

Spectrum Analyzer Offset: Cable Loss=2.1dB + Attenuator= 20dB

	802.11b							
			Ante	nna 1				
Channel	Channel Tx1 Tx1 Tx1 Tx1 Tx1 Tx1 Antenna Gain (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) Power Spectral (dBm/3kHz) (dBm/3kHz)							
Cmin	-14.13	-	-	-	2.119	-14.13	8	
Cnom	-12.13	ı	ı	-	2.119	-12.13	8	
Cmax	-13.72	-	-	-	2.119	-13.72	8	

	802.11b							
			Ante	nna 2				
Channel	Channel Tx1 Tx1 Tx1 Tx1 Tx1 Antenna Gain (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) Power Spectral (dBm/3kHz) (dBm/3kHz)							
Cmin	-15.62	-	-	-	1.279	-15.62	8	
Cnom -12.08 1.279 -12.08 8							8	
Cmax	-14.77	-	-	-	1.279	-14.77	8	



	802.11g							
			Ante	nna 1				
Channel	Channel Tx1 Tx1 Tx1 Tx1 Tx1 (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) (dBm/3kHz) Overall Antenna Gain (dBi) Power Spectral Density (dBm) (dBm/3kHz)							
Cmin	-18.20	-	-	-	2.119	-18.20	8	
Cnom	-14.51	-	-	-	2.119	-14.51	8	
Cmax	-18.48	-	-	-	2.119	-18.48	8	

	802.11g							
			Ante	nna 2				
Channel	Channel Antenna Gain						Limit (dBm/3kHz)	
Cmin	-19.87	-	-	-	1.279	-19.87	8	
Cnom	-15.30	ı	ı	-	1.279	-15.30	8	
Cmax	-20.53	-	-	-	1.279	-20.53	8	

	802.11n HT20								
Channel	Tx1 (dBm/3kHz)	Tx1 (dBm/3kHz)	Tx1 (dBm/3kHz)	Tx1 (dBm/3kHz)	Overall Antenna Gain (dBi)	Power Spectral Density (dBm)	Limit (dBm/3kHz)		
Cmin	-20.33	-22.81	-	-	4.719	-18.38	8		
Cnom	-16.93	-17.92	-	-	4.719	-14.39	8		
Cmax	-18.81	-20.08	-	-	4.719	-16.39	8		

	802.11n HT40								
Channel	Tx1 (dBm/3kHz)	Tx1 (dBm/3kHz)	Tx1 (dBm/3kHz)	Tx1 (dBm/3kHz)	Overall Antenna Gain (dBi)	Power Spectral Density (dBm)	Limit (dBm/3kHz)		
Cmin	-22.94	-24.71	-	-	4.719	-20.72	8		
Cnom	-19.49	-20.56	-	-	4.719	-16.98	8		
Cmax	-21.06	-23.10	-	-	4.719	-18.95	8		

7.6. CONCLUSION

Power Spectral Density measurement performed on the sample of the product **Sagemcom® Sound Box SBDV01**, SN: **253770742**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247** limits.

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8. UNWANTED EMISSIONS INTO NON-RESTRICTED FREQUENCY BANDS AT THE BAND EDGE

8.1. **TEST CONDITIONS**

: Armand MAHOUNGOU Test performed by

Date of test : September 27, 2018 to September 28, 2018

Ambient temperature : 24°C & 26°C Relative humidity : 46% & 43%

TEST SETUP 8.2.

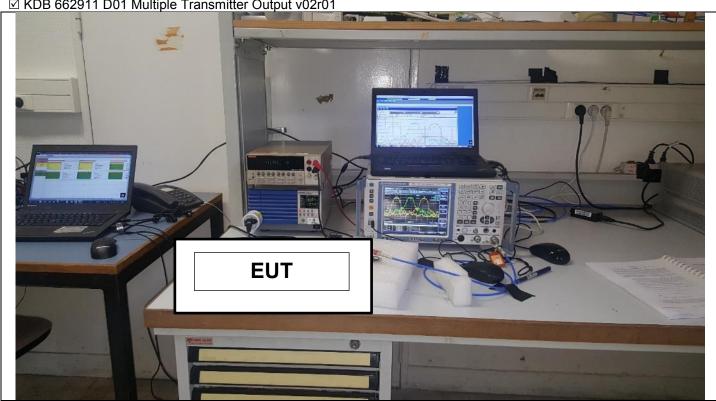
- The Equipment Under Test is installed:

☑ On a table

☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
- ☑ Conducted Method
- ☐ Radiated Method
- Test Procedure:
- ☑ ANSI C63.10 § 11.11

☑ KDB 662911 D01 Multiple Transmitter Output v02r01



Photograph for Unwanted Emission into non-restricted frequency bands at the band edge



All Spurious Emissions must be at least 30dB (Average Conducted Power) below the Fundamental Radiator Level at the Band Edge Edge $^\circ$ 2400MHz & 2483,5MHz $^\circ$

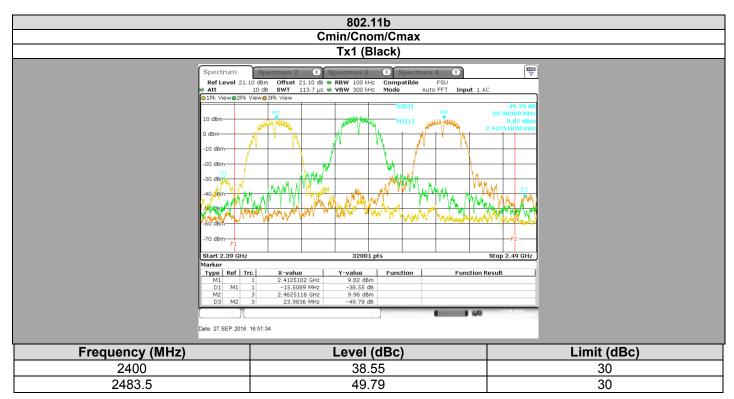
8.4. TEST EQUIPMENT LIST

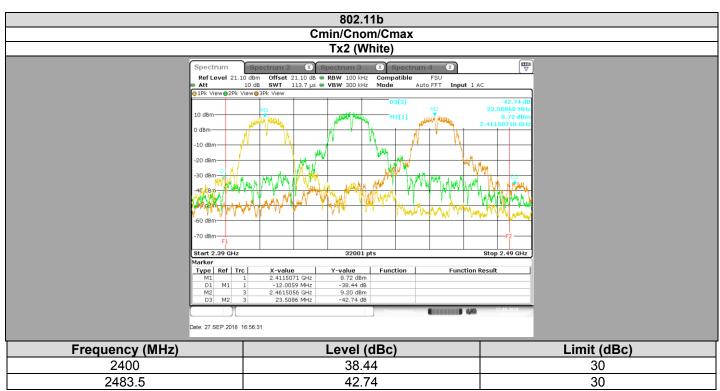
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2016/11	2018/11
Multimeter	KEITHLEY	2000	A1242090	2017/05	2019/05
Power supply	KIKUSUI	PCR500M	A7040079	Cal with Multimeter	Cal with Multimeter
Cable	TELEDYNE	920-0202-048	A5329674	2017/10	2018/10

Note: In our quality system, the test equipment calibration due is more & less 2 months

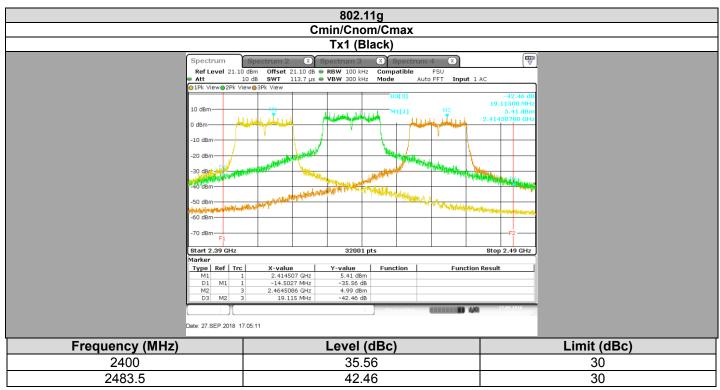


8.5. RESULTS





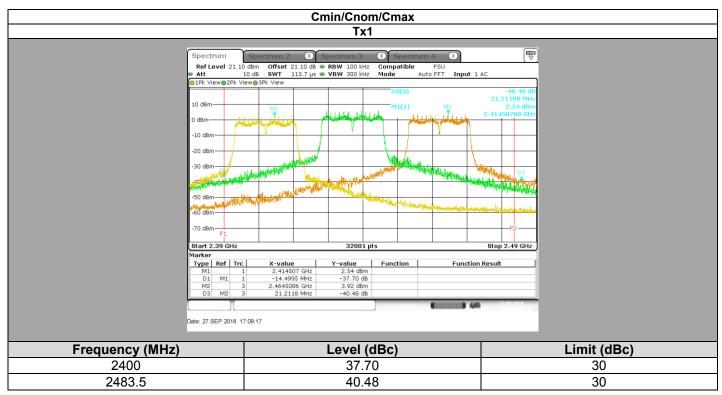


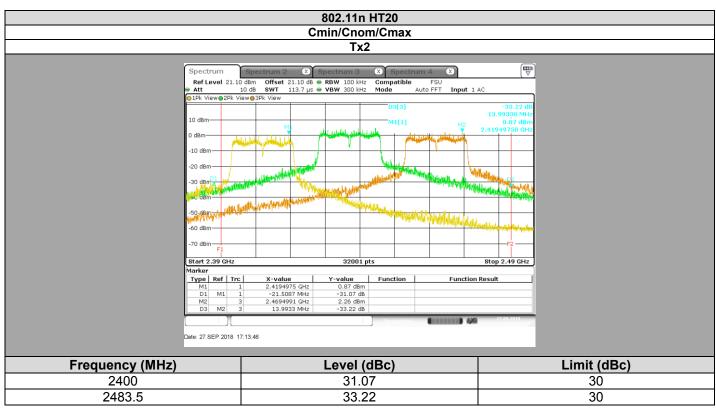




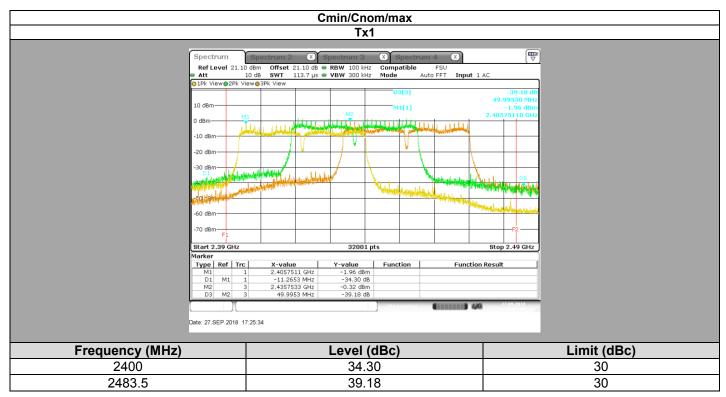
802.11n HT20

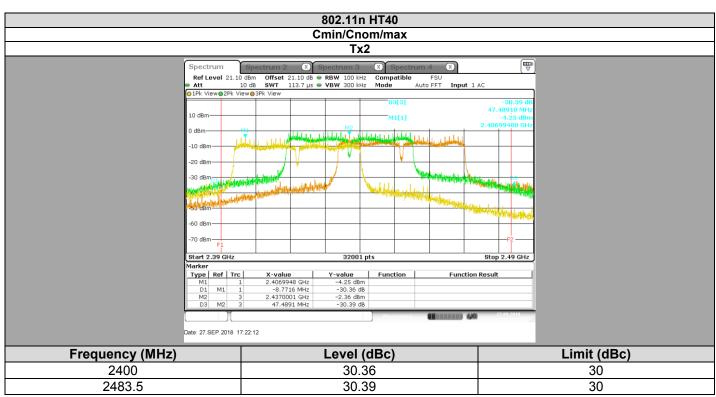














8.6. CONCLUSION

Unwanted Emission into non-restricted frequency bands at the band edge measurement performed on the sample of the product **Sagemcom® Sound Box SBDV01**, SN: **253770742**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247** limits.



9. UNWANTED EMISSIONS INTO NON-RESTRICTED FREQUENCY BANDS

9.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU

Date of test : September 27, 2018 to September 28, 2018

Ambient temperature : 24°C & 26°C Relative humidity : 46% & 43%

9.2. TEST SETUP

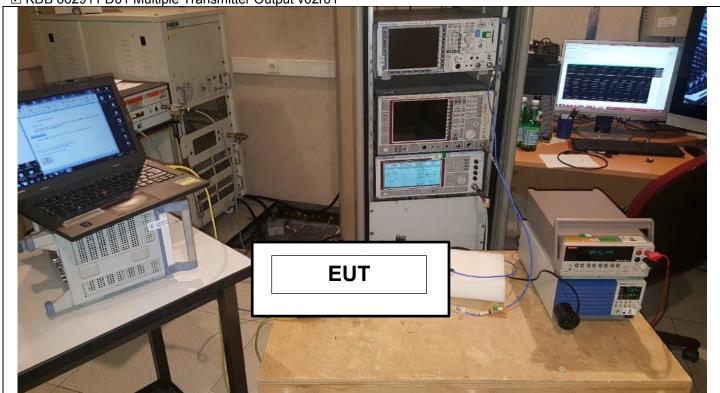
- The Equipment Under Test is installed:

☑ On a table

☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
- ☑ Conducted Method
- ☐ Radiated Method
- Test Procedure:
- ☑ ANSI C63.10 § 11.11

☑ KDB 662911 D01 Multiple Transmitter Output v02r01



Photograph for Unwanted Emission into non-restricted frequency bands



All Spurious Emissions must be at least 30dB (Average Conducted Power) below the Fundamental Radiator Level

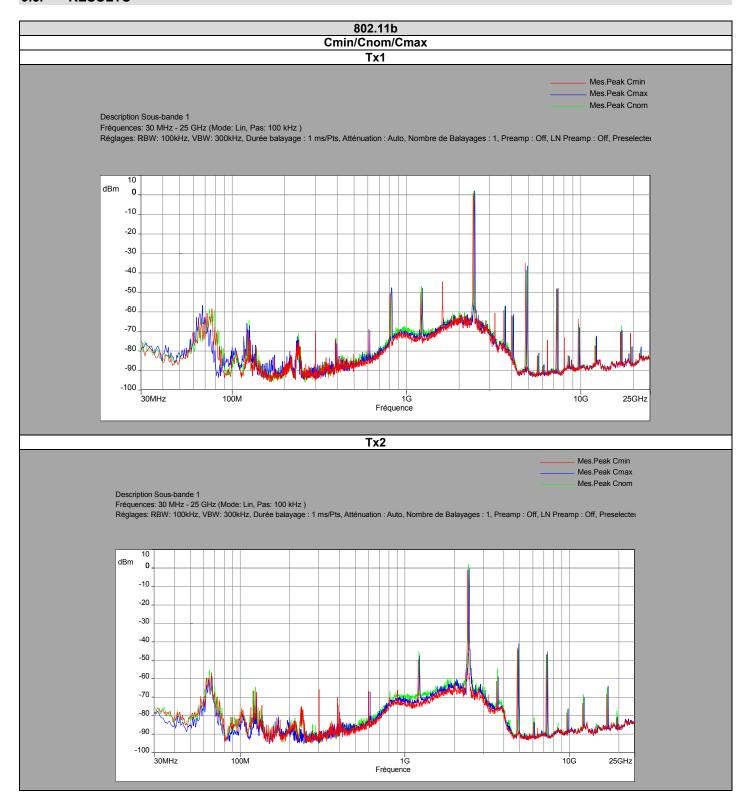
9.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESI40 1088 740K40	A2642010	2018/07	2020/07
Multimeter	KEITHLEY	2000	A1242090	2017/05	2019/05
Power supply	KIKUSUI	PCR500M	A7040079	Cal with Multimeter	Cal with Multimeter
Cable	Télédyne	084-0555-2MTR	A5329758	2017/10	2018/10
Attenuator 3dB	WEINSCHEL	WA54-3-12	A7122223	2017/10	2018/10

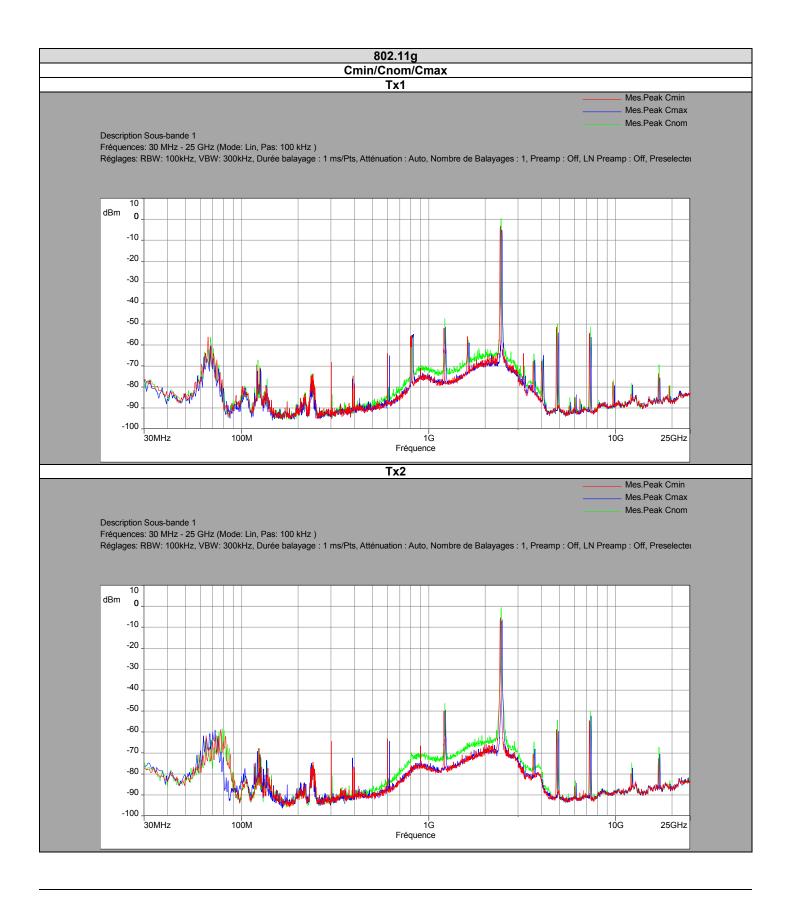
Note: In our quality system, the test equipment calibration due is more & less 2 months



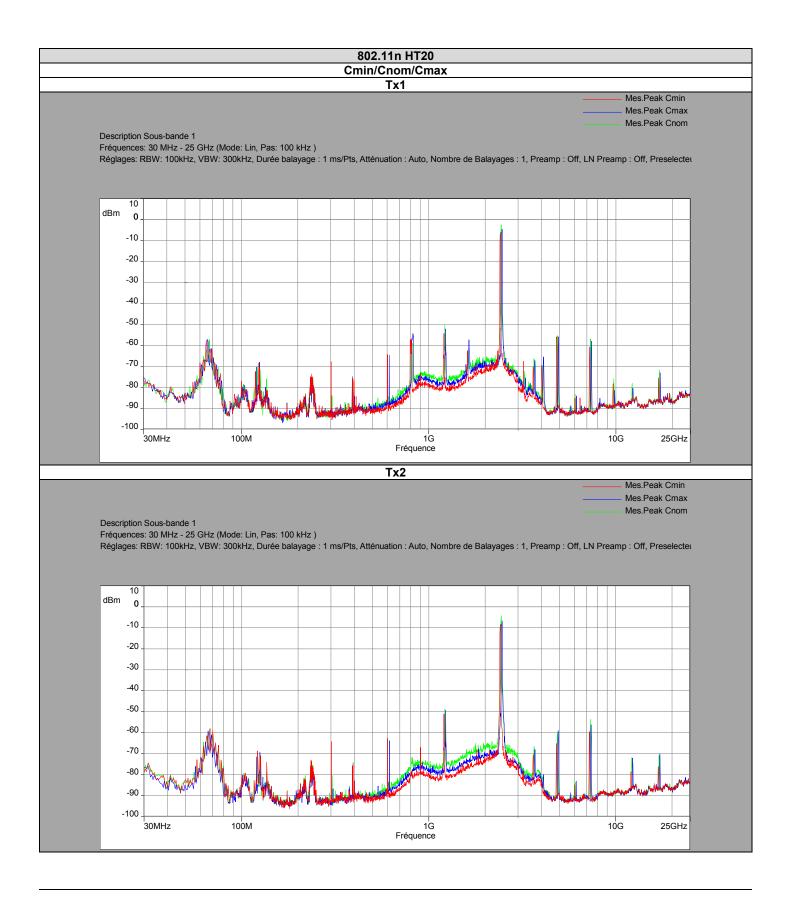
9.5. RESULTS



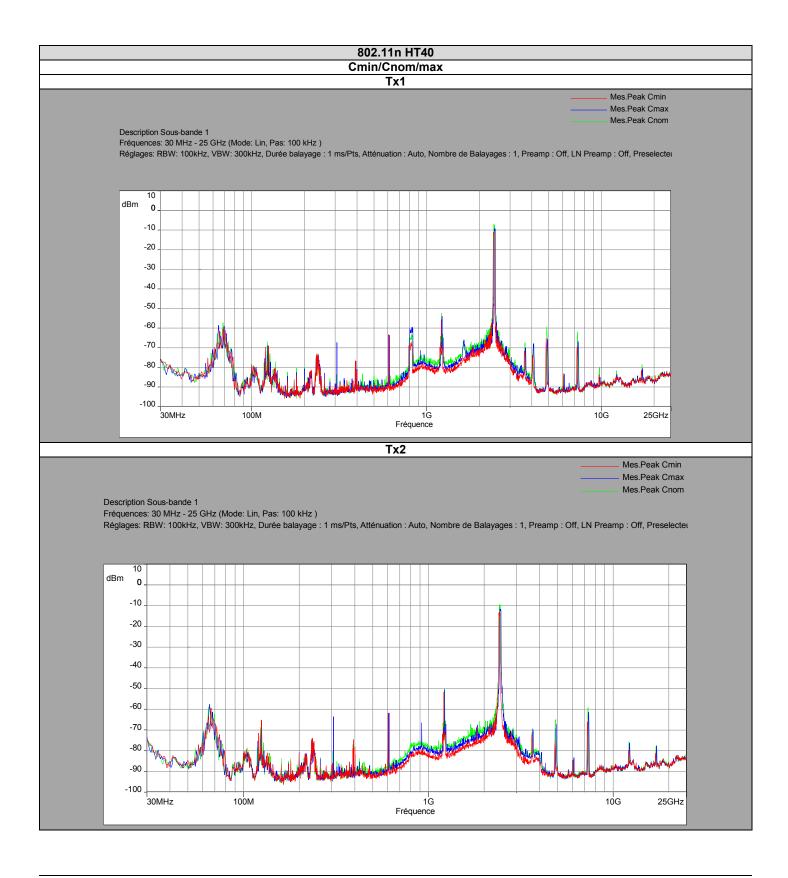














	802.11b					
	Antenna 1					
Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)			
2412	0.76					
4824	-34.99	34.23	30			
7236	-48.16	47.4	30			
9648	-63.75	62.99	30			
12060	-77.33	76 .57	30			
16884	-70.28	69.52	30			
19296	-70.77	70.01	30			
21708	-81.19	80.43	30			
2437	2.14					
4874	-38.48	36.34	30			
7311	-48.85	46.71	30			
9748	-66.23	64.09	30			
12185	-73.14	71.00	30			
17059	-67.08	64.94	30			
19496	-77.79	75.65	30			
21934	-79.08	76.94	30			
2462	1.97					
4924	-36.48	34.51	30			
7386	-47.86	45.89	30			
9848	-68.04	66.07	30			
12310	-72.26	70.29	30			
17234	-69.34	67.37	30			
19696	-77.66	75.69	30			
22158	-77.78	75.81	30			



	802.11b						
	Antenna 2						
Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)				
2412	-0.99						
4824	-43.26	42.27	30				
7236	-46.84	45.85	30				
9648	-78.50	77.51	30				
12060	-73.24	72.25	30				
16884	-68.11	67.12	30				
19296	-81.06	80.07	30				
2437	1.97						
4874	-44.25	42,28	30				
7311	-46.78	44,81	30				
9748	-76.60	74,63	30				
12185	-68.55	66,58	30				
17059	-64.60	62,63	30				
19496	-77.34	75,37	30				
2462	-0.39						
4924	-41.05	40,66	30				
7386	-45.35	44,96	30				
9848	-76.15	75,76	30				
12310	-70.17	69,78	30				
17234	-64.03	63,64	30				
19696	-80.62	80,23	30				

	802.1	l1g					
	Antenna 1						
Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)				
2412	-3.26						
4824	-51.40	48,14	30				
7236	-54.34	51,08	30				
9648	-77.45	74,19	30				
16884	-73.57	70,31	30				
19296	-79.55	76,29	30				
2437	0.66						
4874	-49.77	49,11	30				
7311	-51.39	50,73	30				
9748	-76.56	75,90	30				
12185	-78.22	77,56	30				
17059	-69.34	68,68	30				
19496	-79.07	78,41	30				
2462	-5.15						
4924	-54.05	48,90	30				
7386	-56.18	51,03	30				
9848	-79.32	74,17	30				
12310	-78.98	73,83	30				
17234	-75.65	70,50	30				



	802.	11g					
	Antenna 2						
Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)				
2412	-5.51						
4824	-58.72	53,21	30				
7236	-54.52	49,01	30				
12060	-79.71	74,20	30				
16884	-72.55	67,04	30				
2437	-0.63						
4874	-54.26	53,63	30				
7311	-50.03	49,40	30				
12185	-74.59	73,96	30				
17059	-67.22	66,59	30				
2462	-6.51						
4924	-59.52	53,01	30				
7386	-52.30	45,79	30				
12310	-77.15	70,64	30				
17234	-70.60	64,09	30				

	802.11n HT20									
	Antenna 1									
Frequency (MHz)	Level (dBm)	Level (dBc)	Limit (dBc)							
2412	-6.22									
4824	-55.86	49,64	30							
7236	-60.79	54,57	30							
9648	-78.31	72,09	30							
16884	-75.47	69,25	30							
2437	-2.46									
4874	-55.32	52,86	30							
7311	-56.86	54,40	30							
9748	-75.86	73,40	30							
12185	-78.03	75,57	30							
17059	-71.64	69,18	30							
2462	-4.56									
4924	-55.91	51,35	30							
7386	-57.96	53,40	30							
9848	-81.44	76,88	30							
17234	-73.08	68,52	30							



	802.11n HT20 Antenna 2								
Frequency (MHz)	Frequency (MHz) Level (dBm) Level (dBc)								
2412	-8 .44								
4824	-65.13	56.69	30						
7236	-59.54	51.10	30						
16884	-76.22	67.77	30						
2437	-4.29								
4874	-59.83	55.54	30						
7311	-53.61	49.32	30						
17059	-70.98	66.69	30						
2462	-6.70								
4924	-59.07	52.37	30						
7386	-56.17	49.47	30						
17234	-70.16	63.46	30						

	802.11n HT40								
Antenna 1									
Frequency (MHz)	Frequency (MHz) Level (dBm) Level (dBc)								
2422	-10.98								
4844	-65.02	54,04	30						
7266	-69.37	58,39	30						
9688	-83.68	72,70	30						
16954	-81.45	70,47	30						
2437	-7.06								
4874	-59.33	52,27	30						
7311	-61.83	54,77	30						
9748	-79.87	72,81	30						
12185	-81.63	74,57	30						
17059	-79.63	72,57	30						
2452	-9.28								
4904	-65.53	56,25	30						
7356	-66.77	57,49	30						
17164	-80.63	71,35	30						



	802.11n HT40									
	Antenna 2									
Frequency (MHz)	Frequency (MHz) Level (dBm) Level (dBc) Limit (dBc)									
2422	-13.45									
1211	-51.67	38.22	30							
4844	-76.05	62.60	30							
7266	-66.08	52.63	30							
2437	-7.06									
1218	-49.73	40.32	30							
4874	-64.85	55.44	30							
7311	-59.17	49.76	30							
2452	-9.28									
1226	-50.64	38.93	30							
4904	-67.15	55.44	30							
7356	-61.37	49.66	30							

9.6. CONCLUSION

Unwanted Emission into non-restricted frequency bands measurement performed on the sample of the product **Sagemcom® Sound Box SBDV01**, SN: **253770742**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247** limits.



10. AC Power Line Conducted Emissions

10.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU Date of test : September 24, 2018

Ambient temperature : 24 °C Relative humidity : 44 %

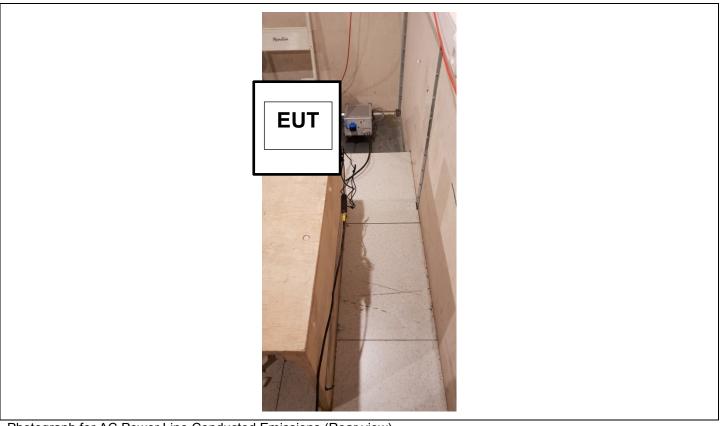
10.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013) method. The EUT is placed on the ground reference plane, at 80cm from the LISN. The distance between the EUT and the vertical ground plane is 40cm. Auxiliaries are powered by another LISN. The cable has been shorted to 1meter length. The EUT is powered through the LISN. Measurement is made with a receiver in peak mode. This was followed by a Quasi-Peak, i.e. CISPR measurement for any strong signal. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary. The LISN (measure) is 50Ω / 50μ H. Interconnecting cables and equipment's were moved to position that maximized emission.



Photograph for AC Power Line Conducted Emissions (Front view)





Photograph for AC Power Line Conducted Emissions (Rear view)



Quasi-Peak

0,15kHz to 0,5MHz: $66dB\mu V$ to $56dB\mu V^*$

0,5MHz to 5MHz: $56dB\mu V$ 5MHz to 30MHz: $60dB\mu V$

Average

0,15kHz to 0,5MHz: 56dBµV to 46dBµV*

0,5MHz to 5MHz: $46dB\mu V$ 5MHz to 30MHz: $50dB\mu V$

*Decreases with the logarithm of the frequency

10.4. TEST EQUIPMENT LIST

Description	Constructor	Model	N°	Cal. Date	Cal. Due
EMI Receiver	ROHDE & SCHWARZ	ESU26	A2642018	2016/10	2018/10
RSIL	ROHDE & SCHWARZ	ENV215	C2320162	2018/01	2019/01
AC power supply	ADAPTIVE POWER SYSTEM	FC210	A7360017	-	-
Cable	-	-	A5329712	2018/03	2019/03

Note: In our quality system, the test equipment calibration due is more & less 2 months

10.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None	☐ Divergence:		

TEST REPORT

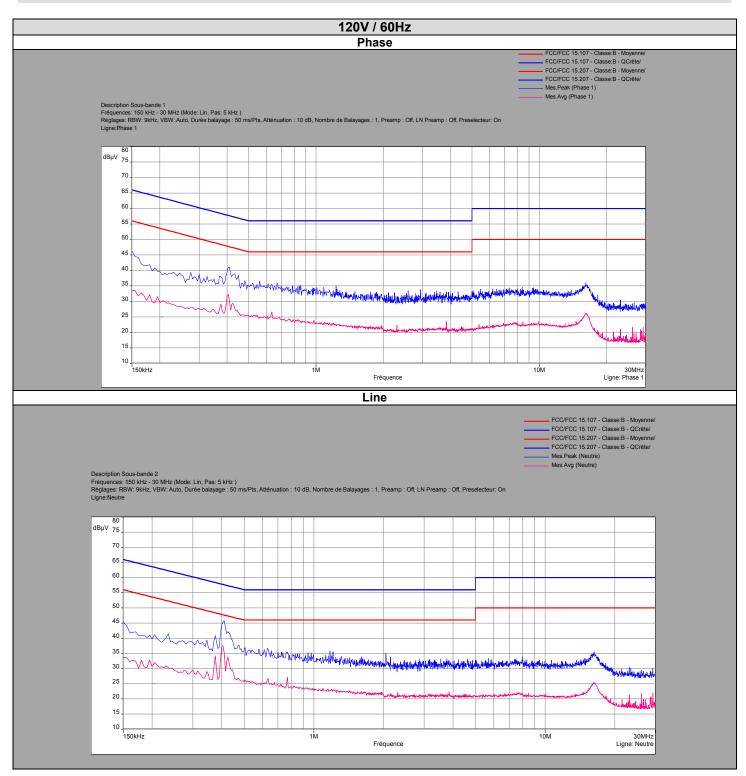
N° 157205-726501-C

Version : 02

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10.6. RESULTS

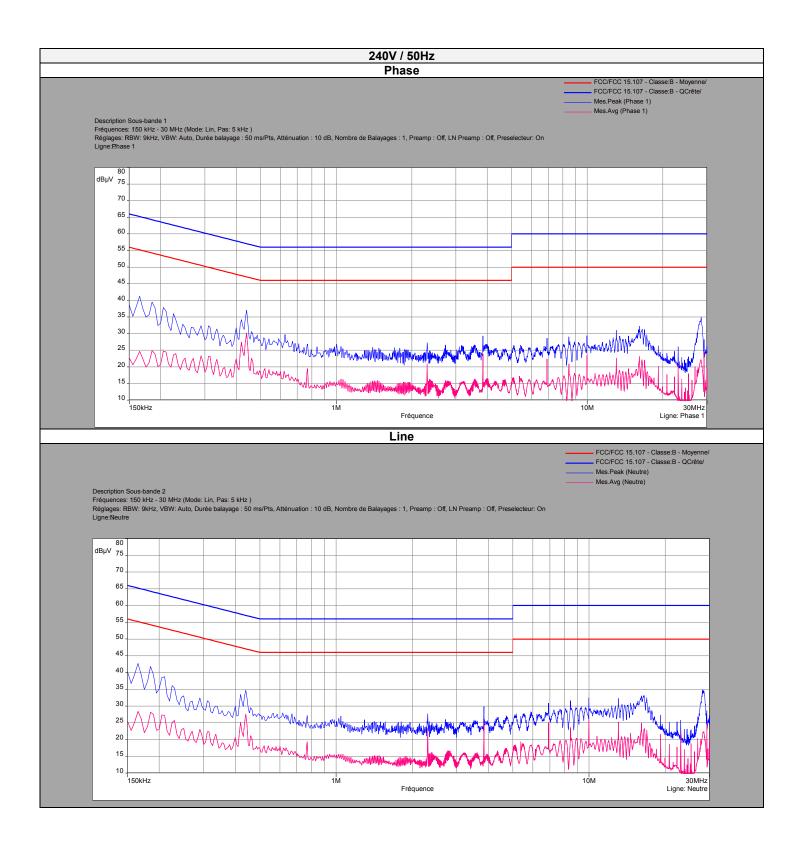




	Phase Line 120V / 60Hz										
Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Margin Quasi-Peak (dB)	Average Level (dBµV)	Average Limit (dBµV)	Margin Average (dB)				
0.41	41	-	57.65	16.65	32.28	47.65	15.37				
0.635	35.87	-	56	18.13	26.59	46	19.41				
3.840	33	-	56	23	23.47	46	22.53				
23.13	30.41	-	60	29.59	20.94	50	29.06				
26.11	28.93	-	60	31.07	21.59	50	28.41				
29.23	29.59	-	60	30.41	21.60	50	28.40				

	Neutral Line 120V / 60Hz									
Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Margin Quasi-Peak (dB)	Average Level (dBµV)	Average Limit (dBµV)	Margin Average (dB)			
0.41	45.84	-	57.65	11.81	37.57	47.65	10.08			
0.77	35.37	-	56	20.63	27.1	46	18.9			
2.05	35.1	-	56	20.9	22.25	46	23.75			
23.13	30.43	-	60	29.57	21.36	50	28.64			
26.61	29.50	-	60	30.5	21.83	50	28.17			
29.23	29.18	-	60	30.82	22	50	28			







	Phase Line 240V / 50Hz									
Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Margin Quasi-Peak (dΒμV)	Average Level (dBµV)	Average Limit (dBµV)	Margin Average (dBµV)			
0.44	37.06	-	57.06	20.0	30.17	47.06	16.89			
2.305	27.27	-	56	28.73	20.89	46	25.11			
3.840	29.32	-	56	26.68	23.89	46	22.11			
13.05	31.02	-	60	28.98	22.62	50	27.38			
16.13	27.80	-	60	20.80	23.12	50	26.88			
28.22	35.02	-	60	24.98	22.11	50	27.89			

	Neutral Line 240V / 50Hz										
Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Margin Quasi-Peak (dBµV)	Average Level (dBµV)	Average Limit (dBµV)	Margin Average (dBµV)				
0.44	34.74	-	57.06	22.32	27.59	47.06	19.47				
2.305	27.75	-	56	28.25	23.37	46	22.63				
3.840	29.88	-	56	26.12	24.91	46	21.09				
13.05	32.30	-	60	27.70	25.23	50	24.77				
16.13	33.12	-	60	26.88	24.86	50	25.14				
28.22	34.82	-	60	25.18	22.33	50	27.67				

10.7. CONCLUSION

Ac Power Line Conducted Emission measurement performed on the sample of the product **Sagemcom® Sound Box SBDV01**, SN: **253770742**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.247 limits.



11. UNWANTED EMISSIONS IN RESTRICTED FREQUENCY BANDS

11.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU

Date of test : October 4, 2018

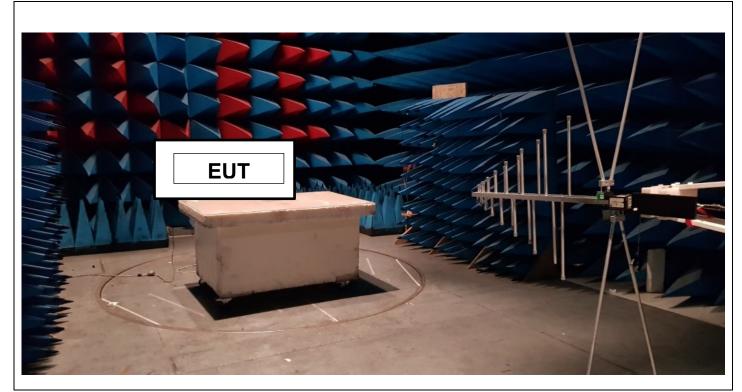
Ambient temperature : 28 °C Relative humidity : 49 %

11.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013).

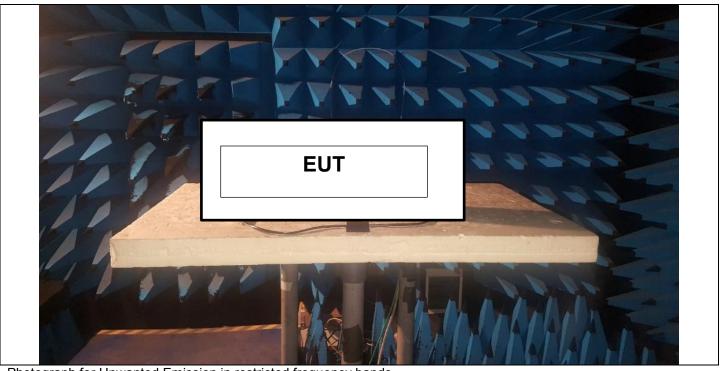
Test is performed in parallel, perpendicular and ground parallel axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m. The EUT is placed **in a semi-anechoic chamber**. Distance between measuring antenna and the EUT is **3m**.

Test is performed in horizontal (H) and vertical (V) polarization with **bilog** between 30MHz & 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz. The EUT is placed **in a full anechoic chamber** above 1GHz and **in a semi-anechoic chamber** from 30MHz to 1GHz. Distance between measuring antenna and the EUT is **3m**.

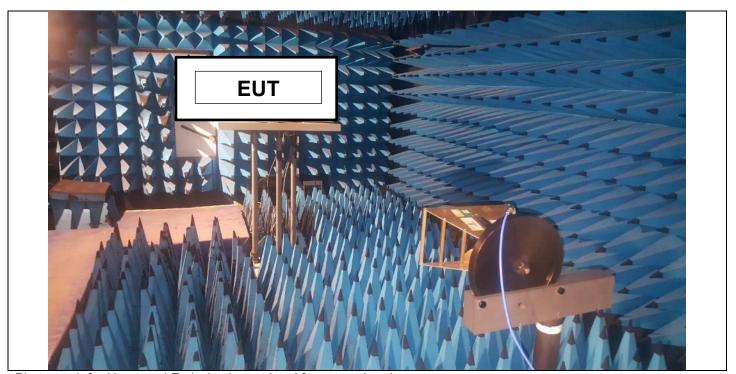


Photograph for Unwanted Emission in restricted frequency bands



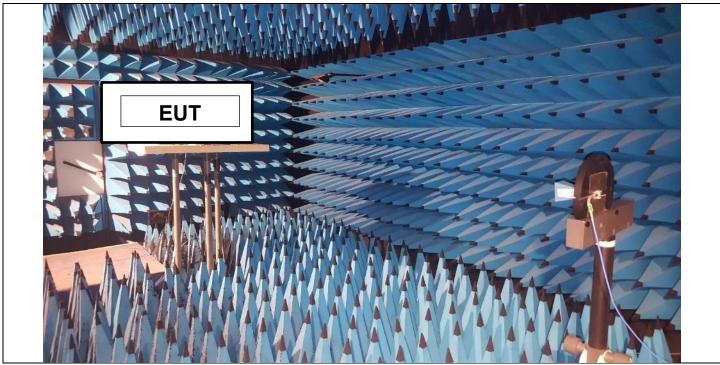


Photograph for Unwanted Emission in restricted frequency bands



Photograph for Unwanted Emission in restricted frequency bands





Photograph for Unwanted Emission in restricted frequency bands

Limit at 3m:

9kHz to 0,490MHz: 2400/F(kHz) μ V/m (300m) or 20log(2400/F(kHz))dB μ V/m (3m) QPeak 0,490MHz to 1.705MHz: 240000/F(kHz) μ V/m (30m) or 20log(240000/F(kHz))dB μ V/m (3m) QPeak

1.705MHz to 30MHz: 30µV/m (30m) or dBµV/m (3m) QPeak

30MHz to 88MHz: 40dBµV/m QPeak 88MHz to 216MHz: 43,5dBµV/m QPeak 216MHz to 960MHz: 46dBµV/m QPeak 960MHz to 1000MHz: 54dBµV/m QPeak Above 1000MHz: 74dBµV/m Peak 54dBµV/m Average

Limit at 10m:

 $\begin{array}{lll} 30 \text{MHz to } 88 \text{MHz:} & 29.5 \text{dB}\mu\text{V/m QPeak} \\ 88 \text{MHz to } 216 \text{MHz:} & 33 \text{dB}\mu\text{V/m QPeak} \\ 216 \text{MHz to } 960 \text{MHz:} & 35.5 \text{dB}\mu\text{V/m QPeak} \\ 960 \text{MHz to } 1000 \text{MHz:} & 43.5 \text{dB}\mu\text{V/m QPeak} \\ \text{Above } 1000 \text{MHz:} & 63.5 \text{B}\mu\text{V/m Peak} \\ & 43.5 \text{B}\mu\text{V/m Average} \\ \end{array}$



11.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESI40 1088 740K40	A2642010	2018/07	2019/07
Full anachoic chamber	SIEPEL	-	D3044019	2014/10	2018/10
Preamplifier	LCIE	LCIE-ALB-001	A7080073	2016/10	2018/10
Horn antenna	AH SYSTEMS	SAS 571	C2042041	2017/09	2019/09
Horn antenna (18-26,5GHz)	PASTERNACK	PE9852/2F-20	C2042048	2017/12	2019/12
Cable	Télédyne	084-0505-1MTR	A5329757	2018/03	2019/03
Cable	Télédyne	084-0555-3MTR	A5329760	2018/03	2019/03
Cable	Télédyne	084-555-1.5MTR	A5329759	2018/03	2019/03
Multimeter	KEITHLEY	2000	A1242090	2017/05	2019/05
Power supply	KIKUSUI	PCR500M	A7040079	Cal with Multimeter	Cal with Multimeter
Bilog antenna	SCHWARZBECK	VULB9160	C2040150	2018/04	2019/04
Cable	-	-	A5329711	2018/06	2019/06
Horn antenna	A-infoMW	Broadband 1-18	C2042056	2016/07	2018/07
SEMI ANECHOIC CHAMBER	SIEPEL	ANE	D3044008	2014/10	2018/10
EMI Receiver	ROHDE & SCHWARZ	ESU26	A2642018	2016/10	2018/10
Preamplifier	LCIE	-	A7086012	2018/03	2019/03
Loop antenna	SCHWARZBECK	FMZB1513	C2040209	2018/03	2020/03
Rejector filter 2,4GHz	-	2.45GHz	A7484048	2017/11	2018/11

Note: In our quality system, the test equipment calibration due is more & less 2 months

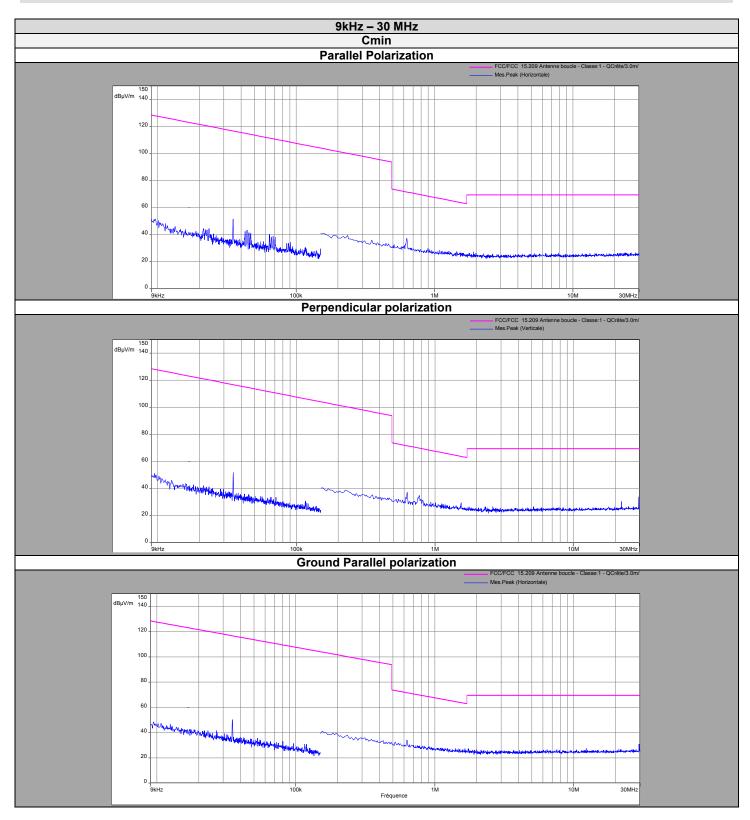
11.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

✓ None	☐ Divergence:		

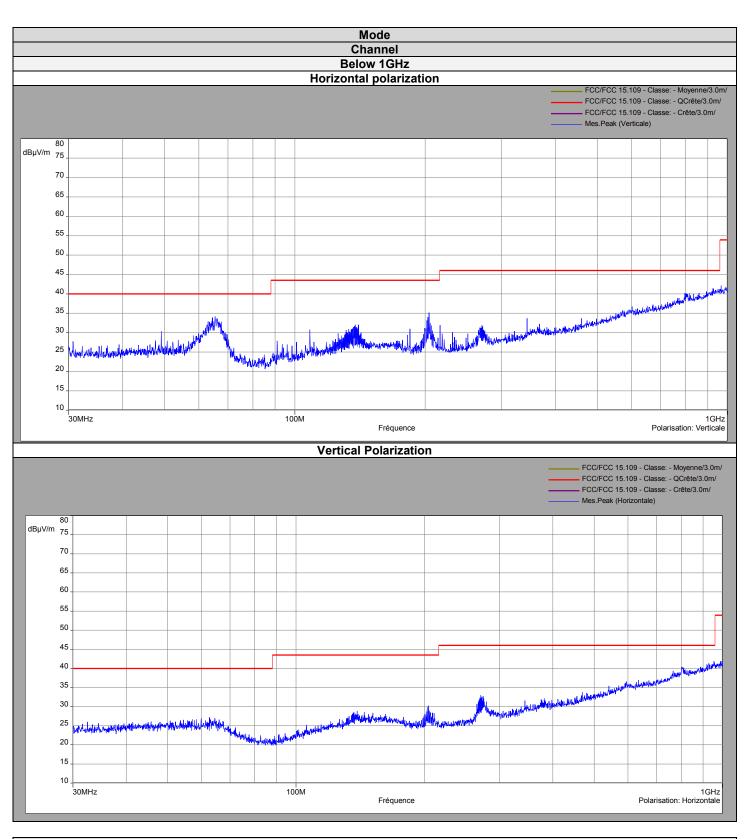
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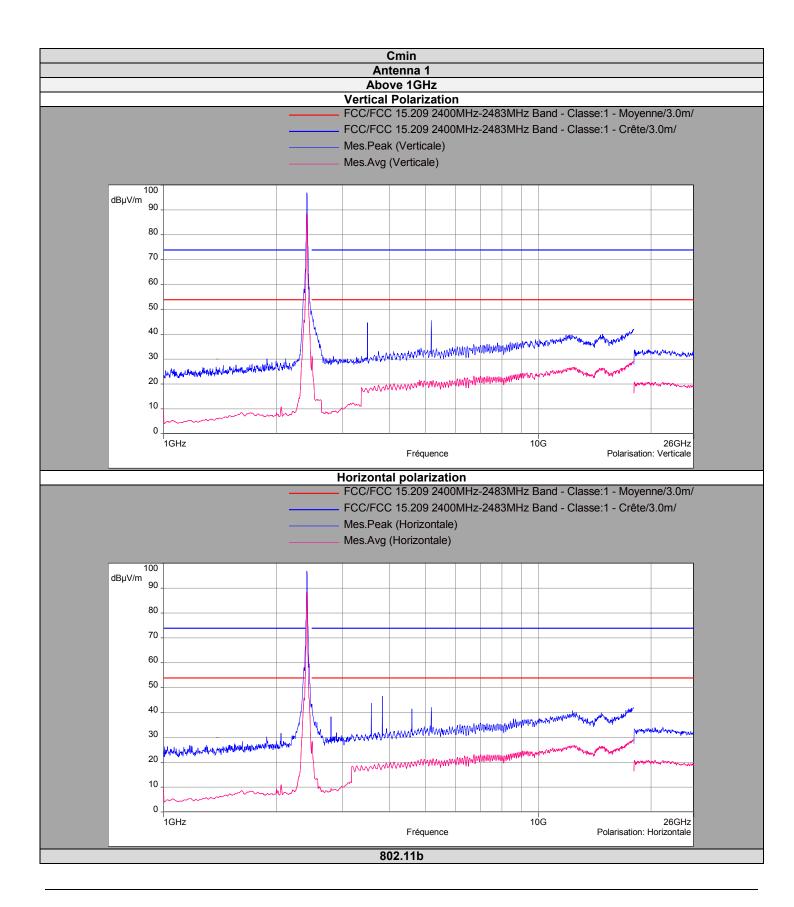
11.6. RESULTS



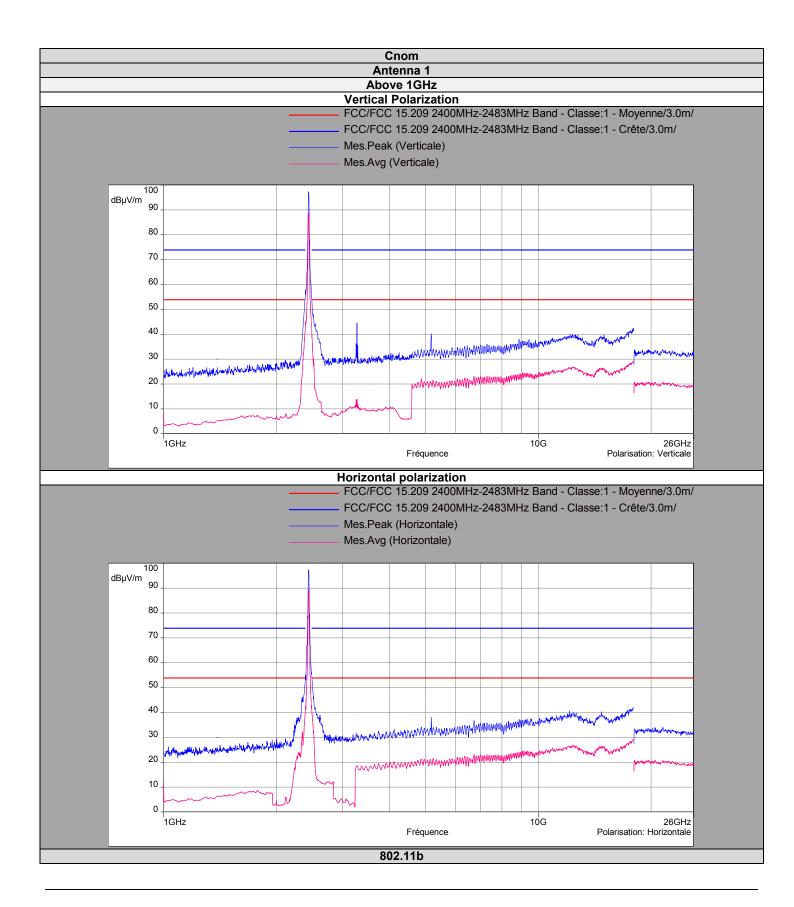




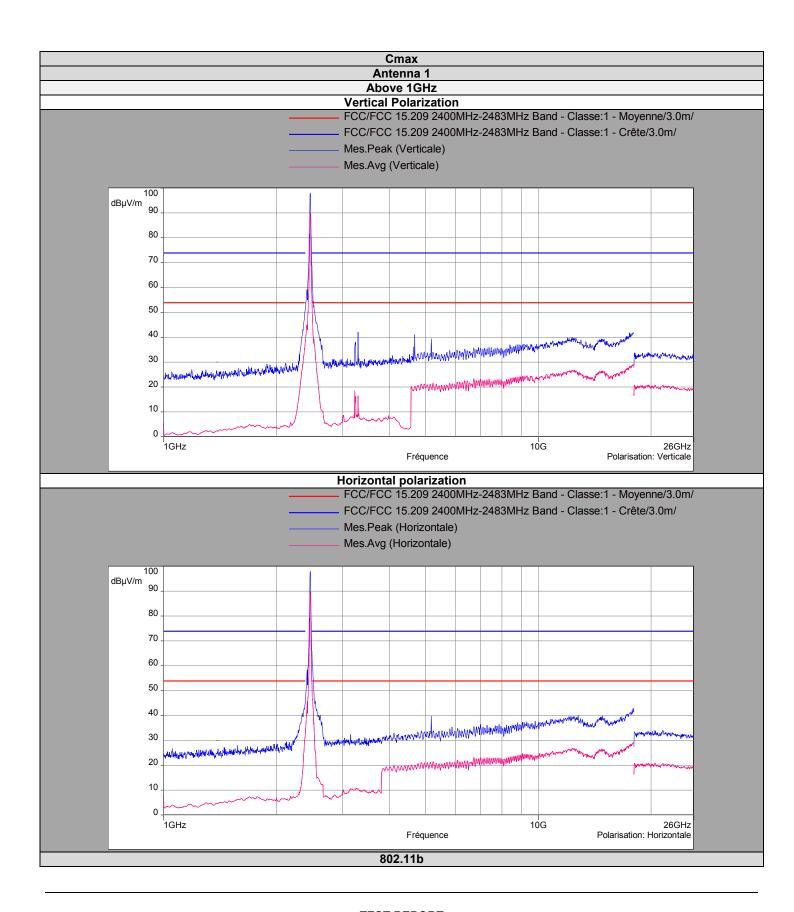




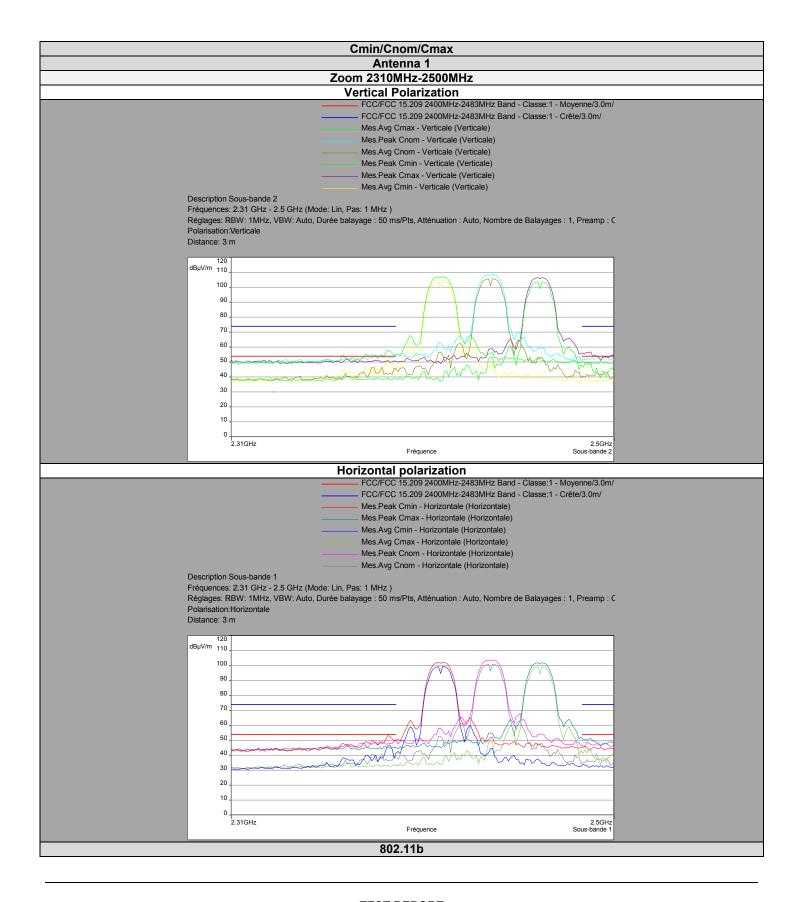




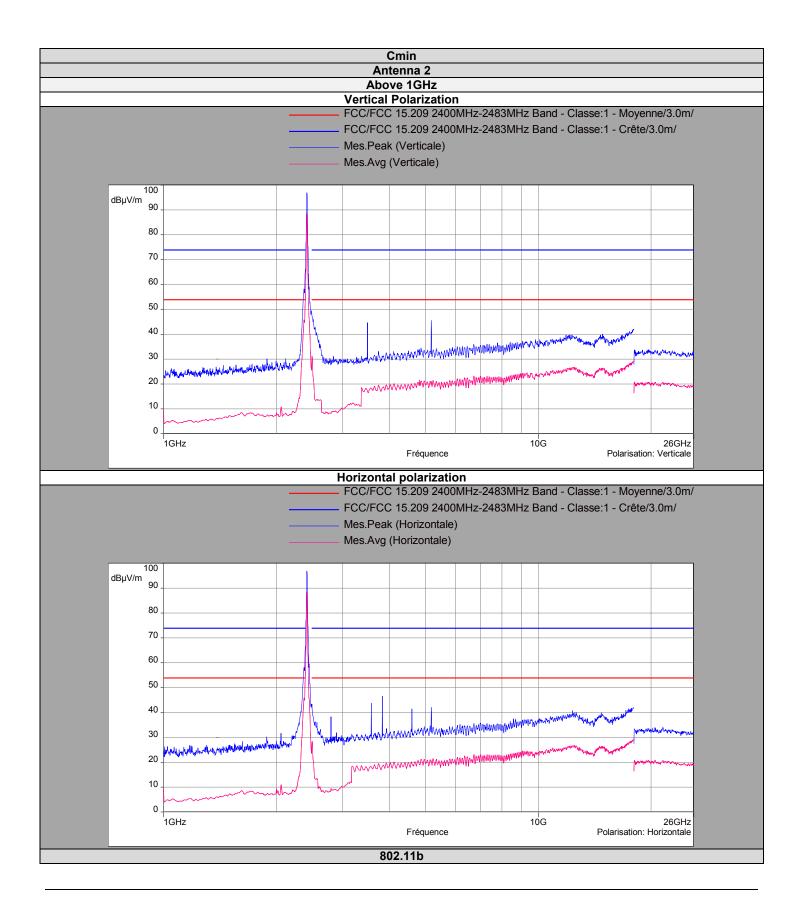




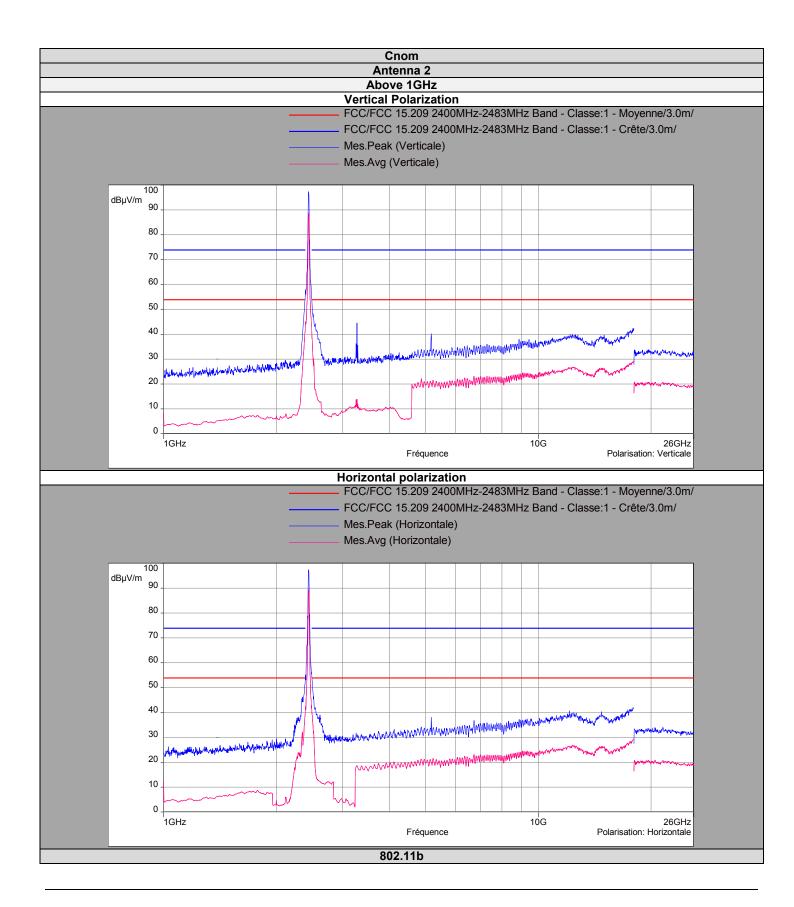




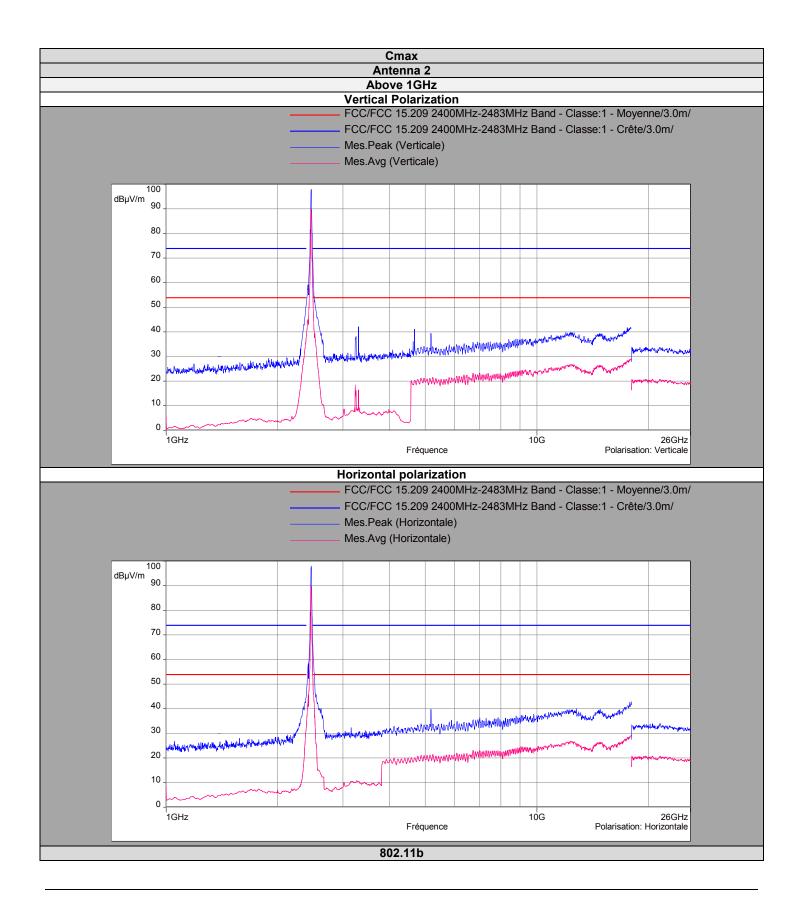




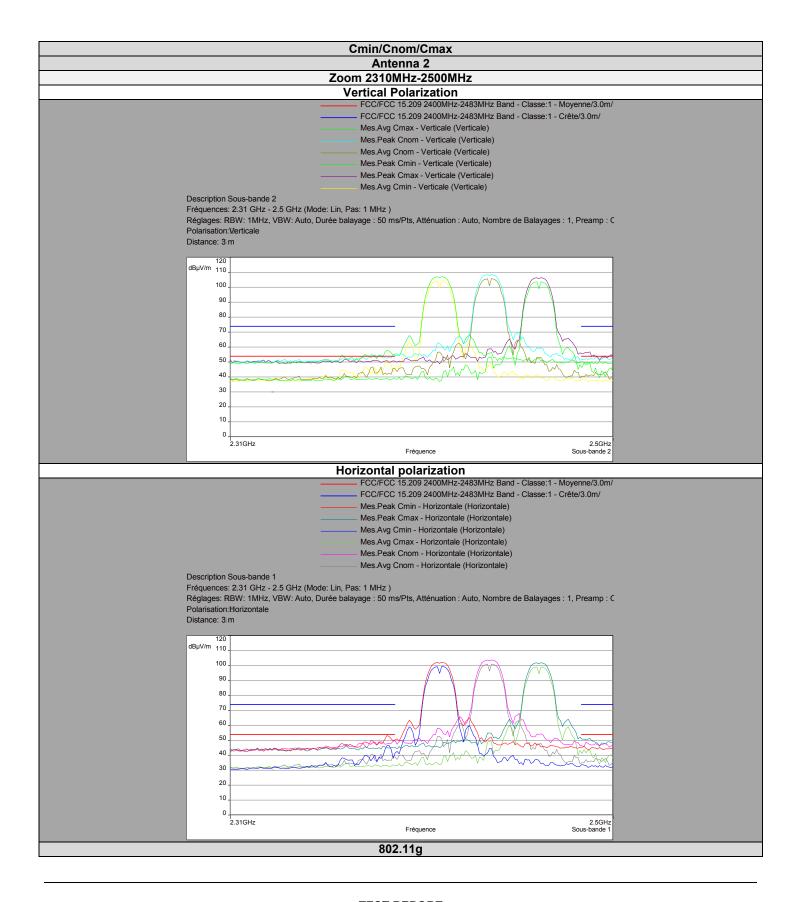




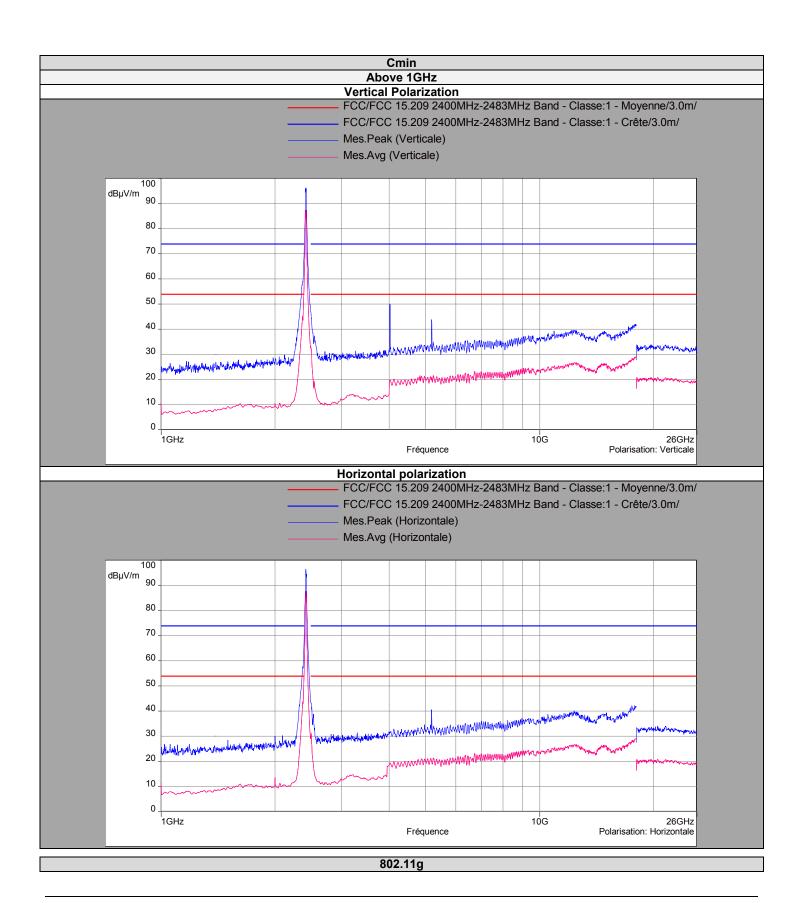




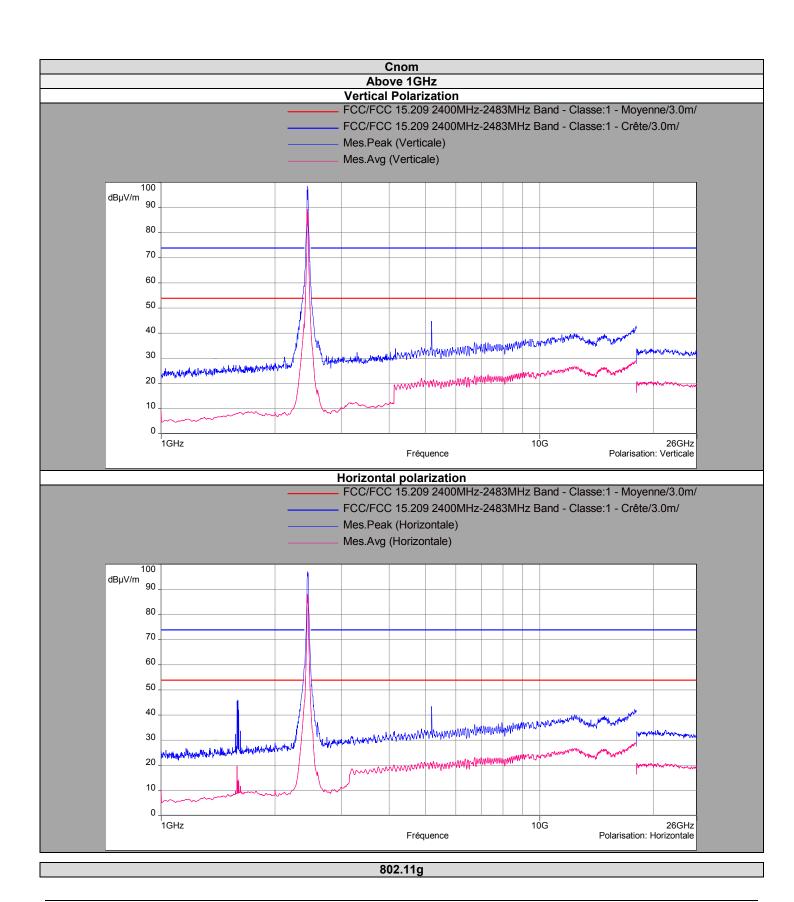




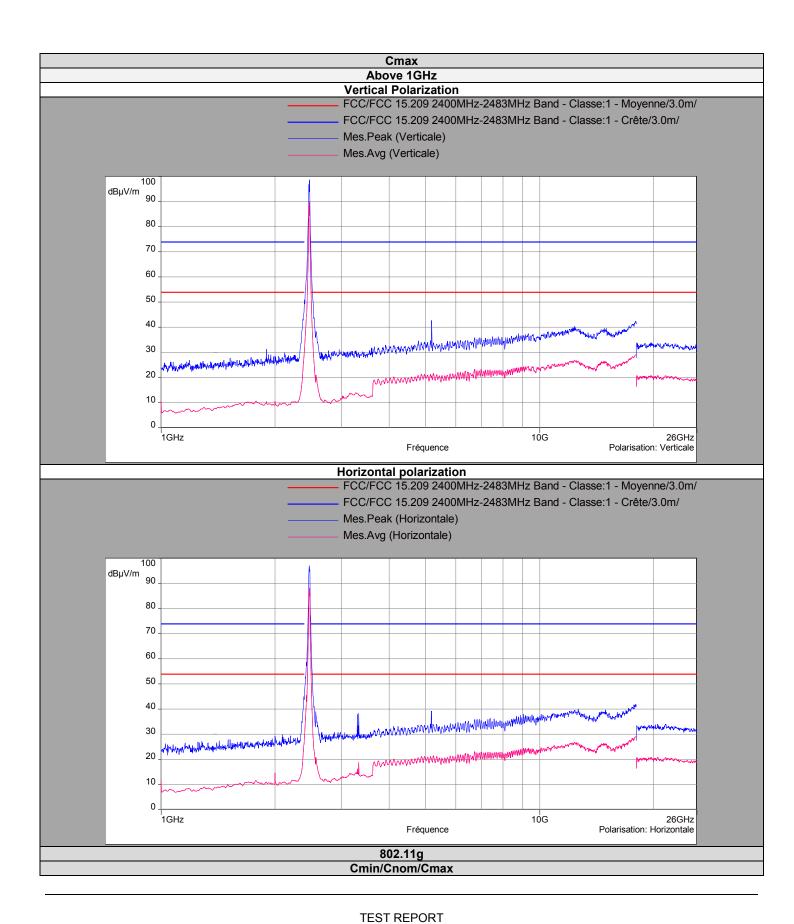




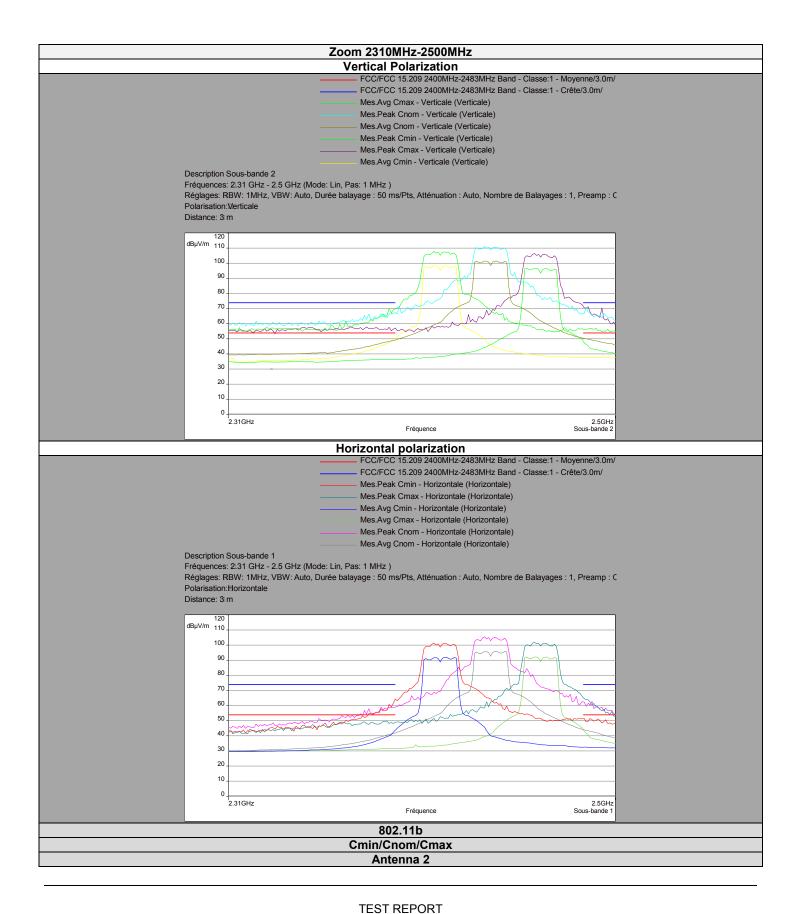




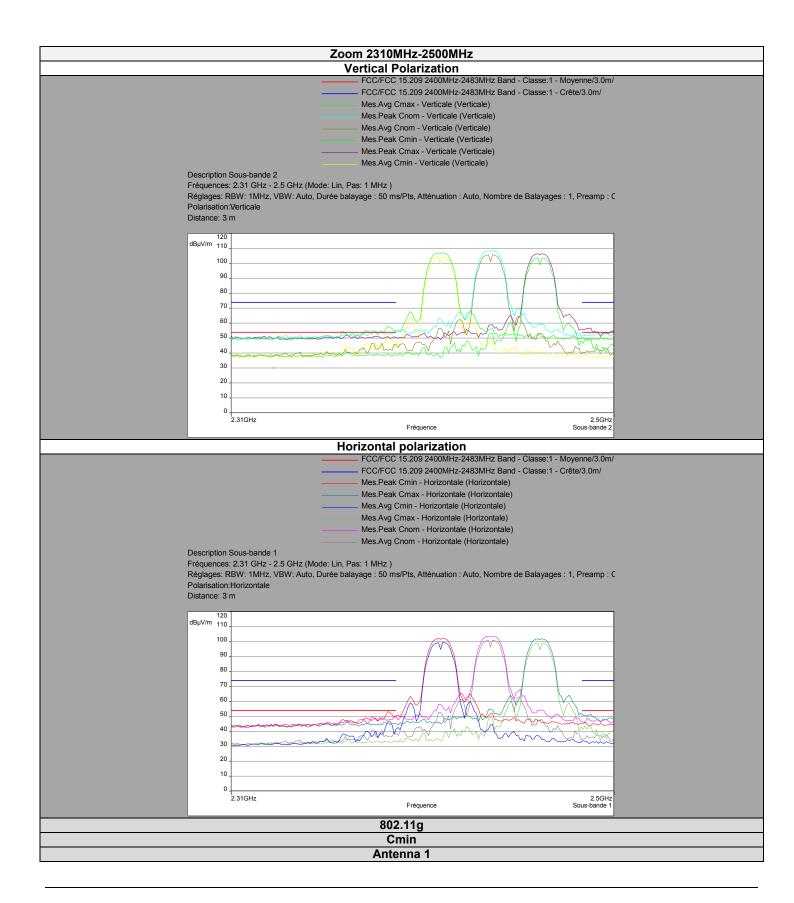




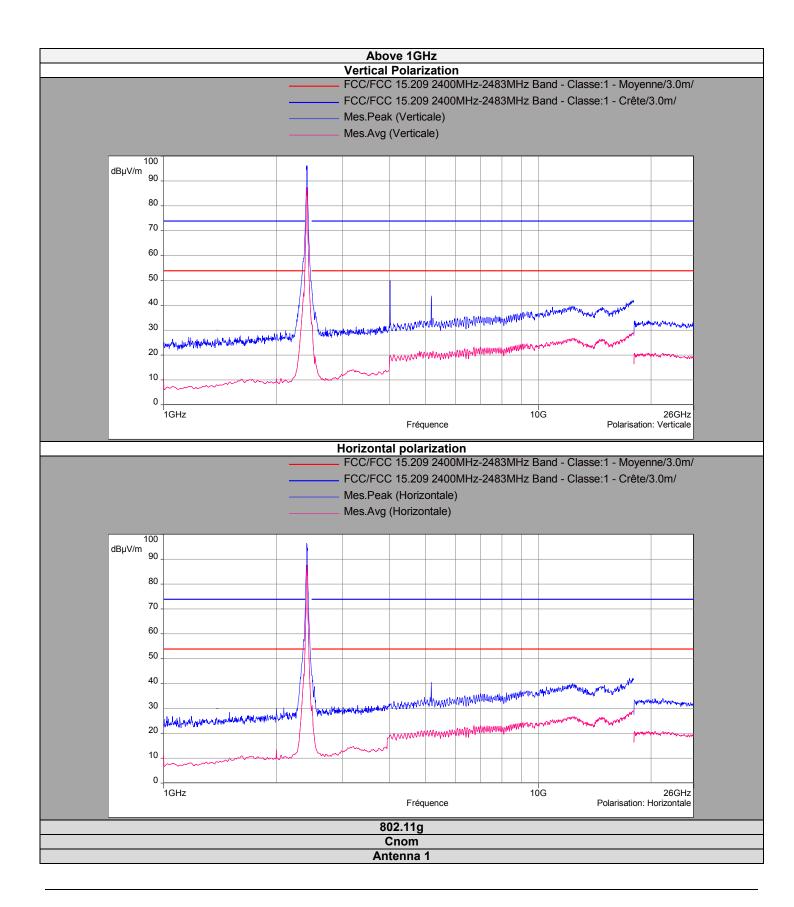




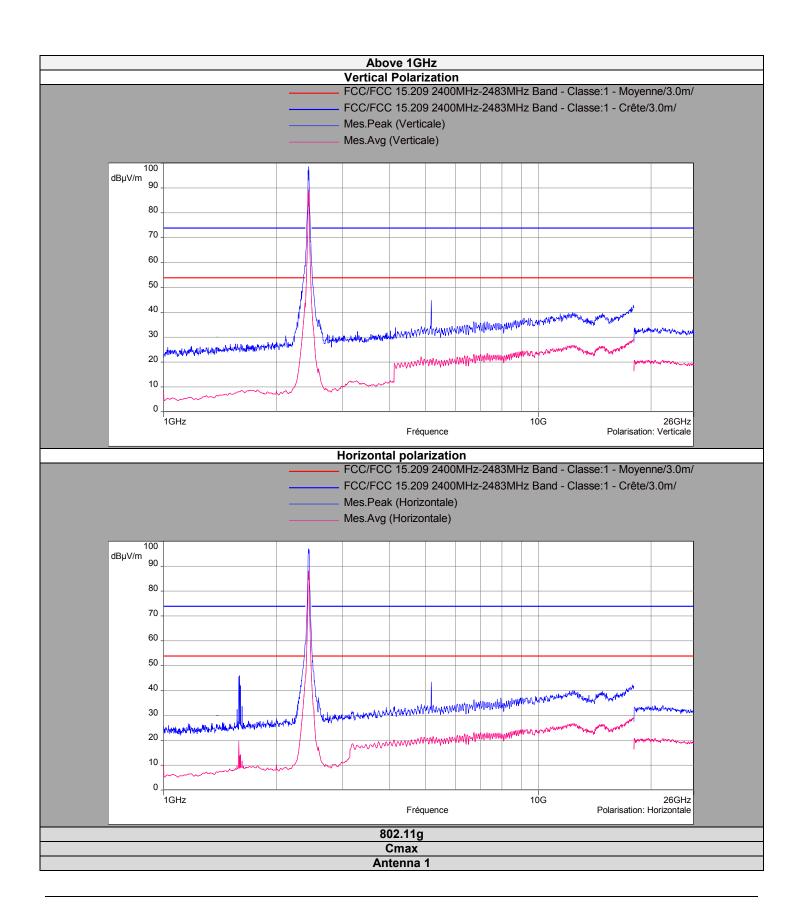




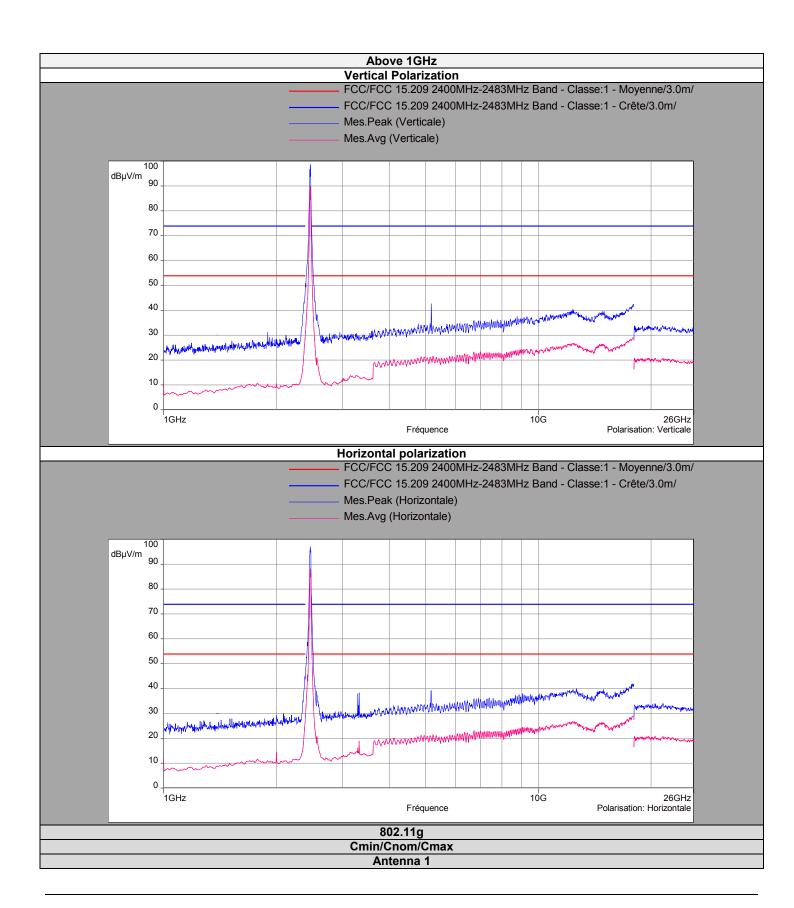




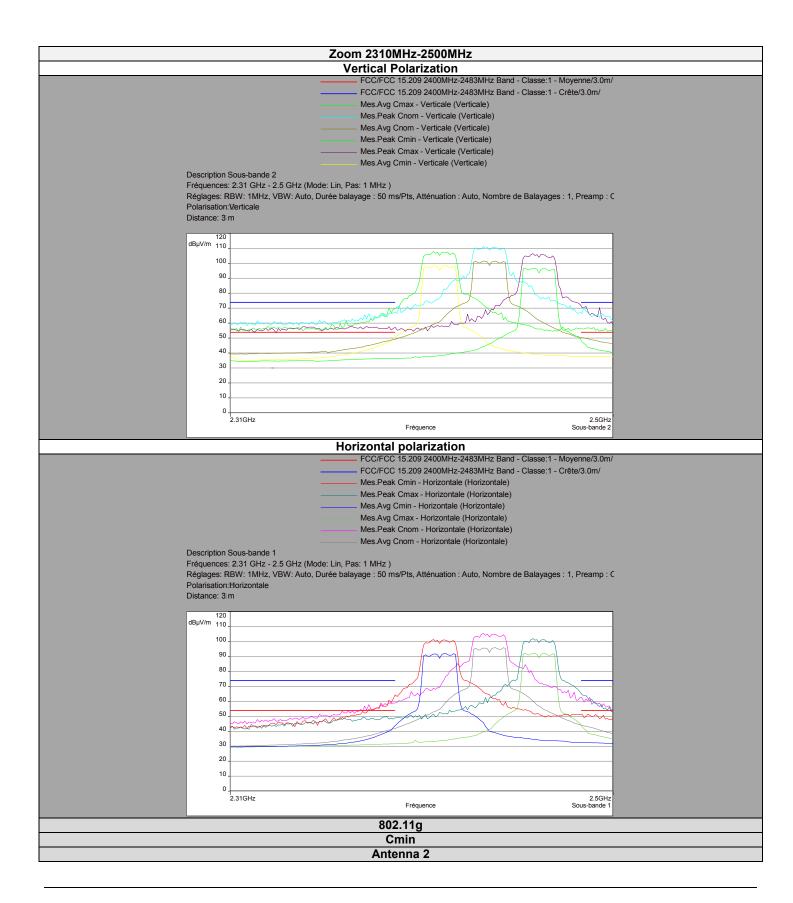




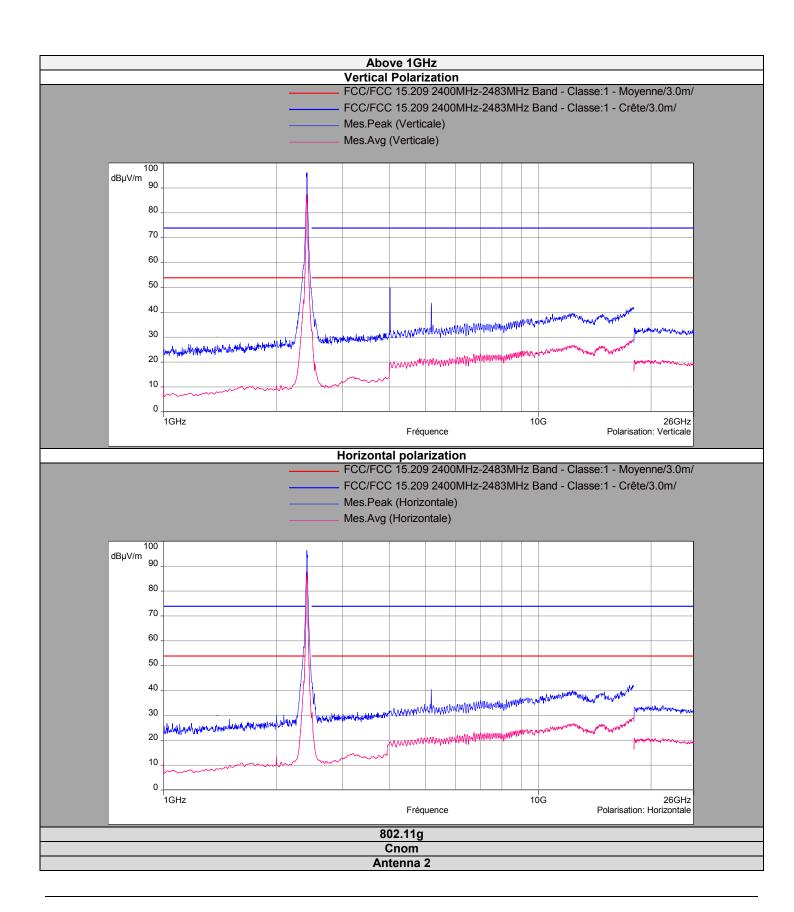




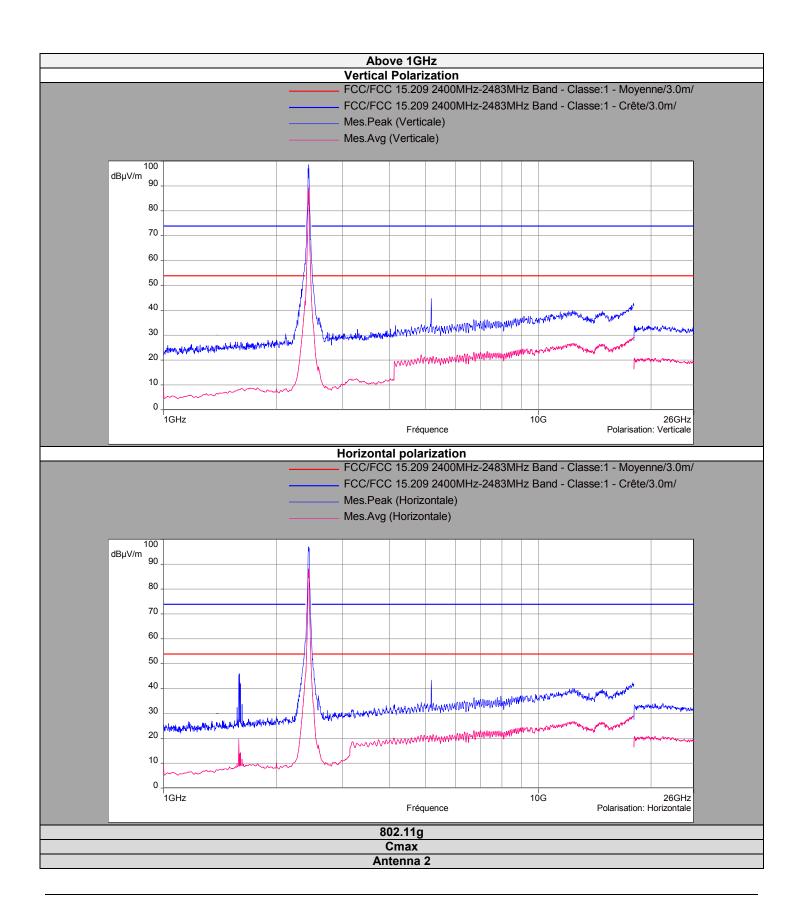




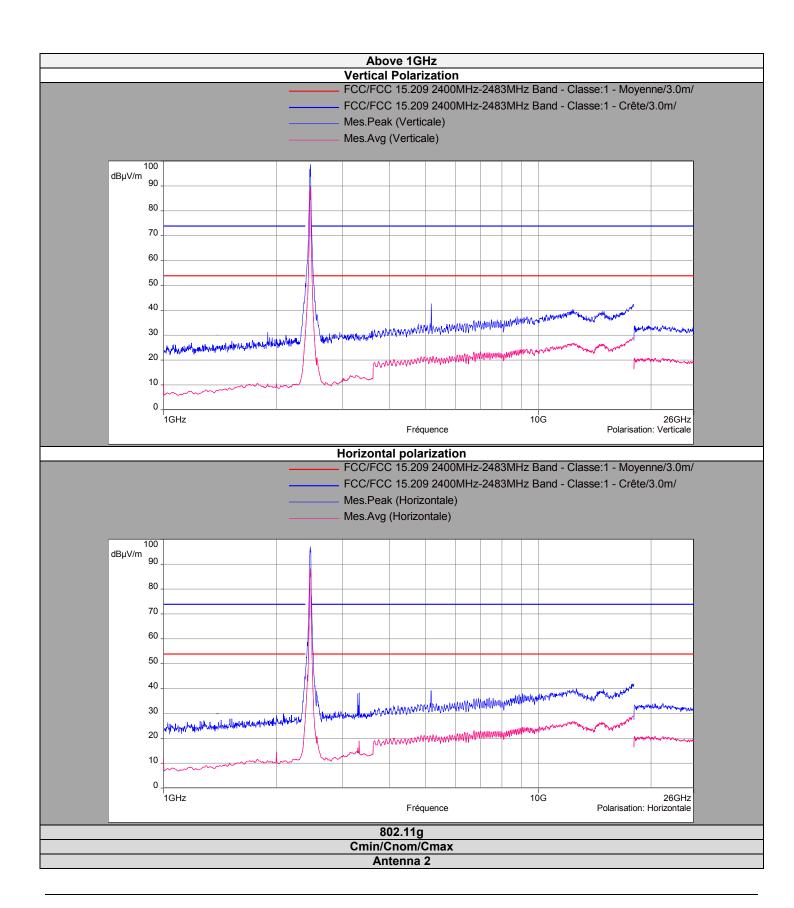




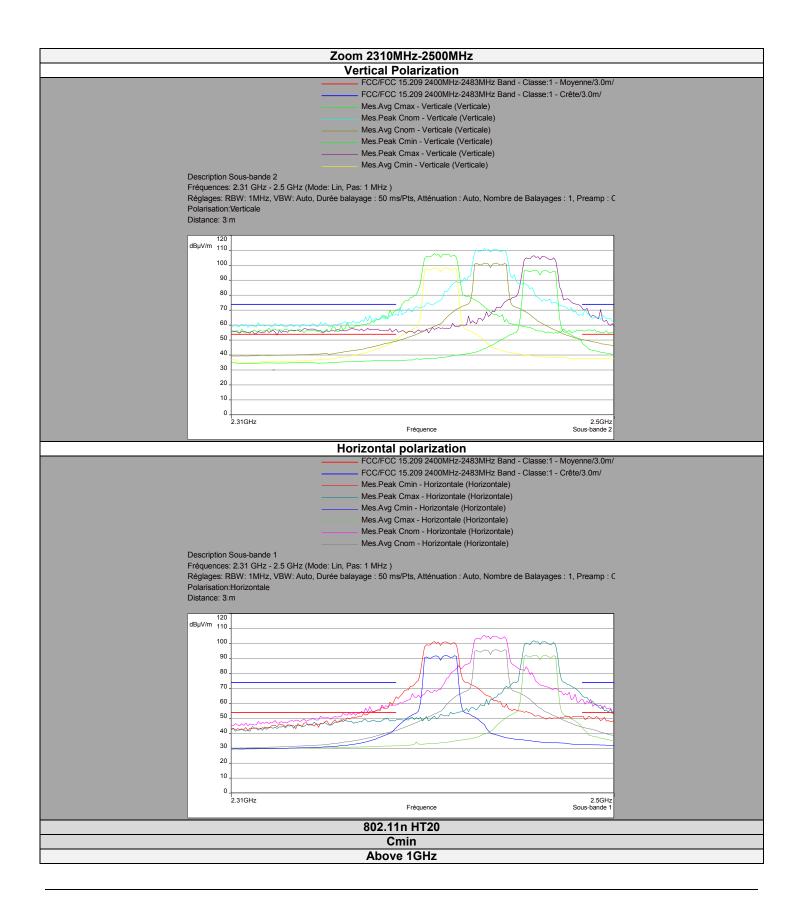




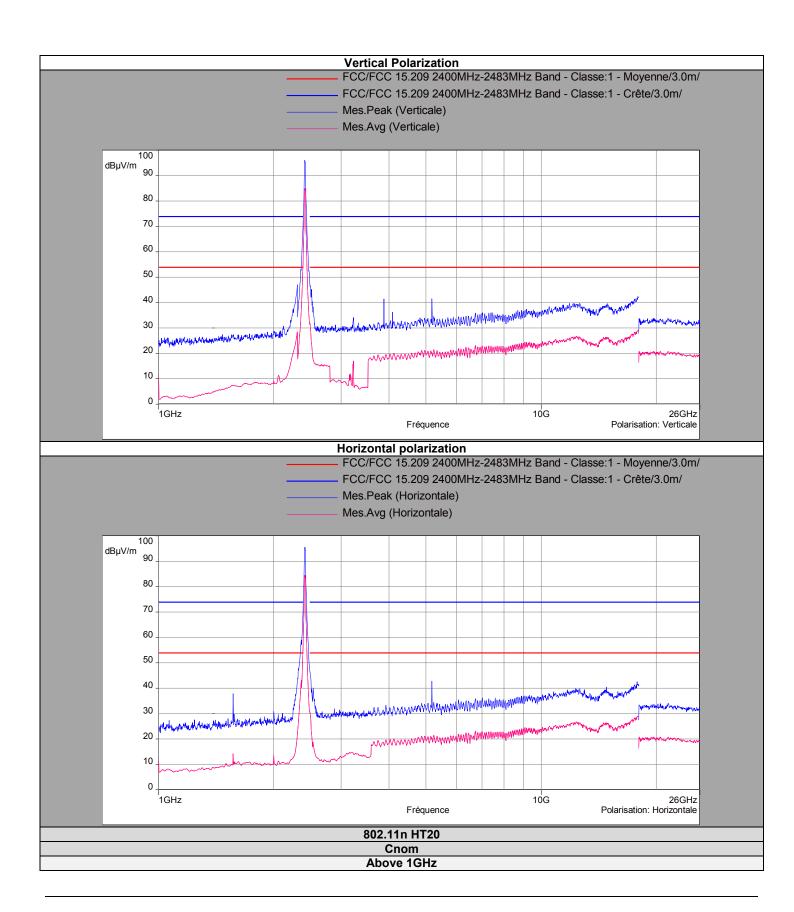




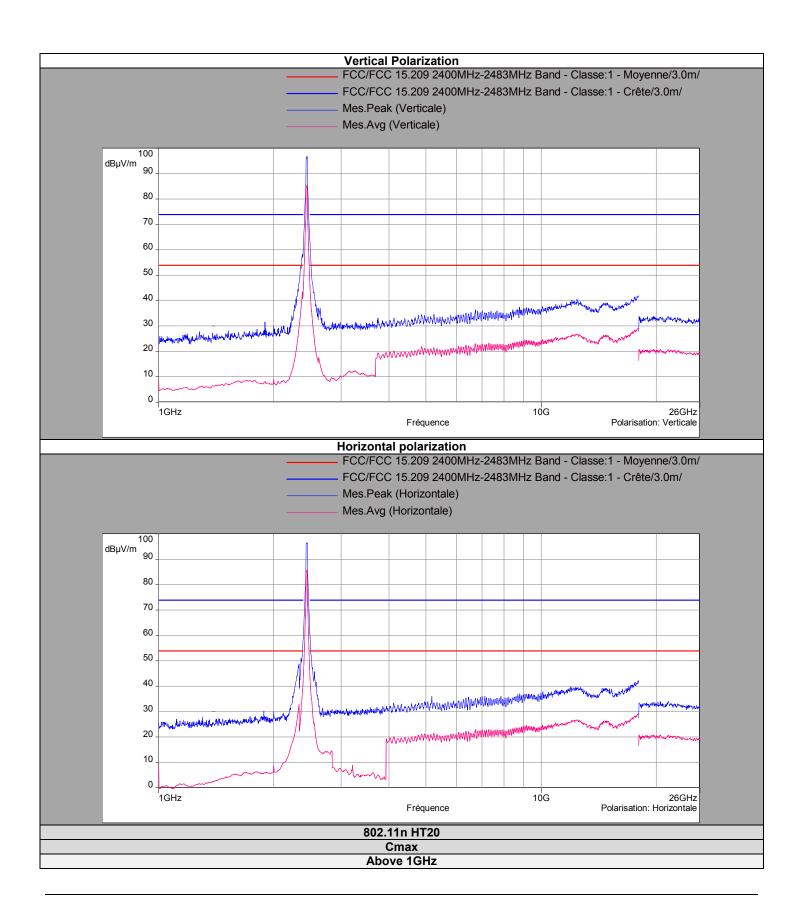




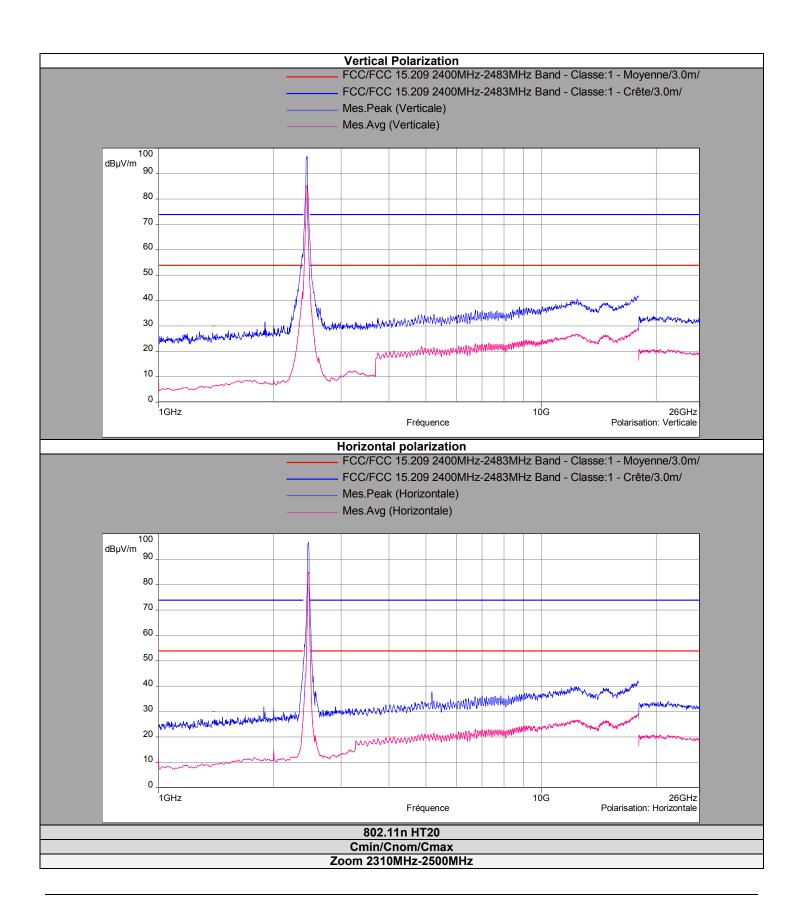




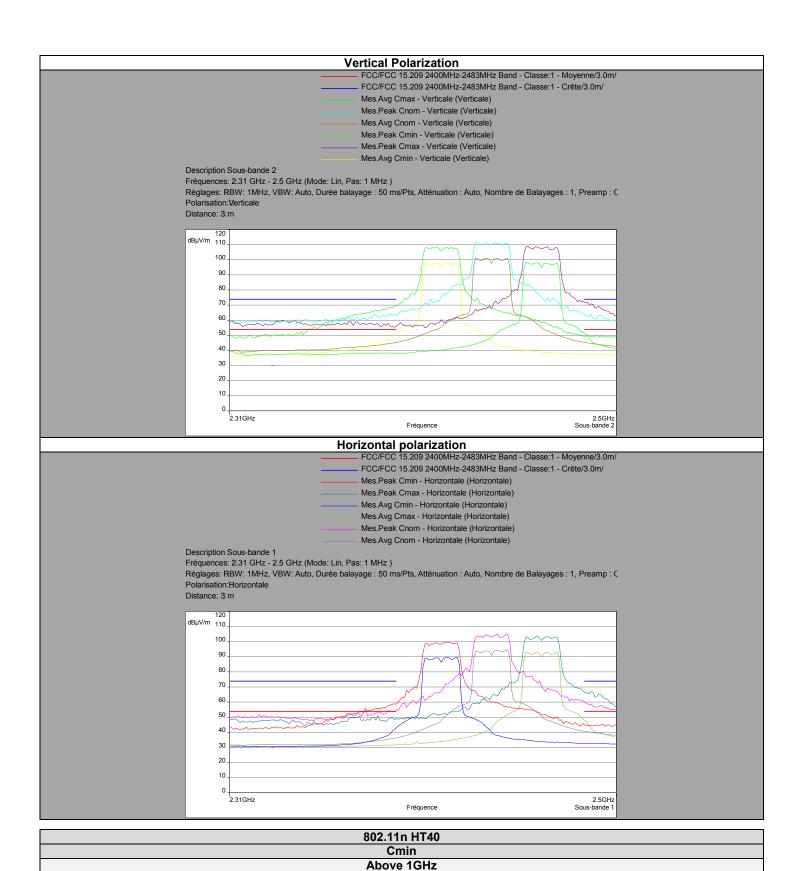




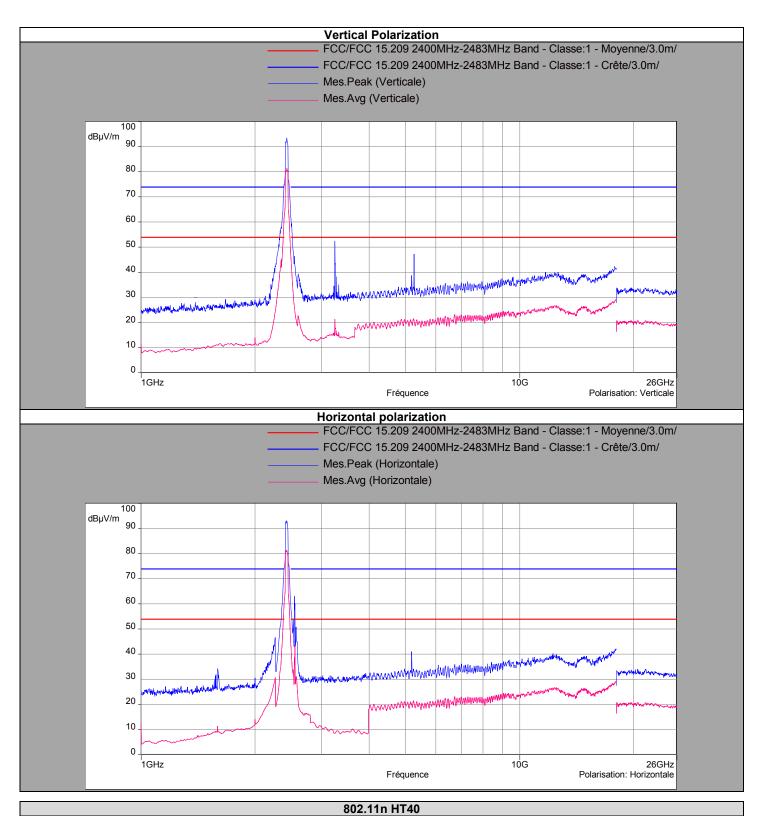




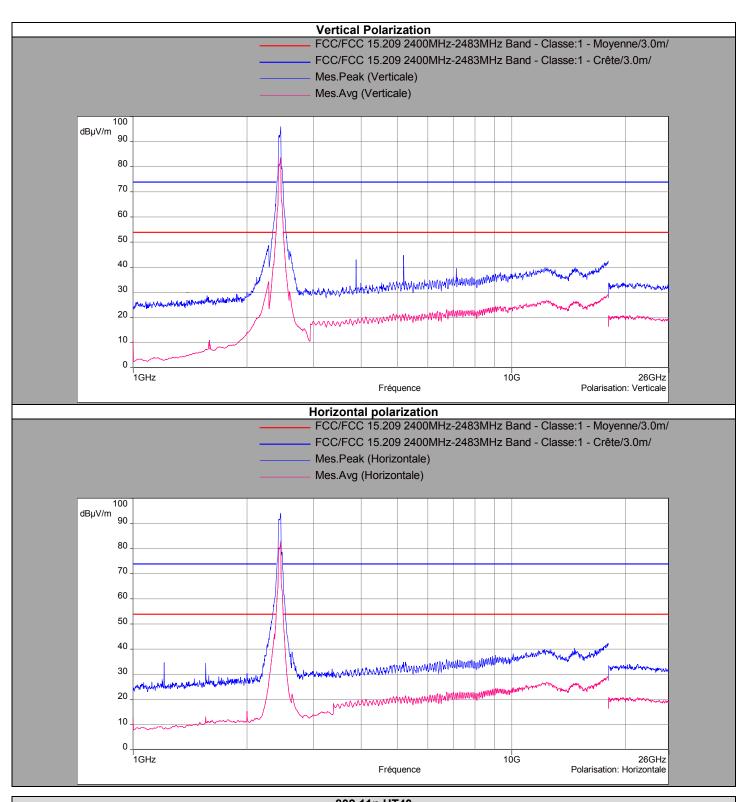




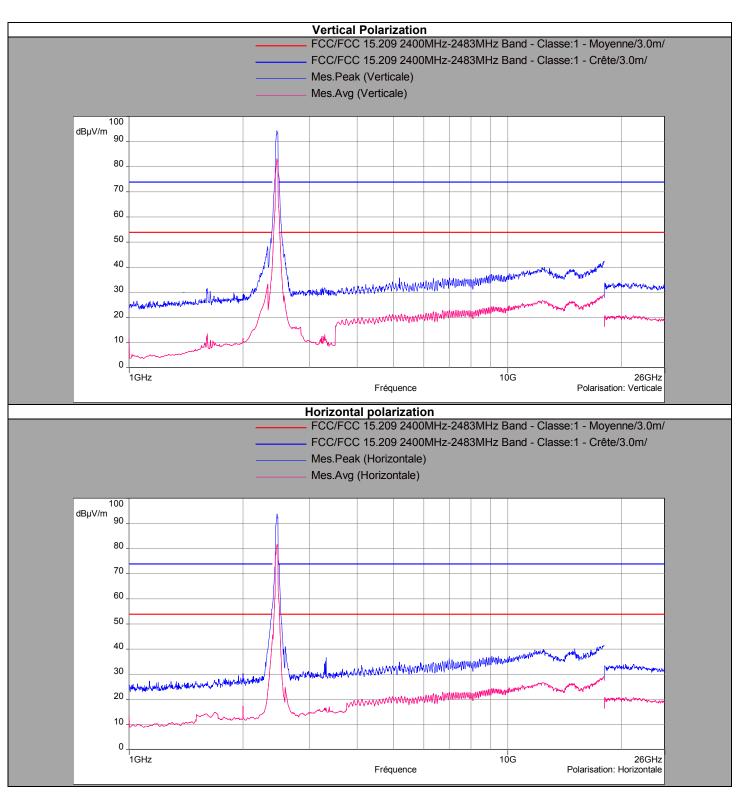


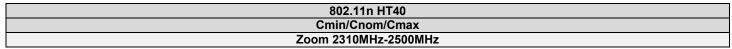




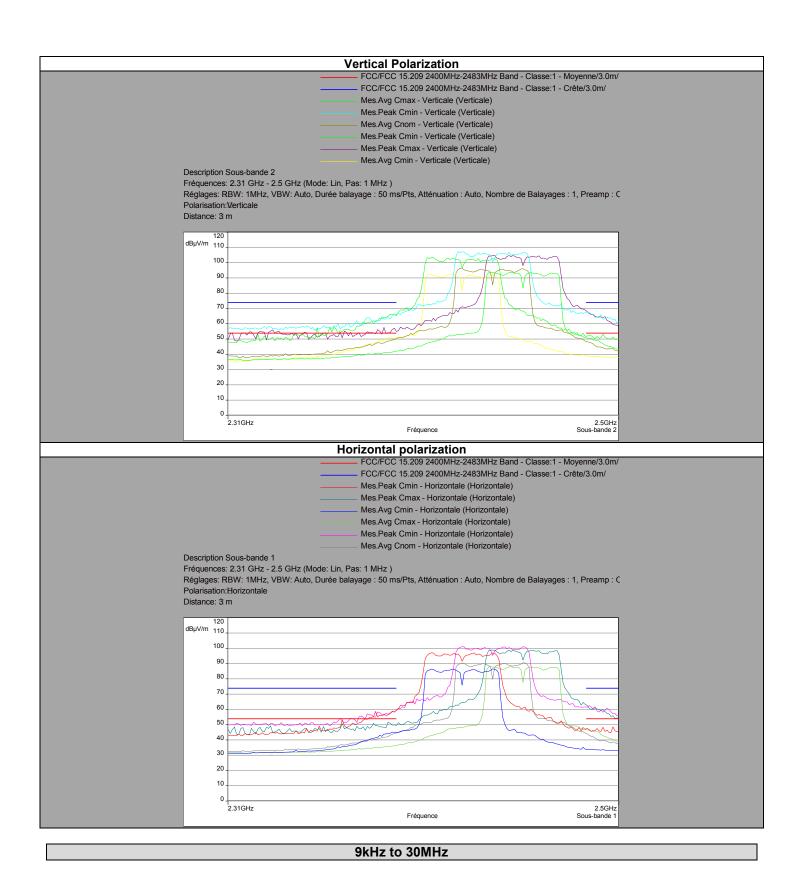














Polarization	Polarization Frequency Peak Level (MHz) (dBµV/m)		QPeak Level (dBµV/m)	Limit (dBµV/m)				
all emissions were greater than 20 dB below the limit								

30MHz – 1GHz									
Polarization	Frequency (MHz)	Peak Level (dBµV/m)	QPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)				
Verticale	65.4	34.15	-	40.0	5.85				
Verticale	49.15	30.37	-	40.0	9.62				
Verticale	108.3	30.79	-	43.5	12.71				
Verticale	204.26	35.14	-	43.5	8.36				
Horizontale	204.32	30.23	-	43.5	13.27				
Verticale	796.58	40.19	-	46.0	5.81				



	802.11b								
	Above 1GHz								
	Antenna 1								
			Cmi	in/Cnom/Cmax					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	2390	41.55	41,56	54	12,45	50.35	74	23,65	
Verticale	2390	46.64	46,65	54	7,36	55.40	74	18,60	
Horizontale	2483.5	41.23	41,24	54	12,77	50.70	74	23,30	
Verticale	2483.5	46.40	46,41	54	7,60	55.65	74	18,35	
Horizontale	3583	20.33	20,34	54	33,67	45.77	74	28,23	
Horizontale	3833	21.17	21,18	54	32,83	48.53	74	25,47	
Horizontale	4597	20.78	20,79	54	33,22	43.47	74	30,53	
Verticale	4680	22.23	22,24	54	31,77	43.71	74	30,29	
Verticale	5178	22.09	22,10	54	31,91	48.44	74	25,56	

	802.11b								
	Above 1GHz								
	Antenna 2								
		I	Cmi	in/Cnom/Cmax		1	I	I	
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	2390	41.37	41,38	54	12,63	50.27	74	23,73	
Verticale	2390	46.82	46,83	54	7,18	55.92	74	18,08	
Horizontale	2483.5	40.89	40,90	54	13,11	50.77	74	23,23	
Verticale	2483.5	46.55	46,56	54	7,45	55.69	74	18,31	
Horizontale	3583	21.10	21,11	54	32,90	48.02	74	25,98	
Horizontale	3833	20.98	20,99	54	33,02	45.99	74	28,01	
Horizontale	4597	22.82	22,83	54	31,18	44.87	74	29,13	
Verticale	4680	22.49	22,50	54	31,51	42.98	74	31,02	
Verticale	5178	22.98	22,99	54	31,02	49.11	74	24,89	



	802.11g Above 1GHz								
	Antenna 1								
			Cmi	in/Cnom/Cmax					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	2390	43.80	43,903	54	10,20	64.40	74	9,60	
Verticale	2390	50.43	50,533	54	3,57	69.73	74	4,27	
Horizontale	2483.5	43.02	43,123	54	10,98	64.60	74	9,40	
Verticale	2483.5	47.33	47,433	54	6,67	70.58	74	3,42	
Horizontale	3325	18.85	18,953	54	35,15	39.82	74	34,18	
Horizontale	4020	20.29	20,393	54	33,71	52.90	74	21,10	
Horizontale	5180	23.67	23,773	54	30,33	46.80	74	27,20	

	802.11g								
	Above 1GHz								
				Antenna 2					
			Cmi	in/Cnom/Cmax					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	2390	43.88	43,983	54	10,12	65.25	74	8,75	
Verticale	2390	50.89	50,993	54	3,11	69.89	74	4,11	
Horizontale	2483.5	42.78	42,883	54	11,22	64.99	74	9,01	
Verticale	2483.5	47.21	47,313	54	6,79	70.09	74	3,91	
Horizontale	3325	19.89	19,993	54	34,11	41.11	74	32,89	
Horizontale	4020	21.29	21,393	54	32,71	51.49	74	22,51	
Horizontale	5180	23.89	23,993	54	30,11	47.01	74	26,99	



	802.11n HT20								
	Above 1GHz								
			Cmi	n/Cnom/Cmax					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	1556	18.18	18,386	54	35,82	39.45	74	34,55	
Horizontale	2390	43.19	43,396	54	10,81	58.67	74	15,33	
Verticale	2390	51.01	51,216	54	2,99	69.79	74	4,21	
Horizontale	2483.5	47.80	48,006	54	6,20	66.18	74	7,82	
Verticale	2483.5	50.98	51,186	54	3,02	71.56	74	2,44	
Verticale	3883	19.98	20,186	54	34,02	42.55	74	31,45	
Verticale	4081	20.84	21,046	54	33,16	39.11	74	34,89	
Horizontale	5174	23.33	23,536	54	30,67	48.59	74	25,41	

	802.11n HT40								
	Above 1GHz								
		ı	Cm	in/Cnom/Cmax			1	ı	
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	1206	9.92	10,31	54	44,08	37.25	74	36,75	
Horizontale	1592	13.26	13,65	54	40,74	38.34	74	35,66	
Horizontale	2390	45.03	45,42	54	8,97	59.45	74	14,55	
Verticale	2390	51.00	51,39	54	3.00	65.20	74	8,80	
Horizontale	2483.5	46.83	47,22	54	7,17	62.72	74	11,28	
Verticale	2483.5	50.72	51,11	54	3,28	67.99	74	6,01	
Verticale	3246	22.78	23,17	54	31,22	53.01	74	20,99	
Verticale	3877	20.11	20,50	54	33,89	44.91	74	29,09	
Horizontale	5175	22.44	22,83	54	31,56	42.98	74	31,02	
Verticale	5260	21.60	21,99	54	32,4	49.20	74	24,80	

11.7. CONCLUSION

Unwanted emissions measurement performed on the sample of the product **Sagemcom® Sound Box SBDV01**, SN: **253770742**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.247 limits.



12. UNCERTAINTIES CHART

47 CFR Part 15.209 & 15.207 Kind of test	Wide uncertainty laboratory (k=2) ±x(dB) / (Hz)/ ms	Uncertainty limit
Measurement of conducted disturbances in voltage on the AC power port (9 kHz – 150 kHz)	2,67	3.8
Measurement of conducted disturbances in voltage on the AC power port (150 kHz - 30 MHz)	2,67	3.4
Measurement of conducted disturbances in voltage on the telecommunication port. (AAN)	3,67	5.0
Measurement of conducted disturbances in current (current clamp)	2,73	2.9
Measurement of disturbance power	2,67	4.5
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC V01	4,48	1
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC C01	4,48	1
Measurement of radiated electric field from 30 to 1000MHz in horizontal position on the OATS (Ecuelles)	4,88	6.3
Measurement of radiated electric field from 1 to 18GHz on the Ecuelles site	5.16	1
Measurement of radiated electric field from 30 to 1000MHz in vertical position on the OATS (Ecuelles)	4,99	6.3
Measurement of radiated electric field from 30 to 1000MHz in horizontal position in SAC C01	5,08	6.3
Measurement of radiated electric field from 30 to 1000MHz in vertical position in SAC C01	5,16	6.3
Measurement of radiated electric field from 30 to 1000MHz in horizontal position in SAC V01	5,08	6.3
Measurement of radiated electric field from 30 to 1000MHz in vertical position in SAC V01	5,15	6.3
Measurement of radiated electric field from 1 to 6 GHz C01	5,1	5.2
Measurement of radiated electric field from 1 to 6 GHz V01	4,85	5.2
Measurement of radiated magnetic field from 10kHz to 30MHz on the OATS (Ecuelles)	4,48	1

The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the CISPR. The conformity of the sample is directly established by the applicable limits values. This table includes all uncertainties maximum feasible for testing in the laboratory, whether or not made in this report