



# Guidelines accompanying

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2011

Commission Regulation (EU)  
No 642/2009 of 22 July 2009  
implementing Directive 2009/125/EC  
of the European Parliament and  
of the Council with regard to **ecodesign  
requirements for televisions**



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## 1. Purpose of the guidelines and Disclaimer

These guidelines were prepared with a view to Article 13 (2) of Directive 2009/125/EC<sup>1</sup> to facilitate application of Commission Regulation (EC) No 642/2009<sup>2</sup> implementing that Directive with regard to ecodesign requirements for televisions (in the following "the Regulation"), in particular for SMEs. The guidelines provide explanations on questions frequently raised by television manufacturers. They have been drawn up by European Commission staff and discussed with EU Member State and stakeholder experts.

The guidelines are intended only for facilitating the application of the Regulation and do not provide any "interpretation" of its content. It is the text of the Regulation which is legally binding and which is directly applicable in the EU Member States.

## 2. Scope

*Question: Are products with SDI and/or DVI and additional standardised video signal paths included in the scope of the regulation considered to be a "television monitor"?*

Answer: No, products which provide SDI and/or DVI connectors are not considered to be "television monitors" and therefore not in the scope of the regulation, irrespective of any other signal connectors which are also fitted to the product.

*Explanation:*

*Products which provide SDI are designed for professional use such as studio monitors, security monitors or medical monitors. Such professional monitors are produced and sold in small quantities (less than 20.000 units/year) for the dedicated purpose of serving the signal quality expected via a SDI signal path by an SDI module, which typically costs up to 2000€ /per unit. They are usually fixed installed and adjusted with the necessary hardware features for specialized functions. An SDI connector circuit if fitted to a product is used as the "main" signal path, while other signal paths such as HDMI are supplementary to the intended use.*

*Monitors designed with DVI are specifically designed for connection to PCs and/or professional equipment.*

*Question: Are products with integrated screen that are designed to be operated mainly by batteries in the scope of this regulation?*

Answer: No, such products are not in the scope of this regulation.

## 3. Forced menu

*Question: Are setup-menu options that are not related to picture settings covered by the "forced menu" concept?*

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<sup>1</sup> OJ L 285, 31.10.2009, p. 10.

<sup>2</sup> OJ L 339, 18.12.2008, p. 45.

Answer: Article 2, definitions, point 10 states that ‘forced menu’ means a set of television settings pre-defined by the manufacturer, of which the user of the television must select a particular setting upon initial start-up of the television.

If a television offers a choice of non-picture related settings, e.g. language or country, on initial activation, then such settings are not regarded as ‘forced menu’, as these settings have no influence on the energy consumption of the TV.

If the television does not provide a forced menu (for example containing “home” and “shop” modes), then the picture settings of the television as delivered by the manufacturer shall be used for power consumption measurements.

#### **4. Brightest on-mode condition**

*Question: What is meant by "brightest on-mode condition provided by the television"?*

Answer: The "brightest on-mode condition" is the product’s maximum luminance that can be provided by the television when "manually" adjusting the relevant picture settings while maintaining optimum picture contrast as tested using relevant grey-scale test patterns.

In case that a preset mode (for example, “shop” mode) is identified as the brightest on-mode condition provided by the television, manufacturers shall ensure that no further upward modification of the luminance through manual adjustment is possible by the user.

Further to the third indent of point 5(b) of Annex I, the sequence of steps for achieving a stable condition providing the brightest on-mode condition applied for conformity assessment has to be included in the technical documentation.

#### **5. Peak luminance ratio**

*Question: What are examples of appropriate test patterns for establishing the peak luminance ratio?*

Answer: Annex II, 3(a) requires that “Measurements shall be made using a reliable, accurate and reproducible measurement procedure”, where Annex II, 3(b) demands "a full (100 %) white image, which is part of a ‘full screen test’ test pattern that does not exceed the average picture level (APL) point where any power limiting occurs in the display luminance drive system".

In order to deliver reliable, accurate, and reproducible measurements of peak luminance ratio, manufacturers have to choose an appropriate test pattern that meets the applicable requirements. The test pattern chosen should not introduce power limiting and should not introduce any other display power drive irregularity that distorts a linear power to luminance characteristic at the home mode.

Depending on the display technology, examples of such test patterns are:

- The "three vertical bar" test pattern set out in IEC 60107-1, Clause 3.2.1.3, if appropriate for the display technology to satisfy the requirements set out in point 3(b) of Annex II.
- The VESA A 100 metrology, Section A112-2 H (L05-L90) “Targets for manifesting loading (change in luminance with size of white area)", if appropriate for the display technology to satisfy the requirements set out in point 3(b) of Annex II.

Further to the third indent of point 5(b) of Annex I, the sequence of steps for achieving a stable condition providing the test pattern applied for conformity assessment has to be included in the technical documentation.

## **6. Hazardous substances**

*Question: How should the content of mercury be determined?*

Answer: If applicable, the mercury content should be the "typical" mercury content, that is, the typical mercury contained in a single lamp multiplied by the number of mercury-containing lamps in the TV. This approach is consistent with Commission Decision 2009/300/EC of 12 March establishing the revised ecological criteria for the award of the Community ecolabel for televisions<sup>3</sup>.

The preparation of measurement samples is described in IEC 62321-4 Ed. 1.0: Determination of certain substances in electrotechnical products – Part 4: Determination of mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES AN, ICP-MS, while the preparation of measurement samples of fluorescent lamps is described in IEC 62554: Sample preparation for measurement of mercury level in fluorescent lamps.

*Question: How should "the presence of lead" be declared?*

Answer: If applicable, the information requirement related to the presence of lead can be provided by using the following statement:

“This television contains lead in certain parts or components where no technology alternatives exist in accordance with existing exemption clauses under the RoHS Directive.”

## **7. Legislation conflict**

*Does regulation EC/642/2009 replace any requirement coming from other legal rules or standards?*

Answer: No, the requirements originating from Commission Regulation (EC) No 642/2009 have to be met in addition to further relevant legal requirements, e.g. originating from Directive 2006/95/EC on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (OJ L 374, 27.12.2006, p. 10). As an example, the marking of maximum rated power consumption cannot be replaced by marking the television with the average energy consumption.

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<sup>3</sup> OJ L 82, 28.3.2009, p. 3.