



# SLOVENSKI STANDARD SIST ETS 300 724 E1:2003

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8 [[ ]HJb]`WV] b]`hY`\_ca i b]\_UW`g\_]`g]ghYa `E`?cX`5BG47 `nU`\_cXY`\_]nVc``yUbY[ U  
[ c] cfUg`dc`bc` \ ]f`cg`h`c`g]ghYa U; GA `f| GA `\$\* `)`' Ł

Digital cellular telecommunications system; ANSI-C code for the GSM Enhanced Full Rate (EFR) speech codec (GSM 06.53)

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**ICS:**

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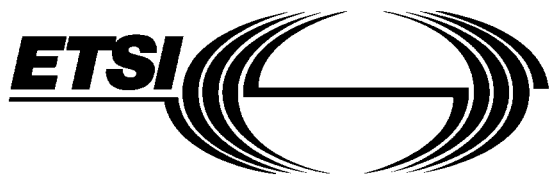
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**S**TANDARD

**ETS 300 724**

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ICS: 33.020

**Key words:** EFR, CODEC, digital cellular telecommunications system, Global System for Mobile communications (GSM), speech, ANSI-C code

**GSM**®

GLOBAL SYSTEM FOR  
MOBILE COMMUNICATIONS

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**Digital cellular telecommunications system;  
ANSI-C code for the GSM Enhanced Full Rate (EFR)  
speech codec  
(GSM 06.53)**

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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 provides the bit exact definition of the Enhanced Full Rate (EFR) speech traffic codec for the digital cellular telecommunications system.

This ETS corresponds to GSM technical specification, GSM 06.53, version 5.1.2.

A 3.5 inch diskette is attached to the back cover of this ETS, this diskette contains clause 5, the bit-exact ANSI-C code for the Enhanced Full Rate speech transcoder.

Transposition dates	
Date of adoption:	28 February 1997
Date of latest announcement of this ETS (doa):	30 June 1997
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 December 1997
Date of withdrawal of any conflicting National Standard (dow):	31 December 1997

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## 1 Scope

This European Telecommunication Standard (ETS) contains an electronic copy of the ANSI-C code for the GSM Enhanced Full Rate codec. The ANSI-C code is necessary for a bit exact implementation of the Enhanced Full Rate speech transcoder (GSM 06.60 (ETS 300 726) [3]), Voice Activity Detection (GSM 06.82 (ETS 300 730) [7]), comfort noise (GSM 06.62 (ETS 300 728) [5]), Discontinuous Transmission (GSM 06.81 (ETS 300 729) [6]) and example solutions for substituting and muting of lost frames (GSM 06.61 (ETS 300 727) [4]).

## 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 350): "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".
- [2] GSM 06.54 (ETS 300 725): "Digital cellular telecommunications system (Phase 2); Test sequences for the GSM Enhanced Full Rate (EFR) speech codec".
- [3] GSM 06.60 (ETS 300 726): "Digital cellular telecommunications system; Enhanced Full Rate (EFR) speech transcoding".
- [4] GSM 06.61 (ETS 300 727): "Digital cellular telecommunications system; Substitution and muting of lost frame for Enhanced Full Rate (EFR) speech traffic channels".
- [5] GSM 06.62 (ETS 300 728): "Digital cellular telecommunications system; Comfort noise aspects for Enhanced Full Rate (EFR) speech traffic channels".
- [6] GSM 06.81 (ETS 300 729): "Digital cellular telecommunications system; Discontinuous transmission (DTX) for Enhanced Full Rate (EFR) speech traffic channels".
- [7] GSM 06.82 (ETS 300 730): "Digital cellular telecommunications system; Voice Activity Detector (VAD) for Enhanced Full Rate (EFR) speech traffic channels".

## 3 Definitions and abbreviations

### 3.1 Definitions

Definition of terms used in this ETS can be found in GSM 06.60 (ETS 300 726) [3], GSM 06.61 (ETS 300 727) [4], GSM 06.62 (ETS 300 728) [5], GSM 06.81 (ETS 300 729) [6] and GSM 06.82 (ETS 300 730) [7].

### 3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

ANSI	American National Standards Institute
DS-HD	Double Sided High Density
ETS	European Telecommunication Standard
GSM	Global System for Mobile communications
I/O	Input/Output
ROM	Read Only Memory

For abbreviations not given in this subclause see GSM 01.04 (ETR 350) [1].