



SLOVENSKI STANDARD

SIST ETS 300 609-4 E4:2003

01-december-2003

8 [[[HJb]`W] b]`hY`_ca i b]_UW`g_]`g]ghYa `fZuU&L`3`E`GdYWZ_UW`UcdfYa Y`g]ghYa U
VUnb]`dcghU`f6 GGL`E` ("XY.`F YdYh]rcf`f] GA`%&`žfUn`]]WJ) "&`%L

Digital cellular telecommunications system (Phase 2 and Phase 2+) (GSM); Base Station System (BSS) equipment specification; Part 4: Repeaters (GSM 11.26 version 5.2.1)

iteh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **ETS 300 609-4 Edition 4**
SIST ETS 300 609-4 E4:2003
<https://standards.iteh.ai/catalog/standards/sist/e93e90cc-33cc-4263-82b-08bfa8e48f12/sist-ets-300-609-4-e4-2003>

ICS:

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

SIST ETS 300 609-4 E4:2003

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 609-4 E4:2003](https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003)

<https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003>



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 609-4

March 1999

Fourth Edition

Source: SMG

Reference: RE/SMG-081126PQR2

ICS: 33.020

Key words: Digital cellular telecommunications system, Global System for Mobile Communications (GSM)



**Digital cellular telecommunications system (Phase 2 & Phase 2+);
Base Station System (BSS) equipment specification;
Part 4: Repeaters
(GSM 11.26 version 5.2.1)**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

Internet: secretariat@etsi.fr - <http://www.etsi.org>

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1999. All rights reserved.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 609-4 E4:2003](https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003)

<https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003>

Contents

Foreword	5
1 Scope	7
2 Normative references	7
3 Definitions and abbreviations	8
3.1 Definitions	8
3.2 Abbreviations	8
4 General	8
4.1 Radio frequency bands	8
4.2 Test environments	9
4.2.1 Normal test environment	9
4.2.2 Extreme test environment	9
4.2.3 Extreme temperature	9
4.3 Manufacturers declarations	10
4.4 Methods of measurement	10
5 Spurious emissions	10
5.1 Test purpose	10
5.2 Test case	10
5.3 Conformance requirement	11
5.4 Reference requirement	11
6 Intermodulation attenuation	11
6.1 Test purpose	11
6.2 Test case	11
6.3 Conformance requirement	12
6.4 Reference requirement	12
7 Out of band gain	12
7.1 Test purpose	12
7.2 Test case	12
7.3 Conformance requirement	13
7.4 Reference requirement	13
8 Frequency error	13
8.1 Test purpose	13
8.2 Test case	13
8.3 Conformance requirement	13
8.4 Reference requirement	13
9 Phase error	13
9.1 Test purpose	13
9.2 Test case	14
9.3 Conformance requirement	14
9.4 Reference requirement	14
Annex A (informative): Testing of gain for part band repeaters	15
A.1 Rationale for this test	15
A.2 Gain outside operating band	15
A.2.1 Test purpose	15
A.2.2 Test case	15

A.2.3	Conformance requirement	15
Annex B (informative):	Change history	16
History		17

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 609-4 E4:2003](https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003)

<https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003>

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 European Telecommunication Standard (ETS) describes the Radio Frequency (RF) tests for GSM 900 and DCS 1800 repeaters within the digital cellular telecommunications system (Phase 2/Phase 2+).

The contents of this ETS may be 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+
- x the second digit is incremented for all other types of changes, i.e. technical enhancements, corrections, updates, etc.
- y the third digit is incremented when editorial only changes have been incorporated in the specification;

Transposition dates	
Date of adoption of this ETS:	4 December 1998
Date of latest announcement of this ETS (doa):	31 March 1999
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 September 1999
Date of withdrawal of any conflicting National Standard (dow):	30 September 1999

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 609-4 E4:2003

<https://standards.iteh.ai/catalog/standards/sist/c93e90ee-53ee-4263-82f5-08bf8e48f12/sist-ets-300-609-4-e4-2003>

1 Scope

This European Telecommunication Standard (ETS) describes the Radio Frequency (RF) tests for GSM 900 and DCS 1800 repeaters which receive, amplify, and retransmit a received Mobile Station (MS) signal in the GSM MS transmit band and simultaneously receive, amplify and retransmit a received Base Transceiver Station (BTS) RF signal in the GSM BTS transmit band.

This ETS is applicable to repeaters meeting the requirements of either GSM Phase 2 or GSM Phase 2+. Unless otherwise stated, all tests are applicable to repeaters meeting Phase 2 and/or Phase 2+ GSM requirements, because the requirements of the Phase 2 and Phase 2+ core GSM specifications which are referenced in the test are consistent. Most differences between Phase 2 and Phase 2+ requirements represent Phase 2+ features which are optional for the BSS to support.

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] ETR 350 (GSM 01.04): "Digital cellular telecommunication system (Phase 2+); Abbreviations and acronyms".
- [2] ETS 300 019-1-0: "Equipment Engineering (EE): Environmental conditions and environmental tests for telecommunications equipment Part 1-0; Classification of environmental conditions; Introduction".
- [3] ETS 300 019-1-3: "Equipment Engineering (EE): Environmental conditions and environmental tests for telecommunications equipment Part 1-3; Classification of environmental conditions, Stationary use at weather-protected locations".
- [4] ETS 300 019-1-4: "Equipment Engineering (EE): Environmental conditions and environmental tests for telecommunications equipment Part 1-4; Classification of environmental conditions, Stationary use at non-weather-protected locations".
- [5] ETS 300 113: "Radio Equipment and Systems (RES); Land mobile service; Technical characteristics and test conditions for radio equipment intended for the transmission of data (and speech) and having an antenna connector".
- [6] ETS 300 910 (GSM 05.05): "Digital cellular telecommunication system (Phase 2+); Radio transmission and reception".
- [7] IEC 68-2: "Basic environmental testing procedures: Part 2 Tests".
- [8] IEC 721: "Classification of environmental conditions".
- [9] ETS 300 607-1 (GSM 11.10-1) "Digital cellular telecommunication system (Phase 2); Mobile Station (MS) conformance specification; Part 1: Conformance specification".
- [10] ETS 300 609-1 (GSM 11.21) "Digital cellular telecommunication system (Phase 2); Base Station System (BSS) equipment specification; Part 1: Radio aspects"
- [11] ETR 027: "Methods of measurement for private mobile radio equipment "
- [12] ETR 028: "Uncertainties in the measurement of mobile radio equipment characteristics"