

International Telecommunication Union

ITU-R
Radiocommunication Sector of ITU

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

**Video coding for digital television
broadcasting emission**

BT Series
Broadcasting service
(television)

150 
1865-2015

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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.

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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

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

Electronic Publication
Geneva, 2015

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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 UHD TV 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.
