AMENDMENT

ETS 300 198

pr **A1**

November 1996

Source: ETSI TC-RES

Reference: RE/TM-04054

ICS: 33.080

Key words: Transmission, radio, video

This draft amendment A1, if approved, will modify the European Telecommunication Standard ETS 300 198 (1994)

Transmission and Multiplexing (TM); Parameters for radio relay systems for the transmission of digital signals and analogue video signals operating at 23 GHz

ETSI

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Foreword

This draft amendment to ETS 300 198 (1994) 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 300 198, as amended by this draft amendment, together with ETS 300 385 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 C contains the draft ERC Decision which references the technical specifications in this ETS for inclusion in national 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.

Proposed transposition dates	
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

Foreword:

Replace 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 300 385 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 B.

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

Insert normative annexes B and C:

Annex B (normative): ETS 300 198, Transmission and Multiplexing (TM); Parameters for radio relay systems for the transmission of digital signals and analogue video signals operating at 23 GHz

Table B.1: Subclauses of this ETS relevant for compliance with the essential requirements of the EC Council Directives.

Clause/sub clause number, or annex reference	Title	Corresponding article of Council Directive 89/336/EEC	Qualifying remarks
	Spurious emission tests		
5.4.4	Transmitter Spurious emissions (digital systems)	4(a)	
6.4.4	Transmitter Spurious emissions (wide band analogue systems)	4(a)	
5.5.2	Receiver Spurious emissions (digital systems)	4(a)	
6.5.2	Receiver Spurious emissions (wide band analogue systems)	4(a)	
	Receiver Immunity tests		
5.6.3 (c)	CW spurious interference (digital systems)	4(b)	
6.6.2 (c)	CW spurious interference (wide band analogue systems)	4(b)	

Annex C (normative): ERC Decision on the adoption of approval regulations for equipment to be used for radio relay systems operating in the fixed service for the transmission of digital signals and analogue video signals operating between 21,2 GHz and 23,6 GHz based on the European Telecommunications Standard (ETS) 300 198

This annex contains the ERC Decision which references the technical specifications in ETS 300 198 for inclusion in national approval regulations.

EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision
of 1996

on the adoption of approval regulations for equipment to be used for radio relay systems operating in the fixed service for the transmission of digital signals and analogue video signals operating between 21.2 GHz and 23.6 GHz based on the European Telecommunications Standard (ETS) 300 198

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/***/(96)XX) provides the necessary mechanism for CEPT administrations to commit themselves to implement, within their national regimes, European Telecommunications Standard 300 198[1] 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 300 198 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 Recommendation T/R 13-02

The use of the frequency range (21.2 to 23.6 GHz) covered by ETS 300 198 is not harmonised within CEPT. Administrations have adopted different arrangements, to meet national requirements, for frequency bands and channel separations (3.5, 7, 14, 28, 56 and 112 MHz). 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 equivalent isotropic 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[2], which can be harmonised by adopting within approval regulations the limit values and measurement methods provided in ETS 300 198.

In the European Table of Frequency allocations for the year 2008 (ERC Report 25), the fixed service has been removed from the band 21.4 GHz - 22.0 GHz, reflecting the WARC-92 decision on the Broadcasting-Satellite Service (BSS) for High Definition Television (HDTV).

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 300 198 will have the benefit of a Europe-wide market.

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[1] ETS 300 198: *"Transmission and Multiplexing (TM); Parameters for radio relay systems for the transmission of digital signals and analogue video signals operating at 23 GHz."*

[2] See Annex 1 of the Decision

ERC Decision
of .....(1996)

on the adoption of approval regulations for equipment to be used for radio relay systems operating in the fixed service for the transmission of digital signals and analogue video signals operating between 21.2 GHz and 23.6 GHz based on the European Telecommunications Standard (ETS) 300 198

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 300 198 for radio relay systems operating in the 21.2 to 23.6 GHz frequency range with channel separations of 3.5, 7, 14, 28, 56 and 112 MHz;

d) that, for the foreseeable future, there will continue to be widespread use of radio relay systems in the fixed service having the technical characteristics described in (c) above;

e) that the European Table of Frequency Allocations (ERC Report 25) has identified the Broadcasting Satellite Service as the only primary service in the band 21.4 GHz - 22.0 GHz;

f) 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;

g) 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.;

h) 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 for radio relay systems operating in the frequency bands 21.2 GHz - 21.4 GHz and 22.0 GHz - 23.6 GHz with power levels of up to 1W, based on the limit values and measurement methods for spectrum management parameters contained in ETS 300 198, with the exclusion by national choice of those parameters which are subject to national licensing requirements[3]. 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 the equipment shall be marked ERC RRL 23 Y, where Y is the country symbol of the national type approval authority which issued the type approval certificate;

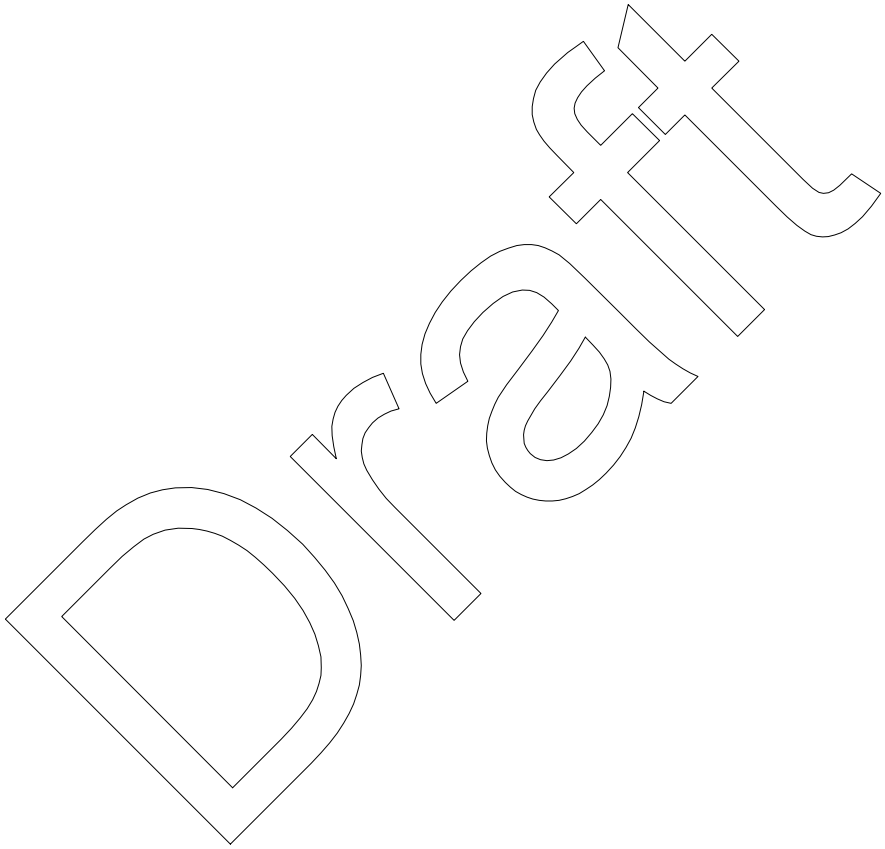
4 that CEPT Member administrations shall communicate the national measures implementing this Decision to the ERC Chairman and the ERO when the Decision is nationally implemented.

[3] Annex 2 and 3 are provided for information to show which options have been adopted by each Administration in those cases where ETS 300 198 offers a choice

European Radiocommunications Committee Decision ERC/DEC(96)XX

on the adoption of approval regulations for equipment to be used forradio relay systems operating in the fixed service for the transmission of digital signals and analogue video signals operating between 21.2 GHz and 23.6 GHz, based on the European Telecommunications Standard (ETS) 300 198.

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



Annex 1

Parameters from ETS 300 198 to be included in approval requirements:

ETS 300 198	Section	Comments
Limits for parameters of digital systems :		
Transmission capacity	5.1	Options for transmission capacity with the appropriate channel spacings 3.5, 7, 14, 28, 56 and 112 MHz. Manufacturers declaration
Baseband parameters	5.3	
Transmitter characteristics	5.4	Options for channel spacings 3.5, 7, 14, 28, 56 and 112 MHz
Transmitter power range	5.4.1	
Transmitter output power tolerance	5.4.2	
RF spectrum mask	5.4.3	
Spurious emissions	5.4.4	
RF frequency tolerance	5.4.5	
Receiver characteristics	5.5	
Spurious emissions	5.5.2	
System performance	5.6	Options for channel spacings 3.5, 7, 14, 28, 56 and 112 MHz
BER performance	5.6.1	
Interference sensitivity	5.6.3	
co-channel interference	5.6.3.a	
adjacent channel interference	5.6.3.b	
CW spurious interference	5.6.3.c	
Limits for parameters of wide band analogue systems:		
Transmit/receive capacity	6.1	Options for transmission capacity with the appropriate channel spacings 28 and 56 MHz. Manufacturers declaration
Baseband parameters	6.3	
Transmitter characteristics	6.4	Options for channel spacings 28 and 56 MHz
TX power range	6.4.1	
TX output power tolerance	6.4.2	
Spectrum mask	6.4.3.1	
Spurious emissions	6.4.4	
RF frequency tolerance	6.4.5	
Receiver characteristics	6.5	

Spurious emission	6.5.2	
Transmit/receive performance	6.6	
Receiver threshold	6.6.1	
co-channel interference	6.6.2.a	
adjacent channel interference	6.6.2.b	
CW spurious interference	6.6.2.c	

Annex 2

Adoption of the digital elements of ETS 300 198: National variations.

Administration	Adoption of channel spacing options	Adoption of options for environmental conditions
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

1 = 2 Mbits in a 3.5 MHz Channel
2 = 2 Mbits in a 7 MHz Channel
3 = 2x2 Mbits in a 3.5 MHz Channel
4 = 8 Mbits in a 7 MHz Channel
5 = 8 Mbits in a 14 MHz Channel
6 = 34 Mbits in a 28 MHz Channel
7 = 34 Mbits in a 56 MHz Channel
8 = 140/155 Mbits in a 112 MHz Channel

Environmental condition

9 = Class 3.1
10 = Class 3.2
11 = Class 3.3
12 = Class 3.4
13 = Class 3.5
14 = Class 4.1
15 = Class 4.1E
16 = -20°C to +40°C
17 = -30°C to +50°C

Annex 3

Adoption of the analogue elements of ETS 300 198: National variations.

Administration	Adoption of channel spacing options	Adoption of options for environmental conditions
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

1 = <3.5 MHz Video bandwidth in a 28 MHz Channel
2 = <6 MHz Video bandwidth in a 56 MHz Channel
3 = <10 MHz Video bandwidth in a 56 MHz Channel
4 = <14 MHz Video bandwidth in a 56 MHz Channel

Environmental conditions

5 = Class 3.1
6 = Class 3.2
7 = Class 3.3
8 = Class 3.4
9 = Class 3.5
10 = Class 4.1
11 = Class 4.1
12 = -20°C to +40°C
13 = -30°C to +50°C

History

Document history			
April 1994	First Edition		
November 1996	Unified Approval Procedure	UAP 58:	1996-11-18 to 1997-03-14