

R041-14-104263-3A - DM / CBU

## RADIO TEST REPORT

According to the standard(s):

**FCC part 15 Subpart C  
OET Bulletin 65 (1997)**

Equipment under test:

**WORKABOUT PRO V4 7528X + Air300LF  
WORKABOUT PRO V4 7528XP + Air300LF****FCC ID (RFID Module): QG2AIR300**

Company:

**AGRIDENT GMBH**

Diffusion: Mr RUPPERT

(Company: AGRIDENT GMBH)

Number of pages: 30 including 1 annex

| Ed. | Date       | Modified<br>page(s) | Written by      |                                                                                     | Technical verification<br>Quality approval |      |
|-----|------------|---------------------|-----------------|-------------------------------------------------------------------------------------|--------------------------------------------|------|
|     |            |                     | Name            | Visa                                                                                | Name                                       | Visa |
| 0   | 27 May. 15 | Creation            | David MONTAULON |  | Olivier HEYER                              |      |

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**NAME OF THE EQUIPMENT UNDER TEST (E.U.T.)** : WORKABOUT PRO V4 7528X + Air300LF  
WORKABOUT PRO V4 7528XP + Air300LF

**Serial number** : None

**Part number** : FCC ID (RFID module): QG2AIR300

**Software Version** : None

**MANUFACTURER'S NAME** : AGRIDENT GMBH

**APPLICANT'S ADDRESS:**

**Company** : AGRIDENT GMBH

**Address** : Steinklippenstrasse 10  
D-30890 Barsinghausen  
GERMANY

**Person(s) present during the tests** : Mr FORNIER

**Responsible** : Mr RUPPERT

**DATE(S) OF TESTS** : From 16<sup>th</sup> till 19<sup>th</sup> February 2015

**TESTS LOCATION(S)** : EMITECH MONTPELLIER laboratory in  
VENDARGUES (34) - FRANCE  
Open area test site in SALINELLES (30) -  
FRANCE  
FCC Accredited under US-EU MRA  
Designation Number: FR0006  
FCC Test Firm Registration Number: 954701

**TESTS SUPERVISOR(S)** : None

**TESTS OPERATOR(S)** : David MONTAULON

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## 1. INTRODUCTION

This document submits the results of Electromagnetic Compatibility tests performed on the equipment **WORKABOUT PRO V4: 7528X & 7528XP + Air300LF** (denominated hereafter E.U.T.: equipment under test) according to document(s) listed below.

## 2. REFERENCE DOCUMENT(S)

### FCC Part 15

Code of Federal Regulations  
Title 47 – Telecommunications  
Chapter 1 – Federal Communications Commission  
Part 15 – Radio frequency devices  
Subpart C – Intentional Radiators

### ANSI C 63.4:2003

American National Standard for Methods of measurement of Radio-Noise from low-voltage. Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

## 3. EQUIPMENT UNDER TEST CONFIGURATION

**Equipment under test (E.U.T.) description:** The RFID module is plugged into the internal expansion port of the WORKABOUT PRO4 Handheld Computer.

The WORKABOUT PRO4 is a colour mobile computer. The product has a Lithium Ion polymer rechargeable battery pack, WLAN, Bluetooth and WWAN radios (7528XP only) and is supplied with an AC/DC adaptor.

The RFID module has to pass Limited Modular approval for FCC and Canadian rules. This module will be approved for use when installed in the following WORKABOUT PRO4 Handheld Computer models **7528X & 7528XP**:

### RFID MODULE

Applicant: AGRIDENT GmbH

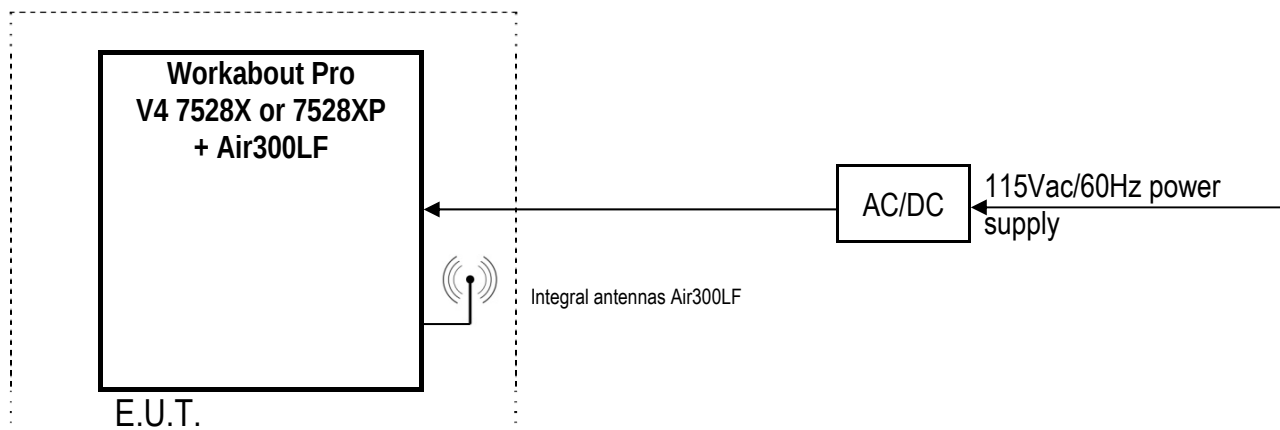
FCC ID: QG2AIR300

**Model: 7528X (FCC ID: QG27528PA)** - in co- transmission with Bluetooth module and WLAN

- Permanent transmitter emission with a loop coil antenna:
- Integral antenna, dedicated antenna supplied with the equipment
- Frequency range used by E.U.T.: 134.2kHz (RFID), 2400-2483.5MHz (Wi-Fi and Bluetooth)
- Tested frequency: 134.2kHz (RFID)
- Equipment: multi frequency
- Total channel available: 1 (For RFID module)
- Power supply: 115Vac/60Hz with AC adaptor

**Model: 7528XP (FCC ID: QG2211486030B)** in co- transmission with Bluetooth module, WLAN and WWAN.

- Permanent transmitter emission with a loop coil antenna:
- Integral antenna, dedicated antenna supplied with the equipment
- Frequency range used by E.U.T.: 134.2kHz (RFID), 2400-2483.5MHz (Wi-Fi and Bluetooth) GSM 850, DCS1900.
- Tested frequency: 134.2kHz (RFID)
- Equipment: multi frequency
- Total channel available: 1 (For RFID module)
- Power supply: 115Vac/60Hz with AC adaptor

**4. EQUIPMENT UNDER TEST CONFIGURATION SCHEME**

**Cycle and operating mode during emission tests:** Permanent emission mode. AC/DC direct loading mode is the worst configuration.

**Equipment modifications applied during tests:** No

**5. SUMMARY OF TEST RESULTS**

| Tests designation                                        | Results satisfying? | Comments            |
|----------------------------------------------------------|---------------------|---------------------|
| <b>Antenna requirement</b><br>- FCC part 15.203          | YES                 | Integrated antennas |
| <b>Restricted band of operation</b><br>- FCC part 15.205 | YES                 |                     |
| <b>Conducted power lines</b><br>- FCC part 15.207        | YES                 |                     |
| <b>Unwanted radiated emissions</b><br>- FCC part 15.209  | YES                 |                     |
| <b>Collocation</b><br>- OET Bulletin 65:1997             | YES                 |                     |

N.P.: Not Performed.

N.A.: Not Applicable.

**In emission:**

Sample subject to the test complies with prescriptions of the standard(s) FCC Part 15 Subpart C and to OET Bulletin 65:1997 according to limits specified in this test report.

## 6. CONDUCTED EMISSIONS – SECTION 15.207

**Standard:** FCC part 15 Subpart C 15.207

**Test method:** ANSI C63.4: 2003

**Test configuration:**

| Tested cable(s)                   | Measure with | E.U.T. height |
|-----------------------------------|--------------|---------------|
| 115Vac/60Hz power supply / 7528XP | L.I.S.N.     | 80cm          |
| 115Vac/60Hz power supply / 7528X  | L.I.S.N.     | 80cm          |

| Frequency band | Tested cable(s)                   | Resolution bandwidth | Video bandwidth | Detection mode |
|----------------|-----------------------------------|----------------------|-----------------|----------------|
| 150kHz-30MHz   | 115Vac/60Hz power supply / 7528XP | 10KHz                | 30kHz           | Peak / Average |
| 150kHz-30MHz   | 115Vac/60Hz power supply / 7528X  | 10KHz                | 30kHz           | Peak / Average |

**Test method deviation:** No

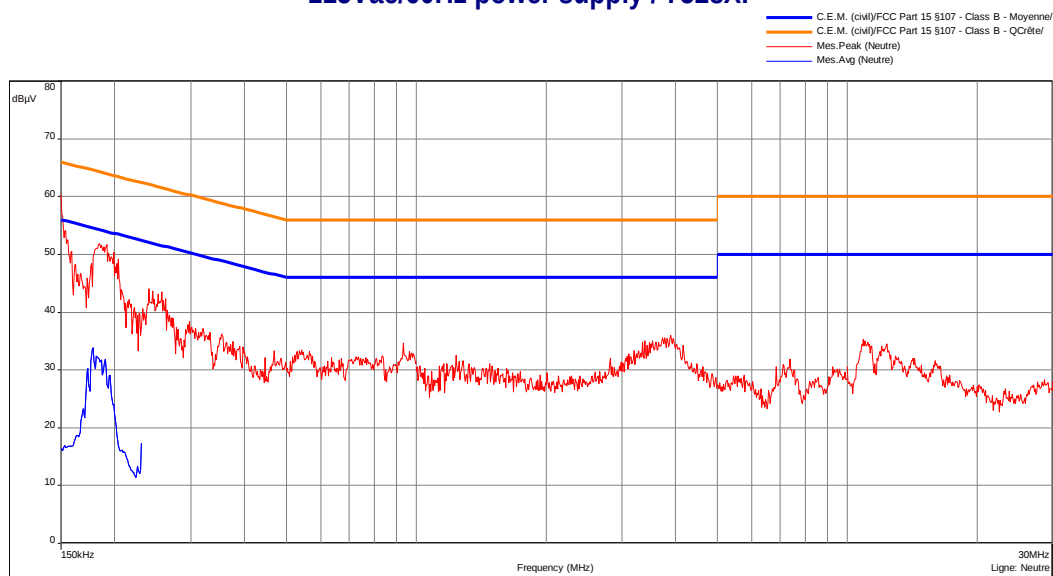
**Test equipment list:**

| CATEGORY           | BRAND               | TYPE                    | N° EMITECH | DATE CAL.  | DATE VAL   |
|--------------------|---------------------|-------------------------|------------|------------|------------|
| Cable              | Emitech             | Current absorber sheath | 9491       | 25/09/2014 | 25/11/2016 |
| Cable              | Micro-coax          | N-3m                    | 10537      | 05/09/2013 | 05/11/2015 |
| Cable              | Micro-coax          | N-5m                    | 10527      | 05/09/2013 | 05/11/2015 |
| Ground choke       | EMITECH             | CISPR 16-2-1 : 2008     | 10071      | #          | #          |
| Ground choke       | EMITECH             | CISPR 16-2-1 : 2008     | 10080      | #          | #          |
| Limiter            | Hewlett Packard     | 11947A                  | 0239       | 22/10/2013 | 22/12/2015 |
| LISN               | PMM                 | L3-25                   | 0821       | 13/03/2014 | 13/05/2016 |
| Receiver           | Agilent             | E4440A                  | 5824       | 01/05/2014 | 01/07/2016 |
| Receiver           | Rohde & Schwarz     | ESHS10                  | 3371       | 16/02/2015 | 16/04/2017 |
| Shielded enclosure | RAY PROOF           | C.V1                    | 1123       | 17/10/2013 | 17/12/2016 |
| Software           | Nexio               | BAT EMC                 | 0000       | #          | #          |
| Thermohygrometer   | Bioblock Scientific | Météostar               | 0963       | 31/10/2014 | 31/12/2016 |

#: Permanent validity

BAT-EMC software version: V3.6.0.32

**Results:** See **Graph(s)** hereafter. Limits on the graphs are average and quasi-peak limits (upper limit).

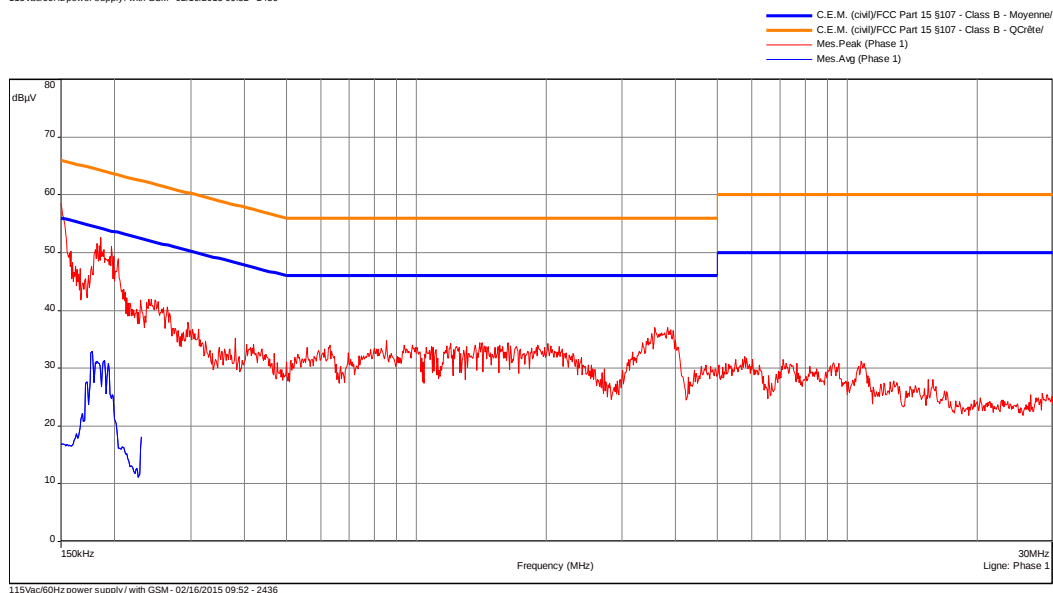
**Conducted voltage emission (measurement)**
**115Vac/60Hz power supply / 7528XP**
**EMI2436**


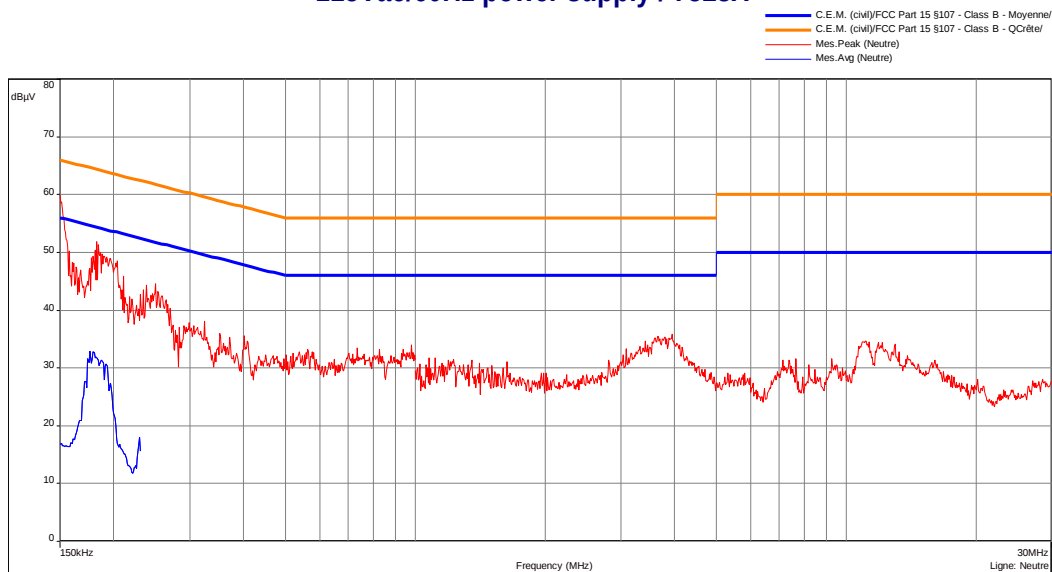
Date: 16/02/2015 09:52:32

Technician: RB

Class: B of the standard

Detection:  
**Peak**

Modification(s) during test:  
**No**


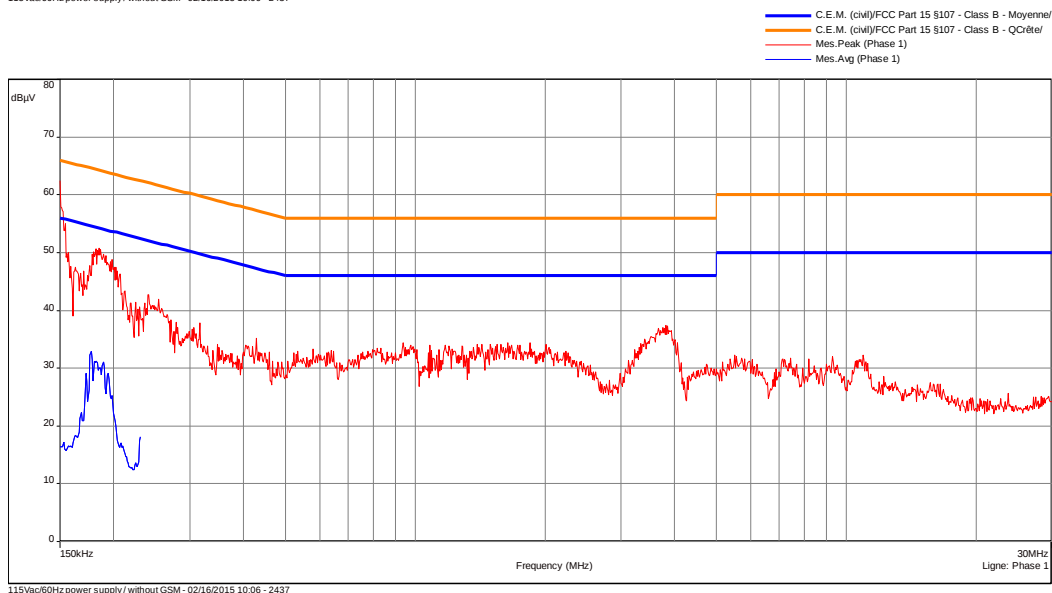
**Conducted voltage emission (measurement)**
**EMI2437**
**115Vac/60Hz power supply / 7528X**


Date: 16/02/2015 10:06:06

Technician: RB

Class: B of the standard

Detection:  
**Peak**

Modification(s) during test:  
**No**


## 7. UNWANTED RADIATED EMISSIONS – SECTION 15.209

**Standards:** FCC part 15 Radio part 15.209 and OET Bulletin 65:1997

**Test method:** ANSI C63.4: 2003

### a) Pre-measurement in semi anechoic chamber:

| Frequency band | Tested side | Resolution bandwidth | Video bandwidth | Detection mode | E.U.T. height |
|----------------|-------------|----------------------|-----------------|----------------|---------------|
| 9kHz-150kHz    | Front side  | 200Hz                | 1kHz            | Peak           | 80cm          |
| 150kHz-30MHz   | Front side  | 10kHz                | 30kHz           | Peak           | 80cm          |
| 30MHz-1GHz     | Front side  | 100kHz               | 300kHz          | Peak           | 80cm          |
| 1GHz-12.75GHz  | Front side  | 1MHz                 | 3MHz            | Peak           | 80cm          |

Measurements below 30MHz are done with a loop antenna as describe in the standard.

Measurements are done in semi anechoic chamber at 3m. E.U.T. is set on a wooden table.

E.U.T. measurements are maximized at 360° in max-hold peak detection.

For collocation measurement, notch filters are used to avoid overloads of measurement system.

Radiocommunication links are done by a CMU200.

### Limits:

From 9 kHz to 30MHz: Limit indicated on the curves is calculated with 40 dB/decade extrapolation factor and 51.5 dB conversion factor.

From 30MHz to 1GHz: quasi peak limit provided is the limit given in 15.209

Above 1GHz average limits in restricted bands and general limits are 54dB $\mu$ V/m. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation.

### Test method deviation:

From 9 kHz to 30MHz: measurements are made in peak detection instead of average mode in frequency band 9 kHz-500 kHz

- Measurements are given in dB $\mu$ A/m instead of  $\mu$ V/m
- Measuring distance is 3 meters instead of 30 and 300 meters

Radiated emissions limits in this frequency band are specified at 30 or 300 meters. Pre measurement distance used during the test, subject of this report, is 3 meters. Then published limits come from a theoretical conversion using an extrapolation factor of 40dB / decade.

**Measuring distance:** 3 meters

Test equipment list:

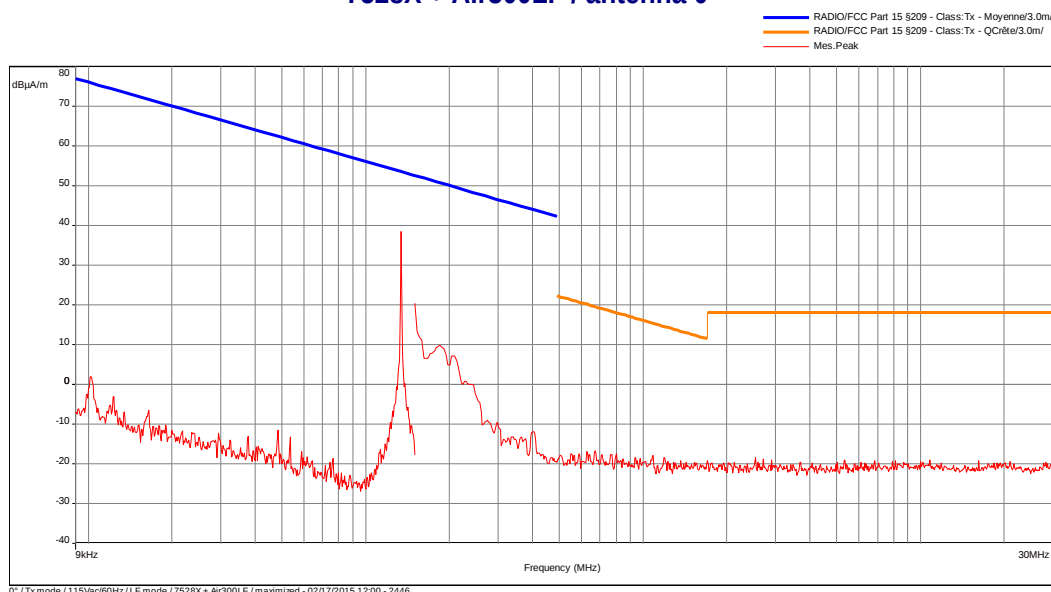
| CATEGORY           | BRAND               | TYPE           | N° EMITECH | DATE CAL.  | DATE VAL   |
|--------------------|---------------------|----------------|------------|------------|------------|
| Antenna            | ETS LINDGREN        | 3117           | 8387       | 26/08/2011 | 26/10/2015 |
| Antenna            | Electro-Metrics     | BIA-30HF       | 1107       | 03/03/2011 | 03/05/2015 |
| Antenna            | Rohde & Schwarz     | HFH2-Z2        | 5825       | 27/01/2015 | 27/03/2017 |
| Antenna            | Rohde & Schwarz     | HL223          | 1137       | 03/03/2011 | 03/05/2015 |
| Cable              | C&C                 | N-1.5m         | 10553      | 27/09/2013 | 27/11/2015 |
| Cable              | C&C                 | N-3m           | 10557      | 27/09/2013 | 27/11/2015 |
| Cable              | C&C                 | N-3m           | 10558      | 27/09/2013 | 27/11/2015 |
| Cable              | C&C                 | N-5m           | 10559      | 27/09/2013 | 27/11/2015 |
| Cable              | C&C                 | N-5m           | 10561      | 27/09/2013 | 27/11/2015 |
| Filter             | Micro-Tronics       | HPM 11630      | 4392       | 07/08/2014 | 07/10/2016 |
| Filter             | MICROTRONICS        | HPM 15162      | 10273      | 07/06/2013 | 07/08/2015 |
| Filter             | Wainwright          | WRCD 1800/2000 | 9773       | 12/02/2015 | 12/04/2017 |
| Filter             | Wainwright          | WRCG 2400/2483 | 9771       | 12/02/2015 | 12/04/2017 |
| Filter             | Wainwright          | WRCT 800/880   | 9775       | 12/02/2015 | 12/04/2017 |
| Preamplifier       | IMPULSE             | CA118-546ACN   | 9169       | 17/06/2014 | 17/08/2015 |
| Receiver           | Agilent             | E4440A         | 5824       | 01/05/2014 | 01/07/2016 |
| Shielded enclosure | RAY PROOF           | C.GS3          | 1123       | 17/10/2013 | 17/12/2016 |
| Software           | Nexio               | BAT EMC        | 0000       | #          | #          |
| Thermohygromètre   | Bioblock Scientific | Météostar      | 0963       | 31/10/2014 | 31/12/2016 |

#: Permanent validity

BAT-EMC software version: V3.6.0.32

Results: See **Graphs** hereafter.

### Radiated field strength 7528X + Air300LF / antenna 0°

**EMI2446**


Date: 17/02/2015 12:00:03

Technician: RB

Detection:  
**Peak**

T (°C): **21.5**

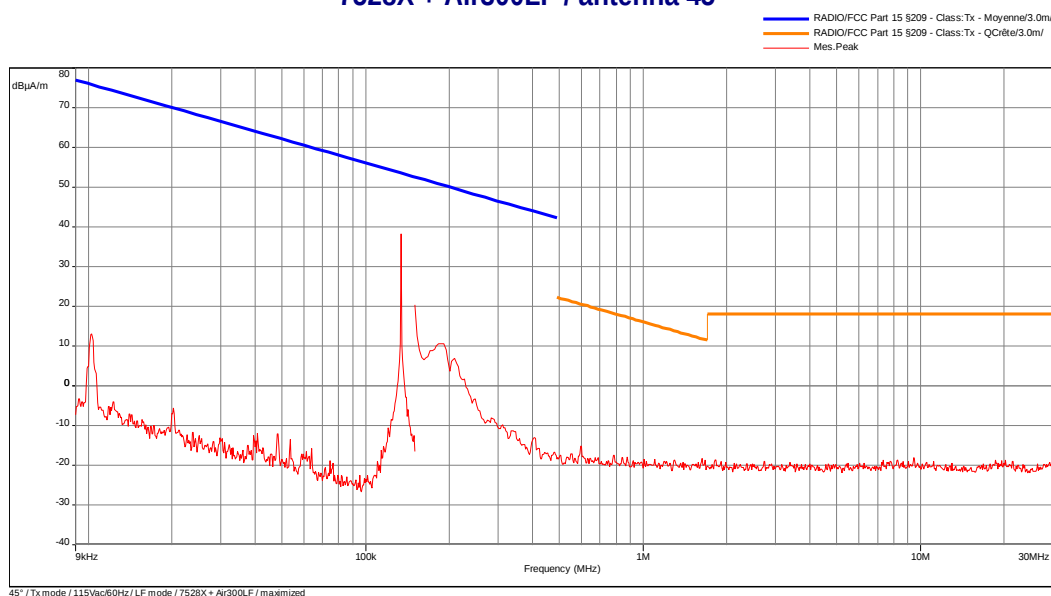
H (%): **-**

P (hpa): **1008**

Comments:

Modification(s) during test:  
**None**

### Radiated field strength 7528X + Air300LF / antenna 45°

**EMI2447**


Date: 17/02/2015 12:05:29

Technician: RB

Detection:  
**Peak**

T (°C): **21.5**

H (%): **-**

P (hpa): **1008**

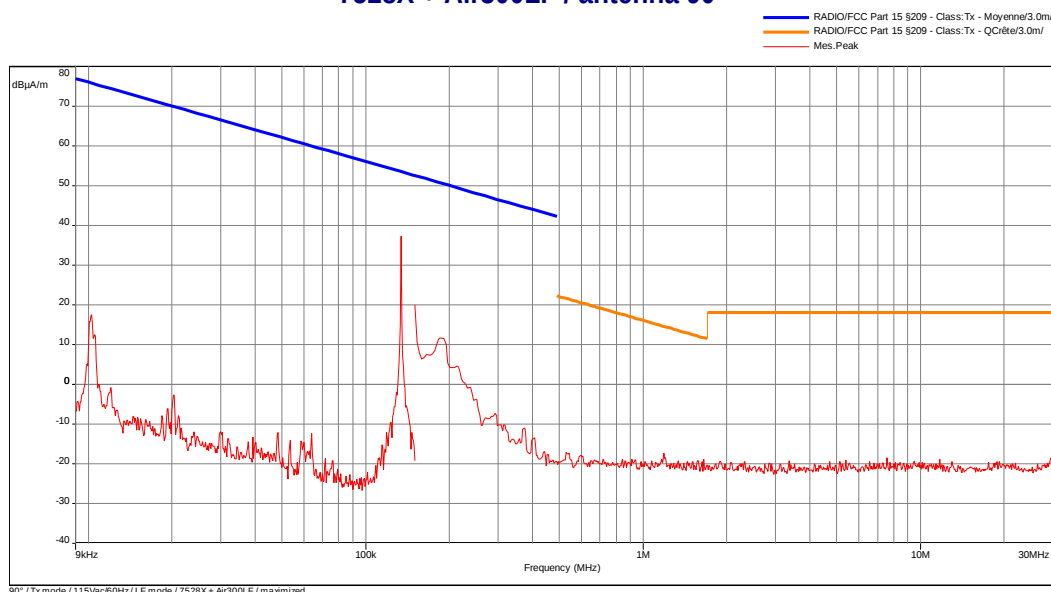
Comments:

Modification(s) during test:  
**None**

Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.

# Radiated field strength 7528X + Air300LF / antenna 90°

EMI2448



Date: 17/02/2015 12:10:27

Technician: RB

Detection:  
Peak

T (°C): 21.5  
H (%): -  
P (hpa): 1008

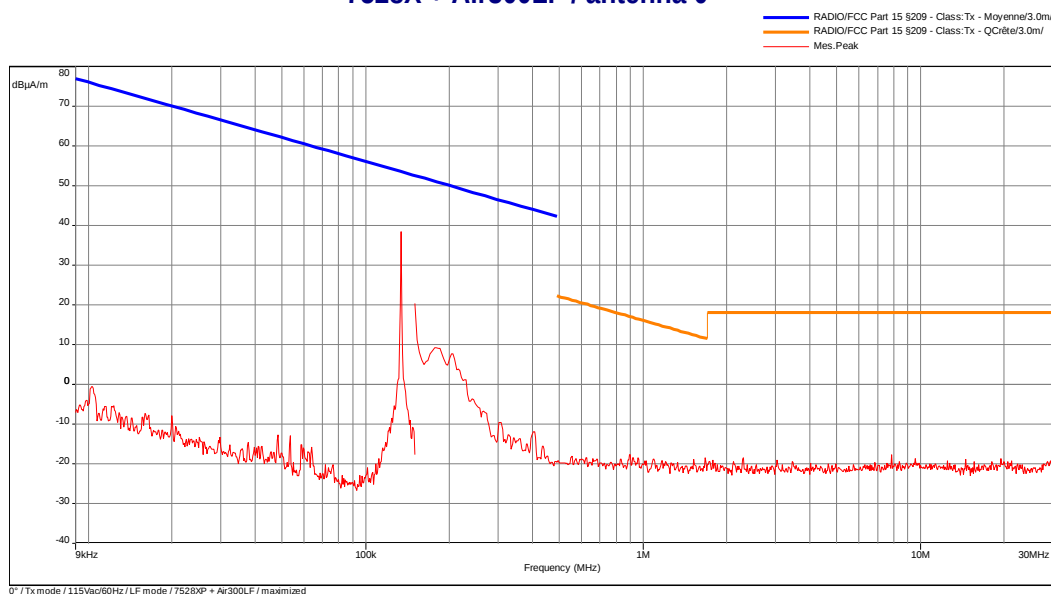
Comments:

Modification(s) during test:  
None

Limit indicated on this plot is calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.

### Radiated field strength 7528X + Air300LF / antenna 0°

EMI2449



Date: 17/02/2015 12:14:16

Technician: RB

Detection:  
Peak

T (°C): 21.5

H (%): -

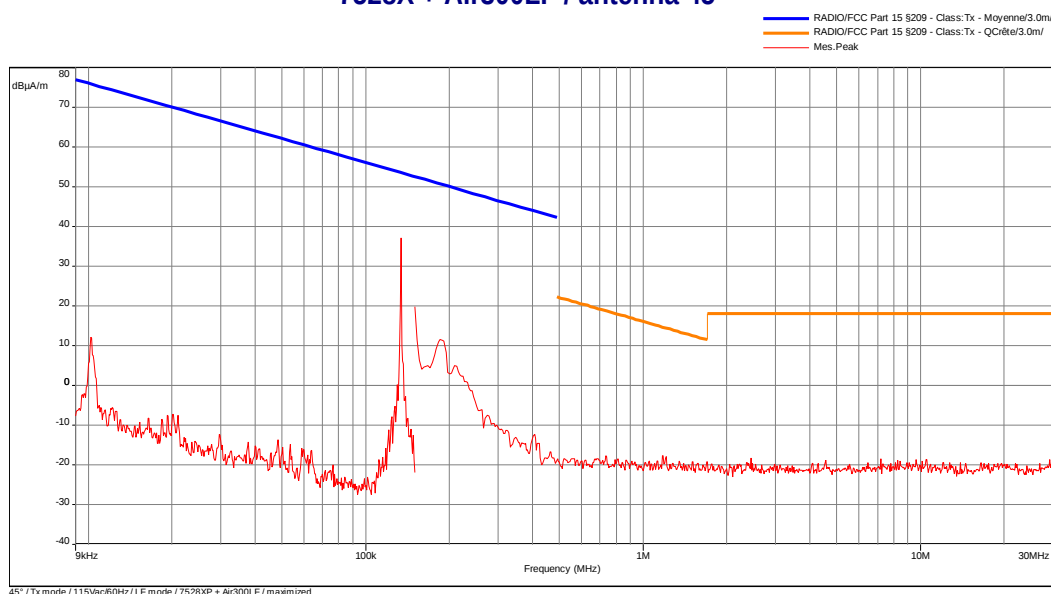
P (hpa): 1008

Comments:

Modification(s) during test:  
None

### Radiated field strength 7528X + Air300LF / antenna 45°

EMI2450



Date: 17/02/2015 12:18:09

Technician: RB

Detection:  
Peak

T (°C): 21.5

H (%): -

P (hpa): 1008

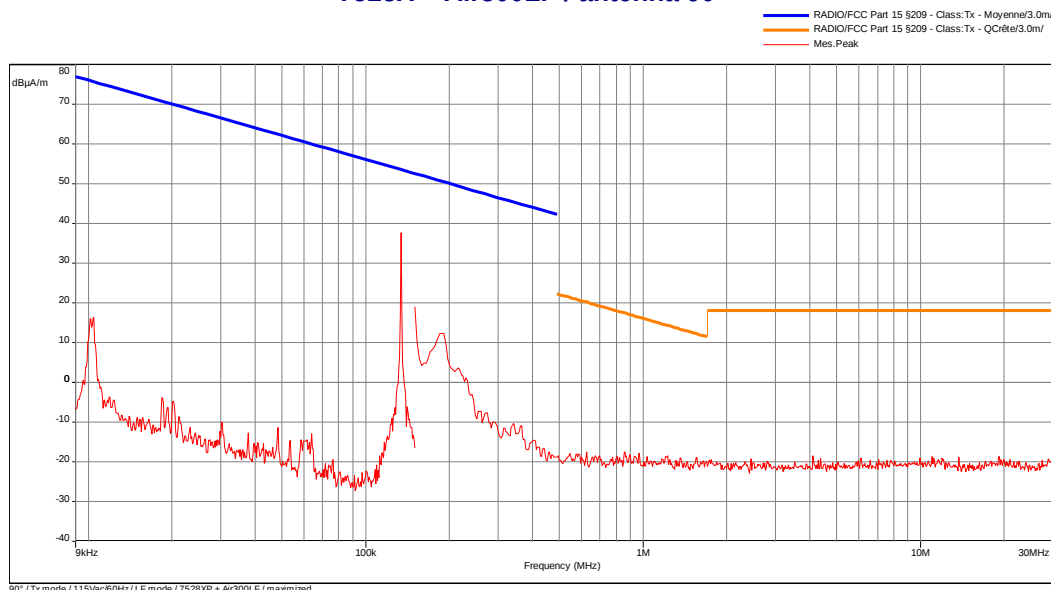
Comments:

Modification(s) during test:  
None

Limit indicated on these plots are calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.

**Radiated field strength**  
**7528X + Air300LF / antenna 90°**

EMI2451



Date: 17/02/2015 12:21:51

Technician: RB

Detection:  
**Peak**

T (°C): **21.5**

H (%): -

P (hpa): **1008**

Comments:

Modification(s) during test:  
**None**

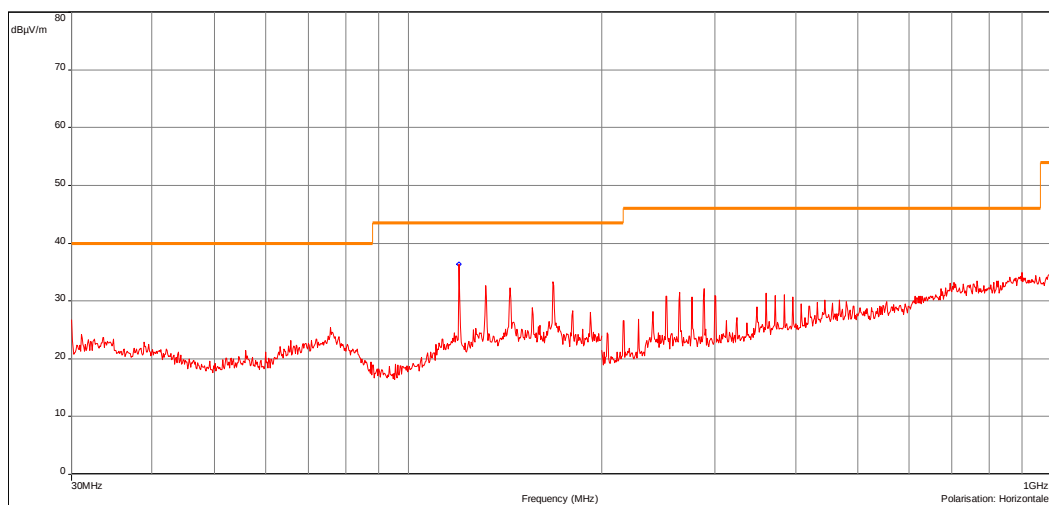
Limit indicated on this plot is calculated with 40 dB/decade extrapolation factor and 51.5dB conversion factor.

## Radiated electric emission (measurement)

EMI2445

7528X + Air300LF/ RFID + WIFI + Bluetooth

— C.E.M. (civl)/FCC Part 15 §109 - Class: B - Moyenne/3.0m/  
— C.E.M. (civl)/FCC Part 15 §109 - Class: B - QCrête/3.0m/  
— Mes. Peak (Horizontale)  
♦ Peak/LimQ-Peak (Horizontale)



Date: 17/02/2015 11:35:47

Technician: RB

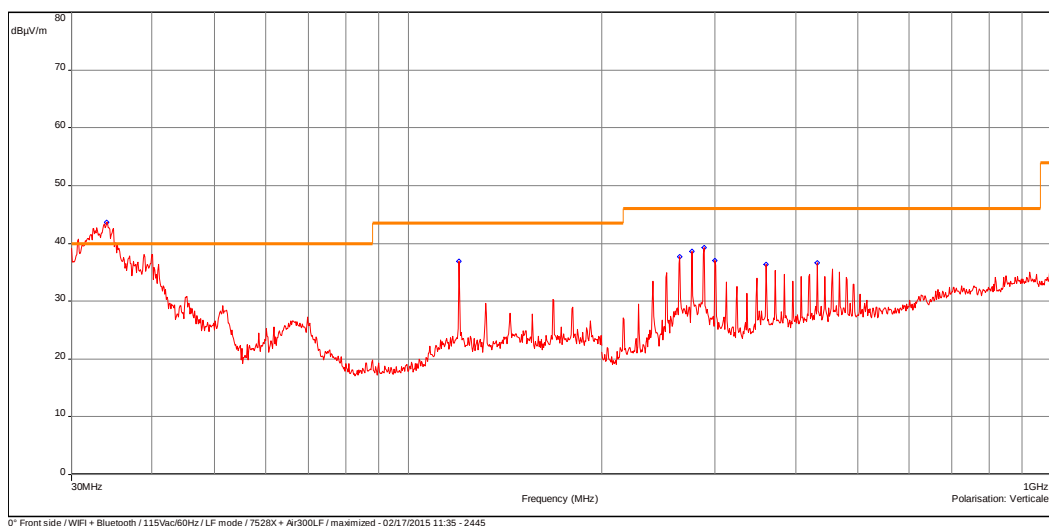
Class: B of the standard

Detection:  
Peak

Pre measurement - maximized  
at 360°

Modification(s) during test:  
No

— C.E.M. (civl)/FCC Part 15 §109 - Class: B - Moyenne/3.0m/  
— C.E.M. (civl)/FCC Part 15 §109 - Class: B - QCrête/3.0m/  
— Mes. Peak (Verticale)  
♦ Peak/LimQ-Peak (Verticale)

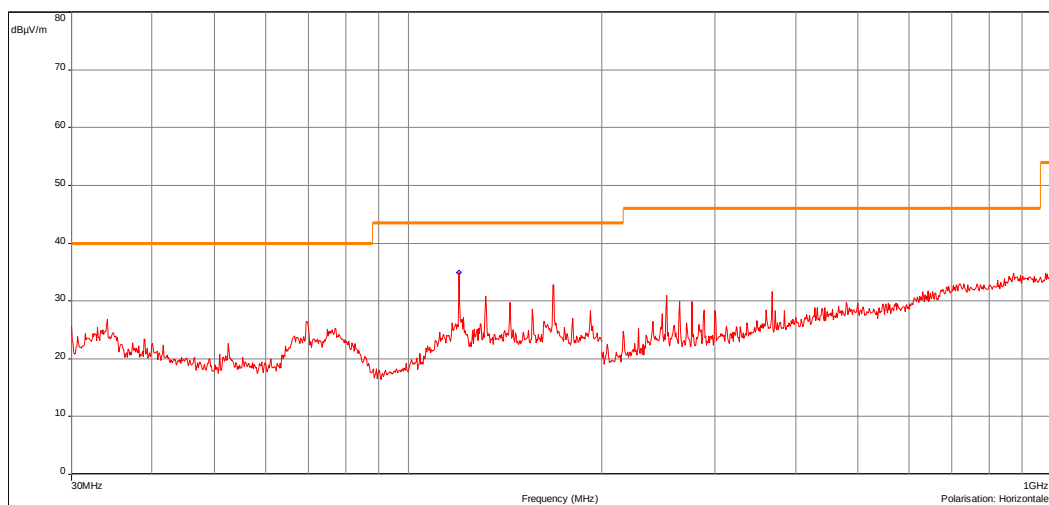


## Radiated electric emission (measurement)

EMI2442

7528XP + Air300LF / GSM1900 + RFID

— C.E.M. (civl)/FCC Part 15 §109 - Class:B - Moyenne/3.0m/  
 — C.E.M. (civl)/FCC Part 15 §109 - Class:B - QCrête/3.0m/  
 — Mes. Peak (Horizontale)  
 • Peak/LimQ-Peak (Horizontale)



Date: 17/02/2015 11:15:53

Technician: RB

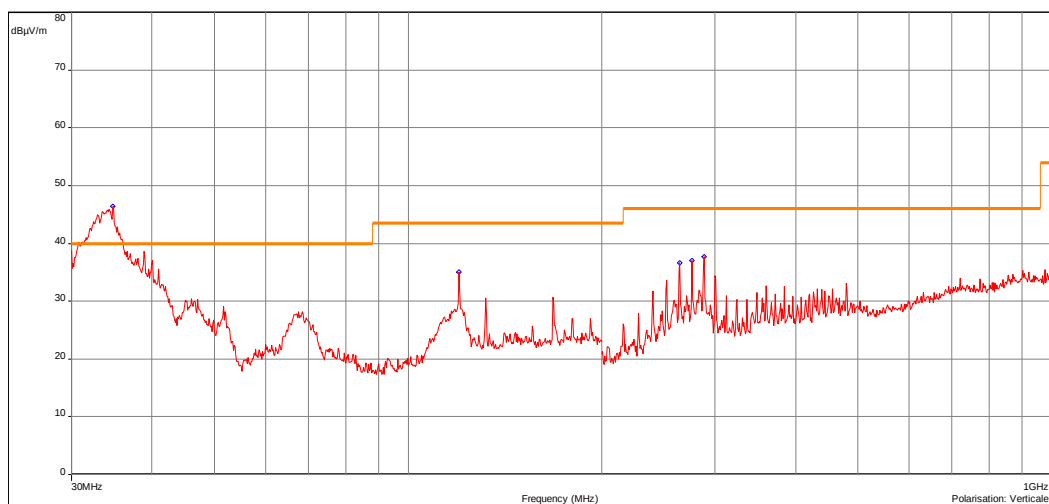
Class: B of the standard

Detection:  
Peak

Pre measurement - maximized  
at 360°

Modification(s) during test:  
No

— C.E.M. (civl)/FCC Part 15 §109 - Class:B - Moyenne/3.0m/  
 — C.E.M. (civl)/FCC Part 15 §109 - Class:B - QCrête/3.0m/  
 — Mes. Peak (Verticale)  
 • Peak/LimQ-Peak (Verticale)

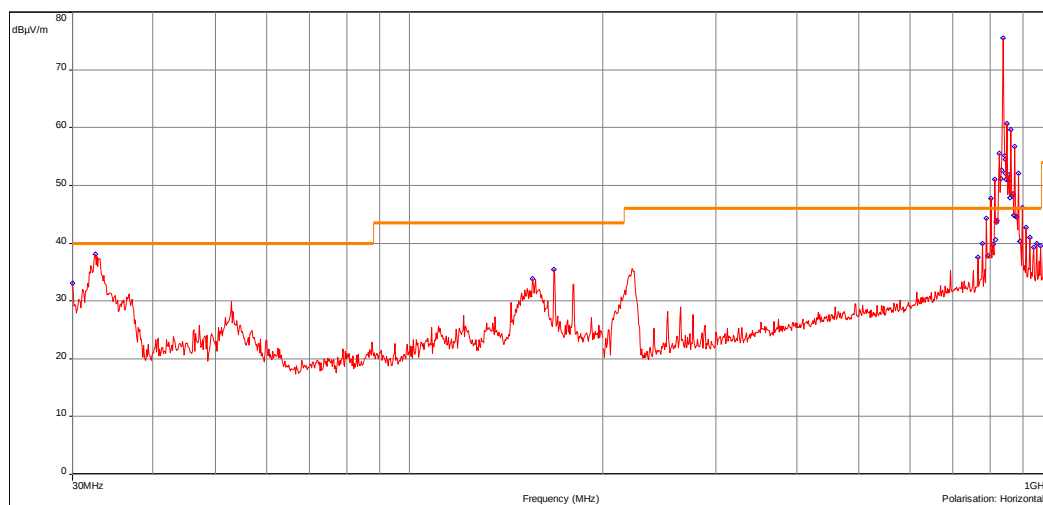


## Radiated electric emission (measurement)

EMI2458

7528XP + Air300LF / GSM 850 + RFID

— C.E.M. (civl)/FCC Part 15 §109 - Class:B - Moyenne/3.0m/  
 — C.E.M. (civl)/FCC Part 15 §109 - Class:B - QCrête/3.0m/  
 — Mes. Peak (Horizontale)  
 • Peak/LimQ-Peak (Horizontale)



Date: 19/02/2015 10:31:35

Technician: RB

Class: B of the standard

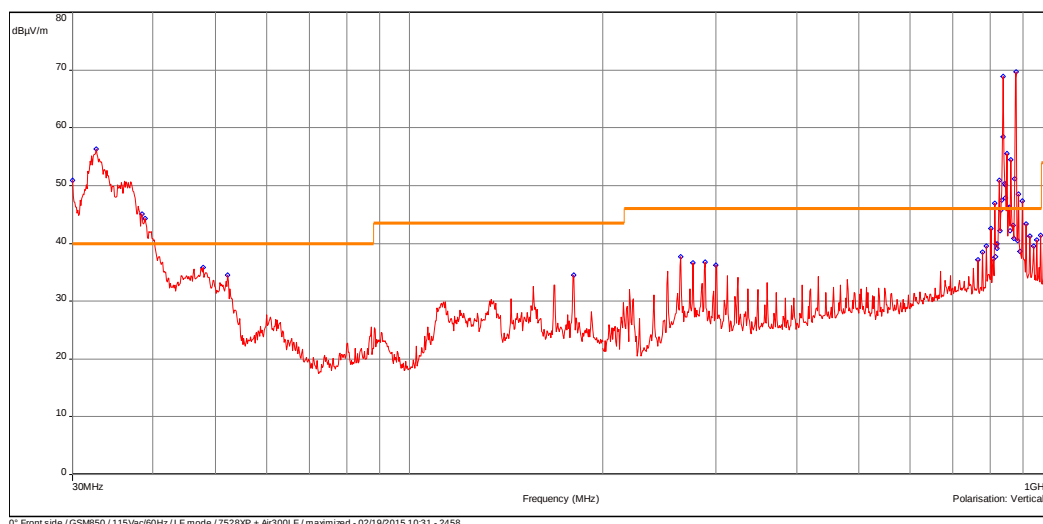
Detection:  
Peak

Pre measurement - maximized  
at 360°

Frequencies identification:  
837.12MHz: Uplink  
876MHz: Downlink

Modification(s) during test:  
No

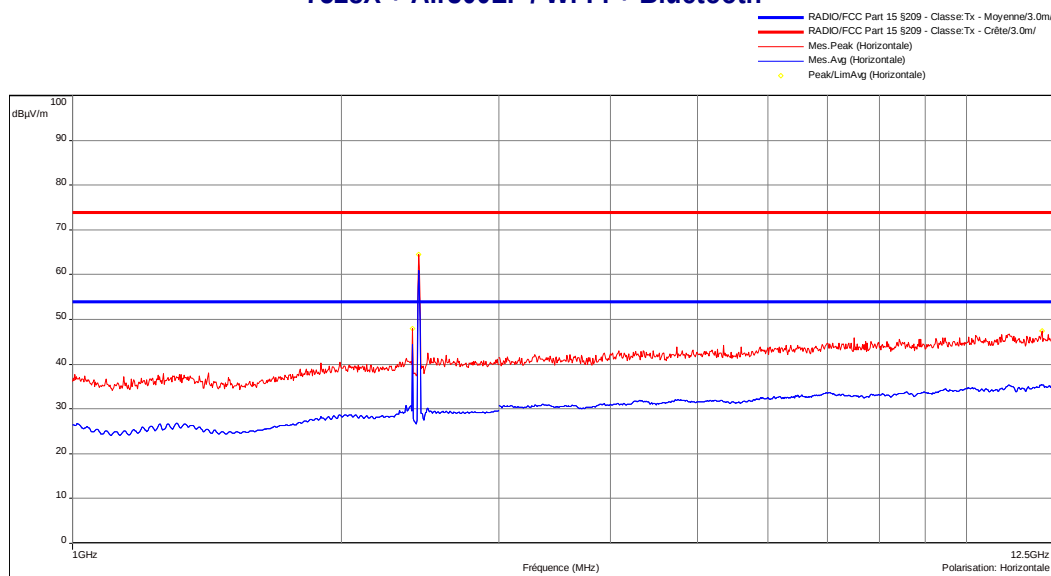
— C.E.M. (civl)/FCC Part 15 §109 - Class:B - Moyenne/3.0m/  
 — C.E.M. (civl)/FCC Part 15 §109 - Class:B - QCrête/3.0m/  
 — Mes. Peak (Verticale)  
 • Peak/LimQ-Peak (Verticale)



## Radiated electric emission (measurement)

## 7528X + Air300LF / Wi-Fi + Bluetooth

EMI2455



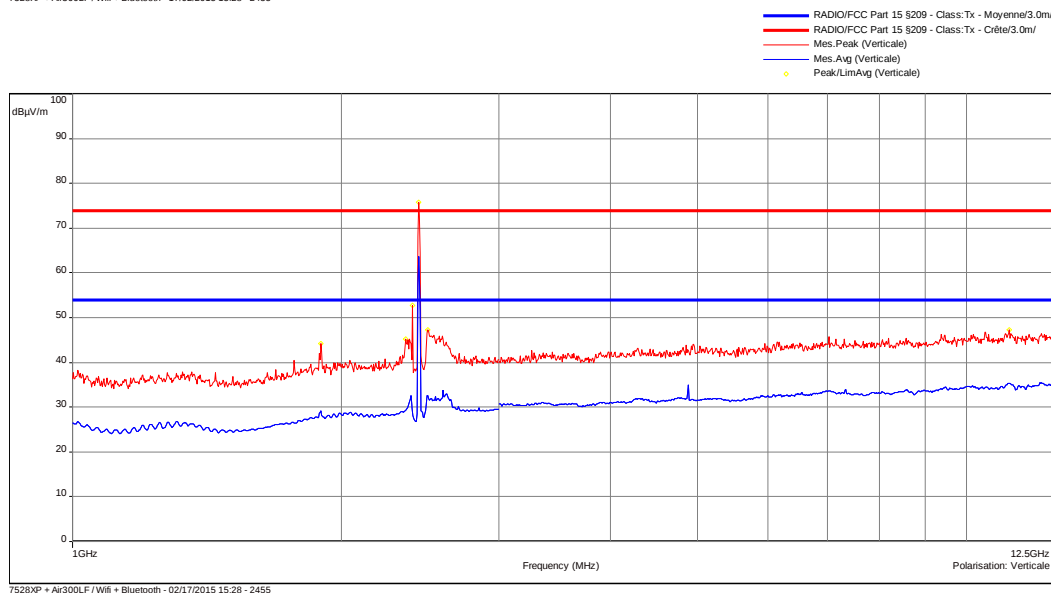
Date: 17/02/2015 15:28:12

Technician: RB

Class: B of the standard

Detection:  
Peak

Measurement - maximized at  
360°

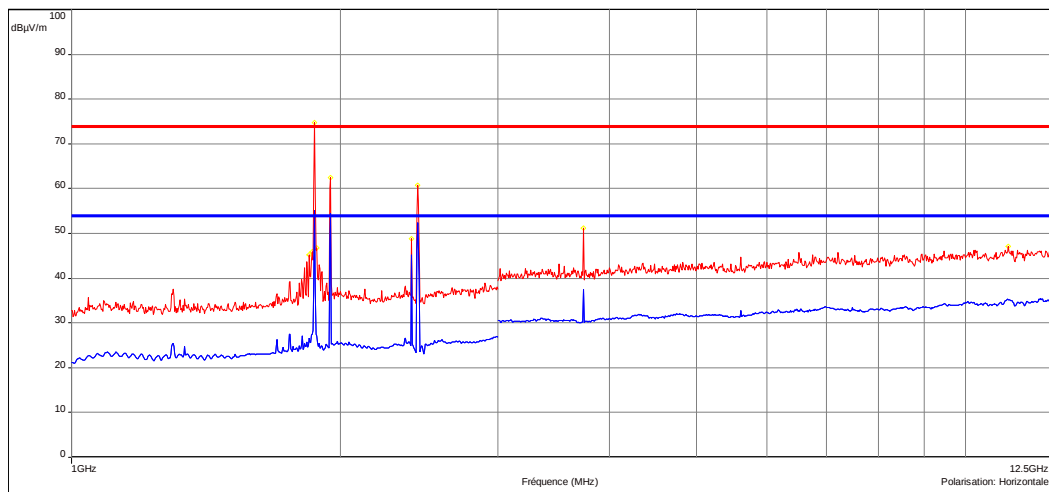
Frequencies identification:  
2.4GHz : Wi-Fi, Bluetooth

Modification(s) during test:  
No

# Radiated electric emission (measurement)

EMI2456

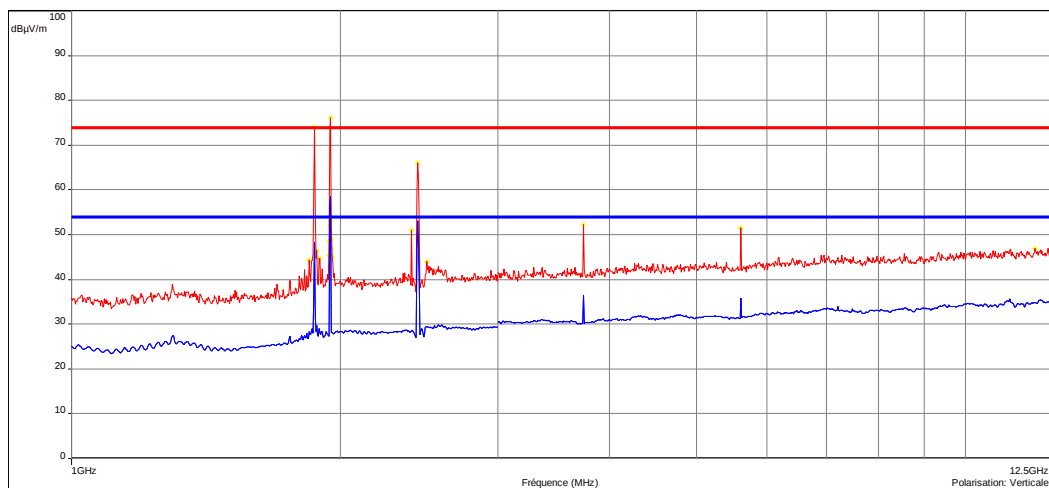
7528XP + Air300LF / GSM1900 + Wi-Fi + Bluetooth

- RADIO/FCC Part 15 §209 - Classe:Tx - Moyenne/3.0m/
- RADIO/FCC Part 15 §209 - Classe:Tx - Crête/3.0m/
- Mes. Peak (Horizontale)
- Mes. Avg (Horizontale)
- Peak/LimAvg (Horizontale)



7528XP + Air300LF / GSM1900 + Wi-Fi + Bluetooth - 17/02/2015 16:06 - 2456

- RADIO/FCC Part 15 §209 - Classe:Tx - Moyenne/3.0m/
- RADIO/FCC Part 15 §209 - Classe:Tx - Crête/3.0m/
- Mes. Peak (Verticale)
- Mes. Avg (Verticale)
- Peak/LimAvg (Verticale)



7528XP + Air300LF / GSM1900 + Wi-Fi + Bluetooth - 17/02/2015 16:06 - 2456

Date: 17/02/2015 16:06:22

Technician: RB

Class: B of the standard

Detection:  
Peak

Measurement - maximized at  
360°

Frequencies identification:  
1.870GHz: Uplink  
1.947GHz: Downlink  
2.4GHz : Wi-Fi, Bluetooth

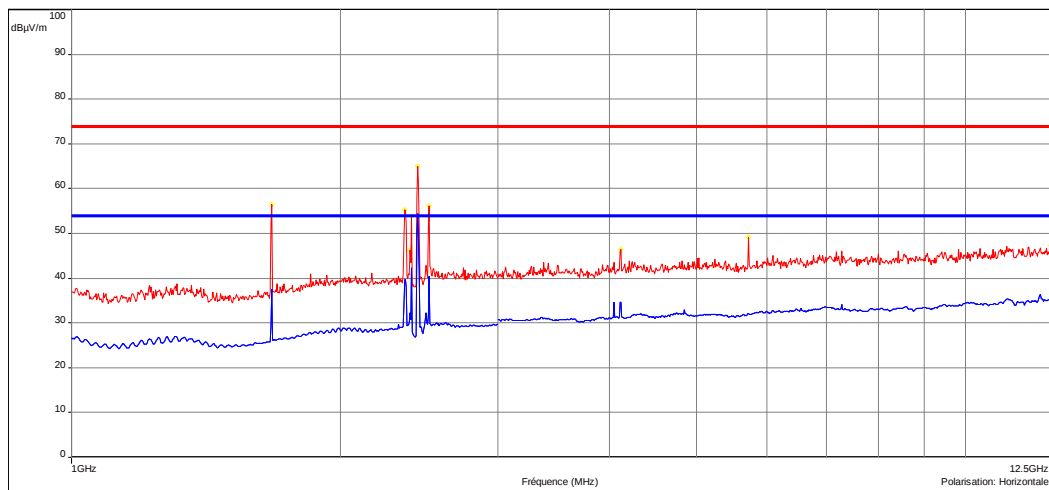
Modification(s) during test:  
No

## Radiated electric emission (measurement)

EMI2457

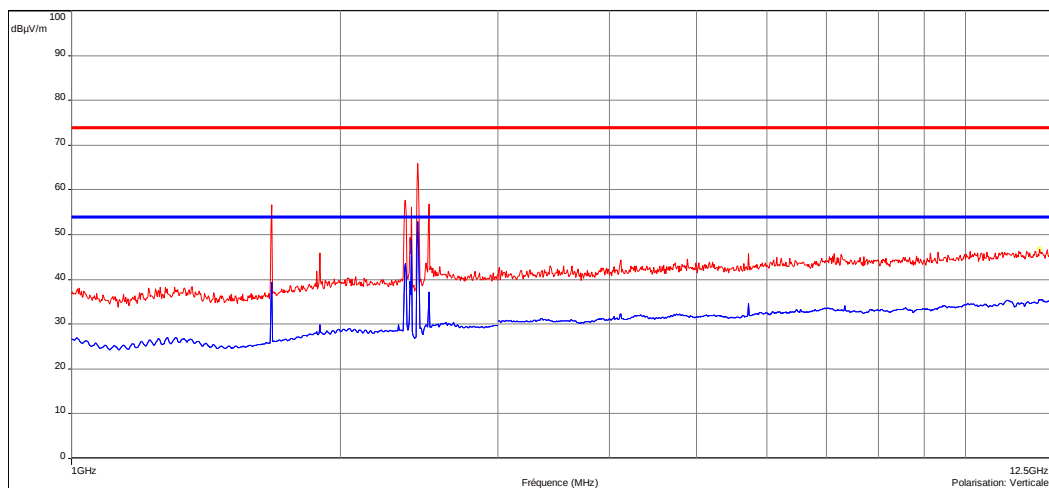
7528XP + Air300LF / GSM850 + Wi-Fi + Bluetooth

RADIO/FCC Part 15 §209 - Classe:Tx - Moyenne/3.0m/  
 RADIO/FCC Part 15 §209 - Classe:Tx - Crête/3.0m/  
 Mes. Peak (Horizontale)  
 Mes. Avg (Horizontale)  
 Peak/LimAvg (Horizontale)



7528XP + Air300LF / GSM850 + Wi-Fi + Bluetooth - 19/02/2015 09:14 - 2457

RADIO/FCC Part 15 §209 - Classe:Tx - Moyenne/3.0m/  
 RADIO/FCC Part 15 §209 - Classe:Tx - Crête/3.0m/  
 Mes. Peak (Verticale)  
 Mes. Avg (Verticale)  
 Peak/LimAvg (Verticale)



7528XP + Air300LF / GSM850 + Wi-Fi + Bluetooth - 19/02/2015 09:14 - 2457

Date: 19/02/2015 09:14:34

Technician: RB

Class: B of the standard

Detection:  
Peak

Measurement - maximized at  
360°

Frequencies identification:  
2.4GHz : Wi-Fi, Bluetooth

Modification(s) during test:  
No

**b) Measurement at 3 meters on open area test site:**

**Temperature (°C): 20**

**Humidity (%HR): 38**

**Pressure (hPa): 105**

**Test configuration:** For each measured frequencies, E.U.T. is set via a turntable in order to find the highest level. Test antenna is set between 1m and 4m in order to find the highest level in vertical and horizontal polarization. Only highest levels are recorded.

| Frequency band | Initial position (0°) | Resolution bandwidth | Measuring distance | Detection mode | E.U.T. height |
|----------------|-----------------------|----------------------|--------------------|----------------|---------------|
| 9kHz-150kHz    | Front side            | 200Hz                | 10m                | Quasi-peak     | 80cm          |
| 150kHz-30MHz   | Front side            | 10kHz                | 10m                | Quasi-peak     | 80cm          |
| 30MHz-1GHz     | Front side            | 120kHz               | 3m                 | Quasi-peak     | 80cm          |
| 1GHz-12.75GHz  | Front side            | 1MHz                 | 3m                 | Average        | 80cm          |

**Test method deviation:** Between 9 kHz to 30MHz: measurements are given in dBμA/m instead of dBμV/m (conversion factor: 51.5dB) and measuring distance is 10 meters instead of 300m.

**Test equipment list:**

| CATEGORY             | BRAND                | TYPE           | N° EMITECH | DATE CAL.  | DATE VAL   |
|----------------------|----------------------|----------------|------------|------------|------------|
| Antenna              | ETS LINDGREN         | 3117           | 8387       | 26/08/2011 | 26/10/2015 |
| Antenna              | Electro-Metrics      | BIA-30HF       | 1107       | 03/03/2011 | 03/05/2015 |
| Antenna              | Rohde & Schwarz      | HFH2-Z2        | 5825       | 27/01/2015 | 27/03/2017 |
| Antenna              | Rohde & Schwarz      | HL223          | 3126       | 03/03/2011 | 03/05/2015 |
| Antenna mast         | INNCO                | MA4000-EP-O    | 10261      | #          | #          |
| Cable                | Cables & Connetiques | N-1.5m         | 4203       | 04/06/2013 | 04/08/2015 |
| Cable                | Huber Sumner         | N-14m          | 8146       | 04/06/2013 | 04/08/2015 |
| Cable                | Huber Sumner         | N-20m          | 8385       | 04/06/2013 | 04/08/2015 |
| Filter               | Micro-Tronics        | HPM 11630      | 4392       | 07/08/2014 | 07/10/2016 |
| Filter               | MICROTRONICS         | HPM 15162      | 10273      | 07/06/2013 | 07/08/2015 |
| Filter               | Wainwright           | WRCD 1800/2000 | 9773       | 12/02/2015 | 12/04/2017 |
| Filter               | Wainwright           | WRCG 2400/2483 | 9771       | 12/02/2015 | 12/04/2017 |
| Filter               | Wainwright           | WRCT 800/880   | 9775       | 12/02/2015 | 12/04/2017 |
| Mast controller      | INNCO                | CO3000         | 10260      | #          | #          |
| Open area test site  | EMITECH              | Salinelles     | 3482       | 18/04/2014 | 18/06/2017 |
| Preamplifier         | IMPULSE              | CA118-546ACN   | 9169       | 17/06/2014 | 17/08/2015 |
| Receiver             | Agilent              | E4440A         | 5824       | 01/05/2014 | 01/07/2016 |
| Thermohygrometer     | Bioblock Scientific  | Météostar      | 0963       | 31/10/2014 | 31/12/2016 |
| Turntable            | Heinrich Deisel      | D4420          | 4038       | #          | #          |
| Turntable controller | Heinrich Deisel      | HD100          | 4036       | #          | #          |

**Results:** See **Boards** hereafter.

**7528X Version**

| Frequency (MHz) | Polarization | Azimuth (degree) | Antenna Height (cm) | Measure (dBμA/m) | Limit (dBμA/m) (*) | Comments |
|-----------------|--------------|------------------|---------------------|------------------|--------------------|----------|
| 0.1342          | Circular 0°  | 0                | 100                 | 13.60            | 33.25              | C        |
| 0.1342          | Circular 45° | 45               | 100                 | 11.92            | 33.25              | C        |
| 0.1342          | Circular 90° | 90               | 100                 | 7.67             | 33.25              | C        |

**C=Compliant**

Carrier measurement at 10m: 13.60 dBμA/m ( $\approx 65.10\text{dB}\mu\text{V/m}$ )

(\*) Using an extrapolation factor of 40 dB/decade (as described in section 15.31 (f)), the level at 300m is about 6.02dBμV/m (0.685μV/m) for a limit at 19.2 μV/m.

**7528X Version**

| Frequency (MHz) | Polarization | Azimuth (degree) | Antenna Height (cm) | Measure (dBμV/m) | Limit (dBμV/m) | Comments |
|-----------------|--------------|------------------|---------------------|------------------|----------------|----------|
| 38.78           | Vertical     | 0                | 100                 | 23.61            | 40             | C        |
| 65.22           | Vertical     | 0                | 100                 | 19.04            | 40             | C        |
| 120.00          | Vertical     | 0                | 100                 | 39.46            | 43             | C        |
| 120.02          | Horizontal   | 0                | 150                 | 20.58            | 43             | C        |
| 264.01          | Vertical     | 0                | 181                 | 37.92            | 46             | C        |
| 276.00          | Vertical     | 0                | 162                 | 37.83            | 46             | C        |
| 288.08          | Vertical     | 0                | 162                 | 38.01            | 46             | C        |
| 432.00          | Vertical     | 293              | 100                 | 35.69            | 46             | C        |

**C=Compliant**

All other unwanted radiated spurious are at least 20 dB below specified limits

**7528XP Version**

| Frequency (MHz) | Polarization | Azimuth (degree) | Antenna Height (cm) | Measure (dBμA/m) | Limit (dBμA/m) (*) | Comments |
|-----------------|--------------|------------------|---------------------|------------------|--------------------|----------|
| 0.1342          | Circular 0°  | 0                | 100                 | 13.60            | 33.25              | C        |
| 0.1342          | Circular 45° | 22               | 100                 | 11.50            | 33.25              | C        |
| 0.1342          | Circular 90° | 90               | 100                 | 7.42             | 33.25              | C        |

**C=Compliant**

Carrier measurement at 10m: 13.60 dBμA/m ( $\approx 65.10\text{dB}\mu\text{V/m}$ )

(\*) Using an extrapolation factor of 40 dB/decade (as described in section 15.31 (f)), the level at 300m is about 6.02dBμV/m (0.685μV/m) for a limit at 19.2 μV/m.

**7528XP Version**

| Frequency (MHz) | Polarization | Azimuth (degree) | Antenna Height (cm) | Measure (dBμV/m) | Limit (dBμV/m) | Comments |
|-----------------|--------------|------------------|---------------------|------------------|----------------|----------|
| 38.81           | Vertical     | 0                | 100                 | 23.61            | 40             | C        |
| 65.08           | Vertical     | 0                | 100                 | 19.04            | 40             | C        |
| 120.00          | Vertical     | 0                | 100                 | 39.46            | 43             | C        |
| 168.05          | Vertical     | 0                | 150                 | 35.99            | 43             | C        |
| 168.05          | Horizontal   | 0                | 150                 | 25.15            | 43             | C        |
| 120.02          | Horizontal   | 0                | 150                 | 20.58            | 43             | C        |
| 264.01          | Vertical     | 0                | 181                 | 37.92            | 46             | C        |
| 276.00          | Vertical     | 0                | 162                 | 37.83            | 46             | C        |
| 288.08          | Vertical     | 0                | 162                 | 38.01            | 46             | C        |
| 432.00          | Vertical     | 293              | 100                 | 35.69            | 46             | C        |

**C=Compliant**

All other unwanted radiated spurious are at least 20 dB below specified limits

**□□□ End of report – 1 annex to be forwarded □□□**

# **ANNEX: PHOTOGRAPH(S)**

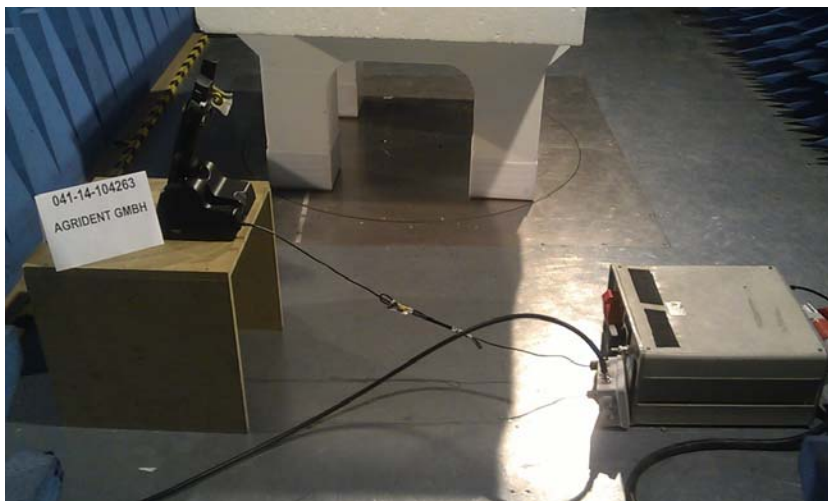
E.U.T.



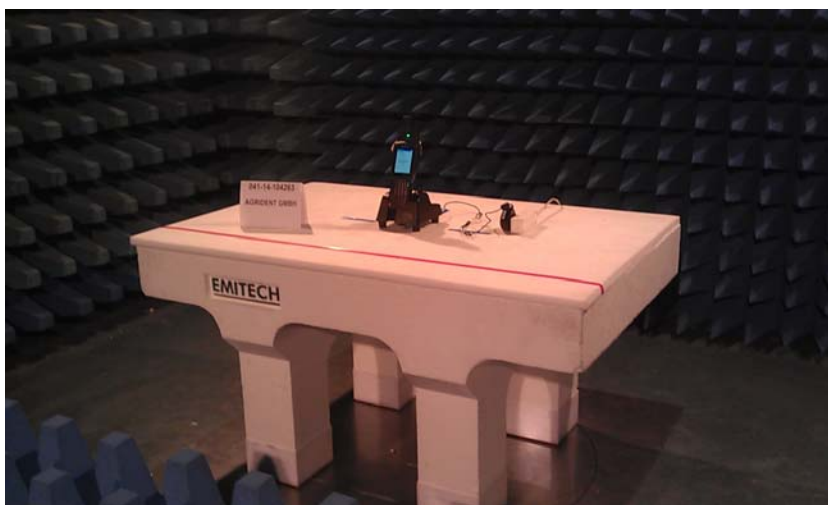
Ac power supply used for  
115Vac/60Hz power supply  
measurement



Conducted emissions



Radiated measurement (pre measurements)



**Radiated measurement on open  
area test site**



**Radiated measurement on open  
area test site**



**Radiated measurement on open  
area test site (carrier  
measurements)**

