

**SLOVENSKI STANDARD**  
**SIST ETS 300 729 E1:2003**

**01-december-2003**

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Digital cellular telecommunications system; Discontinuous Transmission (DTX) for Enhanced Full Rate (EFR) speech traffic channels (GSM 06.81)

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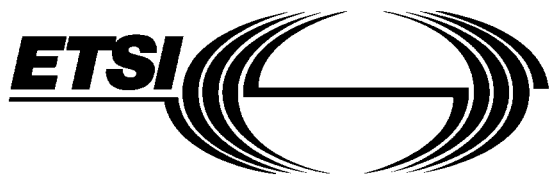
33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
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**GSM**®

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**Digital cellular telecommunications system;  
Discontinuous Transmission (DTX) for Enhanced  
Full Rate (EFR) speech traffic channels  
(GSM 06.81)**

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## Foreword

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

This ETS describes the general baseband operation of Enhanced Full Rate speech traffic channels in the transmitter and in the receiver of GSM Mobile Stations and Base Station Systems during Discontinuous Transmission (DTX) within the digital cellular telecommunications system.

This ETS corresponds to GSM technical specification, GSM 06.81, version 5.1.2.

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## 1 Scope

This European Telecommunication Standard (ETS) gives a description of the general baseband operation of Enhanced Full Rate speech traffic channels in the transmitter and in the receiver of GSM Mobile Stations (MS)s and Base Station Systems (BSS)s during Discontinuous Transmission (DTX).

For clarity, the description is structured according to the block diagrams in figures 1 and 4. 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 BSSs where the speech transcoder is located remotely in the Base Station Controller (BSC), the implementation of the interfaces between the DTX handlers and the Radio Sub System (RSS) as described in this ETS together with all their flags is mandatory, being part of the A-bis interface as described in GSM 08.60 (ETS 300 737) [13].

The DTX functions described in this technical specification are mandatory for implementation in the GSM MSs. The receiver requirements are mandatory for implementation in all GSM BSSs, the transmitter requirements only for those where downlink DTX will be used.

## 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.

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- [1] GSM 01.04 (ETR 100): "Digital cellular telecommunications system (Phase 2); Abbreviations and acronyms".
- [2] GSM 04.08 (ETS 300 557): "Digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 specification".  
<https://standards.ieh.ai/catalog/standards/sist/c5a9292-5571-458e-9cc7-021a0d26ea9e/sist-ets-300-729-e1-2003>
- [3] GSM 05.03 (ETS 300 575): "Digital cellular telecommunications system (Phase 2); Channel coding".
- [4] GSM 05.05 (ETS 300 577): "Digital cellular telecommunications system (Phase 2); Radio transmission and reception".
- [5] GSM 05.08 (ETS 300 578): "Digital cellular telecommunications system (Phase 2); Radio subsystem link control".
- [6] GSM 06.51 (ETS 300 723): "Digital cellular telecommunications system; Enhanced Full Rate (EFR) speech processing functions; General description".
- [7] GSM 06.53 (ETS 300 724): "Digital cellular telecommunications system; ANSI-C code for the GSM Enhanced Full Rate (EFR) speech codec".
- [8] GSM 06.54 (ETS 300 725): "Digital cellular telecommunications system (Phase 2); Test vectors for the GSM Enhanced Full Rate (EFR) speech codec".
- [9] GSM 06.60 (ETS 300 726): "Digital cellular telecommunications system; Enhanced Full Rate (EFR) speech transcoding".
- [10] GSM 06.61 (ETS 300 727): "Digital cellular telecommunications system; Substitution and muting of lost frame for Enhanced Full Rate (EFR) speech traffic channels".
- [11] GSM 06.62 (ETS 300 728): "Digital cellular telecommunications system; Comfort noise aspects for Enhanced Full Rate (EFR) speech traffic channels".