



Recommendation ITU-R F.1520-3
(04/2011)

**Radio-frequency arrangements for systems
in the fixed service operating
in the band 31.8-33.4 GHz**

F Series
Fixed service



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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.

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RECOMMENDATION ITU-R F.1520-3

Radio-frequency arrangements for systems in the fixed service operating in the band 31.8-33.4 GHz

(Questions ITU-R 247/5)

(2001-2002-2003-2011)

Scope

This Recommendation specifies radio-frequency channel arrangements for fixed service systems with channel separation of 3.5, 7, 14, 28, 56 and 112 MHz (including 56 MHz block arrangements) in the band 31.8-33.4 GHz which has been identified for use for high density applications in the fixed service (HDFS).

The ITU Radiocommunication Assembly,

considering

- a) that the band 31.8-33.4 GHz is allocated, among others, to the fixed service (FS) on a primary basis;
- b) that the 31.8-33.4 GHz band is available for high-density applications in the FS;
- c) that sharing in the 31.8-33.4 GHz band with radionavigation service (RNS), space research service (deep space, space-to-Earth) and inter-satellite service is considered to be feasible;
- d) that harmonized RF arrangements can facilitate effective use of the spectrum;
- e) that several systems with various transmission signal characteristics and capacities may be in simultaneous use in this frequency band;
- f) that certain frequency block arrangements can be achieved by aggregating the frequency channels given in Annex 1;
- g) that it may sometimes be desirable to interleave additional RF channels between those of the main pattern;
- h) that a high degree of compatibility between FS systems of different frequency arrangements can be achieved by selecting channel centre frequencies within a homogeneous basic pattern;
- j) that each region or country will have specific needs in how to use the band;
- k) that different block sizes may be required to suit various applications,

recognizing

- a) that some applications in this frequency band may require differing architectures (point-to-point and multipoint systems), channel bandwidths, and systems characteristics including the accommodation of symmetrical and asymmetrical traffic; and may require the use of frequency block-based arrangements that may or may not align with the channel arrangement in Annex 1;
- b) that, in accordance with the Radio Regulations (RR), administrations should take practical measures to minimize the potential interference between stations in the FS and airborne stations in the RNS in the 31.8-33.4 GHz band, taking into account the operational needs of the airborne radar systems,