

International Telecommunication Union

ITU-R
Radiocommunication Sector of ITU

Recommendation ITU-R BT.1895
(05/2011)

**Protection criteria for terrestrial
broadcasting systems**

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
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 BT.1895*

Protection criteria for terrestrial broadcasting systems

(2011)

Scope

This Recommendation provides guidelines to ensure that radiocommunication services and other sources of radio-frequency emissions do not degrade the performance of terrestrial broadcasting systems beyond acceptable levels.

Taking these guidelines into account, compatibility studies may need to be conducted when necessary.

Radiation below 30 MHz from “Power line high data rate telecommunication systems” is covered in Recommendation ITU-R SM.1879.

The ITU Radiocommunication Assembly,

considering

- a) that Article 5 of the Radio Regulations (RR) allocates certain frequency bands to the terrestrial broadcasting service on a primary basis;
- b) that the terrestrial broadcasting service is initially planned on a noise-limited basis, taking into account intrinsic receiver noise and external radio noise;
- c) that broadcasting services may also be planned on an interference-limited basis;
- d) that Recommendation ITU-R P.372 describes levels of external radio noise;
- e) that Recommendation ITU-R SM.1757 and Report ITU-R SM.2057 provide guidance on the protection requirements for the various radiocommunication services in respect of the aggregate emissions from devices using ultra-wideband technology;
- f) that Recommendation ITU-R SM.1879 provides guidance on the protection criteria of radiocommunication services in respect of the aggregate radiation from power line telecommunication systems in the bands below 30 MHz;
- g) that protection criteria for some intra-service broadcasting applications have been specified in some ITU-R Recommendations (for example Recommendation ITU-R BT.1368) and regional agreements,

recognizing

- a) the obligations incumbent on administrations through Articles 42 and 45 of the ITU Constitution (Nos CS 193, CS 197, CS 198 and CS 199) to ensure the continued availability of the RF spectrum and guard against harmful interference,

* Following the approval of this Recommendation by Radiocommunication Study Group 6, Recommendations ITU-R BS/ITU-R BT.1786 should be suppressed.

noting

a) that in the specific instance of emissions from power line high data rate telecommunication systems (PLT systems) in the bands below 30 MHz the provisions of Recommendation ITU-R SM.1879 apply,

recommends

1 that the values in *recommends* 2 and 3 be used as guidelines, above which compatibility studies on the effect of radiations and emissions from other applications and services into the broadcasting service should be undertaken;

2 that the total interference at the receiver from all radiations and emissions without a corresponding frequency allocation in the Radio Regulations should not exceed 1% of the total receiving system noise power¹;

3 that the total interference at the receiver arising from all sources of radio-frequency emissions from radiocommunication services with a corresponding co-primary frequency allocation should not exceed 10% of the total receiving system noise power.

¹ Except radiation from PLT devices below 30 MHz.