

## EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision  
of 10 March 1999  
on the adoption of approval regulations for  
equipment to be used for Sub-STM1  
Digital Radio Relay Systems (DRRS)  
operating in the 13 GHz, 15 GHz and 18 GHz  
frequency bands with about 28 MHz co-polar  
and 14 MHz cross-polar channel spacing,  
based on the European Telecommunications Standard  
(ETS) 300 639  
(ERC/DEC/(99)13)



WITHDRAWN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) or European Norms (ENs) developed by the European Telecommunications Standards Institute (ETSI).

This Decision ERC/DEC/(99)13 provides the necessary mechanism for CEPT Administrations to commit themselves to implement, within their national regimes, European Telecommunications Standard 300 639<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 300 639 has been prepared by the Transmission and Multiplexing (TM) 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 CEPT/ERC Recommendations 12-02, 12-03 and 12-07 .

The use of the Sub-STM1 DRRS equipment operating at 13, 15 and 18 GHz with 14 and 28 MHz channel spacing is not harmonised within CEPT. Administrations have adopted different arrangements, to meet national requirements. Further the equipments used in these frequency ranges are subject to national licensing and frequency planning which requires specification of, *inter alia*, frequency of operation and equivalent isotropically radiated power (e.i.r.p.).

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 300 639.

### 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 300 639 will have the benefit of a Europe-wide market.

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<sup>1</sup> ETS 300 639: "Transmission and Multiplexing (TM); Sub-STM1 Digital Radio Relay Systems (DRRS) operating in the 13 GHz, 15 GHz and 18 GHz frequency bands with about 28 MHz co-polar and 14 MHz cross-polar channel spacing"; Edition 1, 1997

<sup>2</sup> ERC parameters necessary for spectrum management as agreed at the 11<sup>th</sup> ERC meeting in Brussels, June 1994

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and 14 MHz cross-polar channel spacing,  
based on the European Telecommunications Standard (ETS) 300 639**

**(ERC/DEC/(99)13)**

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 300 639 for equipment to be used for Sub-STM1 digital radio relay systems in the 13 GHz, 15 GHz and 18 GHz frequency bands with channel separations of 28 MHz co-polar and 14 MHz cross-polar;
- d) that, for the foreseeable future, there will continue to be widespread use of radio systems in the fixed service 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 and e.i.r.p.;
- g) that suitable transitional channel arrangements are given in CEPT/ERC Recommendations 12-02, 12-03 and 12-07;
- h) that adequate system parameters are essential for safety related systems and in order to ensure efficient use of the spectrum a minimum set of receiver parameters is required;

*recognising:*

that this decision shall not impede EEA countries from fulfilling their obligations according to community law;

## DECIDES

1. to adopt approval regulations for equipment to be used for Sub-STM1 digital radio relay systems in the 13 GHz, 15 GHz and 18 GHz frequency bands with about 28 MHz co-polar and 14 MHz cross-polar channel spacing with transmitter power levels of up to 1W, based on the limit values and measurement methods for spectrum management parameters contained in ETS 300 639, with the exclusion by national choice 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 this Decision shall enter into force on 15 March 1999;
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](http://www.ero.dk) ) under “Documentation / Implementation” for the up to date position on the implementation of this and other ERC Decisions.

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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 300 639 offers a choice

## ANNEX 1

Parameters from ETS 300 639 to be included in approval regulations:

ETS 300 639	Section	Comments
<b>GENERAL CHARACTERISTICS</b>	<b>4</b>	
Frequency bands and channel arrangements	4.1	
Environmental conditions	4.2.1	
Electromagnetic compatibility conditions	4.3	
<b>TRANSMITTER CHARACTERISTICS</b> <sup>4</sup>	<b>6</b>	
Transmitter power	6.1	
RF spectrum mask	6.3	
Spurious emissions	6.5	
Radio frequency tolerance	6.6	
<b>RECEIVER CHARACTERISTICS</b> <sup>4</sup>	<b>7</b>	
Receiver image rejection	7.1	
Spurious emissions	7.2	
<b>SYSTEM CHARACTERISTICS</b>	<b>8</b>	
BER	8.1	
Interference sensitivity	8.3	
Co-channel interference	8.3.1	
Adjacent channel interference	8.3.2	
CW Spurious interference	8.3.3	
Distortion sensitivity	8.4	

<sup>4</sup> In some countries the spurious emissions and spurious radiations of transmitters and receivers are not considered as approval requirements but are essential requirements of the EMC Directive 89/336 EC for which alternative procedures apply.

## ANNEX 2

## Adoption of ETS 300 639: National variations

Administration	Adoption of frequency bands options	Sub-bands available <sup>5</sup>	Adoption of options for environmental conditions
Albania			
Andorra			
Austria			
Belgium			
Bosnia and Herzegovina			
Bulgaria			
Croatia			
Cyprus			
Czech Republic	2 to 6		7 to 13
Denmark			
Estonia			
Finland			
France			
Germany		15 and 18 GHz	
Greece			
Hungary			
Iceland			
Ireland			
Italy			
Latvia		1 to 6	7 to 13
Liechtenstein			
Lithuania		1 to 6	7 to 13
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			

<sup>5</sup> Specify the real (sub-)bands authorised in case of partial usage  
Edition 13.3.01

Key:

Frequency bands options:

Option	Reference	Channel Spacing (MHz)	Frequency bands (MHz)
1	ERC Rec. 12-02	14 cross-polar	12750 - 13250
2	ERC Rec. 12-02	28 co-polar	12750 - 13250
3	ERC Rec. 12-07	14 cross-polar	14500-14620 paired with 15230-15350
4	ERC Rec. 12-07	28 co-polar	14500-14620 paired with 15230-15350
5	ERC Rec. 12-03	14 cross-polar	17700 - 19700
6	ERC Rec. 12-03	28 co-polar	17700 - 19700

Environmental condition options

- 7 = Class 3.1
- 8 = Class 3.2
- 9 = Class 3.3
- 10 = Class 3.4
- 11 = Class 3.5
- 12 = Class 4.1
- 13 = Class 4.1E

Some countries may require a more stringent temperature range than is currently covered in this ETS.