

# NORWEGIAN ADVISORY NOTE

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**Norwegian Advisory Note Number:** NO01r000

**Date:** 1998-02-27

**Subject:** Sending level in quiescent state to avoid interference with the Norwegian Public Switched Telephone Network

## APPLICABILITY

**This note is applicable for Terminal Equipment intended for connection to the Norwegian 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.

### **Appendices to this Advisory Note:**

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

**In consideration of the following:**

- The levels of any signals transmitted by a TE in the quiescent state need to be controlled in order for the effects to be predicted and, if necessary, avoided.
  
- The cumulative effect of a large number of TEs in quiescent state transmitting signals in excess of that permitted in the on-line state may affect the signal to noise ratio of other services using the same local distribution cable.
  
- The ability to deploy systems that deliver increased data rates over metallic local distribution cables requires a predictable minimum level of interference (assuming that no significant faults exist).

**The Norwegian Post and Telecommunications Authority advise the following:**

To protect the Public Switched Telephone Network in Norway from interference, the TE shall, in addition to the requirements of CTR 21, comply with the requirements found in Appendix A of this Advisory Note. Conformity to these additional requirements has to be assured by TE, intended for connection to the Norwegian PSTN.

Terminals connected to the Norwegian PSTN should not be permitted to send signals to the network in quiescent state that exceed the levels permitted in the on-line state.

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 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

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## Annex A (Normative)

to

Norwegian Advisory Note Number: NO01r000

**Date:** 1997-02-27

**Subject:** Control of sending level in quiescent state

## **A.1 INTRODUCTION**

Terminal equipment approved to CTR 21 may interfere with the Norwegian 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 prevent interference with the Norwegian Public Switched Telephone. 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 NORMATIVE REFERENCES**

- [1] CTR21: 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 CTR21. Until CTR 21 is available, reference should be made to TBR21.

## **A.3 REQUIREMENTS AND ASSOCIATED TESTS**

The sending level limitations contained in TBR 21 (Clause 4.7.3), applicable in the loop state, shall also apply when the TE is in the quiescent state and when performing functions, it would normally perform in the quiescent state.

Conformity shall be checked by carrying out the test of A.4.7.3 but with the TE in the quiescent state and stimulated, if necessary, to perform functions it would normally perform in the quiescent state which could influence the level of any signals presented by it to the PSTN interface.