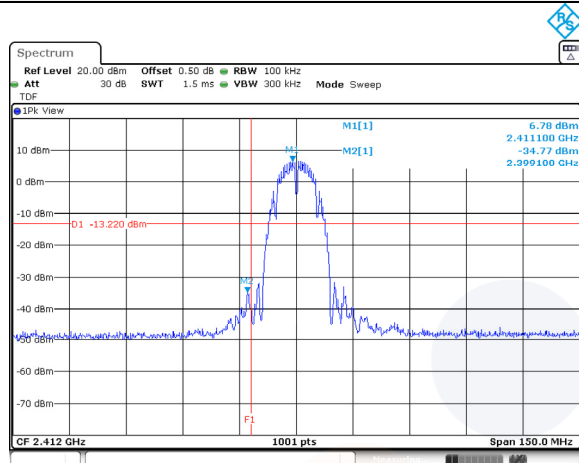


Test results

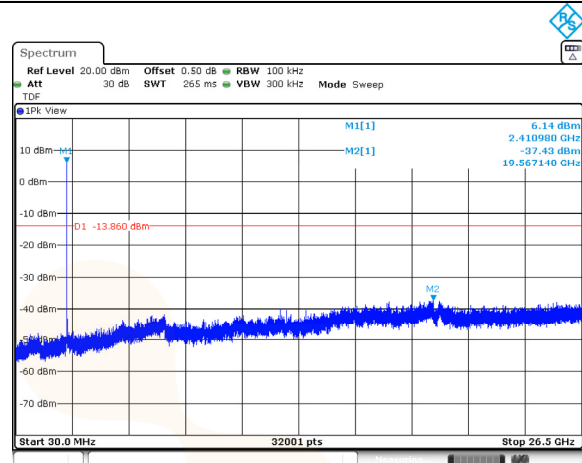
[DC 5 V]

802.11b

Conducted band-edge / 2 412 MHz



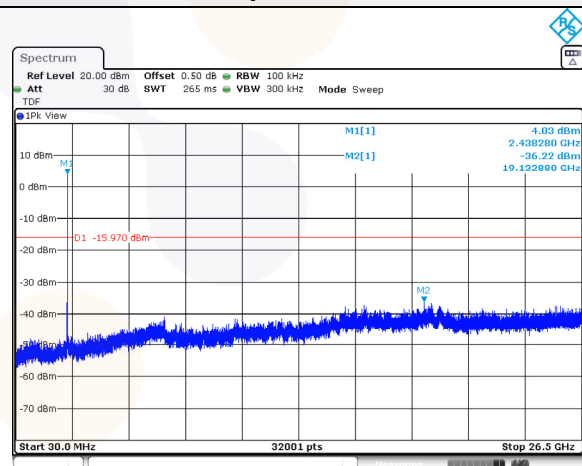
Conducted spurious / 2 412 MHz



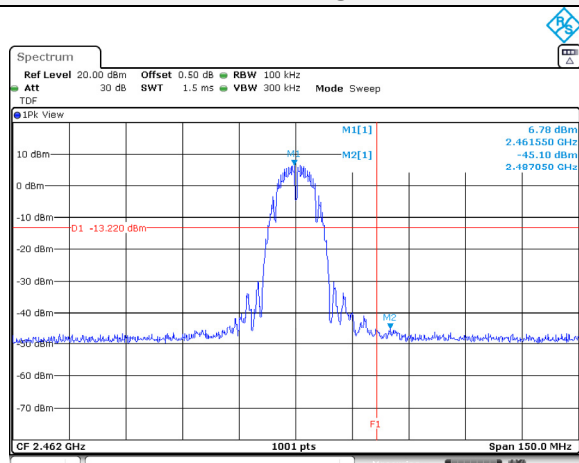
Conducted band-edge / 2 437 MHz

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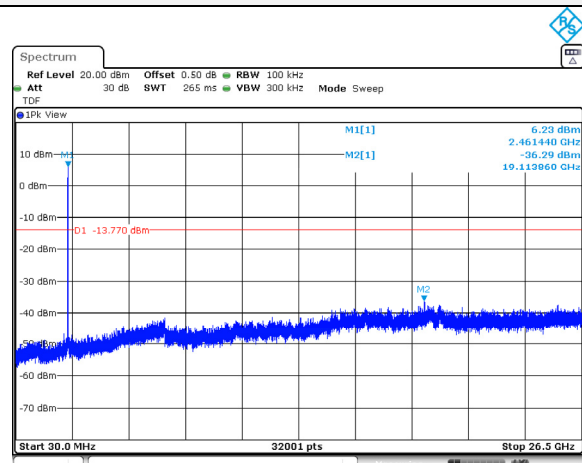
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz

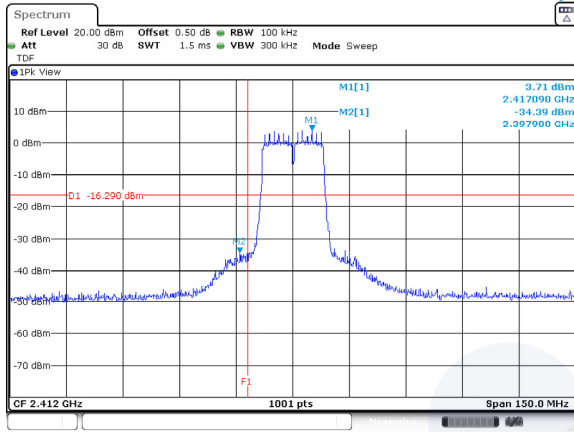


Conducted spurious / 2 462 MHz

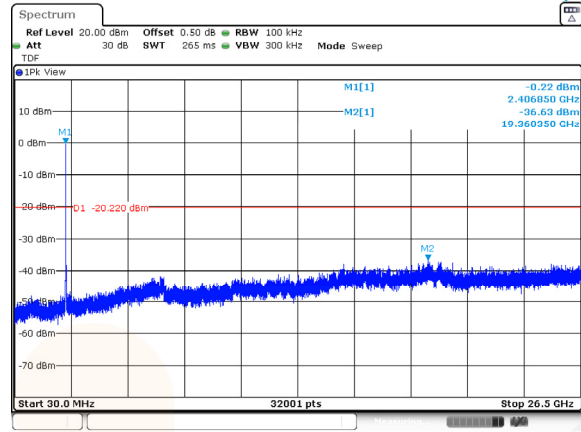


802.11g

Conducted band-edge / 2 412 MHz



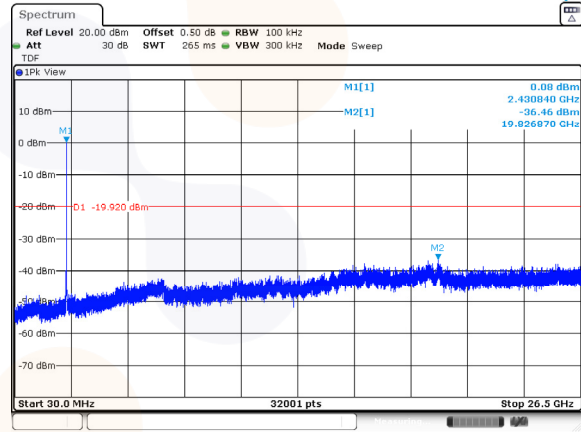
Conducted spurious / 2 412 MHz



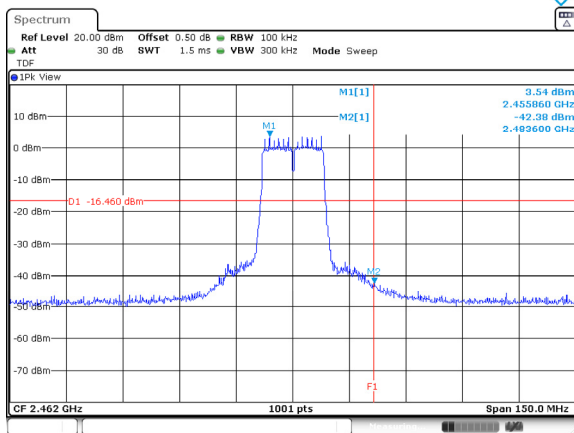
Conducted band-edge / 2 437 MHz

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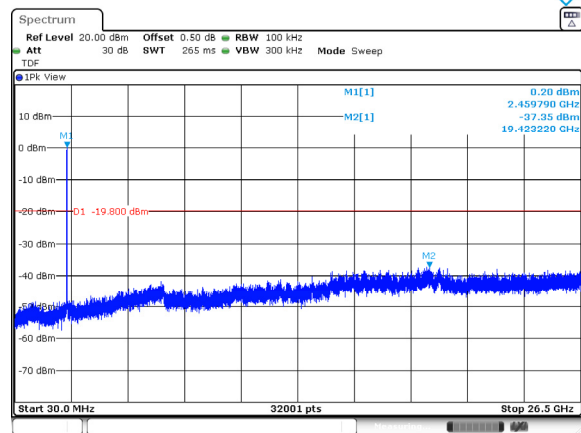
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz

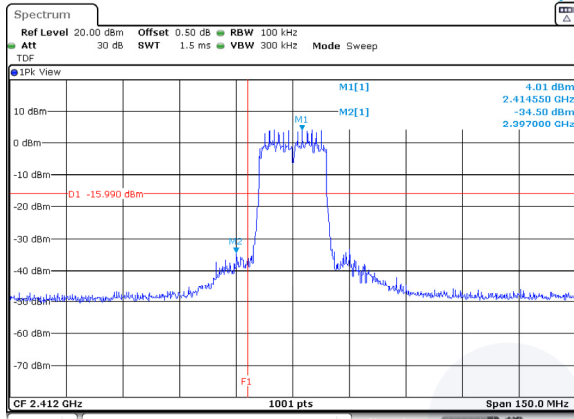


Conducted spurious / 2 462 MHz

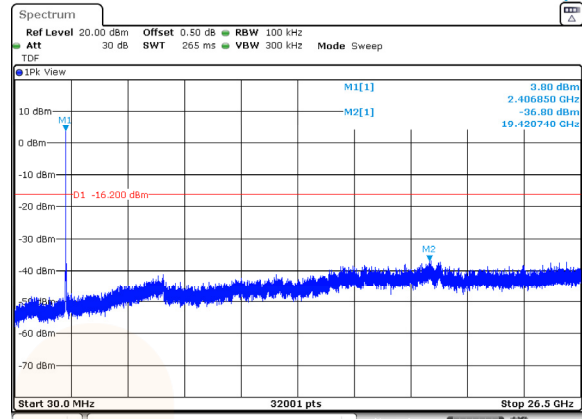


802. 11n HT20

Conducted band-edge / 2 412 MHz



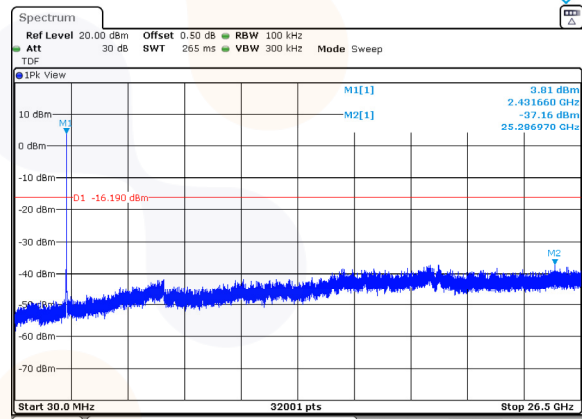
Conducted spurious / 2 412 MHz



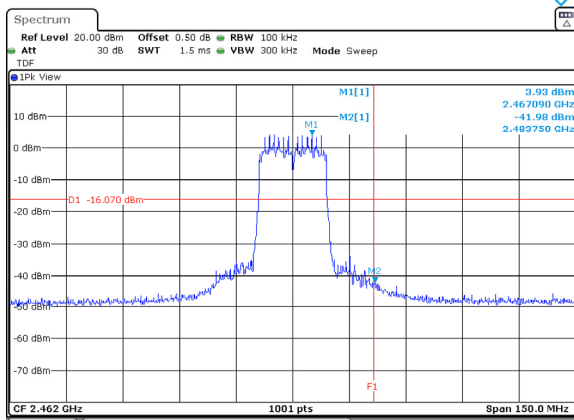
Conducted band-edge / 2 437 MHz

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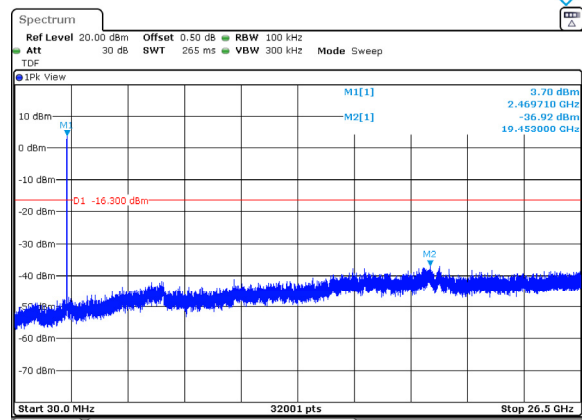
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz



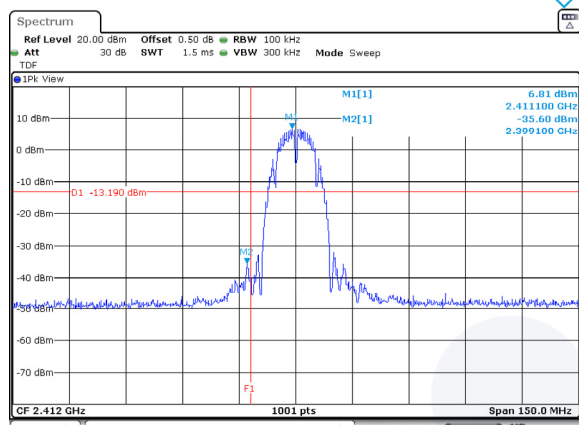
Conducted spurious / 2 462 MHz



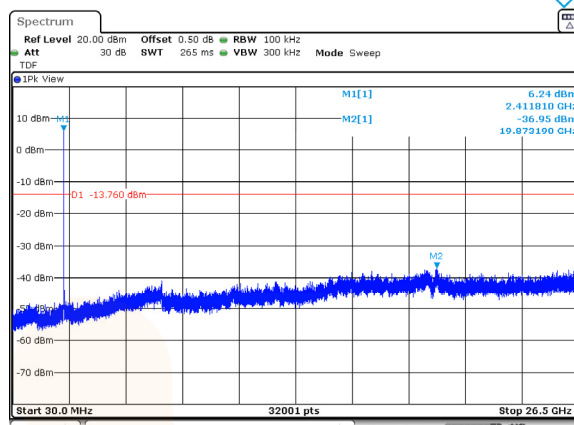
[DC 12 V]

802.11b

Conducted band-edge / 2 412 MHz



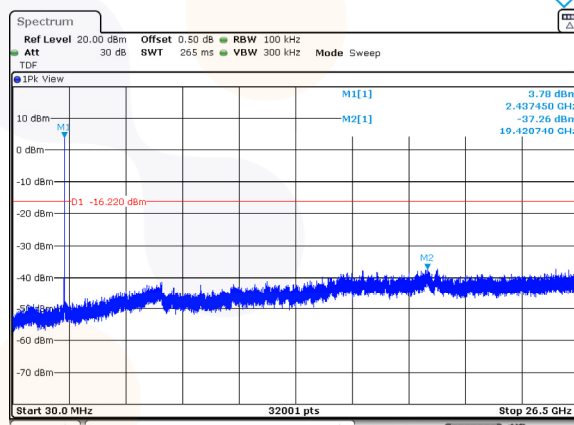
Conducted spurious / 2 412 MHz



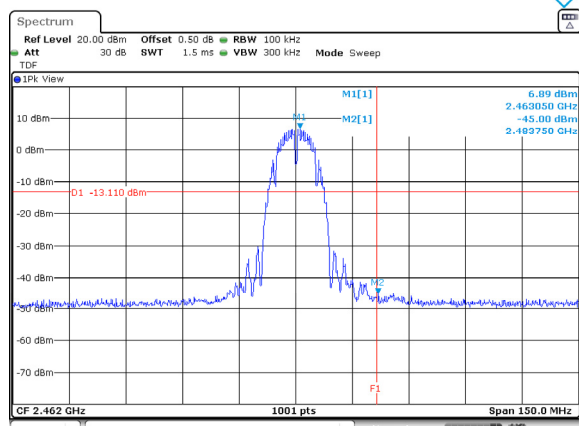
Conducted band-edge / 2 437 MHz

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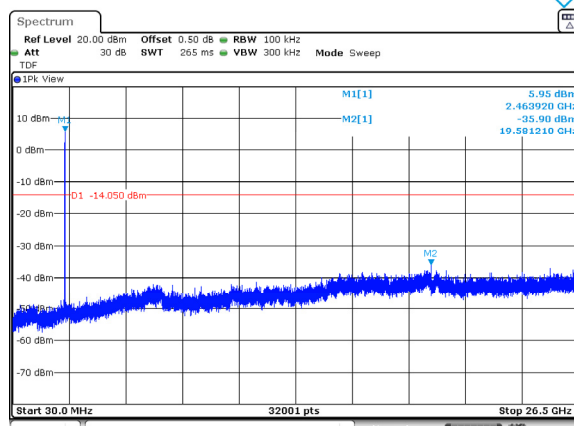
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz

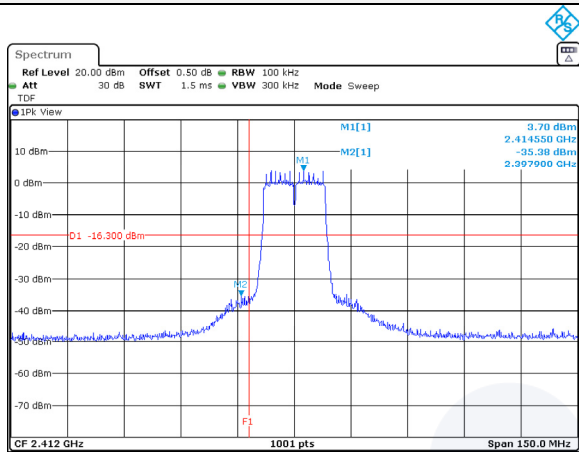


Conducted spurious / 2 462 MHz

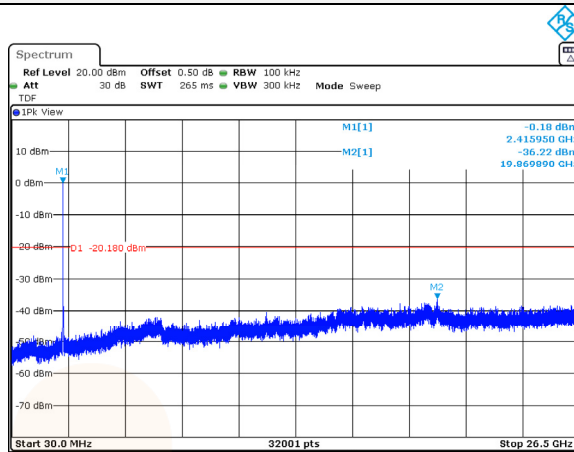


802.11g

Conducted band-edge / 2 412 MHz



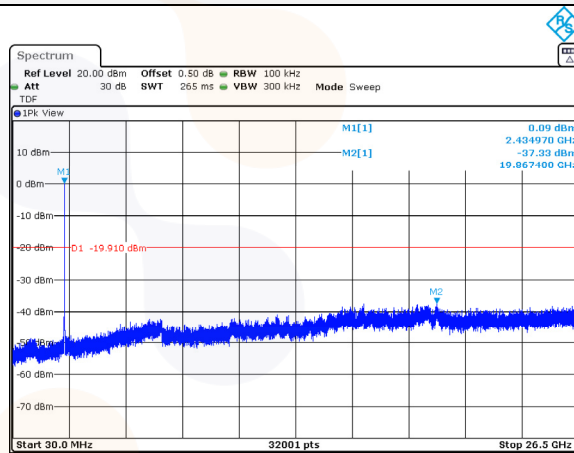
Conducted spurious / 2 412 MHz



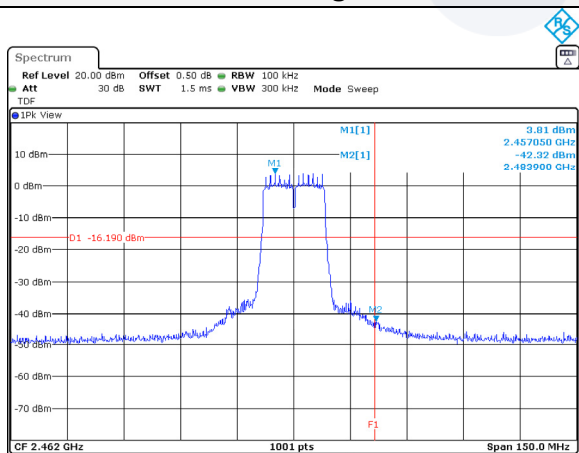
Conducted band-edge / 2 437 MHz

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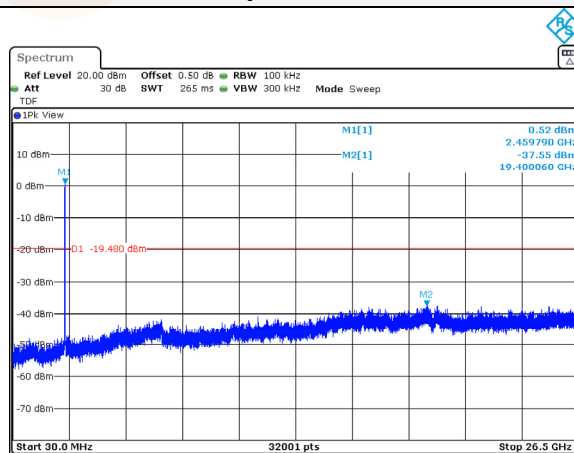
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz

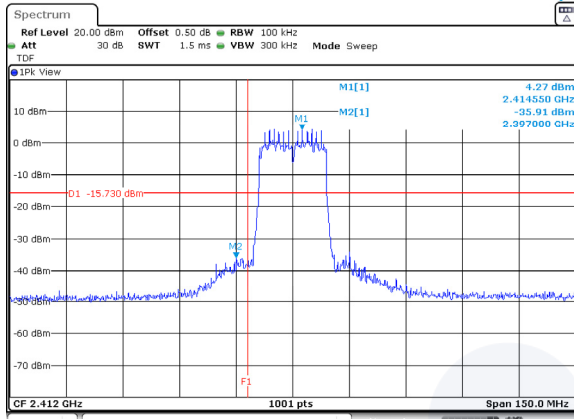


Conducted spurious / 2 462 MHz

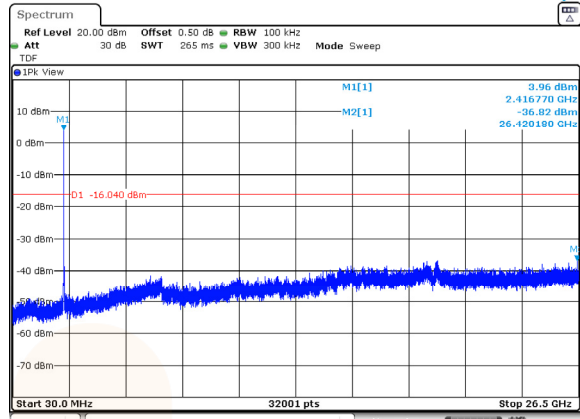


802. 11n HT20

Conducted band-edge / 2 412 MHz



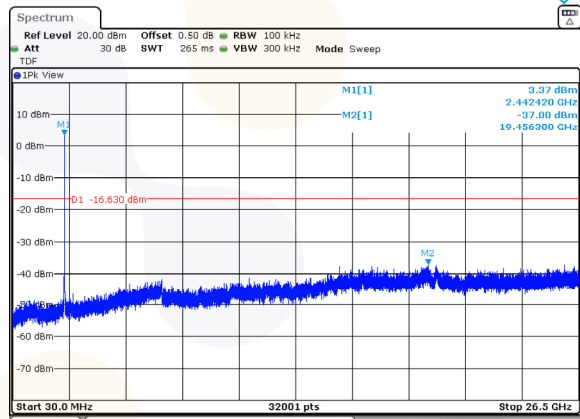
Conducted spurious / 2 412 MHz



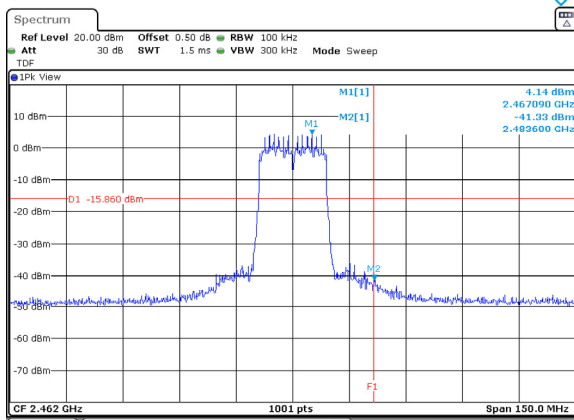
Conducted band-edge / 2 437 MHz

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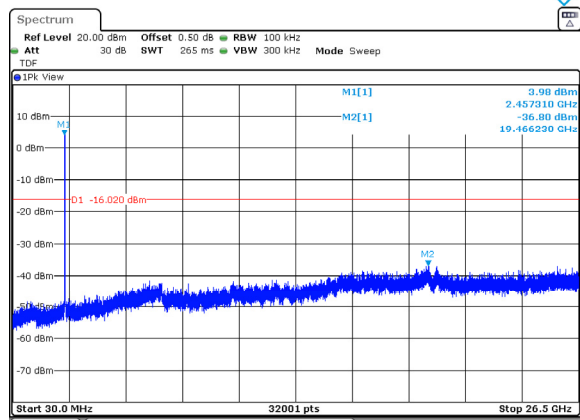
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz

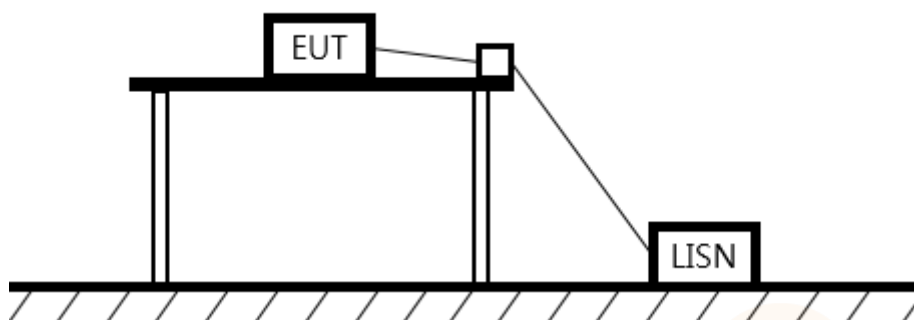


Conducted spurious / 2 462 MHz



7.6. AC Conducted emission

Test setup



Limit

According to 15.207(a) and RSS-Gen(8.8), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower value applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted limit (dB μ V/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

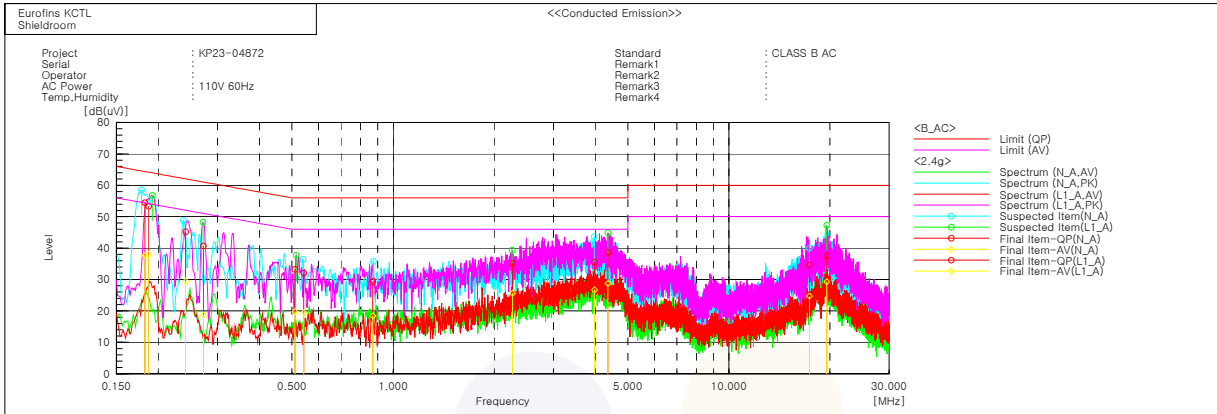
Measurement procedure

1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 cm in which is located 40 cm away from the vertical wall and 1.5m away from the side wall of the shielded room.
2. Each current-carrying conductor of the EUT power cord was individually connected through a 50 Ω /50 μ H LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity Meter, to the input power source.
3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
4. 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) was then performed over the frequency range of 0.15 MHz to 30 MHz.
5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 kHz or to quasi-peak and average within a bandwidth of 9 kHz. The EUT was in transmitting mode during the measurements.

Test results

[DC 5 V]

Worst case: 802.11n HT20 / 2 462 MHz



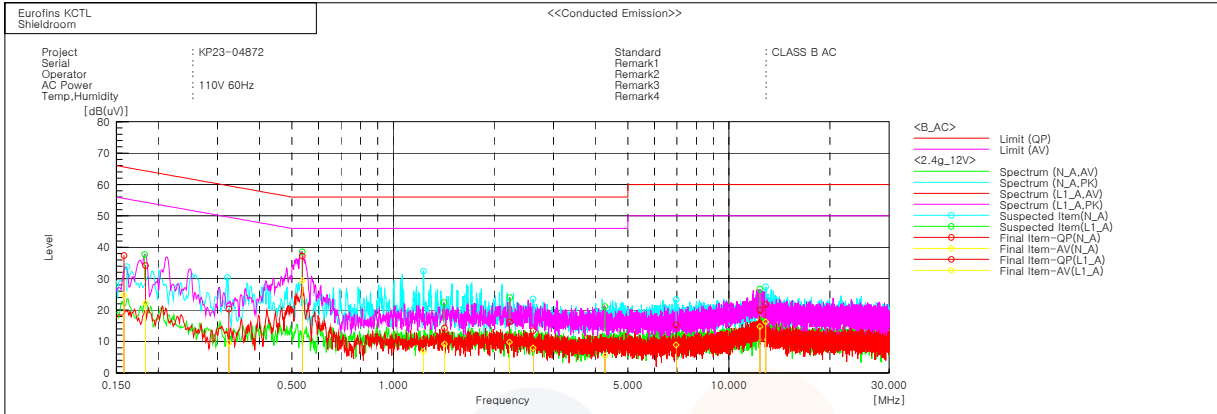
Final Result

--- N_A Phase ---										
No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f. [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.18257	44.2	27.4	10.2	54.4	37.6	64.4	54.4	10.0	16.8
2	0.24114	35.5	19.8	9.7	45.2	29.5	62.1	52.1	16.9	22.6
3	0.54237	22.1	9.4	9.9	32.0	19.3	56.0	46.0	24.0	26.7
4	0.87011	19.6	8.6	9.8	29.4	18.4	56.0	46.0	26.6	27.6
5	3.97597	25.7	16.9	9.8	35.5	26.7	56.0	46.0	20.5	19.3
6	17.35547	23.6	13.7	11.0	34.6	24.7	60.0	50.0	25.4	25.3

--- L1_A Phase ---										
No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f. [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.18721	43.3	27.9	10.1	53.4	38.0	64.2	54.2	10.8	16.2
2	0.27245	31.0	8.9	9.7	40.7	18.6	61.0	51.0	20.3	32.4
3	0.5101	23.3	9.8	9.9	33.2	19.7	56.0	46.0	22.8	26.3
4	2.26842	25.3	15.8	9.8	35.1	25.6	56.0	46.0	20.9	20.4
5	4.36097	28.8	18.9	9.8	38.6	28.7	56.0	46.0	17.4	17.3
6	19.5633	26.6	18.4	10.9	37.5	29.3	60.0	50.0	22.5	20.7

[DC 12 V]

Worst case: 802.11n HT20 / 2 462 MHz



Final Result

--- N_A Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f. [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.15813	27.4	14.8	10.0	37.4	24.8	65.6	55.6	28.2	30.8
2	0.32422	10.5	-0.3	9.8	20.3	9.5	59.6	49.6	39.3	40.1
3	1.23264	0.9	-3.0	9.8	10.7	6.8	56.0	46.0	45.3	39.2
4	2.61328	3.7	-1.9	9.8	13.5	7.9	56.0	46.0	42.5	38.1
5	6.96355	5.3	-1.1	10.0	15.3	8.9	60.0	50.0	44.7	41.1
6	12.861	11.2	5.6	10.6	21.8	16.2	60.0	50.0	38.2	33.8

--- L1_A Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f. [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.18311	24.1	12.1	10.1	34.2	22.2	64.3	54.3	30.1	32.1
2	0.53715	27.3	19.5	9.9	37.2	29.4	56.0	46.0	18.8	16.6
3	1.42219	4.5	-0.6	9.8	14.3	9.2	56.0	46.0	41.7	36.8
4	2.22224	6.4	0.0	9.8	16.2	9.6	56.0	46.0	39.8	36.2
5	4.27602	0.6	-4.4	9.8	10.4	5.4	56.0	46.0	45.6	40.6
6	12.37483	9.4	4.2	10.6	20.0	14.8	60.0	50.0	40.0	35.2

8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Controller	INNCO SYSTEMS	CO3000	1441/54370322/P	-
Antenna Mast	INNCO SYSTEMS	MA4640-XP-ET	-	-
Turn Device	INNCO SYSTEMS	DS1200-S-1t	-	-
Spectrum Analyzer	R&S	FSVA40	101575	24.06.19
PSA Spectrum Analyzer	Agilent	E4440A	MY46186407	24.03.22
Amplifier	SONOMA INSTRUMENT	310N	421821	24.10.12
Bilog Antenna	Teseq GmbH	CBL 6112D	63756	24.11.17
Loop Antenna	R&S	HFH2-Z2	100355	24.08.10
Signal & Spectrum Analyzer	R&S	FSV3030	1330.5000K30-101710-Wt	24.07.03
Spectrum Analyzer	R&S	FSV40	100989	24.10.12
Power Sensor	R&S	NRP-Z81	1137.9009.02-106223-bB	24.04.25
Signal Generator	R&S	SMB100A	176206	25.01.18
Vector Signal Generator	R&S	SMBV100A	257566	24.07.04
Broadband PreAmplifier	SCHWARZBECK	BBV9718D	57	24.03.17
Low Noise Amplifier	TESTEK	TK-PA18H	220124-L	24.10.12
Low Noise Amplifier	TESTEK	TK-PA1840H	220133-L	24.10.17
Horn Antenna	SCHWARZBECK	BBHA9120D	2763	24.10.18
Horn Antenna	SCHWARZBECK	BBHA9170	1267	24.10.16
High Pass Filter	Wainwright Instruments GmbH	WHKX12-2805-3000-18000-40SS	SN58	24.10.16
TWO-LINE V - NETWORK	R&S	ENV216	101428	24.09.27
EMI TEST RECEIVER	R&S	ESC13	101428	24.08.18
Attenuator	HP	8491A	18591	25.01.18

End of test report