



Recommendation ITU-R BT.1728-1
(03/2010)

**Guidance on the use of flat panel displays in
television production and postproduction**

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.1728-1

Guidance on the use of flat panel displays in television production and postproduction

(Question ITU-R 95/6)

(2005-2010)

Scope

This Recommendation provides updated guidelines on the use of flat panel displays in the professional television programme production/postproduction environment.

The ITU Radiocommunication Assembly,

considering

- a) that flat panel displays are now being used for reasons of availability in television broadcasting, for various applications, including professional programme production/postproduction ones;
- b) that flat panel displays may be used with advantage in television programme production/postproduction operation, e.g. in outside broadcast vans and in studios, where they can display large images within a package of reduced bulk and weight;
- c) that at the present stage of technology development, flat panel displays present images whose rendition depends on the type of technology used in the flat panel, and often also depends on the display brand and model, even for displays that use the same flat panel technology;
- d) that flat panel displays are often adjusted to present images at a higher colour temperature than the standardized one, so that images typically appear “colder”;
- e) that flat panel displays typically use some pre-processing that can lead to images being displayed with spatial or temporal artifacts;
- f) that the image rendition of some flat panel displays depends on the angle under which the display is viewed;
- g) that the technology of flat panel displays is developing at a fast pace, and one may expect some performance improvements in future flat panel displays,

recommends

- 1 that the arbitrary use of any make or model of flat panel display should be avoided in television programme production/postproduction applications, notably in those applications in which a reliably correct and uniform image rendition is required, such as in control rooms and viewing rooms, where television images are balanced and matched and where programme quality is checked and certified;
- 2 that in television production rooms and control rooms, image quality should be monitored on a professional cathode-ray-tube (CRT) studio monitor, if available, or on a professional flat panel display of a brand and model which has been checked in advance to reasonably match the performance of a CRT studio monitor;

3 that, whenever flat panel displays are considered for possible use in other television programme production/postproduction applications, their performance should first be tested to be adequate for the envisaged application.
