

EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision
of 12 March 2001
on the harmonised frequency band
to be designated for the
Direct Mode Operation (DMO)
of the Digital Land Mobile Systems

(ERC/DEC/(01)21)



WITHDRAWN

EXPLANATORY MEMORANDUM

1 INTRODUCTION

Digital Land Mobile Systems are being developed in Europe. In order to meet operational requirements for short-range communication Direct Mode Operation (DMO) has been implemented. DMO operation provides a great potential for short-range communication especially in cities and also where no network coverage can be obtained. Harmonised frequencies for DMO further allows for pan-European use of digital land mobile facilitating economy of scale in the terminal market.

2 BACKGROUND

The DMO facilities are required by the users.

DMO operation is an additional simplex service for terminals operating in a trunked network. Frequencies for DMO operation of digital land mobile systems have been identified within the simplex band 440-450 MHz in order to avoid using spectrum from the duplex in the 400 MHz range. Identifying DMO channels in the 440-450 MHz band makes it possible to serve terminals operating in both 410-430 MHz and in the 450-470 MHz band.

3 REQUIREMENT FOR AN ERC DECISION

The allocation or designation of a frequency band 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 digital land mobile systems to be introduced successfully throughout Europe, manufacturers and operators must be given the confidence to make the necessary investment in these new radio communication systems. The ERC therefore believes that it is necessary to designate a frequency band for Direct Mode Operation (DMO) to be used by digital land mobile systems. A commitment by CEPT member countries to implement an ERC Decision will provide a clear indication that the required frequency band will be made available on time and on a European basis.

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of 12 March 2001**

**on the harmonised frequency band to be designated for the Direct Mode Operation (DMO)
of Digital Land Mobile Systems**

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"The European Conference of Postal and Telecommunications Administrations,

considering

- a) 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;
- b) 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;
- c) that in addition to the need for trunked mode operation (TMO) interoperability, there is also a need for interoperability in the direct mode operation (DMO);
- d) that in addition to the harmonised DMO channels there may be national requirements for additional DMO channels;
- e) that the systems proposed in this band operate in 10 kHz, 12.5 kHz or 25 kHz channel spacing;
- f) that the equipment referred to in this ERC Decision should comply with the relevant European Telecommunication Standards – ETS 300 392, ETS 300 396, ETS 300 113 or equivalent technical specifications.

DECIDES

1. to designate the frequency band 445.2 - 445.3 MHz for the harmonised use by Direct Mode Operation (DMO) of terminals in trunked Digital Land Mobile Systems;
2. the maximum radiated power shall be limited to 1 Watt e.r.p.
3. that the centre frequencies of the DMO channels shall be derived as follows:

$$F_{CH} = \text{Band Edge} - (a \times 0.00125 \text{ MHz}) + (n \times \text{Channel Spacing MHz});$$

where:

a = constant, depending on the required channel spacing,

$a = 10$, in the case of 25 kHz channel spacing

$a = 5$, in the case of 12.5 kHz channel spacing

$a = 4$, in the case of 10 kHz channel spacing

n = channel number,

$n = 1 - 4$, in the case of 25 kHz channel spacing

$n = 1 - 8$, in the case of 12.5 kHz channel spacing

$n = 1 - 10$, in the case of 10 kHz channel spacing

Band Edge – lower edge of allocated frequency band, MHz, i.e. 445.2 MHz

4. that this Decision shall enter into force on 12 March 2001;

5. 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) for the up to date position on the implementation of this and other ERC Decisions.

WITHDRAWN