

SCHEDULES

SCHEDULE 21

Regulation 42

Verification procedure for market surveillance purposes – electronic displays

Interpretation

1. In this Schedule “determined values” means the values of the relevant parameters as measured by the market surveillance authority in testing and the values calculated from these measurements.

Verification procedure – general

2. The market surveillance authority must apply the procedure set out in the following paragraphs when verifying the compliance of a product with these Regulations, using the measurement methods provided for in Schedule 20.

3. The market surveillance authority must initially test one single unit of the model of the product to be verified.

4. Subject to paragraph 15, the model conforms to these Regulations if all the following conditions, together with the further provisions of this Schedule where applicable, are satisfied in respect of the tested unit—

- (a) the declared values and, where applicable, the values used to calculate the declared values, are not more favourable for the manufacturer, importer, or authorised representative than the corresponding measurements carried out pursuant to paragraph 1(2)(b)(vii) or 5(2)(d) of Schedule 1A to the 2010 Regulations;
- (b) the declared values comply with the requirements of Schedule 19;
- (c) any product information published by the manufacturer, importer, or authorised representative does not contain values more favourable for the manufacturer, importer, or authorised representative than the declared values;
- (d) the determined values meet the verification tolerances in Table 33.
- (e) the unit complies with the functional, repair, dismantling and information requirements in paragraphs 3(1) and 4 to 18 of Schedule 19.

5. Where a model has been designed to be able to detect it is being tested (for example by recognising test conditions or test cycles), and to react specifically by automatically altering its performance during the test with the objective of reaching a more favourable level for any of the parameters specified in these Regulations or included in the technical documentation or included in any of the documentation provided, the model and all equivalent models do not conform to these Regulations.

Verification procedure for requirements of paragraph 3 of Schedule 19

6. The model conforms to paragraph 3(2) of Schedule 19 (displays with automatic brightness control) where—

- (a) the ABC of the product is enabled by default and persists in all SDR (standard dynamic range) modes, except in the shop configuration;

- (b) the measured on mode power of the product decreases by 20 per cent or more when the ambient light condition measured at the ABC sensor is reduced from 100 lux to 12 lux; and
- (c) the ABC control of display screen luminance meets the requirements of paragraph 3(2)(e) of that Schedule.

Verification procedure for requirements of paragraph 4 of Schedule 19

7. The model conforms to paragraph 4 of Schedule 19 (forced menu and setup menus) where—
- (a) the normal configuration is provided as the default choice on initial activation of the electronic display; and
 - (b) if the user selects a mode other than normal configuration, a second selection process is prompted to confirm the choice.

Verification procedure for requirements of paragraph 5 of Schedule 19

8. The model conforms to paragraph 5 of Schedule 19 (peak white luminance ratio) where the determined value of the peak white luminance or, if applicable, the peak white luminance ratio, meets the value required by that paragraph.

Verification procedure for requirements of paragraph 6 of Schedule 19

9. The model conforms to paragraph 6(2) of Schedule 19 (power demand limits other than on-mode) where, when connected to the power source—
- (a) the off mode and/or standby mode and/or another mode which does not exceed the applicable power demand requirements for off mode and/or standby mode, is set as default;
 - (b) if the unit provides networked standby mode with HiNA, the unit does not exceed the applicable power demand requirements for HiNA when networked standby is enabled; and
 - (c) if the unit provides networked standby mode without HiNA, the unit does not exceed the applicable power demand requirements without HiNA when networked standby is enabled.

Verification procedure for requirements of paragraph 7 of Schedule 19

10. The model conforms to paragraph 7 of Schedule 19 (availability of off, standby and networked standby modes) where—
- (a) it provides—
 - (i) off mode;
 - (ii) standby mode; or
 - (iii) another mode which does not exceed the applicable power demand requirements respectively for standby or networked standby mode;when the electronic display is connected to the power source;
 - (b) the activation of the network availability requires the end-user's intervention;
 - (c) the network availability can be disabled by the end-user; and
 - (d) it complies with the requirements for standby mode when networked standby mode is not enabled.

Verification procedure for requirements of paragraph 8 of Schedule 19

11.—(1) The model conforms to paragraph 8 of Schedule 19 (automatic power-down in televisions) where—

- (a) within 4 hours in on mode following the last user interaction, the television automatically powers down from on mode to—
 - (i) standby mode;
 - (ii) off mode;
 - (iii) networked standby mode, if enabled; or
 - (iv) another mode which does not exceed the applicable power demand requirements for standby mode;
- (b) the power-down function referred to in paragraph (a) is set as default;
- (c) in on mode, the television shows an alert message before automatically powering down from on mode to the applicable mode;
- (d) if the television provides a function allowing the user to modify the 4-hour period for automatic mode power-downs referred to in paragraph (a)—
 - (i) a warning message is prompted about a potential increase in energy use; and
 - (ii) a confirmation of the new setting is requested when an extension beyond the 4-hour period or disabling is selected;
- (e) if the television is equipped with a room presence sensor, the automatic power-down from on mode into any mode referred to in paragraph (a) applies if no presence is detected for no more than 1 hour; and
- (f) in televisions with various selectable input sources, the power management protocols of the signal source selected is prioritised over the default power management mechanisms referred to in paragraph (a).

(2) For the purposes of sub-paragraph (1)(a), the market surveillance authority must use the applicable procedure to measure the power demand after the automatic power-down functionality switches the television into the applicable power mode.

Verification procedure for requirements of paragraph 9 of Schedule 19

12. The model conforms to paragraph 9 of Schedule 19 (automatic power-down in displays other than televisions) where—

- (a) the model is tested for—
 - (i) each end user selectable signal input interface type which has specified that it can carry power management control signals or data; or
 - (ii) if there are two or more identical signal interfaces not labelled for a specific host product type, one of these signal interfaces is selected at random for testing;
- (b) if there are labelled or menu designated signal interfaces (such as a computer, set top box or analogous) the appropriate host signal source device is connected to the designated signal interface for the test; and
- (c) no signal by any input source is detected and the model switches into standby mode, off mode or networked standby mode.

Verification procedure for requirements of paragraphs 10 to 18 of Schedule 19

13. The model conforms to paragraphs 10 to 18 of Schedule 19 (material efficiency requirements and software and firmware update availability requirements) where, when the market surveillance authority tests the model, it meets the applicable requirements.

14. Paragraph 14 of Schedule 19 (halogenated flame retardants) must be considered to be complied with if—

- (a) the determined value for halogen flame retardants (HFRs) identified in the Restriction of the Use of Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 does not exceed the relevant maximum concentration values defined in Schedule A1 to those Regulations⁽¹⁾; and
- (b) in the case of other HFRs, the determined value for any homogenous material does not exceed 0.1 per cent by weight of halogen content. Where the determined value for any homogenous material exceeds 0.1 per cent by weight of halogen content, the model may still be considered compliant where documentary checks or any other appropriate, reproducible methods show that the halogen content is not attributable to flame retardant.

Procedure if requirements are not achieved

15.—(1) If a unit/model complies with the conditions of paragraph 4 except sub-paragraph (d) or (e), or both—

- (a) where the conditions which are not met include requirements that do not involve measured values, the model and all equivalent models do not conform to these Regulations;
- (b) where the conditions which are not met relate to requirements that involve measured values, the market surveillance authority must test three additional units of the model to be verified, or three units of equivalent models.

(2) A model subject to additional testing under this paragraph is deemed to comply with the relevant condition if the arithmetical mean of the determined values for the three additional units meets the verification tolerances set out in Table 33 below.

(3) If a model fails to meet the test set out in sub-paragraph (2), the model and all equivalent models do not conform to these Regulations.

Verification tolerances

16.—(1) The verification tolerances set out in Table 33 must be used only by the market surveillance authority and only for the purposes of this Schedule.

(2) The manufacturer, authorised representative or importer of a product must not use the verification tolerances—

- (a) as allowed tolerances to establish the declared values;
- (b) in order to interpret the declared values with a view to achieving compliance; or
- (c) to communicate better performance.

(3) Where three additional units are tested in accordance with paragraph 15, the determined value for the purposes of Table 33 means the arithmetic mean of the values determined for those three additional units.

(1) [SI 2012/2032](#); Schedule A1 was inserted by [S.I. 2020/1647](#).

Table 33**Verification tolerances**

<i>Parameter</i>	<i>Verification tolerances</i>
On mode power demand, ($P_{measured}$, Watts) excluding allowances and adjustments in paragraphs 3 to 5 of Schedule 19, for the purposes of the EEI calculation in paragraph 2 of that Schedule	The determined value must not exceed the declared value by more than 7 per cent.
Off mode, standby mode and networked standby mode power demand (Watts), as applicable	The determined value must not exceed the declared value by more than 0.10 Watt if the declared value is 1.00 W or less, or by more than 10 per cent if the declared value is more than 1.00 W
Peak white luminance ratio	Where applicable, the determined value must not be lower than 60 per cent of the peak white luminance of the brightest on mode configuration provided by the electronic display
Peak white luminance (cd/m^2)	The determined value must not be lower than the declared value by more than 8 per cent
Visible screen diagonal in centimetres	The determined value must not be lower than the declared value by more than 1 cm
Screen area in dm^2	The determined value must not be lower than the declared value by more than 0.1 dm^2
Timed functions as set out in paragraphs 8 and 9 of Schedule 19	The power down or switch must be completed within 5 seconds of the set out values
Weight of plastic components as specified in paragraph 12 of Schedule 19	The determined value must not be different from the declared value by more than 5 grams