

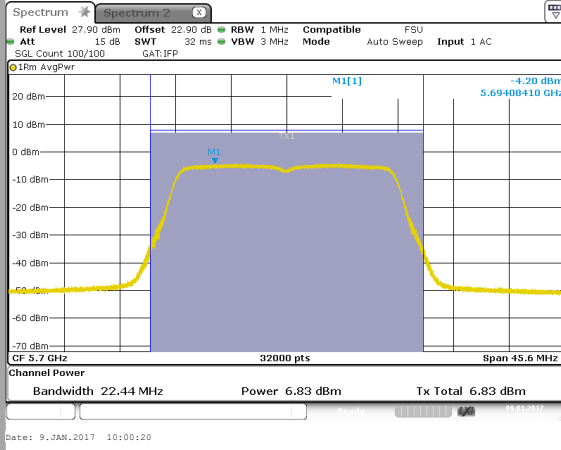


L C I E

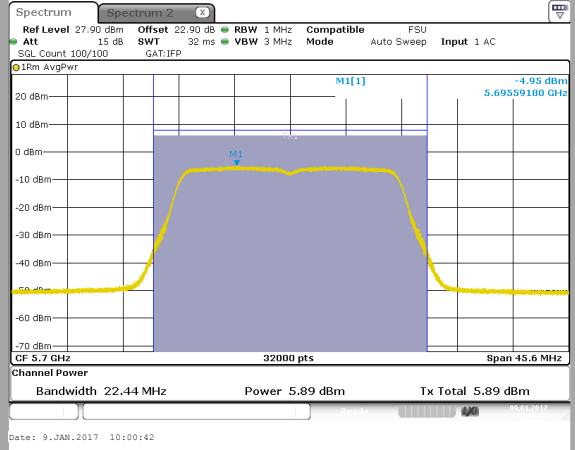
802.11n HT20/ac VHT20

C9

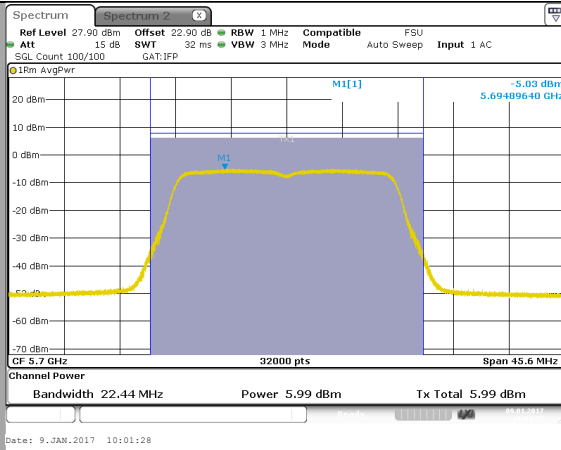
Tx1



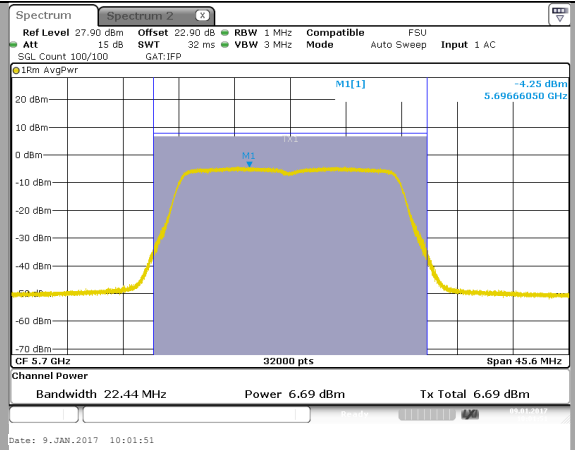
Tx2



Tx3



Tx4



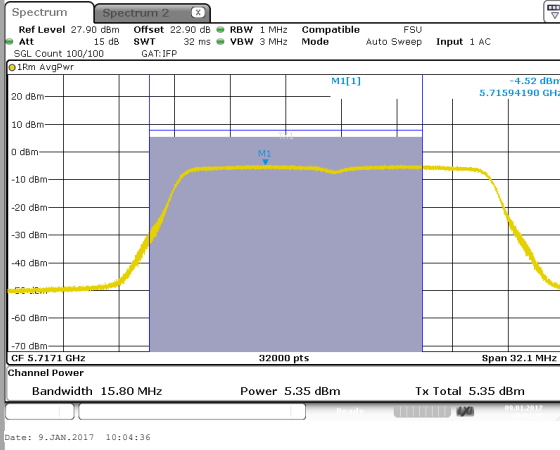


L C I E

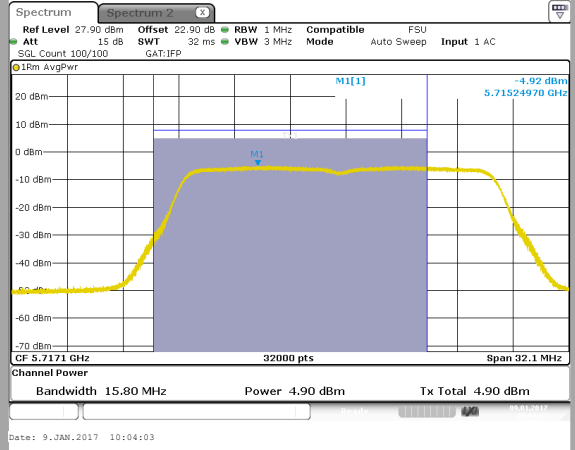
802.11n HT20/ac VHT20

C10 Straddle 5470MHz-5725MHz

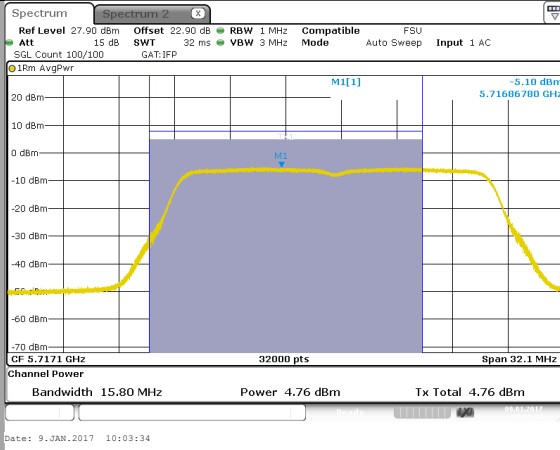
Tx1



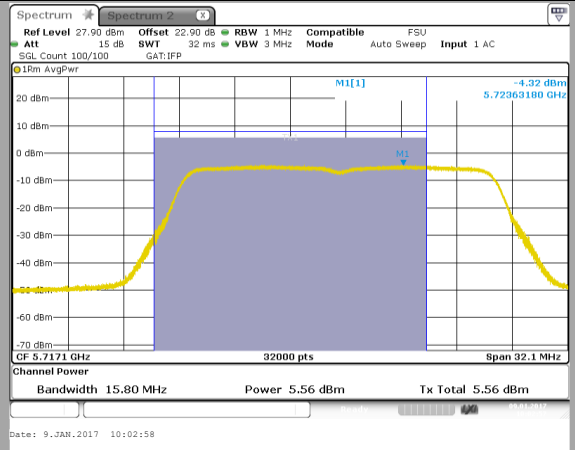
Tx2



Tx3



Tx4



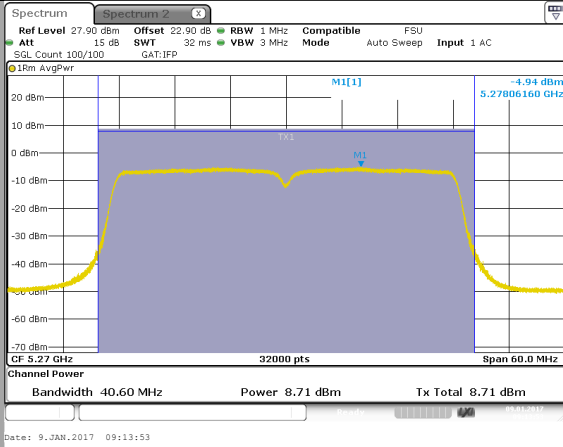


L C I E

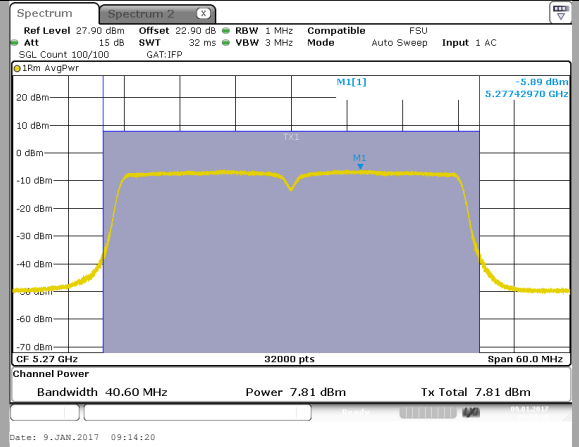
802.11n HT40/ac VHT40

C16

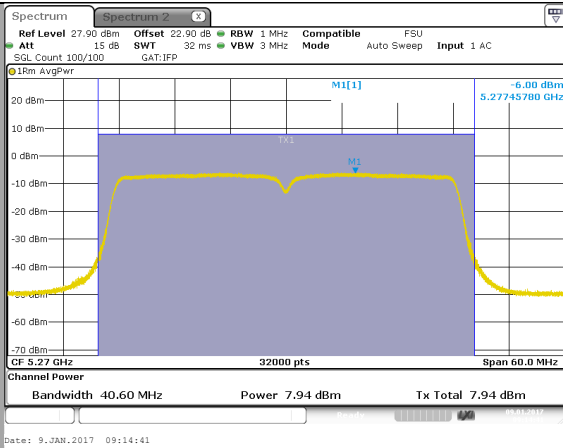
Tx1



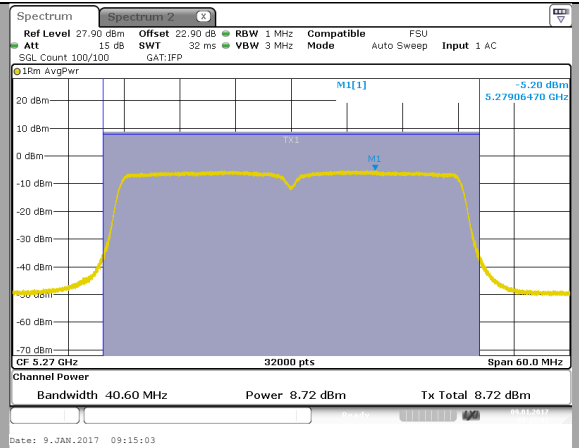
Tx2



Tx3



Tx4



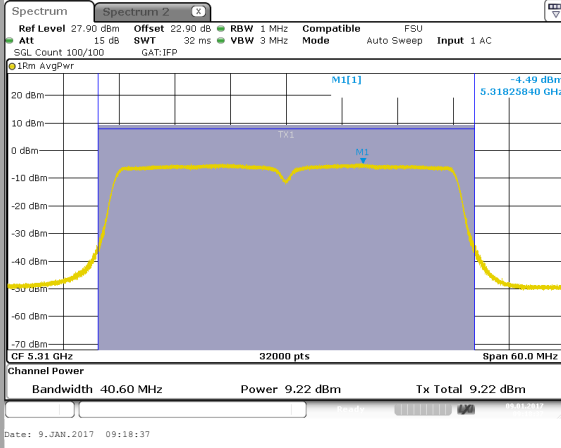


L C I E

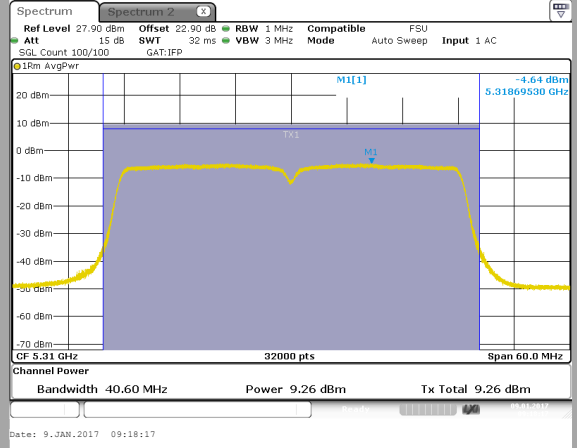
802.11n HT40/ac VHT40

C17

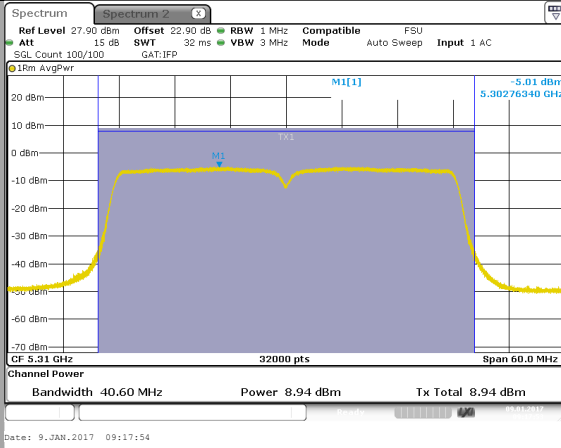
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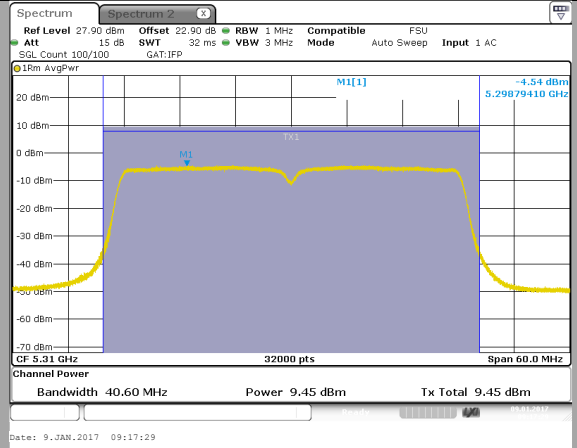
Tx2



Tx3



Tx4



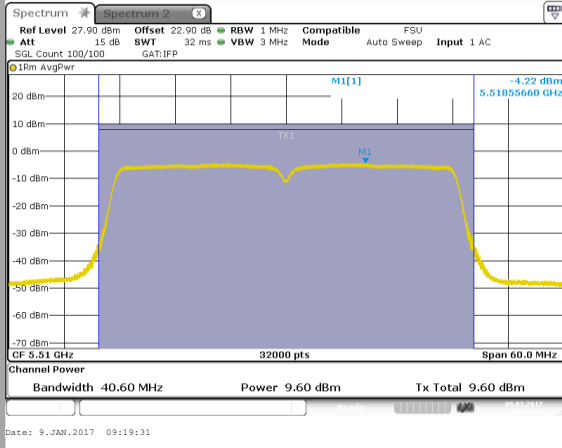


L C I E

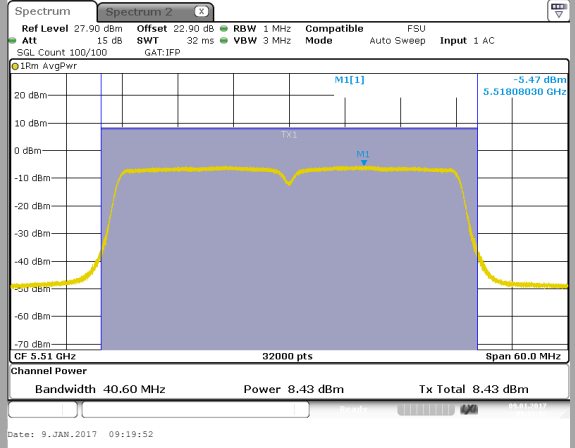
802.11n HT40/ac VHT40

C18

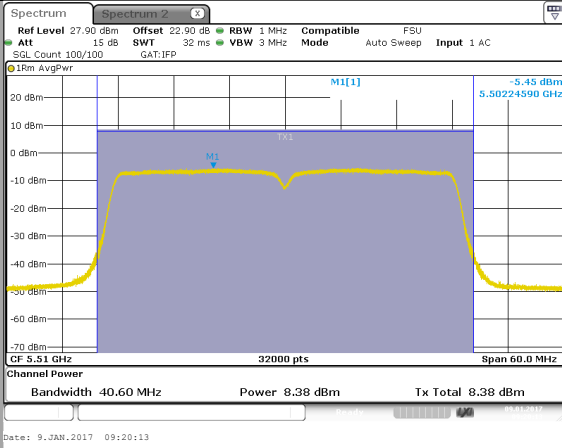
Tx1



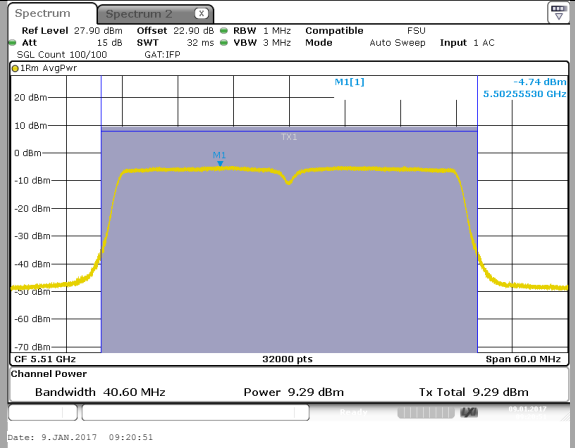
Tx2



Tx3



Tx4



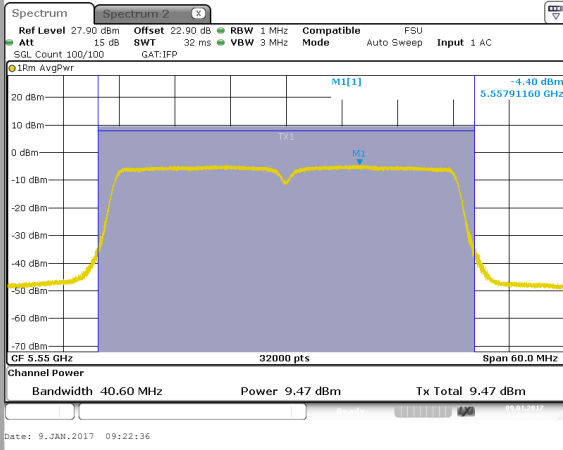


L C I E

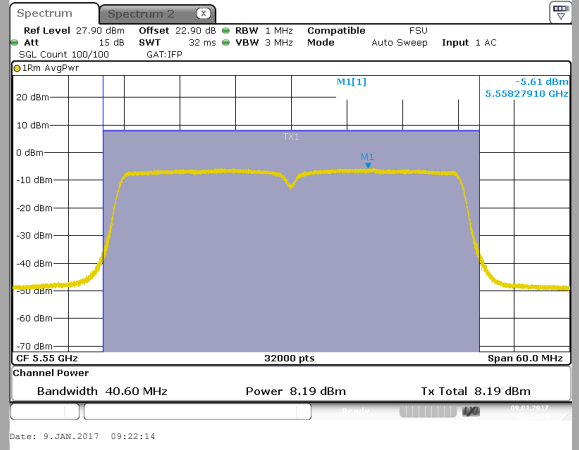
802.11n HT40/ac VHT40

C19

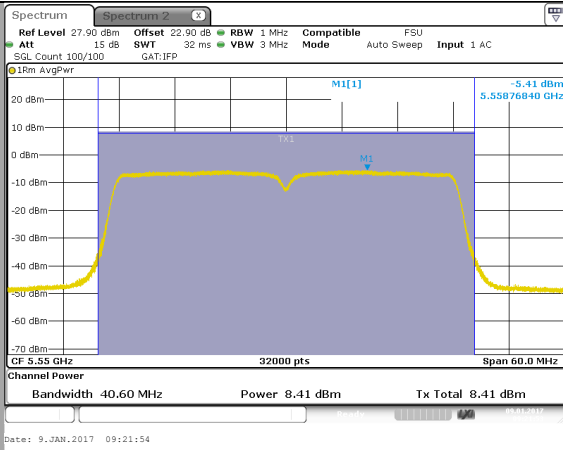
Tx1



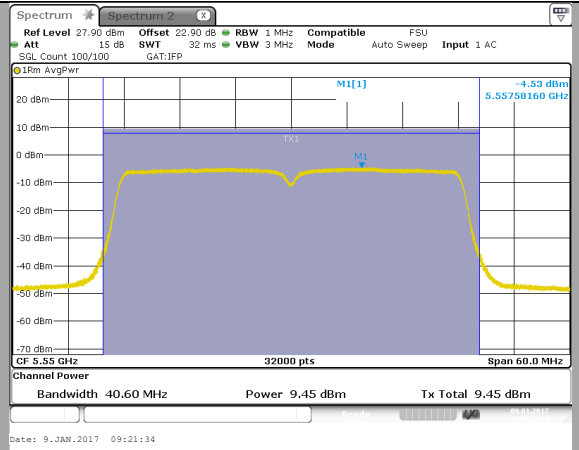
Tx2



Tx3



Tx4



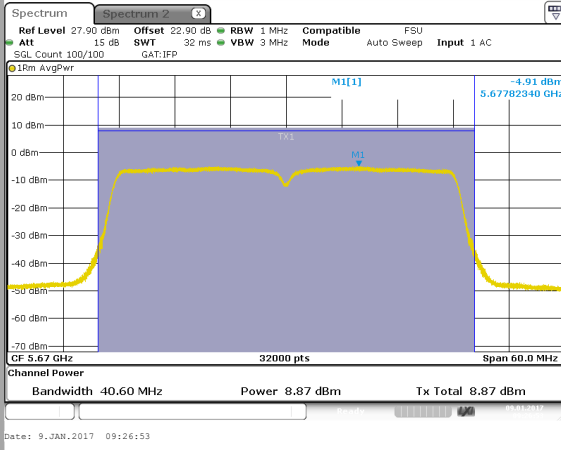


L C I E

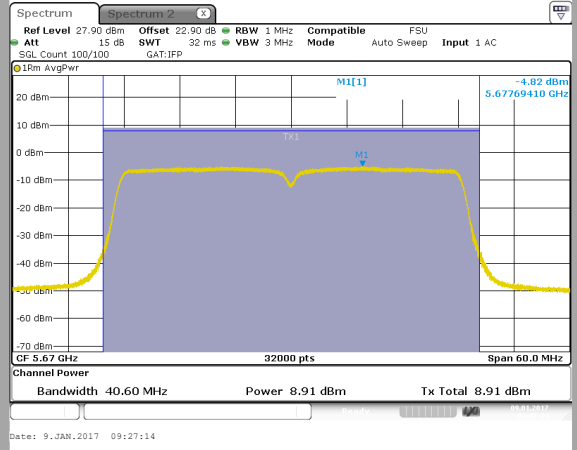
802.11n HT40/ac VHT40

C20

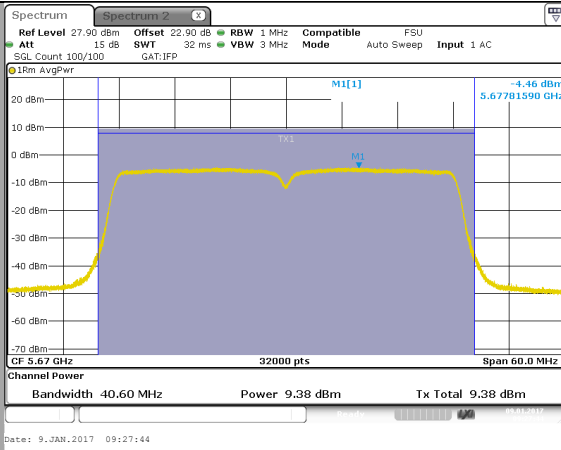
Tx1



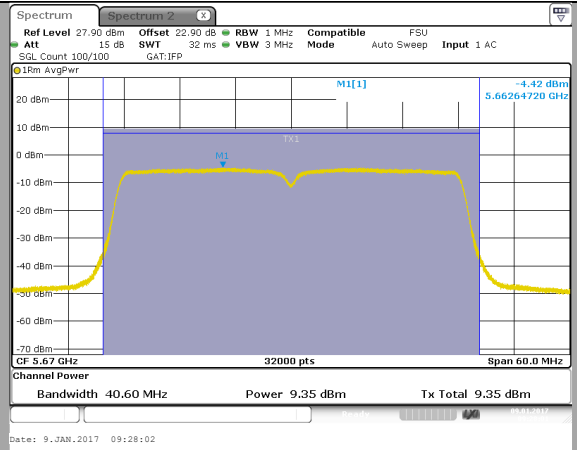
Tx2



Tx3



Tx4



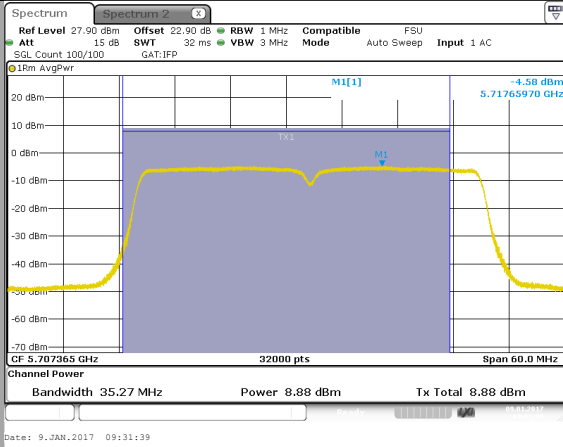


L C I E

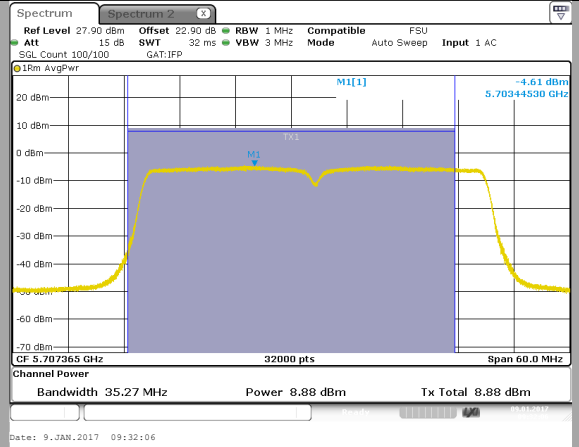
802.11n HT40/ac VHT40

C21 Straddle 5470MHz-5725MHz

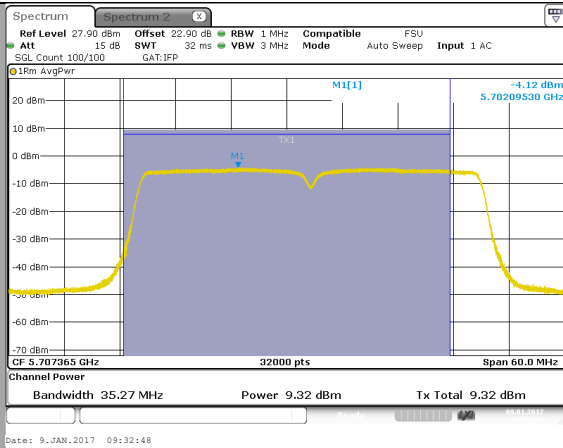
Tx1



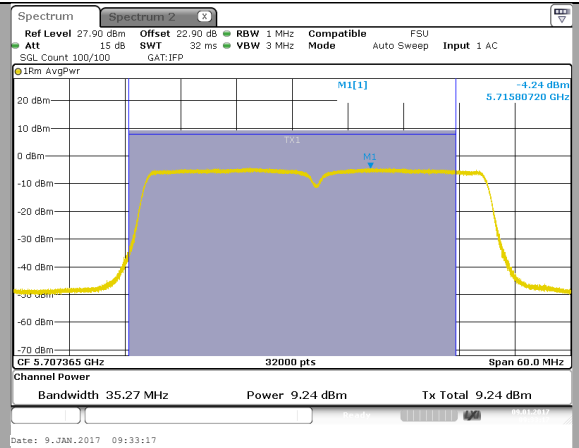
Tx2



Tx3



Tx4



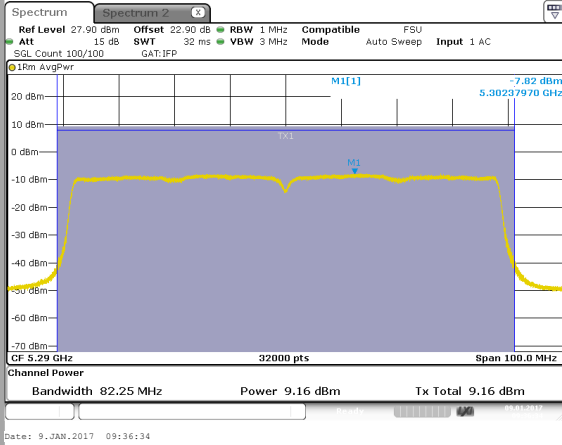


L C I E

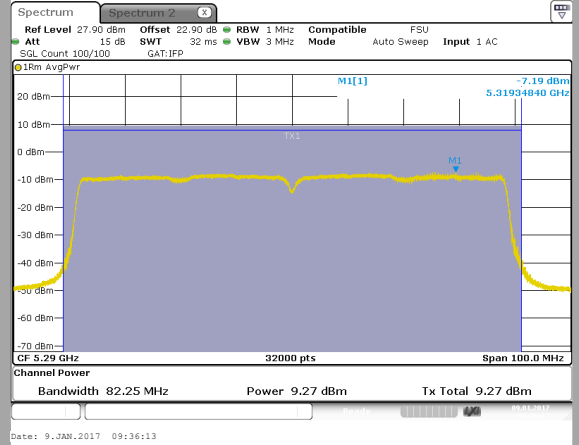
802.11ac VHT80

C25

Tx1



Tx2



Tx3



Tx4





L C I E

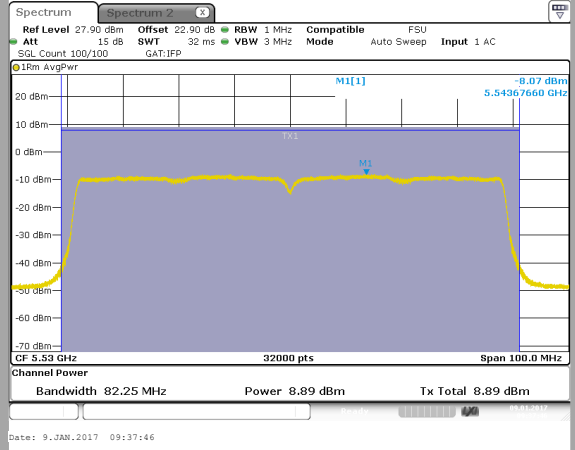
802.11ac VHT80

C26

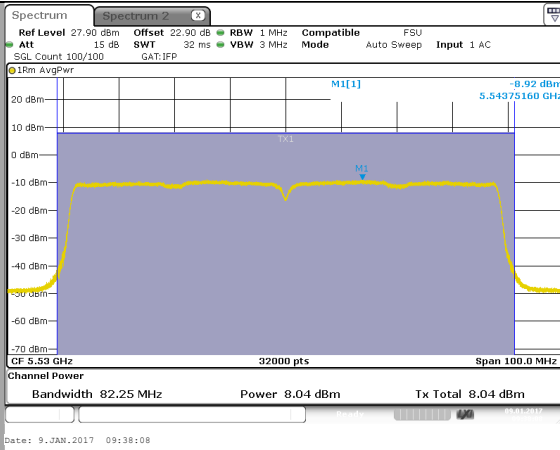
Tx1



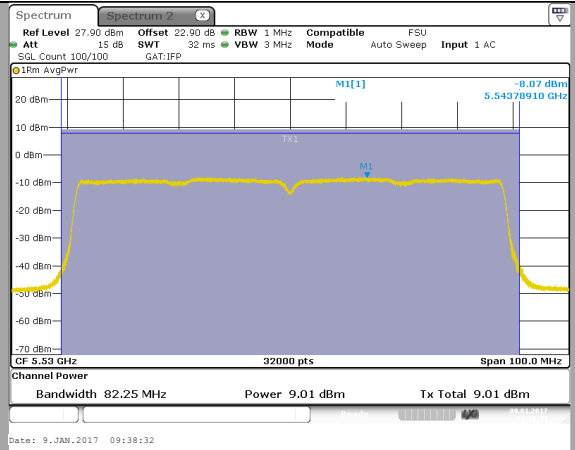
Tx2



Tx3



Tx4



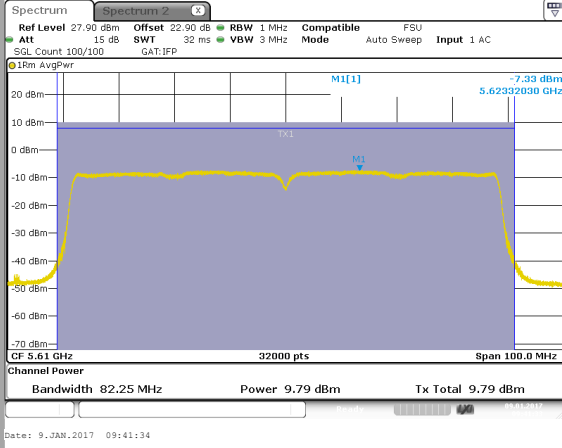


L C I E

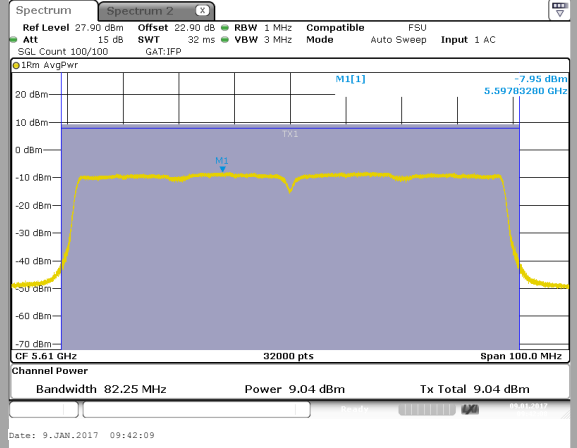
802.11ac VHT80

C27

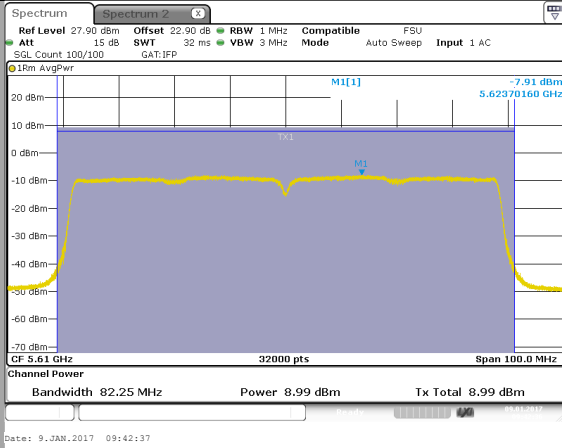
Tx1



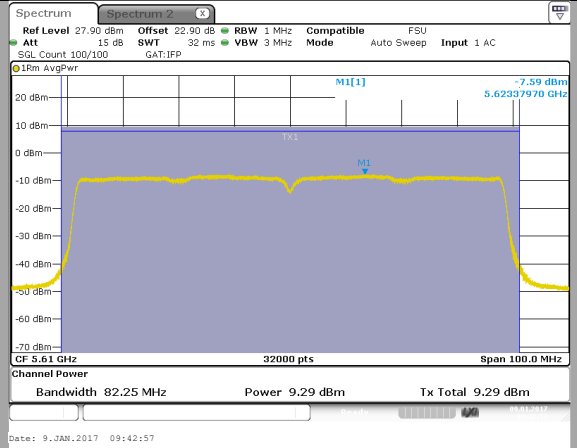
Tx2



Tx3



Tx4



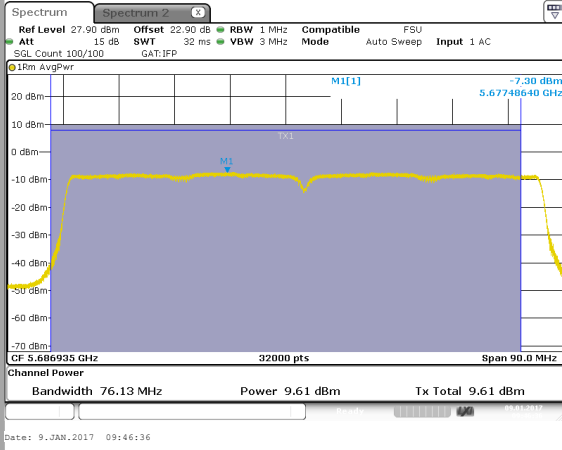


L C I E

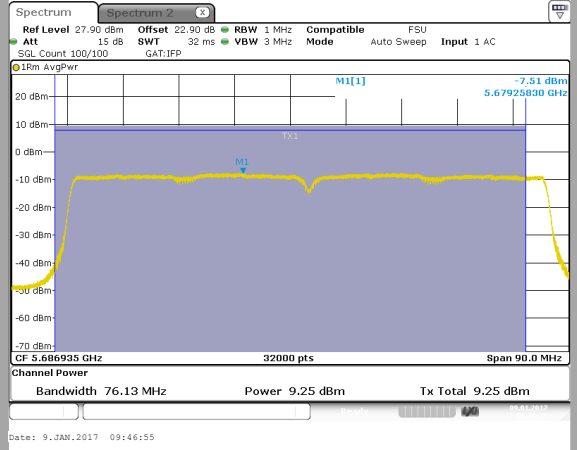
802.11ac VHT80

C28 Straddle 5470MHz-5725MHz

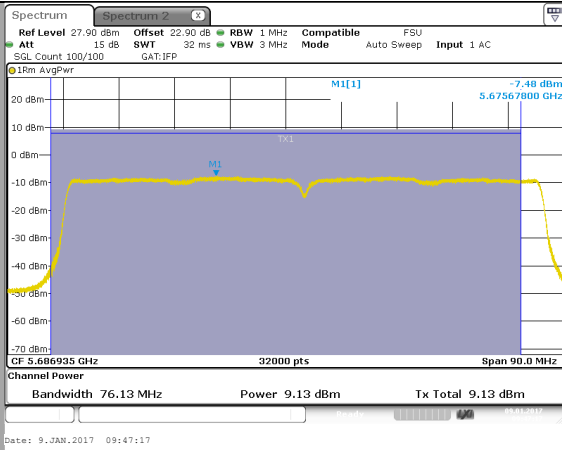
Tx1



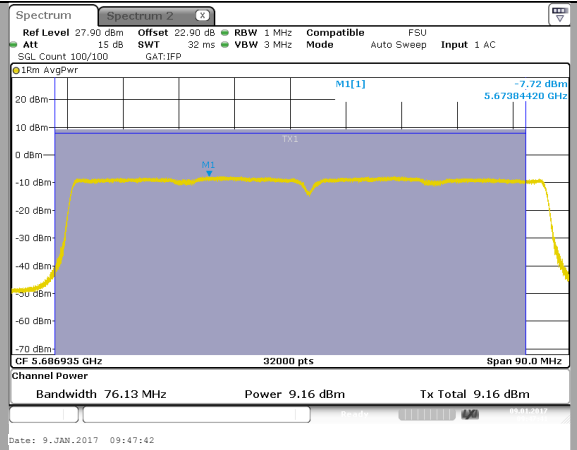
Tx2



Tx3



Tx4



802.11a

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C4	5,9	5,9	5,49	6,63	12,0	8,7	20,7	24
C5	5,97	5,35	4,98	6,39	11,7	8,7	20,4	24
C6	5,23	5,06	4,93	6,52	11,5	8,7	20,2	24
C7	5,5	5,46	5,32	6,13	11,6	8,7	20,3	24
C8	4,53	4,75	5,02	5,95	11,1	8,7	19,8	24
C9	5,44	5,6	5,58	6,85	11,9	8,7	20,6	24
C10 Straddle 5470MHz-5725MHz	5,39	4,55	4,51	5,85	11,1	8,7	19,8	24

802.11n HT20/ac VHT20

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C4	6,51	6,88	6,55	7	12,8	8,7	21,4	24
C5	6,71	6,38	6,48	7,23	12,7	8,7	21,4	24
C6	6,61	6,42	6	7,15	12,6	8,7	21,2	24
C7	6,31	6,01	5,97	6,49	12,2	8,7	20,9	24
C8	6,39	6,22	6,14	6,72	12,4	8,7	21,0	24
C9	6,83	5,89	5,99	6,69	12,4	8,7	21,0	24
C10 Straddle 5470MHz-5725MHz	5,35	4,9	4,76	5,56	11,2	8,7	19,8	24

802.11n HT40/ac VHT40

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C16	8,71	7,81	7,94	8,72	14,3	8,7	23,0	24
C17	9,22	9,26	8,94	9,45	15,2	8,7	23,9	24
C18	9,6	8,43	8,38	9,29	15,0	8,7	23,6	24
C19	9,47	8,19	8,41	9,45	14,9	8,7	23,6	24
C20	8,87	8,91	9,38	9,35	15,2	8,7	23,8	24
C21 Straddle 5470MHz-5725MHz	8,88	8,88	9,32	9,24	15,1	8,7	23,8	24



802.11ac VHT80

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C25	9,16	9,27	8,79	9,7	15,3	8,7	23,9	24
C26	9,28	8,89	8,04	9,01	14,8	8,7	23,5	24
C27	9,79	9,04	8,99	9,29	15,3	8,7	23,96	24
C28 Straddle 5470MHz-5725MHz	9,61	9,25	9,13	9,16	15,3	8,7	23,96	24

9.6. CONCLUSION

Transmit Power Control measurement performed on the sample of the product **SAGEMCOM MiniBox (253697290)**, SN: **616476080862**, in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407** limits.

10. AC POWER LINE CONDUCTED EMISSIONS

10.1. TEST CONDITIONS

Test performed by : Laurent DENEUX
Date of test : December 5, 2016
Ambient temperature : 21°C
Relative humidity : 48%

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 / 50μH. Interconnecting cables and equipment's were moved to position that maximized emission.



Photograph for AC Power Line Conducted Emissions (Front view)



L C I E



Photograph for AC Power Line Conducted Emissions (Rear view)

10.3. LIMIT

Quasi-Peak

0,15kHz to 0,5MHz: 66dB μ V to 56dB μ V*

0,5MHz to 5MHz: 56dB μ V

5MHz to 30MHz: 60dB μ V

Average

0,15kHz to 0,5MHz: 56dB μ V to 46dB μ V*

0,5MHz to 5MHz: 46dB μ V

5MHz to 30MHz: 50dB μ V

*Decreases with the logarithm of the frequency

10.4. TEST EQUIPMENT LIST

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	ROHDE & SCHWARZ	ESIB26	A2642021	2015-12	2016-12
V ISLN	ROHDE & SCHWARZ	ESH2-Z5	C2322001	2016-05	2017-05
Pulse limiter	ROHDE & SCHWARZ	ESH3-Z2	A2649008	2016-03	2017-03
Cable	-	-	A5329417	2016-10	2017-10
Cable	-	-	A5329589	2016-10	2017-10
Ground plane	LCIE	-	-	-	-

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

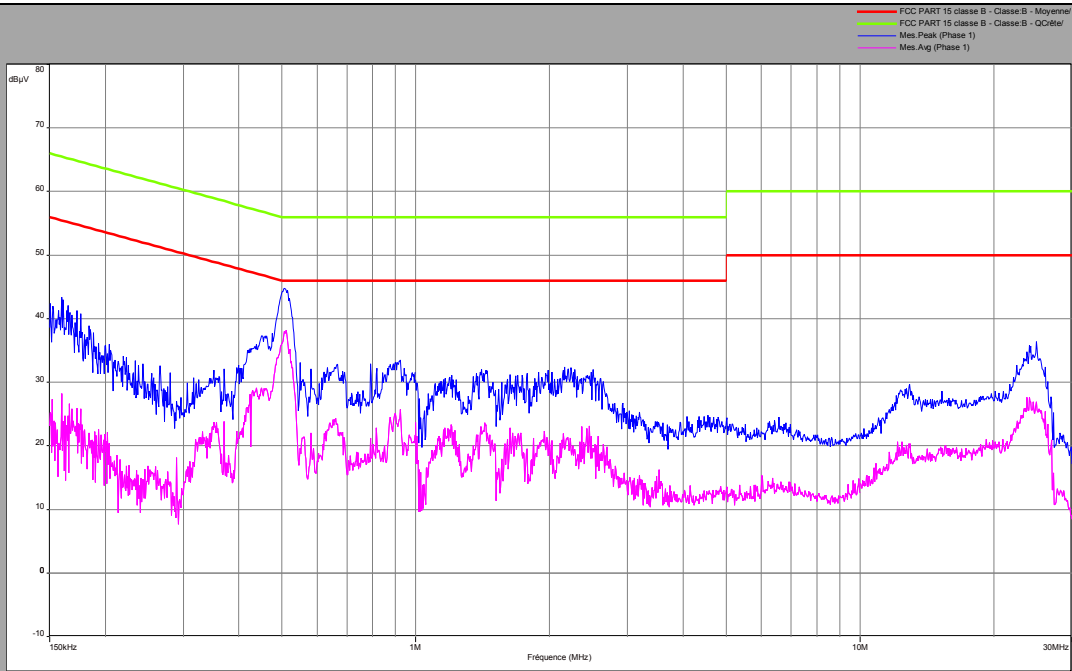
None Divergence:



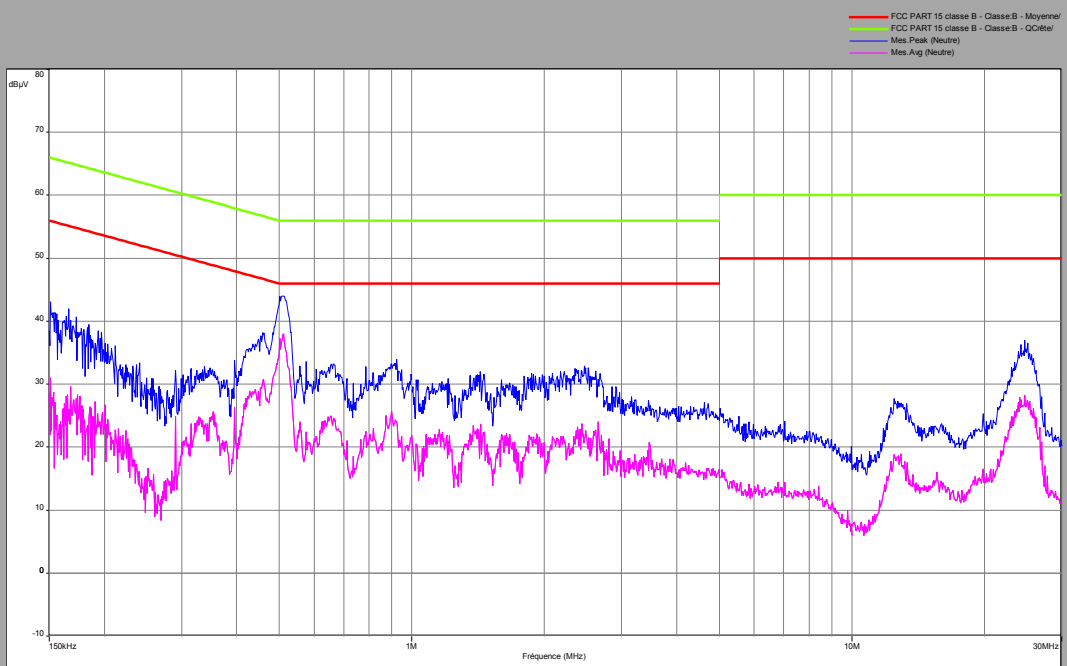
L C I E

10.6. RESULTS

802.11a
Channel
Phase



Line





Phase Line					
Frequency (MHz)	Peak Level (dBμV)	Quasi-Peak Level (dBμV)	Quasi-Peak Limit (dBμV)	Average Level (dBμV)	Average Limit (dBμV)
0.160	43.4	-	65.5	28.2	55.5
0.505	44.6	-	60	38.2	50
2.456	31	-	56	23.2	46
12.93	29.7	-	60	19.7	50
25	36.4	-	60	26.7	50

Neutral Line					
Frequency (MHz)	Peak Level (dBμV)	Quasi-Peak Level (dBμV)	Quasi-Peak Limit (dBμV)	Average Level (dBμV)	Average Limit (dBμV)
0.166	42	-	65.2	29.6	55.2
0.510	44	-	56	38	46
2.652	31	-	56	24	46
12.486	26.8	-	60	18.8	50
24.696	37	-	60	27.4	50

10.7. CONCLUSION

Ac Power Line Conducted Emission measurement performed on the sample of the product **SAGEMCOM MiniBox (253697290)**, SN: **616476080862**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 limits.

11. UNWANTED EMISSIONS & UNDESIRABLE EMISSION

11.1. TEST CONDITIONS

Test performed by : Laurent DENEUX
Date of test : December 5, 2016 to January 22, 2016
Ambient temperature : 18 °C
Relative humidity : 40 %

11.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013). The EUT is placed **on an open area test site**. Distance between measuring antenna and the EUT is **10m**. Test is performed in horizontal (H) and vertical (V) polarization with **bilog** antenna below 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 product has been tested according to the FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02. The following factor is applied to convert E[dBμV/m] to EIRP[dBm]. $EIRP[dBm] = E[dB\mu V/m] + 20 \log(d[meters]) - 104.77$



Photograph for Unwanted Emissions & Undesirable Emission limits



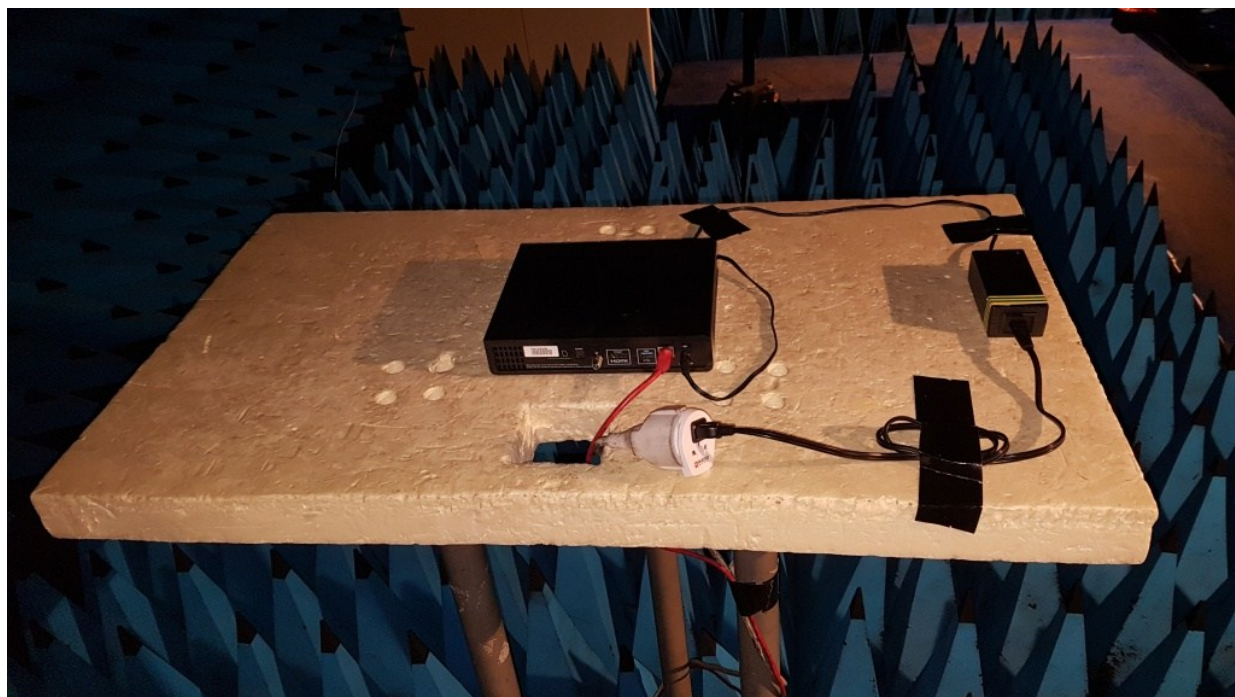
L C I E



Photograph for Unwanted Emissions & Undesirable Emission limits



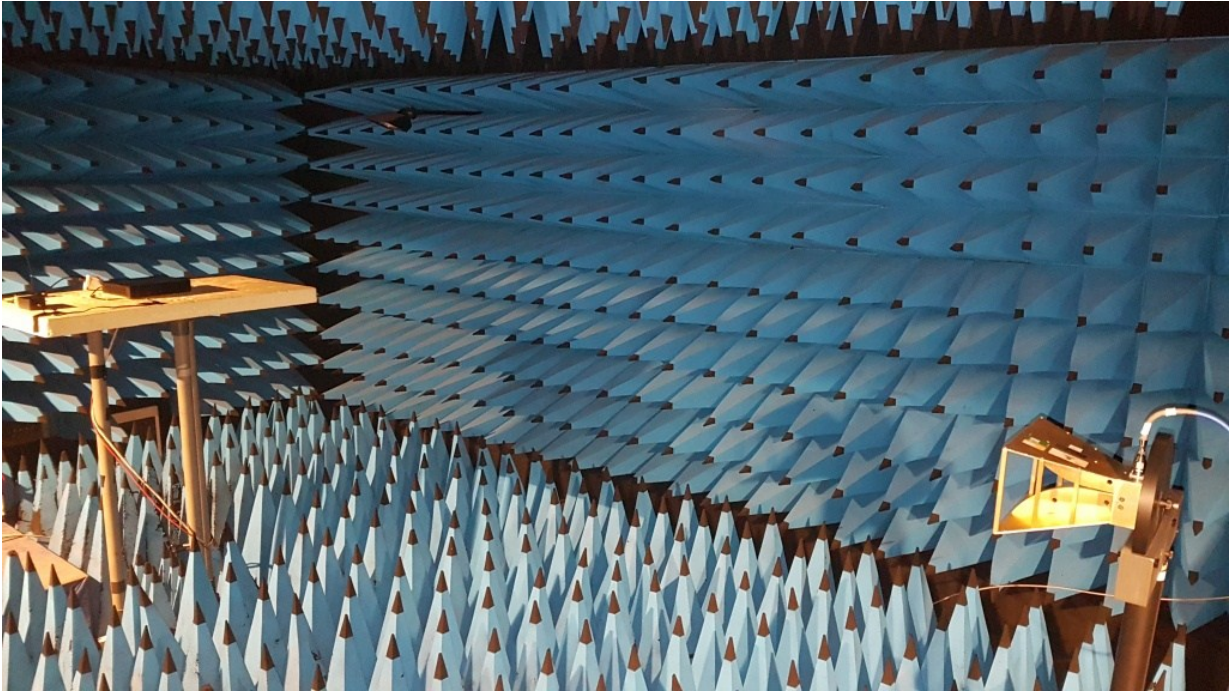
Photograph for Unwanted Emissions & Undesirable Emission limits



Photograph for Unwanted Emissions



L C I E



Photograph for Unwanted Emissions

11.3. LIMIT

Limit at 3m:

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

Limit at 10m:

30MHz to 88MHz:	29.5dB μ V/m QPeak
88MHz to 216MHz:	33dB μ V/m QPeak
216MHz to 960MHz:	35.5dB μ V/m QPeak
960MHz to 1000MHz:	43.5dB μ V/m QPeak
Above 1000MHz:	63.5B μ V/m Peak 43.5B μ V/m Average

Limit (dBm):

5150MHz-5250MHz:	Shall not exceed EIRP of -27dBm/MHz outside of the band
5250MHz-5350MHz:	Shall not exceed EIRP of -27dBm/MHz outside of the band
5470MHz-5725MHz:	Shall not exceed EIRP of -27dBm/MHz outside of the band

FCC 15.407

5725MHz-5850MHz: Shall not exceed EIRP of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of EIRP of 27 dBm/MHz at the band edge.



LCIE

11.4. TEST EQUIPMENT LIST

Apparatus	Trade Mark	Type	Registration number	Cal. Date	Cal. Due
Open test site	LCIE	-	F2000400	2016-05	2017-05
EMI Test Receiver	ROHDE & SCHWARZ	ESIB26	A2642021	2015-12	2016-12
Preamplifier	HELWETT PACKARD	8449B	A7080071	2016-01	2017-01
Bilog antenna	CHASE	CBL 6112A	C2040040	2016-01	2017-01
Horn	ETS	3115	C2042023	2016-01	2017-01
Measurement horn antenna 18-26,5GHz	PASTERNAK	PE9852/2F-20	C2042048	2015/05	2017/05
Horn antenna 26,5-40GHz	PASTERNAK	PE9850/2F-20	C2042052	2016/04	2018/04
Cable	-	-	A5329542	2016-03	2017-03
Cable	-	-	A5329449	2016-10	2017-10
Cable	-	-	A5329368	2016-05	2017-05
Cable	-	-	A5329444	2016-10	2017-10
Preamplifier	LCIE; LCIE	LCIE-ALB-001	A7080073	2016/08	2017/08
EMI receiver	ROHDE & SCHWARZ	ESI40 1088 740K40	A2642010	2016/07	2017/07
Measurement RF cable	Télédyn	Cordon 082-5454-1.5mtr	A5329624	2016/08	2018/08
Measurement RF cable	-	082-0404-1MTR	A5329625	2016/08	2018/08
Measurement RF cable	-; Télédyn	082-0454-3MTR	A5329626	2016/08	2018/08
Full anechoic chamber	SIEPEL	-	D3044019	2013/05	2017/05
Horn antenna	AH SYSTEMS	SAS 571	C2042041	2016/04	2017/04
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2016/06	2018/06

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

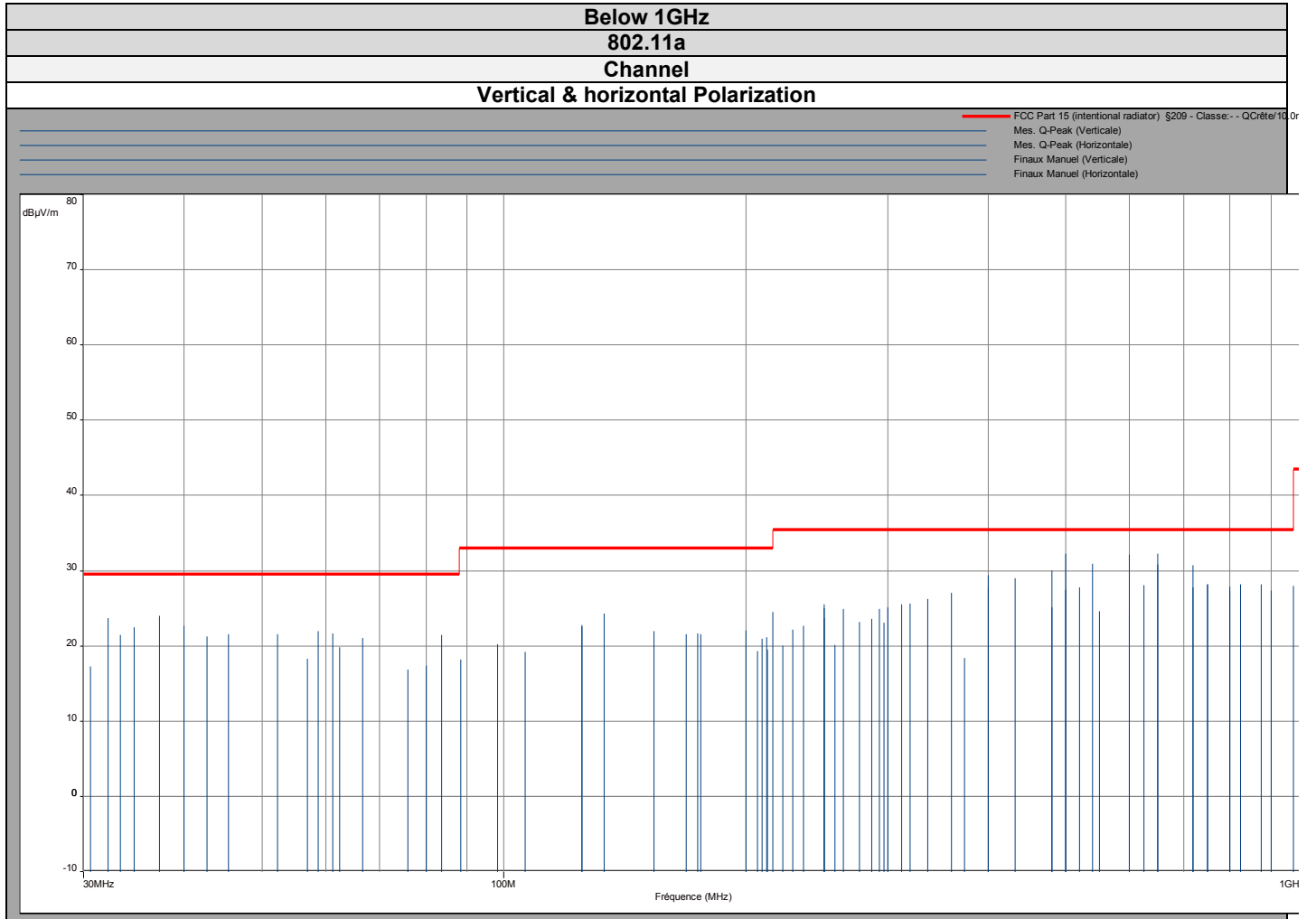
11.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None Divergence:



L C I E

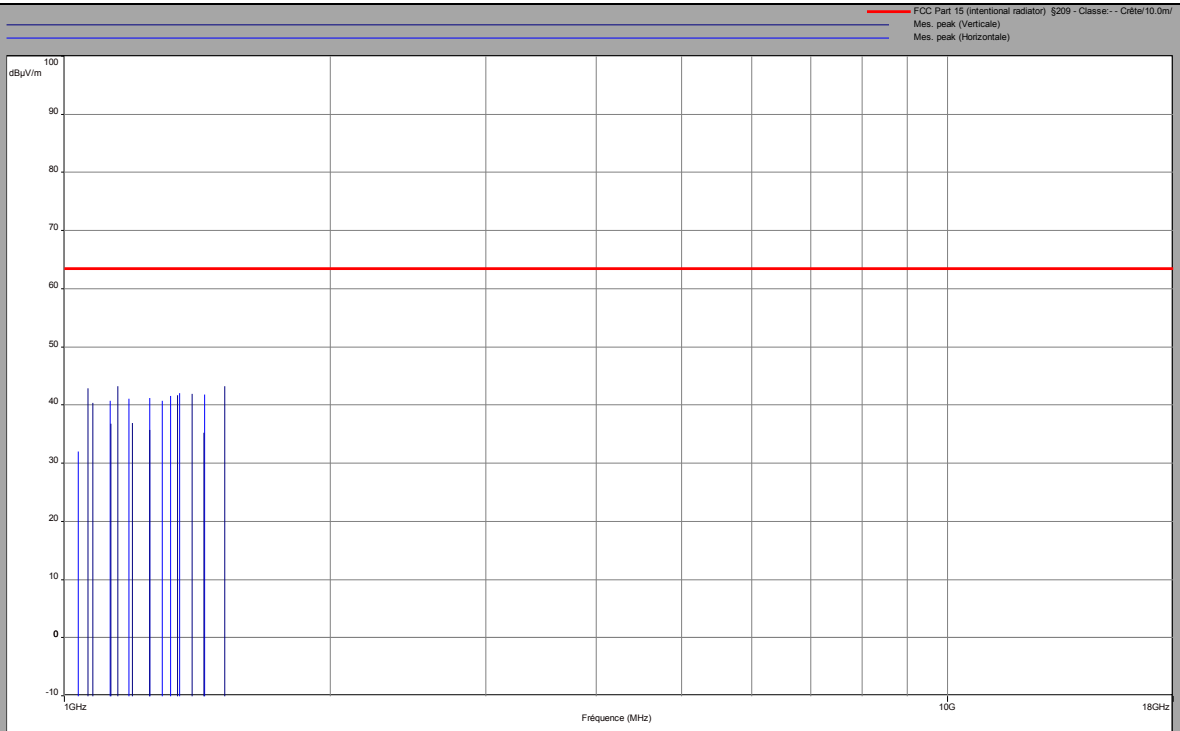
11.6. RESULTS





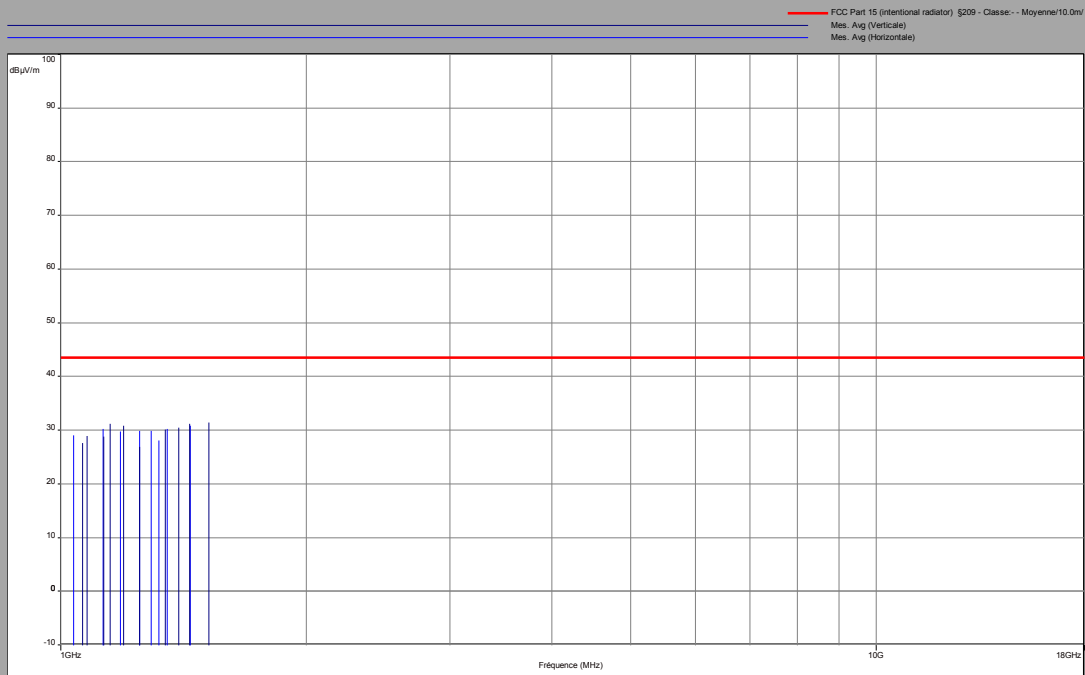
L C I E

Above 1GHz Peak measurement



No interference have been observed between 18GHz to 40GHz

Average measurement



No interference have been observed between 18GHz to 40GHz



L C I E

Above 1GHz

802.11a

C1/C2/C3

Vertical Polarization

Description Sous-bande 2

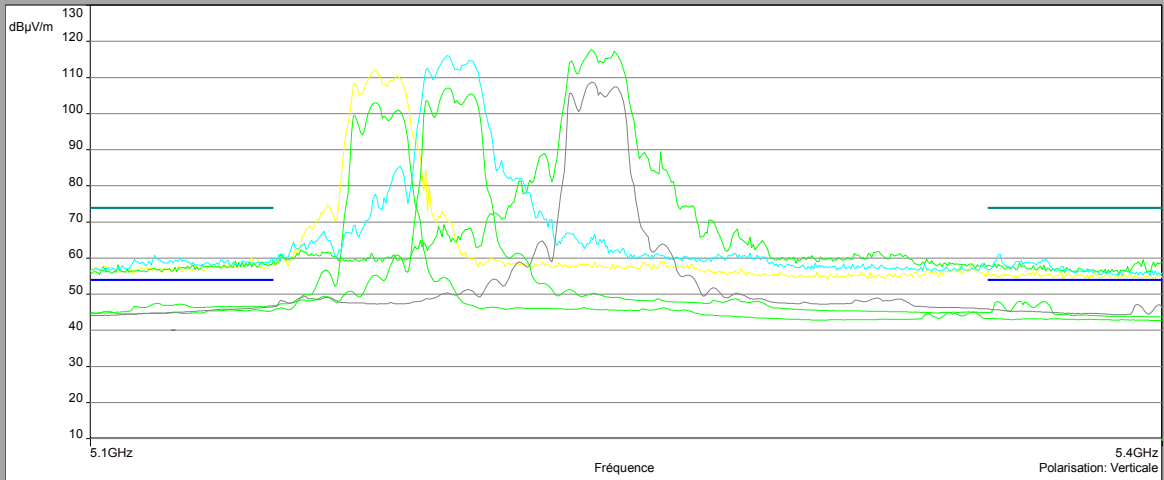
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 199095800, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Baseband: Off

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5150MHz-5250MHz C48 - Mes.Avg (68) (Verticale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes.Peak (67) (Verticale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes.Avg (67) (Verticale)
- BAND EDGE 5150MHz-5250MHz C36 - Mes.Avg (61) (Verticale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes.Peak (68) (Verticale)
- BAND EDGE 5150MHz-5250MHz C36 - Mes.Peak (61) (Verticale)



Horizontal polarization

Description Sous-bande 1

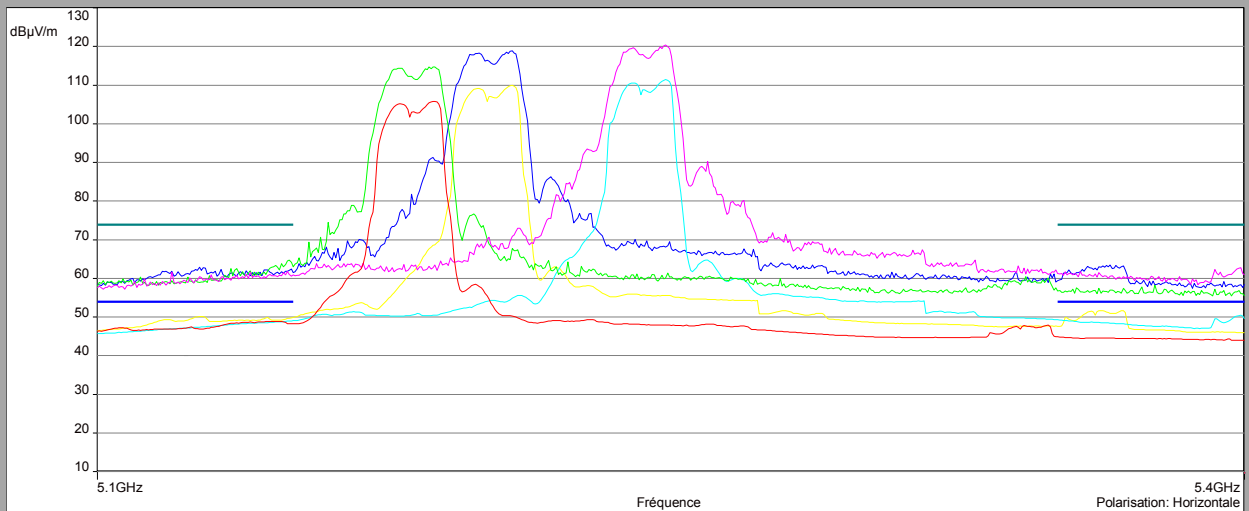
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 264207208, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Baseband: Off

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5150MHz-5250MHz C36 - Mes.Avg (61) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes.Peak (68) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C36 - Mes.Peak (61) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes.Avg (68) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes.Peak (67) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes.Avg (67) (Horizontale)





L C I E

Above 1GHz

802.11a

C4/C5/C6

Vertical Polarization

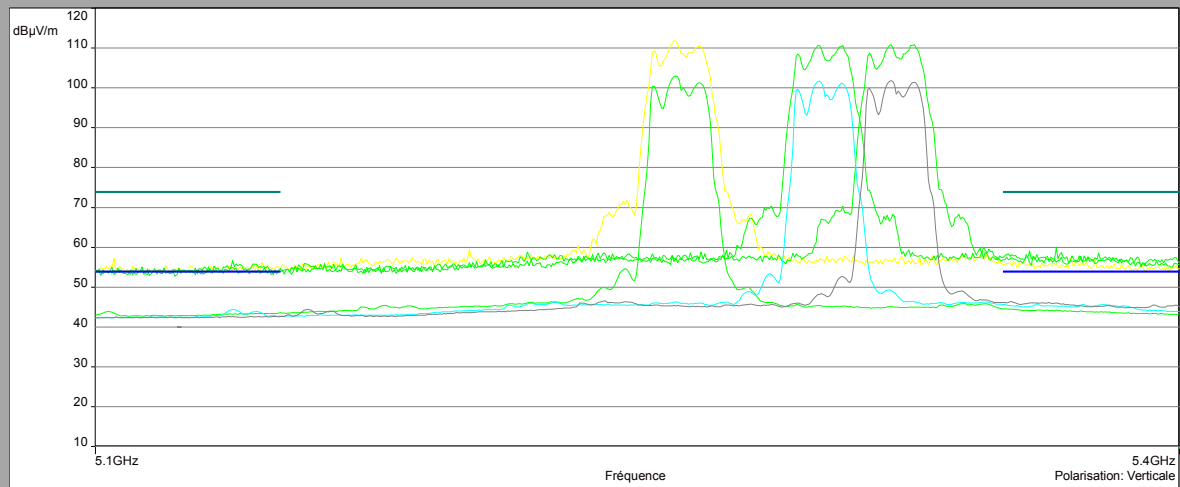
Description Sous-bande 2

Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 263738192, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Vidéo: 250 MHz

Polarisation: Verticale
Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5250MHz-5350MHz C64 - Mes.Avg (71) (Verticale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes.Peak (70) (Verticale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes.Peak (70) (Verticale)
- BAND EDGE 5250MHz-5350MHz C52 - Mes.Avg (62) (Verticale)
- BAND EDGE 5250MHz-5350MHz C52 - Mes.Avg (62) (Verticale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes.Peak (71) (Verticale)
- BAND EDGE 5250MHz-5350MHz C52 - Mes.Peak (62) (Verticale)



Horizontal polarization

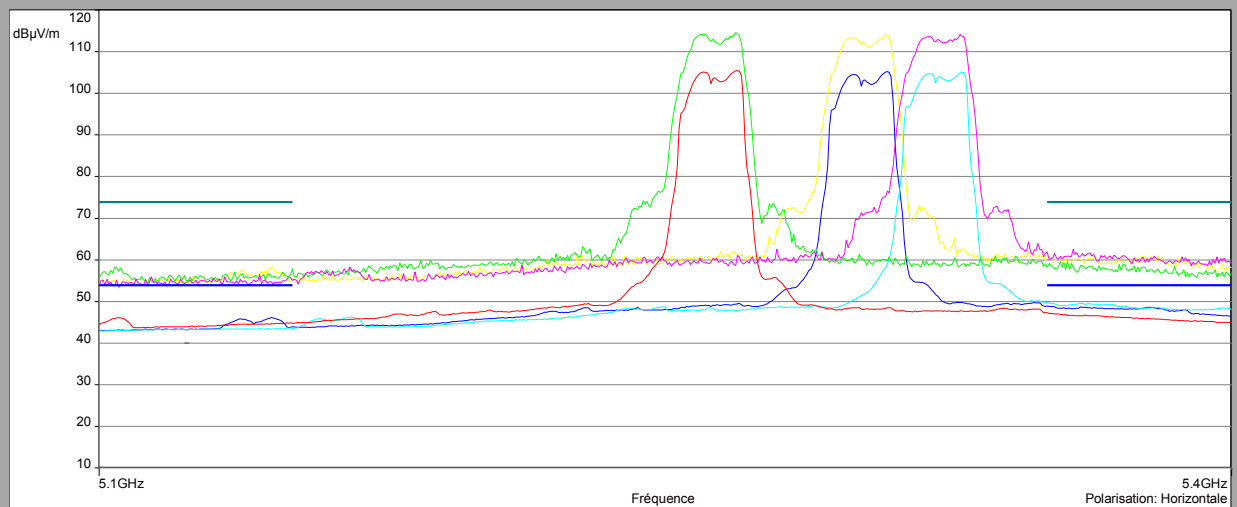
Description Sous-bande 1

Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 263739088, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Vidéo: 250 MHz

Polarisation: Horizontale
Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5250MHz-5350MHz C52 - Mes.Avg (62) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes.Peak (71) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C52 - Mes.Peak (62) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes.Avg (71) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes.Avg (70) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes.Peak (70) (Horizontale)





L C I E

Above 1GHz

802.11a

C7/C8/C9

Vertical Polarization

Description Sous-bande 2

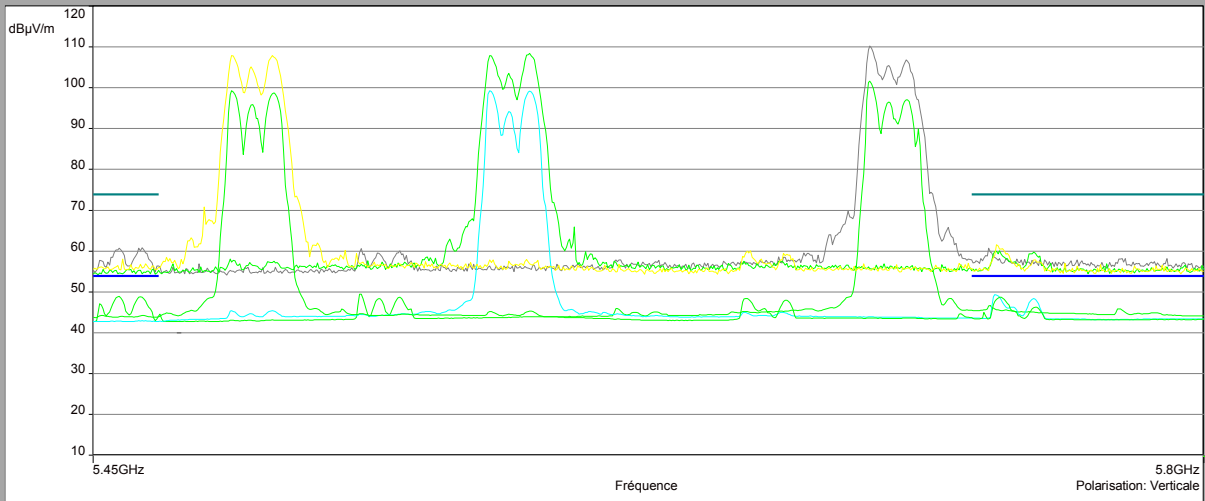
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 250511424, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Resolution: 0.1

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz Mode a C100 - Mes.Avg (63) (Verticale)
- BAND EDGE 5470MHz-5725MHz Mode a C100 - Mes.Peak (63) (Verticale)
- BAND EDGE 5470MHz-5725MHz Mode a C116 - Mes.Avg (73) (Verticale)
- BAND EDGE 5470MHz-5725MHz Mode a C116 - Mes.Peak (73) (Verticale)
- BAND EDGE 5470MHz-5725MHz Mode a C140 - Mes.Avg (74) (Verticale)
- BAND EDGE 5470MHz-5725MHz Mode a C140 - Mes.Peak (74) (Verticale)



Horizontal polarization

Description Sous-bande 1

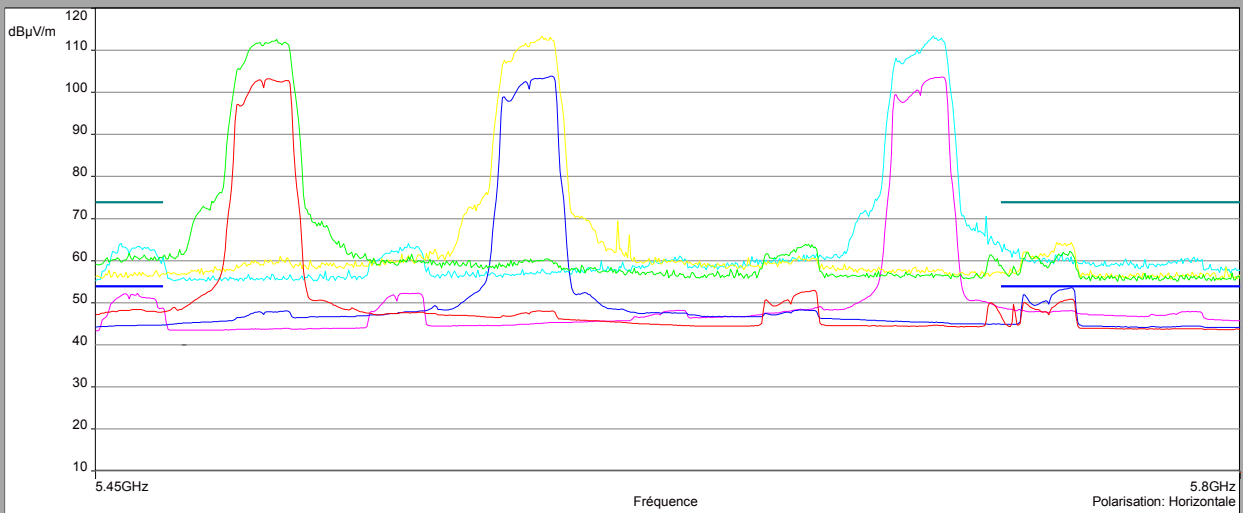
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 250511424, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Resolution: 0.1

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz Mode a C100 - Mes.Avg (63) (Horizontale)
- BAND EDGE 5470MHz-5725MHz Mode a C100 - Mes.Peak (63) (Horizontale)
- BAND EDGE 5470MHz-5725MHz Mode a C116 - Mes.Avg (73) (Horizontale)
- BAND EDGE 5470MHz-5725MHz Mode a C116 - Mes.Peak (73) (Horizontale)
- BAND EDGE 5470MHz-5725MHz Mode a C140 - Mes.Avg (74) (Horizontale)
- BAND EDGE 5470MHz-5725MHz Mode a C140 - Mes.Peak (74) (Horizontale)





L C I E

Above 1GHz

802.11a

C11/C12/C13

Vertical Polarization

Description Sous-bande 2

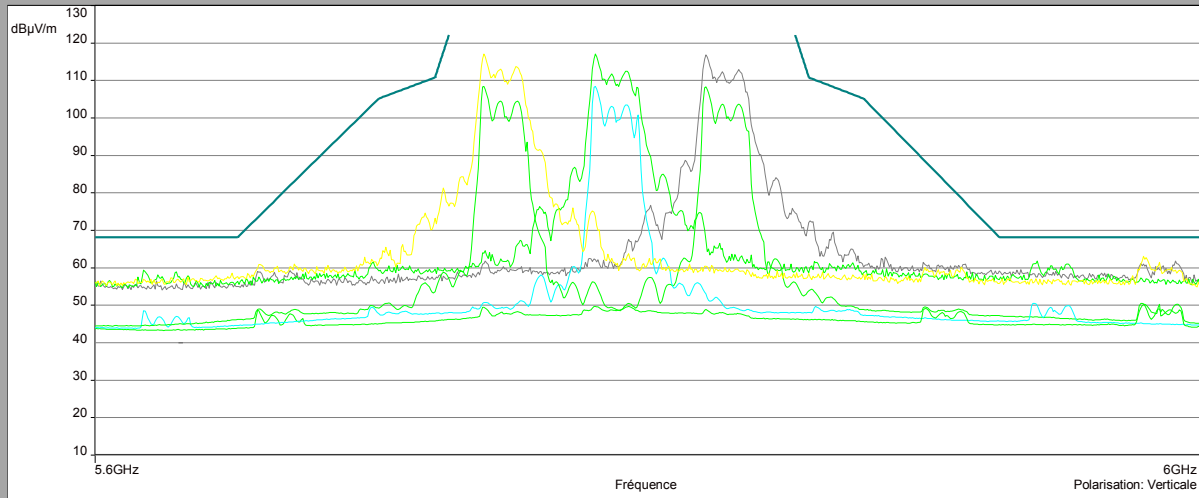
Fréquences: 5.6 GHz - 6 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 10 ms/Pts, Atténuation : 204246296, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preset: 01

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/
- BAND EDGE 5725MHz-5850MHz Mode a C149 - Mes.Avg (59) (Verticale)
- BAND EDGE 5725MHz-5850MHz Mode a C149 - Mes.Peak (59) (Verticale)
- BAND EDGE 5725MHz-5850MHz Mode a C157 - Mes.Avg (76) (Verticale)
- BAND EDGE 5725MHz-5850MHz Mode a C157 - Mes.Peak (76) (Verticale)
- BAND EDGE 5725MHz-5850MHz Mode a C165 - Mes.Avg (77) (Verticale)
- BAND EDGE 5725MHz-5850MHz Mode a C165 - Mes.Peak (77) (Verticale)



Horizontal polarization

Description Sous-bande 1

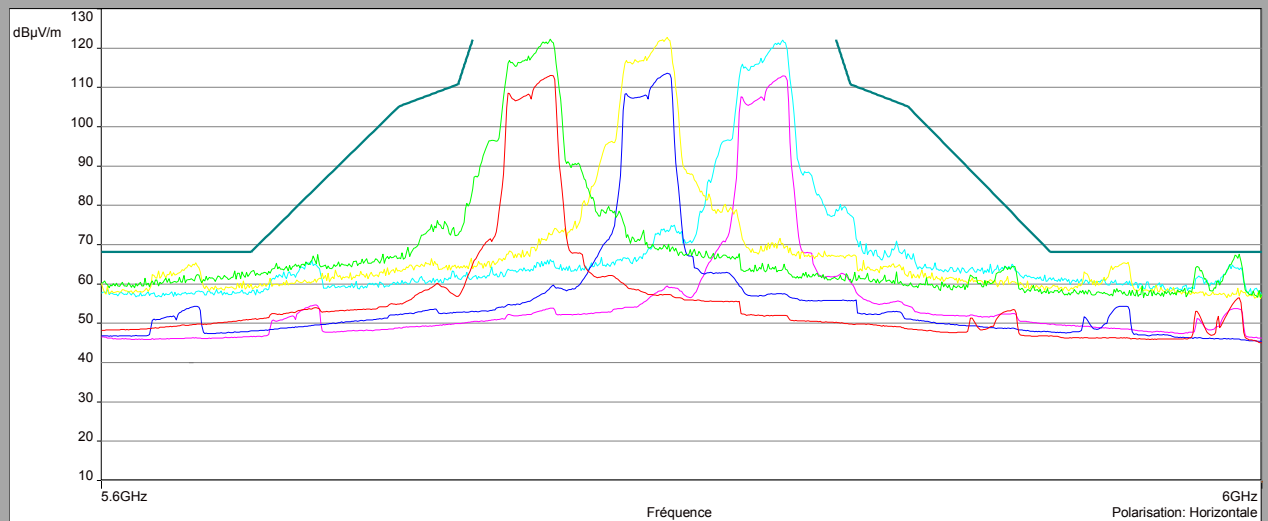
Fréquences: 5.6 GHz - 6 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 10 ms/Pts, Atténuation : 247094312, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preset: 01

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/
- BAND EDGE 5725MHz-5850MHz Mode a C149 - Mes.Avg (59) (Horizontale)
- BAND EDGE 5725MHz-5850MHz Mode a C149 - Mes.Peak (59) (Horizontale)
- BAND EDGE 5725MHz-5850MHz Mode a C157 - Mes.Avg (76) (Horizontale)
- BAND EDGE 5725MHz-5850MHz Mode a C157 - Mes.Peak (76) (Horizontale)
- BAND EDGE 5725MHz-5850MHz Mode a C165 - Mes.Avg (77) (Horizontale)
- BAND EDGE 5725MHz-5850MHz Mode a C165 - Mes.Peak (77) (Horizontale)





L C I E

Above 1GHz
802.11n HT20/ac VHT20
C1/C2/C3
Vertical Polarization

Description Sous-bande 2

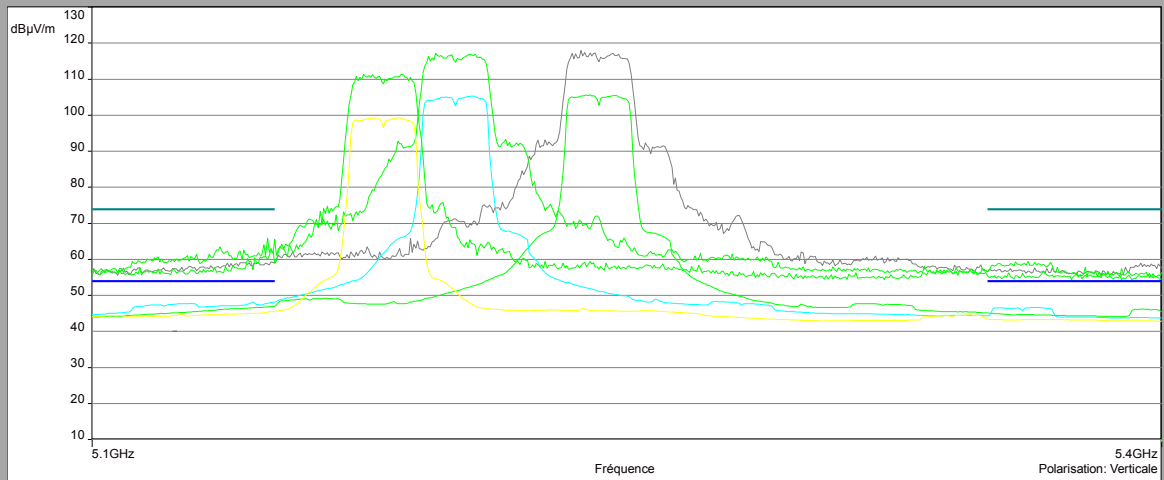
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 245514232, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Preset: 0.01

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5150MHz-5250MHz C36 - Mes. Peak (92) (Verticale)
- BAND EDGE 5150MHz-5250MHz C36 - Mes. Avg (92) (Verticale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes. Avg (93) (Verticale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes. Peak (93) (Verticale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes. Avg (94) (Verticale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes. Peak (94) (Verticale)



Horizontal polarization

Description Sous-bande 1

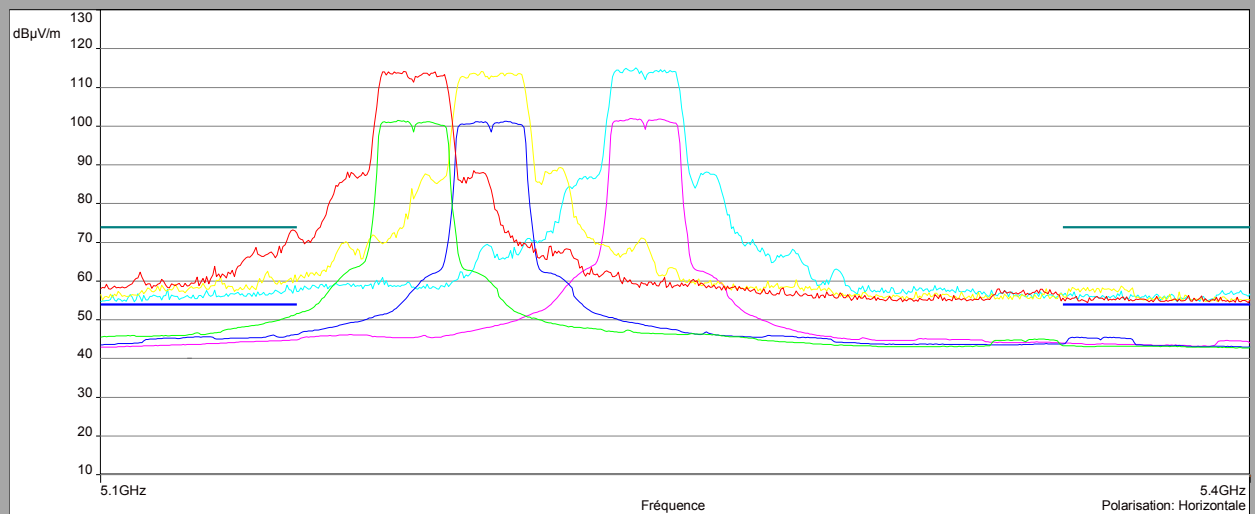
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 245514360, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Preset: 0.01

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5150MHz-5250MHz C36 - Mes. Peak (92) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C36 - Mes. Avg (92) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes. Avg (93) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C40 - Mes. Peak (93) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes. Avg (94) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C48 - Mes. Peak (94) (Horizontale)



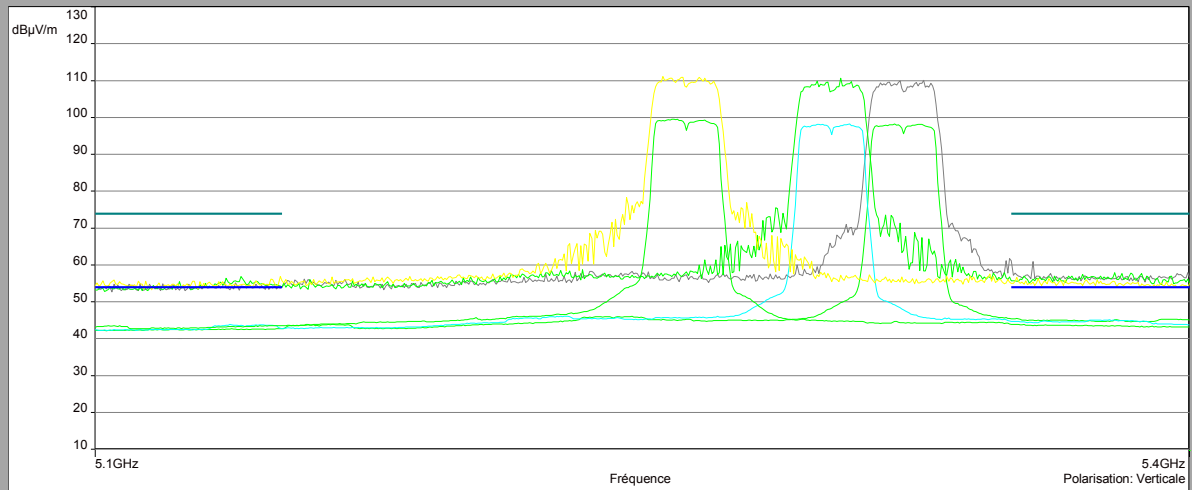


L C I E

Above 1GHz
802.11n HT20/ac VHT20
C4/C5/C6
Vertical Polarization

Description Sous-bande 2
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)
Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 235170080, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Resolution: Q1
Polarisation: Verticale
Distance: 3 m

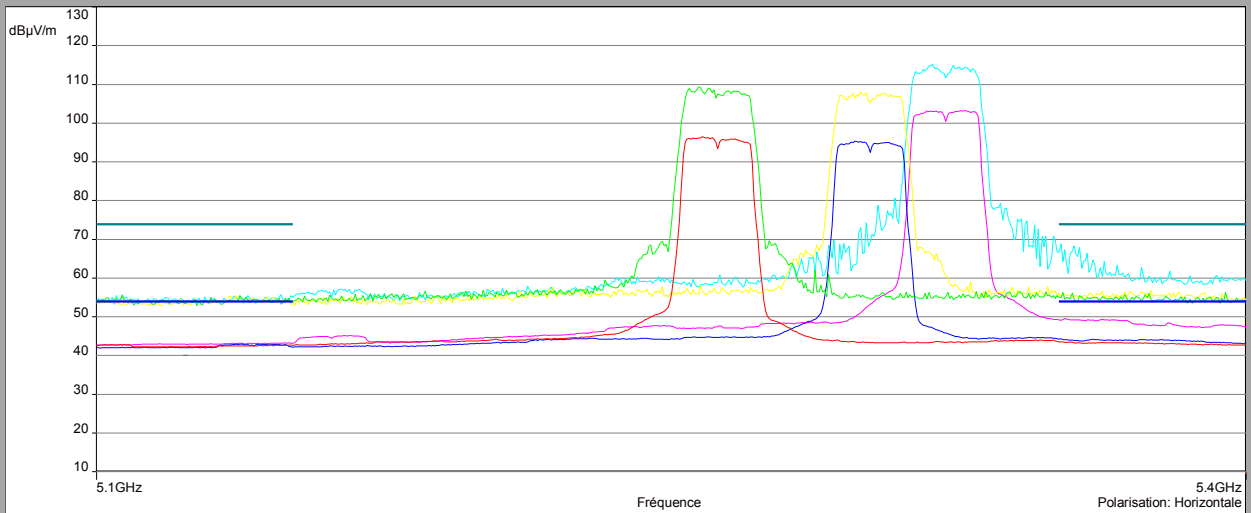
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5250MHz-5350MHz C52 - Mes. Avg (96) (Verticale)
- BAND EDGE 5250MHz-5350MHz C52 - Mes. Peak (96) (Verticale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes. Peak (97) (Verticale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes. Avg (97) (Verticale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes. Avg (98) (Verticale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes. Peak (98) (Verticale)



Horizontal polarization

Description Sous-bande 1
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)
Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 235206968, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Resolution: Q1
Polarisation: Horizontale
Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5250MHz-5350MHz C52 - Mes. Avg (96) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C52 - Mes. Peak (96) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes. Avg (97) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C60 - Mes. Peak (97) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes. Avg (98) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C64 - Mes. Peak (98) (Horizontale)





L C I E

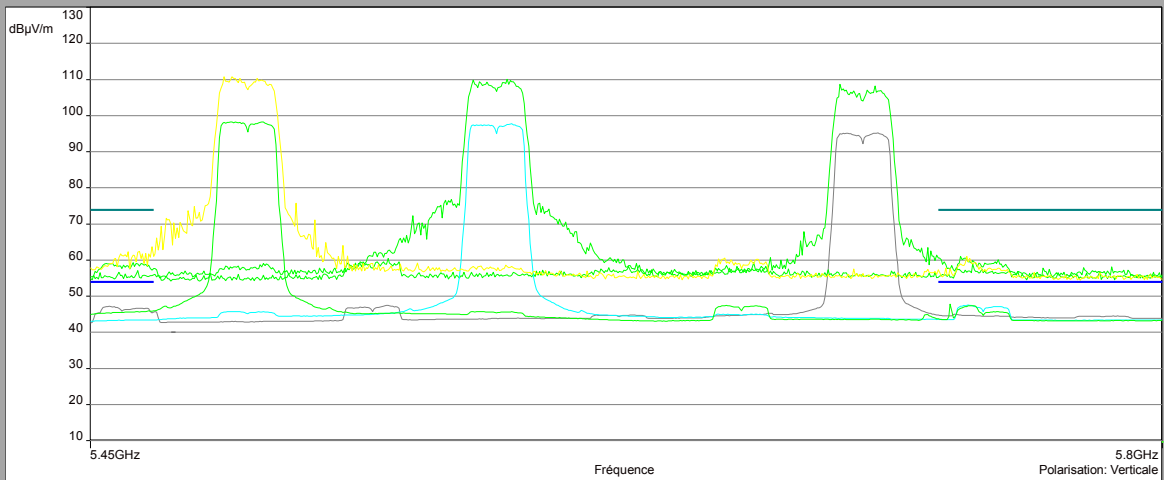
Above 1GHz
802.11n HT20/ac VHT20
C7/C8/C9
Vertical Polarization

Description Sous-bande 2
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)
Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 245091816, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preamplification: Off

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz C100 - Mes. Avg (100) (Verticale)
- BAND EDGE 5470MHz-5725MHz C100 - Mes. Peak (100) (Verticale)
- BAND EDGE 5470MHz-5725MHz C116 - Mes. Avg (101) (Verticale)
- BAND EDGE 5470MHz-5725MHz C116 - Mes. Peak (101) (Verticale)
- BAND EDGE 5470MHz-5725MHz C140 - Mes. Peak (102) (Verticale)
- BAND EDGE 5470MHz-5725MHz C140 - Mes. Avg (102) (Verticale)



Horizontal polarization

Description Sous-bande 1

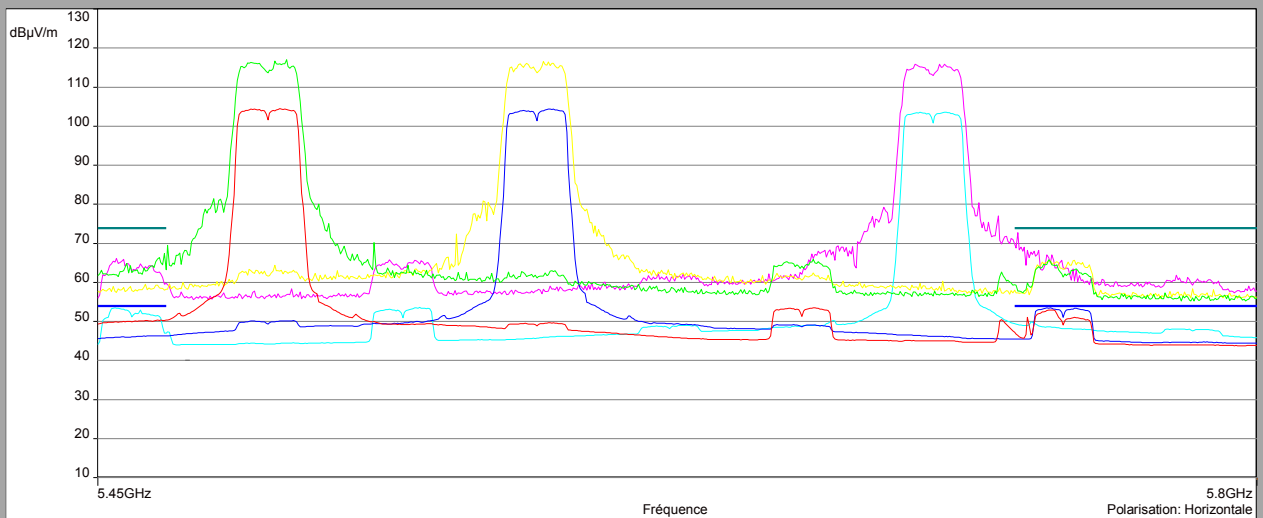
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 245143240, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preamplification: Off

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz C100 - Mes. Avg (100) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C100 - Mes. Peak (100) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C116 - Mes. Avg (101) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C116 - Mes. Peak (101) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C140 - Mes. Peak (102) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C140 - Mes. Avg (102) (Horizontale)





L C I E

Above 1GHz
802.11n HT20/ac VHT20
C11/C12/C13
Vertical Polarization

Description Sous-bande 2

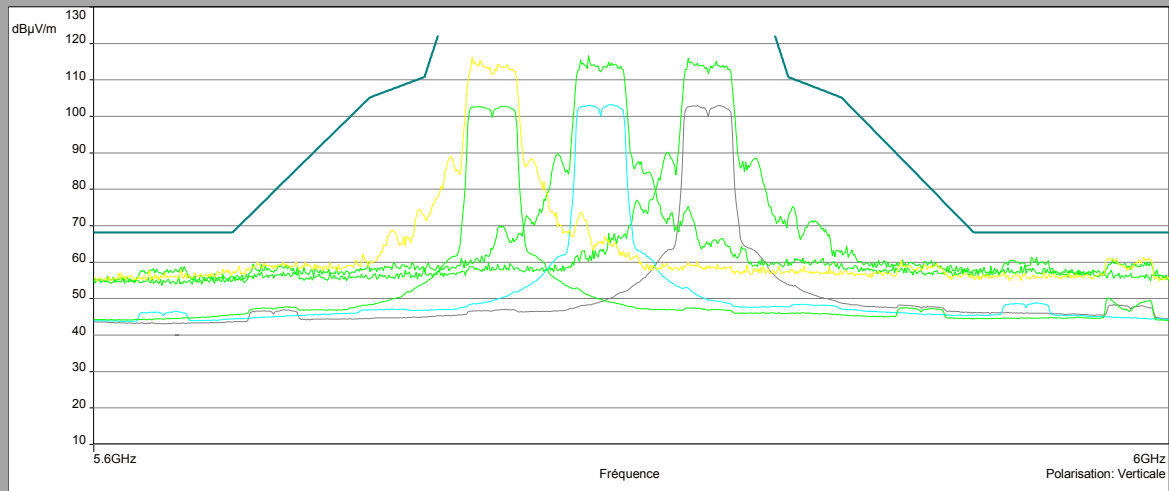
Fréquences: 5.6 GHz - 6 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 245744392, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Présélection: Off

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/
- BAND EDGE 5725MHz-5850MHz C149 - Mes.Avg (105) (Verticale)
- BAND EDGE 5725MHz-5850MHz C149 - Mes.Peak (105) (Verticale)
- BAND EDGE 5725MHz-5850MHz C157 - Mes.Avg (106) (Verticale)
- BAND EDGE 5725MHz-5850MHz C157 - Mes.Peak (106) (Verticale)
- BAND EDGE 5725MHz-5850MHz C165 - Mes.Peak (107) (Verticale)
- BAND EDGE 5725MHz-5850MHz C165 - Mes.Avg (107) (Verticale)



Horizontal polarization

Description Sous-bande 1

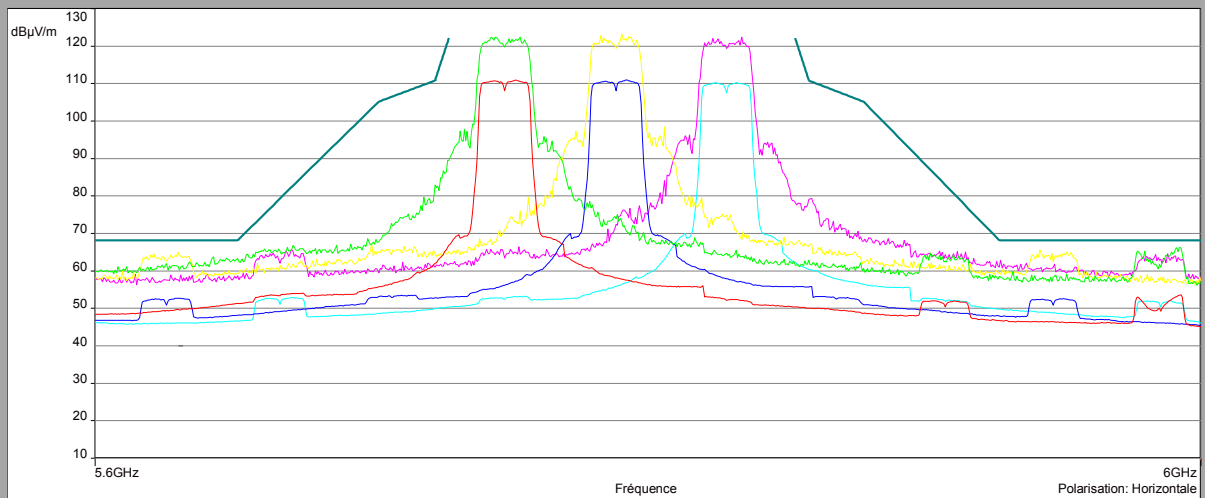
Fréquences: 5.6 GHz - 6 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 227159528, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Présélection: Off

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/
- BAND EDGE 5725MHz-5850MHz C149 - Mes.Avg (105) (Horizontale)
- BAND EDGE 5725MHz-5850MHz C149 - Mes.Peak (105) (Horizontale)
- BAND EDGE 5725MHz-5850MHz C157 - Mes.Avg (106) (Horizontale)
- BAND EDGE 5725MHz-5850MHz C157 - Mes.Peak (106) (Horizontale)
- BAND EDGE 5725MHz-5850MHz C165 - Mes.Peak (107) (Horizontale)
- BAND EDGE 5725MHz-5850MHz C165 - Mes.Avg (107) (Horizontale)





L C I E

Above 1GHz
802.11n HT40/ac VHT40
C14/C15
Vertical Polarization

Description Sous-bande 2

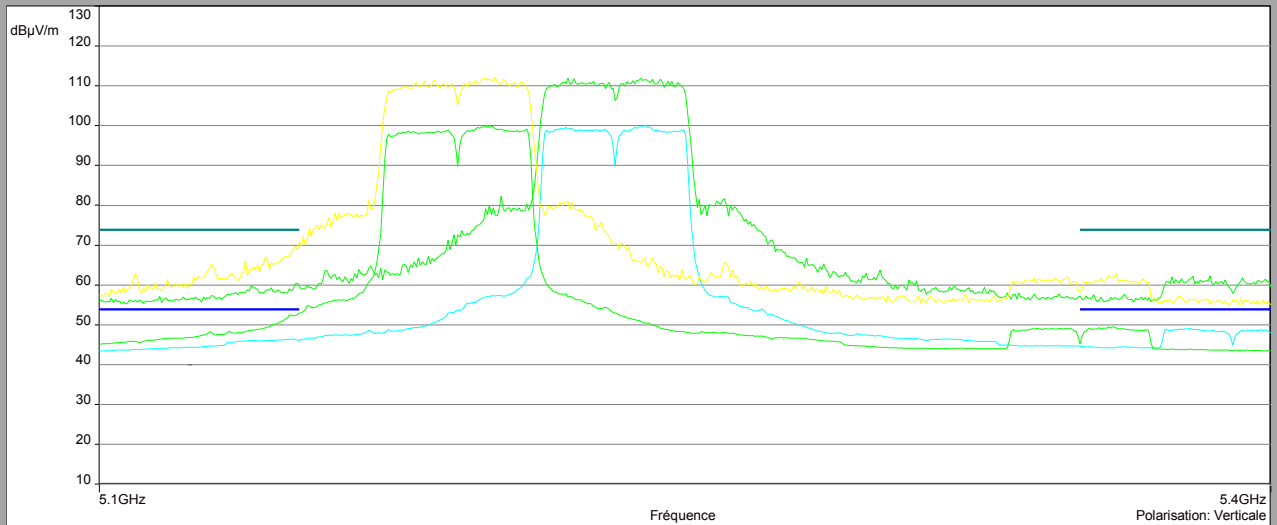
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 245611224, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preset: 1000

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5150MHz-5250MHz C14 - Mes.Avg (157) (Verticale)
- BAND EDGE 5150MHz-5250MHz C14 - Mes.Peak (157) (Verticale)
- BAND EDGE 5150MHz-5250MHz C15 - Mes.Avg (158) (Verticale)
- BAND EDGE 5150MHz-5250MHz C15 - Mes.Peak (158) (Verticale)



Horizontal polarization

Description Sous-bande 1

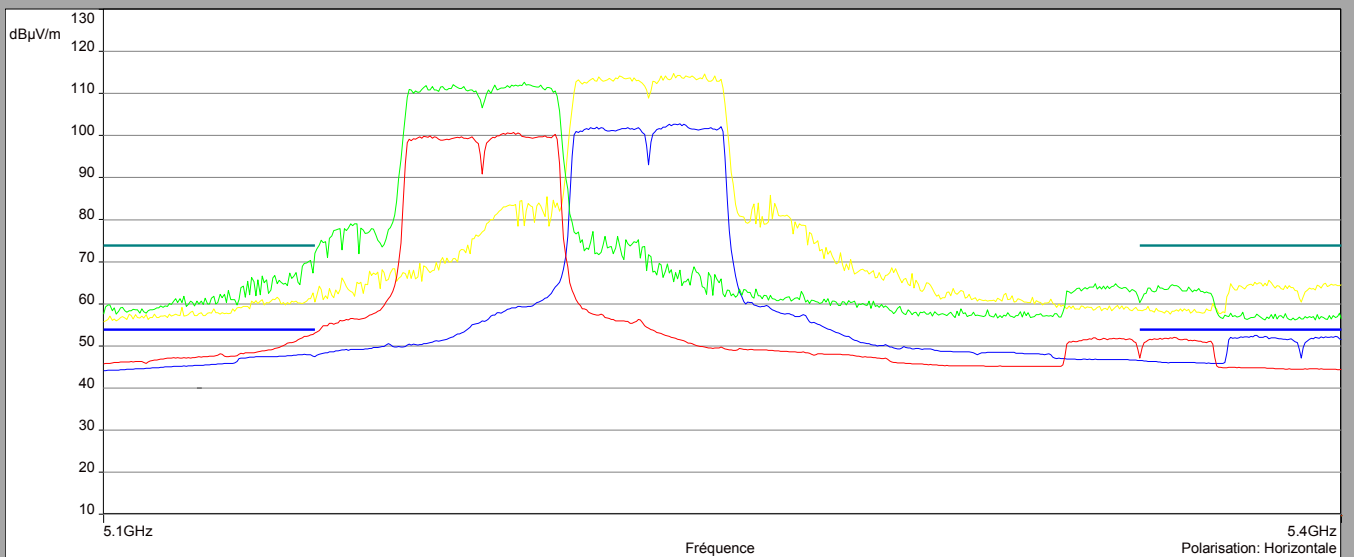
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 245611256, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preset: 1000

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5150MHz-5250MHz C14 - Mes.Avg (157) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C14 - Mes.Peak (157) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C15 - Mes.Avg (158) (Horizontale)
- BAND EDGE 5150MHz-5250MHz C15 - Mes.Peak (158) (Horizontale)





L C I E

Above 1GHz
802.11n HT40/ac VHT40
C16/C17
Vertical Polarization

Description Sous-bande 2

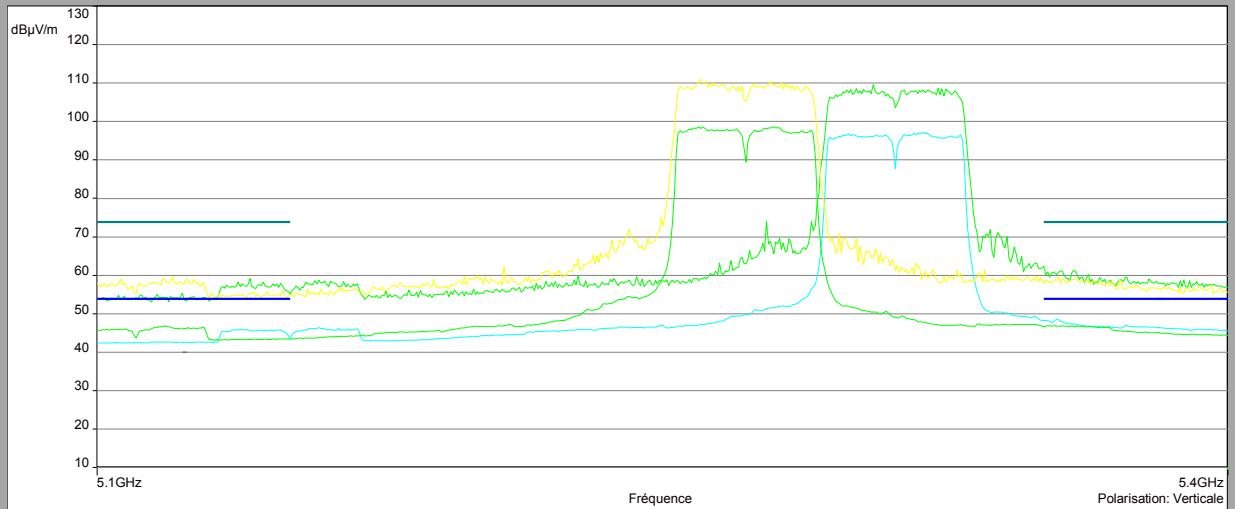
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 10 ms/Pts, Atténuation : 227427616, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Crête/3.0m/

Polarisation:Verticale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5250MHz-5350MHz C16 - Mes.Avg (113) (Verticale)
- BAND EDGE 5250MHz-5350MHz C16 - Mes.Peak (113) (Verticale)
- BAND EDGE 5250MHz-5350MHz C17 - Mes.Avg (159) (Verticale)
- BAND EDGE 5250MHz-5350MHz C17 - Mes.Peak (159) (Verticale)



Horizontal polarization

Description Sous-bande 1

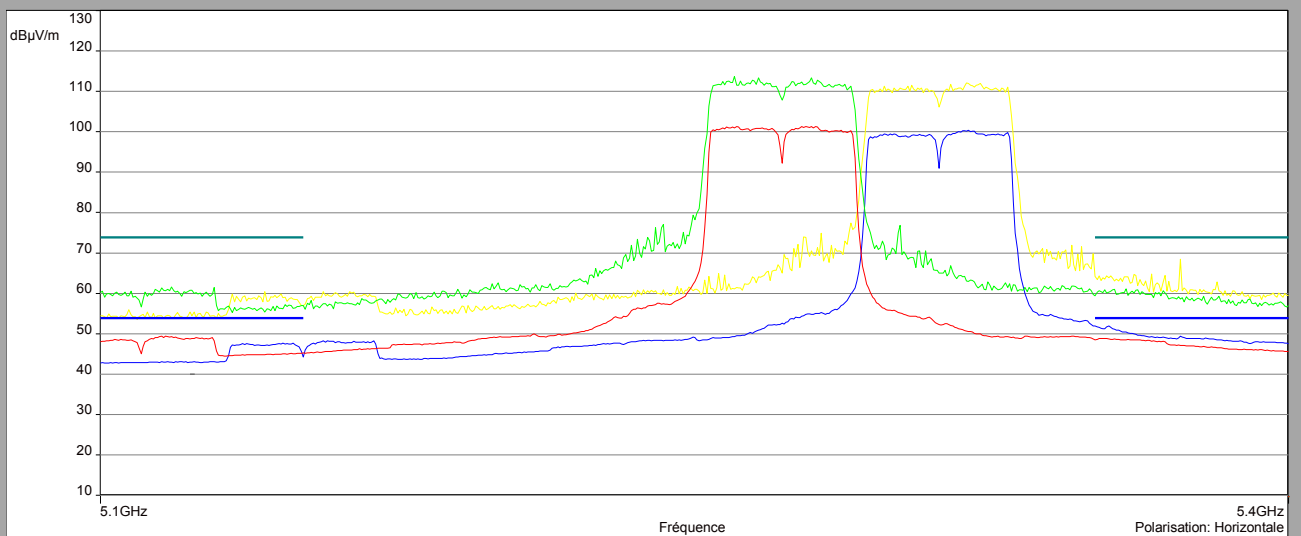
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 10 ms/Pts, Atténuation : 243750016, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Crête/3.0m/

Polarisation:Horizontale

Distance: 3 m

- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5250MHz-5350MHz C16 - Mes.Avg (113) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C16 - Mes.Peak (113) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C17 - Mes.Avg (159) (Horizontale)
- BAND EDGE 5250MHz-5350MHz C17 - Mes.Peak (159) (Horizontale)



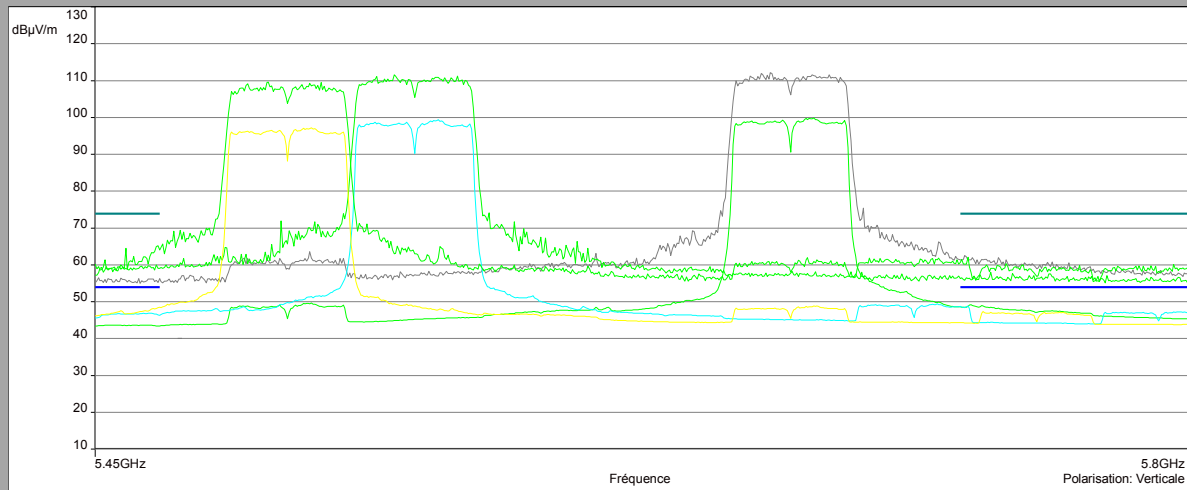


L C I E

Above 1GHz
802.11n HT40/ac VHT40
C18/C19/C20
Vertical Polarization

Description Sous-bande 2
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)
Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 246534136, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Offset: 5470 Hz
Polarisation: Verticale
Distance: 3 m

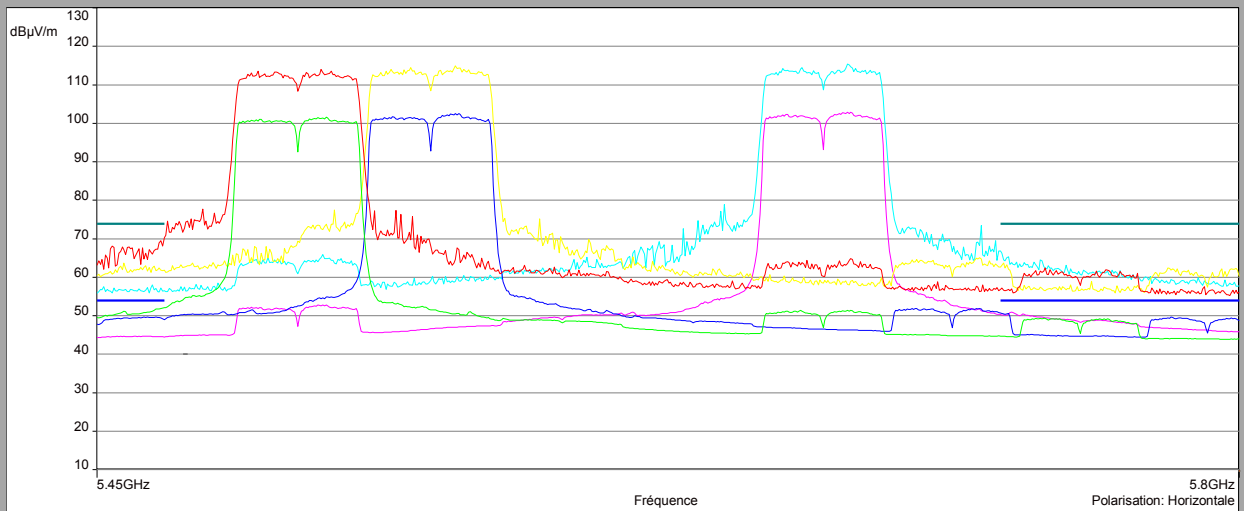
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz C18 - Mes.Peak (160) (Verticale)
- BAND EDGE 5470MHz-5725MHz C18 - Mes.Avg (160) (Verticale)
- BAND EDGE 5470MHz-5725MHz C19 - Mes.Avg (118) (Verticale)
- BAND EDGE 5470MHz-5725MHz C19 - Mes.Peak (118) (Verticale)
- BAND EDGE 5470MHz-5725MHz C20 - Mes.Avg (119) (Verticale)
- BAND EDGE 5470MHz-5725MHz C20 - Mes.Peak (119) (Verticale)



Horizontal polarization

Description Sous-bande 1
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)
Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 246533976, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Offset: 5470 Hz
Polarisation: Horizontale
Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz C18 - Mes.Peak (160) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C18 - Mes.Avg (160) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C19 - Mes.Avg (118) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C19 - Mes.Peak (118) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C20 - Mes.Avg (119) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C20 - Mes.Peak (119) (Horizontale)





L C I E

Above 1GHz
802.11n HT40/ac VHT40
C22/C23
Vertical Polarization

Description Sous-bande 2

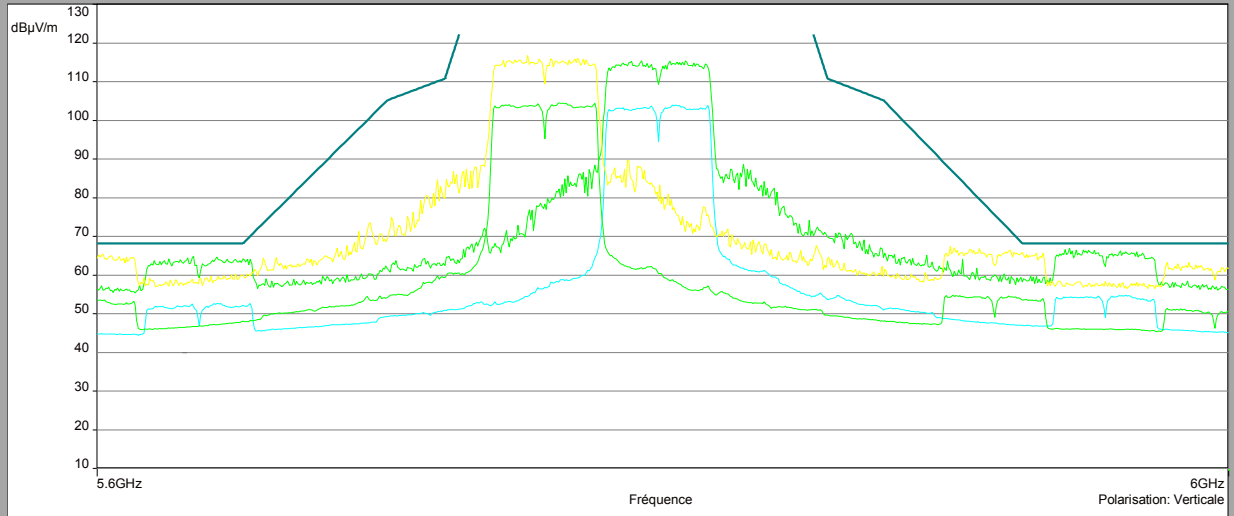
Fréquences: 5.6 GHz - 6 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 42275144, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Preamplificateur: Off

Polarisation: Verticale

Distance: 3 m

FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/
BAND EDGE 5725MHz-5850MHz C22 - Mes.Avg (122) (Verticale)
BAND EDGE 5725MHz-5850MHz C22 - Mes.Peak (122) (Verticale)
BAND EDGE 5725MHz-5850MHz C23 - Mes.Avg (123) (Verticale)
BAND EDGE 5725MHz-5850MHz C23 - Mes.Peak (123) (Verticale)



Horizontal polarization

Description Sous-bande 1

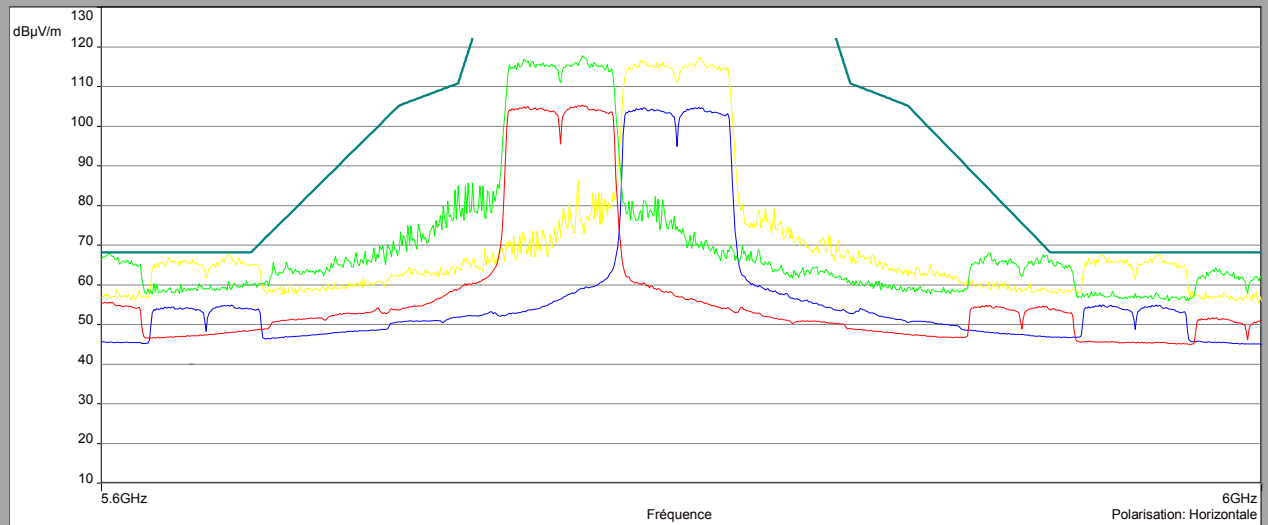
Fréquences: 5.6 GHz - 6 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 42275048, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Preamplificateur: Off

Polarisation: Horizontale

Distance: 3 m

FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/
BAND EDGE 5725MHz-5850MHz C22 - Mes.Avg (122) (Horizontale)
BAND EDGE 5725MHz-5850MHz C22 - Mes.Peak (122) (Horizontale)
BAND EDGE 5725MHz-5850MHz C23 - Mes.Avg (123) (Horizontale)
BAND EDGE 5725MHz-5850MHz C23 - Mes.Peak (123) (Horizontale)





L C I E

Above 1GHz

802.11ac VHT80

C24

Vertical Polarization

Description Sous-bande 2

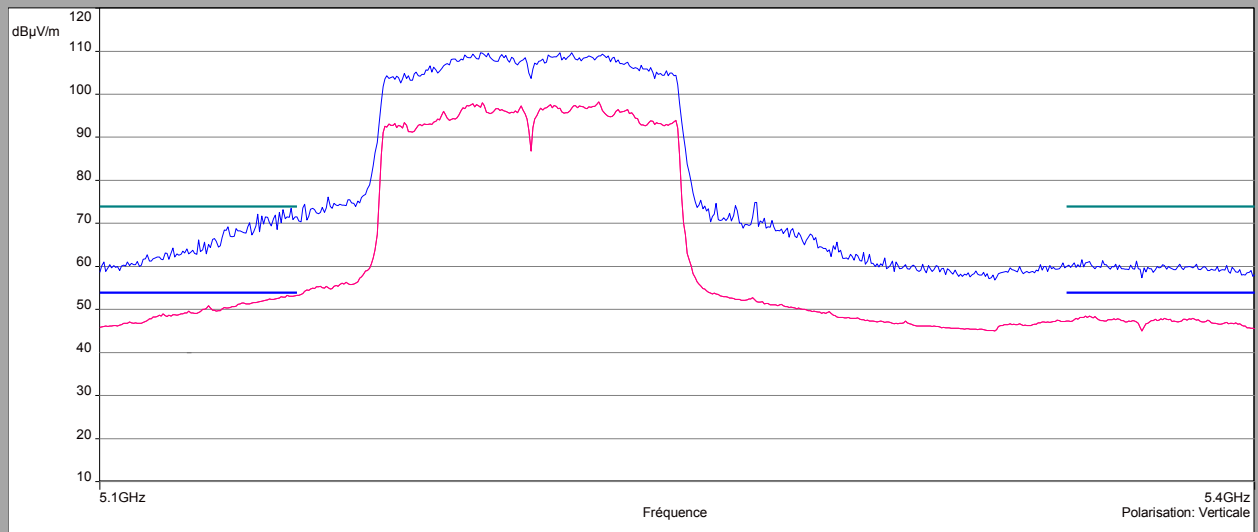
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 243620320, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preselector: Off

Polarisation: Verticale

Distance: 3 m

FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg (Verticale)



Horizontal polarization

Description Sous-bande 1

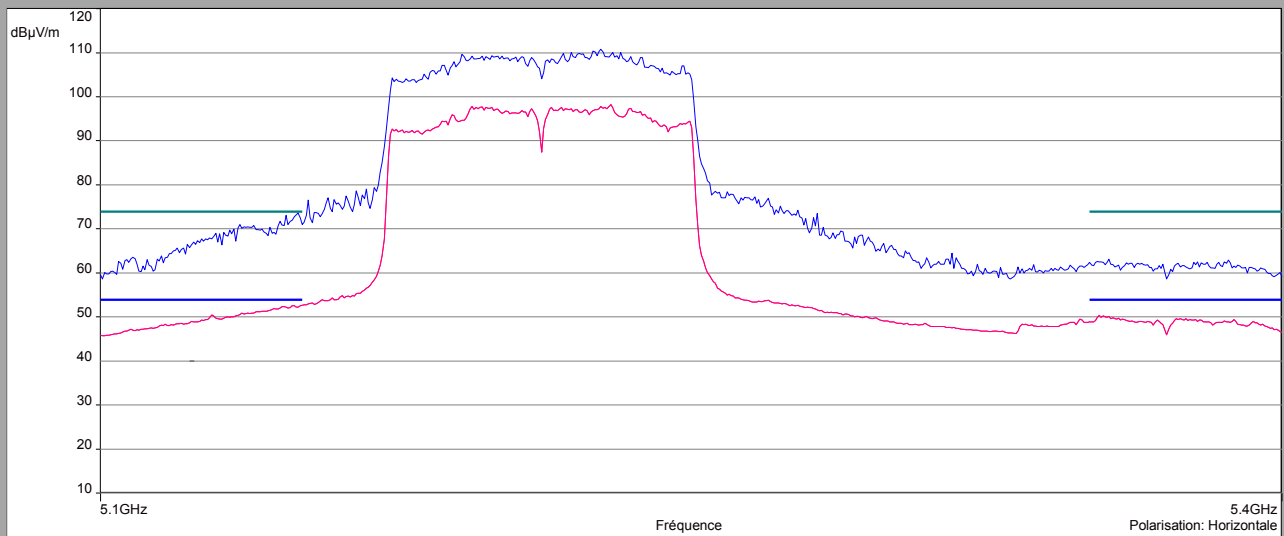
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 50 ms/Pts, Atténuation : 243374072, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off, Preselector: Off

Polarisation: Horizontale

Distance: 3 m

FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
Mes.Avg (Horizontale)





L C I E

Above 1GHz

802.11ac VHT80

C25

Vertical Polarization

Description Sous-bande 2

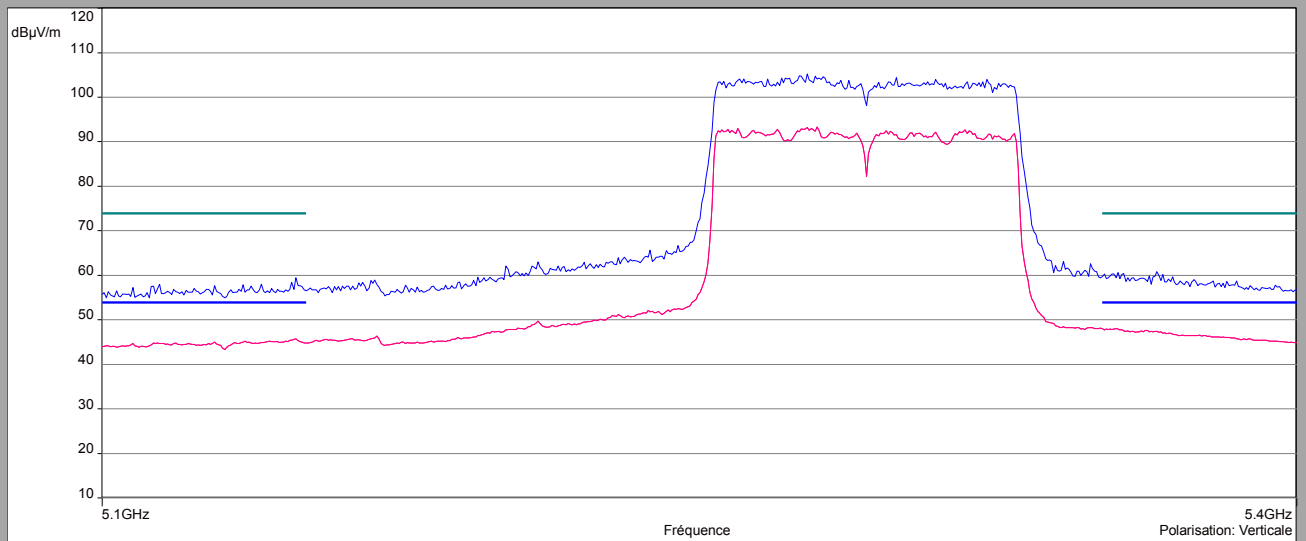
Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 247384056, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Preselector: Off

Polarisation: Verticale

Distance: 3 m

FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
Mes. Peak (Verticale)
Mes. Avg (Verticale)



Horizontal polarization

Description Sous-bande 1

Fréquences: 5.1 GHz - 5.4 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 10 ms/Pts, Atténuation: 247384024, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Preselector: Off

Polarisation: Horizontale

Distance: 3 m

FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Moyenne/3.0m/
FCC/FCC 15.209 5150MHz-5350MHz Band - Classe:1 - Crête/3.0m/
Mes. Peak (Horizontale)
Mes. Avg (Horizontale)





L C I E

Above 1GHz
802.11ac VHT80
C26/C27
Vertical Polarization

Description Sous-bande 2

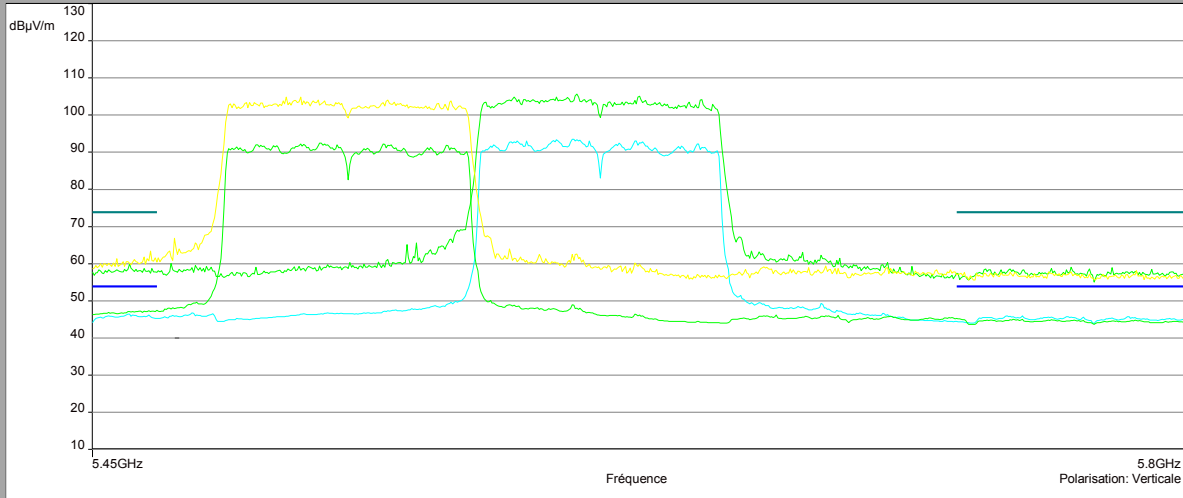
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 55602968, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Préselection: Off

Polarisation: Verticale

Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz C26 - Mes.Avg (163) (Verticale)
- BAND EDGE 5470MHz-5725MHz C26 - Mes.Peak (163) (Verticale)
- BAND EDGE 5470MHz-5725MHz C27 - Mes.Avg (135) (Verticale)
- BAND EDGE 5470MHz-5725MHz C27 - Mes.Peak (135) (Verticale)



Horizontal polarization

Description Sous-bande 1

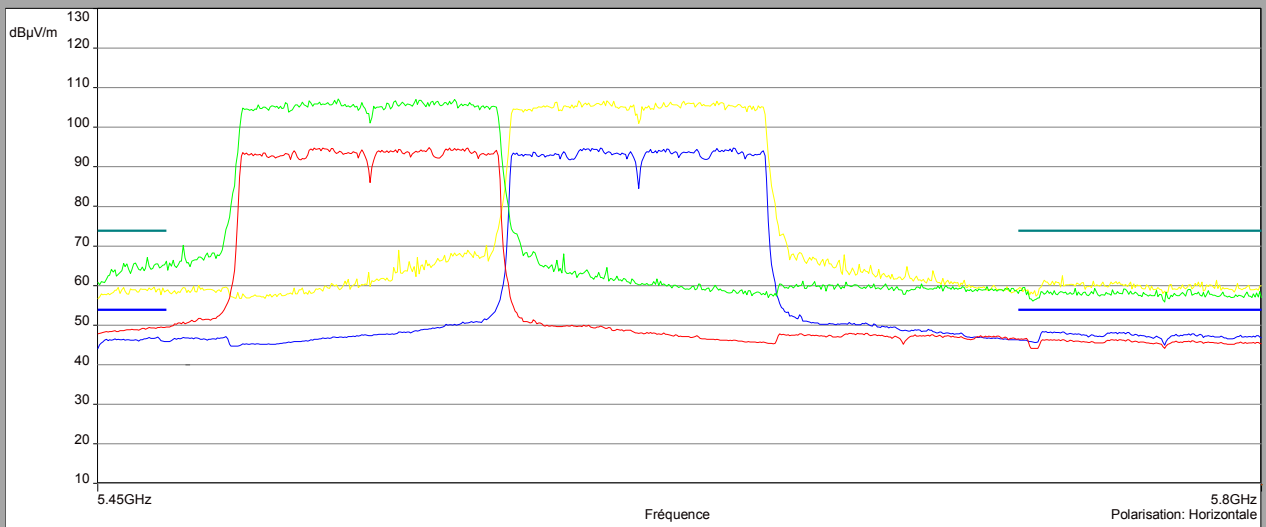
Fréquences: 5.45 GHz - 5.8 GHz (Mode: Lin, Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage: 50 ms/Pts, Atténuation: 55577744, Nombre de Balayages: 1, Preamp: On: 20 dB, LN Preamp: Off, Préselection: Off

Polarisation: Horizontale

Distance: 3 m

- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Moyenne/3.0m/
- FCC/FCC 15.209 5470MHz-5725MHz Band - Classe:1 - Crête/3.0m/
- BAND EDGE 5470MHz-5725MHz C26 - Mes.Avg (163) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C26 - Mes.Peak (163) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C27 - Mes.Avg (135) (Horizontale)
- BAND EDGE 5470MHz-5725MHz C27 - Mes.Peak (135) (Horizontale)





L C I E

802.11ac VHT80

C29

Vertical Polarization

Description Sous-bande 2

Fréquences: 5.6 GHz - 6 GHz (Mode: Lin. Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 10 ms/Pts, Atténuation : 249489816, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off

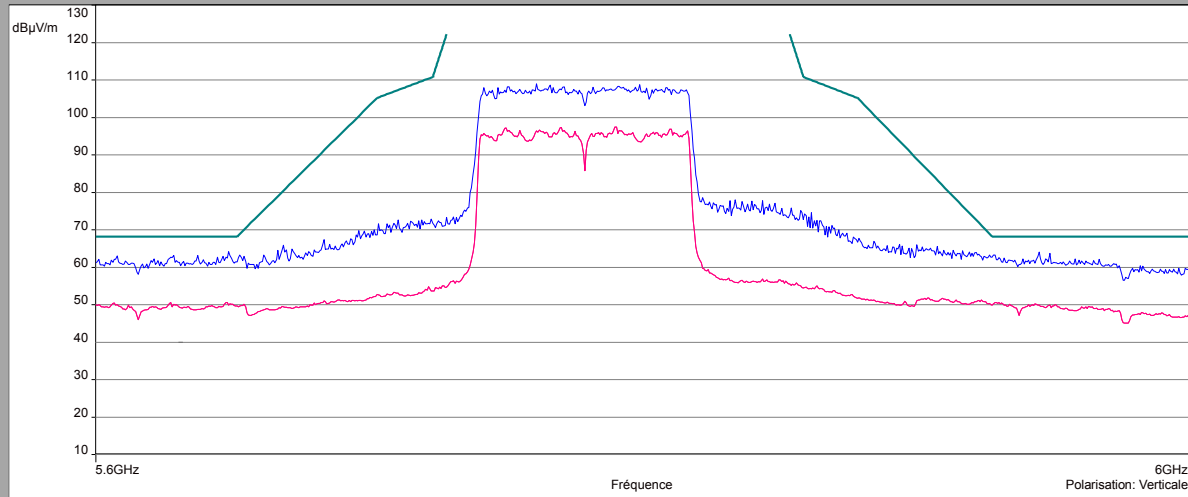
Polarisation: Verticale

Distance: 3 m

FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/

Mes.Peak (Verticale)

Mes.Avg (Verticale)



Horizontal polarization

Description Sous-bande 1

Fréquences: 5.6 GHz - 6 GHz (Mode: Lin. Pas: 500 kHz)

Réglages: RBW: 1 MHz, VBW: Auto, Durée balayage : 10 ms/Pts, Atténuation : 249489784, Nombre de Balayages : 1, Preamp : On: 20 dB, LN Preamp: Off

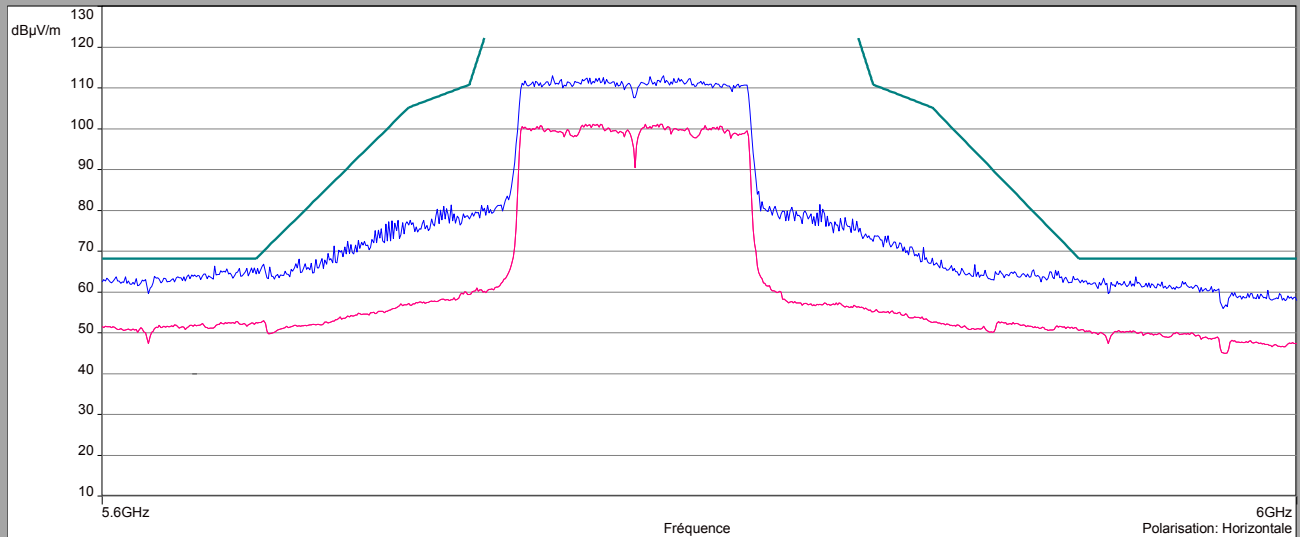
Polarisation: Horizontale

Distance: 3 m

FCC/FCC 15.407 b (4) (i) 5725MHz-5850MHz - Classe:1 - Crête/3.0m/

Mes.Peak (Horizontale)

Mes.Avg (Horizontale)





L C I E

Below 1GHz

Polarisation	Frequency (MHz)	level Quasi peak (dBµV/m)	limit FCC	Margin
vertical	30.6	17.32	29.5	12.18
vertical	32.2	23.75	29.5	5.75
vertical	33.3	21.51	29.5	7.99
vertical	34.7	22.55	29.5	6.95
vertical	37.3	24.05	29.5	5.45
vertical	40	22.68	29.5	6.82
vertical	42.7	21.29	29.5	8.21
vertical	45.4	21.63	29.5	7.87
vertical	52.3	21.63	29.5	7.87
vertical	56.9	18.31	29.5	11.19
vertical	58.7	22.02	29.5	7.48
vertical	61.3	21.75	29.5	7.75
vertical	62.5	19.88	29.5	9.62
vertical	66.7	21.14	29.5	8.36
vertical	76	16.86	29.5	12.64
vertical	80	17.41	29.5	12.09
vertical	88.4	18.22	33	14.78
vertical	98.2	20.3	33	12.7
vertical	106.2	19.26	33	13.74
vertical	125	22.82	33	10.18
vertical	153.6	22.01	33	10.99
vertical	168.5	21.63	33	11.37
vertical	174	21.67	33	11.33
vertical	175.9	21.6	33	11.4
vertical	200	22.13	33	10.87
vertical	206.6	19.39	33	13.61
vertical	212	21.2	33	11.8
vertical	216	24.55	33	8.45
vertical	222	20.09	35.5	15.41
vertical	236	22.75	35.5	12.75
vertical	250	23.7	35.5	11.8
vertical	257.8	20.13	35.5	15.37
vertical	292.8	24.97	35.5	10.53
vertical	312.6	25.56	35.5	9.94
vertical	320	25.73	35.5	9.77
vertical	336.6	26.29	35.5	9.21



L C I E

Polarisation	Frequency (MHz)	level Quasi peak (dB μ V/m)	limit FCC	Margin
vertical	432	29.01	35.5	6.49
vertical	480	30.02	35.5	5.48
vertical	500	27.46	35.5	8.04
vertical	520	27.85	35.5	7.65
vertical	550	24.61	35.5	10.89
vertical	600	24.31	35.5	11.19
vertical	625	28.1	35.5	7.4
vertical	650	30.92	35.5	4.58
vertical	720	30.81	35.5	4.69
vertical	750	28.26	35.5	7.24
vertical	800	27.91	35.5	7.59
vertical	900	27.42	35.5	8.08
vertical	960.1	27.97	43.5	15.53
vertical	986.4	28.07	43.5	15.43



L C I E

Polarisation	Frequency (MHz)	level Quasi peak (dB μ V/m)	limit FCC	Margin
Horizontal	83.7	21.54	29.5	7.96
Horizontal	125	22.65	33	10.35
Horizontal	133.3	24.3	33	8.7
Horizontal	209.6	20.98	33	12.02
Horizontal	212.6	19.52	33	13.48
Horizontal	228.9	22.16	35.5	13.34
Horizontal	250	25.11	35.5	10.39
Horizontal	250	25.54	35.5	9.96
Horizontal	264.5	24.93	35.5	10.57
Horizontal	276.7	23.26	35.5	12.24
Horizontal	286.9	23.65	35.5	11.85
Horizontal	297.1	23.13	35.5	12.37
Horizontal	300	25.17	35.5	10.33
Horizontal	374.2	18.48	35.5	17.02
Horizontal	400	29.47	35.5	6.03
Horizontal	480	25.16	35.5	10.34
Horizontal	500	32.3	35.5	3.2
Horizontal	540	30.98	35.5	4.52
Horizontal	600	32.24	35.5	3.26
Horizontal	650	32.3	35.5	3.2
Horizontal	720	27.85	35.5	7.65
Horizontal	750	28.21	35.5	7.29
Horizontal	800	27.42	35.5	8.08
Horizontal	825	28.21	35.5	7.29
Horizontal	875	28.21	35.5	7.29



L C I E

Above 1GHz

Polarization	Frequency (MHz)	Duty Cycle Factor (dB μ V/m)	Average Level (dB μ V/m)	Marge Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Peak Level (dB μ V/m)	Marge Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)
Vertical	1064	0,424	28,084	15,416	43.5	42.96	20,54	63.5
Vertical	1078	0,424	29,364	14,136	43.5	40.38	23,12	63.5
Vertical	1128	0,424	29,274	14,226	43.5	36.8	26,7	63.5
Vertical	1150	0,424	31,574	11,926	43.5	43.29	20,21	63.5
Vertical	1195	0,424	31,234	12,266	43.5	36.9	26,6	63.5
Vertical	1250	0,424	27,364	16,136	43.5	35.76	27,74	63.5
Vertical	1343.8	0,424	30,534	12,966	43.5	41.69	21,81	63.5
Vertical	1395	0,424	30,914	12,586	43.5	41.92	21,58	63.5
Vertical	1440	0,424	31,634	11,866	43.5	35.28	28,22	63.5
Vertical	1520	0,424	31,854	11,646	43.5	43.31	20,19	63.5
Horizontal	1036	0,424	29,484	14,016	43.5	32.07	31,43	63.5
Horizontal	1127	0,424	30,724	12,776	43.5	40.71	22,79	63.5
Horizontal	1182.8	0,424	30,164	13,336	43.5	41.13	22,37	63.5
Horizontal	1250	0,424	30,354	13,146	43.5	41.18	22,32	63.5
Horizontal	1290.4	0,424	30,354	13,146	43.5	40.79	22,71	63.5
Horizontal	1320	0,424	28,554	14,946	43.5	41.65	21,85	63.5
Horizontal	1351	0,424	30,624	12,876	43.5	42.09	21,41	63.5
Horizontal	1441	0,424	31,274	12,226	43.5	41.83	21,67	63.5



L C I E

Above 1GHz								
802.11a								
C1/C2/C3 (5150MHz-5250MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5150	0,035	49,877	4,123	54	63.046	10,954	74
Verticale	5150	0,035	46,874	7,126	54	58.915	15,085	74
Horizontale	5350	0,035	49,316	4,684	54	61.259	12,741	74
Verticale	5350	0,035	45,935	8,065	54	57.98	16,02	74
Verticale	5359	0,035	48,125	5,875	54	58.86	15,14	74
Horizontale	5361.5	0,035	51,719	2,281	54	62.868	11,132	74

Above 1GHz								
802.11a								
C4/C5/C6 (5250MHz-5350MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5150	0,035	44,805	9,195	54	57.80	16,2	74
Verticale	5150	0,035	43,655	10,345	54	54.68	19,32	74
Horizontale	5350	0,035	49,805	4,195	54	61.89	12,11	74
Verticale	5350	0,035	46,195	7,805	54	57.37	16,63	74

Above 1GHz								
802.11a								
C7/C8/C9 (5470MHz-5725MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5462.5	0,035	52,205	1,795	54	63.39	10,61	74
Verticale	5458	0,035	48,905	5,095	54	60.67	13,33	74
Horizontale	5470	0,035	48,755	5,245	54	60,8	13,2	74
Verticale	5470	0,035	43,955	10,045	54	56.31	17,69	74
Horizontale	5725	0,035	48,915	5,085	54	63.19	10,81	74
Verticale	5725	0,035	45,525	8,475	54	57.81	16,19	74
Horizontale	5747	0,035	53,585	0,415	54	64.31	9,69	74
Verticale	5732.5	0,035	49,355	4,645	54	58.94	15,06	74



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Above 1GHz						
802.11a						
C11/C12/C13 (5725MHz-5850MHz)						
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5631.5	0,035	54,375	65,39	2.81	68.2
Verticale	5725	0,035	57,105	76,51	45.69	122.2
Horizontale	5725	0,035	65,135	84,17	38.03	122.2
Horizontale	5850	0,035	62,005	79,04	43.16	122.2
Verticale	5850	0,035	56,075	74,58	47.62	122.2
Horizontale	5992	0,035	56,525	67,61	0.59	68.2

Above 1GHz								
802.11n HT20/ac VHT20								
C1/C2/C3 (5150MHz-5250MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5149	0,137	51,217	2,783	54	73,21	0,79	74
Horizontale	5150	0,137	51,727	2,273	54	72,41	1,59	74
Verticale	5150	0,137	48,247	5,753	54	65,51	8,49	74
Horizontale	5350	0,137	44,157	9,843	54	56,14	17,86	74
Verticale	5350	0,137	45,267	8,733	54	56,51	17,49	74

Above 1GHz								
802.11n HT20/ac VHT20								
C4/C5/C6 (5250MHz-5350MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5150	0,137	43,267	10,733	54	55,04	18,96	74
Verticale	5150	0,137	43,687	10,313	54	55,68	18,32	74
Horizontale	5350	0,137	49,377	4,623	54	66,71	7,29	74
Verticale	5350	0,137	45,547	8,453	54	61,13	12,87	74
Horizontale	5354	0,137	49,307	4,693	54	68,28	5,72	74



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Above 1GHz								
802.11n HT20/ac VHT20								
C7/C8/C9 (5470MHz-5725MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5455	0,137	53,597	0,403	54	66,11	7,89	74
Horizontale	5470	0,137	50,437	3,563	54	67,4	6,6	74
Verticale	5470	0,137	45,757	8,243	54	61,05	12,95	74
Horizontale	5725	0,137	47,347	6,653	54	69,83	4,17	74
Verticale	5725	0,137	44,927	9,073	54	60,6	13,4	74
Horizontale	5726	0,137	49,317	4,683	54	72,68	1,32	74
Horizontale	5735	0,137	53,577	0,423	54	67,05	6,95	74

Above 1GHz						
802.11n HT20/ac VHT20						
C11/C12/C13 (5725MHz-5850MHz)						
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5629	0,137	52,837	64,9	3.3	68.2
Horizontale	5725	0,137	67,057	89,49	32.71	122.2
Verticale	5725	0,137	57,677	79,97	42.23	122.2
Horizontale	5850	0,137	62,417	78,25	43.95	122.2
Verticale	5850	0,137	56,317	72,43	49.77	122.2
Horizontale	5992	0,137	53,697	66,32	1.88	68.2



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Above 1GHz								
802.11n HT40/ac VHT40								
C14/C15 (5150MHz-5250MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dB μ V/m)	Average Level (dB μ V/m)	Marge Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Peak Level (dB μ V/m)	Marge Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)
Horizontale	5150	0,25	53,27	0,73	54	72,01	1,99	74
Verticale	5150	0,25	53,16	0,84	54	70,73	3,27	74
Horizontale	5350	0,25	47,34	6,66	54	60,27	13,73	74
Verticale	5350	0,25	45,55	8,45	54	58,1	15,9	74
Horizontale	5358.5	0,25	52,28	1,72	54	64,35	9,65	74
Verticale	5358.5	0,25	49,71	4,29	54	61,76	12,24	74

Above 1GHz								
802.11n HT40/ac VHT40								
C16/C17 (5250MHz-5350MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dB μ V/m)	Average Level (dB μ V/m)	Marge Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Peak Level (dB μ V/m)	Marge Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)
Horizontale	5116	0,25	49,67	4,33	54	60,69	13,31	74
Horizontale	5150	0,25	44,53	9,47	54	56,94	17,06	74
Verticale	5150	0,25	43,8	10,2	54	55,17	18,83	74
Horizontale	5350	0,25	52,12	1,88	54	64,23	9,77	74
Verticale	5350	0,25	48,5	5,5	54	62,38	11,62	74
Horizontale	5372	0,25	49,61	4,39	54	68,42	5,58	74

Above 1GHz								
802.11n HT40/ac VHT40								
C18/C19/C20 (5470MHz-5725MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dB μ V/m)	Average Level (dB μ V/m)	Marge Average Level (dB μ V/m)	Average Limit (dB μ V/m)	Peak Level (dB μ V/m)	Marge Peak Level (dB μ V/m)	Peak Limit (dB μ V/m)
Horizontale	5470	0,25	52,37	1,63	54	70,33	3,67	74
Verticale	5470	0,25	48,74	5,26	54	64,01	9,99	74
Horizontale	5725	0,25	51	3	54	66,79	7,21	74
Verticale	5725	0,25	48,82	5,18	54	61,34	12,66	74



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Above 1GHz						
802.11n HT40/ac VHT40						
C22/C23 (5725MHz-5850MHz)						
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5602.5	0,25	55,88	67,95	0.25	68.2
Horizontale	5725	0,25	60,7	85,72	36.48	122.2
Verticale	5725	0,25	63,44	81,2	41.00	122.2
Horizontale	5850	0,25	53,86	68,38	53.82	122.2
Verticale	5850	0,25	54,82	70,25	51.95	122.2
Horizontale	5962.5	0,25	55,18	67,6	0.6	68.2
Verticale	5942	0,25	54,45	66,95	1.25	68.2

Above 1GHz								
802.11ac VHT80								
C24 (5150MHz-5250MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Verticale	5148.5	0,424	53,534	0,466	54	73,45	0,55	74
Horizontale	5149	0,424	52,674	1,326	54	73,58	0,42	74
Horizontale	5150	0,424	53,114	0,886	54	70,99	3,01	74
Verticale	5150	0,424	53,724	0,276	54	71,5	2,5	74
Horizontale	5350	0,424	49,334	4,666	54	62,38	11,62	74
Verticale	5350	0,424	47,694	6,306	54	60,02	13,98	74

Above 1GHz								
802.11ac VHT80								
C25 (5250MHz-5350MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Verticale	5147.5	0,424	46,154	7,846	54	59,43	14,57	74
Horizontale	5150	0,424	44,764	9,236	54	57,18	16,82	74
Verticale	5150	0,424	45,194	8,806	54	56,57	17,43	74
Horizontale	5350	0,424	49,814	4,186	54	63,73	10,27	74
Verticale	5350	0,424	48,474	5,526	54	59,62	14,38	74



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Above 1GHz								
802.11ac VHT80								
C26/C27 (5470MHz-5725MHz)								
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Marge Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5464.5	0,424	49,564	4,436	54	67,14	6,86	74
Horizontale	5470	0,424	49,954	4,046	54	66,11	7,89	74
Verticale	5470	0,424	47,864	6,136	54	60,43	13,57	74
Horizontale	5725	0,424	46,964	7,036	54	59,18	14,82	74
Verticale	5725	0,424	45,744	8,256	54	56,95	17,05	74

Above 1GHz						
802.11ac VHT80						
C29 (5725MHz-5850MHz)						
Polarization	Frequency (MHz)	Duty Cycle Factor (dBµV/m)	Average Level (dBµV/m)	Peak Level (dBµV/m)	Marge Peak Level (dBµV/m)	Peak Limit (dBµV/m)
Horizontale	5636.5	0,424	51,784	66,4	1.8	68.2
Verticale	5647	0,424	50,324	64,17	4.03	68.2
Horizontale	5725	0,424	60,634	80,56	41.64	122.2
Verticale	5725	0,424	55,094	73,35	48.85	122.2
Horizontale	5850	0,424	56,784	74,69	47.51	122.2
Verticale	5850	0,424	55,894	74,11	48.09	122.2

11.7. CONCLUSION

Unwanted emissions & Undesirable emission measurement performed on the sample of the product **SAGEMCOM MiniBox (253697290)**, SN: **616476080862**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 limits.

12. UNCERTAINTIES CHART

47 CFR Part 15.209 & 15.207 Kind of test	Wide uncertainty laboratory (k=2) $\pm x(\text{dB}) / (\text{Hz}) /$ 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