EUROPEAN
COMMISSION

Brussels, 11.3.2019
C(2019) 1796 final

ANNEXES 1 to 9

ANNEXES

to the

Commission Delegated Regulation (EU) .../...

supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of electronic displays

and repealing Commission Delegated Regulation (EU) No 1062/2010

ANNEX I

Definitions for the purposes of the Annexes

The following definitions shall apply:

(1) *'energy efficiency index' (EEI)* means an index number for the relative energy efficiency of an electronic display, as set out in point B of Annex II;

(2) *'High Dynamic Range (HDR)'* means a method to increase the contrast ratio of the image of an electronic display by using metadata generated during the creation of the video material and that the display management circuitry interprets to produce a contrast ratio and colour rendering perceived by the human eye as more realistic than that achieved by non HDR-compatible displays;

(3) *'contrast ratio'* means the difference between the peak brightness and black level in an image;

(4) '*luminance*' means the photometric measure of the luminous intensity per unit area of light traveling in a given direction, expressed in units of candelas per square meter (cd/m^2). The term brightness is often used to "subjectively" qualify the luminance of an electronic display;

(5) *'Automatic Brightness Control (ABC)*' means the automatic mechanism that, when enabled, controls the brightness of an electronic display as a function of the ambient light level illuminating the front of the display;

(6) '*default*', referring to a specific feature or setting, means the value of a specific feature as set at the factory and available when the customer uses the product for the first time and after performing a "reset to factory settings" action, if allowed by the product;

(7) '*pixel (picture element)'* means the area of the smallest element of a picture that can be distinguished from its neighbouring elements;

(8) '*on mode*' or '*active mode*' means a condition in which the electronic display is connected to a power source, has been activated and is providing one or more of its display functions;

(9) '*forced menu'* means a specific menu, appearing upon initial start-up of the electronic display or upon a reset to factory settings, offering a set of display settings, pre-defined by the supplier;

(10) *'normal configuration*' means a display setting which is recommended to the end-user by the supplier from the initial set up menu or the factory setting that the electronic display has for the intended product use. It must deliver the optimal quality for the end user in the intended environment and for the intended use. The normal configuration is the condition in which the values for off, standby, networked standby and on mode are measured;

(11) '*brightest on mode configuration*' means the configuration of the electronic display, pre-set by the supplier, which provides an acceptable picture with the highest measured luminance;

(12) '*shop configuration*' means the configuration of the electronic display for use specifically in the context of demonstrating the electronic display, for example in high illumination (retail) conditions and not involving an auto power-off if no user action or presence is detected;

(13) *'room presence sensor'* or *'gesture detection sensor' or 'occupancy sensor'* means a sensor monitoring and reacting to movements in the space around the product whose signal can trigger the switching to on mode. Lack of movement detection for a predetermined time can be used to switch into standby mode or networked standby mode;

(14) *'off mode'* means a condition in which the electronic display is connected to the mains power source and is not providing any function: the following shall also be considered as off mode:

(1) conditions providing only an indication of off mode condition;

(2) conditions providing only functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2014/30/EU of the European Parliament and of the Council[1];

(15) '*standby mode'* means a condition where the electronic display is connected to the mains or DC power source, depends on energy input from that source to work as intended and provides only the following functions, which may persist for an indefinite time:

– reactivation function, or reactivation function and only an indication of enabled reactivation function; and/or

– information or status display;

(16) '*reactivation function'* means a function that via a remote switch, a remote control unit, an internal sensor, a timer or, for networked displays in networked standby mode, the network, provides a switch from standby mode or networked standby mode to a mode, other than off-mode, providing additional functions;

(17) *'display mechanism'* means any screen, including tactile screen or other visual technology used for displaying internet content to users;

(18) *'nested display'* means visual interface where an image or data set is accessed by a mouse click, mouse roll-over or tactile screen expansion of another image or data set;

(19) *'tactile screen'* means a screen responding to touch, such as that of a tablet computer, slate computer or a smartphone;

(20) *'alternative text'* means text provided as an alternative to a graphic allowing information to be presented in non-graphical form where display devices cannot render the graphic or as an aid to accessibility such as input to voice synthesis applications;

(21) *'External Power Supply (EPS)'* means a device as defined in Commission Regulation (EU) 2019/XXX[2] *[OP – please insert the number of the Regulation C(2019)2126]*;

(22) '*standardised EPS'* means an external power supply designed to provide power to various devices and that is complies with a standard issued by an international standardization organization;

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[1] Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility. OJ L 96, 29.3.2014, p. 79.

[2] Commission Regulation (EU) 2019/XXX *[OP please enter the full OJ-L reference to the Regulation C(2019)2126]*).

(23) *'Quick Response (QR) code'* means a matrix barcode included on the energy label of a product model that links to that model's information in the public part of the product database;

(24) *'network'* means a communication infrastructure with a topology of links and an architecture that includes the physical components, organisational principles and communication procedures and formats (protocols);

(25) '*network interface*' (or '*network port*') means a wired or wireless physical interface, providing network connection, through which functions of the electronic display can be remotely activated and data received or sent. Interfaces to input data such as video and audio signals, but not originating from a network source and using a network address, are not considered to be a network interface;

(26) *'network availability'* means the capability of an electronic display to activate functions after a remotely initiated trigger has been detected by a network interface;

(27) *'networked display'* means an electronic display that can connect to a network using one of its network interfaces, if enabled;

(28) '*networked standby mode'* means a condition in which the electronic display is able to resume a function by way of a remotely initiated trigger from a network interface.

ANNEX II

A. Energy efficiency classes

The energy efficiency class of an electronic display shall be determined on the basis of its energy efficiency index for labelling (EEI_{label}) as set out in Table 1. The EEI_{label} of an electronic display shall be determined in accordance with part B of this Annex.

Table 1: Energy efficiency classes of electronic displays

Energy Efficiency Class	Energy Efficiency Index (EEI_{label})
A	$EEI_{label} < 0{,}30$
B	$0{,}30 \leq EEI_{label} < 0{,}40$
C	$0{,}40 \leq EEI_{label} < 0{,}50$
D	$0{,}50 \leq EEI_{label} < 0{,}60$
E	$0{,}60 \leq EEI_{label} < 0{,}75$
F	$0{,}75 \leq EEI_{label} < 0{,}90$
G	$0{,}90 \leq EEI_{label}$

B. Energy Efficiency Index (EEI_{label})

The Energy Efficiency Index (EEI_{label}) of the electronic display shall be calculated using the following equation:

$$EEI_{label} = \frac{(P_{measured} + 1)}{(3 \times [90 \times tanh(0{,}025 + 0{,}0035 \times (A - 11)) + 4] + 3) + corr_l}$$

where:

A represents the viewing surface area in dm²;

$P_{measured}$ is the measured power in on mode in Watts in the normal configuration and set as indicated in Table 2;

$corr_l$ is a correction factor set as indicated in Table 3.

Table 2: Measurement of $P_{measured}$

Dynamic Range level	$P_{measured}$
Standard Dynamic Range (SDR): $Pmeasured_{SDR}$	Power demand in Watts (W) in on mode, measured when displaying standardised test sequences of moving picture from dynamic broadcast content. Where allowances are applicable according to part C of this Annex, they should be deducted from $P_{measured}$.
High Dynamic Range (HDR)	Power demand in Watts (W) in on mode, measured as for $Pmeasured_{SDR}$ but with the

$Pmeasured_{HDR}$	HDR functionality activated by metadata in the standardised HDR test sequences. Where allowances are applicable according to part C of this Annex, they should be deducted from $P_{measured}$.

Table 3: $corr_I$ value

Electronic Display type	**$corr_I$ value**
Television	0,0
Monitor	0,0
Digital signage	0,00062*(lum-500)*A *where "lum" is the peak white luminance, in cd/m², of the brightest* on mode *configuration of the electronic display and A is the screen area in dm²*

C. Allowances and adjustments for the purpose of the EEI_{label} calculation

Electronic displays with automatic brightness control (ABC) shall qualify for a 10 % reduction in $P_{measured}$ if they meet all of the following requirements:

(a) ABC is enabled in the normal configuration of the electronic display and persists in any other standard dynamic range configuration available to the end user;

(b) the value of $P_{measured}$, in the normal configuration, is measured, with ABC disabled or if ABC cannot be disabled, in an ambient light condition of 100 lux measured at the ABC sensor;

(c) if applicable, the value of $P_{measured}$ with ABC disabled shall be equal to or greater than the on mode power measured with ABC enabled in an ambient light condition of 100 lux measured at the ABC sensor;

(d) with ABC enabled, the measured value of the on mode power must decrease by 20 % or more when the ambient light condition, measured at the ABC sensor, is reduced from 100 lux to 12 lux;

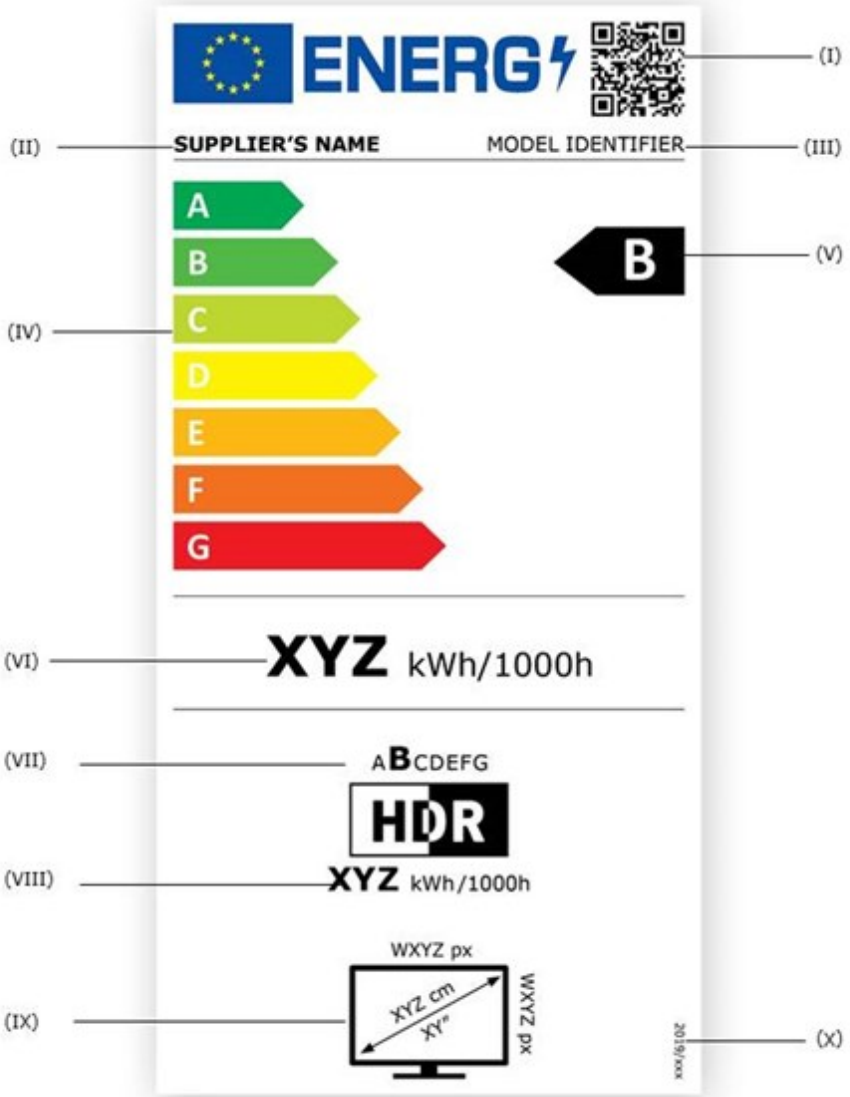
(e) the ABC control of the display screen luminance meets all of the following characteristics when the ambient light condition measured at the ABC sensor changes:

- the measured screen luminance at 60 lux is between 65 % and 95 % of the screen luminance measured at 100 lux;
- the measured screen luminance at 35 lux is between 50 % and 80 % of the screen luminance measured at 100 lux;
- the measured screen luminance at 12 lux is between 35 % and 70 % of the screen luminance measured at 100 lux.

ANNEX III

Label for electronic displays

1. LABEL



The following information shall be included in the label for electronic displays:

I. QR code;

II. supplier's name or trade mark;

III. supplier's model identifier;

IV. scale of energy efficiency classes from A to G;

V. the energy efficiency class determined in accordance with point B of Annex II when using $Pmeasured_{SDR}$;

VI. on mode energy consumption in kWh per 1000 h, when playing SDR content, rounded to the nearest integer;

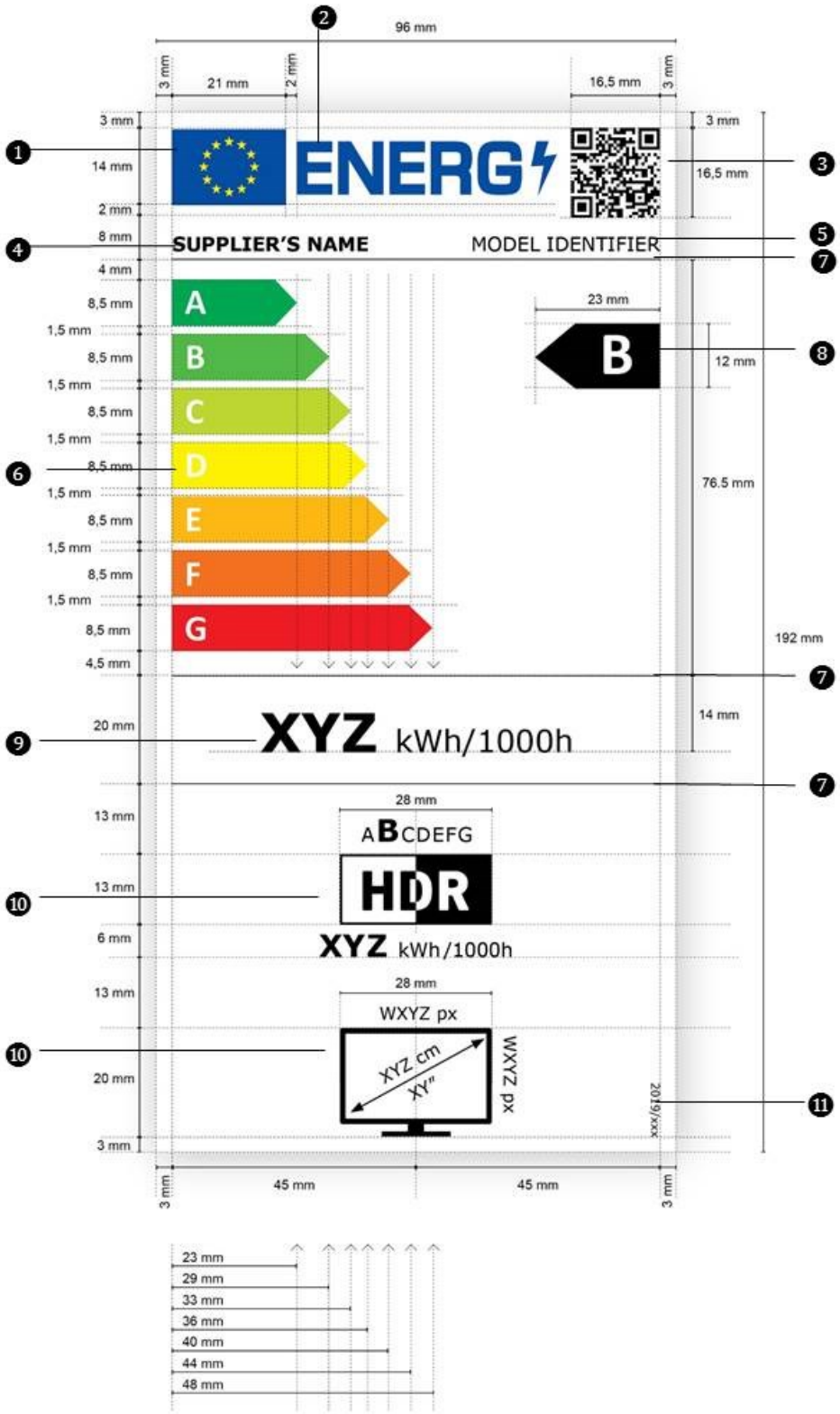
VII. the energy efficiency class determined in accordance with point B of Annex II when using $Pmeasured_{HDR}$;

VIII. the on mode energy consumption in kWh per 1000 h, when playing HDR content, rounded to the nearest integer;

IX. visible screen diagonal in centimetres and inches and horizontal and vertical resolution in pixels;

X. the number of this Regulation, that is '2019/XXX' *[PO- please insert the number of this Regulation in this point and in the right bottom corner of the label]*.

2. LABEL DESIGN



Whereby:

(a) The label shall be at least 96 mm wide and 192 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above. For electronic displays with a size of the diagonal of the visible area less than 127 cm (50 inches), the label can be printed scaled down, but not less than 60 % of its normal size; its content shall nevertheless be proportionate to the specifications above and the QR code still readable by a commonly available QR reader, such as those integrated in a smartphone.

(b) The background of the label shall be 100 % white.

(c) The typefaces shall be Verdana and Calibri.

(d) The dimensions and specifications of the elements constituting the label shall be as indicated in the label design.

(e) Colours shall be CMYK – cyan, magenta, yellow and black, following this example: 0,70,100,0: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

(f) The label shall fulfil all the following requirements (numbers refer to the figure above):

❶ the colours of the EU logo shall be as follows:

– the background: 100,80,0,0;

– the stars: 0,0,100,0;

❷ the colour of the energy logo shall be: 100,80,0,0;

❸ the QR code shall be 100 % black;

❹ the supplier's name shall be 100 % black and in Verdana Bold 9 pt;

❺ the model identifier shall be 100 % black and in Verdana Regular 9 pt;

❻ the A to G scale shall be as follows:

– the letters of the energy efficiency scale shall be 100 % white and in Calibri Bold 19 pt; the letters shall be centred on an axis at 4,5 mm from the left side of the arrows;

– the colours of the A to G scale arrows shall be as follows:

- A-class: 100,0,100,0;
- B-class: 70,0,100,0;
- C-class: 30,0,100,0;
- D-class: 0,0,100,0;
- E-class: 0,30,100,0;
- F-class: 0,70,100,0;
- G-class: 0,100,100,0;

❼ the internal dividers shall have a weight of 0,5 pt and the colour shall be 100 % black;

❽ the letter of the energy efficiency class shall be 100 % white and in Calibri Bold 33 pt. The energy efficiency class arrow and the

corresponding arrow in the A to G scale shall be positioned in such a way that their tips are aligned. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow which shall be 100 % black;

❾ the energy consumption value in SDR shall be in Verdana Bold 28 pt; 'kWh/1000h' shall be in Verdana Regular 16 pt. The text shall be centred and in 100 % black;

❿ the HDR and the screen pictograms shall be 100 % black and as shown as in the label design; the texts (numbers and units) shall be 100 % black, and as follows:

– above the HDR pictogram, the letters of energy efficiency classes (A to G) shall be centred, with the letter of the applicable energy efficiency class in Verdana Bold 16 pt and the other letters in Verdana Regular 10 pt; under the HDR pictogram, the energy consumption value in HDR shall be centred, in Verdana Bold 16 pt with 'kWh/1000h' in Verdana Regular 10 pt;

– the texts of the screen pictogram shall be in Verdana Regular 9 pt and placed as in the label design;

⓫ the number of the regulation shall be 100 % black and in Verdana Regular 6 pt.

ANNEX IV

Measurement methods and calculations

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards, the reference numbers of which have been published in the *Official Journal of the European Union* or using other reliable, accurate and reproducible methods which take into account the generally recognised state-of-the-art. They shall be in line with the provisions set out in this Annex.

Measurements and calculations shall meet the technical definitions, conditions, equations and parameters set out in this Annex. Electronic displays which can operate in both 2D and 3D modes shall be tested when they operate in 2D mode.

An electronic display which is split into two or more physically separate units, but placed on the market in a single package, shall, for checking the conformity with the requirements of this Annex, be treated as a single electronic display. Where multiple electronic displays that can be placed on the market separately are combined in a single system, the individual electronic displays shall be treated as single displays.

1. MEASUREMENTS OF ON MODE POWER DEMAND

Measurements of the on mode power demand shall fulfil all of the following general conditions:

(a) electronic displays shall be measured in the normal configuration;

(b) measurements shall be made at an ambient temperature of 23 °C +/– 5 °C;

(c) measurements shall be made using a dynamic broadcast video signal test loops representing typical broadcast content for electronic displays in standard dynamic range (SDR). For the HDR measurement the electronic display must automatically and correctly respond to the HDR metadata in the test loop. The measurement shall be the average power consumed over 10 consecutive minutes;

(d) measurements shall be made after the electronic display has been in the off-mode or, if an off-mode is not available, in standby mode for a minimum of 1 hour immediately followed by a minimum of 1 hour in the on mode and shall be completed before a maximum of 3 hours in on-mode. The relevant video signal shall be displayed during the entire on mode duration. For electronic displays that are known to stabilise within 1 hour, these durations may be reduced if the resulting measurement can be shown to be within 2 % of the results that would otherwise be achieved using the durations described here;

(e) where ABC is available, measurements shall be made with it switched off. If ABC cannot be switched off, then the measurements shall be performed in an ambient light condition of 100 lux measured at the ABC sensor.

2. MEASUREMENTS OF PEAK WHITE LUMINANCE

Measurements of the peak white luminance shall be made:

(a) with a luminance meter, detecting that portion of the screen exhibiting a full (100 %) white image, which is part of a ‘full screen test’ pattern not exceeding the average picture level (APL) point where any power limiting or other irregularity occurs;

(b) without disturbing the luminance meter's detection point on the electronic display whilst switching between the normal configuration and the brightest on mode configuration.

ANNEX V

Product information sheet

Pursuant to point 1(b) of Article 3, the supplier shall enter into the product database the information as set out in Table 4.

The product manual or other literature provided with the product shall clearly indicate the link to the model in the product database as a human-readable Uniform Resource Locator (URL) or as QR-code or provide the product registration number.

Table 4: Information, order and format of the product information sheet

	INFORMATION	**Value and precision**	**Unit**	**Notes**
1.	Supplier's name or trade mark	TEXT		
2.	Supplier's model identifier	TEXT		
3.	Energy efficiency class for standard Dynamic Range (SDR)	[A/B/C/D/E/F/G]		If the product database automatically generates the definitive content of this cell, the supplier shall not enter this data.
4.	On mode power demand for Standard Dynamic Range (SDR)	X,X	W	Rounded to the first decimal place for power values below 100 W, and rounded to the first integer for power values from 100 W.
5.	Energy efficiency class (HDR)	[A/B/C/D/E/F/G] or n.a.		If the product database automatically generates the definitive content of this cell, the supplier shall not enter this data. Value set to "n.a. (not applicable) if HDR not implemented.
6.	On mode power demand in High Dynamic Range (HDR) mode	X,X	W	Rounded to the first decimal place for power values below 100 W, and rounded to the first integer for power values from 100 W (value set to 0 (zero) if "not applicable").
7.	Off mode, power demand	X,X	W	
8.	Standby mode power demand	X,X	W	
9.	Networked standby mode power demand	X,X	W	
10.	Electronic display category	[television/ monitor/ signage / other]		Select one.
11.	Size ratio	X : Y	integer	E.g. 16:9, 21:9, etc.
12.	Screen resolution (pixels)	X x Y	pixels	Horizontal and vertical pixels
13.	Screen diagonal	X,X	cm	In cm according to the International System of Units (SI), rounded to the nearest decimal place.
14.	Screen diagonal	X	inches	Optional, in inches rounded to the nearest integer place.
15.	Visible screen area	X,X	cm^2	Rounded to the one decimal place
16.	Panel technology used	TEXT		E.g. LCD / LED LCD / QLED LCD / OLED / MicroLED / QDLED / SED / FED / EPD, etc.
17.	Automatic Brightness Control (ABC) available	[YES/NO]		Must be activated as default (if YES).
18.	Voice recognition sensor available	[YES/NO]		
19.	Room presence sensor available	[YES/NO]		Must be activated as default (if YES).
20.	Image refresh frequency rate	X	Hz	
21.	Minimum guaranteed availability of software and firmware updates	GG MM AAAA	date	As from Annex II E, point 1 of Commission Regulation (EU)

	(until):				2019/XXX[3] *[OP – please insert the number of the Regulation C(2019)2122].*
22.	Minimum guaranteed availability of spare parts (until):		GG MM AAAA	date	As from Annex II D, point 5 of Regulation (EU) 2019/XXX *[OP – please insert the number of the Regulation C(2019)2122].*
23.	Minimum guaranteed product support (until):		GG MM AAAA	date	
24.	Power supply type:		Internal / External / Standardised external		Select one.
i	External standardised power supply (included in the product box)	Standard name	TEXT		
		Input voltage	X	V	
		Output voltage	X	V	
ii	External standardised suitable power supply (if not included in the product box)	Standard name	TEXT		Mandatory only if EPS not included in the box, non-mandatory otherwise.
		Required output voltage	X,X	V	Mandatory only if EPS not included in the box, non-mandatory otherwise.
		Required delivered current	X,X	A	Mandatory only if EPS not included in the box, non-mandatory otherwise.
		Required current frequency	X	Hz	Mandatory only if EPS not included in the box, non-mandatory otherwise.

[3] Commission Regulation (EU) 2019/XXX *[OP please enter the full OJ-L reference of Regulation C(2019)2122]*.

ANNEX VI

Technical documentation

The technical documentation referred to in point 1(d) of Article 3 shall include:

(1) identification data (general description of the model):

(a) trademark and model identifier;

(b) supplier's name, address, registered trade name;

(2) references to the harmonised standards applied, other measurement standards and specifications used in measuring the technical parameters and calculations performed;

(3) specific precautions to be taken when the model is assembled, installed and tested;

(4) a list of all equivalent models, including model identifiers;

(5) measured technical parameters of the model and calculations performed with the measured parameters as listed in Table 5;

Table 5: Measured technical parameters

		Value and precision	**Unit**	**Notes**
	General			
1.	Ambient temperature	XX,XX	°C	
2.	Test voltage	X	V	
3.	Frequency	X,X	Hz	
4.	Total harmonic distortion (THD) of the electricity supply system	X	%	
	For On-mode			
5.	Peak white luminance of the brightest on mode configuration	X	cd/m²	
6.	Peak white luminance of the normal configuration	X	cd/m²	
7.	Peak white luminance ratio (calculated)	X,X	%	Value row 6 above divided by value row 5 above times 100
	For APD			
8.	Duration of the on mode condition, before the electronic display reaches automatically standby, or off mode, or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode.	mm:ss		
	For televisions: the measured value of the time before the television automatically reaches standby, or off-mode, or another condition which does not exceed the applicable power consumption requirements for off-mode and/or standby-mode following the last user	mm:ss		

	interaction;			
	For televisions equipped with room presence sensor: the measured value of the time before the television automatically reaches standby, or off-mode, or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when no presence is detected;	mm:ss		
	Other electronic displays than televisions and broadcast displays: The measured value of the time before the electronic display automatically reaches standby, or off-mode, or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when no input is detected;	mm:ss		
	For ABC			If available and activated by default (as from Annex V, Table 4)
9.	Average on mode power demand of the electronic display at an ambient light intensity, measured at the ABC sensor of the electronic display, of 100 lux and 12 lux.	X,X	W	
10	Percentage of power reduction due to ABC action between the 100 lux and 12 lux ambient light conditions.	X,X	%	
11	Display peak white luminance at each of the following ambient light intensities measured at the ABC sensor of the electronic display, 100 lux, 60 lux, 35 lux, 12 lux.	x	cd/m²	
	Measured on mode power at 100 lux ambient light at the ABC sensor	X,X	W	
	Measured on mode power at 12 lux ambient light at the ABC sensor	X,X	W	
	The measured screen luminance at 60 lux ambient light at the ABC sensor	X	cd/m²	
	The measured screen luminance at 35 lux ambient at the ABC sensor	X	cd/m²	
	The measured screen luminance at 12 lux ambient light at the ABC sensor	X	cd/m²	

(6) Additional information requirements:

(a) input terminal for the audio and video test signals used for testing;

(b) information and documentation on the instrumentation, set-up and circuits used for electrical testing;

(c) any other testing condition not described or determined in point (b);

(d) for on mode:

(i) the characteristics of the dynamic broadcast-content video signal representing typical broadcast TV content; for the HDR dynamic broadcast content video signal the electronic display must be

automatically switched to HDR mode by the HDR metadata of that signal;

(ii) the sequence of steps for achieving a stable condition with respect to power demand level; and

(iii) the picture settings used for the brightest peak white luminance measurement and the test pattern for the video signal used for the measurement.

(e) For standby and off mode:

(i) the measurement method used;

(ii) description of how the mode was selected or programmed including any enhanced reactivation functions; and

(iii) sequence of events to reach the condition where the electronic display automatically changes mode.

(f) For electronic displays with a designated computer signal interface:

(i) confirmation that the electronic display prioritises the computer display power management protocols set out in point 6.2.3 of Annex II of Commission Regulation (EU) No 617/2013[4]. Any deviation from the protocols should be reported;

(g) For the networked electronic displays only:

(i) number and type of network interfaces and, except for wireless network interfaces, their position in the electronic display;

(ii) whether the electronic display qualifies as electronic display with HiNA functionality; if no information is provided the electronic display is considered not to be HiNA display or display with HiNA functionality; and

(iii) information whether networked electronic display provides functionality allowing the power management function and/or the end-user to switch the electronic display being in a condition providing networked standby into standby mode, or off mode or another condition which does not exceed the applicable power demand requirements for off mode and/or standby mode including enhanced reactivation function power allowance where applicable.

(h) For each type of network port:

(i) the default time (mm:ss) after which the power management function, switches the display into a condition providing networked standby; and

(ii) the trigger to be used to reactivate the electronic display.

(7) where the information included in the technical documentation file for a particular electronic display model has been obtained:

[4] Commission Regulation (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (OJ L 175, 27.6.2013, p. 13).

(a) from a model that has the same technical characteristics relevant for the technical information to be provided but is produced by a different manufacturer or

(b) by calculation on the basis of design or by extrapolation from another model of the same or of a different supplier, or both;

the technical documentation shall include, as appropriate, the details of such calculation, the assessment undertaken by suppliers to verify the accuracy of the calculation and, where appropriate, the declaration of identity between the models of different suppliers; and

(8) the contact details of the person empowered to bind the supplier, if not included in the technical information uploaded into the database, shall be made available, on request, to market surveillance authorities or to the Commission for carrying out their tasks under this Regulation.

ANNEX VII

Information to be provided in visual advertisements, in technical promotional material in distance selling and in telemarketing, except distance selling on the Internet

1. In visual advertisements, for the purposes of ensuring conformity with the requirements laid down in point 1(e) of Article 3 and point (d) of Article 4, the energy efficiency class and the range of efficiency classes available on the label shall be shown as set out in point 4 of this Annex.

2. In technical promotional material, for the purposes of ensuring conformity with the requirements laid down in point 1(f) of Article 3 and point (e) Article 4 the energy class and the range of efficiency classes available on the label shall be shown as set out in point 4 of this Annex.

3. Any paper-based distance selling must show the energy class and the range of efficiency classes available on the label as set out in point 4 of this Annex.

4. The energy efficiency class and the range of energy efficiency classes shall be shown, as indicated in Figure 1, with:

   (a) an arrow, containing the letter of the energy efficiency class in 100 % white, Calibri Bold and in a font size at least equivalent to that of the price, when the price is shown;

   (b) the colour of the arrow matching the colour of the energy efficiency class;

   (c) the range of available energy efficiency classes in 100 % black; and,

   (d) the size shall be such that the arrow is clearly visible and legible. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow, with a border of 0,5 pt in 100 % black placed around the arrow and the letter of the energy efficiency class.

   By way of derogation, if the visual advertisement, technical promotional material or paper-based distance selling is printed in monochrome, the arrow can be in monochrome in that visual advertisement, technical promotional material or paper-based distance selling.

Figure 1: Coloured/monochrome left/right arrow, with range of energy efficiency classes indicated

5. Telemarketing-based distance selling must specifically inform the customer of the energy efficiency class of the product and of the range of energy efficiency classes available on the label, and that the customer can access the label and the product information sheet through the product database website, or by requesting a printed copy.

6. For all the situations mentioned in points 1 to 3 and 5, it must be possible for the customer to obtain, on request, a printed copy of the label and the product information sheet.

ANNEX VIII

Information to be provided in the case of distance selling through the Internet

1. The appropriate label made available by suppliers in accordance with point 1(g) of Article 3 shall be shown on the display mechanism in proximity to the price of the product. The size shall be such that the label is clearly visible and legible and shall be proportionate to the size specified in point 2(a) of Annex III. The label may be displayed using a nested display, in which case the image used for accessing the label shall comply with the specifications laid down in point 3 of this Annex. If a nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.

2. The image used for accessing the label in the case of nested display, as indicated in Figure 2, shall:

   (a) be an arrow in the colour corresponding to the energy efficiency class of the product on the label;

   (b) indicate the energy efficiency class of the product on the arrow in 100 % white, Calibri Bold and in a font size equivalent to that of the price;

   (c) have the range of available energy efficiency classes in 100 % black; and,

   (d) have one of the following two formats, and its size shall be such that the arrow is clearly visible and legible. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow, with a visible border in 100 % black placed around the arrow and the letter of the energy efficiency class:

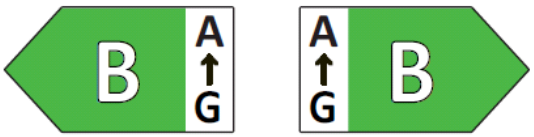


Figure 2: Coloured left/right arrow, with range of energy efficiency classes indicated

3. In the case of nested display, the sequence of display of the label shall be as follows:

   (a) the image referred to in point 2 of this Annex shall be shown on the display mechanism in proximity to the price of the product;

   (b) the image shall link to the label set out in Annex III;

   (c) the label shall be displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;

   (d) the label shall be displayed by pop up, new tab, new page or inset screen display;

   (e) for magnification of the label on tactile screens, the device conventions for tactile magnification shall apply;

   (f) the label shall cease to be displayed by means of a close option or other standard closing mechanism; and

   (g) the alternative text for the graphic, to be displayed on failure to display the label, shall be the energy efficiency class of the product in a font size equivalent to that of the price.

4. The appropriate product information sheet made available by suppliers in accordance with point 1(h) of Article 3 shall be shown on the display mechanism in proximity to the price of the product. The size shall be such that the product information sheet is clearly visible and legible. The product information sheet may be displayed using a nested display or by referring to the product database in which case the link used for accessing the product information sheet shall clearly and legibly indicate ‘Product information sheet’. If a nested display is used, the product information sheet shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

ANNEX IX

Verification procedure for market surveillance purposes

The verification tolerances set out in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation. The values and classes on the label or in the product information sheet shall not be more favourable for the supplier than the values reported in the technical documentation.

Where a model has been designed to be able to detect it is being tested (e.g. by recognizing the test conditions or test cycle) 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 this Regulation or included in the technical documentation or included in any of the documentation provided, the model and all equivalent models shall be considered not compliant.

When verifying the compliance of a product model with the requirements laid down in this Regulation, the authorities of the Member States shall apply the following procedure:

(1) The Member State authorities shall verify one single unit of the model.

(2) The model shall be considered to comply with the applicable requirements if:

(a) the values given in the technical documentation pursuant to point 3 of Article 3 of Regulation (EU) 2017/1369 (declared values) and, where applicable, the values used to calculate these values are not more favourable for the supplier than the corresponding values given in the test reports;

(b) the values published on the label and in the product information sheet are not more favourable for the supplier than the declared values and the indicated energy efficiency class is not more favourable for the supplier than the class determined by the declared values; and

(c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 6.

(3) If the results referred to in points 2(a) or (b) are not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.

(4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be one or more equivalent models.

(5) The model shall be considered to comply with the applicable requirements if for these three units, the arithmetical mean of the determined values complies with the respective tolerances given in Table 6.

(6) If the result referred to in point 5 is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.

(7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision being taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex IV.

The Member State authorities shall only apply the verification tolerances that are set out in Table 6 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. No other tolerances, such as those set out in harmonised standards or in any other measurement method shall be applied.

Table 6: Verification Tolerances

Parameter	Verification tolerances
On mode power demand ($P_{measured}$, Watts)	The determined value* shall not exceed the declared value by more than 7 %.
Off mode, standby, and networked standby mode power demand in Watts, as applicable.	The determined value* shall not exceed the declared value by more than 0,10 Watt if the declared value is 1,00 Watt or less, or by more than 10 % if the declared value is more than 1,00 Watt.
Visible screen diagonal in centimetres (and inches if declared)	The determined value* shall not be lower than the declared value by more than 1 cm or 0,4 inches.
Visible screen area in dm^2	The determined value* shall not be lower than the declared value by more than 0,1 dm^2.
The screen resolution in horizontal and vertical pixels	The determined value* shall not deviate from the declared value.

* In the case of three additional units tested as prescribed in point 4, the determined value means the arithmetic mean of the values determined for these three additional units.