6	22.8	56.0
4.222500	31.7	N	19.7	24.3	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.352500	25.4	L1	19.6	23.5	48.9
0.555000	28.8	N	19.5	17.2	46.0
1.045500	26.4	L1	19.6	19.6	46.0
1.464000	24.1	L1	19.6	21.9	46.0
2.382000	22.5	N	19.6	23.5	46.0
4.632000	21.2	N	19.7	24.8	46.0

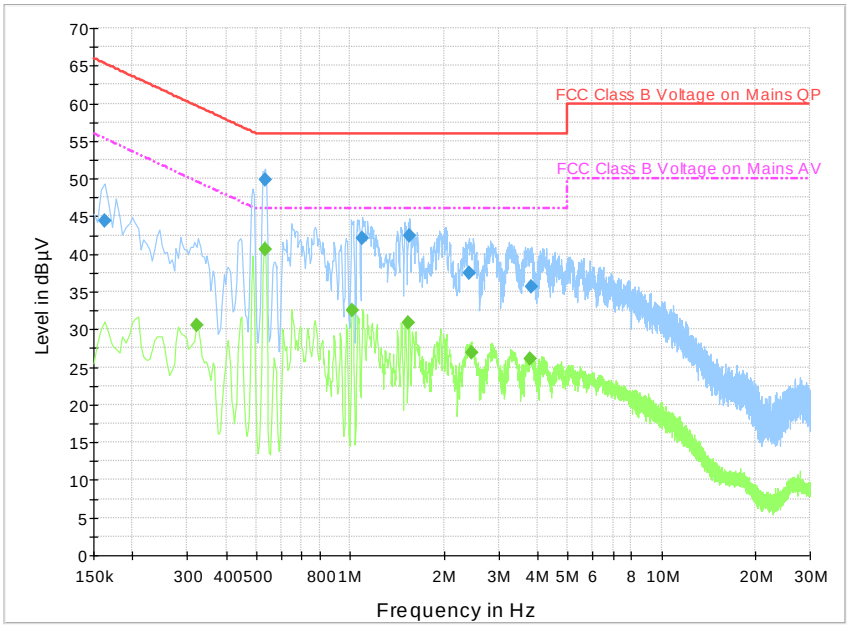


Fig.B.7.3 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	44.4	N	19.4	20.9	65.3
0.532500	49.9	L1	19.6	6.1	56.0
1.095000	42.0	N	19.6	14.0	56.0
1.554000	42.4	L1	19.6	13.6	56.0
2.404500	37.5	N	19.6	18.5	56.0
3.822000	35.6	L1	19.7	20.4	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.321000	30.5	L1	19.6	19.2	49.7
0.532500	40.6	N	19.5	5.4	46.0
1.018500	32.6	N	19.6	13.4	46.0
1.540500	30.9	N	19.6	15.1	46.0
2.449500	26.9	L1	19.6	19.1	46.0
3.772500	26.0	N	19.7	20.0	46.0

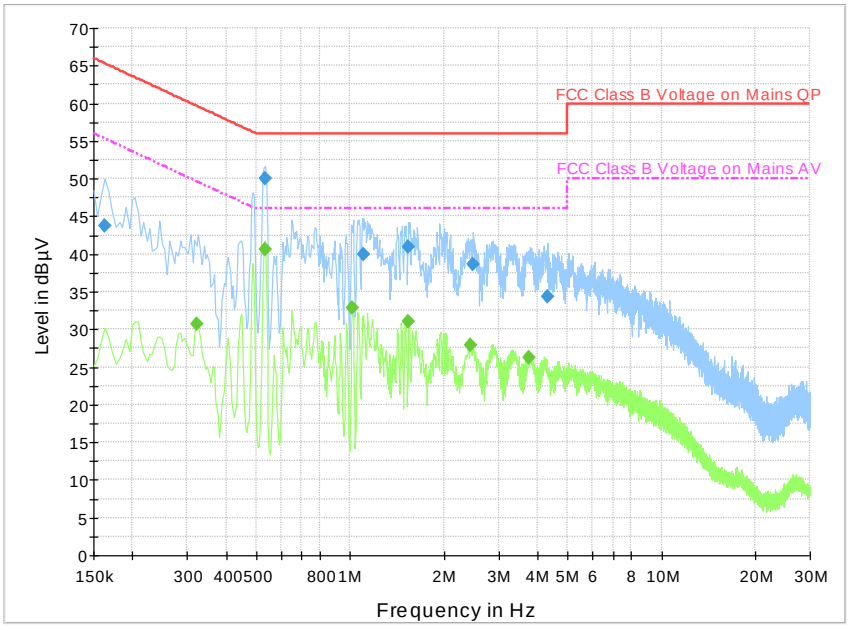


Fig.B.7.4 AC Powerline Conducted Emission-Idle

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

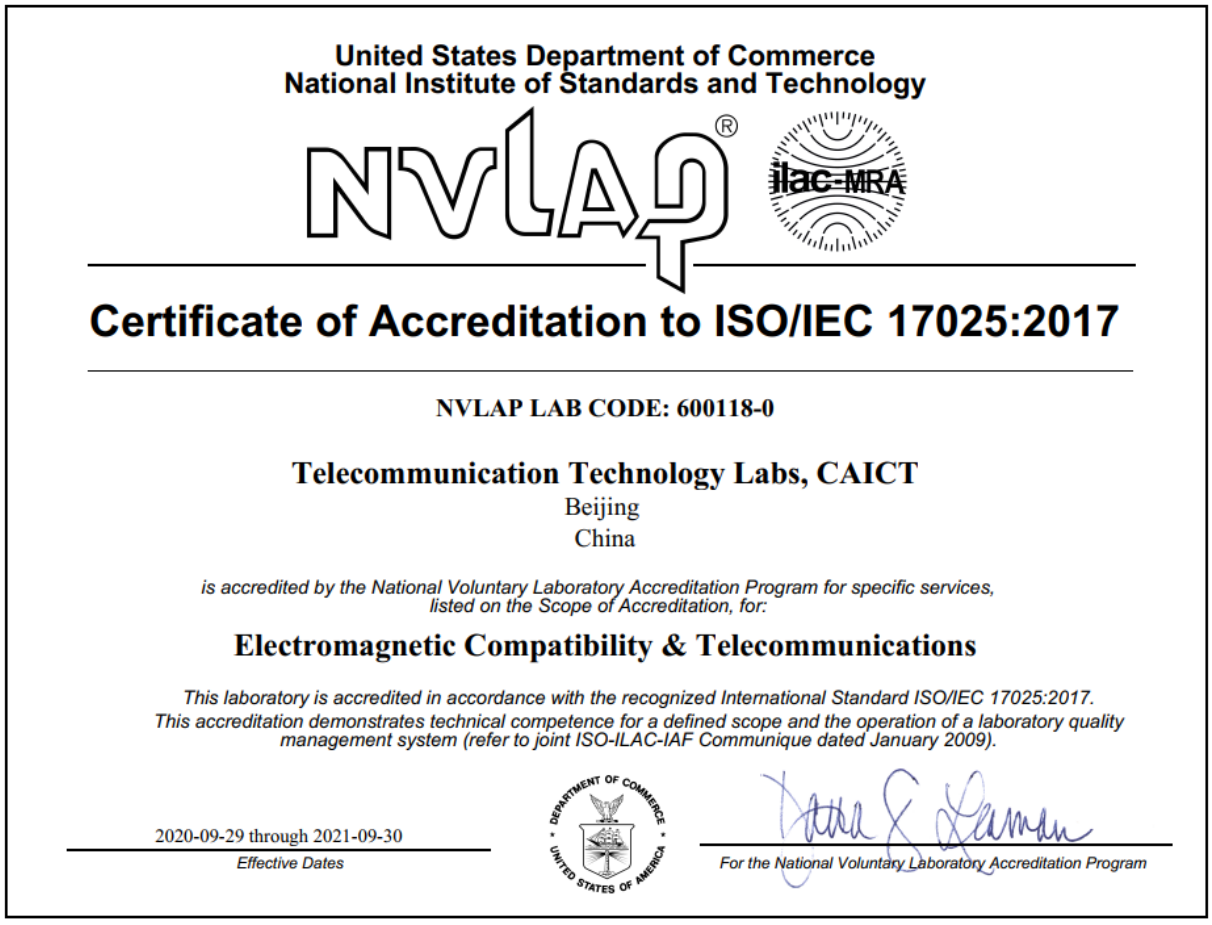
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	43.7	N	19.4	21.5	65.3
0.532500	50.0	L1	19.6	6.0	56.0
1.099500	40.0	L1	19.6	16.0	56.0
1.540500	40.9	L1	19.6	15.1	56.0
2.490000	38.6	L1	19.6	17.4	56.0
4.312500	34.3	L1	19.8	21.7	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.321000	30.7	L1	19.6	19.0	49.7
0.532500	40.6	L1	19.6	5.4	46.0
1.014000	32.9	L1	19.6	13.1	46.0
1.540500	31.1	L1	19.6	14.9	46.0
2.436000	27.8	L1	19.6	18.2	46.0
3.768000	26.2	L1	19.7	19.8	46.0

ANNEX C: Accreditation Certificate



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Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

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).

2020-09-29 through 2021-09-30
Effective Dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Voluntary Laboratory Accreditation Program

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