QUESTION ITU-R 142/6

High dynamic range television systems for broadcasting

(2015)

The ITU Radiocommunication Assembly,

considering

*a)* that television broadcasting systems for SDTV, HDTV, and UHDTV have been specified by the ITU-R in Recommendations ITU-R BT.601, BT.709 and BT.2020;

*b)* that modern television displays are capable of reproducing images at a higher luminance, and with a greater contrast ratio and wider colour gamut (WCG) than is employed in conventional programme production;

*c)* that although UHDTV offers higher spatial resolution, wider colour gamut, and the option of a higher frame rate, it remains limited in the image dynamic range in a similar way to HDTV and SDTV;

*d)* that high dynamic range television (HDR-TV) systems are intended to be capable of reproducing images at a significantly higher luminance and greater contrast ratio;

*e)* that HDR-TV has been shown to increase viewer enjoyment of television pictures;

*f)* that many television programmes will continue to be produced, exchanged, and viewed in the standard image dynamic range of SDTV, HDTV and UHDTV;

*g)* that it is desirable that an HDR-TV system should have, where appropriate, a degree of compatibility with existing workflows and broadcaster infrastructure,

decides that the following questions should be studied

1 what are the appropriate parameter values for HDR-TV systems for production and international programme exchange?

2 which methods for production and formatting for delivery to consumers would enable degrees of compatibility with viewing on most television sets currently used in the homes of television audiences?

3 what range of viewing conditions should be assumed, for consumer viewing of HDR-TV programmes?

4 what scientifically assessed relationship exists, in home viewing environments, between the amount of image dynamic range extension and the consumer viewing appreciation?

5 which operational practices should be recommended in order that the television home audience does not perceive annoying jumps in the television image appearance at transitions from HDR-TV programmes and standard dynamic range television programmes or back?

6 what is the envisaged future migration path from current television services to future HDR‑TV services?

7 which methods should be used for the subjective assessment of HDR-TV picture quality?

further decides

1 that the results of the above studies should be included in one or more Recommendations or Reports;

2 that the above studies should be completed by 2017.

Category: S1