



# ERC Decision (01)11

**Harmonised frequencies, technical characteristics and exemption from individual licensing of short range devices used for Flying Model control operating in the frequency band 34.995 - 35.225 MHz**

Approved 12 March 2001

Updated 17 November 2017

## EXPLANATORY MEMORANDUM

### 1. INTRODUCTION

The term "Short Range Device" (SRD) is intended to cover radio equipment providing uni-directional or bi-directional communication and which has low capability of causing interference to other radio equipment. SRD use either integral, dedicated or external antennas and all modes of modulation are permitted subject to available standards or technical specifications. Model control equipment are specific SRD used for controlling the movement of the model, in the air, on land or over or under the water surface. This ERC Decision only covers frequency used for flying models. Usually, SRD use frequency bands already allocated to other services. SRD generally cannot interfere with nor claim protection from these services.

Licensing is an appropriate tool for Administrations to regulate the use of radio equipment, ensure the most effective use of the frequency spectrum and to avoid harmful interference. However intervention from the Administrations as far as the installation and use of equipment is concerned needs to be proportionate. Administrations and especially users, retailers and manufacturers will benefit from a more deregulated system of authorising the use of radio equipment.

### 2. BACKGROUND

In 1997, the ERC adopted Recommendation the 70-03 to deal with SRD covering many categories of different applications, among which are telecommand and telecontrol, telemetry, alarms, speech and video transmission. For its part, ETSI has developed standards for the majority of these devices.

The ERC Recommendation 70-03, together with these standards, has given a favourable legal framework to accompany the recent development of the use of SRD.

To achieve the aim of taking a new step towards harmonised use of SRD, it has been decided to transpose into ERC Decisions the frequency bands (together with the relevant technical characteristics) identified in the Recommendation 70-03. The harmonisation on a European basis supports the Radio Equipment Directive 2014/53/EU.

It is generally agreed that installation and use of radio equipment may be exempted from individual licensing when the efficient use of the frequency spectrum is not at risk and as long as harmful interference is unlikely and usage is on a non-protected/non-interference basis.

When radio equipment is subject to an exemption from individual licensing, anyone can install and use the equipment without requiring individual permission from the Administration. Furthermore, the Administration will not register the individual equipment. The use of the equipment can be subject to general provisions or general licence.

Within countries which have implemented the Radio Equipment Directive the conformity assessment, placing on the market and putting into service of Short Range Devices is governed by the Directive. Thus this ERC Decision can not impede EEA countries and countries which have implemented the Directive from fulfilling their obligations according to Community law.

This Decision describes the spectrum management requirements for and intends to provide for individual licence exemption for Short Range Devices used for Model control.

### 3. REQUIREMENTS FOR AN ERC DECISION

The allocation or designation of frequencies for use by a service or system under specified conditions in CEPT member countries is laid down by law, regulation or administrative action. The ERC recognises that for SRD in general and Model control in particular to pursue their successful development throughout Europe, manufacturers must be encouraged to make the necessary investments in these radiocommunication systems. It is therefore considered necessary to designate frequency bands within which Model control can be operated under specified conditions.

ERC/REC 01-07, adopted in 1995, listed harmonised criteria for the Administrations to decide whether an exemption from individual licence should be applied. The aim of this Decision is also to exempt Model control from individual licensing as they fulfil the criteria for exemption listed in ERC/REC 01-07.

Commitment by CEPT member countries to implement an ERC Decision will provide a clear indication that the required frequency bands will be made available on time and on a European-wide basis.

**ERC DECISION OF 12 MARCH 2001 ON HARMONISED FREQUENCIES, TECHNICAL CHARACTERISTICS AND EXEMPTION FROM INDIVIDUAL LICENSING OF SHORT RANGE DEVICES USED FOR FLYING MODEL CONTROL OPERATING IN THE FREQUENCY BAND 34.995-35.225 MHZ, UPDATED ON 17 NOVEMBER 2017**

“The European Conference of Postal and Telecommunications Administrations,

*Considering*

- a) that due to the increasing interest in the use of SRD for a growing number of applications it is necessary to harmonise frequencies and regulations for these devices;
- b) that SRD in general operate in shared bands and are not permitted to cause harmful interference to other radio services;
- c) that in general SRD cannot claim protection from other radio services;
- d) that the CEPT Recommendation ERC/REC 70-03 on Short Range Devices identifies frequency bands for Model control;
- e) that European-wide harmonised use of frequencies supports the Radio Equipment Directive 2014/53/EU;
- f) that the technical characteristics shown in Annex 1 have been chosen to ensure the best use of the band identified in *Decide 1* by Flying Model control, minimising interference between SRD equipment and sharing with other radio services operating in this band;
- g) that the equipment referred to in this ERC Decision should comply with the relevant Harmonised European Standard (EN 300 220-2) or equivalent technical specifications;
- h) that for frequency planning, frequency co-ordination and in handling interference complaints the national frequency management and enforcement authorities assume Short Range Devices used for Model control comply with receiver performance characteristics given in the informative Annex (Annex 2);
- i) that the CEPT Recommendation ERC/REC 74-01 defines spurious emission limits for radiocommunication equipment;
- j) that when selecting parameters for new SRD, which may have inherent safety of human life implications, manufacturers and users should pay particular attention to the potential for interference from other systems operating in the same or adjacent bands;
- k) that within the CEPT Administrations there is growing awareness of the need for harmonisation of licensing regimes;
- l) that national licensing regimes should be as simple as possible in order to minimise the burden on Administrations and users of equipment;
- m) that Administrations should work towards the exemption of relevant radio equipment from individual licensing based on harmonised criteria detailed in ERC/REC 01-07;
- n) that Administrations have the right to exercise spectrum/frequency management which may affect the number of service suppliers, in conformity with their international trade obligations and to European Community legislation as far as EU Member States are concerned;
- o) that allocation, assignment and technical co-ordination of frequencies must be done in an objective, timely, impartial, transparent and non-discriminatory manner, and should not be more burdensome than necessary under international rules, in particular, to ensure the efficient use of the frequency spectrum.

*DECIDES*

1. to designate the frequency 34.995 - 35.225MHz for the use of Short Range Device equipment for Model control systems limited to flying models which comply with the technical characteristics shown in Annex 1;
2. to exempt Short Range Devices used for Model control covered by this Decision from individual licensing;
3. that this Decision enters into force on 12 March 2001;
4. that CEPT administrations shall communicate the national measures implementing this Decision to the ECC Chairman and the Office when this ECC Decision is nationally implemented.”

*Note:*

*Please check the Office documentation database <http://www.ecodocdb.dk> for the up to date position on the implementation of this and other ECC Decisions.*

**ANNEX 1: REGULATORY ANNEX: TECHNICAL CHARACTERISTICS OF FLYING MODEL CONTROL USING THE FREQUENCIES IDENTIFIED IN *DECIDES 1***

**Table 1: Technical characteristics**

Frequency Band	Power	Antenna	Channel Spacing	Duty Cycle (%)
34.995-35.225 MHz	100 mW e.r.p.	dedicated	10 kHz <sup>1</sup>	No duty cycle restriction

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<sup>1</sup> The centre frequency of the first channel is at a distance of the channel spacing/2 from the lower frequency band edge

## ANNEX 2: INFORMATIVE ANNEX: ADDITIONAL TECHNICAL CHARACTERISTICS RECOMMENDED TO COMPLY TO ENSURE EFFICIENT USE OF THE SPECTRUM

*Note:* In this ERC Decision this annex is for information only; however, in cases where the relevant harmonised standard applicable to Model control contains essential requirements for transmitter or receiver parameters, this harmonised standard prevails upon the following information. For the conditions and methods of measurement refer to the relevant Harmonised European standard (ETSI EN 300 220-2).

### Transmitters:

Spurious emissions should comply with those specified in ERC Recommendation 74-01.

### Receivers:

1. Adjacent band selectivity – in band  
The band edge selectivity of the equipment should be equal to or greater than the unwanted signal as stated in the table below.

<b>Channel spacing <math>\leq</math> 25 kHz</b>
60.0 dB

2. Adjacent band selectivity  
The band edge selectivity of the equipment should be equal to or greater than the unwanted signal as stated in the table below.

<b>At band edge</b>
60.0 dB

3. Blocking or desensitisation  
The blocking ratio for any frequency within the specified ranges, should not be less than the values given in the table below, except frequencies for which spurious responses are found.

Frequency offset (MHz)	Limit
All	84 dB

4. Spurious radiation  
The power of any spurious emission, radiated or conducted, should not exceed the values given below.

- 2 nW below 1 000 MHz;
- 20 nW above 1 000 MHz.