**CETECOM™****CETECOM ICT Services**
consulting - testing - certification >>>

TEST REPORT

Test report no.: 1-5831/13-08-04



Testing laboratory

CETECOM ICT Services GmbH

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Internet: <http://www.cetecom.com>e-mail: ict@cetecom.com**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/Satellite Communications

Applicant

Sony Mobile Communications AB

Nya Vattentornet

22188 Lund / SWEDEN

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Manufacturer

Sony Mobile Communications AB

Nya Vattentornet

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: Mobile Phone GPRS/EGPRS 850/900/1800/1900; UMTS HSPA FDDI/V/VIII; LTE FDD1/3/5/7/8/20; WLAN a/b/g/n; BT 3.1; RFID; FM Rx; A-GPS**Model name:** C5503**FCC ID:** PY7PM-0330**IC:** -/-

Frequency: 13.56 MHz

Technology tested: RFID / NFC

Antenna: Integrated loop antenna

Power Supply: 3.7 V DC by Li - Ion battery

Temperature Range: -20°C to +55°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:

Tobias Wittenmeier
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.

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

2.2 Application details

| | |
|------------------------------------|------------|
| Date of receipt of order: | 2013-01-30 |
| Date of receipt of test item: | 2013-02-25 |
| Start of test: | 2013-02-25 |
| End of test: | 2013-03-06 |
| Person(s) present during the test: | -/- |

3 Test standard/s

| Test standard | Date | Test standard description |
|----------------|---------|--|
| 47 CFR Part 15 | 2010-10 | 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} | +55 °C during high temperature tests |
| | T_{min} | -20 °C during low temperature tests |
| Relative humidity content: | | 40 % |
| Barometric pressure: | | not relevant for this kind of testing |
| Power supply: | V_{nom} | 3.7 V DC by Li - Ion battery |
| | V_{max} | 4.1 V |
| | V_{min} | 3.3 V |

5 Test item

| | | |
|----------------------|---|---|
| Kind of test item | : | Mobile Phone GPRS/EGPRS 850/900/1800/1900; UMTS HSPA FDDI/V/VIII; LTE FDD1/3/5/7/8/20; WLAN a/b/g/n; BT 3.1; RFID; FM Rx; A-GPS |
| Type identification | : | C5503 |
| S/N serial number | : | Radiated units: CB5A1NNJLW; CB5A1NYFD5 |
| HW hardware status | : | AP1 |
| SW software status | : | 10.2.A.1.46 |
| Frequency band [MHz] | : | 13.56 |
| Number of channels | : | 1 |
| Antenna | : | Integrated loop antenna |
| Power supply | : | 3.7 V DC by Li - Ion battery |
| Temperature range | : | -20°C to +55 °C |

5.1 Additional information

Test setup - and EUT - photos are included in the following test reports:

| | |
|----------------------|------------------------|
| External EUT photos: | 1-5831/13-08-01_AnnexA |
| Internal EUT photos: | 1-5831/13-08-01_AnnexB |
| Test setup: | 1-5831/13-08-01_AnnexD |

6 Test laboratories sub-contracted

None

7 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 RSS 210, Issue 8, Annex 2.6 | Passed | 2013-04-05 | -/- |

| Test Specification Clause | Test Case | Temperature Conditions | Power Source Voltages | Pass | Fail | NA | NP | Remark |
|---|---|------------------------|-----------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|----------|
| § 15.35 (c)/ RSS-GEN Issue 3 | Timing of the transmitter (Duty cycle correction factor) | Nominal | Nominal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies |
| RSS-GEN Issue 3 | 99 % emission bandwidth | Nominal | Nominal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies |
| § 15.225 (a)/ RSS-210 Issue 8 Annex 2.6 | Fieldstrength of Fundamental | Nominal | Nominal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies |
| § 15.209/ RSS-210 Issue 8 Annex 2.6 | Fieldstrength of harmonics and spurious | Nominal | Nominal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies |
| § 15.225 (e)/ RSS-210 Issue 8 Annex 2.6 | Frequency tolerance | Nominal | Extreme | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies |
| | | Extreme | Nominal | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: NA = Not Applicable; NP = Not Performed

8 RF measurements

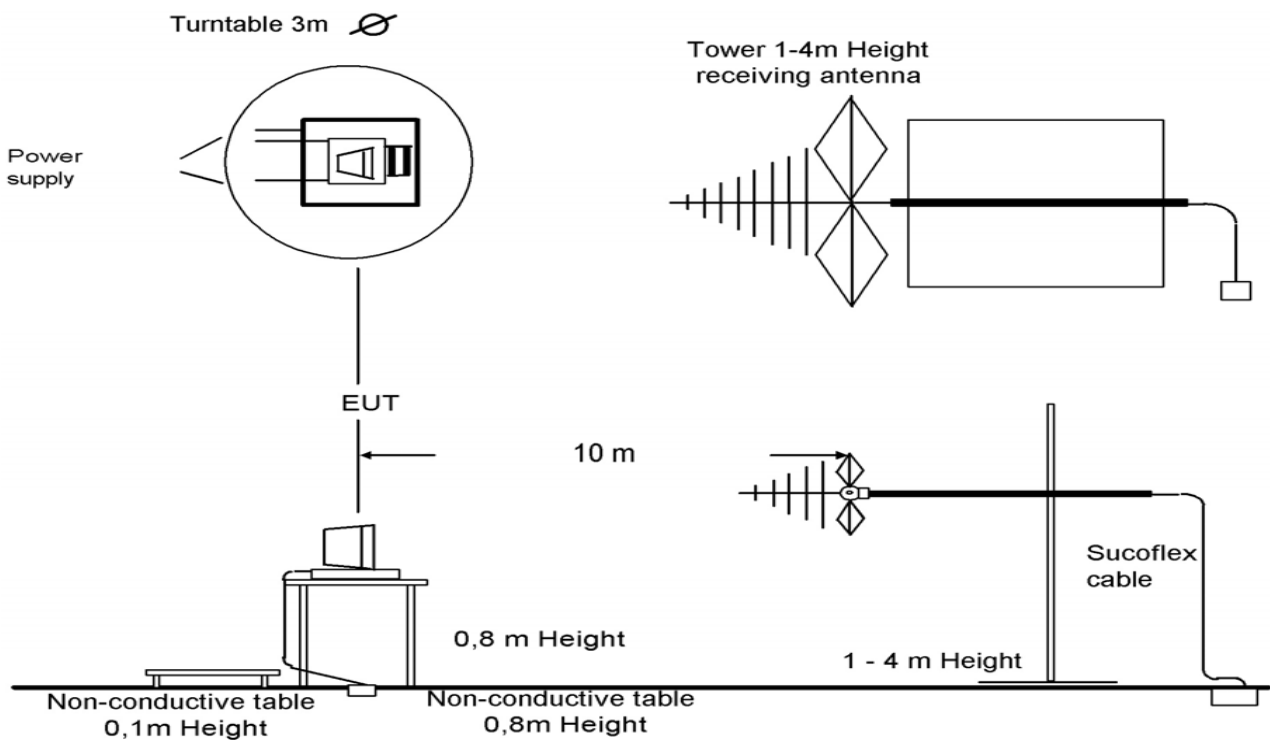
8.1 Description of test setup

8.1.1 Radiated measurements

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 25 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 C63.2-1996 clause 15 and ANSI C63.4-2003 clause 4.1.5. 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 C63-4-2003 clause 4.2.

Antennas are confirmed with ANSI C63.2-1996 item 15.

Semi anechoic chamber



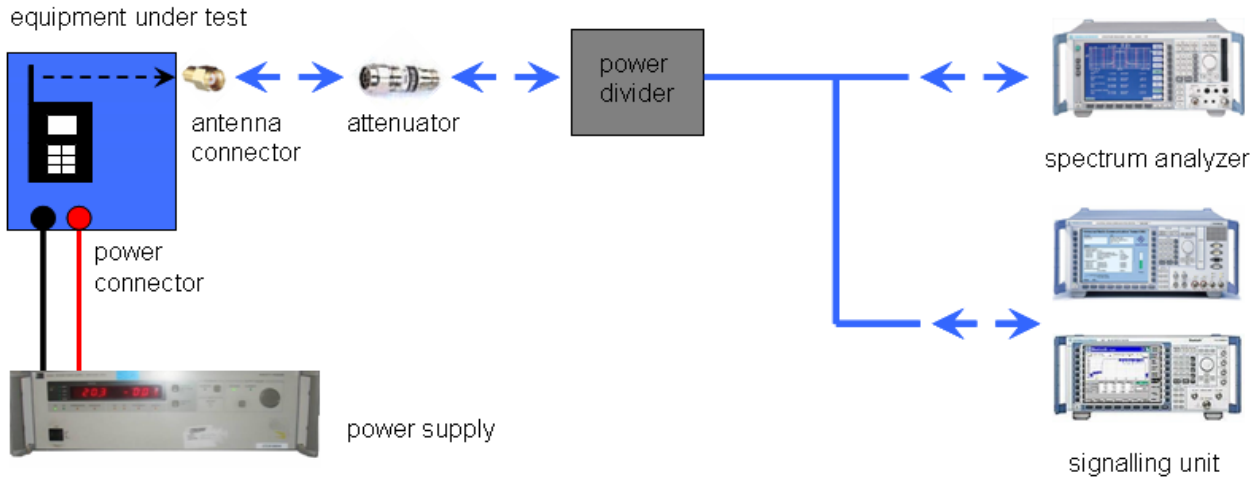
Picture 1: Diagram radiated measurements

| | |
|-----------------|---------------------|
| 9 kHz - 30 MHz: | active loop antenna |
| 30 MHz – 1 GHz: | tri-log antenna |
| > 1 GHz: | horn antenna |

The EUT is powered by an external power supply with nominal voltage. The signalling is performed from outside the chamber with a signalling unit (CMU200 or other) by air link using signalling antenna.

8.1.2 Conducted measurements

The EUT's RF signal is coupled out by the antenna connector which is supplied by the manufacturer. The signal is first 10dB attenuated before it is power divided (~6dB loss per branch). One of the signal paths is connected to the communication base Station (CMU200 or other), the other one is connected to the spectrum analyzer. The specific losses for both signal paths are first checked within a calibration. The measurement readings on the signalling unit/spectrum analyzer are corrected by the specific test set-up loss. The attenuator, power divider, signalling unit and the spectrum analyzer are impedance matched on 50 Ohm.



Picture 2: Diagram conducted measurements

8.2 Additional comments

- Reference documents: RF Fixture- Antenna Port Information
- Special test descriptions: None
- Configuration descriptions: None

9 Measurement results

9.1 Timing of the transmitter

Measurement:

| Measurement parameter | |
|-----------------------|---------------|
| Detector: | Positive peak |
| Sweep time: | 100 ms |
| Resolution bandwidth: | 100 kHz |
| Video bandwidth: | 300 kHz |
| Span: | Zero span |
| Trace-Mode: | Single sweep |

Limits:

| FCC | IC |
|---|----|
| Timing of the transmitter | |
| <p>(c) Unless otherwise specified, e.g. Section 15.255(b), when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.</p> | |

Result:

Duty cycle 100 %

Result: **passed**

9.2 Field strength of the fundamental

Measurement:

| Measurement parameter | |
|-----------------------|---|
| Detector: | Quasi Peak |
| Resolution bandwidth: | 200 Hz up to 150 kHz, 9 kHz up to 30 MHz, 120 kHz up to 1 GHz |
| Video bandwidth: | ≥ RBW |
| Trace-Mode: | Max Hold |

Limits:

| FCC | | IC |
|-----------------------------|---|---|
| Fundamental Frequency (MHz) | Field strength of Fundamental (μV/m / dBμV/m) | Measurement distance (m) |
| 13.553 to 13.567 | 15848 μV/m (84 dBμV/m) | 30 |
| | 158489 μV/m (104 dBμV/m) | 10 (Recalculated acc. to FCC part15.31 (f2)) |

Result:

| TEST CONDITIONS | | MAXIMUM POWER (dBμV/m) | |
|-------------------------|------------------|------------------------|------------------|
| Frequency | | 13.56 MHz | 13.56 MHz |
| Mode | | at 10 m distance | at 30 m distance |
| T _{nom} | V _{nom} | 48.0 | 28.0* |
| Measurement uncertainty | | ±3dB | |

* Limits recalculated from 10m to 30m with 40 dB/decade according to FCC 15.31 (f2).

Result: passed

9.3 99 % emission bandwidth

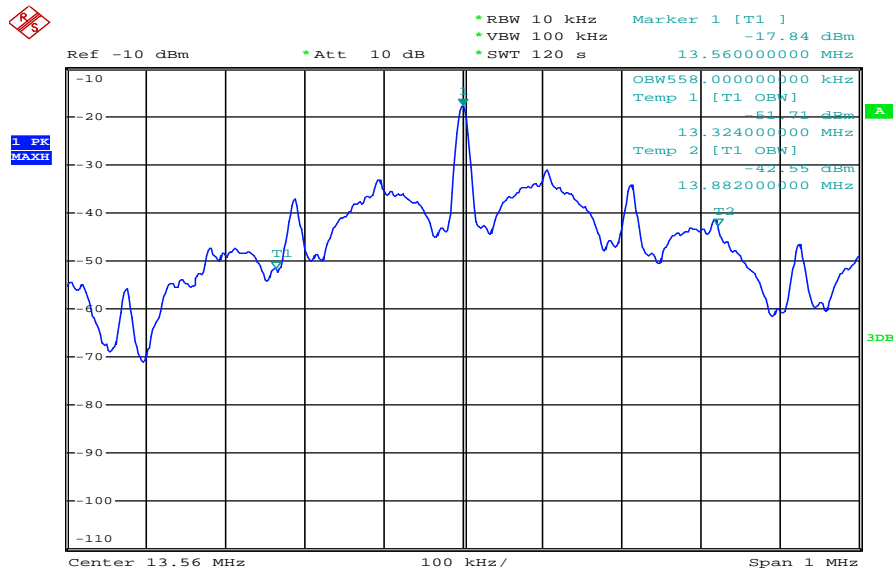
Measurement:

| Measurement parameter | |
|-----------------------|------------|
| Detector: | Peak |
| Resolution bandwidth: | > 1 % span |
| Video bandwidth: | ≥ RBW |
| Trace-Mode: | Max Hold |

Results:

| TEST CONDITIONS | | 99 % emission bandwidth |
|-------------------------|------------------|-------------------------|
| Frequency | | 13.56 MHz |
| T _{nom} | V _{nom} | 558 kHz |
| Measurement uncertainty | | ± RBW |

Plot:



Date: 6.MAR.2013 11:06:57

9.4 Field strength of the harmonics and spurious

Measurement:

| Measurement parameter | |
|-----------------------|----------------------|
| Detector: | Quasi Peak / Average |
| Sweep time: | Auto |
| Resolution bandwidth: | 120 kHz |
| Video bandwidth: | 300 kHz |
| Span: | See plots! |
| Trace-Mode: | Max hold |

Limits:

| FCC | | IC | |
|---|------------------------------------|--------------------------|--|
| Field strength of the harmonics and spurious. | | | |
| Frequency (MHz) | Field strength ($\mu\text{V/m}$) | Measurement distance (m) | |
| 0.009 – 0.490 | 2400/F(kHz) | 300 | |
| 0.490 – 1.705 | 24000/F(kHz) | 30 | |
| 1.705 – 30 | 30 (29.5 dB $\mu\text{V/m}$) | 30 | |
| 30 – 88 | 100 (40 dB $\mu\text{V/m}$) | 3 | |
| 88 – 216 | 150 (43.5 dB $\mu\text{V/m}$) | 3 | |
| 216 – 960 | 200 (46 dB $\mu\text{V/m}$) | 3 | |

Result:

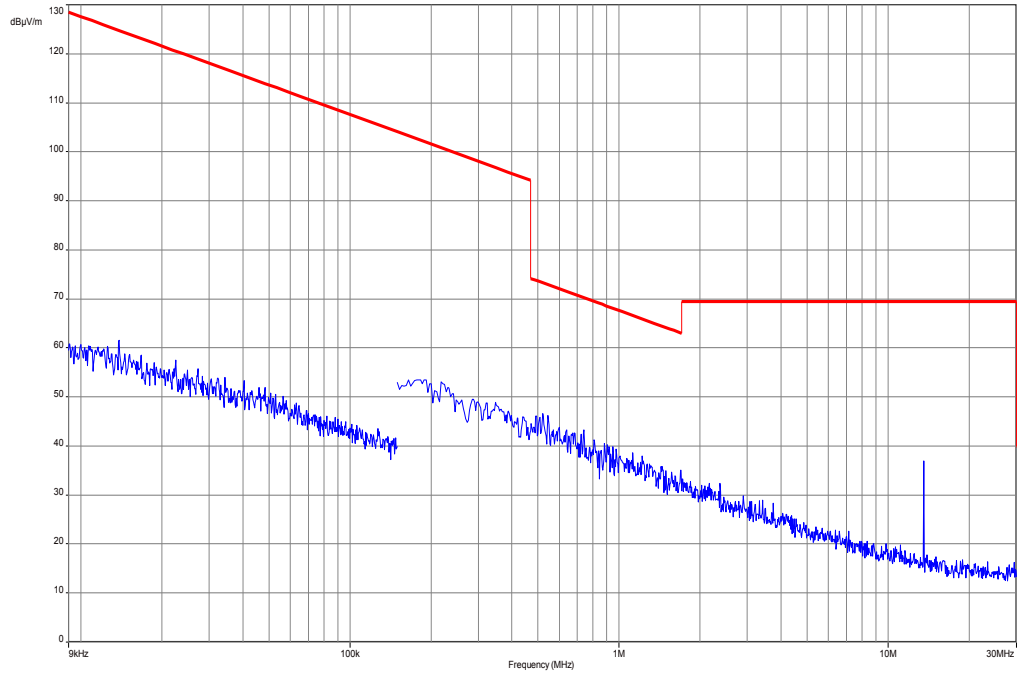
| EMISSION LIMITATIONS | | | | |
|---|----------|--|---|---------|
| f [MHz] | Detector | Limit max. allowed [dB $\mu\text{V/m}$] | Amplitude of emission [dB $\mu\text{V/m}$] | Results |
| No traceable emissions detected. Please take a look at the table below the spurious plot. | | | | |
| | | | | |
| | | | | |

Result: passed

Plots of the measurements

Plot 1: 9 kHz – 30 MHz; Part 15.209 Magnetics, Measurement distance 3m

Transmit frequency 13.56 MHz



Plot 2: 30 MHz – 1000 MHz

Transmit frequency 13.56 MHz

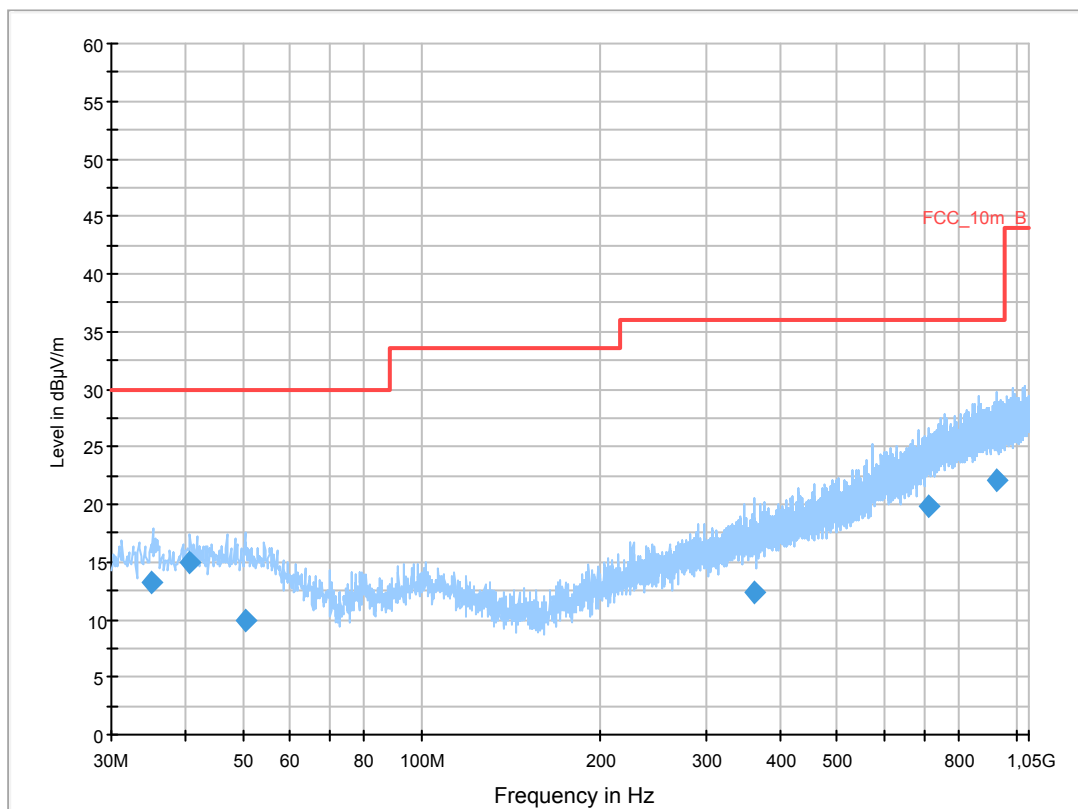
Common Information

EUT: PM-0330-BV
 Serial Number: CB5A1NYFD5
 Test Description: FCC part 15 B class B @ 10 m
 Operating Conditions: cont. RF ID polling + charging
 Operator Name: Wolsdorfer
 Comment: AC: 115 V / 60 Hz

Scan Setup: STAN_Fin [EMI radiated]

Hardware Setup: Electric Field (NOS)
 Receiver: [ESCI 3]
 Level Unit: dBµV/m

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

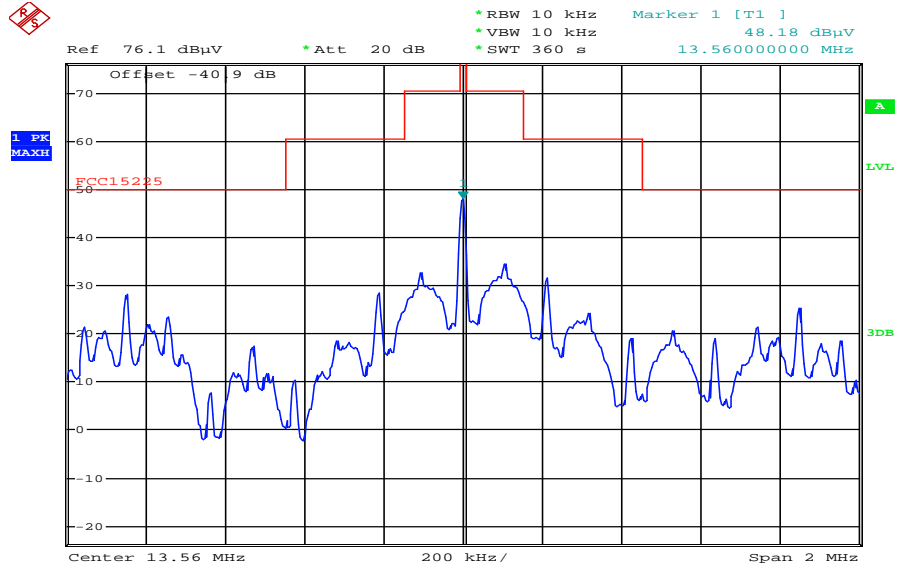


Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) | Comment |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|---------|
| 35.016900 | 13.1 | 1000.0 | 120.000 | 119.0 | V | 280.0 | 13.0 | 16.9 | 30.0 | |
| 40.682850 | 15.0 | 1000.0 | 120.000 | 170.0 | V | 81.0 | 13.4 | 15.0 | 30.0 | |
| 50.417100 | 9.9 | 1000.0 | 120.000 | 170.0 | V | 267.0 | 13.3 | 20.1 | 30.0 | |
| 363.129150 | 12.4 | 1000.0 | 120.000 | 132.0 | V | 190.0 | 16.3 | 23.6 | 36.0 | |
| 714.317400 | 19.8 | 1000.0 | 120.000 | 111.0 | V | 268.0 | 22.8 | 16.2 | 36.0 | |
| 929.859150 | 22.1 | 1000.0 | 120.000 | 170.0 | H | 100.0 | 25.3 | 13.9 | 36.0 | |

Plot 3: Spectrum mask part15.225 (a, b, c, d)

Limits recalculated from 30 m to 10 m with 40 dB/decade according to FCC 15.31 (f2)



Date: 6.MAR.2013 11:03:08

9.5 Frequency tolerance

Measurement:

| Measurement parameter | |
|-----------------------|---------------|
| Detector: | Positive peak |
| Sweep time: | Auto |
| Resolution bandwidth: | 10 Hz |
| Video bandwidth: | 1 MHz |
| Span: | 1 kHz |
| Trace-Mode: | Clear – write |

Limits:

| FCC | IC |
|---|----|
| The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. | |

Result: passed

| Frequency tolerance | | | | | | | | |
|----------------------------|------------|--------|------------------------|------------|--------|---------|----------|--------------|
| Over temperature variation | | | Over voltage variation | | | -/- | | |
| Limit is +/- 1.356 kHz | | | Limit is +/- 1.356 kHz | | | -/- | | |
| T (°C)] | Frequency | result | Power voltage | Frequency | result | F [MHz] | Detector | Level [µV/m] |
| -20° | 13.559 922 | Passed | 3.3 V | 13.559 950 | Passed | -/- | | |
| -10° | 13.559 952 | Passed | 3.4 V | 13.559 975 | Passed | | | |
| 0° | 13.559 971 | Passed | 3.5 V | 13.559 980 | Passed | | | |
| 10° | 13.559 975 | Passed | 3.6 V | 13.559 972 | Passed | | | |
| 20° | 13.559 972 | Passed | 3.7 V | 13.559 962 | Passed | | | |
| 30° | 13.559 925 | Passed | 3.8 V | 13.559 947 | Passed | | | |
| 40° | 13.559 919 | Passed | 3.9 V | 13.559 946 | Passed | | | |
| 50° | 13.559 887 | Passed | 4.0 V | 13.559 943 | Passed | | | |
| 55° | 13.559 887 | Passed | 4.1 V | 13.559 945 | Passed | | | |
| | | | 4.2 V | 13.559 944 | Passed | | | |
| | | | 4.3 V | 13.559 948 | Passed | | | |
| | | | 4.4 V | 13.559 952 | Passed | | | |
| Measurement uncertainty | | | ±100 Hz | | | | | |

9.6 AC line conducted

Measurement:

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

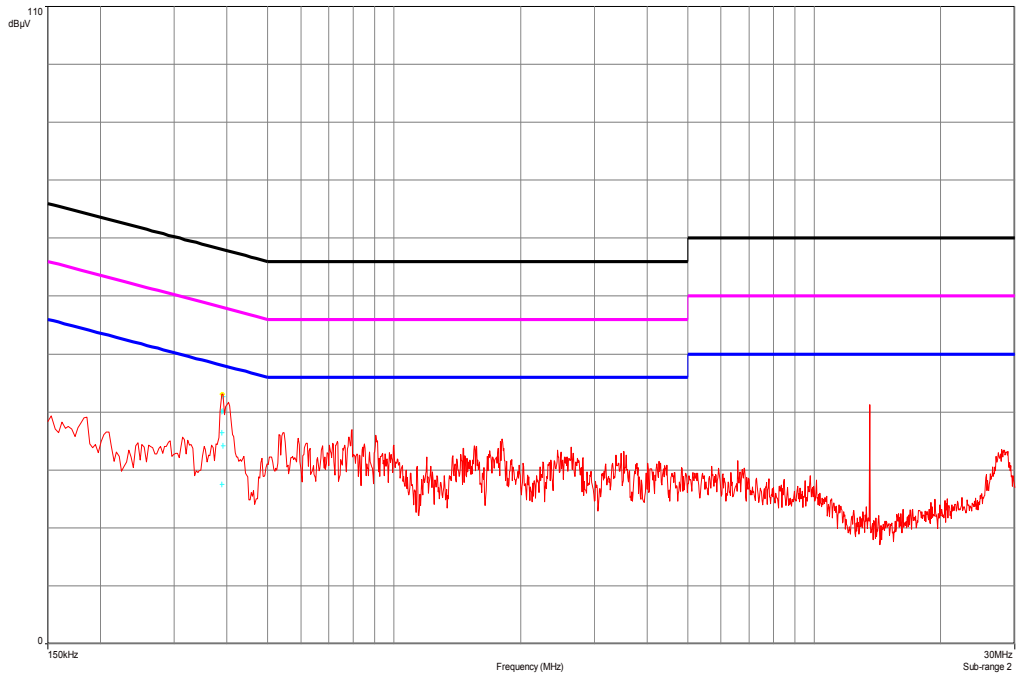
Limits:

| FCC | IC | |
|-----------------------------|------------------------------|------------|
| Frequency of Emission (MHz) | Conducted Limit (dB μ V) | |
| | Quasi-peak | Average |
| 0.15 – 0.5 | 66 to 56 * | 56 to 46 * |
| 0.5 – 5 | 56 | 46 |
| 5 - 30 | 60 | 50 |

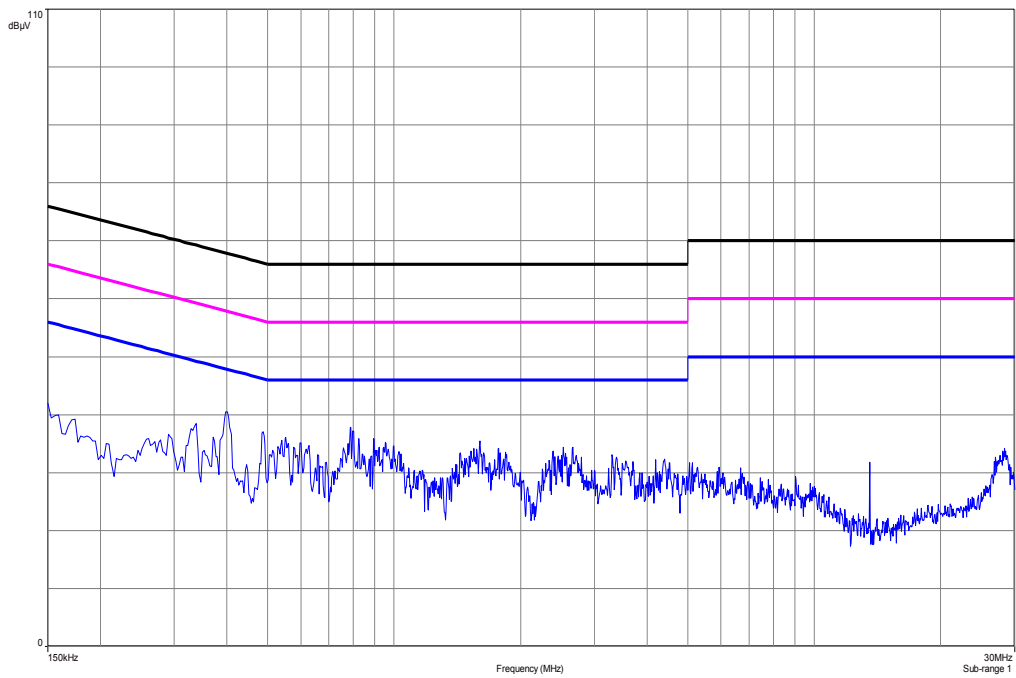
Result: **passed**

Plots:

Plot 1: phase line



Plot 2: neutral line



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 (Labor/Item).

| No. | Lab / Item | Equipment | Type | Manufact. | Serial No. | INV. No Cetecom | Kind of Calibration | Last Calibration | Next Calibration |
|-----|------------|---|-----------------------------|-----------------------------|----------------------------|--------------------|------------------------|---------------------|---------------------|
| 1 | 45 | Switch-Unit | 3488A | HP Meßtechnik | 2719A14505 | 300000368 | g | | |
| 2 | 50 | DC power supply, 60Vdc, 50A, 1200 W | 6032A | HP Meßtechnik | 2920A04466 | 300000580 | ne | | |
| 3 | n. a. | software | SPS_PHE 1.4f | Spitzberger & Spieß | B5981; 5D1081;B597 9 | 300000210 | ne | | |
| 4 | n. a. | EMI Test Receiver | ESCI 1166.5950. 03 | R&S | 100083 | 300003312 | k | 09.01.2013 | 09.01.2014 |
| 5 | n. a. | Analyzer- Reference- System (Harmonics and Flicker) | ARS 16/1 | SPS | A3509 07/0 0205 | 300003314 | k | 14.07.2011 | 14.07.2013 |
| 6 | n. a. | Amplifier | JS42- 00502650- 28-5A | MITEQ | 1084532 | 300003379 | ev | | |
| 7 | n. a. | Antenna Tower | Model 2175 | ETS- LINDGREN | 64762 | 300003745 | izw | | |
| 8 | n. a. | Positioning Controller | Model 2090 | ETS- LINDGREN | 64672 | 300003746 | izw | | |
| 9 | n. a. | Turntable Interface-Box | Model 105637 | ETS- LINDGREN | 44583 | 300003747 | izw | | |
| 10 | n. a. | TRILOG Broadband Test-Antenna 30 MHz - 3 GHz | VULB9163 | Schwarzbe ck | 295 | 300003787 | k | 12.04.2012 | 12.04.2014 |
| 11 | n. a. | Spectrum- Analyzer | FSU26 | R&S | 200809 | 300003874 | k | 16.01.2013 | 16.01.2015 |
| 12 | n. a. | Active Loop Antenna | 6502 | EMCO | 2210 | 300001015 | ne | | |
| 13 | n. a. | Anechoic chamber | FAC 3/5m | MWB / TDK | 87400/02 | 300000996 | ev | | |
| 14 | n. a. | MXE EMI Receiver 20 Hz bis 26.5 GHz | N9038A | Agilent Technologi es | MY51210197 | 300004405 | k | 21.02.2013 | 21.02.2014 |
| 15 | n. a. | Test Receiver | ESH2 | R&S | 871921/095 | 300002505 | Ve | 12.01.2012 | 12.01.2014 |
| 16 | n. a. | Loop Antenna 9 KHz - 30 MHz | HFH2-Z2 | R&S | 872096/61 | 300001824 | vlk! | 09.03.2012 | 09.03.2015 |
| 17 | n. a. | EMI Test Receiver 9 kHz - 3 GHz incl. Preselector | ESPI3 | R&S | 101713 | 300004059 | k | 22.08.2012 | 22.08.2013 |
| 18 | n. a. | DC Power Supply 0 – 32V | 1108-32 | Heiden | 001802 | 300001383 | Ve | 23.06.2010 | 23.06.2013 |
| 19 | n. a. | Temperature Test Chamber | VT 4002 | Heraeus Voetsch | 521/83761 | 300002326 | Ve | 20.09.2011 | 20.09.2013 |

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 | *) | next calibration ordered / currently in progress |
| NK! | Attention: not calibrated | | |

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 |
|---------|-----------------|-----------------|
| 1.0 | Initial release | 2013-04-05 |

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



Deutsche Akkreditierungsstelle GmbH

Befehlene 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 Akkreditierungsnummer D-PL-12076-01 und ist gültig 17.01.2018. Sie besteht aus diesem Deckblatt, der Rückseite des Deckblatts und der folgenden Anlage mit insgesamt 80 Seiten.

Registrierungsnummer der Urkunde: D-PL-12076-01-01

Frankfurt am Main, 18.01.2013
 Bitte Hinweisen auf der Rückseite

Im Auftrag
 Dr. Ingrid (FH) Pfeiffer
 Abteilungsleiterin

Deutsche Akkreditierungsstelle GmbH

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 Spittelmarkt 10
 10117 Berlin

Standort Frankfurt am Main
 Gartenstraße 6
 60594 Frankfurt am Main

Standort Braunschweig
 Rundesallee 100
 38116 Braunschweig

Die auszugsweise Veröffentlichung der Akkreditierungsurkunde bedarf der vorherigen schriftlichen Zustimmung der Deutsche Akkreditierungsstelle GmbH (DAKKS). Ausgenommen davon ist die separate Weiterverarbeitung des Deckblattes durch die umseitig genannte Konformitätsbewertungsstelle in unveränderter Form.

Es darf nicht der Anschein erweckt werden, dass sich die Akkreditierung auch auf Bereiche erstreckt, die über den durch die DAKKS bestätigten Akkreditierungsbereich hinausgehen.

Die Akkreditierung erfolgte gemäß des Gesetzes über die Akkreditierungsstelle (AkkStelleG) vom 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 im Zusammenhang mit der Vermarktung von Produkten (Abi. L 218 vom 9. Juli 2008, S. 30). Die DAKKS ist Unterzeichnerin der Multilateralen Abkommen zur gegenseitigen Anerkennung der European co-operation for Accreditation (EA), des International Accreditation Forum (IAF) und der International Laboratory Accreditation Cooperation (ILAC). Die Unterzeichner dieser Abkommen erkennen ihre Akkreditierungen gegenseitig an.

Der aktuelle Stand der Mitgliedschaft kann folgenden Webseiten entnommen werden:
 EA: www.european-accreditation.org
 ILAC: www.ilac.org
 IAF: 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>