

EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision
of 20 March 1998
on the adoption of approval regulations
for equipment to be used in the land mobile service
as Base Station System (BSS) equipment for
the GSM Digital Cellular Telecommunications system
(Phase 2) based on the
Interim European Telecommunications Standard
(I-ETS) 300 609-1 Part 1: Radio Aspects
(ERC/DEC/(98)06)



WITHDRAWN

EXPLANATORY MEMORANDUM

1 INTRODUCTION

The free movement of radiocommunications goods and the provision of Europe-wide services for radiocommunications are only achievable if there exist common regulations throughout Europe regarding availability of frequency bands, approval requirements and border crossing procedures. A basic requirement to fulfil these objectives is the Europe-wide implementation of national regulations based on the European Telecommunications Standards (ETSS) developed by the European Telecommunications Standards Institute (ETSI).

This Decision (ERC/DEC/(98)06) provides the necessary mechanism for CEPT administrations to commit themselves to implement, within their national regimes, Interim European Telecommunications Standard 300 609-1¹ and withdraw any conflicting national standard.

2 BACKGROUND

Both the ERC and ETSI are involved in the development of common regulations, as described in (1) above. The Memorandum of Understanding between ERC and ETSI explains the respective responsibilities of the two organisations and its annex describes the principles of cooperation. The ERC, for its part, should, *inter alia*, adopt Decisions on the introduction of ETSI standards into national approval regimes.

I-ETS 300 609-1 has been prepared by the Special Mobile Group (SMG) Technical Committee of ETSI. The standard has undergone the ETSI standards approval procedure and is now published as an Interim European Telecommunication Standard (I-ETS).

This I-ETS specifies the Radio Frequency (RF) test methods and conformance requirements for GSM 900 and DCS 1800 Base Station Systems (BSS)s. These have been derived from, and are consistent with, the core GSM specifications specified in the requirements reference subclause of each test.

This I-ETS contains both essential conformance requirements and complete conformance requirements. Essential conformance requirements are those requirements which may be deemed sufficient for radio approval purposes, complete conformance requirements cover all conformance aspects. This Interim standard has an I-ETS status at present as Radio link management has not been included at this stage. Radio link management tests will not need to be performed for essential conformance purposes.

This I-ETS specifies the performance of GSM and DCS 1800 base station systems within the following frequency bands:

	Tx:	Rx:
P-GSM900	935-960 MHz	890-915 MHz
DCS1800	1805-1880 MHz	1710-1785 MHz
E-GSM900	925-960 MHz	880-915 MHz

Where: P ≡ Primary; E ≡ Extended

¹ I-ETS 300 609-1: *Digital cellular telecommunications system (Phase 2); Base Station System (BSS) equipment specification; Part 1: Radio aspects (GSM 11.21)*

ERC Decisions ERC/DEC(94)01 and ERC/DEC(97)02 provide for operation of GSM systems within these frequency bands. Within these bands, Administrations have adopted different frequency assignments for cellular operators. Further, the equipment used in this frequency range is subject to national licensing and frequency planning which requires specification of, *inter alia*, frequency of operation and effective radiated power (e.r.p). Such parameters or requirements are considered as licensing, rather than approval matters, and thus outside the scope of this Decision.

There are a number of parameters, in particular those considered by the ERC as essential for spectrum management purposes², which can be harmonised by adopting within national approval regulations the limit values and measurement methods provided in I-ETS 300 609-1.

3 REQUIREMENT FOR AN ERC DECISION

The allocation and assignment of radio frequencies and the complementary equipment approval regimes in CEPT member countries are laid down by law, regulation or administrative action. The ERC recognises that for harmonised fixed and mobile radio services to be introduced successfully throughout Europe, manufacturers and operators must be given the confidence to make the necessary investment in the development and procurement of new systems. Commitment by CEPT administrations to implement this ERC Decision will provide a clear indication that equipment conforming to national approval regulations based on I-ETS 300 609-1 will have the benefit of a Europe-wide market.

² See Annex 1 of the Decision

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Part 1: Radio Aspects**

(ERC/DEC/(98)06)

The European Conference of Postal and Telecommunications Administrations,

considering:

- a) that CEPT has a long term objective to harmonise the use of frequencies and the related regulatory regimes;
- b) that such harmonisation will benefit administrations, manufacturers, operators and users;
- c) that ETSI has published I-ETS 300 609-1 for Base Station System (BSS) equipment for the GSM system of Digital Cellular Communications (Phase 2);
- d) that ETSI expects to approve, by the end of 1998, EN 301-087 for GSM base station equipment meeting the requirements of both Phase 2 and Phase 2+ infrastructure and that the ERC foresees the need to develop an associated Decision;
- e) that, for the foreseeable future, many cellular networks will continue to use Base Station System equipment having the technical characteristics described in (c) above;
- f) that, in accordance with the Memorandum of Understanding between ERC and ETSI, the ERC shall adopt ERC Decisions on the introduction of ETs and ENs into national approval regimes;
- g) that the use of radio equipment is subject to national licensing and frequency planning requirements, in particular for frequency of operation and e.r.p.;
- h) that suitable transitional arrangements are given in CEPT Recommendation T/R 01-05.

DECIDES

1. to adopt approval regulations for Base Station System (BSS) equipment to be used in the land mobile service for the GSM Digital Cellular Telecommunications system (Phase 2), based on the limit values applicable to the essential conformance requirements and measurement methods for spectrum management parameters contained in I-ETS 300 609-1. Those parameters which are subject to national licensing requirements may be excluded by national choice. A list of the spectrum management parameters to be included in approval regulations is given in Annex 1.
2. to withdraw any conflicting national regulation(s);
3. that this Decision shall enter into force on 1 April 1998;
4. that CEPT Member administrations shall communicate the national measures implementing this Decision to the ERC Chairman and the ERO when the Decision is nationally implemented.

Note:

Please check the ERO web site (www.ero.dk) under "Documentation / Implementation" for the up to date position on the implementation of this and other ERC Decisions.

ANNEX 1

Parameters from I-ETS 300 609-1 to be included in approval requirements:

I-ETS 300 609-1	Section	Comments
Transmitters parameter limits³	6	
Phase error and mean frequency error	6.2.3	
Mean transmitted RF carrier power	6.3.3	Subject to national licensing conditions
Transmitted RF carrier power versus time	6.4.3	
Adjacent channel power: Spectrum due to modulation and wideband noise	6.5.1.3	
Adjacent channel power: Switching transients spectrum	6.5.2.3	
Spurious emissions from the transmitter antenna connector	6.6.1.3 6.6.2.3	
Intermodulation attenuation	6.7.3	
Intra Base Station System intermodulation attenuation	6.8.3	
Receiver parameters³	7	
Static reference sensitivity level	7.3.3	
Multipath reference sensitivity level	7.4.3	
Reference interference level	7.5.3	
Blocking characteristics	7.6.3	
Intermodulation characteristics	7.7.3	
AM suppression	7.8.3	
Spurious emissions from the receiver antenna connector	7.9.3	
Radiated spurious emissions³	8	
Radiated spurious emissions	8.3	

³ In some countries the spurious emissions and spurious radiations of transmitters and receivers are not considered as national approval requirements but as essential requirements of the EMC Directive 89/336 EC for which alternative procedures apply.