



# AMENDMENT

**ETS 300 390**  
pr **A1**

October 1996

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Source: ETSI TC-RES

Reference: RE/RES-02029

ICS: 33.100 33.060.20 33.060.50

**Key words:** Data, mobile, radio, testing

**This draft amendment A1, if approved, will modify  
the European Telecommunication Standard ETS 300 390 (1996)**

**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 using an integral antenna**

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## Foreword

This draft amendment to ETS 300 390 (1996) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Unified Approval Procedure phase of the ETSI standards approval procedure.

ETS 300 390, as amended by this draft amendment, together with ETS 300 279 is intended to become a Harmonized Standard, the reference of which is intended to be published in the Official Journal of the European Communities, referencing Council Directive 89/336/EEC (EMC Directive).

Annex H contains the draft ERC Decision which references the technical specifications in this ETS for inclusion in national type approval regulations. This draft ERC Decision is currently undergoing public consultation. The final ERC Decision will be included in this amendment when it has been adopted by the ERC.

| <b>Proposed transposition dates</b>                                  |                                 |
|--|---------------------------------|
| Date of latest announcement of this amendment (doa):                 | 3 months after ETSI publication |
| Date of latest publication or endorsement of this amendment (dop/e): | 6 months after doa              |
| Date of withdrawal of any conflicting National Standard (dow):       | 6 months after doa              |

## Amendments

### Page 9, Foreword

*Replace the first paragraph with the following:*

This European Telecommunications Standard (ETS) has been prepared by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS, together with ETS 300 279 is intended to become a Harmonized Standard, the reference of which is intended to be published in the Official Journal of the European Communities, referencing Council Directive 89/336/EEC (EMC Directive).

Conformity to a Harmonized EMC Standard will confer presumption of conformity with the essential requirements of the EMC Directive.

*Insert the following after the last paragraph:*

The technical specifications relevant to the EMC Directive are listed in annex G.

Annex H contains the ERC Decision which references the technical specifications in this ETS for inclusion in national type approval regulations.

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*Insert before History:*

**Annex G (normative): ETS 300 390: 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 using an integral antenna.**

**Table G.1: Clauses and/or subclauses of this ETS relevant for compliance with essential requirements of the EC Council Directives.**

| Clause/subclause number and title |                             | Corresponding article of Council Directive 89/336/EEC | Qualifying remarks |
|-----------------------------------|-----------------------------|---|--------------------|
| 5.1.4                             | Radiated spurious emissions | 4(a)  |                    |
| 5.2.8                             | Spurious radiations         | 4(a)  |                    |
|                                   |                             |   |                    |
| 5.2.5                             | Spurious response rejection | 4(b)  |                    |
| 5.2.7                             | Blocking or desensitisation | 4(b)  |                    |
|                                   |                             |   |                    |

**Annex H (normative): ERC Decision on the adoption of approval regulations for radio equipment to be used in the land mobile service for the transmission of data (and speech) and using an integral antenna based on the European Telecommunications Standard (ETS) 300 390**

This annex contains the ERC Decision which references the technical specifications in ETS 300 390 for inclusion in national type approval regulations.

Annex 20

EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision  
of .....1996

on the adoption of approval regulations for radio equipment to be used in the land mobile service for the transmission of data (and speech) and using an integral antenna based on the European Telecommunications Standard (ETS) 300 390

## 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, type 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 (ETs) developed by the European Telecommunications Standards Institute (ETSI).

This Decision (ERC/\*\*\*/(96)XX) provides the necessary mechanism for CEPT administrations to commit themselves to implement, within their national regimes, European Telecommunications Standard 300 390<sup>1</sup> 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 co-operation. The ERC, for its part, should, *inter alia*, adopt Decisions on the introduction of ETSI standards into approval regimes.

ETS 300 390 has been prepared by the Radio Equipment and Systems (RES) Technical Committee of ETSI. The standard has undergone the ETSI standards approval procedure and is now published as an ETS.

The ETS is a general standard which may be superseded by specific standards covering specific applications.

The use of the frequency range (30-1000 MHz) covered by ETS 300 390 is not harmonised within CEPT. Although CEPT Recommendation T/R 25-08 provides preferred arrangements for some frequency bands designated for mobile radio systems, Administrations have adopted different arrangements, to meet national requirements, for frequency bands, duplex separations and channel separations (12.5, 20 and 25 kHz). 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.) and, in some cases, additional requirements to improve spectrum utilisation, for example timers to limit maximum duration of transmissions. Such parameters or requirements are considered as outside the scope of this Decision.

Nevertheless, there are a number of parameters, in particular those considered by the ERC as essential for spectrum management purposes<sup>2</sup>, which can be harmonised by adopting within approval regulations the limit values and measurement methods provided in ETS 300 390.

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<sup>1</sup> ETS 300 390: "*Land Mobile service; Technical characteristics and test conditions for radio equipment intended for the transmission of data (and speech) and using an integral antenna.*"

<sup>2</sup> See Annex 1 of the Decision

### 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 approval regulations based on ETS 300 390 will have the benefit of a Europe-wide market.

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**ERC Decision  
of .....(1996)**

**on the adoption of approval regulations for radio equipment to be used in the land mobile service for the transmission of data (and speech) and using an integral antenna based on the European Telecommunications Standard (ETS) 300 390**

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 ETS 300 390 for equipment to be used in the land mobile service operating on radio frequencies between 30 MHz and 1000 MHz with channel separations of 12.5 kHz, 20 kHz and 25 kHz and intended for the transmission of data (and speech);
- d) that this ETS is complementary to I-ETS 300 113 and ETS 300 113 which cover digital and combined analogue and digital radio equipment with an internal or external RF connector for use in the land mobile services;
- e) that for combined analogue speech/data equipment, this ETS is complementary to ETS 300 296 which covers radio equipment using an integral antenna for use in the land mobile service and intended primarily for analogue speech;
- f) that, for the foreseeable future, many official, public and private networks will continue to use land mobile equipment having the technical characteristics described in (c) above;
- g) that, in accordance with the Memorandum of Understanding between ERC and ETSI, the ERC shall adopt ERC Decisions on the introduction of ETSI standards into approval regimes;
- h) that the use of radio equipment is subject to national licensing and frequency planning requirements, in particular for frequency of operation, limit of maximum duration of transmission (e.g. use of time-out/timers) and e.r.p.;
- i) that suitable transitional arrangements are given in CEPT Recommendation T/R 01-05.

**DECIDES**

1. to adopt, by 1 January 1997, approval regulations for equipment to be used in the land mobile service for the transmission of data (and speech) using an integral antenna, based on the limit values and measurement methods for spectrum management parameters contained in ETS 300 390, with the exception of those parameters which are subject to national licensing requirements<sup>3</sup>. A list of spectrum management parameters to be included in approval regulations is given in Annex 1;
2. to withdraw any conflicting national approval regulation(s);
3. that the equipment shall be marked ERC PMR Y, where Y is the country symbol of the national type approval authority which issued the type approval certificate;

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<sup>3</sup> Annex 2 is provided for information to show which options have been adopted by each Administration in those cases where ETS 300-390 offers a choice



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.

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European Radiocommunications Committee Decision

on the adoption of approval regulations for radio equipment to be used in the land mobile service for the transmission of data (and speech) and using an integral antenna based on the European Telecommunications Standard (ETS) 300 390.

The following CEPT administrations have committed themselves to apply the terms of this Decision:

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Parameters from ETS 300 390 to be included in approval requirements:

| ETS 300 390   | Section | Comments   |
|---|---------|--|
| <b>Transmitter parameters:</b>                                |         |  |
| Frequency error   | 5.1.1   | Options for 12.5 and 20/25 kHz <sup>4</sup> and Frequency of operation |
| Effective radiated power                                      | 5.1.2   | Subject to national licensing conditions                               |
| Adjacent channel power  | 5.1.3   | Options for 12.5 and 20/25 kHz <sup>4</sup>                            |
| Radiated spurious emissions                                   | 5.1.4   |  |
| Transmitter attack time                                       | 5.1.5   |  |
| Transmitter release time                                      | 5.1.6   |  |
| Transient behaviour of the transmitter                        | 5.1.7   |  |
| <b>Receiver parameters:</b>                                   |         |  |
| Average usable sensitivity (field strength, data or messages) | 5.2.1   | Split into frequency bands   |
| Error behaviour at high input levels                          | 5.2.2   |  |
| Co-channel rejection  | 5.2.3   | Options for 12.5 and 20/25 kHz <sup>4</sup>                            |
| Adjacent channel selectivity                                  | 5.2.4   | Options for 12.5 and 20/25 kHz <sup>4</sup>                            |
| Spurious response rejection                                   | 5.2.5   |  |
| Intermodulation response rejection                            | 5.2.6   |  |
| Blocking or desensitisation                                   | 5.2.7   |  |
| Spurious radiation  | 5.2.8   |  |

<sup>4</sup>See Annex 2 for details of the national implementation of channel spacing.

Annex 2

Adoption of ETS 300 390: National variations for channel spacing

| Administration                            | Adoption of channel spacing options |
|---|-------------------------------------|
| Albania                                   |                                     |
| Andorra                                   |                                     |
| Austria                                   |                                     |
| Belgium                                   |                                     |
| Bosnia and Herzegovina                    |                                     |
| Bulgaria                                  |                                     |
| Croatia                                   |                                     |
| Cyprus                                    |                                     |
| Czech Republic                            |                                     |
| Denmark                                   |                                     |
| Estonia                                   |                                     |
| Finland                                   |                                     |
| France                                    |                                     |
| Germany                                   |                                     |
| Greece                                    |                                     |
| Hungary                                   |                                     |
| Iceland                                   |                                     |
| Ireland                                   |                                     |
| Italy                                     |                                     |
| Latvia                                    |                                     |
| Liechtenstein                             |                                     |
| Lithuania                                 |                                     |
| Luxembourg                                |                                     |
| Malta                                     |                                     |
| Moldova                                   |                                     |
| Monaco                                    |                                     |
| Netherlands                               |                                     |
| Norway                                    |                                     |
| Poland                                    |                                     |
| Portugal                                  |                                     |
| Romania                                   |                                     |
| Russian Federation                        |                                     |
| San Marino                                |                                     |
| Slovak Republic                           |                                     |
| Slovenia                                  |                                     |
| Spain                                     |                                     |
| Sweden                                    |                                     |
| Switzerland                               |                                     |
| The Former Yugoslav Republic of Macedonia |                                     |
| Turkey                                    |                                     |
| Ukraine                                   |                                     |
| United Kingdom                            |                                     |
| Vatican City                              |                                     |

Key: Channel spacing options:  
 U= UHF 1 = 12.5 kHz  
 V=VHF 2 = 20 kHz  
 3 = 25 kHz

**History**

| <b>Document history</b> |   |
|-------------------------|---|
| February 1996           | First Edition   |
| October 1996            | Unified Approval Procedure UAP 56: 1996-10-21 to 1997-02-14 |
|                         |   |
|                         |   |