

RECOMMENDATION ITU-R BT.1728

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

(Question ITU-R 95/6)

(2005)

Scope

This Recommendation provides guidelines on the use of flat panel displays in professional environments.

The ITU Radiocommunication Assembly,

considering

- a) that flat panel displays are gradually being introduced in the television broadcast market, including for some professional broadcast applications;
- b) that some television operators may be considering the introduction of flat panel displays in their television programme production/postproduction operation, e.g. in outside broadcast vans and in studios, since they can provide 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 make and model, even for displays that use the same flat panel technology;
- d) that flat panel displays are often designed to present images at a much higher colour temperature than the standardized one, so that images typically appear “colder”;
- e) that flat panel displays often present images with spatial or temporal artifacts due to imperfect processing or re-scaling of the input image to match the native image characteristics of the display;
- f) that some flat panel displays present images whose brightness, contrast and colour generally depends on the angle under which the display is viewed;
- g) that current flat panel plasma displays can suffer from “burn in” not unlike early cathode ray tube (CRT) devices, and that their reported life is shorter than that of CRTs;
- h) 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 indiscriminate use of flat panel displays 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 CRT studio monitor, although it may be useful to also use a flat panel display in addition to the CRT studio monitor, in order to check the impact that specific moving pictures, e.g. scrolling titles, may have on the image displayed on flat panel receivers in the hands of the audience;

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