

FORCE Technology Test Report



Radio parameter test of Smart Catch

Performed for Anticimex Innovation Center

Report no.: 117-21624-6 Revision 1

Page 1 of 36

12 February 2018

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| | |
|-----------------------|---|
| Title | Radio parameter test of Smart Catch |
| Test object | Smart Catch |
| Report no. | 117-21624-6 Revision 1 |
| Test period | 08 to 22 December 2017 |
| Client | Anticimex Innovation Center Skovgårdsvej 25 3200 Helsingør Denmark Tel.: +45 48207348 |
| Contact person | Dennis Dupont Hansen E-mail: Dennis.hansen@anticimex.com |
| Manufacturer | Anticimex Innovation Center |
| Specifications | FCC 47 CFR 15.247, DTS (Digital Transmission System) |
| Results | The test object was found to be in compliance with the specifications |
| Test personnel | Henrik Klarskov Møller Peter Wolf Frandsen |
| Test site | Venlighedsvej 4, 2970 Hørsholm, Denmark |

Date 12 February 2018

Project Manager 

Peter Wolf Frandsen
Specialist, EMC
FORCE Technology

Responsible 

Karsten Kruse Jensen
Head of Department
FORCE Technology

This test report replaces previously issued test report 117-21624-6 dated 29 January 2018.
The changes in this report are:

FCC ID corrected in Clause 2.1

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1. Summary of tests

| Description | Test methods | Specification | Results |
|---|------------------|--|----------------------------|
| Measurement of maximum conducted power output | ANSI C63.10:2013 | 47 CFR Part 15C Subpart 15.247(b)(3) | Passed |
| Measurement of 6 dB bandwidth | ANSI C63.10:2013 | 47 CFR Part 15C Subpart 15.247(a)(2) | Passed |
| Measurement of 20 dB bandwidth/band edge compliance | ANSI C63.10:2013 | 47 CFR Part 15C Subpart 15.215(c) | Passed |
| Measurement of power spectral density | ANSI C63.10:2013 | 47 CFR Part 15C Subpart 15.247(e) | Passed |
| Measurement of conducted spurious emission | ANSI C63.10:2013 | 47 CFR Part 15C Subpart 15.247(d) | No requirement, see note 1 |
| Measurement of radiated emission; restricted bands | ANSI C63.10:2013 | 47 CFR Part 15 B&C Subpart 15.109, 15.209 | Passed |

Note 1: The test object contains no AC mains port.

The given result is based on a shared risk principle with respect to the measurement uncertainty.

Conclusion

The test object mentioned in this report meets the requirements of the standard stated below, with respect to the tests listed above.

- FCC 47 CFR 15.247, DTS
(Digital Transmission System)

The test results relate only to the object tested.

2. Test object and auxiliary equipment

2.1 Test object

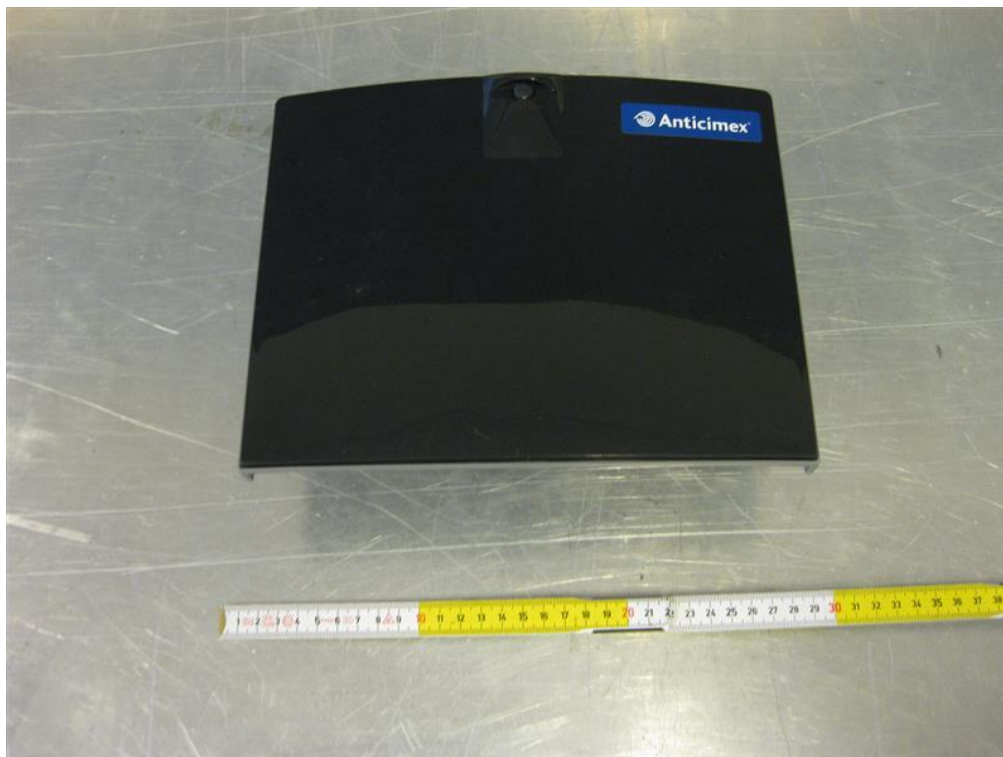


Photo 2.1.1 Test object.

Test object 2.1.1

| | |
|-------------------------------------|---|
| Name of test object | Smart Catch |
| Model / type | US-type |
| Part no. | 300301 |
| Serial no. | 42006635 |
| FCC ID | 2AOFP-300301 |
| Manufacturer | Anticimex Innovation Center |
| Supply voltage | 7.2V Battery powered |
| Software version | 2.31 |
| Hardware version | E0027-10 |
| Cycle time | Continuous Tx |
| Highest frequency generated or used | 920 MHz |
| Comment | None |
| Received | Date: 08 December 2017. Status: Test object sampled and provided by customer. |

3. General test conditions

3.1 Test setup during test

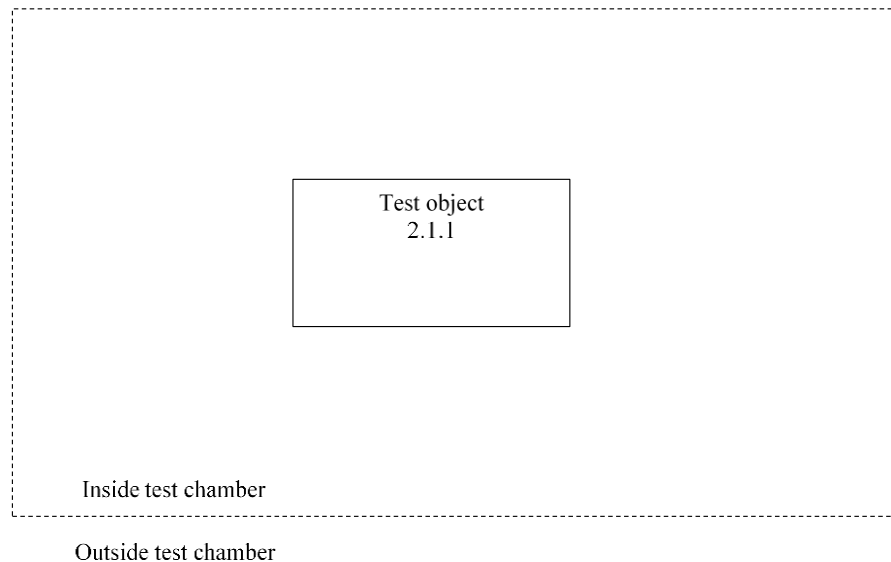


Figure 3.1.1 Block diagram of test object.

3.1.1 Description of test setup

Special test modes were used during testing.

There are two test modes:

1. Normal mode: Operation mode – the device is active during the test and the radio module is deactivated (not transmitting).
2. The SRD radio is continuously transmitting in the 902-928 MHz band at 920 MHz.

3.1.2 Description and intended use of test object

Rodent surveillance and trap with build-in radio communication

3.1.3 Nominal power consumption

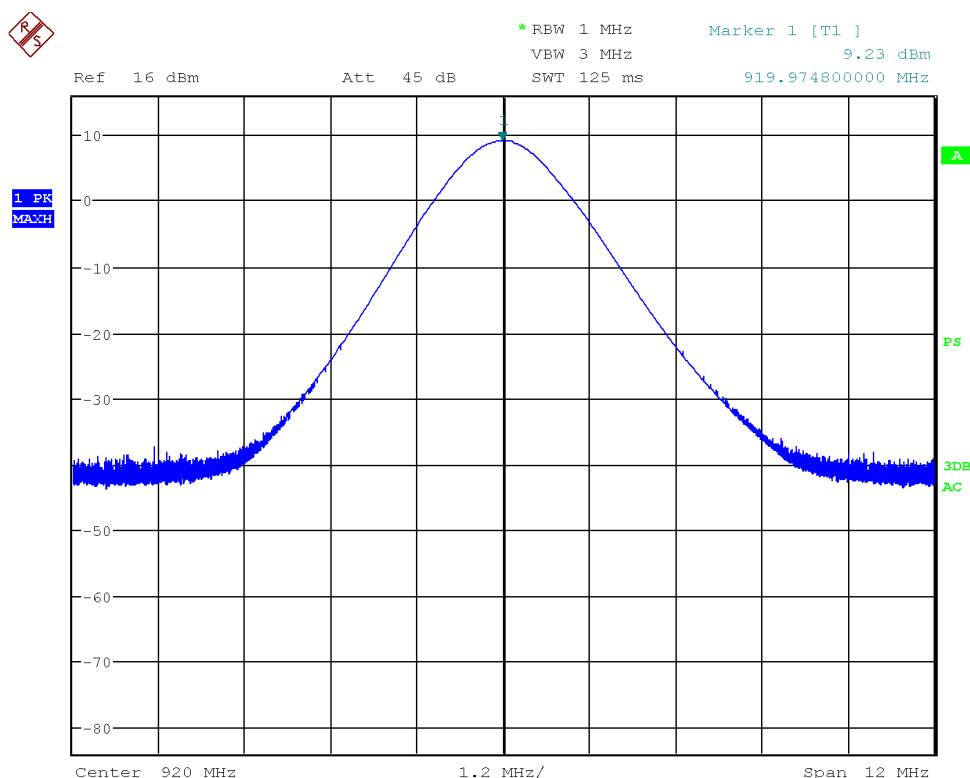
The Smart Catch is battery powered, using 2x2 parallel connected lithium batteries of 3.6 V.

4. Test results

4.1 Measurement of maximum conducted output power

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-1 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty | 1.1 dB |
| SA Settings | RBW: 1 MHz VBW: 3 MHz SPAN: 12 MHz DET: Peak CF: 920 Trace: Max. hold | | |



Date: 12.DEC.2017 16:17:29

Comments

Operating frequency: 920 MHz.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-2 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|---|--------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty: | 1.1 dB |
| SA Settings | RBW: 1 MHz VBW: 3 MHz SPAN: 12 MHz DET: Peak CF: 920 Trace: Max. hold | | |

| Operating frequency [MHz] | Conducted peak measurement [dBm] | Limit [dBm] | Remarks |
|---------------------------|----------------------------------|--------------|---------|
| 919.97 | 9.23 | 30 (1 Watts) | Passed |

Note 1:

Test result The measured maximum conducted output power is within limit

Test port Antenna connector

Test frequency 920 MHz

Test mode Continuous Tx - normal modulation

Condition Normal

Compliant Yes

Comments None

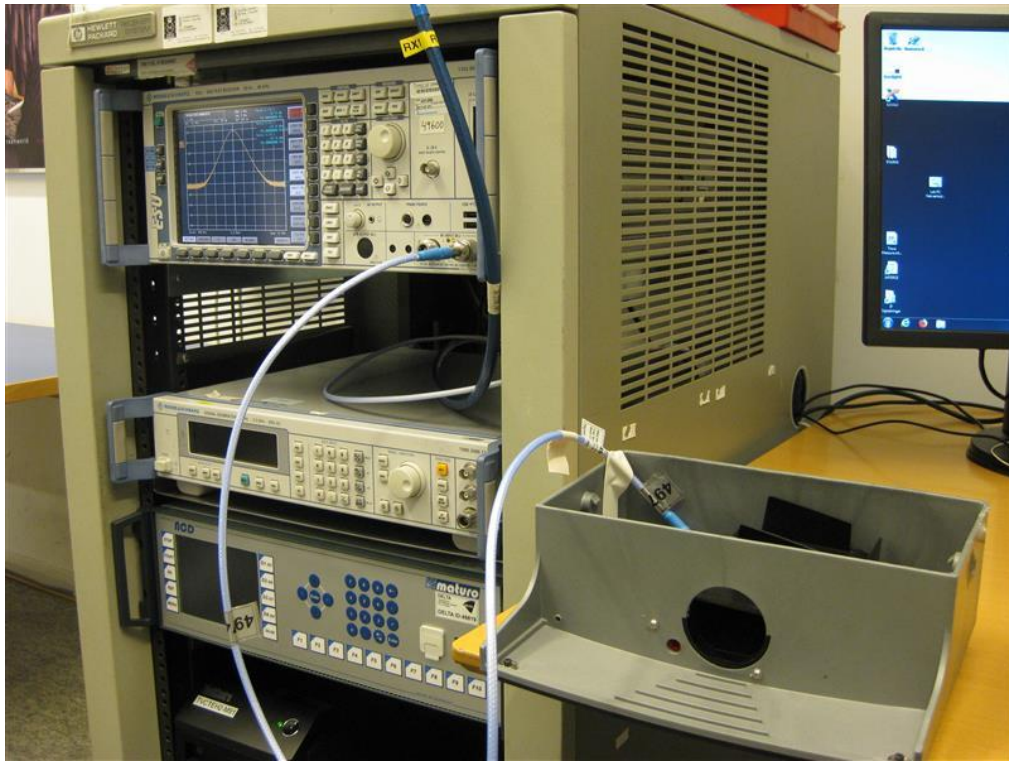


Photo 4.1.1 Test setup regarding measurement of maximum conducted output power.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-4 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|--|--------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty: | 1.1 dB |
| SA Settings | RBW: 100 kHz VBW: 300 kHz SPAN: 4 MHz DET: Peak CF: 920 Trace: Max. hold | | |

| Operating frequency [MHz] | Low frequency [MHz] | High frequency [MHz] | 6 dB bandwidth [kHz] | Limit [kHz] | Remarks |
|---------------------------|---------------------|----------------------|----------------------|-------------|---------|
| 920 | 919.66 | 920.34 | 680 | ≥ 500 | Passed |

Note 1:

| | |
|--------------------|--|
| Band edge criteria | The minimum 6 dB bandwidth shall be ≥ 500 kHz |
| Test result | The measured 6 dB bandwidth were within the limit |
| Test port | Antenna connector |
| Test frequency | 920 MHz |
| Test mode | Continuous Tx - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | None |

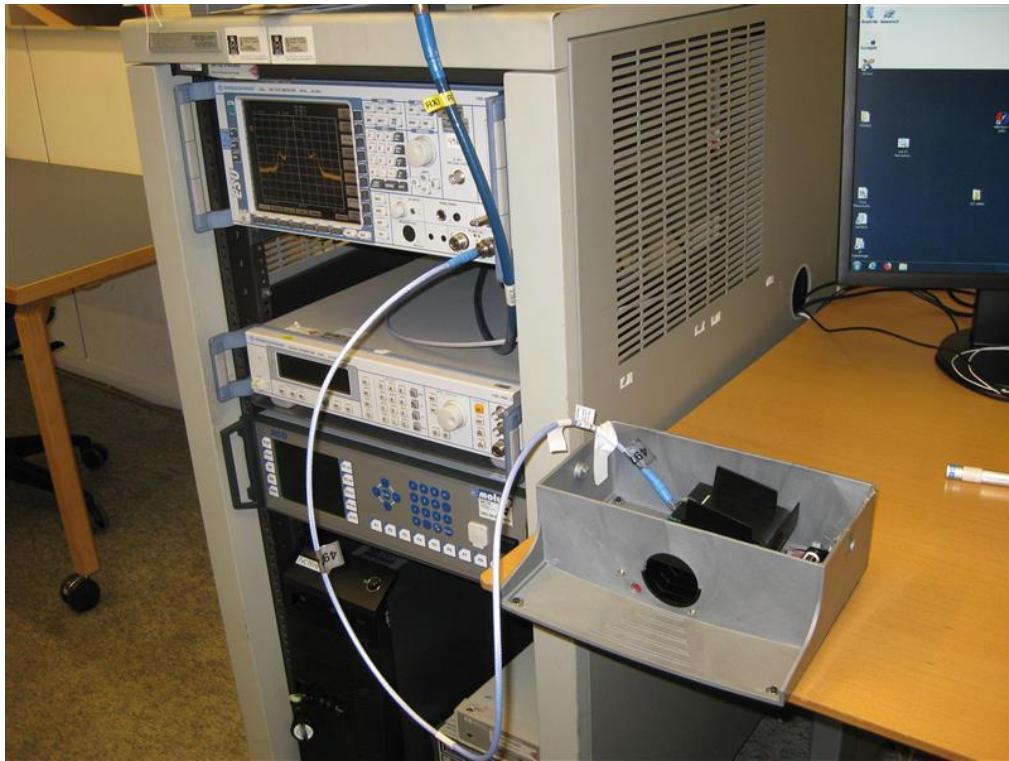
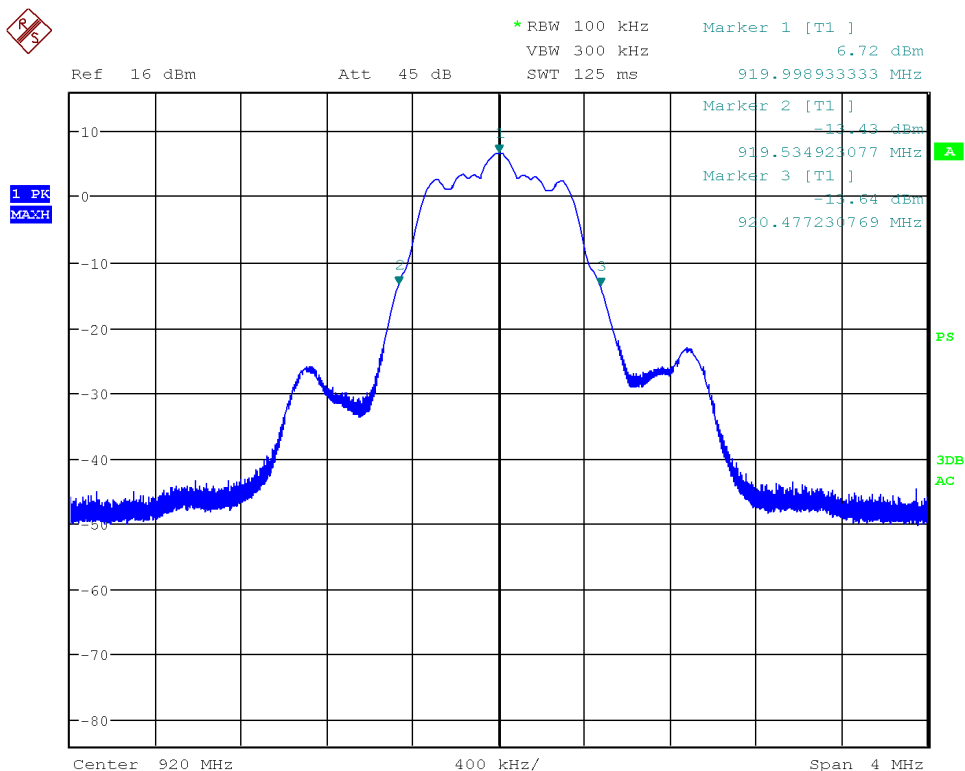


Photo 4.2.1 Test setup regarding measurement of 6 dB bandwidth.

4.3 Measurement of 20 dB bandwidth

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-5 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|--|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty | 1.1 dB |
| SA Settings | RBW: 100 kHz VBW: 300 kHz SPAN: 4 MHz DET: Peak CF: 920 MHz Trace: Max. hold | | |



Date: 12.DEC.2017 16:15:29

Comments

Operating frequency: 920 MHz.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-6 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|--|--------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty: | 1.1 dB |
| SA Settings | RBW: 100 kHz VBW: 300 kHz SPAN: DET: Peak CF: Operating freq. Trace: Max. hold | | |

| Operating frequency [MHz] | Low frequency [MHz] | High frequency [MHz] | Remarks |
|---------------------------|---------------------|----------------------|---------|
| 920 | 919.93 | 920.48 | - |
| Note 1: | | | |

| Operating frequency [MHz] | Measured [MHz] | Limit [MHz] | Remarks |
|---------------------------|----------------|-------------|---------|
| Lowest frequency | 919.93 | 902 | Passed |
| Highest frequency | 920.48 | 928 | Passed |

| | |
|--------------------|---|
| Band edge criteria | 20 dB bandwidth |
| Test result | The measured 20 dBc bandwidth were within limit |
| Test port | Antenna connector |
| Test frequency | 920 MHz |
| Test mode | Continuous Tx - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | None |

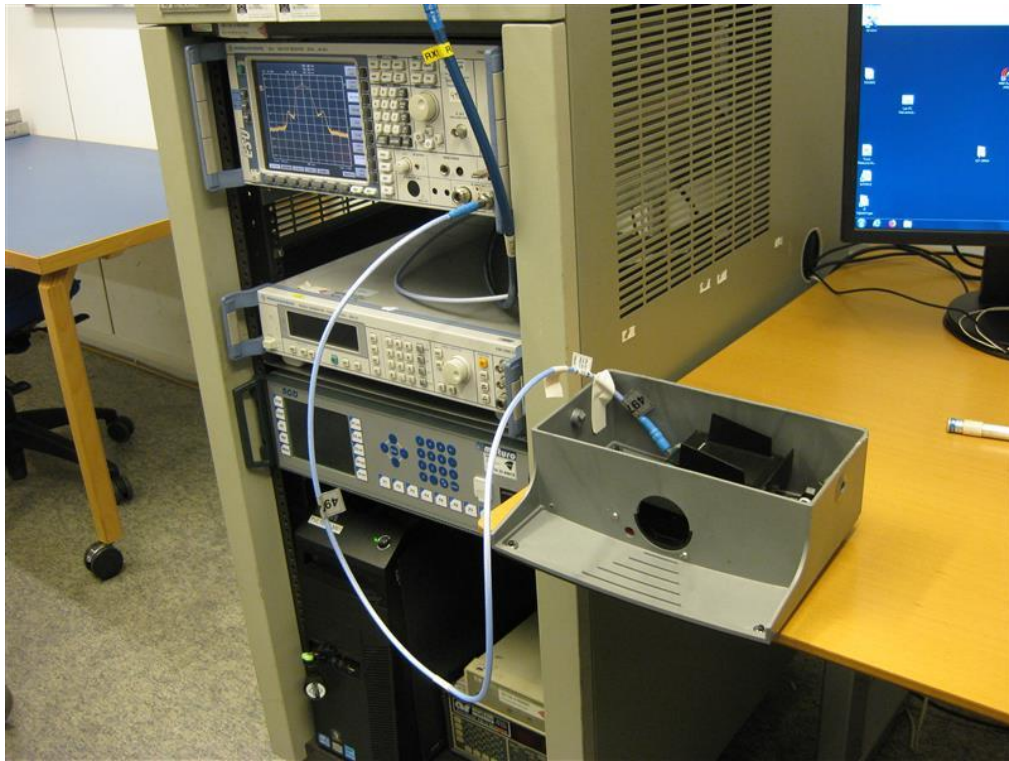


Photo 4.3.1 Test setup regarding measurement of 20 dB bandwidth.

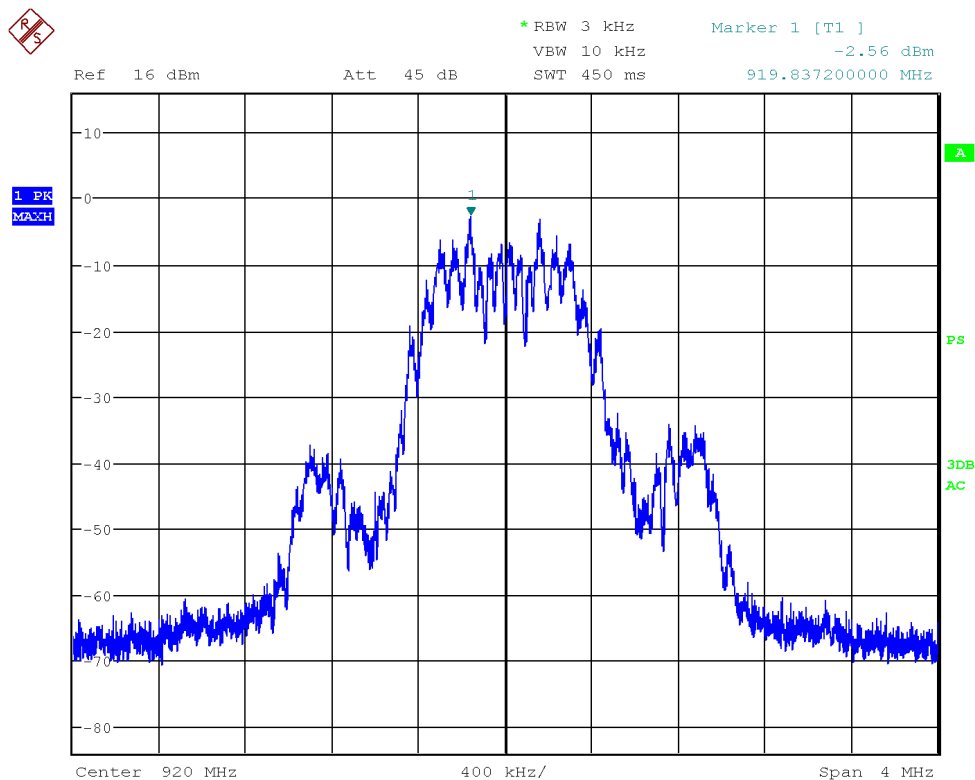


Photo 4.3.2 Test setup regarding measurement of 20 dB bandwidth.

4.4 Measurement of power spectral density conducted

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-7 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty | 1.1 dB |
| SA Settings | RBW: 3 kHz VBW: 10 kHz SPAN: 4 MHz DET: Peak CF: 920 MHz Trace: Max. hold | | |



Date: 12.DEC.2017 16:19:06

Comments

Operating frequency: 920 MHz.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-8 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | | |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty | 1.1 dB |
| SA Settings | RBW: 3 kHz VBW: 10 kHz SPAN: 4 MHz DET: Peak CF: 920 MHz Trace: Max. hold | | |

| Operating Frequency [MHz] | Measured Power [dBm] | Limit [dBm] | Remarks |
|---------------------------|----------------------|-------------|---------|
| 919.83 | -2.56 | 8 | Passed |
| Note 1: | | | |

Test result The measured power spectral density was within the limit
 Test Port Antenna connector
 Test frequency 920 MHz
 Test mode Continuous Tx - normal modulation
 Condition Normal
 Compliant Yes
 Comments None

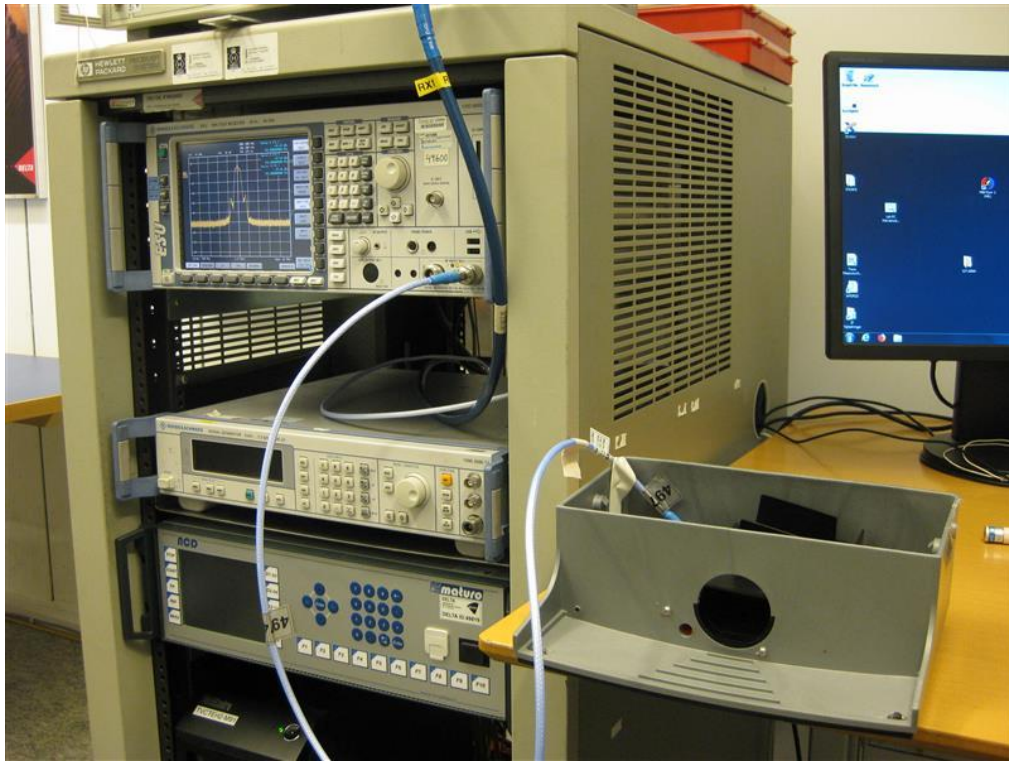
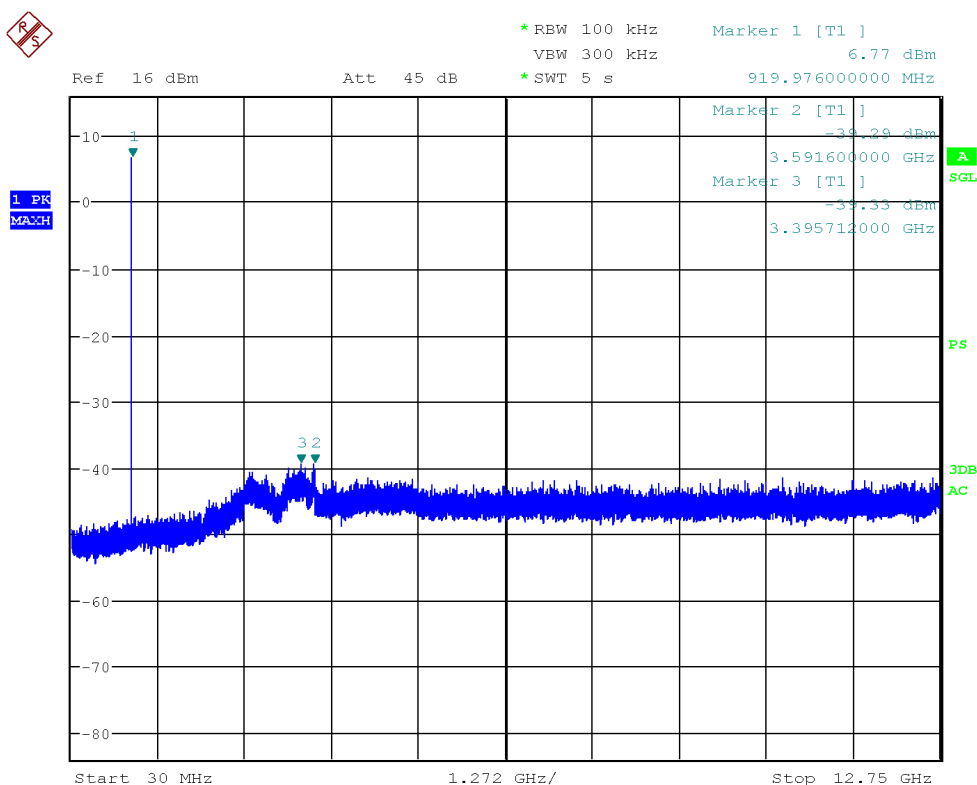


Photo 4.4.1 Test setup regarding measurement of power spectral density conducted.

4.5 Measurement of conducted spurious emissions

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-9 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 30-12750 MHz |

| | | | |
|-----------------|--|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty | 1.1 dB |
| SA Settings | RBW: 100 kHz VBW: 300 kHz DET: Peak Trace: Max. hold | | |



Date: 12.DEC.2017 16:22:22

Comments

None

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | PROF-10 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 12 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 30-12750 MHz |

| | | | |
|-----------------|--|--------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Procedures for testing DTS devices | Humidity | 30 % RH |
| Test equipm. | SRD lab Hørsholm 49600 49740 | Uncertainty: | 1.1 dB |
| SA Settings | RBW: 100 kHz VBW: 300 kHz DET: Peak Trace: Max. hold | | |

| Frequency [MHz] | Peak measurement [dBc] | Limit [dBc] | Remarks |
|-----------------|------------------------|-------------|---------|
| 3591.6 | 46.06 | >20 | Passed |
| 3395.7 | 46.10 | >20 | Passed |
| Note 1: | | | |

| | |
|----------------|--|
| Test result | The measured conducted spurious emissions are within limit |
| Test port | Antenna connector |
| Test frequency | 920 MHz |
| Test mode | Continuous Tx - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | None |

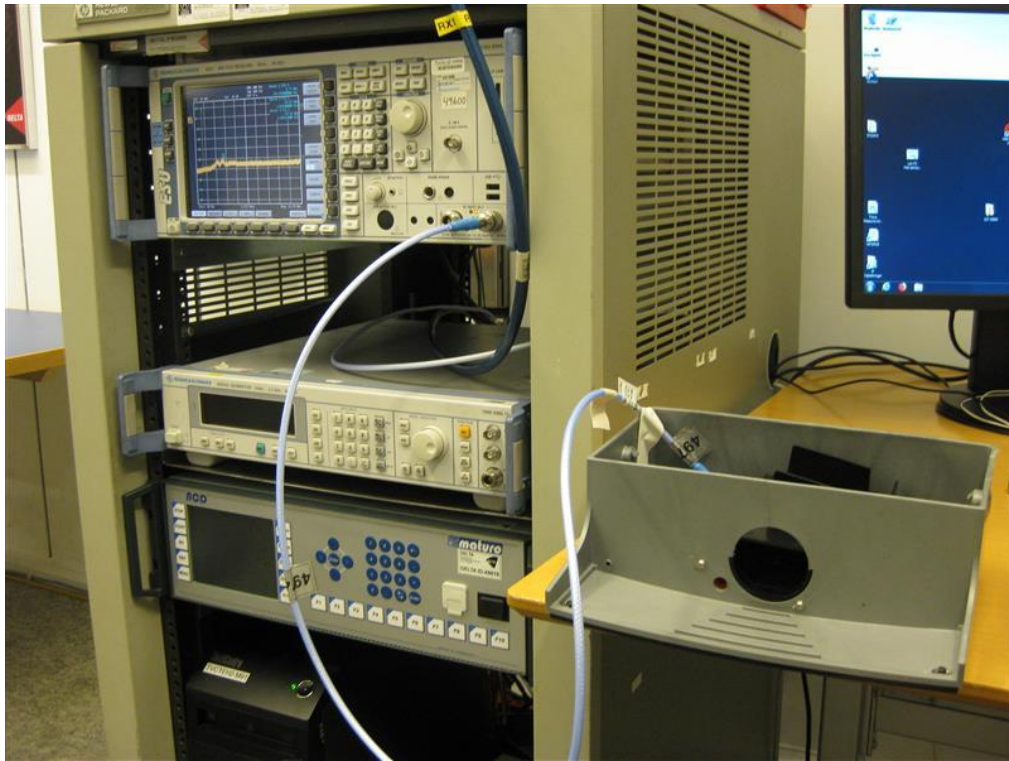


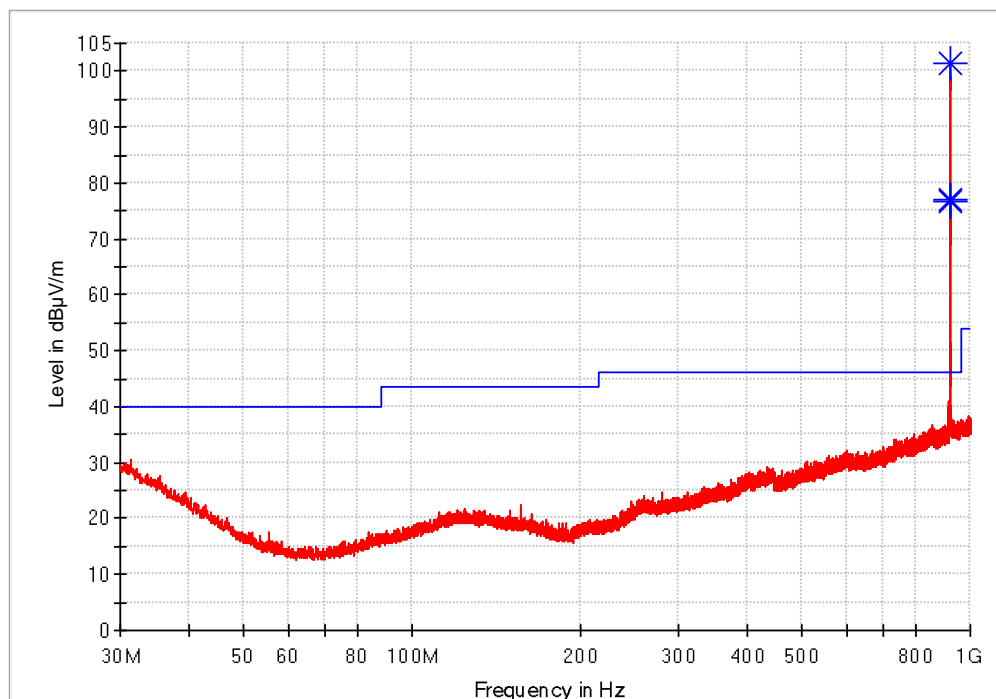
Photo 4.5.1 Test setup regarding measurement of conducted spurious emissions.

4.6 Measurement of radiated emission (below 1 GHz) Tx on

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-1 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 14 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | HKM |
| Specification | See section 1 Summary of tests | Frequency | 30-1000 MHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 20 °C |
| Characteristics | Complete search, antenna distance 3 m | Humidity | 31 % RH |
| Detector | Peak and quasi peak | Bandwidth | 120 kHz |
| Test equipm. | EMI room Hørsholm 49900 49154 49807 49704 49590 49817 49999 | Uncertainty | 6.3 dB |

Full Spectrum



— Preview Result 1-PK+ — FCC Part 15C QP 3 m * Final_Result QPK

Comments Continuous Tx - normal modulation.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-2 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 14 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | HKM |
| Specification | See section 1 Summary of tests | Frequency | 30-1000 MHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 20 °C |
| Characteristics | Complete search, antenna distance 3 m | Humidity | 21 % RH |
| Detector | Quasi peak | Bandwidth | 120 kHz |
| Test equipm. | EMI room Hørsholm 49900 49154 49807 49704 49590 49817 49999 | Uncertainty | 6.3 dB |

| Frequency (MHz) | QuasiPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Meas. Time (ms) | Band width (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------------|----------------------|-------------|-----------------|------------------|-------------|-----|---------------|------------|
| 919.11 | 76.63 | 46.00 | -30.63 | 15000.0 | 120.0 | 104.0 | V | 104 | 34.9 |
| 920.01 | 101.27 | 46.00 | -55.27 | 15000.0 | 120.0 | 100.0 | V | 106 | 35.0 |
| 920.88 | 76.89 | In Band | N/A | 15000.0 | 120.0 | 102.0 | V | 92 | 35.0 |

| | |
|----------------|---|
| Test result | The measured field strengths are below the limit |
| Test Port | Enclosure |
| Test frequency | 920 MHz |
| Test mode | Continuous Tx - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation. |

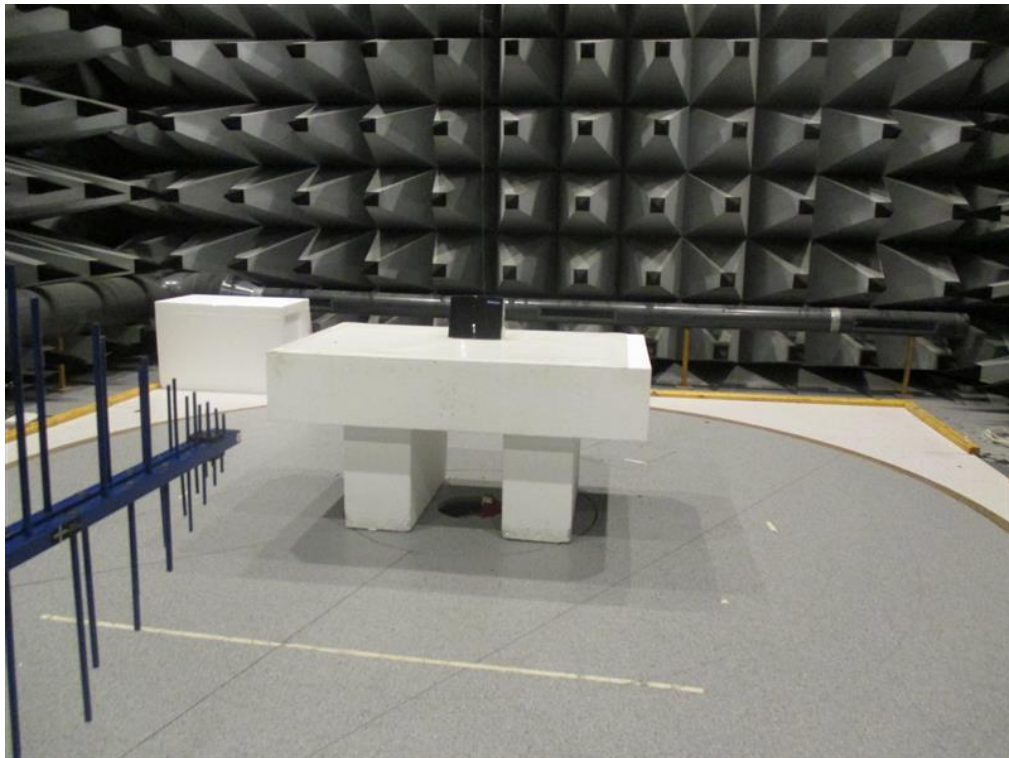


Photo 4.6.1 Test setup regarding measurement of radiated emission (below 1 GHz).

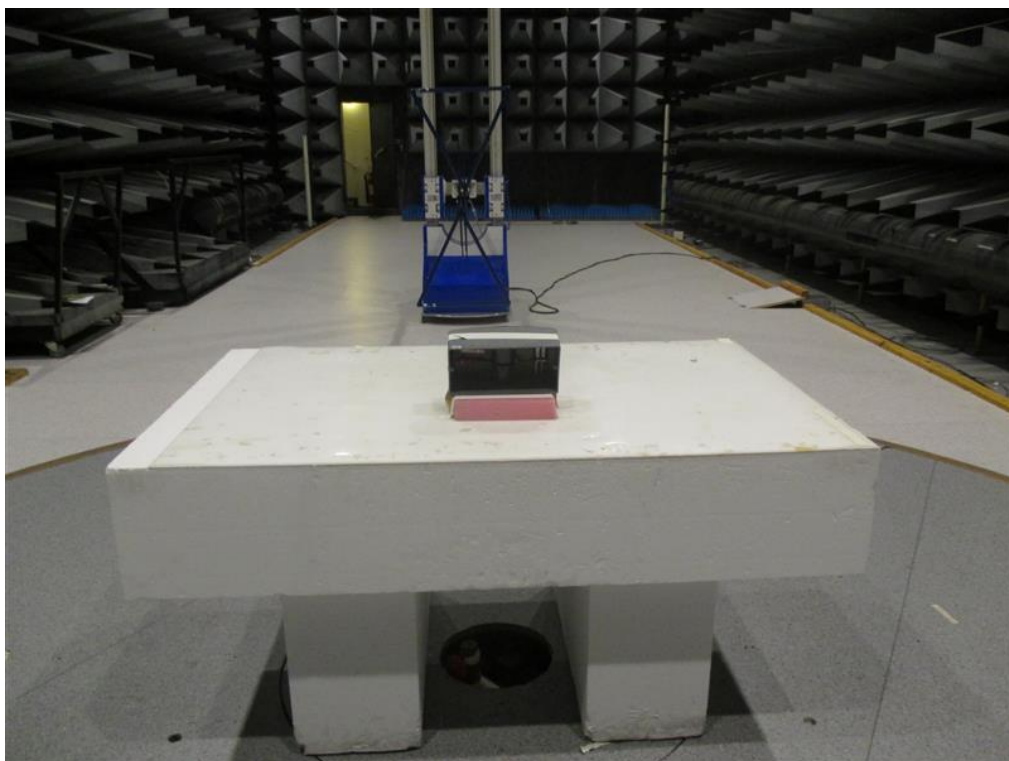


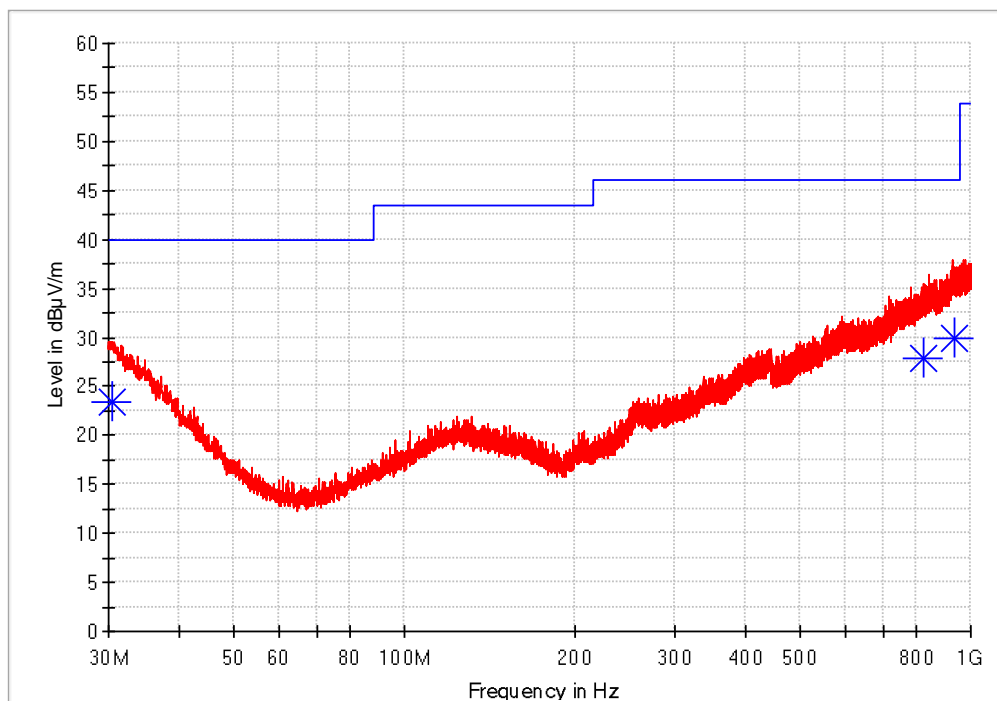
Photo 4.6.2 Test setup regarding measurement of radiated emission (below 1 GHz).

4.7 Measurement of radiated emission (below 1 GHz) normal mode

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-3 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 22 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 30-1000 MHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Complete search, antenna distance 3 m | Humidity | 34 % RH |
| Detector | Peak and quasi peak | Bandwidth | 120 kHz |
| Test equipm. | EMI room Hørsholm 49900 49154 49807 49704 49590 49817 49999 | Uncertainty | 6.3 dB |

Full Spectrum



— Preview Result 1-PK+ — FCC Part 15 B QP 3 m * Final_Result QPK

Comments Tx standby - normal modulation.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-4 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 22 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 30-1000 MHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 21 °C |
| Characteristics | Complete search, antenna distance 3 m | Humidity | 34 % RH |
| Detector | Quasi peak | Bandwidth | 120 kHz |
| Test equipm. | EMI room Hørsholm 49900 49154 49807 49704 49590 49817 49999 | Uncertainty | 6.3 dB |

| Frequency (MHz) | QuasiPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Meas. Time (ms) | Band width (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------------|----------------------|-------------|-----------------|------------------|-------------|-----|---------------|------------|
| 30.45 | 23.38 | 40.00 | 16.62 | 15000.0 | 120.0 | 100.0 | H | -49 | 26.5 |
| 827.64 | 27.91 | 46.00 | 18.09 | 15000.0 | 120.0 | 104.0 | H | 163 | 34.0 |
| 932.70 | 29.95 | 46.00 | 16.05 | 15000.0 | 120.0 | 173.0 | H | 306 | 35.6 |

| | |
|----------------|---|
| Test result | The measured field strengths are below the limit |
| Test Port | Enclosure |
| Test frequency | 920 MHz |
| Test mode | Tx standby - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation. |

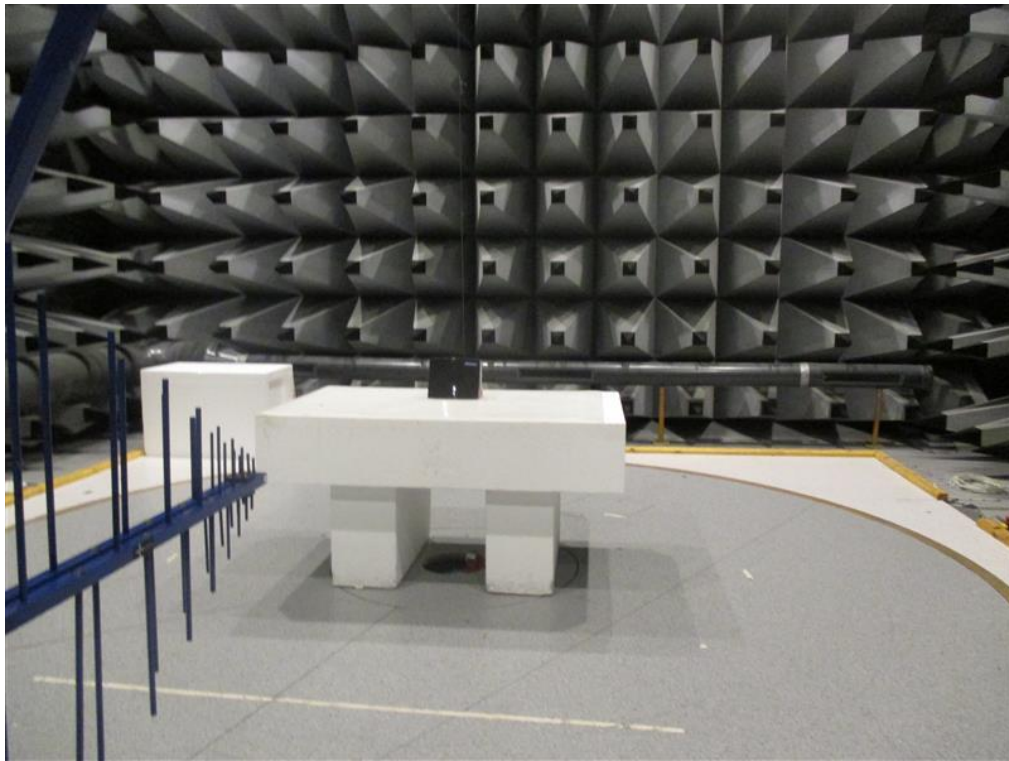


Photo 4.7.1 Test setup regarding measurement of radiated emission (below 1 GHz).



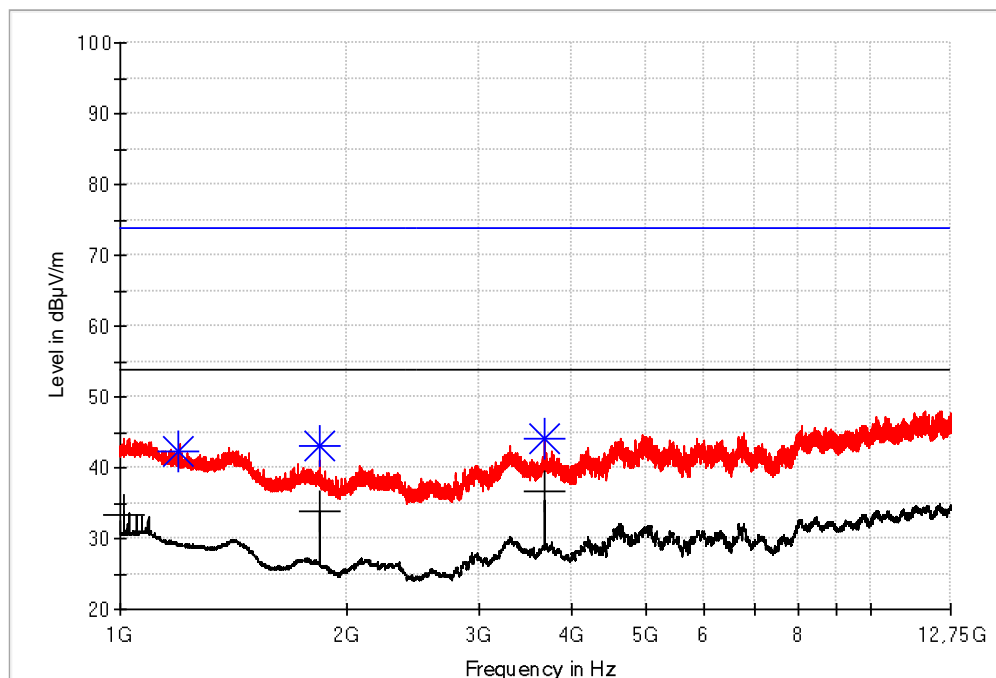
Photo 4.7.2 Test setup regarding measurement of radiated emission (below 1 GHz).

4.8 Measurement of radiated emission (above 1 GHz) Tx on

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-5 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 15 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 1-12.75 GHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 20 °C |
| Characteristics | Complete search, antenna distance 3 m. | Humidity | 31 % RH |
| Detector | Peak and average | Bandwidth | 1 MHz |
| Test equipm. | EMI room Hørsholm 49900 49624 49625 49590 49823 49704 49999 | Uncertainty | 4.9 dB |

Full Spectrum



— Preview Result 2-AVG
 — Preview Result 1-PK+
 — FCC Part 15C Pk 3 m
— FCC Part 15C Avg 3 m
 * Final_Result PK+
 + Final_Result CAV

Comments Continuous Tx - normal modulation.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-6 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 15 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 1-12.75 GHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 20 °C |
| Characteristics | Complete search, antenna distance 3 m | Humidity | 31 % RH |
| Detector | Peak and average | Bandwidth | 1 MHz |
| Test equipm. | EMI room Hørsholm 49900 49624 49625 49590 49823 49704 49999 | Uncertainty | 4.9 dB |

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Corr (dB) | Pol | Azimuth (deg) |
|-----------------|------------------|-------------------|----------------|-------------|-----------------|-------------|-----------|-----|---------------|
| 1010.00 | --- | 33.25 | 53.90 | 20.65 | 15000.0 | 383.0 | -11.7 | H | 156 |
| 1196.50 | 42.25 | --- | 73.90 | 31.66 | 15000.0 | 102.0 | -10.8 | H | 321 |
| 1840.00 | --- | 33.72 | 53.90 | 20.18 | 15000.0 | 100.0 | -14.5 | V | 301 |
| 1840.00 | 43.20 | --- | 73.90 | 30.70 | 15000.0 | 104.0 | -14.5 | V | 290 |
| 3679.75 | 44.00 | --- | 73.90 | 29.90 | 15000.0 | 289.0 | -40.6 | H | 223 |
| 3680.00 | --- | 36.60 | 53.90 | 17.30 | 15000.0 | 179.0 | -40.6 | V | 183 |

| | |
|----------------|---|
| Test result | The measured field strengths are below the limit |
| Test Port | Enclosure |
| Test frequency | 920 MHz |
| Test mode | Continuous Tx - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation. |

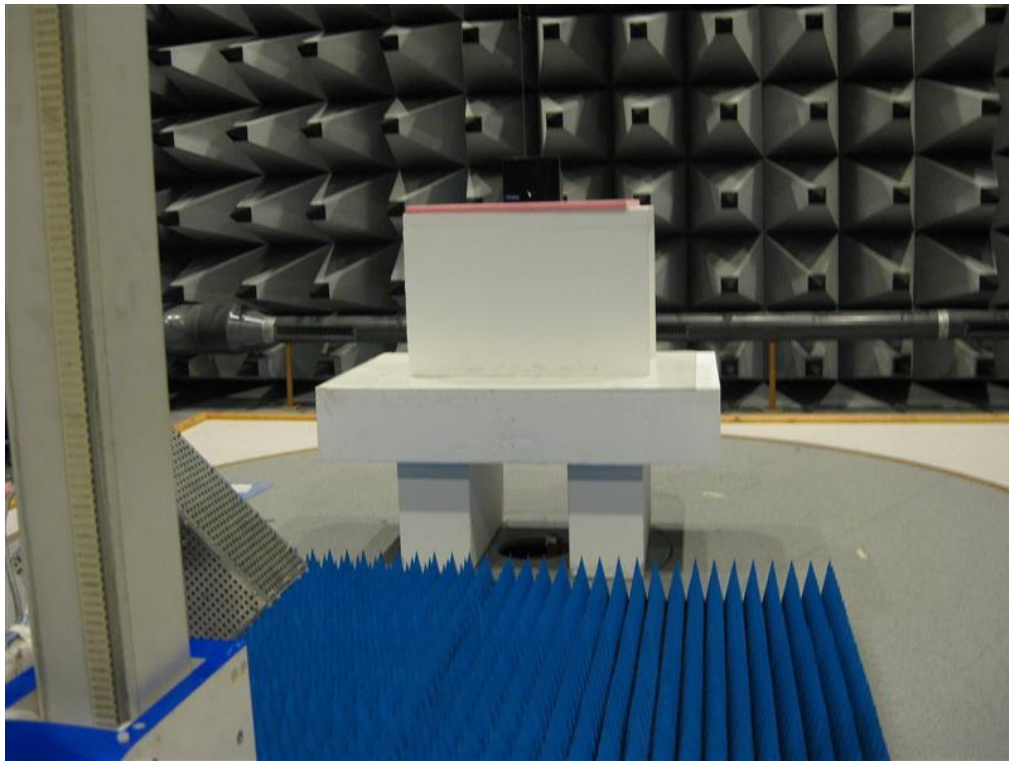


Photo 4.8.1 Test setup regarding measurement of radiated emission (above 1 GHz).

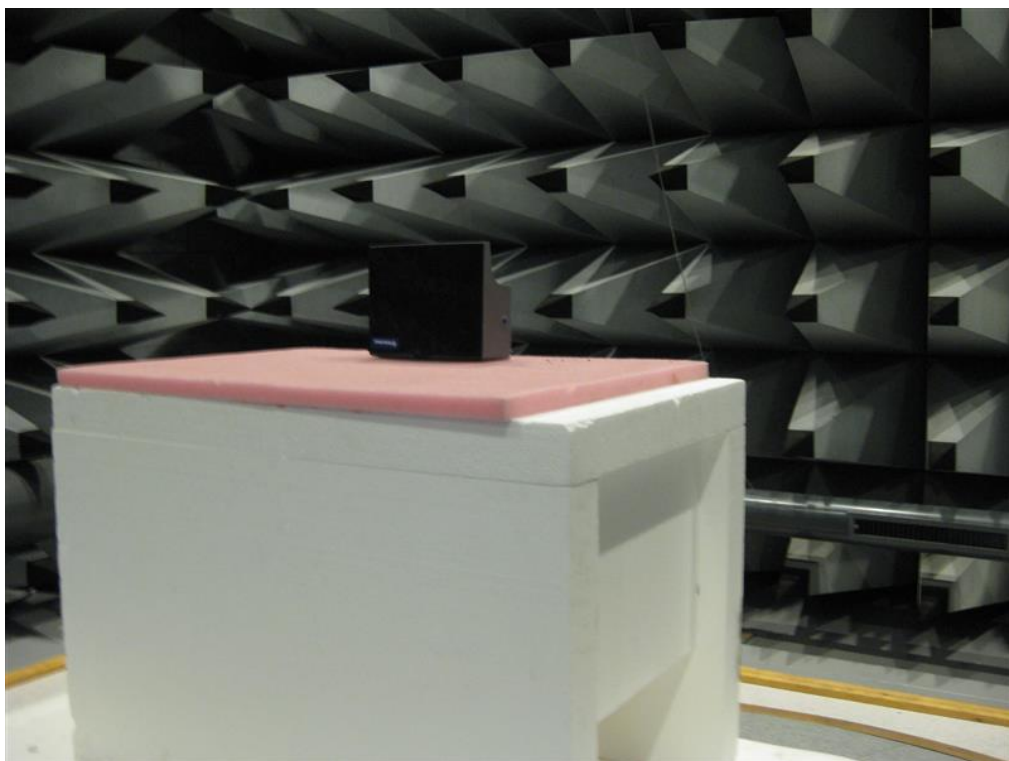


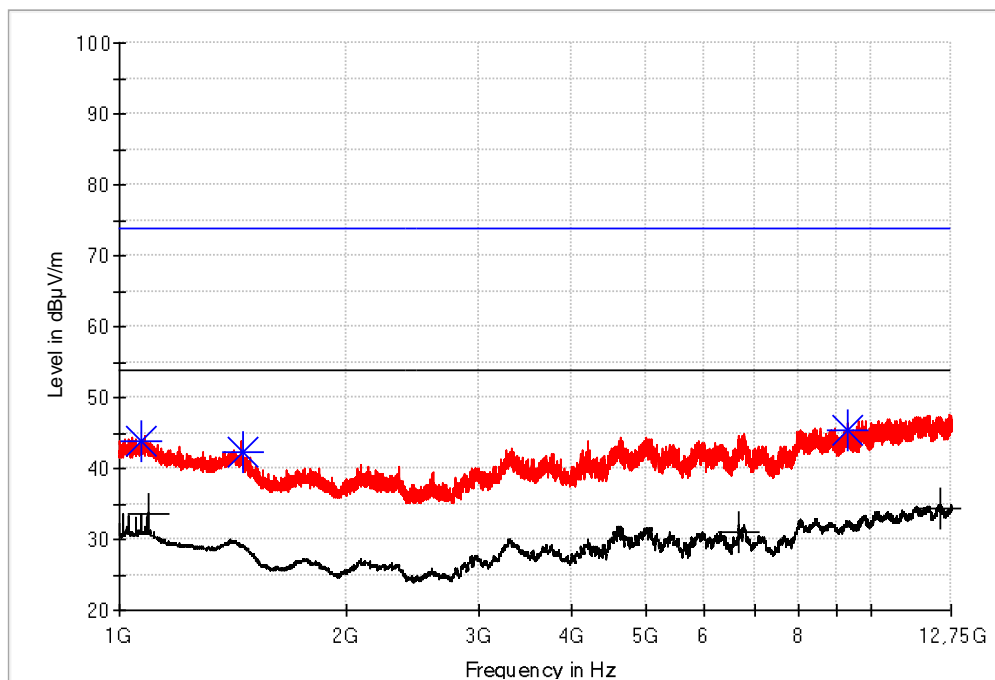
Photo 4.8.2 Test setup regarding measurement of radiated emission (above 1 GHz).

4.9 Measurement of radiated emission (above 1 GHz) normal mode

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-7 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 15 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 1-12.75 GHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 20 °C |
| Characteristics | Complete search, antenna distance 3 m. | Humidity | 31 % RH |
| Detector | Peak and average | Bandwidth | 1 MHz |
| Test equipm. | EMI room Hørsholm 49900 49624 49625 49590 49823 49704 49999 | Uncertainty | 4.9 dB |

Full Spectrum



— Preview Result 2-AVG
 — Preview Result 1-PK+
 — FCC Part 15C Pk 3 m
— FCC Part 15C Avq 3 m
 * Final_Result PK+
 + Final_Result CAV

Comments Tx standby - normal modulation.

| | | | |
|---------------|--------------------------------|-------------|--------------|
| Test object | Smart Catch | Sheet | RE_Spur-8 |
| Type | US-type | Project no. | 117-21624-6 |
| Serial no. | 42006635 | Date | 15 Dec. 2017 |
| Client | Anticimex Innovation Center | Initials | PWF |
| Specification | See section 1 Summary of tests | Frequency | 1-12.75 GHz |

| | | | |
|-----------------|---|-------------|---------|
| Test method | ANSI C63.10:2013 | Temperature | 20 °C |
| Characteristics | Complete search, antenna distance 3 m | Humidity | 31 % RH |
| Detector | Peak and average | Bandwidth | 1 MHz |
| Test equipm. | EMI room Hørsholm 49900 49624 49625 49590 49823 49704 49999 | Uncertainty | 4.9 dB |

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Height (cm) | Corr. (dB) | Pol | Azimuth (deg) |
|-----------------|------------------|-------------------|----------------|-------------|-----------------|-------------|------------|-----|---------------|
| 1069.25 | 43.88 | --- | 73.90 | 30.02 | 15000.0 | 231.0 | -10.8 | H | 137 |
| 1090.00 | --- | 33.57 | 53.90 | 20.33 | 15000.0 | 250.0 | -10.7 | H | 224 |
| 1460.25 | 42.39 | --- | 73.90 | 31.51 | 15000.0 | 115.0 | -12.6 | V | 260 |
| 6663.25 | --- | 31.15 | 53.90 | 22.75 | 15000.0 | 160.0 | -34.2 | H | 156 |
| 9287.25 | 45.35 | --- | 73.90 | 28.55 | 15000.0 | 376.0 | -26.0 | V | 98 |
| 12321.75 | --- | 34.30 | 53.90 | 19.60 | 15000.0 | 102.0 | -20.2 | V | 288 |

| | |
|----------------|---|
| Test result | The measured field strengths are below the limit |
| Test Port | Enclosure |
| Test frequency | 920 MHz |
| Test mode | Tx standby - normal modulation |
| Condition | Normal |
| Compliant | Yes |
| Comments | Final maximal measurements by variation of turntable azimuth, antenna height, and antenna polarisation. |

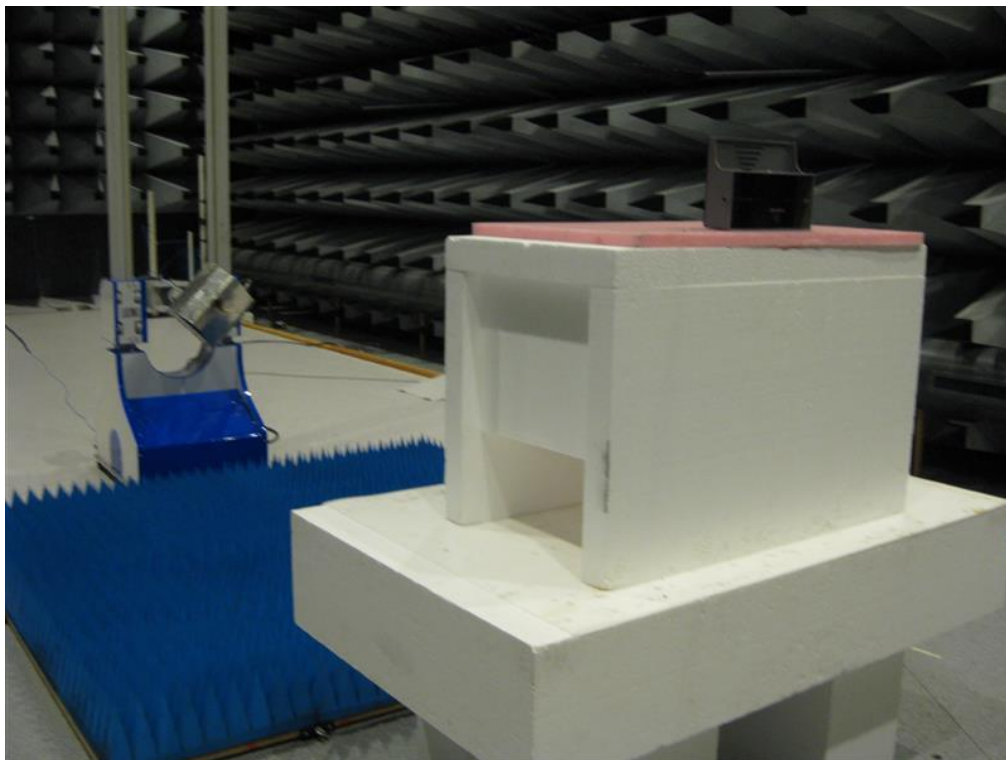


Photo 4.9.1 Test setup regarding measurement of radiated emission (above 1 GHz).

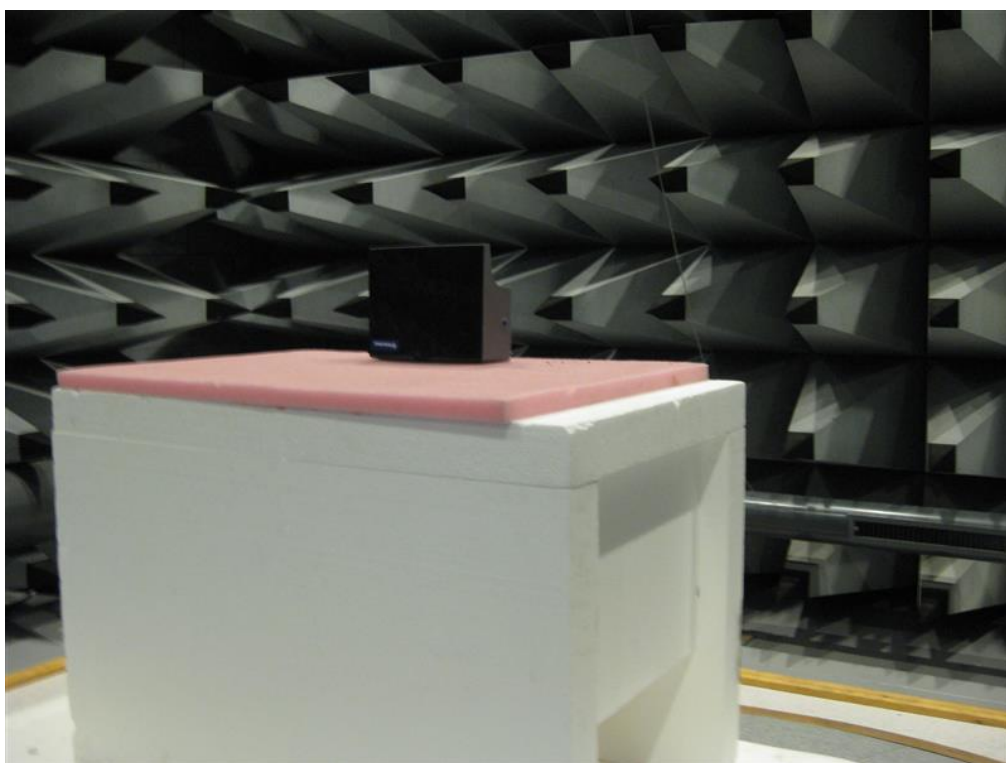


Photo 4.9.2 Test setup regarding measurement of radiated emission (above 1 GHz).

5. National registrations and accreditations

5.1 DANAK Accreditation

Organization: Danish Accreditation and Metrology Fund - DANAK, see www.danak.dk and www.ilac.org

Registration Number: 19

Area Number: C

DANAK is part of ILAC (International Laboratory Accreditation Cooperation) including its MRA (Mutual Recognition Arrangement). The MRA includes the Australian NATA and Canadian SCC.

5.2 FCC Registrations

Organization: Federal Communications Commission, USA

Registration Number: 913950

Facilities: EMC room 2 Hørsholm (EMC-2)
EMC room 3 Hørsholm (EMC-3)
EMC room 4 Hørsholm (EMC-4)
EMI room Hørsholm (EMC-5)

5.3 VCCI Registrations

Organization: Voluntary Control Council for Interference by Information Technology, Japan

Member Number: 910

Facilities: EMC room 3 Hørsholm (EMC-3): C-2532 and T-1548
EMC room 4 Hørsholm (EMC-4): C-2533 and T-1549
EMI room Hørsholm (EMC-5): R-1180, C-706, T-1550 and G-470

5.4 IC Registrations

Organization: Industry Canada, Certification and Engineering Bureau

Registration Number: IC4187A-5

Facilities: EMI room Hørsholm (EMC-5)

6. List of instruments

| No | Category/Action | Manufacturer | Type no | Cal. date | Cal. exp. |
|-------|--|-----------------|----------------------------|------------|------------|
| 49154 | Bilog Antenne | CHASE | CBL6111A | 23-06-2016 | 23-06-2018 |
| 49590 | CABLE, LOW-LOSS uWAVE CABLE, N-N, 8.0 m "EMI" | SUHNER | SUCOFLEX 104 PB | 02-11-2017 | 02-11-2018 |
| 49600 | SPECTRUM ANALYZER / MEASUREMENT RECEIVER | ROHDE & SCHWARZ | ESU40 | 21-07-2017 | 21-07-2018 |
| 49624 | DUAL RIDGE HORN ANTENNA – 1GHZ-26GHZ (2GHZ-32GHZ) | SATIMO | SH2000 | 04-11-2014 | 04-01-2018 |
| 49625 | SRD COAX SWITCH MATRIX USED IN 1GHZ TO 26GHZ SRD ANTENNASYSTEM | DELTA | COAX SWITCH MATRIX | 03-11-2017 | 03-11-2018 |
| 49704 | CABLE 3 m SMA-N | SUHNER | SUCOFLEX104 | 04-11-2017 | 04-11-2018 |
| 49740 | CABLE 1.25 m SMA-SMA | SUHNER | SUCOFLEX104 | 31-10-2017 | 31-10-2018 |
| 49807 | ATTENUATOR, DC-12.4GHz, 6 dB | HUBER-SUHNER | 6806.17A | 15-02-2017 | 15-02-2018 |
| 49817 | CABLE, LOW-LOSS uWAVE CABLE, N-N, 8.0 m "EMI" | SUHNER | SUCOFLEX 104 PB | 02-11-2017 | 02-11-2018 |
| 49823 | CABLE SF126 SMA-SMA 7 m | HUBER & SUHNER | SF126/11SMA/11 SMA/7000 | 20-12-2017 | 20-12-2018 |
| 49900 | SPECTRUM ANALYZER / MEASUREMENT RECEIVER | ROHDE & SCHWARZ | ESW26 | 11-09-2017 | 11-09-2018 |
| 49999 | EMC32-SOFTWARE | ROHDE & SCHWARZ | Ver. 9.26 | N/A | N/A |