



AMENDMENT

ETS 300 328

A1

July 1997

Second Edition

Source: ETSI TC-RES

Reference: RE/RES-10-13

ICS: 33.020

Key words: Data, emission, mobile, radio, spread spectrum, testing, transmission

**This amendment A1 modifies
the European Telecommunication Standard ETS 300 328 (1996)**

**Radio Equipment and Systems (RES);
Wideband transmission systems;
Technical characteristics and test conditions for
data transmission equipment operating in the 2,4 GHz ISM band
and using spread spectrum modulation techniques**

ETSI

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Foreword

This amendment to ETS 300 328 (1996) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

ETS 300 328, as amended by this amendment, together with ETS 300 826 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 E contains the ERC Decision which references the technical specifications in this ETS for inclusion in national type approval regulations. This ERC Decision has been adopted following public consultation. The final ERC Decision will be included in this amendment when it has been published by the ERC.

Transposition dates	
Date of adoption of this amendment:	6 June 1997
Date of latest announcement of this amendment (doa):	31 October 1997
Date of latest publication or endorsement of this amendment (dop/e):	30 April 1998
Date of withdrawal of any conflicting National Standard (dow):	30 April 1998

Amendments

Page 5, 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 300 826 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 relevant to the EMC Directive are listed in annex D.

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

Page 18, subclause 7.2.1

Modify step 1, first bullet item to read:

"..coupled to a matched diode detector"

Page 19, subclause 7.2.1

In step 2, second bullet item, first indented bullet item, add

"dBm"

after the formula.

Page 23, subclause 7.2.5

Replace paragraph beginning "For measuring emissions that exceed the level of 6 dB below the applicable limit" with:

For further analysis of spurious emissions that exceed the level of 6 dB below the applicable limit, video averaging shall be turned on, the resolution bandwidth shall be switched to 30 kHz and the span shall be adjusted accordingly. If the level does not change by more than 2 dB, it is a narrowband emission; the observed value shall be recorded in the test report. If the level changes by more than 2 dB, the emission is a wideband emission and its level shall be measured and recorded in the test report.

It is stressed that the analyser settings given above are not suited for the measurement of wideband emissions in dBm/Hz according to table 2. The method of measurement (in case of using a spectrum analyser: the model and the settings) for the measurement for these emissions shall be documented in the test report.

Replace the text in subclause 7.3.2 on page 24, starting with "Where these Measurements....." and until the last sentence before clause 8, by

"For finding spurious emissions, the spectrum analyser shall be set as follows:

(table as given on page 24)

For further analysis of spurious emissions that exceed the level of 6 dB below the applicable limit, video averaging shall be turned on, the resolution bandwidth shall be switched to 30 kHz and the span shall be adjusted accordingly. If the level does not change by more than 2 dB, it is a narrowband emission; the observed value shall be recorded in the test report. If the level changes by more than 2 dB, the emission is a wideband emission and its level shall be measured and recorded in the test report.

It is stressed that the analyser settings given above are not suited for the measurement of the power density of spurious emissions in dBm/Hz. The method of measurement (in case of using a spectrum analyser: the model and the settings) for the measurement for these emissions, shall be documented in the test report".

Page 33

Insert before History:

Annex D (normative): ETS 300 328: "Radio Equipment and Systems (RES). Wideband data transmission systems. Technical characteristics and test conditions for data transmission equipment operating in the 2,4 GHz band and using spread spectrum modulation techniques".

Table D.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
5.2	Transmitter parameters		
5.2.4	Spurious emissions	4(a)	
5.3	Receiver parameters		
5.3.2	Spurious emissions	4(a)	

Annex E (normative): **ERC Decision on the adoption of approval regulations for on the adoption of approval regulations for radio equipment to be used for wide band data transmission operating in the frequency range 2,4 GHz to 2,4835 GHz based on the European Telecommunication Standard (ETS) 300 328**

This annex contains the ERC Decision which references the technical specifications in ETS 300 328 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 for wideband data transmission operating
in the frequency range 2.4 GHz to 2.4835 GHz
and using spread spectrum modulation techniques based on
the European Telecommunications Standard (ETS) 300 328

(ERC/DEC/(96)17)



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)17) provides the necessary mechanism for CEPT Administrations to commit themselves to implement, within their national regimes, European Telecommunications Standard 300 328¹ 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 300 328 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 based on and uses the limits established by CEPT Recommendations T/R 10-01 and T/R 01-04.

CEPT Recommendation T/R 10-01 recommends:

- a) that the frequency range 2.4 GHz to 2.4835 GHz be used for wide band data systems;
- b) the maximum power levels for these systems;
- c) and that individual licences shall not be required.

Further, a number of parameters, in particular those considered by the ERC as essential for spectrum management purposes², can be harmonised by adopting within approval regulations the limit values and measurement methods provided in ETS 300 328.

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 300 328 will have the benefit of a Europe-wide market.

¹ ETS 300 328: *"Wideband data transmission systems; Technical characteristics and test conditions for data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques" (Edition 1, 1994)*

² See Annex 1 of the Decision

**ERC Decision
of 1 November 1996**

**on the adoption of approval regulations for radio equipment to be used for
wideband data transmission operating in the frequency range 2.4 GHz to 2.4835 GHz
and using spread spectrum modulation techniques based on the European Telecommunications
Standard (ETS) 300 328**

(ERC/DEC/(96)17)

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 300 328 for equipment to be used for wideband data transmission equipment operating in the 2.4 GHz ISM band;
- d) that, for the foreseeable future, there will continue to be widespread use of wideband data transmission 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 June 1997, approval regulations for wide band data transmission equipment operating in the frequency range 2.4 GHz to 2.4835 GHz with power levels specified in CEPT Recommendation T/R 10-01, based on the limit values and measurement methods for spectrum management parameters contained in ETS 300 328, with the exclusion by national choice of those parameters which are subject to national licensing requirements. A list of the 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.

ANNEX 1

Parameters from ETS 300 328 to be included in approval regulations:

ETS 300 328	Section	Comments
Transmitter parameters (Section 5.2):		
Frequency range	5.2.1	
Effective radiated power	5.2.2	
Peak power density	5.2.3	
Spurious emissions	5.2.4	
Receiver parameters (Section 5.3) :		
Spurious emissions	5.3.2	

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European Radiocommunications Committee Decision

CEPT/ERC/DEC(96)17

on the adoption of approval regulations for radio equipment to be used for wide band data transmission operating in the frequency range 2.4 GHz to 2.4835 GHz and using spread spectrum modulation techniques based on the European Telecommunications Standard (ETS) 300 328

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

History

Document history	
November 1994	First Edition
November 1996	Second Edition
January 1997	One step Approval Procedure OAP 9722: 1997-01-31 to 1997-05-30
July 1997	Amendment 1 to Second Edition