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| **Recommendation ITU-R BT.1870-1**  **(02/2015)** |
| **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.

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| 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 |

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| ***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 BT.1870-1

Video coding for digital television broadcasting emission

(Question ITU‑R 12/6)

(1995-1997-2010-2015)

Scope

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

Keywords

Video bit rate reduction, video source coding

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;

*d)* that Recommendation ITU‑R BT.1737 specifies the use of the video source-coding method as per Recommendation ITU‑T H.264 | ISO/IEC 14496-10 for the transport of HDTV programme material for a variety of broadcasting applications;

*e)* that Recommendation ITU-R BT.2073 specifies the use of a video source-coding method as per Recommendation ITU‑T H.265 | ISO/IEC 23008-2 for the transport of UHDTV and HDTV programme material in broadcasting,

recommends

**1** that digital television broadcasting emission systems should make use of one of the video-coding standards described in Recommendation ITU‑T H.262 | ISO/IEC 13818‑2 (MPEG‑2 Video), Recommendation ITU-T H.264 | ISO/IEC 14496‑10 (MPEG‑4 AVC), and Recommendation ITU-T H.265 | ISO/IEC 23008-2 (MPEG-H HEVC);

**2** that the video-coding standard of Recommendation ITU‑T H.265 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

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