



Recommendation ITU-R M.1073-3
(03/2012)

**Digital cellular land mobile
telecommunication systems**

M Series
**Mobile, radiodetermination, amateur
and related satellite services**



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Foreword

The role of the Radiocommunication Sector is to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including satellite services, and carry out studies without limit of frequency range on the basis of which Recommendations are adopted.

The regulatory and policy functions of the Radiocommunication Sector are performed by World and Regional Radiocommunication Conferences and Radiocommunication Assemblies supported by Study Groups.

Policy on Intellectual Property Right (IPR)

ITU-R policy on IPR is described in the Common Patent Policy for ITU-T/ITU-R/ISO/IEC referenced in Annex 1 of Resolution ITU-R 1. Forms to be used for the submission of patent statements and licensing declarations by patent holders are available from <http://www.itu.int/ITU-R/go/patents/en> where the Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC and the ITU-R patent information database can also be found.

Series of ITU-R Recommendations

(Also available online at <http://www.itu.int/publ/R-REC/en>)

Series	Title
BO	Satellite delivery
BR	Recording for production, archival and play-out; film for television
BS	Broadcasting service (sound)
BT	Broadcasting service (television)
F	Fixed service
M	Mobile, radiodetermination, amateur and related satellite services
P	Radiowave propagation
RA	Radio astronomy
RS	Remote sensing systems
S	Fixed-satellite service
SA	Space applications and meteorology
SF	Frequency sharing and coordination between fixed-satellite and fixed service systems
SM	Spectrum management
SNG	Satellite news gathering
TF	Time signals and frequency standards emissions
V	Vocabulary and related subjects

Note: This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.

Electronic Publication
Geneva, 2012

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RECOMMENDATION ITU-R M.1073-3

Digital cellular land mobile telecommunication systems

(1994-1997-2005-2012)

Scope

This Recommendation recommends the technical and operational characteristics of digital cellular land mobile telecommunication systems for international and regional use. By providing associated references to the specifications for each technology, the Recommendation provides guidance for administrations evaluating various cellular systems for their intended applications.

The ITU Radiocommunication Assembly,

considering

- a) that digital signals in various formats are being used to improve the communications efficiency of the land mobile service;
- b) that digital transmission systems which are not compatible with existing land mobile systems should also be considered, including the transmission of digitally encoded speech signals;
- c) that mobile telephone services, i.e. services for public correspondence via radio stations connected to the public switched telephone network (PSTN), are in operation in a number of countries and that their use is extending;
- d) that the various technical systems already in use or proposed for such services, are not necessarily compatible;
- e) that system compatibility is necessary in the case of international operation;
- f) that for international operation it is desirable to agree on the parameters of the system;
- g) the need to improve spectrum utilization efficiency and hence system capacity per MHz per unit area;
- h) the need for a flexible system structure able to match network investment to revenue growth, readily adapting to environmental factors and responding to new developments rather than restricting innovation;
- j) the increasing importance of the various types of data and telematic services,

noting

that Recommendation ITU-R M.1457 covers the IMT-2000 radio interfaces,

recommends

that for digital cellular land mobile telecommunication systems (DCLMTS) the following technical and operational characteristics should be used:

1 General objectives

The general objectives of DCLMTSs are to provide:

- systems with high spectrum utilization efficiency, thereby accommodating more users within the limited spectrum resource than existing analogue cellular public land mobile telecommunication systems (PLMTS);