

GERMAN ADVISORY NOTE

German Advisory Note Number: DE 14R00

Subject: Improvement for transition from loop to quiescent

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 TBR 21 (January 1998).

Appendix to this Advisory Note:

A: Additional requirements and tests for attachment to the German PSTN.

In consideration of the following:

- The clearing of the line by the TE, which is not understood correctly by the Network causes unjustified billing or unnecessary occupying of network resources.
- In TBR 21, the current drawn by the TE in the first 30 s after releasing the call is only restricted to a value, which is 10 times higher than specified for the German PSTN.
- TEs fulfilling just the minimum values of TBR 21 will remain in loop state up to 30 s longer than necessary and therefore not inter-work correctly with the PSTN.

The German Regulatory Authority advises the following:

Replace in the 1st bullet of the paragraph "Transition from loop to quiescent state" the values "0,5 mA" by "0,05 mA" and "200 ms" by "1 s" and accordingly in the 2nd bullet also "0,5 mA" by "0,05 mA".

To ensure inter-working with the German Public Switched Telephone Network, the TE shall, in addition to the requirements of CTR 21, comply with the requirements found in appendix A of this Advisory Note.

It is the responsibility of the supplier to provide information for users as to whether the Terminal Equipment complies with the additional requirements for the German Public Switched Telephone Network specified in this Advisory Note.

Appendix A also specifies the method to assess compliance with the additional requirement, including reference to the additional tests to be performed to dynamically assess compliance with the additional requirements.

GERMAN ADVISORY NOTE

Appendix A

to

German Advisory Note Number: DE 14R00

Subject: Improvement for transition from loop to quiescent

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 to ensure inter-working 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 ETSI document TBR 21 (January 1998).

A.3 REQUIREMENTS AND ASSOCIATED TESTS

NOTE: The following requirements are in addition to the requirements of CTR 21 subclause 4.9 and the associated tests in subclause A.4.9. The changes introduced by this Advisory Note replace the current drawn value 0,5 mA by 0,05 mA and the time value 200 ms by 1 s.

A.3.1 Transition from loop to quiescent state (Requirement - Based on CTR 21: subclause 4.9)

Justification: 91/263/EEC, article 4(f); Interworking with the PSTN is assured by requiring the TE to correctly release the line.

Requirement: When the TE is connected to a source of 50 V DC in series with a resistor of 2,05 k Ω and initiates the transition from the loop to the quiescent state in order to release a call, the current drawn by the TE shall:

- a) drop to a value below 0,05 mA not later than 1 s after the reference moment of the release; and
- b) in the case of automatic release and subsequent automatic reseizure for the purposes of making a new call, remain below a value of 0,05 mA for a minimum of a further 1.5 s. In this case, it is permitted for there to be transient periods during which the current exceeds 0,05 mA, so long as, when aggregated, they do not exceed 20 ms.

The reference moment of the release is defined as the moment when, for the first time, the current has dropped to a value below 10 mA, and has remained at a value below 10 mA, for a period or periods which, when aggregated, exceed 20 ms.

NOTE: Subclause 4.4 states the requirements for the quiescent state, including the d.c. resistance (subclause 4.4.1).

Test: The test shall be conducted according to A.3.2.

A.3.2 Transition from loop to quiescent state (Test - Based on CTR 21: subclause A.4.9)

Requirement: Subclause A.3.1.

Purpose: To determine, whether the TE changes correctly from the loop to the quiescent state.

Measurement principle:

Preamble: Set the TE to loop state and in the case of automatic procedures set the period which the TE will subsequently be in the quiescent state to its minimum value and activate the automatic procedure.

Test state: Cause the TE to make a transition to quiescent state.

Test configuration:

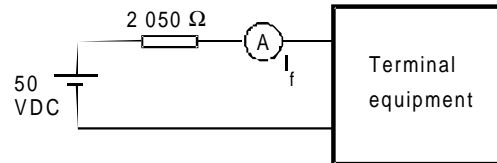


Figure DE 14.1

DC feeding arrangement:

Feeding voltage 50 V DC.

Measurement points:

Monitor the current I_f after it falls under 10 mA.

Measurement execution:

Cause the TE to make a transition from loop to quiescent state. Monitor the current drawn by the TE.

Formal Processing: None.

Verdict: If the TE complies with the limits of subclause 3.1 then Pass, else Fail.

Guidance: None.

A.3.2 Requirements Table (CTR-RT)

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