

TEST REPORT

802.11g

CH	Antenna	Frequency (MHz)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H	2390	35.00	74.00	39.00	PK
	H	7236	47.66	74.00	26.34	PK
	V	2390	34.50	74.00	39.50	PK
	V	7236	48.96	74.00	25.04	PK
M	H	7311	49.05	74.00	24.95	PK
	V	7311	49.64	74.00	24.36	PK
H	H	2483.5	35.20	74.00	38.80	PK
	H	7386	47.30	74.00	26.70	PK
	V	2483.5	34.70	74.00	39.30	PK
	V	7386	48.00	74.00	26.00	PK

802.11n(HT20)

CH	Antenna	Frequency (MHz)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H	2390	35.20	74.00	38.80	PK
	H	7236	44.35	74.00	29.65	PK
	V	2390	35.00	74.00	39.00	PK
	V	3618	46.94	74.00	27.06	PK
	V	7236	48.88	74.00	25.12	PK
M	H	7311	48.88	74.00	25.12	PK
	V	7311	48.32	74.00	25.68	PK
H	H	2483.5	34.40	74.00	39.60	PK
	H	7386	47.35	74.00	26.65	PK
	V	2483.5	34.80	74.00	39.20	PK
	V	7386	47.60	74.00	26.40	PK

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802.11n(HT40)

CH	Antenna	Frequency (MHz)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H	2390	36.27	74.00	37.73	PK
	H	7266	49.05	74.00	24.95	PK
	V	2390	38.70	74.00	35.30	PK
	V	7266	49.30	74.00	24.70	PK
M	H	7311	48.10	74.00	25.90	PK
	V	7311	49.64	74.00	24.36	PK
H	H	2483.5	33.90	74.00	40.10	PK
	H	7356	49.90	74.00	24.10	PK
	V	2483.5	41.70	74.00	32.30	PK
	V	7356	48.20	74.00	25.80	PK

Remark: 1. Correct Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Corrected Reading = Original Receiver Reading + Correct Factor
3. Margin = Limit - Corrected Reading
4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,
Limit = 40.00dBuV/m.
Then Correct Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Corrected Reading = 10dBuV + 0.20dB/m = 10.20dBuV/m;
Margin = 40.00dBuV/m - 10.20dBuV/m = 29.80dB.

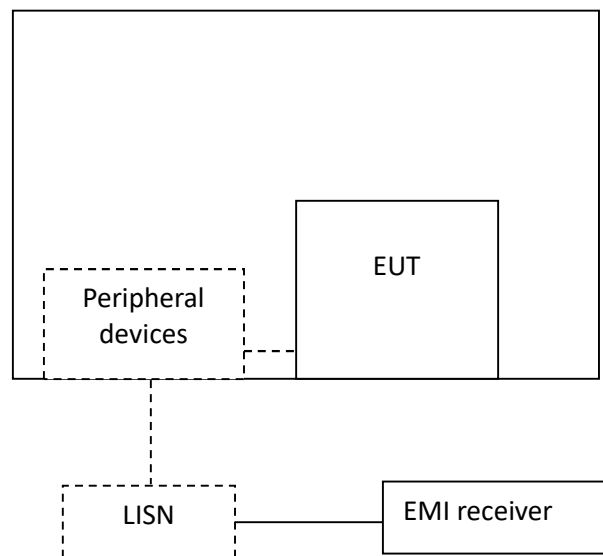
8 Power line conducted emission

Test result: **PASS**

8.1 Limit

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	QP	AV
0.15-0.5	66 to 56*	56 to 46 *
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

8.2 Test Configuration



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Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), where permitted, terminated into a 50 Ω measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50 Ω measuring port is terminated by a measuring instrument having 50 Ω input impedance. All other ports are terminated in 50 Ω loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

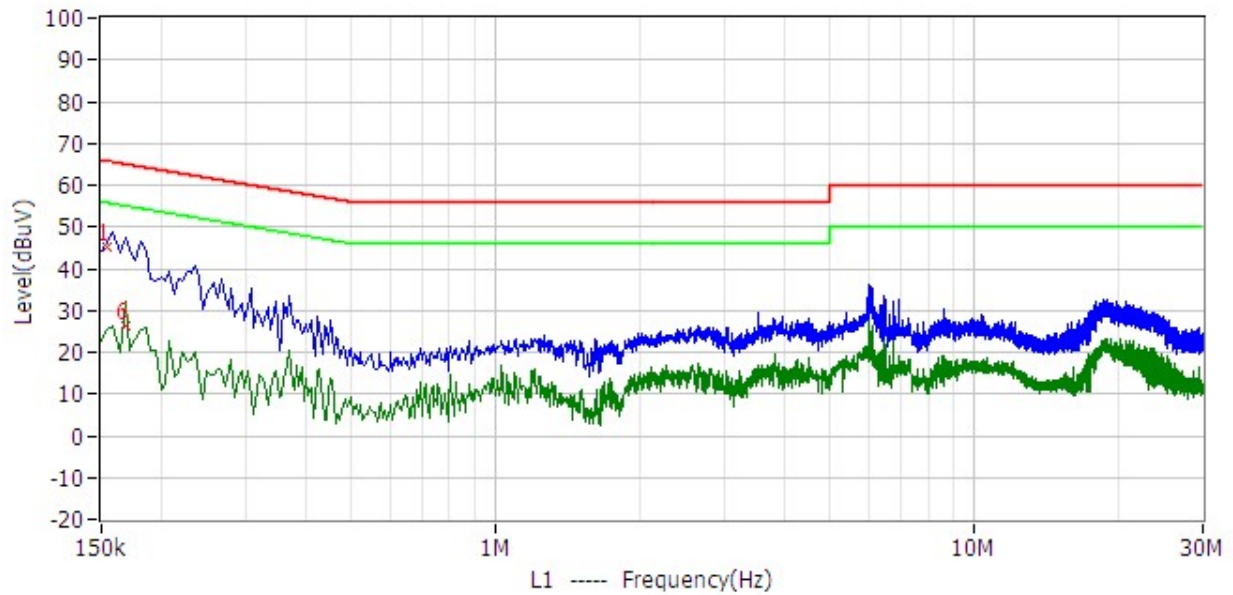
The bandwidth of the test receiver is set at 9 kHz.

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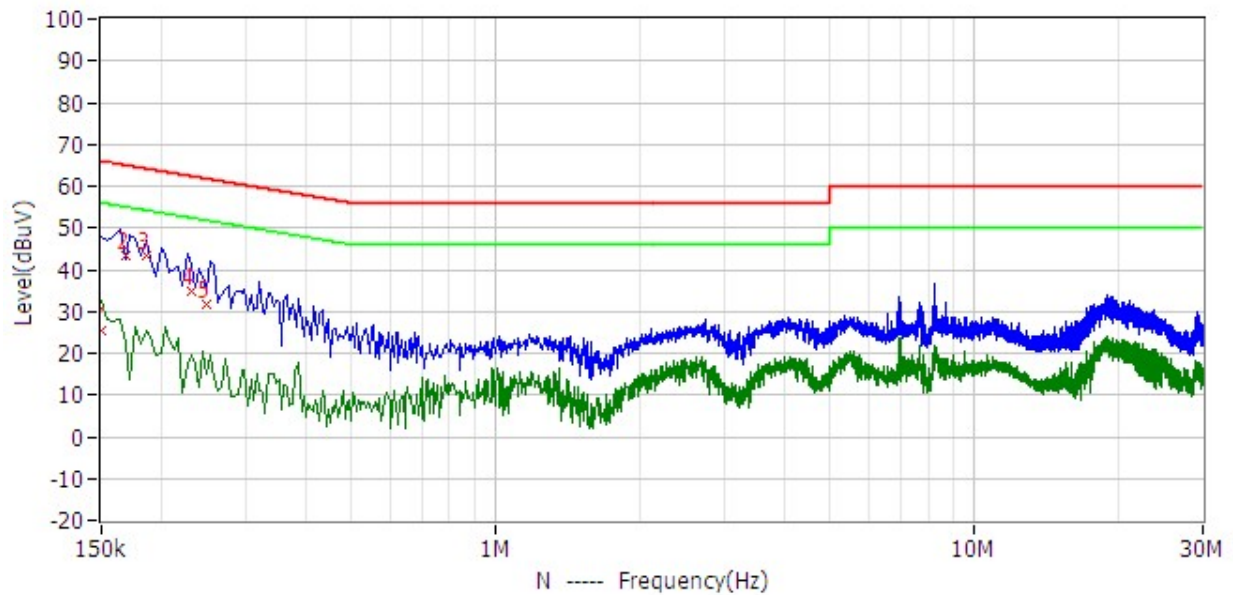
8.4 Test Results of Power line conducted emission

Test Voltage: AC 120V, 60Hz

L Line



N Line



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No.	Frequency	Limit dBuV	Level dBuV	Margin dB	Detector	Phase
1	154.500kHz	65.75	45.21	20.54	QP	L1
2	168.000kHz	65.06	43.35	21.71	QP	N
3	186.000kHz	64.21	43.15	21.06	QP	N
4	231.000kHz	62.41	34.89	27.52	QP	N
5	249.000kHz	61.79	31.77	30.02	QP	N
6	168.000kHz	55.06	26.43	28.63	CAV	L1
7	150.000kHz	56.00	25.28	30.72	CAV	N

Remark: 1. Correct Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.

2. Corrected Reading = Original Receiver Reading + Correct Factor

3. Margin = Limit - Corrected Reading

4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,

Original Receiver Reading = 10.00dBμV, Limit = 66.00dBμV.

Then Correct Factor = 10.00 + 2.00 = 12.00dB;

Corrected Reading = 10dBμV + 12.00dB = 22.00dBμV;

Margin = 66.00dBμV – 22.00dBμV = 44.00dB.

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9 Occupied Bandwidth

Test result: TESTED

9.1 Limit

None

9.2 Measurement Procedure

The occupied bandwidth per RSS-Gen Issue 5 Clause 6.6 was measured using the Spectrum Analyzer.

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

9.3 Test Configuration

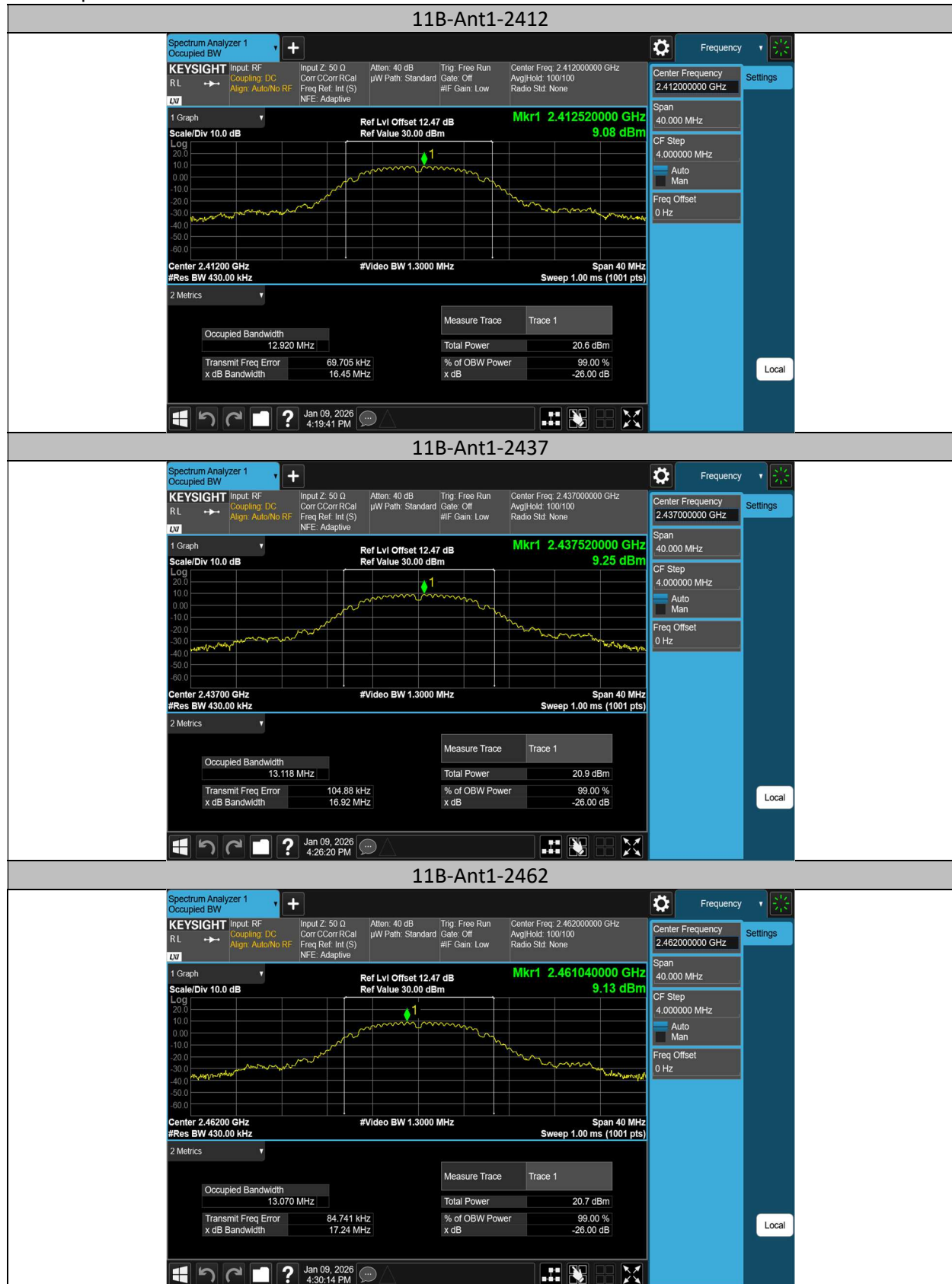


9.4 The results of Occupied Bandwidth

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
b	Ant1	2412	12.920	2405.6097	2418.5297	---	---
b	Ant1	2437	13.118	2430.5459	2443.6639	---	---
b	Ant1	2462	13.070	2455.5497	2468.6197	---	---
g	Ant1	2412	16.947	2403.5703	2420.5173	---	---
g	Ant1	2437	17.036	2428.5460	2445.5820	---	---
g	Ant1	2462	17.028	2453.5615	2470.5895	---	---
n20	Ant1	2412	17.818	2403.1337	2420.9517	---	---
n20	Ant1	2437	17.917	2428.0825	2445.9995	---	---
n20	Ant1	2462	18.029	2453.0614	2471.0904	---	---
n40	Ant1	2422	36.556	2403.8919	2440.4479	---	---
n40	Ant1	2437	36.399	2418.9695	2455.3685	---	---
n40	Ant1	2452	36.291	2433.9783	2470.2693	---	---

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Test Graphs









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10 Antenna requirement

Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Result:

EUT uses permanently attached antenna to the intentional radiator, so it can comply with the provisions of this section.

END of the report