315MHz Template: Release October 14th, 2019

TEST REPORT

N°: 164280-744654-A **Version : 03**

Subject	**Radio spectrum matters tests according to standards: 47 CFR Part 15.231 & RSS-210 Issue 10 & RSS-Gen Issue 5**
Issued to	**BODYCAP 6, Rue de la Girafe 14000 - Caen FRANCE**
Apparatus under test	
Product	**Measure intracorporeal temperature**
Trade mark	**BODYCAP**
Manufacturer	**BODYCAP**
Model under test	**P022 (capsule e-Celsius Médical)**
Serial number	**-**
FCC ID	**2AENH014**
IC	**-**
Conclusion	See Test Program chapter
Test date	: November 25, 2019 to December 5, 2019
Test location	Fontenay Aux Roses &Ecuelles
Sample receipt date	November 25, 2019
Composition of document	47 pages
Document issued on	January 3, 2023

Written by :
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PUBLICATION HISTORY

Version	Date	Author	Modification
01	11/03/2020	A. MAHOUNGOU	Creation of the document
02	16/11/2022	L. DENEUX	Modification of the table above 1GHz (page 46)
03	03/01/2023	A. AKEB	Issue modification on RSS-210 (GEN 9 to GEN 10)

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

1. TEST PROGRAM

References

- **47 CFR Part 15.231**
- **RSS 210 Issue 10**
- **RSS Gen Issue 5**
- **ANSI C63.10-2013**

Radio requirement:

Clause (47CFR Part 15.231 & RSS-249 Issue 2 & RSS-Gen Issue 5) Test Description	Test result - Comments			
Occupied Bandwidth	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
20 dB bandwidth	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Duty cycle	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Frequency Tolerance	☐ PASS	☐ FAIL	☑ NA	☐ NP(1)
Limit of Transmission Time	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Field strength of fundamental & Field strength of harmonics	☑ PASS	☐ FAIL	☐ NA()	☐ NP(1)
AC Power Line Conducted Emission	☐ PASS	☐ FAIL	☑ NA(2)	☐ NP(1)
Unwanted Emissions into Restricted Frequency Bands	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Receiver Radiated emissions	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
This table is a summary of test report, see conclusion of each clause of this test report for detail.				

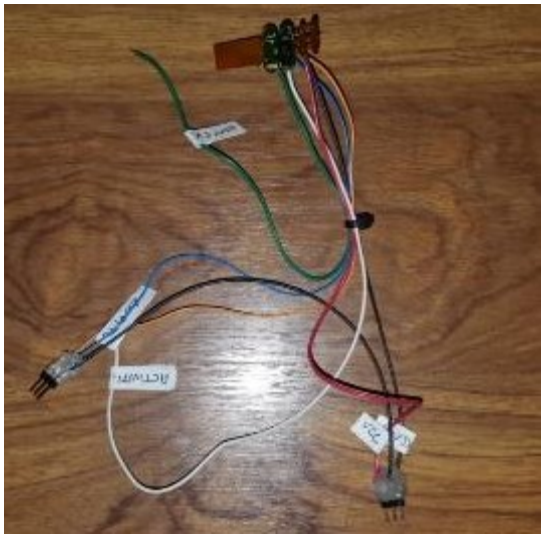
(1): Limited program
(2): EUT not directly or indirectly connected to the AC Power Public Network

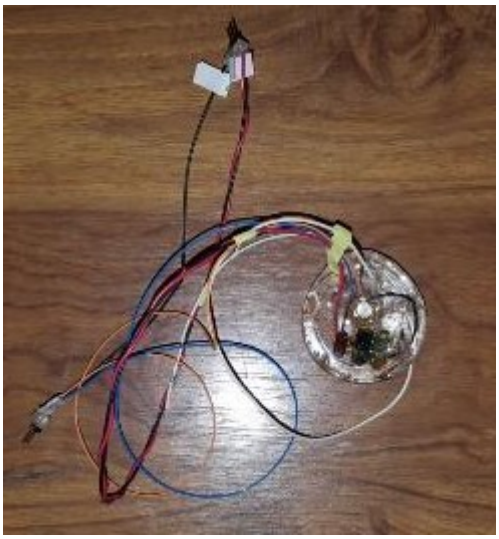
PASS: EUT complies with standard's requirement
FAIL: EUT does not comply with standard's requirement
NA: Not Applicable
NP: Test Not Performed

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

2.1. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):
BODYCAP P022 **(capsule e-Celsius Médical)** **Serial Number: -**





Equipment Under Test

Auxiliary equipment

Power supply:
During all the tests, EUT is supplied by V_{nom}: **3.0VDC**
For measurement with different voltage, it will be presented in test method.

Name	Type	Rating	Reference / Sn	Comments
Supply1	☐ AC ☑ DC ☐ Battery	3.0	-	-

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Monitor SPY	-	-	Used to set the EUT
Monitor FCC	-	-	Used to set the EUT

Equipment information:

Frequency band:	[433.05 – 434.79] MHz		
Number of Channel:	8		
Spacing channel:	200 kHz		
Channel bandwidth:	200 kHz		
Antenna Type:	☑ Integral	☐ External	☐ Dedicated
Antenna connector:	☐ Yes	☐ No	☑ Temporary for test
Transmit chains:	☑ 1	☐ 2	
Receiver chains	☑ 1	☐ 2	
Type of equipment:	☐ Stand-alone	☐ Plug-in	☑ Combined
Duty cycle:	☐ Continuous duty	☐ Intermittent duty	☑ 100% duty
Equipment type:	☑ Production model	☐ Pre-production model	
Operating temperature range:	Tnom:	20°C	
Type of power source:	☐ AC power supply	☑ DC power supply	☐ Battery
Operating voltage range:	Vnom:	☐ 120V/60Hz	☑ 3.0 Vdc

CHANNEL PLAN	
Channel	**Frequency (MHz)**
Cmin : C1	433.25
C2	433.42
C3	433.62
Cnom : C4	433.82
C5	434.02
C6	434.22
C7	434.42
Cmax : C8	434.65

Hardware information		
Software (if applicable):	**V. :**	**-**

2.2. RUNNING MODE

Test mode	Description of test mode
Test mode 1	Permanent emission with modulation on a fixed channel in the data rate that produced the highest power

Test	Running mode	
Occupied Bandwidth	☑ Test mode 1	☐ Alternative test mode()
20 dB bandwidth	☑ Test mode 1	☐ Alternative test mode()
Duty cycle	☑ Test mode 1	☐ Alternative test mode()
Limit of Transmission Time	☑ Test mode 1	☐ Alternative test mode()
Field strength of fundamental & Field strength of harmonics	☑ Test mode 1	☐ Alternative test mode()
Unwanted Emissions into Restricted Frequency Bands	☑ Test mode 1	☐ Alternative test mode()

2.3. EQUIPMENT LABELLING

No labelling

2.4. EQUIPMENT MODIFICATION

☑ None ☐ Modification:

3. OCCUPIED BANDWIDTH

3.1. TEST CONDITIONS

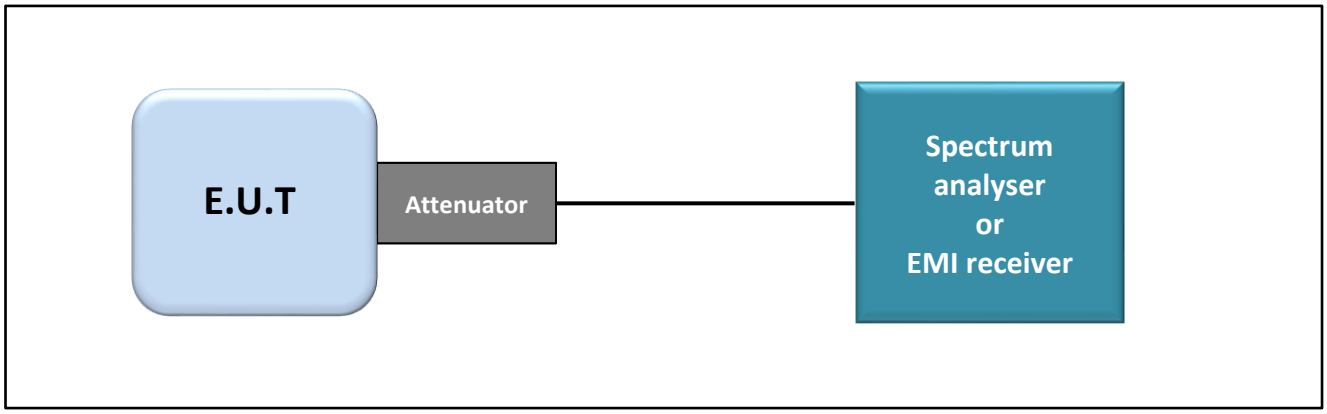
Test performed by	: Armand MAHOUNGOU
Date of test	: November 29, 2019
Ambient temperature	: 25°C
Relative humidity	: 47%

3.2. TEST SETUP

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

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

- Test Procedure:
☑ RSS-Gen Issue 5 § 6.7



Test set up of Occupied Bandwidth

Photograph for Occupied bandwidth

3.3. LIMIT

None

3.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Climatic chamber	SECASI	SLT34	D1024029	See Hygrometer	See Hygrometer
Hygrometer	AOIP	TM360	B4041042	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2019/01	2021/01
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Programmable DC power supply	ROHDE & SCHWARZ	NGSM32/10	A7040074	See Multimeter	See Multimeter
Cable + Attenuateur 20dB	PASTERNACK	PE350-150CM	A5329868	2018/12	2019/12

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

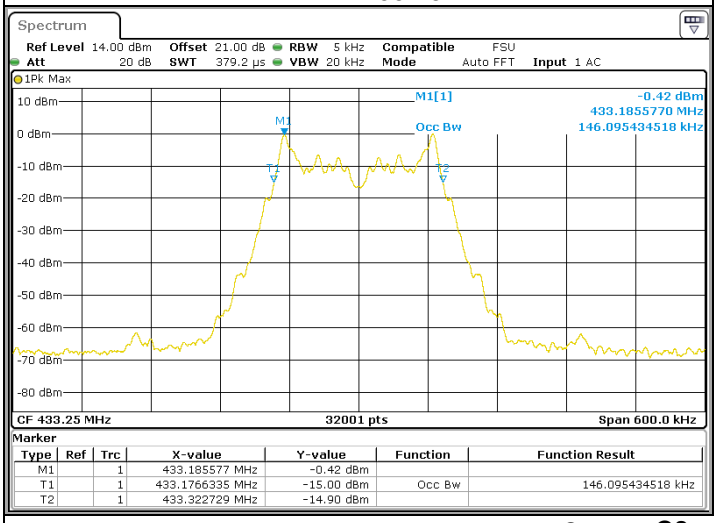
3.5. *DIVERGENCE, ADDITION OR SUPPRESSION ON THE SPECIFICATION*

☑ None ☐ Divergence:

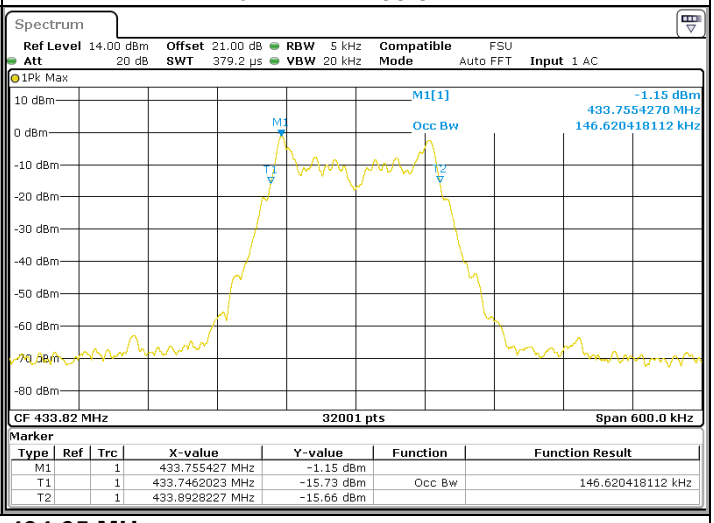
3.6. RESULTS

Occupied Bandwidth

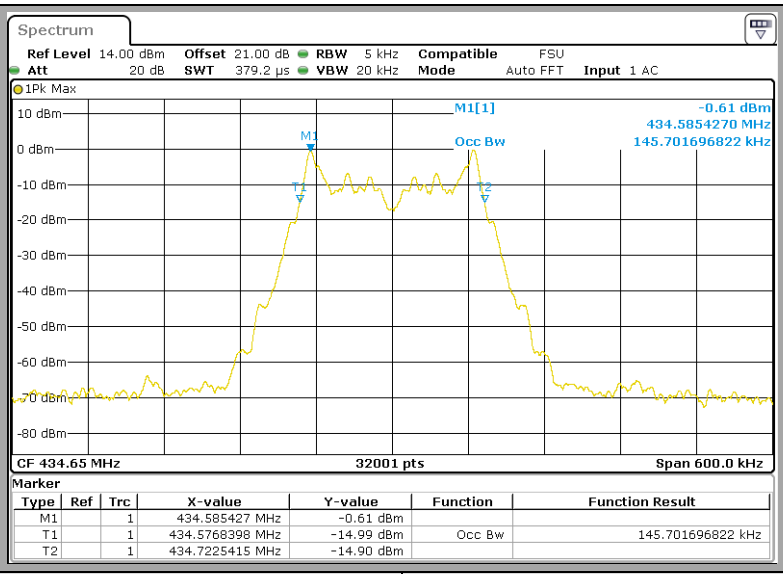
Cmin = C1 = 433.25 MHz



Cnom = C4 = 433.82 MHz



Cmax = C8 = 434.65 MHz



Channel	Occupied Bandwidth (MHz)
Cmin	0.146
Cnom	0.147
Cmax	0.146

3.7. CONCLUSION

Occupied Channel Bandwidth measurement performed on the sample of the product **BODYCAP** P022 **(capsule e-Celsius Médical)**, SN: **-**, in configuration and description presented in this test report, show levels **compliant** to the RSS-GEN Issue 5 limits.

4. 20DB EMISSION BANDWIDTH

4.1. TEST CONDITIONS

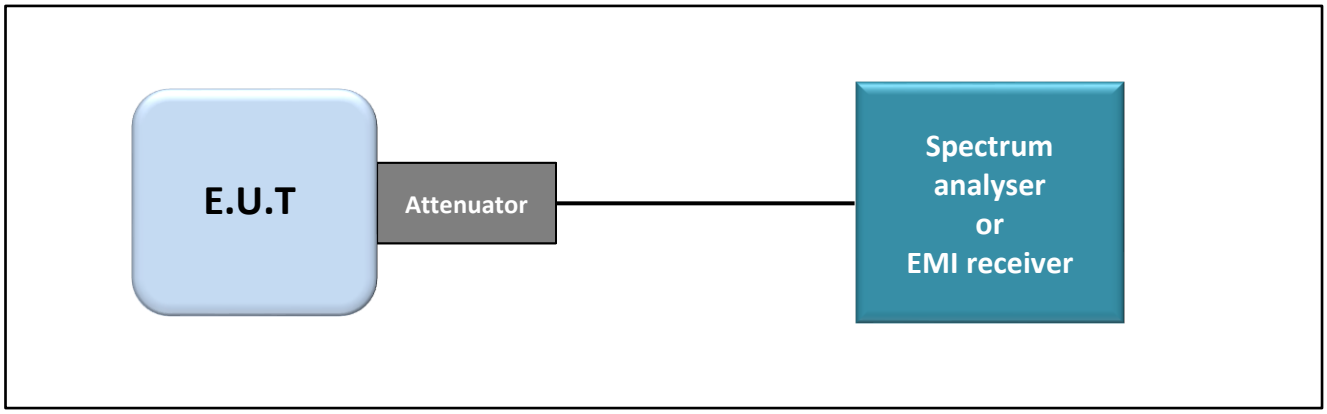
Test performed by	: Armand MAHOUNGOU
Date of test	: November 29, 2019
Ambient temperature	: 25°C
Relative humidity	: 47%

4.2. TEST SETUP

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

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

- Test Procedure:
☑ ANSI C63.10 § 6.9.2



Test set up of 20dB Emission Bandwidth

Photograph for 20dB emission bandwidth

4.3. *LIMIT*

The bandwidth shall be less than 0.25% of the center frequency (for frequency between 70MHz and 900MHz)
The bandwidth shall be less than 0.50% of the center frequency (for frequency above 900MHz)

4.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Climatic chamber	SECASI	SLT34	D1024029	See Hygrometer	See Hygrometer
Hygrometer	AOIP	TM360	B4041042	2018/12	2019/12
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2019/01	2021/01
Multimeter	KEITHLEY	2000	A1242090	2019/05	2021/05
Programmable DC power supply	ROHDE & SCHWARZ	NGSM32/10	A7040074	See Multimeter	See Multimeter
Cable + Attenuateur 20dB	PASTERNACK	PE350-150CM	A5329868	2018/12	2019/12

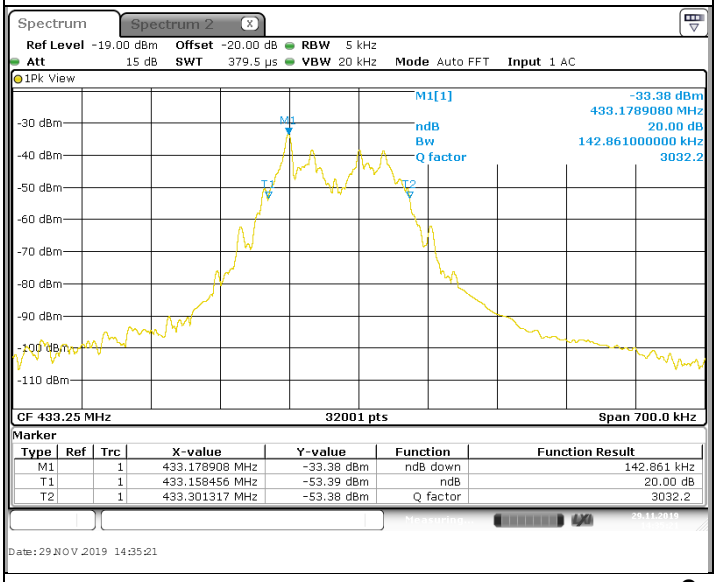
Note: In our quality system, the test equipment calibration due is more & less 2 months

4.5. *DIVERGENCE, ADDITION OR SUPPRESSION ON THE SPECIFICATION*

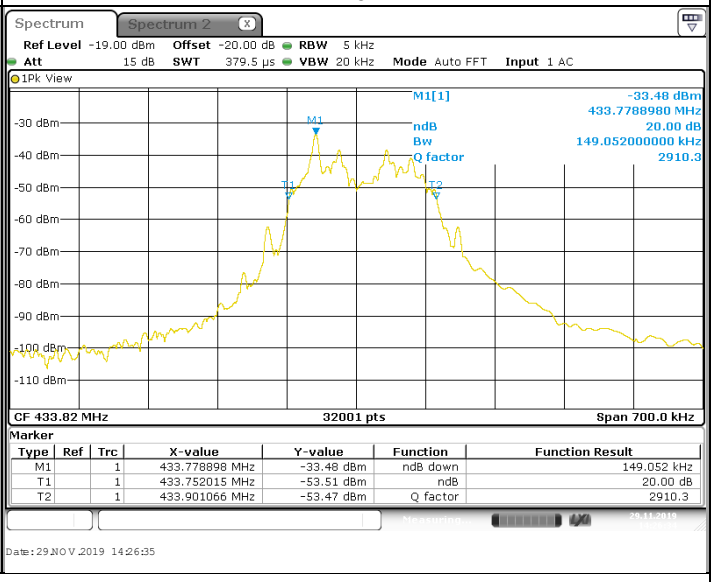
☑ None ☐ Divergence:

4.6. RESULTS

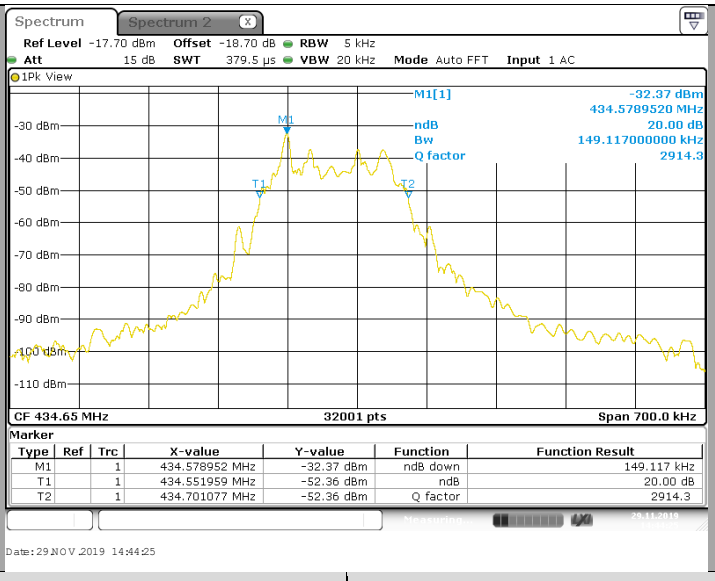
Cmin



Cnom



Cmax



Channel	20dB Bandwidth (MHz)
Cmin	0.143
Cnom	0.149
Cmax	0.149

4.7. CONCLUSION

20dB Emission Bandwidth measurement performed on the sample of the product **BODYCAP** P022 **(capsule e-Celsius Médical)**, SN: **-**, in configuration and description presented in this test report, show levels **compliant** to the **PART 15.231 & RSS 210 ISSUE 10** limits.

5. DUTY CYCLE

5.1. TEST CONDITIONS

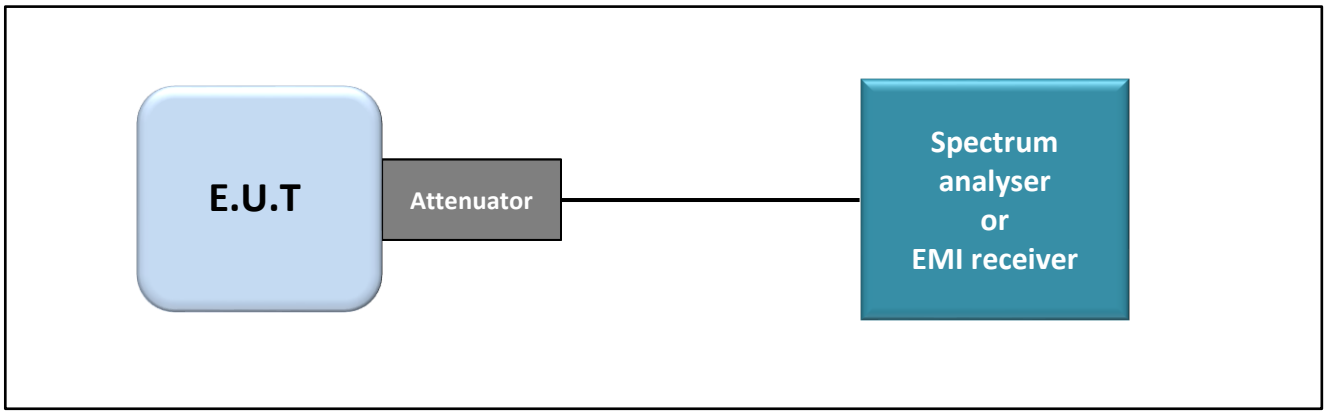
Test performed by	: Armand MAHOUNGOU
Date of test	: November 29, 2019
Ambient temperature	: 24 °C
Relative humidity	: 44 %

5.2. TEST SETUP

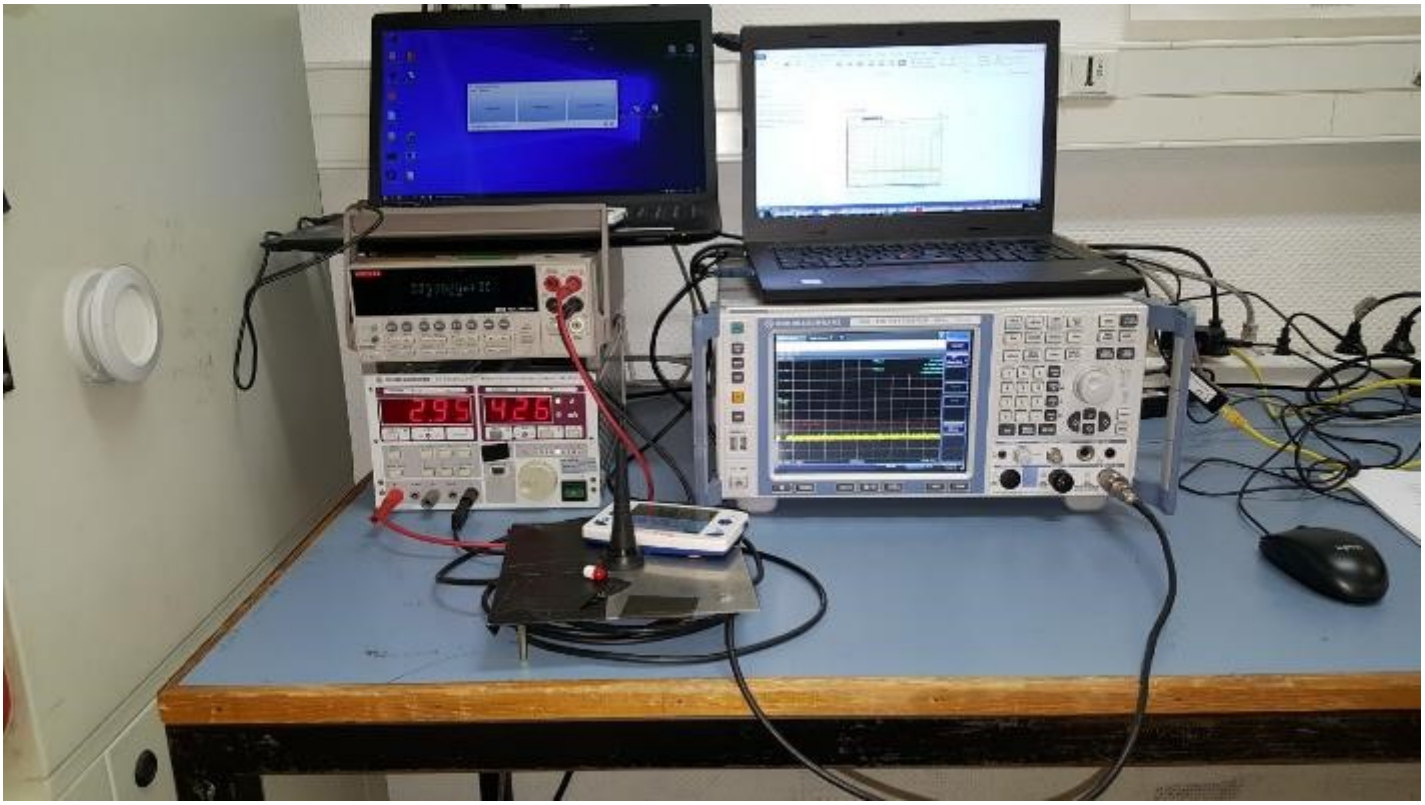
- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

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

- Test Procedure:
☑ ANSI C63.10 § 11.6



Test set up of Duty Cycle



Photograph for Duty Cycle

5.3. LIMIT

None

5.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2019/01	2021/01

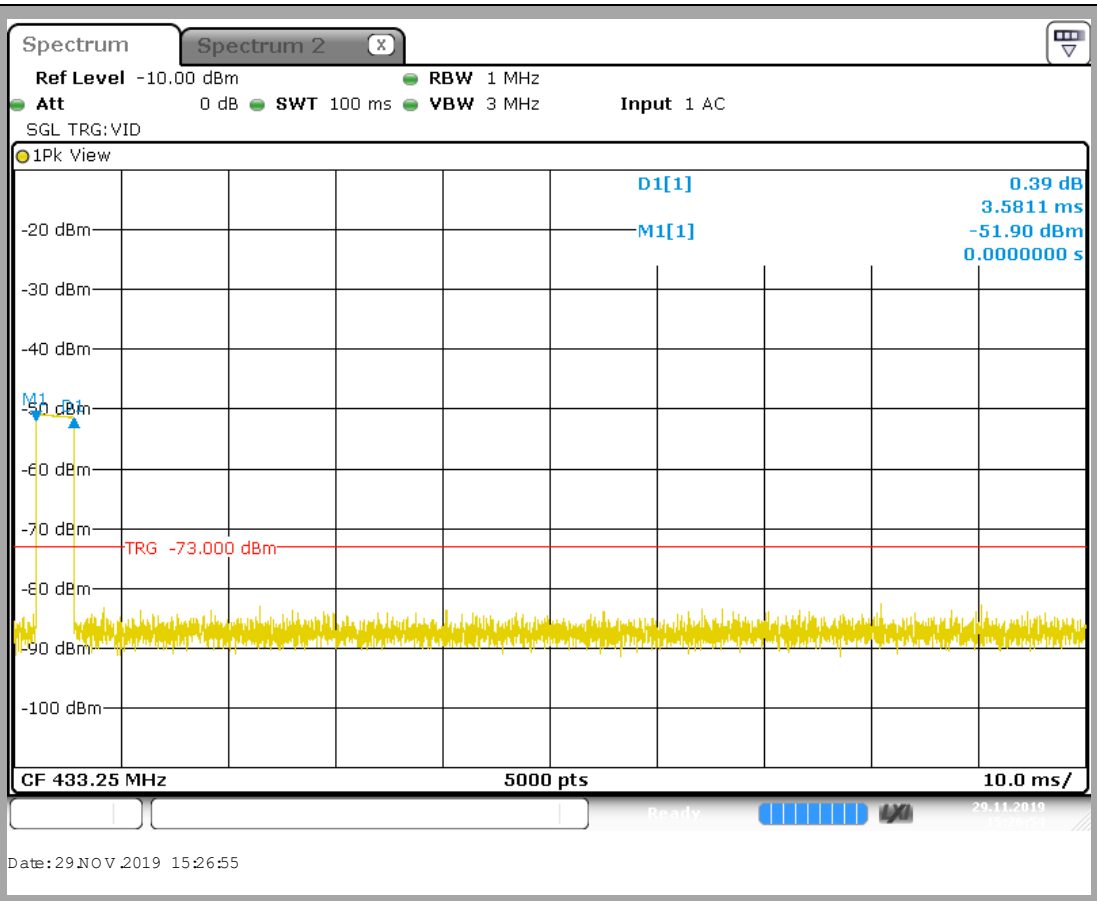
Note: In our quality system, the test equipment calibration due is more & less 2 months

5.5. *DIVERGENCE, ADDITION OR SUPPRESSION ON THE SPECIFICATION*

☑ None ☐ Divergence:

5.6. RESULTS

Duty Cycle
Cmin



Channel	Duty Cycle (%)
Cmin	3.5%

Note : This duty cycle correspond to the one used by the product in real life.
For all the test of this report (exept duty cycle and transmission time limit) a sample with a 100% duty cycle has been provided by the customer.

5.7. CONCLUSION

Duty Cycle measurement performed on the sample of the product **BODYCAP P022 (capsule e-Celsius Médical)**, SN: **-**, in configuration and description presented in this test report, show levels **compliant** to the **PART 15.231 & RSS 210 ISSUE 10** limits.

6. LIMIT OF TRANSMISSION TIME

6.1. TEST CONDITIONS

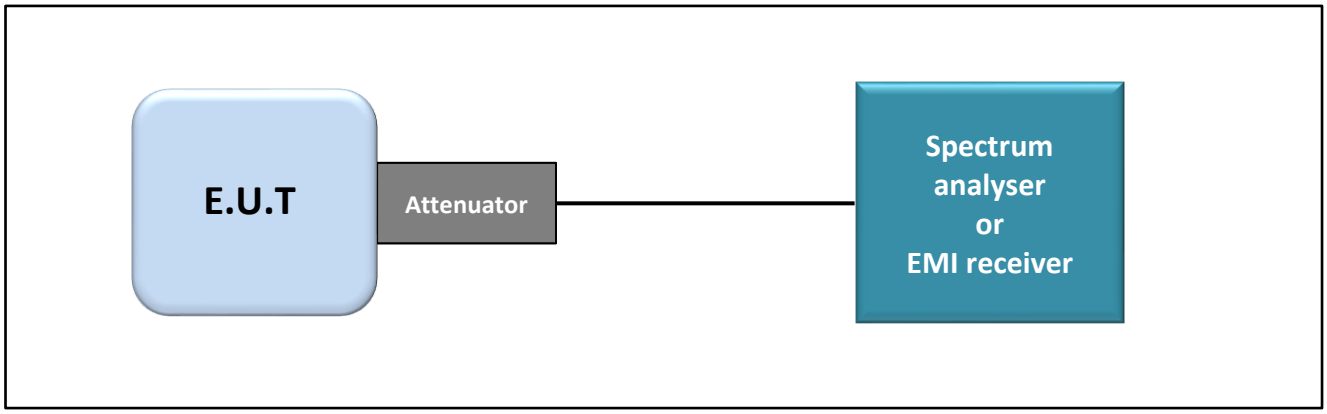
Test performed by	: Armand MAHOUNGOU
Date of test	: November 29, 2019
Ambient temperature	: 24 °C
Relative humidity	: 44 %

6.2. TEST SETUP

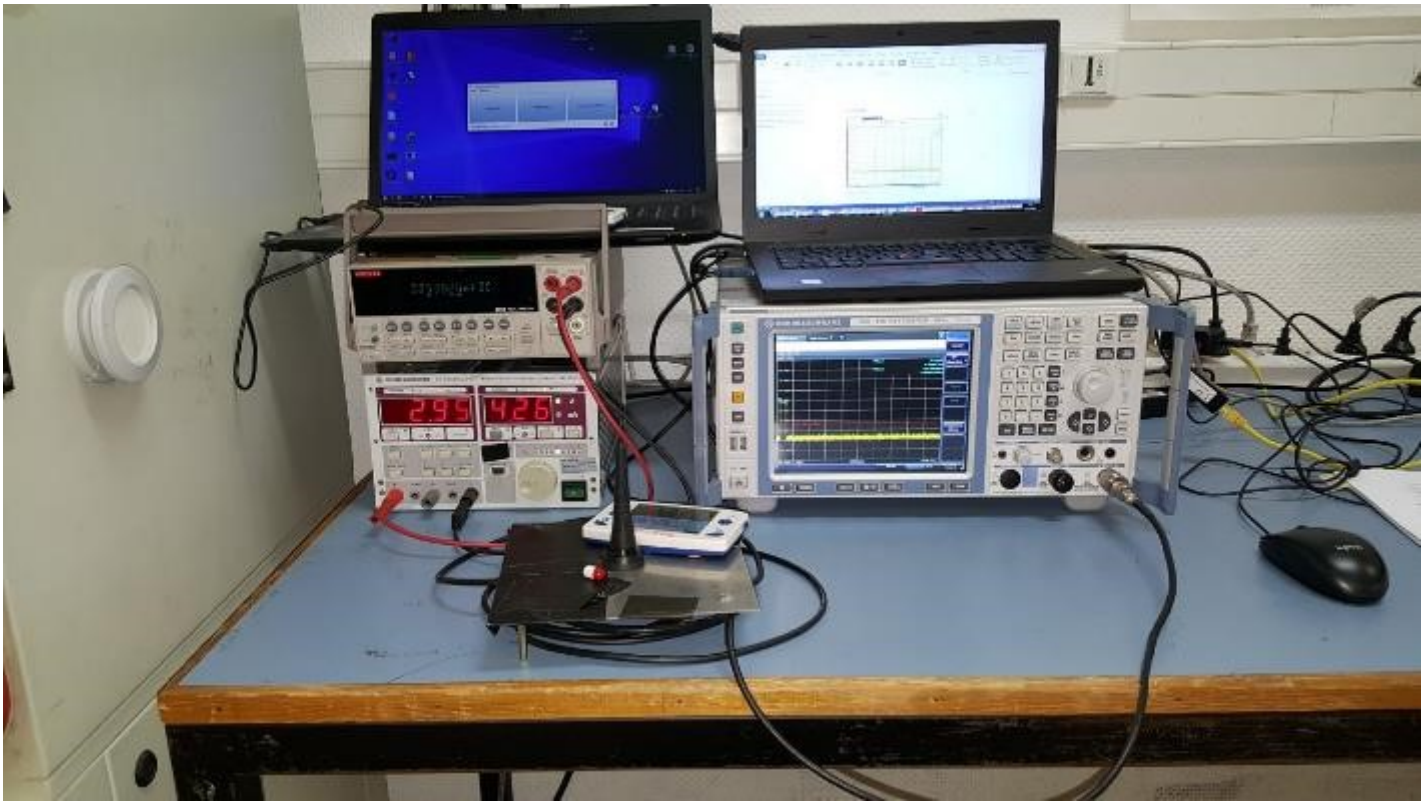
- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

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

- Test Procedure:
☑ ANSI C63.10 § 11.6



Test set up of Limit of Transmission Time



Photograph for Limit of Transmission Time

6.3. LIMIT

The transmitter shall cease transmission within 5 seconds after activation.
The total transmission time shall not exceed 2 seconds per hour
The duration of each transmission shall be less than 1 second
The silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds

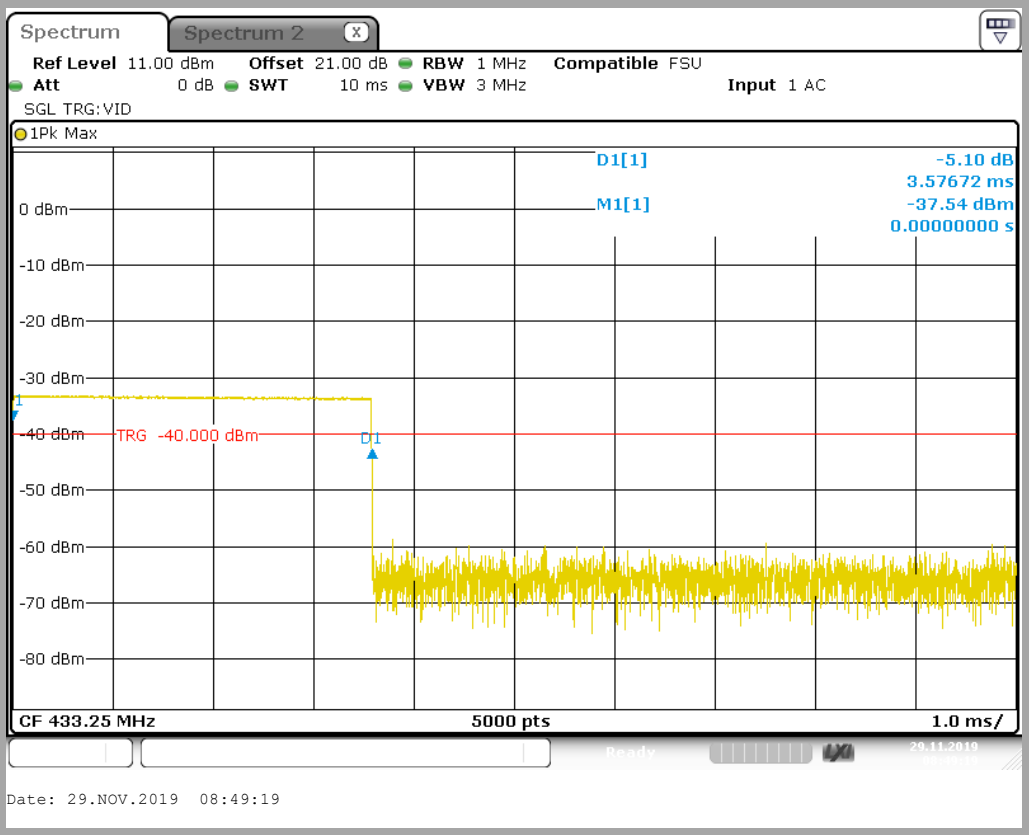
6.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2019/01	2021/01

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

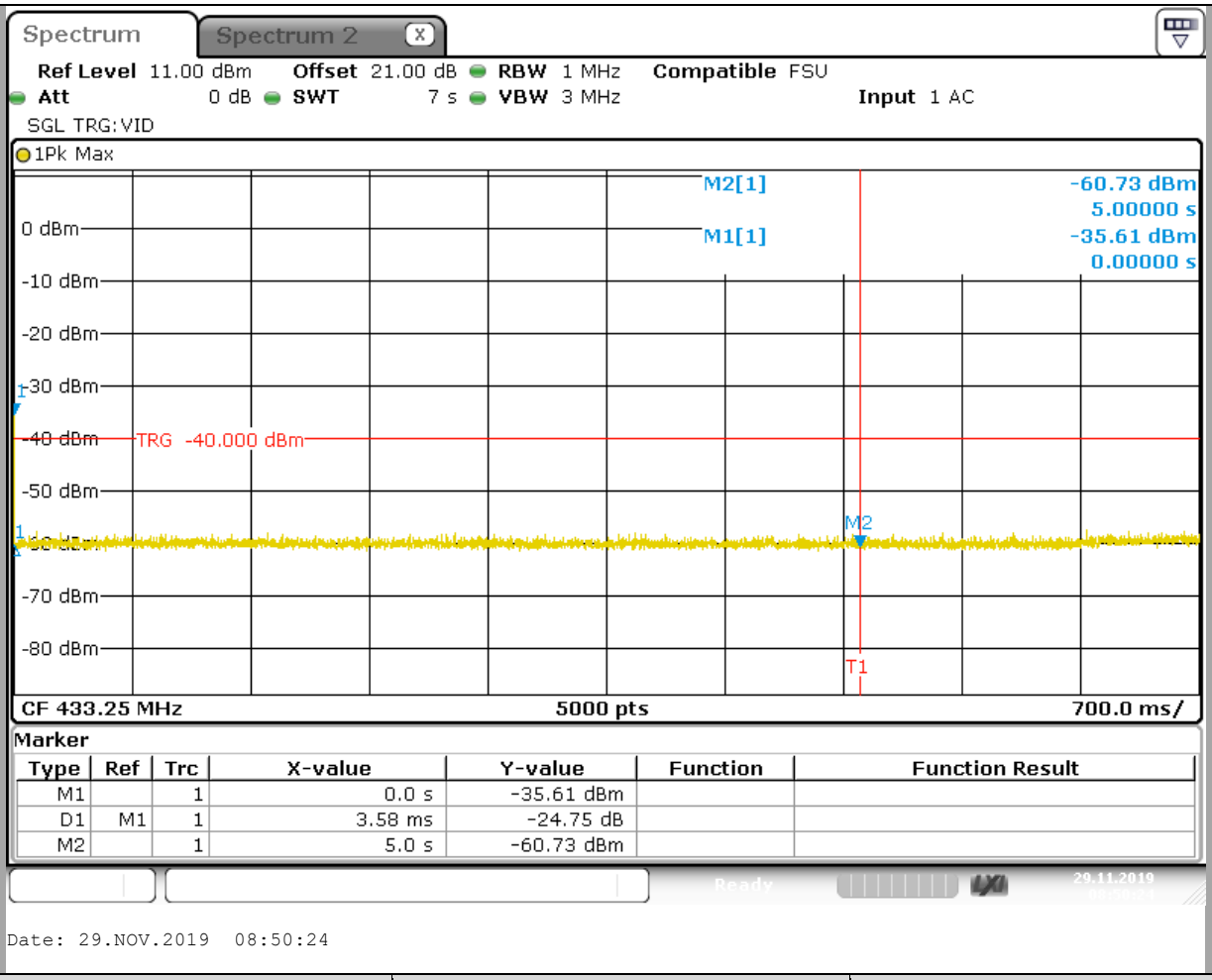
6.5. RESULTS

Limit of transmission time
Cmin



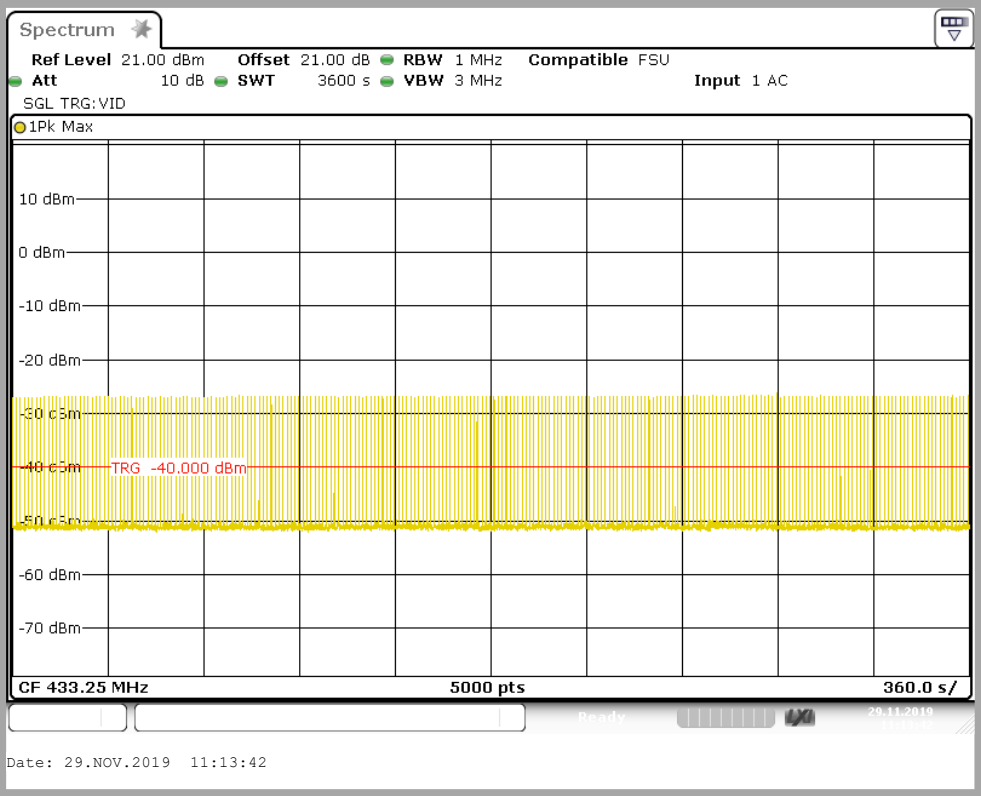
Channel	Duration of one burst (s)	Limit (s)
Cmin	0.00358	1

Limit of transmission time
Cmin



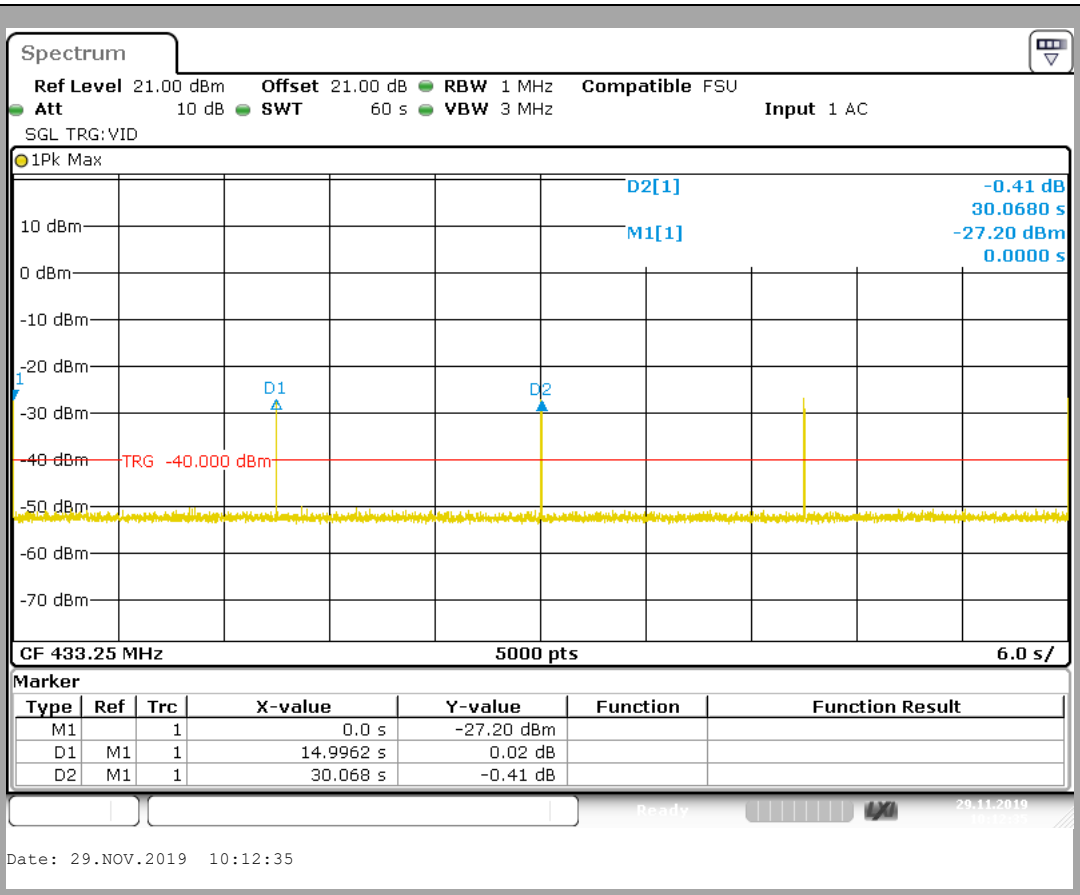
Channel	Cease function after activation (s)	Limit (s)
Channel	0.00358	5

Limit of transmission time
Cmin



Channel	Total duration (s)	Limit (s)
Cmin	0.859	2

Limit of transmission time
Cmin



Channel	Silent period (s)	Limit (s)
Channel	14.996	10

6.6. CONCLUSION

Duty Cycle measurement performed on the sample of the product **BODYCAP P022 (capsule e-Celsius Médical)**, SN: **-**, in configuration and description presented in this test report, show levels **compliant** to the **PART 15.231 & RSS 210 ISSUE 10** limits.

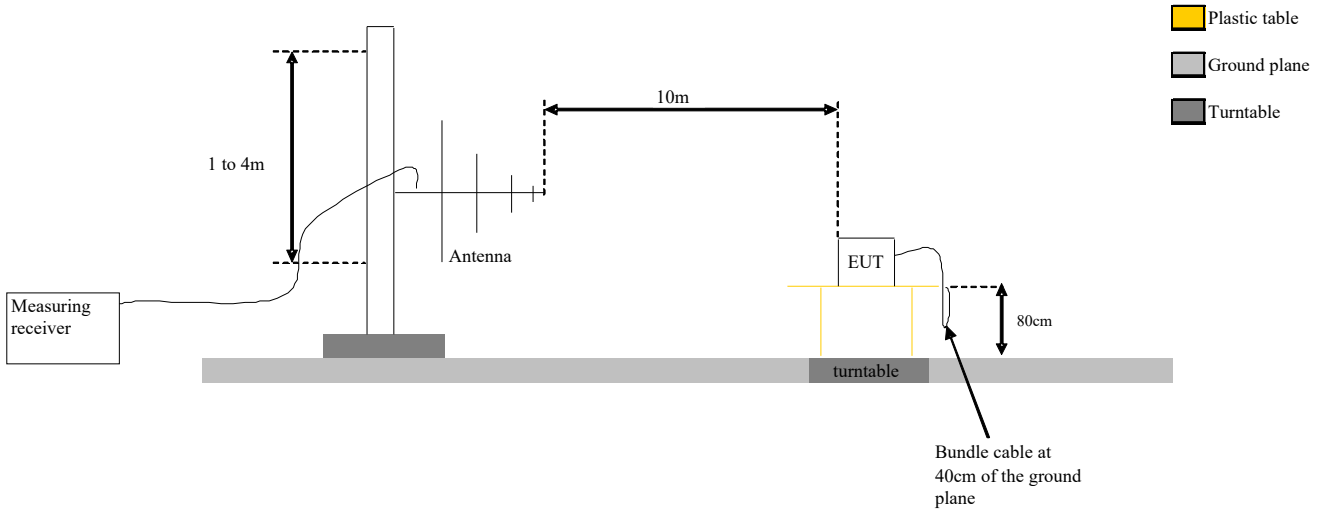
7. FIELD STRENGHT OF EMISSION & FIELD STRENGHT OF HARMONICS

7.1. TEST CONDITIONS

Test performed by	: Laurent DENEUX
Date of test	: December 2, 2019
Ambient temperature	: 20 °C
Relative humidity	: 47 %

7.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013). The EUT is placed **on an open area test site**. Distance between measuring antenna and the EUT is **10m**. Test is performed in horizontal (H) and vertical (V) polarization with **bilog** antenna below 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz.



Test Set up for radiated measurement in open area test site

Photograph for Field strength of fundamental & Field strength of harmonics

Photograph for Field strength of fundamental & Field strength of harmonics

Photograph for Field strength of fundamental & Field strength of harmonics

7.3. LIMIT

Limit at 10m:
Fundamental: 83.3dBµV/m
Harmonics: 63.3dBµV/m

7.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Open test site	LCIE	-	F2000400	2019-06	2020-06
EMI Test Receiver	ROHDE & SCHWARZ	ESIB26	A2642021	2018-10	2020-10
Bilog antenna	CHASE	CBL 6112A	C2040040	2019-06	2020-06
Horn antenna	EMCO	3115	C2042016	2019-06	2020-06
Preamplifier	HEWLETT PACKARD	8449B	A4069002	2018-04	2020-04
Cable	-	-	A5329444	2019-12	2020-12
Cable	-	-	A5329876	2018-11	2019-11
Cable			A5326368	2018-12	2019-12
Cable	-	-	A5329416	2018-12	2019-12

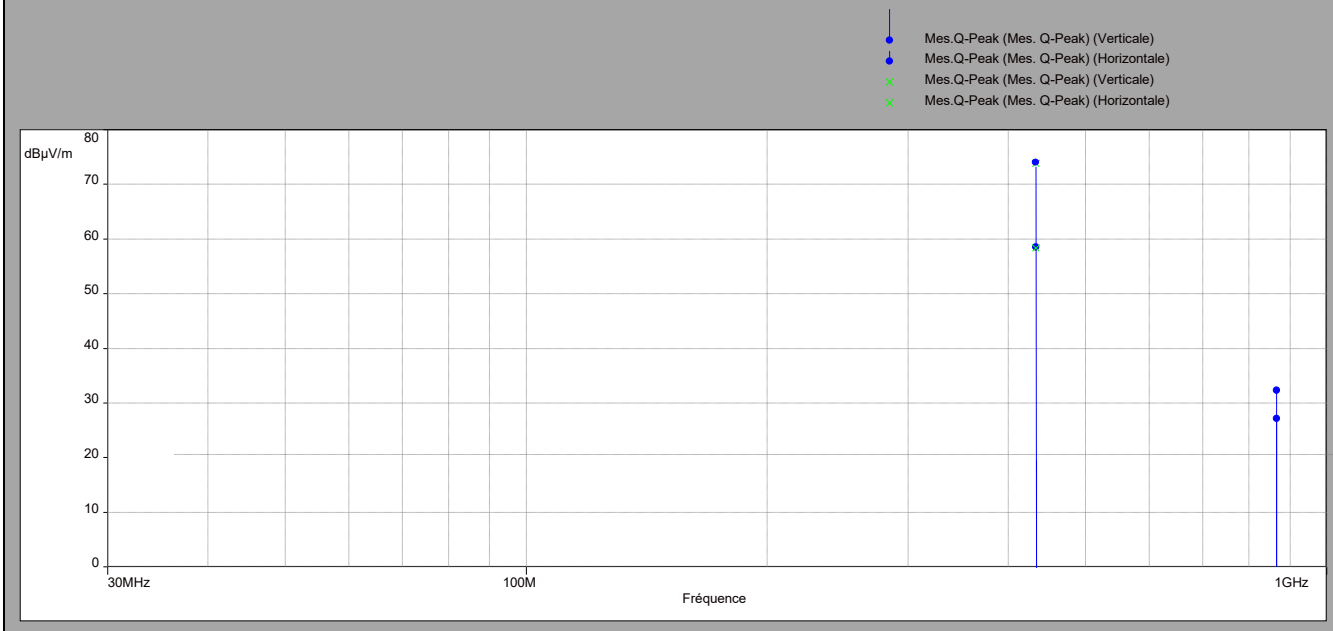
Note: In our quality system, the test equipment calibration due is more & less 2 months

7.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

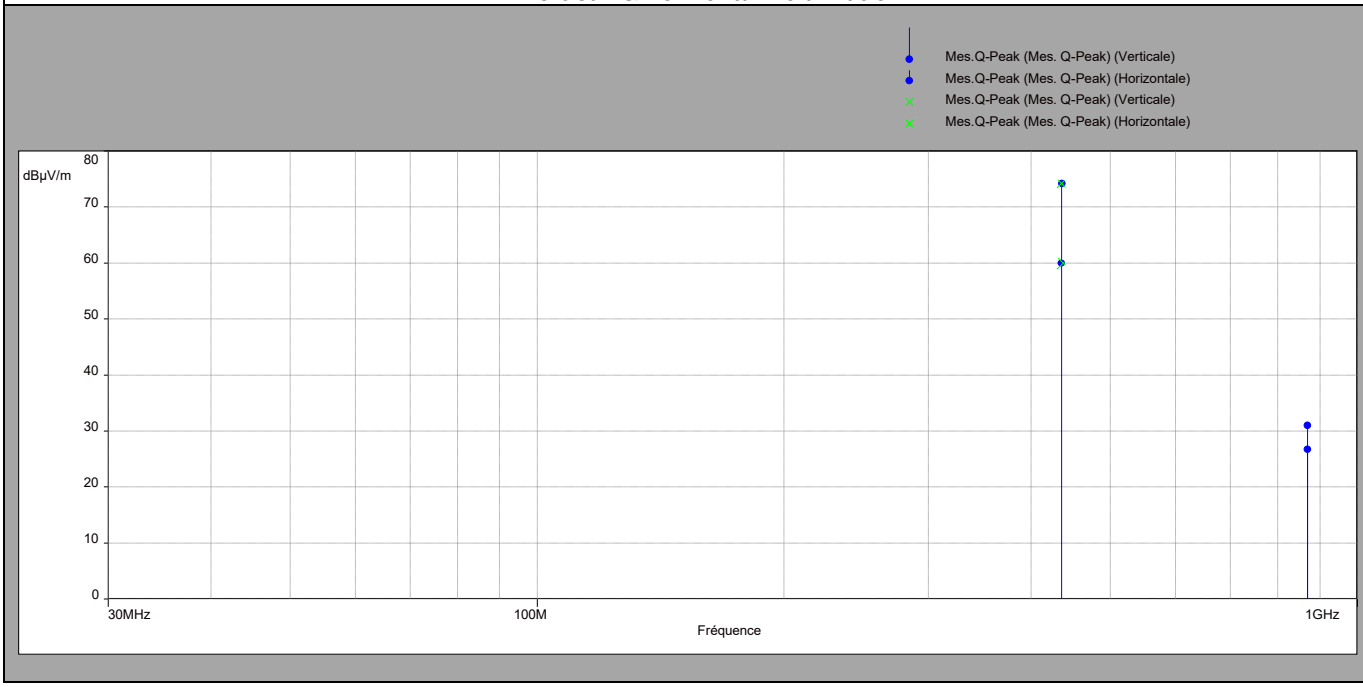
☑ None ☐ Divergence:

7.6. RESULTS

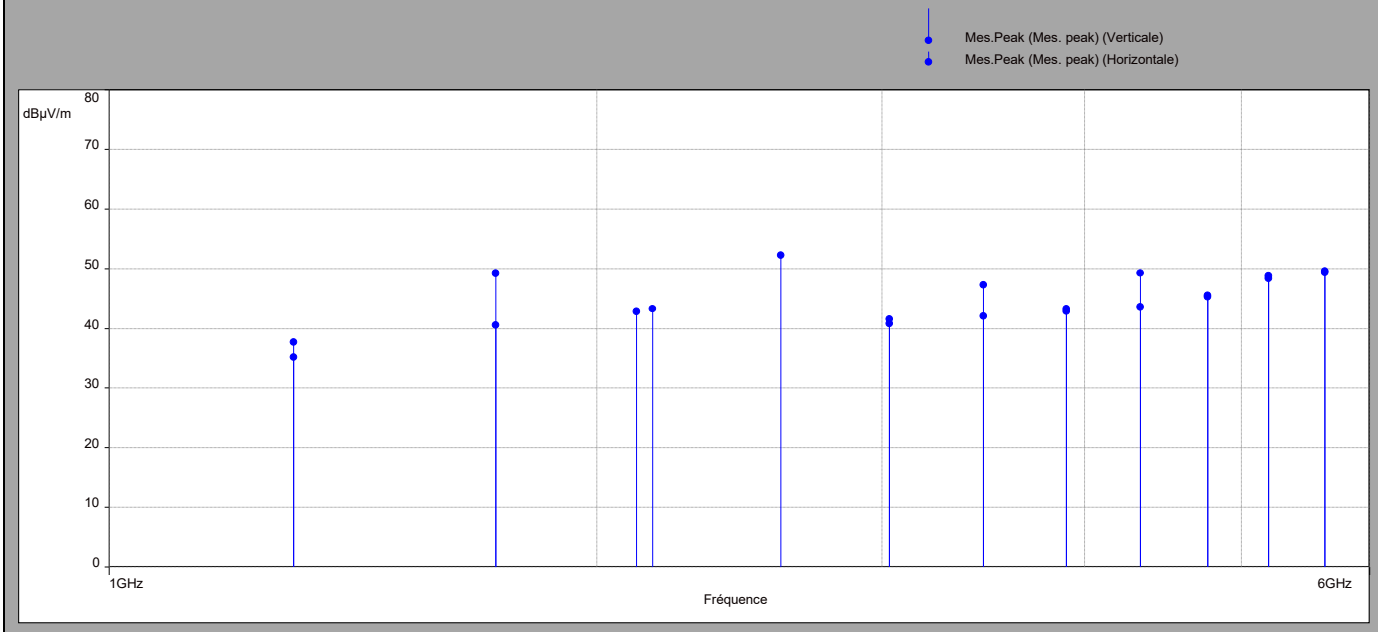
30MHz to 1GHz
Cmin
Vertical & Horizontal Polarization



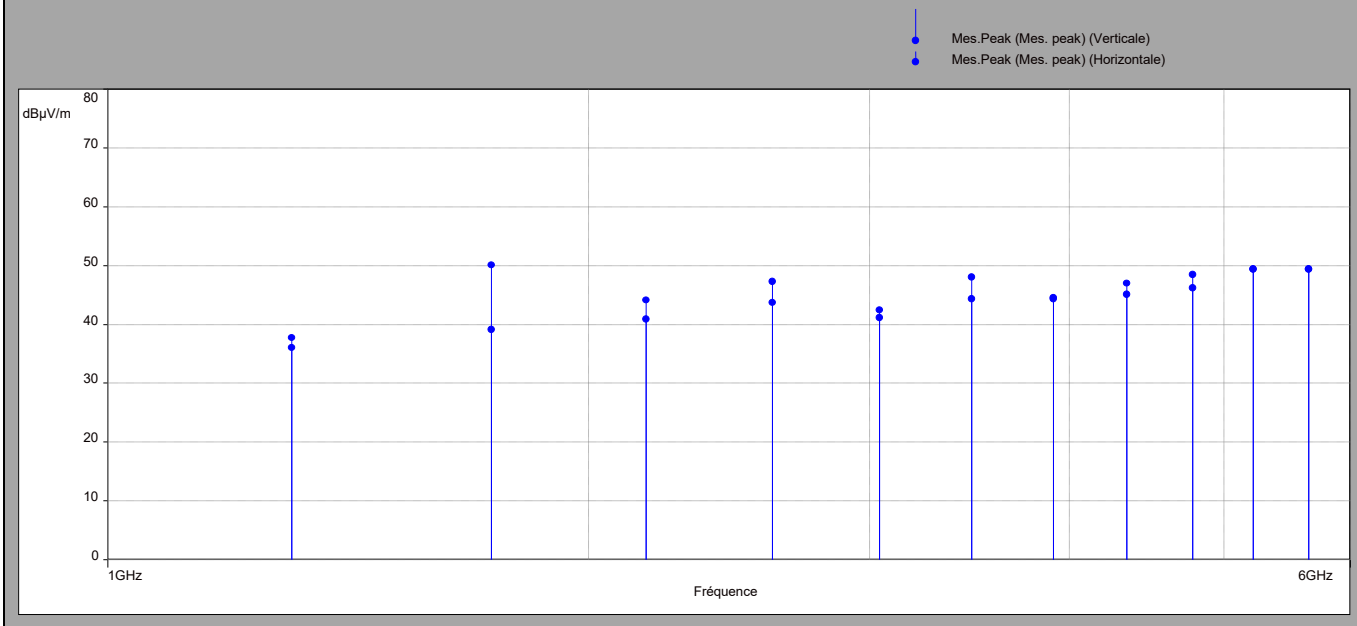
30MHz to 1GHz
Cmax
Vertical & horizontal Polarization



Above 1GHz
Cmin
Vertical & horizontal Polarization



Cmax
Vertical & horizontal Polarization



Cmin					
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**Peak Level – Duty cycle Factor (dBµV/m)**	**FCC Limit (dBµV/m)**	**Margin (dB)**
Vertical	433.2	58.3	-	83.3	25
Horizontal	433.2	73.8	-	83.3	9,5
Vertical	866.4	27.2	-	63.3	36,1
Horizontal	866.4	32.3	-	63.3	31
Vertical	1299.6	35.2	-	63.3	28,1
Horizontal	1299.6	37.7	-	63.3	25,6
Vertical	1732.8	40.5	-	63.3	22,8
Horizontal	1732.8	49.2	-	63.3	14,1
Vertical	2116	42.9	-	63.3	20,4
Horizontal	2116	42.2	-	63.3	21,1
Vertical	2599.2	52.7	-	63.3	10,6
Horizontal	2599.2	43.2	-	63.3	20,1
Vertical	3032.4	41.5	-	63.3	21,8
Horizontal	3032.4	40.8	-	63.3	22,5
Vertical	3465.6	47.3	-	63.3	16
Horizontal	3465.6	42	-	63.3	21,3
Vertical	3898.8	43.3	-	63.3	20
Horizontal	3898.8	42.9	-	63.3	20,4
Vertical	4332	49.3	-	63.3	14
Horizontal	4332	43.6	-	63.3	19,7
Vertical	4765.2	45.2	-	63.3	18,1
Horizontal	4765.2	45.5	-	63.3	17,8
Vertical	5198.4	48.4	-	63.3	14,9
Horizontal	5198.4	48.8	-	63.3	14,5
Vertical	5631.6	49.4	-	63.3	13,9
Horizontal	5631.6	49.5	-	63.3	13,8

Cmax					
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**Peak Level – Duty cycle Factor (dBµV/m)**	**FCC Limit (dBµV/m)**	**Margin (dB)**
Vertical	434.6	59.6	-	83.3	23,7
Horizontal	434.6	74	-	83.3	9,3
Vertical	869.2	26.7	-	63.3	36,6
Horizontal	869.2	31	-	63.3	32,3
Vertical	1303.8	36.1	-	63.3	27,2
Horizontal	1303.8	37.8	-	63.3	25,5
Vertical	1738.4	39.2	-	63.3	24,1
Horizontal	1738.4	50.2	-	63.3	13,1
Vertical	2173	44.2	-	63.3	19,1
Horizontal	2173	40.9	-	63.3	22,4
Vertical	2606.7	43.7	-	63.3	19,6
Horizontal	2606.7	47.2	-	63.3	16,1
Vertical	3042.2	42.5	-	63.3	20,8
Horizontal	3042.2	41.2	-	63.3	22,1
Vertical	3476.8	48	-	63.3	15,3
Horizontal	3476.8	44.3	-	63.3	19
Vertical	3911.4	44.6	-	63.3	18,7
Horizontal	3911.4	44.3	-	63.3	19
Vertical	4346	47	-	63.3	16,3
Horizontal	4346	45.1	-	63.3	18,2
Vertical	4780.6	48.4	-	63.3	14,9
Horizontal	4780.6	46.2	-	63.3	17,1
Vertical	5215.2	49.4	-	63.3	13,9
Horizontal	5215.2	49.4	-	63.3	13,9
Vertical	5649.8	49.4	-	63.3	13,9
Horizontal	5649.8	49.4	-	63.3	13,9

7.7. CONCLUSION

Field strength of fundamental & Field strength of harmonics measurement performed on the sample of the product **BODYCAP** P022 **(capsule e-Celsius Médical)**, SN: **-**, in configuration and description presented in this test report, show levels **compliant** to the **PART 15.231 & RSS 210 ISSUE 10** limits.

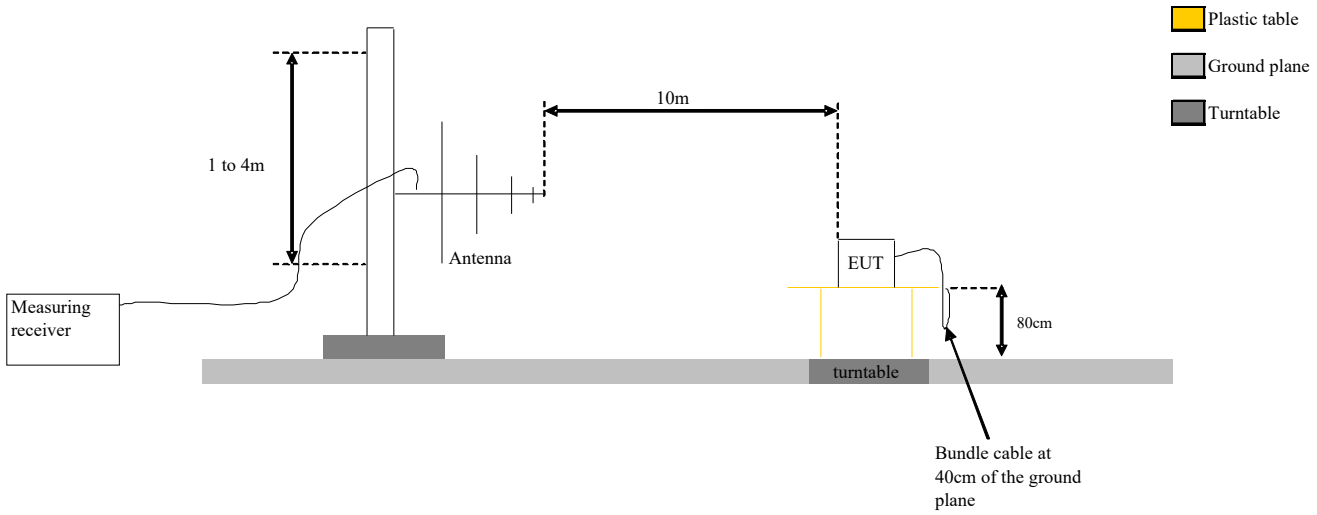
8. UNWANTED EMISSIONS IN RESTRICTED FREQUENCY BANDS

8.1. TEST CONDITIONS

Test performed by	: Laurent DENEUX
Date of test	: December 3, 2019
Ambient temperature	: 20 °C
Relative humidity	: 47 %

8.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013).
Test is performed in parallel, perpendicular and ground parallel axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m. The EUT is placed **on an open area test site**. Distance between measuring antenna and the EUT is **3m**.
Test is performed in horizontal (H) and vertical (V) polarization with **bilog** between 30MHz & 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz. The EUT is placed **on an open area test site** above 1GHz and **on an open area test site** from 30MHz to 1GHz. Distance between measuring antenna and the EUT is **10m**.



Test Set up for radiated measurement in open area test site

Photograph for Unwanted Emission in restricted frequency bands

Photograph for Unwanted Emission in restricted frequency bands

Photograph for Unwanted Emission in restricted frequency bands

8.3. 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

8.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Open test site	LCIE	-	F2000400	2019-06	2020-06
EMI Test Receiver	ROHDE & SCHWARZ	ESIB26	A2642021	2018-10	2020-10
Bilog antenna	CHASE	CBL 6112A	C2040040	2019-06	2020-06
Horn antenna	EMCO	3115	C2042016	2019-06	2020-06
Preamplifier	HEWLETT PACKARD	8449B	A4069002	2018-04	2020-04
loop antenna	RHODE & SCHWARZ	HFH2-Z2	C2040007	2018-11	2020-11
Cable	-	-	A5329444	2019-12	2020-12
Cable	-	-	A5329876	2018-11	2019-11
Cable			A5326368	2018-12	2019-12
Cable	-	-	A5329416	2018-12	2019-12

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

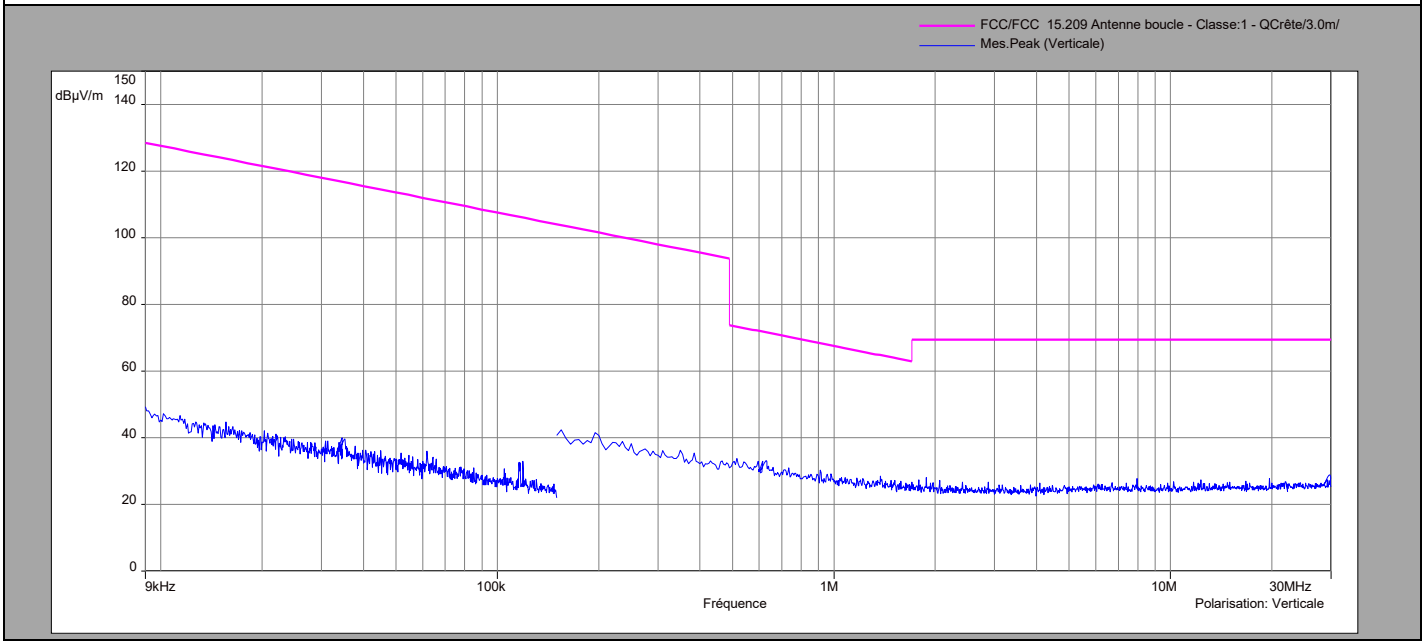
8.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☑ None ☐ Divergence:

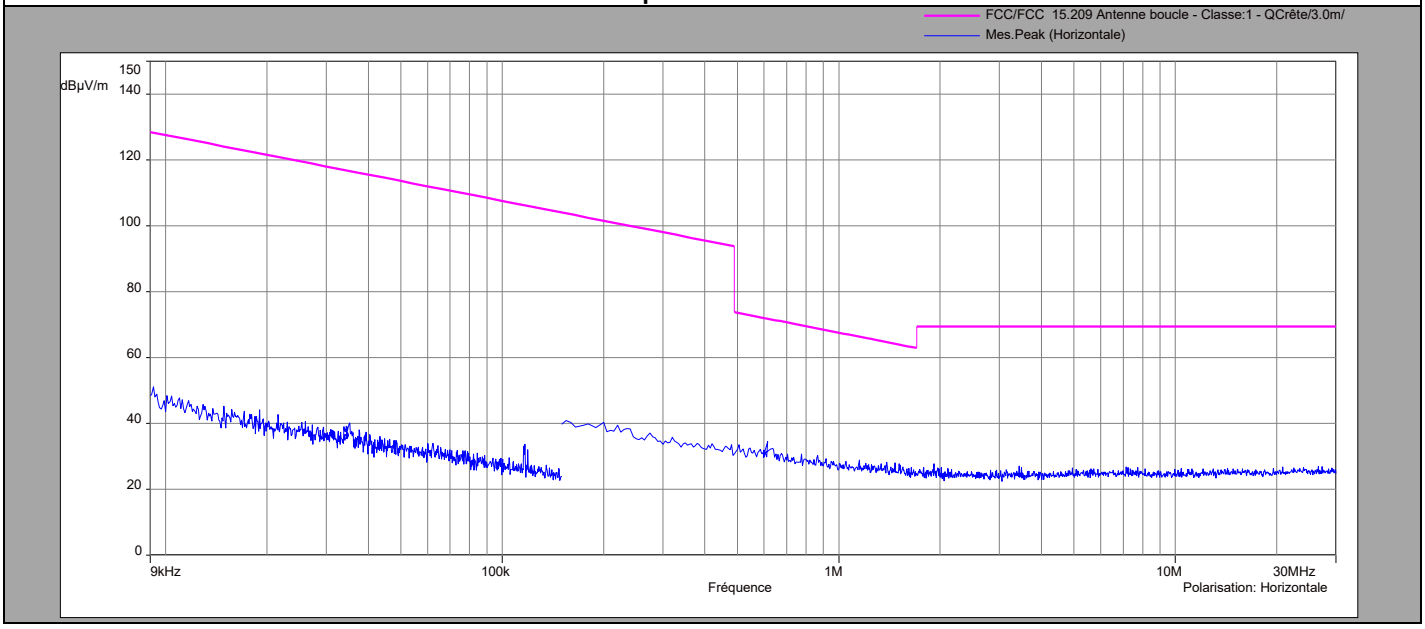
8.6. RESULTS

9kHz to 30MHz

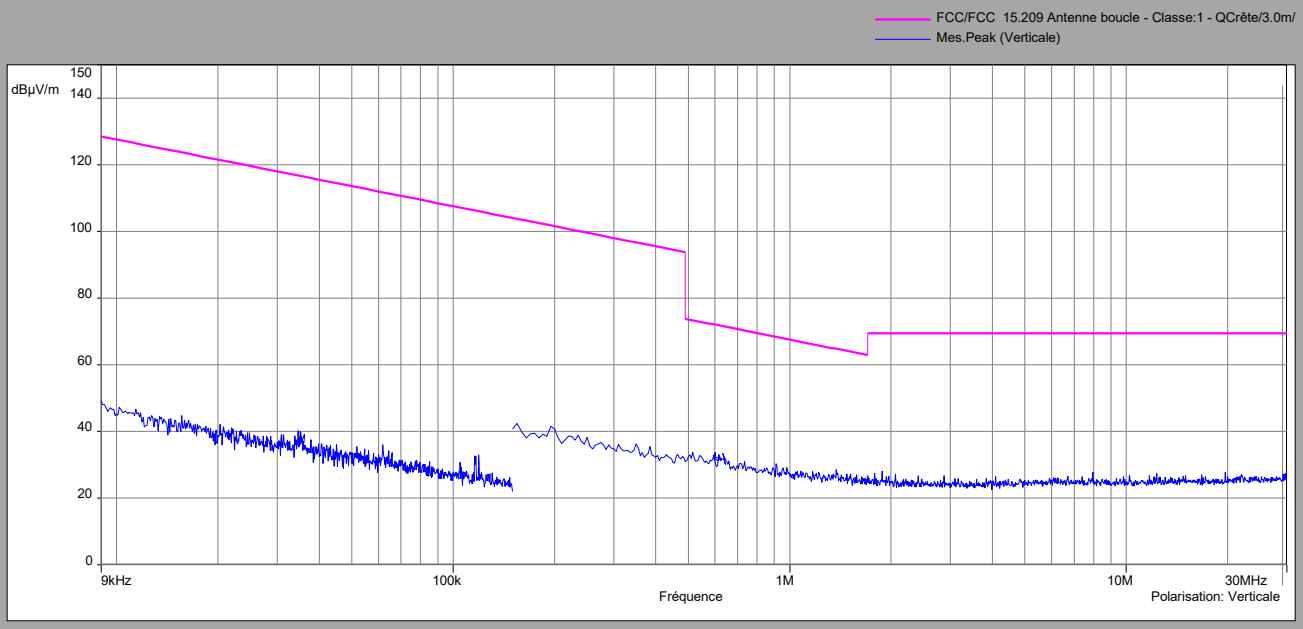
Parallel Axis



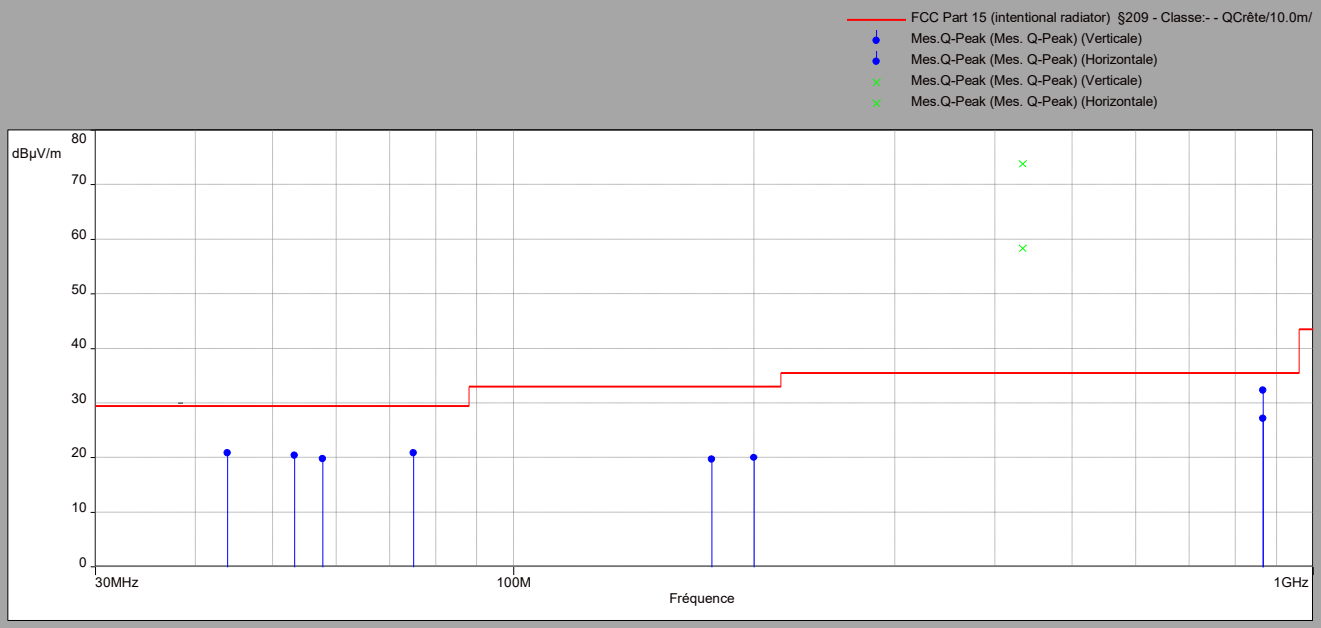
Perpendicular Axis



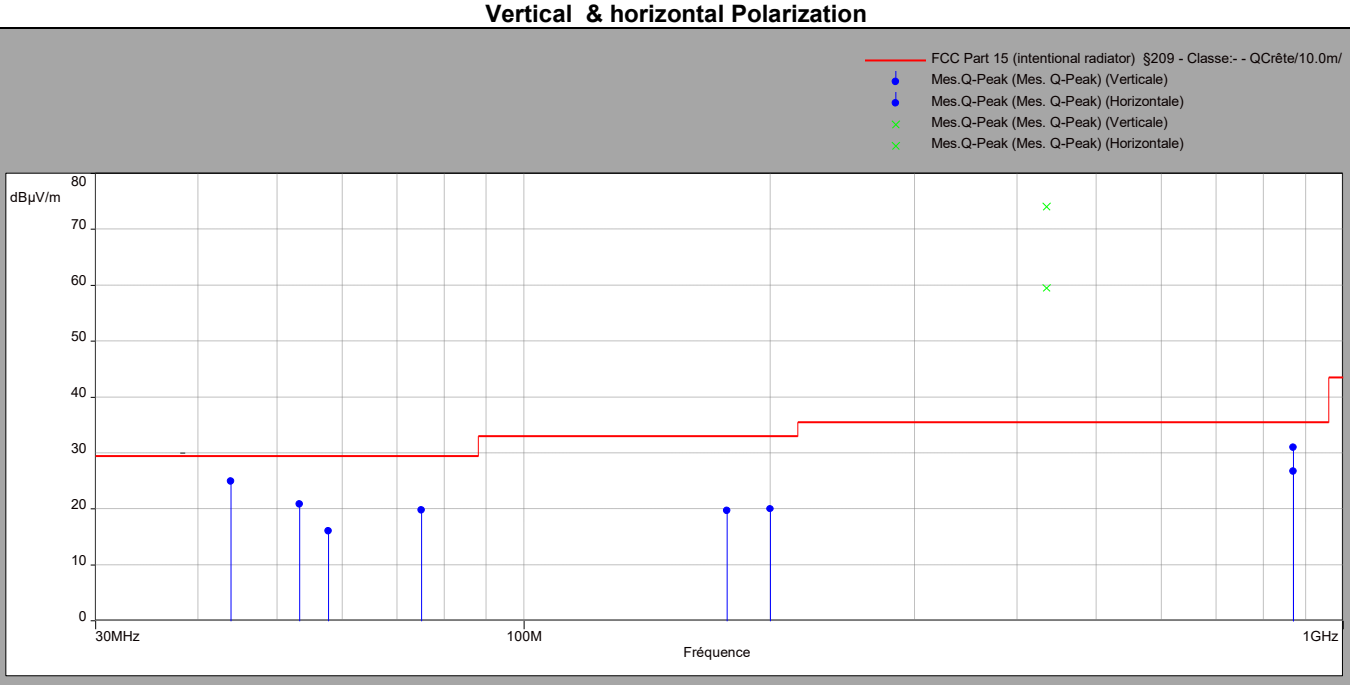
Ground Parallel Axis



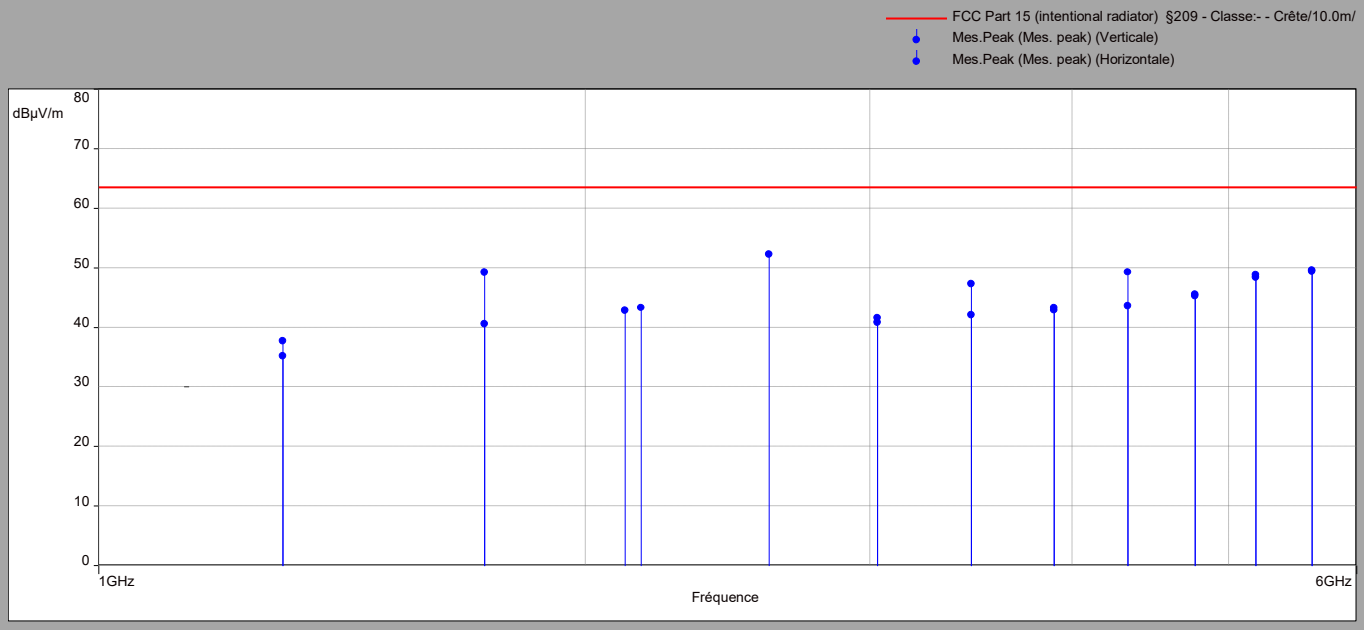
30MHz to 1GHz
Cmin
Vertical & horizontal Polarization



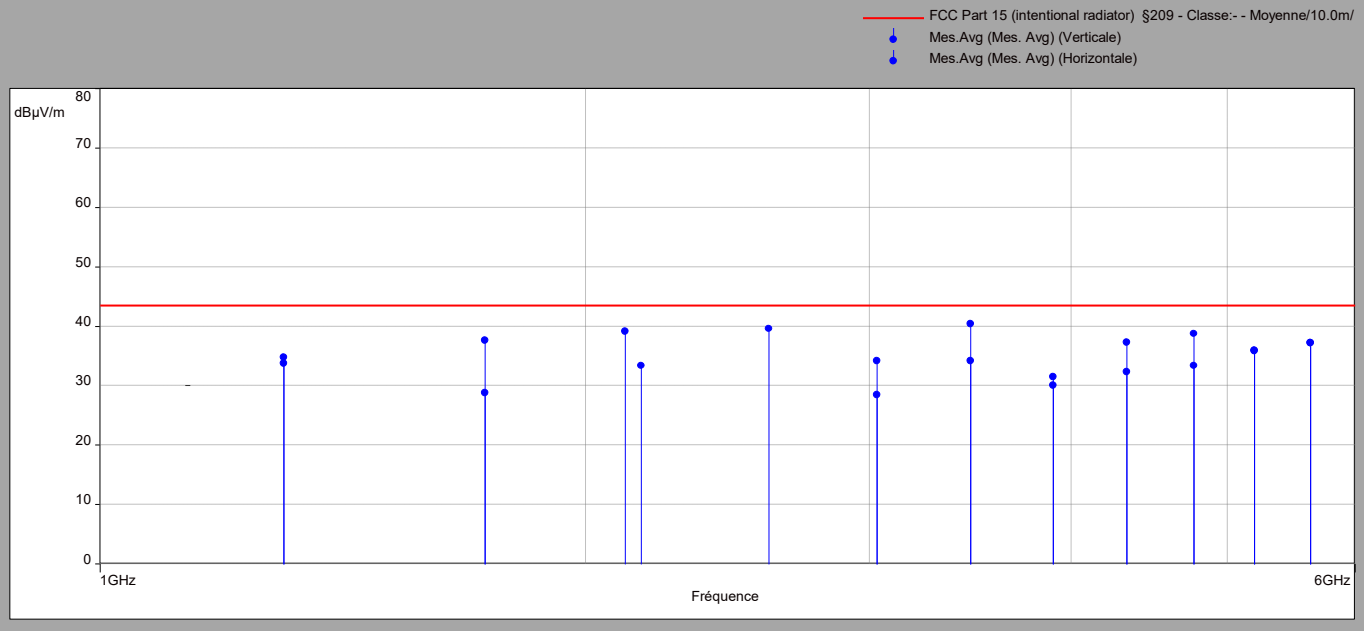
30MHz to 1GHz
Cmax
Vertical & horizontal Polarization



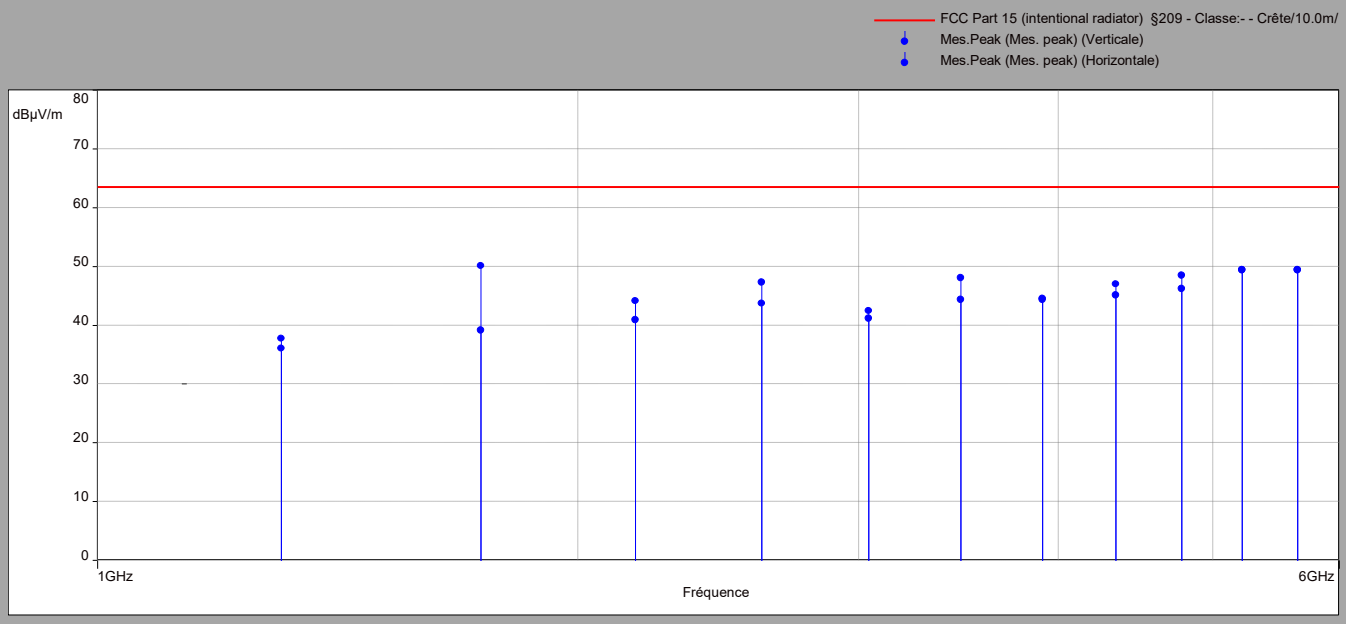
Above 1GHz
Cmin
Vertical & horizontal Polarization (Peak measurement)



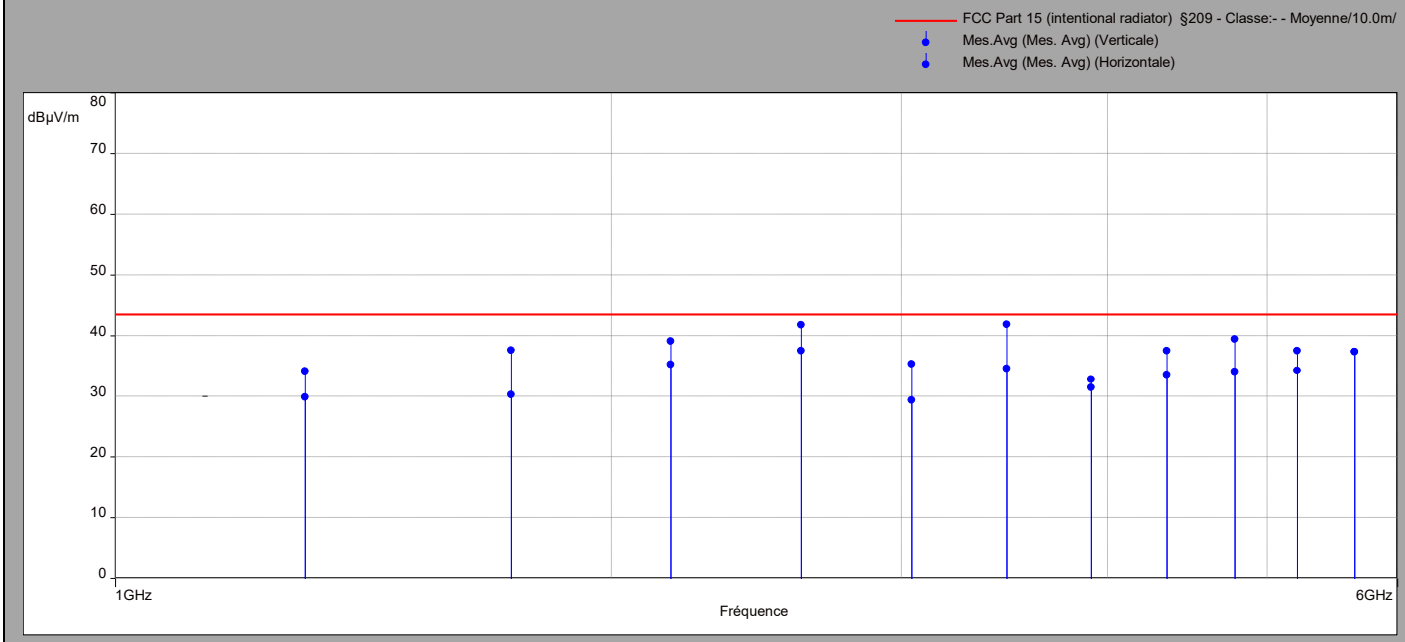
Vertical & Horizontal polarization (average value)



Above 1GHz
Cmax
Vertical & horizontal Polarization (Peak measurement)



Vertical & Horizontal polarization (average value)



Cmin/Cmax

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

Cmin

30MHz to 1GHz					
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dBµV/m)**
Vertical	43.9	-	20.8	30	9.2
Vertical	53.2	-	20.4	30	9.6
Vertical	57.7	-	19.8	30	10.2
Vertical	75	-	20.9	30	9.1
Vertical	177.1	-	19.7	30	10.3
Vertical	200	-	20	30	10

Cmax

30MHz to 1GHz					
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dBµV/m)**
Vertical	43.9	-	24.8	30	5.2
Vertical	53.2	-	20.8	30	9.2
Vertical	57.7	-	16	30	14
Vertical	75	-	19.7	30	10.3
Vertical	177.1	-	19.6	30	10.4
Vertical	200	-	20	30	10

Cmin

Above 1GHz						
Cmin						
Polarization	**Frequency (MHz)**	**Duty cycle correction (dB)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Limit (dBµV/m)**
Vertical	1299.6	-	34,79	43,5	35,19	63,5
Vertical	2116	-	39,12	43,5	42,87	63,5
Vertical	2599.2	-	39,67	43,5	52,27	63,5
Vertical	3465.6	-	40,4	43,5	47,27	63,5
Vertical	4765.2	-	38,76	43,5	45,22	63,5
Horizontal	1732.8	-	37,59	43,5	49,25	63,5
Horizontal	5631.6	-	37,18	43,5	49,55	63,5

Cmax

Above 1GHz						
Cmax						
Polarization	**Frequency (MHz)**	**Duty cycle correction (dB)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Limit (dBµV/m)**
Vertical	2173	-	39,04	43,5	44,17	63,5
Vertical	2607.7	-	41,75	43,5	43,75	63,5
Vertical	3476.8	-	41,78	43,5	48,02	63,5
Vertical	4780.6	-	39,36	43,5	48,44	63,5
Vertical	5215.2	-	37,4	43,5	49,37	63,5
Horizontal	1738.4	-	37,51	43,5	50,18	63,5
Horizontal	5649.8	-	37,32	43,5	49,38	63,5

8.7. CONCLUSION

Unwanted Emission in restricted frequency bands measurement performed on the sample of the product **BODYCAP** P022 **(capsule e-Celsius Médical)**, SN: **-**, in configuration and description presented in this test report, show levels **compliant** to the **PART 15.231 & RSS 210 ISSUE 10** limits.

9. UNCERTAINTIES CHART

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

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