

**Recommendation ITU-R M.2014-1**  
(09/2015)

# **Global circulation of IMT satellite terminals**

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

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

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

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## RECOMMENDATION ITU-R M.2014-1

**Global circulation of IMT satellite terminals**

(2012-2015)

**Scope**

The purpose of this Recommendation is to establish the technical basis for global circulation of IMT satellite terminals on the basis that these terminals are not causing harmful interference to other radio communication systems in any country where they circulate:

- by conforming to IMT-2000 and IMT-Advanced satellite radio-interface specifications; and
- by complying with unwanted emission limits for IMT-2000 and IMT-Advanced satellite radio interfaces.

**Keywords**

IMT, IMT-2000, IMT-Advanced, satellite terminals

**Abbreviations/Glossary**

GMPCS	Global mobile personal communications by satellite
IMT	International mobile telecommunication
ITA	Information technology agreement
MoU	Memorandum of understanding
WTO	World Trade Organization

**Related ITU Recommendations, Reports and Resolutions**

Recommendation ITU-R M.1224-1	Vocabulary of terms for International Mobile Telecommunications (IMT)
Recommendation ITU-R M.1343-1	Essential technical requirements of mobile earth stations for global non-geostationary mobile-satellite service systems in the bands 1-3 GHz
Recommendation ITU-R M.1480-0	Essential technical requirements of mobile earth stations of geostationary mobile-satellite systems that are implementing the global mobile personal communications by satellite (GMPCS) – Memorandum of understanding arrangements in parts of the frequency band 1-3 GHz
Recommendation ITU-R M.1645-0	Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000
Recommendation ITU-R M.1822-0	Framework for services supported by IMT
Recommendation ITU-R M.1850-2	Detailed specifications of the radio interfaces for the satellite component of International Mobile Telecommunications-2000 (IMT-2000)
Recommendation ITU-R M.2047-0	Detailed specifications of the satellite radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)
Resolution ITU-R 56-1	Naming for International Mobile Telecommunications
Resolution ITU-R 57-1	Principles for the process of development of IMT-Advanced

The ITU Radiocommunication Assembly,

*considering*

- a) that the term International Mobile Telecommunications (IMT) encompasses both IMT-2000 and IMT-Advanced collectively as defined in Resolution ITU-R 56;
- b) that global circulation of satellite terminals is the right of users to carry their personal terminals into a visited country, and the ability to use them wherever possible under the technical and operational conditions or regulations defined in the country;
- c) that a successful deployment of systems in the satellite component of IMT has to include the ability of users to carry their terminals when they go from one country to another and to use those terminals;
- d) that users may wish and need to carry their terminals, even where they cannot use the equipment;
- e) that such global circulation will bring obvious advantages for the users if they have the ability to use their terminals in any country where service is available;
- f) that IMT satellite terminals may embody different radio interfaces and may also incorporate a terrestrial mode;
- g) that some multimode terminals may include modes that are not an IMT family member;
- h) that one of the basic requirements of global circulation is that the terminal does not give rise to harmful interference to other radio communication systems in any country where it is brought;
- i) that one possible means of achieving the requirement mentioned above is that the terminal does not transmit before it has received a signal from the satellite network centre with which it can communicate (receive-before-transmit principle), but that there may be also other technical means of achieving the basic requirement,

*further considering*

- a) that the personal use of IMT satellite terminals by visitors may not require individual licence or any other form of individual formal regulatory procedure;
- b) that national administrations are expected to liaise with appropriate customs and other authorities in order to exempt IMT satellite terminals intended for personal use by visitors from all customs duties or other official charges;
- c) that national and regional authorities are invited to further study and cooperate where necessary in order to remove any obstacles hindering global circulation of IMT satellite terminals in all parts of the world,

*recognizing*

- a) that the World Customs Organization (WCO) has developed two international agreements which are applicable to IMT terminals in general, and consequently to IMT satellite terminals, in particular:
  - the Istanbul Convention, which binds countries to eliminating customs duties on personal effects and professional equipment carried by visitors;
  - the Professional Equipment Convention, which exempts from customs duties equipment used by professionals, e.g. journalists, doctors, relief workers, businessmen, etc.;

- b) that the Information Technology Agreement (ITA) of the World Trade Organization (WTO) aims at eliminating import duties on all information technology equipment including wireless terminals;
- c) that the global circulation and use of satellite terminals must be in conformity with the laws and regulations in the visited country, thereby generating the need for international cooperation between regulatory authorities;
- d) that global circulation will also be dependent on means, not included in this Recommendation, that may be introduced in order to ensure network integrity, interoperability and quality of service to end users;
- e) that there is a risk that administrative arrangements for circulation may lead to heavier regulation, which must be carefully avoided when developing arrangements for circulation, since the circulation arrangements must be aimed at simplifying existing regulation, not increasing it;
- f) that the process of placing equipment on the market may employ a marking on a national or regional basis;
- g) that IMT-2000 satellite terminals may carry the Global Mobile Personal Communications by Satellite Memorandum of Understanding (GMPCS MoU) mark to indicate compliance with the GMPCS MoU Arrangements, and that this mark may be also carried in multimode satellite-terrestrial IMT-2000 terminals,

*recommends*

**1** that, in order to establish the technical basis for global circulation of IMT satellite terminals, such terminals should fulfil the requirement of not causing harmful interference in any country where they circulate by satisfying one or more of the following conditions:

- conforming to IMT-2000 standards of satellite radio interfaces referred to in Recommendation ITU-R M.1850 – Detailed specifications of the radio interfaces for the satellite component of International Mobile Telecommunications-2000 (IMT-2000); and
- complying with unwanted emission limits according to either Recommendation ITU-R M.1343 – Essential technical requirements of mobile earth stations for global non-geostationary mobile-satellite service systems in the bands 1-3 GHz or Recommendation ITU-R M.1480 – Essential technical requirements of mobile earth stations of geostationary mobile-satellite systems that are implementing the Global Mobile Personal Communications by Satellite (GMPCS) – Memorandum of Understanding Arrangements in parts of the frequency band 1-3 GHz when operating as an IMT-2000 satellite terminal;
- conforming to IMT-Advanced standards referred to in Recommendation ITU-R M.2047 when operating as an IMT-Advanced satellite terminal;

**2** that satellite terminals should use the receive-before-transmit principle or, when available, other technical means of avoiding harmful interference;

**3** that in the event of a fault being detected that results in harmful interference, IMT satellite terminals are designed, where possible, to minimize this.

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