



## TEST REPORT

Test report no.: 1-6965/13-04-38-B



Deutsche  
Akkreditierungsstelle  
D-PL-12076-01-01

### Testing laboratory

**CETECOM ICT Services GmbH**

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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 & Compatibility Testing (RCT)

### Applicant

**Sony Mobile Communications AB**

Nya Vattentornet

22188 Lund / SWEDEN

Phone: +46 46 19 30 00

Fax: -/-

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Phone: +46 7 03 22 75 03

### 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:** Smart Phone GPRS/EGPRS 850/900/1800/1900; UMTS HSPA FDD1/III/IV/V/VIII; LTE FDD1/2/3/4/5/7/8/13/17/20; WLAN b/g/n/a/ac; BT 4.0; RFID; A-GPS

**Type name:** PM-0740-BV

**FCC ID:** PY7PM-0740

**Frequency:** DTS band 2400 MHz to 2483.5 MHz  
(lowest channel 01 – 2403 MHz, highest channel 78 – 2480 MHz)

**Technology tested:** ANT+

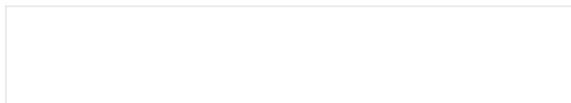
**Antenna:** Integrated antenna

**Power supply:** 3.7 V DC by Li - polymer battery

**Temperature range:** -20°C to +55°C

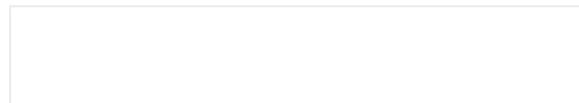
This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

### Test report authorised:



Christoph Schneider  
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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### 2.2 Application details

|                                    |            |
|------------------------------------|------------|
| Date of receipt of order:          | 2013-11-29 |
| Date of receipt of test item:      | 2013-12-02 |
| Start of test:                     | 2013-12-30 |
| End of test:                       | 2014-01-08 |
| 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  |
|                            | $T_{max}$ | +55 °C during high temperature tests  |
|                            | $T_{min}$ | -20 °C during low temperature tests   |
| Relative humidity content: |           | 37 %                                  |
| Barometric 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          | : | Smart Phone GPRS/EGPRS 850/900/1800/1900; UMTS HSPA FDD/II/IV/V/VIII; LTE FDD1/2/3/4/5/7/8/13/17/20; WLAN b/g/n/a/ac; BT 4.0; RFID; A-GPS |
| Type name                  | : | PM-0740-BV  |
| S/N serial number          | : | Radiated unit: CB5A1W1HPS   |
| HW hardware status         | : | AP1.1   |
| SW software status         | : | RF test software  |
| Frequency band [MHz]       | : | DTS band 2400 MHz to 2483.5 MHz<br>(lowest channel 01 – 2403 MHz; highest channel 78 – 2480 MHz)  |
| Type of radio transmission | : | FHSS  |
| Use of frequency spectrum  | : |   |
| Type of modulation         | : | GFSK  |
| Number of channels         | : | 78  |
| Antenna                    | : | Integrated antenna  |
| Power supply               | : | 3.7 V DC by Li - polymer battery  |
| Temperature range          | : | -20°C to +55 °C   |

#### 5.1 Additional information

Test setup- and EUT-photos are included in test report: 1-6965/13-04-01\_AnnexA  
 1-6965/13-04-01\_AnnexB  
 1-6965/13-04-01\_AnnexD

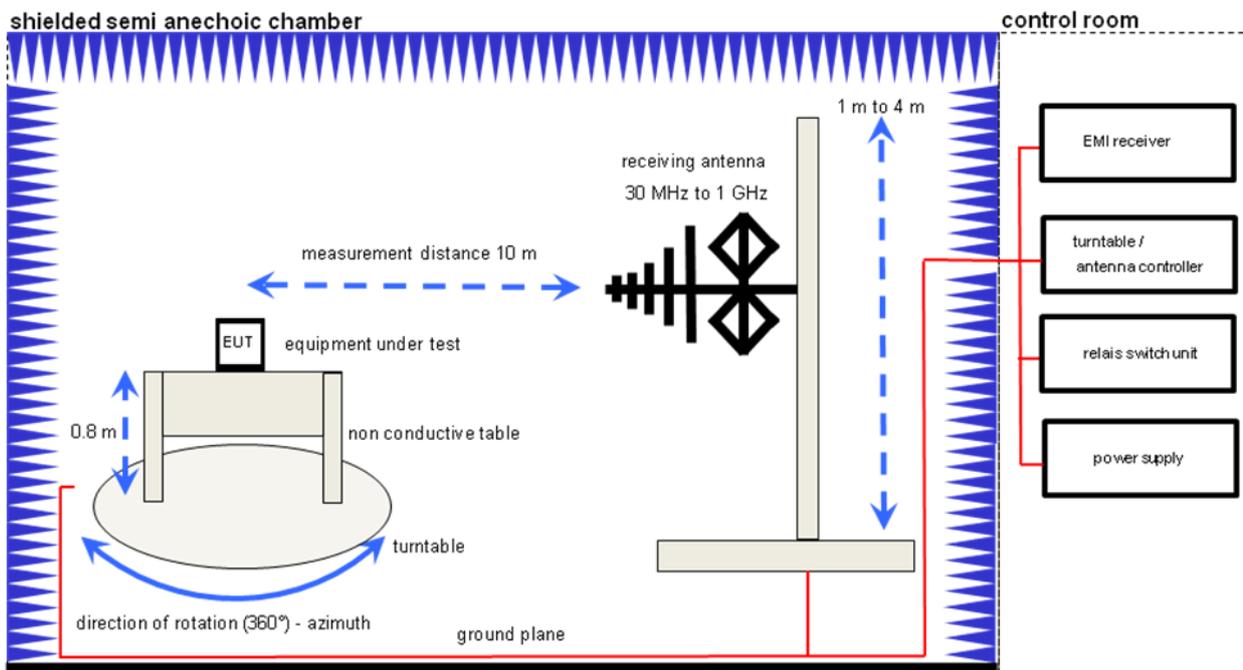
#### 6 Test laboratories sub-contracted

None

## 7 Description of the test setup

### 7.1 Radiated measurements chamber F

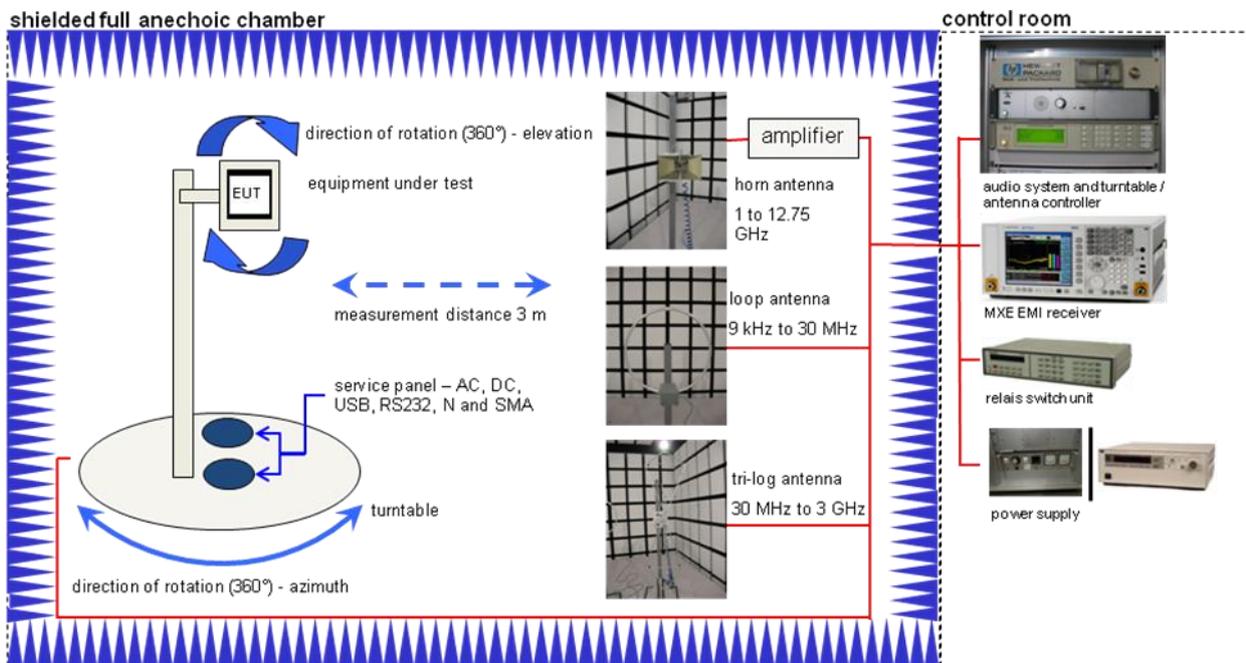
The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 1 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas 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       |

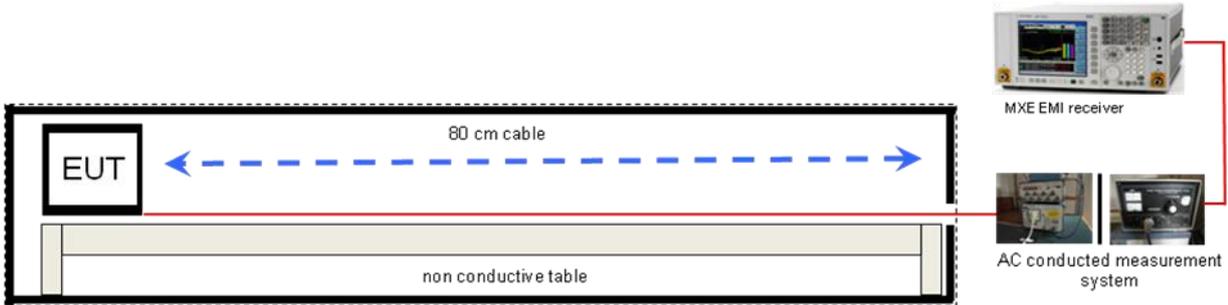
### 7.3 Radiated measurements 12.75 GHz to 25 GHz



**Equipment table:**

| Equipment                                   | Type   | Manufacturer  | Serial No. | INV. No Cetecom |
|---|--------|---------------|------------|-----------------|
| Std. Gain Horn Antenna<br>12.4 to 18.0 GHz  | 639    | Narda         | 8402       | 300000787       |
| Std. Gain Horn Antenna<br>18.0 to 26.5 GHz  | 638    | Narda         | 8205       | 300002442       |
| Microwave System<br>Amplifier, 0.5-26.5 GHz | 83017A | HP Meßtechnik | 00419      | 300002268       |
| Spectrum Analyzer 20 Hz -<br>50 GHz         | FSU50  | R&S           | 200012     | 300003443       |

## 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 | Erfi                 | 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 | Passed  | 2014-01-23 | -/-    |

| Test specification clause | Test case                             | Temperature conditions | Power source voltages | Mode    | Pass                                | Fail                     | NA                       | NP                       | Remark       |
|---------------------------|---------------------------------------|------------------------|-----------------------|---------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------|
| CFR 15.35                 | Timing of the transmitter             | Nominal                | Nominal               | TX      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not limited! |
| -/-                       | 99% - Occupied Bandwidth              | Nominal                | Nominal               | TX      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not limited! |
| §15.249                   | Maximum field strength                | Nominal                | Nominal               | TX      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies     |
| §15.249                   | Band edge compliance radiated         | Nominal                | Nominal               | TX      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies     |
| §15.249                   | TX spurious emissions radiated        | Nominal                | Nominal               | TX      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies     |
| §15.109                   | RX spurious emissions radiated        | Nominal                | Nominal               | Idle    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies     |
| §15.209                   | Spurious emissions radiated < 30 MHz  | Nominal                | Nominal               | TX/Idle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies     |
| §15.107<br>§15.207        | Spurious emissions conducted < 30 MHz | Nominal                | Nominal               | TX/Idle | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | complies     |

**Note:** NA = Not Applicable; NP = Not Performed

## 8.1 Additional comments

Reference documents: Test report: 0Y1304290755.PY7

Special test descriptions: None

Configuration descriptions: None

Test mode:

- No test mode available.  
Iperf was used to ping another device with the largest support packet size
- Special software is used.  
EUT is transmitting pseudo random data by itself

**9 Measurement results**

**9.1 Timing of the transmitter**

**Measurement:**

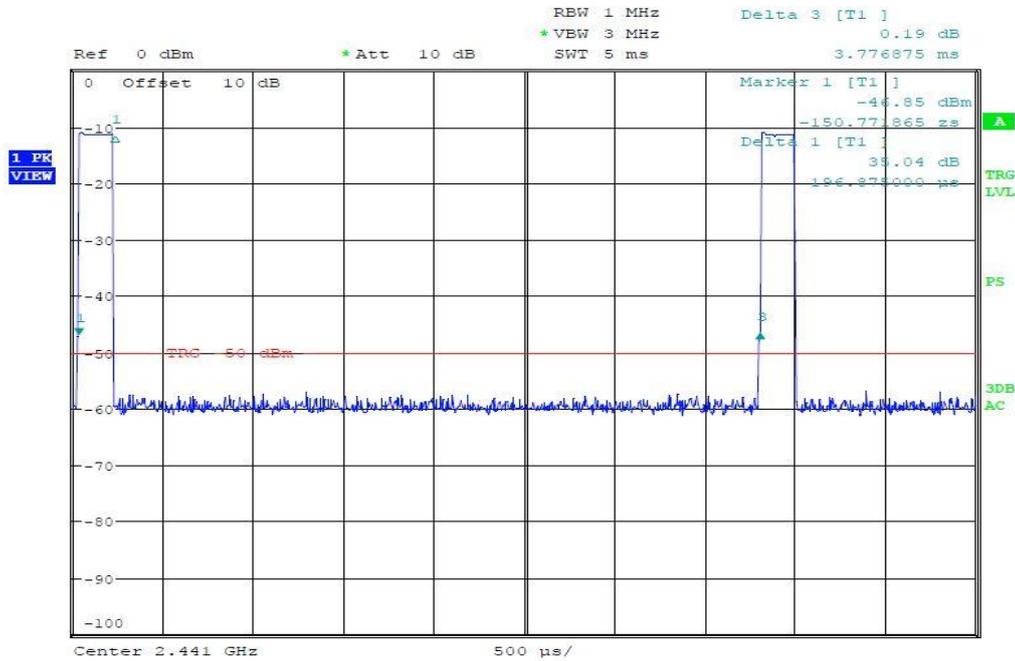
| Measurement parameter |          |
|-----------------------|----------|
| Detector:             | Peak     |
| Sweep time:           | See plot |
| Resolution bandwidth: | See plot |
| Video bandwidth:      | See plot |
| Span:                 | Zero     |
| Trace-Mode:           | Single   |

**Limits:**

| FCC   | -/- |
|---|-----|
| 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:** see customer information

**Plot 1:**



**Plot 2:**



Burst time: 196.875 us  
 On time: 27 times X 196.875 us over 100 ms  
 DC correction: 20 log (27 \* 0.196875 ms / 100 ms) = 25.48 dB

## 9.2 Occupied bandwidth – 99% bandwidth

### Description:

Measurement of the 99% bandwidth of the modulated signal.

### Measurement:

| Measurement parameter |          |
|-----------------------|----------|
| Detector:             | Peak     |
| Sweep time:           | Auto     |
| Resolution bandwidth: | 30 kHz   |
| Video bandwidth:      | 100 kHz  |
| Span:                 | 3 MHz    |
| Trace-Mode:           | Max Hold |

### Limits:

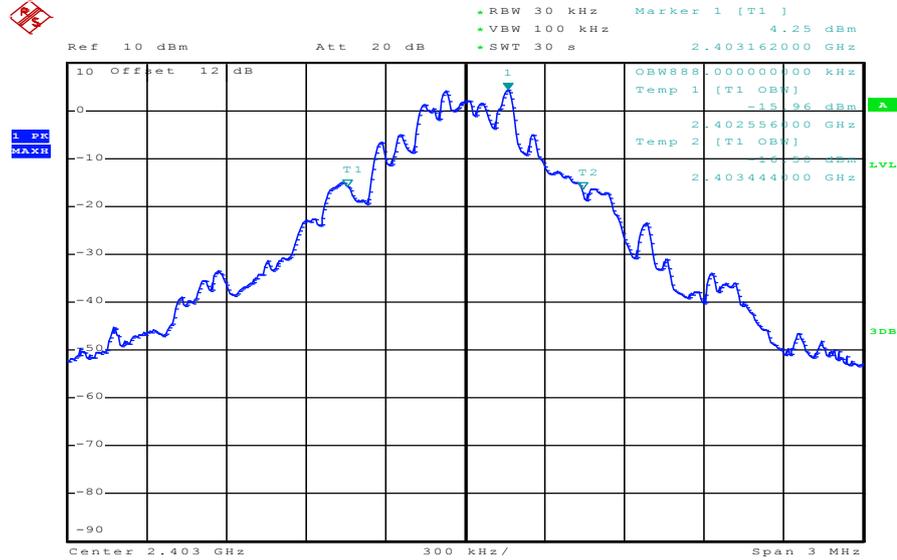
| FCC                                | -/- |
|------------------------------------|-----|
| Spectrum Bandwidth – 99% Bandwidth |     |
| Required for emission designator   |     |

### Results:

| Modulation<br>Frequency | 99% BANDWIDTH [kHz] |                |                 |
|-------------------------|---------------------|----------------|-----------------|
|                         | Lowest channel      | Middle channel | Highest channel |
|                         | 888                 | 882            | 888             |
| Measurement uncertainty | ± 30 kHz            |                |                 |

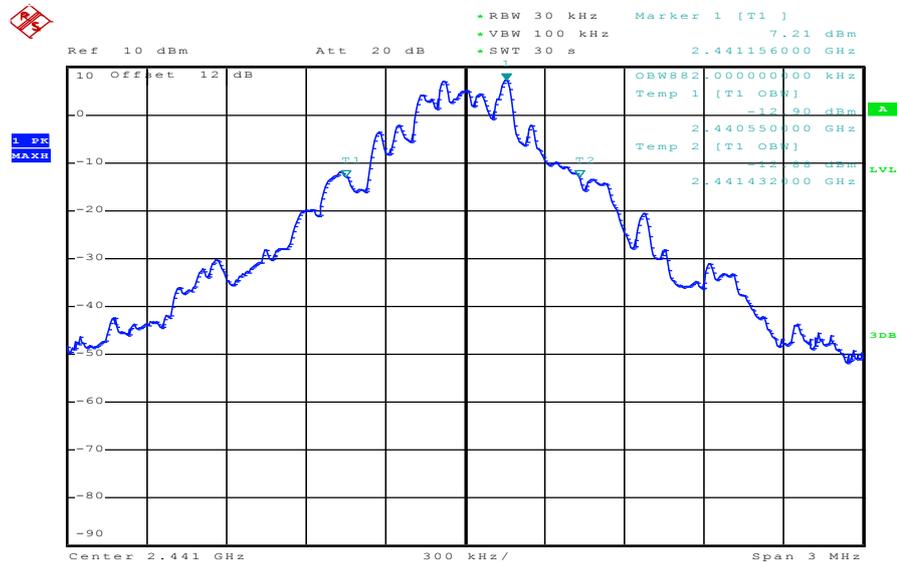
**Plots:**

**Plot 1: lowest channel**



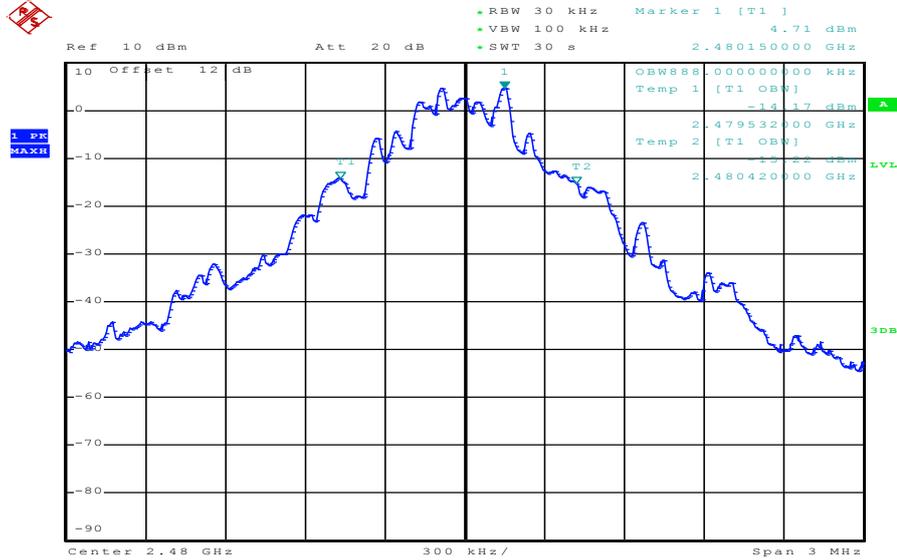
Date: 7.JAN.2014 10:17:48

**Plot 2: middle channel**



Date: 7.JAN.2014 10:20:07

Plot 3: highest channel



Date: 7.JAN.2014 10:22:26

### 9.3 Maximum field strength

**Description:**

Measurement of the maximum field strength radiated.

**Measurement:**

| Measurement parameter |          |
|-----------------------|----------|
| Detector:             | Peak     |
| Sweep time:           | Auto     |
| Resolution bandwidth: | 3 MHz    |
| Video bandwidth:      | 3 MHz    |
| Span:                 | 5 MHz    |
| Trace-Mode:           | Max Hold |
| Measurement distance: | 3 m      |

**Limits:**

| FCC  | -/- |
|--|-----|
| Maximum field strength   |     |
| The field strength of emissions of intentional radiators shall comply with the following:<br>Field strength of fundamental:<br>50 mV/m / (94 dB $\mu$ V/m) @ 3 m (AVG)<br>500 mV/m / (114 dB $\mu$ V/m) @ 3 m (Peak) |     |

**Result:**

| Modulation<br>Frequency | Maximum field strength [dB $\mu$ V/m] |                |                 |
|-------------------------|---------------------------------------|----------------|-----------------|
|                         | Lowest channel                        | Middle channel | Highest channel |
| Peak                    | 98.64                                 | 103.42         | 101.49          |
| AVG*)                   | 73.16                                 | 77.94          | 76.01           |
| Measurement uncertainty | ± 3 dB                                |                |                 |

\*) Average value calculated with duty cycle correction factor. (see chapter 9.1)

**Result: Passed**

## 9.4 Band edge compliance radiated

### Description:

Measurement of the radiated band edge compliance. The EUT is turned in the position that results in the maximum level at the band edge. Then a sweep over the corresponding restricted band is performed. The EUT is set to lowest channel for the lower restricted band and to highest channel for the upper restricted band. Measurement distance is 3m.

### Measurement:

| Measurement parameter |  |
|-----------------------|--|
| Detector:             | Peak   |
| Sweep time:           | Auto   |
| Resolution bandwidth: | 1 MHz / 1 MHz  |
| Video bandwidth:      | 1 MHz / 10 Hz  |
| Span:                 | Lower Band: 2370 – 2400 MHz<br>Upper Band: 2480 – 2500 MHz |
| Trace-Mode:           | Max Hold   |

### Limits:

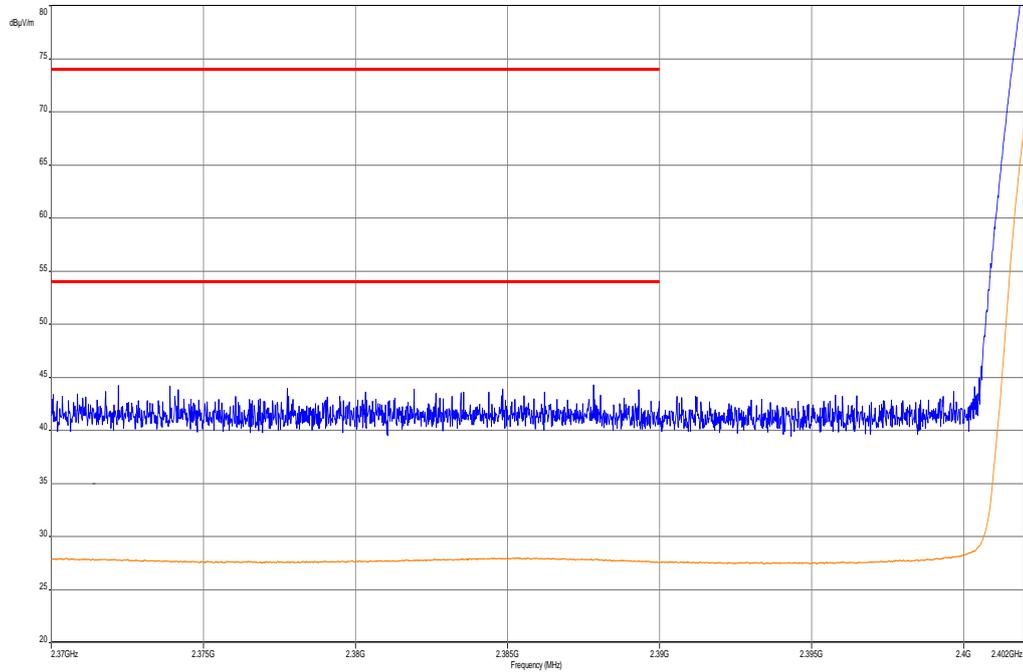
| FCC   | -/- |
|---|-----|
| Band Edge Compliance Radiated   |     |
| Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209 / RSS GEN, whichever is the lesser attenuation. |     |
| 54 dB $\mu$ V/m (AVG) / 74 dB $\mu$ V/m (Peak)  |     |

### Result:

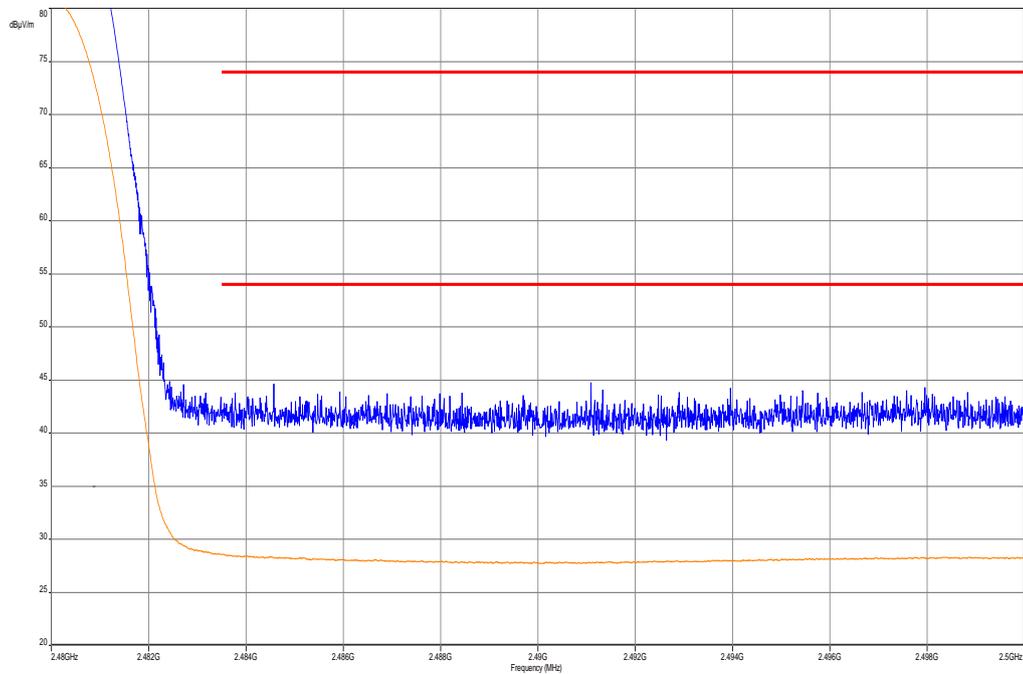
| Modulation                        | Band Edge Compliance Radiated [dB $\mu$ V/m]        |
|-----------------------------------|---|
|                                   | GFSK  |
| Lower Band Edge – Lowest Channel  | < 54 dB $\mu$ V/m (AVG)<br>< 74 dB $\mu$ V/m (Peak) |
| Upper Band Edge – Highest Channel | < 54 dB $\mu$ V/m (AVG)<br>< 74 dB $\mu$ V/m (Peak) |
| Measurement uncertainty           | $\pm$ 3 dB  |

**Plots:**

**Plot 1:** lower band edge, vertical & horizontal polarization, peak & AVG



**Plot 2:** upper band edge, vertical & horizontal polarization, peak & AVG



**Result:** Passed

## 9.5 TX spurious emissions radiated

### Description:

Measurement of the radiated spurious emissions in transmit mode. The measurement is performed at lowest, middle and highest channel.

### Measurement:

| Measurement parameter |   |
|-----------------------|---|
| Detector:             | Peak / Quasi Peak   |
| Sweep time:           | Auto  |
| Resolution bandwidth: | F < 1 GHz: 100 kHz<br>F > 1 GHz: 1 MHz                          |
| Video bandwidth:      | Sweep: 100 kHz<br>Remeasurement: 10 Hz or Duty cycle correction |
| Span:                 | 30 MHz to 25 GHz  |
| Trace-Mode:           | Max Hold  |

### Limits:

| FCC   | -/-                     |                      |
|---|-------------------------|----------------------|
| TX spurious emissions radiated  |                         |                      |
| Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209 / RSS GEN, whichever is the lesser attenuation. |                         |                      |
| §15.209   |                         |                      |
| Frequency (MHz)   | Field Strength (dBµV/m) | Measurement distance |
| 30 - 88   | 30.0                    | 10                   |
| 88 – 216  | 33.5                    | 10                   |
| 216 – 960   | 36.0                    | 10                   |
| Above 960   | 54.0                    | 3                    |

**Results:**

| TX Spurious Emissions Radiated [dB $\mu$ V/m]                                    |          |                      |  |          |                      |  |          |                      |
|--|----------|----------------------|--|----------|----------------------|--|----------|----------------------|
| Lowest channel   |          |                      | Middle channel   |          |                      | Highest channel  |          |                      |
| F [MHz]  | Detector | Level [dB $\mu$ V/m] | F [MHz]  | Detector | Level [dB $\mu$ V/m] | F [MHz]  | Detector | Level [dB $\mu$ V/m] |
| For emissions below 1 GHz, please take a look at the table below the 1 GHz plot. |          |                      | For emissions below 1 GHz, please take a look at the table below the 1 GHz plot. |          |                      | For emissions below 1 GHz, please take a look at the table below the 1 GHz plot. |          |                      |
| Above 1 GHz: No emissions detected.  |          |                      | Above 1 GHz: No emissions detected.  |          |                      | Above 1 GHz: No emissions detected.  |          |                      |
| Measurement uncertainty  |          |                      | ± 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:** Lowest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

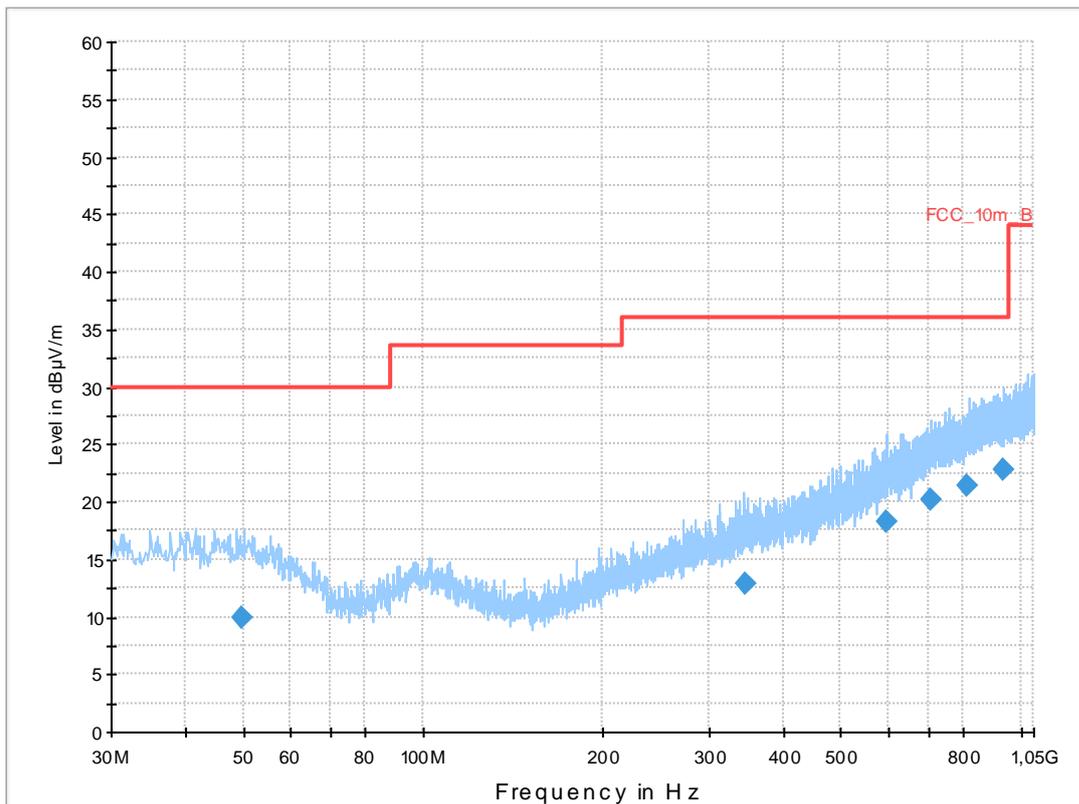
**Common Information**

EUT: PM-0740-BV  
 Serial Number: RAD#1  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: ANT+ low channel  
 Operator Name: Kraus  
 Comment: battery powered

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

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

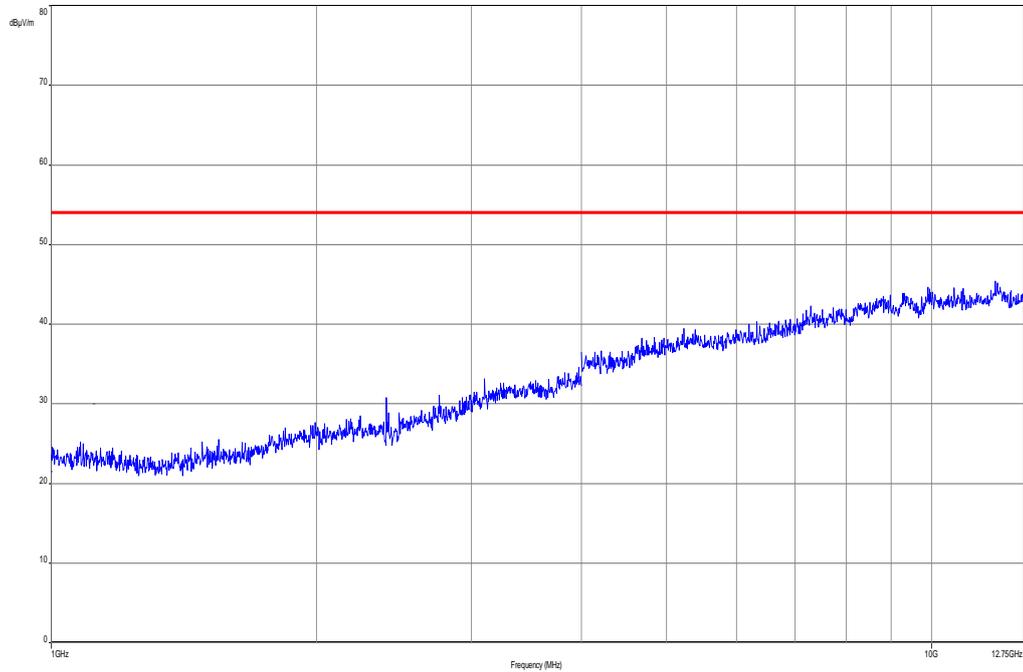
| Subrange       | Step Size | Detectors | IF BW   | Meas. Time | Preamp |
|----------------|-----------|-----------|---------|------------|--------|
| 30 MHz - 2 GHz | 60 kHz    | QPK       | 120 kHz | 1 s        | 20 dB  |



**Final Result 1**

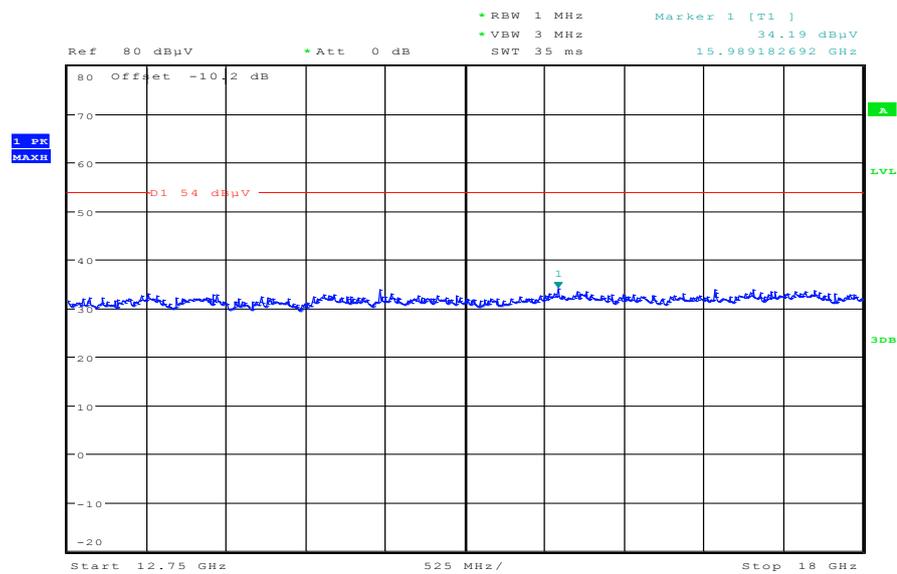
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) | Comment |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|---------|
| 49.665750       | 10.0               | 1000.0          | 120.000         | 170.0       | V            | 176.0         | 13.4       | 20.0        | 30.0           |         |
| 345.003000      | 12.8               | 1000.0          | 120.000         | 170.0       | H            | -4.0          | 15.9       | 23.2        | 36.0           |         |
| 597.670950      | 18.2               | 1000.0          | 120.000         | 170.0       | V            | 100.0         | 20.7       | 17.8        | 36.0           |         |
| 706.446600      | 20.2               | 1000.0          | 120.000         | 162.0       | H            | 100.0         | 22.7       | 15.8        | 36.0           |         |
| 815.852850      | 21.4               | 1000.0          | 120.000         | 170.0       | V            | 100.0         | 24.0       | 14.6        | 36.0           |         |
| 937.145850      | 22.7               | 1000.0          | 120.000         | 120.0       | H            | 176.0         | 25.3       | 13.3        | 36.0           |         |

**Plot 2:** Lowest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization



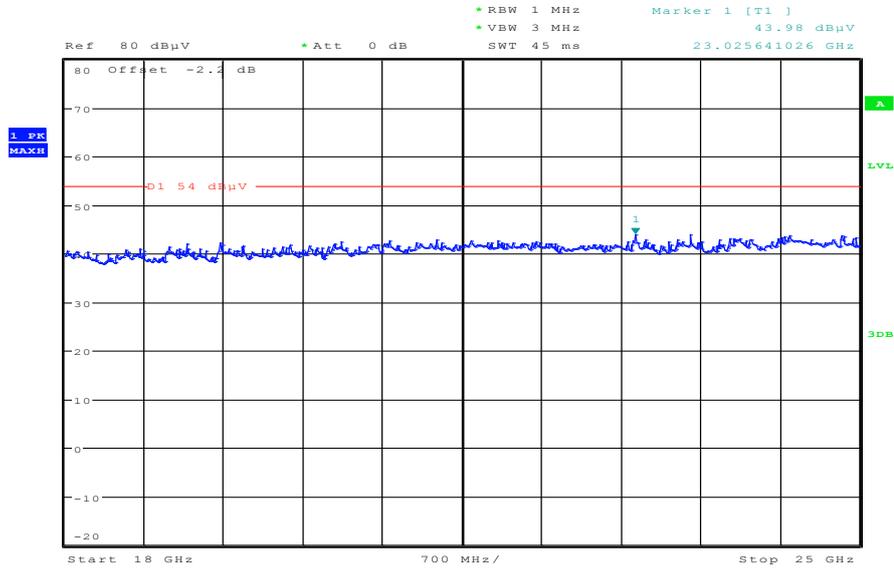
The carrier signal is notched with a 2.4 GHz band rejection filter.

**Plot 3:** Lowest channel, 12 GHz to 18 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:53:16

Plot 4: Lowest channel, 18 GHz to 25 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 14:00:16

**Plot 5:** Middle channel, 30 MHz to 1 GHz, vertical & horizontal polarization

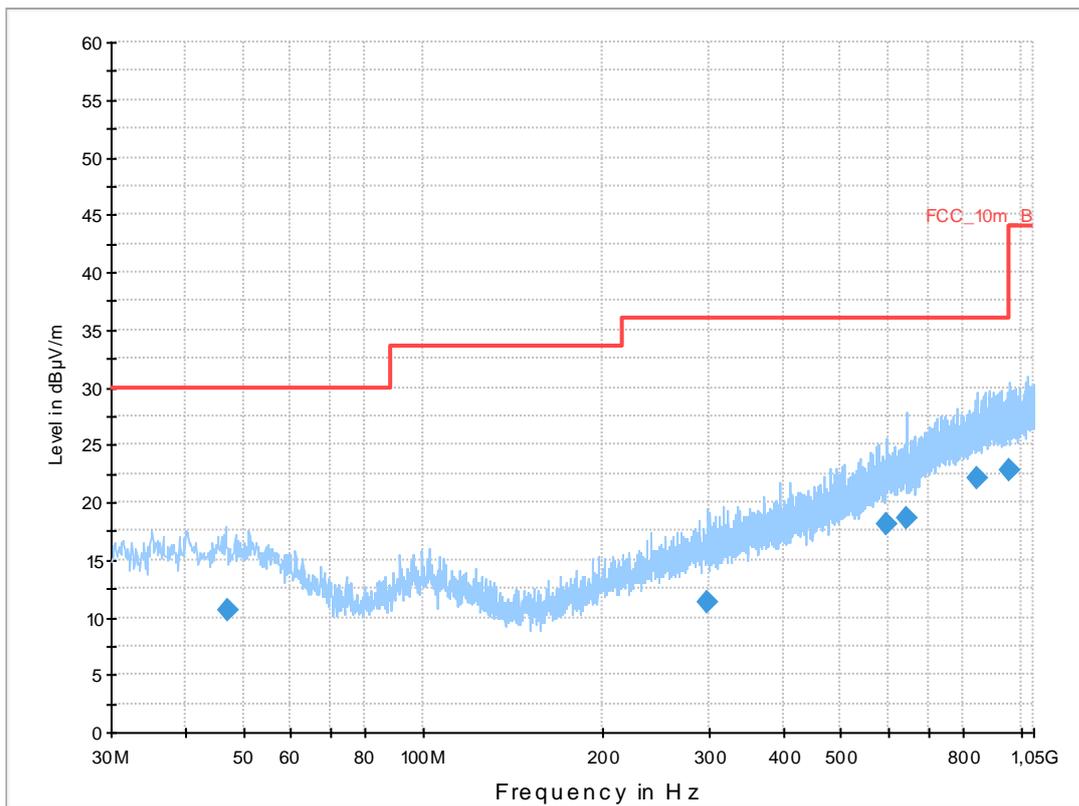
### Common Information

EUT: PM-0740-BV  
 Serial Number: RAD#1  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: ANT+ mid channel  
 Operator Name: Kraus  
 Comment: battery powered

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

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

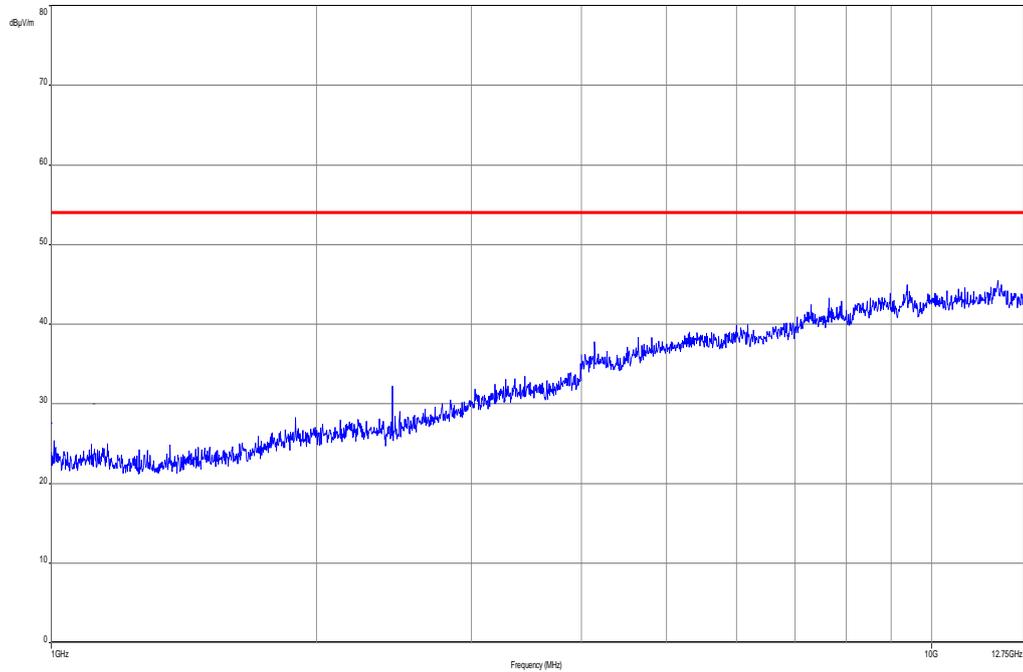
| Subrange       | Step Size | Detectors | IF BW   | Meas. Time | Preamp |
|----------------|-----------|-----------|---------|------------|--------|
| 30 MHz - 2 GHz | 60 kHz    | QPK       | 120 kHz | 1 s        | 20 dB  |



### Final Result 1

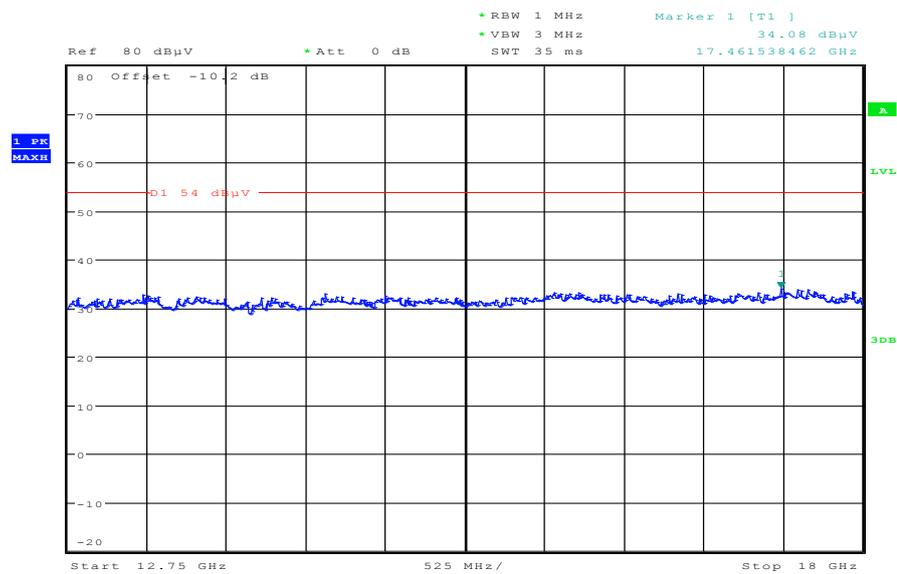
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) | Comment |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|---------|
| 46.960350       | 10.6               | 1000.0          | 120.000         | 170.0       | H            | 190.0         | 13.3       | 19.4        | 30.0           |         |
| 299.311050      | 11.3               | 1000.0          | 120.000         | 105.0       | V            | 190.0         | 14.5       | 24.7        | 36.0           |         |
| 594.709200      | 18.1               | 1000.0          | 120.000         | 170.0       | V            | 10.0          | 20.7       | 17.9        | 36.0           |         |
| 646.022400      | 18.5               | 1000.0          | 120.000         | 170.0       | V            | 100.0         | 21.1       | 17.5        | 36.0           |         |
| 844.966050      | 22.1               | 1000.0          | 120.000         | 155.0       | V            | 100.0         | 24.5       | 14.0        | 36.0           |         |
| 957.616500      | 22.8               | 1000.0          | 120.000         | 170.0       | V            | 261.0         | 25.4       | 13.2        | 36.0           |         |

**Plot 6:** Middle channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization



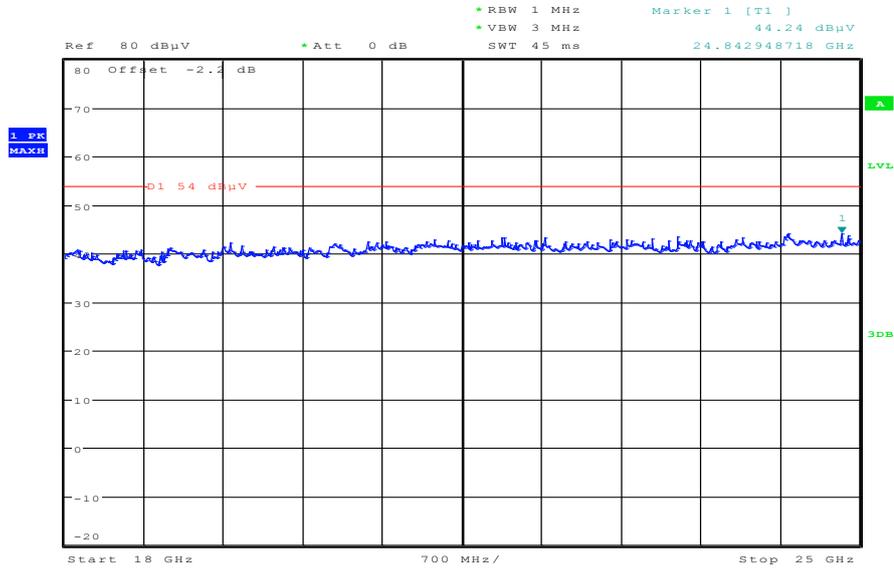
The carrier signal is notched with a 2.4 GHz band rejection filter.

**Plot 7:** Middle channel, 12 GHz to 18 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:54:24

Plot 8: Middle channel, 18 GHz to 25 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:59:40

**Plot 9:** Highest channel, 30 MHz to 1 GHz, vertical & horizontal polarization

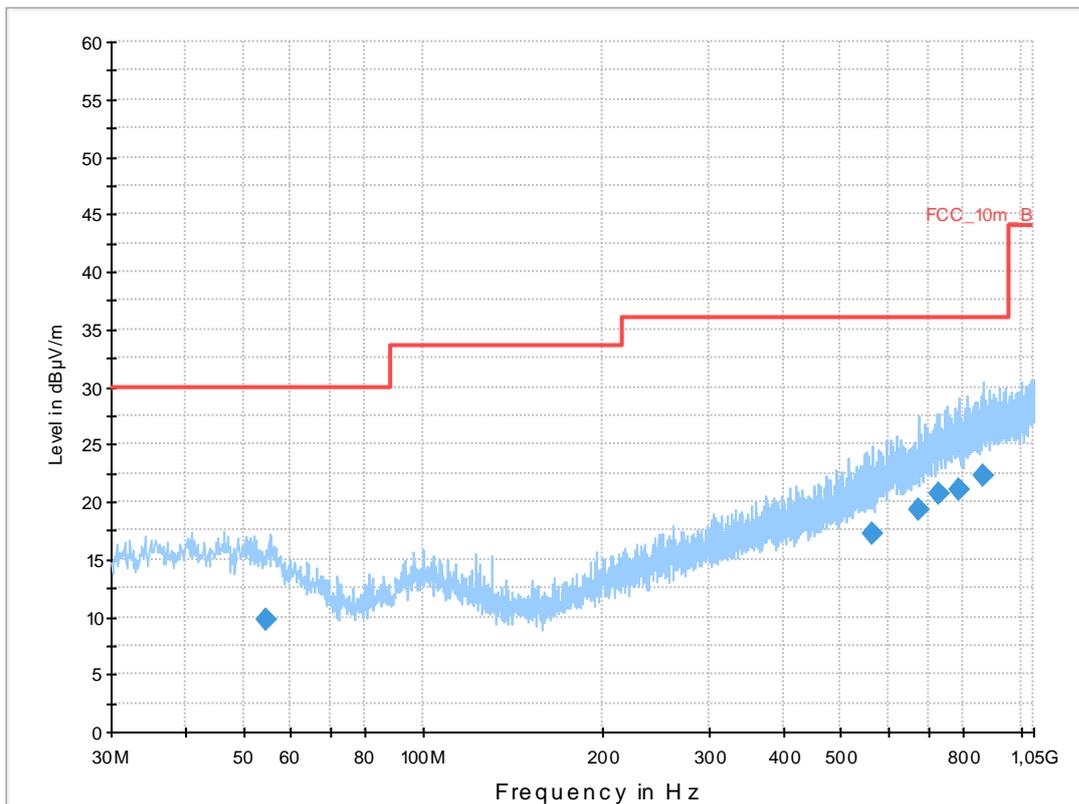
### Common Information

EUT: PM-0740-BV  
 Serial Number: RAD#1  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: ANT+ high channel  
 Operator Name: Kraus  
 Comment: battery powered

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

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

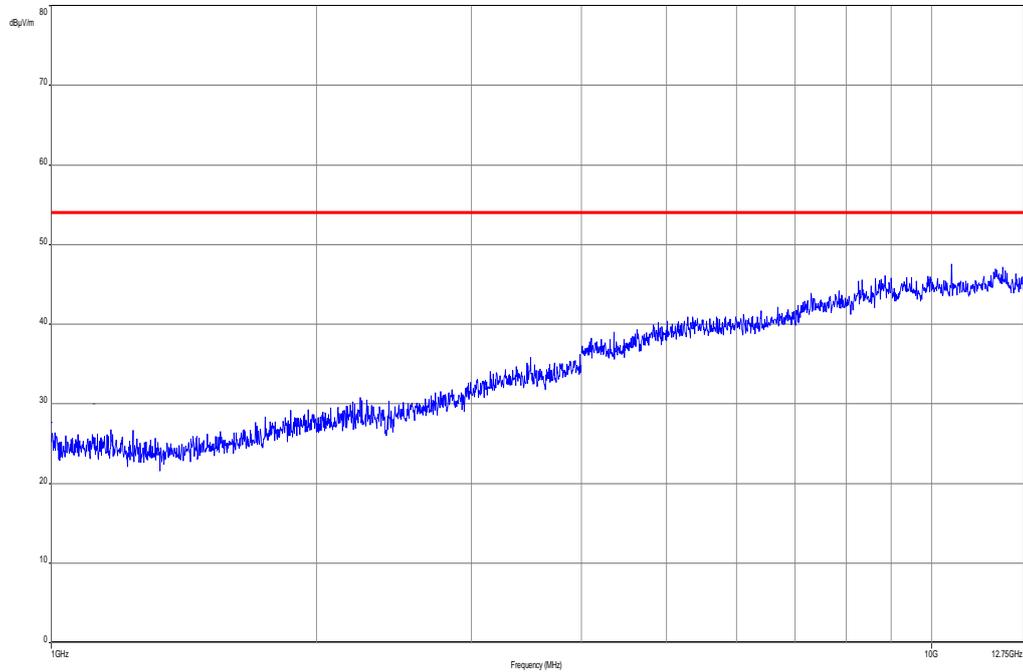
| Subrange       | Step Size | Detectors | IF BW   | Meas. Time | Preamp |
|----------------|-----------|-----------|---------|------------|--------|
| 30 MHz - 2 GHz | 60 kHz    | QPK       | 120 kHz | 1 s        | 20 dB  |



### Final Result 1

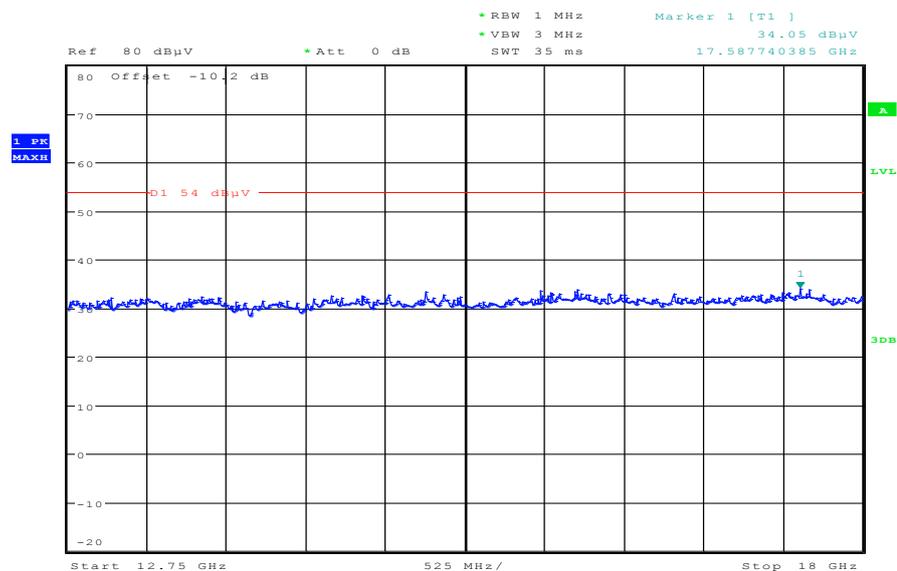
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) | Comment |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|---------|
| 54.667050       | 9.7                | 1000.0          | 120.000         | 170.0       | V            | 10.0          | 12.9       | 20.3        | 30.0           |         |
| 565.369650      | 17.2               | 1000.0          | 120.000         | 170.0       | V            | 268.0         | 19.8       | 18.8        | 36.0           |         |
| 675.019950      | 19.3               | 1000.0          | 120.000         | 98.0        | V            | 190.0         | 21.8       | 16.7        | 36.0           |         |
| 731.261250      | 20.7               | 1000.0          | 120.000         | 133.0       | V            | 178.0         | 23.2       | 15.3        | 36.0           |         |
| 788.442450      | 21.1               | 1000.0          | 120.000         | 170.0       | H            | 80.0          | 23.8       | 14.9        | 36.0           |         |
| 865.802100      | 22.3               | 1000.0          | 120.000         | 155.0       | V            | 171.0         | 24.8       | 13.7        | 36.0           |         |

**Plot 10:** Highest channel, 1 GHz to 12.75 GHz, vertical & horizontal polarization



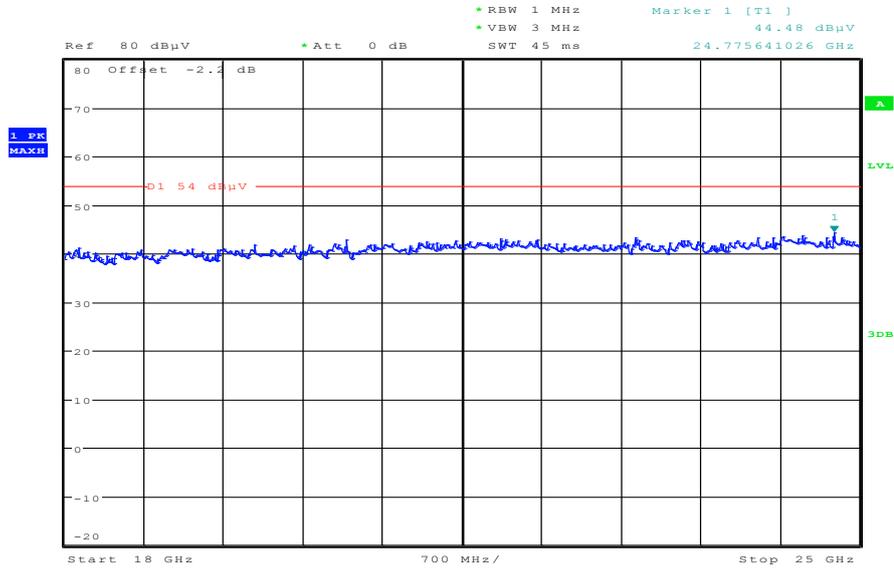
The carrier signal is notched with a 2.4 GHz band rejection filter.

**Plot 11:** Highest channel, 12 GHz to 18 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:55:40

Plot 12: Highest channel, 18 GHz to 25 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:58:59

## 9.6 RX spurious emissions radiated

**Description:**

Measurement of the radiated spurious emissions in idle/receive mode.

**Measurement:**

| Measurement parameter |  |
|-----------------------|--|
| Detector:             | Peak / Quasi Peak                      |
| Sweep time:           | Auto                                   |
| Resolution bandwidth: | F < 1 GHz: 100 kHz<br>F > 1 GHz: 1 MHz |
| Video bandwidth:      | Sweep: 100 kHz<br>Remeasurement: 10 Hz |
| Span:                 | 30 MHz to 25 GHz                       |
| Trace-Mode:           | Max Hold                               |

**Limits:**

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

**Results:**

| RX Spurious Emissions Radiated [dB $\mu$ V/m]                                    |          |                      |
|--|----------|----------------------|
| F [MHz]  | Detector | Level [dB $\mu$ V/m] |
| For emissions below 1 GHz, please take a look at the table below the 1 GHz plot. |          |                      |
| Above 1 GHz: No emissions detected.  |          |                      |
| Measurement uncertainty  | ± 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:** 30 MHz to 1 GHz, vertical & horizontal polarization

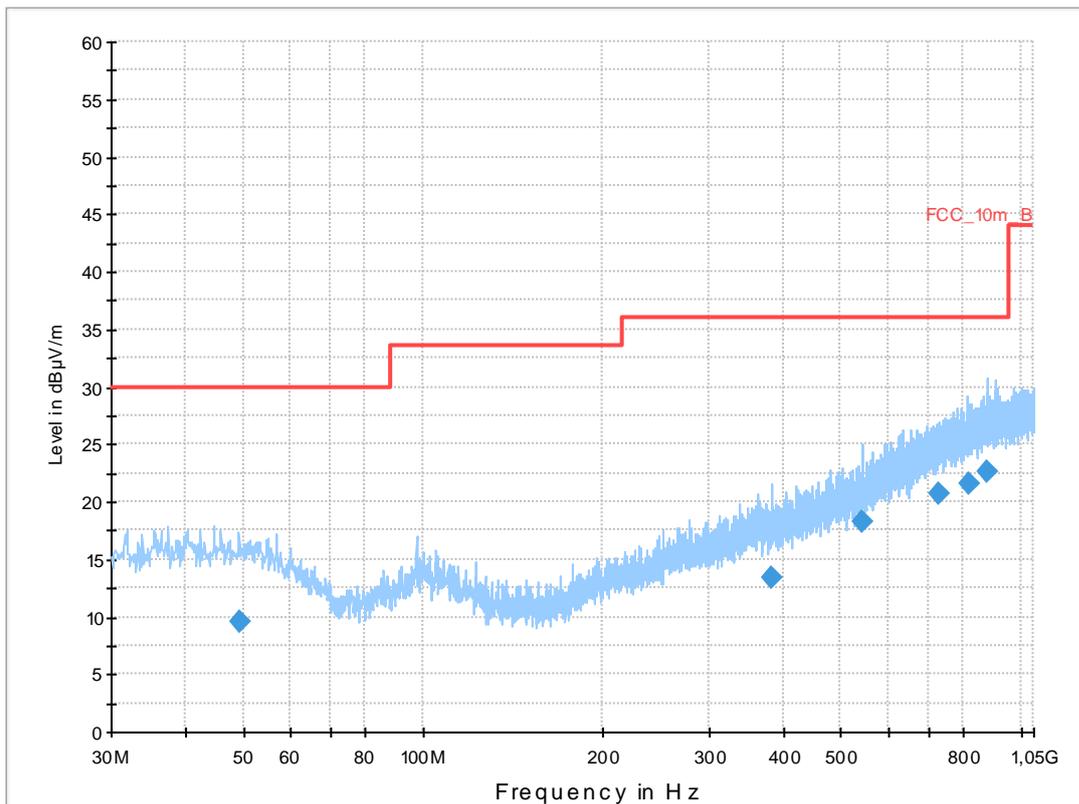
**Common Information**

EUT: PM-0740-BV  
 Serial Number: RAD#1  
 Test Description: FCC part 15 class B @ 10 m  
 Operating Conditions: ANT+ RX  
 Operator Name: Kraus  
 Comment: battery powered

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

Hardware Setup: Electric Field (NOS)  
 Receiver: [ESC1 3]  
 Level Unit: dBµV/m

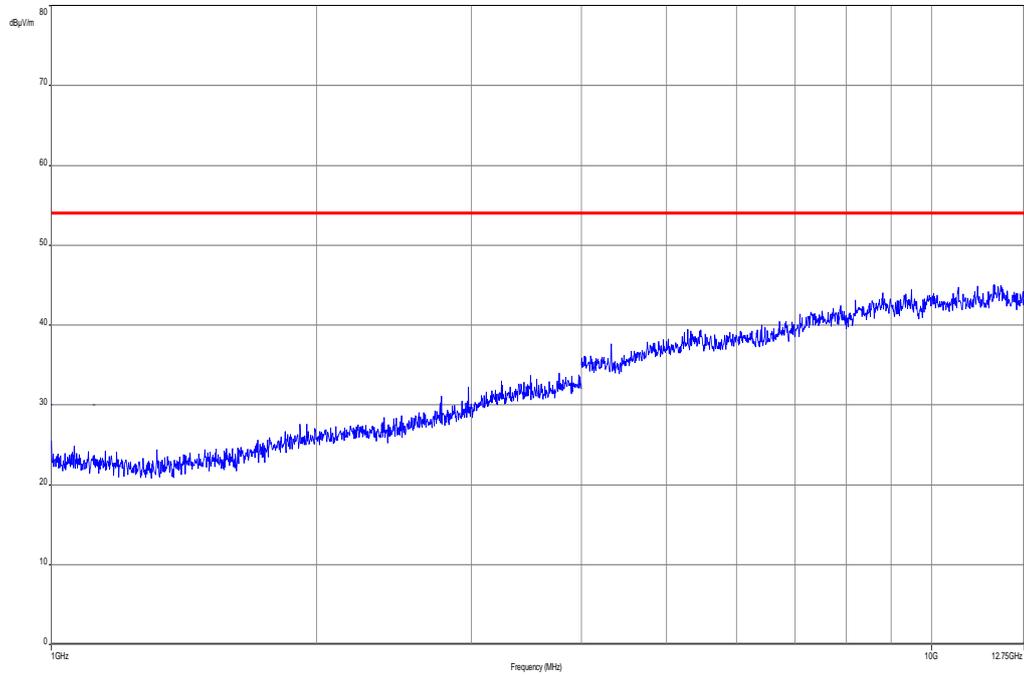
| Subrange       | Step Size | Detectors | IF BW   | Meas. Time | Preamp |
|----------------|-----------|-----------|---------|------------|--------|
| 30 MHz - 2 GHz | 60 kHz    | QPK       | 120 kHz | 1 s        | 20 dB  |



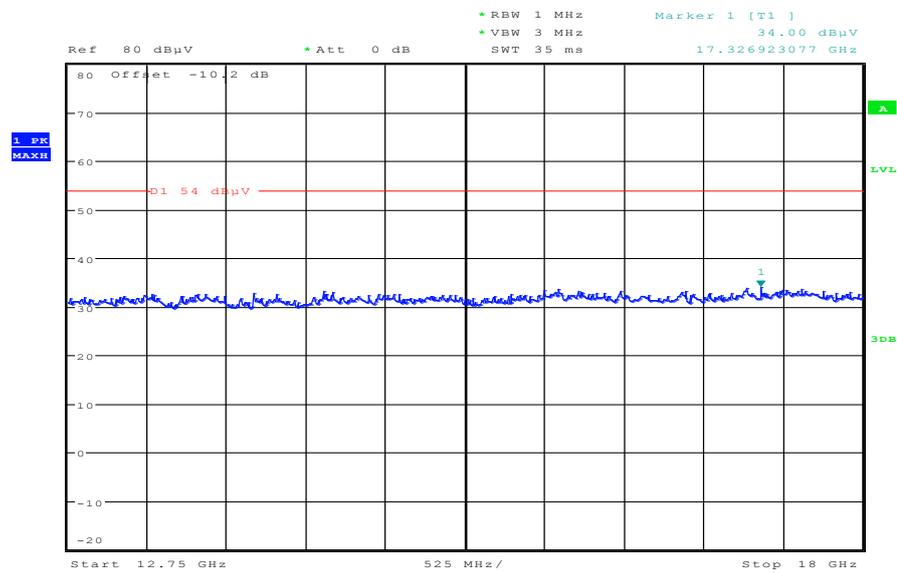
**Final Result 1**

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) | Comment |
|-----------------|--------------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|---------|
| 49.175850       | 9.6                | 1000.0          | 120.000         | 160.0       | H            | 175.0         | 13.4       | 20.4        | 30.0           |         |
| 381.706350      | 13.4               | 1000.0          | 120.000         | 98.0        | H            | 10.0          | 16.6       | 22.6        | 36.0           |         |
| 543.976050      | 18.2               | 1000.0          | 120.000         | 170.0       | H            | 90.0          | 19.3       | 17.8        | 36.0           |         |
| 728.884200      | 20.7               | 1000.0          | 120.000         | 98.0        | H            | 175.0         | 23.2       | 15.3        | 36.0           |         |
| 818.488650      | 21.5               | 1000.0          | 120.000         | 170.0       | V            | 190.0         | 24.1       | 14.5        | 36.0           |         |
| 877.047600      | 22.5               | 1000.0          | 120.000         | 170.0       | H            | 280.0         | 24.9       | 13.5        | 36.0           |         |

**Plot 2:** 1 GHz to 12.75 GHz, vertical & horizontal polarization

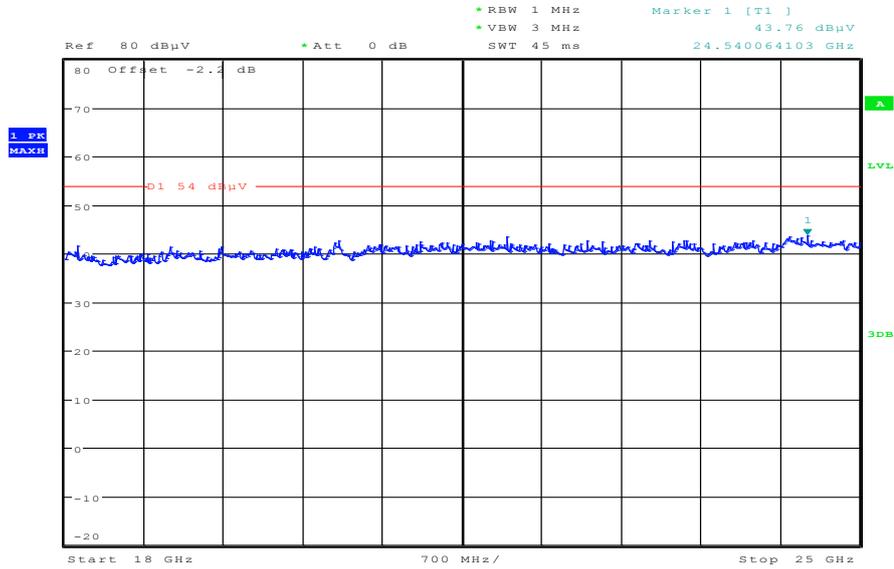


**Plot 3:** 12 GHz to 18 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:56:43

Plot 4: 18 GHz to 25 GHz, vertical & horizontal polarization



Date: 14.DEC.2013 13:57:49

## 9.7 Spurious emissions radiated < 30 MHz

### Description:

Measurement of the radiated spurious emissions in transmit mode below 30 MHz. The EUT is set to lowest, middle and highest channel. The limits are recalculated to a measurement distance of 3 m with 40 dB/decade according CFR Part 2.

### Measurement:

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

### Limits:

| FCC                                  | -/-                           |                      |
|--------------------------------------|-------------------------------|----------------------|
| Spurious Emissions Radiated < 30 MHz |                               |                      |
| Frequency (MHz)                      | Field Strength (dB $\mu$ V/m) | Measurement distance |
| 0.009 – 0.490                        | 2400/F(kHz)                   | 300                  |
| 0.490 – 1.705                        | 24000/F(kHz)                  | 30                   |
| 1.705 – 30.0                         | 30                            | 30                   |

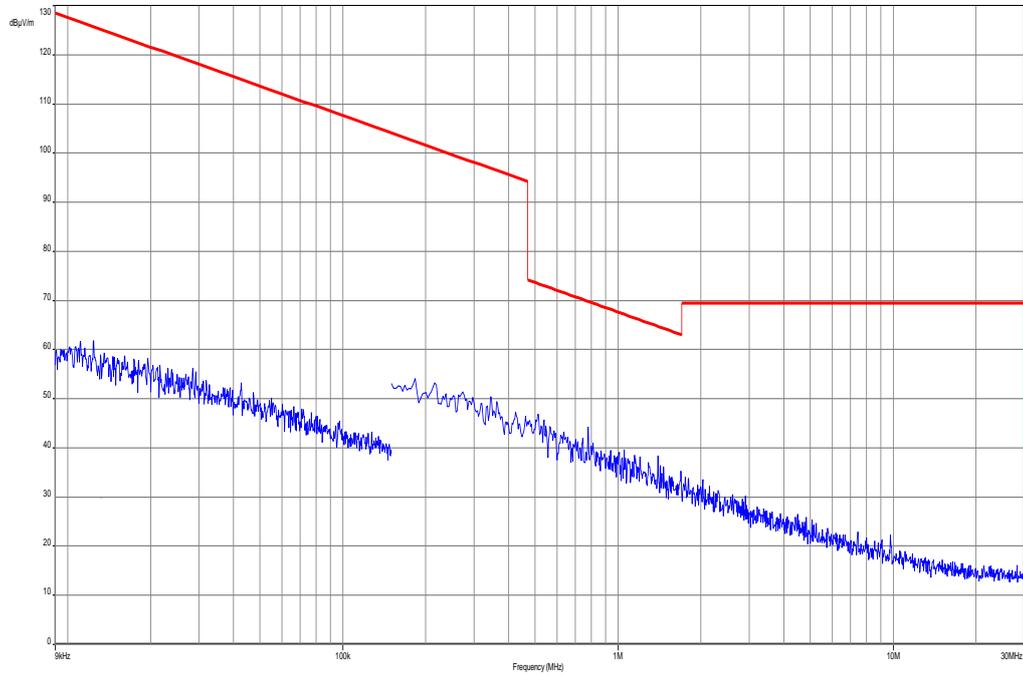
### Results:

| TX Spurious Emissions Radiated < 30 MHz [dB $\mu$ V/m] |          |                      |
|--|----------|----------------------|
| F [MHz]  | Detector | Level [dB $\mu$ V/m] |
| No peaks found.  |          |                      |
| Measurement uncertainty                                | ± 3 dB   |                      |

**Result: Passed**

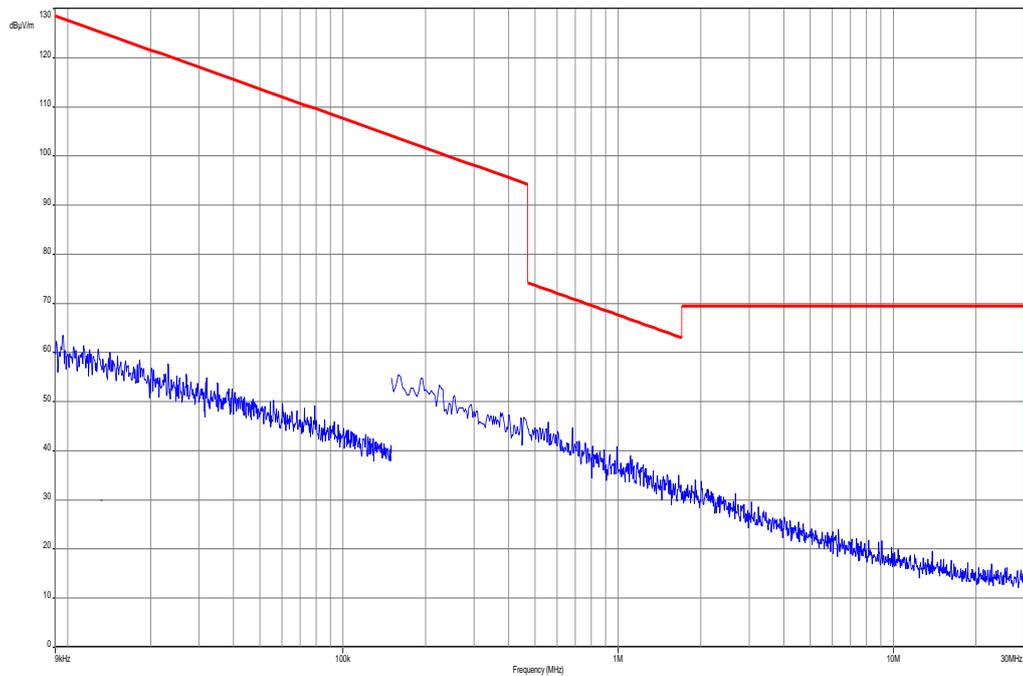
**Plots: TX mode**

**Plot 1: 9 kHz to 30 MHz**



**Plots: RX / Idle – mode**

**Plot 1: 9 kHz to 30 MHz**



## 9.8 Spurious emissions conducted < 30 MHz

### Description:

Measurement of the conducted spurious emissions in transmit mode below 30 MHz. The EUT is set to middle channel and Idle mode. If critical peaks are found the lowest and highest channel will be measured too. 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                                       |
| Resolution bandwidth: | F < 150 kHz: 1 kHz<br>F > 150 kHz: 100 kHz |
| Video bandwidth:      | F < 150 kHz: 200 Hz<br>F > 150 kHz: 9 kHz  |
| Span:                 | 9 kHz to 30 MHz                            |
| Trace-Mode:           | Max Hold                                   |

### Limits:

| FCC                                      |                     | -/-              |
|--|---------------------|------------------|
| TX Spurious Emissions Conducted < 30 MHz |                     |                  |
| Frequency (MHz)                          | Quasi-Peak (dBµV/m) | Average (dBµV/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

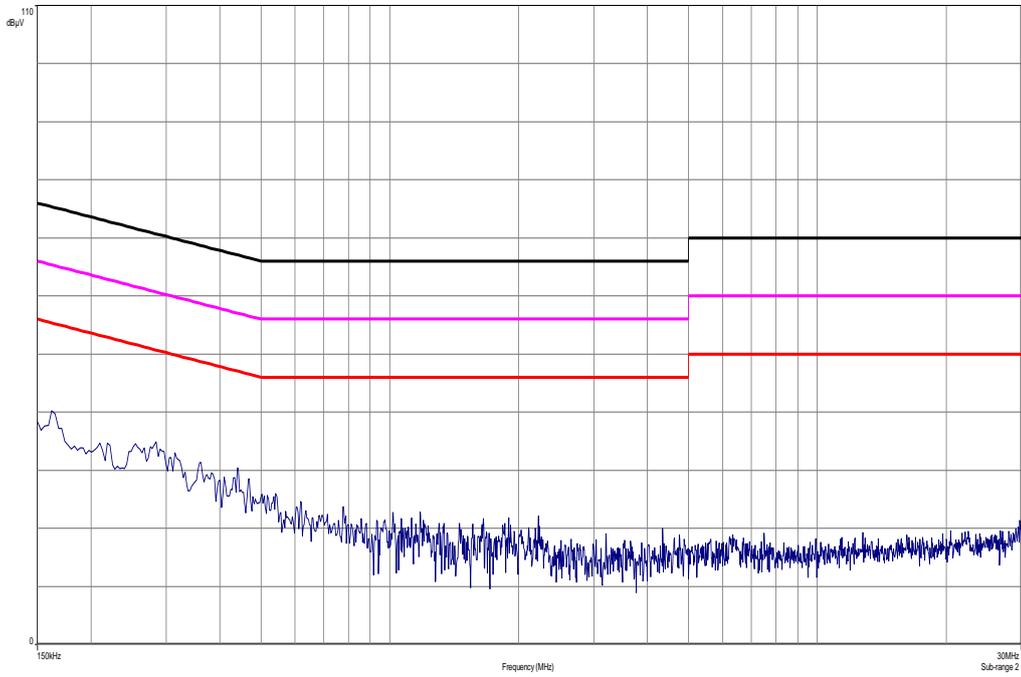
### Results:

| TX Spurious Emissions Conducted < 30 MHz [dBµV/m]                         |          |                |
|---|----------|----------------|
| F [MHz]   | Detector | Level [dBµV/m] |
| No peaks detected. All detected peak values are below the average limits. |          |                |
| Measurement uncertainty   | ± 3 dB   |                |

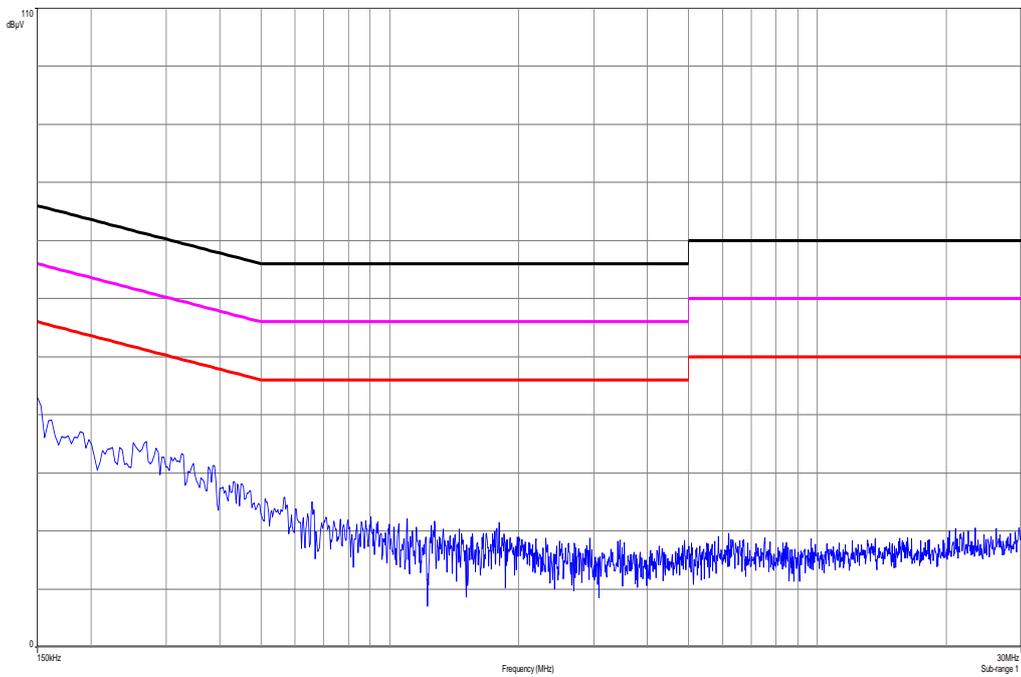
**Result: Passed**

**Plots:**

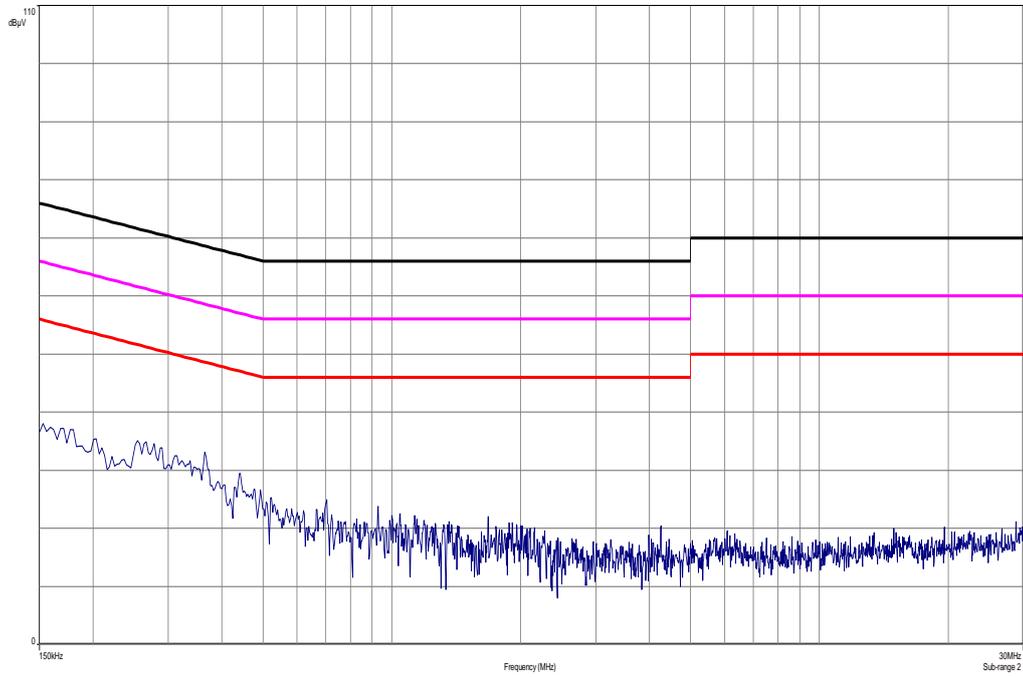
**Plot 1:** TX mode, 150 kHz to 30 MHz, phase line



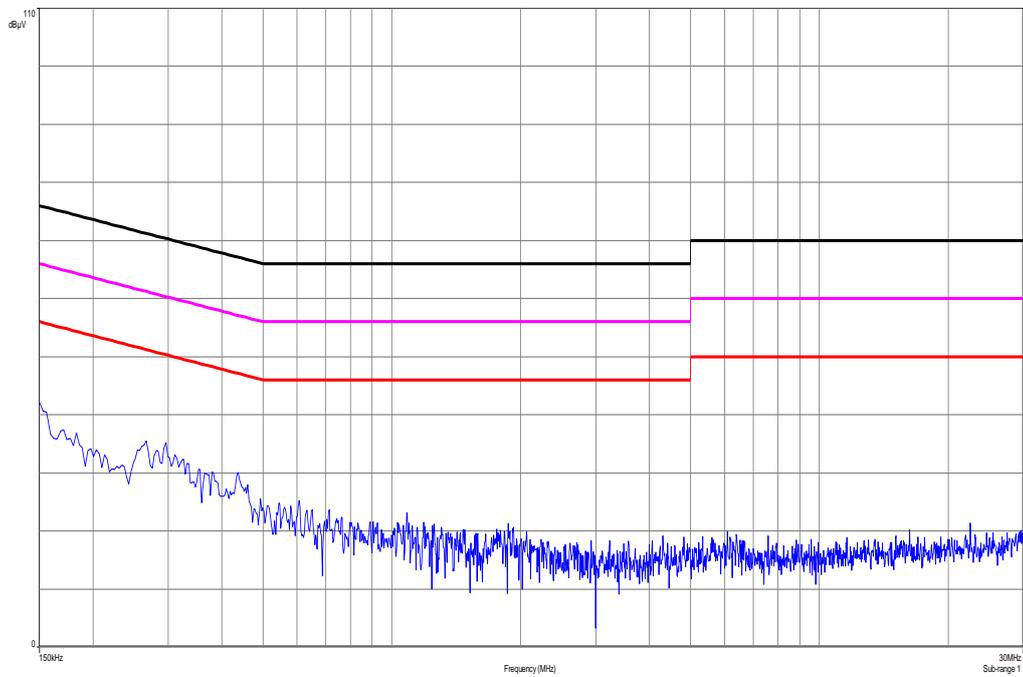
**Plot 2:** TX mode, 150 kHz to 30 MHz, neutral line



Plot 3: RX / Idle – mode, 150 kHz to 30 MHz, phase line



Plot 4: RX / Idle – mode, 150 kHz to 30 MHz, 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<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.      | software  | SPS_PHE<br>1.4f                             | Spitzberger<br>& Spieß | B5981;<br>5D1081;B597<br>9 | 300000210          | ne                     |                     |                     |
| 4   | n. a.      | EMI Test<br>Receiver  | ESCI 3                                      | R&S                    | 100083                     | 300003312          | k                      | 09.01.2013          | 09.01.2014          |
| 5   | n. a.      | Analyzer-<br>Reference-<br>System<br>(Harmonics and<br>Flicker) | ARS 16/1                                    | SPS                    | A3509 07/0<br>0205         | 300003314          | Ve                     | 14.07.2011          | 14.01.2014          |
| 6   | n. a.      | Amplifier   | JS42-<br>00502650-<br>28-5A                 | MITEQ                  | 1084532                    | 300003379          | ev                     |                     |                     |
| 7   | n. a.      | Antenna Tower   | Model 2175                                  | ETS-<br>LINDGREN       | 64762                      | 300003745          | izw                    |                     |                     |
| 8   | n. a.      | Positioning<br>Controller                                       | Model 2090                                  | ETS-<br>LINDGREN       | 64672                      | 300003746          | izw                    |                     |                     |
| 9   | n. a.      | Turntable<br>Interface-Box                                      | Model<br>105637                             | ETS-<br>LINDGREN       | 44583                      | 300003747          | izw                    |                     |                     |
| 10  | 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          |
| 11  | n. a.      | Spectrum-<br>Analyzer   | FSU26                                       | R&S                    | 200809                     | 300003874          | k                      | 16.01.2013          | 16.01.2014          |
| 12  | n. a.      | DC power<br>supply, 60Vdc,<br>50A, 1200 W                       | 6032A                                       | HP<br>Meßtechnik       | 2818A03450                 | 300001040          | Ve                     | 12.01.2012          | 12.01.2015          |
| 13  | 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          |
| 14  | n. a.      | Anechoic<br>chamber   | FAC 3/5m                                    | MWB /<br>TDK           | 87400/02                   | 300000996          | ev                     |                     |                     |
| 15  | n. a.      | Switch / Control<br>Unit  | 3488A                                       | HP<br>Meßtechnik       | *                          | 300000199          | ne                     |                     |                     |
| 16  | n. a.      | Switch / Control<br>Unit  | 3488A                                       | HP<br>Meßtechnik       | 2719A15013                 | 300001156          | ne                     |                     |                     |
| 17  | 9          | Isolating<br>Transformer  | MPL<br>IEC625<br>Bus<br>Regeltrennt<br>ravo | Erfi                   | 91350                      | 300001155          | ne                     |                     |                     |
| 18  | n. a.      | Three-Way<br>Power Splitter,<br>50 Ohm                          | 11850C                                      | HP<br>Meßtechnik       |                            | 300000997          | ne                     |                     |                     |
| 19  | 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          |
| 20  | n. a.      | Amplifier   | js42-<br>00502650-<br>28-5a                 | Parzich<br>GMBH        | 928979                     | 300003143          | ne                     |                     |                     |
| 21  | n. a.      | Band Reject<br>filter   | WRCG240<br>0/2483-<br>2375/2505-<br>50/10SS | Wainwright             | 11                         | 300003351          | ev                     |                     |                     |
| 22  | n. a.      | TRILOG<br>Broadband   | VULB9163                                    | Schwarzbe<br>ck        | 371                        | 300003854          | vIKII                  | 14.10.2011          | 14.10.2014          |

|    |       |  |        |                             |            |           |    |            |            |
|----|-------|--|--------|-----------------------------|------------|-----------|----|------------|------------|
|    |       | Test-Antenna<br>30 MHz - 3 GHz                     |        |                             |            |           |    |            |            |
| 23 | 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 | 21.02.2014 |
| 24 | 11b   | Microwave<br>System<br>Amplifier, 0.5-<br>26.5 GHz | 83017A | HP<br>Meßtechnik            | 00419      | 300002268 | ev |            |            |
| 25 | A026  | Std. Gain Horn<br>Antenna 12.4 to<br>18.0 GHz      | 639    | Narda                       | 8402       | 300000787 | k  | 22.07.2013 | 22.07.2015 |
| 26 | A029  | Std. Gain Horn<br>Antenna 18.0 to<br>26.5 GHz      | 638    | Narda                       | 8205       | 300002442 | k  | 19.07.2013 | 19.07.2015 |
| 27 | n. a. | Spectrum<br>Analyzer 20 Hz<br>- 50 GHz             | FSU50  | R&S                         | 200012     | 300003443 | Ve | 09.10.2012 | 09.10.2014 |
| 28 | n. a. | Signal Analyzer<br>40 GHz                          | FSV40  | R&S                         | 101042     | 300004517 | k  | 22.10.2012 | 22.01.2014 |

**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                       |
| vkl! | 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 |
|---------|-----------------------------------|-----------------|
|         | Initial release                   | 2014-01-13      |
| A       | Canada removed / EUT name changed | 2014-01-22      |
| B       | Editorial change                  | 2014-01-23      |

**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

**DAkKS**  
Deutsche  
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH  
Befehle 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 Akkreditierungskunde gilt nur in Verbindung mit dem Bescheid vom 18.01.2013 mit der Akkreditierungsnummer D-PI-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-PI-12076-01-01

Frankfurt am Main, 18.01.2013  
Sofia Wittenberg auf der Rückseite

Im Auftrag  
Diana (PH) Jäger  
Abteilungsleiter

Back side of certificate

Deutsche Akkreditierungsstelle GmbH

|  |   |   |
|--|---|---|
| Standort Berlin<br>Spittelmarkt 10<br>10117 Berlin | Standort Frankfurt am Main<br>Gartenstraße 6<br>60594 Frankfurt am Main | Standort Braunschweig<br>Rundesalle 100<br>38116 Braunschweig |
|--|---|---|

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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 (Abl. 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.

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### 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>