

# GERMAN ADVISORY NOTE

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**German Advisory Note Number: DE 17**

**Subject:** Definition of a feeding bridge

## APPLICABILITY

**This note is applicable for Terminal Equipment intended for connection to the German Public Switched Telephone Networks, in addition to:**



" CTR 21" (When published)

**NOTE:** Until CTR 21 is available, reference should be made to ETSI document prTBR 21 (Sept 1997) or, when it is available, to TBR 21.

## Appendix to this Advisory Note:

A: Definition of a feeding bride for real and reproducible test results

**In consideration of the following:**

- The assumption for an ideal feeding bridge could cause problems by different realizations in practical tests.
- This leads to discussion about the limits for an ideal terminal equipment and decides causally in some cases about the results "pass" or "fail".
- Under this conditions the results of the tests are not comparable and reproducible.

**The German Regulatory Authority advises the following:**

The feeding bridge should be explicitly defined as described in Appendix A.

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## Appendix A

to

German Advisory Note Number: DE 17

**Subject:** Definition of a feeding bridge

## A.1 INTRODUCTION

Terminal equipment approved to CTR 21 may not inter-work properly with the German Public Switched Telephone Network.

This Appendix specifies requirements to which a TE shall comply, in addition to the requirements of CTR 21 in order to inter-work properly with the German Public Switched Telephone Network. It also specifies the method to assess compliance with these additional requirements, including reference to additional tests to be performed to dynamically assess compliance with the additional requirements.

## A.2 REFERENCES

- [1] CTR 21; Terminal Equipment (TE). Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting the voice Telephony Service) in which network addressing, if provided, is by means of Dual Tone Multi-Frequency (DTMF) signalling.

NOTE: This document makes reference to CTR 21. Until CTR 21 is available, reference should be made to the base ETSI documents prTBR 21 (Sept 1997) or, when it is available, to TBR 21.

## A.3 REQUIREMENTS and ASSOCIATED TESTS

NOTE: The following requirements are in addition to the requirements of CTR 21 Clause A.3. The changes introduced by this Advisory Note complete the specifications of a "non-ideal" feeding bridge by an insertion of a Table with the corresponding insertion loss-values.

### A.3.1 Feeding bridge (Requirement - based on CTR 21: Clause A.3)

The feeding bridge specified in this Appendix is a configuration of test equipment used to:

- apply to the TE terminals electrical conditions consistent with those defined in the test
- suitably couple measurement equipment to the TE terminals

The insertion loss of the feeding bridge is specified in Table A.1,

- DC feeding and AC termination of the TE are as defined in the test
- All measurements are referenced to the TE terminals (e.g. the feeding bridge does not cause an attenuation or delay, in the parameter to be measured, between the TE terminals and the measuring equipment)

**Table A.1: Insertion loss of the feeding bridge in Reference to the Termination  $Z_R$**

Frequency [Hz]	Maximum limit insertion loss [dB]
10	2
20	2
20	1
100	1
100	0.1
10 000	0.1

If requested by the supplier (e.g. for TE with an adaptive filter) the TE shall be reset before repeating a test with a different feeding condition.

Within individual test cases, "AC termination of TE" defines the total AC impedance to be seen by the TE including all test equipment (feeding bridge, measuring equipment, reference impedance fixtures, etc.).

### **A.3.2 Requirements Table (CTR-RT)**

The requirements table of CTR 21, Annex B is still applicable.