

International Telecommunication Union

**ITU-R**  
Radiocommunication Sector of ITU

**Recommendation ITU-R BS.1892**  
(05/2011)

**Requirements for enhanced multimedia  
services for digital terrestrial broadcasting  
in VHF Bands I and II**

**BS Series**  
**Broadcasting service (sound)**

## 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.

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### 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>	<b>Broadcasting service (sound)</b>
<b>BT</b>	Broadcasting service (television)
<b>F</b>	Fixed service
<b>M</b>	Mobile, radiodetermination, amateur and related satellite services
<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 BS.1892

**Requirements for enhanced multimedia services for digital terrestrial broadcasting in VHF Bands I and II**

(Questions ITU-R 45-3/6, 56-1/6)

(2011)

**Scope**

This Recommendation provides service and implementation requirements for enhanced multimedia services using digital terrestrial broadcasting to vehicular, portable and fixed receivers in the VHF broadcasting band.

The ITU Radiocommunication Assembly,

*considering*

- a) that there is an increasing requirement worldwide for high-quality multichannel sound and multimedia broadcasting to vehicular, portable and fixed receivers;
- b) that narrowband radio-frequency channels in VHF Bands I and II can provide stable fixed and mobile reception under urban and rural conditions using vertical whip receiving antennas;
- c) that extensive sound broadcasting services exist throughout the world in these frequency bands;
- d) that compatibility with existing frequency arrangements used for analogue broadcasting is a useful condition for transition to digital broadcasting for both users and broadcasters;
- e) that due to progress in source coding, channel coding and modulation the use of digital broadcasting systems can increase the quality and reliability of fixed and mobile reception, provide better power efficiency and enhanced coverage, increase quantity and quality of sound programmes and allow the introduction of new services such as video and data transmission;
- f) that digital sound broadcasting will allow increased spectrum efficiency that could result in released spectrum to be used for other broadcasting purposes such as multimedia broadcasting;
- g) that basic features of multimedia and data applications broadcasting systems for mobile reception by handheld receivers are described in Recommendation ITU-R BT.1833,

*recommends*

that digital terrestrial broadcasting systems with enhanced multimedia services in VHF Bands I and II, intended for vehicular, portable and fixed receivers, should have the following technical and operational characteristics and capabilities; they should:

- 1** comply with requirements of Recommendation ITU-R BS.774, describing service requirements for digital terrestrial sound broadcasting to vehicular, portable and fixed receivers in VHF/UHF bands;
- 2** provide high quality multi-programme sound broadcasting including both stereo and multichannel sound;
- 3** provide multimedia data broadcasting (video with different resolutions, audio and additional data) that can be both related and unrelated to sound programmes;

- 4 provide flexible configuration of various services (high- or low-rate video, sound with different quality levels, supplementary data, etc.);
- 5 provide fast tuning and fast recovery from reception interruption under mobile conditions;
- 6 optionally use radio-frequency channels which are compatible with existing frequency channelling arrangements for analogue broadcasting;
- 7 provide optional support for single frequency networks;
- 8 minimize the level of interference to other radiocommunication services in specified and neighbouring frequency bands.

NOTE 1 – During the transition period from analogue to digital broadcasting, there may be a need for combined analogue/digital receiving capability to provide the user with both analogue and digital broadcasting services.

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