

International Telecommunication Union

**ITU-R**  
Radiocommunication Sector of ITU

**Recommendation ITU-R BT.1870**  
(03/2010)

**Video coding for digital television  
broadcasting emission**

**BT Series**  
**Broadcasting service**  
**(television)**



## 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>	<b>Broadcasting service (television)</b>
<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.*

Electronic Publication  
Geneva, 2010

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## RECOMMENDATION ITU-R BT.1870

**Video coding for digital television broadcasting emission**

(Question ITU-R 12/6)

(1995-1997-2010)

**Scope**

This Recommendation specifies video coding standards to be used for digital broadcasting emission.

The ITU Radiocommunication Assembly,

*considering*

- a) that the transition from analogue to digital broadcasting is ongoing around the world;
- b) that it is desirable to have maximum commonality between digital systems for different emission and secondary distribution media (e.g. to the home receivers);
- c) that Recommendation ITU-R BT.1203 provides user requirements for video bit-rate reduction coding of digital TV signals for an end-to-end television system and emphasizes the implementation of the video coding standards specified in ITU-T Recommendation H.262 or ISO/IEC 13818-2 (MPEG-2 Video) and ITU-T Recommendation H.264 or ISO/IEC 14496-10 (MPEG-4 AVC);
- d) that Recommendation ITU-R BT.1737 specifies the use of the video source-coding method as per ITU-T Recommendation H.264 or ISO/IEC 14496-10 for the transport of HDTV programme material for a variety of broadcasting applications,

*recommends*

- 1 that digital television broadcasting emission systems should use the video-coding standards described in ITU-T Recommendation H.262 (also known as ISO/IEC 13818-2 (MPEG-2 Video)) and ITU-T Recommendation H.264 (also known as ISO/IEC 14496-10 (MPEG-4 AVC));
- 2 that the video-coding standard of ITU-T Recommendation H.264 should be preferred for new implementations of digital television broadcasting emission systems;
- 3 that Recommendation ITU-R BT.1203 should be duly considered in selecting the tools and parameters of the video coding standards,

*and further recommends*

- 1 that when new video coding standards are produced by the international standardization bodies, they should be considered for possible introduction in digital television broadcasting emission systems by conducting tests and analyses of performance and functionality.
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