



**L C I E**

## TEST REPORT

Number  
Composition of document

FCC Registration Number  
Industry Canada Number

### Standards

### Issued to

### Apparatus under test

Trade mark  
Manufacturer  
Type  
Serial number  
IC  
FCC ID

### Test date

### Tests performed by

### Test site

### Date of issue

## RADIO

126335-653105A  
30 pages

166175 (FAR)  
6230B

47 CFR Part 15.225  
RSS-210, Issue 8  
RSS-Gen, Issue 3

INGENICO  
28-32 boulevard de Grenelle  
75015 PARIS

Payment terminal  
INGENICO  
INGENICO  
ISC250-V4  
13345SC00000215  
2586D-ISC250V4CL  
XKB-ISC250V4CL

February 2014

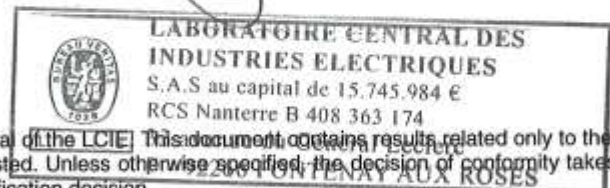
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Fontenay aux Roses

2014/03/11

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## 1. TEST PROGRAM

- References**

Standards:

- 47 CFR Part 15C
- RSS-210
- RSS-Gen
- CISPR 16-4-2
- ANSI C63.4

Standard Section	Test Description	TEST RESULT - Comments
RSS-Gen § 4.6.1	Occupied Bandwidth	PASS (No Limit applicable)
CFR 47 § 15.225 (e) RSS-210 § A2.6	Frequency tolerance	PASS
CFR 47 § 15.207 RSS-210 § 2.5.1 RSS Gen § 7.2.4	AC Power Line Conducted Emissions	PASS
CFR 47 § 15.225 (a) (b) (c) RSS-210 § A2.6 (a) (b) (c)	Field strength within the band 13.110-14.010 MHz	PASS
CFR 47 § 15.209 (a) CFR 47 § 15.225 (d) RSS-210 § A2.6 (d)	Field strength outside of the bands 13.110-14.010 MHz	PASS
RSS-Gen § 4.10	Receiver Radiated emissions	NA (Transceiver equipment. Include in Field strength test)

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 DESCRIPTION

### 2.1. HARDWARE & SOFTWARE IDENTIFICATION

- Equipment under test (EUT):



Front face



Rear face



Power supply PHIHONG



RFID card

Photograph of EUT

- Input/output:

- Input Power
- Usb



• **Equipment information:**

- External antenna connector: No
- Frequency band allocated: 13.553MHz to 13.567MHz
- Frequency band used: 13.56MHz
- Modulation: Permanent emission-reception
- Number of channel: 1
- Antenna type: Integral
- Stand By mode: No
- Type of power source: External power supply
- Power supply:
  - Vmin : 102 V / 60 Hz
  - Vnom: 120 V / 60 Hz
  - Vmax : 138 V / 60 Hz
- Temperature range:
  - Tmin: -30°C (IC) & -20°C (FCC)
  - Tnom: 20°C
  - Tmax: +50°C

**2.2. EUT INTERNAL OPERATING FREQUENCIES**

Frequency (MHz)	Description	Frequency (MHz)	Description
12	Thunder3 quartz	25	Ethernet PoE Quartz
0.032768 + 18.432	Booster3 processor quartz	27.12	Contactless microcontroller quartz
24	Video oscillator, RS485 quartz & Hub USB quartz		

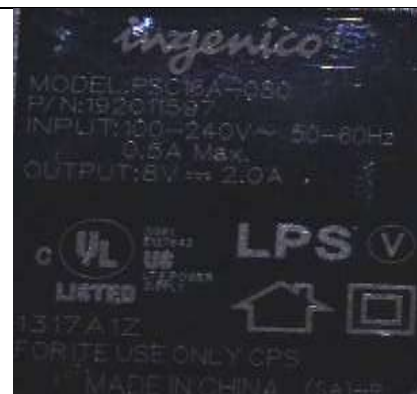
**2.3. RUNNING MODE**

The EUT is set in the following modes during tests:  
-Permanent emission-reception with modulation

**2.4. EQUIPEMENT LABELLING**



Labelling of Payment Terminal



Labelling of Power Supply  
PHIHONG

**2.5. EQUIPMENT MODIFICATIONS**

No equipment modification has been necessary during testing.



### 3. OCCUPIED BANDWIDTH

#### 3.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU  
Date of test : 21/02/2014  
Ambient temperature : 21°C  
Relative humidity : 33%

#### 3.2. TEST SETUP

The Equipment Under Test is installed on a table and set in permanent emission with modulation. Measurement is performed with a spectrum analyzer on the EUT with a test fixture. The product has been tested according to the RSS-GEN § 4.6.1 reference method.

##### **Spectrum Analyzer Setting:**

Center frequency= 13.56MHz  
Span= At least twice the emission spectrum  
Amplitude= Sufficient to observe the signal amplitude  
RBW= 1% of span  
VBW= 3\*RBW  
Sweep= Auto  
Trace= Max Hold  
Detector= Peak  
Occupied Bandwidth 99% activated



Photograph for Occupied Bandwidth



Photograph for Occupied Bandwidth

### 3.3. RESULTS

Temperature	Tnom
Voltage	Vnom
Frequency (MHz)	13.56
Occupied Bandwidth (MHz)	1,706

See graphics in annex

Result: **PASS**

Limit: → None



## 4. FREQUENCY TOLERANCE

### 4.1. TEST CONDITIONS

Test performed by : Armand MAHOUNGOU  
Date of test : 21/02/2014  
Ambient temperature : 21°C  
Relative humidity : 34%

### 4.2. TEST SETUP

The Equipment Under Test is installed on a table and set in permanent emission with modulation. Measurement is performed with a spectrum analyzer on the EUT with a test fixture.

#### **Spectrum Analyzer Setting:**

Center frequency= 13.56MHz  
Span= At least twice the emission spectrum  
Amplitude= Sufficient to observe the signal amplitude  
RBW= 1% of span  
VBW= 3\*RBW  
Sweep= Auto  
Trace= Max Hold  
Detector= Peak



Photograph for Frequency tolerance





Photograph for Frequency tolerance

#### 4.3. RESULTS

Temperature	Tmin (IC)	Tmin (FCC)	Tnom	Tmax
<b>Voltage:</b>	<b>Vmin</b>			
Frequency (MHz)	13,559558	13,559561	13,5595509	13,5595507
Frequency Drift (%)	0,0002	0,0002	0,0001	0,0001
<b>Voltage:</b>	<b>Vnom</b>			
Frequency (MHz)	13,5595506	13,559555	13,5595351	13,559555
Frequency Drift (%)	0,0001	0,0001	0	0,0001
<b>Voltage:</b>	<b>Vmax</b>			
Frequency (MHz)	13,559556	13,5595552	13,5595562	13,5595556
Frequency Drift (%)	0,0002	0,0001	0,0002	0,0002

Result: **PASS**

Limit: → +/- 0.01%



## 5. AC POWER LINE CONDUCTED EMISSIONS

### 5.1. TEST CONDITIONS

Test performed by : Christophe Ferreira  
Date of test : 2014/02/12  
Ambient temperature : 19°C  
Relative humidity : 46%

### 5.2. TEST SETUP

The product has been tested according to ANSI C63.4-(2003) method. The EUT is placed on the ground reference plane, at 80cm from the LISN. The distance between the EUT and the vertical ground plane is 40cm. Auxiliaries are powered by another LISN. The cable has been shorted to 1meter length. The EUT is powered through the LISN. Measurement is made with a receiver in peak mode. This was followed by a Quasi-Peak, i.e. CISPR measurement for any strong signal. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary. The LISN (measure) is  $50\Omega / 50\mu\text{H}$ . Interconnecting cables and equipment's were moved to position that maximized emission.



Photograph for AC Power Line Conducted Emissions (Rear view)



Photograph for AC Power Line Conducted Emissions (Global view)



### 5.3. RESULTS

#### Phase Line

Frequency (MHz)	Peak Level (dB $\mu$ V/m)	Quasi-Peak Level (dB $\mu$ V/m)	Quasi-Peak Limit (dB $\mu$ V/m)	Average Level (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)
0.19	60.1	-	63.8	39.8	53.8
0.24	54.8	-	62.1	36.1	52.1
0.3	53.5	-	60	38	50
0.37	52.2	-	58.6	37	48.6
13.35	54.3	-	60	32.3	50

#### Neutral Line

Frequency (MHz)	Peak Level (dB $\mu$ V/m)	Quasi-Peak Level (dB $\mu$ V/m)	Quasi-Peak Limit (dB $\mu$ V/m)	Average Level (dB $\mu$ V/m)	Average Limit (dB $\mu$ V/m)
0.19	57.6	-	63.8	38.4	53.8
0.24	55.5	-	62.1	36	52.1
0.3	54.4	-	60	37.9	50
0.36	52.1	-	68.7	35.9	58.7
13.54	55.5	-	60	30.8	50

See annex for graphics

Result: **PASS**

Limit: → **Quasi-Peak**  
 0,15kHz to 0,5MHz: 66dB $\mu$ V/m to 56dB $\mu$ V/m\*  
 0,5MHz to 5MHz: 56dB $\mu$ V/m  
 5MHz to 30MHz: 60dB $\mu$ V/m

**Average**  
 0,15kHz to 0,5MHz: 56dB $\mu$ V/m to 46dB $\mu$ V/m\*  
 0,5MHz to 5MHz: 46dB $\mu$ V/m  
 5MHz to 30MHz: 50dB $\mu$ V/m

\*Decreases with the logarithm of the frequency



## 6. FIELD STRENGTH WITHIN THE BAND 13.110-14.010MHZ

### 6.1. TEST CONDITIONS

Test performed by : Christophe Ferreira  
Date of test : 2014/02/12  
Ambient temperature : 19°C  
Relative humidity : 46%

### 6.2. TEST SETUP

The product has been tested according to ANSI C63.4 (2003). The EUT is placed in a semi-anechoic chamber. Distance between measuring antenna and the EUT is 3m. Test is performed in parallel and perpendicular axis with a loop antenna. Measurement bandwidth was 9kHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m.



Photograph for Field strength within the band 13.110-14.010MHz



### 6.3. RESULTS

- Characterization in a semi anechoic chamber:**

#### Parallel Axis

Frequency (MHz)	Peak Level (dB $\mu$ V/m) (3m)	QPeak Level (dB $\mu$ V/m) (3m)	Limit (dB $\mu$ V/m) (3m)
Below 13.110	48.4	-	69.5
13.110 to 13.410	58.3	-	80.5
13.410 to 13.553	63.2	45.3	90.5
13.553 to 13.567	-	72	124
13.567 to 13.710	60.1	43.7	90.5
13.710 to 14.010	57.5	-	80.5
Above 14.010	47.5	-	69.5

#### Perpendicular Axis

Frequency (MHz)	Peak Level (dB $\mu$ V/m) (3m)	QPeak Level (dB $\mu$ V/m) (3m)	Limit (dB $\mu$ V/m) (3m)
Below 13.110	36.1	-	69.5
13.110 to 13.410	40	-	80.5
13.410 to 13.553	45.8	-	90.5
13.553 to 13.567	-	51.2	124
13.567 to 13.710	42.3	-	90.5
13.710 to 14.010	35.3	-	80.5
Above 14.010	35.7	-	69.5

See annex for graphics

Result: **PASS**

**Limit:** → Below 13.110MHz: 69.5dB $\mu$ V/m (3m) or 29.5dB $\mu$ V/m (30m)  
 13.110MHz to 13.410MHz: 106 $\mu$ V/m (30m) or 80.5dB $\mu$ V/m (3m)  
 13.410MHz to 13.553MHz: 334 $\mu$ V/m (30m) or 90.5dB $\mu$ V/m (3m)  
 13.553MHz to 13.567MHz: 15848 $\mu$ V/m (30m) or 124dB $\mu$ V/m (3m)  
 13.567MHz to 13.710MHz: 334 $\mu$ V/m (30m) or 90.5dB $\mu$ V/m (3m)  
 13.710MHz to 14.010MHz: 106 $\mu$ V/m (30m) or 80.5dB $\mu$ V/m (3m)  
 Above 14.010MHz: 69.5dB $\mu$ V/m (3m) or 29.5dB $\mu$ V/m (30m)



## 7. FIELD STRENGTH OUTSIDE OF THE BANDS 13.110-14.010 MHz

### 7.1. TEST CONDITIONS

Test performed by : Christophe Ferreira  
Date of test : 2014/02/12  
Ambient temperature : 19°C  
Relative humidity : 46%

### 7.2. TEST SETUP

The product has been tested according to ANSI C63.4 (2003). The EUT is placed in a semi-anechoic chamber. Distance between measuring antenna and the EUT is 3m.

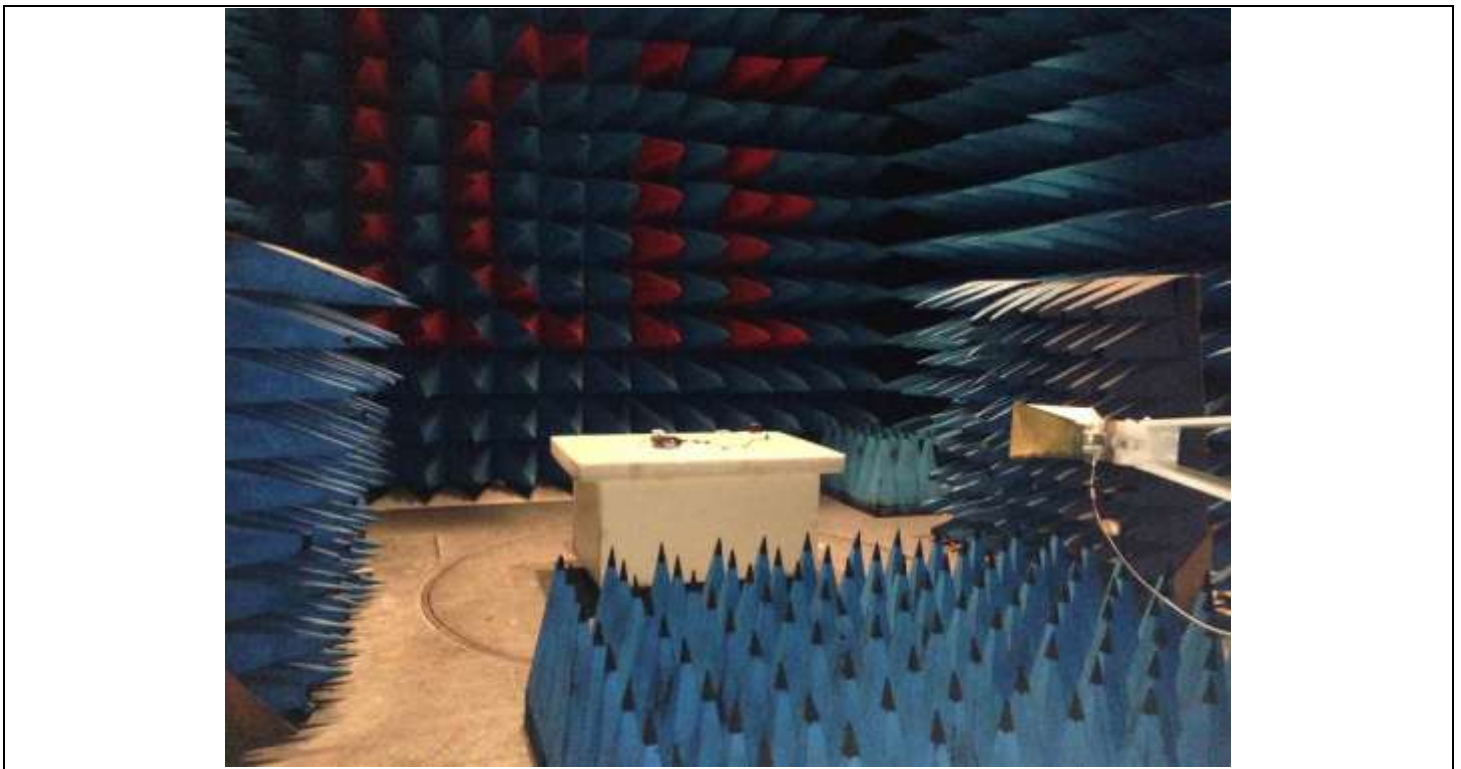
Test is performed in parallel and perpendicular axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m.

Test is performed in horizontal (H) and vertical (V) polarization with bilog antenna 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.





Photograph for Field strength outside of the bands 13.110-14.010 MHz



Photograph for Field strength outside of the bands 13.110-14.010 MHz





### 7.3. RESULTS

- **Characterization in a semi anechoic chamber (9kHz to 10GHz):**

#### Vertical Polarization

Below 1GHz

Frequency (MHz)	Peak Level (dBµV/m)	QPeak Level (dBµV/m)	Limit (dBµV/m)
91	30.1	-	43.5
154.5	31.9	-	43.5
231.3	30.6	-	46
616.7	34.7	-	46

Above 1GHz

Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)
1066	31.4	53.9	40.8	73.9
1200	29.3	53.9	40.4	73.9

#### Horizontal Polarization

Below 1GHz

Frequency (MHz)	Peak Level (dBµV/m)	QPeak Level (dBµV/m)	Limit (dBµV/m)
95.25	27.3	-	43.5
116.7	37.8	39.5	43.5
250	42.1	42.1	46
750	36.7	30.5	46

Above 1GHz

Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)
1067	27	53.9	40.3	73.9
1200	28.1	53.9	39.8	73.9

See annex for graphics

Result: **PASS**

**Limit:** → 9kHz to 0,490MHz:  $2400/F(\text{kHz})\mu\text{V/m}$  (300m) or  $(20\log(2400/F(\text{kHz}))+80)\text{dB}\mu\text{V/m}$  (3m) QPeak  
 0,490MHz to 1.705MHz:  $240000/F(\text{kHz})\mu\text{V/m}$  (30m) or  $(20\log(240000/F(\text{kHz}))+40)\text{dB}\mu\text{V/m}$  (3m) QPeak  
 1.705MHz to 30MHz:  $30\mu\text{V/m}$  (30m) or  $69.54\text{dB}\mu\text{V/m}$  (3m) QPeak  
 30MHz to 88MHz:  $100\mu\text{V/m}$  (3m) or  $40\text{dB}\mu\text{V/m}$  (3m) or  $29.5\text{dB}\mu\text{V/m}$  (10m) QPeak  
 88MHz to 216MHz:  $150\mu\text{V/m}$  (3m) or  $43,5\text{dB}\mu\text{V/m}$  (3m) or  $33\text{dB}\mu\text{V/m}$  (10m) QPeak  
 216MHz to 960MHz:  $200\mu\text{V/m}$  (3m) or  $46\text{dB}\mu\text{V/m}$  (3m) or  $35.5\text{dB}\mu\text{V/m}$  (10m) QPeak  
 960MHz to 1000MHz:  $500\mu\text{V/m}$  (3m) or  $54\text{dB}\mu\text{V/m}$  (3m) or  $43.5\text{dB}\mu\text{V/m}$  (10m) QPeak  
 Above 1000MHz:  $5012\mu\text{V/m}$  (3m) or  $74\text{dB}\mu\text{V/m}$  or  $63.5\text{dB}\mu\text{V/m}$  (10m) Peak  
 $500\mu\text{V/m}$  (3m) or  $54\text{dB}\mu\text{V/m}$  (3m) or  $43.5\text{dB}\mu\text{V/m}$  (10m) Average



## 8. TEST EQUIPMENT LIST

Frequency Tolerance & Occupied Bandwidth					
Apparatus	Trade Mark	Type	Registration number	Calibration date	Calibration due
RF Cable	-	CS3D 04	A5329422	-	-
Spectrum Analyser	ROHDE & SCHWARZ	FSL6	A4060032	2012/11	2014/11
Multimeter	ISO-TECH	IDM 91E	A1240253	2013/03	2014/03
Programmable AC/DC power supply	KIKUSUI	PCR500M	A7040079	2013/04	2014/04
Field strength outside of the bands 13.110-14.010 MHz					
Apparatus	Trade Mark	Type	Registration number	Calibration date	Calibration due
Semi anechoic chamber 11,8x8,1x9,5m	SIEPEL	C01	D3044008	2011/04	2014/04
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2013/03	2014/03
Cable	-	RF Cable	A5329261	2013/03	2014/03
Cable	CABLES	3.5MD/CSU528AA/3.5MD/4000	A5329374	2013/03	2014/03
Cable	CABLES	3.5MD/CSU528AA-TDINOX/3.5MD/7000	A5329459	2013/03	2014/03
Loop antenna	ROHDE & SCHWARZ	HFH2-Z2	C2040007	2013/12	2014/12
Bilog antenna	SCHWARZBECK	VULB 9160	C2040150	2013/03	2014/03
Preamplifier	LCIE		A7086012	2013/03	2014/03
Horn antenna	EMCO	3115	C2042018	2013/05	2014/05
Field strength within the band 13.110-14.010MHz					
Apparatus	Trade Mark	Type	Registration number	Calibration date	Calibration due
Semi anechoic chamber 11,8x8,1x9,5m	SIEPEL	C01	D3044008	2011/04	2014/04
Loop antenna	RHODE & SCHWARZ	HFH2-Z2	C2040007	2013/12	2014/12
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2013/03	2014/03
Cable	-	RF Cable	A5329261	2013/03	2014/03
Cable	CABLES	3.5MD/CSU528AA/3.5MD/4000	A5329374	2013/03	2014/03
Cable	CABLES	3.5MD/CSU528AA-TDINOX/3.5MD/7000	A5329459	2013/03	2014/03
AC Power Line Conducted Emissions					
Apparatus	Trade Mark	Type	Registration number	Calibration date	Calibration due
Semi anechoic chamber 11,8x8,1x9,5m	SIEPEL	C01	D3044008	2011/04	2014/04
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642010	2013/03	2014/03
V LISN	RHODE & SCHWARZ	ENV216	C2320162	2013/12	2014/12
Cable	-	RF Cable	A5329261	2013/03	2014/03
Cable	CABLES	3.5MD/CSU528AA/3.5MD/4000	A5329374	2013/03	2014/03
Cable	CABLES	3.5MD/CSU528AA-TDINOX/3.5MD/7000	A5329459	2013/03	2014/03



**9. UNCERTAINTIES CHART**

Kind of test	Measurement uncertainties (k=2) $\pm x(\text{dB}) / (\text{Hz})$	Limit for uncertainties $\pm y(\text{dB})$
<b>TRANSMITTER REQUIREMENTS</b>		
Radio frequency	$\pm 2 \cdot 10^{-8}$ Hz	$\pm 1 \cdot 10^{-7}$ Hz
RF Conducted power	$\pm 0.6$ dB	$\pm 1.5$ dB
Spurious emissions <ul style="list-style-type: none"> <li>• Frequency &lt; 1000 MHz</li> <li>• Frequency &gt; 1000 MHz</li> </ul>	$\pm 3.9$ dB $\pm 3.1$ dB	$\pm 6$ dB
Spurious in conduction	$\pm 1.6$ dB	$\pm 3$ dB
Temperature	$\pm 0.5^\circ\text{C}$	$\pm 1^\circ\text{C}$
Humidity	$\pm 2.5$ %	$\pm 10$ %



**10. ANNEX (GRAPHS)**

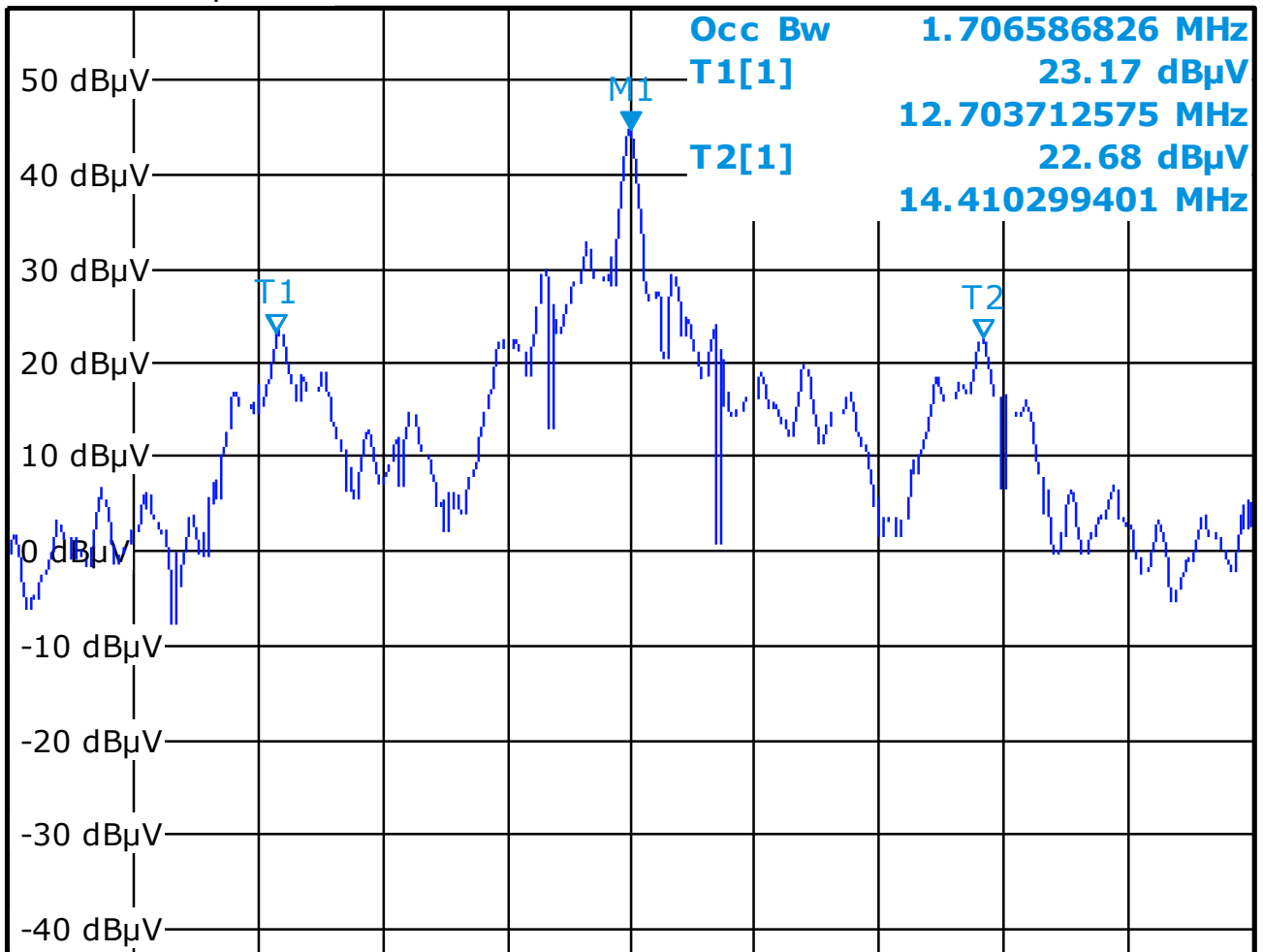
Occupied Bandwidth  
Temperature: Tnom  
Voltage: Vnom



Offs -67.6 dB      \* RBW 30 kHz  
\* Att 30 dB          VBW 100 kHz  
Ref 57.4 dBμV      \* SWT 430ms

**M1[1]**                      **44.82 dBμV**  
**13.56050000 MHz**  
**Occ Bw**                  **1.706586826 MHz**  
**T1[1]**                      **23.17 dBμV**  
**12.703712575 MHz**  
**T2[1]**                      **22.68 dBμV**  
**14.410299401 MHz**

1Pk  
View



**CF 13.56 MHz**

**Span 3.0 MHz**



AC power line conducted emissions  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Phase Line

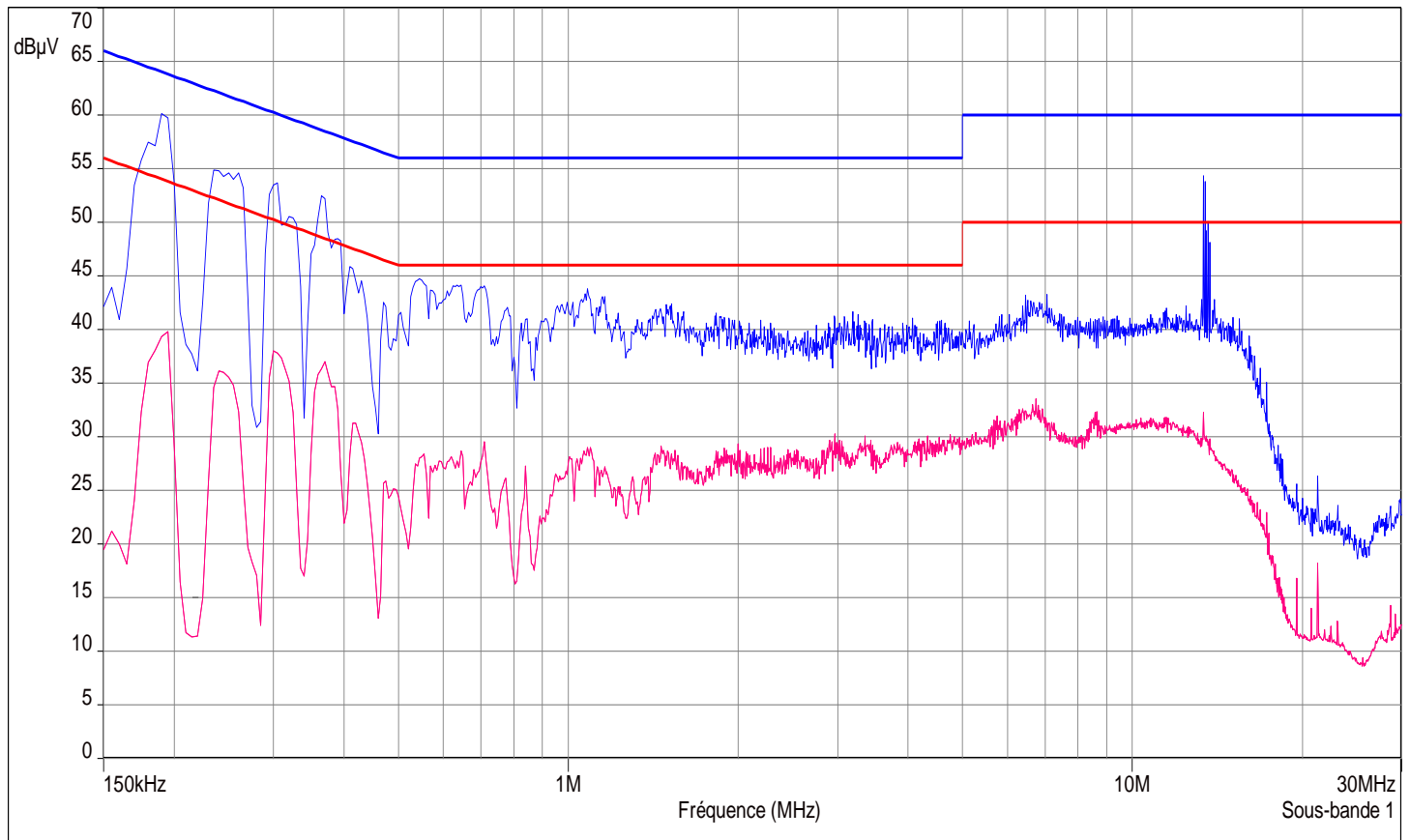
Description Sous-bande 1

Fréquences: 150 kHz - 30 MHz (Mode: Lin, Pas: 5 kHz)

Réglages: RBW: 9 kHz, VBW: Auto, Temps de mesure : 50 ms/Pts, Nombre de Balayages : 1, Preamp : Off, LN Preamp : Off, Preselecteur: On

Ligne:Phase 1

- FCC/FCC 15.109 - Classe:B - Moyenne/
- FCC/FCC 15.109 - Classe:B - QCrête/
- Mes.Peak (Phase 1)
- Mes.Avg (Phase 1)





AC power line conducted emissions  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Neutral Line

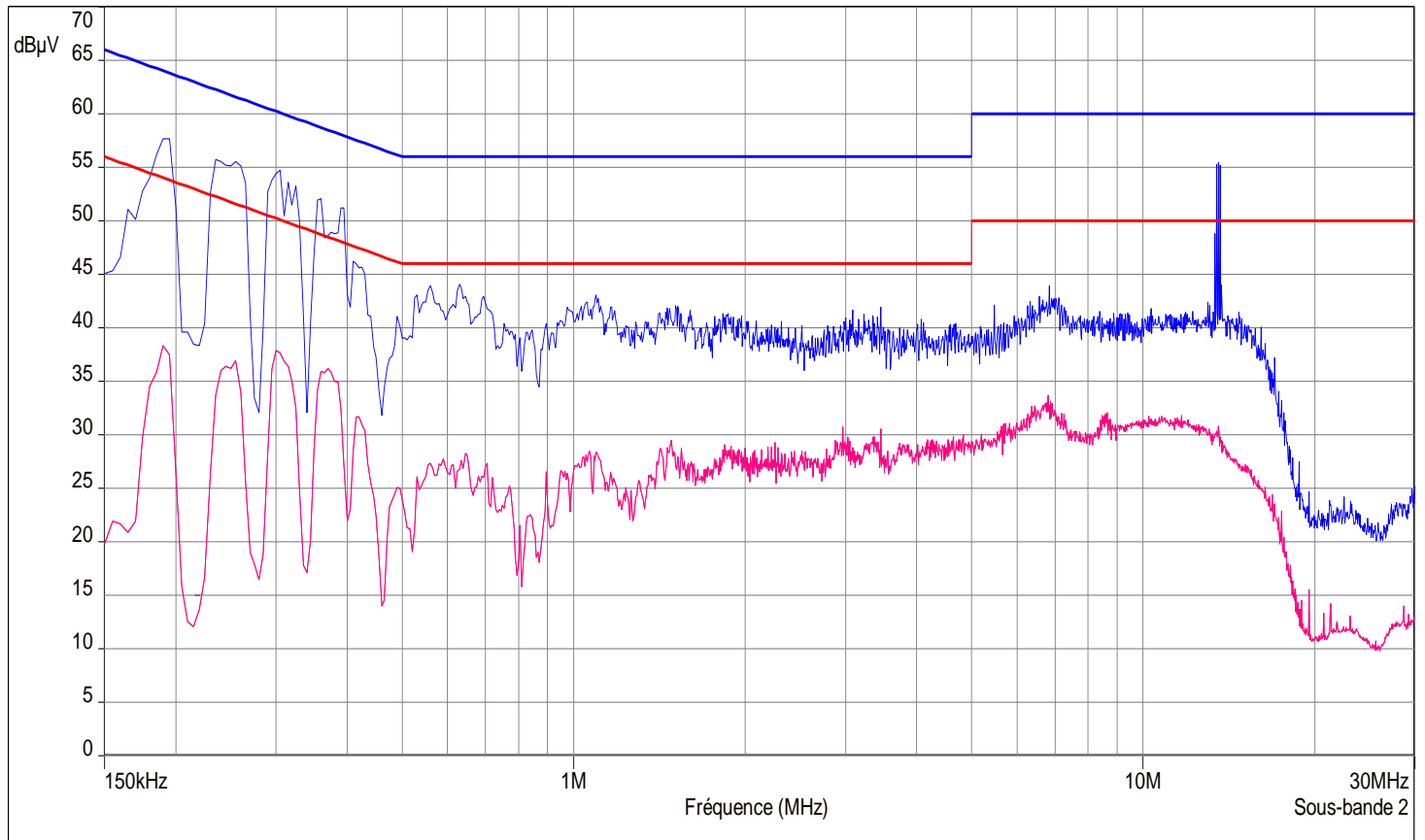
Description Sous-bande 2

Fréquences: 150 kHz - 30 MHz (Mode: Lin, Pas: 5 kHz)

Réglages: RBW: 9 kHz, VBW: Auto, Temps de mesure : 50 ms/Pts, Nombre de Balayages : 1, Preamp : Off, LN Preamp : Off, Preselecteur: On

Ligne: Neutre

- FCC/FCC 15.109 - Classe: B - Moyenne/
- FCC/FCC 15.109 - Classe: B - QCrête/
- Mes. Peak (Neutre)
- Mes. Avg (Neutre)

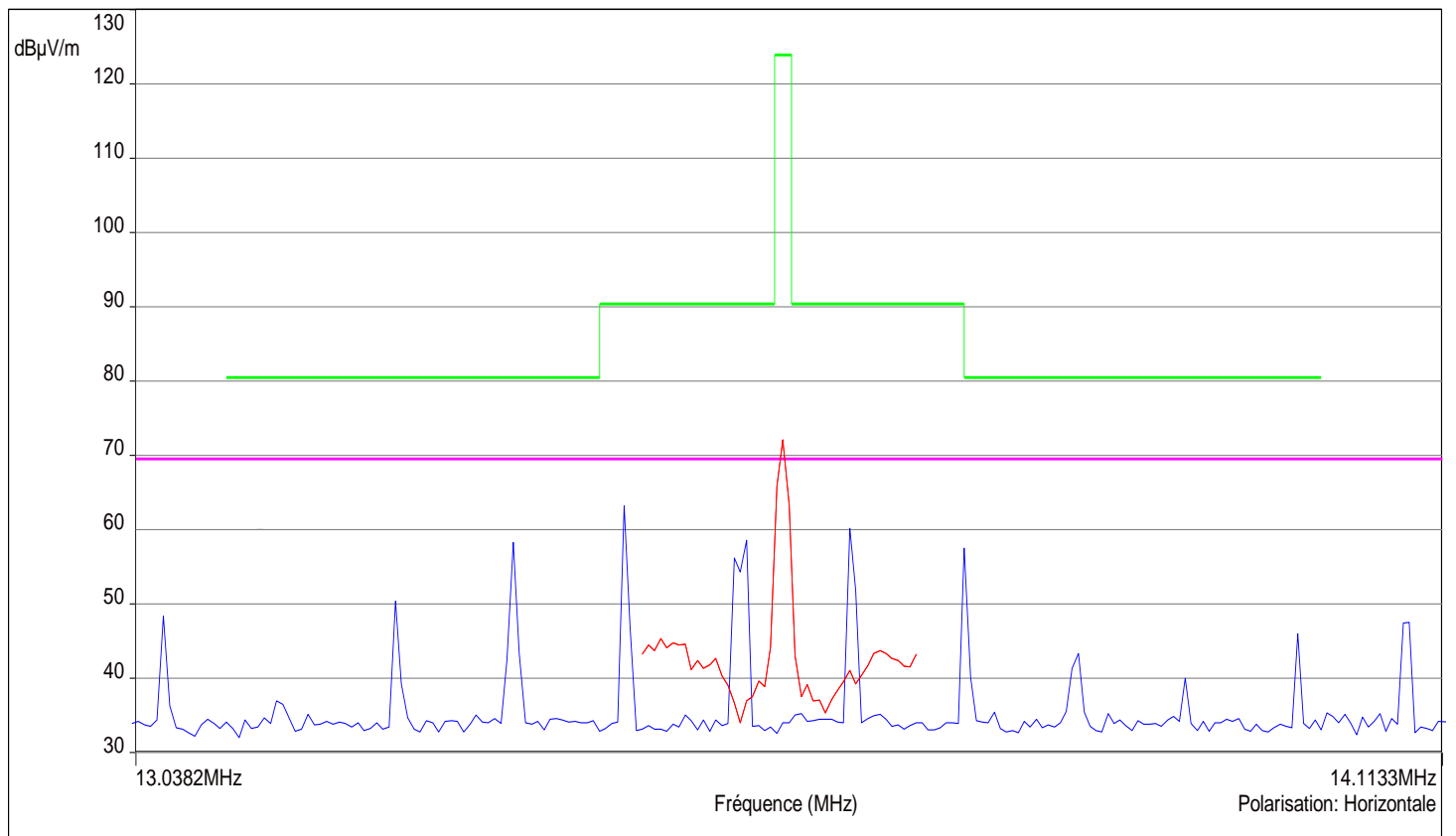




### Field strength within the band 13.110-14.010MHz

Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Parallel axis

- FCC/FCC 15.225 Emetteur 13.56MHz - Classe:1 - QCrête/3.0m/
- FCC/FCC 15.209 Antenne boucle - Classe:1 - QCrête/3.0m/
- Mes.Peak (Horizontale)
- Mes.QPeak (Horizontale)

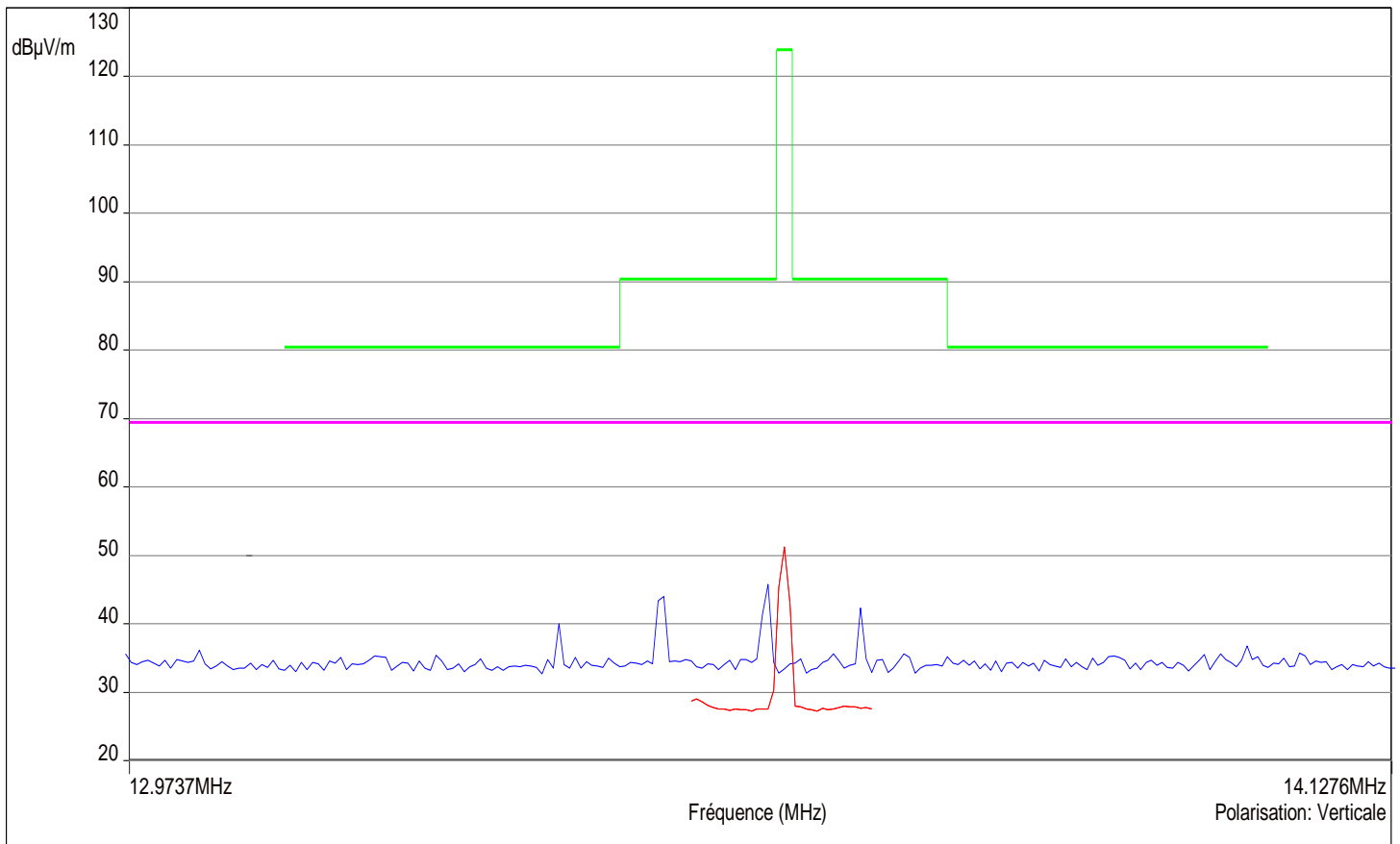




Field strength within the band 13.110-14.010MHz

Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Perpendicular axis

- FCC/FCC 15.225 Emetteur 13.56MHz - Classe:1 - QCrête/3.0m/
- FCC/FCC 15.209 Antenne boucle - Classe:1 - QCrête/3.0m/
- Mes.Peak (Verticale)
- Mes.QPeak (Verticale)

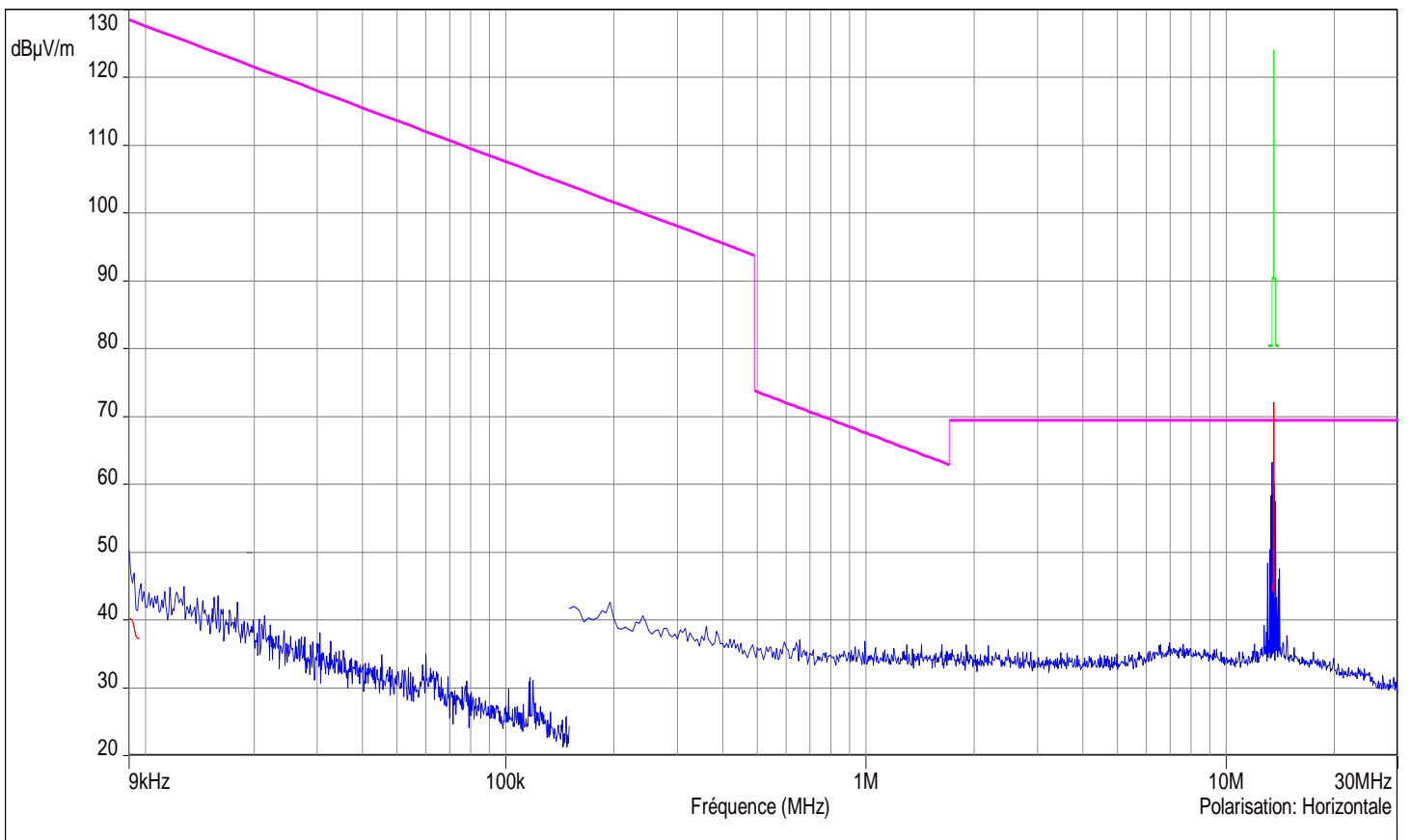






Field strength outside of the bands 13.110-14.010 MHz  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Parallel axis

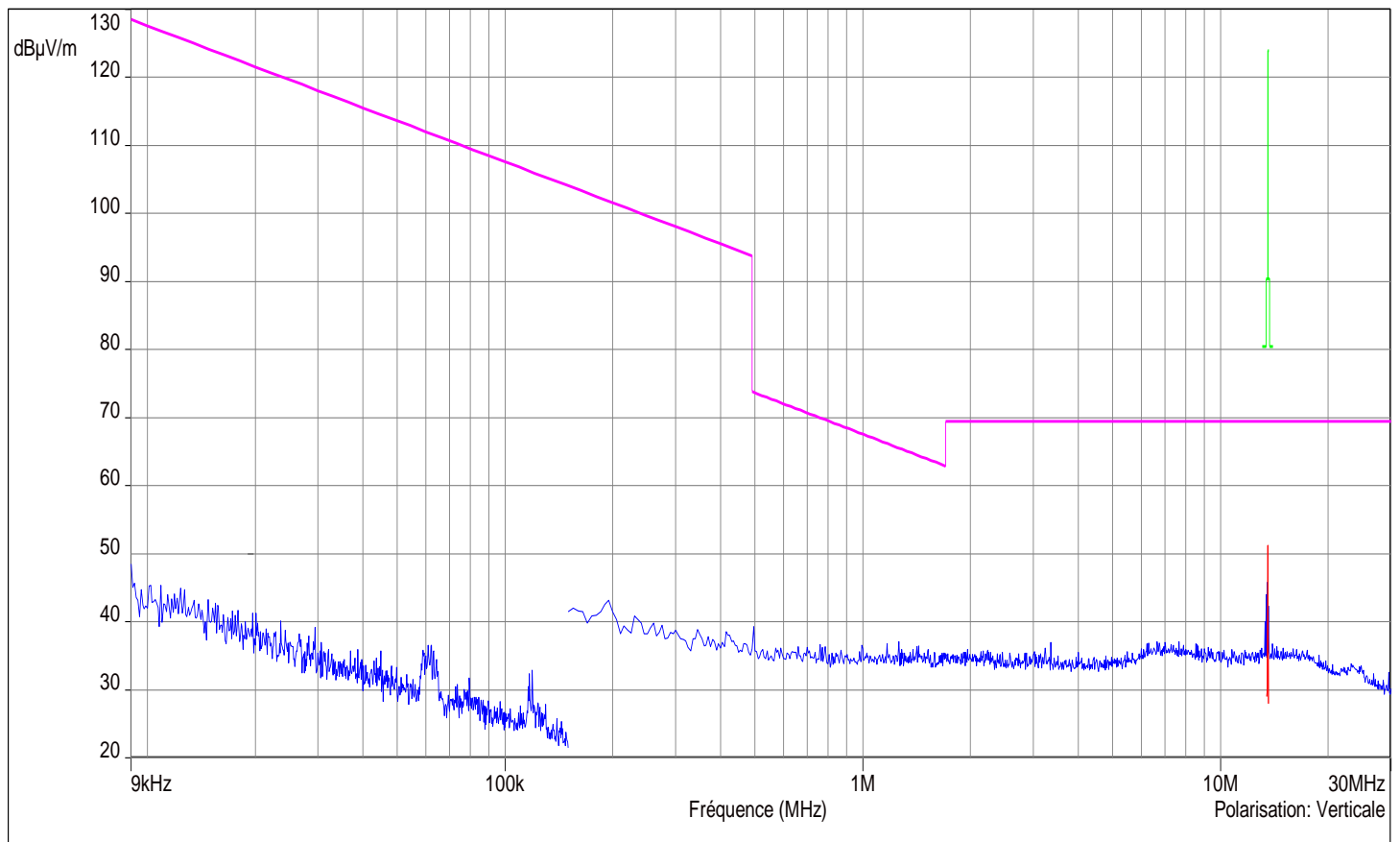
- FCC/FCC 15.225 Emetteur 13.56MHz - Classe:1 - QCrête/3.0m/
- FCC/FCC 15.209 Antenne boucle - Classe:1 - QCrête/3.0m/
- Mes.Peak (Horizontale)
- Mes.QPeak (Horizontale)





Field strength outside of the bands 13.110-14.010 MHz  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Perpendicular axis

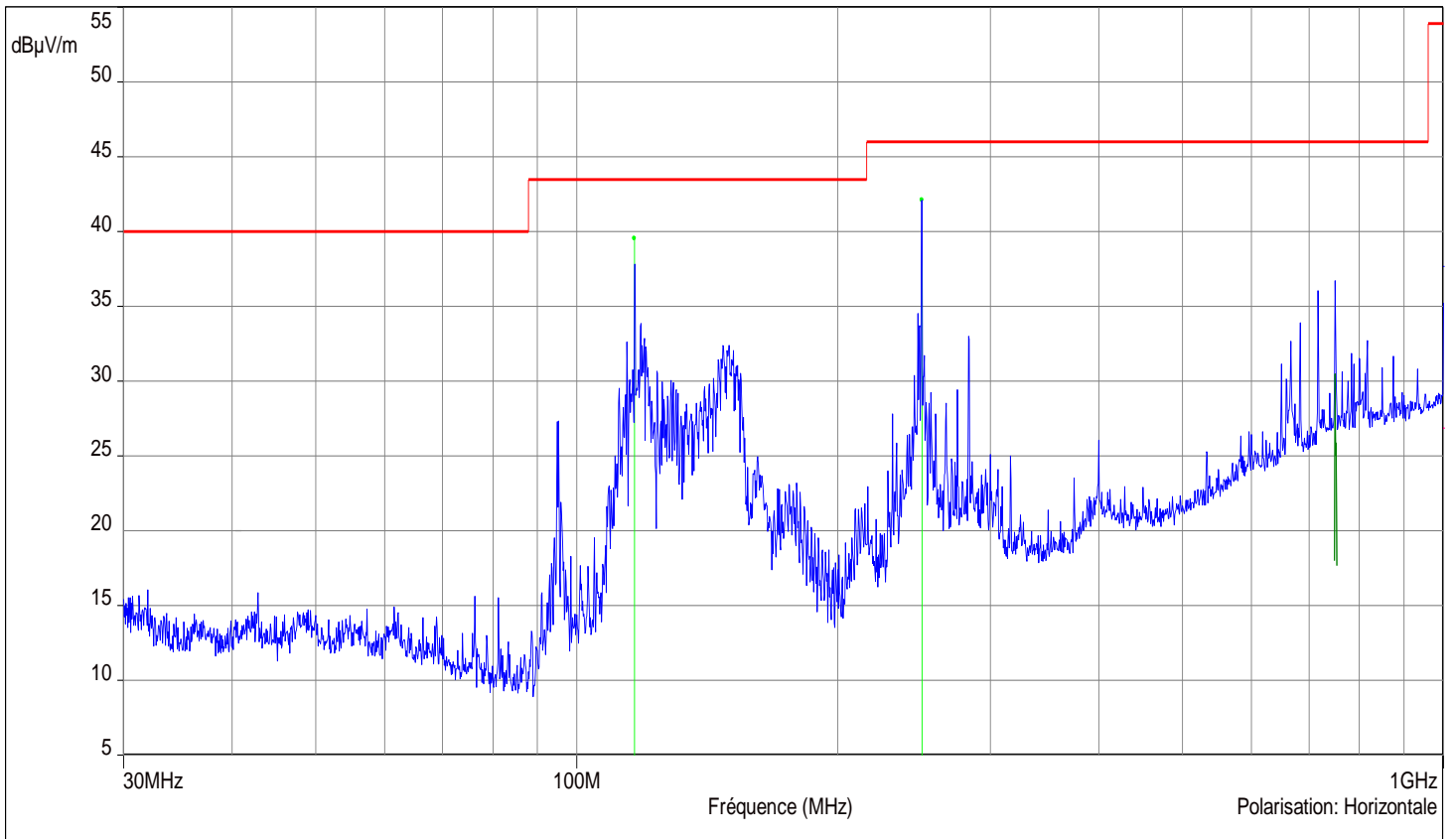
- FCC/FCC 15.225 Emetteur 13.56MHz - Classe:1 - QCrête/3.0m/
- FCC/FCC 15.209 Antenne boucle - Classe:1 - QCrête/3.0m/
- Mes.Peak (Verticale)
- Mes.QPeak (Verticale)





Field strength outside of the bands 13.110-14.010 MHz  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Horizontal polarisation

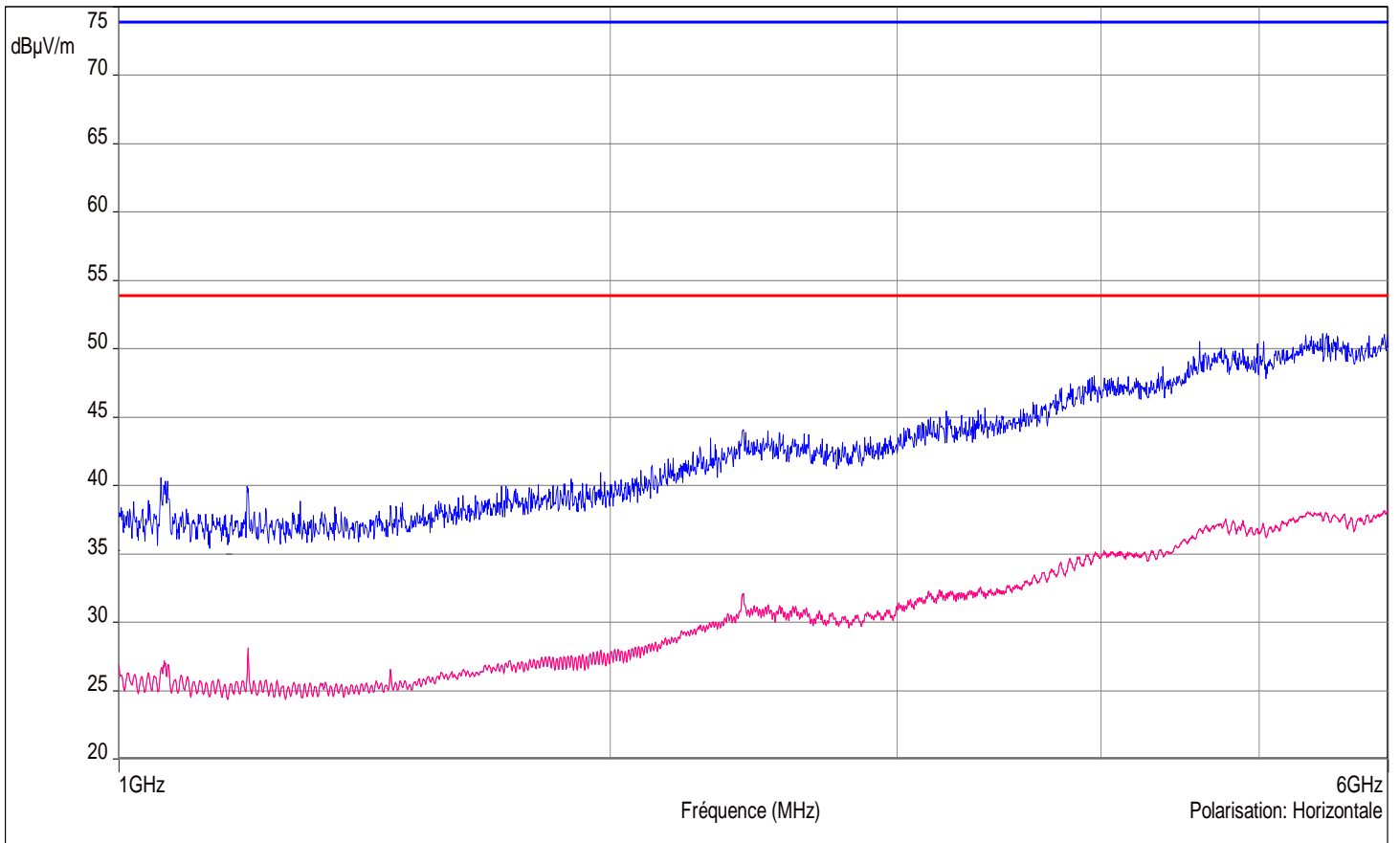
- FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
- FCC/FCC 15.109 - Classe: - QCrête/3.0m/
- FCC/FCC 15.109 - Classe: - Crête/3.0m/
- Mes.Peak (Horizontale)
- Mes.QPeak (Horizontale)
- Mes.Avg (Horizontale)
- Mes.Q-Peak (Mes. manuelle) (Horizontale)





Field strength outside of the bands 13.110-14.010 MHz  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Horizontal polarisation

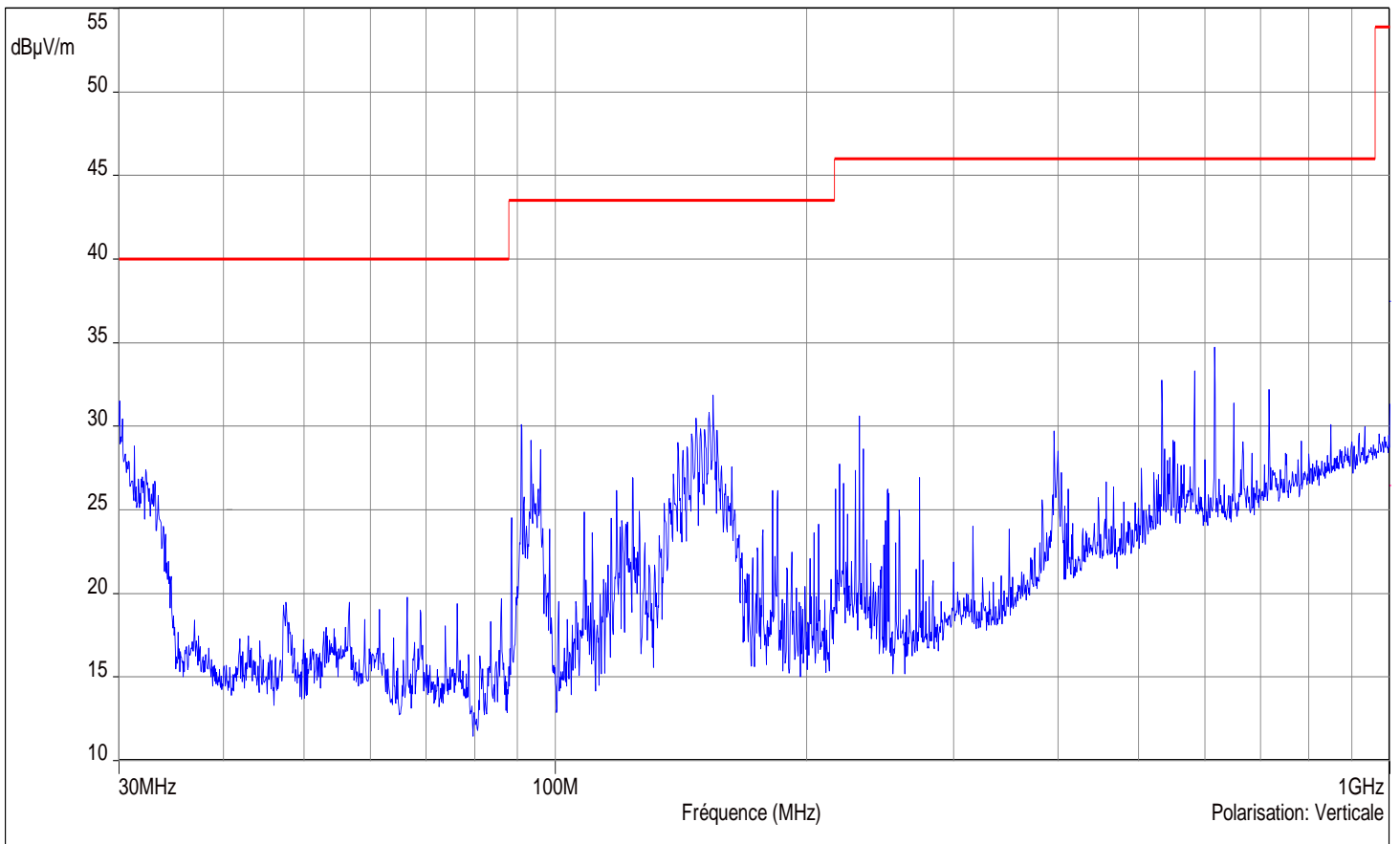
- FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
- FCC/FCC 15.109 - Classe: - QCrête/3.0m/
- FCC/FCC 15.109 - Classe: - Crête/3.0m/
- Mes.Peak (Horizontale)
- Mes.QPeak (Horizontale)
- Mes.Avg (Horizontale)
- Mes.Q-Peak (Mes. manuelle) (Horizontale)





Field strength outside of the bands 13.110-14.010 MHz  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Vertical polarisation

- FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
- FCC/FCC 15.109 - Classe: - QCrête/3.0m/
- FCC/FCC 15.109 - Classe: - Crête/3.0m/
- Mes.Peak (Verticale)
- Mes.Avg (Verticale)





Field strength outside of the bands 13.110-14.010 MHz  
Frequency: F<sub>nom</sub>  
Temperature: T<sub>nom</sub>  
Voltage: V<sub>nom</sub>  
Vertical polarisation

- FCC/FCC 15.109 - Classe: - Moyenne/3.0m/
- FCC/FCC 15.109 - Classe: - QCrête/3.0m/
- FCC/FCC 15.109 - Classe: - Crête/3.0m/
- Mes.Peak (Verticale)
- Mes.Avg (Verticale)

