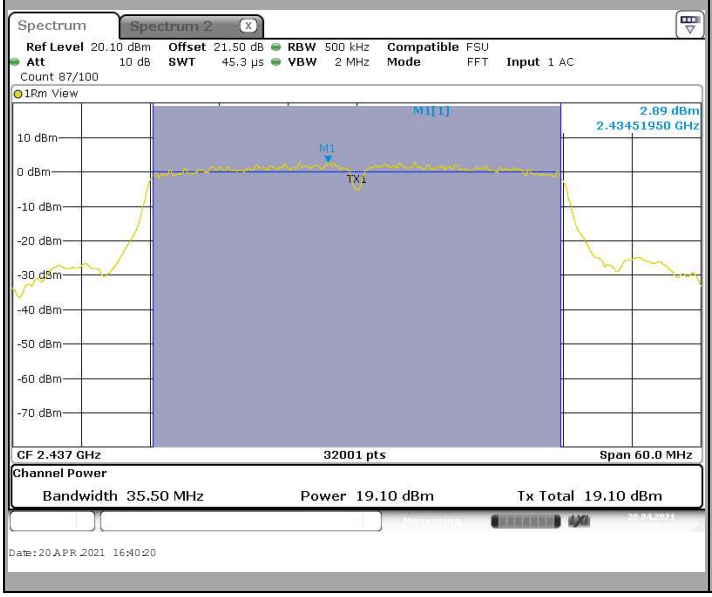
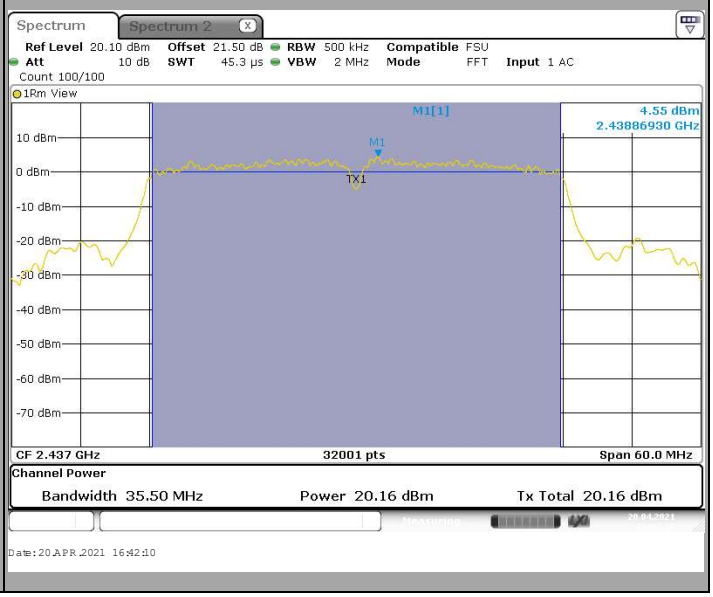
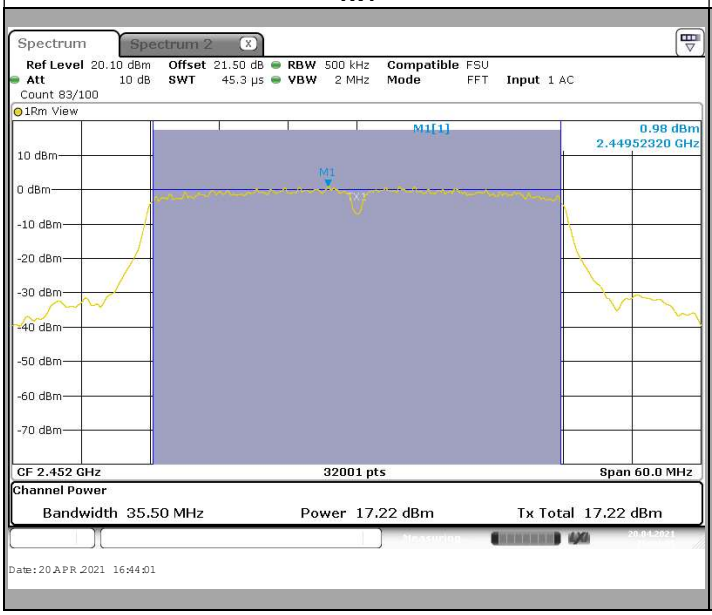
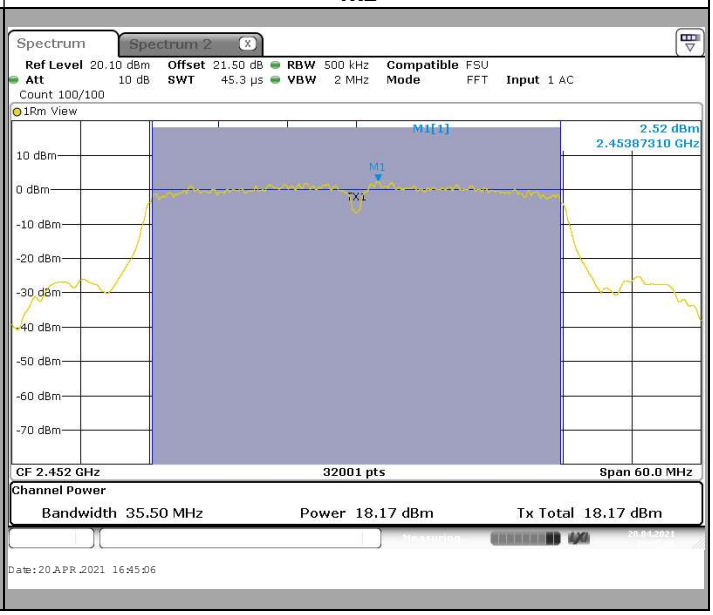
802.11n HT40	
Cnom	
Tx1	Tx2
	

802.11n HT40	
Cmax	
Tx1	Tx2
	

Spectrum Analyzer Offset:
Cable Loss=1.5dB + Attenuator= 20dB

802.11b					
Channel	**Tx1 (dBm)**	**Tx2 (dBm)**	**Overall Antenna Gain (dBi)**	**Maximum Conducted Power (dBm)**	**Limit (dBm)**
Cmin	16,16	16,69	1,7	21,143	30
Cnom	18,8	19,1	1,7	23,663	30
Cmax	16,98	16,83	1,7	21,616	30

802.11g					
Channel	**Tx1 (dBm)**	**Tx2 (dBm)**	**Overall Antenna Gain (dBi)**	**Maximum Conducted Power (dBm)**	**Limit (dBm)**
Cmin	17,76	18,84	1,7	23,044	30
Cnom	20,31	21,1	1,7	25,433	30
Cmax	18,33	18,96	1,7	23,367	30

802.11n HT20					
Channel	**Tx1 (dBm)**	**Tx2 (dBm)**	**Overall Antenna Gain (dBi)**	**Maximum Conducted Power (dBm)**	**Limit (dBm)**
Cmin	17,76	19,31	1,7	23,314	30
Cnom	19,89	21,42	1,7	25,432	30
Cmax	18,02	19,16	1,7	23,338	30

802.11n HT40					
Channel	**Tx1 (dBm)**	**Tx2 (dBm)**	**Overall Antenna Gain (dBi)**	**Maximum Conducted Power (dBm)**	**Limit (dBm)**
Cmin	16,91	17,8	1,7	22,088	30
Cnom	19,1	20,16	1,7	24,373	30
Cmax	17,22	18,17	1,7	22,4312	30

6.6. CONCLUSION

Maximum Conducted Output Power measurement performed on the sample of the product **Technicolor** UIW4059MIL, SN: **LAB3-V0 nr.030**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247** limits.

7. POWER SPECTRAL DENSITY

7.1. TEST CONDITIONS

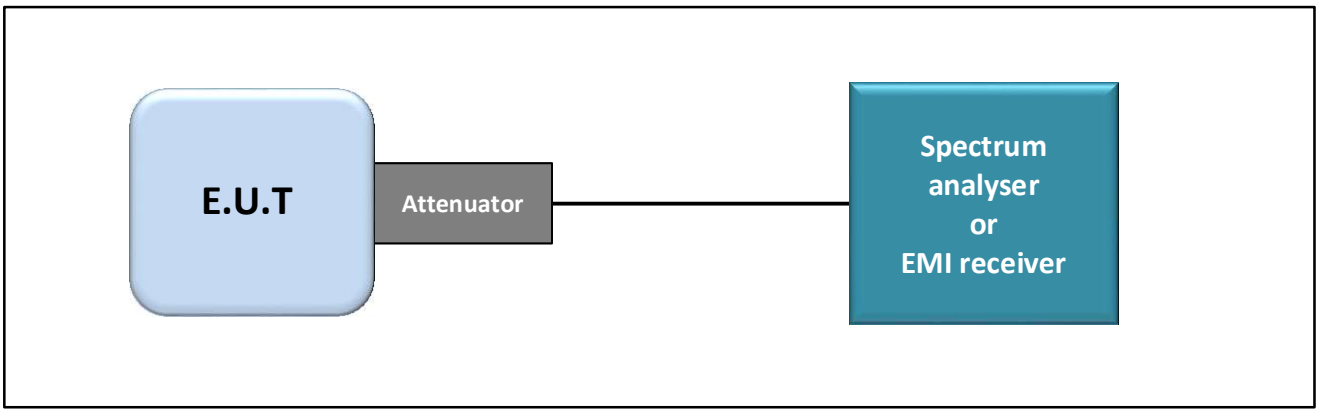
Test performed by	: Armand MAHOUNGOU
Date of test	: April 21, 2021
Ambient temperature	: 25°C
Relative humidity	: 41%

7.2. TEST SETUP

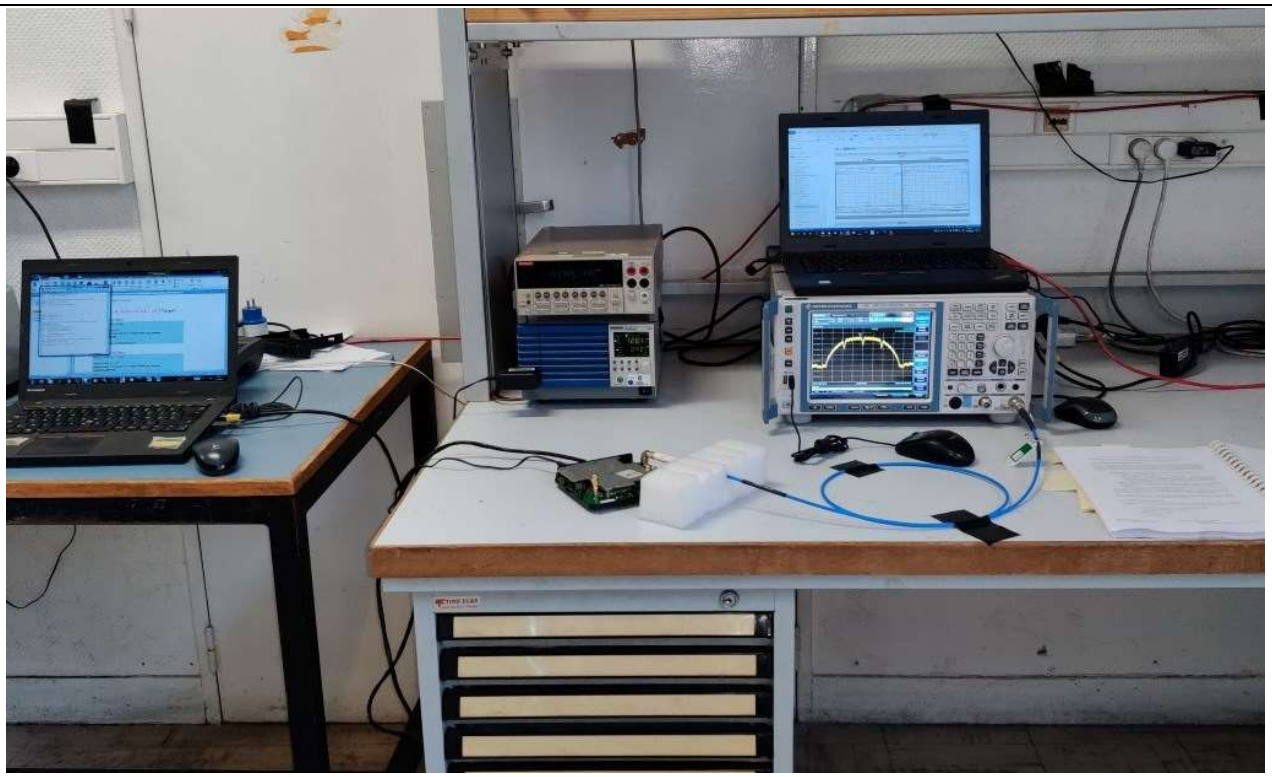
- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☐ ANSI C63.10 § 11.10.2 (Method PKPSD)
☑ ANSI C63.10 § 11.10.3 (Method AVGPSD-1)
☑ KDB 662911 D01 Multiple Transmitter Output v02r01



Test set up of Power Spectral Density



Photograph for Power Spectral Density

7.3. LIMIT

Frequency range	Power Spectral Density
2400MHz to 2483.5MHz	≤8dBm/3kHz*

*Remark: Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

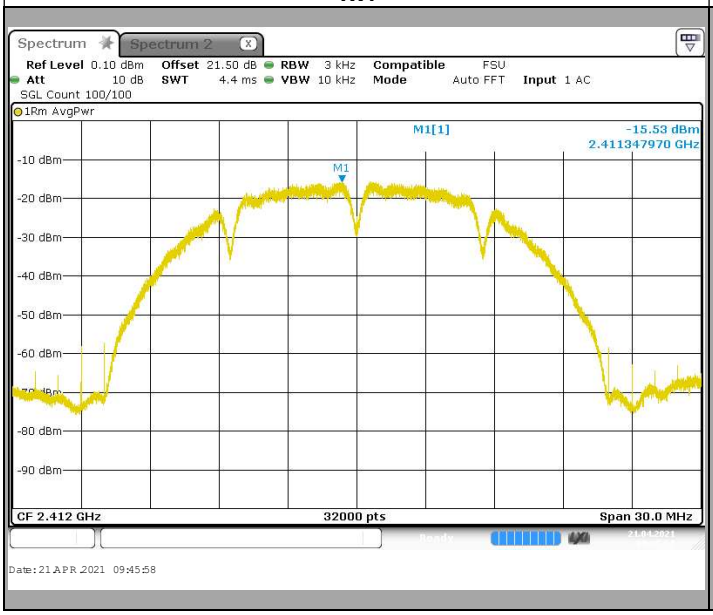
7.4. TEST EQUIPMENT LIST

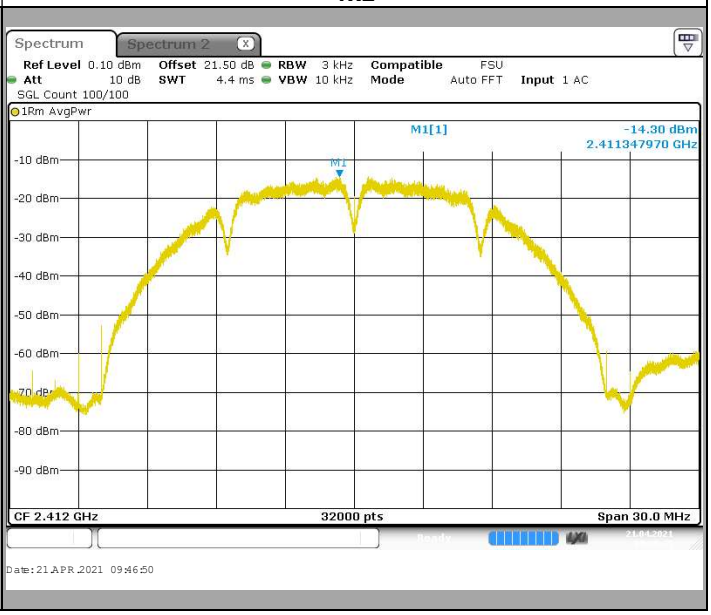
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642026	2019/07	2021/07
Cable + Attenuateur 20dB	PASTERNACK	PE350-150CM	A5329973	2020/09	2021/09
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter
Load 50 ohms	TELEGARTNER	-	A7150103	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04

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

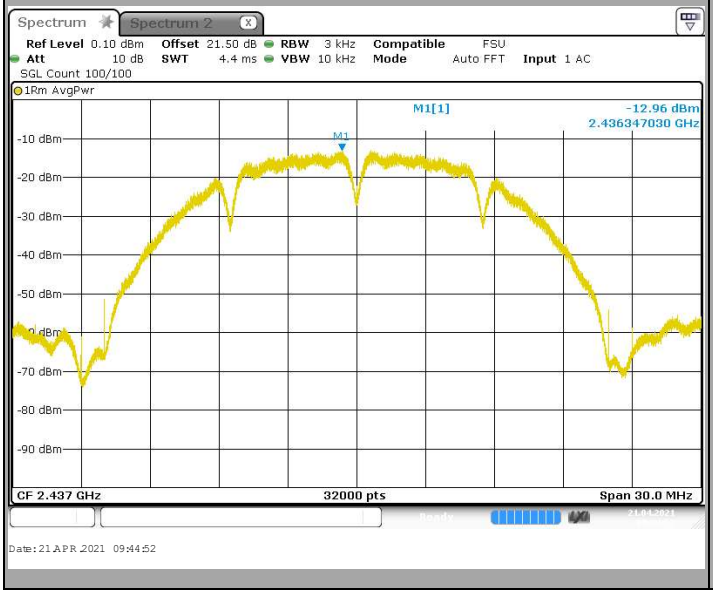
7.5. RESULTS

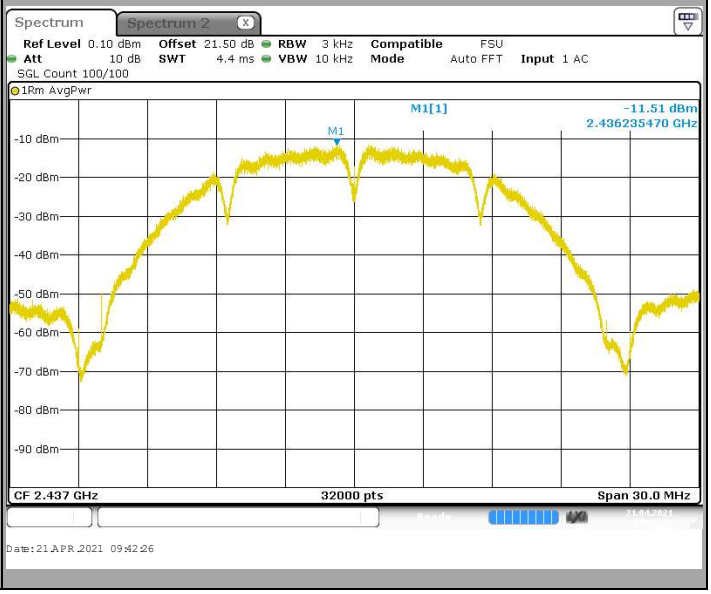
802.11b	
Cmin	
Tx1	Tx2

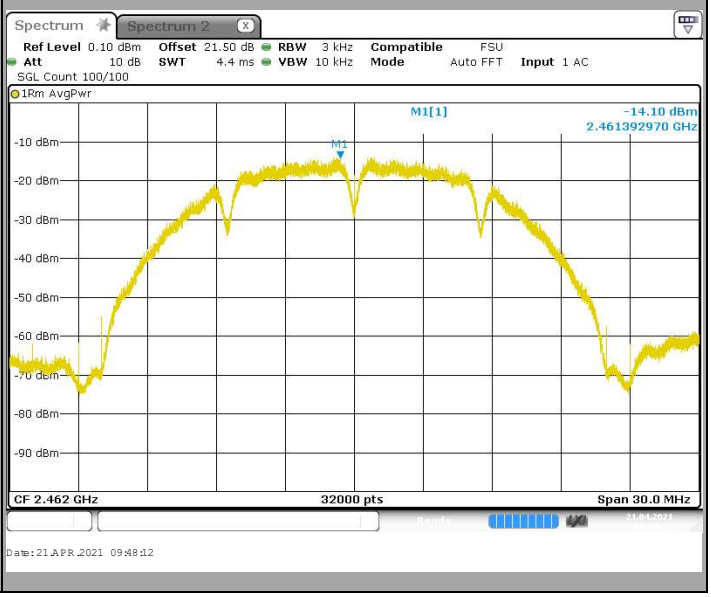


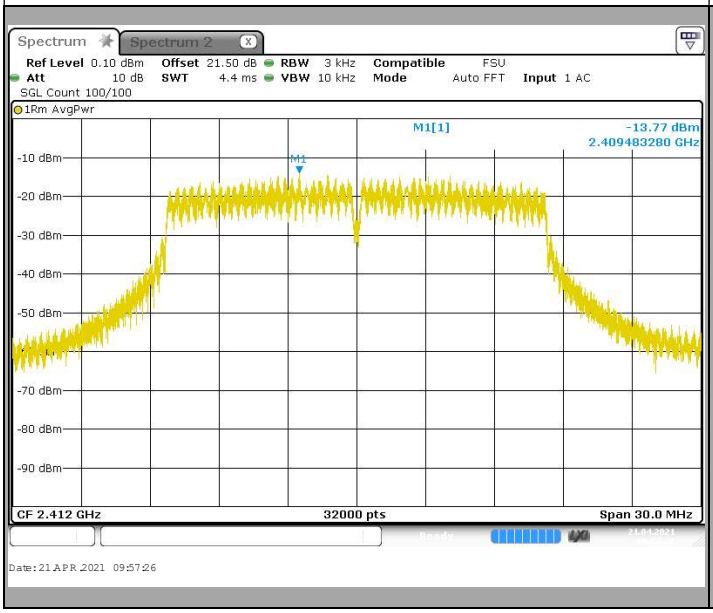
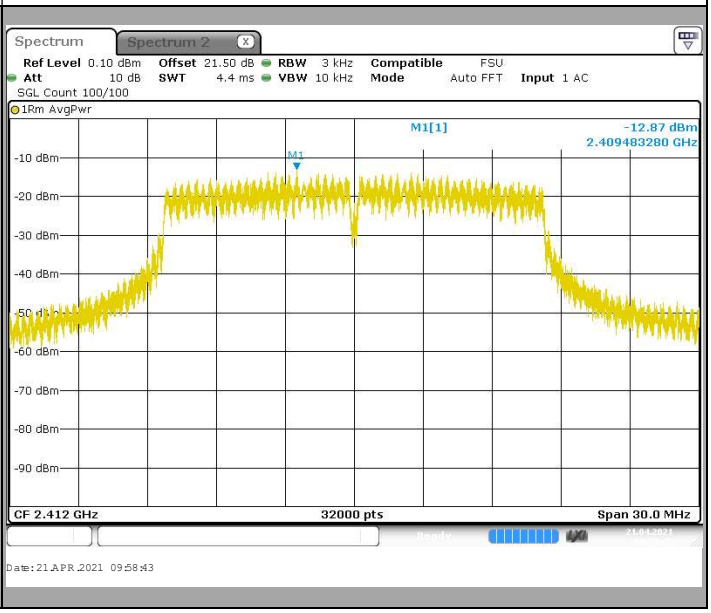


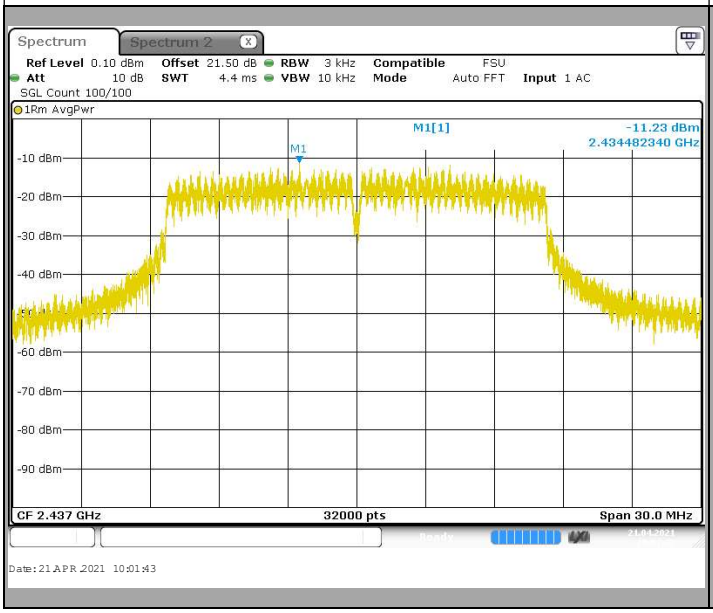
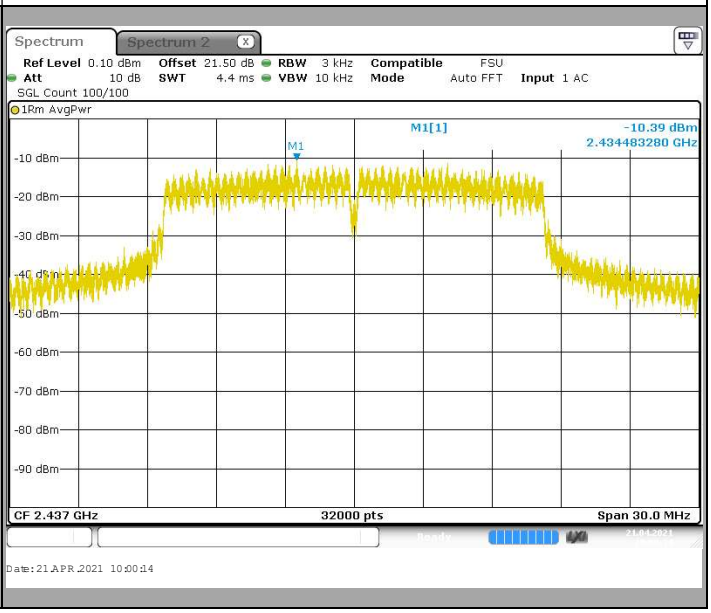
802.11b	
Cnom	
Tx1	Tx2

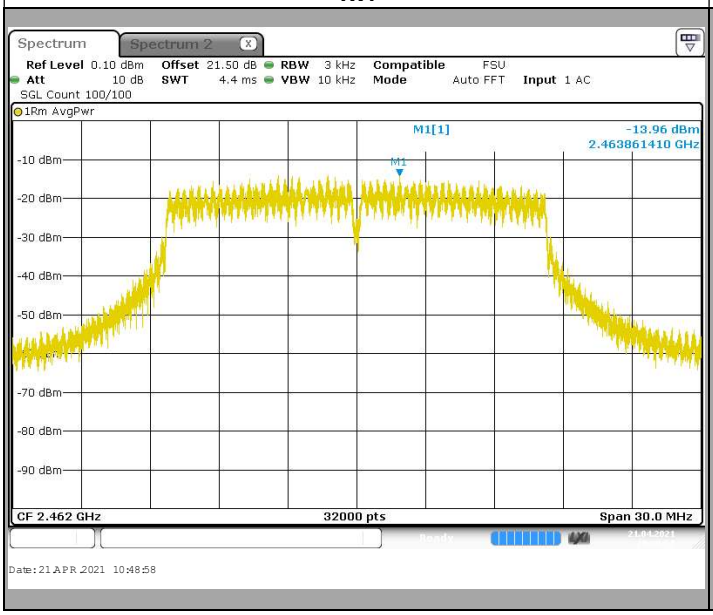
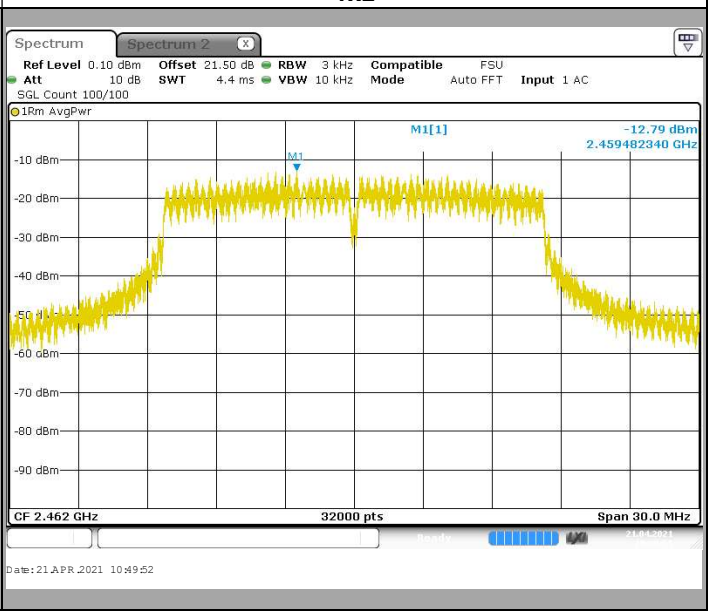


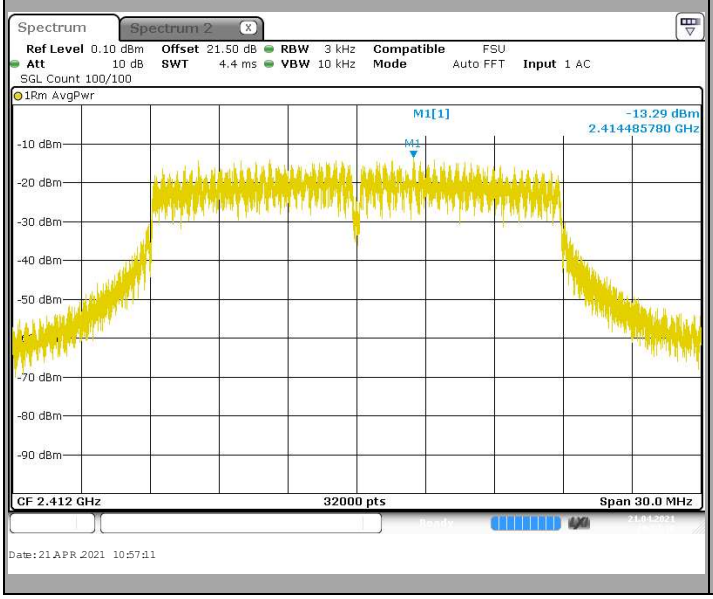
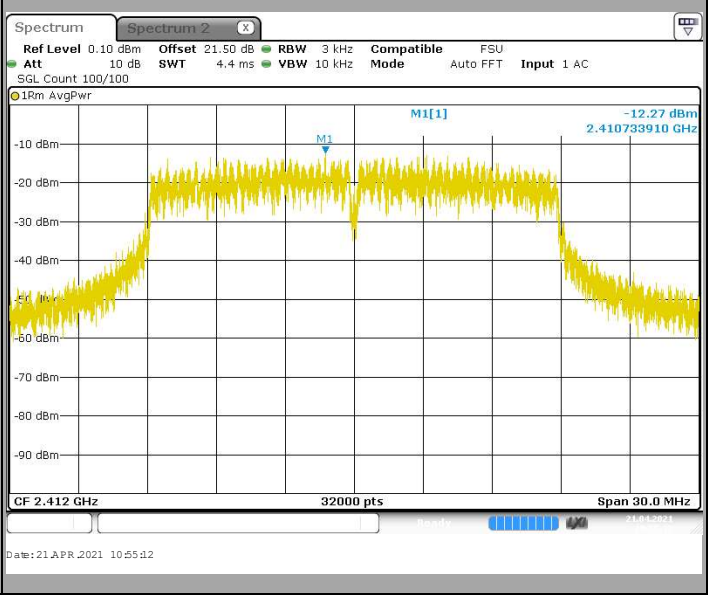


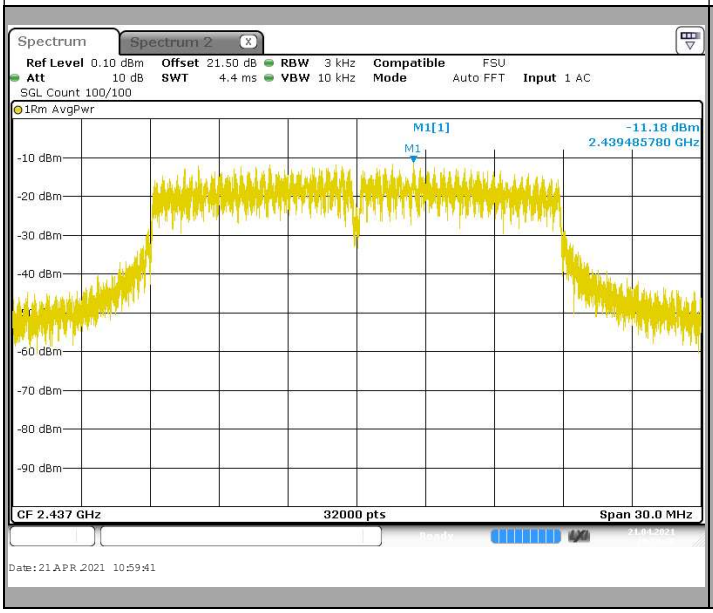
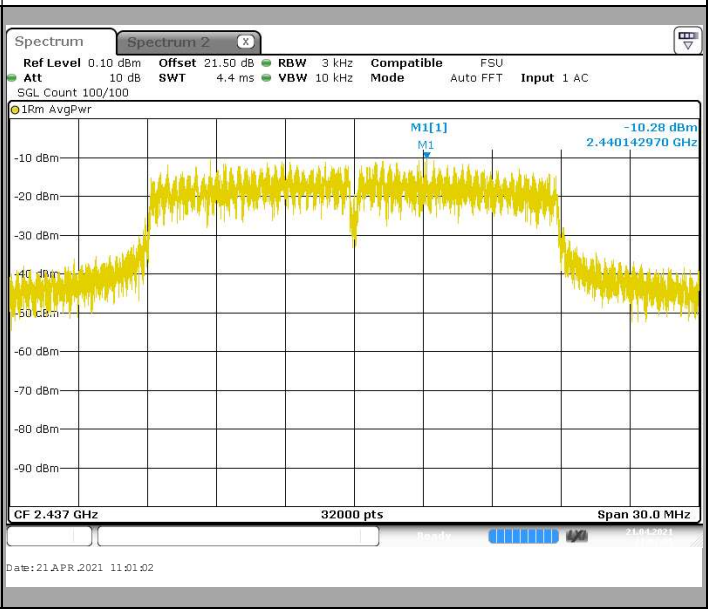
802.11b	
Cmax	
Tx1	Tx2
	

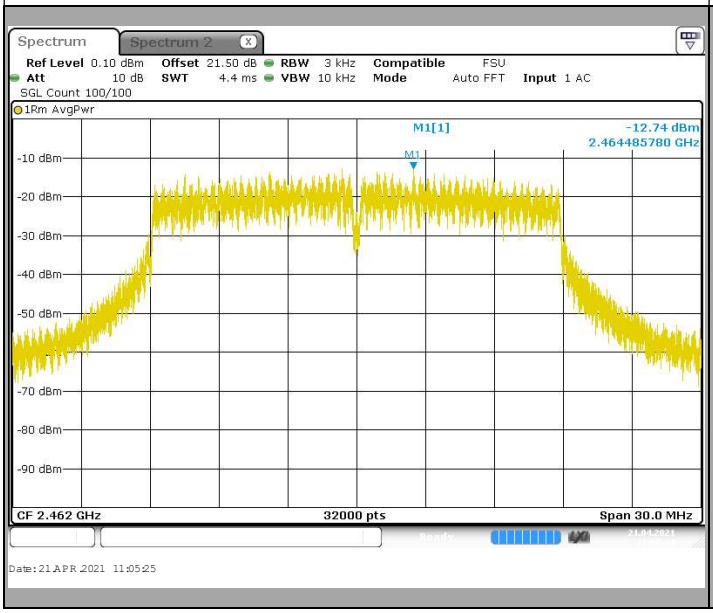
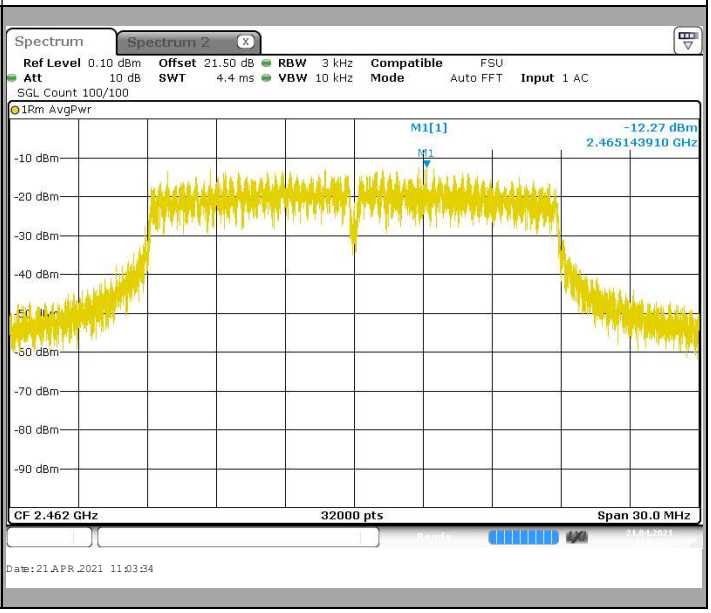
802.11g	
Cmin	
Tx1	Tx2
	

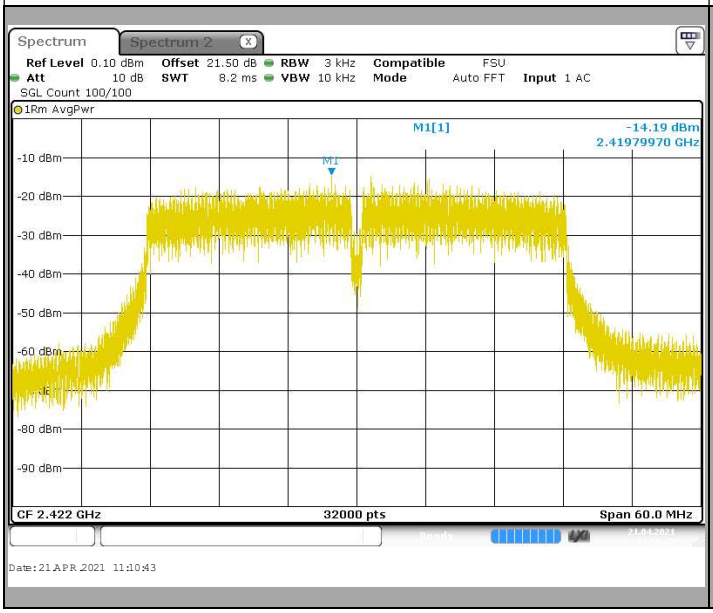
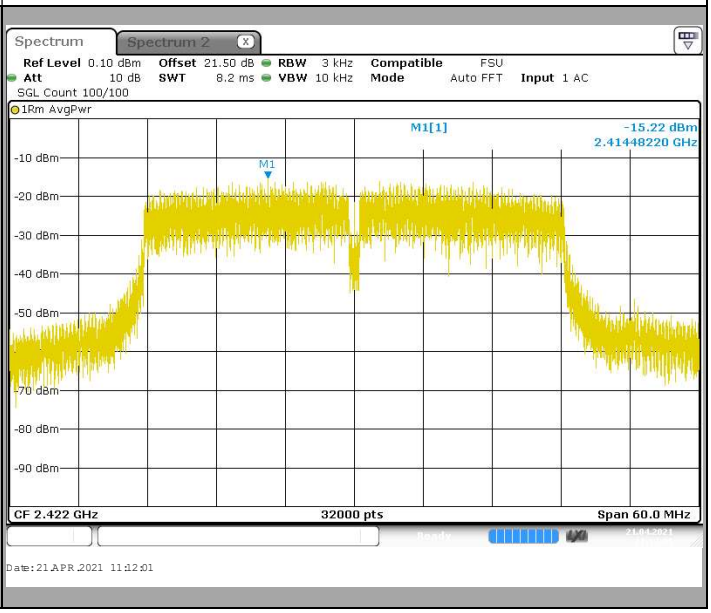
802.11g	
Cnom	
Tx1	Tx2
	

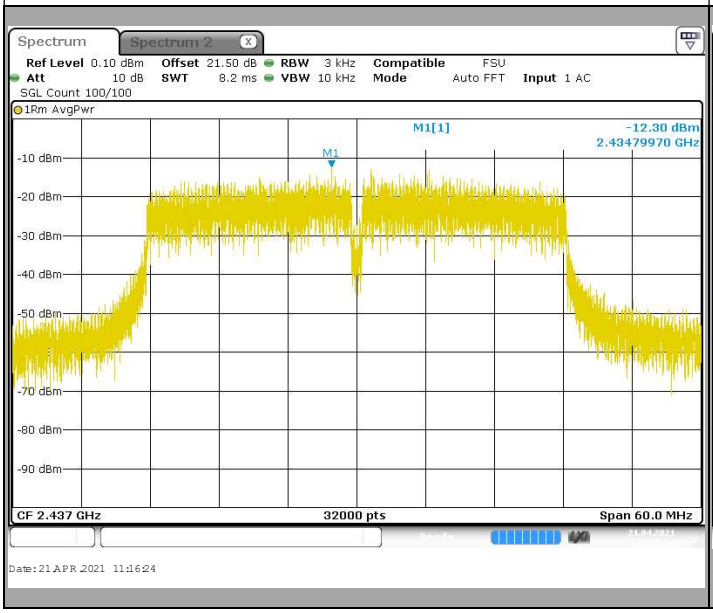
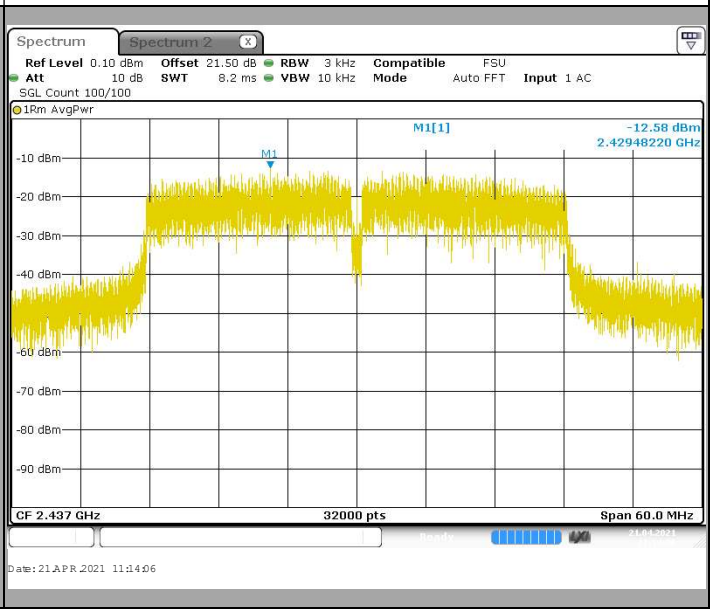
802.11g	
Cmax	
Tx1	Tx2
	

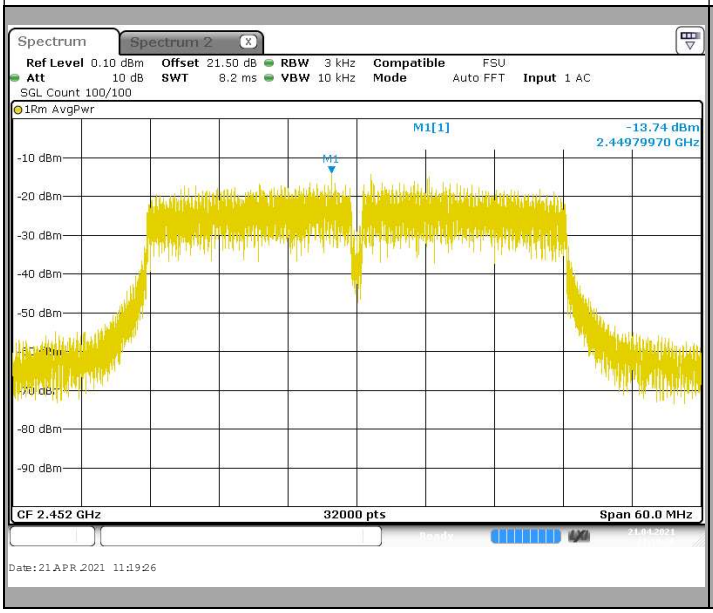
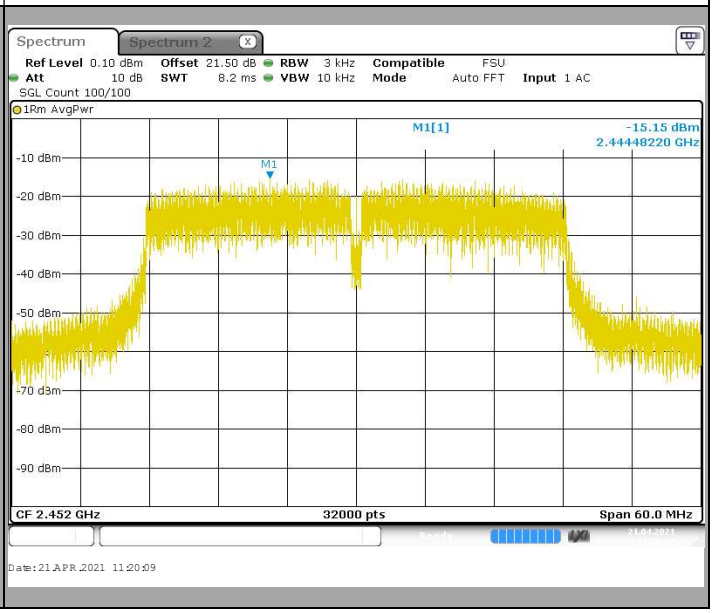
802.11n HT20	
Cmin	
Tx1	Tx2
	

802.11n HT20	
Cnom	
Tx1	Tx2
	

802.11n HT20	
Cmax	
Tx1	Tx2
	

802.11n HT40	
Cmin	
Tx1	Tx2
	

802.11n HT40	
Cnom	
Tx1	Tx2
	

802.11n HT40	
Cmax	
Tx1	Tx2
	

Spectrum Analyzer Offset:
Cable Loss=21dB + Attenuator= 1.5dB

802.11b					
Channel	**Tx1 (dBm/3kHz)**	**Tx1 (dBm/3kHz)**	**Overall Antenna Gain (dBi)**	**Power Spectral Density (dBm)**	**Limit (dBm/3kHz)**
Cmin	-15,53	-14,3	1,7	-8,586	8
Cnom	-12,96	-11,51	1,7	-6,079	8
Cmax	-15,1	-14,1	1,7	-8,625	8

802.11g					
Channel	**Tx1 (dBm/3kHz)**	**Tx1 (dBm/3kHz)**	**Overall Antenna Gain (dBi)**	**Power Spectral Density (dBm)**	**Limit (dBm/3kHz)**
Cmin	-13,77	-12,87	1,7	-8,586	8
Cnom	-11,23	-10,39	1,7	-6,079	8
Cmax	-13,96	-12,79	1,7	-8,625	8

802.11n HT20					
Channel	**Tx1 (dBm/3kHz)**	**Tx1 (dBm/3kHz)**	**Overall Antenna Gain (dBi)**	**Power Spectral Density (dBm)**	**Limit (dBm/3kHz)**
Cmin	-13,29	-12,27	1,7	-8,040	8
Cnom	-11,18	-10,28	1,7	-5,996	8
Cmax	-12,74	-12,27	1,7	-7,788	8

802.11n HT40					
Channel	**Tx1 (dBm/3kHz)**	**Tx1 (dBm/3kHz)**	**Overall Antenna Gain (dBi)**	**Power Spectral Density (dBm)**	**Limit (dBm/3kHz)**
Cmin	-14,19	-15,22	1,7	-9,964	8
Cnom	-12,3	-12,58	1,7	-7,727	8
Cmax	-13,74	-15,15	1,7	-9,678	8

7.6. CONCLUSION

Power Spectral Density measurement performed on the sample of the product **Technicolor** UIW4059MIL, SN: **LAB3-V0 nr.030**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.247** limits.

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

8.1. TEST CONDITIONS

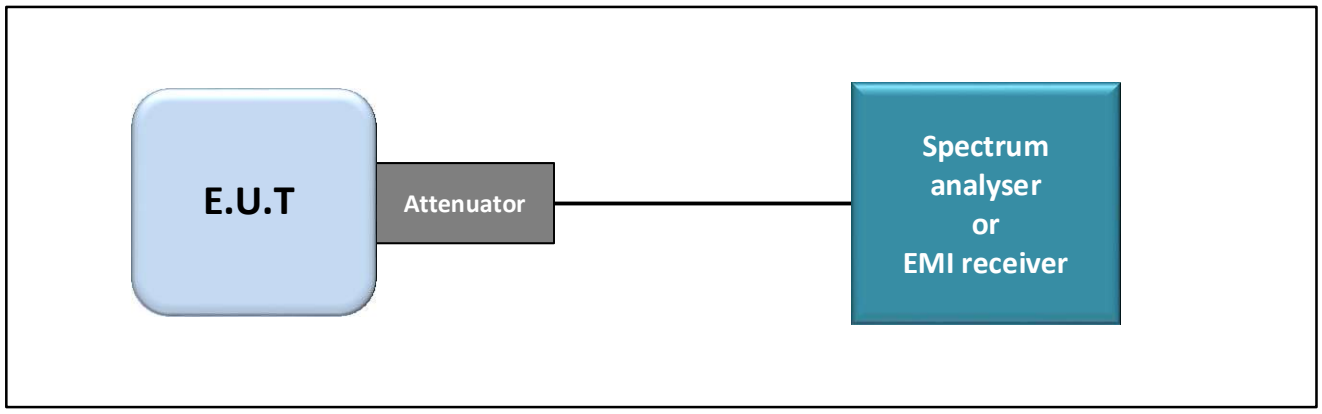
Test performed by	: Armand MAHOUNGOU
Date of test	: April 21, 2021
Ambient temperature	: 25°C
Relative humidity	: 41%

8.2. 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



Test set up of Unwanted Emissions into Non-Restricted Frequency Bands at the Band Edge

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

8.3. LIMIT

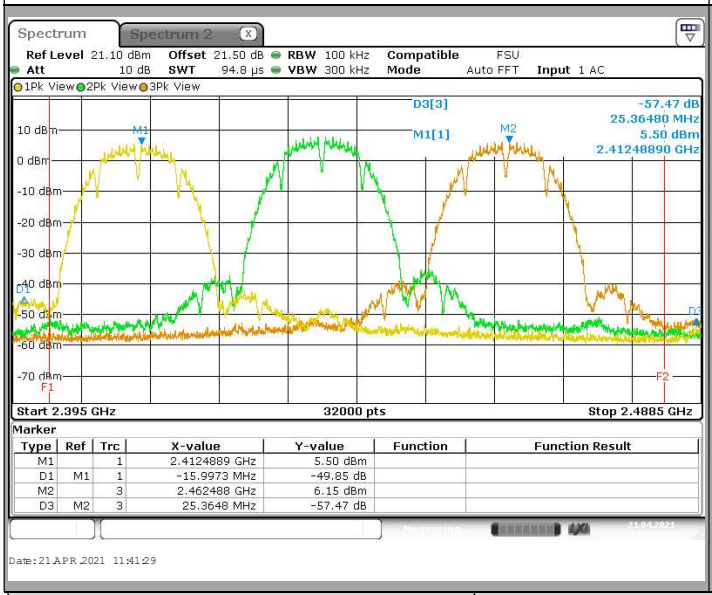
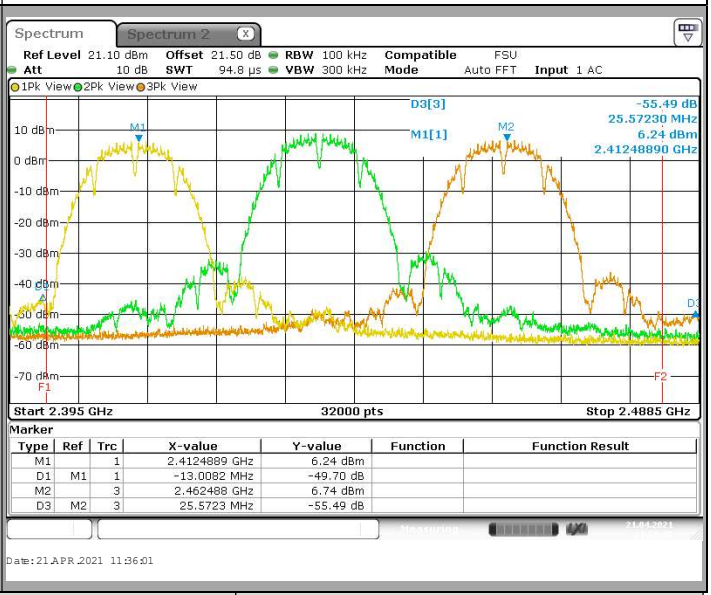
All Spurious Emissions must be at least 30dB (Average Conducted Power) below the Fundamental Radiator Level at the Band Edge Edge “2400MHz & 2483,5MHz”

8.4. TEST EQUIPMENT LIST

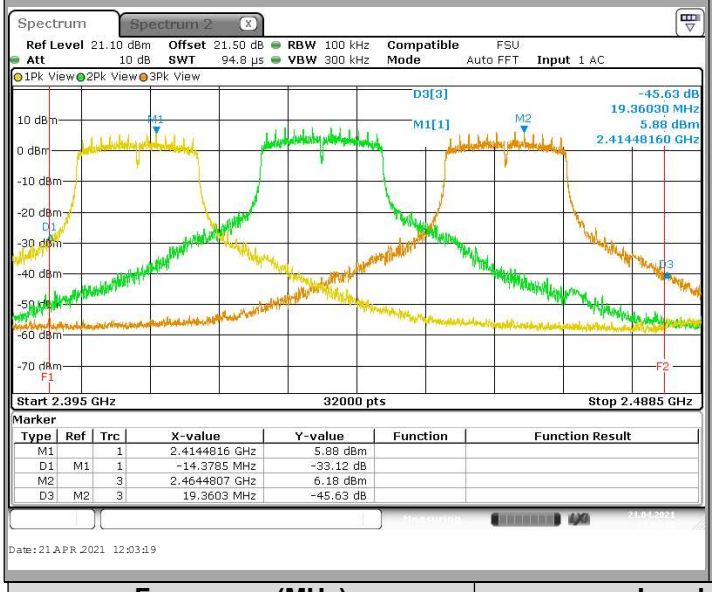
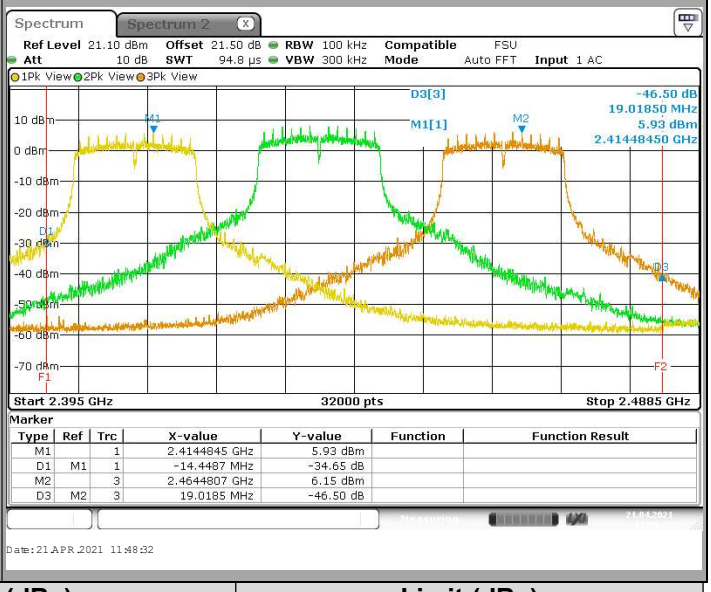
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR7	A2642026	2019/07	2021/07
Cable + Attenuateur 20dB	PASTERNACK	PE350-150CM	A5329973	2020/09	2021/09
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter
Load 50 ohms	TELEGARTNER	-	A7150103	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04

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

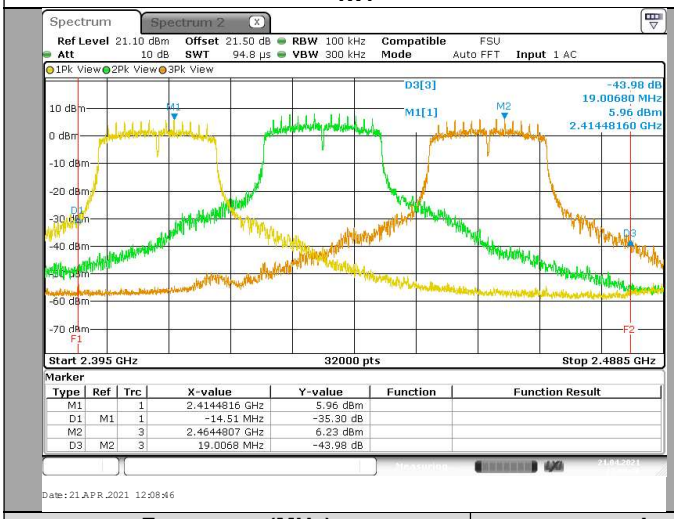
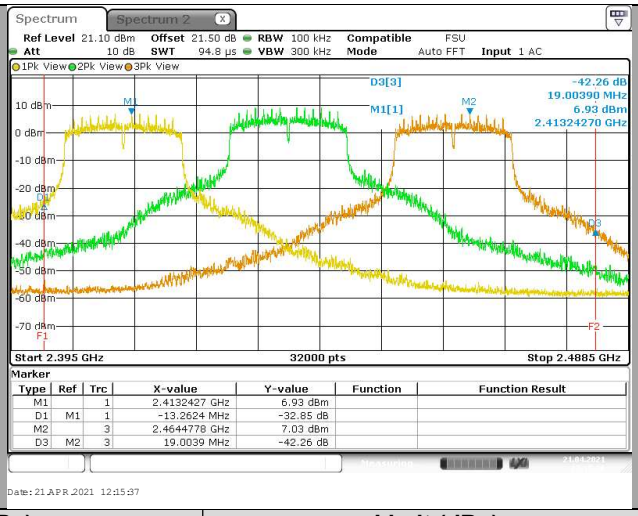
8.5. RESULTS

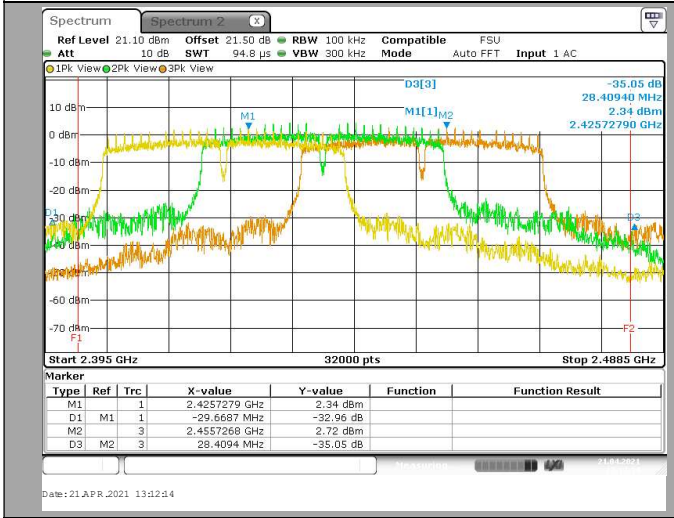
802.11b	
Cmin/Cnom/Cmax	
Tx1	Tx2
	

Frequency (MHz)	Level (dBc)	Limit (dBc)
2400	49.70	30
2483.5	55.49	30

802.11g	
Cmin/Cnom/Cmax	
Tx1	Tx2
	

Frequency (MHz)	Level (dBc)	Limit (dBc)
2400	33.12	30
2483.5	45.63	30

802.11n HT20		
Cmin/Cnom/Cmax		
Tx1		Tx2
		
Frequency (MHz)	**Level (dBc)**	**Limit (dBc)**
2400	32.85	30
2483.5	42.26	30

802.11n HT40		
Cmin/Cnom/max		
Tx1		Tx2
		
Frequency (MHz)	**Level (dBc)**	**Limit (dBc)**
2400	30.51	30
2483.5	30.42	30

8.6. CONCLUSION

Unwanted Emission into non-restricted frequency bands at the band edge measurement performed on the sample of the product **Technicolor** UIW4059MIL, SN: **LAB3-V0 nr.030**, 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

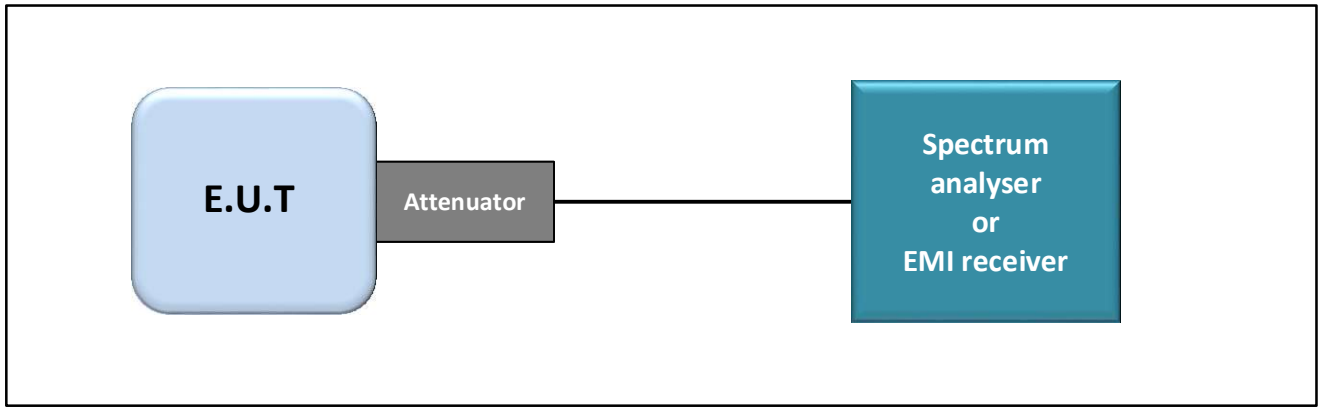
Test performed by	: Armand MAHOUNGOU
Date of test	: April 16, 2021
Ambient temperature	: 26°C
Relative humidity	: 43%

9.2. TEST SETUP

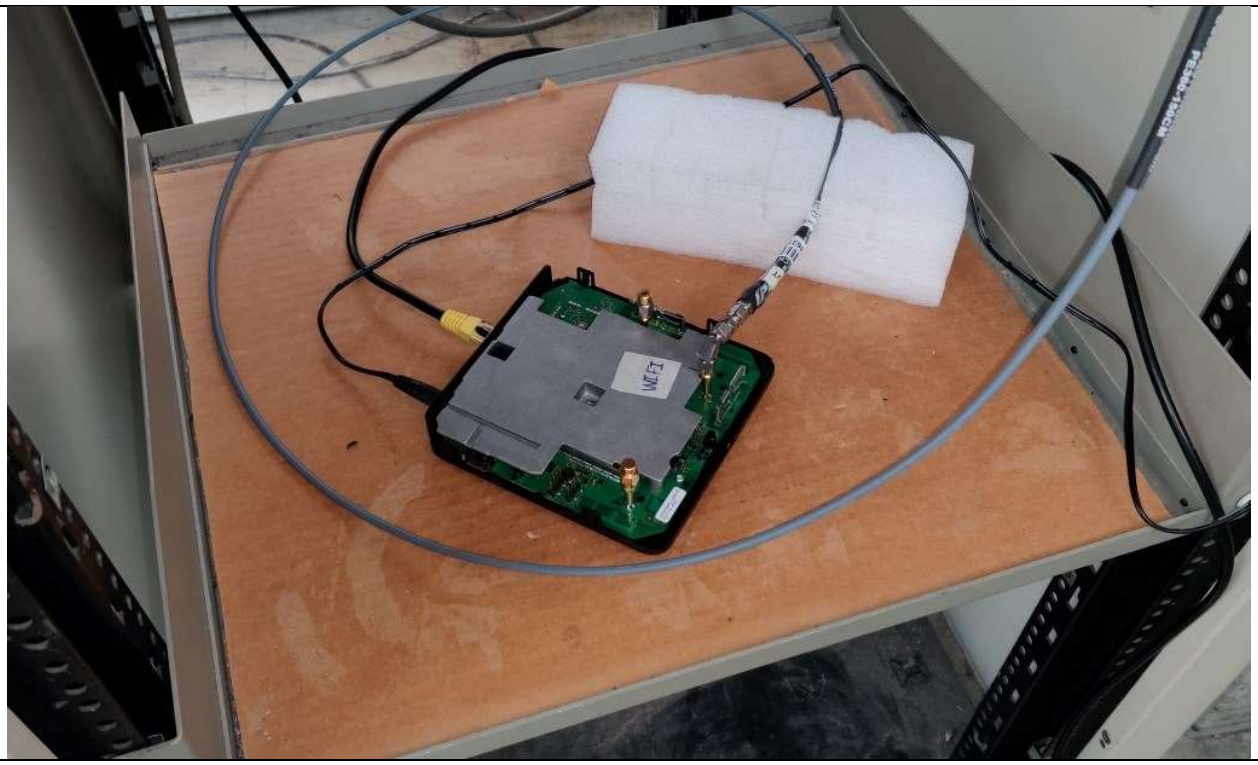
- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

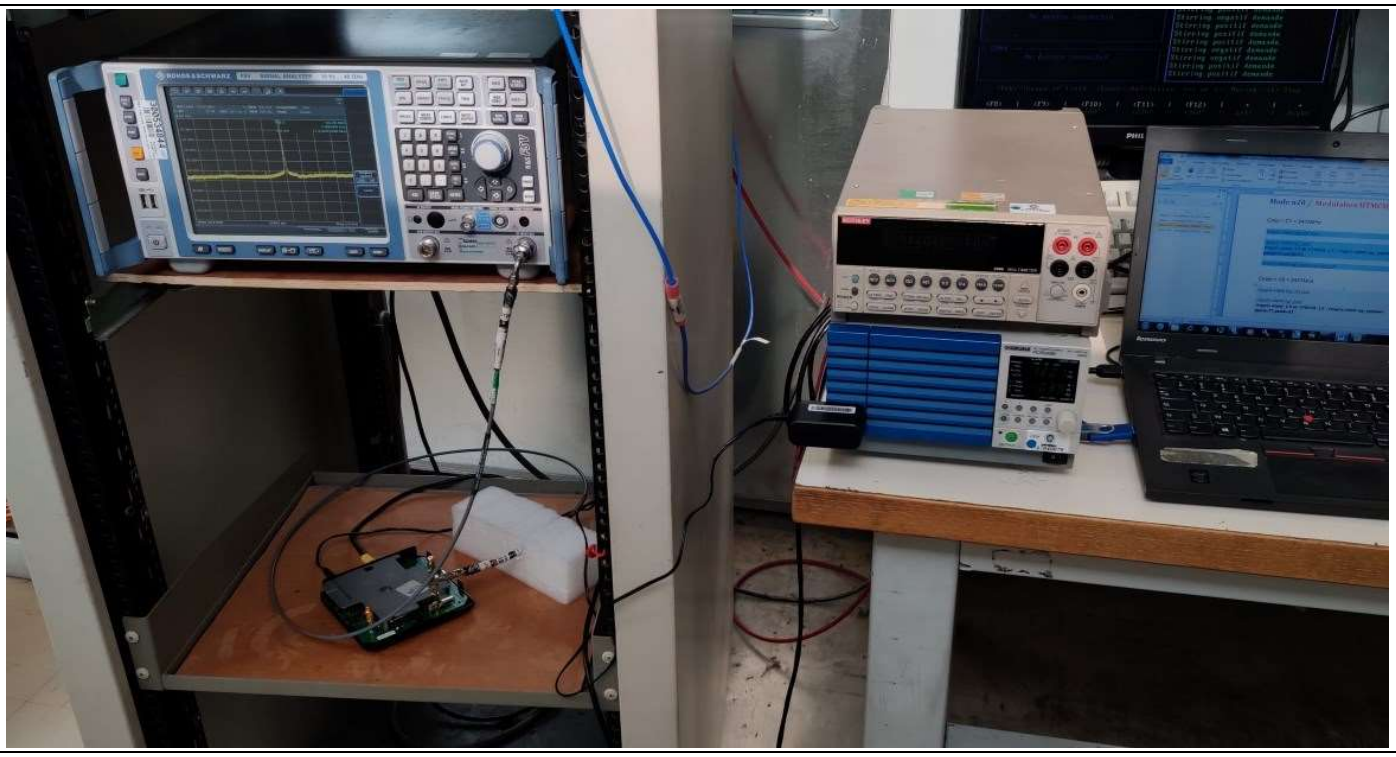
- Test Procedure:
☑ ANSI C63.10 § 11.11
☐ KDB 662911 D01 Multiple Transmitter Output v02r01



Test set up of Unwanted Emissions into Non-Restricted Frequency Bands



Photograph for Unwanted Emission into non-restricted frequency bands



Photograph for Unwanted Emission into non-restricted frequency bands

9.3. LIMIT

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

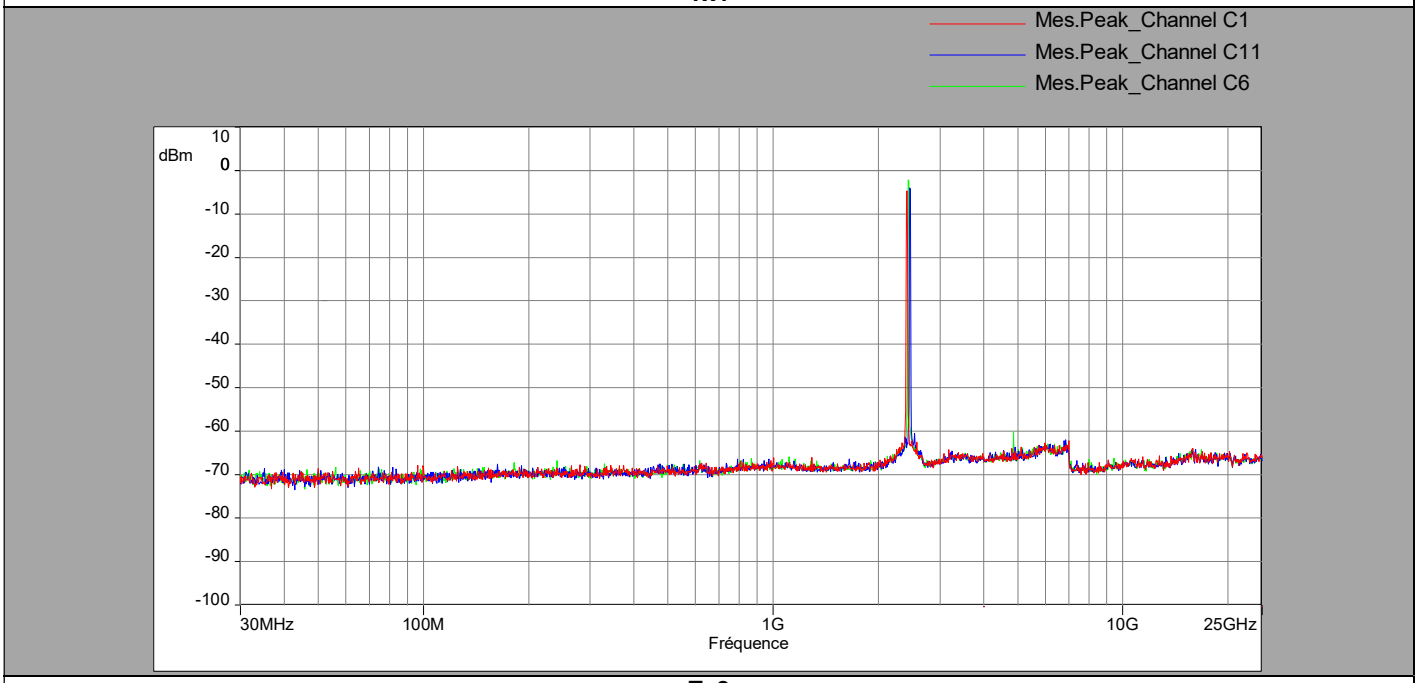
9.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	FSV40GHz	A4060061	2019/05	2021/05
Cable S36 chamber	PASTERNACK	PE360-1500CM	A5329940	2021/02	2022/02
Attenuator 3dB Cable Spurious Conducted	-	WA54-3-12	A7122223	2019/02	2020/02
Load 50 ohms	TELEGARTNER	-	A7150105	2019/04	2021/04
Load 50 ohms	TELEGARTNER	-	A7150104	2019/04	2021/04
High Pass Filter 2,4GHz	WAINWRIGHT	WHK12-2494	A7484068	2019/07	2021/07
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Power supply	KIKUSUI	PCR500M	A7040079	See Multimeter	See Multimeter

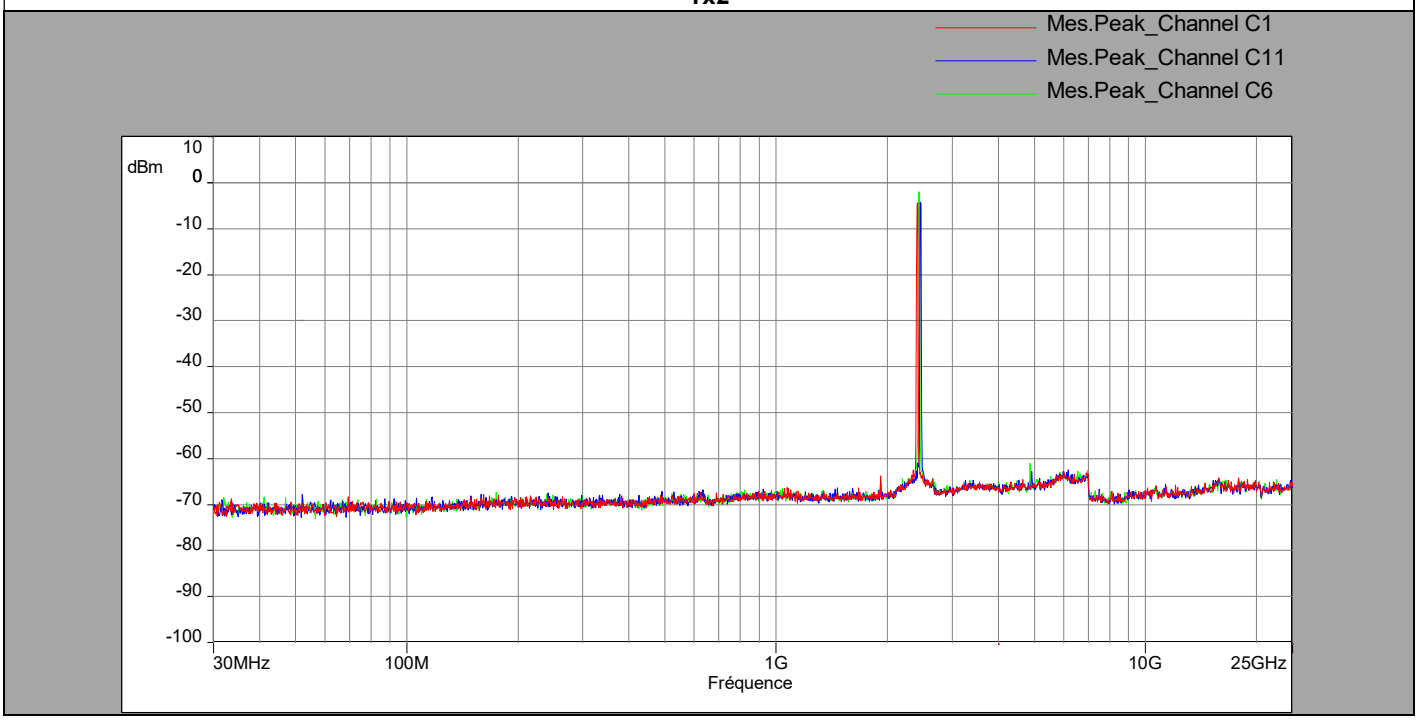
Note: In our quality system, the test equipment calibration due is more & less 2 months

9.5. RESULTS

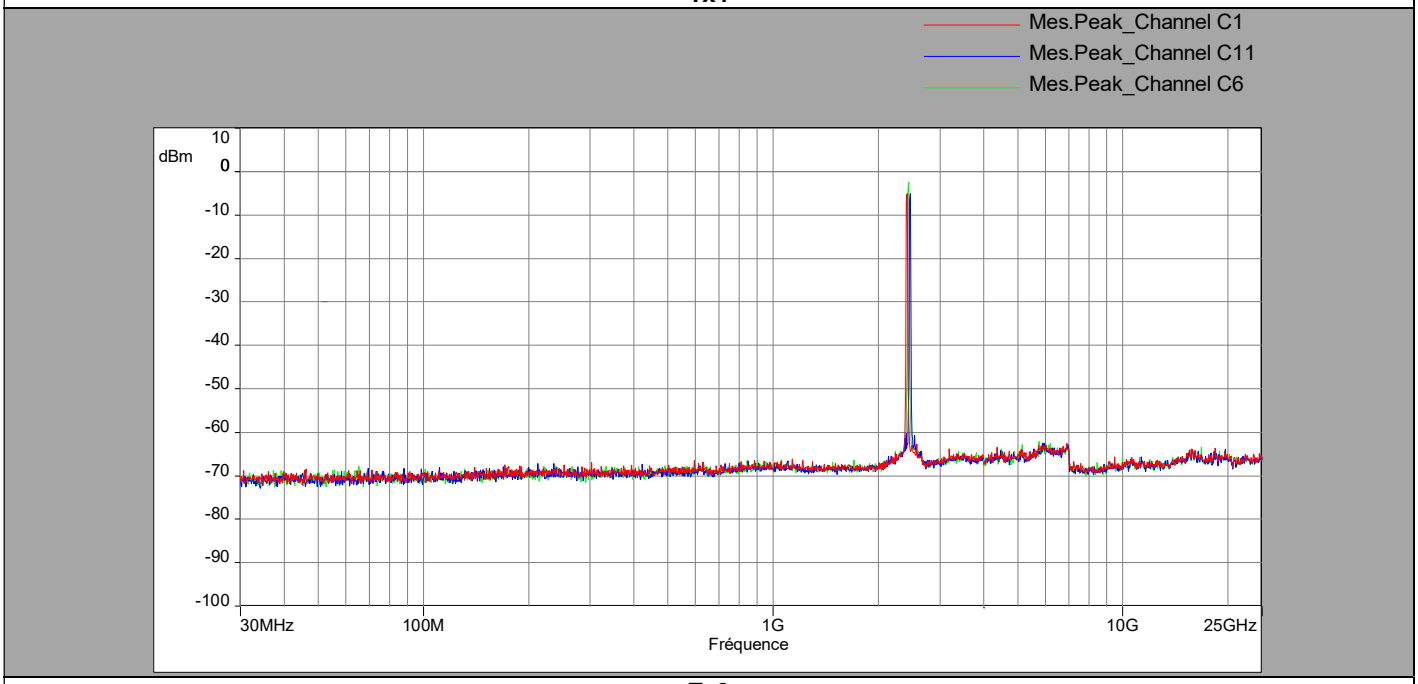
802.11b
Cmin/Cnom/Cmax
Tx1



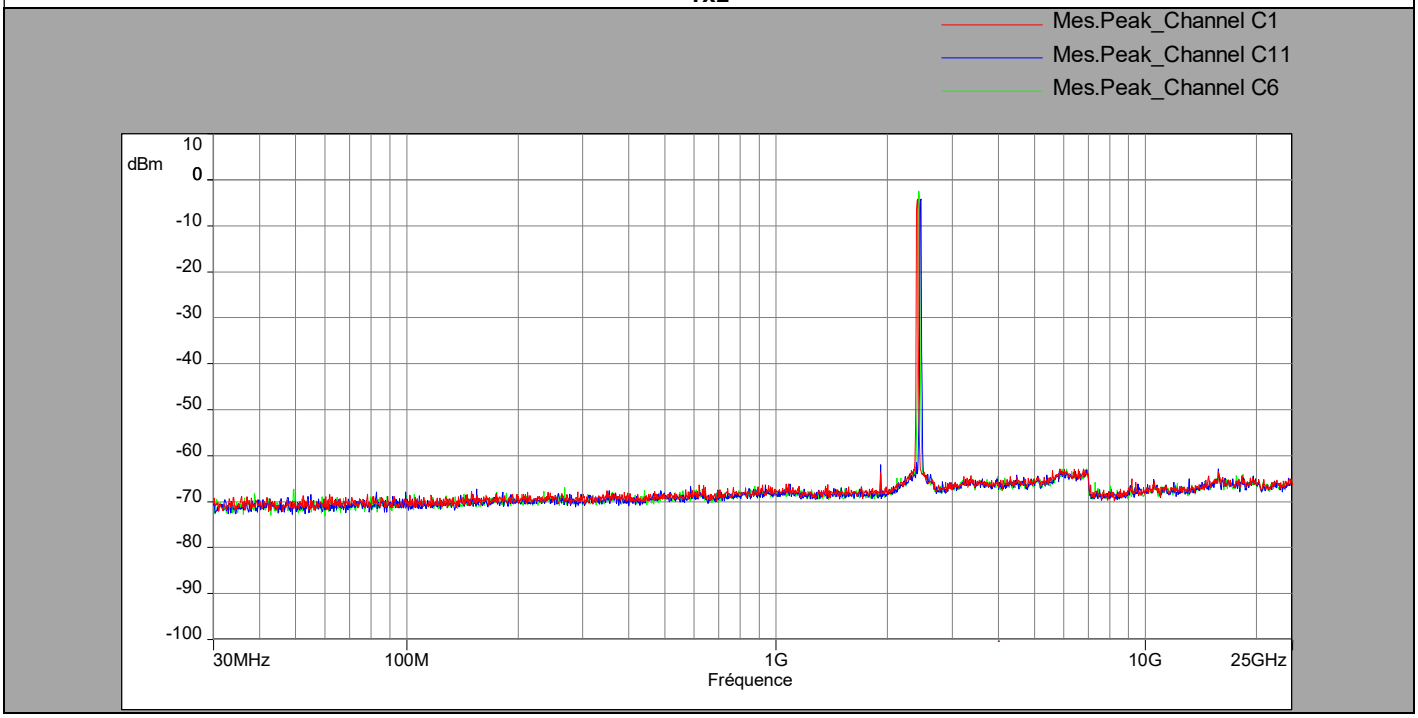
Tx2



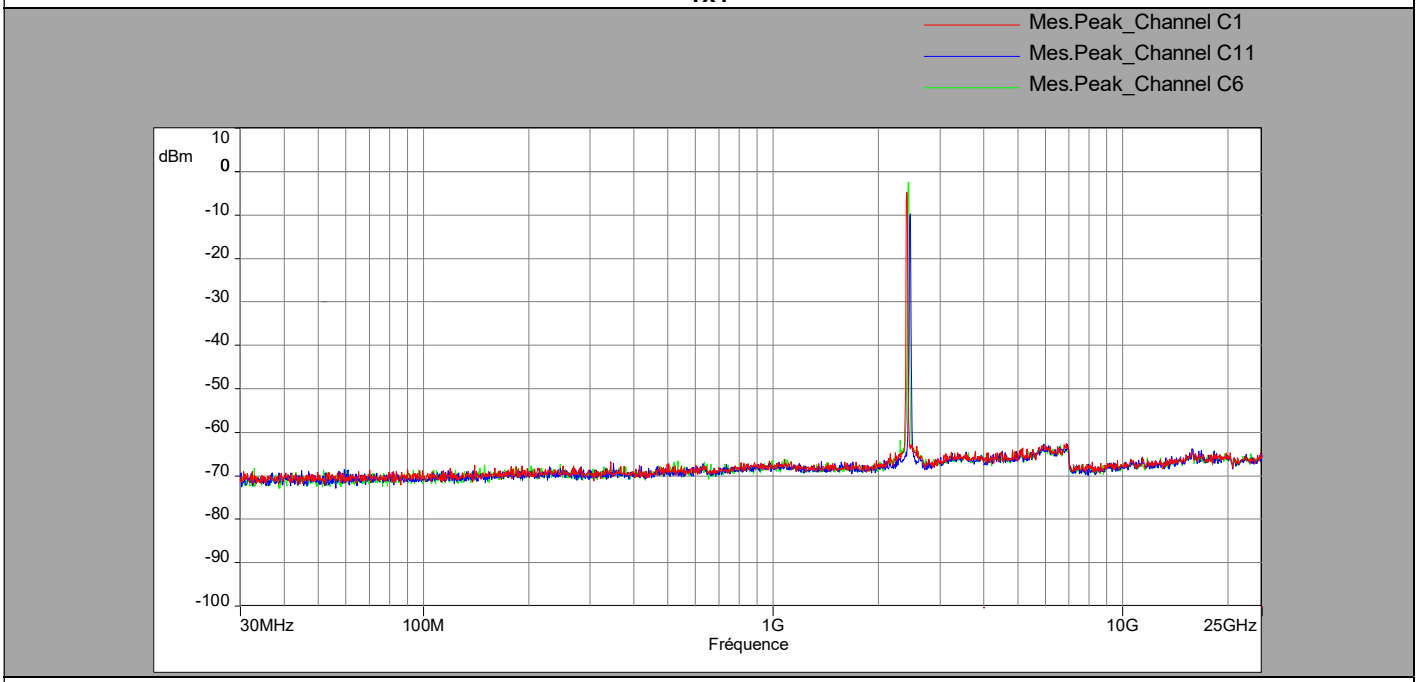
802.11g
Cmin/Cnom/Cmax
Tx1



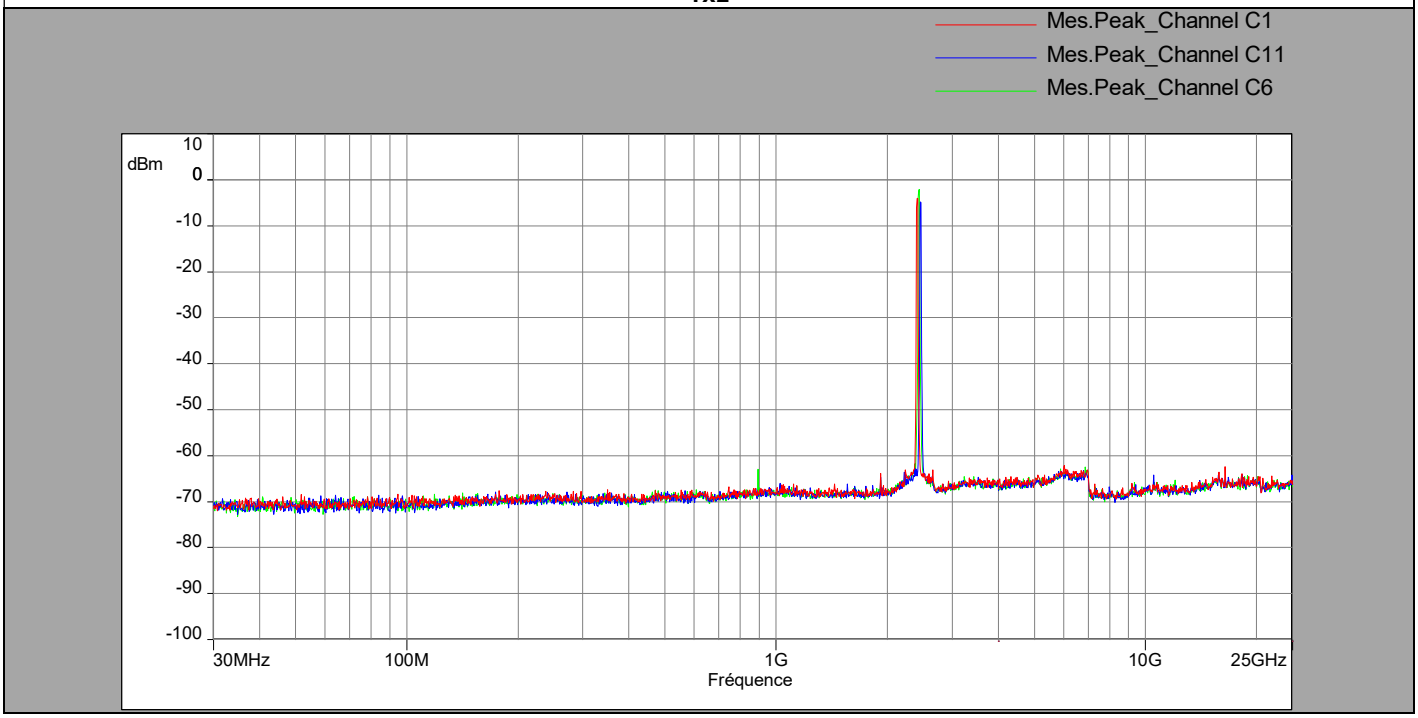
Tx2



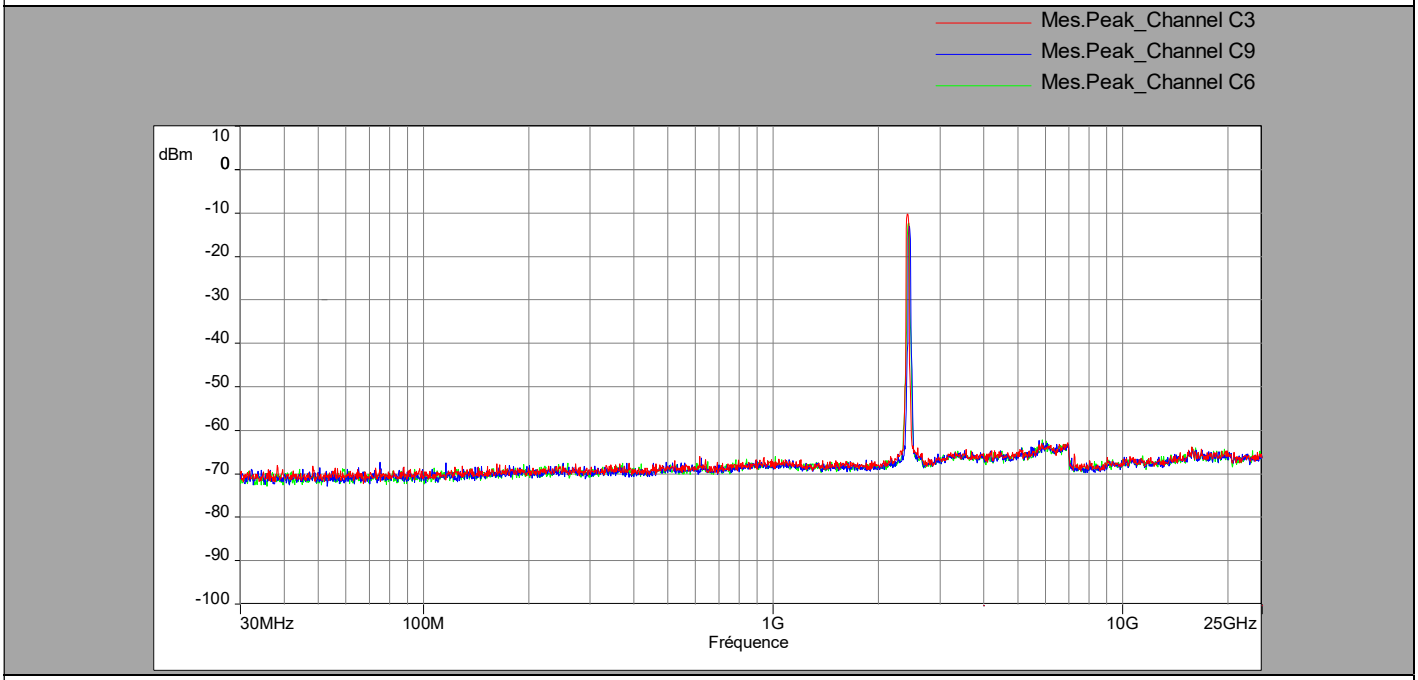
802.11n HT20
Cmin/Cnom/Cmax
Tx1



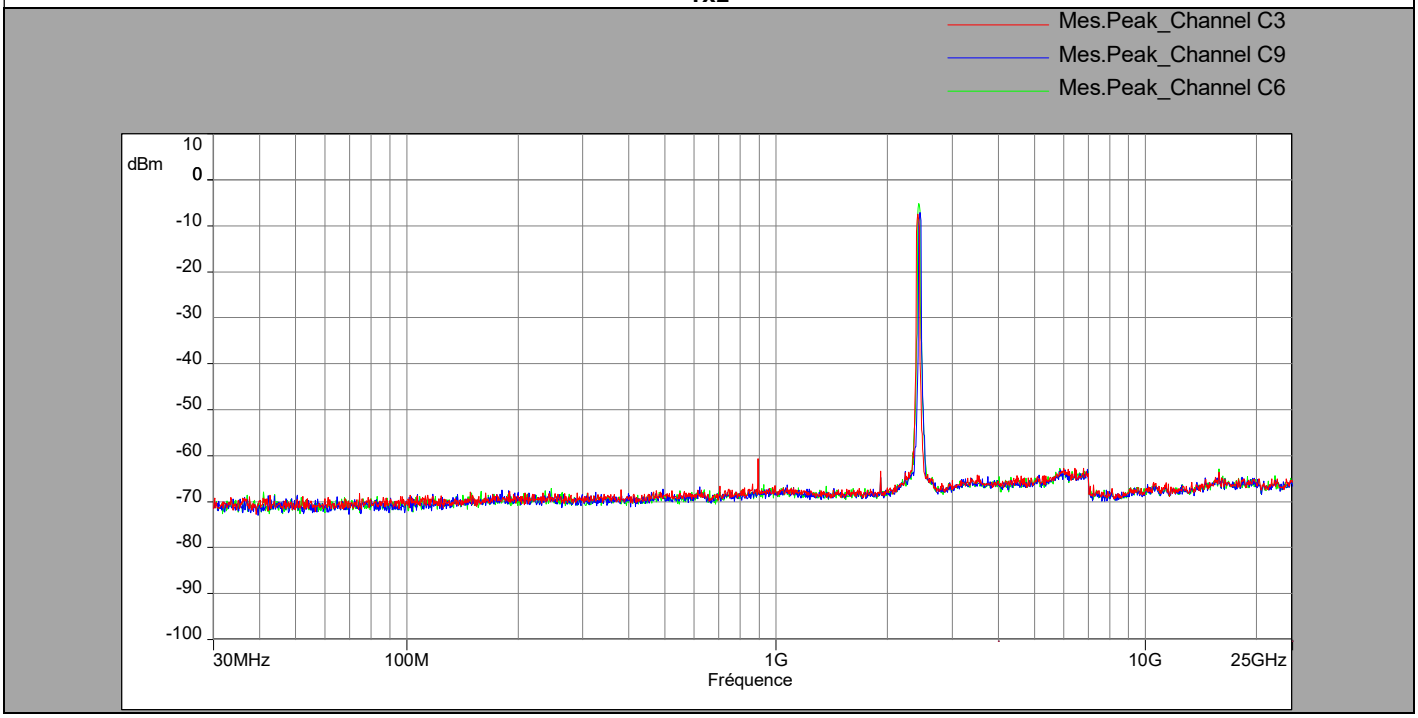
Tx2



802.11n HT40
Cmin/Cnom/Cmax
Tx1



Tx2



802.11b			
Frequency (MHz)	**Level (dBm)**	**Level (dBc)**	**Limit (dBc)**
2412	-4.42		
2437	-1.92		
4873	-60.13	57.89	30
2462	-4.04		

802.11g			
Frequency (MHz)	**Level (dBm)**	**Level (dBc)**	**Limit (dBc)**
2412	-4.19		
2437	-2.45		
2462	-4.22		

802.11n HT20			
Frequency (MHz)	**Level (dBm)**	**Level (dBc)**	**Limit (dBc)**
2412	-3.99		
2437	-2.10		
2462	-4.75		

802.11n HT40			
Frequency (MHz)	**Level (dBm)**	**Level (dBc)**	**Limit (dBc)**
2422	-7.41		
2437	-5.14		
2452	-7.08		

9.6. CONCLUSION

Unwanted Emission into non-restricted frequency bands measurement performed on the sample of the product **Technicolor** UIW4059MIL, SN: **LAB3-V0 nr.030**, 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	: Laurent DENEUX
Date of test	: April 20, 2021
Ambient temperature	: 21 °C
Relative humidity	: 47 %

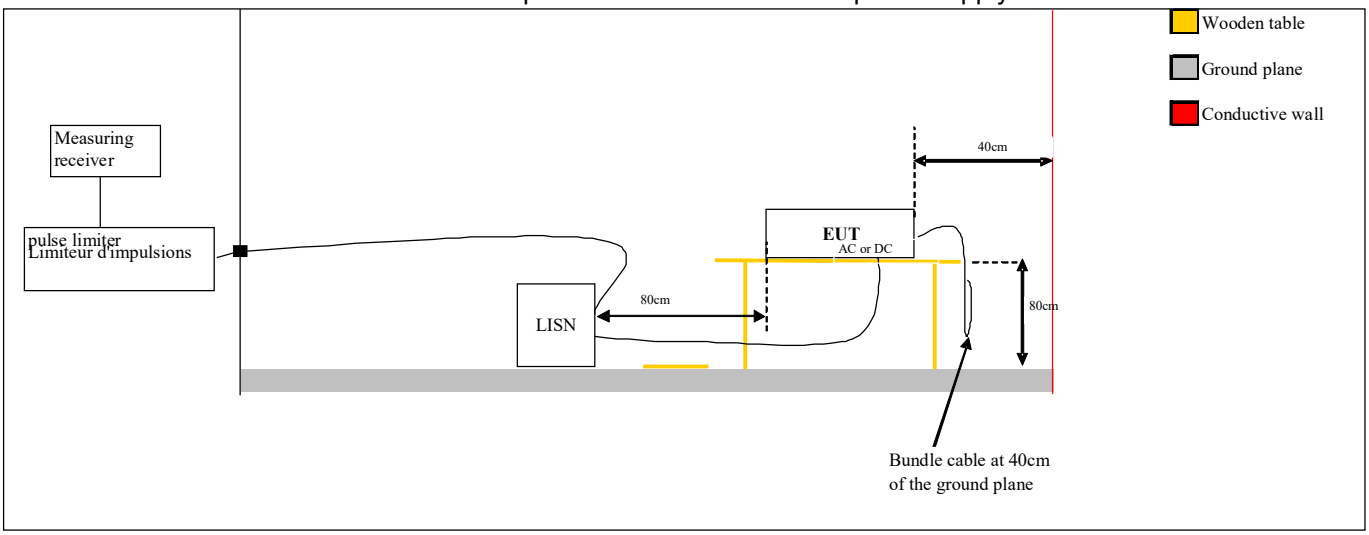
10.2. TEST SETUP

The product has been tested according to ANSI C63.10 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 / 50µH. Interconnecting cables and equipment's were moved to position that maximized emission.

Voltage table used (for Power Line Conducted Emissions):

Type	Measurement performed:	
☑ AC / ☐ DC (Auxiliary used)	☑ 120VAC/60Hz	☑ 240VAC/50Hz
☐ USB (Laptop auxiliary)	☐ 120VAC/60Hz (Laptop auxiliary)	☐ 240VAC/50Hz(Laptop auxiliary)

Test set up of conducted emission on power supply



Photograph for AC Power Line Conducted Emissions (Front view)

Photograph for AC Power Line Conducted Emissions (Rear view)

10.3. LIMIT

Frequency range	Level	Detector
0,15kHz to 0,5MHz	66dBµV to 56µV*	QPeak
	56dBµV to 46µV*	Average
0,5MHz to 5MHz	56dBµV	QPeak
	46dBµV	Average
5MHz to 30MHz	60BµV	QPeak
	50dBµV	Average

*Decreases with the logarithm of the frequency

10.4. TEST EQUIPMENT LIST

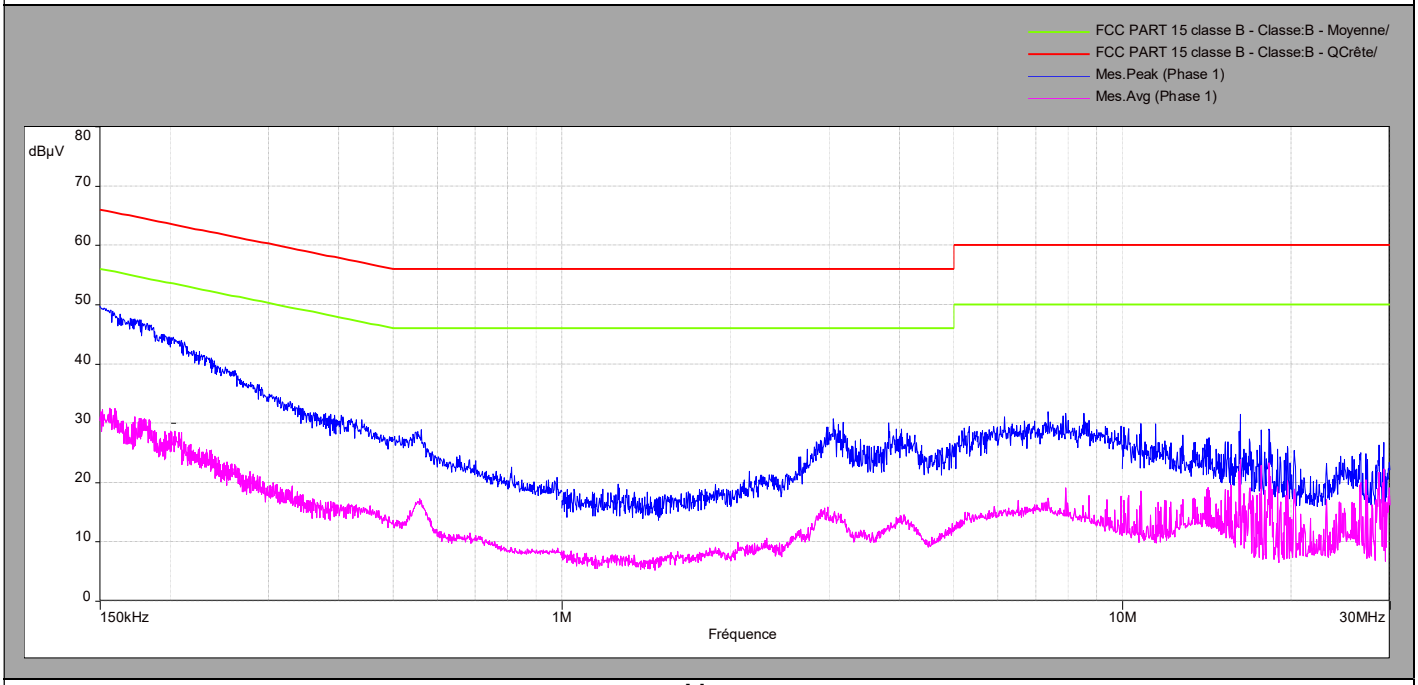
Test Equipment Used					
Description	**Manufacturer**	**Model**	**Identifier**	**Cal. Date**	**Cal. Due**
Recepteur	R&S	ESU	A2642018	01/2020	01/2022
V ISLN	R&S	ESH2-Z5	C2322002	10/2020	10/2021
Pulse limiter	R&S	ESH3-Z2	A2649008	05/2020	05/2021
Cable	LCIE	-	A5329589	11/2020	11/2021
Cable	-	-	A5329417	12/2020	12/2021
Reference ground plan 2.5 x 3m	L.C.I.E.	-	-	-	-

10.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

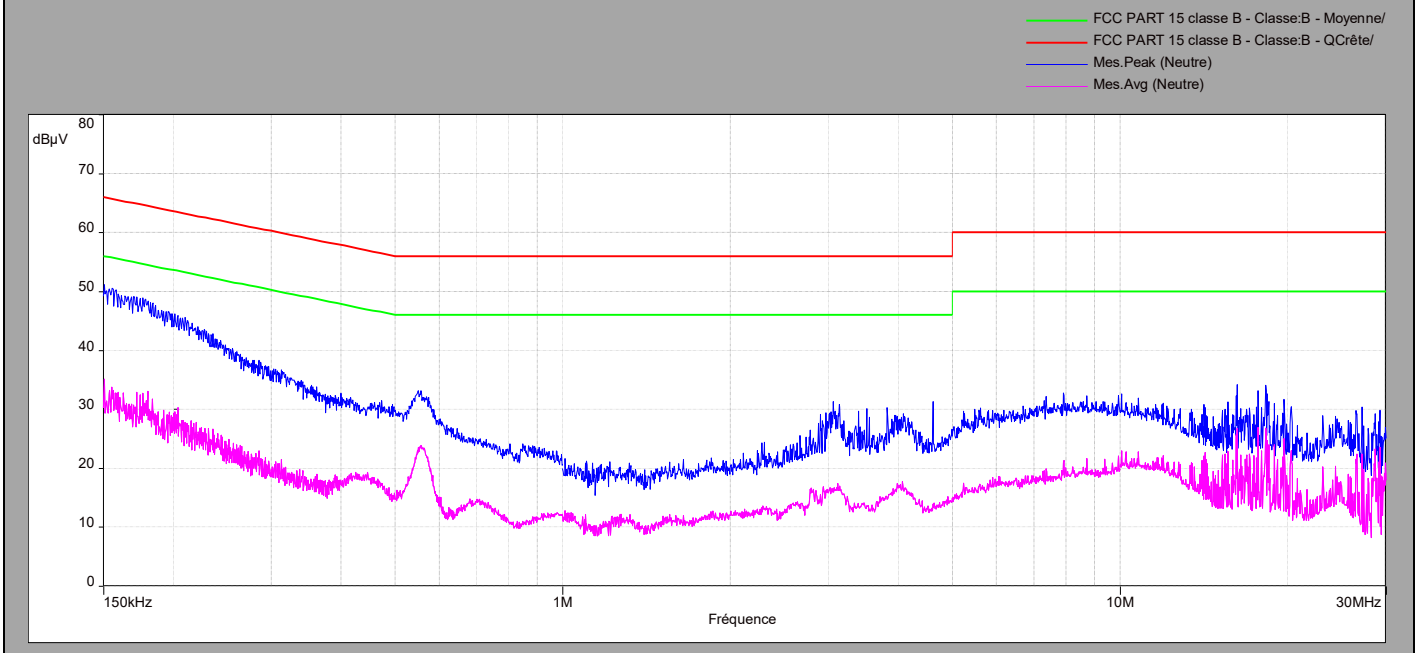
☑ None ☐ Divergence:

10.6. RESULTS

802.11g
Cmin
Phase 120v-60Hz



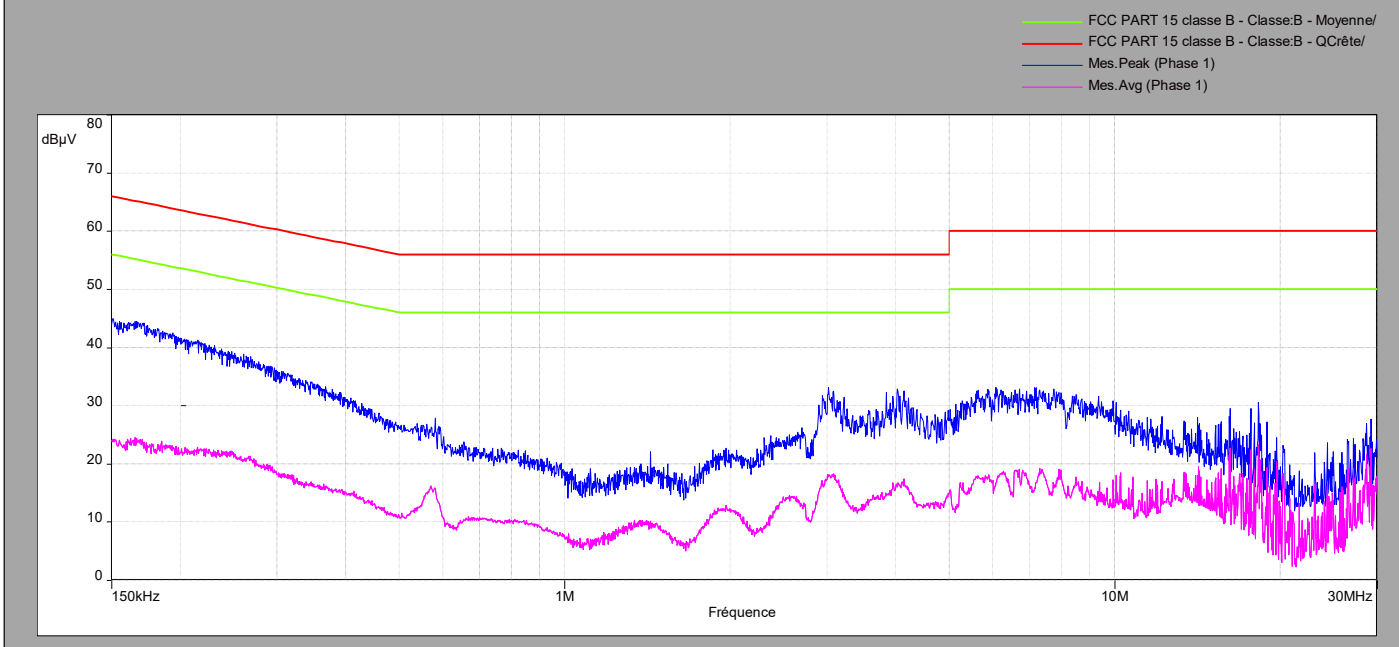
Line



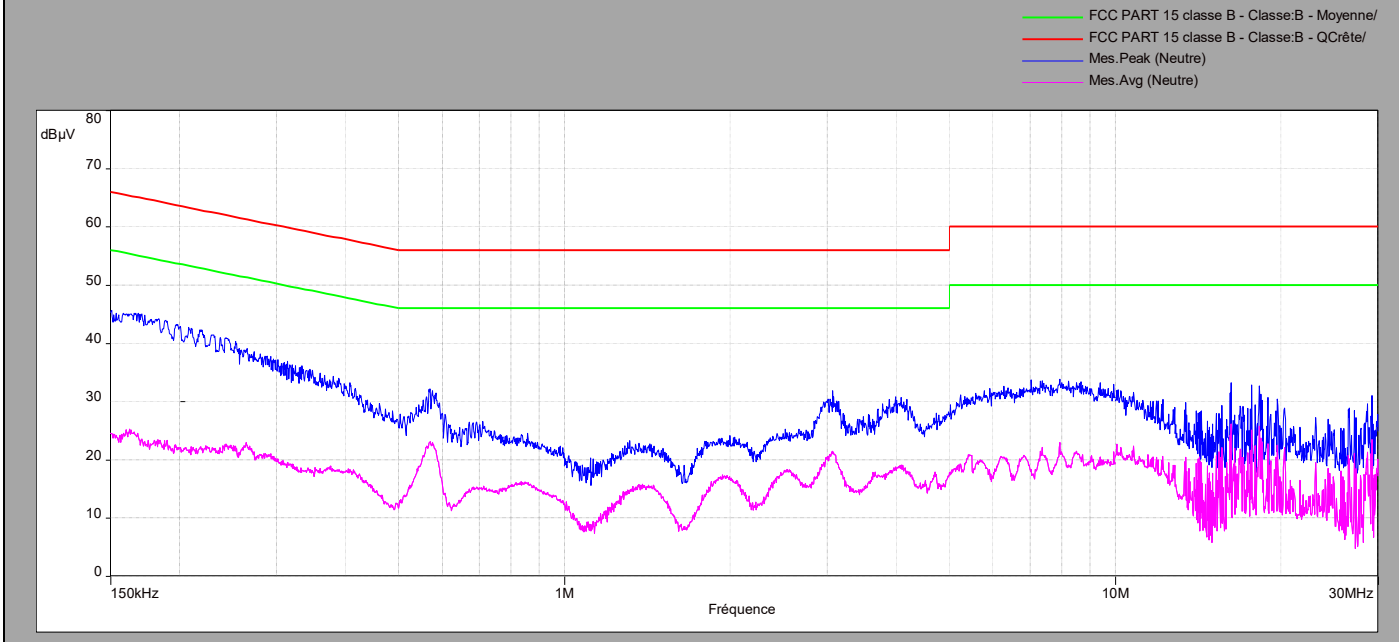
Phase Line							
Frequency (MHz)	**Peak Level (dBµV)**	**Quasi-Peak Level (dBµV)**	**Quasi-Peak Limit (dBµV)**	**Margin Quasi-Peak (dBµV)**	**Average Level (dBµV)**	**Average Limit (dBµV)**	**Margin Average (dBµV)**
0,15	39,5	-	64	24,5	30,5	39	8,5
0,554	28,5	-	56	27,5	16	46	30
3,05	30,7	-	56	25,3	16	46	30
16,22	31,5	-	60	28,5	23,8	50	26,2
18,24	29	-	60	31	23	50	27

Neutral Line							
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)**
0,15	49,3	-	64	14,7	30,3	39	8,7
0,557	33,1	-	56	22,9	24	46	22
3,06	32,3	-	56	23,7	16	46	30
16,22	34,2	-	60	25,8	16,2	50	33,8
18,24	33,4	-	60	26,6	26,8	50	23,2

802.11g
Cmin
Phase 240v-50Hz



Line



Phase Line							
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)**
0,15	43,7	-	64	20,3	24	39	15
0,581	27,8	-	56	28,2	16	46	30
3,01	33,2	-	56	22,8	18	46	28
6,27	31,3	-	60	28,7	18,3	50	31,7
18,24	30,6	-	60	29,4	23	50	27

Neutral Line							
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)**
0,15	45,4	-	64	18,6	24,5	39	14,5
0,575	31,5	-	56	24,5	22,9	46	23,1
3,07	31,8	-	56	24,2	21,5	46	24,5
16,22	33,2	-	60	26,8	26,1	50	23,9
28,68	29,5		60	30,5	21,3	50	28,7

10.7. CONCLUSION

Ac Power Line Conducted Emission measurement performed on the sample of the product **Technicolor** UIW4059MIL, SN: **LAB3-V0 nr.030**, 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

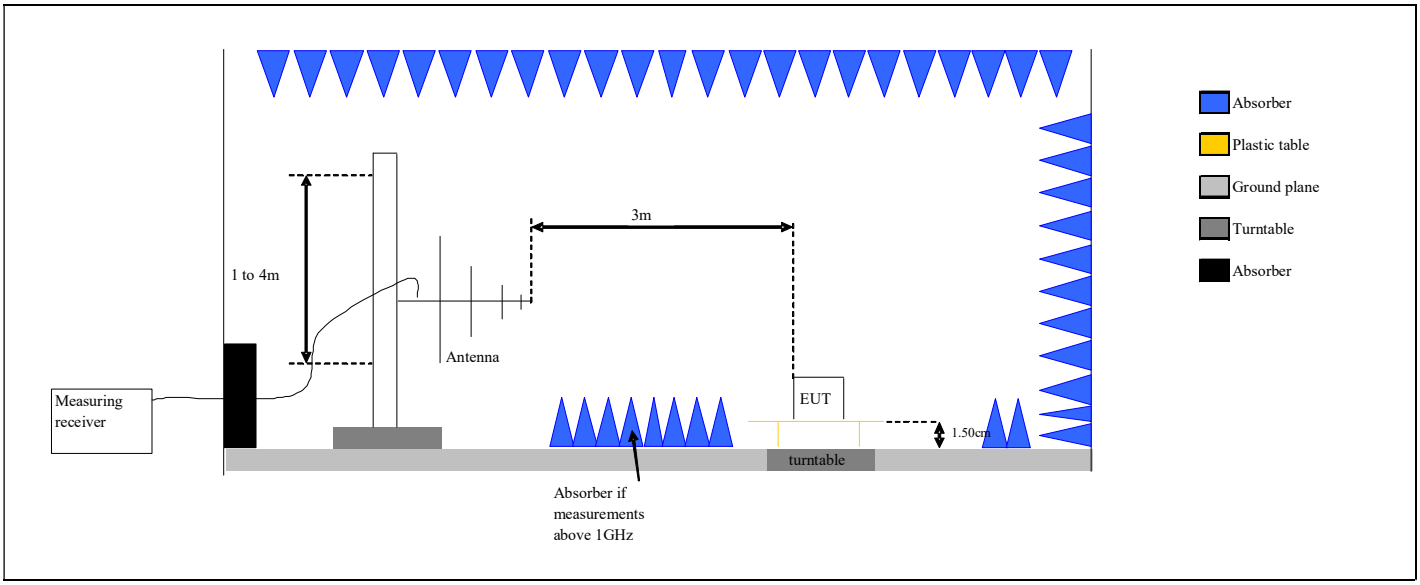
11.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU & Laurent DENEUX
Date of test : April 12, 2021 to April 21, 2021
Ambient temperature : 20 to 24°C
Relative humidity : 44 to 45%

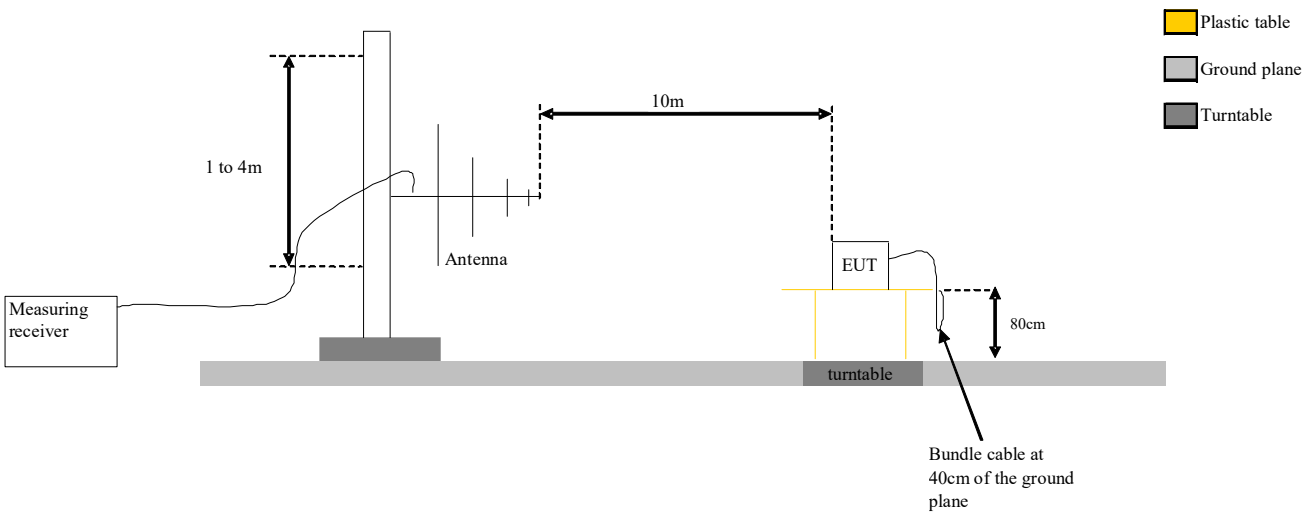
11.2. TEST SETUP

The product has been tested according to ANSI C63.10 and FCC part 15 subpart C:

Frequency range :	**Below 30MHz**	**From 30MHz to 1GHz**	**Above 1GHz**
Antenna Polarization :	Parallel, Perpendicular And Ground parallel	Horizontal And Vertical	Horizontal And Vertical
Antenna Height :	1m	Varied from 1m to 4m	Varied from 1m to 4m
Antenna Type :	Loop	Bi-Log	Horn
RBW Filter :	200Hz below 150kHz 9kHz above 150kHz	120kHz	1MHz
Maximization :	Turntable rotation of 360 degrees range		
EUT height :	0.8m		1.5m
Test site :	Open Aera Test Site	Open Aera Test Site	Semi-Anechoic Chamber
Distance EUT-Antenna :	3m	10m	3m

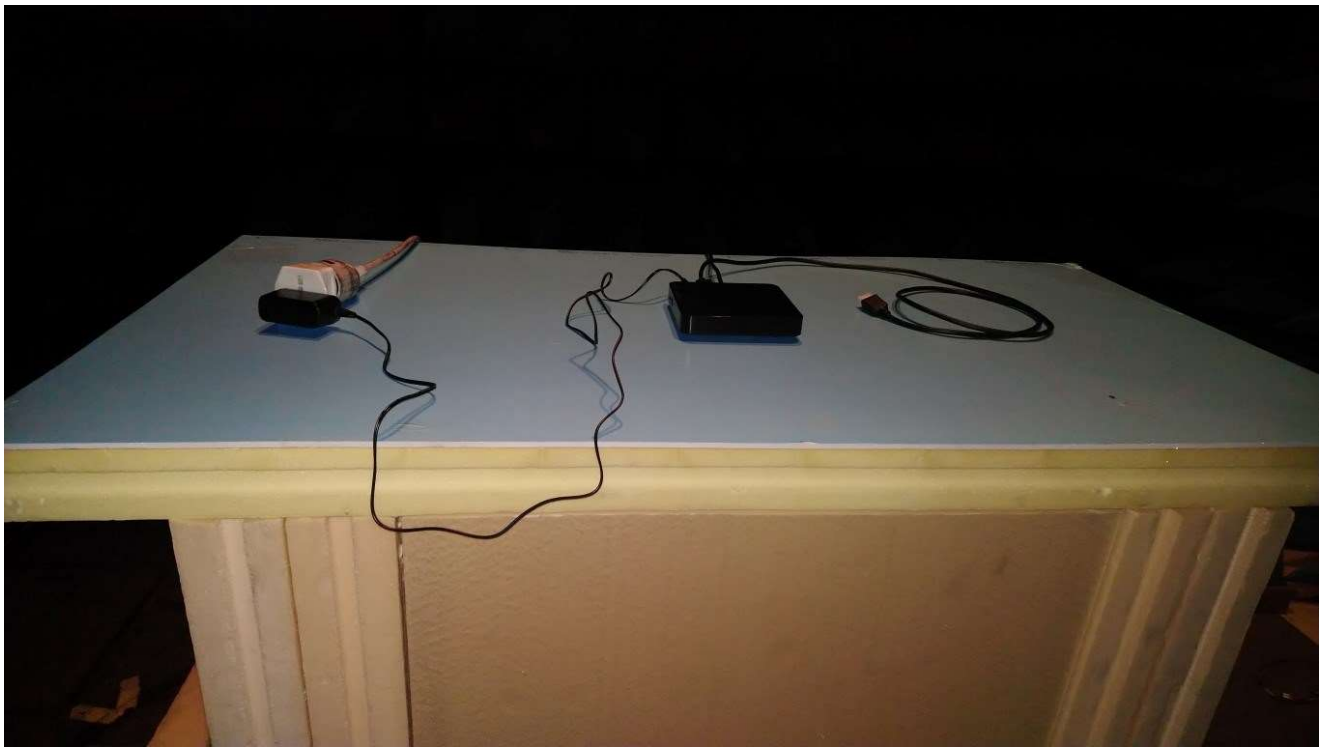


Test set up of Unwanted Emissions in Restricted Frequency Bands in semi anechoic chamber

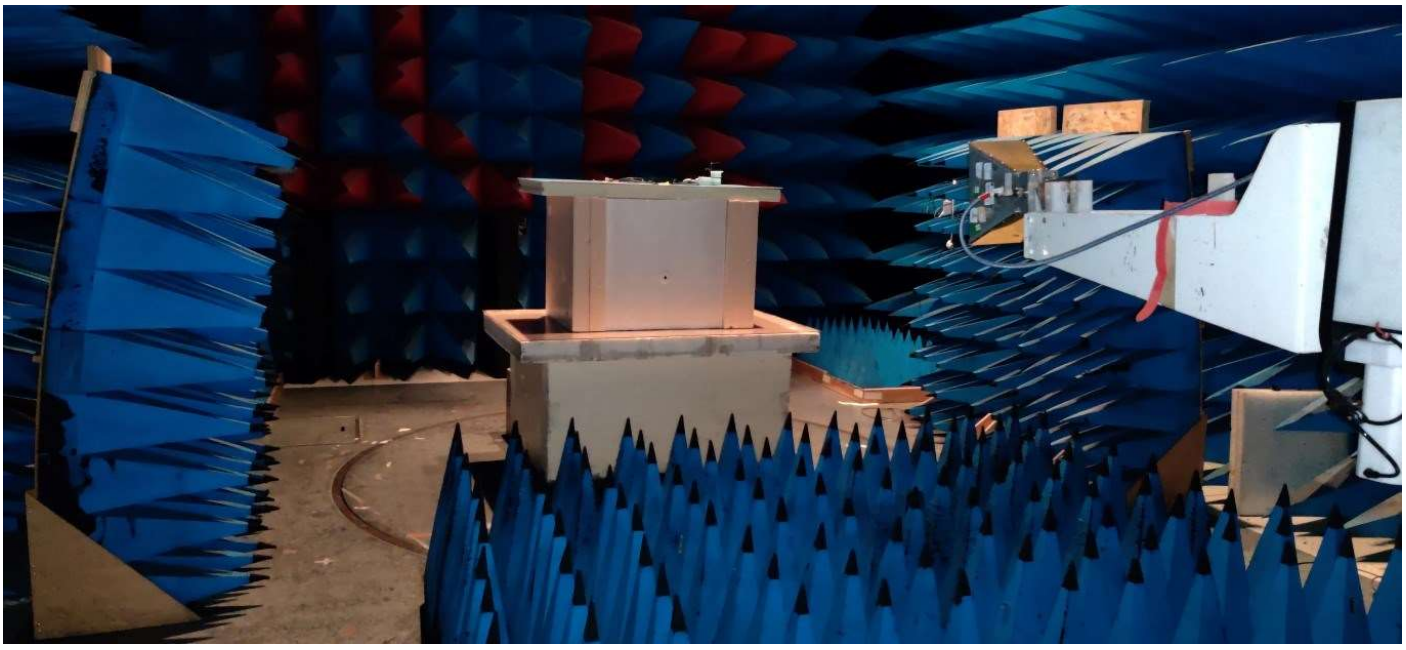


Test Set up for radiated measurement in open area test site

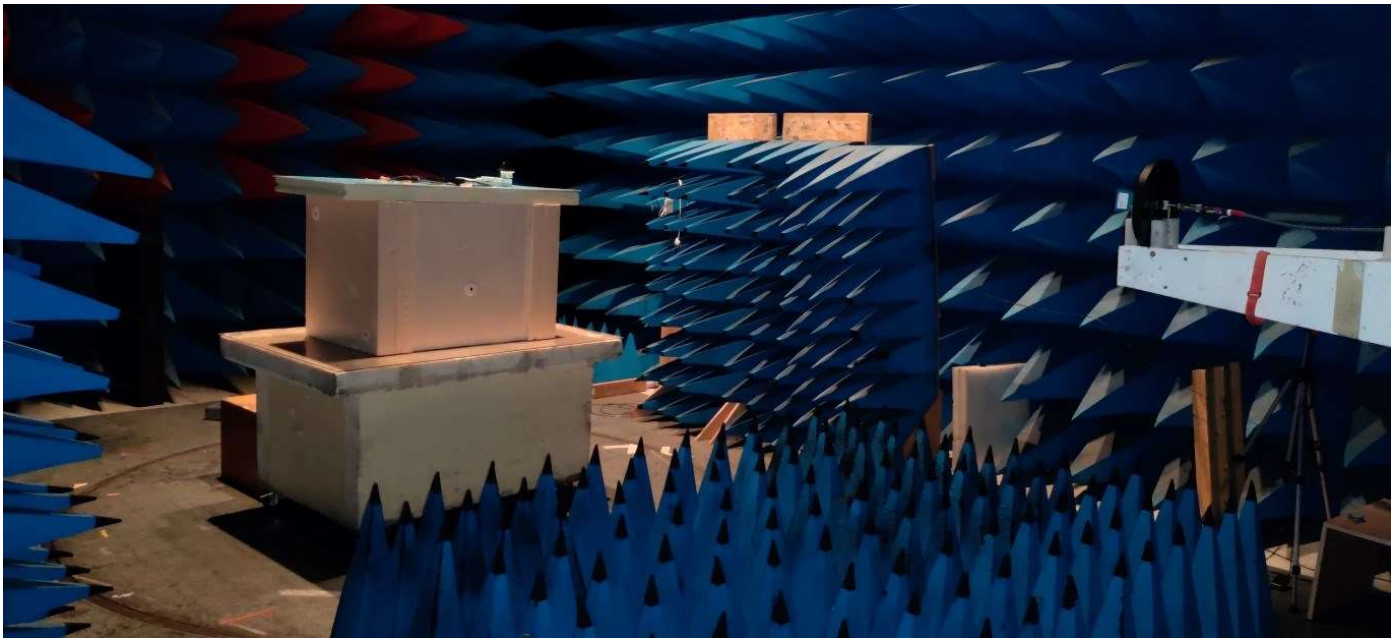
Photograph for Unwanted Emissions



Photograph for Unwanted Emissions



Photograph for Unwanted Emissions



Photograph for Unwanted Emissions

11.3. LIMIT

Measure at 300m		
Frequency range	**Level**	**Detector**
9kHz-490kHz	67.6dBµV/m /F(kHz)	QPeak
Measure at 30m		
Frequency range	**Level**	**Detector**
490kHz-1.705MHz	87.6dBµV/m /F(kHz)	QPeak
1.705MHz-30MHz	29.5dBµV/m	QPeak
Measure at 10m		
Frequency range	**Level**	**Detector**
30MHz to 88MHz	29.5dBµV/m	QPeak
88MHz to 216MHz	33dBµV/m	QPeak
216MHz to 960MHz	35.5BµV/m	QPeak
960MHz to 1000MHz	43.5dBµV/m	QPeak
Above 1000MHz	63.5dBµV/m	Peak
	43.5dBµV/m	Average
Measure at 3m		
Frequency range	**Level**	**Detector**
30MHz to 88MHz	40dBµV/m	QPeak
88MHz to 216MHz	43.5dBµV/m	QPeak
216MHz to 960MHz	46BµV/m	QPeak
960MHz to 1000MHz	54dBµV/m	QPeak
Above 1000MHz	74dBµV/m	Peak
	54dBµV/m	Average

11.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
BAT EMC Software	NEXIO	Version 3,19,1,18	-	-	-
SEMI ANECHOIC CHAMBER	SIEPEL	ZONE HOMOGENE	D3044008	2020/05	2021/05
Preamplifier	LCIE	LCIE-ALB-001	A7080073	2021/02	2023/02
Horn antenna	AH SYSTEMS	SAS 571	C2042041	2019/11	2021/11
Horn antenna (18-26,5GHz)	PASTERNACK	PE9852/2F-20	C2042048	2020/06	2022/06
EMI receiver	ROHDE & SCHWARZ	FSV40GHz	A4060061	2019/05	2021/05
Cable S36 chamber	PASTERNACK	PE360-3000CM	A5329872	2021/02	2022/02
Cable S36 chamber	PASTERNACK	PE360-1000CM	A5329939	2021/02	2022/02
Cable S36 chamber	PASTERNACK	PE360-1500CM	A5329940	2021/02	2022/02
High Pass Filter 2,4GHz	WAINWRIGHT	WHK12-2494	A7484068	2019/07	2021/07
Recepteur	R&S	ESU	A2642018	01/2020	01/2022
Antenna bilog	CHASE	CBL 6112A	C2042040	12/05/2020	05/2021
Preamplifier	HP	8449B	A4069002	09/2020	09/2022
Antenna cornet	EMCO	3115	C2042016	05/2020	05/2021
OATS	L.C.I.E.	-	F2000400	09/2020	09/2021
Cable	-	-	A5329442	12/2020	12/2021
loop antenna	ROHDE & SCHWARZ	HFH2-Z2	C2040269	09/2020	09/2022
Cable	-	-	A5329416	02/2021	02/2022
Cable	-	-	A5329542	11/2020	11/2021
Cable	-	-	A5329876	12/2019	12/2021
Cable	-	-	A5329449	12/2020	12/2021

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

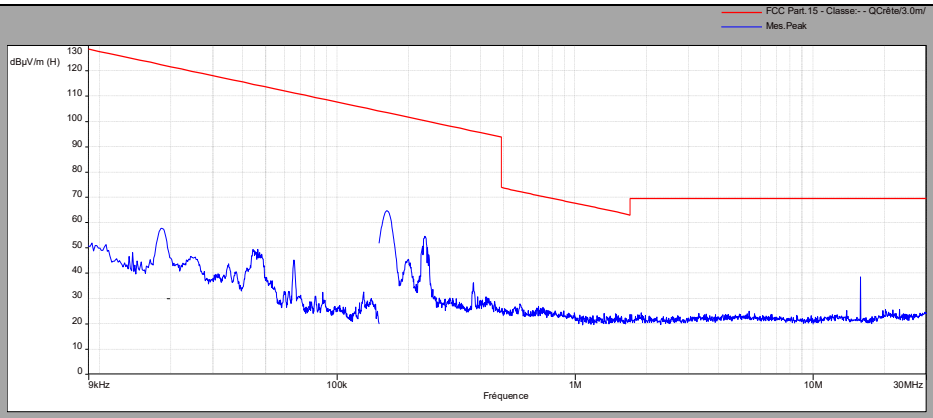
☑ None ☐ Divergence:

11.6. RESULTS

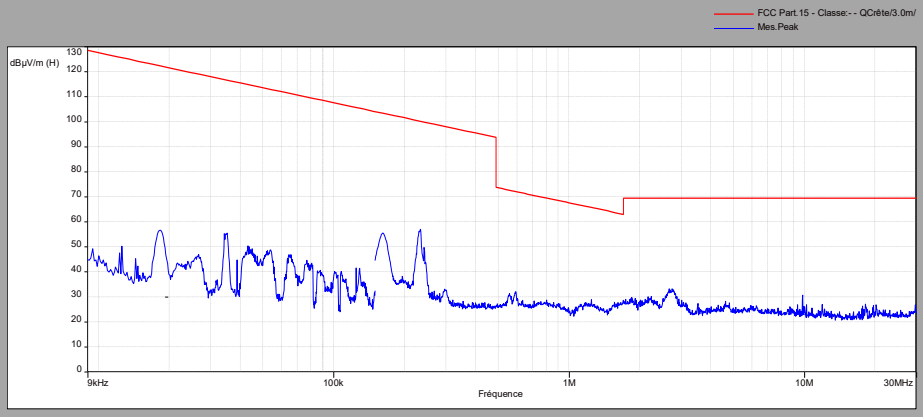
Worst case presented (see §6.5 in Maximum Conducted Output power):

9kHz to 30MHz

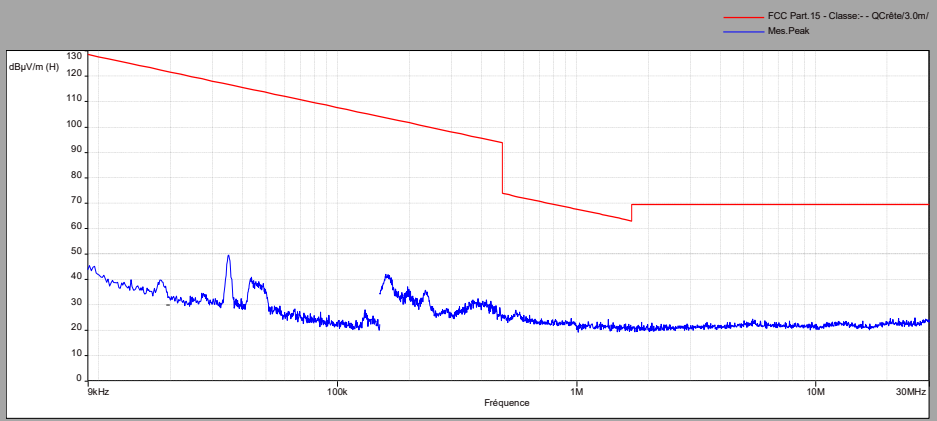
Parallel Axis



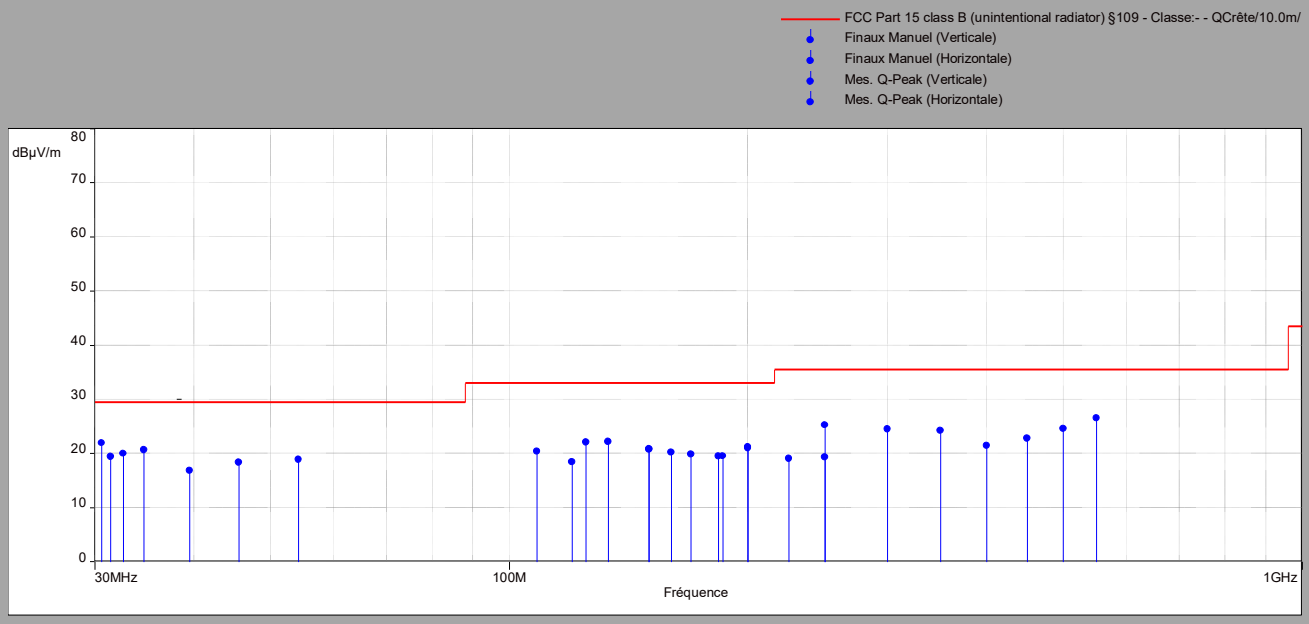
Perpendicular Axis



Ground Parallel Axis



802.11g
Cmin
Below 1GHz
Vertical & horizontal Polarization



802.11b

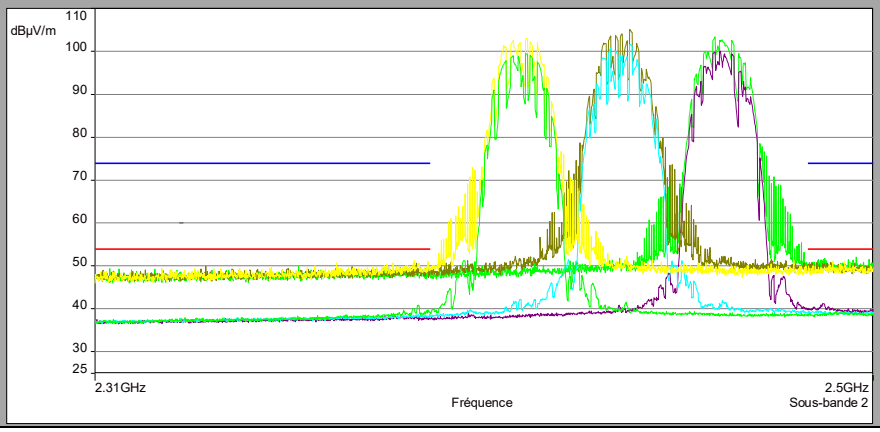
Cmin/Cnom/Cmax

Zoom 2310MHz-2500MHz

Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C1 - Verticale (Verticale)
Mes.Peak _Channel C1 - Verticale (Verticale)
Mes.Avg _Channel C6 - Verticale (Verticale)
Mes.Peak _Channel C6 - Verticale (Verticale)
Mes.Avg _Channel C11 - Verticale (Verticale)
Mes.Peak _Channel C11 - Verticale (Verticale)

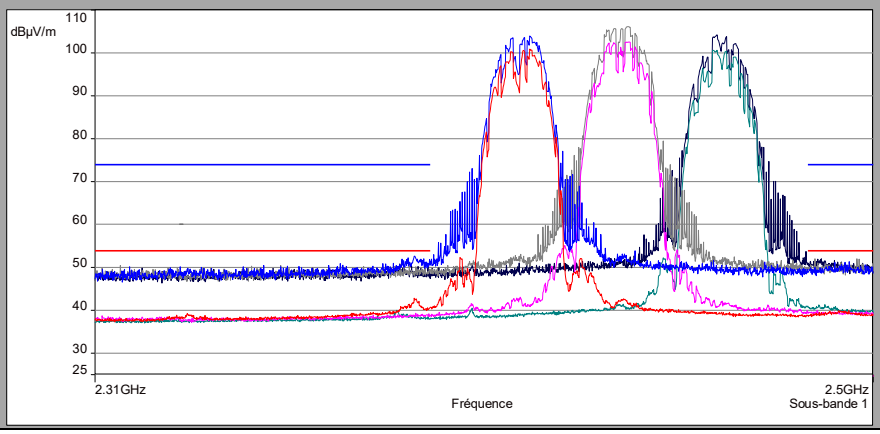
Description Sous-bande 2
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp
Polarisation:Verticale
Distance: 3 m



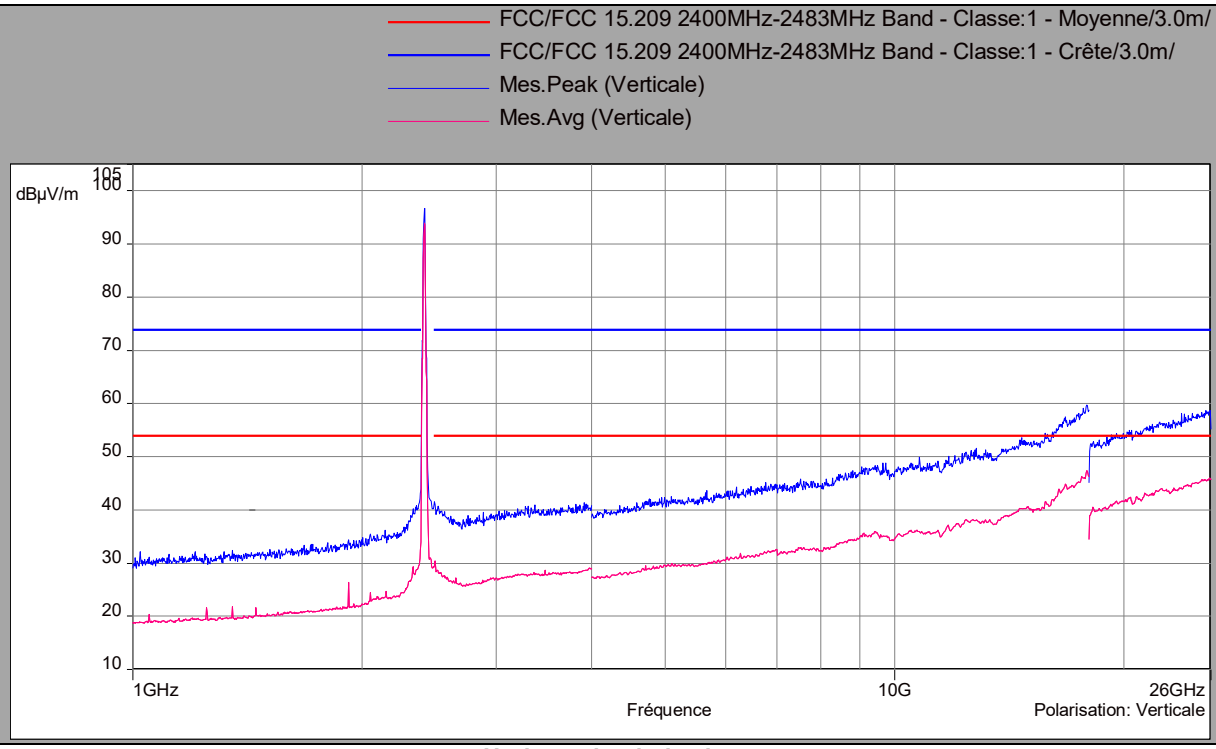
Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C1 - Horizontale (Horizontale)
Mes.Peak _Channel C1 - Horizontale (Horizontale)
Mes.Avg _Channel C6 - Horizontale (Horizontale)
Mes.Peak _Channel C6 - Horizontale (Horizontale)
Mes.Avg _Channel C11 - Horizontale (Horizontale)
Mes.Peak _Channel C11 - Horizontale (Horizontale)

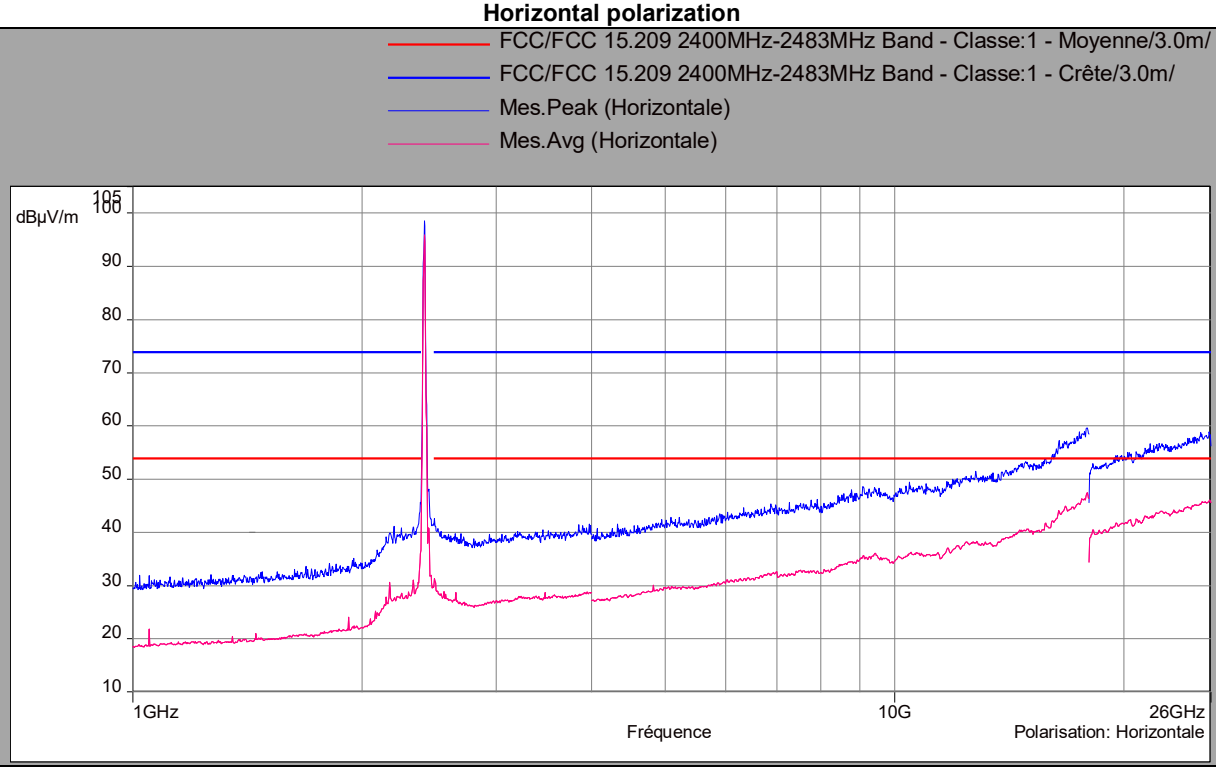
Description Sous-bande 1
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp
Polarisation:Horizontale
Distance: 3 m



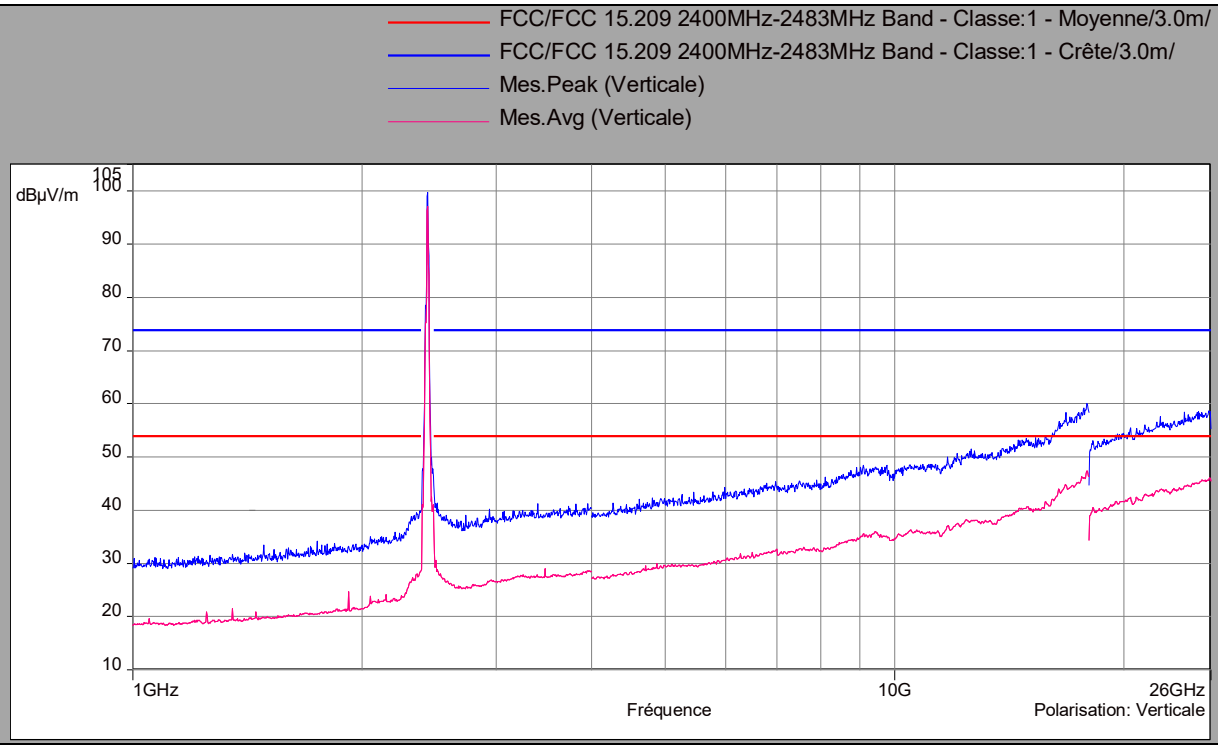
802.11b
Cmin
Above 1GHz
Vertical Polarization



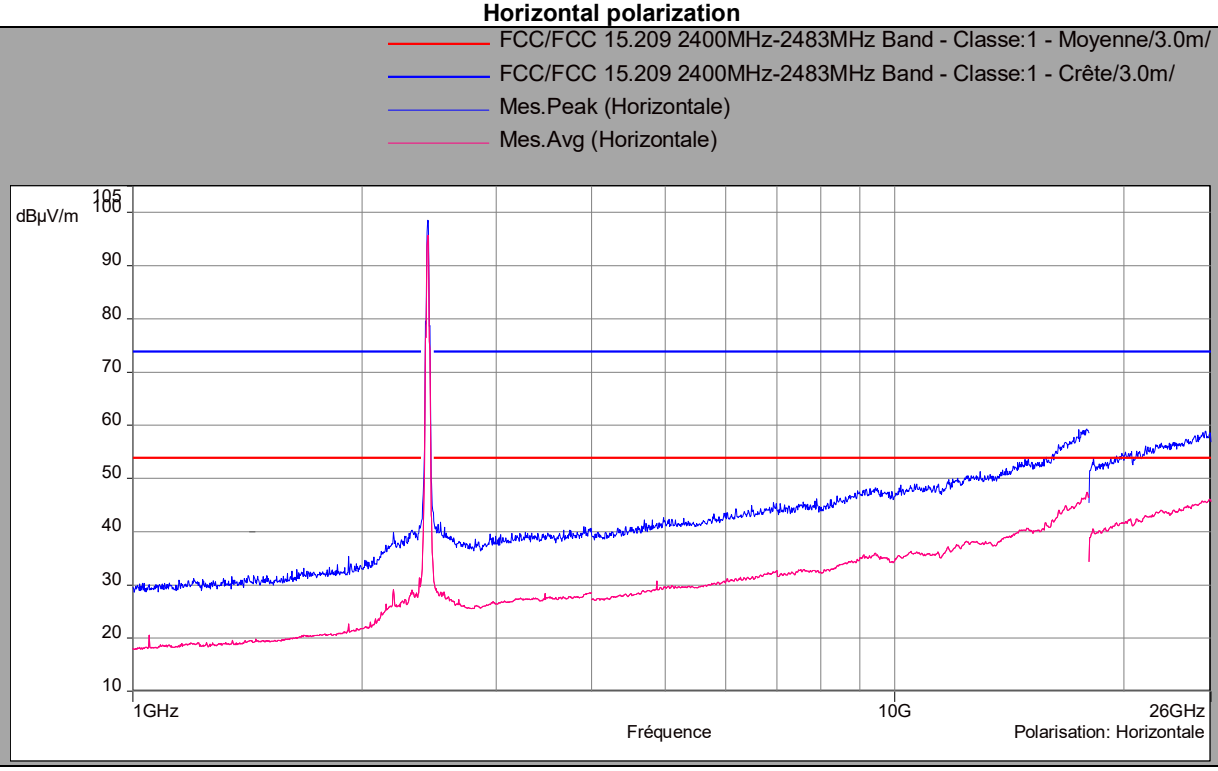
Horizontal polarization



802.11b
Cnom
Above 1GHz
Vertical Polarization

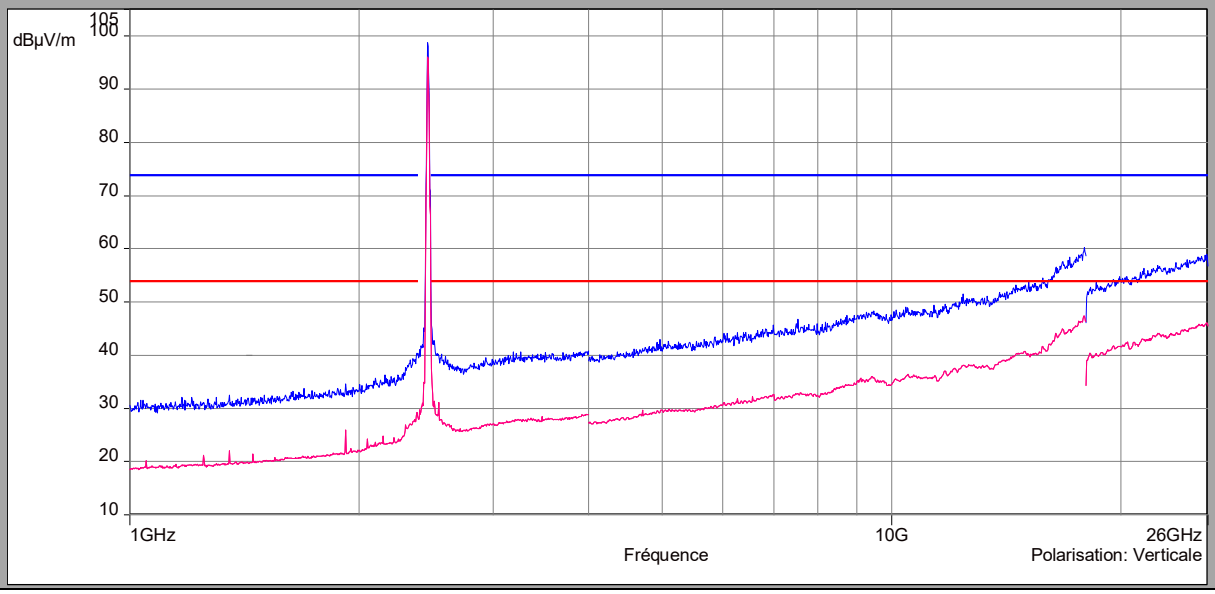


Horizontal polarization



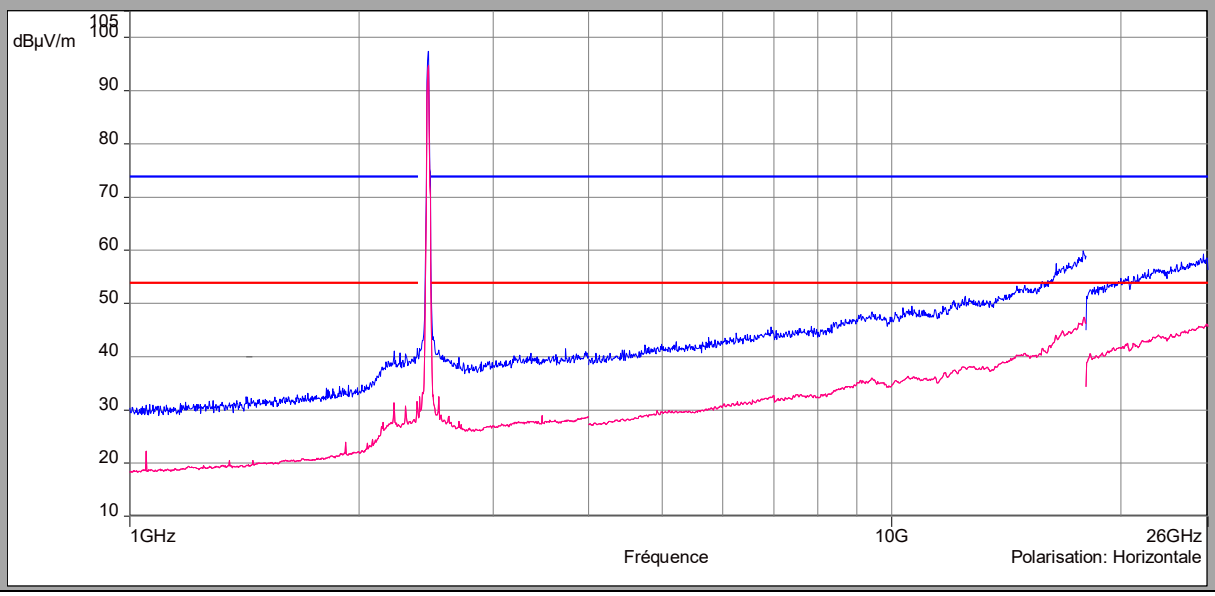
802.11b
Cmax
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



802.11g

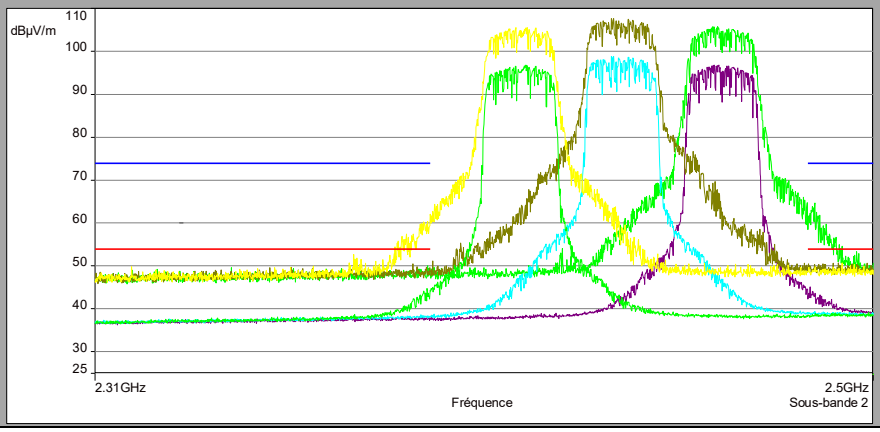
Cmin/Cnom/Cmax

Zoom 2310MHz-2500MHz

Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C1 - Verticale (Verticale)
Mes.Peak _Channel C1 - Verticale (Verticale)
Mes.Avg _Channel C6 - Verticale (Verticale)
Mes.Peak _Channel C6 - Verticale (Verticale)
Mes.Avg _Channel C11 - Verticale (Verticale)
Mes.Peak _Channel C11 - Verticale (Verticale)

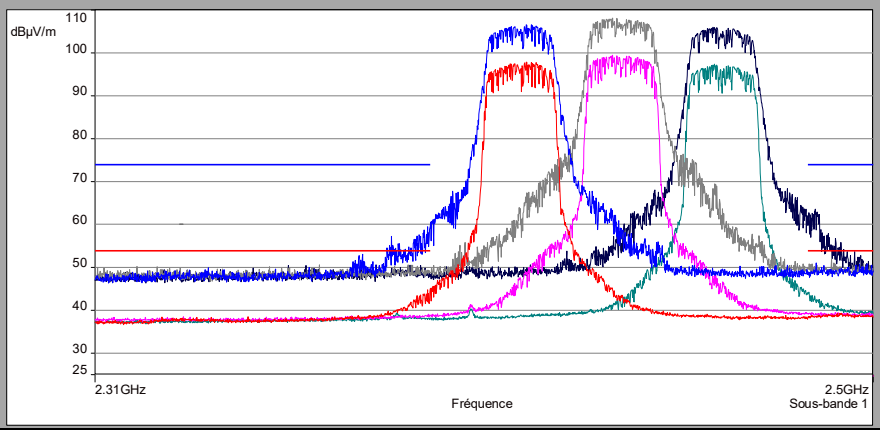
Description Sous-bande 2
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp
Polarisation:Verticale
Distance: 3 m



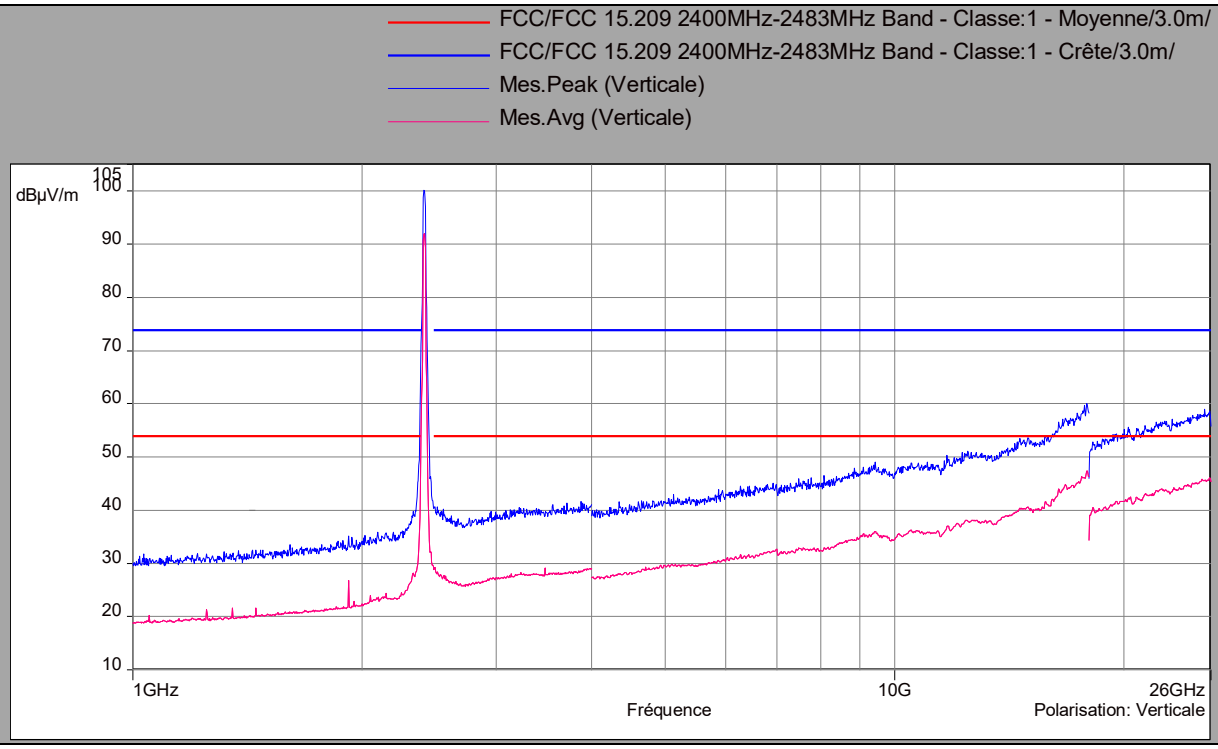
Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C1 - Horizontale (Horizontale)
Mes.Peak _Channel C1 - Horizontale (Horizontale)
Mes.Avg _Channel C6 - Horizontale (Horizontale)
Mes.Peak _Channel C6 - Horizontale (Horizontale)
Mes.Avg _Channel C11 - Horizontale (Horizontale)
Mes.Peak _Channel C11 - Horizontale (Horizontale)

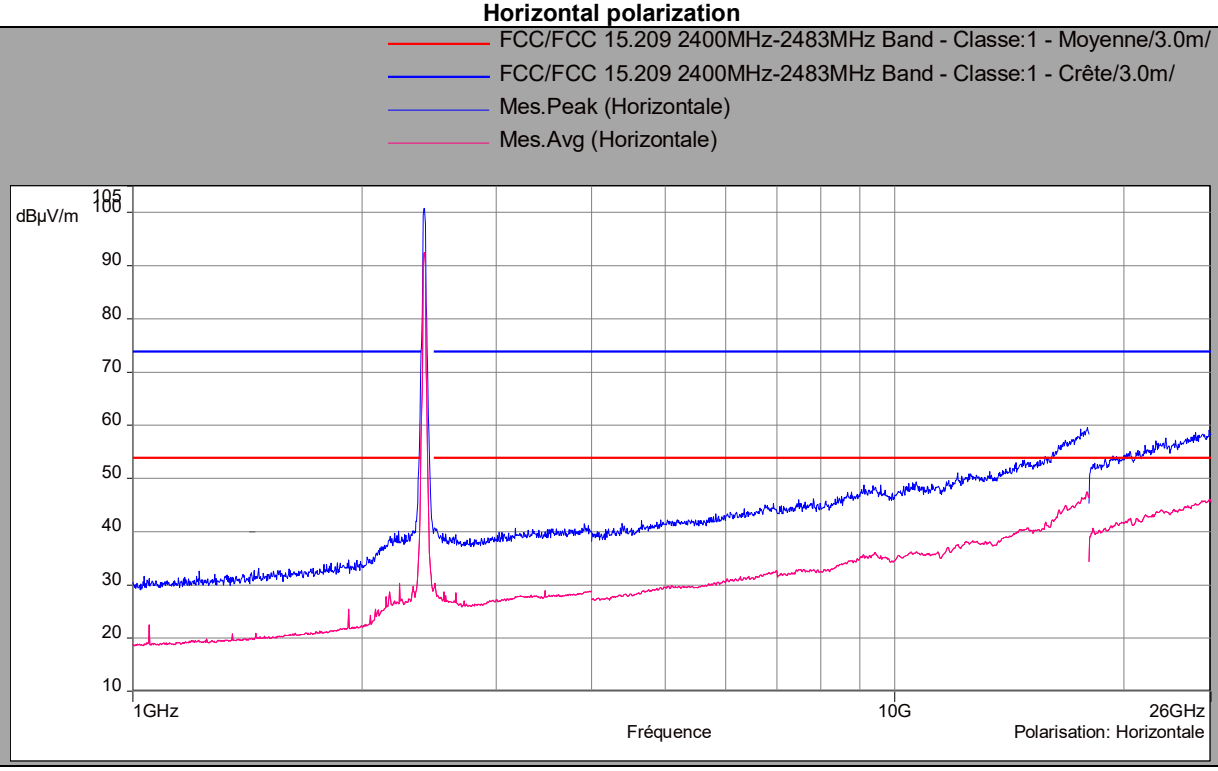
Description Sous-bande 1
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp
Polarisation:Horizontale
Distance: 3 m



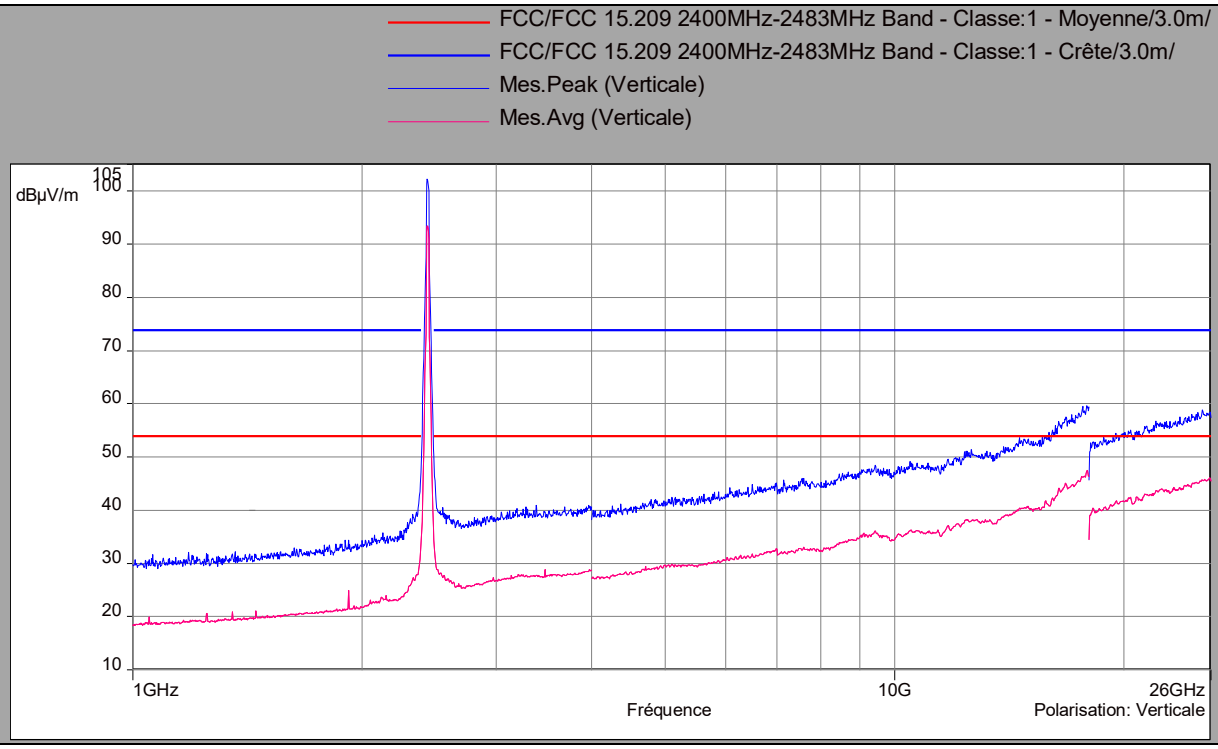
802.11g
Cmin
Above 1GHz
Vertical Polarization



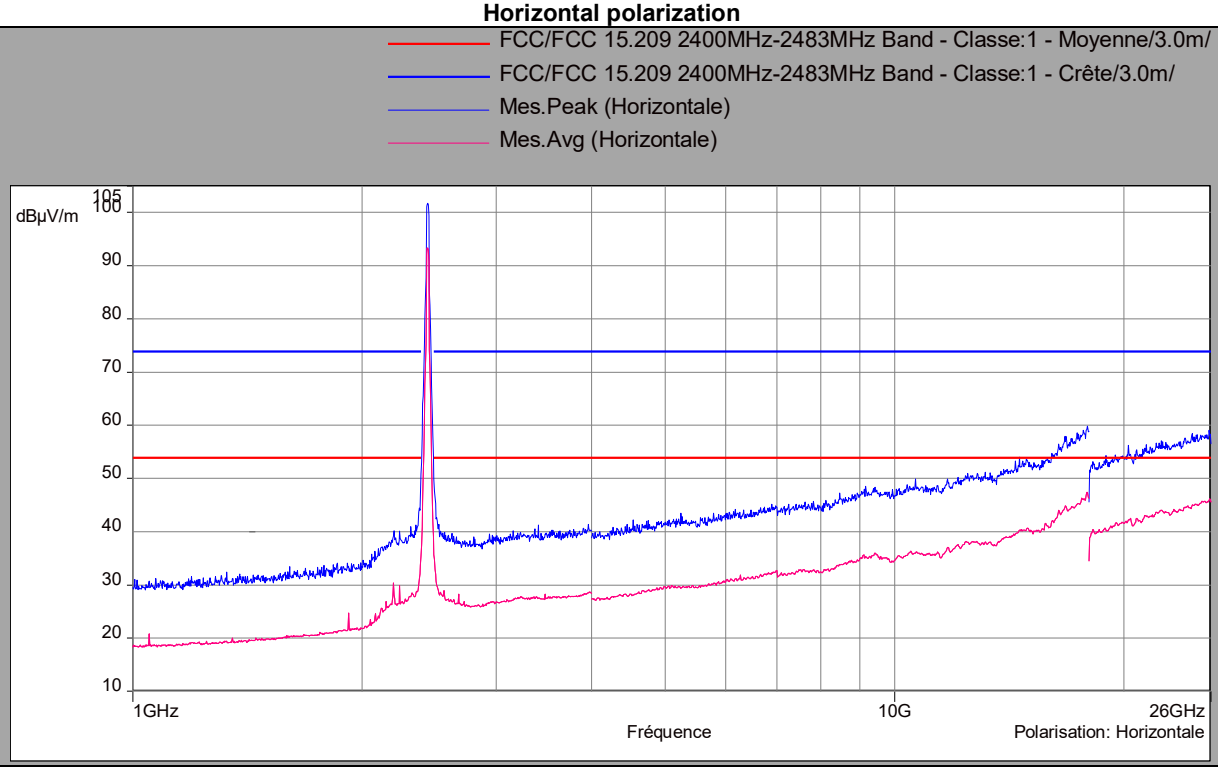
Horizontal polarization



802.11g
Cnom
Above 1GHz
Vertical Polarization

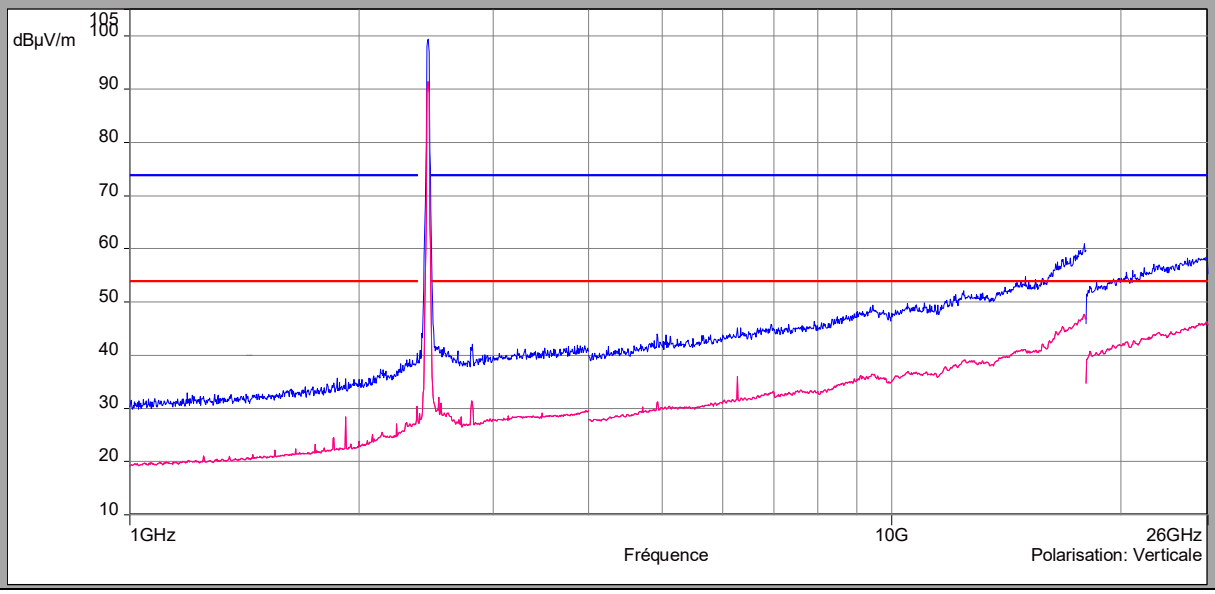


Horizontal polarization



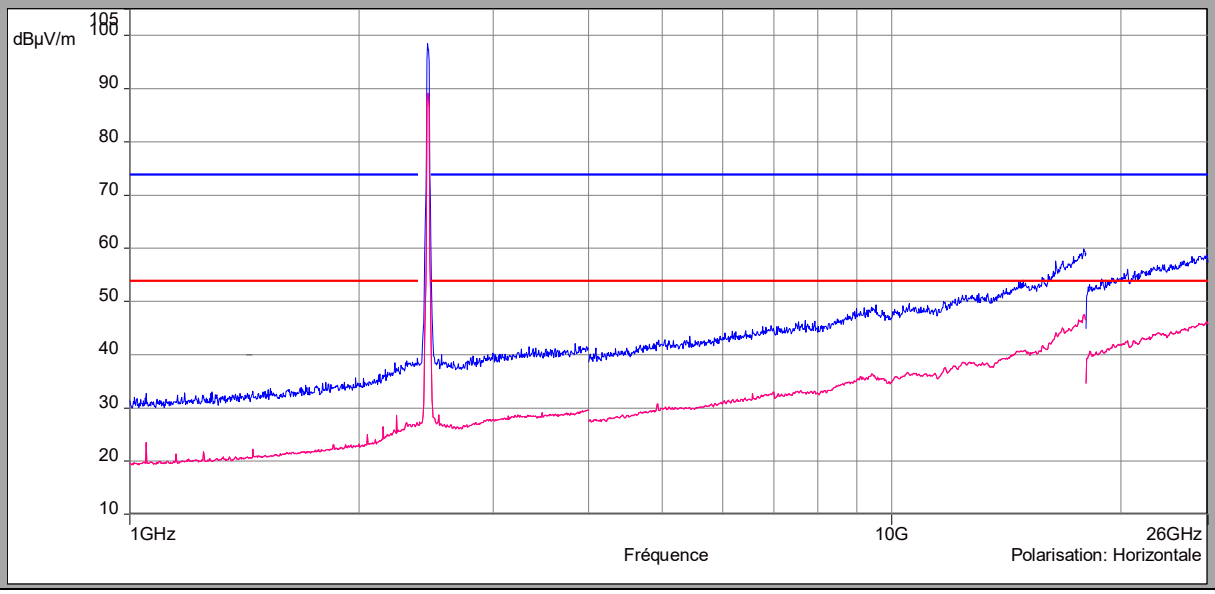
802.11g
Cmax
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



802.11n HT20

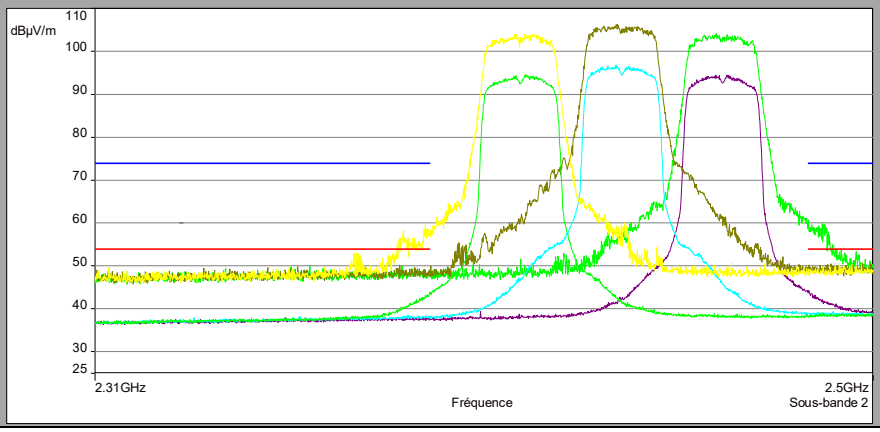
Cmin/Cnom/Cmax

Zoom 2310MHz-2500MHz

Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C1 - Verticale (Verticale)
Mes.Peak _Channel C1 - Verticale (Verticale)
Mes.Avg _Channel C6 - Verticale (Verticale)
Mes.Peak _Channel C6 - Verticale (Verticale)
Mes.Avg _Channel C11 - Verticale (Verticale)
Mes.Peak _Channel C11 - Verticale (Verticale)

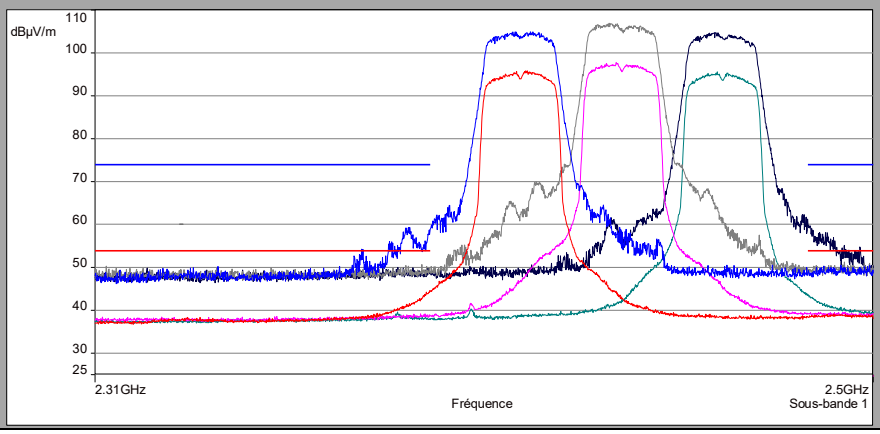
Description Sous-bande 2
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp
Polarisation:Verticale
Distance: 3 m



Horizontal polarization

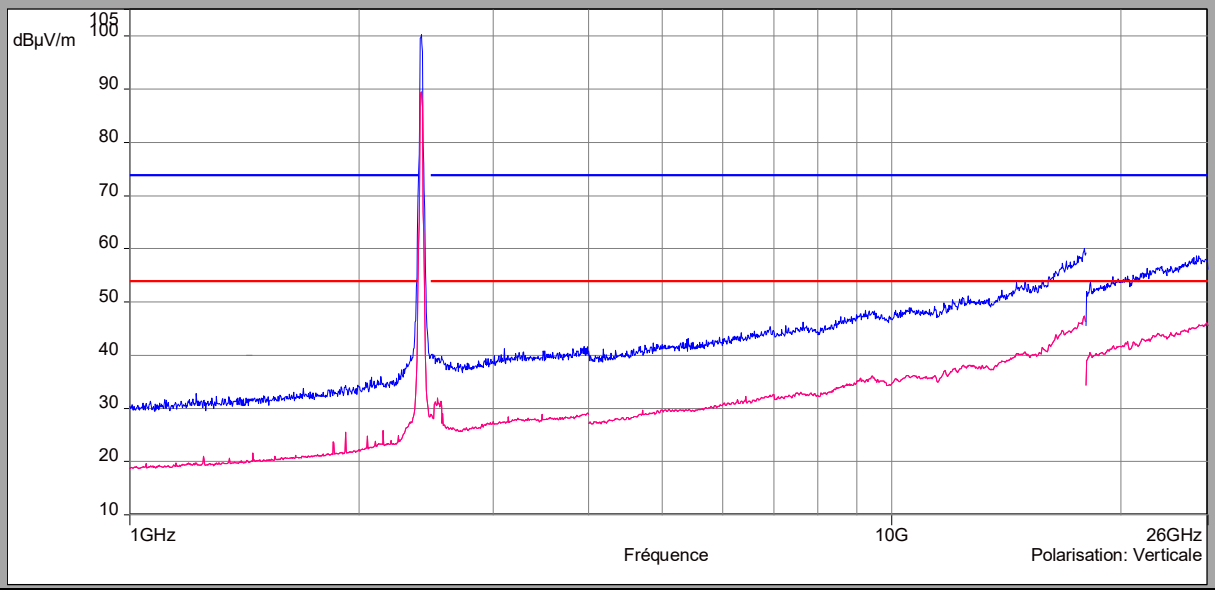
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C1 - Horizontale (Horizontale)
Mes.Peak _Channel C1 - Horizontale (Horizontale)
Mes.Avg _Channel C6 - Horizontale (Horizontale)
Mes.Peak _Channel C6 - Horizontale (Horizontale)
Mes.Avg _Channel C11 - Horizontale (Horizontale)
Mes.Peak _Channel C11 - Horizontale (Horizontale)

Description Sous-bande 1
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp
Polarisation:Horizontale
Distance: 3 m



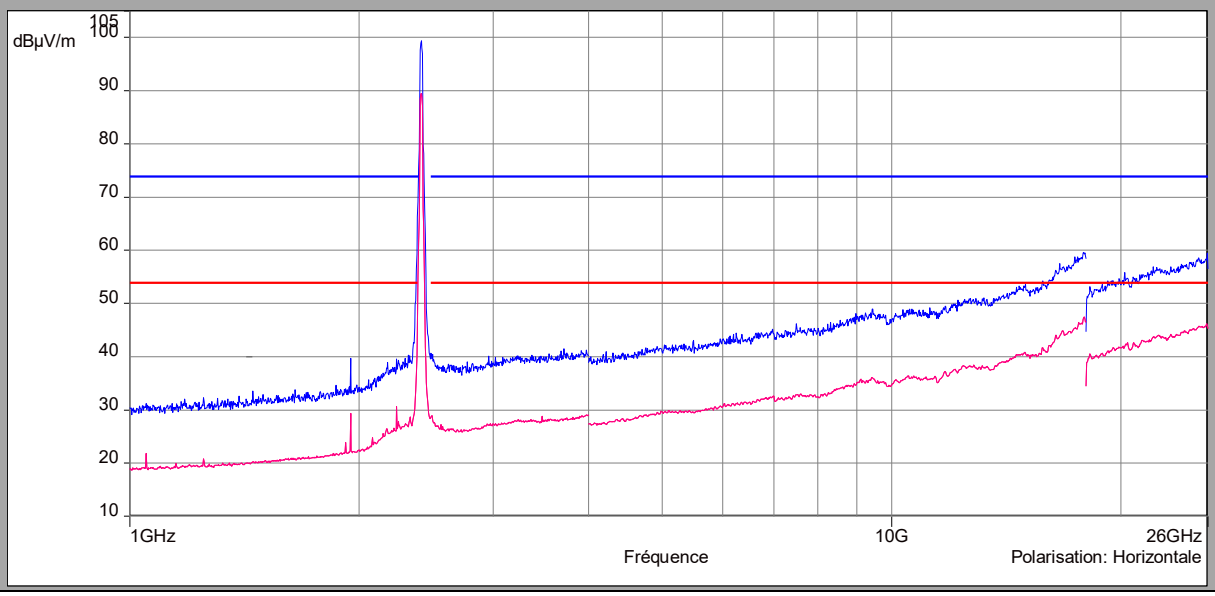
802.11n HT20
Cmin
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



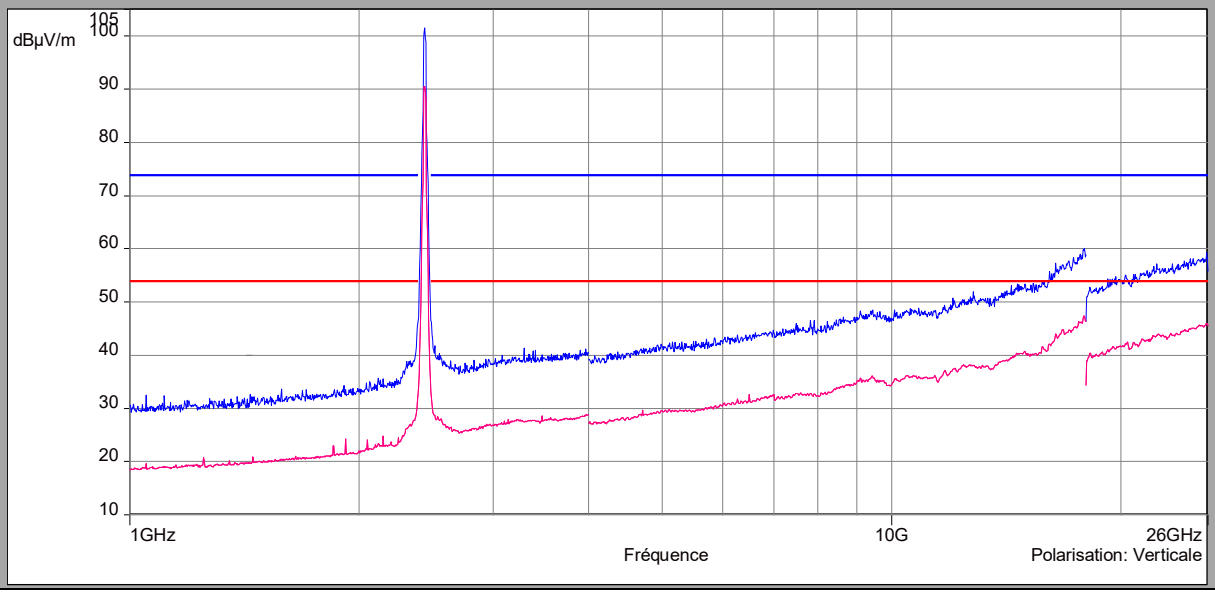
Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



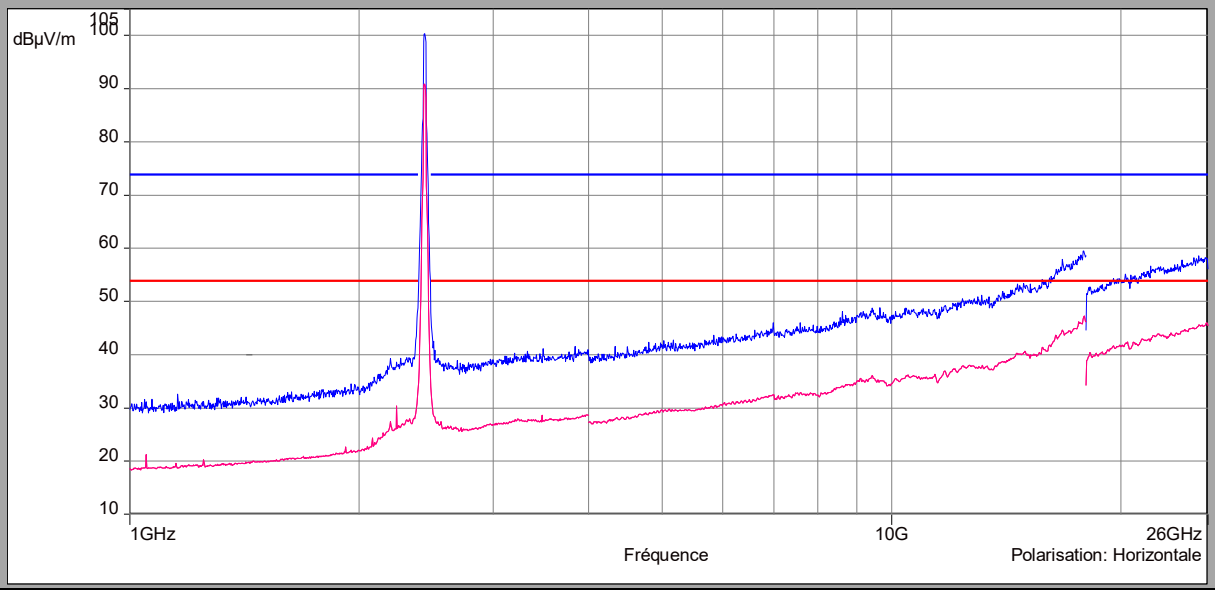
802.11n HT20
Cnom
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



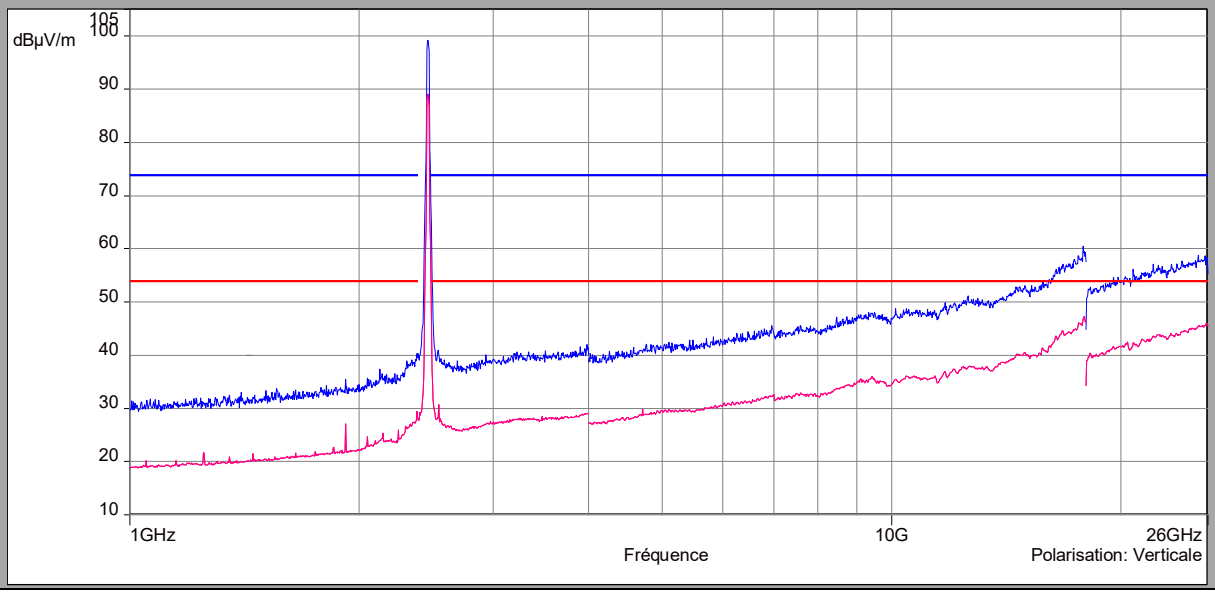
Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



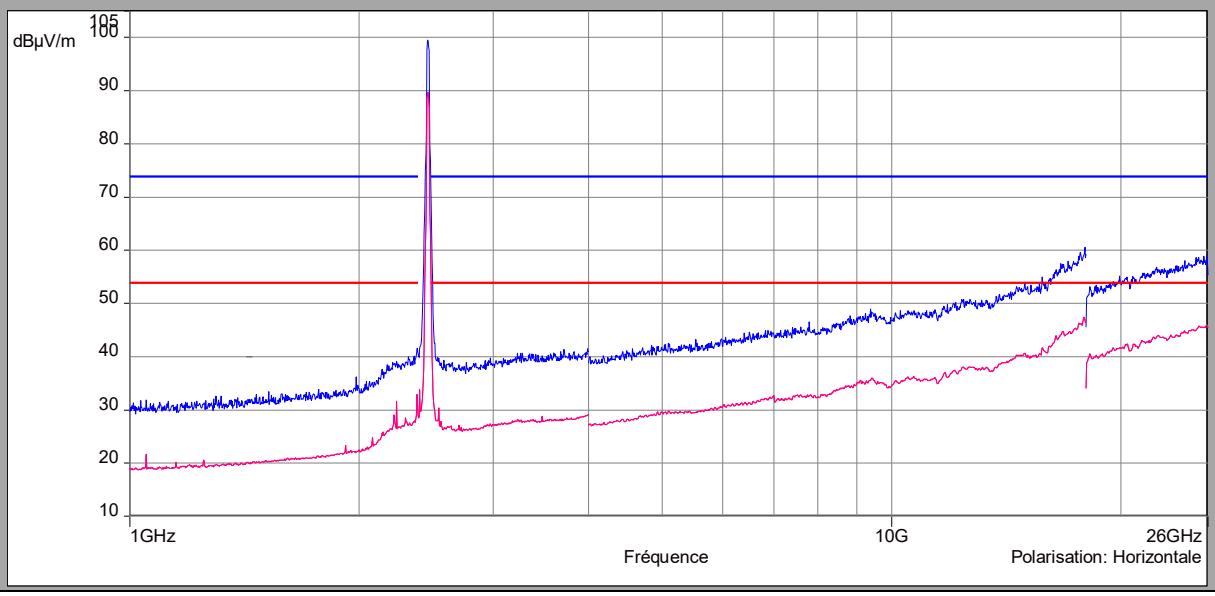
802.11n HT20
Cmax
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



802.11n HT40

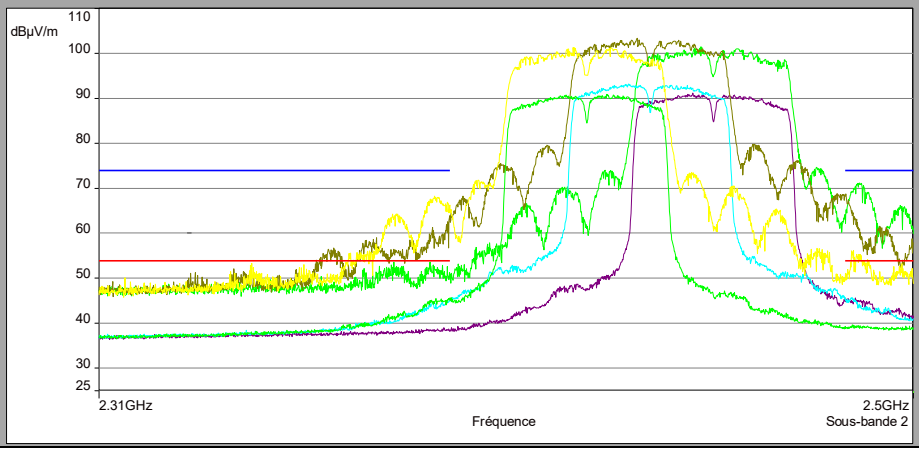
Cmin/Cnom/Cmax

Zoom 2310MHz-2500MHz

Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C3 - Verticale (Verticale)
Mes.Peak _Channel C3 - Verticale (Verticale)
Mes.Avg _Channel C6 - Verticale (Verticale)
Mes.Peak _Channel C6 - Verticale (Verticale)
Mes.Avg _Channel C9 - Verticale (Verticale)
Mes.Peak _Channel C9 - Verticale (Verticale)

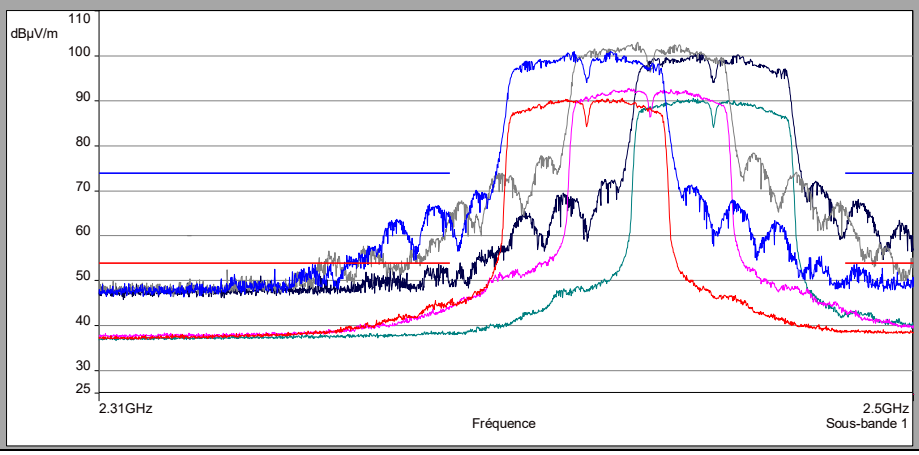
Description Sous-bande 2
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp : On: 10 dB, LN P
Polarisation:Verticale
Distance: 3 m



Horizontal polarization

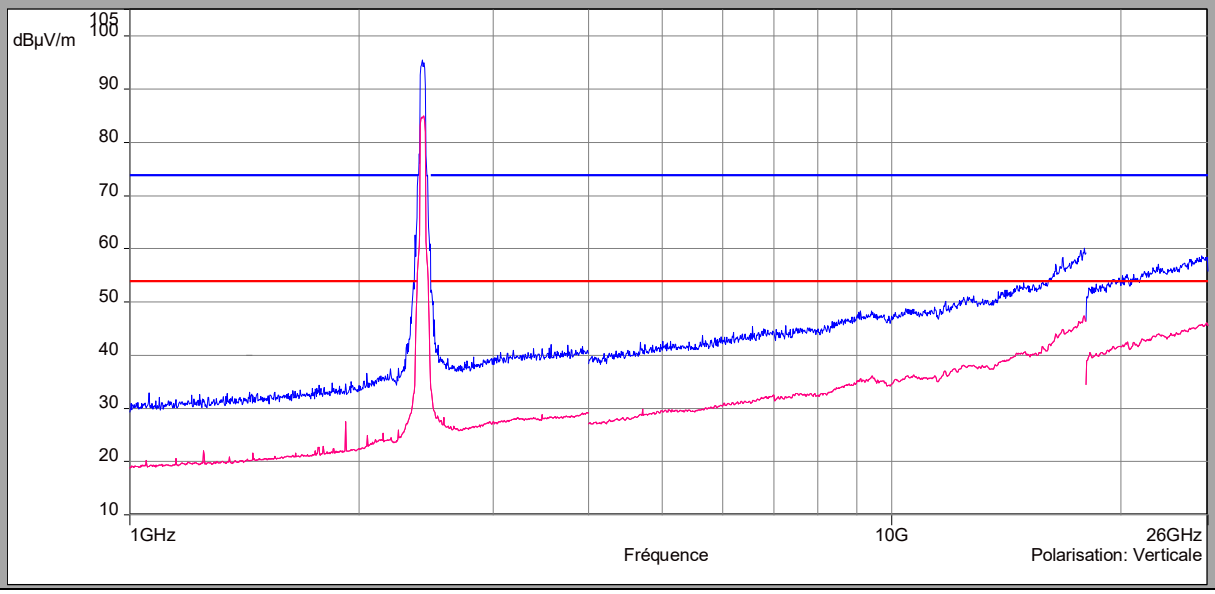
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg _Channel C3 - Horizontale (Horizontale)
Mes.Peak _Channel C3 - Horizontale (Horizontale)
Mes.Avg _Channel C6 - Horizontale (Horizontale)
Mes.Peak _Channel C6 - Horizontale (Horizontale)
Mes.Avg _Channel C9 - Horizontale (Horizontale)
Mes.Peak _Channel C9 - Horizontale (Horizontale)

Description Sous-bande 1
Fréquences:2.31 GHz - 2.5 GHz (Mode analyseur) 32001 Points
Réglages: RBW: 1MHz, VBW: 3MHz, Durée balayage : 20 ms/MHz, Atténuation : 0 dB, Nombre de Balayages : 1, Preamp : On: 10 dB, LN P
Polarisation:Horizontale
Distance: 3 m



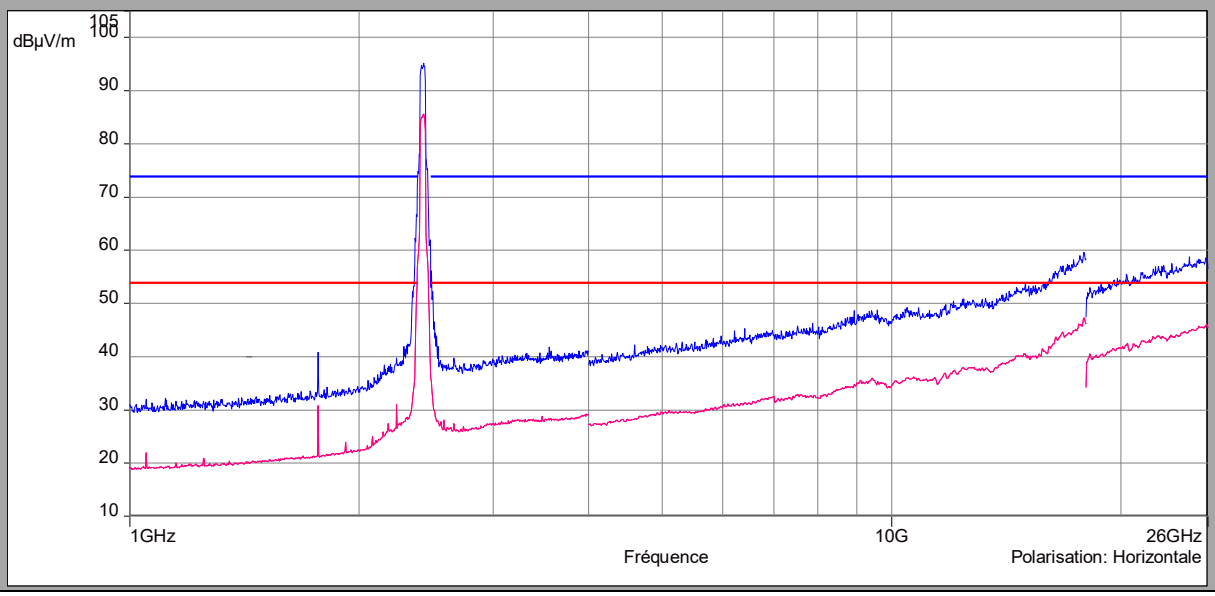
802.11n HT40
Cmin
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



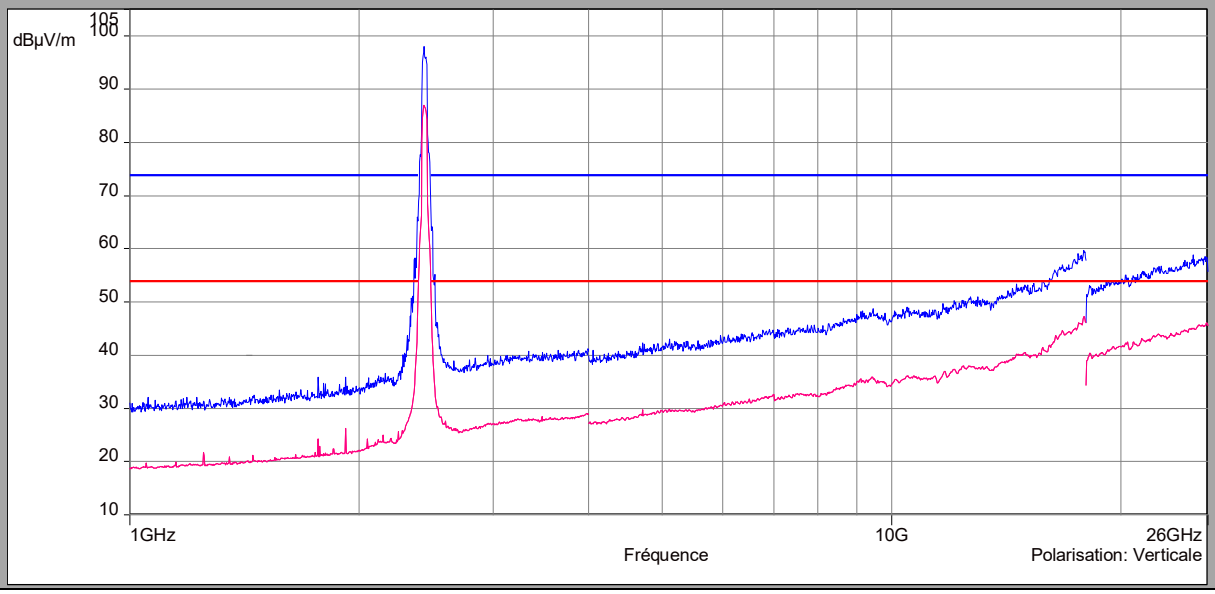
Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



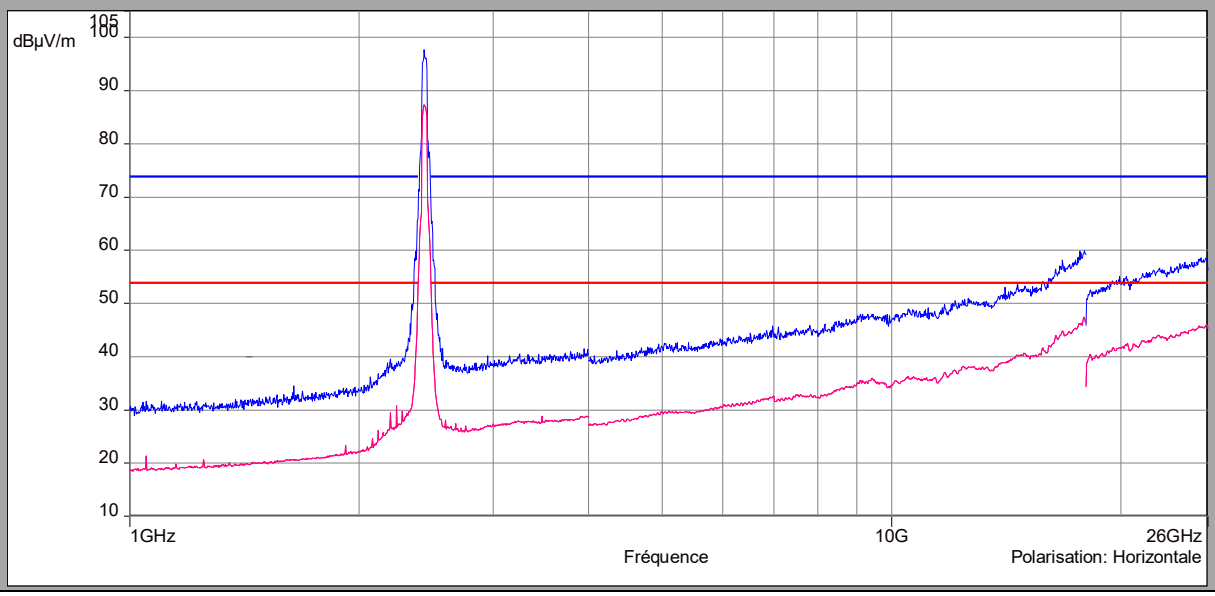
802.11n HT40
Cnom
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



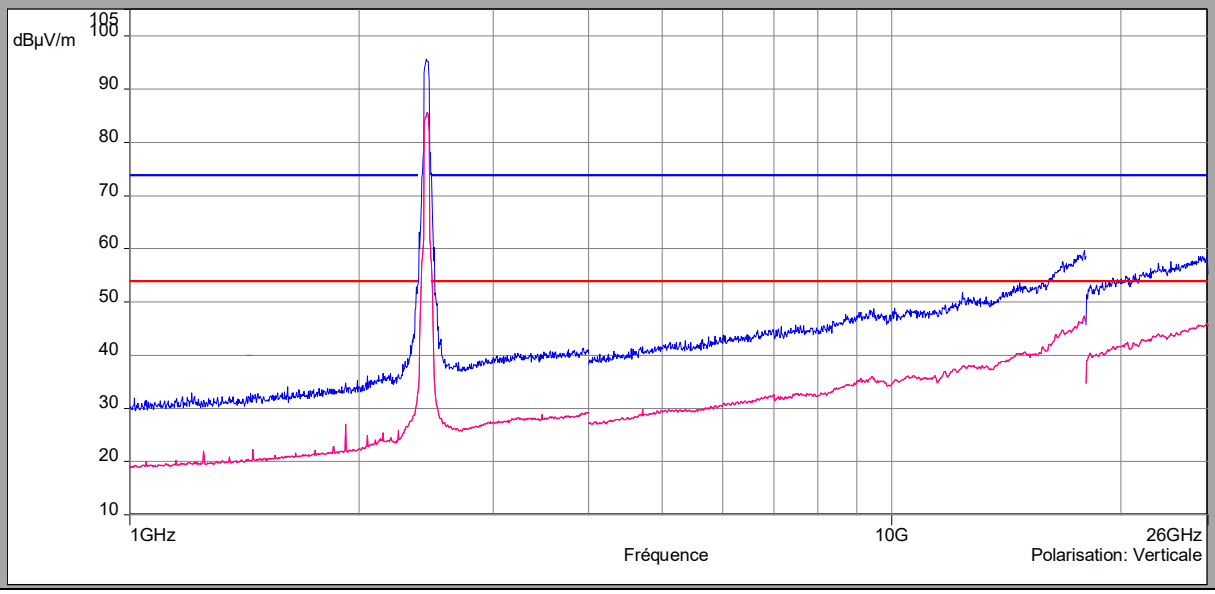
Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



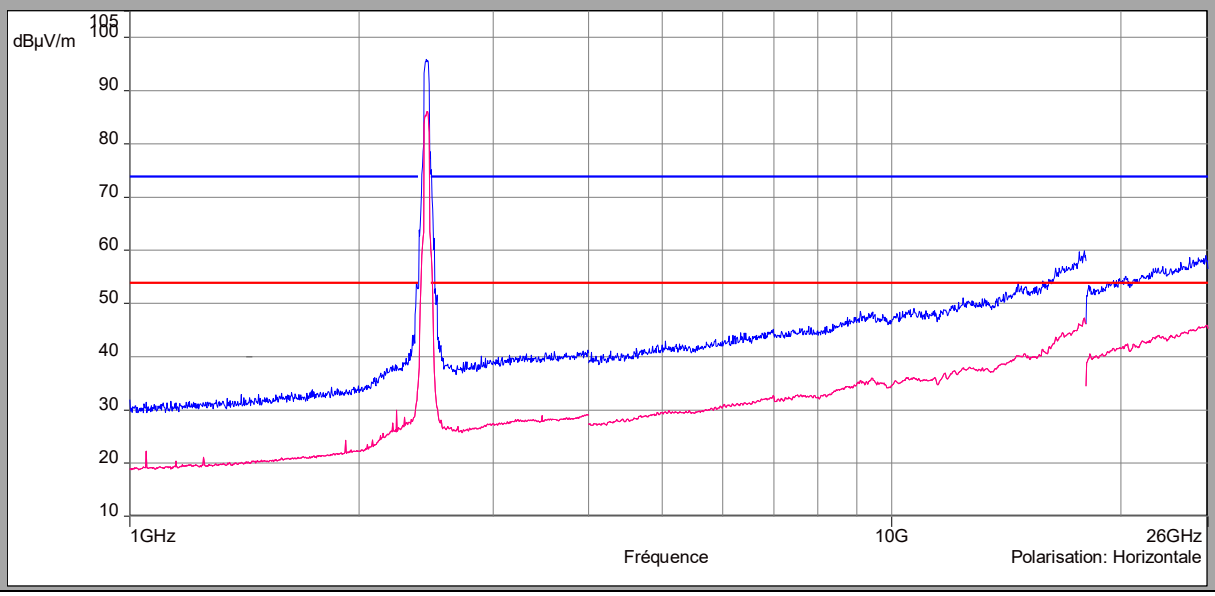
802.11n HT40
Cmax
Above 1GHz
Vertical Polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Verticale)
Mes.Avg (Verticale)



Horizontal polarization

FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 2400MHz-2483MHz Band - Classe:1 - Crête/3.0m/
Mes.Peak (Horizontale)
Mes.Avg (Horizontale)



9kHz to 30MHz				
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**
all emissions were greater than 20 dB below the limit				

Below 1GHz					
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dBµV/m)**
Vertical	*30.6*	-	21.95	29.5	7.55
Vertical	*32.6*	-	20.01	29.5	9.49
Vertical	*34.6*	-	20.62	29.5	8.88
Vertical	125	-	22.03	33	10.97
Vertical	250	-	25.29	35.5	10.21
Vertical	350	-	24.25	35.5	11.25
Vertical	500	-	24.57	35.5	10.93
Vertical	550	-	26.49	35.5	9.01
Horizontal	133.3	-	22.17	33	10.83
Horizontal	300	-	24.46	35.5	11.04
Horizontal	450	-	22.78	35.5	12.72

802.11b								
Above 1GHz								
Cmin/Cnom/Cmax								
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Level + Duty Cycle Factor (dBµV/m)**	**Average Limit (dBµV/m)**	**Average Margin Level (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Limit (dBµV/m)**	**Peak Margin Level (dBµV/m)**
Horizontale	2390	40.31	40.3136	54	13.6864	49.06	74	24.94
Verticale	2390	38.49	38.4936	54	15.5064	47.56	74	26.44
Horizontale	2483.5	39.74	39.7436	54	14.2564	48.83	74	25.17
Verticale	2483.5	39.26	39.2636	54	14.7364	50.46	74	23.54

802.11g								
Above 1GHz								
Cmin/Cnom/Cmax								
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Level + Duty Cycle Factor (dBµV/m)**	**Average Limit (dBµV/m)**	**Average Margin Level (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Limit (dBµV/m)**	**Peak Margin Level (dBµV/m)**
Horizontale	2390	44.25	44.2577	54	9.7423	57.68	74	16.32
Verticale	2390	42.85	42.8577	54	11.1423	55.15	74	18.85
Horizontale	2483.5	41.94	41.9477	54	12.0523	57.14	74	16.86
Verticale	2483.5	40.88	40.8877	54	13.1123	58.41	74	15.59
Verticale	2815	31.47	31.4777	54	22.5223	42.06	74	31.94
Verticale	6274	35.98	35.9877	54	18.0123	45.20	74	28.8

802.11n HT20								
Above 1GHz								
Cmin/Cnom/Cmax								
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Level + Duty Cycle Factor (dBµV/m)**	**Average Limit (dBµV/m)**	**Average Margin Level (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Limit (dBµV/m)**	**Peak Margin Level (dBµV/m)**
Horizontale	2390	44.03	44.0319	54	9.9681	57.27	74	16.73
Verticale	2390	42.62	42.6219	54	11.3781	55.69	74	18.31
Horizontale	2483.5	42.32	42.3219	54	11.6781	59.33	74	14.67
Verticale	2483.5	43.78	43.7819	54	10.2181	58.06	74	15.94

802.11n HT40								
Above 1GHz								
Cmin/Cnom/Cmax								
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Level + Duty Cycle Factor (dBµV/m)**	**Average Limit (dBµV/m)**	**Average Margin Level (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Limit (dBµV/m)**	**Peak Margin Level (dBµV/m)**
Horizontale	1766	30.84	30.879	54	23.121	40.86	74	33.14
Horizontale	2390	43.39	43.429	54	10.571	57.25	74	16.75
Verticale	2390	45.67	45.709	54	8.291	64.97	74	9.03
Horizontale	2483.5	42.35	42.389	54	11.611	60.85	74	13.15
Verticale	2483.5	45.29	45.329	54	8.671	61.02	74	12.98

11.7. CONCLUSION

Unwanted emissions measurement performed on the sample of the product **Technicolor** UIW4059MIL, SN: **LAB3-V0 nr.030**, 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	/
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC C01	4,48	/
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	/
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	/

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