

**Recommendation T/R 52-01 (Athens 1990)**

**DESIGNATION OF A HARMONISED FREQUENCY BAND  
FOR MULTIPOINT VIDEO DISTRIBUTION SYSTEMS IN EUROPE**

Recommendation proposed by the "Frequency Management" Working Group T/WG 18 (FM)

*Text of the Recommendation adopted by the "European Radiocommunications Committee" (ERC):*

"The European Conference of Postal and Telecommunications Administrations,

**INTRODUCTION**

Television-programme distribution by microwave can be achieved by means of a so-called Multipoint Video Distribution System (MVDS). A typical MVDS consists of a microwave transmitter connected to an omnidirectional or sector antenna, which covers a specific area or "cell", and a number of receivers located at the subscribers' premises at fixed locations. The system transmits a large number of channels (typically 20) via microwave to the individual subscriber. In some countries an MVDS is regarded as an alternative to cable television distribution networks, in others it is considered an extension to these networks. A harmonised frequency band for MVDS in Europe allows quick technical development of equipment for it.

*The CEPT, considering that*

1. in Europe MVDS should have the capability to distribute at least 20 channels in order to provide an equivalent service to cable networks,
2. an AM system employs an 8 MHz channel spacing, whereas an FM system also capable of transporting HD-MAC signals requires a channel spacing of about 40 MHz, thus per cell at least 160 or 800 MHz bandwidth should be available depending on the modulation method chosen,
3. more frequency blocks are required for frequency coordination between cells,
4. 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,
5. the choice for the higher frequency bands necessitates the use of FM and involves specific problems such as the 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,
6. several frequency bands in the higher frequency range have been suggested such as the 29, 38, 42 and 60 GHz bands, that the lowest of these bands potentially offer the highest performance while the highest is unsuitable because of the very limited range (less than 1 kilometre),
7. the 40.5-42.5 GHz band has been allocated by the ITU on a primary basis to the broadcasting-satellite service, on a permitted basis to the broadcasting service and on a secondary basis to the fixed and mobile services,
8. no systems are operational or planned, and that satellite-broadcasting systems are not expected to be operational in this band before the year 2010,
9. the band 40.5-42.5 GHz offers a sufficient amount of spectrum for MVDS,

*noting*

that in some countries there is a need to use substantially lower frequency bands for systems which have to provide a much wider coverage,

*recommends*

that the band 40.5-42.5 GHz shall be the harmonised frequency band for Multipoint Video Distribution Systems in Europe.”