

Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

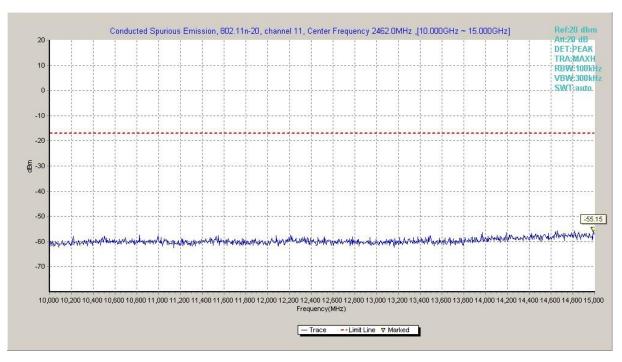


Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)



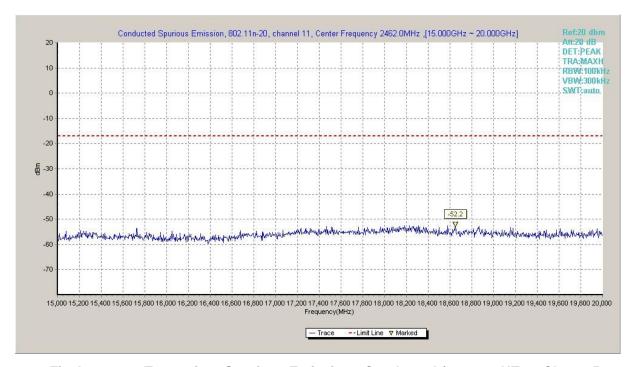


Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

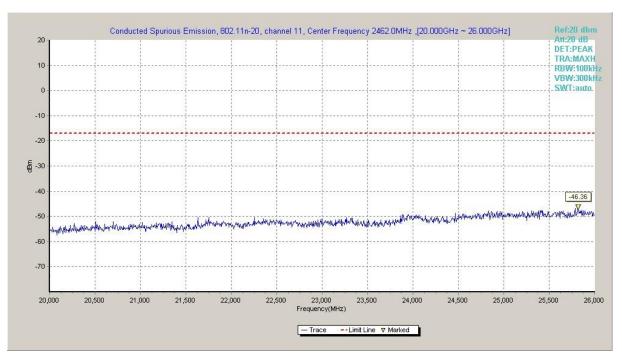


Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)



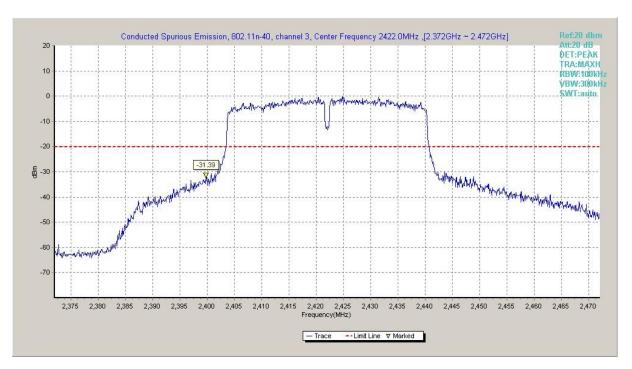


Fig.A.6.1.73 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, Center Frequency)

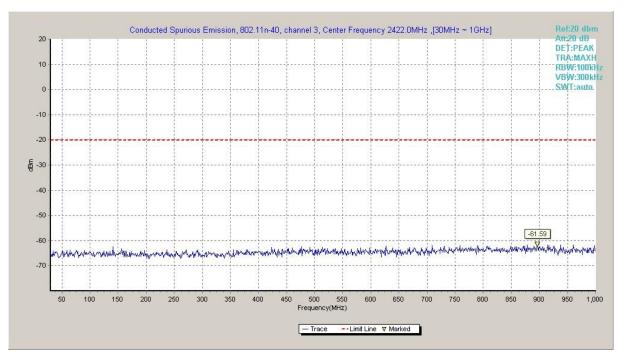


Fig.A.6.1.74 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 30 MHz-1 GHz)



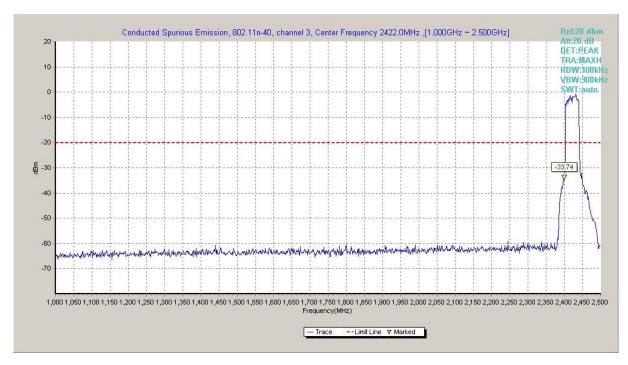


Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

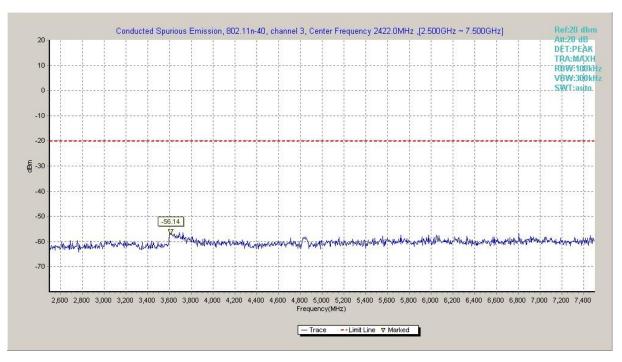


Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)



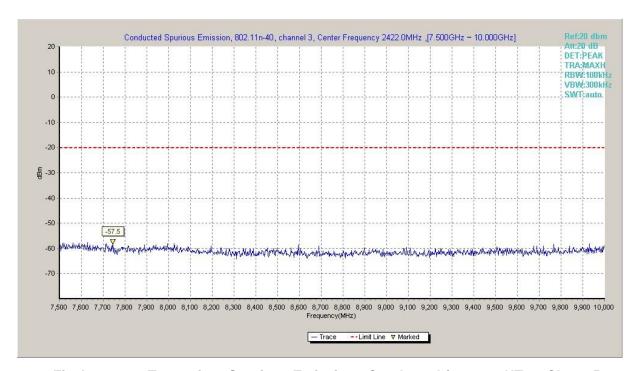


Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

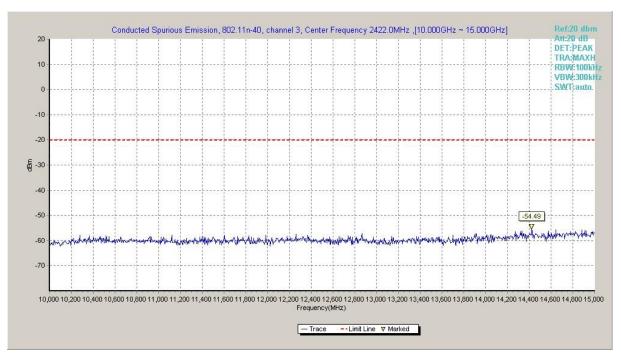


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)



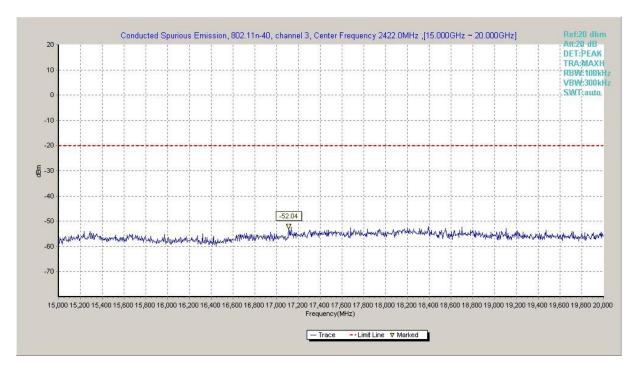


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

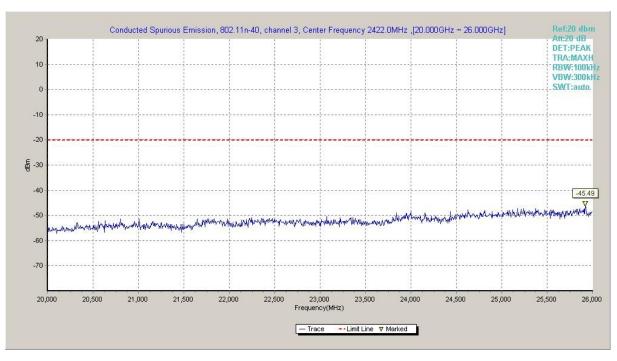


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)



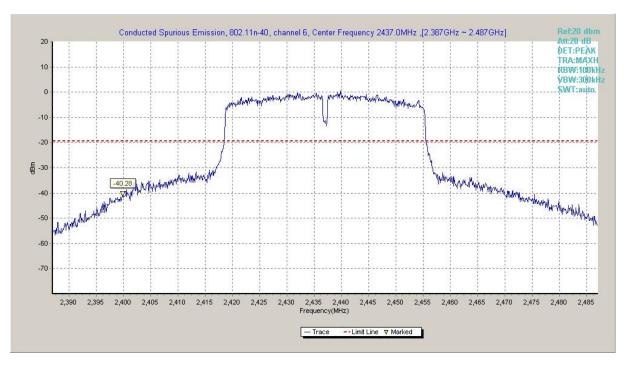


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

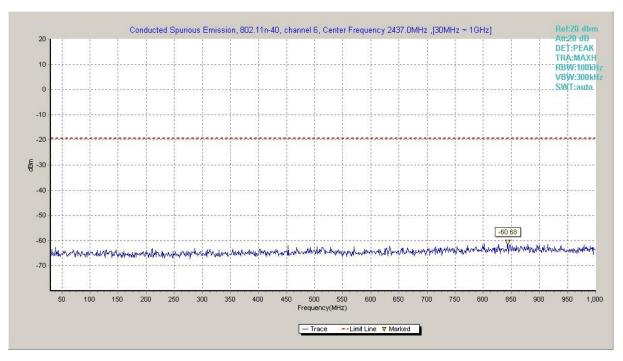


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)



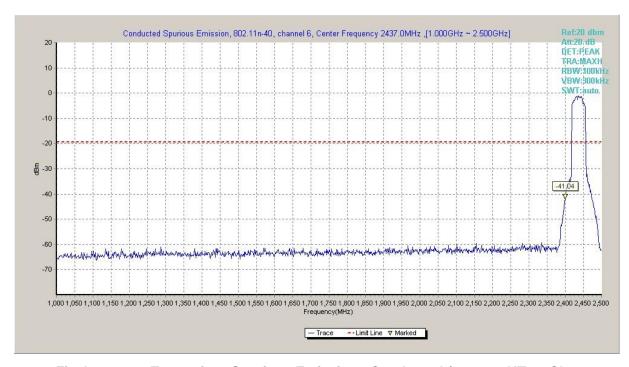


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

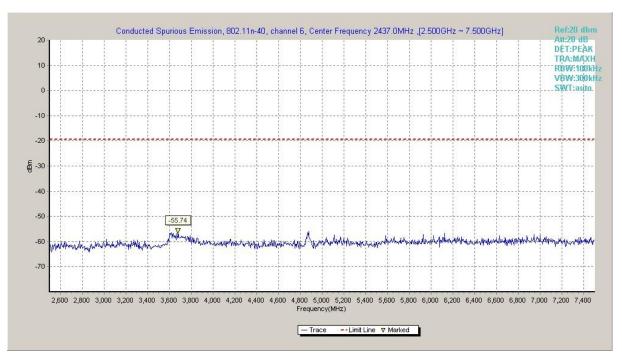


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)



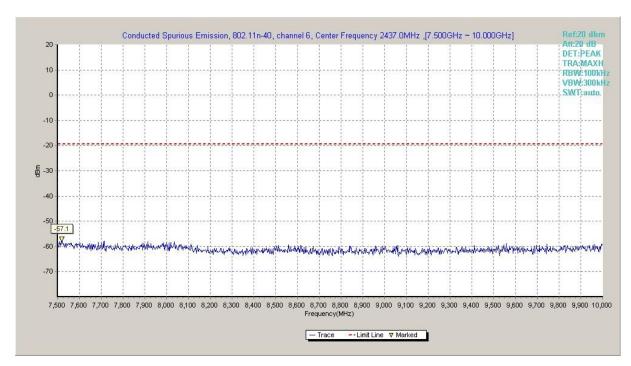


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

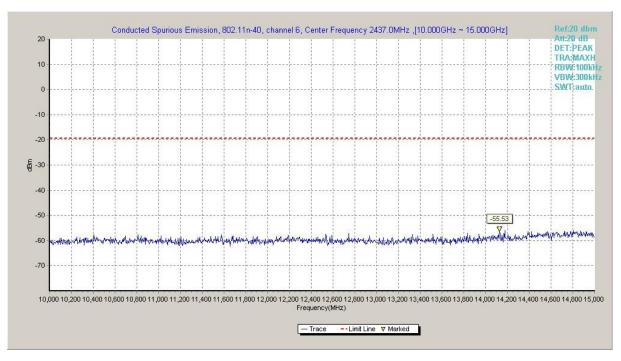


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)



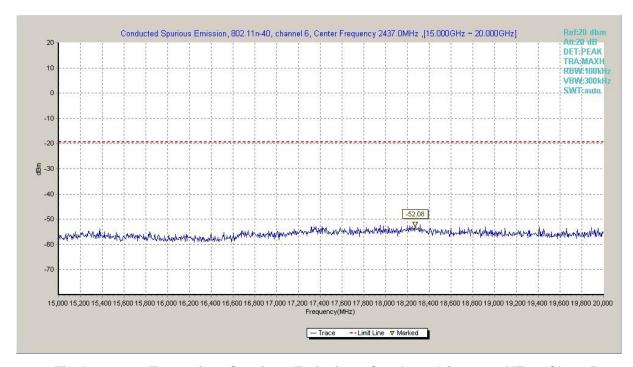


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

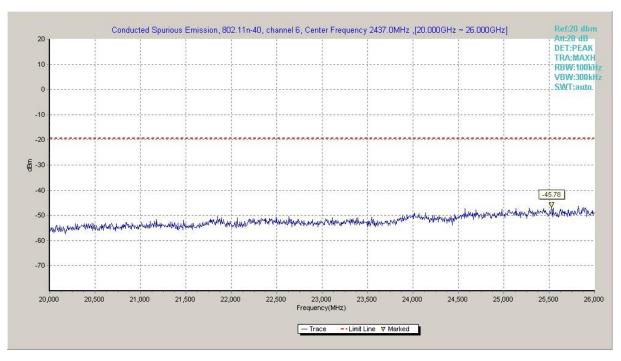


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)



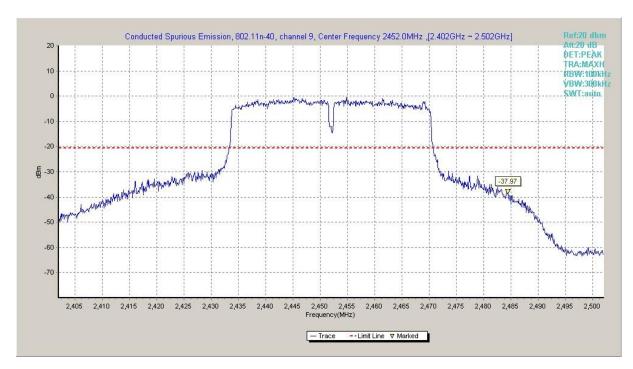


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

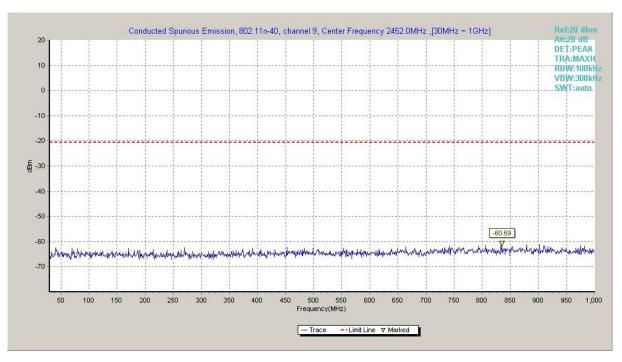


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)



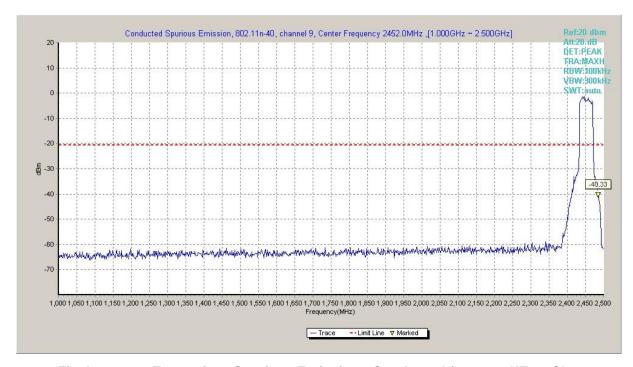


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

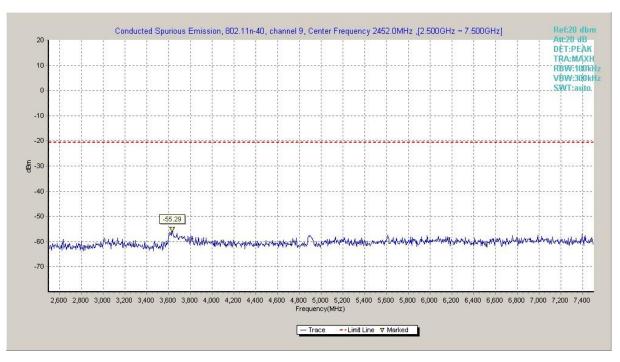


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)



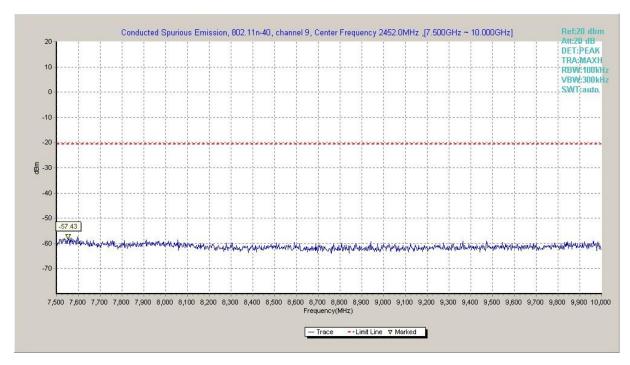


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

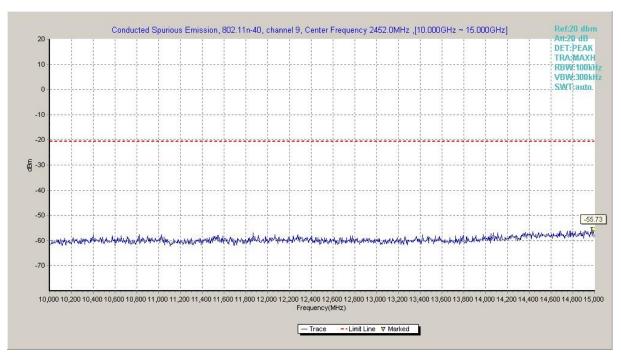


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)



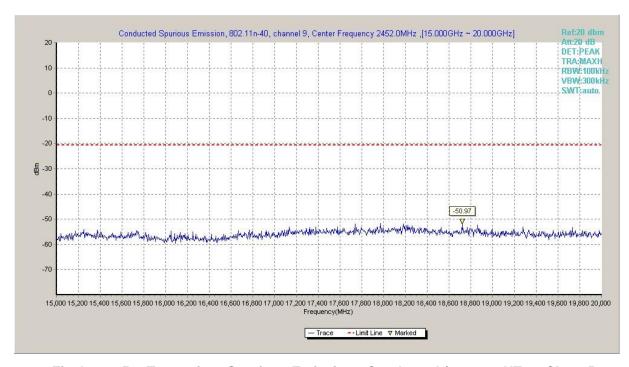


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

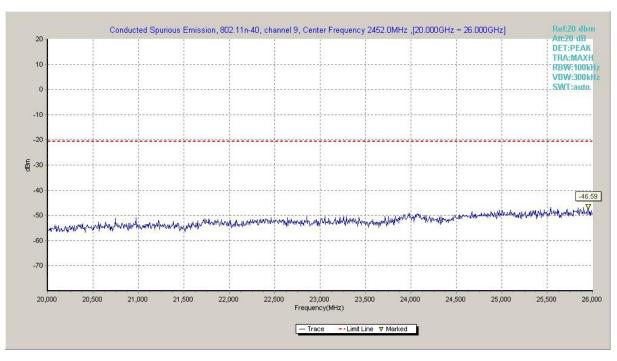


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)



A.6.2 Transmitter Spurious Emission - Radiated

Method of Measurement: See ANSI C63.10-2013-clause 6.4 &6.5 & 6.6 Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

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) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission	Field strength(uV/m)	Field strength(dBuV/m)
(MHz)		
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Frequency (MHz)	Field strength(µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

EUT ID: EUT1



Measurement Results:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion			
	Power	2.38GHz ~2.43GHz	Fig.A.6.2.1	Р			
	4	1 GHz ~ 3 GHz		Р			
	'	3 GHz ~ 18 GHz		Р			
		9 kHz ~30 MHz		Р			
	6	30 MHz ~1 GHz		Р			
802.11b		1 GHz ~ 3 GHz		Р			
		3 GHz ~ 18 GHz		Р			
		18 GHz~ 26.5 GHz		Р			
	Power	Power	Power	Power 2.45GHz ~2	2.45GHz ~2.5GHz	Fig.A.6.2.2	Р
	11	1 GHz ~ 3 GHz		Р			
	11	3 GHz ~ 18 GHz		Р			

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
	Power	2.38GHz ~2.43GHz	Fig.A.6.2.3	Р
	4	1 GHz ~ 3 GHz		Р
	'	3 GHz ~ 18 GHz		Р
		30 MHz ~1 GHz		Р
902.11a	6	1 GHz ~ 3 GHz		Р
802.11g	Power	3 GHz ~ 18 GHz		Р
		18 GHz~ 26.5 GHz		Р
		2.45GHz ~2.5GHz	Fig.A.6.2.4	Р
	11	1 GHz ~ 3 GHz	-	Р
	11	3 GHz ~ 18 GHz		Р

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
	Power	2.38GHz ~2.43GHz	Fig.A.6.2.5	Р
	4	1 GHz ~ 3 GHz		Р
	1	3 GHz ~ 18 GHz		Р
		30 MHz ~1 GHz		Р
802.11n	6 Power	1 GHz ~ 3 GHz		Р
(HT20)		3 GHz ~ 18 GHz		Р
		18 GHz~ 26.5 GHz		Р
		2.45GHz ~2.5GHz	Fig.A.6.2.6	Р
	11	1 GHz ~ 3 GHz		Р
	11	3 GHz ~ 18 GHz		Р



802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
	Power	2.38GHz ~2.43GHz	Fig.A.6.2.7	Р
	3	1 GHz ~ 3 GHz		Р
	3	3 GHz ~ 18 GHz		Р
		30 MHz ~1 GHz		Р
802.11n	6	1 GHz ~ 3 GHz		Р
(HT40)	0	3 GHz ~ 18 GHz		Р
		18 GHz~ 26.5 GHz		Р
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.8	Р
	0	1 GHz ~ 3 GHz		Р
	9	3 GHz ~ 18 GHz		Р

Conclusion: Pass

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

 $\ensuremath{P_{\text{Mea}}}$ is the field strength recorded from the instrument.

The measurement results are obtained as described below:

 $Result = P_{Mea} + A_{Rpl =} \ P_{Mea} + Cable \ Loss + Antenna \ Factor$

802.11b-Average

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2389.350	41.3	-38.8	27.7	52.400	Н
4824.000	49.9	-35.1	33.1	51.900	Н
4823.500	48.8	-35.1	33.1	50.800	V
4824.500	41.3	-35.1	33.1	43.300	Н
4827.000	39.6	-35.1	33.1	41.600	Н
17864.500	39.2	-18.5	45.6	12.100	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
4874.000	47.4	-35.7	33.1	50.000	Н
4873.500	46.3	-35.7	33.1	48.900	Н
17862.500	39.5	-18.5	45.6	12.400	V
17850.000	39.3	-18.5	45.6	12.200	Н
17876.000	39.2	-18.5	45.6	12.100	Н
17753.500	39.2	-18.5	45.6	12.100	Н



Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2484.450	45.2	-38.9	27.7	56.400	Н
4924.000	51.5	-34.9	33.1	53.300	Н
4923.500	49.4	-34.9	33.1	51.200	V
4924.500	42.9	-34.9	33.1	44.700	Н
4927.000	40.4	-34.9	33.1	42.200	Н
4921.000	40.1	-34.9	33.1	41.900	Н

802.11b-Peak

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2389.335	54.9	-38.8	27.7	66.000	Н
4824.000	52.3	-35.1	33.1	54.300	Н
4823.500	52.2	-35.1	33.1	54.200	V
17778.500	50.7	-18.5	45.6	23.600	Н
17837.500	50.5	-18.5	45.6	23.400	Н
17738.000	50.5	-18.5	45.6	23.400	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17852.500	51.6	-18.5	45.6	24.500	Н
17373.500	51.2	-19.5	41.5	29.200	Н
17873.500	51.0	-18.5	45.6	23.900	V
17954.000	51.0	-17.7	45.6	23.100	Н
17728.000	50.9	-18.9	45.6	24.200	Н
17803.000	50.9	-18.5	45.6	23.800	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2483.815	57.3	-38.9	27.7	68.500	Н
4924.000	53.7	-34.9	33.1	55.500	Н
4923.500	53.0	-34.9	33.1	54.800	V
17429.000	50.9	-19.2	41.5	28.600	Н
17748.500	50.9	-18.5	45.6	23.800	Н
17388.500	50.7	-19.2	41.5	28.400	Н



802.11g - Average

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2389.925	42.9	-38.8	27.7	54.000	Н
17746.000	39.2	-18.5	45.6	12.100	Н
17874.000	39.1	-18.5	45.6	12.000	V
17868.000	39.0	-18.5	45.6	11.900	Н
17754.000	39.0	-18.5	45.6	11.900	Н
17752.000	39.0	-18.5	45.6	11.900	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17878	39.5	-18.5	45.6	12.4	Н
17871.5	39.2	-18.5	45.6	12.1	Н
17858	39.2	-18.5	45.6	12.1	V
17867.5	39.2	-18.5	45.6	12.1	Н
17855.5	39.2	-18.5	45.6	12.1	Н
17756.5	39.2	-18.5	45.6	12.1	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2483.640	47.5	-38.9	27.7	58.700	Н
17847.500	39.2	-18.5	45.6	12.100	Н
17845.000	39.2	-18.5	45.6	12.100	V
17862.000	39.1	-18.5	45.6	12.000	Н
17857.500	39.1	-18.5	45.6	12.000	Н
17870.500	39.1	-18.5	45.6	12.000	Н



802.11g - Peak

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2389.925	55.1	-38.8	27.7	66.200	Н
17284.000	51.0	-19.5	41.5	29.000	Н
17797.000	50.7	-18.5	45.6	23.600	V
17859.000	50.5	-18.5	45.6	23.400	Н
17512.000	50.4	-19.2	45.6	24.000	Н
17788.500	50.4	-18.5	45.6	23.300	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17667.000	51.4	-18.9	45.6	24.700	Н
17859.000	51	-18.5	45.6	23.900	Н
17974.500	50.8	-17.7	45.6	22.900	V
17433.500	50.8	-19.2	41.5	28.500	Н
17425.500	50.7	-19.2	41.5	28.400	Н
17783.000	50.6	-18.5	45.6	23.500	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2483.635	61.1	-38.9	27.7	72.300	Н
17898.500	51.2	-18.5	45.6	24.100	Н
17895.500	50.7	-18.5	45.6	23.600	V
17955.500	50.7	-17.7	45.6	22.800	Н
17952.000	50.6	-17.7	45.6	22.700	Н
17682.500	50.6	-18.9	45.6	23.900	Н



802.11n-HT20-Average

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2389.805	45.3	-38.8	27.7	56.400	Н
17840.000	39.2	-18.5	45.6	12.100	Н
17870.500	39.0	-18.5	45.6	11.900	V
17858.500	39.0	-18.5	45.6	11.900	Н
17419.000	39.0	-19.2	41.5	16.700	Н
17847.500	39.0	-18.5	45.6	11.900	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17874.500	39.2	-18.5	45.6	12.100	Н
17851.000	39.1	-18.5	45.6	12.000	Н
17854.500	39.1	-18.5	45.6	12.000	V
17868.000	39.1	-18.5	45.6	12.000	Н
17889.000	39.0	-18.5	45.6	11.900	Н
17845.000	39.0	-18.5	45.6	11.900	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2483.725	45.2	-38.9	27.7	56.400	Н
17858.000	39.2	-18.5	45.6	12.100	Н
17866.500	39.1	-18.5	45.6	12.000	V
17852.500	39.0	-18.5	45.6	11.900	Н
17840.000	39.0	-18.5	45.6	11.900	Н
17751.000	39.0	-18.5	45.6	11.900	Н



802.11n-HT20-Peak

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2389.765	63.1	-38.8	27.7	74.200	Н
17739.500	51.9	-18.5	45.6	24.800	Н
17743.000	51.4	-18.5	45.6	24.300	V
17875.500	50.7	-18.5	45.6	23.600	Н
17841.500	50.7	-18.5	45.6	23.600	Н
17855.500	50.6	-18.5	45.6	23.500	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17741.000	51.6	-18.5	45.6	24.500	Н
17943.000	50.9	-17.7	45.6	23.000	Н
17450.500	50.8	-19.2	41.5	28.500	V
17903.500	50.7	-18.5	45.6	23.600	Н
17455.500	50.7	-19.2	41.5	28.400	Н
17758.500	50.7	-18.5	45.6	23.600	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2483.710	59.1	-38.9	27.7	70.300	Н
17776.500	51.0	-18.5	45.6	23.900	Н
17858.500	50.9	-18.5	45.6	23.800	V
17422.000	50.8	-19.2	41.5	28.500	Н
17653.000	50.8	-18.9	45.6	24.100	Н
17661.500	50.7	-18.9	45.6	24.000	Н



802.11n-HT40-Average

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2385.675	42.6	-38.8	27.7	53.700	Н
17857.000	39.2	-18.5	45.6	12.100	Н
17831.000	39.1	-18.5	45.6	12.000	V
17861.500	39.1	-18.5	45.6	12.000	Н
17756.500	39.0	-18.5	45.6	11.900	Н
17875.000	39.0	-18.5	45.6	11.900	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17872.500	39.0	-18.5	45.6	11.900	Н
17819.500	38.9	-18.5	45.6	11.800	Н
17781.500	38.9	-18.5	45.6	11.800	V
17739.500	38.9	-18.5	45.6	11.800	Н
17826.500	38.9	-18.5	45.6	11.800	Н
17909.000	38.9	-18.5	45.6	11.800	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2484.280	46.1	-38.9	27.7	57.300	Н
17841.500	38.9	-18.5	45.6	11.800	Н
17868.500	38.9	-18.5	45.6	11.800	V
17841.000	38.9	-18.5	45.6	11.800	Н
17762.500	38.9	-18.5	45.6	11.800	Н
17752.500	38.9	-18.5	45.6	11.800	Н



802.11n-HT40-Peak

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2385.710	55.7	-38.8	27.7	66.800	Н
17783.000	51.1	-18.5	45.6	24.000	Н
17732.000	50.8	-18.9	45.6	24.100	V
17779.500	50.8	-18.5	45.6	23.700	Н
17823.500	50.7	-18.5	45.6	23.600	Н
17887.000	50.6	-18.5	45.6	23.500	Н

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
17781.500	51.7	-18.5	45.6	24.600	Н
17547.000	51.2	-19.2	45.6	24.800	Н
17782.000	51.0	-18.5	45.6	23.900	V
17623.500	50.5	-18.9	45.6	23.800	Н
17842.000	50.5	-18.5	45.6	23.400	Н
17831.000	50.5	-18.5	45.6	23.400	Н

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBµV)	Polarization
2484.315	61.9	-38.9	27.7	73.100	Н
17888.500	51.1	-18.5	45.6	24.000	Н
17807.000	51.0	-18.5	45.6	23.900	V
17767.000	50.8	-18.5	45.6	23.700	Н
17386.000	50.8	-19.5	41.5	28.800	Н
17888.000	50.7	-18.5	45.6	23.600	Н



Test graphs as below for Set1:

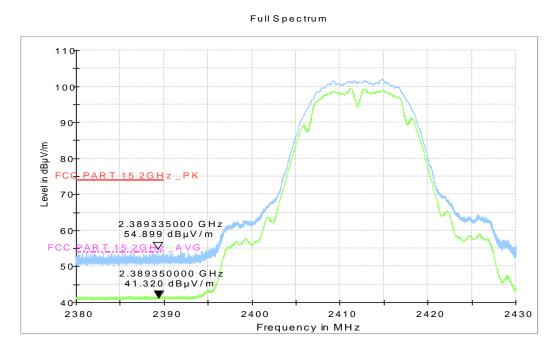


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz - 2.43GHz

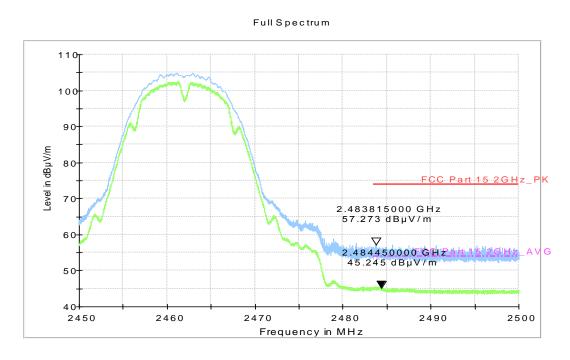


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz



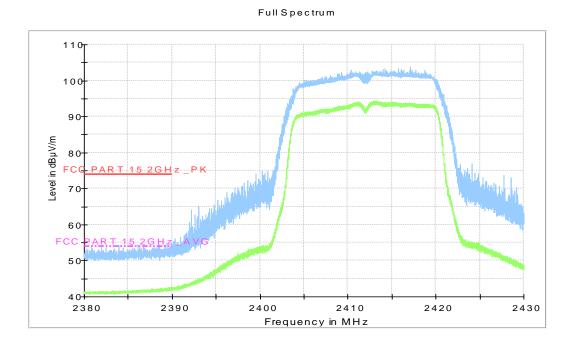


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz

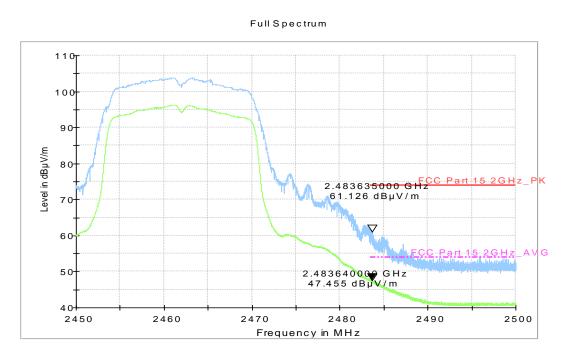


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz



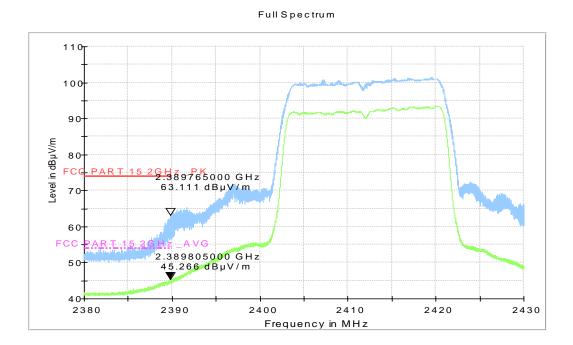


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

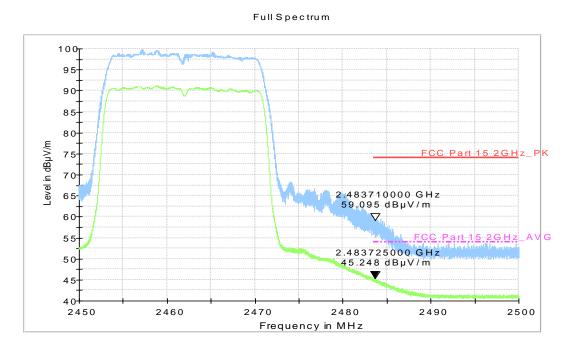


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz



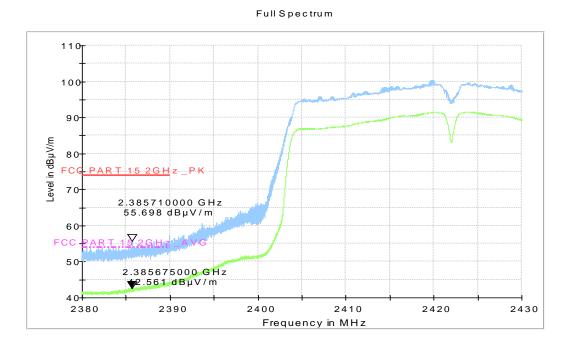


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.43GHz

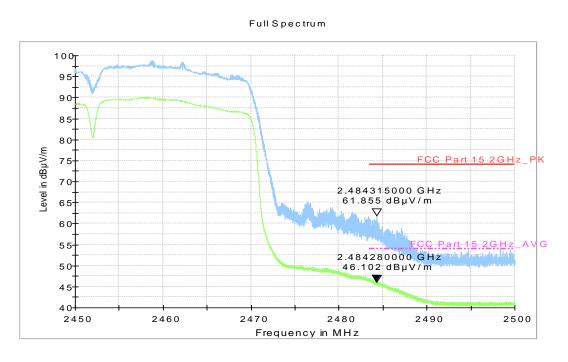


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz



A.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.
- 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.
- 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.
- 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:

WLAN (Quasi-peak Limit)

F	Overei mank	Result (
Frequency range (MHz)	Quasi-peak Limit (dBμV)	With charger		with charger (2)		Conclusion
(111112)	Σιιιιι (αΒμν)	802.11b	ldle			
0.15 to 0.5	66 to 56					
0.5 to 5	56	Fig.A.7.1	Fig.A.7.2	Р		
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	Average Limit	Result (dBμV) With charger		Conclusion
(MHz)	(dBμV)	802.11b	Idle	
0.15 to 0.5	56 to 46			
0.5 to 5	46	Fig.A.7.1	Fig.A.7.2	Р
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:



Traffic: Set.1

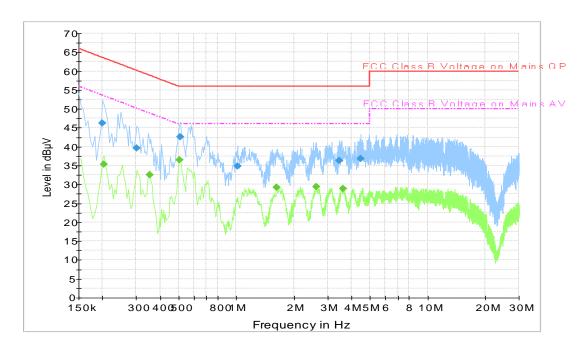


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
0.199500	46.3	2000.0	9.000	On	Ζ	19.8	17.4	63.6
0.303000	39.6	2000.0	9.000	On	Ν	19.9	20.5	60.2
0.510000	42.7	2000.0	9.000	On	L1	19.9	13.3	56.0
1.014000	34.9	2000.0	9.000	On	L1	19.8	21.1	56.0
3.457500	36.3	2000.0	9.000	On	L1	19.7	19.7	56.0
4.470000	36.8	2000.0	9.000	On	L1	19.7	19.2	56.0

Final Result 2

Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
0.204000	35.4	2000.0	9.000	On	N	19.8	18.1	53.4
0.352500	32.6	2000.0	9.000	On	N	19.9	16.3	48.9
0.505500	36.5	2000.0	9.000	On	N	19.9	9.5	46.0
1.630500	29.3	2000.0	9.000	On	N	19.7	16.7	46.0
2.616000	29.3	2000.0	9.000	On	N	19.7	16.7	46.0
3.615000	28.9	2000.0	9.000	On	N	19.7	17.1	46.0



Traffic: Set.2

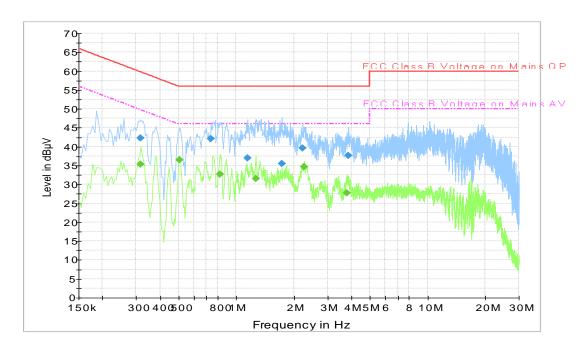


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
0.316500	42.3	2000.0	9.000	On	L1	19.9	17.5	59.8
0.735000	42.1	2000.0	9.000	On	L1	19.9	13.9	56.0
1.144500	37.0	2000.0	9.000	On	Ν	19.8	19.0	56.0
1.729500	35.6	2000.0	9.000	On	Ν	19.7	20.4	56.0
2.220000	39.6	2000.0	9.000	On	L1	19.7	16.4	56.0
3.849000	37.6	2000.0	9.000	On	L1	19.7	18.4	56.0

Final Result 2

Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
0.316500	35.4	2000.0	9.000	On	L1	19.9	14.4	49.8
0.505500	36.4	2000.0	9.000	On	L1	19.9	9.6	46.0
0.820500	32.7	2000.0	9.000	On	L1	19.8	13.3	46.0
1.266000	31.5	2000.0	9.000	On	L1	19.8	14.5	46.0
2.265000	34.7	2000.0	9.000	On	L1	19.7	11.3	46.0
3.799500	27.7	2000.0	9.000	On	L1	19.7	18.3	46.0



Idle: Set.1

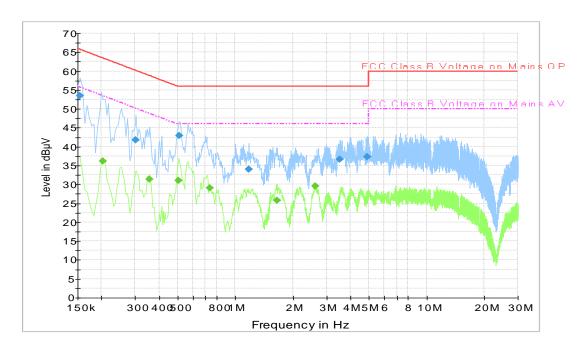


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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

Final Result 1

	<u> </u>							
Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
0.154500	53.5	2000.0	9.000	On	N	20.0	12.3	65.8
0.303000	41.7	2000.0	9.000	On	N	19.9	18.4	60.2
0.510000	42.9	2000.0	9.000	On	L1	19.9	13.1	56.0
1.176000	34.1	2000.0	9.000	On	N	19.8	21.9	56.0
3.516000	36.7	2000.0	9.000	On	L1	19.7	19.3	56.0
4.915500	37.3	2000.0	9.000	On	L1	19.7	18.7	56.0

Final Result 2

Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
0.204000	36.1	2000.0	9.000	On	L1	19.8	17.3	53.4
0.357000	31.4	2000.0	9.000	On	Ν	19.9	17.4	48.8
0.505500	31.1	2000.0	9.000	On	N	19.9	14.9	46.0
0.739500	29.0	2000.0	9.000	On	N	19.9	17.0	46.0
1.648500	25.8	2000.0	9.000	On	N	19.7	20.2	46.0
2.616000	29.5	2000.0	9.000	On	N	19.7	16.5	46.0



ANNEX B: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

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 17025:2005.

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).

2016-09-29 through 2017-09-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program

END OF REPORT