

**EUROPEAN RADIOCOMMUNICATIONS COMMITTEE**

ERC Decision  
of 7 March 1996  
on the harmonised frequency band  
to be designated for the introduction of  
the Multipoint Video Distribution Systems (MVDS)  
(ERC/DEC/(96)05)

*Replaced by ERC/DEC/(99)16)*



WITHDRAWN

## **EXPLANATORY MEMORANDUM**

### **1. INTRODUCTION**

Distribution of television programmes by microwaves can be achieved by means of so-called Multipoint Video Distribution Systems (MVDS). A typical MVDS consists of a microwave transmitter connected to an omnidirectional or sector antenna, which covers a particular area or "cell" and a number of receivers located at the subscriber's premises at fixed locations. The system transmits a large number of channels (typically 20) via microwaves to the individual subscriber. MVDS can be regarded as an alternative to cable television distribution networks or as an extension to a cable network.

A harmonised frequency band for MVDS in Europe should encourage the development and manufacture of a wide range of equipment for it.

### **2. BACKGROUND**

MVDS is a viable means of providing local delivery of direct-to-home television programmes to geographic areas which are uneconomic to cable, or to provide a broadcasting services where conventional systems are deficient. It may also be used to support the development of cable network and to provide additional "off air" programming. Some countries in Europe have deployed MVDS in the 2500 MHz band.

However, within Europe there was little prospect for achieving a harmonised frequency allocation in that band. Therefore after careful consideration of a number of bands including 29, 38, 42 and 60 GHz, the ERC published Recommendation T/R 52-01 which recommends that the band 40.5-42.5 GHz be used for MVDS. The band had also been allocated by the ITU to the broadcasting-satellite and broadcasting services. Subsequently the ERC report N°25 of the first phase Detailed Spectrum Investigation endorsed this choice.

### **3. REQUIREMENT FOR AN ERC DECISION**

The allocation of radio frequencies in CEPT countries is laid down by law, regulation or administrative action. The ERC recognises that for MVDS to be introduced successfully throughout Europe, manufacturers and operators must be given the confidence to make the necessary investment in the new pan-European radio communications systems and services. Commitment by CEPT 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 Europe-wide basis. The Decision also provides for CEPT member countries to introduce into their national regime, the ETSI standards and the CEPT mechanism for enabling free circulation.

**ERC DECISION  
of 7 March 1996**

**on the harmonised frequency band to be designated for  
the introduction of  
Multipoint Video Distribution Systems (MVDS)  
(ERC/DEC/(96)05)**

The European Conference of Postal and Telecommunications Administrations,

*considering:*

- a) that in Europe MVDS should have the capability to distribute at least 20 channels in order to provide an equivalent service to cable networks;
- b) that the transmission medium is transparent to the format of the video signal;
- c) that regarding analogue modulations, an AM system employs 8 MHz channel spacing, whereas an FM system requires a co-polar channel spacing of about 29.5 MHz, allowing interleaving of a cross-polarised group at 14.75 MHz half-channel offset. Thus per cell at least 160 or 590 MHz of bandwidth should be made available depending on the modulation method chosen;
- d) that the resulting large bandwidths cannot be made available throughout Europe in the lower frequency ranges and thus a selection has to be made considering the higher frequency bands only;
- e) that the choice for the higher frequency bands currently necessitates the use of FM or digital modulation and involves specific problems such as short range covered (with current technology less than 5 kilometres) and that therefore, in general, systems used for the extension of cable networks can successfully use this part of the spectrum;
- f) that digital technology being developed has the potential to increase the range covered, provide greater spectral efficiency than analogue systems and also permit additional services to be carried;
- g) that more frequency blocks are required for frequency co-ordination between cells;
- h) that the band 40.5-42.5 GHz has been allocated by the ITU on a co-primary basis to the broadcasting and broadcasting-satellite services;
- i) that the Detailed Spectrum Investigation has recommended that the band 40.5-42.5 GHz be allocated to MVDS on a primary basis;
- j) that broadcasting-satellite systems are not expected in this band before the year 2010;
- k) that the band 40.5-42.5 GHz offers sufficient amount of spectrum for MVDS;
- l) that in some countries there is a need to use substantially lower frequency bands for systems which have to provide a much wider coverage.

DECIDES

1. for the purpose of this Decision, Multipoint Video Distribution Systems (MVDS) are defined as systems providing distribution of multiple television programmes via radio either as an alternative to cable distribution networks or as an extension to such networks and complying with the relevant European Telecommunications Standards for MVDS;
2. to designate the frequency band 40.5-42.5 GHz for MVDS as from 1 July 1996;
3. that the 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.

WITHDRAWN