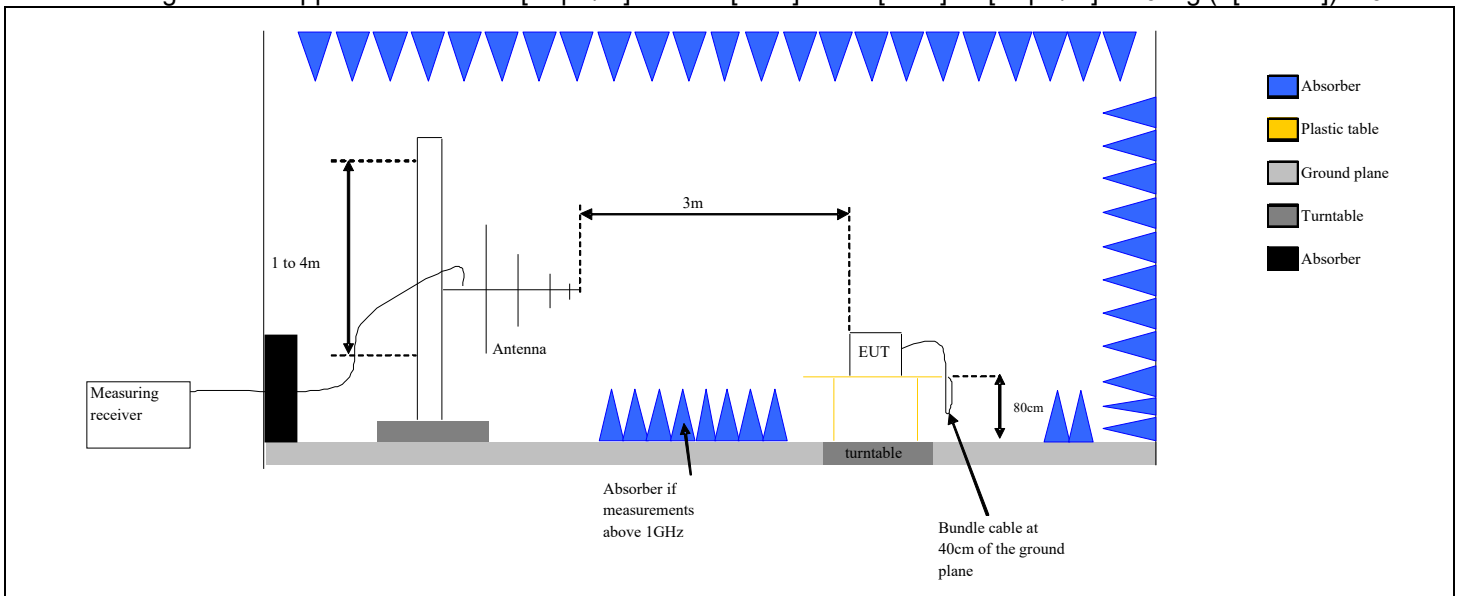
9. UNWANTED EMISSIONS & UNDESIRABLE EMISSION

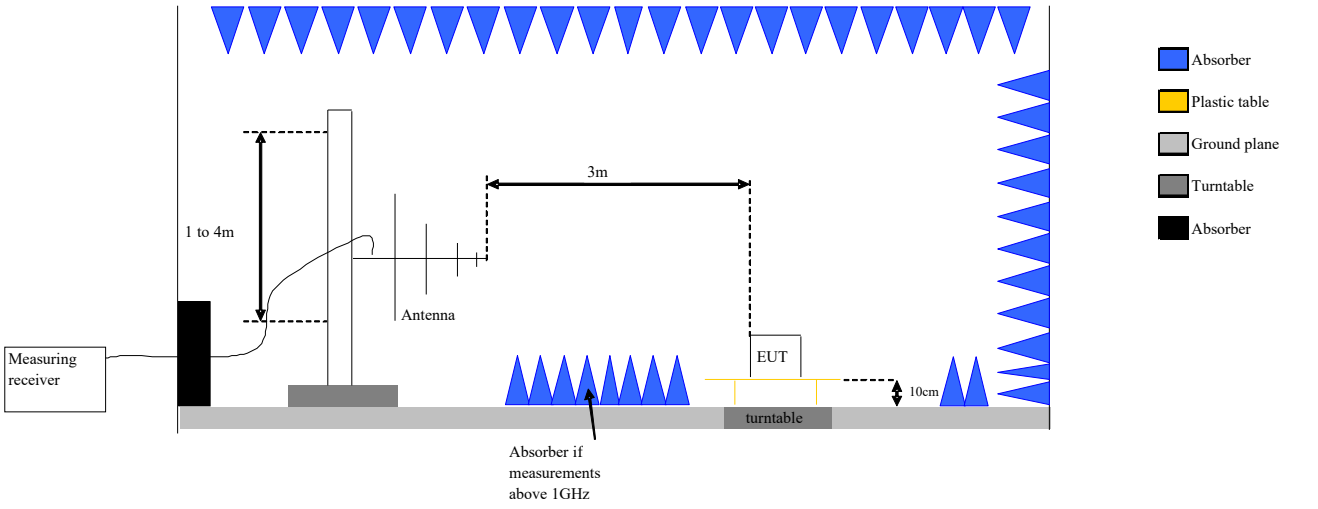
9.1. TEST CONDITIONS

Test performed by	: Akram HAKKARI / Majid MOURZAGH
Date of test	: March 28, 2023 to April 3, 2023
Ambient temperature	: 20 °C – 22°C
Relative humidity	: 32 % - 38%

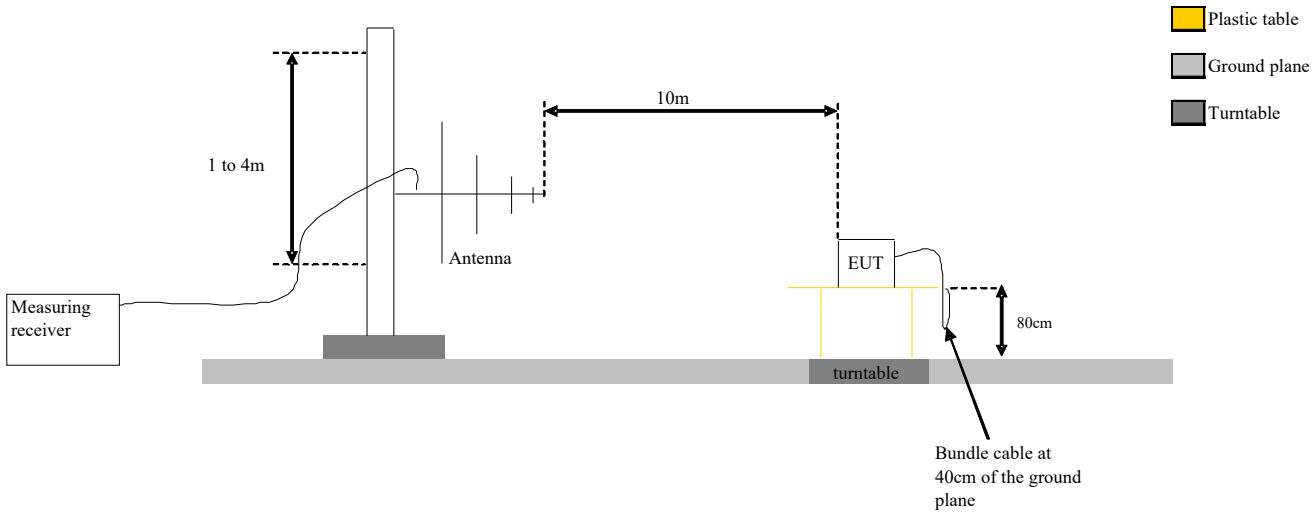
9.2. TEST SETUP

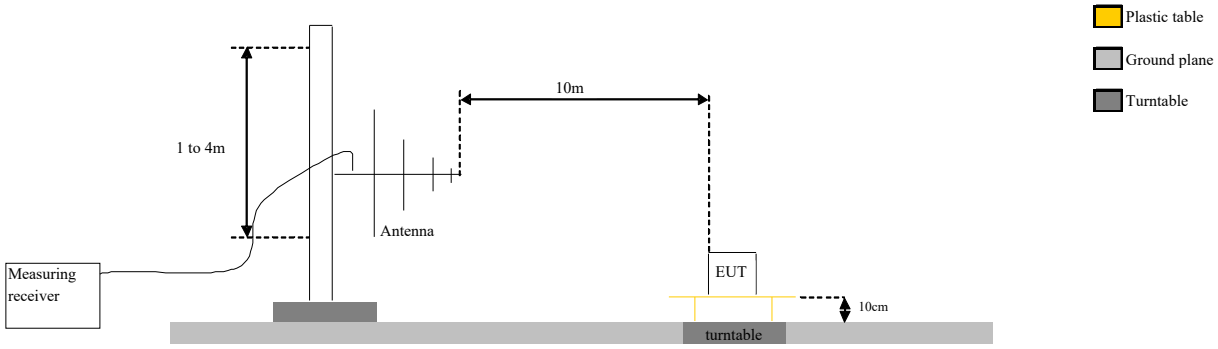
The product has been tested according to ANSI C63.10 (2013) and FCC part15 subpart C.
Test is performed in parallel, perpendicular and ground parallel axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on all axis of EUT used in normal configuration. Antenna height was 1m. The EUT is placed in a **full anechoic chamber**. Distance between measuring antenna and the EUT is **3m**.
Test is performed in horizontal (H) and vertical (V) polarization with **bilog** between 30MHz & 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on all axis of EUT used in normal configuration. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz. The EUT is placed **in a full anechoic chamber** above 1GHz and **on an open area test site** from 30MHz to 1GHz. Distance between measuring antenna and the EUT is **3m**.
The height antenna is varied from 1m to 4m from 30MHz to 1GHz and above 1GHz is:
☑ On mast, varied from 1m to 4m
☐ Fixed and centered on the EUT (EUT smaller than the beamwidth of the measurement antenna, ANSI C63.10 §6.6.5)
Frequency list has been created with anechoic chamber pre-scan results.
The product has been tested according to the FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
The following factor is applied to convert E[dBµV/m] to EIRP[dBm]. EIRP[dBm]= E[dBµV/m] + 20 log (d[meters]) -104.77





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





Test Set up for radiated measurement in open area test site

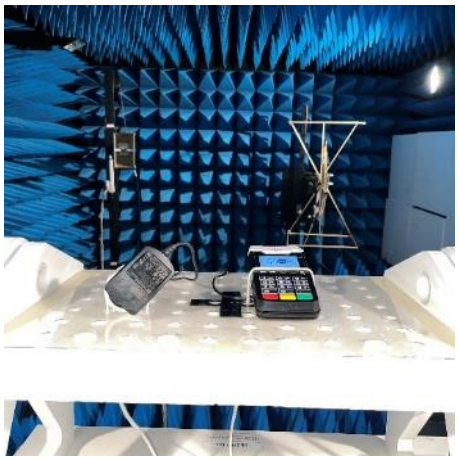
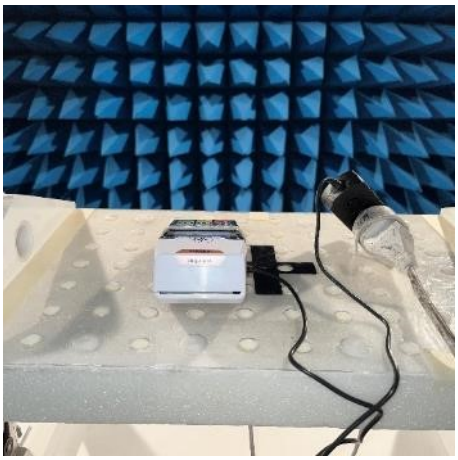
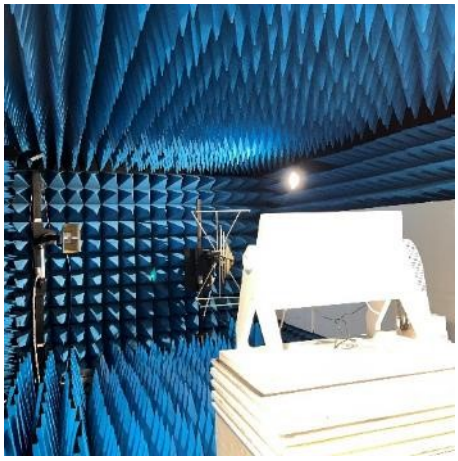




Photo Setup : anechoic chamber (XY axis)



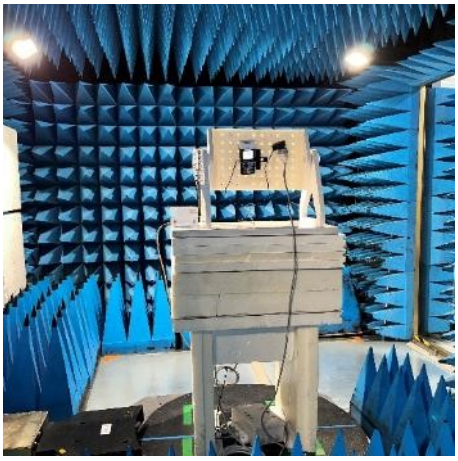


Photo Setup : anechoic chamber (Z axis)

Photograph for Unwanted Emissions & Undesirable Emission limits

Photograph for Unwanted Emissions & Undesirable Emission limits

9.3. LIMIT

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

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.

RSS 247
5725MHz-5850MHz: Within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP. of −27 dBm/MHz.

9.4. TEST EQUIPMENT LIST

TEST EQUIPMENT USED					
Description	**Manufacturer**	**Model**	**Identifier**	**Cal_Date**	**Cal_Due**
Amplifier 10MHz - 18GHz	LCIE SUD EST	_	A7102082	05/22	05/24
Biconic Antenna	EATON	94455-1	C2040234	03/21	03/23
Antenna horn 18GHz	EMCO	3115	C2042029	03/22	03/25
BAT EMC	NEXIO	v3.21.0.32	L1000115		
Cable 0.75m	-	18GHz	A5329900	08/22	08/24
Comb EMR HF	YORK	CGE01	A3169114		
CONTROLLER	INNCO	CO3000	D3044034		
Filter Matrice	LCIE SUD EST	Combined filters	A7484078	03/23	03/25
Multimeter - CEM	FLUKE	189	A1240171	09/21	09/23
Rehausse Table C3	LCIE	_	F2000511		
Rehausse Table C3	LCIE	_	F2000507		
Semi-Anechoic chamber #3 (BF)	SIEPEL	_	D3044017_BF	04/22	04/25
Semi-Anechoic chamber #3 (VSWR)	SIEPEL	_	D3044017_VSWR	04/22	04/25
SMA Cable 18GHz 0.5m	TELEDYNE	18GHz	A5330059	02/23	02/24
SMA Cable 18GHz 0.5m	TELEDYNE	18GHz	A5330060	02/23	02/24
SMA Cable 18GHz 0.6m	TELEDYNE	18GHz	A5330055	02/23	02/24
SMA Cable 18GHz 3.5m	TELEDYNE	18GHz	A5330058	02/23	02/24
SMA Cable 18GHz 6m	TELEDYNE	18GHz	A5330057	02/23	02/24
Spectrum analyzer	ROHDE & SCHWARZ	FSU 26	A4060058	09/21	09/23
Table C3	LCIE	_	F2000461		
Thermo-hygrometer (PM1/2/3)	KIMO	HQ 210	B4206022	01/21	05/23
TILT	INNCO	TILT	D3044033		
Turntable chamber (Cage#3)	ETS Lingren	Model 2165	F2000371		
Turntable controller (Cage#3)	ETS Lingren	Model 2090	F2000444		
SMA 1.5m	SUCOFLEX	18GHz	A5329864	09/22	09/23
Spectrum analyzer	ROHDE & SCHWARZ	FSV 40	A4060059	11/21	11/23
Antenna horn 40GHz	SCHWARZBECK	BBHA 9170	C2042028	06/22	06/25
Cable 1m 40GHz	INTELLICONNECT	C-KPKP-1503-1M	A5329987	04/21	08/22
PRE-AMPLIFIER	LCIE SUD EST	PRE-AMPLIFIER (40GHz)	A7080078	09/22	09/24

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

TEST EQUIPMENT USED					
Description	**Manufacturer**	**Model**	**Identifier**	**Cal_Date**	**Cal_Due**
Antenna Mat (OATS)	ETS Lingren	2071-2	F2000392		
Cable (OATS)	_	1GHz	A5329623	09/22	09/23
Emission Cable	CABELTEL	6GHz	A5329069	05/22	05/23
Emission Cable	MICRO-COAX	1GHz	A5329656	08/22	08/23
Emission Cable	RADIALEX		A5329061	08/22	08/23
OATS	_	_	F2000409	07/22	07/23
Table C1/OATS	LCIE	_	F2000445		
Turntable (OATS)	ETS Lingren	Model 2187	F2000403		

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

9.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

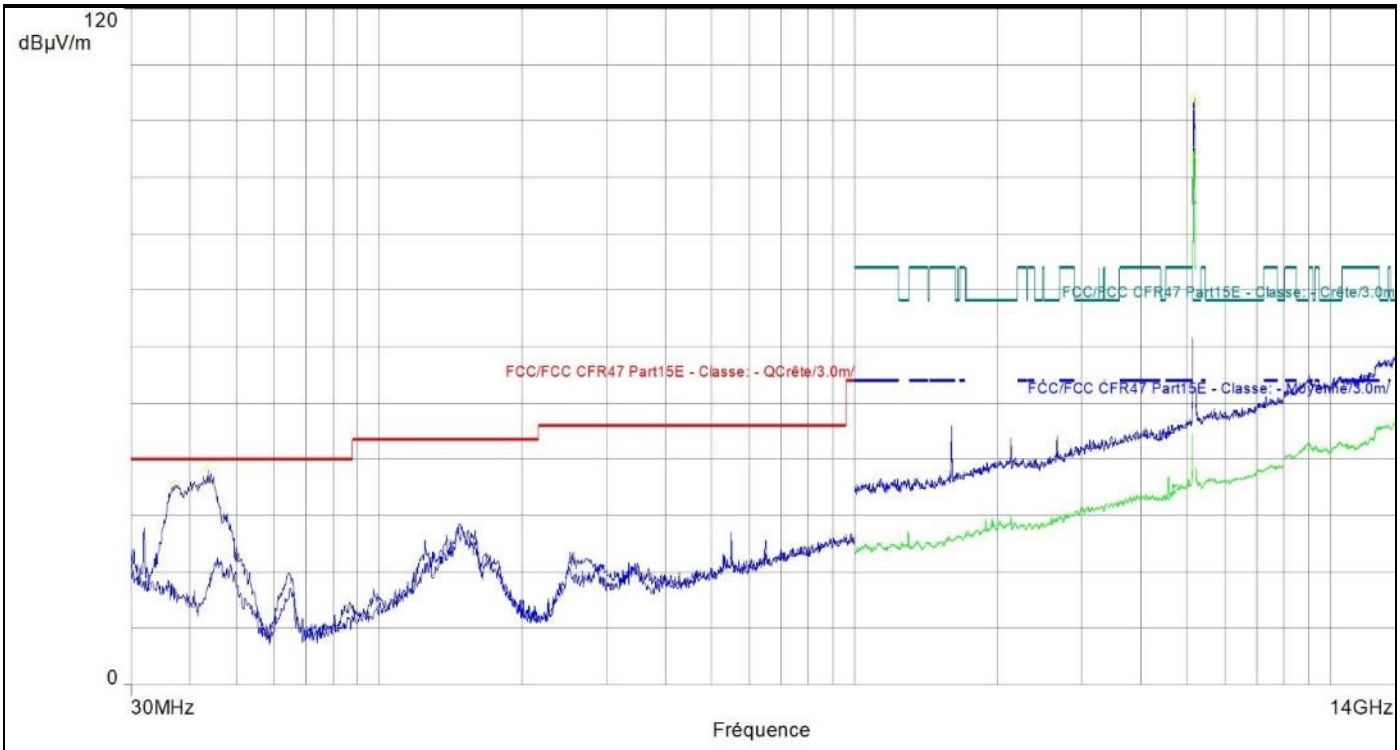
☑ None ☐ Divergence:

9.6. RESULTS

9.6.1. Unwanted Emissions 30MHz to 14 GHz

Graph identifier		Polarization	Mode	Channel	EUT position	Comments
Emr#	1	0°/90°/180°	TX	C1	Axis XY/Z	See the following results
Emr#	2	0°/90°/180°	TX	C2	Axis XY/Z	See the following results
Emr#	3	0°/90°/180°	TX	C3	Axis XY/Z	See the following results
Emr#	4	0°/90°/180°	TX	C4	Axis XY/Z	See the following results
Emr#	5	0°/90°/180°	TX	C5	Axis XY/Z	See the following results
Emr#	6	0°/90°/180°	TX	C6	Axis XY/Z	See the following results
Emr#	7	0°/90°/180°	TX	C7	Axis XY/Z	See the following results
Emr#	8	0°/90°/180°	TX	C8	Axis XY/Z	See the following results
Emr#	9	0°/90°/180°	TX	C9	Axis XY/Z	See the following results
Emr#	10	0°/90°/180°	TX	C10	Axis XY/Z	See the following results
Emr#	11	0°/90°/180°	TX	C11	Axis XY/Z	See the following results
Emr#	12	0°/90°/180°	TX	C12	Axis XY/Z	See the following results
Emr#	13	0°/90°/180°	TX	C13	Axis XY/Z	See the following results

RADIATED EMISSIONS			
Graph name:	Emr#1	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C1 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

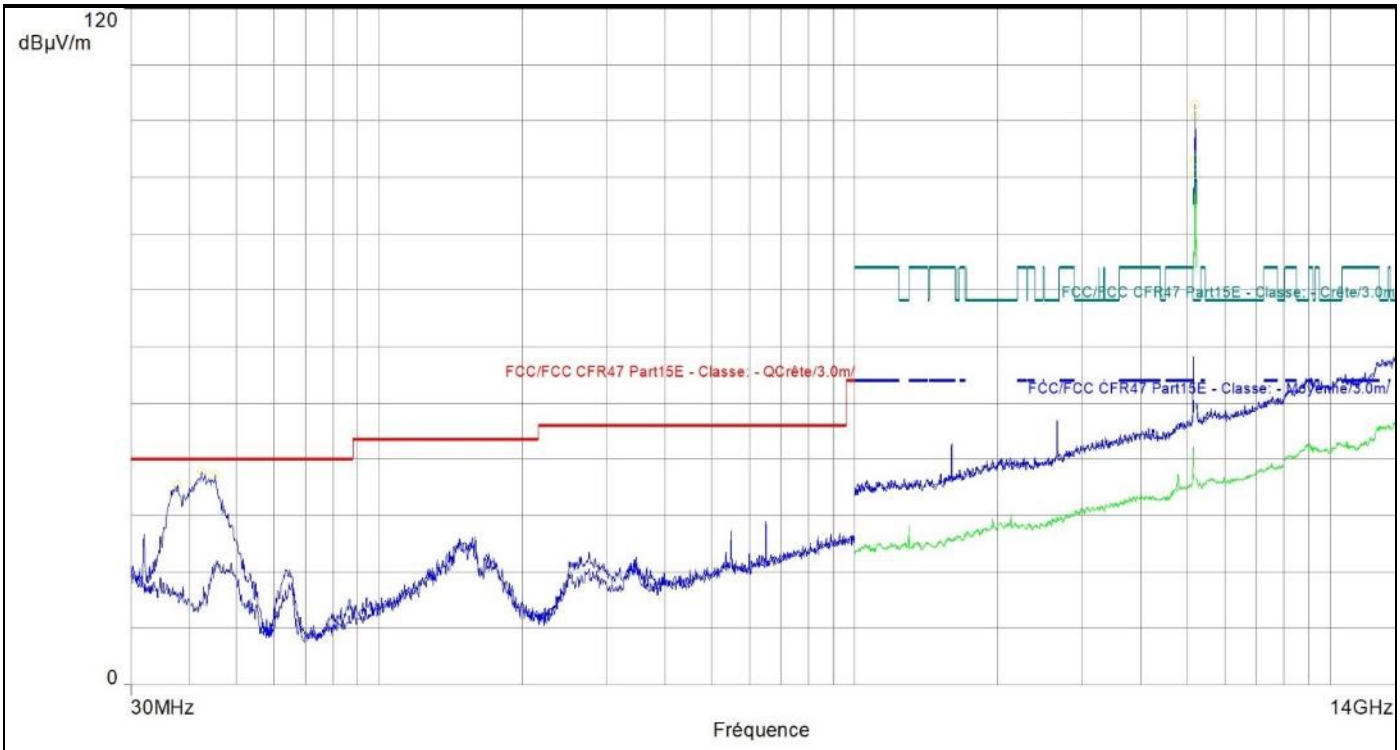


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5182.571*	102.9	68.2	/	Horizontal	43.3
13948.400	59.5	68.2	/	Horizontal	-5.9
13948.400	58.5	68.2	/	Vertical	-5.9
5182.578*	104.1	68.2	/	Vertical	43.3
37.081	35.5	/	40.0	Vertical	-8.4
43.580	38.2	/	40.0	Vertical	-11.6

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#2	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C2 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

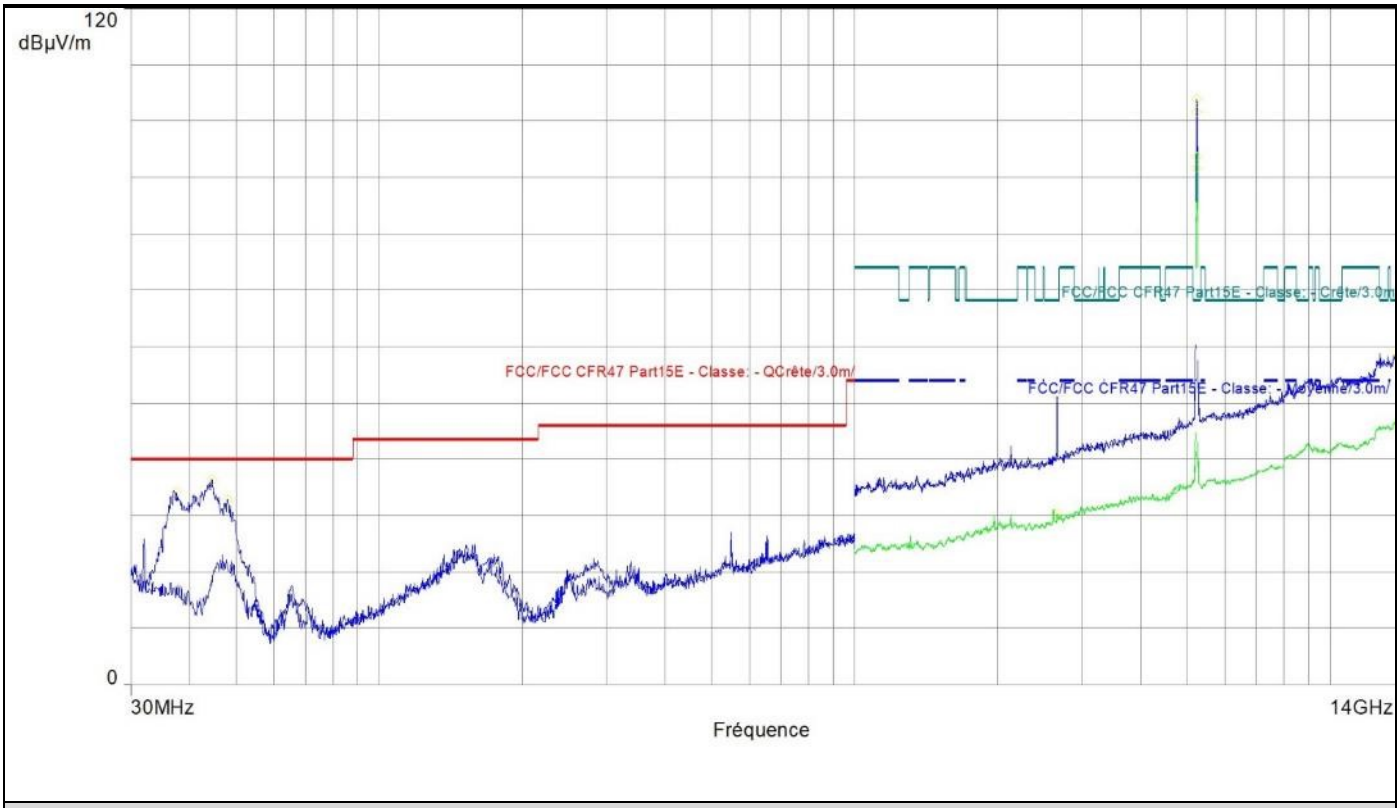


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5202.459*	100.9	68.2	/	Horizontal	43.4
13986.800	58.3	68.2	/	Horizontal	-5.6
13947.200	58.8	68.2	/	Vertical	-5.9
5202.557*	102.9	68.2	/	Vertical	43.4
37.614	35.5	/	40.0	Vertical	-8.7
42.319	37.8	/	40.0	Vertical	-11.0
45.132	37.3	/	40.0	Vertical	-12.3

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#3	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C3 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

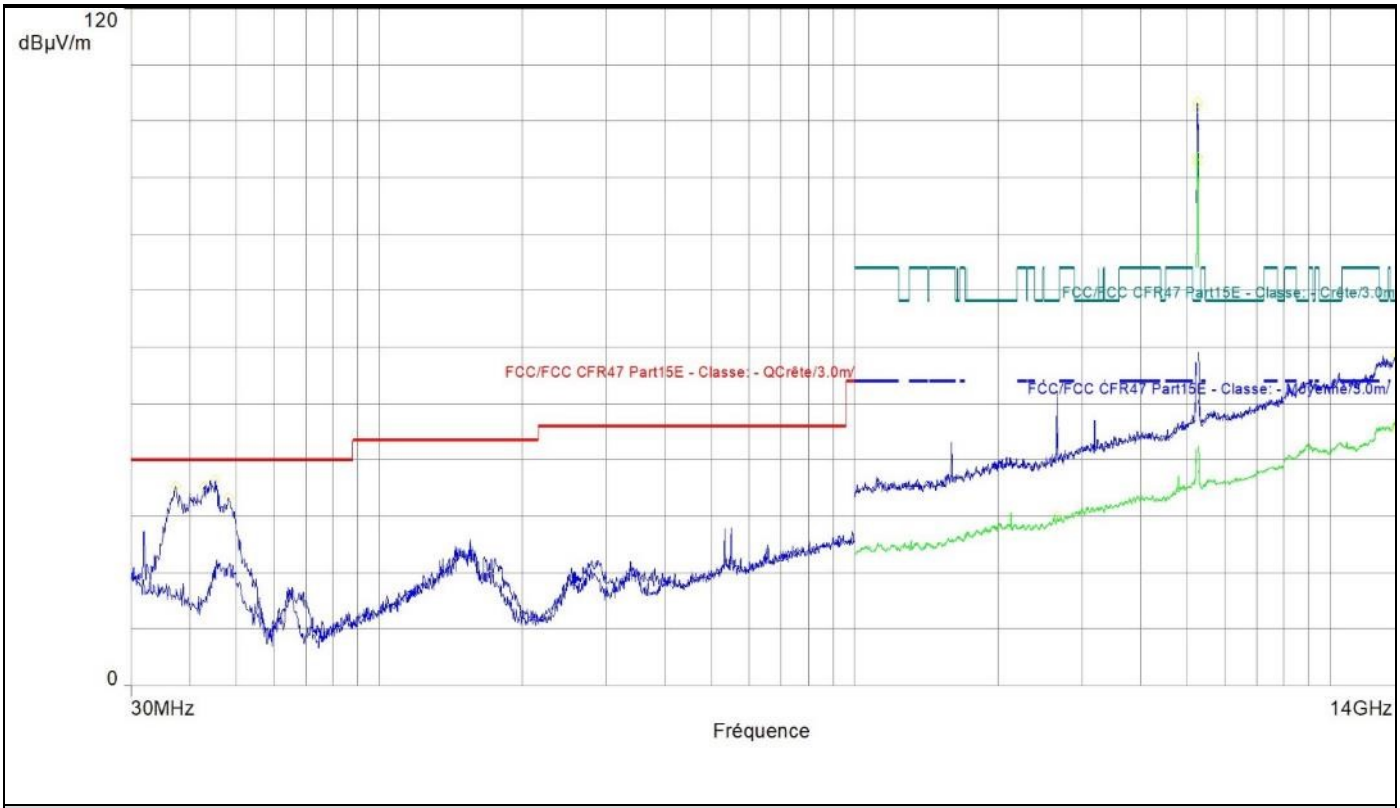


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5242.454*	101.6	68.2	/	Horizontal	43.4
2665.055	51.2	68.2	/	Horizontal	-27.5
14000.000	58.7	68.2	/	Horizontal	-5.4
13966.400	58.6	68.2	/	Vertical	-5.8
5242.418*	103.9	68.2	/	Vertical	43.4
37.469	34.3	/	40.0	Vertical	-8.6
44.550	36.4	/	40.0	Vertical	-12.1
48.042	32.9	/	40.0	Vertical	-13.7

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#4	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C4 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

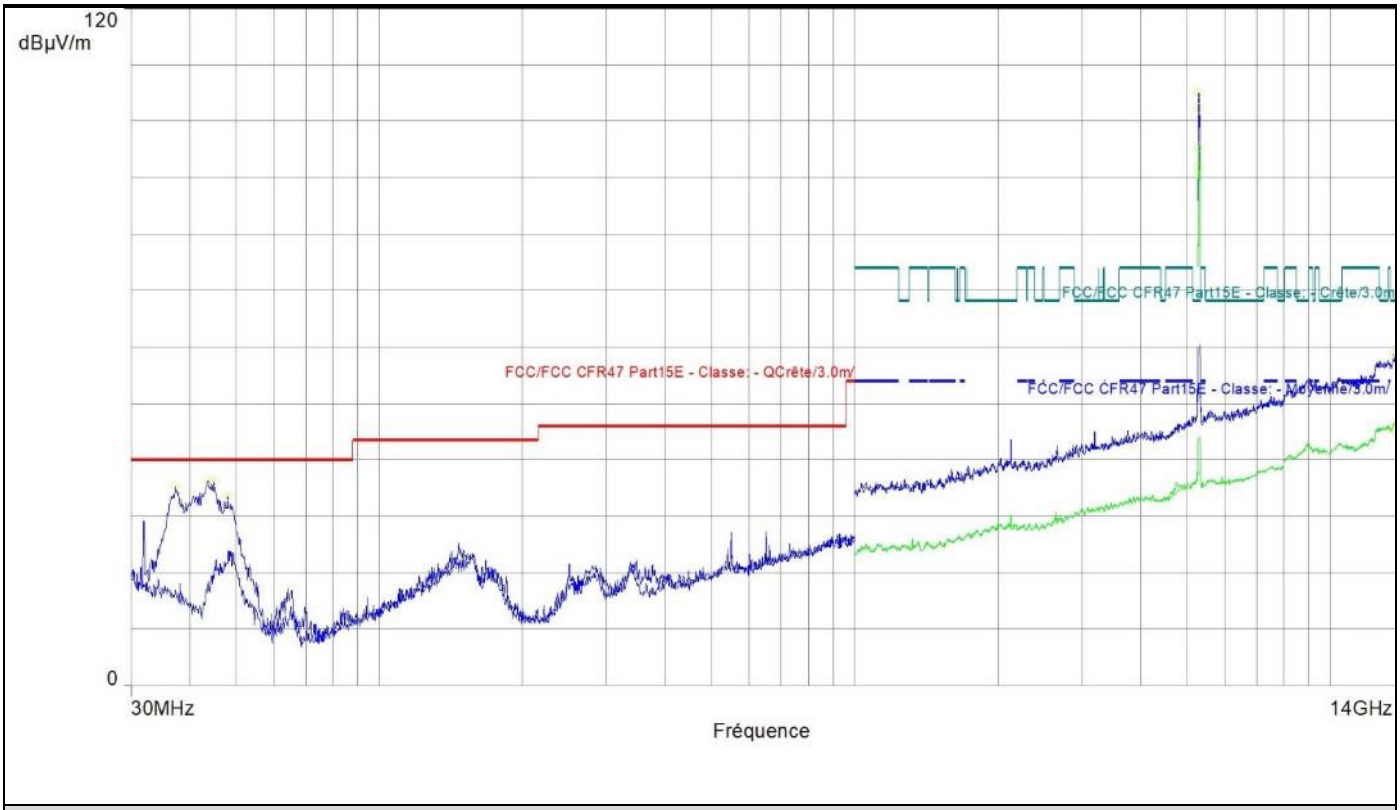


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5257.090*	102.5	68.2	/	Horizontal	43.4
13719.200	58.4	68.2	/	Horizontal	-6.7
13891.400	58.6	68.2	/	Vertical	-6.0
5262.622*	103.4	68.2	/	Vertical	43.5
2664.928	52.2	68.2	/	Vertical	-27.5
37.226	35.3	/	40.0	Vertical	-8.5
42.852	35.3	/	40.0	Vertical	-11.2
45.132	36.5	/	40.0	Vertical	-12.3
48.090	33.4	/	40.0	Vertical	-13.7

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#5	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C5 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

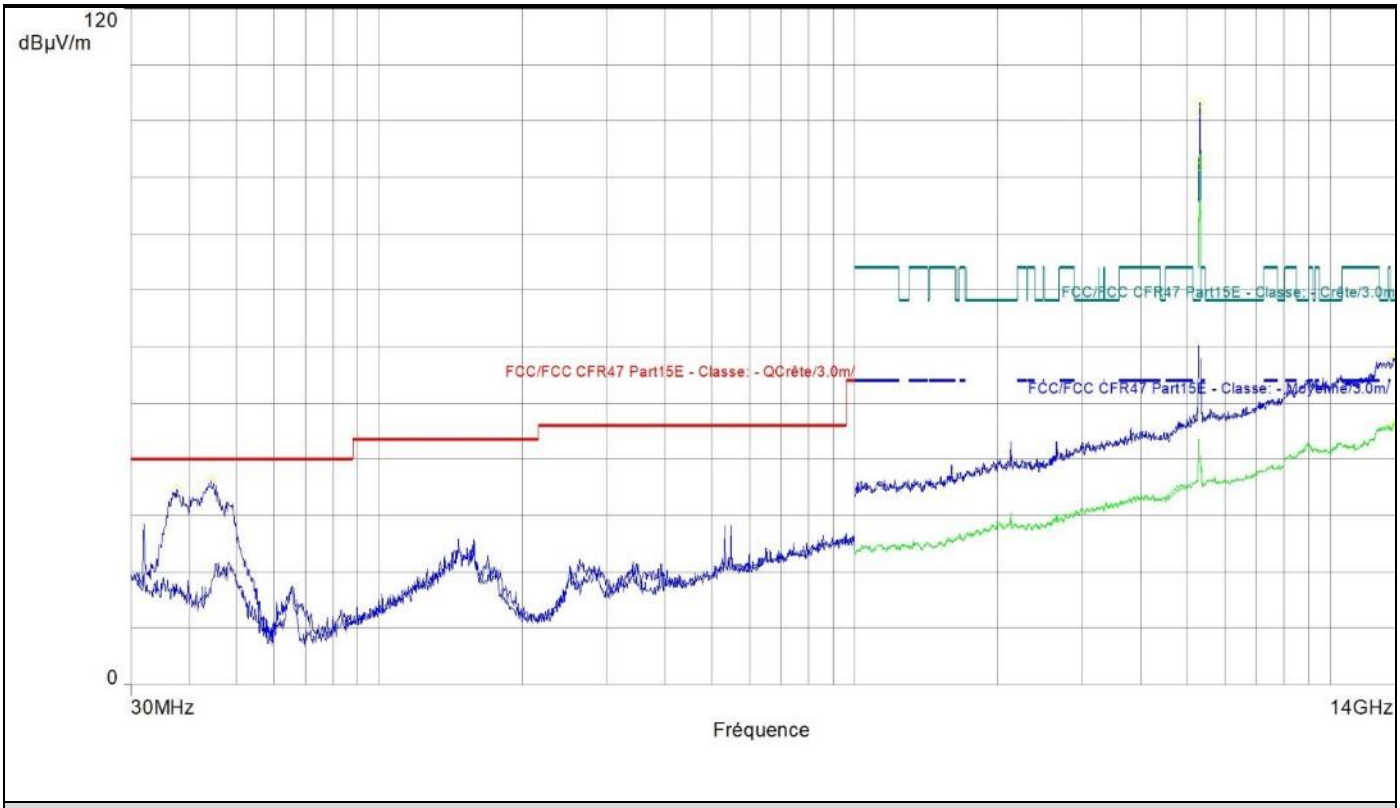


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5298.230*	102.3	68.2	/	Horizontal	43.5
13883.000	58.2	68.2	/	Horizontal	-6.1
13636.400	58.8	68.2	/	Vertical	-7.3
5297.114*	105.0	68.2	/	Vertical	43.5
37.178	35.3	/	40.0	Vertical	-8.5
43.628	36.3	/	40.0	Vertical	-11.6
44.792	36.2	/	40.0	Vertical	-12.2
47.994	33.6	/	40.0	Vertical	-13.6

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#6	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C6 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

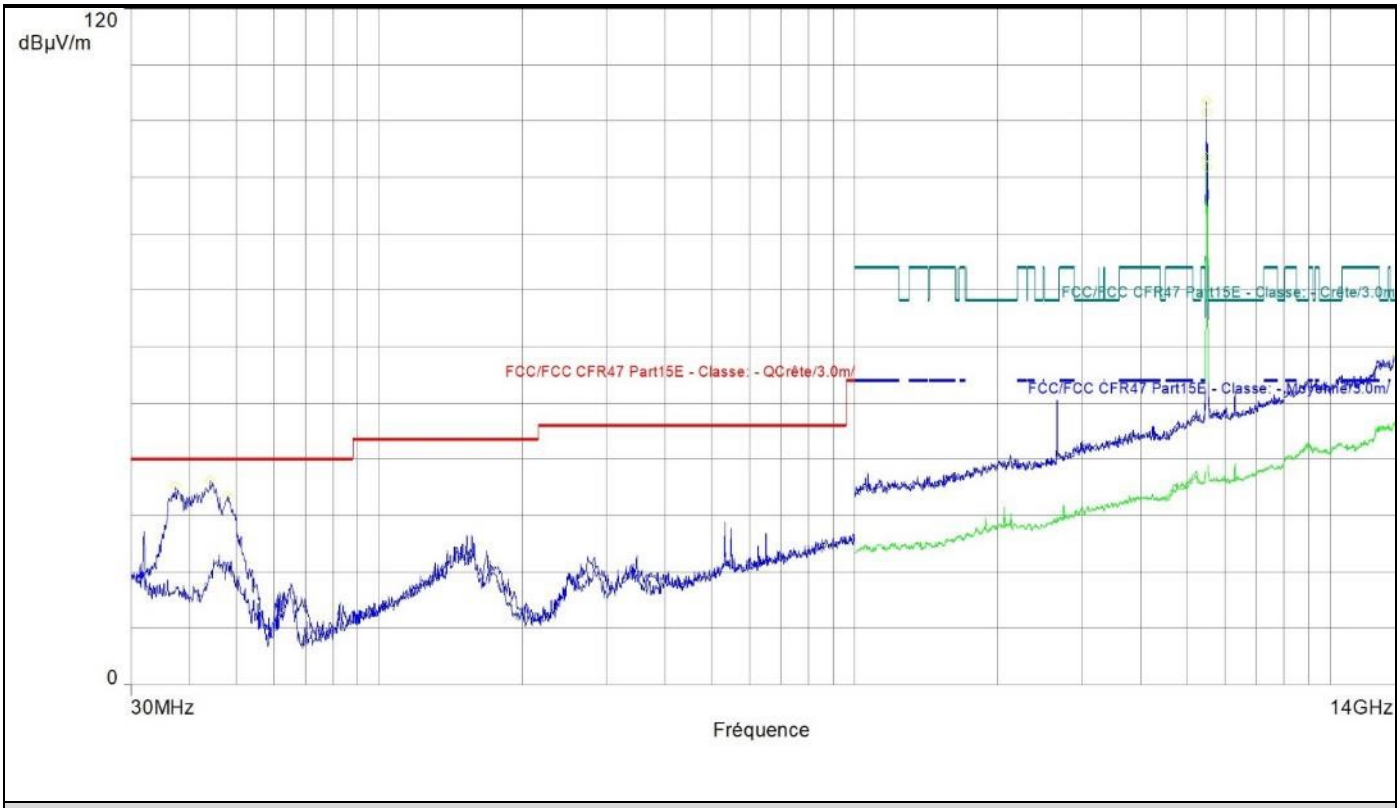


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5317.354*	101.8	68.2	/	Horizontal	43.6
13607.000	58.0	68.2	/	Horizontal	-7.5
13961.000	58.1	68.2	/	Horizontal	-5.8
13982.600	58.3	68.2	/	Vertical	-5.6
5317.282*	103.3	68.2	/	Vertical	43.6
37.518	34.7	/	40.0	Vertical	-8.7
44.259	36.4	/	40.0	Vertical	-11.9

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#7	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C7 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

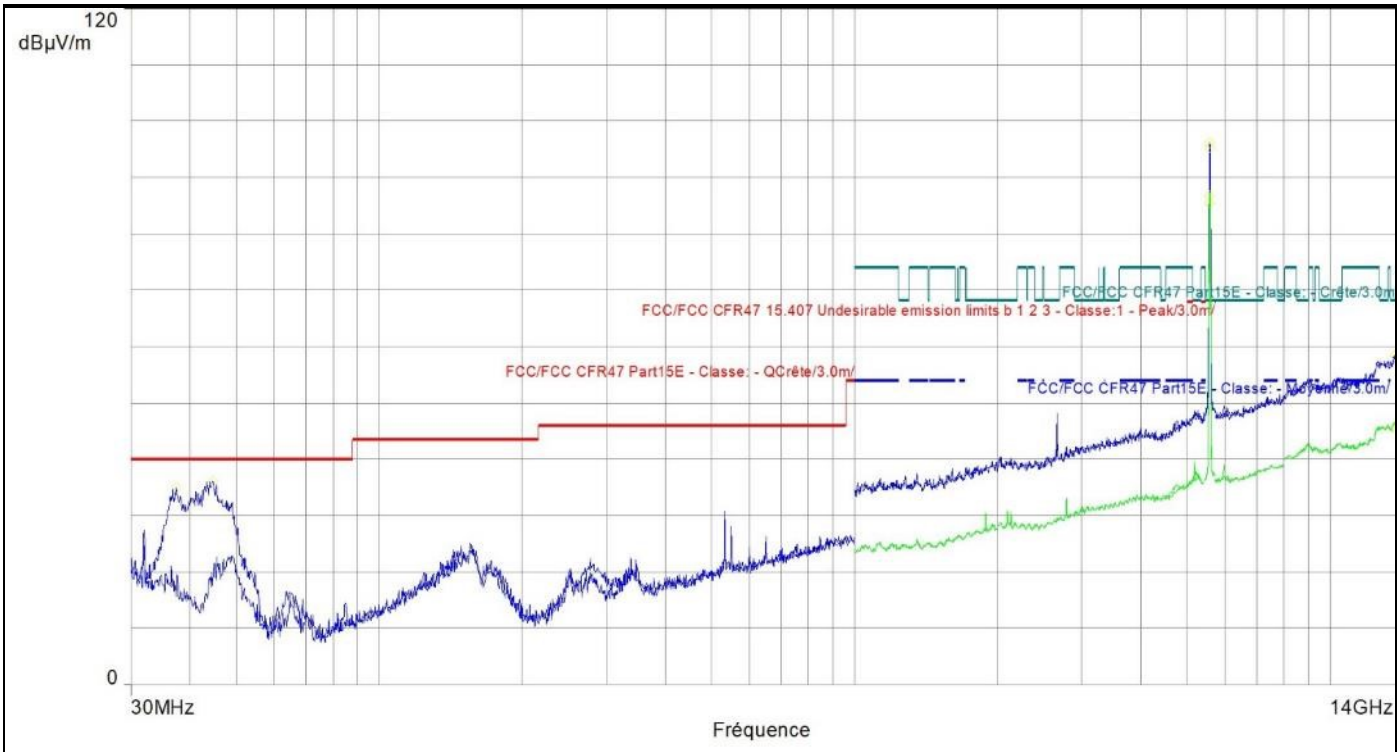


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5497.372*	101.6	68.2	/	Horizontal	44.0
13987.400	57.8	68.2	/	Horizontal	-5.6
13952.600	58.8	68.2	/	Vertical	-5.8
5496.934*	103.6	68.2	/	Vertical	44.0
37.275	35.2	/	40.0	Vertical	-8.5
44.065	36.2	/	40.0	Vertical	-11.8
47.994	33.4	/	40.0	Vertical	-13.6

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#8	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C8 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

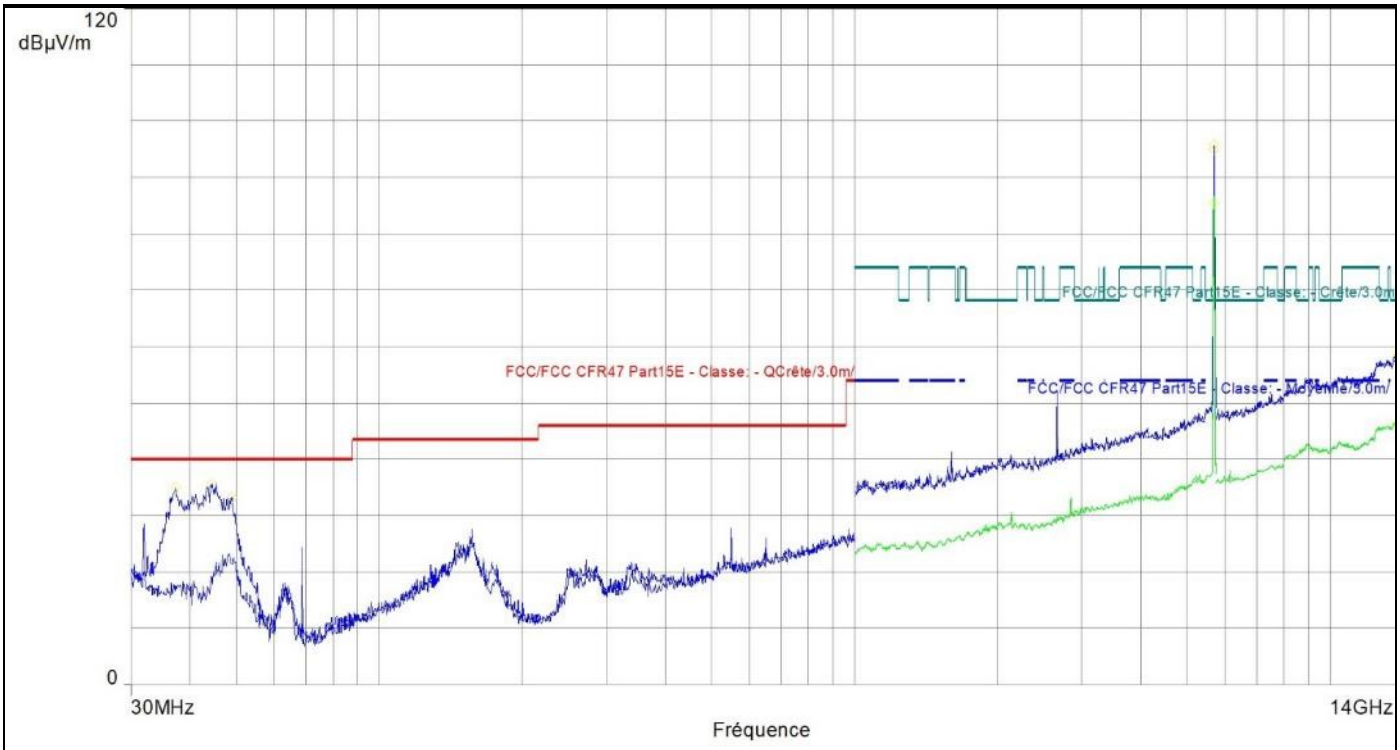


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5583.644*	95.2	68.2	/	Horizontal	-18.7
13947.200	58.5	68.2	/	Horizontal	-5.9
13642.400	58.4	68.2	/	Vertical	-7.2
37.372	35.0	/	40.0	Vertical	-8.6
44.502	36.0	/	40.0	Vertical	-12.0
5577.204*	96.1	68.2	/	Vertical	-18.7

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#9	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C9 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

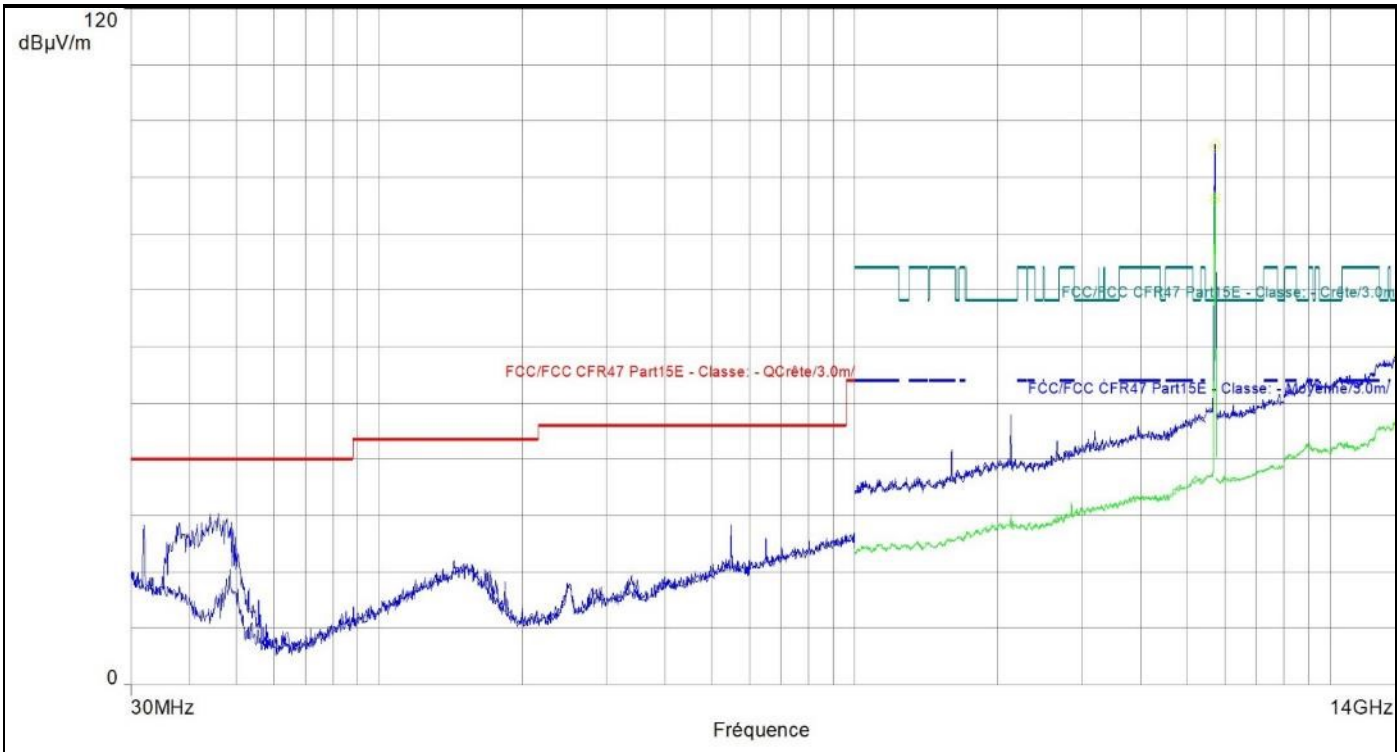


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5698.496	95.8	68.2	/	Horizontal	-18.5
13942.400	58.4	68.2	/	Horizontal	-5.9
13894.400	58.8	68.2	/	Vertical	-6.0
5701.193	95.0	68.2	/	Vertical	-18.5
37.226	35.0	/	40.0	Vertical	-8.5
44.210	35.6	/	40.0	Vertical	-11.9
48.915	33.2	/	40.0	Vertical	-14.0

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#10	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C10 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

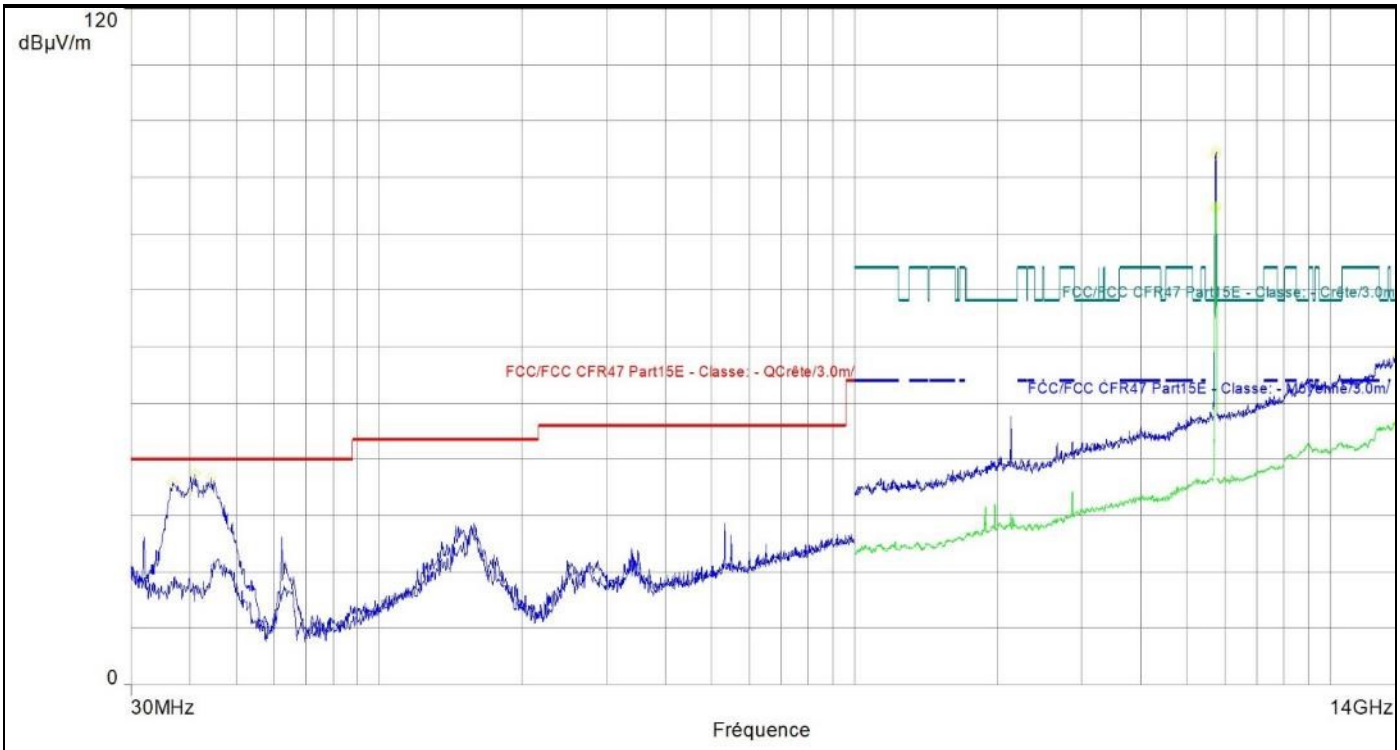


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Polarization	Correction (dB)
5727.109*	95.9	68.2	Horizontal	-18.4
13942.400	58.5	68.2	Horizontal	-5.9
13979.000	58.9	68.2	Vertical	-5.6
5717.003*	95.2	68.2	Vertical	-18.5

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#11	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C11 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

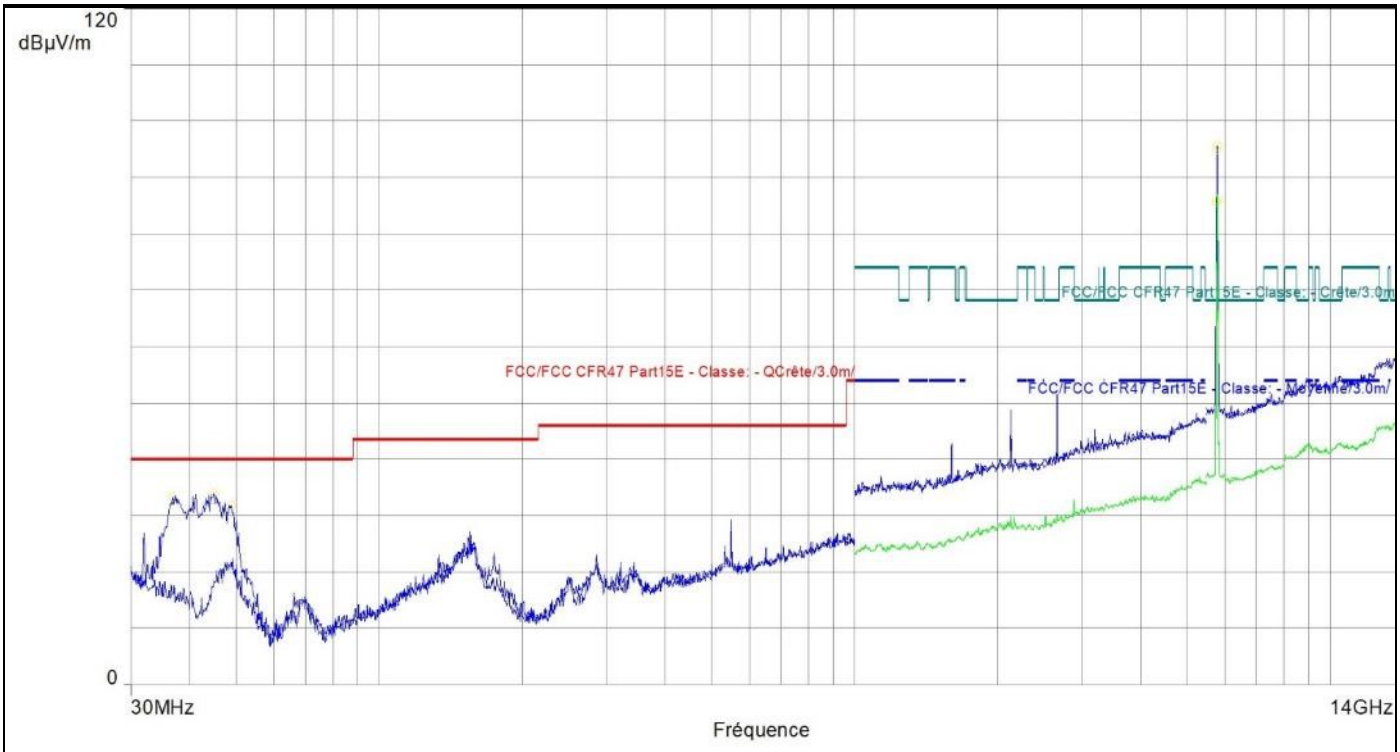


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5742.590	94.0	68.2	/	Horizontal	-18.5
13955.600	58.3	68.2	/	Horizontal	-5.8
13895.000	58.7	68.2	/	Vertical	-6.0
5748.240	94.8	68.2	/	Vertical	-18.5
36.790	36.0	/	40.0	Vertical	-8.3
40.961	37.4	/	40.0	Vertical	-10.3
44.308	36.7	/	40.0	Vertical	-12.0

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#12	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C12 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz

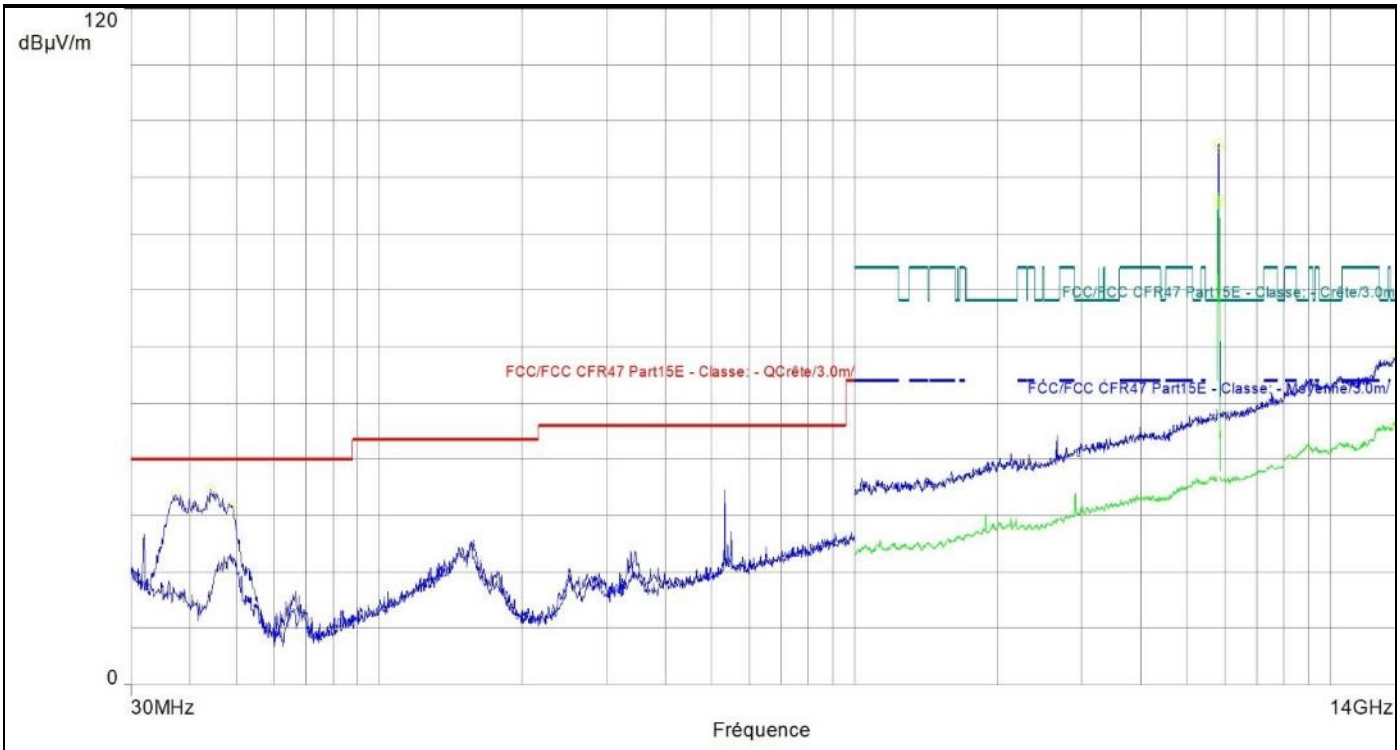


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5788.250	95.8	68.2	/	Horizontal	-18.5
13981.400	58.2	68.2	/	Horizontal	-5.6
13961.000	58.3	68.2	/	Vertical	-5.8
5782.600	95.0	68.2	/	Vertical	-18.5
36.693	33.3	/	40.0	Vertical	-8.3
44.890	34.0	/	40.0	Vertical	-12.2
48.721	31.8	/	40.0	Vertical	-13.9

*Carrier frequency

RADIATED EMISSIONS			
Graph name:	Emr#13	**Test configuration:**	
Limit:	FCC CFR47 Part15E	(H+V) - C13 - TX mode - Automatic Axis	
Class:			
Frequency range: [30MHz - 14GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Lim.Q-Peak (dBµV/m)	Polarization	Correction (dB)
5828.104	96.1	68.2	/	Horizontal	-18.6
13617.800	58.1	68.2	/	Horizontal	-7.4
13944.800	59.5	68.2	/	Vertical	-5.9
5828.288	95.2	68.2	/	Vertical	-18.6
37.226	33.8	/	40.0	Vertical	-8.5
44.162	34.8	/	40.0	Vertical	-11.9
48.915	31.9	/	40.0	Vertical	-14.0

*Carrier frequency

QUALIFICATION (30MHz-14GHz): 10 meters measurement on the Open Area Test Site.
Frequency list has been created with semi-anechoic chamber pre-scan results.
Measurements are performed using a QUASI-PEAK detection.

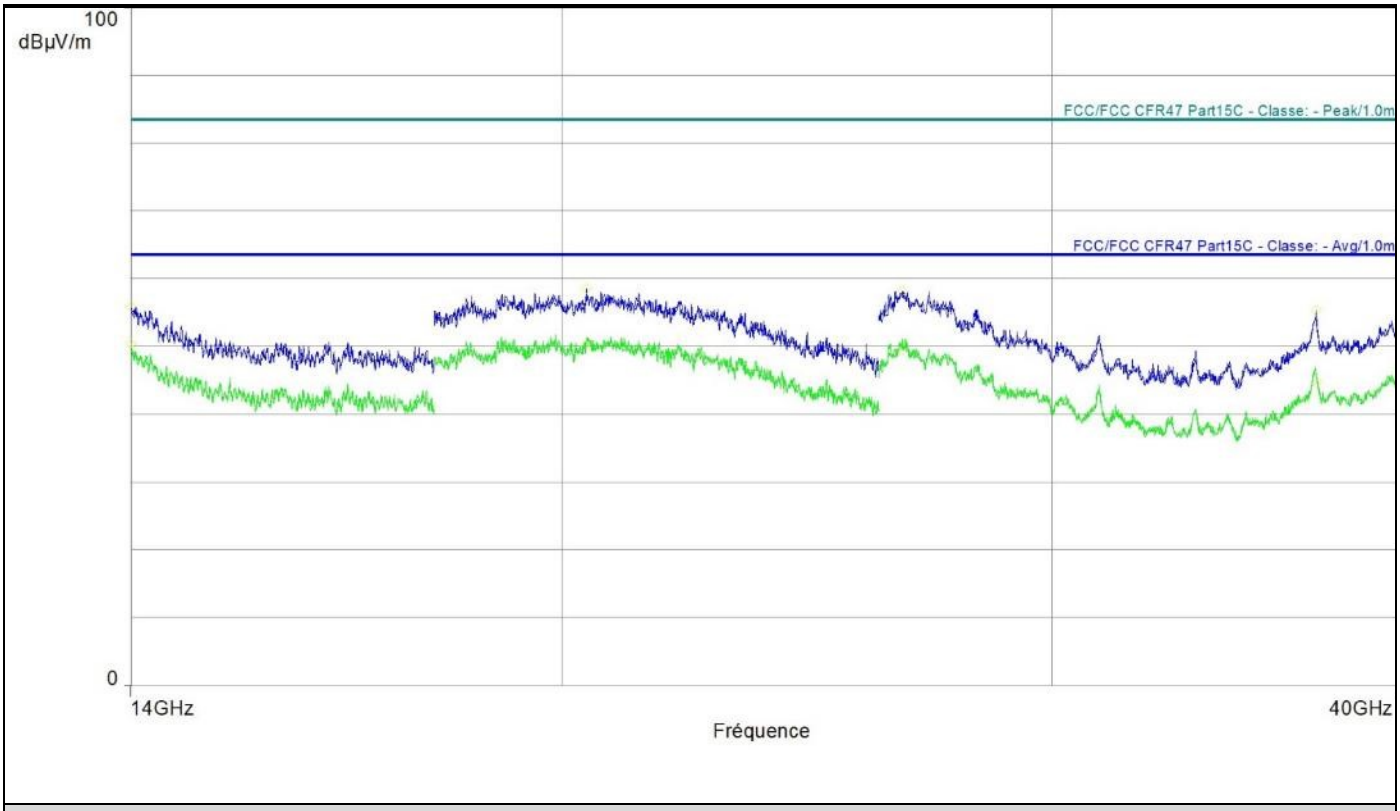
No significant frequency observed

9.6.2. Unwanted Emissions 14GHz to 40GHz

Graph identifier	Polarization	Mode	Channel	EUT position	Comments
Emr# 14	0°/90°/180°	TX	C1	Axis XY/Z	See the following results
Emr# 15	0°/90°/180°	TX	C2	Axis XY/Z	See the following results
Emr# 16	0°/90°/180°	TX	C3	Axis XY/Z	See the following results
Emr# 17	0°/90°/180°	TX	C4	Axis XY/Z	See the following results
Emr# 18	0°/90°/180°	TX	C5	Axis XY/Z	See the following results
Emr# 19	0°/90°/180°	TX	C6	Axis XY/Z	See the following results
Emr# 20	0°/90°/180°	TX	C7	Axis XY/Z	See the following results
Emr# 21	0°/90°/180°	TX	C8	Axis XY/Z	See the following results
Emr# 22	0°/90°/180°	TX	C9	Axis XY/Z	See the following results
Emr# 23	0°/90°/180°	TX	C10	Axis XY/Z	See the following results
Emr# 24	0°/90°/180°	TX	C11	Axis XY/Z	See the following results
Emr# 25	0°/90°/180°	TX	C12	Axis XY/Z	See the following results
Emr# 26	0°/90°/180°	TX	C13	Axis XY/Z	See the following results

Results above 14GHz (worst case power presented)

RADIATED EMISSIONS			
Graph name:	Emr#14	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C1 - TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

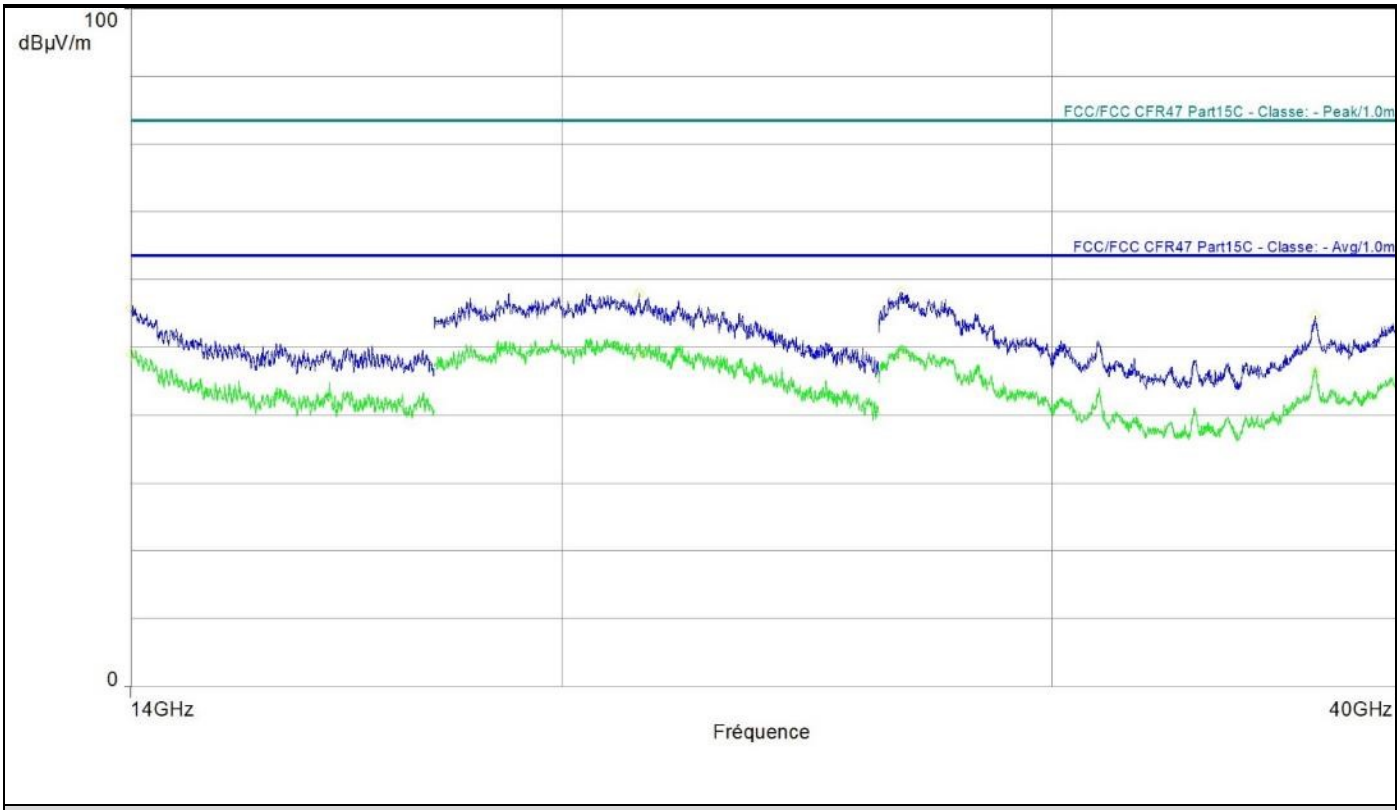


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
26505.750	58.1	83.5	49.4	63.5	Horizontal	11.6
37345.250	55.2	83.5	44.7	63.5	Horizontal	17.8
20415.000	58.6	83.5	50.5	63.5	Vertical	4.0
14004.000	55.9	83.5	50.4	63.5	Vertical	3.5

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#15	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C2- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

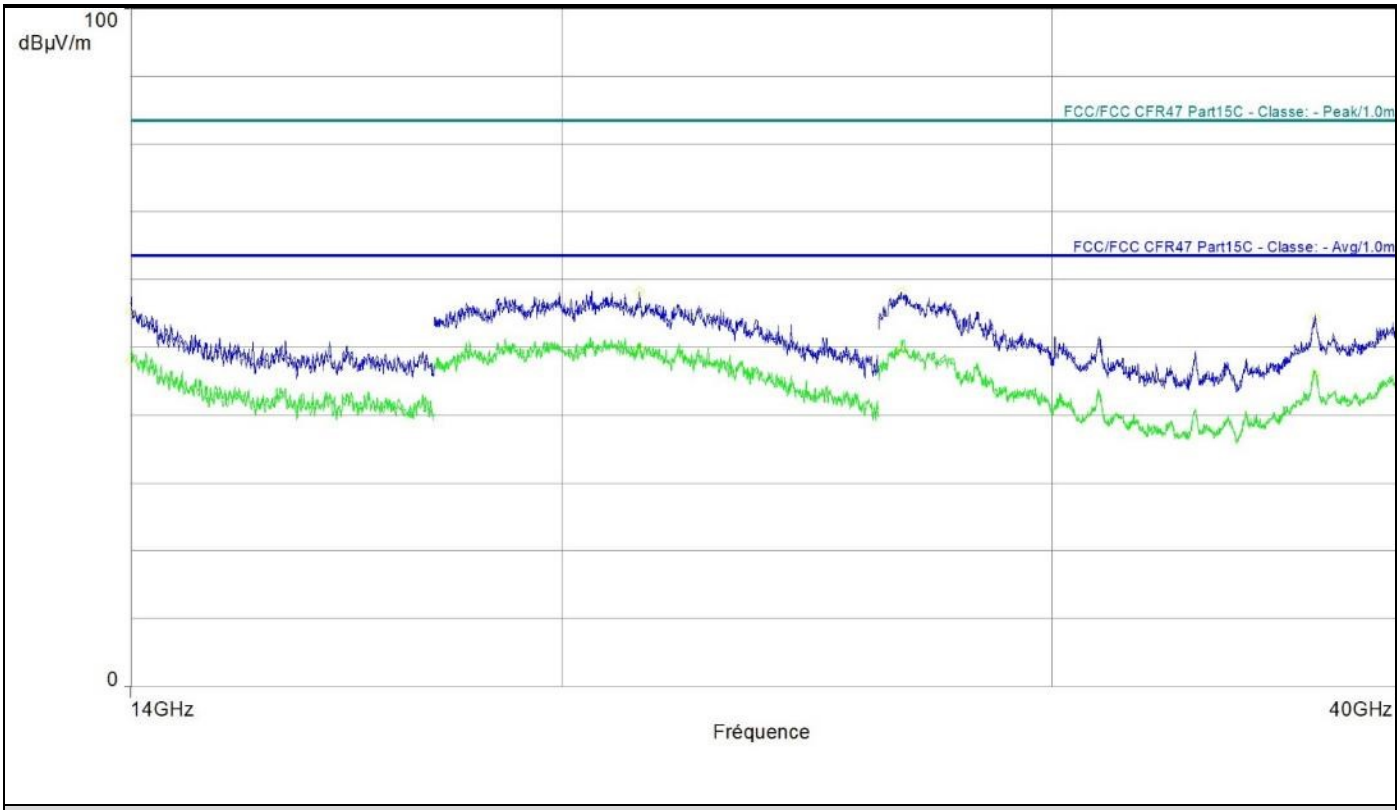


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14002.000	55.8	83.5	49.0	63.5	Horizontal	3.5
21333.000	57.9	83.5	49.1	63.5	Horizontal	2.9
26477.750	58.2	83.5	49.0	63.5	Horizontal	11.4
37296.250	54.7	83.5	46.6	63.5	Horizontal	19.2

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#16	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C3- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

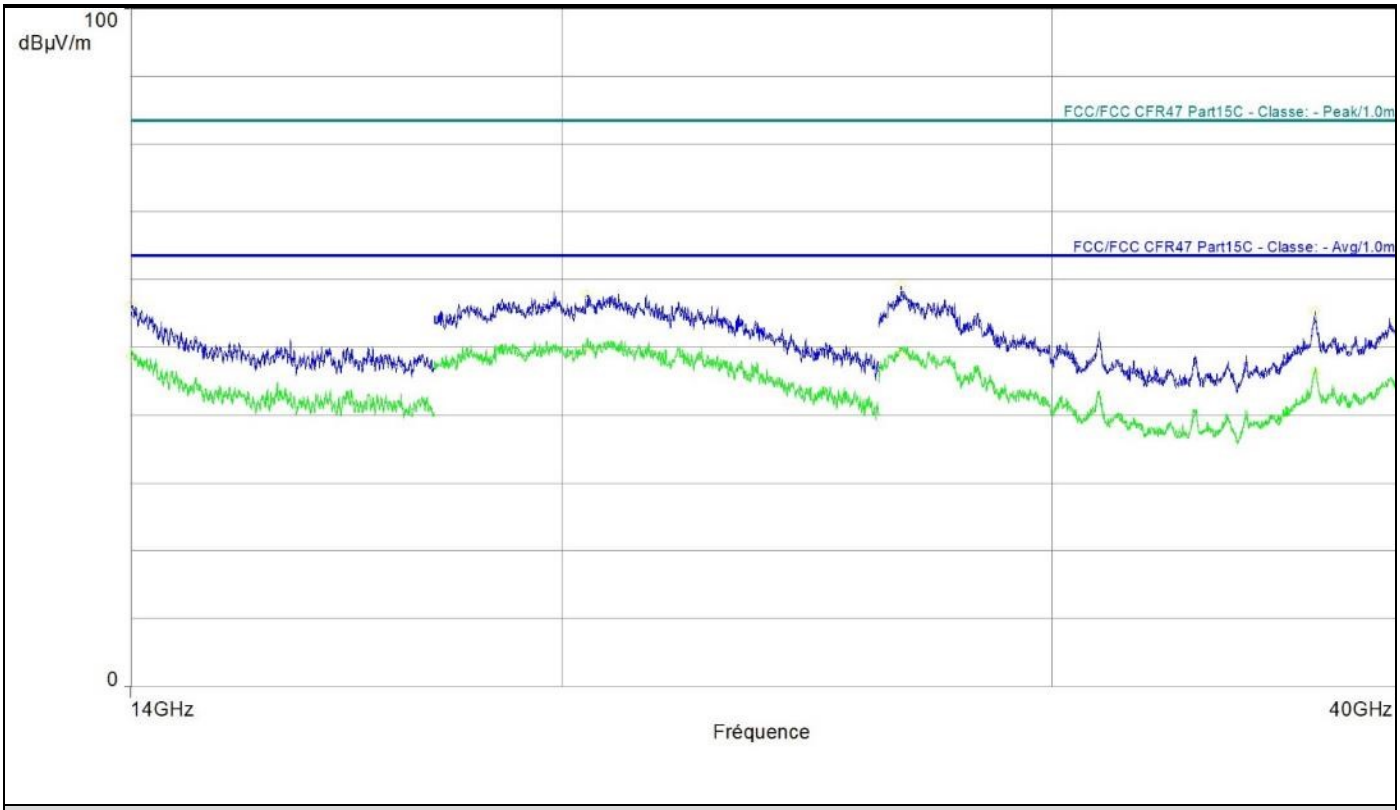


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
21324.000	58.2	83.5	49.9	63.5	Vertical	3.0
14004.000	55.2	83.5	48.1	63.5	Vertical	3.5
26476.000	58.2	83.5	49.5	63.5	Vertical	11.3
37305.000	54.4	83.5	46.0	63.5	Vertical	19.1

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#17	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C4- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

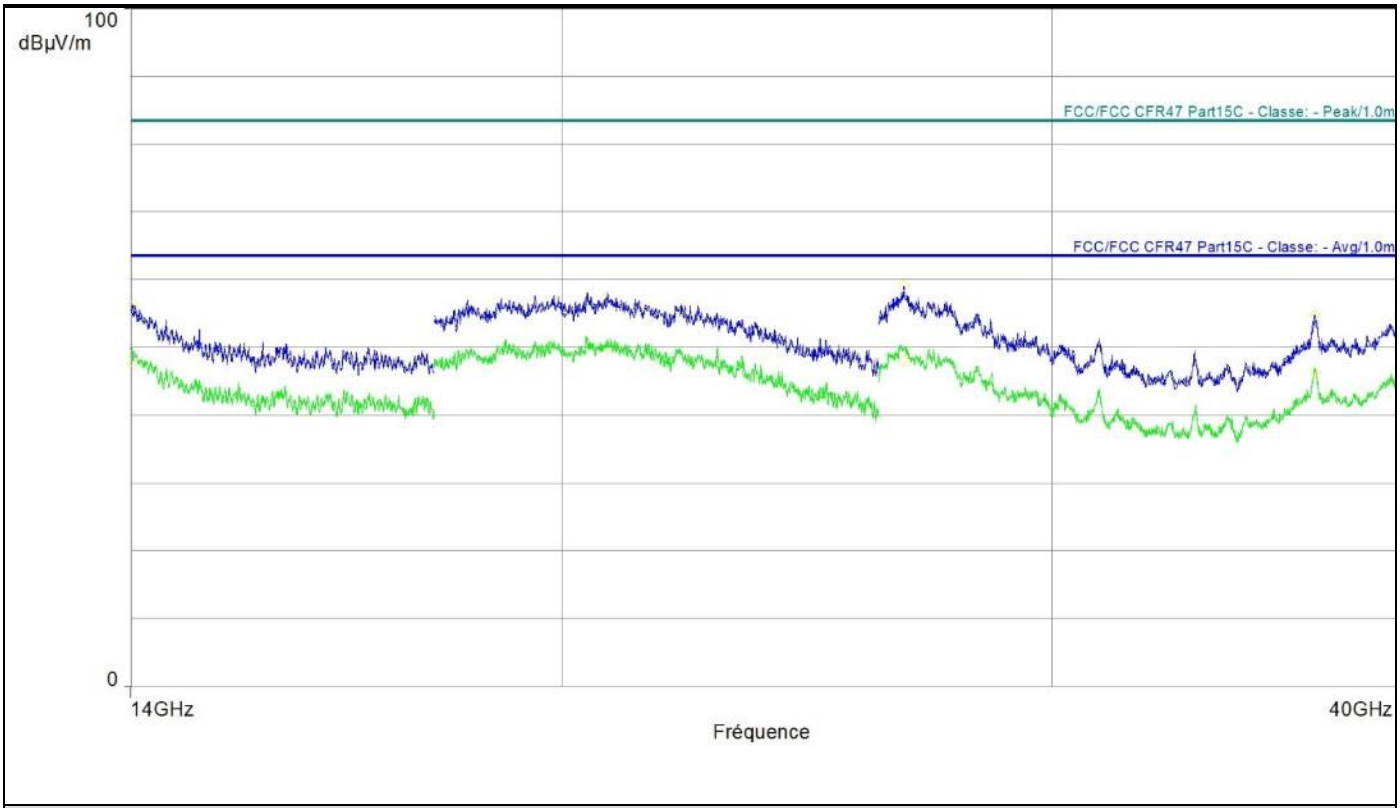


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14001.000	56.4	83.5	48.7	63.5	Horizontal	3.5
20412.000	57.8	83.5	50.0	63.5	Horizontal	4.0
26477.750	59.1	83.5	49.0	63.5	Horizontal	11.4
37294.500	55.3	83.5	46.3	63.5	Horizontal	19.1

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#18	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C5- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

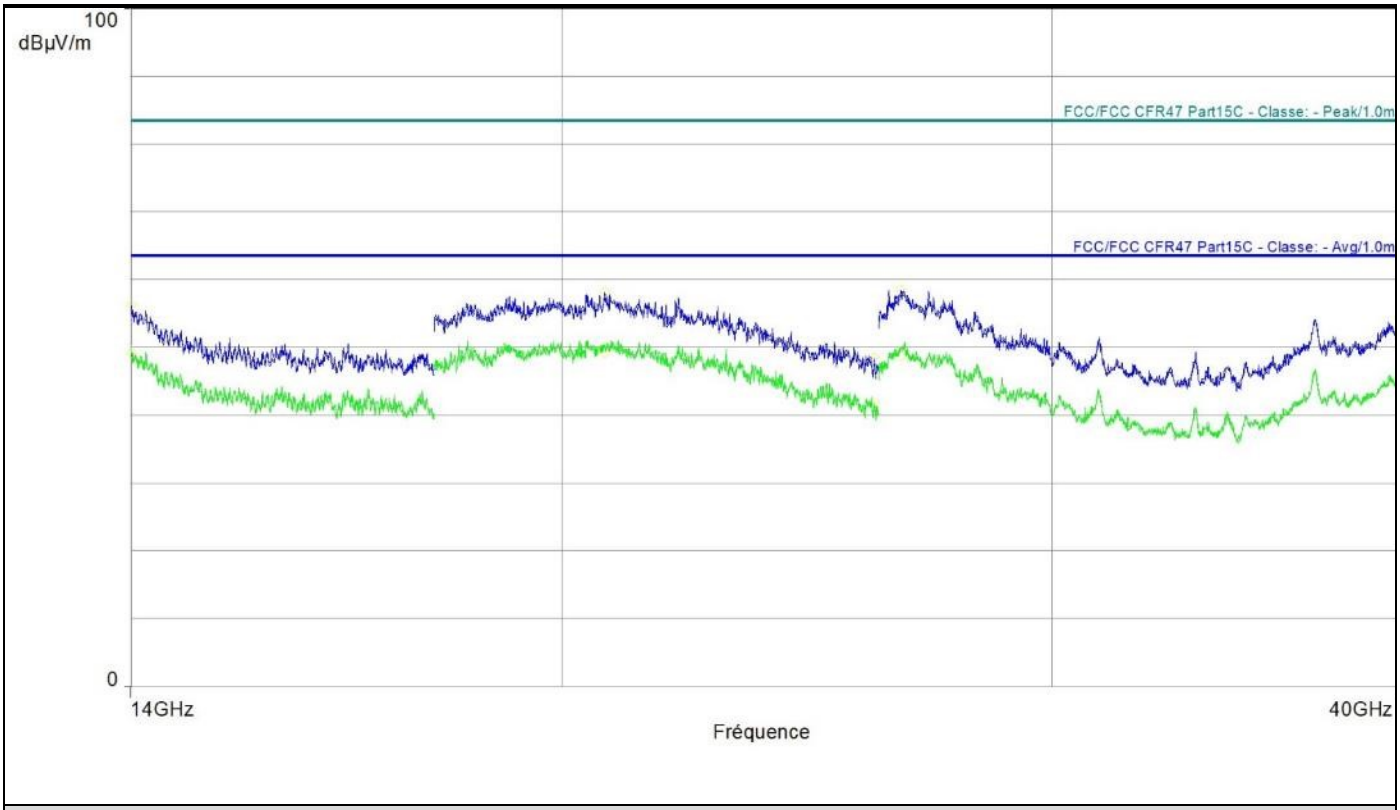


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14026.000	56.3	83.5	47.7	63.5	Horizontal	3.4
20752.000	57.4	83.5	49.7	63.5	Horizontal	2.9
26546.000	59.1	83.5	48.1	63.5	Horizontal	11.7
37298.000	54.8	83.5	46.3	63.5	Horizontal	19.2

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#19	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C6- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

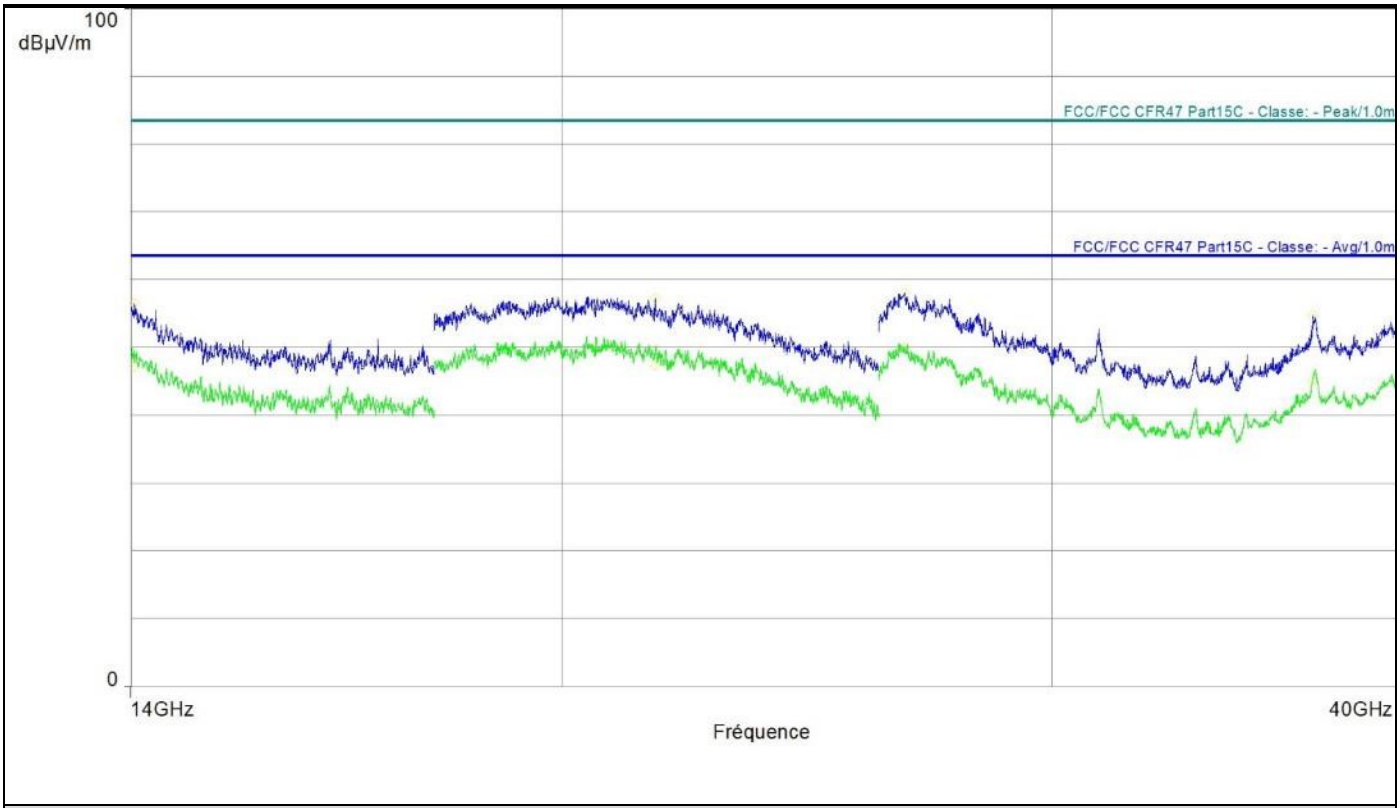


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14011.000	56.2	83.5	49.2	63.5	Horizontal	3.4
20728.000	58.2	83.5	49.2	63.5	Horizontal	2.9
25900.000	48.4	83.5	41.9	63.5	Horizontal	6.2
26484.750	58.5	83.5	48.7	63.5	Horizontal	11.4

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#20	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C7- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

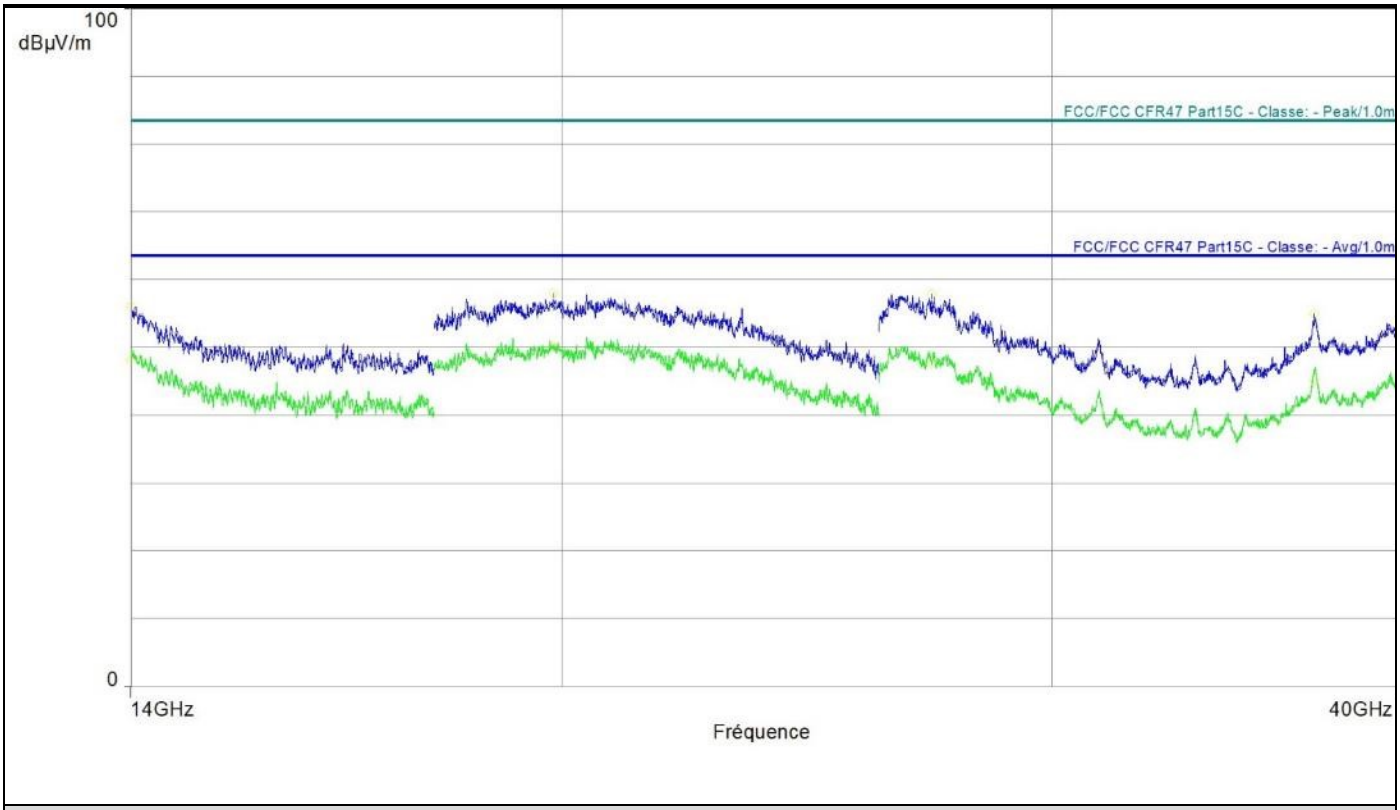


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14046.000	56.5	83.5	47.2	63.5	Horizontal	3.2
21605.000	57.2	83.5	47.4	63.5	Horizontal	3.2
26558.250	58.0	83.5	50.0	63.5	Horizontal	11.7
37226.250	54.7	83.5	45.1	63.5	Horizontal	17.6

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#21	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C8- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

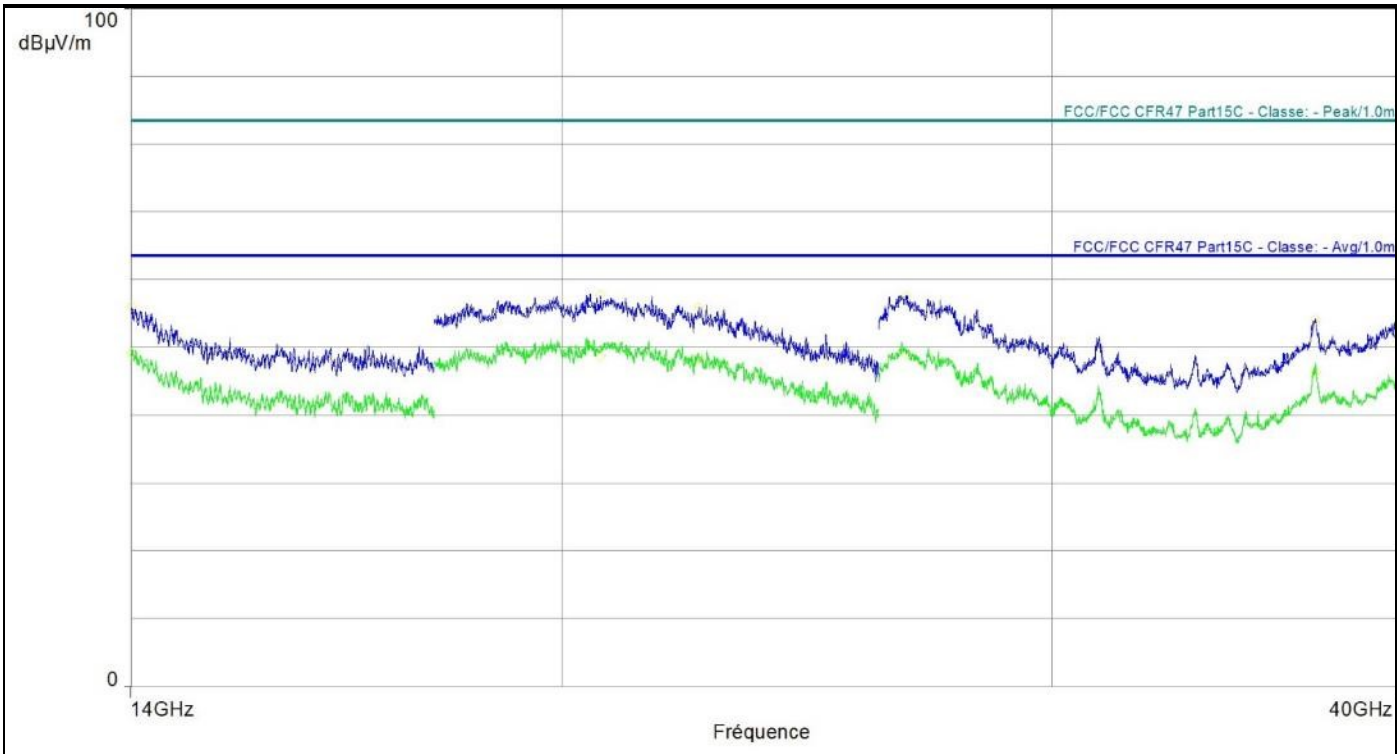


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14000.000	56.2	83.5	48.2	63.5	Horizontal	3.5
19863.000	57.9	83.5	50.2	63.5	Horizontal	4.0
27146.250	57.9	83.5	47.6	63.5	Horizontal	12.2
37270.000	55.0	83.5	45.2	63.5	Horizontal	18.5

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#22	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C9- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

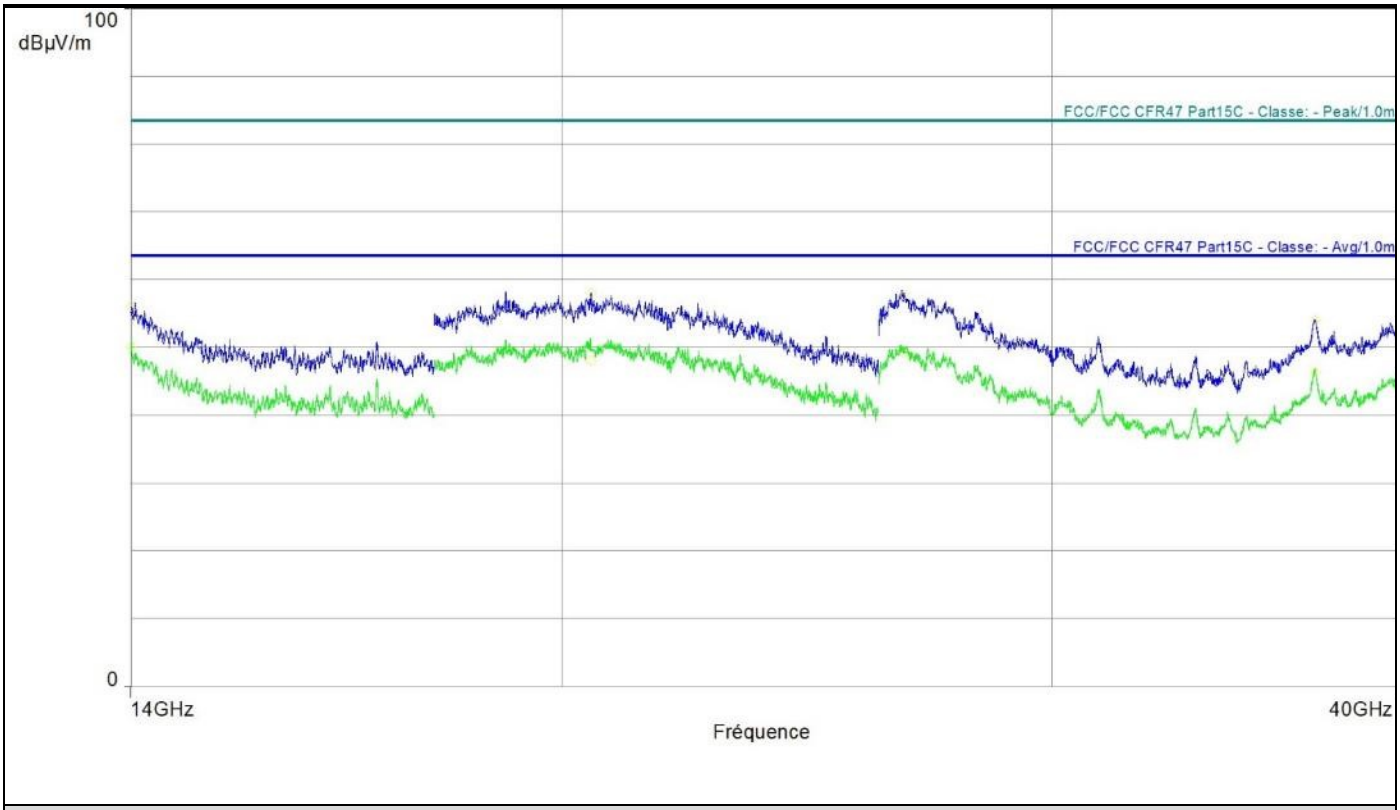


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14008.000	56.0	83.5	49.2	63.5	Horizontal	3.5
20645.000	57.8	83.5	48.8	63.5	Horizontal	2.8
22393.000	55.9	83.5	48.3	63.5	Horizontal	2.7
26596.750	57.6	83.5	49.0	63.5	Horizontal	11.8
37317.250	54.1	83.5	46.3	63.5	Horizontal	18.7

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#23	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C10- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

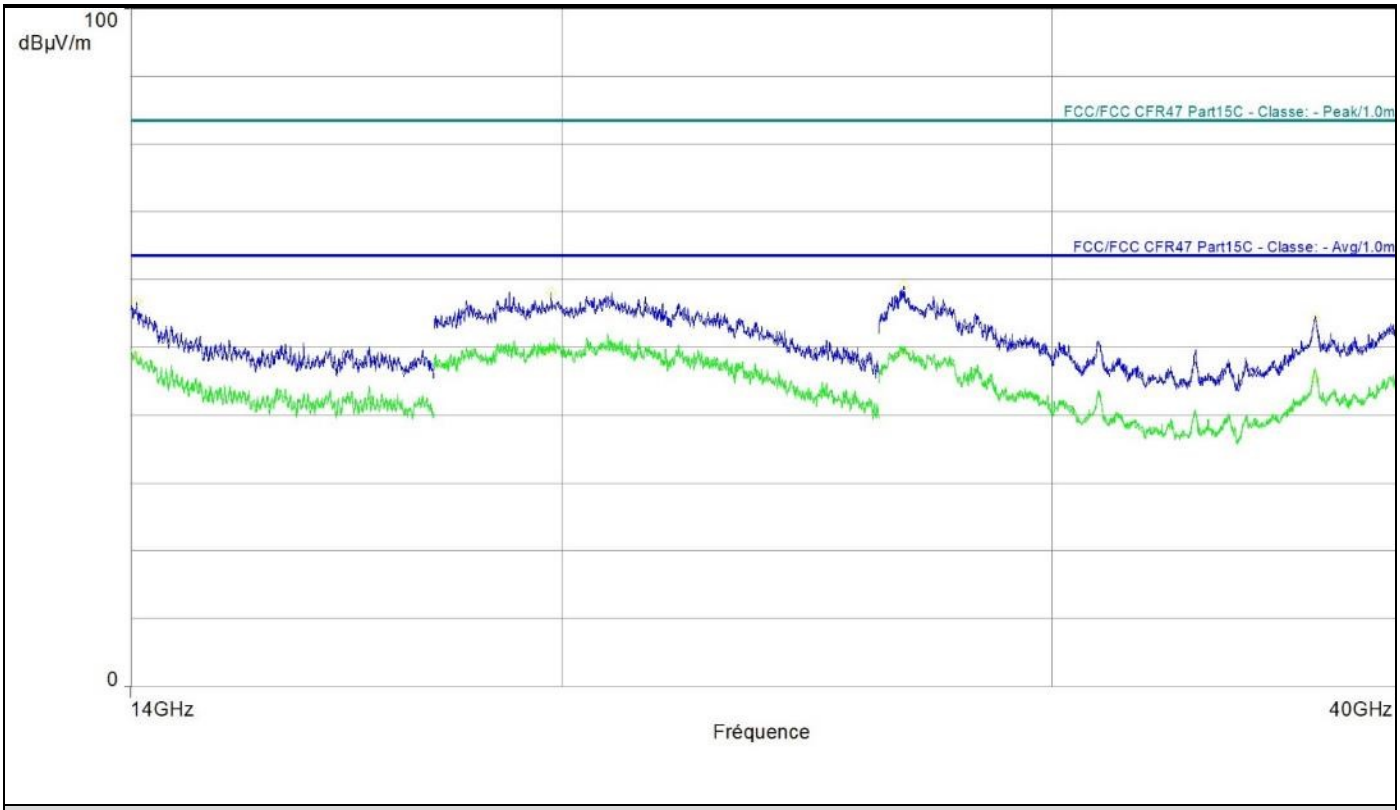


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14006.000	56.0	83.5	50.2	63.5	Horizontal	3.5
20493.000	58.1	83.5	48.1	63.5	Vertical	3.8
26539.000	57.8	83.5	49.2	63.5	Vertical	11.7
37301.500	54.0	83.5	46.3	63.5	Vertical	19.2

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#24	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C11- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

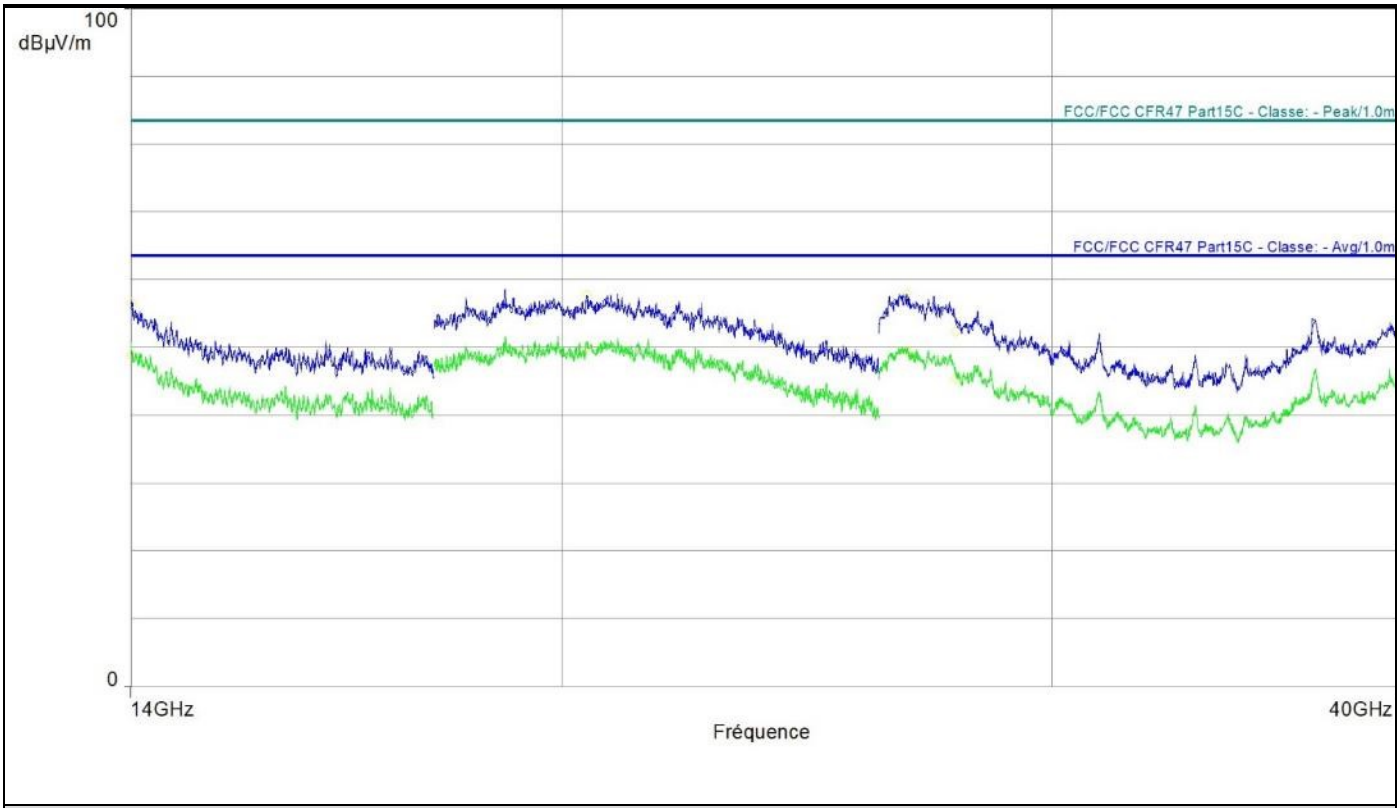


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14069.000	56.7	83.5	48.8	63.5	Horizontal	3.1
19823.000	58.1	83.5	49.4	63.5	Horizontal	4.1
26549.500	59.1	83.5	49.2	63.5	Horizontal	11.7
37296.250	54.2	83.5	45.4	63.5	Horizontal	19.2

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#25	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C12- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz

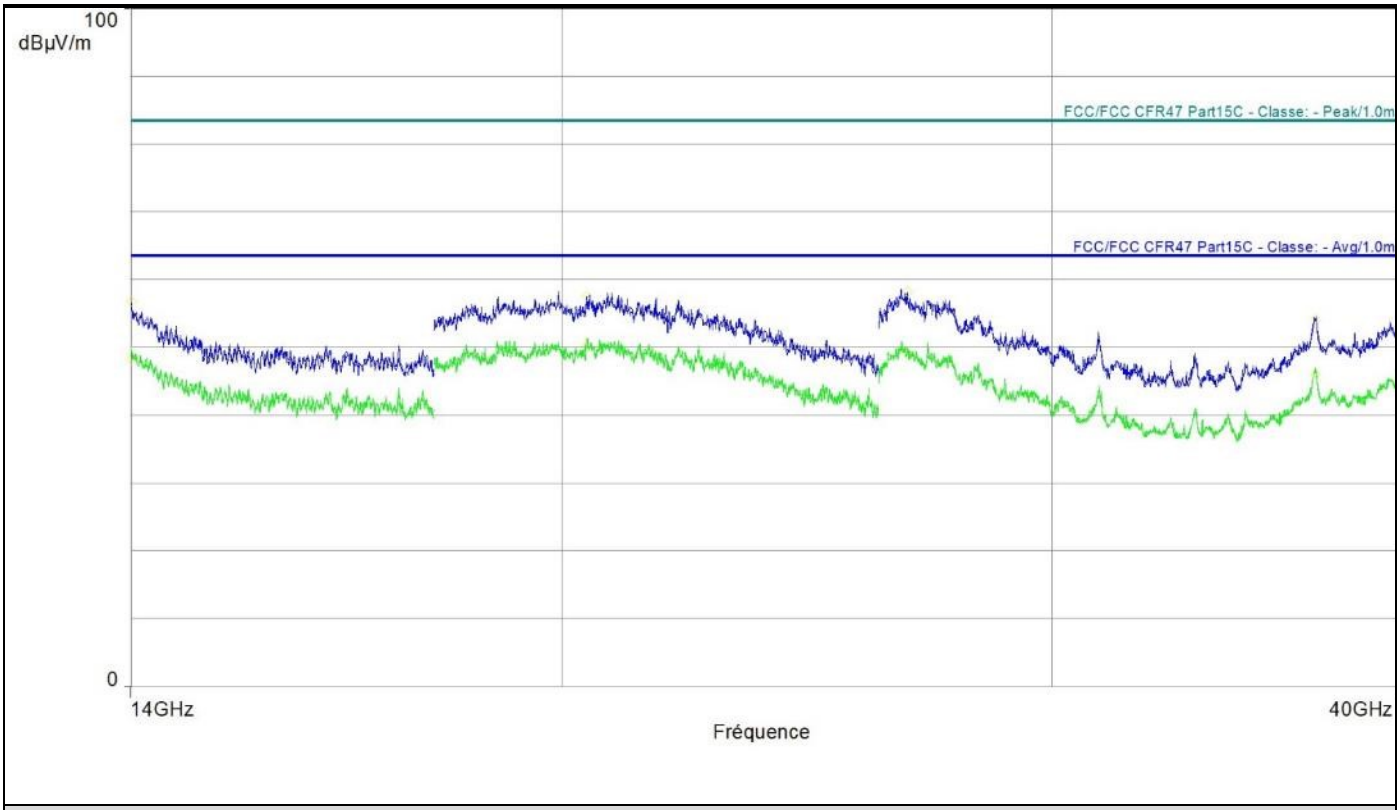


Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14007.000	56.6	83.5	48.9	63.5	Horizontal	3.5
20417.000	57.8	83.5	49.8	63.5	Horizontal	3.9
26602.000	57.9	83.5	49.5	63.5	Horizontal	11.8
27702.750	52.3	83.5	45.4	63.5	Horizontal	11.6

No significant frequency observed

RADIATED EMISSIONS			
Graph name:	Emr#26	**Test configuration:**	
Limit:	FCC CFR47 Part15C	FSU_(H+V) - C13- TX mode - Automatic Axis	
Class:			
Frequency range: [14GHz - 40GHz]			
Antenna polarization:		**RBW :**	1MHz
Azimuth:	0° - 360°	**VBW :**	3MHz



Spurious emissions

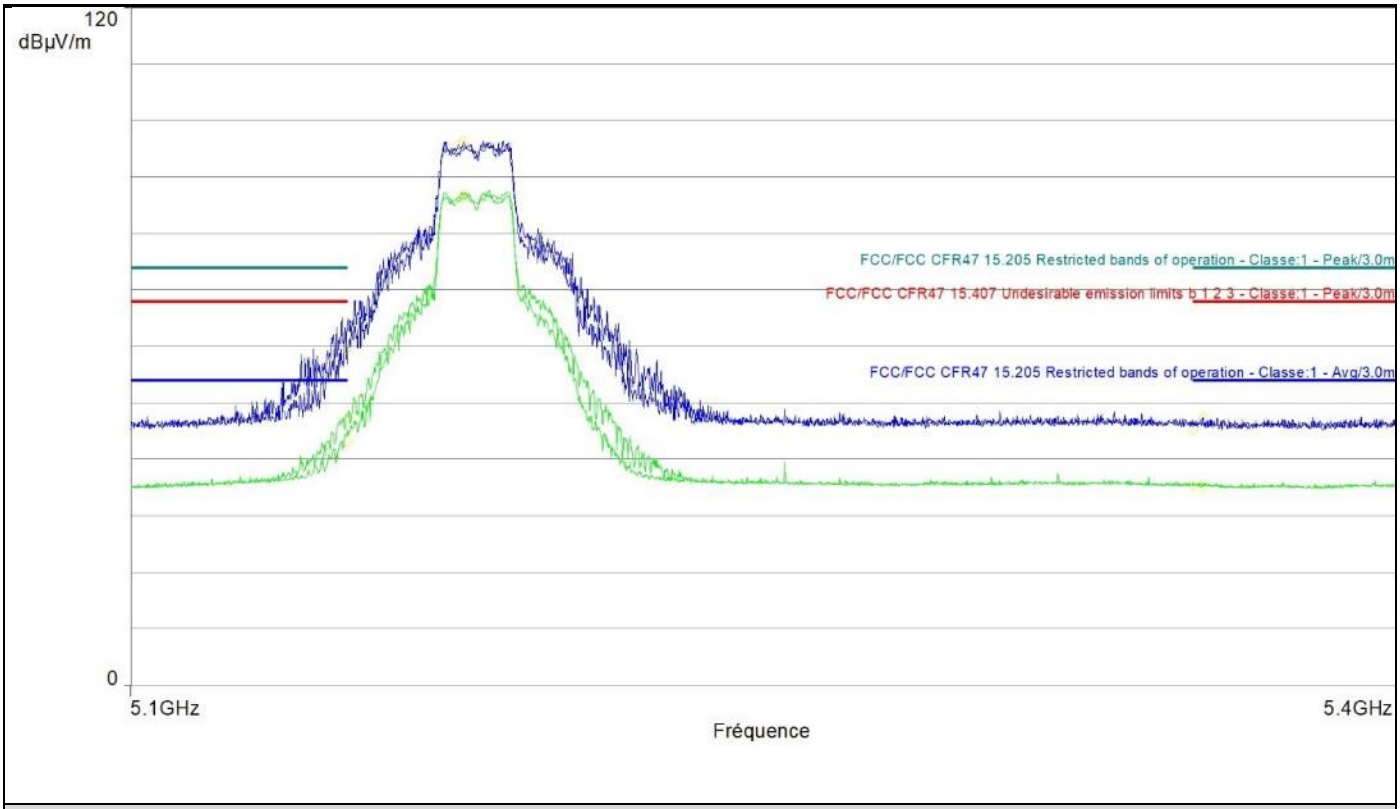
Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
14010.000	56.7	83.5	48.3	63.5	Horizontal	3.4
20416.000	57.5	83.5	50.3	63.5	Horizontal	4.0
26628.250	58.1	83.5	49.1	63.5	Horizontal	11.7
37303.250	54.2	83.5	46.1	63.5	Horizontal	19.1

No significant frequency observed

9.6.3. Undesirable Emissions

Graph identifier		Polarization	Mode	Channel	EUT position	Comments
Emr#	1	0°/90°/180°	TX	C1	Axis XY/Z	See the following results
Emr#	2	0°/90°/180°	TX	C2	Axis XY/Z	See the following results
Emr#	3	0°/90°/180°	TX	C3	Axis XY/Z	See the following results
Emr#	4	0°/90°/180°	TX	C4	Axis XY/Z	See the following results
Emr#	5	0°/90°/180°	TX	C5	Axis XY/Z	See the following results
Emr#	6	0°/90°/180°	TX	C6	Axis XY/Z	See the following results
Emr#	7	0°/90°/180°	TX	C7	Axis XY/Z	See the following results
Emr#	8	0°/90°/180°	TX	C8	Axis XY/Z	See the following results
Emr#	9	0°/90°/180°	TX	C9	Axis XY/Z	See the following results
Emr#	10	0°/90°/180°	TX	C10	Axis XY/Z	See the following results
Emr#	11	0°/90°/180°	TX	C11	Axis XY/Z	See the following results
Emr#	12	0°/90°/180°	TX	C12	Axis XY/Z	See the following results
Emr#	13	0°/90°/180°	TX	C13	Axis XY/Z	See the following results
Emr#	14	0°/90°/180°	TX	C14	Axis XY/Z	See the following results
Emr#	15	0°/90°/180°	TX	C15	Axis XY/Z	See the following results
Emr#	16	0°/90°/180°	TX	C16	Axis XY/Z	See the following results
Emr#	17	0°/90°/180°	TX	C17	Axis XY/Z	See the following results
Emr#	18	0°/90°/180°	TX	C18	Axis XY/Z	See the following results
Emr#	19	0°/90°/180°	TX	C19	Axis XY/Z	See the following results
Emr#	20	0°/90°/180°	TX	C20	Axis XY/Z	See the following results
Emr#	21	0°/90°/180°	TX	C21	Axis XY/Z	See the following results
Emr#	22	0°/90°/180°	TX	C22	Axis XY/Z	See the following results
Emr#	23	0°/90°/180°	TX	C23	Axis XY/Z	See the following results

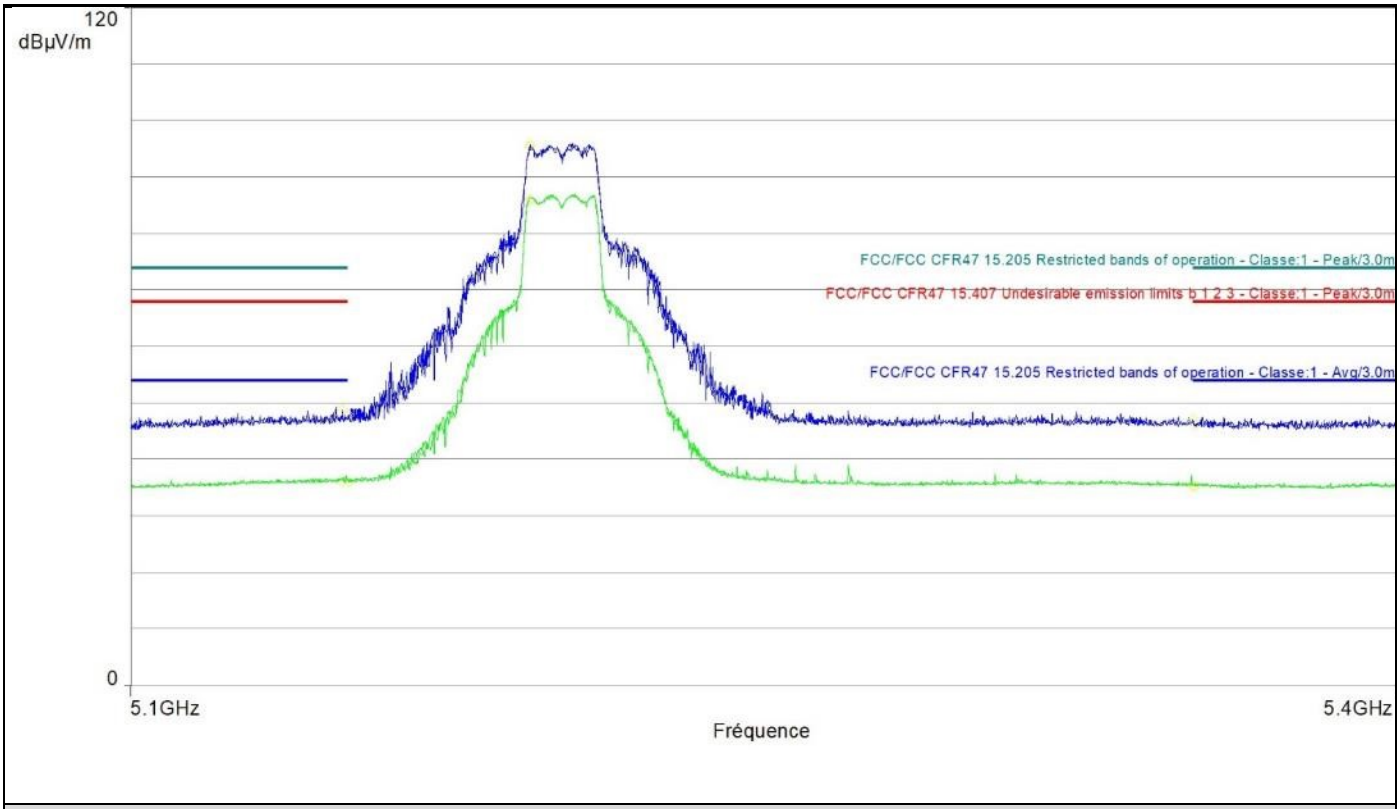
RADIATED EMISSIONS			
Graph name:	Emr#1	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C1 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5150.010	59.5	/	43.1	Horizontal	-19.4
5176.740	95.8	/	86.0	Horizontal	-19.4
5352.450	47.5	68.0	35.2	Horizontal	-19.0
5150.040	64.4	/	47.4	Vertical	-19.4
5177.190	96.4	/	86.8	Vertical	-19.4
5349.990	45.3	/	35.4	Vertical	-19.1

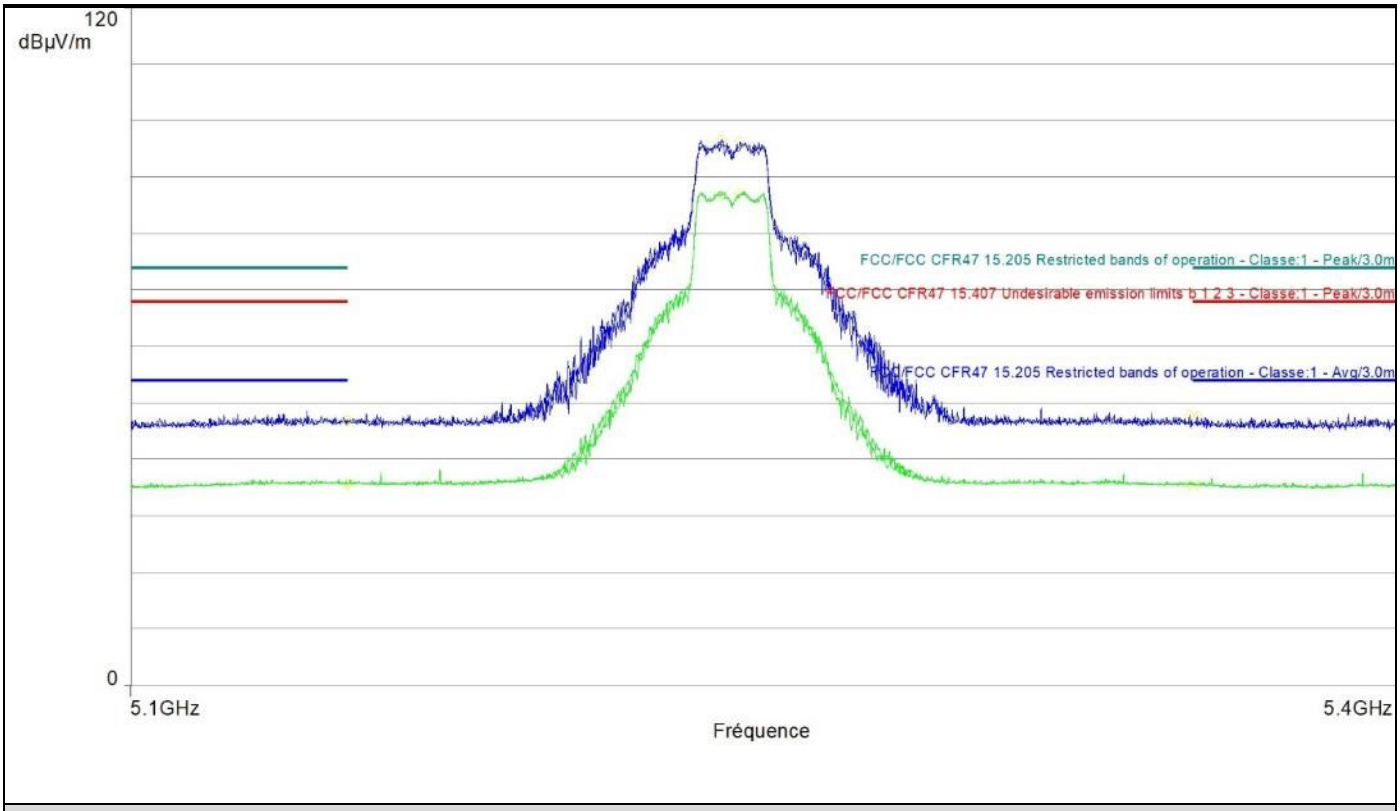
RADIATED EMISSIONS		
Graph name:	Emr#2	**Test configuration:**
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C2 - TX mode - Automatic Axis
Class:	1	
Frequency range: [5.1GHz - 5.4GHz]		
Antenna polarization:		**RBW :** 100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :** 300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5148.900	48.9	68.0	36.0	Horizontal	-19.4
5192.580	95.7	/	86.0	Horizontal	-19.4
5350.440	46.1	68.0	35.2	Horizontal	-19.0
5150.340	47.9	/	36.0	Vertical	-19.4
5192.430	95.4	/	86.0	Vertical	-19.4
5349.900	47.1	/	35.3	Vertical	-19.1

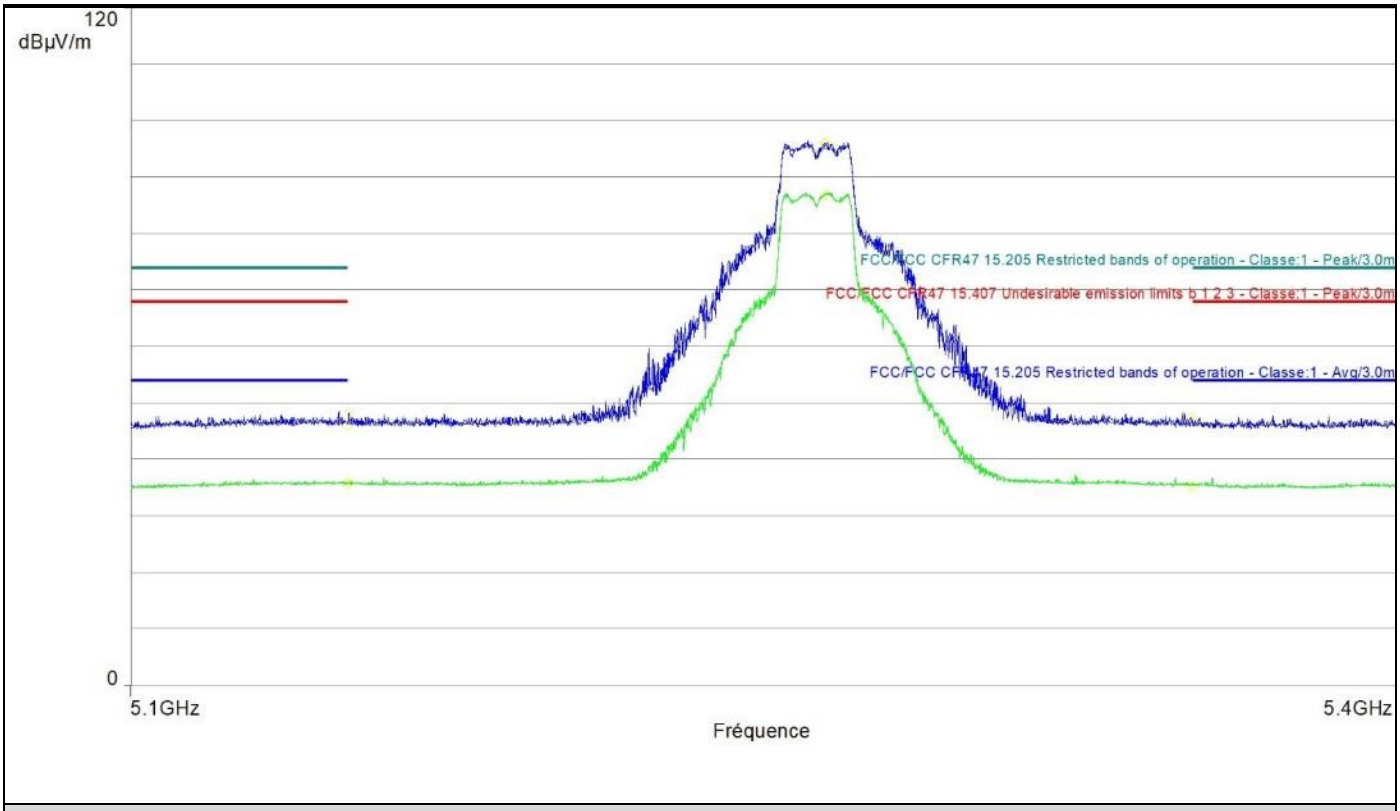
RADIATED EMISSIONS			
Graph name:	Emr#3	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C3 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5149.980	47.0	68.0	35.4	Horizontal	-19.4
5237.640	96.5	/	86.7	Horizontal	-19.4
5349.090	47.8	/	35.5	Horizontal	-19.1
5150.070	46.7	/	35.8	Vertical	-19.4
5241.810	96.3	/	87.0	Vertical	-19.4
5351.070	47.6	68.0	35.5	Vertical	-19.0

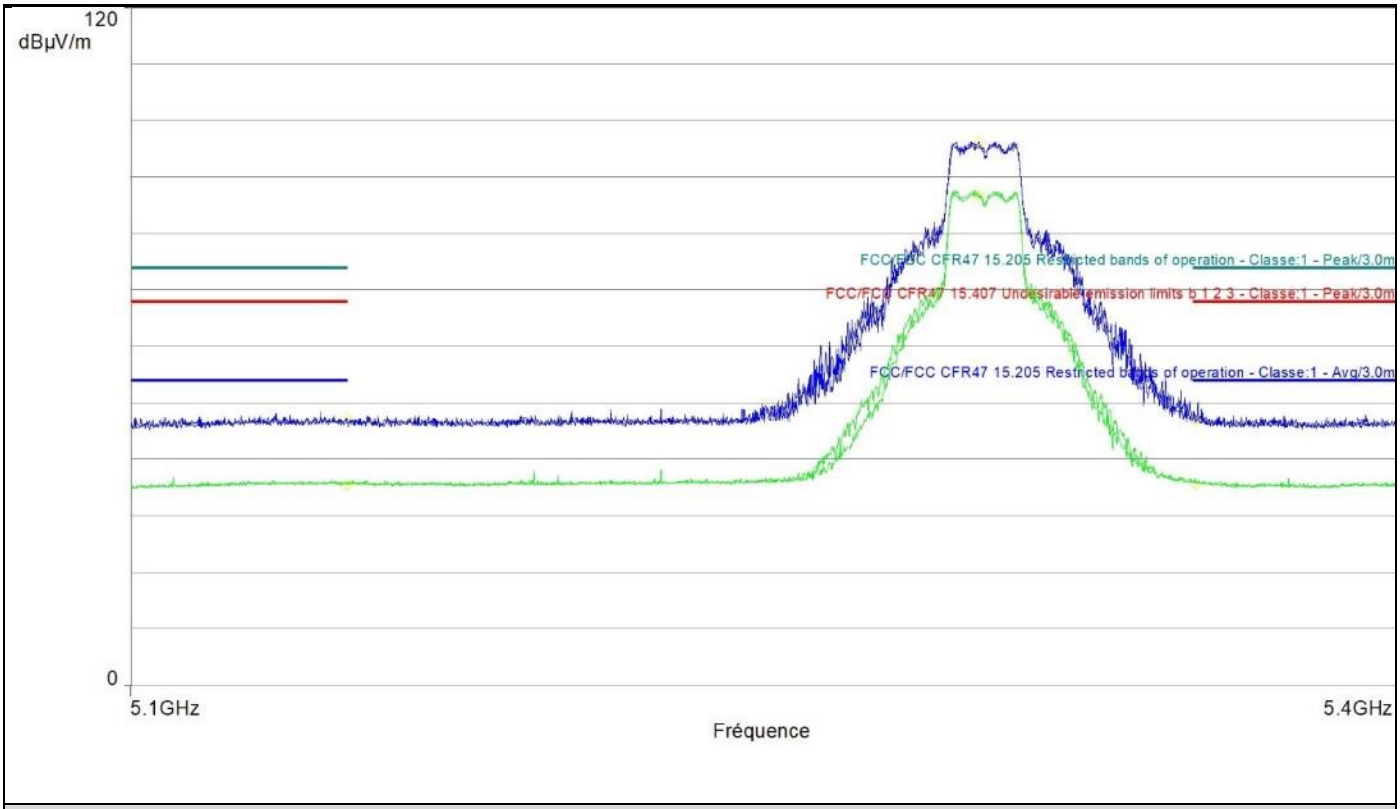
RADIATED EMISSIONS			
Graph name:	Emr#4	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C4 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5150.070	46.0	/	35.6	Horizontal	-19.4
5261.940	96.1	/	86.7	Horizontal	-19.4
5350.260	46.7	68.0	35.2	Horizontal	-19.1
5150.370	48.4	/	35.9	Vertical	-19.4
5262.390	96.1	/	87.0	Vertical	-19.4
5349.480	47.5	/	35.2	Vertical	-19.1

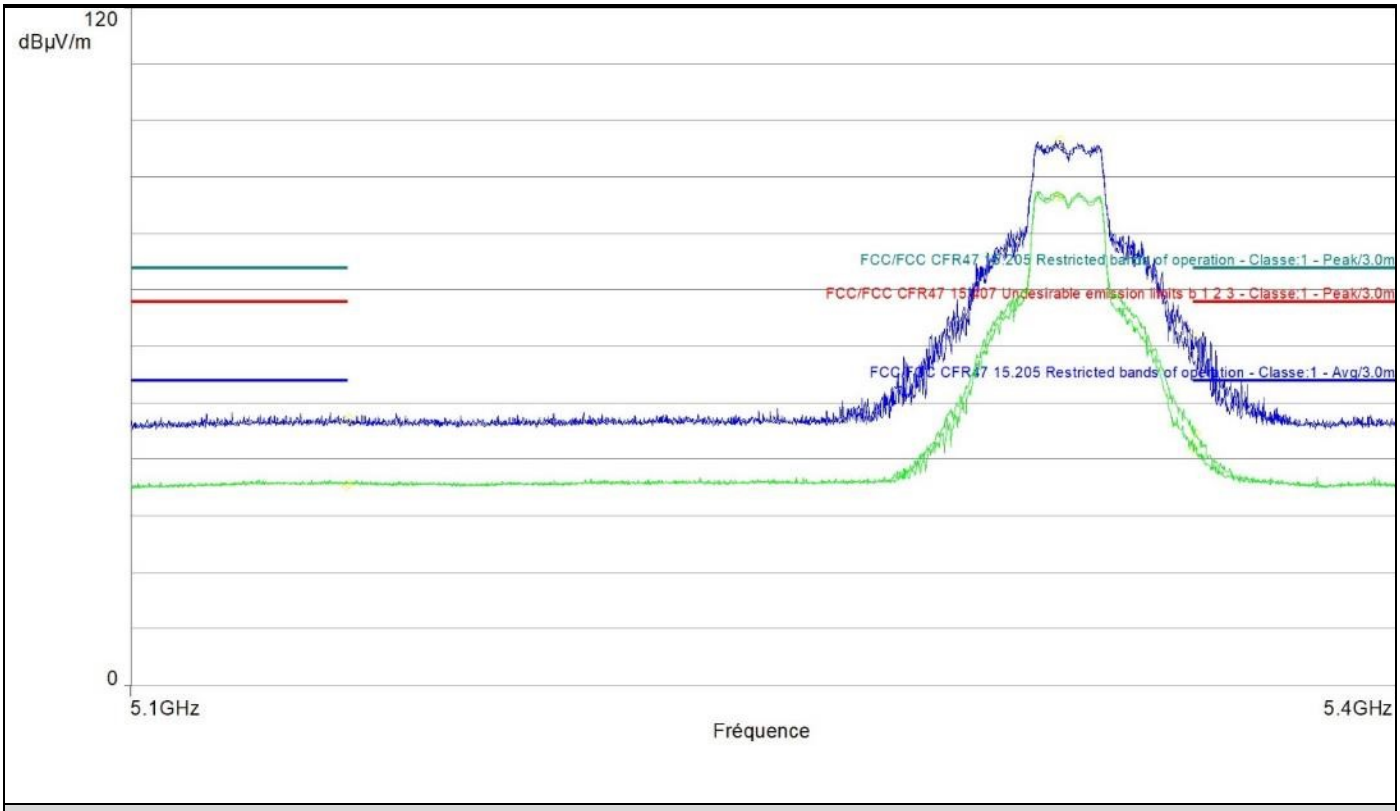
RADIATED EMISSIONS			
Graph name:	Emr#5	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C5 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5150.430	46.9	/	35.5	Horizontal	-19.4
5298.600	96.4	/	86.9	Horizontal	-19.3
5350.770	47.0	68.0	35.6	Horizontal	-19.0
5149.470	47.3	68.0	35.5	Vertical	-19.4
5298.570	95.8	/	86.5	Vertical	-19.3
5350.590	46.9	68.0	35.4	Vertical	-19.0

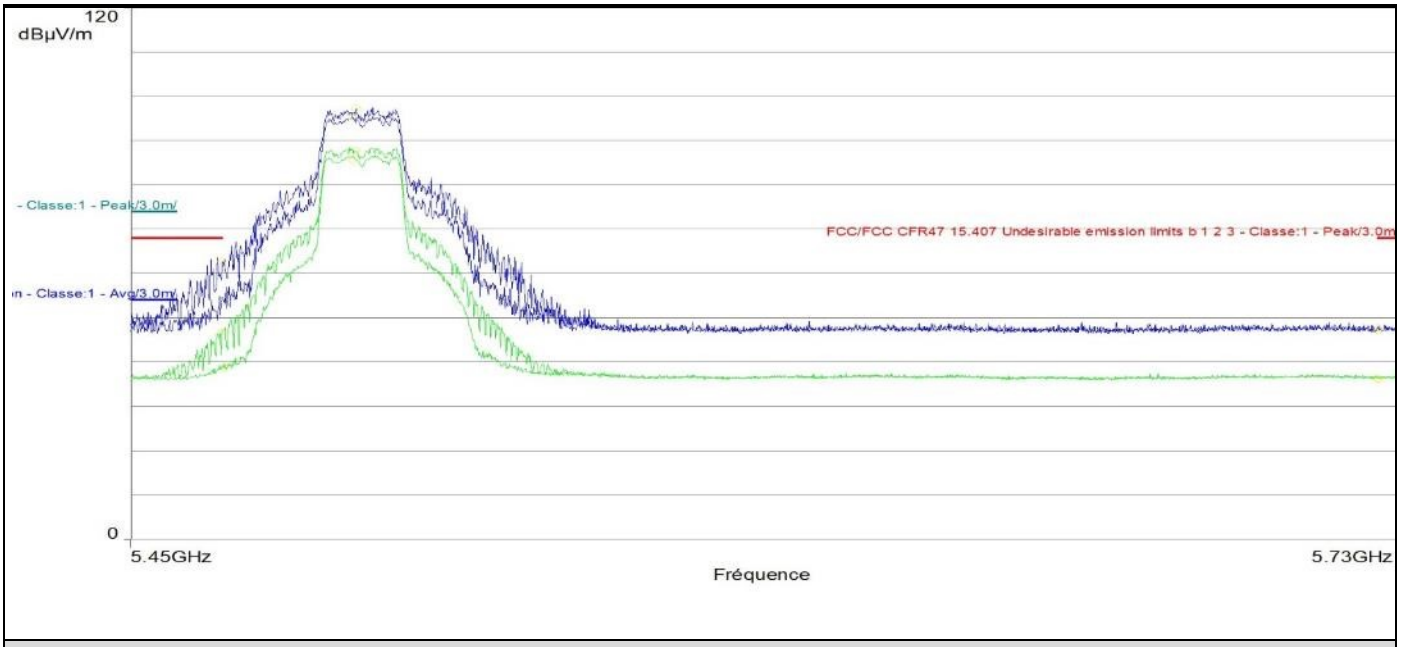
RADIATED EMISSIONS			
Graph name:	Emr#6	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C6 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5149.650	46.8	68.0	35.3	Horizontal	-19.4
5318.010	96.5	/	86.6	Horizontal	-19.2
5350.500	61.7	68.0	44.6	Horizontal	-19.0
5150.340	47.3	/	35.6	Vertical	-19.4
5317.260	95.8	/	86.6	Vertical	-19.2
5349.990	58.6	/	41.8	Vertical	-19.1

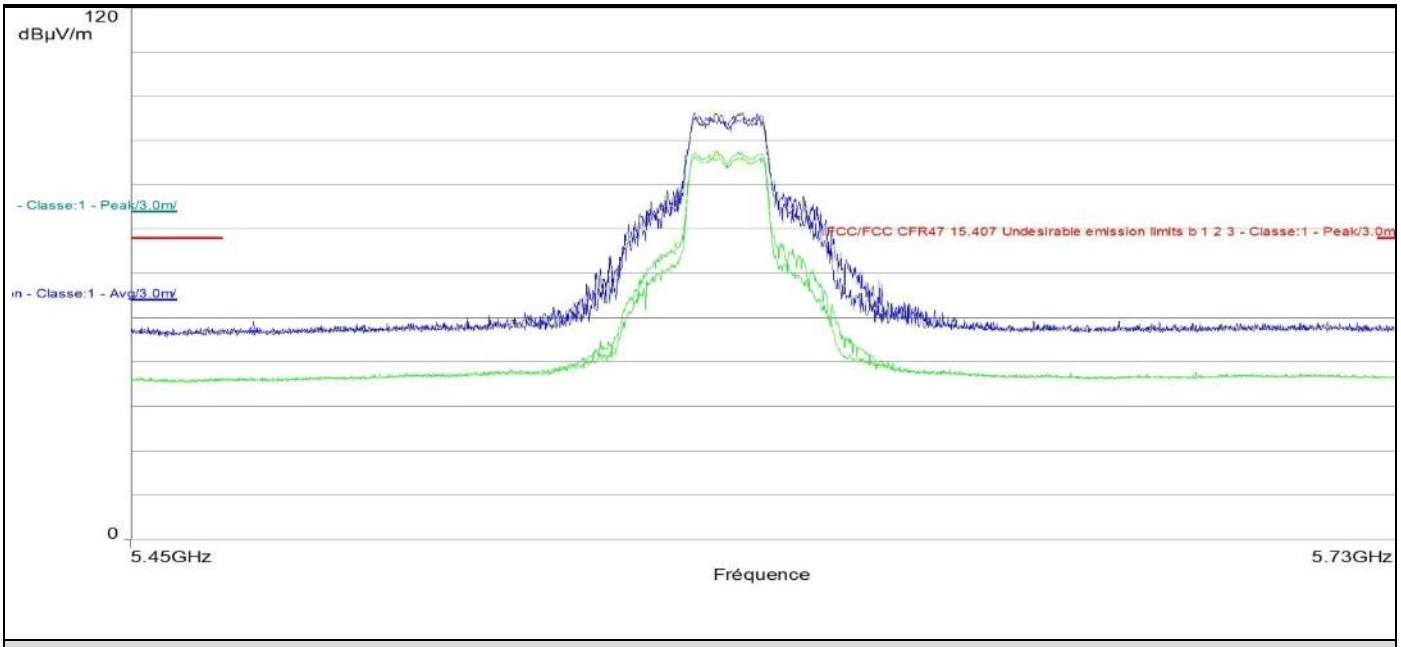
RADIATED EMISSIONS			
Graph name:	Emr#7	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C7 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.73GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5470.216	53.7	/	38.6	Horizontal	-18.7
5497.908	95.4	/	85.6	Horizontal	-18.7
5725.044	47.1	68.0	36.1	Horizontal	-18.5
5469.740	62.8	68.0	46.9	Vertical	-18.7
5498.692	97.1	/	87.6	Vertical	-18.7
5725.044	47.6	68.0	36.2	Vertical	-18.5

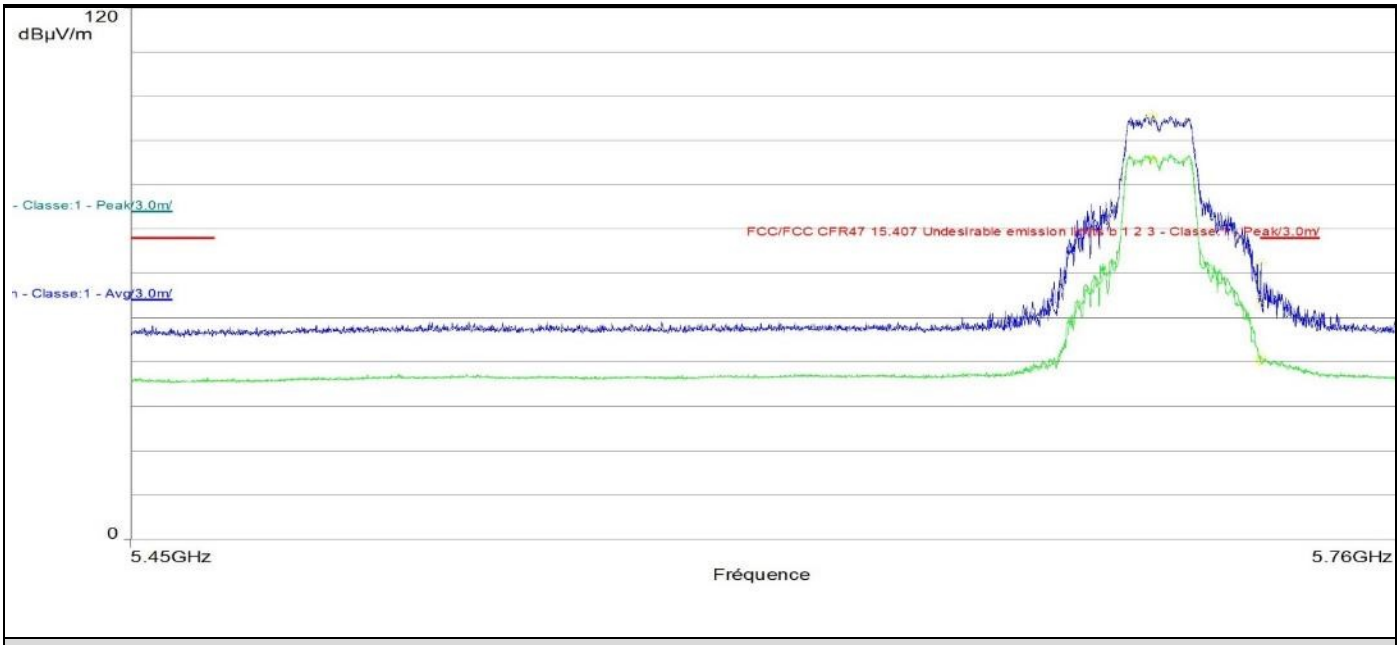
RADIATED EMISSIONS			
Graph name:	Emr#8	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C8 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.73GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	/Polarization	Correction (dB)
5583.644	95.2	/	85.4	/	Horizontal	-18.7
5577.204	96.1	/	86.8	/	Vertical	-18.7

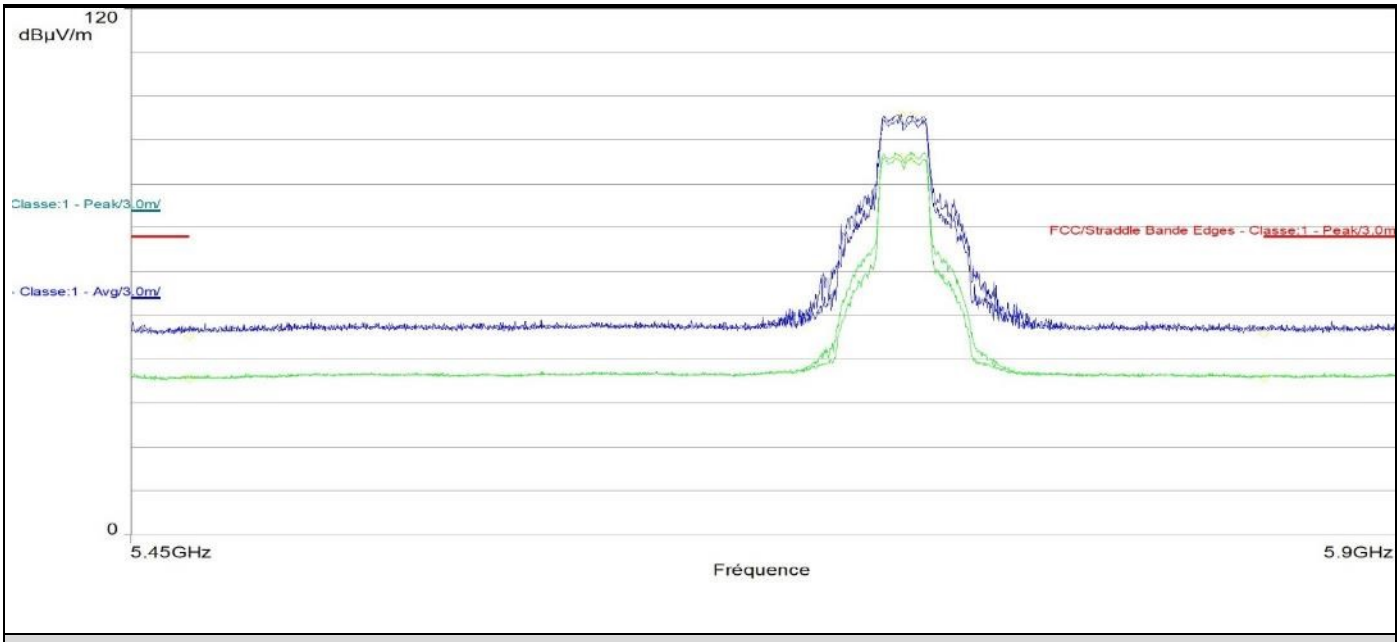
RADIATED EMISSIONS			
Graph name:	Emr#9	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C9 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.76GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5698.465	95.6	/	85.7	Horizontal	-18.5
5725.001	52.6	68.0	40.0	Horizontal	-18.5
5725.311	62.4	68.0	41.2	Horizontal	-18.5
5698.186	95.3	/	85.5	Vertical	-18.5
5725.032	54.0	68.0	40.2	Vertical	-18.5

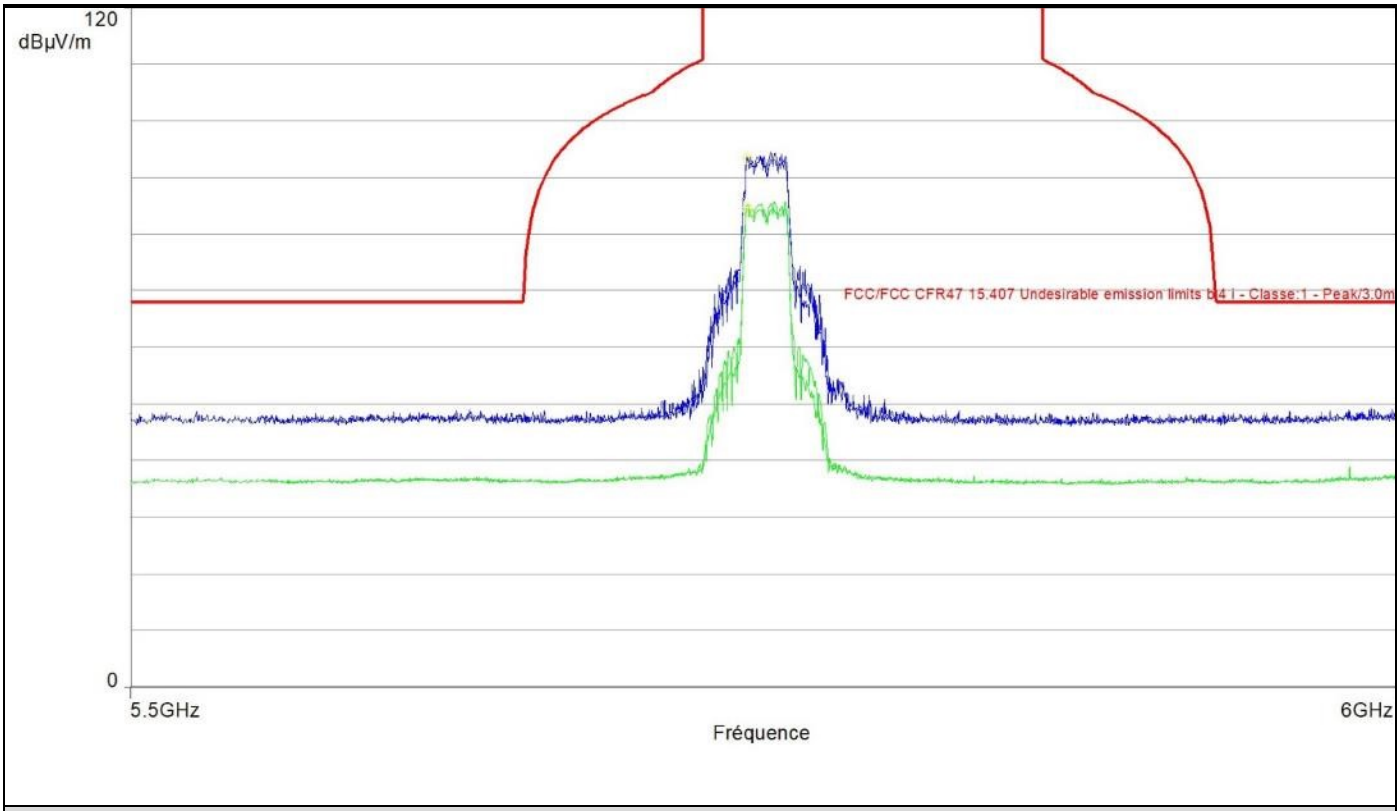
RADIATED EMISSIONS			
Graph name:	Emr#10	**Test configuration:**	
Limit:	Straddle Bande Edges	(H+V) - C10 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.9GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5469.980	45.3	68.0	35.6	Horizontal	-18.7
5718.875	95.9	/	86.1	Horizontal	-18.5
5850.005	45.9	68.0	35.8	Horizontal	-18.5
5723.060	95.6	/	85.6	Vertical	-18.5

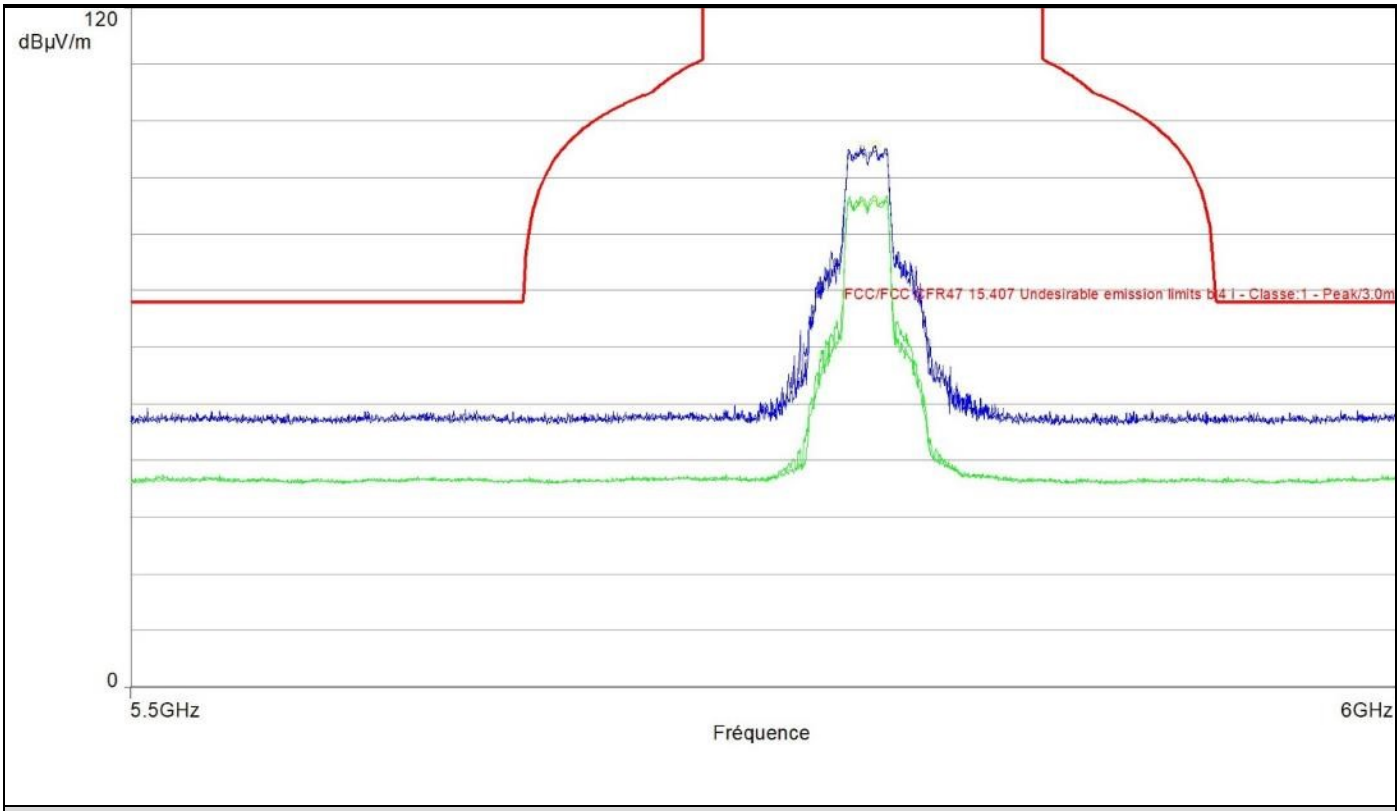
RADIATED EMISSIONS			
Graph name:	Emr#11	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 4 i	(H+V) - C11 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.5GHz - 6GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5737.515	93.6	/	84.9	Horizontal	-18.5
5737.750	93.1	/	84.1	Vertical	-18.5

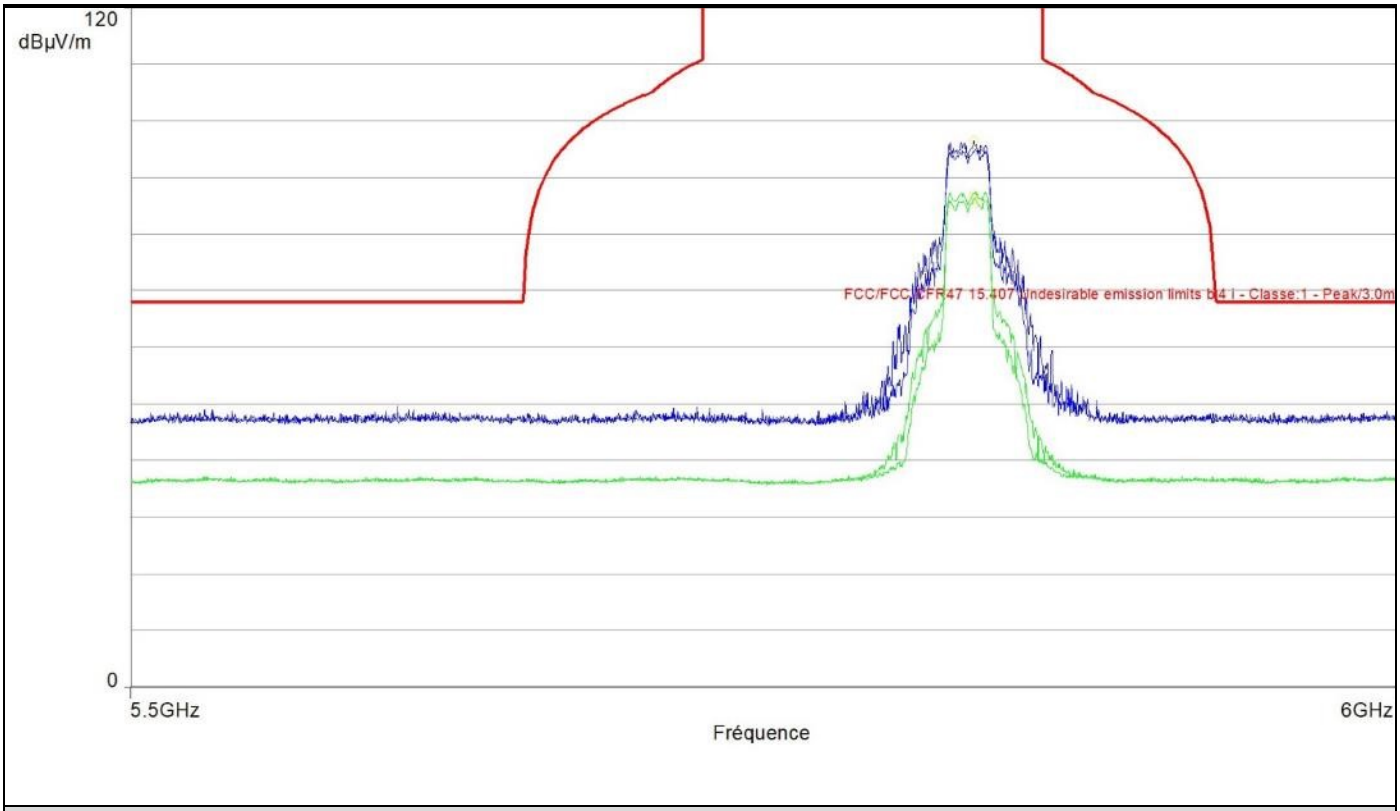
RADIATED EMISSIONS			
Graph name:	Emr#12	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 4 i	(H+V) - C12 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.5GHz - 6GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
5782.600	95.0	/	85.6	/	Vertical	-18.5
5788.250	95.8	/	86.0	/	Horizontal	-18.5

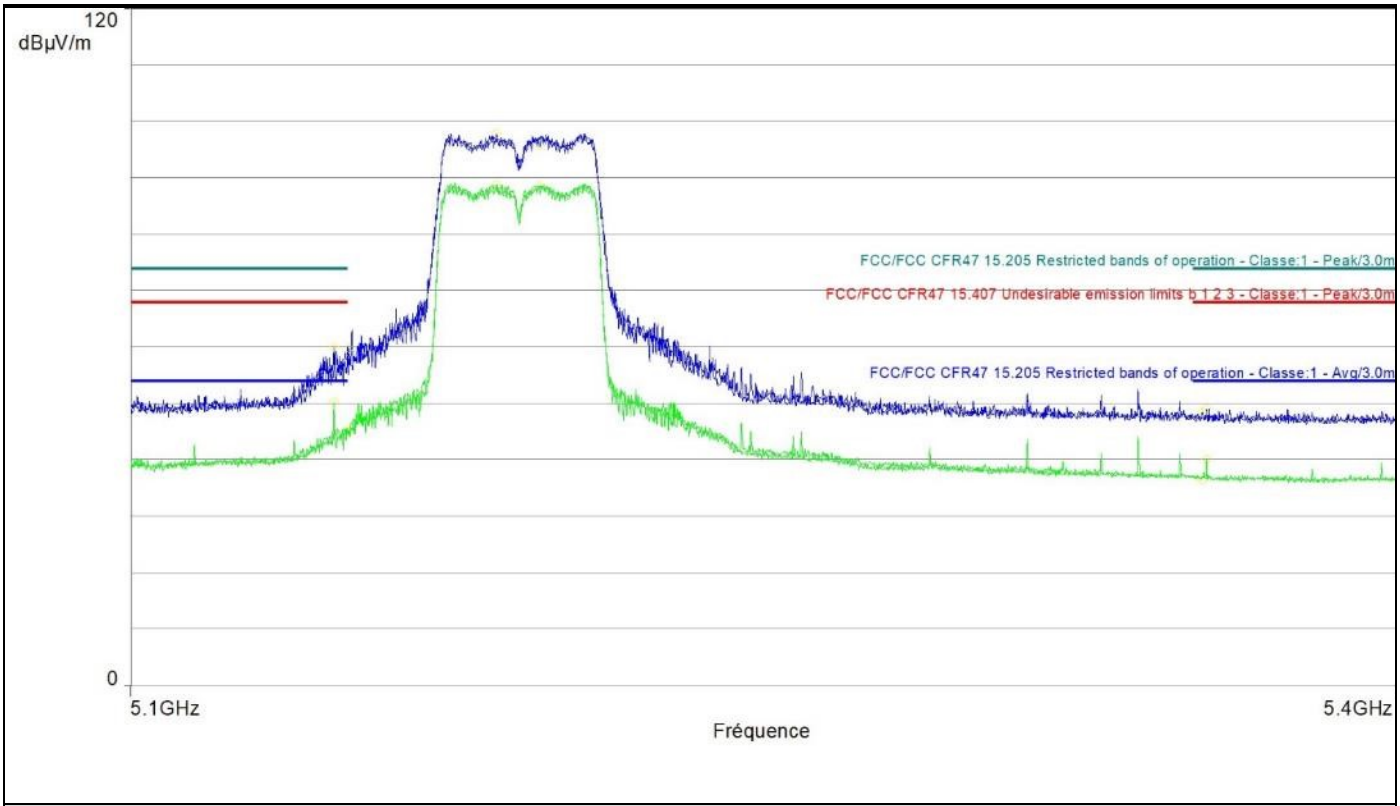
RADIATED EMISSIONS			
Graph name:	Emr#13	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 4 i	H+V) - C13 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.5GHz - 6GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5827.450	96.5	/	87.0	Horizontal	-18.6
5828.500	94.9	/	85.5	Vertical	-18.6

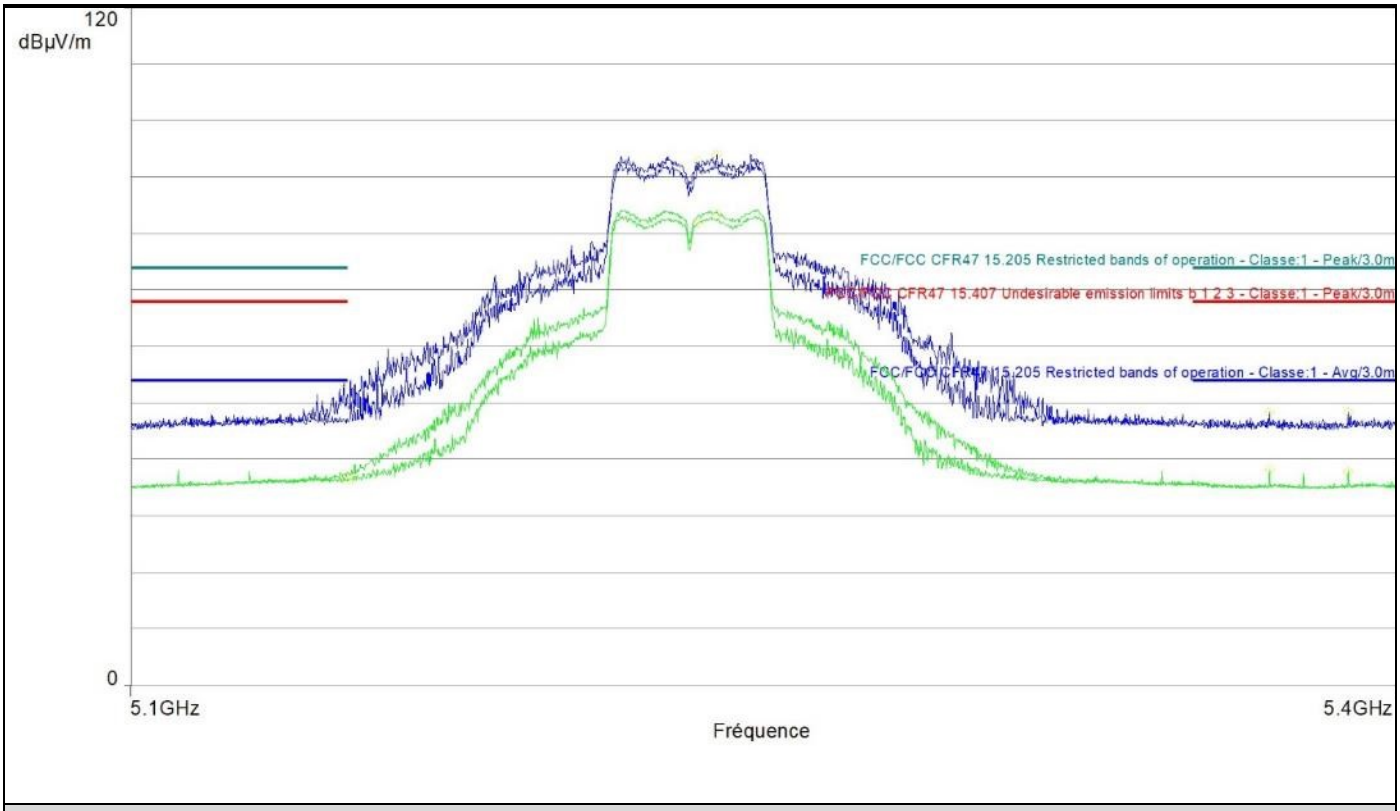
RADIATED EMISSIONS			
Graph name:	Emr#14	**Test configuration:**	
Limit:	FCC CFR47 15.205 Restricted bands of operation	(H+V) - C14 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
5150.310	59.8	/	45.2	/	Horizontal	-12.9
5184.660	97.9	/	88.8	/	Horizontal	-12.8
5352.240	48.5	73.9	36.4	53.9	Horizontal	-12.7
5146.800	59.9	73.9	50.2	53.9	Vertical	-12.9
5194.860	95.8	/	88.6	/	Vertical	-12.8
5353.260	49.0	73.9	40.0	53.9	Vertical	-12.7

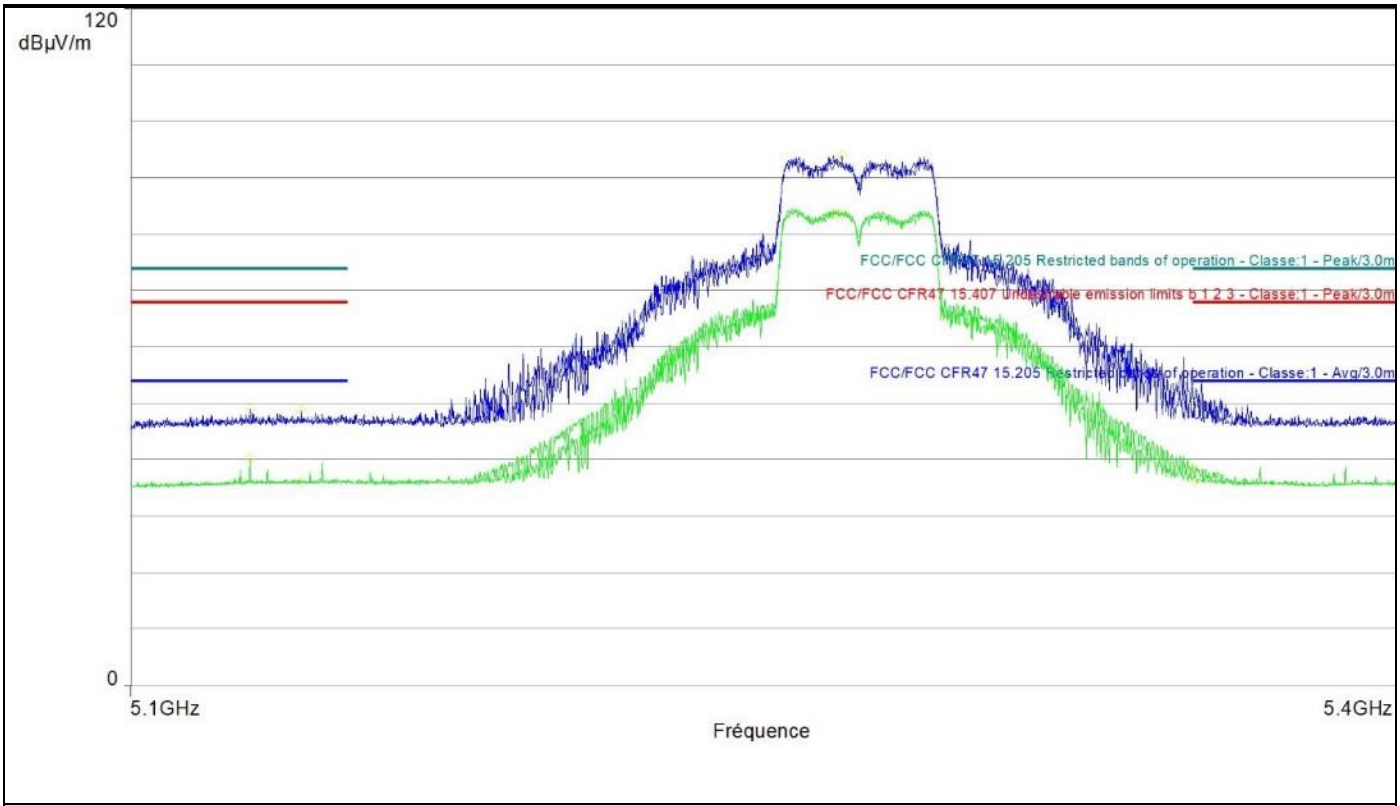
RADIATED EMISSIONS			
Graph name:	Emr#15	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C15 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5150.940	49.2	/	36.5	Horizontal	-19.4
5232.090	92.8	/	81.9	Horizontal	-19.4
5368.440	48.4	68.0	38.2	Horizontal	-19.0
5149.290	53.6	68.0	36.8	Vertical	-19.4
5236.500	93.9	/	83.4	Vertical	-19.4
5387.460	48.4	68.0	37.8	Vertical	-18.9

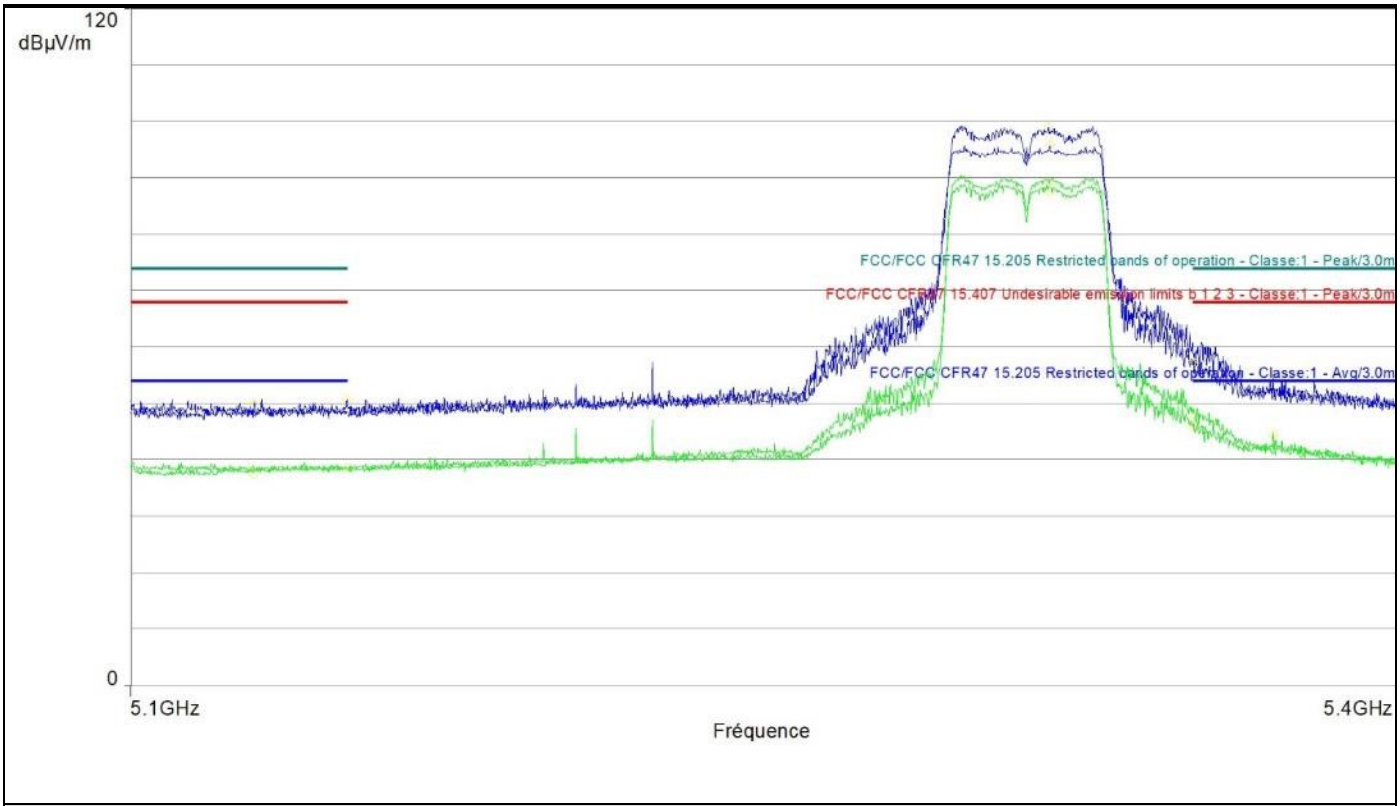
RADIATED EMISSIONS			
Graph name:	Emr#16	**Test configuration:**	
Limit:	FCC CFR47 15.205 Restricted bands of operation	(H+V) - C16 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
5127.420	49.0	73.9	40.3	53.9	Horizontal	-19.4
5264.880	93.0	/	83.5	/	Horizontal	-19.3
5350.260	49.9	73.9	36.3	53.9	Horizontal	-19.1
5139.270	48.9	73.9	36.1	53.9	Vertical	-19.4
5265.990	93.9	/	83.6	/	Vertical	-19.3
5350.050	53.8	73.9	38.6	53.9	Vertical	-19.1

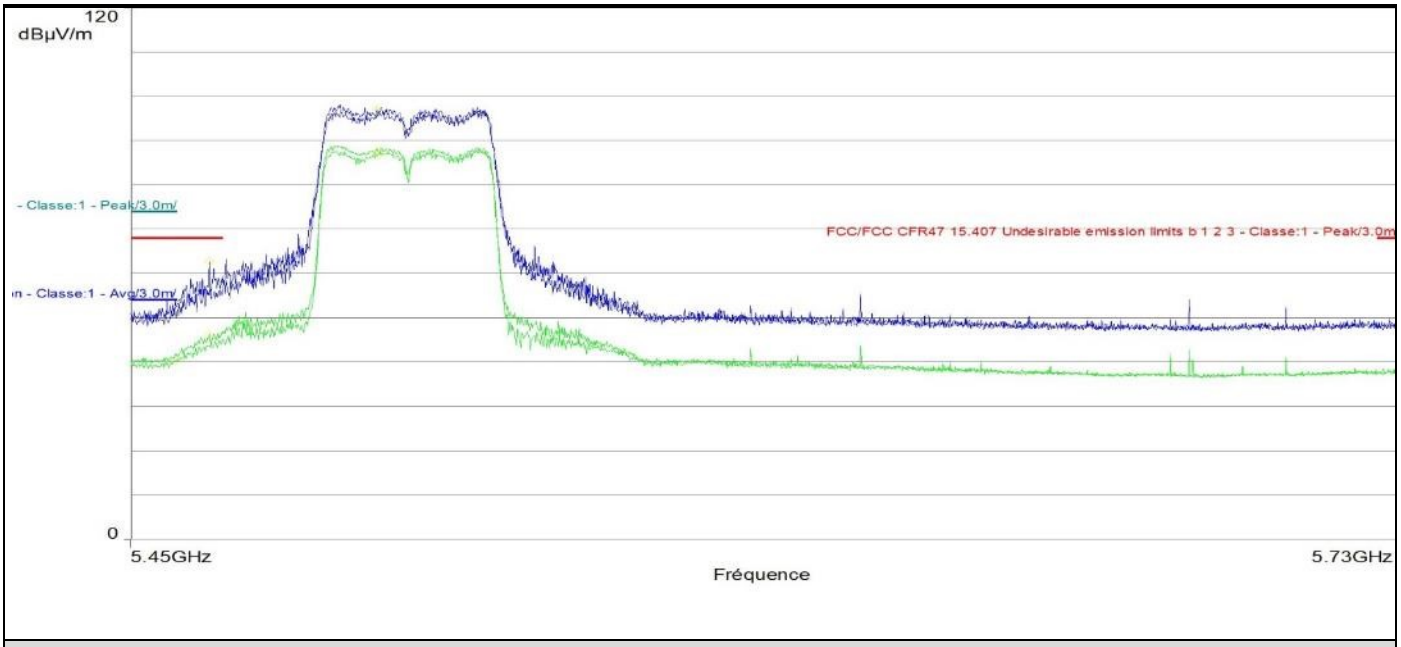
RADIATED EMISSIONS			
Graph name:	Emr#17	**Test configuration:**	
Limit:	FCC CFR47 15.205 Restricted bands of operation	(H+V) - C17 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.1GHz - 5.4GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Lim.Avg (dBµV/m)	Polarization	Correction (dB)
5149.800	50.7	73.9	38.5	53.9	Horizontal	-12.9
5315.550	95.7	/	87.5	/	Horizontal	-12.7
5349.990	57.0	/	46.0	/	Horizontal	-12.7
5369.370	54.6	73.9	44.4	53.9	Horizontal	-12.7
5128.230	49.9	73.9	37.4	53.9	Vertical	-13.0
5315.310	99.0	/	89.1	/	Vertical	-12.7
5349.990	57.4	/	48.0	/	Vertical	-12.7

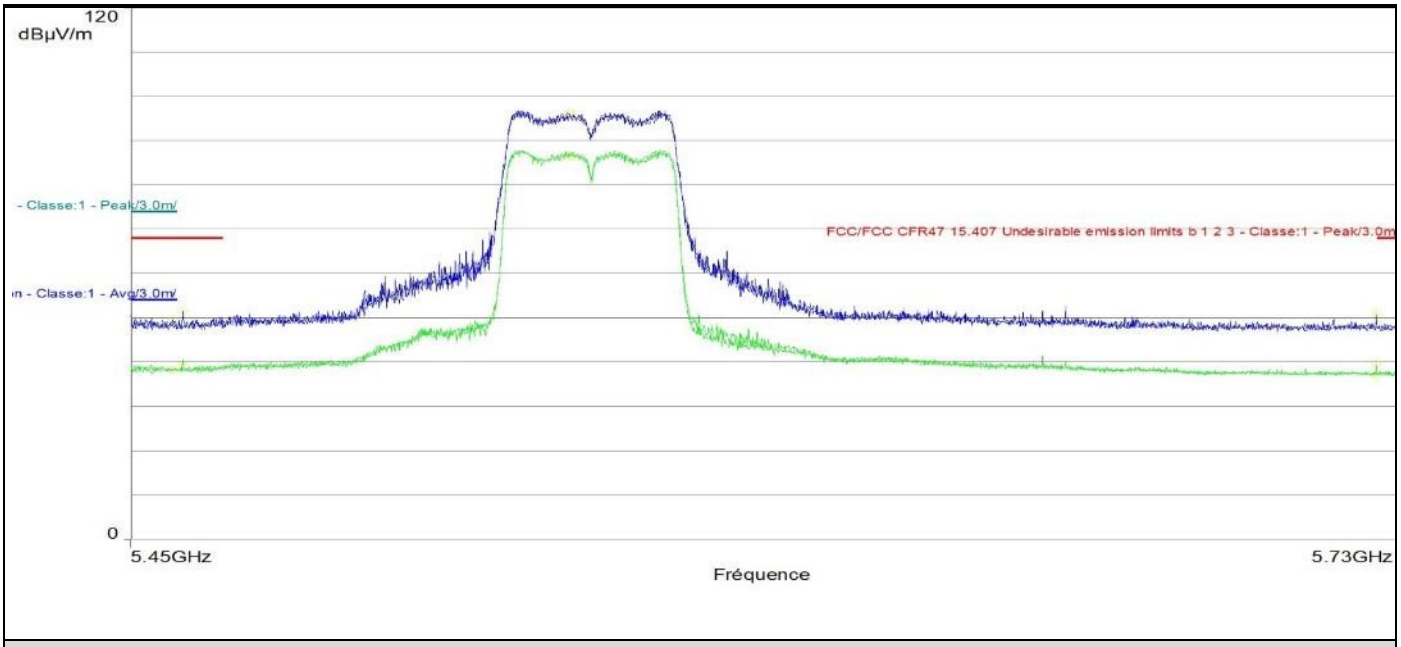
RADIATED EMISSIONS			
Graph name:	Emr#18	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C18 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.73GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5459.464	53.3	68.0	40.3	Horizontal	-12.4
5503.676	96.8	/	86.7	Horizontal	-12.3
5466.968	62.6	68.0	45.9	Vertical	-12.4
5503.228	97.0	/	87.5	Vertical	-12.3

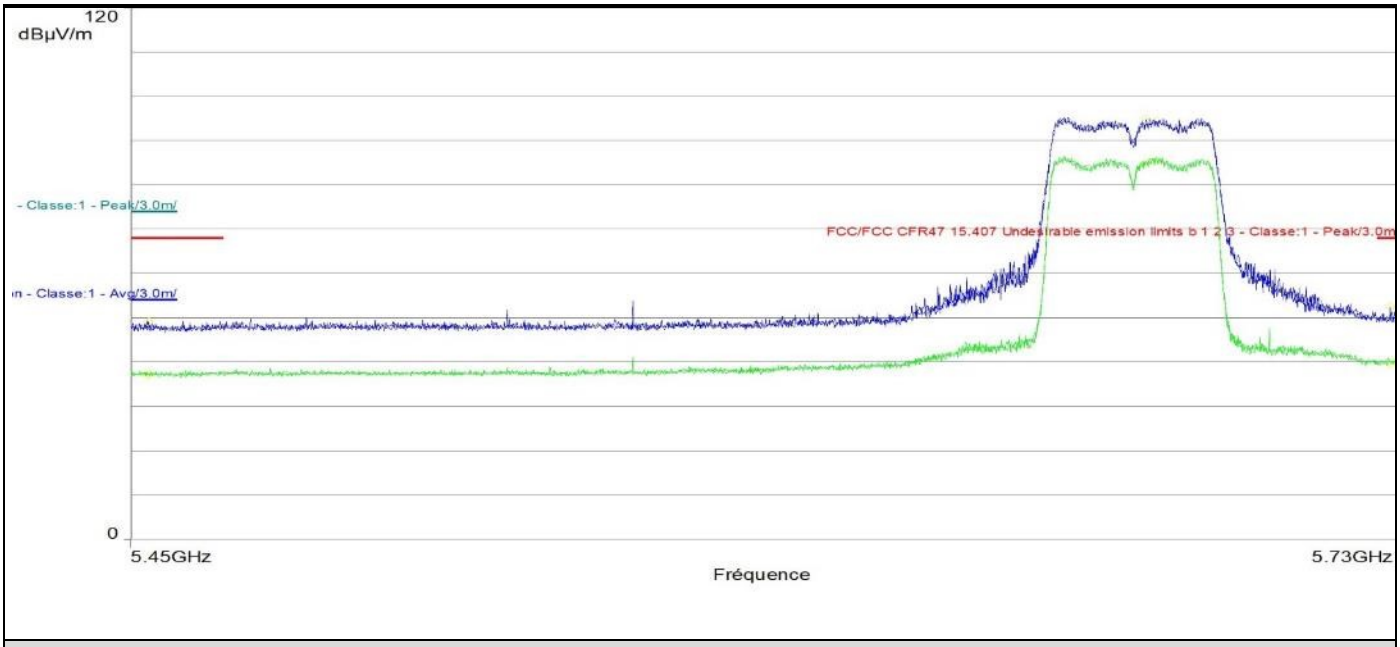
RADIATED EMISSIONS			
Graph name:	Emr#19	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C19 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.73GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5461.256	51.5	68.0	39.4	Horizontal	-12.4
5546.152	95.7	/	86.2	Horizontal	-12.2
5724.736	50.8	/	39.6	Horizontal	-12.4
5458.960	49.6	68.0	38.2	Vertical	-12.4
5545.284	96.2	//	86.6	Vertical	-12.2
5724.736	49.0		36.8	Vertical	-12.4

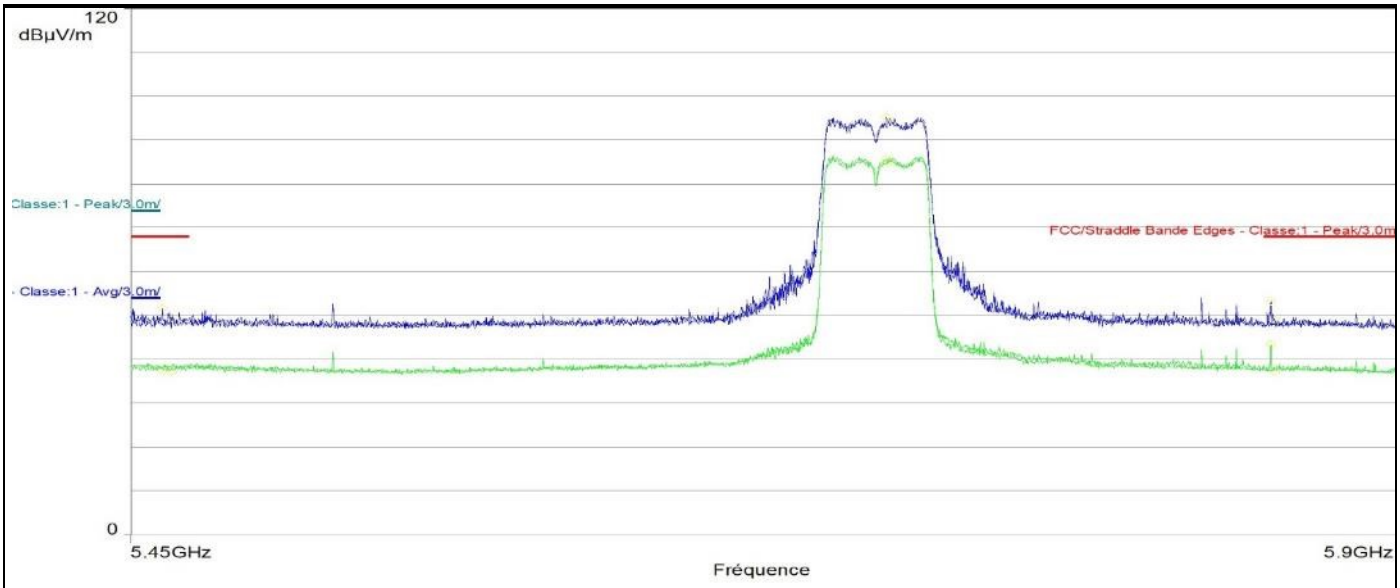
RADIATED EMISSIONS			
Graph name:	Emr#20	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 1 2 3	(H+V) - C20 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.73GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5453.864	49.0	68.0	37.4	Horizontal	-12.4
5675.400	94.4	/	85.2	Horizontal	-12.3
5729.440	51.7	68.0	39.8	Horizontal	-12.4
5453.752	49.0	68.0	37.0	Vertical	-12.4
5672.908	94.9	/	85.0	Vertical	-12.3
5727.816	52.5	68.0	39.6	Vertical	-12.4

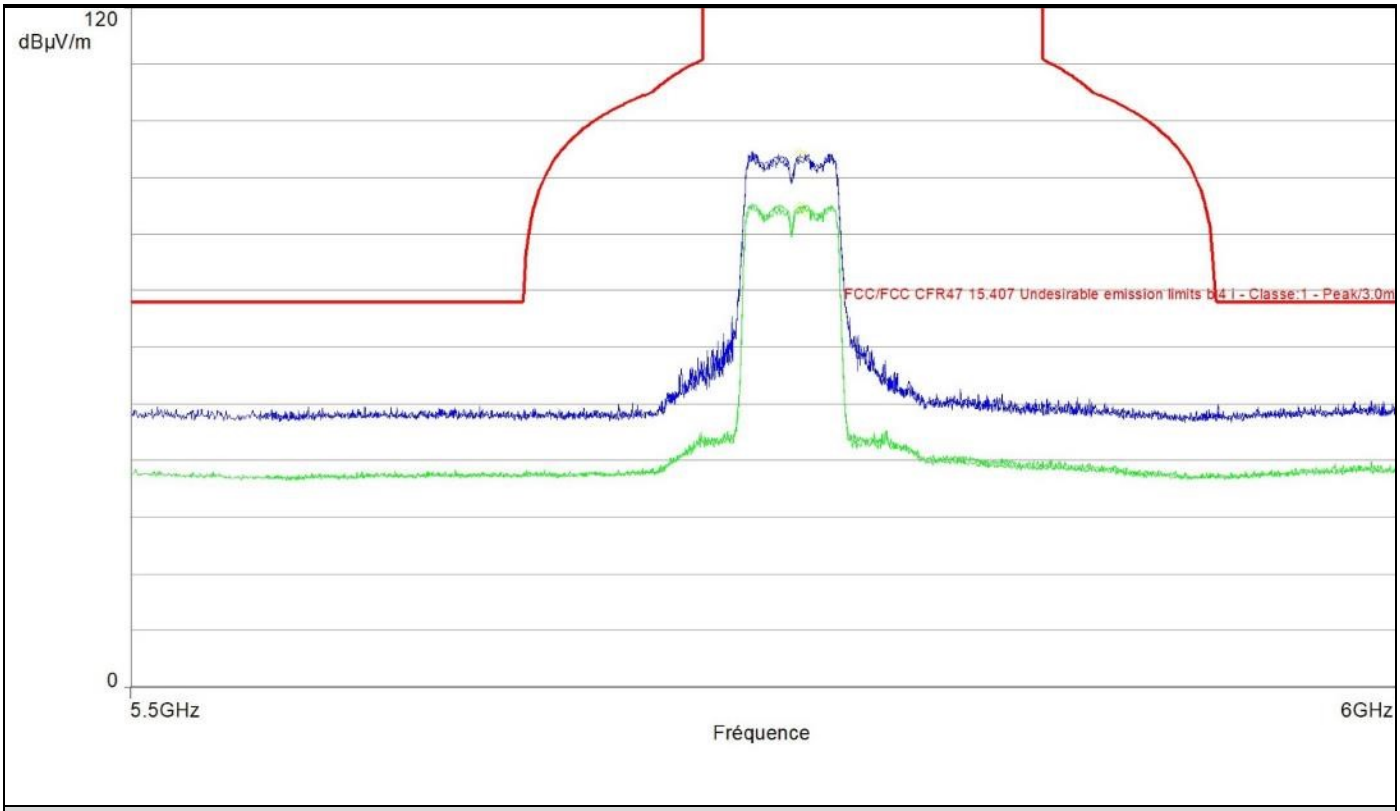
RADIATED EMISSIONS			
Graph name:	Emr#21	**Test configuration:**	
Limit:	Straddle Bande Edges	(H+V) - C21 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.45GHz - 5.9GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5463.950	49.5	68.0	37.2	Horizontal	-12.4
5713.745	95.2	/	85.6	Horizontal	-12.4
5852.705	53.2	68.0	43.4	Horizontal	-12.1
5460.845	51.6	68.0	37.3	Vertical	-12.4
5714.510	94.2	/	84.9	Vertical	-12.4
5854.460	49.2	68.0	37.2	Vertical	-12.1

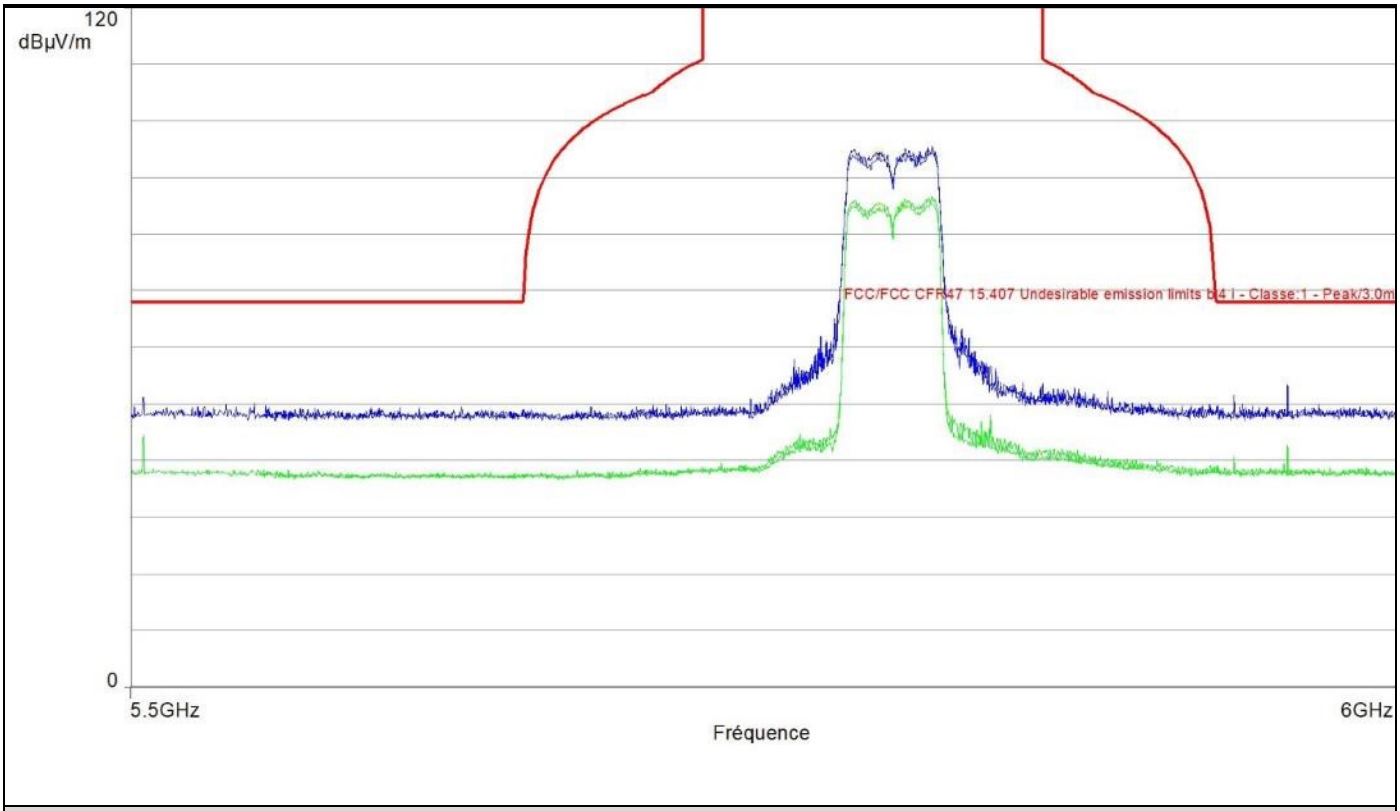
RADIATED EMISSIONS			
Graph name:	Emr#22	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 4 i	(H+V) - C22 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.5GHz - 6GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5758.125	94.1	84.8	Horizontal	-12.3
5760.200	93.4	84.1	Vertical	-12.3

RADIATED EMISSIONS			
Graph name:	Emr#23	**Test configuration:**	
Limit:	FCC CFR47 15.407 Undesirable emission limits b 4 i	(H+V) - C23 - TX mode - Automatic Axis	
Class:	1		
Frequency range: [5.5GHz - 6GHz]			
Antenna polarization:		**RBW :**	100kHz to 1MHz
Azimuth:	0° - 360°	**VBW :**	300kHz to 3MHz



Spurious emissions

Frequency (MHz)	Peak (dBµV/m)	Lim.Peak (dBµV/m)	Avg (dBµV/m)	Polarization	Correction (dB)
5789.535	94.4		85.0	Horizontal	-12.3
5799.150	94.1		84.8	Vertical	-12.3

9.7. CONCLUSION

Unwanted emissions & Undesirable emission measurement performed on the sample of the product **INGENICO Move/2600**, SN: 221967317151286025803467, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 & RSS 247 ISSUE 2 limits.

10. UNCERTAINTIES CHART

47 CFR Part 15.209 & 15.207 Kind of test	Wide uncertainty laboratory (k=2) ±x(dB) / (Hz)/ ms	Uncertainty limit
Measurement of conducted disturbances in voltage on the power port	3.29dB	3.4 dB
Measurement of conducted disturbances in voltage on the telecommunication port.	3.26 dB	5dB
Measurement of discontinuous conducted disturbances in voltage	3.33 dB	3.4 dB
Measurement of conducted disturbances in current	2.67 dB	2.9dB
Spurious emission, radiated (Semi anechoic chamber & open test site)	5.60 dB	6 dB
Spurious emission, radiated (Full anechoic chamber above 1GHz)	±3.8 dB	±6 dB
Occupied Channel Bandwidth	±2.8 %	±5 %
RF power, conducted	±1.2 dB	±1.5 dB
Power Spectral Density, Conducted	±1.7 dB	±3 dB
Spurious emission, conducted	±2.3 dB	±3 dB
Temperature	±0.75 °C	±3 °C
Supply Voltages	±1.7 %	±3 %

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