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### ETS 300 296 A1

March 1997

Source: ETSI TC-RES

Reference: RE/RES-02027

ICS: 33.020

Key words: Land mobile radio, analogue speech, integral antenna, testing

# This amendment A1 modifies the European Telecommunication Standard ETS 300 296 (1994)

### Radio Equipment and Systems (RES); Land mobile service; Technical characteristics and test conditions for radio equipment using integral antennas intended primarily for analogue speech

### ETSI

European Telecommunications Standards Institute

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#### Foreword

This amendment to ETS 300 296 (1994) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

ETS 300 296, as amended by this 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 F contains the ERC Decision which references the technical specifications in this ETS for inclusion in national type approval regulations.

Transposition dates			
Date of adoption	21 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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#### Amendments

#### Page 7, Foreword

Replace the first paragraph with the following:

This European Telecommunication 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).

Insert the following after the last paragraph:

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

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

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Insert the following before History

Annex E (normative): ETS 300 296 Radio Equipment and Systems (RES) Land Mobile Service Technical Characteristics and test conditions for radio equipment using integral antennas intended primarily for analogue speech

 Table E.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
5.1.5	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 F (normative): ERC Decision on the adoption of approval regulations for radio equipment to be used in the land mobile service using an integral antenna intended primarily for analogue speech based on the European Telecommunications Standard (ETS) 300 296

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

### **EUROPEAN RADIOCOMMUNICATIONS COMMITTEE**

ERC Decision of 1 November 1996 on the adoption of approval regulations for radio equipment to be used in the land mobile service using an integral antenna intended primarily for analogue speech based on the European Telecommunications Standard (ETS) 300 296

(ERC/DEC/(96)11)



EUROPEAN CONFERENCE OF POSTAL AND TELECOMMUNICATIONS ADMINISTRATIONS

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#### 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/(96)11) provides the necessary mechanism for CEPT Administrations to commit themselves to implement, within their national regimes, European Telecommunications Standard 300 296<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 300 296 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, which is based on CEPT Recommendation T/R 24-01, 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 300 296 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 of operation and equivalent isotropic radiated power (e.i.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 300 296.

#### 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 300 296 will have the benefit of a Europe-wide market.

<sup>&</sup>lt;sup>1</sup> ETS 300 296:

<sup>6: &</sup>quot;Technical characteristics and test conditions for radio equipment using integral antennas intended primarily for analogue speech" (Edition, December 1994)

#### ERC Decision of 1 November 1996

#### on the adoption of approval regulations for radio equipment to be used in the land mobile service using an integral antenna intended primarily for analogue speech based on the European Telecommunications Standard (ETS) 300 296

#### (ERC/DEC/(96)11)

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 300 296 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 primarily for analogue speech;
- d) 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;
- e) 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;
- f) 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.i.r.p.;
- g) that suitable transitional arrangements are given in CEPT Recommendation T/R 01-05.

#### DECIDES

- 1. to adopt, by 1 March 1997 approval regulations for equipment to be used in the land mobile service using an integral antenna intended primarily for analogue speech, based on the limit values and measurement methods for spectrum management parameters contained in ETS 300 296, with the exception of those parameters which are subject to national licensing requirements<sup>3</sup>. A list of the 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 CEPT Member Administrations shall communicate the national measures implementing this Decision to the ERC Chairman and the ERO when the Decision is nationally implemented.

<sup>&</sup>lt;sup>3</sup> Annex 2 is provided for information to show which options have been adopted by each administration in those cases where ETS 300 296 offers a choice.

#### ANNEX 1

#### Parameters from ETS 300 296 to be included in approval regulations:

ETS 300 296	Section	Comments
Transmitter parameter limits (Section 5.1) :		
Frequency error	5.1.1	Options for 12.5 and 20 and 25 kHz and frequency of operation
Effective radiated power	5.1.2	Subject to national licensing conditions
Frequency deviation	5.1.3	Options for 12.5, 20 and 25 kHz channel separation
Adjacent channel power	5.1.4	Options for 12.5, 20 and 25 kHz channel separation
Spurious emissions	5.1.5	
Transient frequency behaviour of the transmitter	5.1.6	
<b>Receiver parameter limits (Section 5.2) :</b>		
Average usable sensitivity (field strength, speech)	5.2.1	
Amplitude characteristic	5.2.2	
Co-channel rejection	5.2.3	Options for 12.5, 20 and 25 kHz channel separation
Adjacent channel selectivity	5.2.4	Options for 12.5, 20 and 25 kHz channel separation
Spurious response rejection	5.2.5	
Intermodulation response	5.2.6	
Blocking or desensitisation	5.2.7	
Spurious radiation	5.2.8	

#### ANNEX 2

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	V1, V2, V3, U1, U2, U3			
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	1;3			
Ukraine	1,5			
United Kingdom				
Vatican City				
Channel spacing options:	1			
J = UHF $I = 12.5  kHz$				
$U = U \Pi I = 12.5 \text{ K}$	12			

Adoption of ETS 300 296: National variations for channel spacing

Key:

$$2 = 20 \text{ kHz}$$
  
 $3 = 25 \text{ kHz}$ 

#### **European Radiocommunications Committee Decision**

#### CEPT/ERC/DEC(96)11

# on the adoption of approval regulations for radio equipment to be used in the land mobile service using an integral antenna intended primarily for analogue speech based on the European Telecommunications Standard (ETS) 300 296

As of 1 February 1997 the following CEPT Members have committed themselves to apply the terms of this Decision:

Austria Croatia Finland Iceland Ireland Italy Liechtenstein Lithuania Norway Slovak Republic Switzerland United Kingdom

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#### History

Document history						
December 1994	First Edition					
October 1996	Unified Approval Procedure	UAP 56:	1996-10-21 to 1997-02-14			
March 1997	Amendment 1 to First Edition					

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