



**SLOVENSKI STANDARD**  
**SIST ETS 300 580-5 E1:2003**  
**01-december-2003**

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9 j fcdg ]`X][ ]HUb]`WV] b]`h`Y`\_ca i b]`UV]`g ]`g]ghYa `fZUnU&L`E`BYnj Ynbc`cXXUUb`Y`  
f8 HL`L`dc`dfca YtbYa ` \_UbUi `g`dc`bc`\ ]]fcghc` [ c] cfUf} GA`\$\* " %L

European digital cellular telecommunications system (Phase 2); Discontinuous Transmission (DTX) for full rate speech traffic channels (GSM 06.31)

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**ICS:**

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
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**(GSM 06.31)**

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## Foreword

This European Telecommunication Standard (ETS) has been produced by the Special Mobile Group (SMG) Technical Committee (TC) of the European Telecommunications Standards Institute (ETSI).

This ETS specifies the Discontinuous Transmission (DTX) for full rate speech traffic channel for the European digital cellular telecommunications system (Phase 2).

This ETS correspond to GSM technical specification, GSM 06.31 version 4.0.4.

The specification from which this ETS has been derived was originally based on CEPT documentation, hence the presentation of this ETS may not be entirely in accordance with the ETSI/PNE rules.

Reference is made within this ETS to GSM Technical Specifications (GSM-TSs) (NOTE).

NOTE: TC-SMG has produced documents which give the technical specifications for the implementation of the European digital cellular telecommunications system. Historically, these documents have been identified as GSM Technical Specifications (GSM-TS). These TSs may have subsequently become I-ETTs (Phase 1), or ETSS (Phase 2), whilst others may become ETSI Technical Reports (ETRs). GSM-TSs are, for editorial reasons, still referred to in GSM ETSS.

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## 0.1 Scope

This technical specification gives a description of the general baseband operation of full rate speech traffic channels in the transmitter and in the receiver of GSM Mobile Stations and Base Station Systems during Discontinuous Transmission (DTX).

For clarity, the description is structured according the block diagrams in figures 2-1 and 3-1. Except in the case described next, this structure of distributing the various functions between system entities is not mandatory for implementation, as long as the operation on the air interface and on the speech decoder output remains the same.

In the case of Base Station Systems where the speech transcoder is located remotely in the Base Station Controller, the implementation of the interfaces between the DTX Handlers and the Radio Subsystem (RSS) as described in this technical specification together with all their flags is mandatory, being a part of the A-bis- interface as described in GSM 08.60. In this case the various flags also serve to avoid additional delays.

The DTX functions described in this technical specification are mandatory for implementation in all GSM Mobile Stations. The receiver requirements are mandatory for implementation in all GSM Base Station Systems, the transmitter requirements only for those where downlink DTX will be used.

DTX shall be in operation in GSM Mobile Stations if commanded so by the network, see GSM 04.08.

## 0.2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

- [1] GSM 01.04 (ETR 100): "European digital cellular telecommunication system (Phase 2); Definitions, abbreviations and acronyms".  
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- [2] GSM 04.08 (ETS 300 557): "European digital cellular telecommunication system (Phase 2); Mobile radio interface layer 3 specification".
- [3] GSM 05.03 (ETS 300 575): "European digital cellular telecommunication system (Phase 2); Channel coding".
- [4] GSM 05.05 (ETS 300 577): "European digital cellular telecommunication system (Phase 2); Radio transmission and reception".
- [5] GSM 05.08 (ETS 300 578): "European digital cellular telecommunication system (Phase 2); Radio subsystem link control".
- [6] GSM 06.01 (ETS 300 580-1): "European digital cellular telecommunication system (Phase 2); Full rate speech processing functions".
- [7] GSM 06.10 (ETS 300 580-2): "European digital cellular telecommunication system (Phase 2); Full rate speech transcoding".
- [8] GSM 06.11 (ETS 300 580-3): "European digital cellular telecommunication system (Phase 2); Substitution and muting of lost frames for full rate speech channels".
- [9] GSM 06.12 (ETS 300 580-4): "European digital cellular telecommunication system (Phase 2); Comfort noise aspect for full rate speech traffic channels".
- [10] GSM 06.32 (ETS 300 580-6): "European digital cellular telecommunication system (Phase 2); Voice Activity Detection (VAD)".