

## TEST REPORT

Test report no.: 1-6965/13-12-05-A



Deutsche  
Akkreditierungsstelle  
D-PL-12076-01-01

### Testing Laboratory

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**Accredited Testing Laboratory:**

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2005) by the Deutsche Akkreditierungsstelle GmbH (DAkkS)

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number: D-PL-12076-01-01

Area of Testing:

Radio Communications & EMC (RCE)

### Applicant

**Sony Mobile Communications AB**

Nya Vattentorget

22188 Lund/SWEDEN

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Fax: -/-

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Phone: +46 7 03 22 75 03

### Manufacturer

**Sony Mobile Communications AB**

Nya Vattentorget

22188 Lund/SWEDEN

### Test Standard/s

47 CFR Part 15

Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices

For further applied test standards please refer to section 3 of this test report.

### Test Item

Kind of test item:

Tablet PC GPRS/EGPRS 850/900/1800/1900; UMTS HSPA FDD/III/V; LTE FDD1/3/17/18; LTE TDD41; CDMA 2K C00/C06; WLAN b/g/n/a/ac; BT 4.0; RFID; A-GPS

FCC ID:

PY7TM-0044

Technology tested:

Computer periphery device

Antenna:

Integrated antenna

Power Supply:

3.7 V DC by Li - polymer battery

Temperature Range:

-30°C to +60°C

This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

### Test report authorised:

Andreas Luckenbill  
Expert

### Test performed:

Marco Bertolino  
Testing Manager

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## 2 General information

### 2.1 Notes and disclaimer

The test results of this test report relate exclusively to the test item specified in this test report. CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item.

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In no case this test report can be considered as a Letter of Approval.

### 2.2 Application details

|                                    |            |
|------------------------------------|------------|
| Date of receipt of order:          | 2013-12-19 |
| Date of receipt of test item:      | 2014-02-17 |
| Start of test:                     | 2014-02-17 |
| End of test:                       | 2014-02-26 |
| Person(s) present during the test: | -/-        |

## 3 Test standard/s

| Test Standard  | Date | Test Standard Description                                                                 |
|----------------|------|-------------------------------------------------------------------------------------------|
| 47 CFR Part 15 |      | Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices |

#### 4 Test environment

|                    |           |                                       |
|--------------------|-----------|---------------------------------------|
| Temperature:       | $T_{nom}$ | +22 °C during room temperature tests  |
|                    | $T_{max}$ | +60 °C during high temperature tests  |
|                    | $T_{min}$ | -30 °C during low temperature tests   |
| Relative humidity: |           | 36 %                                  |
| Air pressure:      |           | not relevant for this kind of testing |
| Power supply:      | $V_{nom}$ | 3.7 V DC by Li - polymer battery      |
|                    | $V_{max}$ | 4.2 V                                 |
|                    | $V_{min}$ | 3.3 V                                 |

#### 5 Test item

|                      |                                                                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Kind of test item :  | Tablet PC GPRS/EGPRS 850/900/1800/1900; UMTS HSPA FDD/III/V; LTE FDD1/3/17/18; LTE TDD41; CDMA 2K C00/C06; WLAN b/g/n/a/ac; BT 4.0; RFID; A-GPS |
| S/N serial number :  | Radiated unit: CB5126DAH7                                                                                                                       |
| HW hardware status : | AP1                                                                                                                                             |
| SW software status : | 17.1.C.0.97                                                                                                                                     |
| Antenna :            | Integrated antenna                                                                                                                              |
| Power Supply :       | 3.7 V DC by Li - polymer battery                                                                                                                |
| Temperature Range :  | -30°C to +60°C                                                                                                                                  |

#### 5.1 Additional information

Test setup- and EUT-photos are included in test report: 1-6965/13-12-01\_AnnexA  
1-6965/13-12-01\_AnnexB  
1-6965/13-12-01\_AnnexG

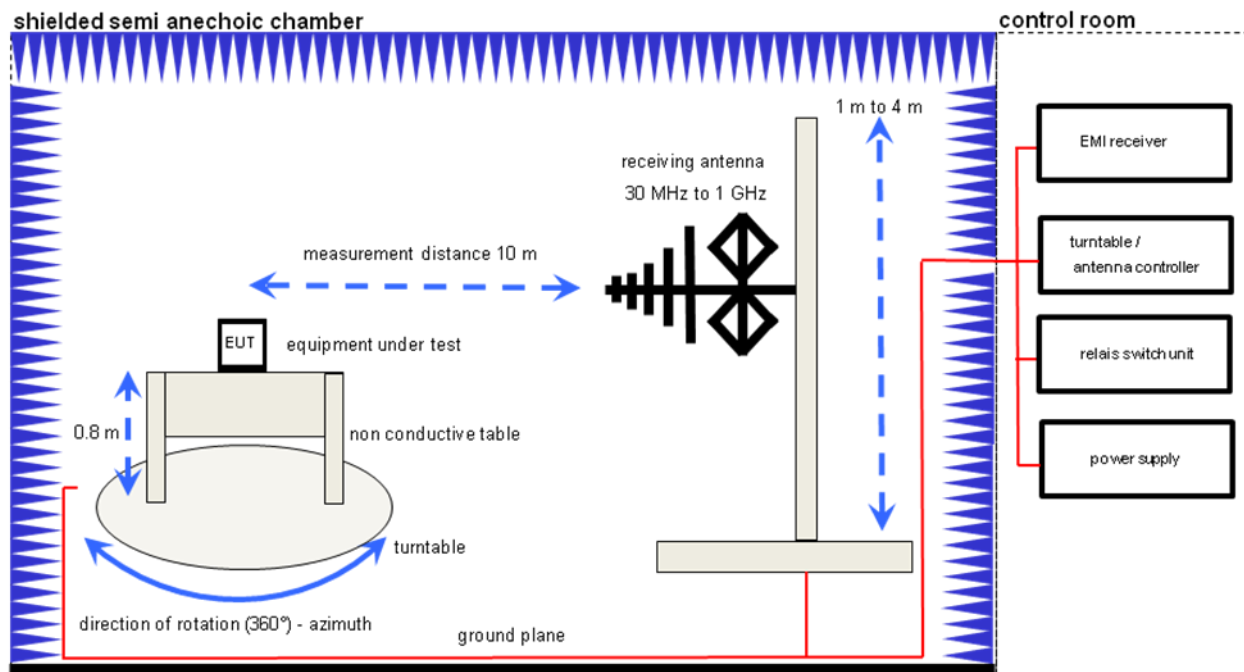
#### 6 Test laboratories sub-contracted

None

## 7 Description of the test setup

### 7.1 Radiated measurements chamber F

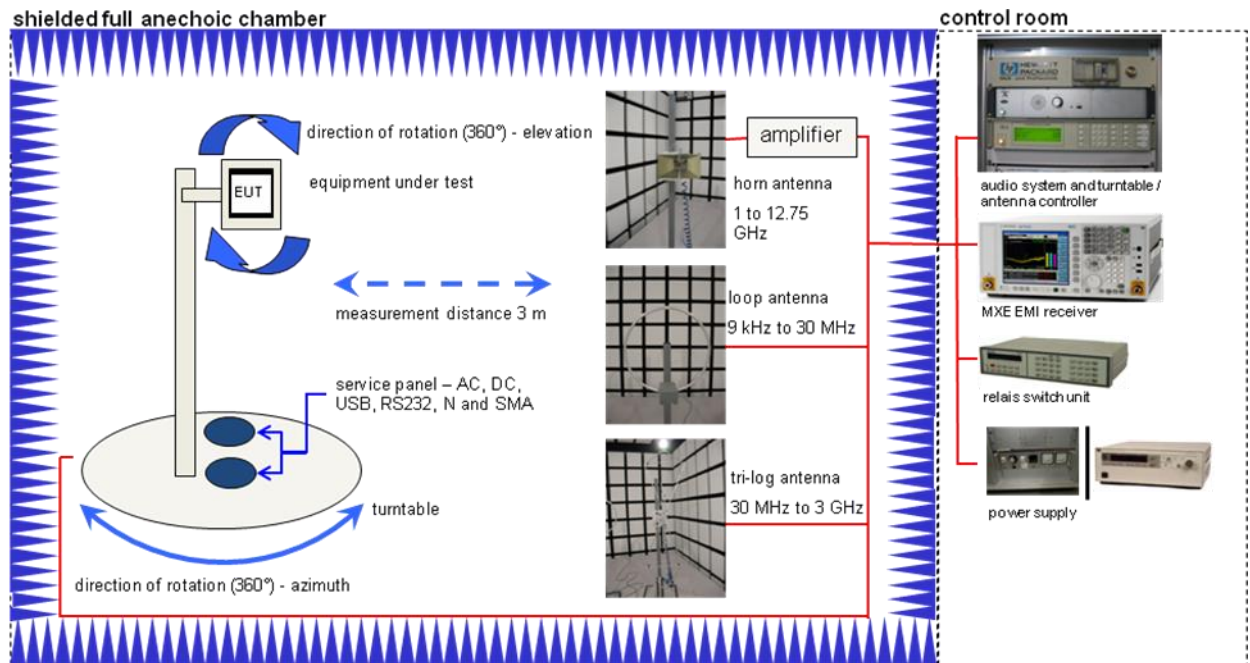
The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 1 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are confirmed with specifications ANSI C63. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by spectrum analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.



#### Equipment table:

| Equipment                                    | Type                | Manufacturer  | Serial No. | INV. No Cetecom |
|----------------------------------------------|---------------------|---------------|------------|-----------------|
| Switch-Unit                                  | 3488A               | HP Meßtechnik | 2719A14505 | 300000368       |
| DC power supply, 60Vdc, 50A, 1200 W          | 6032A               | HP Meßtechnik | 2920A04466 | 300000580       |
| EMI Test Receiver                            | ESCI 3              | R&S           | 100083     | 300003312       |
| Amplifier                                    | JS42-00502650-28-5A | MITEQ         | 1084532    | 300003379       |
| Antenna Tower                                | Model 2175          | ETS-LINDGREN  | 64762      | 300003745       |
| Positioning Controller                       | Model 2090          | ETS-LINDGREN  | 64672      | 300003746       |
| Turntable Interface-Box                      | Model 105637        | ETS-LINDGREN  | 44583      | 300003747       |
| TRILOG Broadband Test-Antenna 30 MHz - 3 GHz | VULB9163            | Schwarzbeck   | 295        | 300003787       |

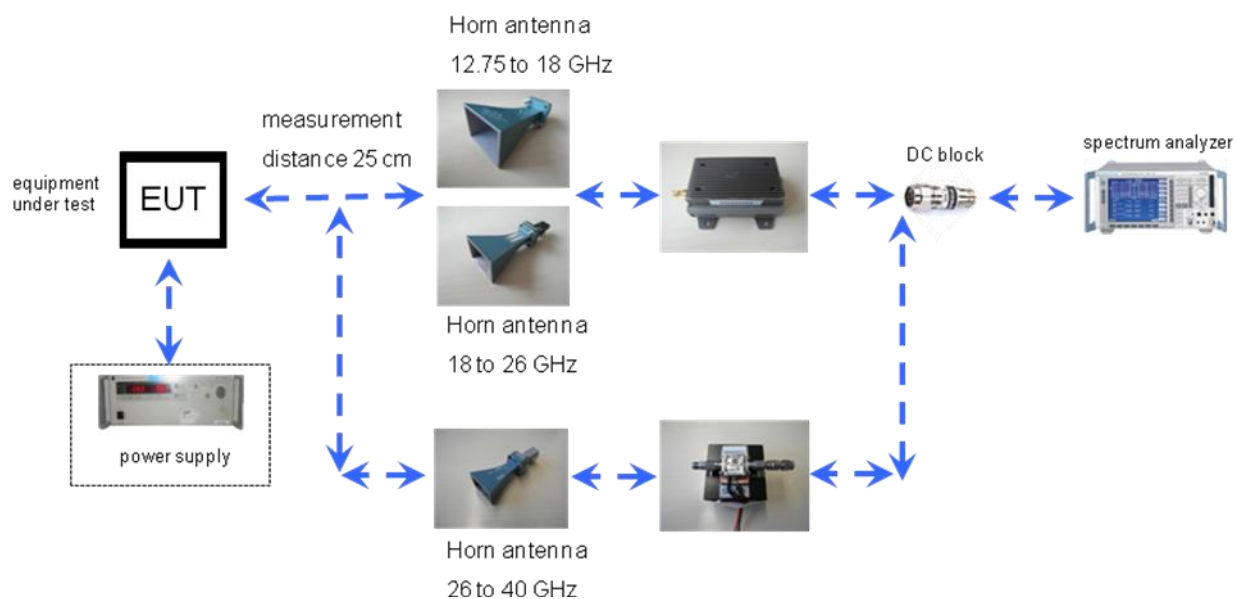
## 7.2 Radiated measurements chamber C



### Equipment table:

| Equipment                                      | Type                            | Manufacturer         | Serial No. | INV. No Cetecom |
|------------------------------------------------|---------------------------------|----------------------|------------|-----------------|
| MXE EMI Receiver 20 Hz bis 26,5 GHz            | N9038A                          | Agilent Technologies | MY51210197 | 300004405       |
| TRILOG Broadband Test-Antenna 30 MHz - 3 GHz   | VULB9163                        | Schwarzbeck          | 371        | 300003854       |
| Band Reject filter                             | WRCG2400/2483-2375/2505-50/10SS | Wainwright           | 11         | 300003351       |
| Highpass Filter                                | WHKX7.0/18G-8SS                 | Wainwright           | 18         | 300003789       |
| Double-Ridged Waveguide Horn Antenna 1-18.0GHz | 3115                            | EMCO                 | 8812-3088  | 300001032       |
| Active Loop Antenna                            | 6502                            | EMCO                 | 8905-2342  | 300000256       |
| Anechoic chamber                               | FAC 3/5m                        | MWB / TDK            | 87400/02   | 300000996       |
| Switch / Control Unit                          | 3488A                           | HP Meßtechnik        | *          | 300000199       |
| Switch / Control Unit                          | 3488A                           | HP Meßtechnik        | 2719A15013 | 300001156       |
| Isolating Transformer                          | MPL IEC625 Bus Regeltrenntravo  | ErFi                 | 91350      | 300001155       |
| Three-Way Power Splitter, 50 Ohm               | 11850C                          | HP Meßtechnik        |            | 300000997       |
| Amplifier                                      | js42-00502650-28-5a             | Parzich GMBH         | 928979     | 300003143       |

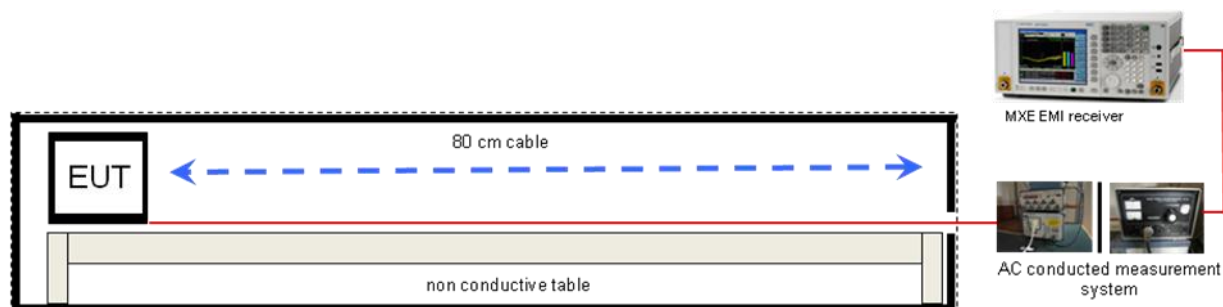
### 7.3 Radiated measurements 12.75 GHz to 40 GHz



#### Equipment table:

| Equipment                                | Type           | Manufacturer  | Serial No. | INV. No Cetecom |
|------------------------------------------|----------------|---------------|------------|-----------------|
| Std. Gain Horn Antenna 12.4 to 18.0 GHz  | 639            | Narda         | 8402       | 300000787       |
| Std. Gain Horn Antenna 18.0 to 26.5 GHz  | 638            | Narda         | 8205       | 300002442       |
| Std. Gain Horn Antenna 26.5-40.0 GHz     | 637            | Narda         | GB42110541 | 300000510       |
| Microwave System Amplifier, 0.5-26.5 GHz | 83017A         | HP Meßtechnik | 00419      | 300002268       |
| Broadband Low Noise Amplifier 18-50 GHz  | CBL18503070-XX | CERNEX        | 19338      | 300004273       |
| Signal Analyzer 40 GHz                   | FSV40          | R&S           | 101042     | 300004517       |

## 7.4 AC conducted



### Equipment table:

| Equipment                           | Type                           | Manufacturer         | Serial No. | INV. No Cetecom |
|-------------------------------------|--------------------------------|----------------------|------------|-----------------|
| MXE EMI Receiver 20 Hz bis 26,5 GHz | N9038A                         | Agilent Technologies | MY51210197 | 300004405       |
| Isolating Transformer               | MPL IEC625 Bus Regeltrenntravo | Erft                 | 91350      | 300001155       |
| Switch / Control Unit               | 3488A                          | HP Meßtechnik        | *          | 300000199       |
| Switch / Control Unit               | 3488A                          | HP Meßtechnik        | 2719A15013 | 300001168       |
| Artificial Mains 9 kHz to 30 MHz    | ESH3-Z5                        | R&S                  | 828576/020 | 300001210       |



## 8 Summary of measurement results



No deviations from the technical specifications were ascertained



There were deviations from the technical specifications ascertained

| TC identifier | Description                           | Verdict | Date       | Remark |
|---------------|---------------------------------------|---------|------------|--------|
| RF-Testing    | CFR Part 15.107, 15.109<br>ANSI C63.4 | passed  | 2014-03-14 | -/-    |

### 8.1 Receiver

| Test case                             | temperature conditions | power source voltages | Pass                                | Fail                     | NA                       | NP                       | Remark |
|---------------------------------------|------------------------|-----------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------|
| JBP spurious emissions conducted (AC) | Nominal                | Nominal               | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | -/-    |
| JBP spurious emissions radiated       | Nominal                | Nominal               | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | -/-    |

**Note:** NA = Not applicable; NP = Not performed

## 9 Measurement results

### 9.1 Spurious emissions conducted (AC)

#### Description:

Both power lines, phase and neutral line, are measured. Found peaks are remeasured with average and quasi peak detection to show compliance to the limits.

#### Measurement:

| Measurement parameter |                                            |
|-----------------------|--------------------------------------------|
| Detector:             | Peak - Quasi Peak / Average                |
| Sweep time:           | Auto                                       |
| Video bandwidth:      | F < 150 kHz: 200 Hz<br>F > 150 kHz: 9 kHz  |
| Resolution bandwidth: | F < 150 kHz: 1 kHz<br>F > 150 kHz: 100 kHz |
| Span:                 | 9 kHz to 30 MHz                            |
| Trace-Mode:           | Max Hold                                   |

#### Limits:

| FCC                                   |                           |                        |
|---------------------------------------|---------------------------|------------------------|
| Spurious emissions conducted < 30 MHz |                           |                        |
| Frequency (MHz)                       | Quasi-Peak (dB $\mu$ V/m) | Average (dB $\mu$ V/m) |
| 0.15 – 0.5                            | 66 to 56*                 | 56 to 46*              |
| 0.5 – 5                               | 56                        | 46                     |
| 5 – 30.0                              | 60                        | 50                     |

\*Decreases with the logarithm of the frequency

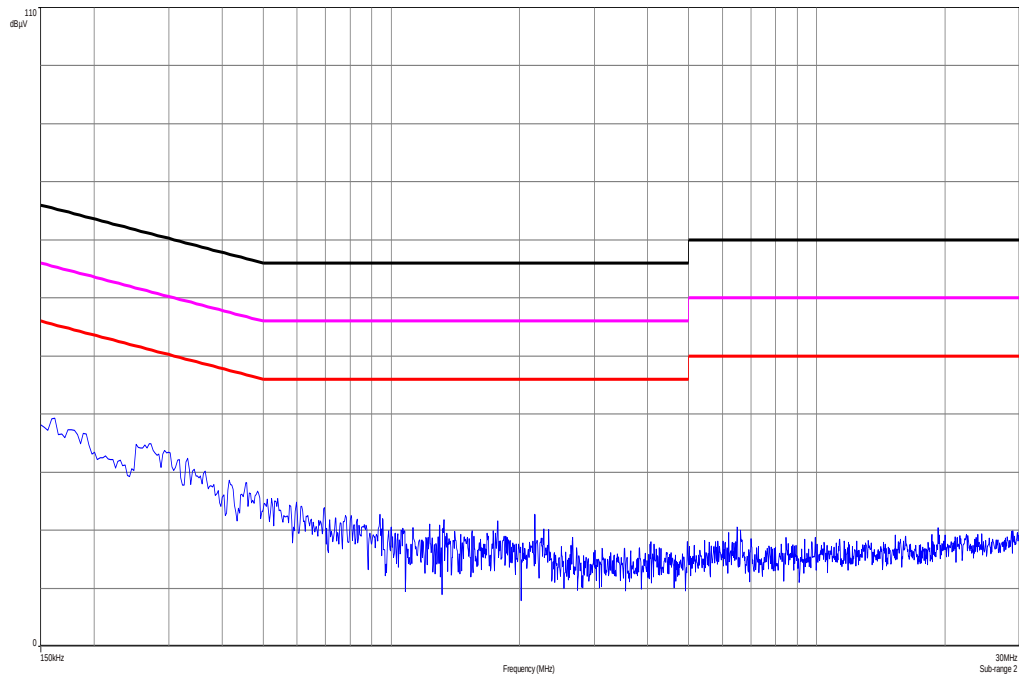
#### Result:

| Spurious emissions conducted < 30 MHz [dB $\mu$ V/m] |            |                      |
|------------------------------------------------------|------------|----------------------|
| F [MHz]                                              | Detector   | Level [dB $\mu$ V/m] |
| No peaks detected!                                   |            |                      |
|                                                      |            |                      |
| Measurement uncertainty                              | $\pm 3$ dB |                      |

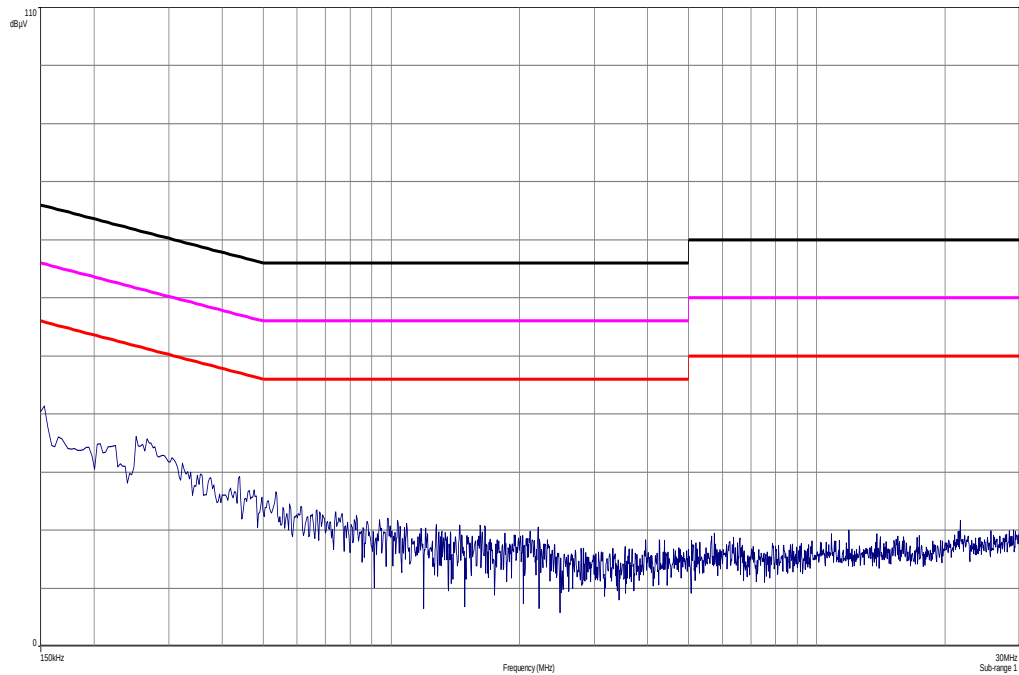
**Result: Passed**

**Plots:**

**Plot 1: 150 kHz to 30 MHz, phase line**



**Plot 2: 150 kHz to 30 MHz, neutral line**



## 9.2 Spurious emissions radiated

### Description:

The measurement was performed in worst case. The EUT was not connected to the CMU 200. So the EUT performs a network search. In this mode all oscillators are active.

### Measurement:

| Measurement parameters |                                                            |
|------------------------|------------------------------------------------------------|
| Detector:              | Below 1 GHz Peak / QuasiPeak<br>Above 1 GHz Peak / Average |
| Sweep time:            | 2 sec                                                      |
| Video bandwidth:       | Below 1 GHz 100 kHz<br>Above 1 GHz 1 MHz                   |
| Resolution bandwidth:  | 1 MHz                                                      |
| Span:                  | 100 MHz Steps                                              |
| Trace-Mode:            | Max Hold                                                   |

### Limits:

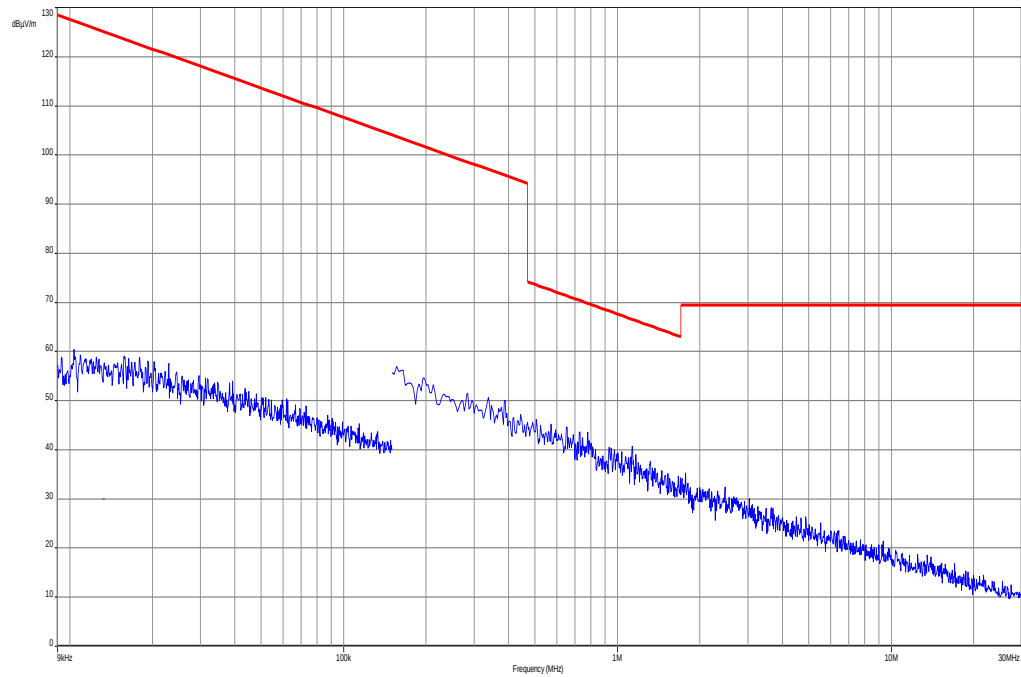
| FCC                         |                               |                          |
|-----------------------------|-------------------------------|--------------------------|
| Spurious emissions radiated |                               |                          |
| Frequency (MHz)             | Field Strength (dB $\mu$ V/m) | Measurement distance (m) |
| 30 – 88                     | 30.0                          | 10                       |
| 88 - 216                    | 33.5                          | 10                       |
| 216 – 960                   | 36.0                          | 10                       |
| Above 960                   | 54.0                          | 3                        |

### Results:

| Spurious emission level (dB $\mu$ V/m)                                           |          |                      |
|----------------------------------------------------------------------------------|----------|----------------------|
| Frequency (MHz)                                                                  | Detector | Level (dB $\mu$ V/m) |
| For emissions below 1 GHz, please take a look at the table below the 1 GHz plot. |          |                      |
| All detected peak emissions above 1 GHz are below the average limit!             |          |                      |
| Measurement uncertainty                                                          |          | $\pm 3$ dB           |

**Result:** **Passed**

**Note:** The limit was recalculated with 20 dB / decade (Part 15.31) for all radiated spurious emissions 30 MHz to 1 GHz from 3 meter limit to a 10 meter distance. (40dB/decade for emissions < 30MHz)

**Plots:****Plot 1:** Receiver mode up to 30 MHz

**Plot 2:** Receiver mode 30 MHz to 1 GHz

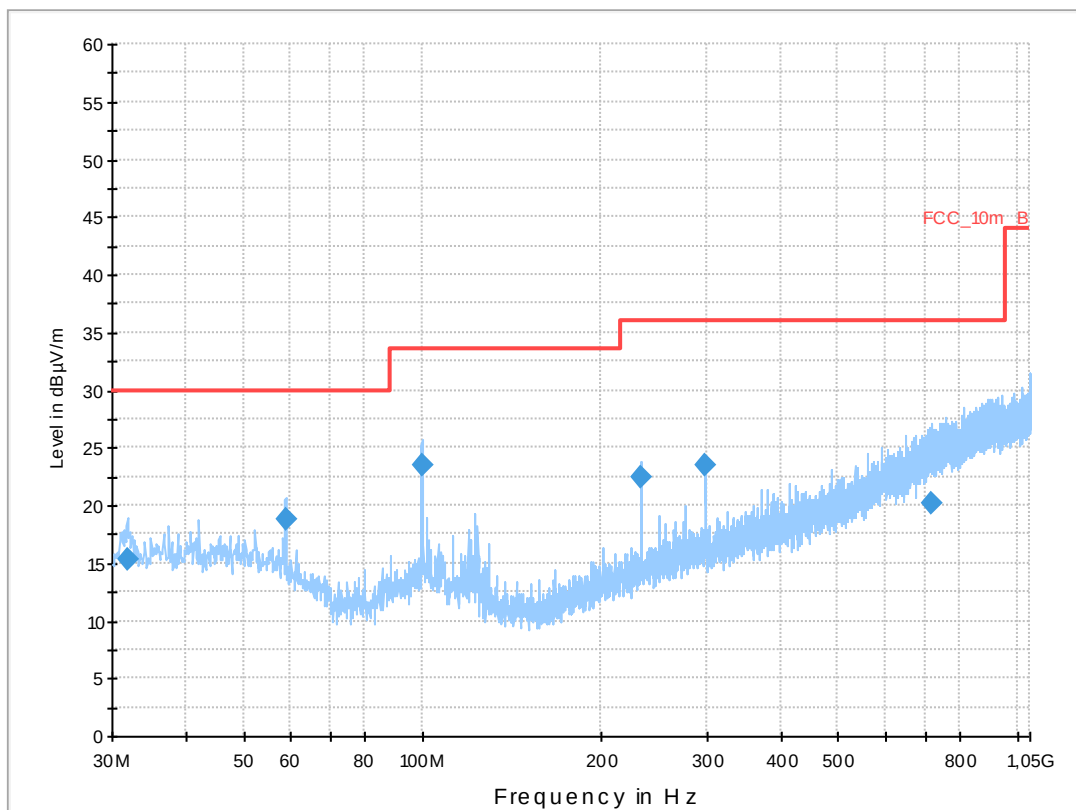
## Common Information

Serial Number: CB5126DAH7  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: idle + charging  
 Operator Name: Wolsdorfer  
 Comment: usb powered

## Scan Setup: STAN\_Fin [EMI radiated]

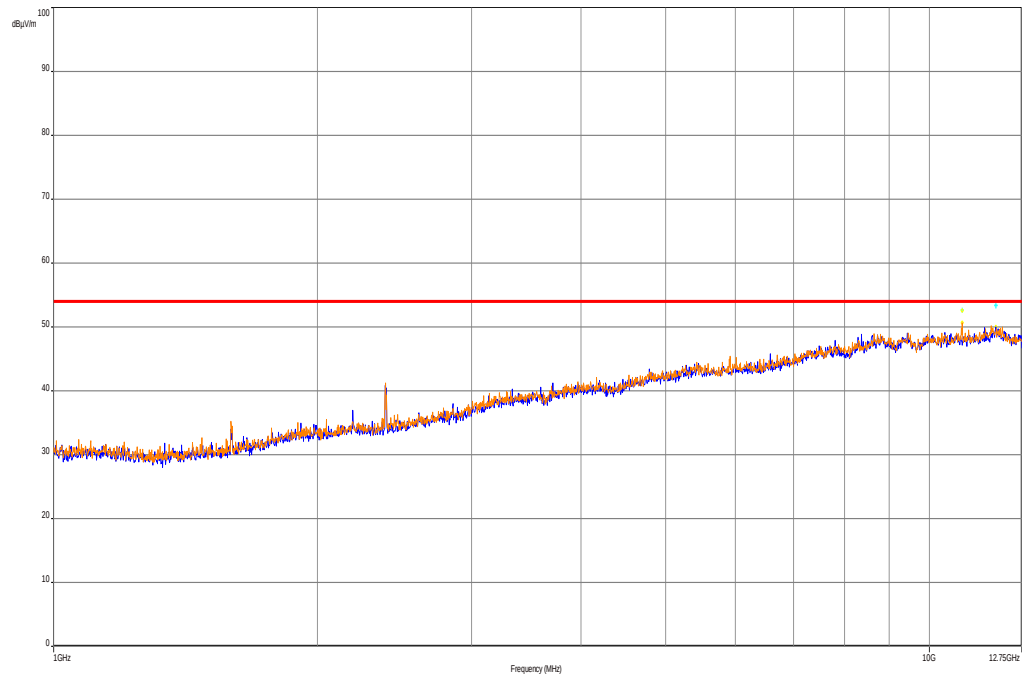
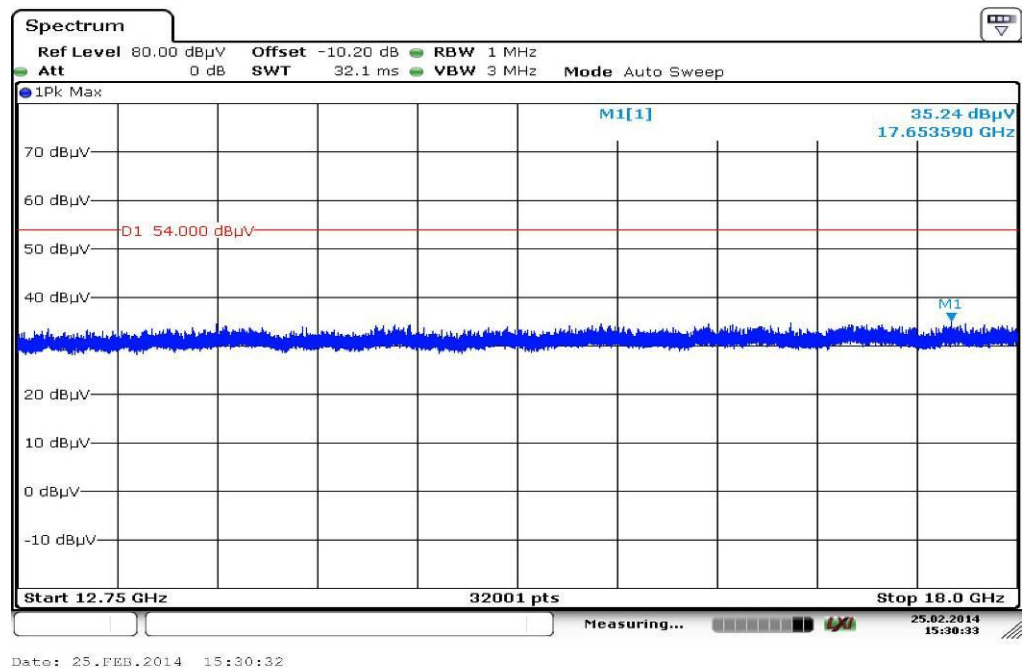
Hardware Setup: Electric Field (NOS)  
 Level Unit: dB $\mu$ V/m

| Subrange       | Step Size | Detectors | IF BW   | Meas. Time | Preamp |
|----------------|-----------|-----------|---------|------------|--------|
| 30 MHz - 2 GHz | 60 kHz    | QPK       | 120 kHz | 1 s        | 20 dB  |

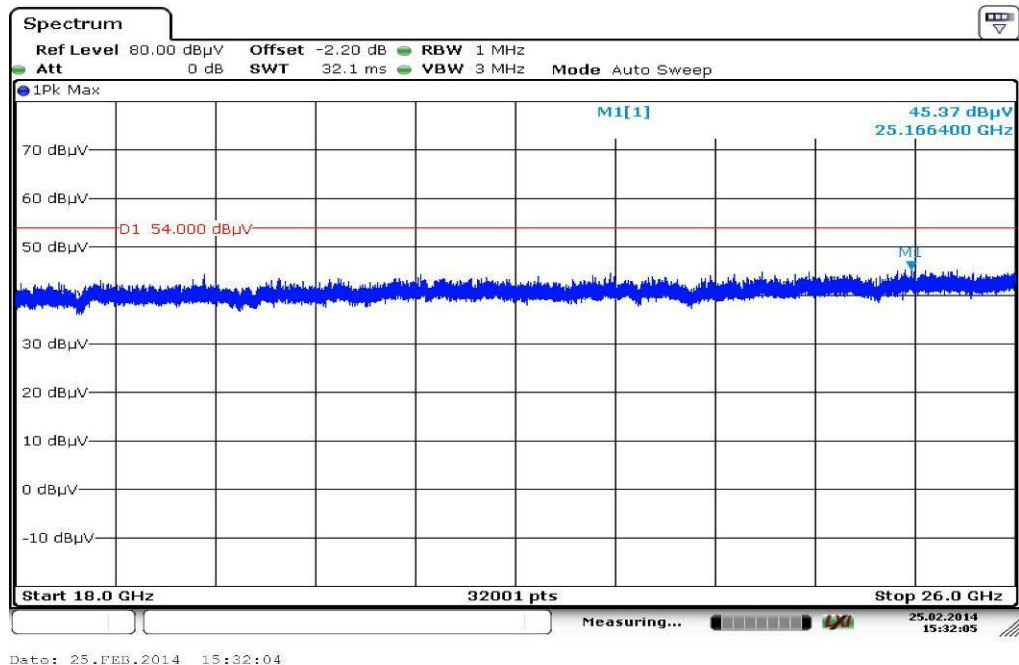


## Final Result 1

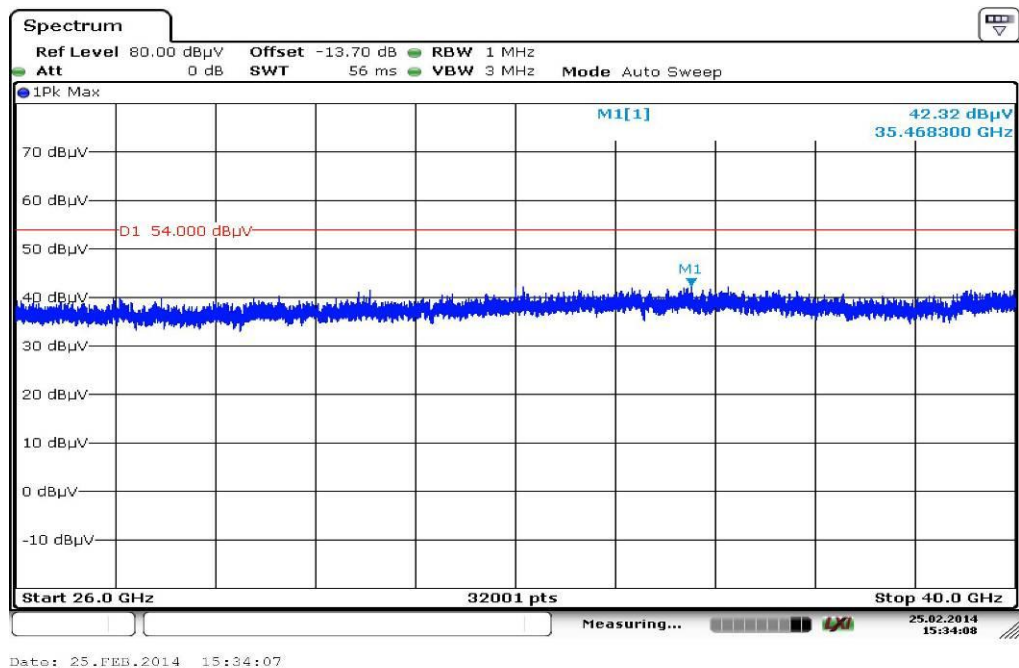
| Frequency (MHz) | QuasiPeak (dB $\mu$ V/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V/m) | Comment |
|-----------------|--------------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------------|---------|
| 32.036850       | 15.4                     | 1000.0          | 120.000         | 98.0        | V            | 93.0          | 12.7       | 14.6        | 30.0                 |         |
| 58.808400       | 18.8                     | 1000.0          | 120.000         | 170.0       | V            | 270.0         | 11.9       | 11.2        | 30.0                 |         |
| 99.719400       | 23.5                     | 1000.0          | 120.000         | 170.0       | V            | 100.0         | 11.9       | 10.0        | 33.5                 |         |
| 232.367850      | 22.5                     | 1000.0          | 120.000         | 98.0        | V            | 100.0         | 12.8       | 13.5        | 36.0                 |         |
| 299.308050      | 23.5                     | 1000.0          | 120.000         | 98.0        | V            | 260.0         | 14.5       | 12.5        | 36.0                 |         |
| 717.561300      | 20.2                     | 1000.0          | 120.000         | 170.0       | V            | 88.0          | 22.9       | 15.8        | 36.0                 |         |

**Plot 3: Receiver mode 1 GHz to 12.75 GHz****Plot 4: Receiver mode 12.75 GHz to 18 GHz**

**Plot 5: Receiver mode 18 GHz to 26 GHz**



**Plot 6: Receiver mode 26 GHz to 40 GHz**





## 10 Test equipment and ancillaries used for tests

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, rf-generating and signalling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

| No. | Lab / Item | Equipment                                               | Type                                        | Manufact.                   | Serial No. | INV. No<br>Cetecom | Kind of<br>Calibration | Last<br>Calibration | Next<br>Calibration |
|-----|------------|---------------------------------------------------------|---------------------------------------------|-----------------------------|------------|--------------------|------------------------|---------------------|---------------------|
| 1   | 45         | Switch-Unit                                             | 3488A                                       | HP<br>Meßtechnik            | 2719A14505 | 300000368          | g                      |                     |                     |
| 2   | 50         | DC power<br>supply, 60Vdc,<br>50A, 1200 W               | 6032A                                       | HP<br>Meßtechnik            | 2920A04466 | 300000580          | ne                     |                     |                     |
| 3   | n. a.      | EMI Test<br>Receiver                                    | ESCI 3                                      | R&S                         | 100083     | 300003312          | k                      | 27.01.2014          | 27.01.2015          |
| 4   | n. a.      | Antenna Tower                                           | Model 2175                                  | ETS-<br>LINDGREN            | 64762      | 300003745          | izw                    |                     |                     |
| 5   | n. a.      | Positioning<br>Controller                               | Model 2090                                  | ETS-<br>LINDGREN            | 64672      | 300003746          | izw                    |                     |                     |
| 6   | n. a.      | Turntable<br>Interface-Box                              | Model<br>105637                             | ETS-<br>LINDGREN            | 44583      | 300003747          | izw                    |                     |                     |
| 7   | n. a.      | TRILOG<br>Broadband<br>Test-Antenna<br>30 MHz - 3 GHz   | VULB9163                                    | Schwarzbe<br>ck             | 295        | 300003787          | k                      | 12.04.2012          | 12.04.2014          |
| 8   | n. a.      | Double-Ridged<br>Waveguide<br>Horn Antenna<br>1-18.0GHz | 3115                                        | EMCO                        | 8812-3088  | 300001032          | vIKII                  | 08.05.2013          | 08.05.2015          |
| 9   | n. a.      | Anechoic<br>chamber                                     | FAC 3/5m                                    | MWB /<br>TDK                | 87400/02   | 300000996          | ev                     |                     |                     |
| 10  | n. a.      | Switch / Control<br>Unit                                | 3488A                                       | HP<br>Meßtechnik            | *          | 300000199          | ne                     |                     |                     |
| 11  | n. a.      | Switch / Control<br>Unit                                | 3488A                                       | HP<br>Meßtechnik            | 2719A15013 | 300001156          | ne                     |                     |                     |
| 12  | 9          | Isolating<br>Transformer                                | MPL<br>IEC625<br>Bus<br>Regeltrennt<br>ravo | Erfi                        | 91350      | 300001155          | ne                     |                     |                     |
| 13  | 90         | Active Loop<br>Antenna 10<br>kHz to 30 MHz              | 6502                                        | Kontron<br>Psychotech       | 8905-2342  | 300000256          | k                      | 13.06.2013          | 13.06.2015          |
| 14  | n. a.      | Amplifier                                               | js42-<br>00502650-<br>28-5a                 | Parzich<br>GMBH             | 928979     | 300003143          | ne                     |                     |                     |
| 15  | n. a.      | MXE EMI<br>Receiver 20 Hz<br>bis 26,5 GHz               | N9038A                                      | Agilent<br>Technologi<br>es | MY51210197 | 300004405          | k                      | 21.02.2013          | 21.02.2015          |
| 16  | 11b        | Microwave<br>System<br>Amplifier, 0.5-<br>26.5 GHz      | 83017A                                      | HP<br>Meßtechnik            | 00419      | 300002268          | ev                     |                     |                     |
| 17  | A026       | Std. Gain Horn<br>Antenna 12.4 to<br>18.0 GHz           | 639                                         | Narda                       | 8402       | 300000787          | k                      | 22.07.2013          | 22.07.2015          |
| 18  | A029       | Std. Gain Horn<br>Antenna 18.0 to<br>26.5 GHz           | 638                                         | Narda                       | 8205       | 300002442          | k                      | 19.07.2013          | 19.07.2015          |
| 19  | n. a.      | Signal Analyzer<br>40 GHz                               | FSV40                                       | R&S                         | 101042     | 300004517          | k                      | 21.01.2014          | 21.01.2015          |
| 20  | A031       | Std. Gain Horn<br>Antenna 26.5 to<br>40.0 GHz           | 637                                         | Narda                       |            | 300000510          | k                      | 19.07.2013          | 19.07.2015          |
| 21  | n. a.      | Broadband Low<br>Noise Amplifier<br>18-50 GHz           | CBL18503<br>070-XX                          | CERNEX                      | 19338      | 300004273          | ne                     |                     |                     |

**Agenda:** Kind of Calibration

|      |                                            |     |                                                      |
|------|--------------------------------------------|-----|------------------------------------------------------|
| k    | calibration / calibrated                   | EK  | limited calibration                                  |
| ne   | not required (k, ev, izw, zw not required) | zw  | cyclical maintenance (external cyclical maintenance) |
| ev   | periodic self verification                 | izw | internal cyclical maintenance                        |
| Ve   | long-term stability recognized             | g   | blocked for accredited testing                       |
| vlk! | Attention: extended calibration interval   |     |                                                      |
| NK!  | Attention: not calibrated                  | *)  | next calibration ordered / currently in progress     |

**11 Observations**

No observations exceeding those reported with the single test cases have been made.

**Annex A Document history**

| Version | Applied changes  | Date of release |
|---------|------------------|-----------------|
|         | Initial release  | 2014-02-27      |
| A       | Editorial change | 2014-03-14      |

**Annex B Further information****Glossary**

|          |   |                                                |
|----------|---|------------------------------------------------|
| AVG      | - | Average                                        |
| DUT      | - | Device under test                              |
| EMC      | - | Electromagnetic Compatibility                  |
| EN       | - | European Standard                              |
| EUT      | - | Equipment under test                           |
| ETSI     | - | European Telecommunications Standard Institute |
| FCC      | - | Federal Communication Commission               |
| FCC ID   | - | Company Identifier at FCC                      |
| HW       | - | Hardware                                       |
| IC       | - | Industry Canada                                |
| Inv. No. | - | Inventory number                               |
| N/A      | - | Not applicable                                 |
| PP       | - | Positive peak                                  |
| QP       | - | Quasi peak                                     |
| S/N      | - | Serial number                                  |
| SW       | - | Software                                       |

## Annex C Accreditation Certificate

Front side of certificate



Deutsche Akkreditierungsstelle GmbH

Befähigung gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 1 Absatz 1 AkkStelleGBV  
Unterzeichnerin der Multilateralen Abkommen  
von EA, ILAC und IAF zur gegenseitigen Anerkennung

### Akkreditierung



Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaboratorium

**CETECOM ICT Services GmbH**  
Untertürkheimer Straße 6-10, 66117 Saarbrücken

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen durchzuführen:

Drahtgebundene Kommunikation einschließlich xDSL  
VoIP und DECT  
Akustik  
Funk einschließlich WLAN  
Short Range Devices (SRD)  
RFID  
WiMax und Richtfunk  
Mobilfunk (GSM / DCS, Over the Air (OTA) Performance)  
Elektromagnetische Verträglichkeit (EMV) einschließlich Automotive  
Produktsicherheit  
SAR und Hearing Aid Compatibility (HAC)  
Umweltsimulation  
Smart Card Terminals  
Bluetooth  
Wi-Fi-Services

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Bescheid vom 18.01.2013 mit der  
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Registrierungsnummer der Urkunde: D-PL-12076-01-01

Frankfurt am Main, 18.01.2015

Seite 1/1 von 1 auf der Rückseite

Im Auftrag  
Dr. Ingrid P. H. Jäger  
Abteilungsleiter

Back side of certificate

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31. Juli 2009 (BGBl. I S. 2625) sowie der Verordnung (EG) Nr. 765/2008 des Europäischen Parlaments  
und des Rates vom 9. Juli 2008 über die Vorschriften für die Akkreditierung und Marktüberwachung  
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EA: [www.european-accreditation.org](http://www.european-accreditation.org)ILAC: [www.ilac.org](http://www.ilac.org)IAF: [www.iaf.nu](http://www.iaf.nu)

### Note:

The current certificate including annex is published on our website (see link below) or may be received from CETECOM ICT Services on request.

<http://www.cetecom.com/eu/de/cetecom-group/europa/deutschland-saarbruecken/akkreditierungen.html>