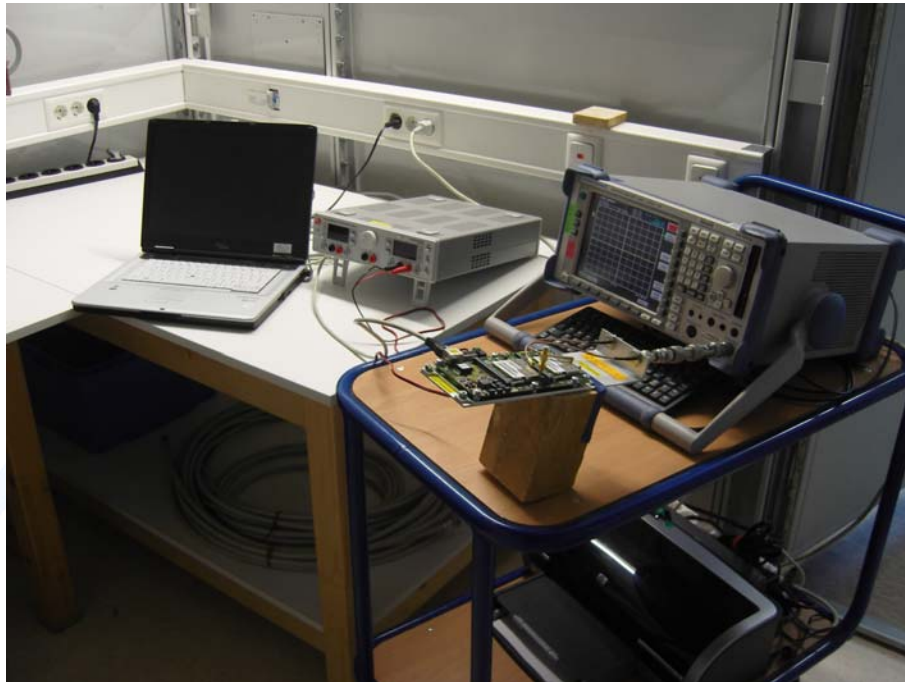


FCC ID: VEB-NKRDCMA82**5.2 Emission bandwidth**

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

5.2.1 Description of the test location

Test location: AREA 4

5.2.2 Photo documentation of the test set-up**5.2.3 Applicable standard**

According to FCC Part 15, Section 15.247(a)(2):

Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 – 2483.5 MHz and 5725 – 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.2.4 Description of Measurement

The bandwidth was measured at an amplitude level reduced from the reference level of a modulated channel by a ratio of -6 dB. The reference level is the level of the highest signal amplitude observed at the transmitter at either the fundamental frequency or the first order modulation products in all typical modes of operation, including the unmodulated carrier, even if atypical. An alternative is to use the bandwidth measurement of the analyser.

Spectrum analyser settings:

RBW	100 kHz
VBW	300 kHz
Detector	Peak

FCC ID: VEB-NKRDCMA82

5.3 Maximum peak 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 15.247(b)(3):

For systems using digital modulation in the 2400-2483.5 MHz and 5725 – 5850 MHz bands, the maximum peak output power of the transmitter shall not exceed 1 Watt. The limit is based on transmitting antennas of directional gain that do not exceed 6 dBi.

5.3.4 Description of Measurement

The transmitter antenna output was connected to the spectrum analyser. The center frequency of the spectrum analyser is set to the fundamental frequency. The span of the spectrum analyser should be larger than the emission bandwidth (EBW). To get the total power of the occupied bandwidth the function “Channel Power Measurement” of the analyser has been used. The channel bandwidth has been set to EBW. With peak detector and power mode “Max Hold” the result is the summed maximum output power of the EBW. To determine the max. output power the worst case power setting is used dependent of the antenna gain. The cable loss or other external attenuation was taken into account and expressed in a correction factor. The absolute maximum peak output power is calculated by adding the reading of the analyser plus correction and compared with the limit.

Spectrum analyser settings:

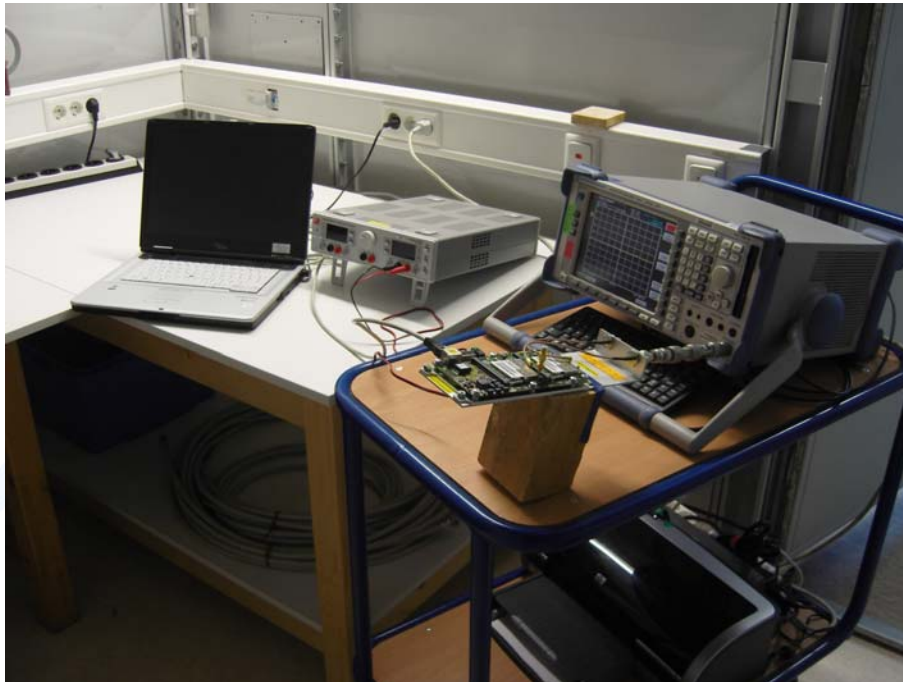
RBW 1 MHz
 VBW 300 kHz
 Channel bandwidth: 20 MHz, 40 MHz for turbo channels

FCC ID: VEB-NKRDCMA82**5.4 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 15.247(e):

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

5.4.4 Description of Measurement

The EuT was connected to the spectrum analyser. The bandwidth of the fundamental frequency was measured with the spectrum analyser, set sweep time equal to span/3 kHz. The power spectral density was measured using the analyser function "Channel Power" in dBm/Hz. The result is calculated by adding 35 dB (10 log 3000 Hz/Hz) as bandwidth correction factor to the analyser reading.

Spectrum analyser settings:

RBW	3 kHz
VBW	30 kHz

FCC ID: VEB-NKRDCMA82**5.7 Spurious emissions in restricted bands**

For test instruments and accessories used see section 6 Par **SER 3**.

5.7.1 Description of the test location

Test location: Anechoic Chamber A2

Test distance: 3 metres

5.7.2 Photo documentation of the test set-up**5.7.3 Applicable standard**

According to FCC Part 15, Section 15.247(d):

In any 100 kHz bandwidth outside the frequency bands 2400 – 2483.50 MHz and 5725 – 5850 MHz, the digitally modulated radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or an radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limit specified in Section 15.209(a) (see Section 15.205(c)).

5.7.4 Description of Measurement

The radiated power of the spurious emission from the EuT is measured in a test setup following the procedures set out in ANSI C63.4. 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 analyzer settings for peak values:

RBW: 1 MHz

VBW: 1 MHz

Spectrum analyzer settings for average values:

RBW: 1 MHz

VBW: 10 Hz