

**Digital cellular telecommunications system (Phase 2+);
Transmission planning aspects of the speech service in
the GSM Public Land Mobile Network (PLMN) system
(GSM 03.50 version 5.3.1 Release 1996)**
(ETS 300 903 Ed.4:1999-07)

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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 transmission planning aspects pertaining to the speech service within the digital cellular telecommunications system (Phase 2+).

The contents of this ETS is subject to continuing work within SMG and may change following formal SMG approval. Should SMG modify the contents of this ETS, it will be resubmitted for OAP by ETSI with an identifying change of release date and an increase in version number as follows:

Version 5.x.y

where:

- 5 indicates GSM Phase 2+ Release 1996
- x the second digit is incremented for changes of substance, i.e. technical enhancements, corrections, updates, etc.
- y the third digit is incremented when editorial only changes have been incorporated in the specification.

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1 Scope

This European Telecommunication Standard (ETS) describes the transmission planning aspects pertaining to the speech service in the GSM PLMN system. Due to technical and economic factors, there cannot be full compliance with the general characteristics of international telephone connections and circuits recommended by the ITU-T.

This ETS gives guidance as to the precautions, measures and minimum requirements needed for successful interworking of the PLMN with the national and international PSTN. The ETS identifies a number of routing and network configurations. The objective is to reach a quality as close as possible to ITU-T standards in order to safeguard the performance seen by PSTN customers.

1.1 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 03.04: "Digital cellular telecommunications system (Phase 2); Signalling requirements relating to routing of calls to mobile subscribers".
- [3] GSM 06.01 (ETS 300 580-1): "Digital cellular telecommunications system (Phase 2); Full rate speech processing functions".
- [4] GSM 06.10 (ETS 300 961): "Digital cellular telecommunications system (Phase 2+); Full rate speech; Transcoding".
- [5] GSM 06.11 (ETS 300 962): "Digital cellular telecommunications system (Phase 2+); Full rate speech; Substitution and muting of lost frames for full rate speech channels".
- [6] GSM 06.12 (ETS 300 963): "Digital cellular telecommunications system (Phase 2+); Full rate speech; Comfort noise aspect for full rate speech traffic channels".
- [7] GSM 06.31 (ETS 300 964): "Digital cellular telecommunications system (Phase 2+); Full rate speech; Discontinuous Transmission (DTX) for full rate speech traffic channels".
- [8] GSM 06.32 (ETS 300 965): "Digital cellular telecommunications system (Phase 2+); Voice Activity Detection (VAD)".
- [9] GSM 06.02 (ETS 300 966): "Digital cellular telecommunications system (Phase 2+); Half rate speech; Half rate speech processing functions".
- [10] GSM 06.20 (ETS 300 969): "Digital cellular telecommunications system (Phase 2+); Half rate speech; Half rate speech transcoding".
- [11] GSM 06.21 (ETS 300 970): "Digital cellular telecommunications system (Phase 2+); Half rate speech; Substitution and muting of lost frames for half rate speech traffic channels".
- [12] GSM 06.22 (ETS 300 971): "Digital cellular telecommunications system (Phase 2+); Half rate speech; Comfort noise aspects for half rate speech traffic channels".