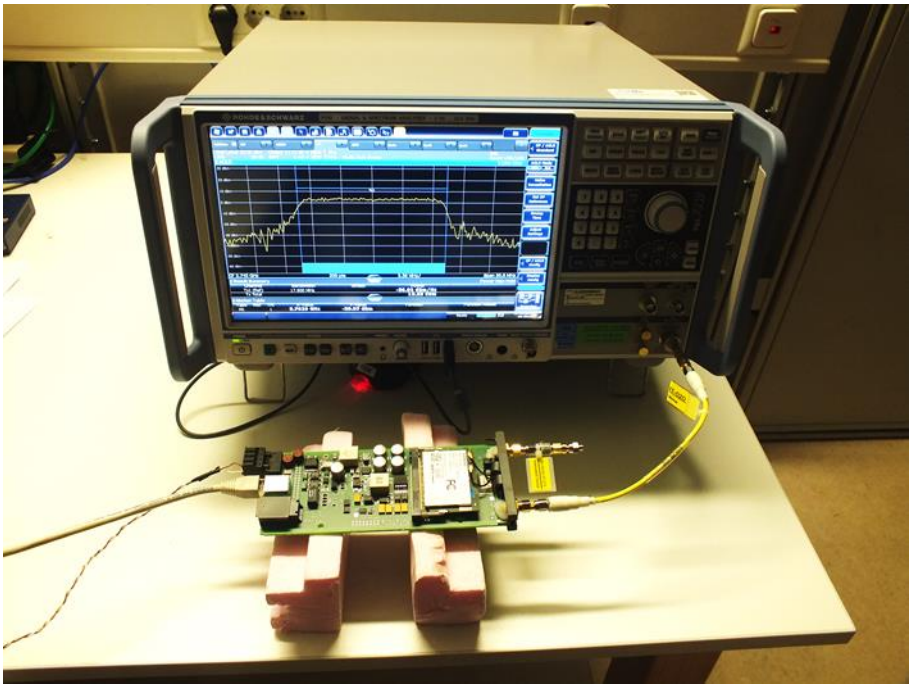
5.2 Emission bandwidth and occupied bandwidth

For test instruments and accessories used see section 6 Part **MB**.

5.2.1 Description of the test location

Test location: AREA4

5.2.2 Photo documentation of the test set-up



5.2.3 Applicable standard

According to FCC Part 15, Section 15.407(e):
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2.4 Description of Measurement

The minimum 6 dB bandwidth is measured conducted using a spectrum analyser with n-dB down function if applicable otherwise the 6 dB bandwith is measured manulally and following the prodcedure set out in ANSI C63.10, item 6.9.2 or KDB 789033 D02, item C.2. The bandwidth is measured at Port 1.

Spectrum analyser settings 6 dB bandwidth:
RBW: 100 kHz, VBW: 300 kHz, Detector: Peak, Trace mode: max hold;
Spectrum analyser settings occupied bandwidth:
For 20 MHz channels:
RBW: 300 kHz, VBW: 1 MHz, Detector: Peak, Trace mode: max hold;

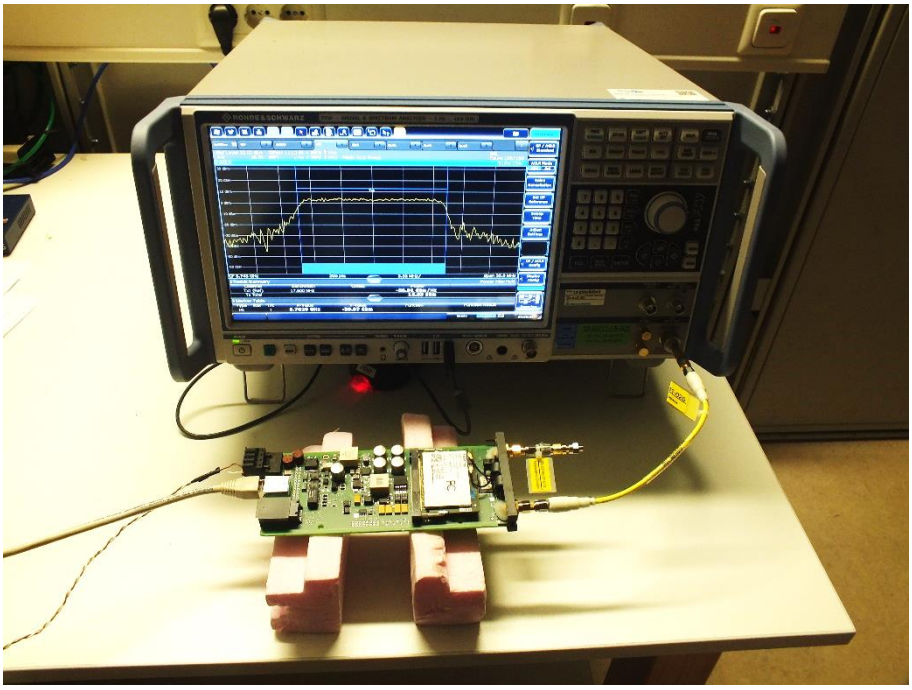
5.3 Maximum conducted output power

For test instruments and accessories used see section 6 Part **CPC 3**.

5.3.1 Description of the test location

Test location: AREA 4

5.3.2 Photo documentation of the test set-up



5.3.3 Applicable standard

According to FCC Part 15, Section 15.407(a)(3):
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

5.3.4 Description of Measurement

The maximum conducted output power is measured using a spectrum analyser with the function “integrated band power measurement” following the procedure set out in KDB 789033 D02, item C f) Method SA-1. The EUT is set in TX continuous mode 99% while measuring. The resulting values are listed in the following tables. An insertion loss of 11.1 dB for measurement cable and 10 dB attenuator is taken into account with amplitude offset.

Spectrum analyser settings:
RBW: 1 MHz, VBW: 3 MHz, Detector: RMS (power averaging), Trace averaging: 100;
Number of points: 200, Sweep time: auto, Band power function;

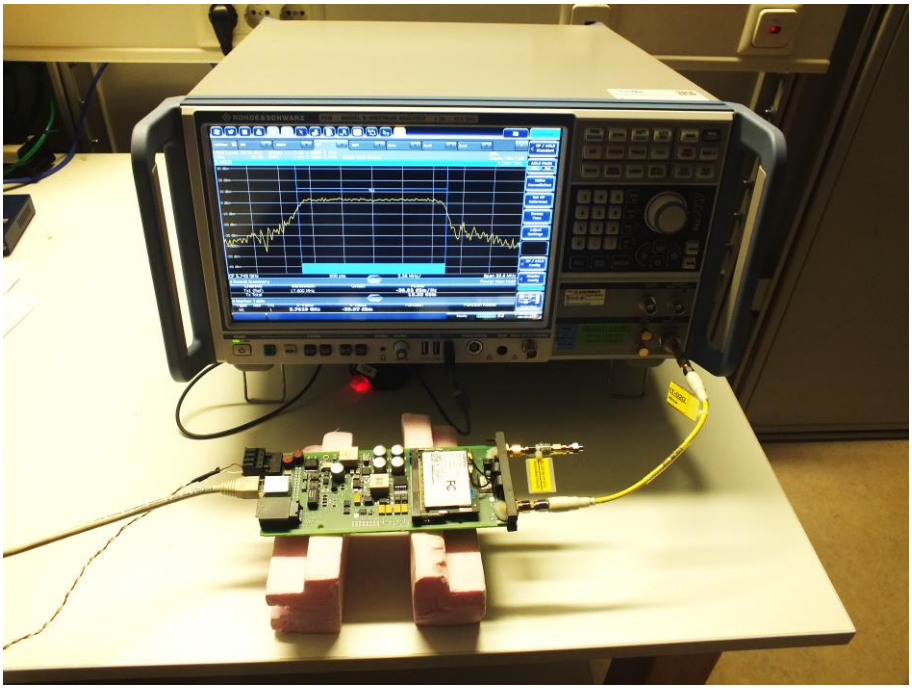
5.4 Maximum power spectral density

For test instruments and accessories used see section 6 Part **CPC 3**.

5.4.1 Description of the test location

Test location: AREA 4

5.4.2 Photo documentation of the test set-up



5.4.3 Applicable standard

According to FCC Part 15, Section 15.407(e):
The maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

5.4.4 Description of Measurement

The maximum conducted PSD is measured using a spectrum analyser with the function “integrated band power measurement” following the procedure set out in KDB 789033 D02, item F. Therefore the PSD is measured the same way. The “integrated band power measurement” is related to PSD (dBm/Hz). The EUT is set in TX continuous mode while measuring. The values are corrected with the conversion factor Hz to 500 kHz, 57.0 dB. The resulting values are listed in the following tables. An insertion loss of 11.1 dB for measurement cable and 10 dB attenuator is taken into account with amplitude offset.

Spectrum analyser settings:
RBW: 1 MHz, VBW: 3 MHz, Detector: RMS (power averaging), Trace averaging: 100;
Number of points: 200, Sweep time: auto, Band power function;

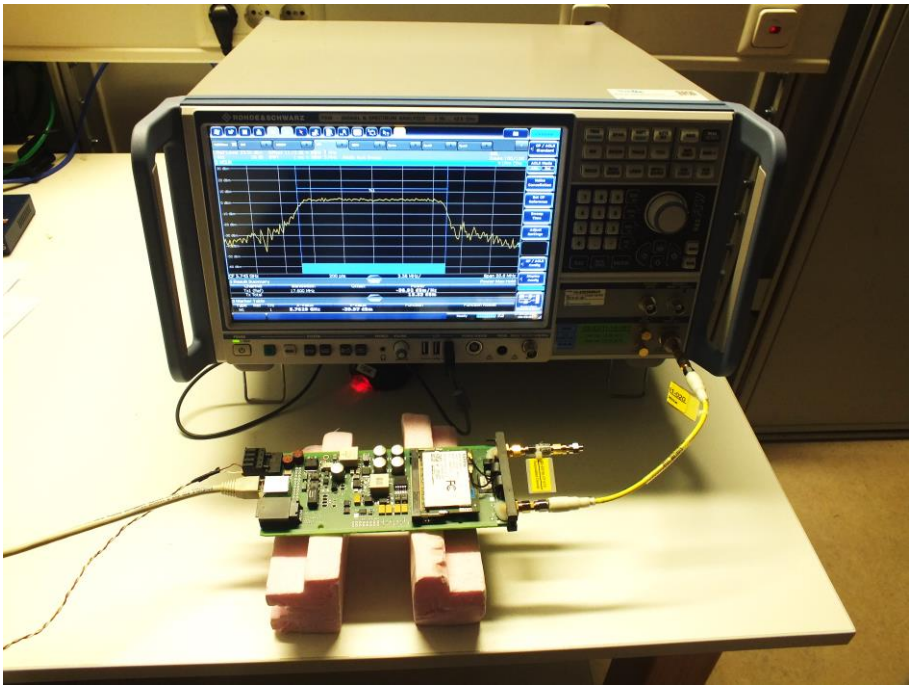
5.6 Undesirable emissions

For test instruments and accessories used see section 6 Part **SEC 3**.

5.6.1 Description of the test location

Test location: AREA4

5.6.2 Photo documentation of the test set-up



5.6.3 Applicable standard

According to FCC Part 15E, Section 15.407(b)(4)(i):
All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

5.6.4 Description of Measurement

Undesirable emissions are measured using a spectrum analyser and following the procedures according the KDB 789033 D02, item G. If the emission level of the EUT in peak mode complies with the average limit then testing will be stopped and peak values of the EUT will be reported, otherwise, the emission will be measured in average mode again and reported.

Spectrum analyser settings for peak values:
RBW: 1 MHz, VBW: 3 MHz, Sweep: Auto, Trace mode: max hold;
Spectrum analyser settings for average values:
RBW: 1 MHz VBW: 10 Hz Sweep: Auto, Trace mode: max hold;

5.6.5 Test result

802.11a, Channel 149 (5745 MHz) P14: