Accreditation
N°1-1633
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Template : August 23th, 2022

TEST REPORT

N°: **16248742-782771-B (FILE#4484518)** Version: **01**

Subject **Electromagnetic compatibility tests according to the standards:**
FCC CFR 47 Part 15, Subpart B
ICES-003 (2016)

Issued to **TRIXELL**
460, Rue Du Pommarin
38430 - MOIRANS

Apparatus under test

Product	**Portable flat panel X-ray detector**
Trade mark	**TRIXELL**
Manufacturer	**TRIXELL**
Family range	**pixium 2430 EZ3 / pixium 3543 EZ3 / pixium 4343 EZ3**
Model under test	**pixium 3543 EZ3 & pixium 4343 EZ3**
Serial number	**P22181F & L22341J**
FCCID	**VPQ-EZ3NFC**
IC	**7392A-EZ3NFC**

Conclusion See Test Program chapter

Test date	October 10, 2022 to November 14, 2022
Test location	LCIE Grenoble
FCC Test site	FR0008 - 197516
ISED Test site	FR0008 - 6500A
Sample receipt date	October 10, 2022
Composition of document	80 pages
Document issued on	December 01, 2022

Written by :
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Approved by :
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PUBLICATION HISTORY

Version	Date	Author	Modification
01	December 01, 2022	Jonathan SARTO	Creation of the document

Each new edition of this test report replaces and cancels the previous edition. The control of the old editions of report is under responsibility of client.

SUMMARY

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1. TEST PROGRAM

1.1. FCC PART15B / ICES-003

Standard:

- ✓ **FCC Part 15, Subpart B (Digital Devices)**
- ✓ **ICES-003 (2020)**

1.1.1. Requirements for disturbance emissions – Class B

EMISSION TEST	LIMITS			RESULTS (Comments)
Limits for conducted disturbance 150kHz-30MHz **FCC §15.107 / ICES-003**	**Access: AC power**			**PASS**
	Frequency	**Quasi-peak**	**Average**	
	150-500kHz	66 to 56 dBµV	56 to 46 dBµV	
	0.5-5MHz	56 dBµV	46 dBµV	
	5-30MHz	60 dBµV	50 dBµV	
Radiated emissions 30MHz-1GHz **FCC §15.109**	**Access: Enclosure port of ancillary equipment**			**PASS**
	Frequency	**Quasi-peak @3m**		
	30MHz-88MHz	40.0 dBµV/m		
	88MHz-216MHz	43.5 dBµV/m		
	216MHz-960MHz	46.0 dBµV/m		
	Above 960MHz	54.0 dBµV/m		
Radiated emissions 30MHz-1GHz **ICES-003**	**Access: Enclosure port of ancillary equipment**			**PASS**
	Frequency	**Quasi-peak @3m**		
	30MHz-88MHz	40.0 dBµV/m		
	88MHz-216MHz	43.5 dBµV/m		
	216MHz-230MHz	46.0 dBµV/m		
	230MHz-960MHz	47.0 dBµV/m		
	Above 960MHz	54.0 dBµV/m		
Radiated emissions 1GHz-18GHz* **FCC §15.109 / ICES-003**	**Access: Enclosure port of ancillary equipment**			**PASS**
	Frequency	**Peak @3m**	**Average @3m**	
	1- 18GHz	74.0 dBµV/m	54.0 dBµV/m	

NA: Not Applicable / NP: Not Performed, not requested by the customer (It cannot be taken into account for the declaration of conformity)
[D]: Divergence, the last version is used to make it possible to test the product with the standard which describes the current state of the art and thus to answer as well as possible his environment of final use.
***§15.33:** The highest internal source of a testing device is defined like more the highest frequency generated or used in the testing device or on which the testing device works or agrees.
- If the highest frequency of the internal sources of the testing device is lower than 108 MHz, measurement must be only performed until 1GHz.
- If the highest frequency of the internal sources of the testing device ranges between 108 MHz and 500 MHz, measurement must be only performed until 2GHz.
- If the highest frequency of the internal sources of the testing device ranges between 500 MHz and 1 GHz, measurement must be only performed until 5GHz.
If the highest frequency of the internal sources of the testing device is above 1 GHz, measurement must be only performed until 5 times the highest frequency or 40 GHz, while taking smallest of both.
Special condition for intentional radiator:

- For a composite system comprised of a digital device using a clock frequency of 1 GHz as the highest frequency for the digital logic and an intentional radiator operating at 2.4 GHz, the composite is required to be investigated to the upper frequency of 24 GHz (in this case, 10 times the intentional radiator frequency is the higher frequency).

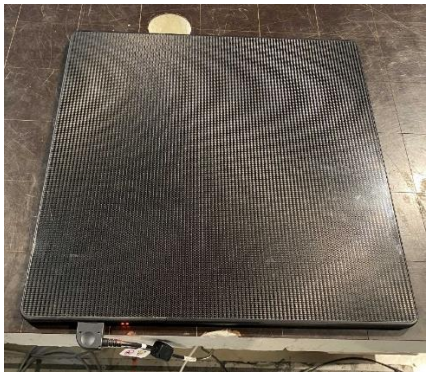
- For a composite system comprised of a digital device using a clock frequency of 2 GHz as the highest frequency for the digital logic and an intentional radiator operating at 913 MHz, the composite is required to be investigated to the upper frequency of 10 GHz (in this case, 5 times the unintentional radiator clock frequency is the higher frequency).

2. EQUIPMENT UNDER TEST: CONFIGURATION (DECLARED BY PROVIDER)

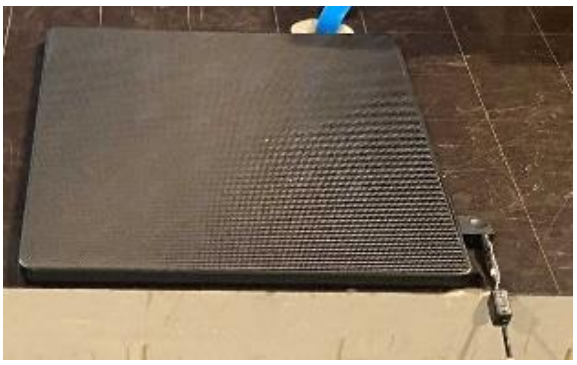
2.1. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES)

Equipment under test (EUT):

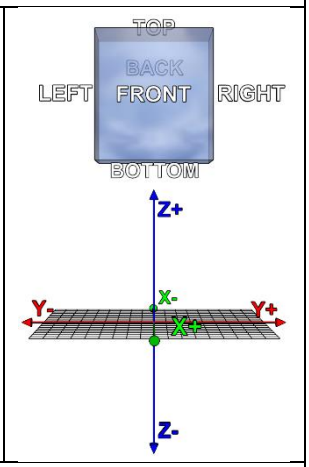
Model under test :	**pixium 3543 EZ3 & pixium 4343 EZ3**
Serial Number:	**P22181F & L22341J**



Pixium 3543EZ3



Pixium4343EZ3



Dimensions:	46 x 1.5 x 46 cm for 4343/ 38 x 1.5 x 46 cm for 3543 (Length x Height x Width)
Type :	Panel / Rack / Cabinet (considered like table-top)

Power supply:

During all the tests, EUT is supplied by V_{nom}: **12VDC**

For measurement with different voltage, it will be presented in test method.

Name	Type	Rating	Reference / Sn	Comments
Supply1	DC	12VDC	-	For Back up and CPT mode
Supply2	Battery	7.4VDC	-	For battery mode

NC: Not communicated by provider

Earth:

Access	Type	Length (m)	Width (m)	Thickness (m)	Under test	Comments
None						

NC: Not communicated by provider

Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
Supply1	Back up cable (DC)	2	No	Yes	Yes	-
Supply2	CPT cable	2	No	No	Yes	-
	Battery	-	Yes	No	Yes	-
Access1	Back up cable (Ethernet)	2	No	Yes	Yes	-

NC: Not communicated by provider

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Laptop	ASUS	-	-
DC power supply	GW GPS-1850D	-	-
Wifi router	ASUS RT-AC68U	-	-
RFID tag	-	-	-

NC: Not communicated by provider

2.2. EUT CONFIGURATION

Hardware information			
Highest internal frequency (PLL, Quartz, Clock, Microprocessor…):	**$F_{Highest}$:**	**33.3**	**MHz**
Firmware (if applicable):	**V. :**	63643436A for 3543EZ3 & 63659444A for 4343EZ3	
Software (if applicable):	**V. :**	SWSP3.3R8 for 3543EZ3 & SWSP1R10 for 4343EZ3	

NC: Not communicated by provider

Running mode n°1:

Setup:

Free reading – The XRD window is 5.5 ms. The detector mode/gain is m1g4 (overview binning 1x1). The acquisition frequency of detector is 0.14 fps.

Control:

Images are reading on laptop via Ethernet cable for Back up mode and via WIFI for CPT and battery mode.

Configuration #	Description
1	Powered with 12V with backup cable, Ethernet Communication between EUT and laptop
2	Powered with 12V on CPT, Wifi Communication between EUT and laptop
3	Powered by battery, Wifi Communication between EUT and laptop

2.3. EQUIPMENT MODIFICATIONS DURING THE TESTS

None

2.4. FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follow:

FS = RA + AF + CF – AG

Where *FS = Field Strength*
RA = Receiver Amplitude
AF = Antenna Factor
CF = Cable Factor
AG = Amplifier Gain

2.5. TEST DISTANCE EXTRAPOLATION

The field strength is extrapolated, from 30MHz to 1GHz under Class B, to the new measurement distance using an inverse linear distance extrapolation factor (20 dB/decade), formula from FCC Part15.31 (f):

$$FS_{\text{limit}} = FS_{\text{max}} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

Where *FS_{limit} is the calculation of field strength at the limit distance, expressed in dBµV/m*
FS_{max} is the measured field strength, expressed in dBµV/m

Example: *Measurement @10m with test distance limit @3m; FS_{limit} (dBµV/m) = FS_{max} (dBµV/m) + 10.5dB*

2.6. CALIBRATION DATE

The calibration intervals are extended at 12+2 months. This extended interval is based on the fact that there is sufficient calibration data to statistically establish a trend or based on experience of use of the test equipment to assure good measurement results for a longer period

3. MEASUREMENT OF CONDUCTED EMISSION

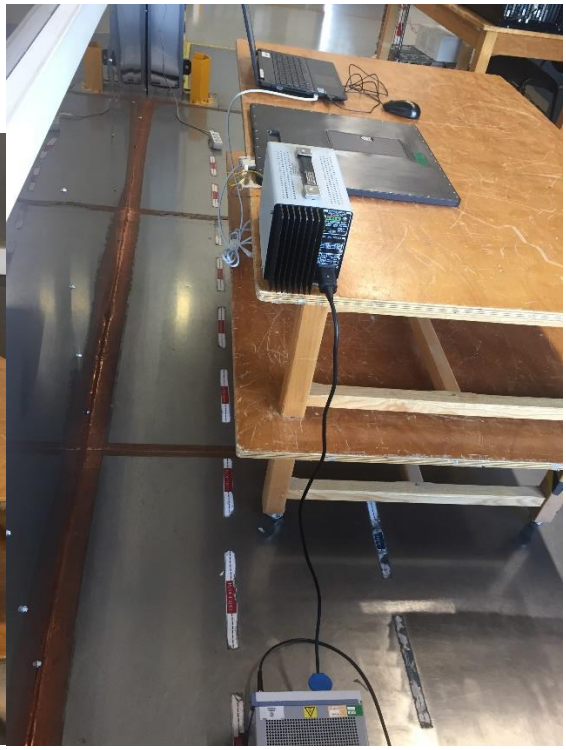
3.1. TEST CONDITIONS

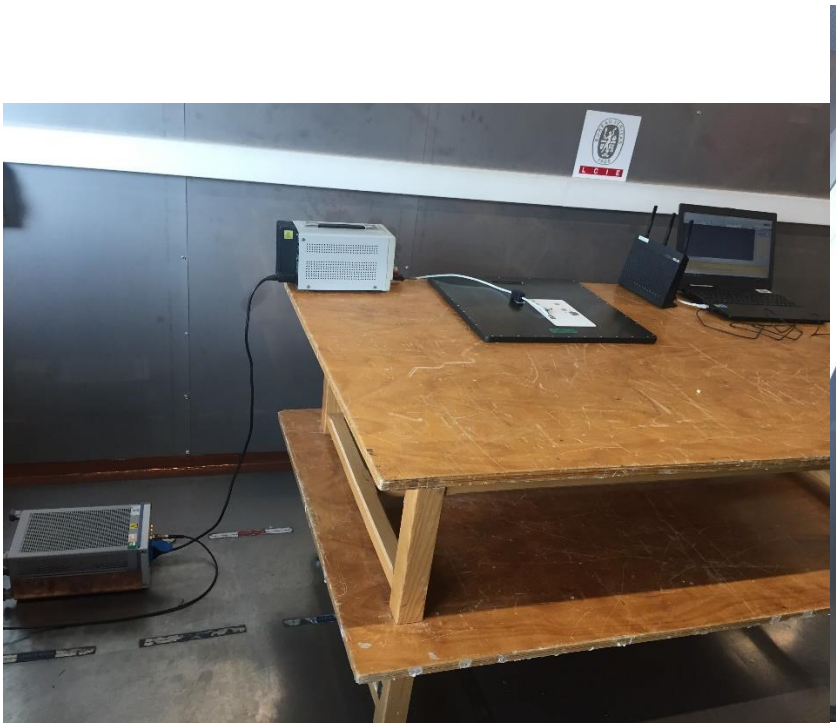
Date of test	:	October 17, 2022
Test performed by	:	Nathalie BUGANZA
Atmospheric pressure (hPa)	:	1002
Relative humidity (%)	:	58
Ambient temperature (°C)	:	22

3.2. TEST SETUP

Mains terminals

The EUT and auxiliaries are set 80cm above the ground on the non-conducting table (Table-top equipment).
The EUT is powered by V_{nom}.
The EUT is powered through a LISN (measure). Auxiliaries are powered by another LISN.






Test setup

3.3. TEST EQUIPMENT LIST

TEST EQUIPMENT USED					
Description	**Manufacturer**	**Model**	**Identifier**	**Cal_Date**	**Cal_Due**
BAT EMC	NEXIO	v3.21.0.32	L1000115		
Cable + self	_	_	A5329578	05/22	05/23
EMC comb generator	LCIE SUD EST	_	A3169098		
LISN	ROHDE & SCHWARZ	ENV216	C2320291	08/22	08/23
Probe - Current	ROHDE & SCHWARZ	ESH2-Z1	A1290018	03/22	03/24
Thermo-hygrometer (PM1/2/3)	KIMO	HQ 210	B4206022	01/21	01/23
Transient limiter	ROHDE & SCHWARZ	ESH3-Z2	A7122204	08/22	08/24
Receiver 20Hz – 8GHz	ROHDE & SCHWARZ	ESU8	A2642019	10/20	11/22

3.1. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None

3.2. TEST RESULTS – RUNNING MODE N°1

Mains terminals:

SUPPLY1

Measurements are performed on the phase (L1) and neutral (N) of the power line.

Results: (PEAK detection)

Graph identifier		Line	Comments	
Emc#	1	Phase	120VAC/60Hz 3543EZ3 – conf1	See below
Emc#	2	Neutral	120VAC/60Hz 3543EZ3 – conf1	See below
Emc#	3	Phase	240VAC/50Hz 3543EZ3 – conf1	See below
Emc#	4	Neutral	240VAC/50Hz 3543EZ3 – conf1	See below
Emc#	9	Phase	120VAC/60Hz 4343EZ3 – conf1	See below
Emc#	10	Neutral	120VAC/60Hz 4343EZ3 – conf1	See below
Emc#	11	Phase	240VAC/50Hz 4343EZ3 – conf1	See below
Emc#	12	Neutral	240VAC/50Hz 4343EZ3 – conf1	See below

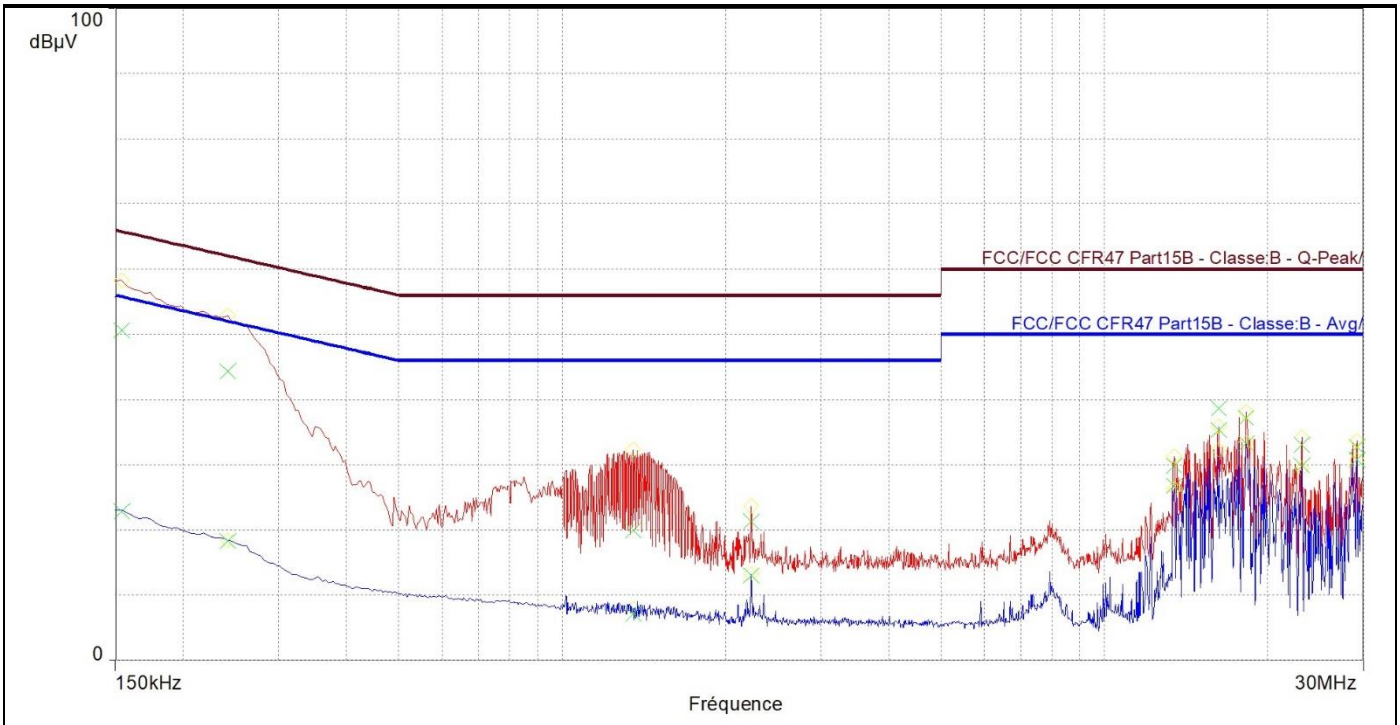
SUPPLY2

Measurements are performed on the phase (L1) and neutral (N) of the power line.

Results: (PEAK detection)

Graph identifier		Line	Comments	
Emc#	5	Phase	120VAC/60Hz 3543EZ3 – conf2	See below
Emc#	6	Neutral	120VAC/60Hz 3543EZ3 – conf2	See below
Emc#	7	Phase	240VAC/50Hz 3543EZ3 – conf2	See below
Emc#	8	Neutral	240VAC/50Hz 3543EZ3 – conf2	See below
Emc#	13	Phase	120VAC/60Hz 4343EZ3 – conf2	See below
Emc#	14	Neutral	120VAC/60Hz 4343EZ3 – conf2	See below
Emc#	15	Phase	240VAC/50Hz 4343EZ3 – conf2	See below
Emc#	16	Neutral	240VAC/50Hz 4343EZ3 – conf2	See below

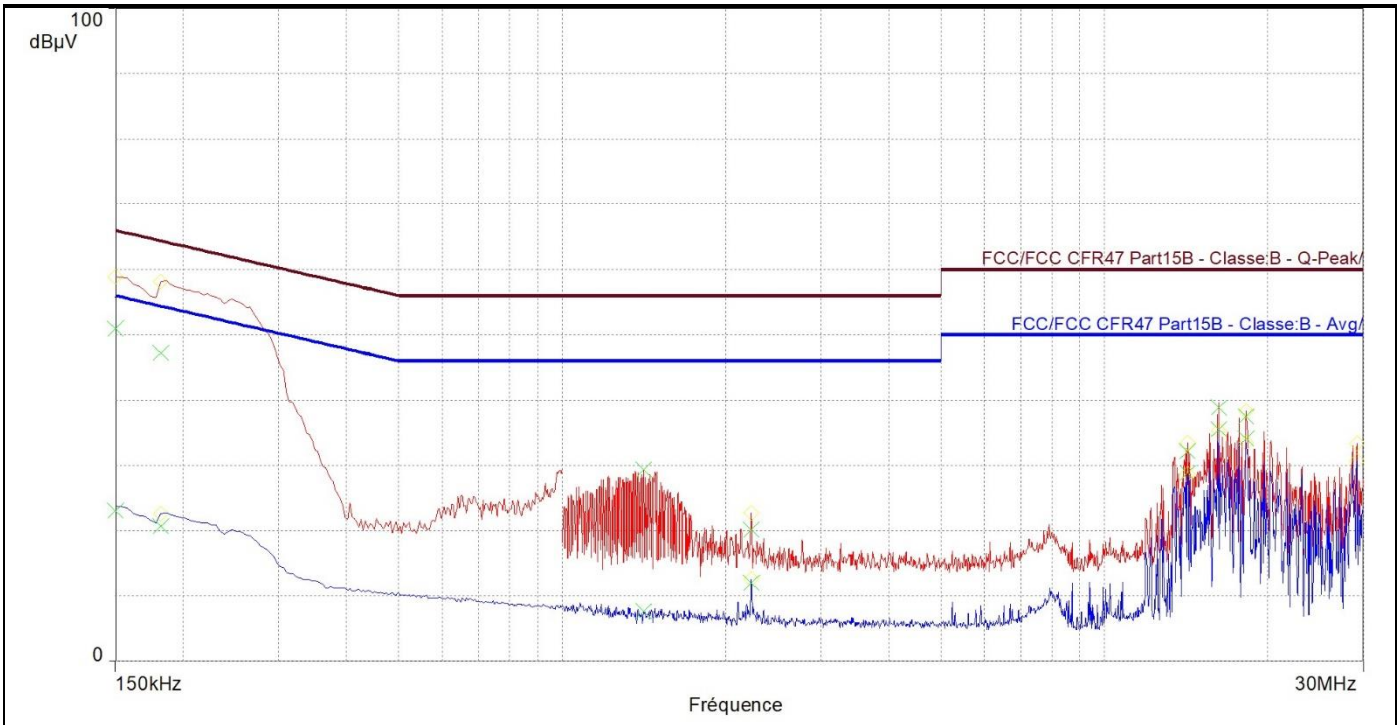
CONDUCTED EMISSIONS				
Graph name:	Emc#1	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543EZ3 – conf1		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	120V/60Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Phase**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.154	50.6	65.8	**-15.2**	22.9	55.8	**-32.9**	19.7
0.242	44.3	62.0	**-17.7**	18.3	52.0	**-33.8**	19.5
1.352	20.0	56.0	**-36.0**	7.2	46.0	**-38.8**	19.5
2.232	21.2	56.0	**-34.8**	13.1	46.0	**-32.9**	19.7
13.420	29.9	60.0	**-30.1**	26.8	50.0	**-23.2**	20.4
16.228	38.7	60.0	**-21.3**	35.3	50.0	**-14.7**	20.5
18.244	37.2	60.0	**-22.8**	33.2	50.0	**-16.8**	20.7
23.128	33.0	60.0	**-27.0**	29.9	50.0	**-20.1**	20.9
29.236	32.8	60.0	**-27.2**	30.8	50.0	**-19.2**	21.3

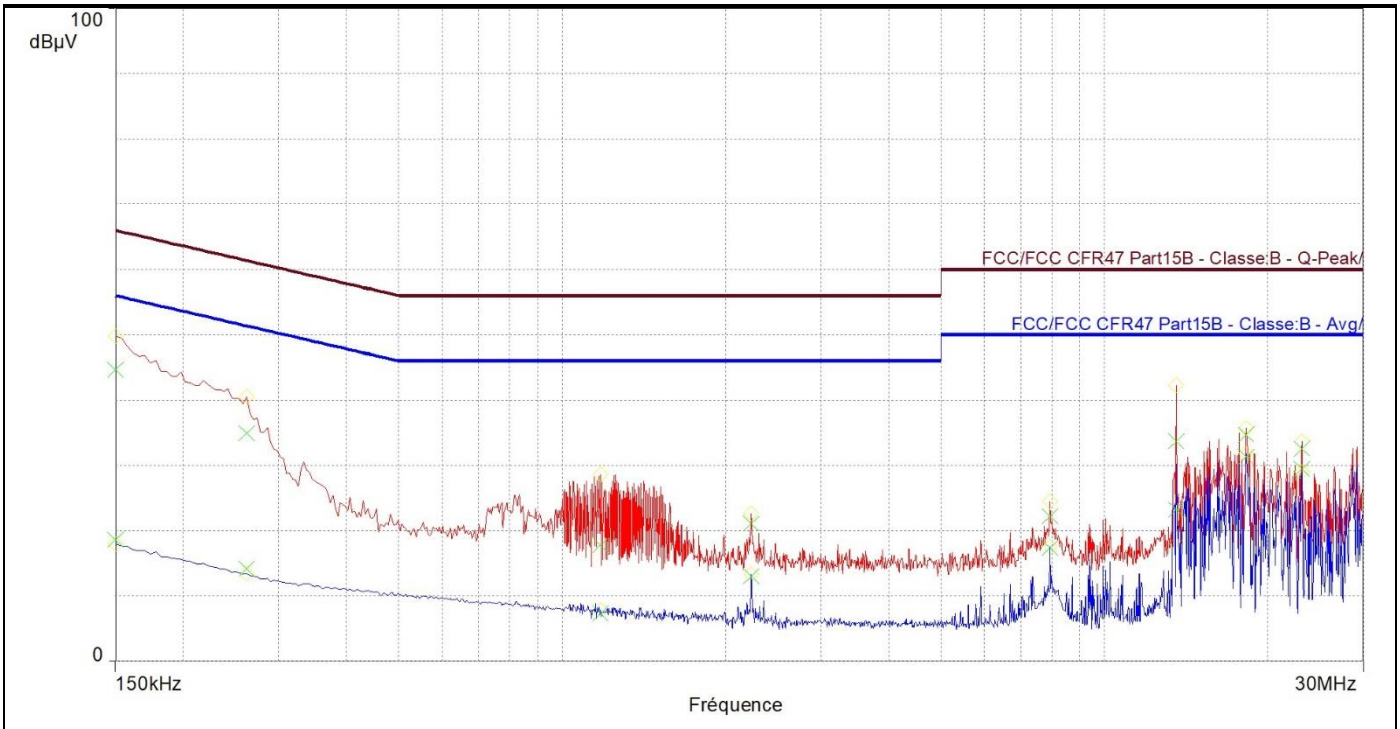
CONDUCTED EMISSIONS					
Graph name:	Emc#2	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543EZ3 – conf1			
Class:	B				
Frequency range: [150kHz - 30MHz]					
Voltage / Frequency:	120V/60Hz	**RBW:**	10kHz	**VBW:**	30kHz
Line:	**Neutral**	**Trace color & detector:**		PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	50.9	66.0	**-15.1**	23.1	56.0	**-32.9**	19.6
0.182	47.2	64.4	**-17.2**	20.7	54.4	**-33.7**	19.9
2.228	20.1	56.0	**-35.9**	12.0	46.0	**-34.0**	19.7
14.212	32.1	60.0	**-27.9**	28.8	50.0	**-21.2**	20.4
16.228	38.8	60.0	**-21.2**	35.5	50.0	**-14.5**	20.5
18.244	37.5	60.0	**-22.5**	34.1	50.0	**-15.9**	20.7

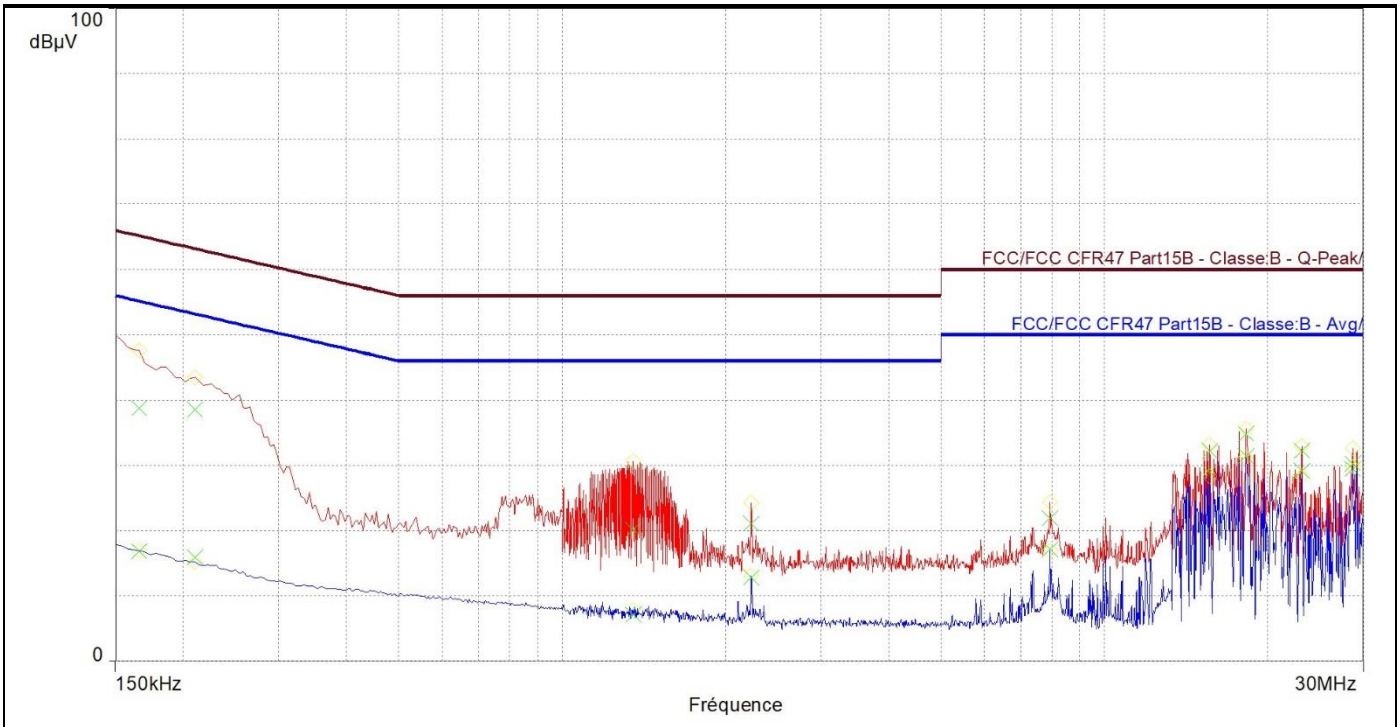
CONDUCTED EMISSIONS				
Graph name:	Emc#3	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543EZ3 – conf1		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Phase**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	44.6	66.0	**-21.4**	18.6	56.0	**-37.4**	19.6
0.262	34.9	61.4	**-26.4**	14.1	51.4	**-37.2**	19.4
1.176	17.8	56.0	**-38.2**	7.4	46.0	**-38.6**	19.5
2.232	21.1	56.0	**-34.9**	13.1	46.0	**-32.9**	19.7
7.924	22.2	60.0	**-37.8**	17.3	50.0	**-32.7**	20.1
13.556	33.7	60.0	**-26.3**	23.2	50.0	**-26.8**	20.4
18.244	34.8	60.0	**-25.2**	31.3	50.0	**-18.7**	20.7
23.128	32.6	60.0	**-27.4**	29.4	50.0	**-20.6**	20.9

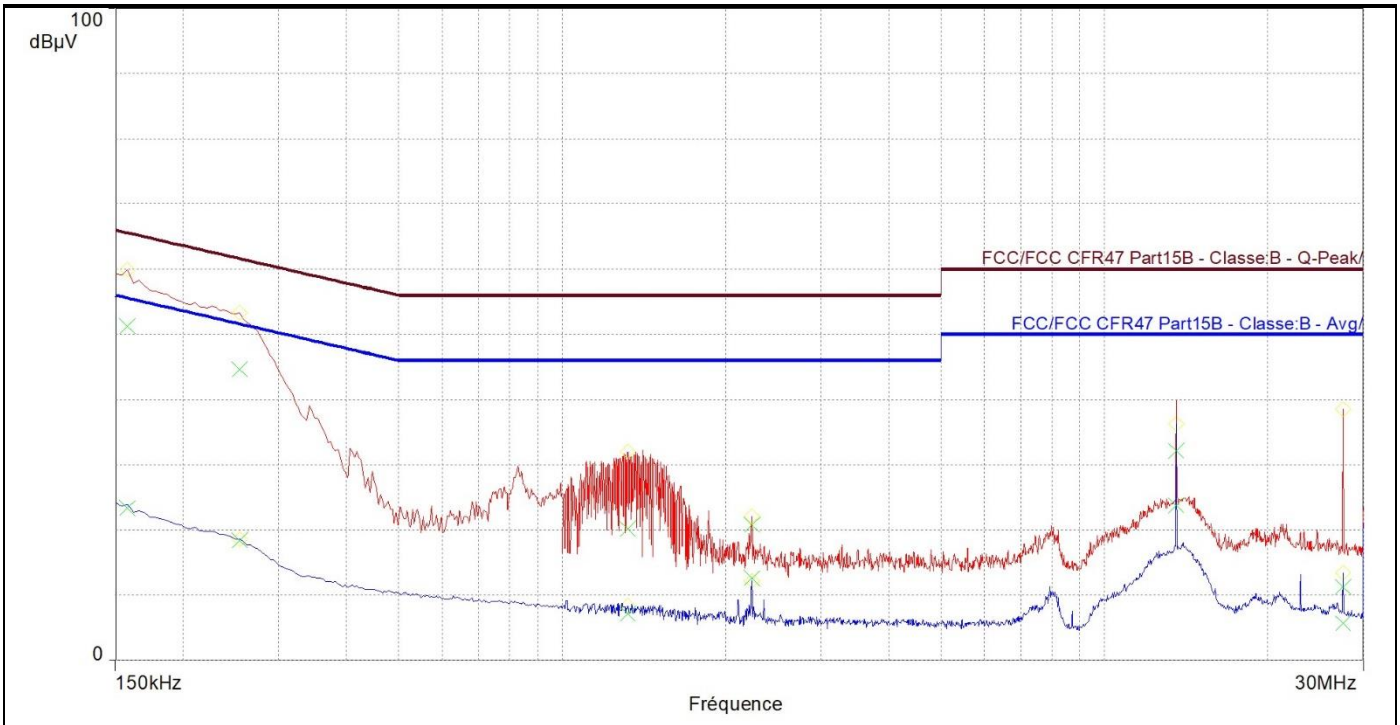
CONDUCTED EMISSIONS					
Graph name:	Emc#4	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543EZ3 – conf1			
Class:	B				
Frequency range: [150kHz - 30MHz]					
Voltage / Frequency:	240V /50Hz	**RBW:**	10kHz	**VBW:**	30kHz
Line:	**Neutral**	**Trace color & detector:**		PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.166	38.8	65.2	**-26.4**	16.9	55.2	**-38.3**	19.9
0.210	38.6	63.2	**-24.6**	16.0	53.2	**-37.3**	19.6
1.352	20.2	56.0	**-35.8**	7.1	46.0	**-38.9**	19.5
2.232	21.0	56.0	**-35.0**	12.8	46.0	**-33.2**	19.7
7.924	21.9	60.0	**-38.1**	17.1	50.0	**-32.9**	20.1
15.616	32.3	60.0	**-27.7**	29.0	50.0	**-21.0**	20.5
18.244	34.8	60.0	**-25.2**	31.4	50.0	**-18.6**	20.7
23.128	32.3	60.0	**-27.7**	29.1	50.0	**-20.9**	20.9
28.684	30.2	60.0	**-29.8**	29.5	50.0	**-20.5**	21.2

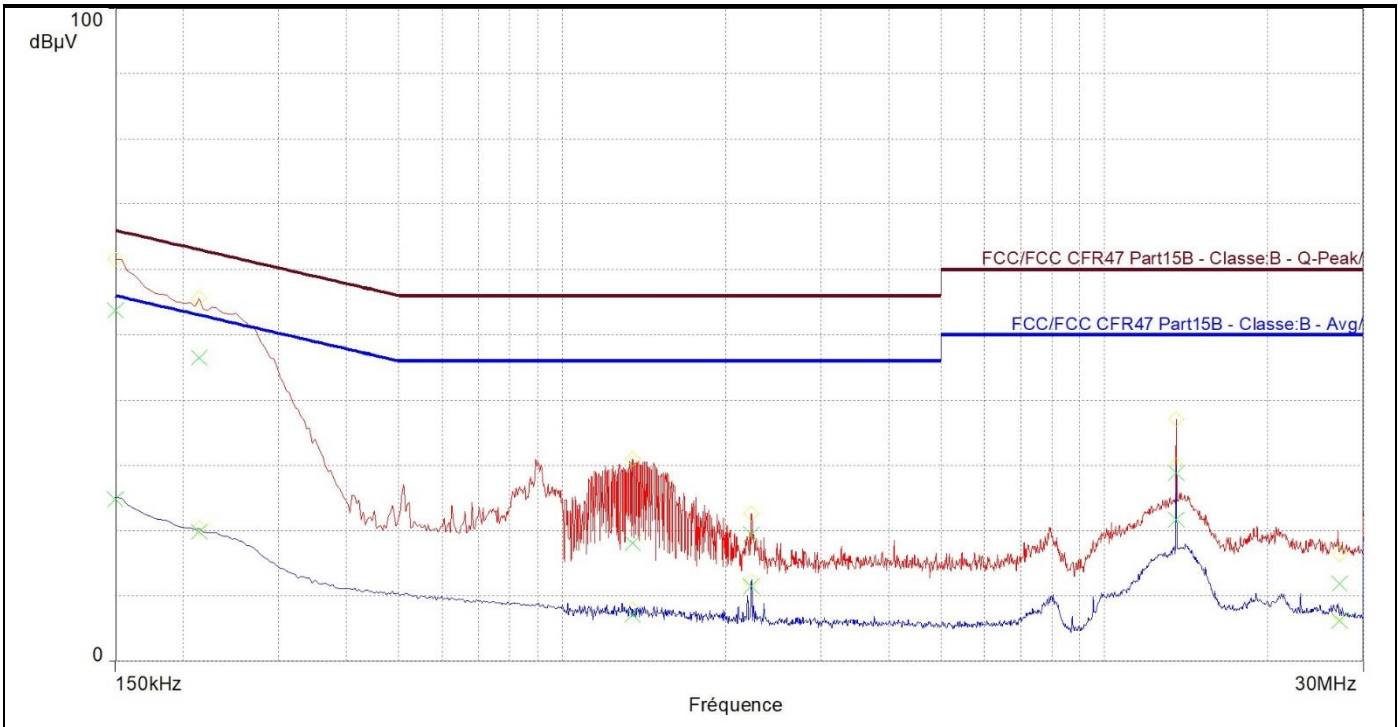
CONDUCTED EMISSIONS				
Graph name:	Emc#5	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543EZ3 – conf2		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	120V/60Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Phase**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.158	51.2	65.6	**-14.4**	23.3	55.6	**-32.3**	19.8
0.254	44.6	61.6	**-17.0**	18.4	51.6	**-33.3**	19.4
1.320	20.2	56.0	**-35.8**	7.1	46.0	**-38.9**	19.5
2.236	20.8	56.0	**-35.2**	12.6	46.0	**-33.4**	19.7
13.560	37.1	60.0	**-22.9**	33.8	50.0	**-16.2**	20.4
27.544	11.3	60.0	**-48.7**	5.7	50.0	**-44.3**	21.2

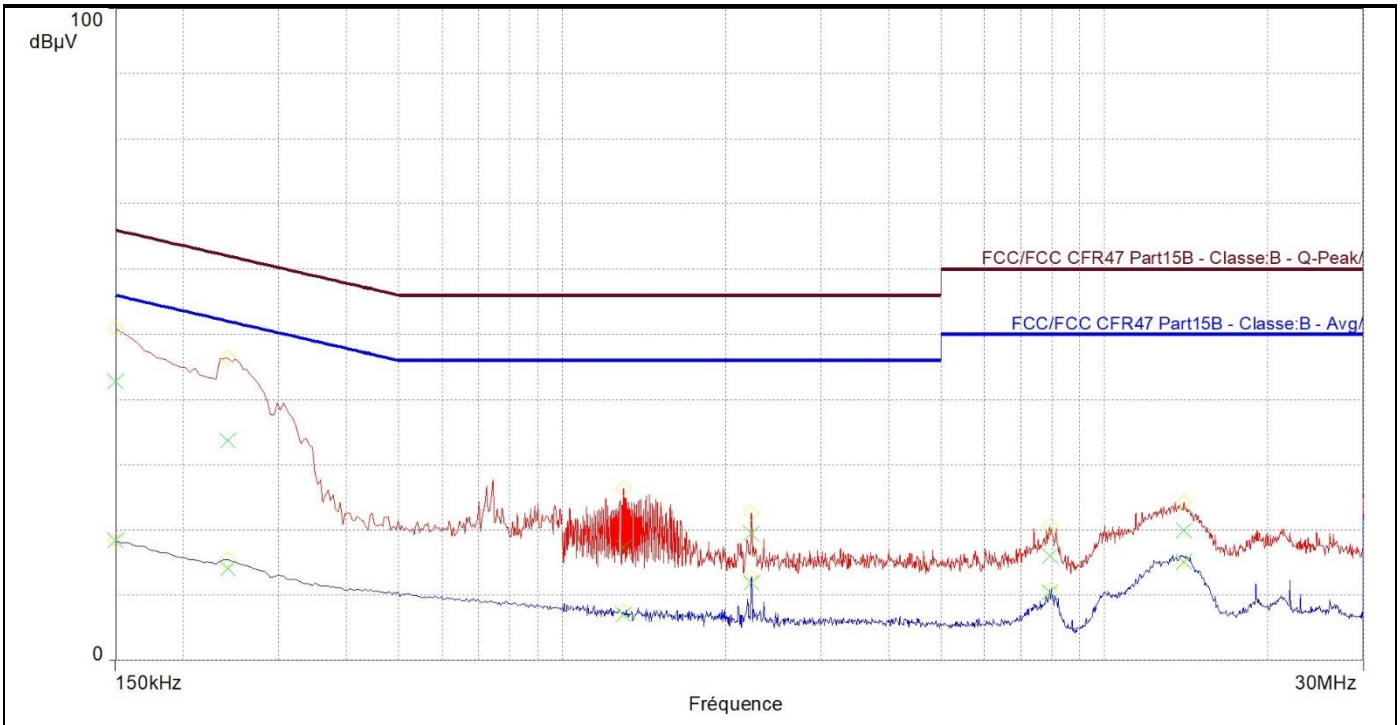
CONDUCTED EMISSIONS				
Graph name:	Emc#6	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543EZ3 – conf2		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	120V/60Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Neutral**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	53.8	66.0	**-12.2**	24.8	56.0	**-31.2**	19.6
0.214	46.5	63.0	**-16.6**	19.9	53.0	**-33.2**	19.6
1.348	18.1	56.0	**-37.9**	7.1	46.0	**-38.9**	19.5
2.232	19.4	56.0	**-36.6**	11.5	46.0	**-34.5**	19.7
13.564	28.8	60.0	**-31.2**	21.7	50.0	**-28.3**	20.4
27.128	11.9	60.0	**-48.1**	6.2	50.0	**-43.8**	21.2

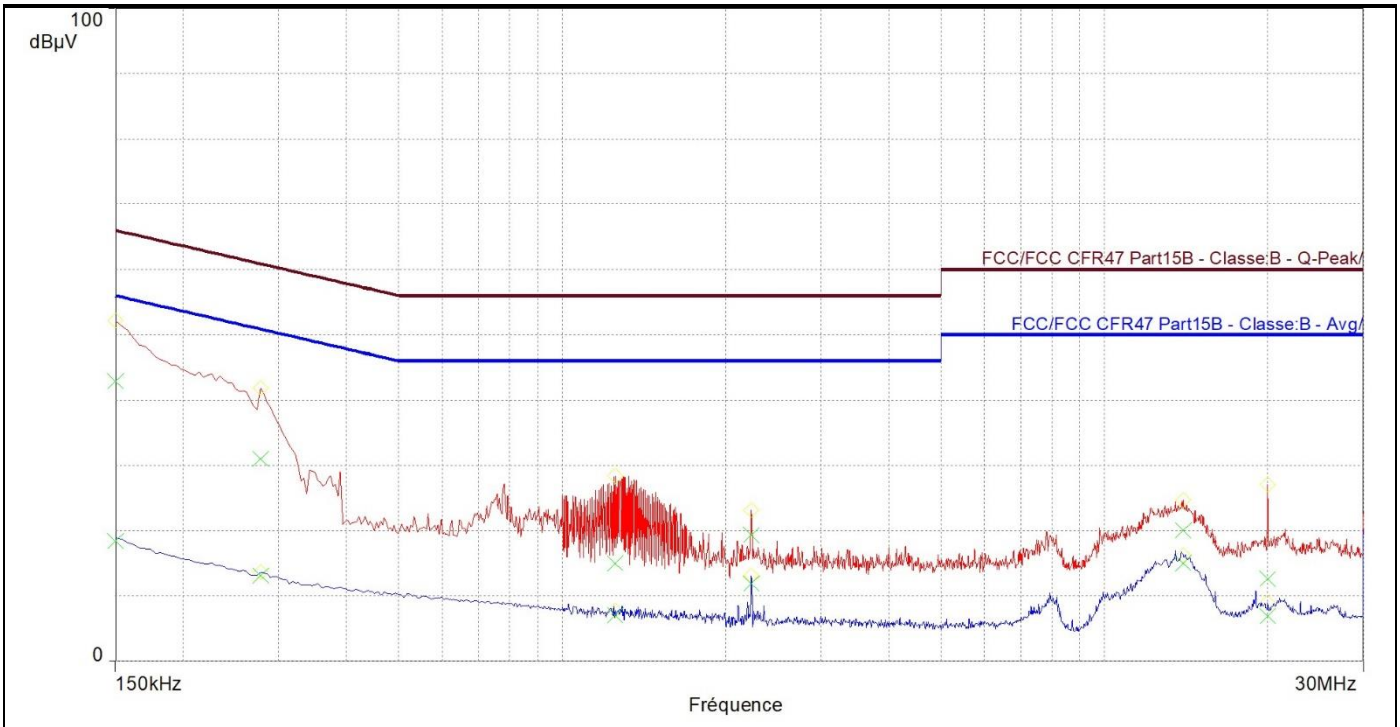
CONDUCTED EMISSIONS				
Graph name:	Emc#7	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543EZ3 – conf2		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Phase**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	42.7	66.0	**-23.3**	18.4	56.0	**-37.6**	19.6
0.242	33.7	62.0	**-28.3**	14.1	52.0	**-38.0**	19.5
1.296	17.4	56.0	**-38.6**	7.0	46.0	**-39.0**	19.5
2.232	19.4	56.0	**-36.6**	11.8	46.0	**-34.2**	19.7
7.932	16.0	60.0	**-44.0**	10.5	50.0	**-39.5**	20.1
13.560	27.1	60.0	**-32.9**	23.8	50.0	**-26.2**	20.4
14.004	20.0	60.0	**-40.0**	15.0	50.0	**-35.0**	20.4
27.544	11.0	60.0	**-49.0**	5.1	50.0	**-44.9**	21.2

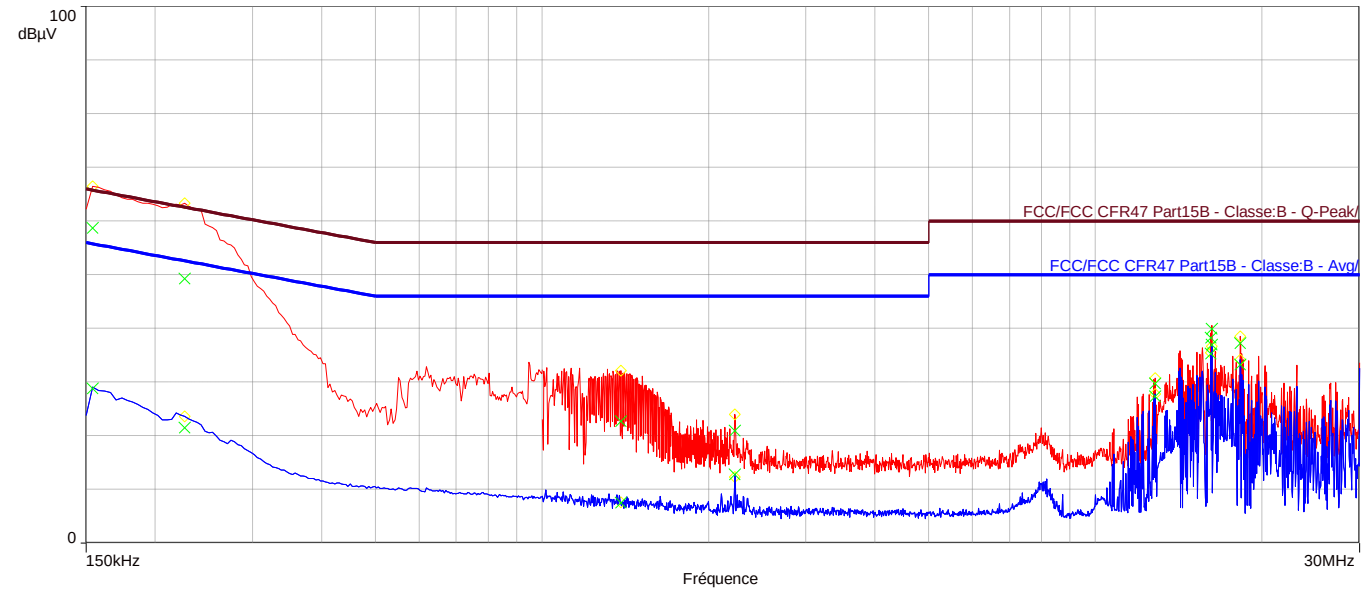
CONDUCTED EMISSIONS				
Graph name:	Emc#8	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543EZ3 – conf2		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Neutral**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	42.9	66.0	**-23.1**	18.4	56.0	**-37.6**	19.6
0.278	31.0	60.9	**-29.9**	13.2	50.9	**-37.7**	19.5
1.252	15.0	56.0	**-41.0**	7.0	46.0	**-39.0**	19.5
2.232	19.3	56.0	**-36.7**	11.9	46.0	**-34.1**	19.7
13.560	32.0	60.0	**-28.0**	28.1	50.0	**-21.9**	20.4
13.968	20.1	60.0	**-39.9**	15.0	50.0	**-35.0**	20.4
19.964	12.6	60.0	**-47.4**	7.0	50.0	**-43.0**	20.8
27.544	8.3	60.0	**-51.7**	5.6	50.0	**-44.4**	21.2

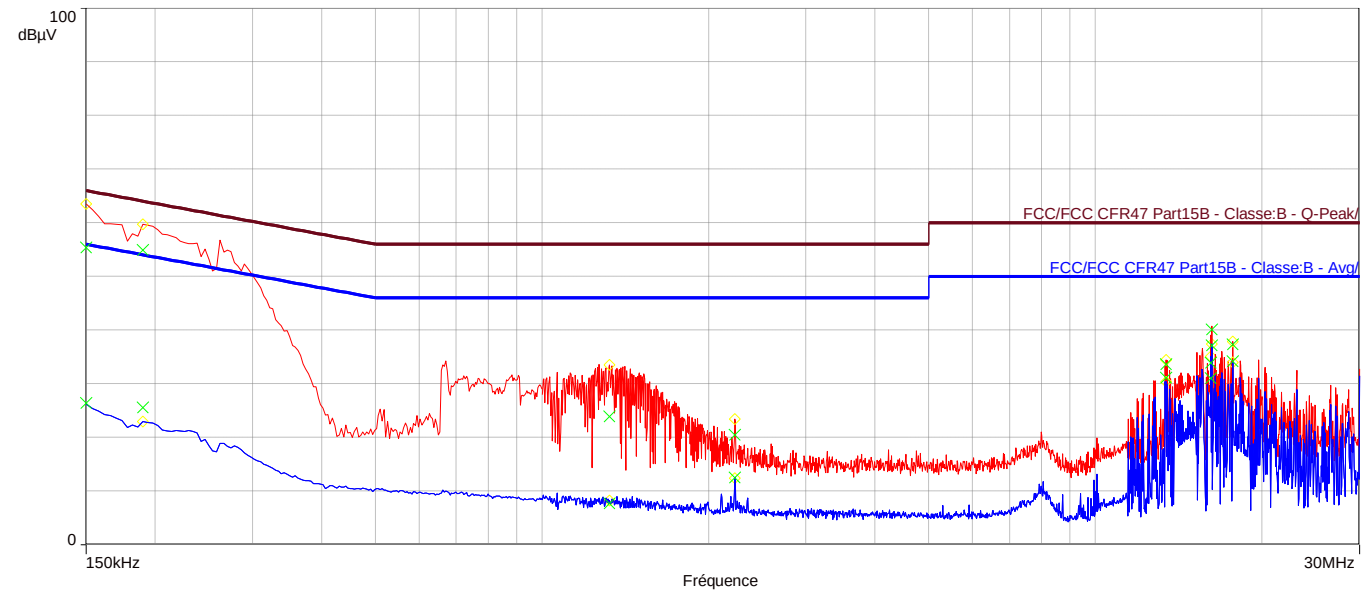
CONDUCTED EMISSIONS					
Graph name:	Emc#9	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf1			
Class:	B				
Frequency range: [150kHz - 30MHz]					
Voltage / Frequency:	120V/60Hz	**RBW:**	10kHz	**VBW:**	30kHz
Line:	**Phase**	**Trace color & detector:**		PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.154	58.7	65.8	**-7.1**	28.8	55.8	**-27.0**	19.7
0.226	49.2	62.6	**-13.4**	21.5	52.6	**-31.1**	19.6
1.388	22.7	56.0	**-33.3**	7.5	46.0	**-38.5**	19.5
2.228	20.9	56.0	**-35.1**	12.8	46.0	**-33.2**	19.7
12.808	29.7	60.0	**-30.3**	27.3	50.0	**-22.7**	20.3
16.168	38.2	60.0	**-21.8**	35.3	50.0	**-14.7**	20.5
16.228	40.0	60.0	**-20.0**	36.9	50.0	**-13.1**	20.5
18.244	37.3	60.0	**-22.7**	33.2	50.0	**-16.8**	20.7

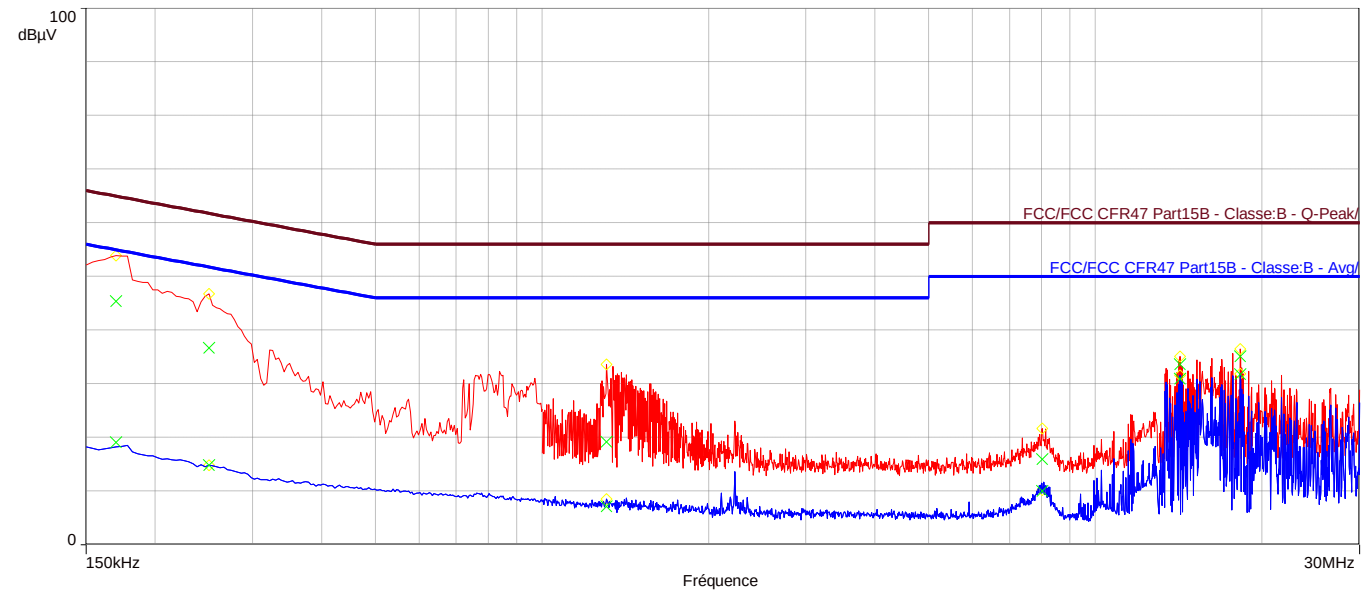
CONDUCTED EMISSIONS			
Graph name:	Emc#10	**Test configuration:**	
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf1	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	120V/60Hz	**RBW:** 10kHz	**VBW:** 30kHz
Line:	**Neutral**	**Trace color & detector:**	PEAK AVG



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	55.4	66.0	**-10.6**	26.4	56.0	**-29.6**	19.6
0.190	54.9	64.0	**-9.1**	25.6	54.0	**-28.4**	19.8
1.324	23.9	56.0	**-32.1**	7.7	46.0	**-38.3**	19.5
2.228	20.4	56.0	**-35.6**	12.5	46.0	**-33.5**	19.7
13.420	33.6	60.0	**-26.4**	31.1	50.0	**-18.9**	20.4
16.168	33.9	60.0	**-26.1**	31.0	50.0	**-19.0**	20.5
16.228	40.1	60.0	**-19.9**	37.1	50.0	**-12.9**	20.5
17.692	37.4	60.0	**-22.6**	34.2	50.0	**-15.8**	20.6

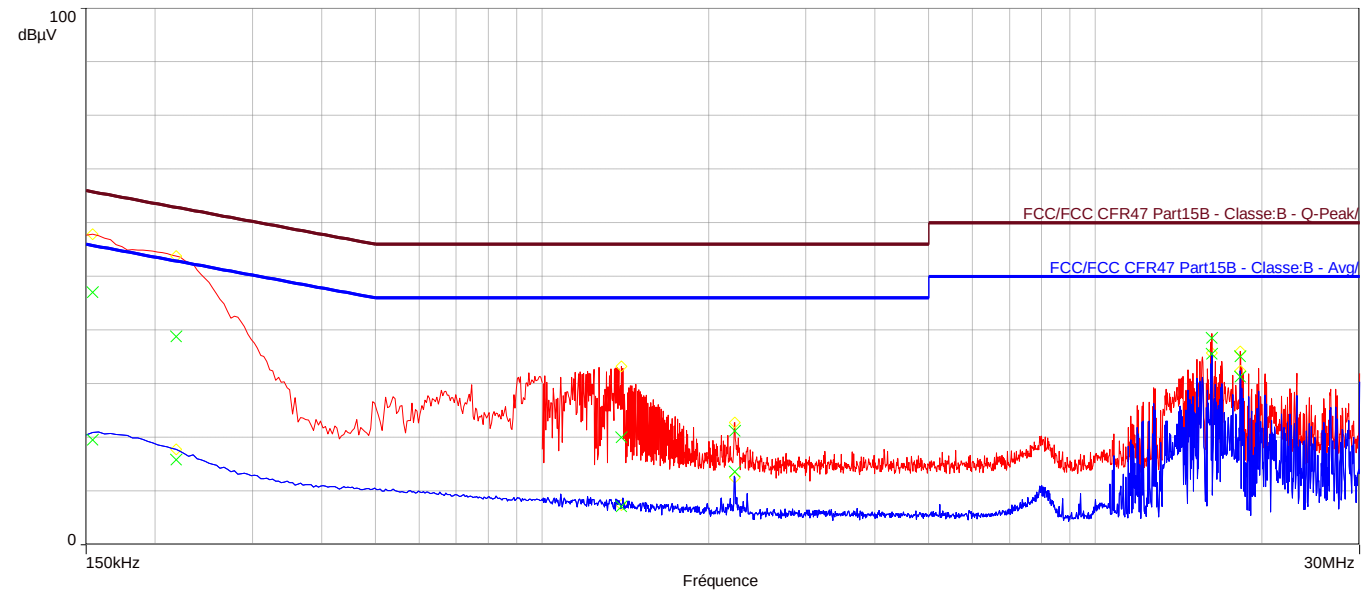
CONDUCTED EMISSIONS			
Graph name:	Emc#11	**Test configuration:**	
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf1	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz
Line:	**Phase**	**Trace color & detector:**	PEAK AVG



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.170	45.3	65.0	**-19.6**	19.1	55.0	**-35.9**	20.0
0.250	36.7	61.8	**-25.1**	14.8	51.8	**-36.9**	19.4
1.308	19.2	56.0	**-36.8**	7.2	46.0	**-38.8**	19.5
8.012	15.9	60.0	**-44.1**	10.0	50.0	**-40.0**	20.1
14.212	33.6	60.0	**-26.4**	31.0	50.0	**-19.0**	20.4
18.244	35.1	60.0	**-24.9**	31.8	50.0	**-18.2**	20.7

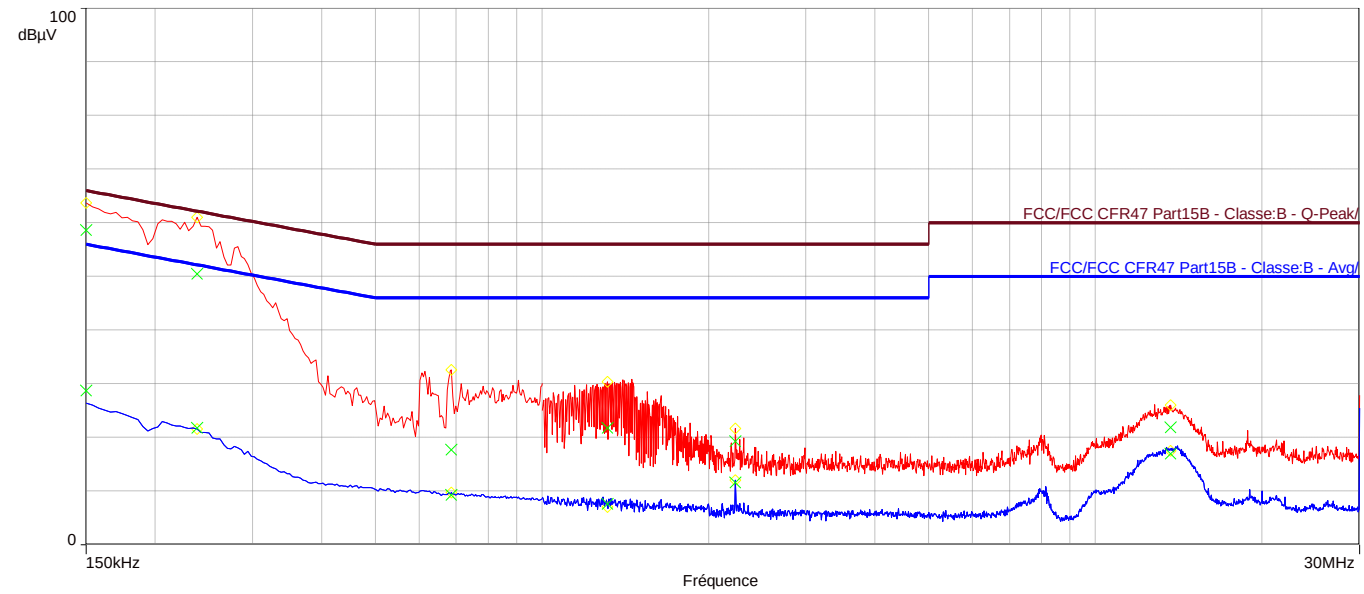
CONDUCTED EMISSIONS			
Graph name:	Emc#12	**Test configuration:**	
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf1	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz
Line:	**Neutral**	**Trace color & detector:**	PEAK AVG



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.154	47.0	65.8	**-18.7**	19.6	55.8	**-36.2**	19.7
0.218	38.8	62.9	**-24.0**	15.8	52.9	**-37.1**	19.6
1.392	20.0	56.0	**-36.0**	7.1	46.0	**-38.9**	19.5
2.228	21.2	56.0	**-34.8**	13.6	46.0	**-32.4**	19.7
16.228	38.6	60.0	**-21.4**	35.6	50.0	**-14.4**	20.5
18.244	35.1	60.0	**-24.9**	31.3	50.0	**-18.7**	20.7

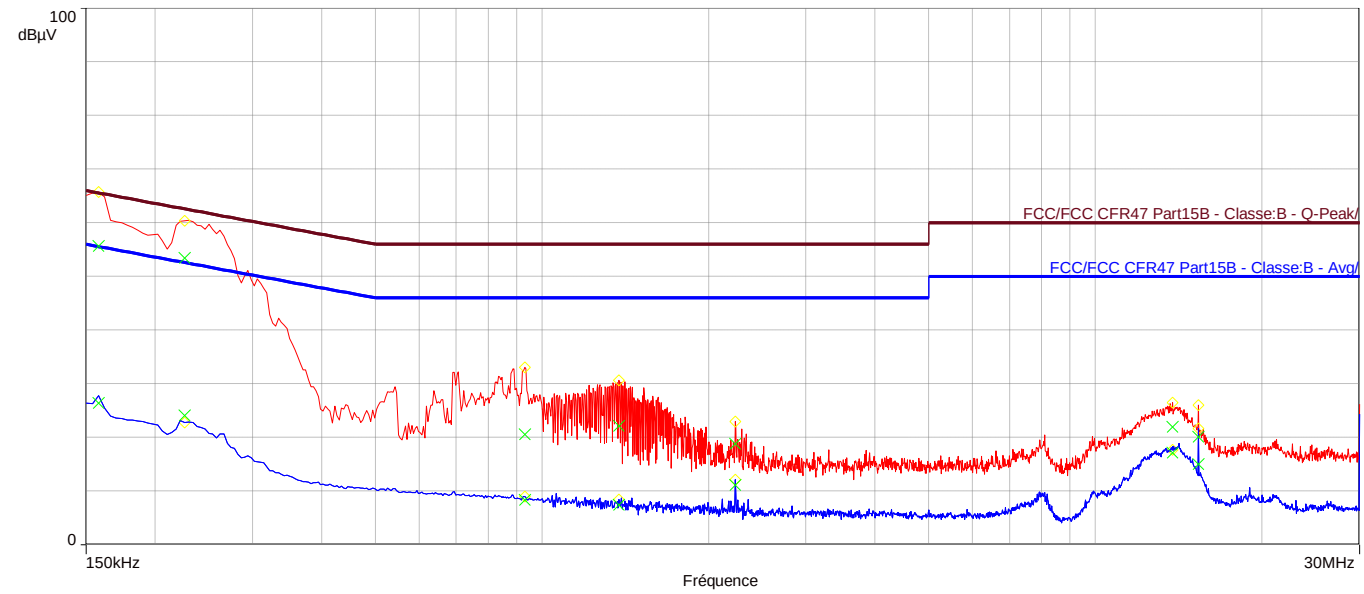
CONDUCTED EMISSIONS				
Graph name:	Emc#13	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf2		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	120V/60Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Phase**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	58.6	66.0	**-7.4**	28.8	56.0	**-27.2**	19.6
0.238	50.5	62.2	**-11.7**	21.8	52.2	**-30.4**	19.5
0.686	17.7	56.0	**-38.3**	9.2	46.0	**-36.8**	19.7
1.312	21.8	56.0	**-34.2**	7.6	46.0	**-38.4**	19.5
2.236	19.3	56.0	**-36.7**	11.6	46.0	**-34.4**	19.7
13.656	21.9	60.0	**-38.1**	16.9	50.0	**-33.1**	20.4

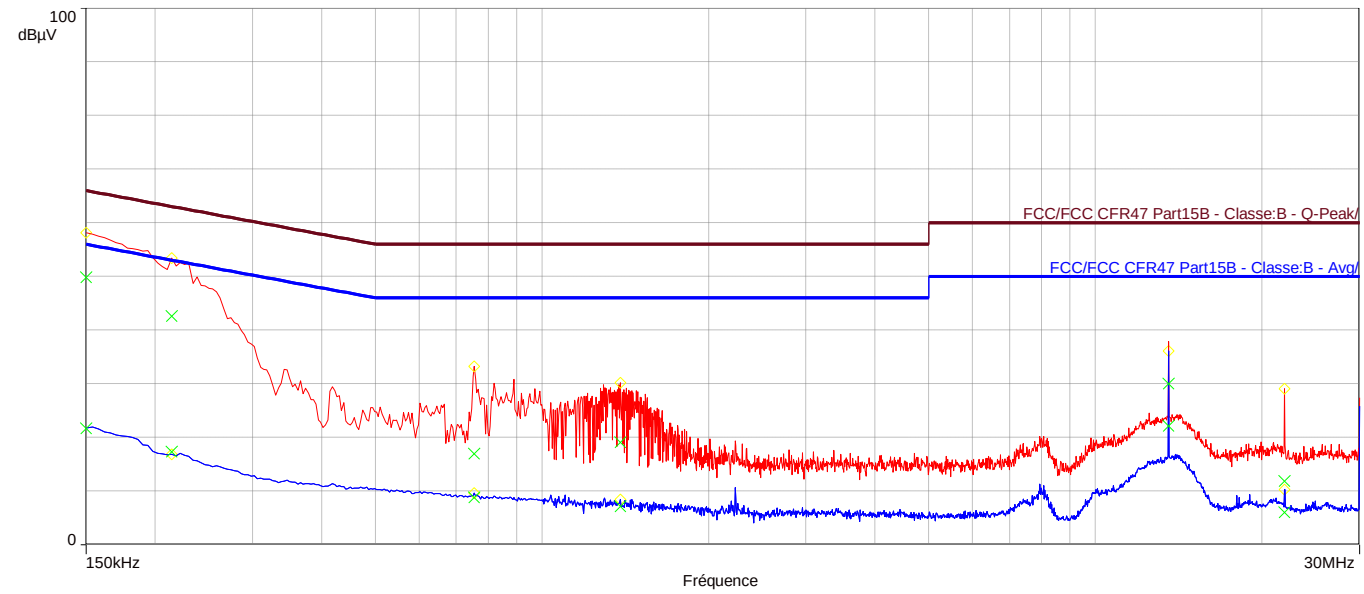
CONDUCTED EMISSIONS			
Graph name:	Emc#14	**Test configuration:**	
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf2	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	120V/60Hz	**RBW:** 10kHz	**VBW:** 30kHz
Line:	**Neutral**	**Trace color & detector:**	PEAK AVG



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.158	55.7	65.6	**-9.9**	26.4	55.6	**-29.1**	19.8
0.226	53.4	62.6	**-9.2**	24.0	52.6	**-28.6**	19.6
0.930	20.5	56.0	**-35.5**	8.3	46.0	**-37.7**	19.7
1.376	22.1	56.0	**-33.9**	7.4	46.0	**-38.6**	19.5
2.236	18.8	56.0	**-37.2**	11.1	46.0	**-34.9**	19.7
13.784	22.0	60.0	**-38.0**	17.2	50.0	**-32.8**	20.4
15.340	20.1	60.0	**-39.9**	15.0	50.0	**-35.0**	20.5

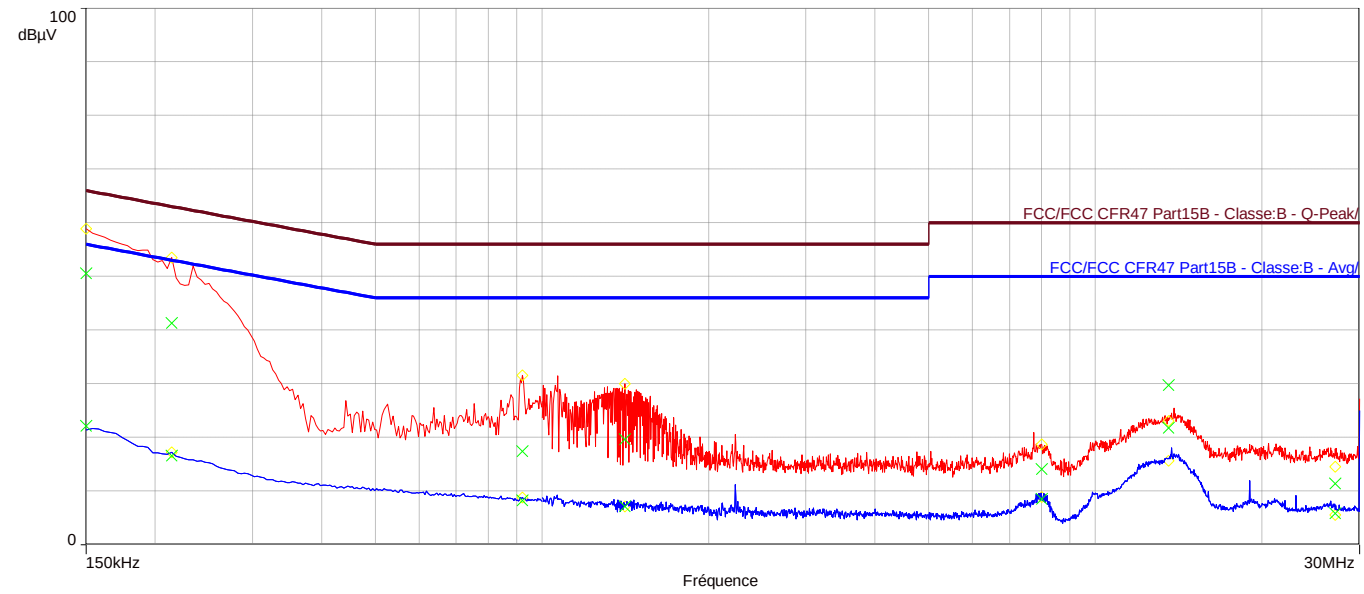
CONDUCTED EMISSIONS				
Graph name:	Emc#15	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf2		
Class:	B			
Frequency range: [150kHz - 30MHz]				
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz	
Line:	**Phase**	**Trace color & detector:**	PEAK AVG	



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	49.8	66.0	**-16.2**	21.7	56.0	**-34.3**	19.6
0.214	42.6	63.0	**-20.5**	17.3	53.0	**-35.7**	19.6
0.754	16.9	56.0	**-39.1**	8.8	46.0	**-37.2**	19.7
1.384	19.1	56.0	**-36.9**	7.2	46.0	**-38.8**	19.5
13.560	30.0	60.0	**-30.0**	22.1	50.0	**-27.9**	20.4
21.964	11.9	60.0	**-48.1**	6.0	50.0	**-44.0**	20.9

CONDUCTED EMISSIONS			
Graph name:	Emc#16	**Test configuration:**	
Limit:	FCC CFR47 Part15B	4343EZ3 – Conf2	
Class:	B		
Frequency range: [150kHz - 30MHz]			
Voltage / Frequency:	240V/50Hz	**RBW:** 10kHz	**VBW:** 30kHz
Line:	**Neutral**	**Trace color & detector:**	PEAK AVG



Spurious emissions

Frequency (MHz)	QPeak (dBµV)	Lim.QPeak (dBµV)	QPeak-Lim.QPeak (dB)	CISPR.AVG (dBµV)	Lim.CISPR.AVG (dBµV)	CISPR.AVG-Lim.CISPR.AVG (dB)	Correction (dB)
0.150	50.6	66.0	**-15.4**	22.2	56.0	**-33.8**	19.6
0.214	41.3	63.0	**-21.7**	16.5	53.0	**-36.5**	19.6
0.922	17.4	56.0	**-38.6**	8.2	46.0	**-37.8**	19.7
1.412	19.7	56.0	**-36.3**	7.2	46.0	**-38.8**	19.5
7.992	14.1	60.0	**-45.9**	8.5	50.0	**-41.5**	20.1
13.560	29.8	60.0	**-30.2**	21.7	50.0	**-28.3**	20.4
27.120	11.4	60.0	**-48.6**	5.8	50.0	**-44.2**	21.2

3.3. CONCLUSION

The sample of the equipment **pixium 3543 EZ3 & pixium 4343 EZ3**, Sn : **P22181F & L22341J**, tested in the configuration presented in this test report **satisfies** to requirements of the product family standard applied (See §Test Program) for conducted emissions.

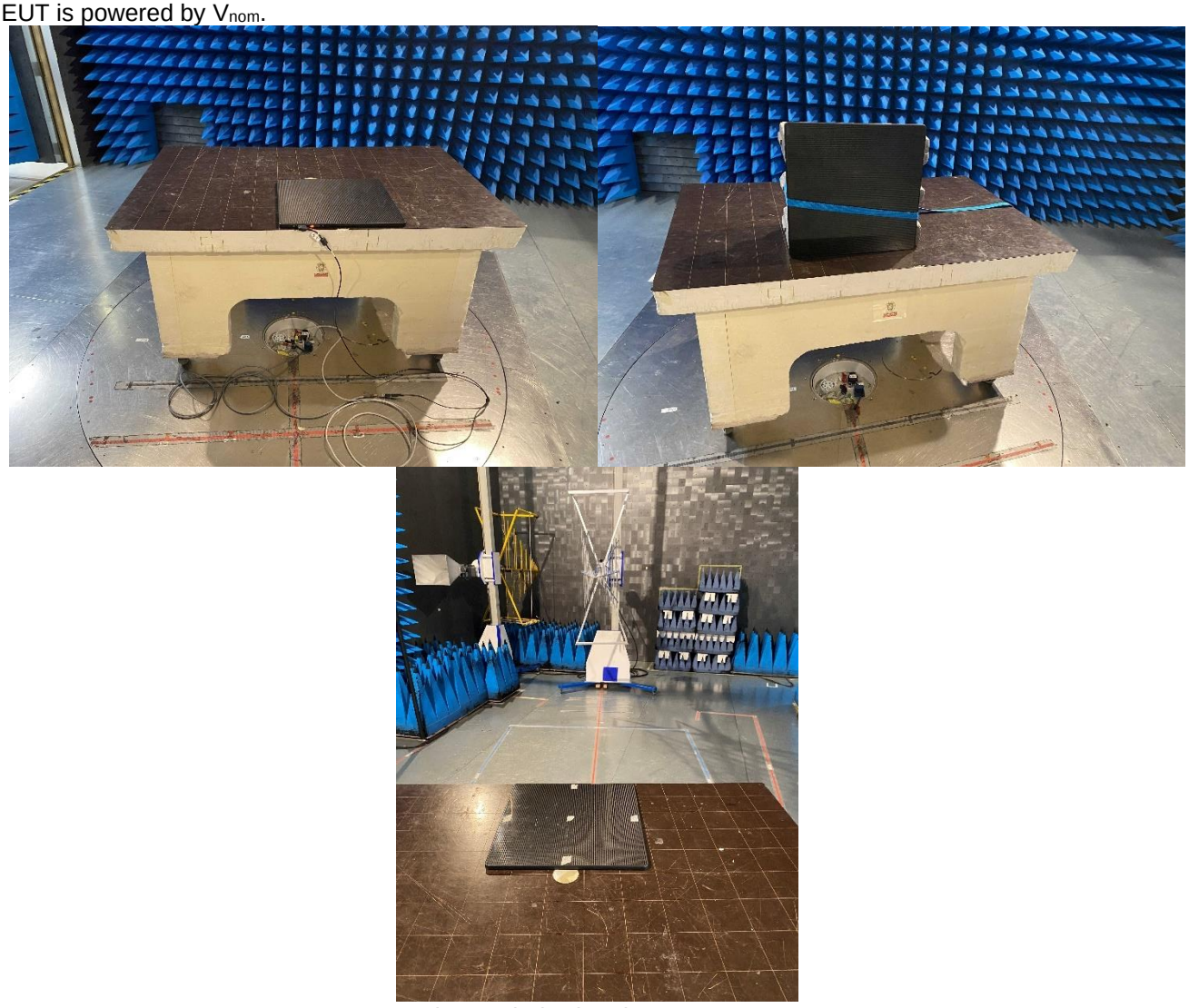
4. MEASUREMENT OF RADIATED EMISSION

4.1. TEST CONDITIONS

Date of test	:	October 10, 2022	October 13, 2022	November 14, 2022
Test performed by	:	Jonathan SARTO	Jonathan SARTO	Jonathan SARTO
Atmospheric pressure (hPa)	:	995	995	992
Relative humidity (%)	:	58	58	42
Ambient temperature (°C)	:	23	23	23

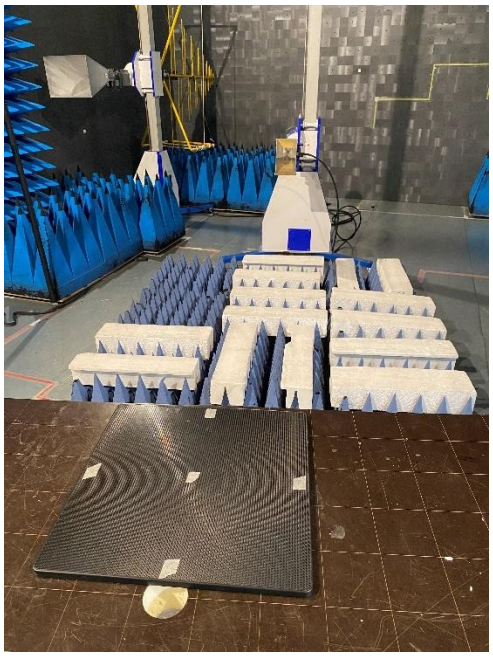
4.2. TEST SETUP

The EUT and auxiliaries are set 80cm above the ground on the non-conducting table (Table-top equipment).
The EUT is powered by V_{nom}.



Test setup in anechoic chamber – Frequency <1GHz

Test setup on OATS



Test setup in anechoic chamber – Frequency >1GHz

4.3. TEST METHOD

4.3.1. 30MHz –1GHz

Pre-qualification measurement

A pre-scan of all the setup has been performed in a 3 meters semi-anechoic chamber. Test is performed with antenna centered on EUT in horizontal (H) and vertical (V) polarization, continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. The pre-characterization graphs are obtained in PEAK detection.

Qualification

The installation of EUT is identical than for pre-qualification measurements on an Open Area Test Site with a 10 meters distance between EUT and antenna. In this case, it corrected according to requirements of 15.209.e), M@3m = M@10m+10.5dB. Test is performed in horizontal (H) and vertical (V) polarization and the height antenna is varied from 1m to 4m. Continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. A summary of the worst case emissions found in all test configurations and modes is shown.

4.3.2. 1GHz – 18GHz:

Pre-qualification measurement

A pre-scan of all the setup has been performed in a 3 meters full anechoic chamber. Test is performed with antenna centered on EUT in horizontal (H) and vertical (V) polarization, continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. The pre-characterization graphs are obtained in PEAK and AVERAGE detection.

Qualification

The installation of EUT is identical for pre-characterization measurements. Test is performed in horizontal (H) and vertical (V) polarization and the height antenna is on mast, varied from 1m to 4m.
Minimal beamwidth of the measurement antenna used: ETS3115 / w@3m=2.1m<14GHz / w@3m=0.9m<18GHz
Continuous linear turntable azimuth search was performed with 360 degrees range. Measurements are performed on all axis of EUT used in normal configuration. A summary of the worst case emissions found in all test configurations and modes is shown.

4.4. TEST EQUIPMENT LIST

TEST EQUIPMENT USED					
Description	**Manufacturer**	**Model**	**Identifier**	**Cal_Date**	**Cal_Due**
Amplifier 100kHz - 18GHz	LCIE SUD EST	_	A7085027	11/20	11/22
Antenna Bi-log	ROHDE & SCHWARZ	HL562E	C2040287	06/21	06/23
Antenna horn 18GHz	EMCO	3115	C2042027	04/22	04/25
Antenna mast (Cage#1)	MATURO Gmbh	AM 4.0	F2000407		
BAT EMC	NEXIO	v3.21.0.32	L1000115		
Cable 0.75m	SUCOFLEX	18GHz	A5329920	05/22	05/23
Cable 2.2m N	SUCOFLEX	SF118A/2x11N/2.2M	A5329989	05/22	05/23
CALCUL_FACTEURS	LCIE SUD EST	V4	L2000035		
Comb EMR HF	YORK	CGE01	A3169114		
Diameter 2m / Height 2.5m	LCIE	VSWR 1GHz - 18GHz	D3044016_VSWR	09/22	09/25
Emission Cable	SUCOFLEX	18GHz	A5329899	03/22	03/23
Radiated emission comb generator	BARDET	_	A3169050		
Semi-Anechoic chamber #1	SIEPEL	ANE	D3044016_ANE	03/21	03/24
Semi-Anechoic chamber #1	SIEPEL	_	D3044016	07/22	07/23
Spectrum analyzer	ROHDE & SCHWARZ	FSV 30	A4060051	09/20	01/23
Table C1/OATS	MATURO Gmbh	_	F2000437		
Thermo-hygrometer (PM1/2/3)	KIMO	HQ 210	B4206022	01/21	01/23
Turntable chamber (Cage#1)	MATURO Gmbh	TT 2.0 SI	F2000406		
Turntable controller (Cage#1)	MATURO Gmbh	Control Unit	F2000408		
Antenna Bi-log	CHASE	CBL6111A	C2040172	04/22	04/24
Antenna Mat (OATS)	ETS Lingren	2071-2	F2000392		
Biconic Antenna	EATON	94455-1	C2040234	03/21	03/23
Cable (OATS)	_	1GHz	A5329623	09/22	09/23
Emission Cable	RADIALEX		A5329061	08/22	08/23
Emission Cable	MICRO-COAX	1GHz	A5329656	08/22	08/23
OATS	_	_	F2000409	07/22	07/23
Receiver 20-1000MHz	ROHDE & SCHWARZ	ESVS30	A2642006	05/22	05/24
Receiver 20Hz – 8GHz	ROHDE & SCHWARZ	ESU8	A2642019	10/20	10/22
Table C1/OATS	LCIE	_	F2000445		
Turntable (OATS)	ETS Lingren	Model 2187	F2000403		
Turntable / Mast controller (OATS)	ETS Lingren	Model 2066	F2000372		

4.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

None

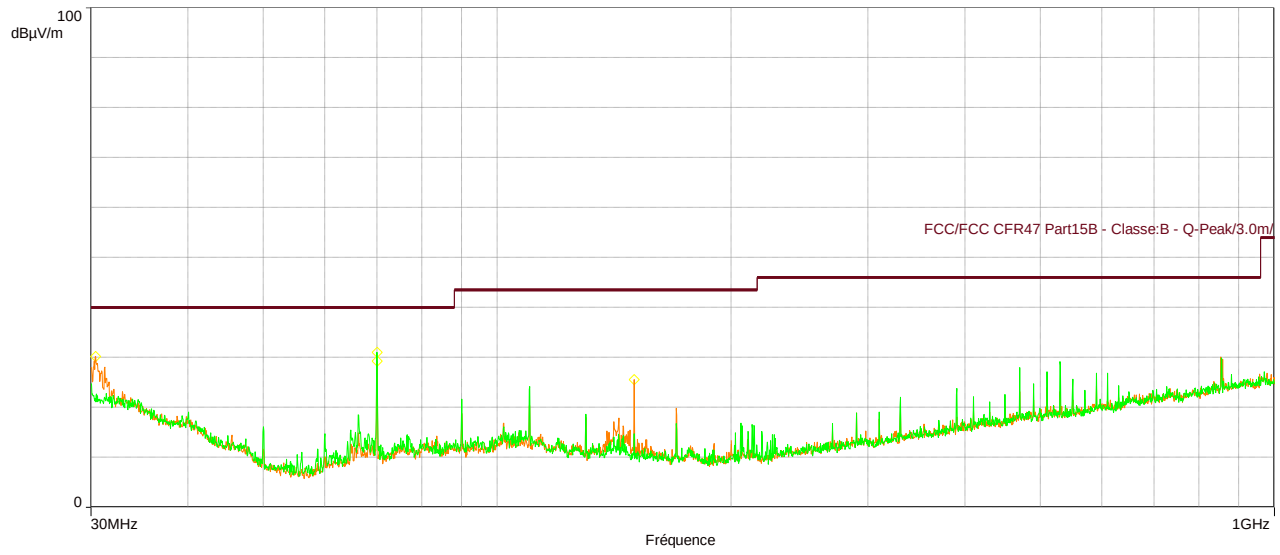
4.6. TEST RESULTS – RUNNING MODE N°1

4.6.1. 30MHz –1GHz

Pre-qualification measurement

Graph identifier		Polarization	EUT position	Comments	
Emr#	1	Horizontal & Vertical	Axis XY	3543 conf 1	See below
Emr#	2	Horizontal & Vertical	Axis Z	3543 conf 1	See below
Emr#	3	Horizontal & Vertical	Axis XY	3543 conf 2	See below
Emr#	4	Horizontal & Vertical	Axis Z	3543 conf 2	See below
Emr#	5	Horizontal & Vertical	Axis XY	3543 conf 3	See below
Emr#	6	Horizontal & Vertical	Axis Z	3543 conf 3	See below
Emr#	7	Horizontal & Vertical	Axis XY	4343 conf 1	See below
Emr#	8	Horizontal & Vertical	Axis Z	4343 conf 1	See below
Emr#	9	Horizontal & Vertical	Axis XY	4343 conf 2	See below
Emr#	10	Horizontal & Vertical	Axis Z	4343 conf 2	See below
Emr#	11	Horizontal & Vertical	Axis XY	4343 conf 3	See below
Emr#	12	Horizontal & Vertical	Axis Z	4343 conf 3	See below

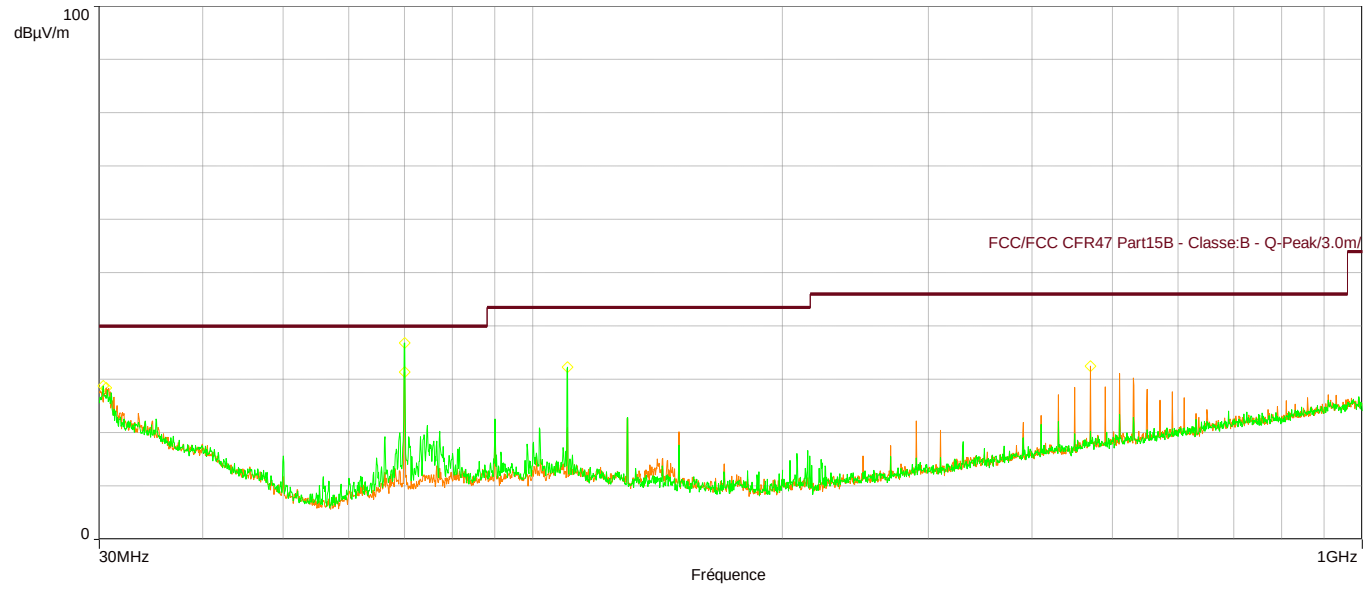
RADIATED EMISSIONS					
Graph name:	Emr#1	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf1 axis XY			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
70.001	31.0	40.0	-9.0	1.5	Vertical
30.408	30.2	40.0	-9.8	1.5	Horizontal
70.001	29.2	40.0	-10.8	1.5	Horizontal
150.003	25.6	43.5	-17.9	1.5	Horizontal

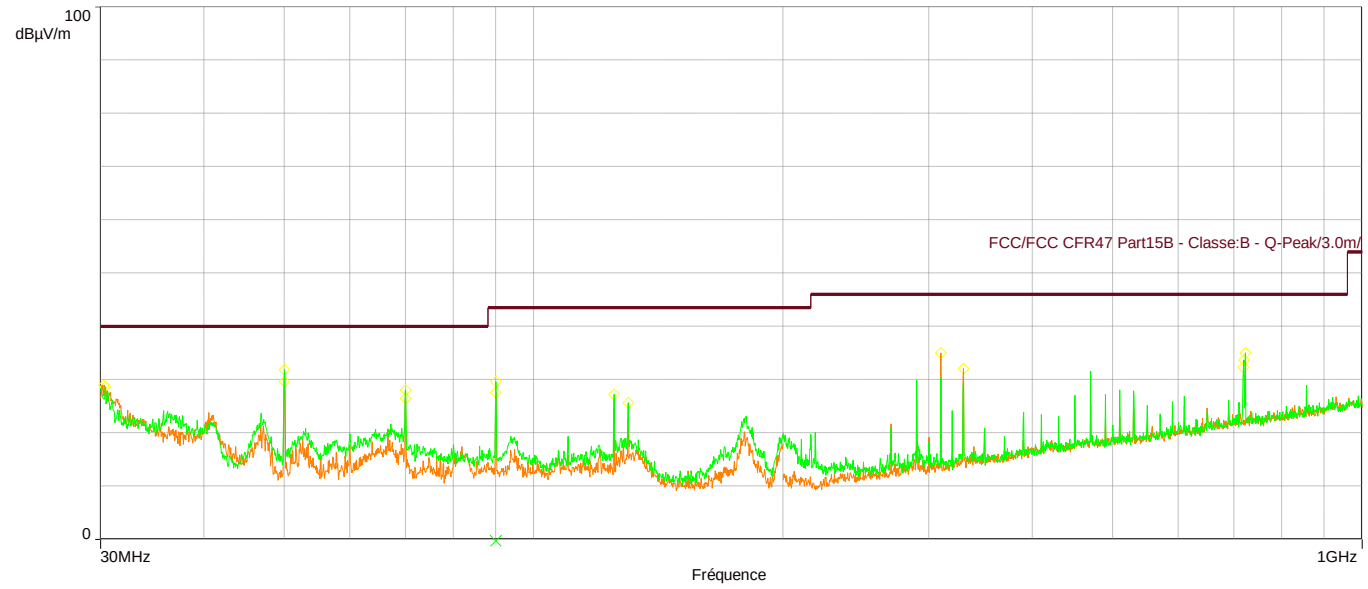
RADIATED EMISSIONS					
Graph name:	Emr#2	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf1 axis Z			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.323	28.8	40.0	-11.2	1.5	Vertical
70.001	36.9	40.0	-3.1	1.5	Vertical
110.002	32.3	43.5	-11.2	1.5	Vertical
30.561	28.4	40.0	-11.6	1.5	Horizontal
70.001	31.4	40.0	-8.6	1.5	Horizontal
470.000	32.5	46.0	-13.5	1.5	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#3	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf2 axis XY			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

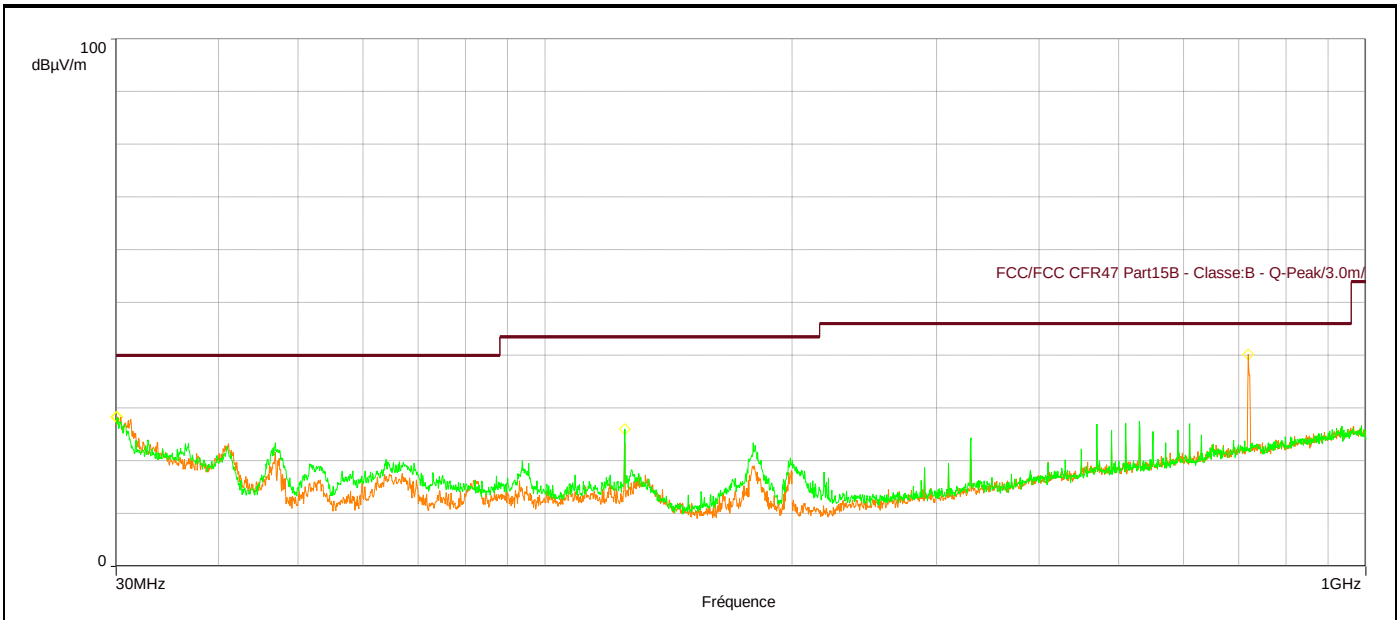
Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.391	28.7	40.0	-11.3	1.5	Vertical
49.992	31.8	40.0	-8.2	1.5	Vertical
70.018	28.0	40.0	-12.0	1.5	Vertical
89.993	29.6	43.5	-13.9	1.5	Vertical
125.013	27.2	43.5	-16.3	1.5	Vertical
130.011	25.7	43.5	-17.8	1.5	Vertical
718.760	32.3	46.0	-13.7	1.5	Vertical
719.880	33.7	46.0	-12.3	1.5	Vertical
722.680	35.0	46.0	-11.0	1.5	Vertical
30.289	29.0	40.0	-11.0	1.5	Horizontal
49.992	29.6	40.0	-10.4	1.5	Horizontal
70.001	26.5	40.0	-13.5	1.5	Horizontal
89.993	27.6	43.5	-15.9	1.5	Horizontal
310.000	35.0	46.0	-11.0	1.5	Horizontal
330.000	32.1	46.0	-13.9	1.5	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#4	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf2 axis Z			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				

Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.000	28.2	40.0	-11.8	1.5	Vertical
49.992	31.7	40.0	-8.3	1.5	Vertical
70.001	27.8	40.0	-12.2	1.5	Vertical
90.010	29.1	43.5	-14.4	1.5	Vertical
125.013	27.3	43.5	-16.2	1.5	Vertical
129.994	28.0	43.5	-15.5	1.5	Vertical
180.569	25.0	43.5	-18.5	1.5	Vertical
310.000	32.8	46.0	-13.2	1.5	Vertical
330.000	32.9	46.0	-13.1	1.5	Vertical
30.646	29.3	40.0	-10.7	1.5	Horizontal
49.992	28.4	40.0	-11.6	1.5	Horizontal
70.001	25.2	40.0	-14.8	1.5	Horizontal
90.010	25.9	43.5	-17.6	1.5	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#5	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf3 axis XY			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

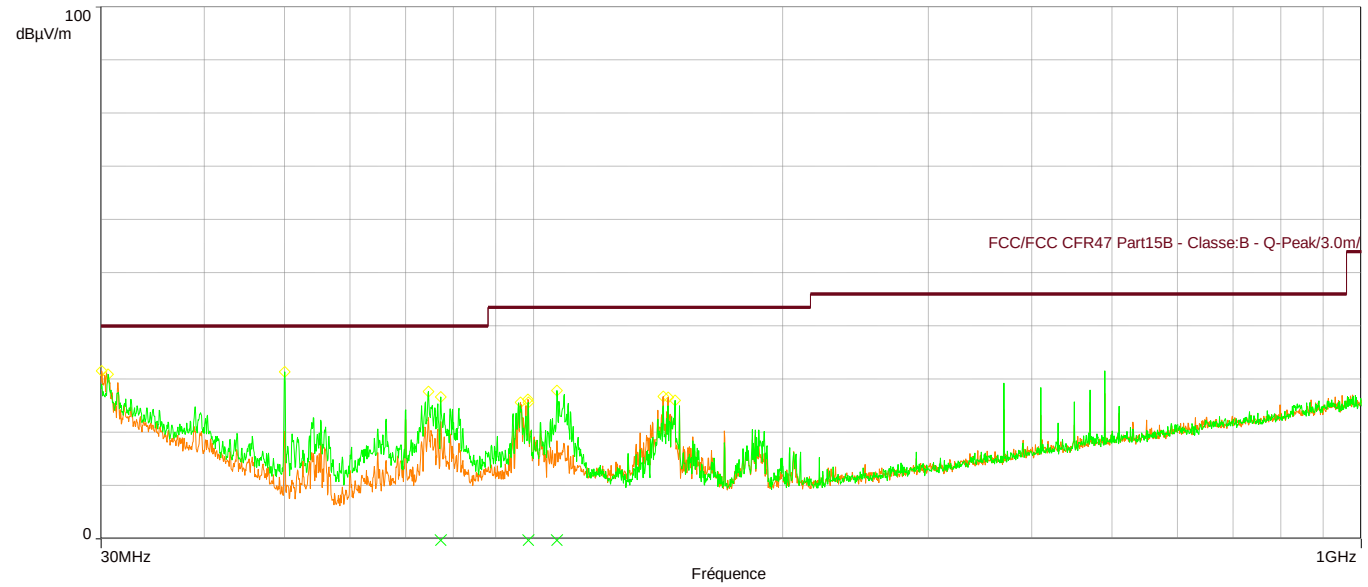
Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.017	28.3	40.0	-11.7	1.5	Vertical
124.996	26.0	43.5	-17.4	1.5	Vertical
30.102	28.3	40.0	-11.7	1.5	Horizontal
718.680	40.2	46.0	-5.8	1.5	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#6	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf3 axis Z			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				

Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.000	29.3	40.0	-10.7	1.5	Vertical
124.996	27.4	43.5	-16.1	1.5	Vertical
721.280	36.6	46.0	-9.4	1.5	Vertical
30.255	29.6	40.0	-10.4	1.5	Horizontal
124.996	25.7	43.5	-17.8	1.5	Horizontal
470.000	34.0	46.0	-12.0	1.5	Horizontal
510.040	32.2	46.0	-13.8	1.5	Horizontal
718.440	32.8	46.0	-13.2	1.5	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#7	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf1 axis XY			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.578	31.0	40.0	-9.0	1.6	Vertical
49.992	31.4	40.0	-8.6	1.6	Vertical
74.574	27.6	40.0	-12.4	1.6	Vertical
77.209	26.7	40.0	-13.3	1.6	Vertical
98.459	25.6	43.5	-17.8	1.6	Vertical
106.687	27.9	43.5	-15.6	1.6	Vertical
148.116	26.0	43.5	-17.4	1.6	Vertical
30.051	31.6	40.0	-8.4	1.6	Horizontal
96.317	25.6	43.5	-17.9	1.6	Horizontal
98.391	26.2	43.5	-17.3	1.6	Horizontal
143.288	26.8	43.5	-16.8	1.6	Horizontal
145.260	26.6	43.5	-16.9	1.6	Horizontal

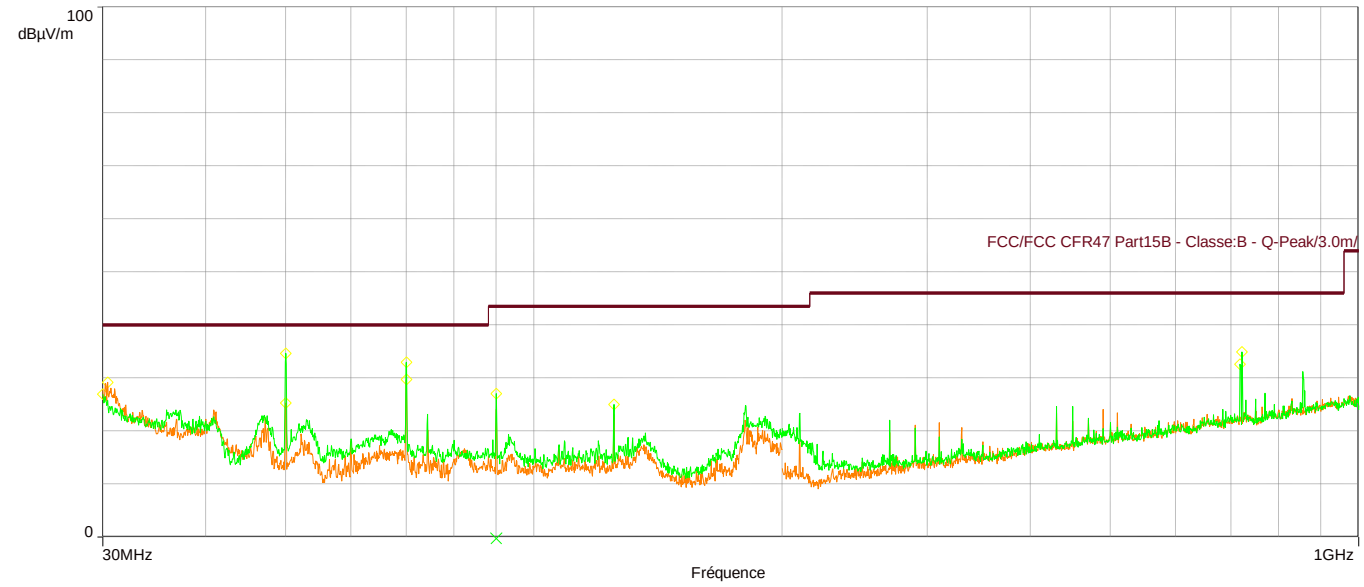
RADIATED EMISSIONS					
Graph name:	Emr#8	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf1 axis Z			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				

Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
38.942	36.5	40.0	-3.5	1.5	Vertical
50.009	30.6	40.0	-9.4	1.5	Vertical
66.295	37.6	40.0	-2.4	1.5	Vertical
81.204	31.9	40.0	-8.1	1.5	Vertical
106.704	32.6	43.5	-10.9	1.5	Vertical
148.116	27.6	43.5	-15.9	1.5	Vertical
30.119	29.7	40.0	-10.3	1.5	Horizontal
38.942	31.7	40.0	-8.3	1.5	Horizontal
39.486	32.1	40.0	-7.9	1.5	Horizontal
43.804	26.5	40.0	-13.5	1.5	Horizontal
58.730	27.0	40.0	-13.0	1.5	Horizontal
60.209	30.2	40.0	-9.8	1.5	Horizontal
62.776	33.9	40.0	-6.1	1.5	Horizontal
64.782	35.1	40.0	-4.9	1.5	Horizontal
66.278	36.1	40.0	-3.9	1.5	Horizontal
68.216	28.6	40.0	-11.4	1.5	Horizontal
70.001	29.5	40.0	-10.5	1.5	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
77.226	27.6	40.0	-12.4	1.5	Horizontal
81.204	28.2	40.0	-11.8	1.5	Horizontal
106.670	29.8	43.5	-13.6	1.5	Horizontal

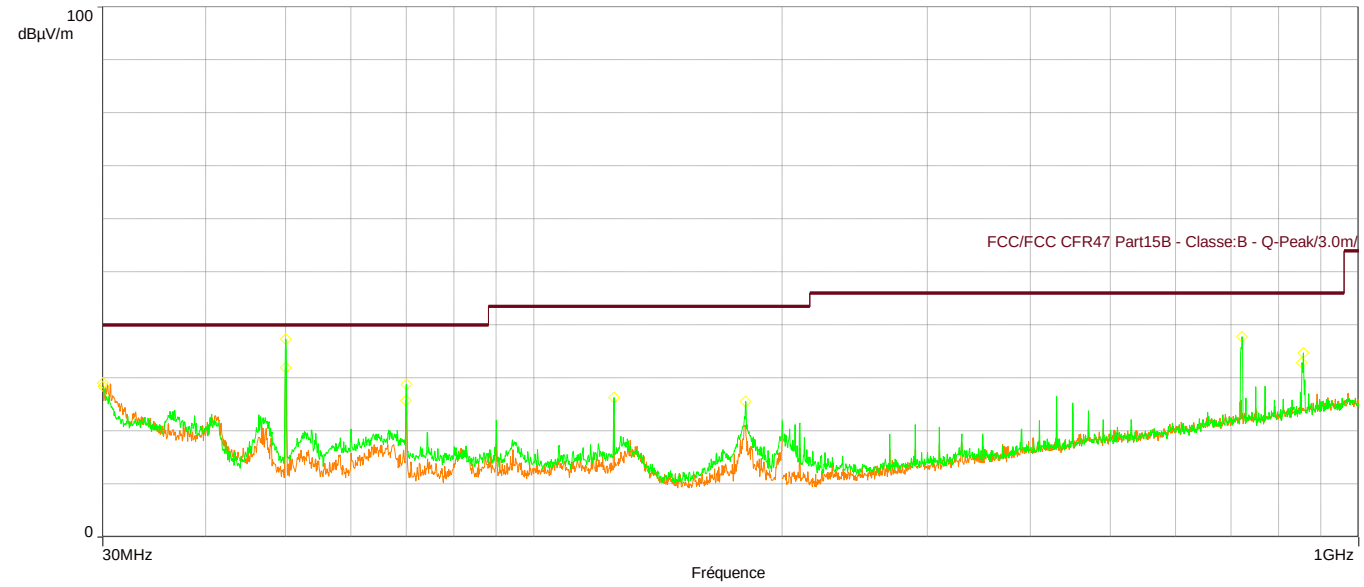
RADIATED EMISSIONS					
Graph name:	Emr#9	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf2 axis XY			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.000	26.9	40.0	-13.1	1.5	Vertical
49.992	34.6	40.0	-5.4	1.5	Vertical
70.001	33.0	40.0	-7.0	1.5	Vertical
89.993	27.0	43.5	-16.5	1.5	Vertical
125.013	25.0	43.5	-18.5	1.5	Vertical
718.400	32.6	46.0	-13.4	1.5	Vertical
722.200	34.9	46.0	-11.1	1.5	Vertical
30.408	29.2	40.0	-10.8	1.5	Horizontal
50.009	25.2	40.0	-14.8	1.5	Horizontal
70.001	29.7	40.0	-10.3	1.5	Horizontal

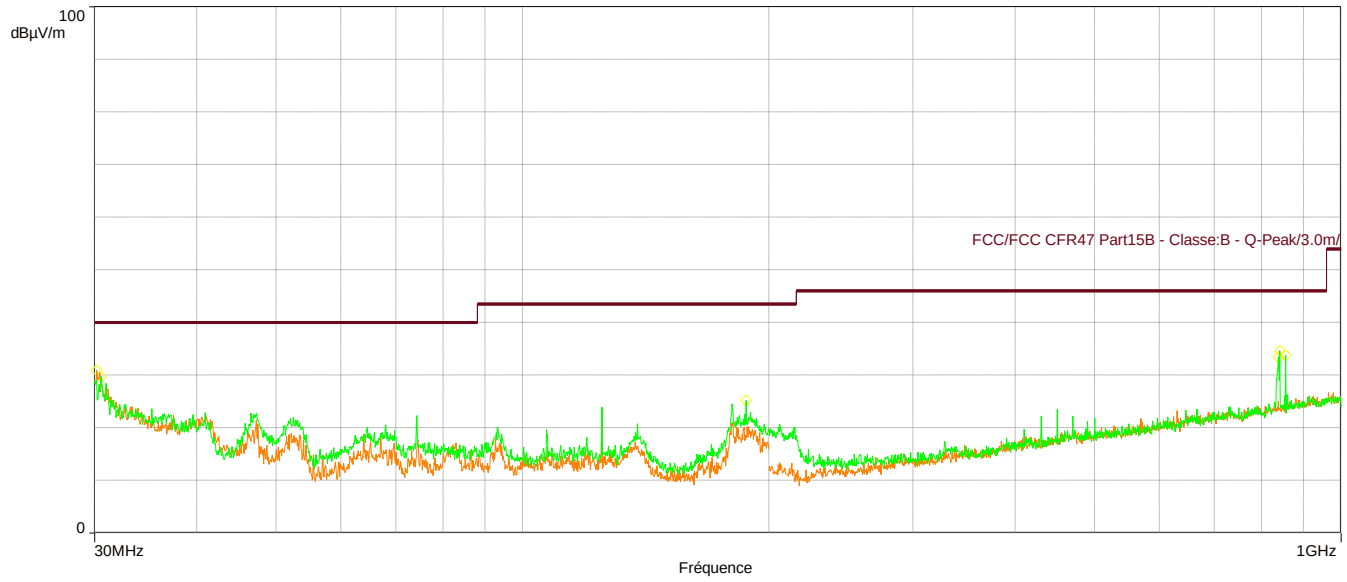
RADIATED EMISSIONS					
Graph name:	Emr#10	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Con21 axis Z			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.034	28.4	40.0	-11.6	1.6	Vertical
49.992	37.4	40.0	-2.6	1.6	Vertical
70.001	28.8	40.0	-11.2	1.6	Vertical
124.996	26.3	43.5	-17.2	1.6	Vertical
180.603	25.6	43.5	-18.0	1.6	Vertical
722.320	37.8	46.0	-8.2	1.6	Vertical
853.280	32.9	46.0	-13.1	1.6	Vertical
857.000	34.7	46.0	-11.3	1.6	Vertical
30.000	29.1	40.0	-10.9	1.6	Horizontal
49.992	32.0	40.0	-8.0	1.6	Horizontal
69.984	25.8	40.0	-14.2	1.6	Horizontal

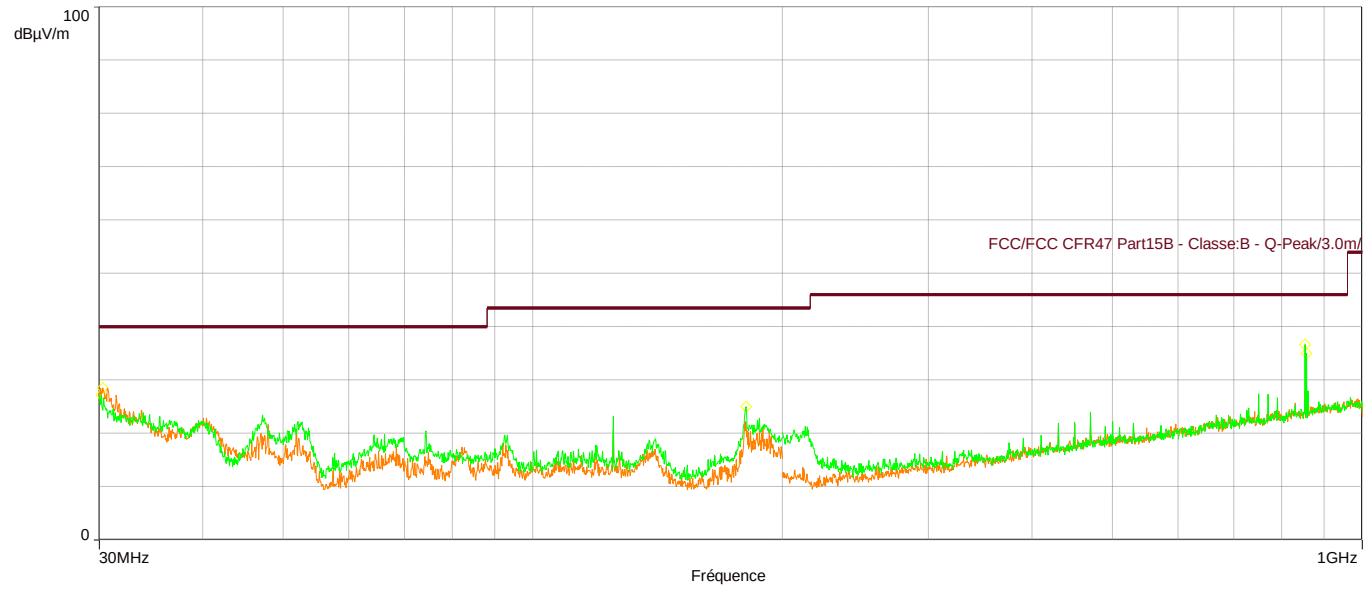
RADIATED EMISSIONS					
Graph name:	Emr#11	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf3 axis XY			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.544	29.8	40.0	-10.2	1.5	Vertical
187.505	25.2	43.5	-18.3	1.5	Vertical
838.040	33.4	46.0	-12.6	1.5	Vertical
841.280	34.7	46.0	-11.3	1.5	Vertical
855.440	33.8	46.0	-12.2	1.5	Vertical
30.170	30.9	40.0	-9.1	1.5	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#12	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf3 axis Z			
Class:	B				
Frequency range: [30MHz - 1GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	100kHz	**VBW:**	300kHz
Azimuth: 0° - 360°	**Trace color & detector:** F<GHz: Only Peak detector: Antenna Polarization: Vertical Horizontal				



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Peak-Lim.Q-Peak (dB)	Height	Polarization
30.170	27.3	40.0	-12.7	1.5	Vertical
180.739	25.0	43.5	-18.5	1.5	Vertical
853.320	36.6	46.0	-9.4	1.5	Vertical
857.040	35.0	46.0	-11.0	1.5	Vertical
30.306	28.5	40.0	-11.5	1.5	Horizontal

Qualification

The frequency list is created from the results obtained during the pre-qualification.
Measurements are performed using a QUASI-PEAK detection.
Only worst case is performed in final measurement on OATS.

Pixium 3543EZ3										
Test Frequency (MHz)	Meter Reading dB(µV)	Detector (Pk/QP/Av)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (cm)	Transducer Factor (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Remark
30.3	21.4	QP	V	0	120	14.2	35.6	40.0	-4.4	BUC axis Z
70	20.8	QP	V	360	175	7.6	28.4	40.0	-11.6	BUC axis Z
110	18.7	QP	V	35	106	13.1	31.8	43.5	-11.7	BUC axis Z
470	18.9	QP	H	108	100	23.1	42.0	46.0	-4.0	BUC axis Z
30.3	21.4	QP	V	0	120	14.2	35.6	40.0	-4.4	Bat axis Z
70	20.8	QP	V	360	175	7.6	28.4	40.0	-11.6	Bat axis Z
110	18.7	QP	V	35	106	13.1	31.8	43.5	-11.7	Bat axis Z
470	18.9	QP	H	108	100	23.1	42.0	46.0	-4.0	Bat axis Z
30.3	21.4	QP	V	360	100	14.2	35.6	40.0	-4.4	CPT axis XY
50	13.8	QP	V	88	100	12.6	26.4	40.0	-13.6	CPT axis XY
70	18.3	QP	V	320	100	7.6	25.9	40.0	-14.1	CPT axis XY
90	16.4	QP	V	188	100	12.5	28.9	43.5	-14.6	CPT axis XY
125	17.2	QP	V	73	100	14.1	31.3	43.5	-12.2	CPT axis XY
310	23.0	QP	V	296	100	17.9	40.9	46.0	-5.1	CPT axis XY

Pixium 4343EZ3										
Test Frequency (MHz)	Meter Reading dB(µV)	Detector (Pk/QP/Av)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (cm)	Transducer Factor (dB)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Remark
34.6	19.2	QP	V	286	237	14.6	33.8	40.0	-6.2	BUC axis Z
38.9	17.3	QP	V	0	100	14.6	31.9	40.0	-8.1	BUC axis Z
50	18.8	QP	V	189	100	12.6	31.4	40.0	-8.6	BUC axis Z
66.3	19.9	QP	V	243	223	7.9	27.8	40.0	-12.2	BUC axis Z
74	23.1	QP	V	0	151	8.1	31.2	40.0	-8.8	BUC axis Z
81.2	16.7	QP	V	146	100	10.2	26.9	40.0	-13.1	BUC axis Z
106.7	18.5	QP	V	326	100	13.3	31.8	43.5	-11.7	BUC axis Z
148.1	13.0	QP	V	208	100	19.1	32.1	43.5	-11.4	BUC axis Z
30.2	21.4	QP	V	212	156	14.2	35.6	40.0	-4.4	Batt axis XY
187.5	13.2	QP	H	184	210	16.3	29.5	43.5	-14.0	Batt axis XY

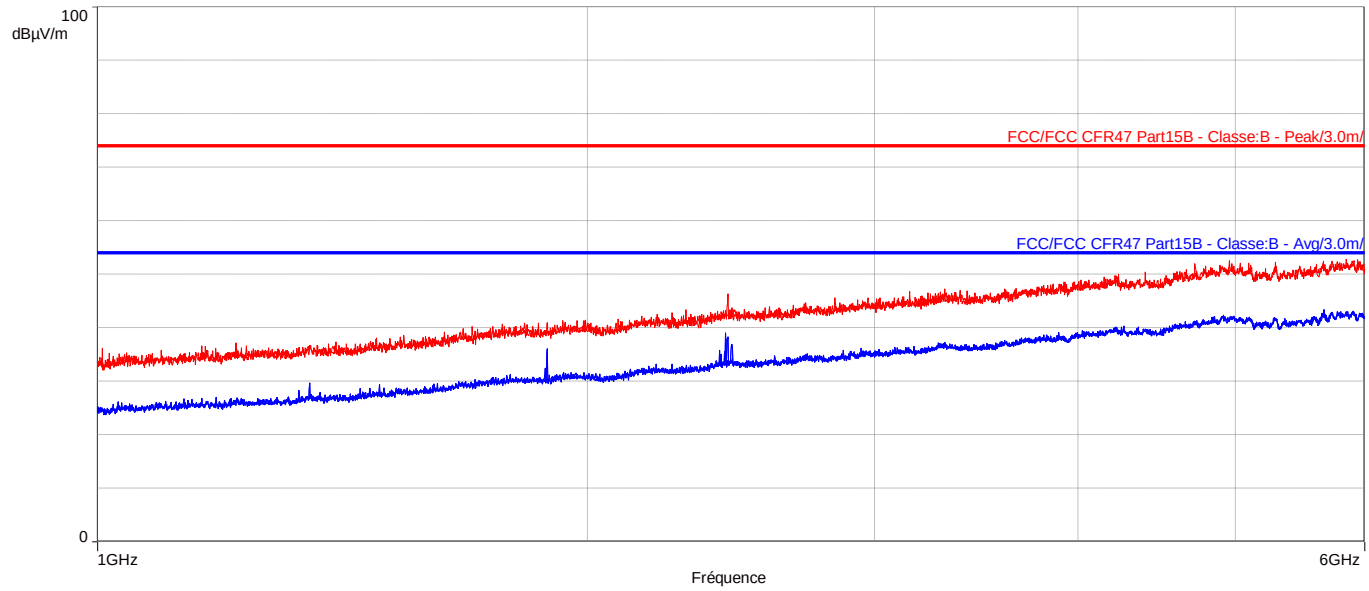
30.2	21.7	QP	V	360	100	14.2	35.9	40.0	**-4.1**	CPT axis Z
50	16.7	QP	V	235	100	12.6	29.3	40.0	**-10.7**	CPT axis Z
70	18.0	QP	V	304	100	7.6	25.6	40.0	**-14.4**	CPT axis Z
125	16.9	QP	V	59	130	14.1	31.0	43.5	**-12.5**	CPT axis Z
180.6	12.0	QP	V	0	100	17.2	29.2	43.5	**-14.3**	CPT axis Z

4.6.2. 1GHz - 18GHz

Pre-qualification measurement

Graph identifier		Polarization	EUT position	Comments	
Emr#	13	Horizontal & Vertical	Axis XY	1-6GHz - 3543 conf 1	See below
Emr#	14	Horizontal & Vertical	Axis XY	6-18GHz - 3543 conf 1	See below
Emr#	15	Horizontal & Vertical	Axis Z	1-6GHz - 3543 conf 1	See below
Emr#	16	Horizontal & Vertical	Axis Z	6-18GHz - 3543 conf 1	See below
Emr#	17	Horizontal & Vertical	Axis XY	1-6GHz - 3543 conf 2	See below
Emr#	18	Horizontal & Vertical	Axis XY	6-18GHz - 3543 conf 2	See below
Emr#	19	Horizontal & Vertical	Axis Z	1-6GHz - 3543 conf 2	See below
Emr#	20	Horizontal & Vertical	Axis Z	6-18GHz - 3543 conf 2	See below
Emr#	21	Horizontal & Vertical	Axis XY	1-6GHz - 3543 conf 3	See below
Emr#	22	Horizontal & Vertical	Axis XY	6-18GHz - 3543 conf 3	See below
Emr#	23	Horizontal & Vertical	Axis Z	1-6GHz - 3543 conf 3	See below
Emr#	24	Horizontal & Vertical	Axis Z	6-18GHz - 3543 conf 3	See below
Emr#	25	Horizontal & Vertical	Axis XY	1-6GHz - 4343 conf 1	See below
Emr#	26	Horizontal & Vertical	Axis XY	6-18GHz - 4343 conf 1	See below
Emr#	27	Horizontal & Vertical	Axis Z	1-6GHz - 4343 conf 1	See below
Emr#	28	Horizontal & Vertical	Axis Z	6-18GHz - 4343 conf 1	See below
Emr#	29	Horizontal & Vertical	Axis XY	1-6GHz - 4343 conf 2	See below
Emr#	30	Horizontal & Vertical	Axis XY	6-18GHz - 4343 conf 2	See below
Emr#	31	Horizontal & Vertical	Axis Z	1-6GHz - 4343 conf 2	See below
Emr#	32	Horizontal & Vertical	Axis Z	6-18GHz - 4343 conf 2	See below
Emr#	33	Horizontal & Vertical	Axis XY	1-6GHz - 4343 conf 3	See below
Emr#	34	Horizontal & Vertical	Axis XY	6-18GHz - 4343 conf 3	See below
Emr#	35	Horizontal & Vertical	Axis Z	1-6GHz - 4343 conf 3	See below
Emr#	36	Horizontal & Vertical	Axis Z	6-18GHz - 4343 conf 3	See below

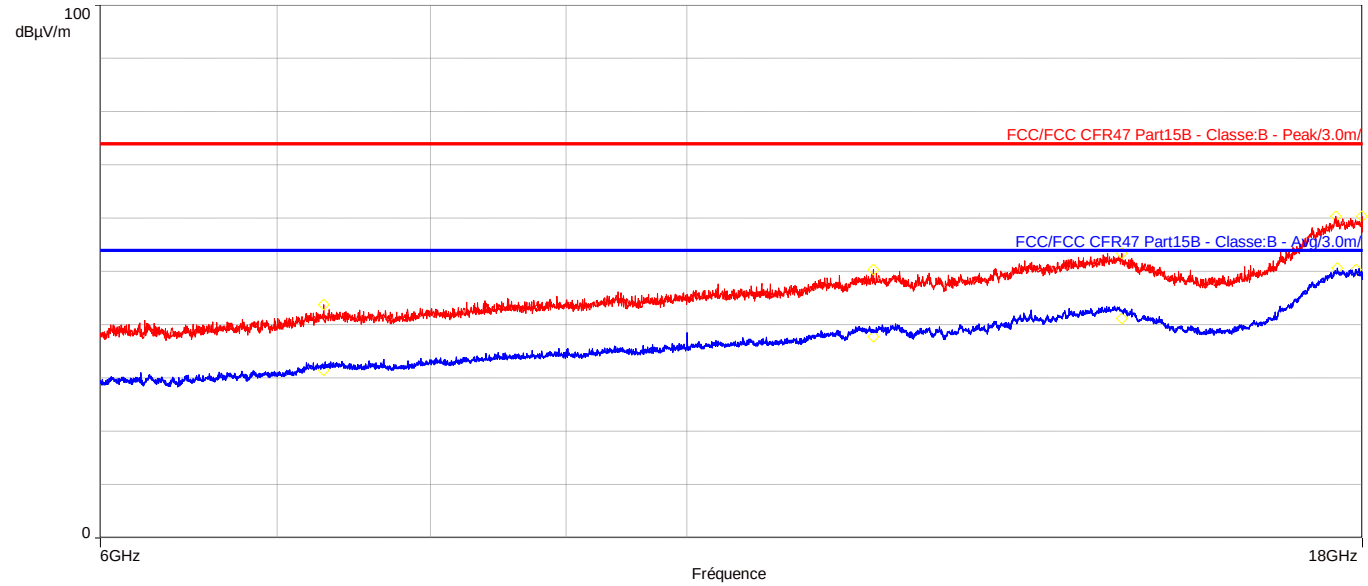
RADIATED EMISSIONS					
Graph name:	Emr#13	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf1 axis XY			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



Spurious emissions

No significative frequency observed

RADIATED EMISSIONS					
Graph name:	Emr#14	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf1 axis XY			
Class:	B				
Frequency range: [6GHz - 18GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				

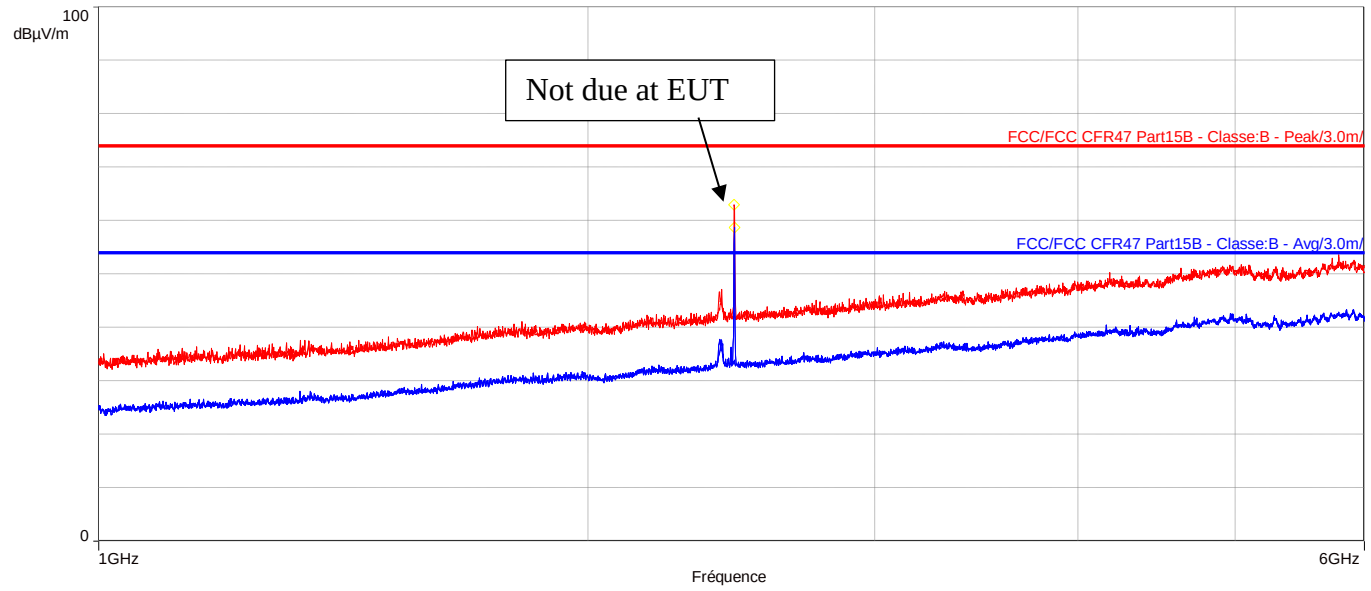


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
17608.875	50.7	54.0	-3.3	1.0	Vertical
17902.312	50.3	54.0	-3.7	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
17989.688	60.3	74.0	-13.7	1.0	Vertical
17586.000	60.4	74.0	-13.6	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#15	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543 Conf1 axis Z		
Class:	B			
Frequency range: [1GHz - 6GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

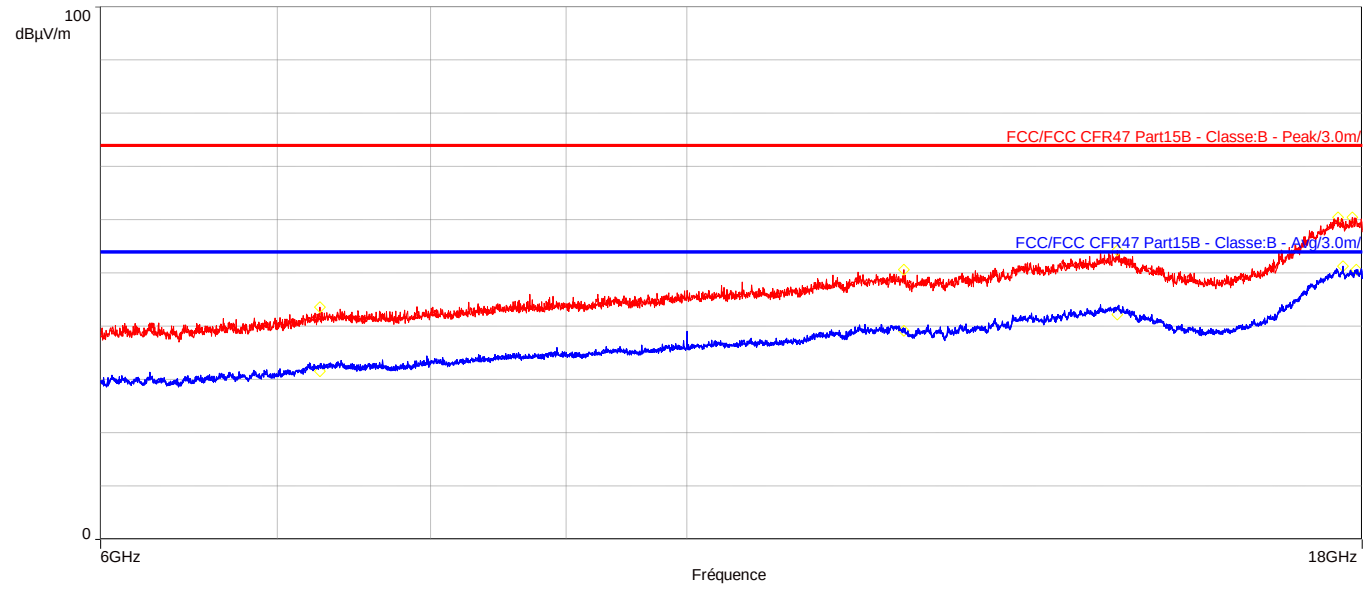


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
2459.062	58.7	54.0	4.7	1.0	Vertical

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
2458.906	63.0	74.0	-11.0	1.0	Vertical

RADIATED EMISSIONS				
Graph name:	Emr#16	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543 Conf1 axis Z		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

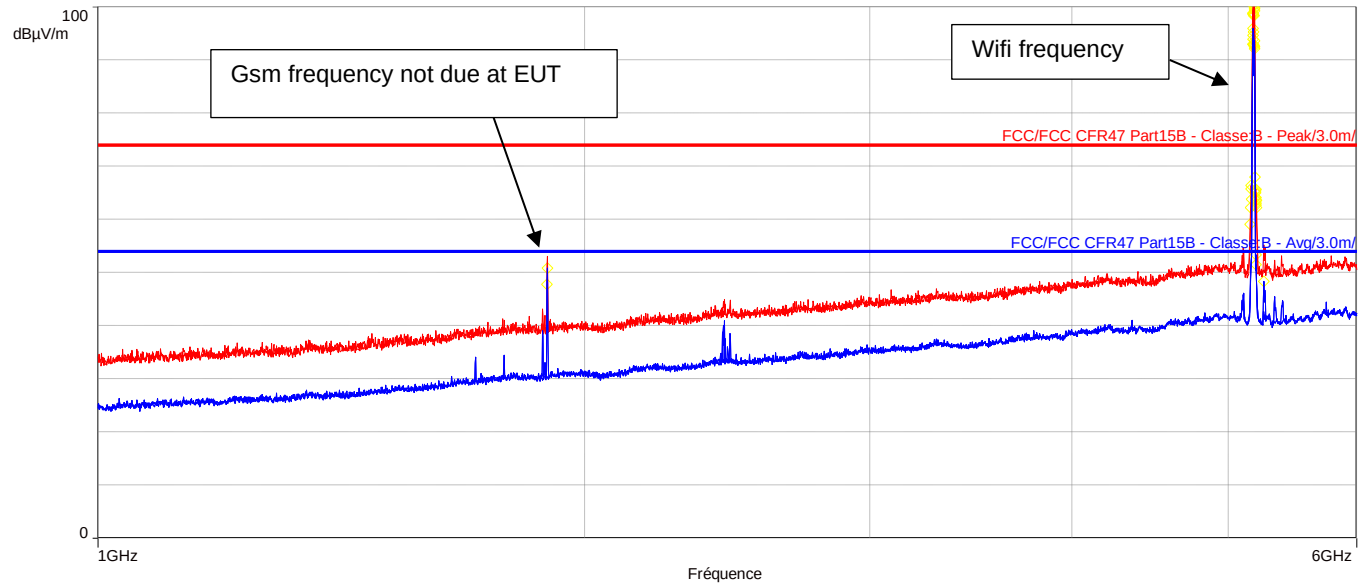


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
17697.938	51.3	54.0	-2.7	1.0	Vertical
17905.125	50.7	54.0	-3.3	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
17624.438	60.5	74.0	-13.5	1.0	Vertical
17845.312	60.4	74.0	-13.6	1.0	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#17	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf2 axis XY			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				

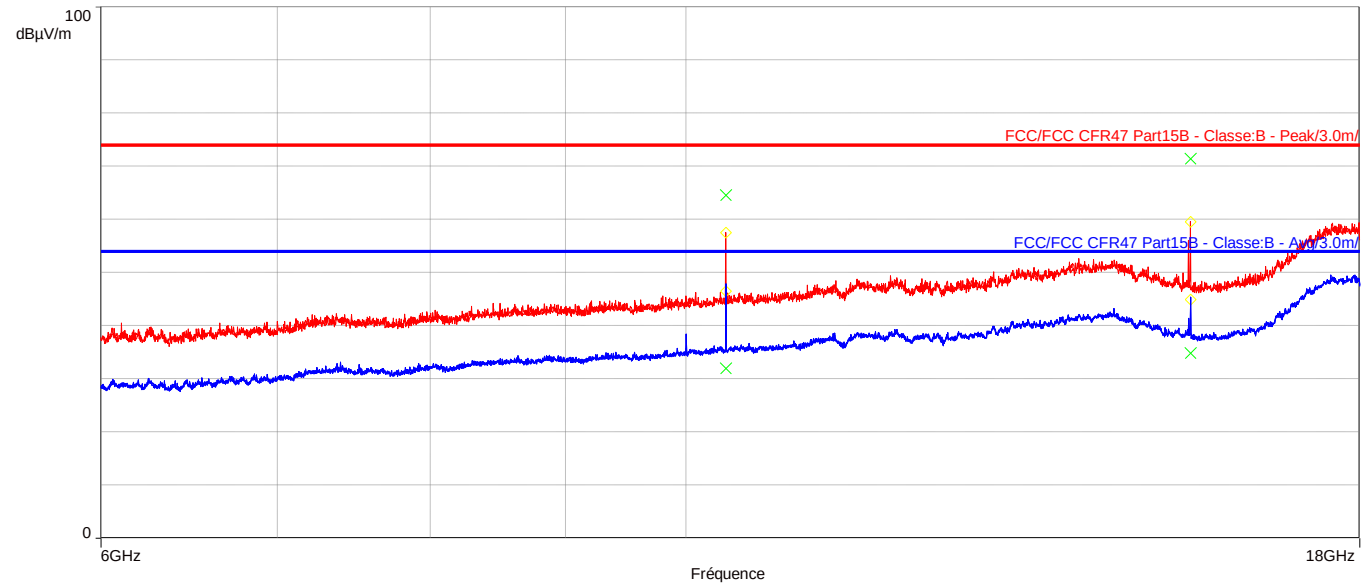


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1895.000	47.8	54.0	-6.2	1.0	Vertical
1895.938	50.8	54.0	-3.2	1.0	Vertical
5175.156	94.6	54.0	40.6	1.0	Vertical
5175.938	95.9	54.0	41.9	1.0	Vertical
5177.656	93.9	54.0	39.9	1.0	Vertical
5178.906	95.3	54.0	41.3	1.0	Vertical
5181.719	92.8	54.0	38.8	1.0	Vertical
5185.312	92.7	54.0	38.7	1.0	Vertical
5186.250	93.6	54.0	39.6	1.0	Vertical
5187.969	92.1	54.0	38.1	1.0	Vertical
5198.594	53.4	54.0	-0.6	1.0	Vertical
5256.094	48.3	54.0	-5.7	1.0	Vertical
5176.406	93.0	54.0	39.0	1.0	Horizontal
5177.344	93.0	54.0	39.0	1.0	Horizontal
5185.469	92.5	54.0	38.5	1.0	Horizontal
5197.500	51.5	54.0	-2.5	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5164.844	63.8	74.0	-10.2	1.0	Vertical
5175.625	102.9	74.0	28.9	1.0	Vertical
5177.812	98.8	74.0	24.8	1.0	Vertical
5179.062	102.9	74.0	28.9	1.0	Vertical
5181.875	98.4	74.0	24.4	1.0	Vertical
5183.906	98.3	74.0	24.3	1.0	Vertical
5185.781	99.8	74.0	25.8	1.0	Vertical
5186.250	101.9	74.0	27.9	1.0	Vertical
5187.969	99.3	74.0	25.3	1.0	Vertical
5194.688	64.2	74.0	-9.8	1.0	Vertical
5197.500	62.7	74.0	-11.3	1.0	Vertical
5198.594	63.0	74.0	-11.0	1.0	Vertical
5199.688	63.6	74.0	-10.4	1.0	Vertical
5156.406	59.1	74.0	-14.9	1.0	Horizontal
5159.062	62.2	74.0	-11.8	1.0	Horizontal
5160.312	66.4	74.0	-7.6	1.0	Horizontal
5163.281	65.8	74.0	-8.2	1.0	Horizontal
5175.156	98.7	74.0	24.7	1.0	Horizontal
5177.344	98.8	74.0	24.8	1.0	Horizontal
5185.625	99.6	74.0	25.6	1.0	Horizontal
5192.031	68.0	74.0	-6.0	1.0	Horizontal
5193.438	65.2	74.0	-8.8	1.0	Horizontal
5194.219	65.5	74.0	-8.5	1.0	Horizontal
5195.000	65.0	74.0	-9.0	1.0	Horizontal
5197.188	65.7	74.0	-8.3	1.0	Horizontal
5198.281	64.0	74.0	-10.0	1.0	Horizontal
5200.000	63.6	74.0	-10.4	1.0	Horizontal
5200.938	62.2	74.0	-11.8	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#18	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543 Conf2 axis XY		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

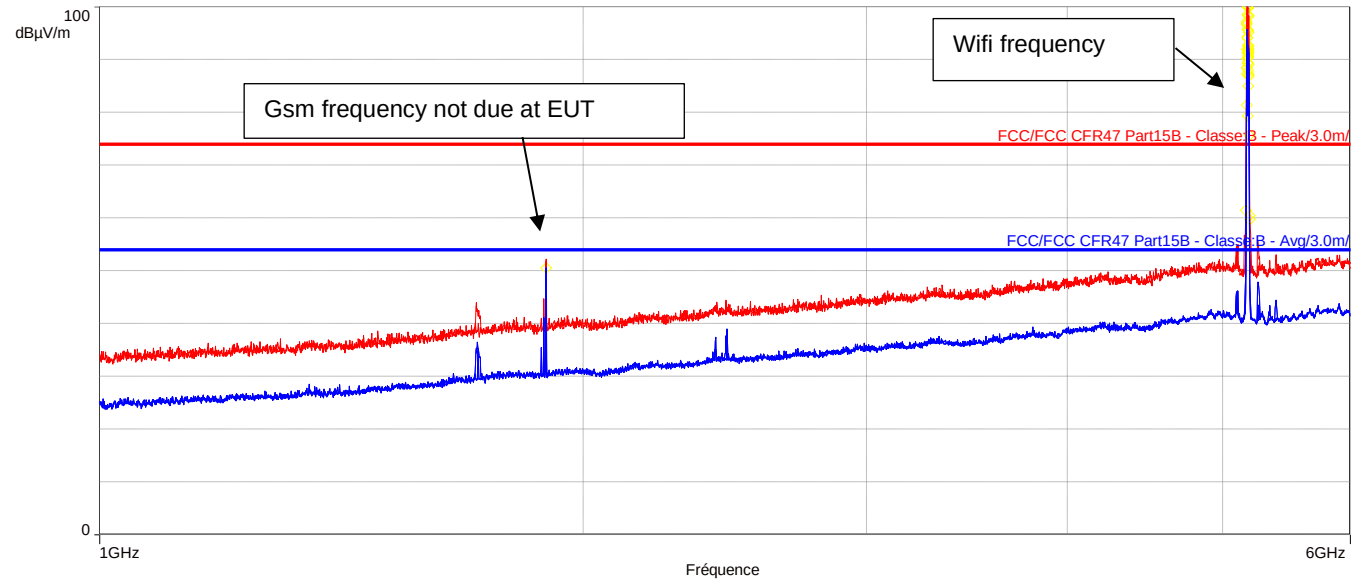


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Height	Polarization	Correction (dB)
10354.312	57.5	74.0	46.5	54.0	1.0	Vertical	12.6
15528.750	59.6	74.0	44.9	54.0	1.0	Vertical	16.7

Frequency (MHz)	Level P (dBµV/m)	Limit P (dBµV/m)	Margin (dB)	Level Av (dBµV/m)	Limit Av (dBµV/m)	Margin (dB)	Height (m)	Azimuth (°)	Polarization	Correction (dB)
10351.302	64.6	74.0	-9.4	31.9	54.0	-22.1	1.0	314.5	Vertical	12.6
15529.130	71.4	74.0	-2.6	34.8	54.0	-19.2	1.0	119.7	Vertical	16.7

RADIATED EMISSIONS					
Graph name:	Emr#19	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf2 axis Z			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



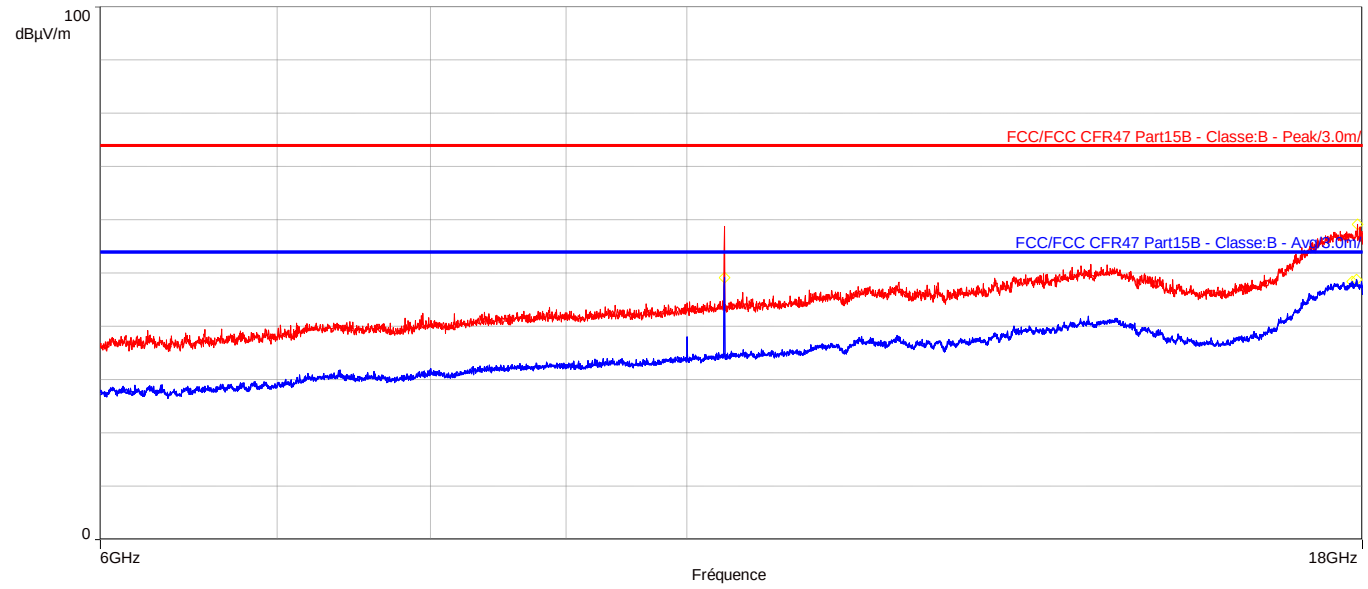
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1895.781	50.5	54.0	-3.5	1.0	Vertical
5171.094	88.6	54.0	34.6	1.0	Vertical
5174.062	92.0	54.0	38.0	1.0	Vertical
5175.938	95.7	54.0	41.7	1.0	Vertical
5177.031	94.3	54.0	40.3	1.0	Vertical
5179.531	92.8	54.0	38.8	1.0	Vertical
5182.188	91.2	54.0	37.2	1.0	Vertical
5183.125	91.8	54.0	37.8	1.0	Vertical
5184.062	92.5	54.0	38.5	1.0	Vertical
5185.312	90.4	54.0	36.4	1.0	Vertical
5187.969	92.0	54.0	38.0	1.0	Vertical
5172.188	81.4	54.0	27.4	1.0	Horizontal
5173.281	87.4	54.0	33.4	1.0	Horizontal
5174.062	88.5	54.0	34.5	1.0	Horizontal
5174.844	91.4	54.0	37.4	1.0	Horizontal
5176.406	94.0	54.0	40.0	1.0	Horizontal

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5180.312	79.4	54.0	25.4	1.0	Horizontal
5183.125	85.0	54.0	31.0	1.0	Horizontal
5184.688	90.6	54.0	36.6	1.0	Horizontal
5185.781	91.4	54.0	37.4	1.0	Horizontal
5187.031	89.1	54.0	35.1	1.0	Horizontal
5188.281	86.9	54.0	32.9	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5165.312	61.5	74.0	-12.5	1.0	Vertical
5171.094	96.6	74.0	22.6	1.0	Vertical
5173.594	97.2	74.0	23.2	1.0	Vertical
5176.562	103.3	74.0	29.3	1.0	Vertical
5179.531	100.0	74.0	26.0	1.0	Vertical
5182.188	98.2	74.0	24.2	1.0	Vertical
5183.125	99.9	74.0	25.9	1.0	Vertical
5184.219	99.8	74.0	25.8	1.0	Vertical
5187.812	98.3	74.0	24.3	1.0	Vertical
5194.219	60.4	74.0	-13.6	1.0	Vertical
5196.094	59.8	74.0	-14.2	1.0	Vertical
5172.344	90.2	74.0	16.2	1.0	Horizontal
5173.438	96.8	74.0	22.8	1.0	Horizontal
5175.000	98.5	74.0	24.5	1.0	Horizontal
5176.875	101.0	74.0	27.0	1.0	Horizontal
5180.312	89.3	74.0	15.3	1.0	Horizontal
5181.250	89.4	74.0	15.4	1.0	Horizontal
5182.188	88.0	74.0	14.0	1.0	Horizontal
5183.438	90.7	74.0	16.7	1.0	Horizontal
5184.844	95.5	74.0	21.5	1.0	Horizontal
5185.781	98.3	74.0	24.3	1.0	Horizontal
5187.031	95.2	74.0	21.2	1.0	Horizontal
5188.281	92.6	74.0	18.6	1.0	Horizontal
5188.906	87.2	74.0	13.2	1.0	Horizontal
5190.312	75.7	74.0	1.7	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#20	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543 Conf2 axis Z		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

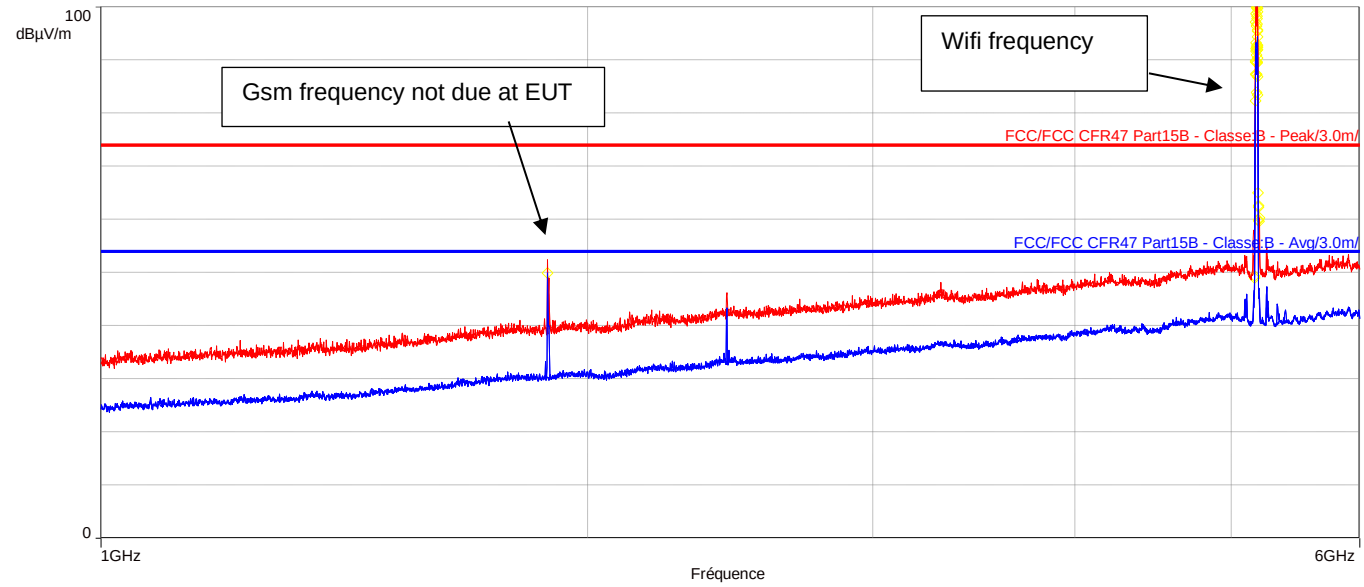


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
10329.562	49.1	54.0	-4.9	1.0	Vertical
17835.938	48.4	54.0	-5.6	1.0	Vertical
17906.812	48.8	54.0	-5.2	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
17921.062	59.2	74.0	-14.8	1.0	Vertical

RADIATED EMISSIONS					
Graph name:	Emr#21	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf3 axis XY			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



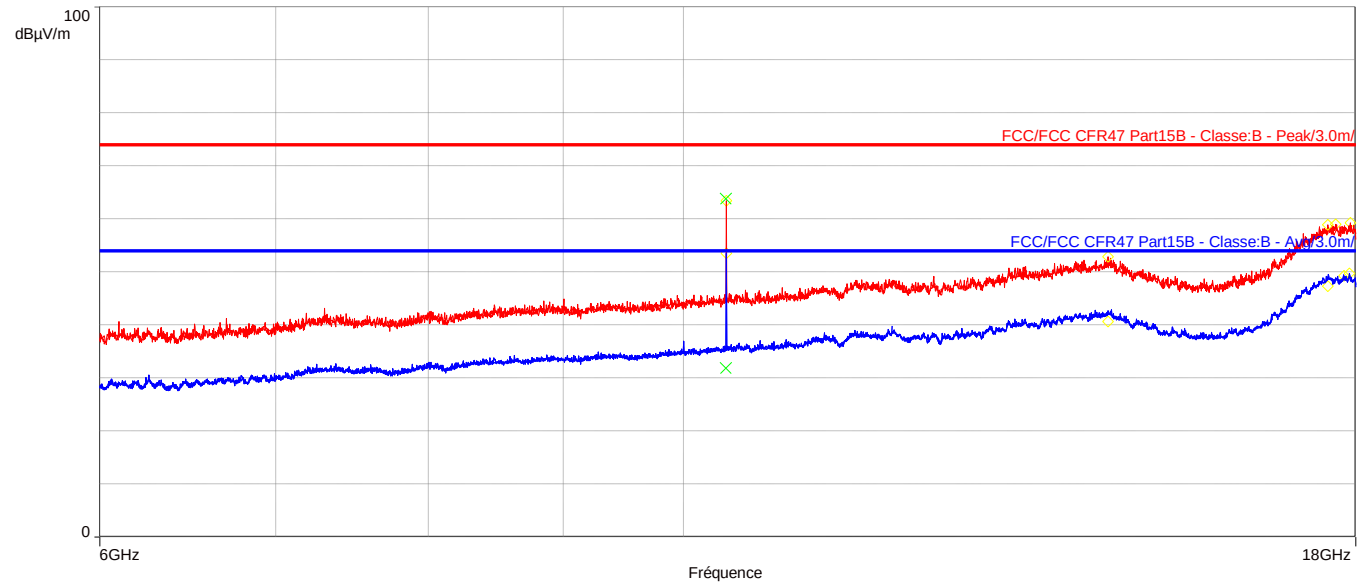
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1888.438	49.9	54.0	-4.1	1.0	Vertical
5164.844	49.0	54.0	-5.0	1.0	Vertical
5165.312	49.3	54.0	-4.7	1.0	Vertical
5171.250	82.3	54.0	28.3	1.0	Vertical
5173.750	89.6	54.0	35.6	1.0	Vertical
5177.969	93.2	54.0	39.2	1.0	Vertical
5179.375	92.4	54.0	38.4	1.0	Vertical
5179.844	83.8	54.0	29.8	1.0	Vertical
5181.875	90.9	54.0	36.9	1.0	Vertical
5182.812	92.8	54.0	38.8	1.0	Vertical
5184.375	89.5	54.0	35.5	1.0	Vertical
5184.844	89.6	54.0	35.6	1.0	Vertical
5185.781	92.8	54.0	38.8	1.0	Vertical
5187.031	94.4	54.0	40.4	1.0	Vertical
5187.969	92.5	54.0	38.5	1.0	Vertical
5188.906	83.4	54.0	29.4	1.0	Vertical

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5173.750	87.3	54.0	33.3	1.0	Horizontal
5174.688	91.7	54.0	37.7	1.0	Horizontal
5175.938	92.2	54.0	38.2	1.0	Horizontal
5179.062	87.2	54.0	33.2	1.0	Horizontal
5180.156	87.3	54.0	33.3	1.0	Horizontal
5184.531	89.5	54.0	35.5	1.0	Horizontal
5185.156	91.8	54.0	37.8	1.0	Horizontal
5185.781	92.0	54.0	38.0	1.0	Horizontal
5187.344	90.3	54.0	36.3	1.0	Horizontal
5188.594	86.9	54.0	32.9	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5171.250	89.8	74.0	15.8	1.0	Vertical
5173.750	97.1	74.0	23.1	1.0	Vertical
5177.969	98.7	74.0	24.7	1.0	Vertical
5179.219	99.9	74.0	25.9	1.0	Vertical
5182.031	101.2	74.0	27.2	1.0	Vertical
5182.812	99.8	74.0	25.8	1.0	Vertical
5184.531	98.3	74.0	24.3	1.0	Vertical
5185.938	99.8	74.0	25.8	1.0	Vertical
5186.875	101.8	74.0	27.8	1.0	Vertical
5187.969	99.1	74.0	25.1	1.0	Vertical
5196.875	59.6	74.0	-14.4	1.0	Vertical
5175.469	100.7	74.0	26.7	1.0	Horizontal
5178.281	96.4	74.0	22.4	1.0	Horizontal
5184.531	96.7	74.0	22.7	1.0	Horizontal
5185.312	97.8	74.0	23.8	1.0	Horizontal
5186.406	100.5	74.0	26.5	1.0	Horizontal
5187.812	95.5	74.0	21.5	1.0	Horizontal
5188.594	95.7	74.0	21.7	1.0	Horizontal
5192.188	65.0	74.0	-9.0	1.0	Horizontal
5194.219	62.3	74.0	-11.7	1.0	Horizontal
5195.156	59.9	74.0	-14.1	1.0	Horizontal
5195.781	62.6	74.0	-11.4	1.0	Horizontal
5200.000	60.2	74.0	-13.8	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#22	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543 Conf3 axis XY		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			



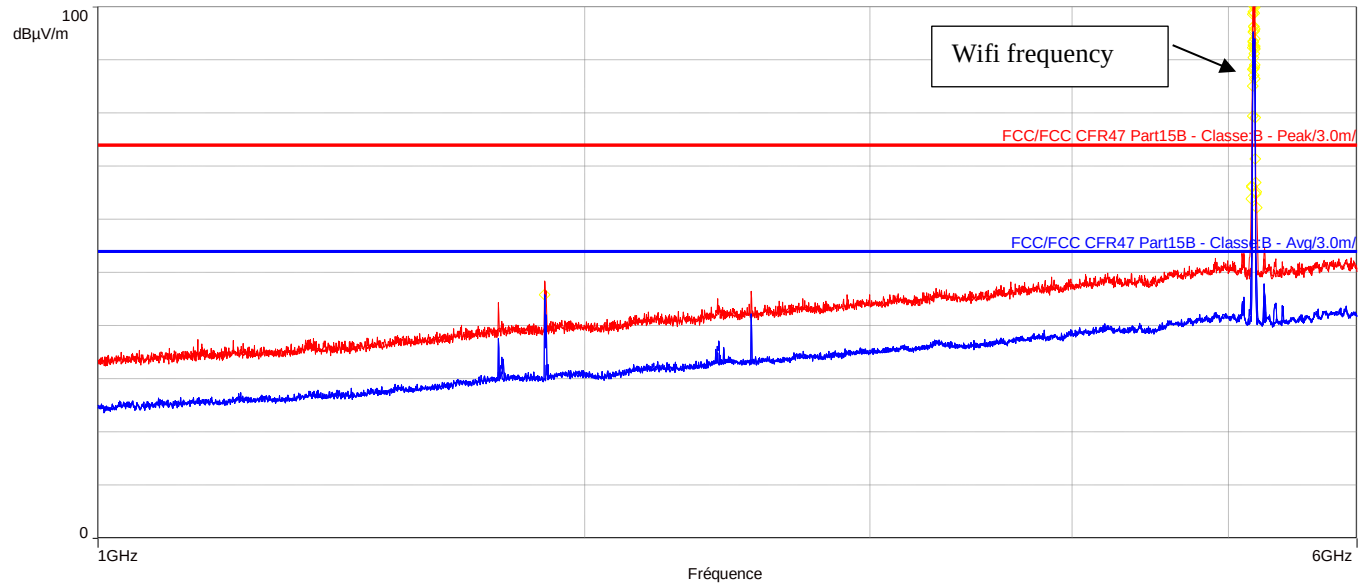
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
10377.750	53.5	54.0	-0.5	1.0	Vertical
17813.625	49.3	54.0	-4.7	1.0	Vertical
17899.875	49.7	54.0	-4.3	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
10379.062	63.5	74.0	-10.5	1.0	Vertical
17688.375	59.0	74.0	-15.0	1.0	Vertical
17913.938	59.3	74.0	-14.7	1.0	Horizontal

Frequency (MHz)	Level P (dBµV/m)	Limit P (dBµV/m)	Margin (dB)	Level Av (dBµV/m)	Limit Av (dBµV/m)	Margin (dB)	Height (m)	Azimuth (°)	Polarization	Correction (dB)
10376.013	63.8	74.0	-10.2	31.9	54.0	-22.1	1.0	113.0	Vertical	12.6

RADIATED EMISSIONS					
Graph name:	Emr#23	**Test configuration:**			
Limit:	FCC CFR47 Part15B	3543 Conf3 axis Z			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



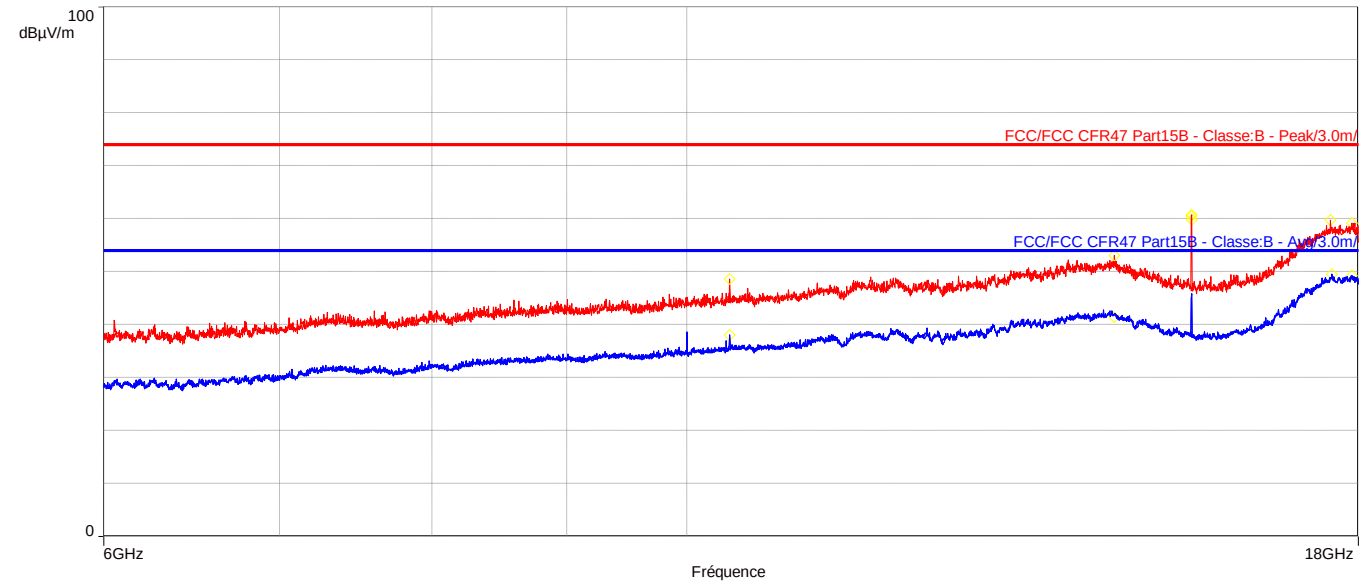
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1888.438	45.9	54.0	-8.1	1.0	Vertical
5176.719	95.2	54.0	41.2	1.0	Vertical
5182.500	91.2	54.0	37.2	1.0	Vertical
5186.562	92.6	54.0	38.6	1.0	Vertical
5187.344	94.0	54.0	40.0	1.0	Vertical
5171.406	85.1	54.0	31.1	1.0	Horizontal
5172.812	79.5	54.0	25.5	1.0	Horizontal
5173.906	88.2	54.0	34.2	1.0	Horizontal
5175.000	90.4	54.0	36.4	1.0	Horizontal
5176.094	93.5	54.0	39.5	1.0	Horizontal
5176.406	93.5	54.0	39.5	1.0	Horizontal
5176.875	92.8	54.0	38.8	1.0	Horizontal
5177.656	93.4	54.0	39.4	1.0	Horizontal
5179.375	87.1	54.0	33.1	1.0	Horizontal
5180.469	88.4	54.0	34.4	1.0	Horizontal

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5182.188	88.6	54.0	34.6	1.0	Horizontal
5186.094	92.0	54.0	38.0	1.0	Horizontal
5187.656	89.1	54.0	35.1	1.0	Horizontal
5188.750	86.5	54.0	32.5	1.0	Horizontal
5189.531	79.2	54.0	25.2	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5160.781	63.9	74.0	-10.1	1.0	Vertical
5164.531	66.3	74.0	-7.7	1.0	Vertical
5166.094	66.1	74.0	-7.9	1.0	Vertical
5176.562	102.7	74.0	28.7	1.0	Vertical
5182.500	98.8	74.0	24.8	1.0	Vertical
5186.562	100.4	74.0	26.4	1.0	Vertical
5187.812	99.9	74.0	25.9	1.0	Vertical
5195.000	66.9	74.0	-7.1	1.0	Vertical
5196.094	64.8	74.0	-9.2	1.0	Vertical
5197.969	65.2	74.0	-8.8	1.0	Vertical
5200.312	62.3	74.0	-11.7	1.0	Vertical
5171.406	92.4	74.0	18.4	1.0	Horizontal
5173.906	98.6	74.0	24.6	1.0	Horizontal
5175.000	99.0	74.0	25.0	1.0	Horizontal
5176.094	100.4	74.0	26.4	1.0	Horizontal
5179.375	96.3	74.0	22.3	1.0	Horizontal
5180.469	96.3	74.0	22.3	1.0	Horizontal
5182.188	95.5	74.0	21.5	1.0	Horizontal
5186.250	100.1	74.0	26.1	1.0	Horizontal
5187.656	95.8	74.0	21.8	1.0	Horizontal
5188.281	92.3	74.0	18.3	1.0	Horizontal
5190.781	71.4	74.0	-2.6	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#24	**Test configuration:**		
Limit:	FCC CFR47 Part15B	3543 Conf3 axis Z		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

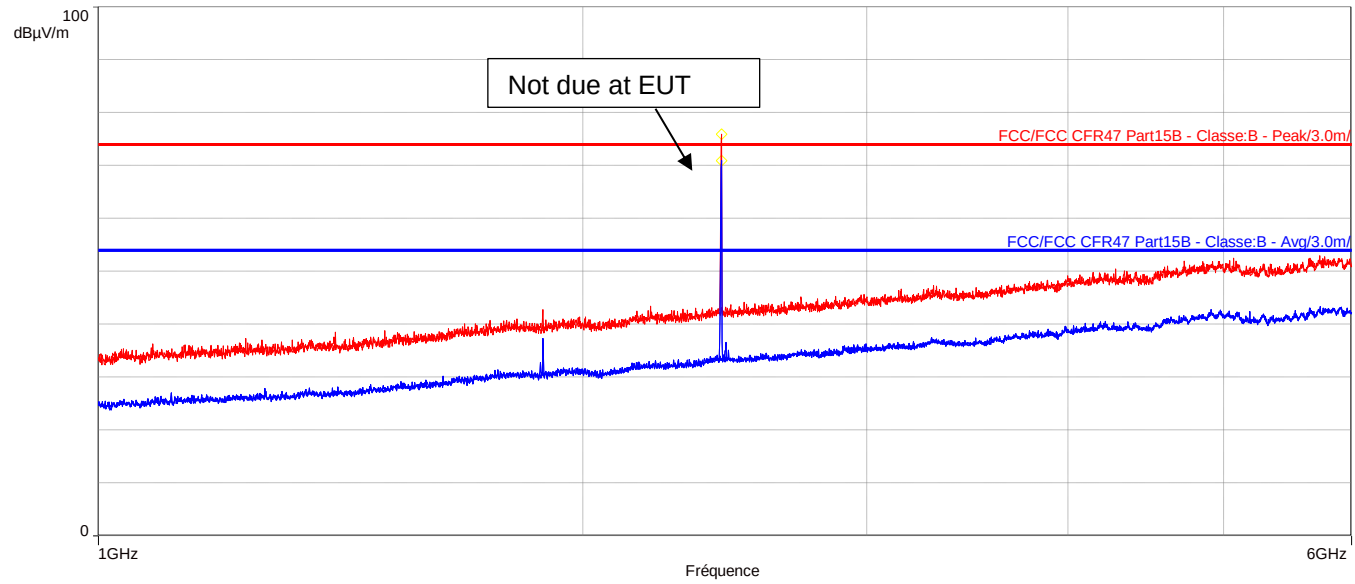


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
17901.562	49.3	54.0	-4.7	1.0	Vertical
17590.875	49.5	54.0	-4.5	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
15552.188	60.4	74.0	-13.6	1.0	Vertical
15553.312	60.8	74.0	-13.2	1.0	Vertical
15554.062	59.8	74.0	-14.2	1.0	Vertical
17898.375	59.2	74.0	-14.8	1.0	Vertical
17564.062	59.7	74.0	-14.3	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#25	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf1 axis XY		
Class:	B			
Frequency range: [1GHz - 6GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

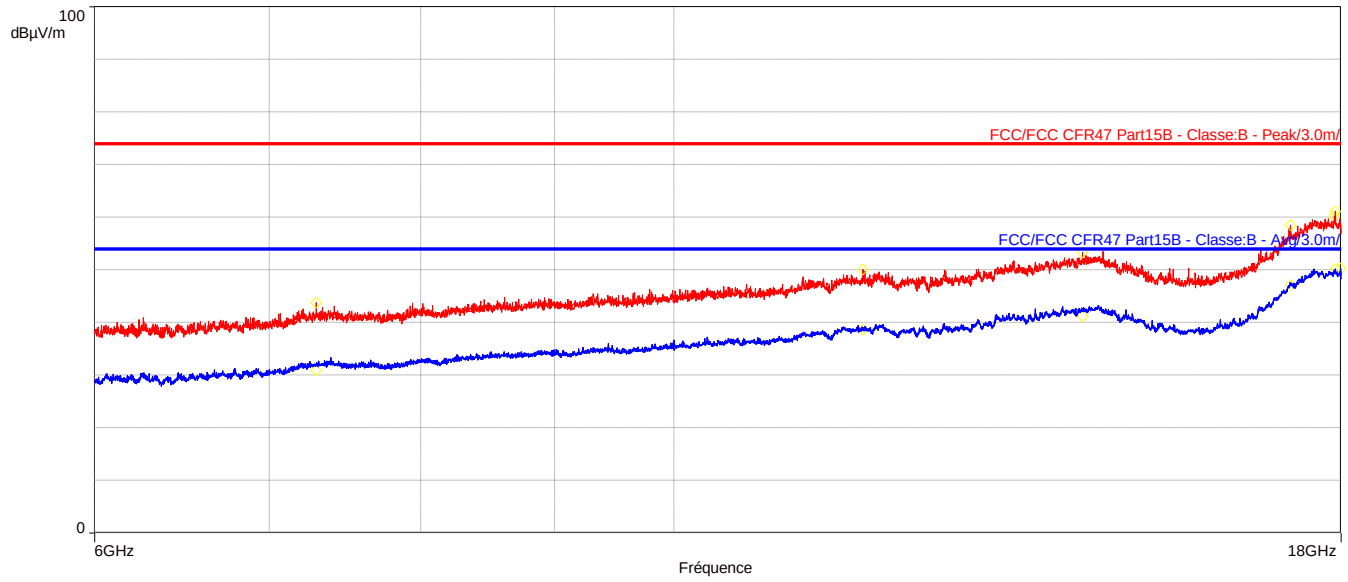


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
2436.875	71.0	54.0	17.0	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
2437.188	75.9	74.0	1.9	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#26	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf1 axis XY		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

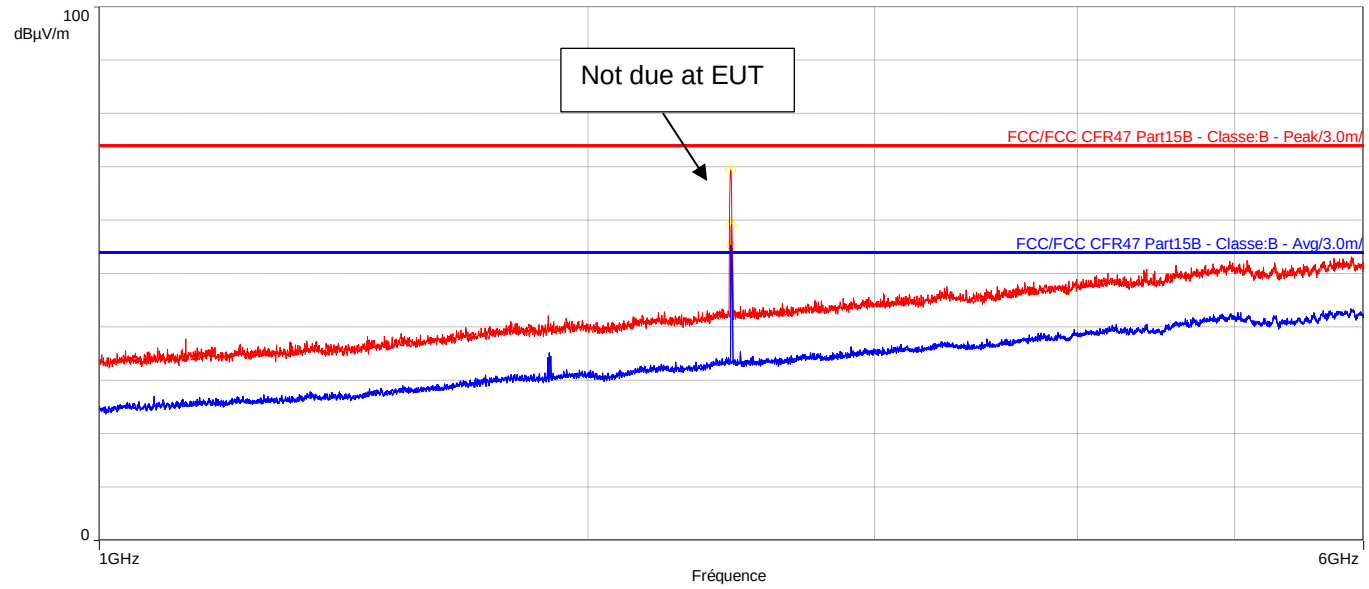


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
17905.312	50.2	54.0	-3.8	1.0	Vertical
17992.875	50.3	54.0	-3.7	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
17895.375	60.2	74.0	-13.8	1.0	Vertical
17906.438	61.1	74.0	-12.9	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#27	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf1 axis Z		
Class:	B			
Frequency range: [1GHz - 6GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

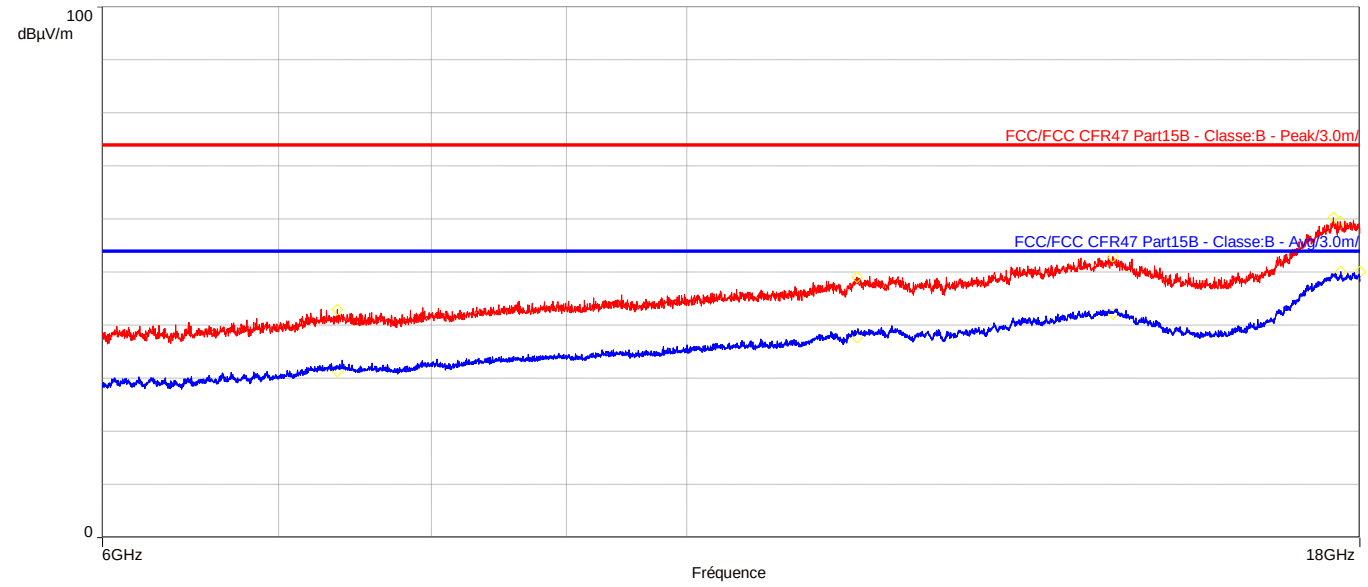


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
2447.812	55.3	54.0	1.3	1.0	Vertical

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
2449.062	59.2	74.0	-14.8	1.0	Vertical
2446.719	69.5	74.0	-4.5	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#28	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf1 axis Z		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

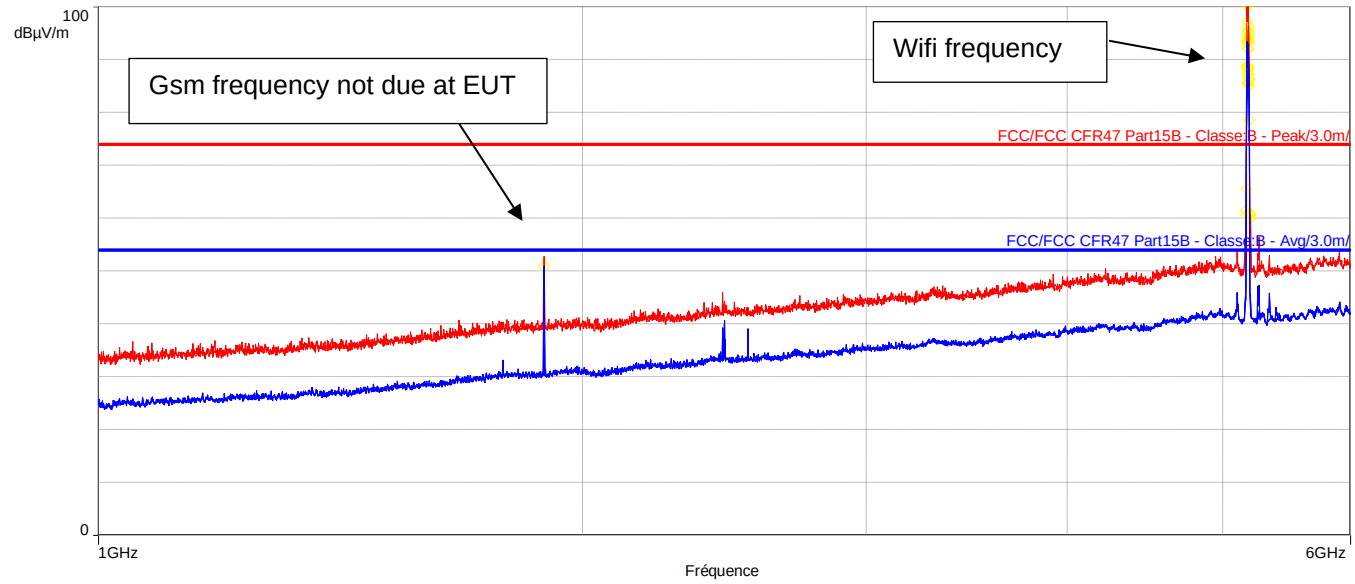


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
17997.188	50.1	54.0	-3.9	1.0	Vertical
17702.250	50.1	54.0	-3.9	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
17587.875	60.3	74.0	-13.7	1.0	Vertical
17696.062	59.6	74.0	-14.4	1.0	Horizontal

RADIATED EMISSIONS					
Graph name:	Emr#29	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf2 axis XY			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



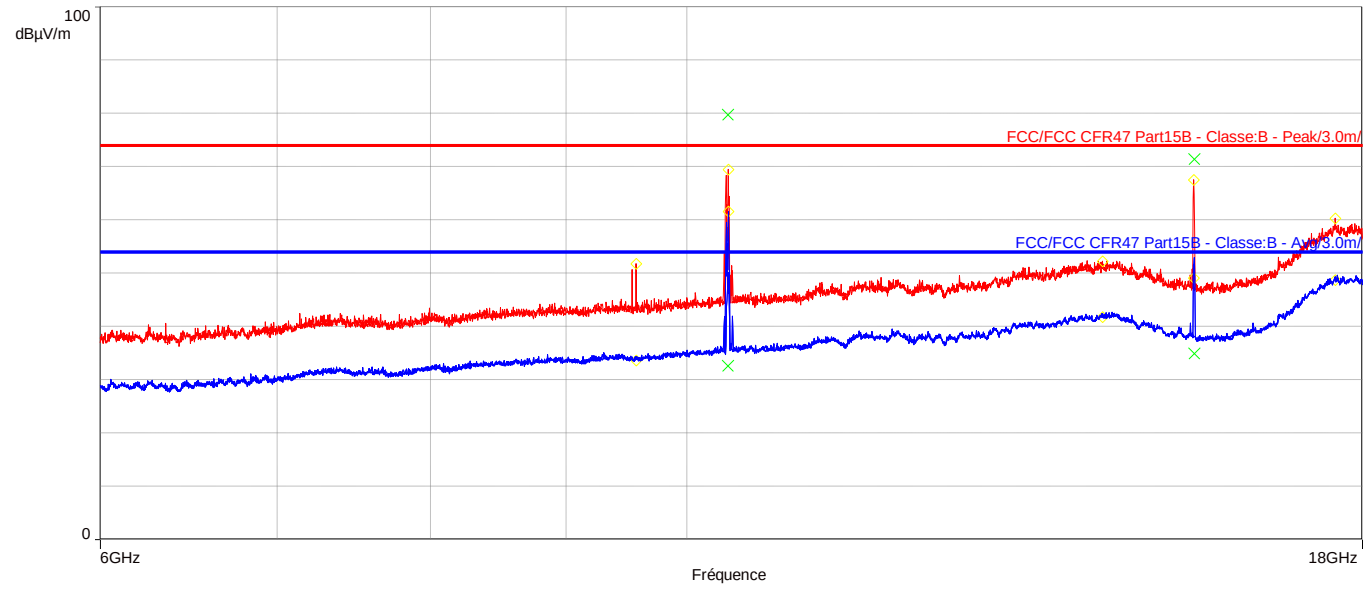
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1892.031	51.0	54.0	-3.0	1.0	Vertical
5172.656	93.4	54.0	39.4	1.0	Vertical
5173.750	88.7	54.0	34.7	1.0	Vertical
5174.062	89.0	54.0	35.0	1.0	Vertical
5175.625	88.5	54.0	34.5	1.0	Vertical
5176.250	87.0	54.0	33.0	1.0	Vertical
5176.719	88.3	54.0	34.3	1.0	Vertical
5177.500	85.5	54.0	31.5	1.0	Vertical
5180.000	87.7	54.0	33.7	1.0	Vertical
5181.562	93.1	54.0	39.1	1.0	Vertical
5182.344	92.0	54.0	38.0	1.0	Vertical
5185.781	87.2	54.0	33.2	1.0	Vertical
5187.188	88.4	54.0	34.4	1.0	Vertical
5188.281	86.4	54.0	32.4	1.0	Vertical
5189.531	78.6	54.0	24.6	1.0	Vertical
5179.375	85.6	54.0	31.6	1.0	Horizontal

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5182.812	88.8	54.0	34.8	1.0	Horizontal
5183.906	85.7	54.0	31.7	1.0	Horizontal
5186.562	85.2	54.0	31.2	1.0	Horizontal
5188.281	85.0	54.0	31.0	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5172.812	100.9	74.0	26.9	1.0	Vertical
5173.906	94.5	74.0	20.5	1.0	Vertical
5175.469	97.2	74.0	23.2	1.0	Vertical
5176.562	95.4	74.0	21.4	1.0	Vertical
5180.000	93.8	74.0	19.8	1.0	Vertical
5181.562	100.2	74.0	26.2	1.0	Vertical
5182.500	101.0	74.0	27.0	1.0	Vertical
5185.312	95.5	74.0	21.5	1.0	Vertical
5185.781	93.5	74.0	19.5	1.0	Vertical
5187.344	94.1	74.0	20.1	1.0	Vertical
5188.281	94.7	74.0	20.7	1.0	Vertical
5189.531	86.2	74.0	12.2	1.0	Vertical
5192.812	60.6	74.0	-13.4	1.0	Vertical
5165.156	60.6	74.0	-13.4	1.0	Horizontal
5165.938	61.5	74.0	-12.5	1.0	Horizontal
5167.969	65.5	74.0	-8.5	1.0	Horizontal
5179.531	92.1	74.0	18.1	1.0	Horizontal
5182.969	96.3	74.0	22.3	1.0	Horizontal
5186.719	93.3	74.0	19.3	1.0	Horizontal
5193.594	61.1	74.0	-12.9	1.0	Horizontal
5194.688	60.0	74.0	-14.0	1.0	Horizontal
5198.594	60.6	74.0	-13.4	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#30	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf2 axis XY		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

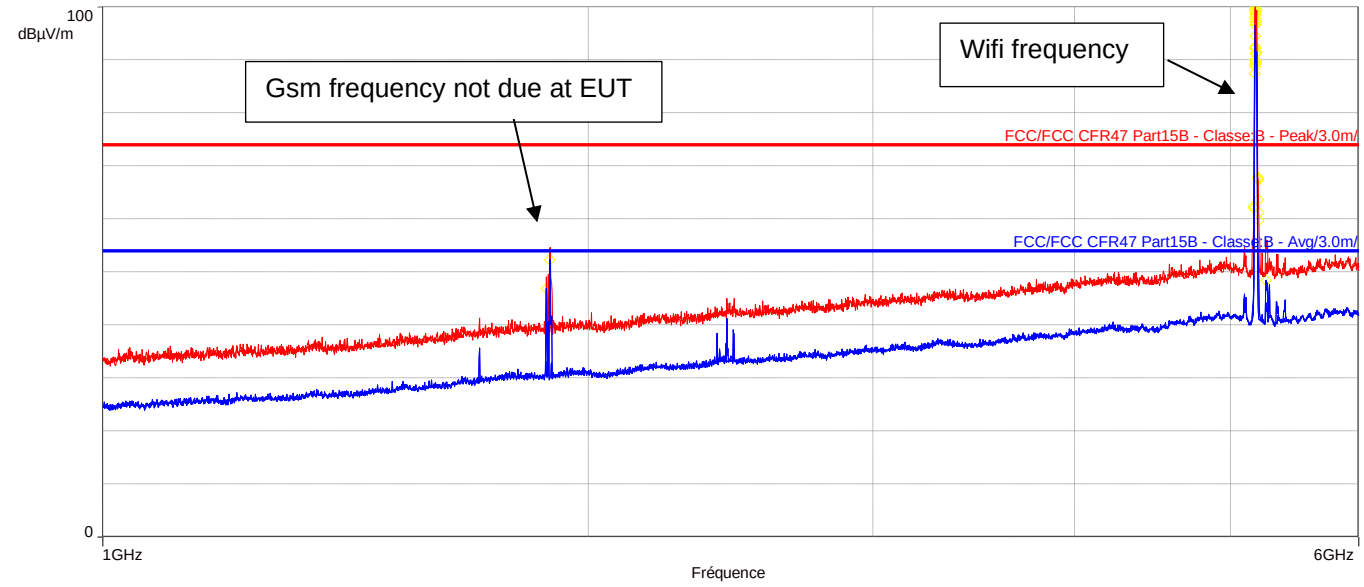


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Height	Polarization	Correction (dB)
9566.812	51.7	74.0	33.6	54.0	1.0	Vertical	9.8
10365.375	69.5	74.0	61.6	54.0	1.0	Vertical	12.6
14358.750	52.3	74.0	41.7	54.0	1.0	Vertical	19.2
15545.062	67.5	74.0	49.1	54.0	1.0	Vertical	16.6
17580.562	60.3	74.0	48.7	54.0	1.0	Vertical	25.5

Frequency (MHz)	Level P (dBµV/m)	Limit P (dBµV/m)	Margin (dB)	Level Av (dBµV/m)	Limit Av (dBµV/m)	Margin (dB)	Height (m)	Azimuth (°)	Polarization	Correction (dB)
10361.718	71.7	74.0	-2.3	32.6	54.0	-21.4	1.0	348.4	Vertical	12.6
15547.676	71.4	74.0	-2.6	34.9	54.0	-19.1	1.0	0.0	Vertical	16.6

RADIATED EMISSIONS					
Graph name:	Emr#31	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf2 axis Z			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



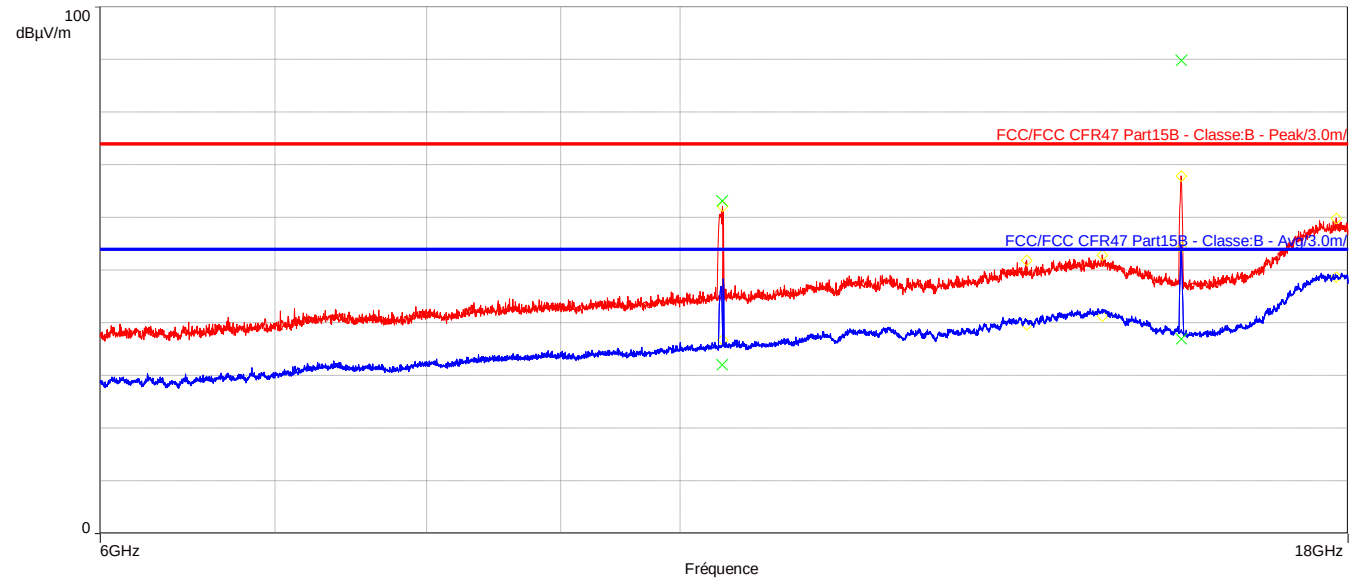
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1883.281	46.9	54.0	-7.1	1.0	Vertical
1892.188	52.4	54.0	-1.6	1.0	Vertical
5172.500	92.2	54.0	38.2	1.0	Vertical
5173.438	90.0	54.0	36.0	1.0	Vertical
5175.938	96.6	54.0	42.6	1.0	Vertical
5177.500	94.4	54.0	40.4	1.0	Vertical
5180.938	91.3	54.0	37.3	1.0	Vertical
5184.531	89.8	54.0	35.8	1.0	Vertical
5255.781	48.5	54.0	-5.5	1.0	Vertical
5174.375	87.4	54.0	33.4	1.0	Horizontal
5174.844	89.7	54.0	35.7	1.0	Horizontal
5175.312	88.7	54.0	34.7	1.0	Horizontal
5176.562	92.2	54.0	38.2	1.0	Horizontal
5177.344	92.5	54.0	38.5	1.0	Horizontal
5177.969	89.2	54.0	35.2	1.0	Horizontal
5178.281	91.2	54.0	37.2	1.0	Horizontal

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5183.906	89.5	54.0	35.5	1.0	Horizontal
5186.719	91.5	54.0	37.5	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5163.750	62.4	74.0	-11.6	1.0	Vertical
5165.000	62.1	74.0	-11.9	1.0	Vertical
5172.500	99.2	74.0	25.2	1.0	Vertical
5173.438	98.0	74.0	24.0	1.0	Vertical
5176.406	103.6	74.0	29.6	1.0	Vertical
5177.656	100.8	74.0	26.8	1.0	Vertical
5180.938	99.0	74.0	25.0	1.0	Vertical
5184.688	97.6	74.0	23.6	1.0	Vertical
5193.906	67.8	74.0	-6.2	1.0	Vertical
5196.719	67.4	74.0	-6.6	1.0	Vertical
5199.531	67.6	74.0	-6.4	1.0	Vertical
5199.844	63.6	74.0	-10.4	1.0	Vertical
5201.250	61.2	74.0	-12.8	1.0	Vertical
5202.969	59.8	74.0	-14.2	1.0	Vertical
5172.812	89.2	74.0	15.2	1.0	Horizontal
5175.156	97.2	74.0	23.2	1.0	Horizontal
5176.719	98.6	74.0	24.6	1.0	Horizontal
5177.344	99.6	74.0	25.6	1.0	Horizontal
5178.438	98.4	74.0	24.4	1.0	Horizontal
5184.375	96.9	74.0	22.9	1.0	Horizontal
5186.562	99.4	74.0	25.4	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#32	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf2 axis Z		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

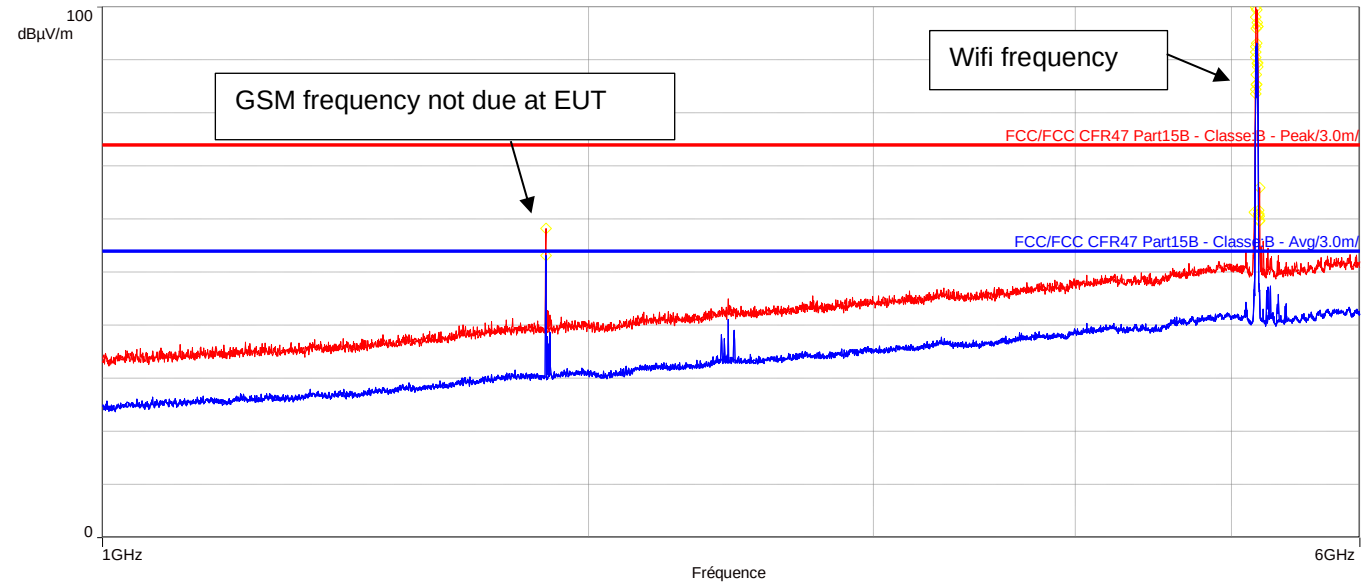


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Height	Polarization	Correction (dB)
13567.312	51.8	74.0	39.7	54.0	1.0	Vertical	18.0
15540.938	67.9	74.0	54.2	54.0	1.0	Vertical	16.6
10377.188	62.2	74.0	36.7	54.0	1.0	Horizontal	12.6
14500.312	52.8	74.0	41.3	54.0	1.0	Horizontal	19.5
17817.750	59.8	74.0	48.7	54.0	1.0	Horizontal	25.9

Frequency (MHz)	Level P (dBµV/m)	Limit P (dBµV/m)	Margin (dB)	Level Av (dBµV/m)	Limit Av (dBµV/m)	Margin (dB)	Height (m)	Azimuth (°)	Polarization	Correction (dB)
15545.660	89.9	74.0	15.9	36.9	54.0	-17.1	1.0	207.3	Vertical	16.6
10373.061	63.1	74.0	-10.9	32.0	54.0	-22.0	1.0	316.7	Horizontal	12.6

RADIATED EMISSIONS					
Graph name:	Emr#33	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf3 axis XY			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				

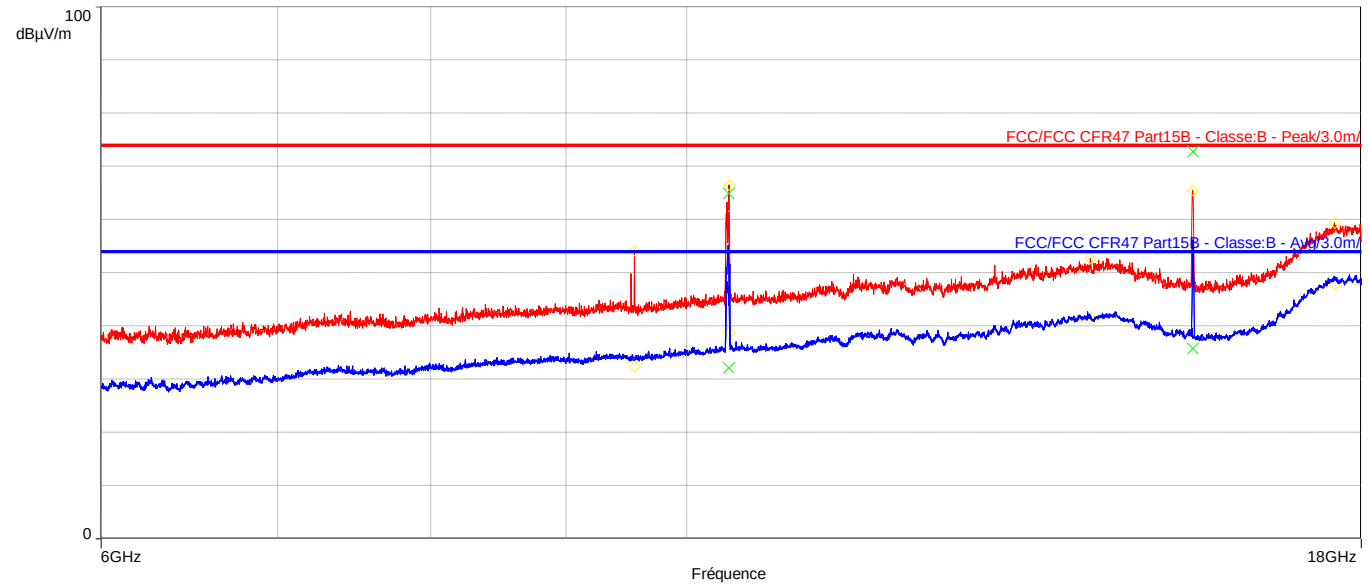


Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
1881.094	53.2	54.0	-0.8	1.0	Vertical
5171.250	83.6	54.0	29.6	1.0	Vertical
5172.031	91.4	54.0	37.4	1.0	Vertical
5172.969	92.5	54.0	38.5	1.0	Vertical
5174.531	84.4	54.0	30.4	1.0	Vertical
5175.156	85.4	54.0	31.4	1.0	Vertical
5176.875	87.2	54.0	33.2	1.0	Vertical
5179.219	85.4	54.0	31.4	1.0	Vertical
5181.875	93.2	54.0	39.2	1.0	Vertical
5186.250	89.4	54.0	35.4	1.0	Vertical
5187.188	88.7	54.0	34.7	1.0	Vertical
5182.344	89.3	54.0	35.3	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
1881.094	58.2	74.0	-15.8	1.0	Vertical
5171.094	90.5	74.0	16.5	1.0	Vertical
5172.188	98.0	74.0	24.0	1.0	Vertical
5172.969	99.9	74.0	25.9	1.0	Vertical
5177.031	95.9	74.0	21.9	1.0	Vertical
5181.875	99.5	74.0	25.5	1.0	Vertical
5186.250	96.3	74.0	22.3	1.0	Vertical
5187.344	96.3	74.0	22.3	1.0	Vertical
5163.125	61.3	74.0	-12.7	1.0	Horizontal
5182.344	97.1	74.0	23.1	1.0	Horizontal
5193.438	61.0	74.0	-13.0	1.0	Horizontal
5195.156	60.8	74.0	-13.2	1.0	Horizontal
5195.938	61.7	74.0	-12.3	1.0	Horizontal
5198.594	60.5	74.0	-13.5	1.0	Horizontal
5199.062	59.6	74.0	-14.4	1.0	Horizontal
5200.469	66.0	74.0	-8.0	1.0	Horizontal
5202.344	59.7	74.0	-14.3	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#34	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf3 axis XY		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			

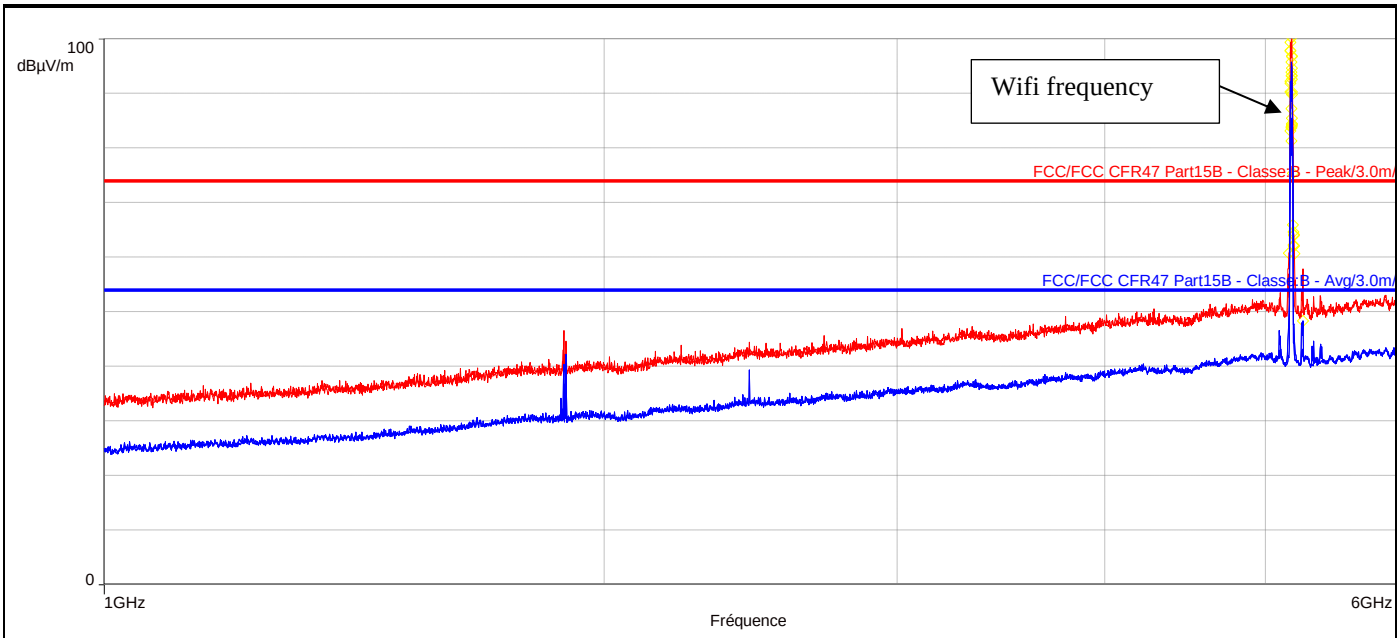


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Height	Polarization	Correction (dB)
9552.562	54.2	74.0	32.4	54.0	1.0	Vertical	9.8
10373.812	66.5	74.0	38.8	54.0	1.0	Vertical	12.6
14215.125	52.7	74.0	41.5	54.0	1.0	Vertical	19.1
15542.250	65.5	74.0	54.8	54.0	1.0	Vertical	16.6
17591.438	59.4	74.0	47.8	54.0	1.0	Horizontal	25.6

Frequency (MHz)	Level P (dBµV/m)	Limit P (dBµV/m)	Margin (dB)	Level Av (dBµV/m)	Limit Av (dBµV/m)	Margin (dB)	Height (m)	Azimuth (°)	Polarization	Correction (dB)
10369.440	65.0	74.0	-9.0	32.2	54.0	-21.8	1.0	134.6	Vertical	12.6
15543.276	72.8	74.0	-1.2	35.8	54.0	-18.2	1.0	208.7	Vertical	16.6

RADIATED EMISSIONS					
Graph name:	Emr#35	**Test configuration:**			
Limit:	FCC CFR47 Part15B	4343 Conf3 axis Z			
Class:	B				
Frequency range: [1GHz - 6GHz]					
Antenna polarization:	Horizontal & Vertical	**RBW:**	1MHz	**VBW:**	3MHz
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG				



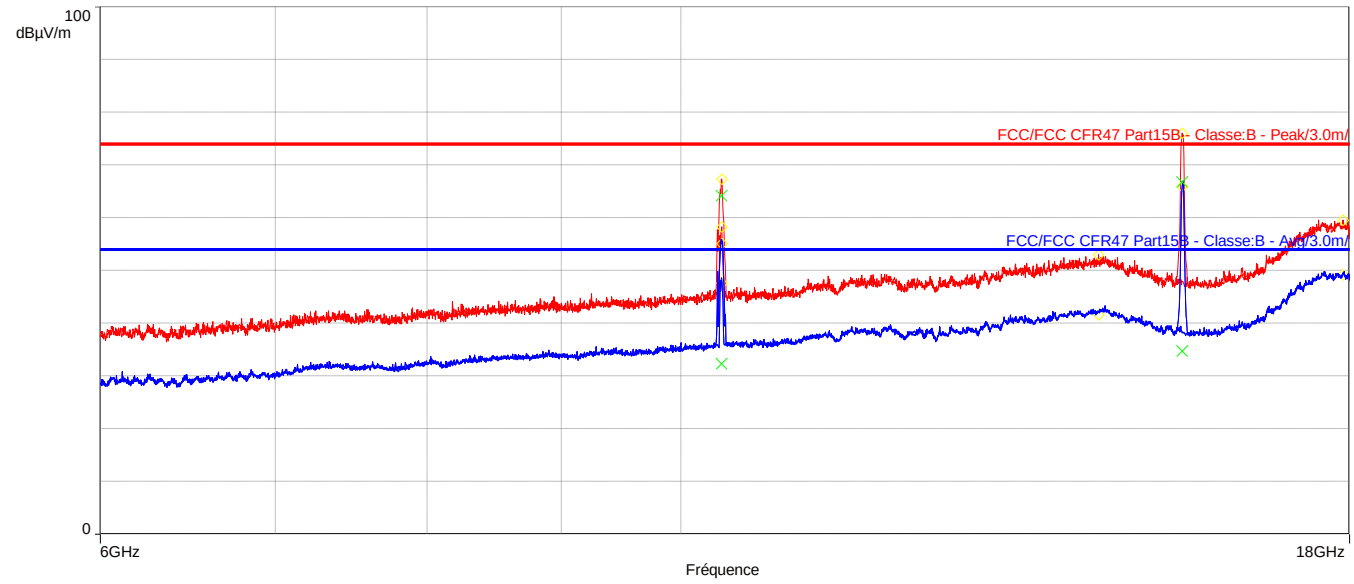
Spurious emissions

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5172.500	92.2	54.0	38.2	1.0	Vertical
5173.281	91.8	54.0	37.8	1.0	Vertical
5173.906	90.3	54.0	36.3	1.0	Vertical
5179.688	87.2	54.0	33.2	1.0	Vertical
5181.250	95.8	54.0	41.8	1.0	Vertical
5182.031	94.6	54.0	40.6	1.0	Vertical
5182.812	89.8	54.0	35.8	1.0	Vertical
5183.438	90.3	54.0	36.3	1.0	Vertical
5263.125	48.3	54.0	-5.7	1.0	Vertical
5173.281	83.2	54.0	29.2	1.0	Horizontal
5178.906	81.3	54.0	27.3	1.0	Horizontal
5180.781	83.8	54.0	29.8	1.0	Horizontal
5181.406	83.7	54.0	29.7	1.0	Horizontal
5182.188	85.5	54.0	31.5	1.0	Horizontal
5182.656	84.5	54.0	30.5	1.0	Horizontal

Frequency (MHz)	Average (dBµV/m)	Lim.Average (dBµV/m)	Average-Lim.Average (dB)	Height	Polarization
5183.750	84.3	54.0	30.3	1.0	Horizontal
5184.688	84.1	54.0	30.1	1.0	Horizontal

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Peak-Lim.Peak (dB)	Height	Polarization
5161.094	60.8	74.0	-13.2	1.0	Vertical
5172.344	99.4	74.0	25.4	1.0	Vertical
5173.438	97.8	74.0	23.8	1.0	Vertical
5174.062	97.8	74.0	23.8	1.0	Vertical
5179.688	93.9	74.0	19.9	1.0	Vertical
5181.250	101.6	74.0	27.6	1.0	Vertical
5182.188	103.6	74.0	29.6	1.0	Vertical
5182.812	96.8	74.0	22.8	1.0	Vertical
5183.594	96.8	74.0	22.8	1.0	Vertical
5192.344	66.0	74.0	-8.0	1.0	Vertical
5192.812	64.7	74.0	-9.3	1.0	Vertical
5195.000	62.2	74.0	-11.8	1.0	Vertical
5196.562	64.2	74.0	-9.8	1.0	Vertical
5197.812	64.0	74.0	-10.0	1.0	Vertical
5198.438	62.1	74.0	-11.9	1.0	Vertical
5199.219	62.0	74.0	-12.0	1.0	Vertical
5200.312	60.7	74.0	-13.3	1.0	Vertical
5179.844	93.3	74.0	19.3	1.0	Horizontal
5182.656	93.3	74.0	19.3	1.0	Horizontal
5184.844	92.6	74.0	18.6	1.0	Horizontal
5190.625	75.4	74.0	1.4	1.0	Horizontal

RADIATED EMISSIONS				
Graph name:	Emr#36	**Test configuration:**		
Limit:	FCC CFR47 Part15B	4343 Conf3 axis Z		
Class:	B			
Frequency range: [6GHz - 18GHz]				
Antenna polarization:	Horizontal & Vertical	**RBW:** 1MHz	**VBW:** 3MHz	
Azimuth: 0° - 360°	**Trace color & detector:** F>GHz: for both Antenna Polarization: detector: PEAK AVG			



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Height	Polarization	Correction (dB)
10366.875	67.3	74.0	55.1	54.0	1.0	Vertical	12.6
15534.562	76.0	74.0	65.9	54.0	1.0	Vertical	16.7
10365.375	58.2	74.0	47.6	54.0	1.0	Horizontal	12.6
14434.500	53.0	74.0	41.6	54.0	1.0	Horizontal	19.4
17899.312	59.6	74.0	49.2	54.0	1.0	Horizontal	26.2

Frequency (MHz)	Level P (dBµV/m)	Limit P (dBµV/m)	Margin (dB)	Level Av (dBµV/m)	Limit Av (dBµV/m)	Margin (dB)	Height (m)	Azimuth (°)	Polarization	Correction (dB)
10362.859	64.1	74.0	-9.9	32.3	54.0	-21.7	1.0	111.7	Vertical	12.6
15537.193	66.8	74.0	-7.2	34.8	54.0	-19.2	1.0	223.7	Vertical	16.6

Qualification

The frequency list is created from the results obtained during the pre-qualification.
Measurements are performed using a PEAK and AVERAGE detection.

See table below graphs

4.7. CONCLUSION

The sample of the equipment **pixium 3543 EZ3 & pixium 4343 EZ3**, Sn : **P22181F & L22341J**, tested in the configuration presented in this test report **satisfies** to requirements of the product family standard applied (See §Test Program) for radiated emissions.

5. UNCERTAINTIES CHART

Type de mesure / Kind of measurement	Incertitude élargie laboratoire / Wide uncertainty laboratory (k=2) ±x	Incertitude limite du CISPR / CISPR uncertainty limit ±y
Mesure des perturbations conduites en tension sur le réseau d'énergie (monophasé /triphasé) 150kHz-30MHz *Measurement of conducted disturbances in voltage on the power port (single & three phases)150kHz-30MHz* LISN 50Ω/50µH Capacitive Voltage Probe	 3.3dB 3.7dB	 3.4dB 3.9dB
Mesure du champ électrique rayonné en cage de Faraday semi-anéchoïque de 30MHz à 1GHz *Measurement of radiated electric field in half-anechoic Faraday room From 30MHz to 1GHz*	6.3dB	6.3dB
Mesure du champ électrique rayonné en cage de Faraday anéchoïque de 1GHz à 6GHz *Measurement of radiated electric field in full-anechoic Faraday room From 1GHz à 6GHz*	5.2dB	5.2dB
Mesure du champ électrique rayonné en cage de Faraday anéchoïque de 6GHz à 18GHz *Measurement of radiated electric field in full-anechoic Faraday room From 6GHz to 18GHz*	5.5dB	5.5dB
Mesure du champ électrique rayonné sur le site en espace libre de Moirans 30MHz – 1GHz. *Measurement of radiated electric field on the Moirans open area test site 30MHz – 1GHz.*	6.3dB	6.3dB

Les valeurs d'incertitudes calculées du laboratoire étant inférieures aux valeurs d'incertitudes limites établies par le CISPR, la conformité de l'échantillon est établie directement par les niveaux limites applicables. Ce tableau regroupe l'ensemble des incertitudes maximales pour les essais réalisables dans le laboratoire, qu'ils aient été ou non réalisés dans le cadre du présent rapport / *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*

Note - L'incertitude de mesure instrumentale est déterminée selon la CISPR 16-4-2. / *The instrumentation measurement uncertainty is determined according to CISPR16-4-2*