5.2 Effective radiated power (conducted)

For test instruments and accessories used see section 6 Part **CPC 2**.

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 Description of Measurement

Transmitter power is the power at the transmitter output terminals and delivered to the antenna, antenna transmission line, or any other impedance-matched, radio frequency load.
No unusual transmitting antennas or antenna elevations shall be used as defined in §74.861(f) and the requirements in § 74.801 shall be fulfilled.

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5.3 Radiated emissions (electric field) 30 MHz – 9 GHz

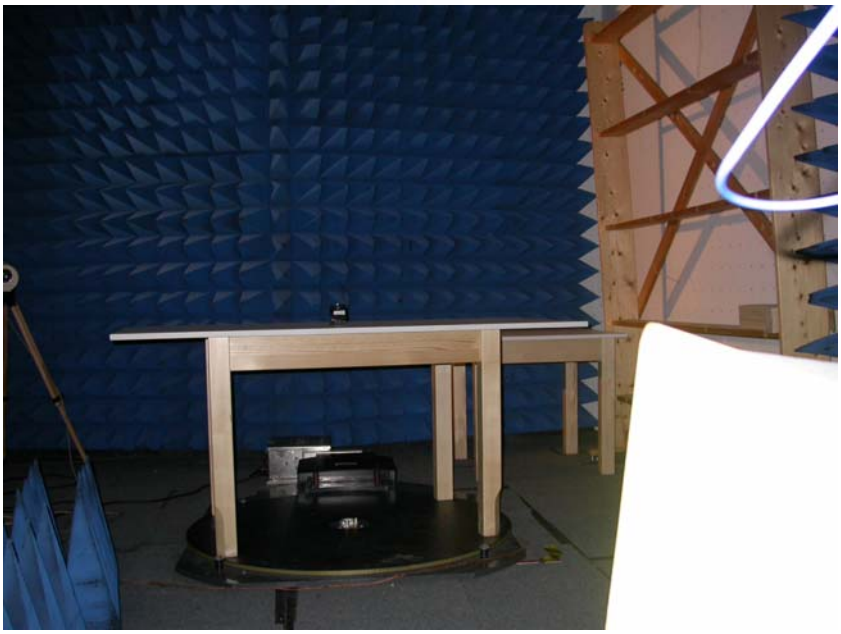
For test instruments and accessories used see section 6 Part **SER 2, SER 3**.

5.3.1 Description of the test location

Test location: OATS1
Anechoic Chamber A2

Test distance: 3m

5.3.2 Photo documentation of the test set-up



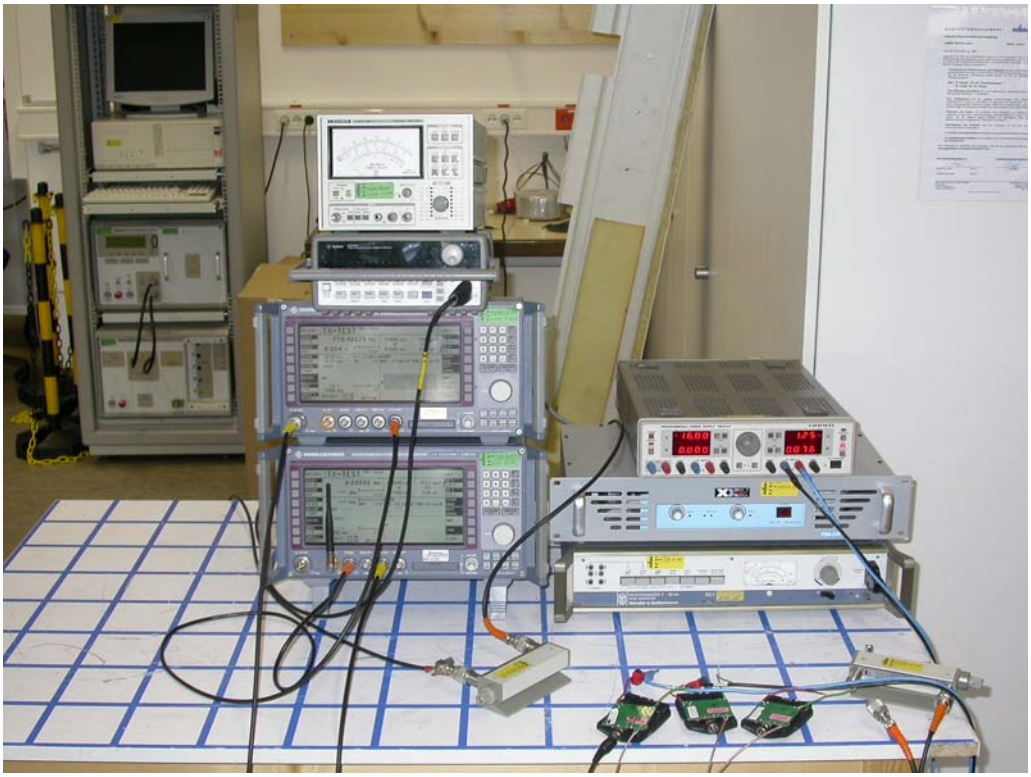
5.4 Modulation Limiting Data

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

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 Description of Measurement

The modulation limiting data were measured at the antenna terminals for EuT`s with external connector.
Other EuT`s are tested via an adequate coupling device with antenna jack. The antenna jack was connected to the input of a communication test receiver. The internal batteries of the EuT have been removed also and an external DC power supply was used instead. The data have been taken by feeding the connectors used for connecting the microphone with different audio frequencies. These frequencies are generated in the communication test receiver. The level was varied in 10 dB steps from 20 dBµV to the maximum audio input level specified by the manufacturer. The frequency deviation at these levels has been recorded.
PFD: Positive frequency deviation
NFD: Negative frequency deviation

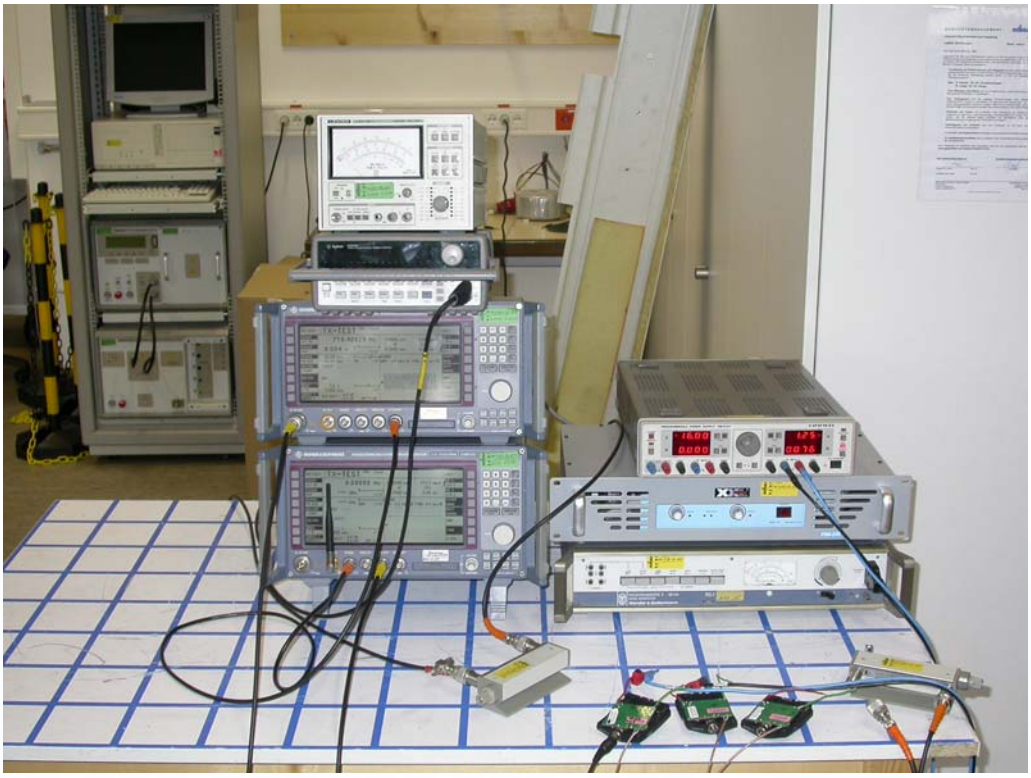
5.5 Occupied Bandwidth

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

5.5.1 Description of the test location

Test location: Area 4

5.5.2 Photo documentation of the test set-up



5.5.3 Description of Measurement

For the occupied bandwidth protocol the value of 50 % of the maximum frequency deviation was calculated. The level on the audio input was increased until this 50 % frequency deviation was achieved. To this level 16 dB have been added and a plot was made as described in the next chapter under section occupied bandwidth

5.6 Frequency error

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

5.6.1 Description of the test location

Test location: Area 4

5.6.2 Photo documentation of the test set-up

5.6.3 Description of Measurement

The frequency error was measured at the antenna terminals for EuT`s with external connector. Other EuT`s are tested via an adequate coupling device with antenna jack in a climatic test chamber. The antenna jack was connected to the input of a communication test receiver. The internal batteries have been removed also and a variable DC power supply was used instead. The measurements have been made with the EuT unmodulated. During the test the supply voltage and the temperature were varied and applied simultaneously. The lower supply voltage was given by the manufacturer. In case the equipment was switching off before, the switch off voltage was used instead. The frequency error is defined as the deviation of the transmitting frequency from the nominal frequency.

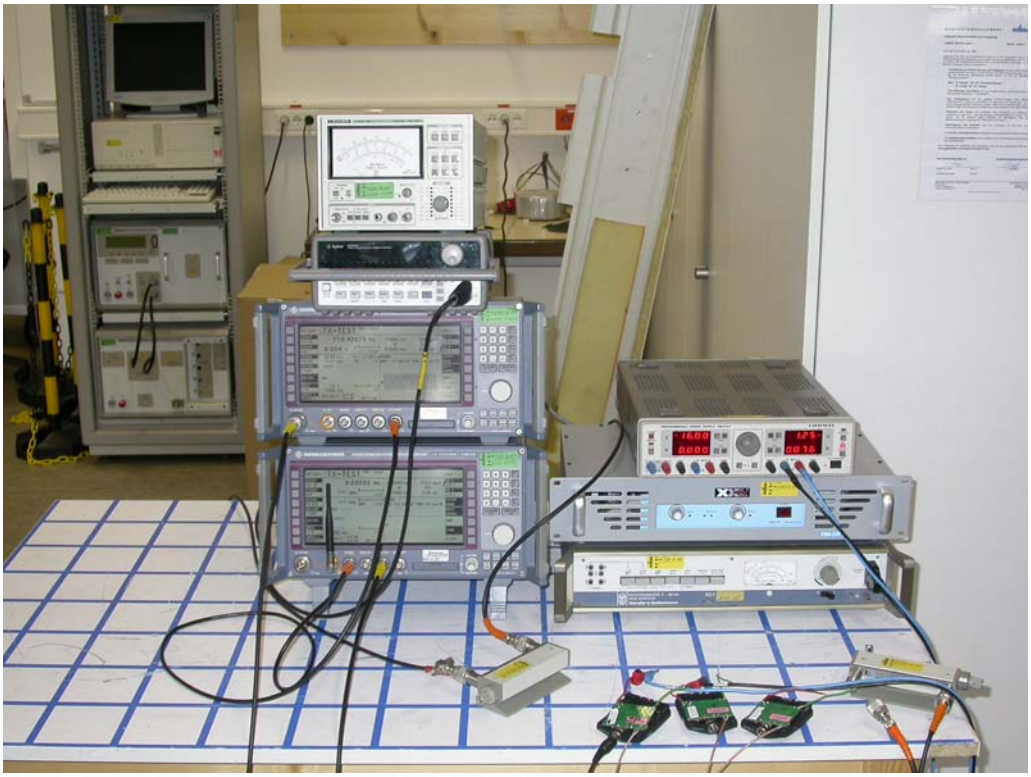
5.7 Keeping the requirements ot the emission mask

For test instruments and accessories used see section 6 Part **BW**

5.7.1 Description of the test location

Test location: Area 4

5.7.2 Photo documentation of the test set-up



5.7.3 Description of Measurement

The requirements of the emission mask were measured with different input signals at the antenna terminals for EuT`s with external connector. Other EuT`s are tested via an adequate coupling device with antenna jack. The antenna jack was connected to the input of a spectrum analyzer. The spectrum analyzer was set up as following:

- video and resolution bandwidth: 10 kHz
- attenuation: automatic, low noise
- center frequency: nominal transmit frequency
- frequency span: 500 kHz

The reference level was set to the maximum value of the unmodulated carrier. The internal batteries have been removed also and a variable DC power supply was used instead. The measurements have been made with a modulation frequency and voltage according to the specification of the manufacturer. The audio frequency was provided by a communication test receiver. During the test the supply voltage and the temperature were varied and applied simultaneously. The lower supply voltage was given by the manufacturer. In case the equipment was switching off before, the switch off voltage was used instead.