

**COMMISSION REGULATION (EC) No 107/2009****of 4 February 2009****implementing Directive 2005/32/EC of the European Parliament
and of the Council with regard to ecodesign requirements for
simple set-top boxes****(Text with EEA relevance)***Article 1***Subject matter and scope**

This Regulation establishes ecodesign requirements for simple set-top boxes.

*Article 2***Definitions**

For the purposes of this Regulation, the definitions set out in Directive 2005/32/EC shall apply. The following definitions shall also apply:

1. ‘Simple set-top box’ (SSTB) means a stand-alone device which, irrespectively of the interfaces used,

(a) has the primary function of converting standard-definition (SD) or high-definition (HD), free-to-air digital broadcast signals to analogue broadcast signals suitable for analogue television or radio;

(b) has no ‘conditional access’ (CA) function;

(c) offers no recording function based on removable media in a standard library format.

A SSTB can be equipped with the following additional functions and/or components which do not constitute a minimum specification of an SSTB:

(a) time-shift and recording functions using an integrated hard disk;

(b) conversion of HD broadcast signal reception to HD or SD video output;

(c) second tuner.

2. ‘Standby mode(s)’ means a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides *only* the following functions, which may persist for an indefinite time:

(a) reactivation function, or reactivation function and only an indication of enabled reactivation function; and/or

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- (b) information or status display.
3. 'Reactivation function' means a function enabling the activation of other modes, including active mode, by remote switch, including remote control, internal sensor, timer to a condition providing additional functions, including the main function.
 4. 'Information or status display' means a continuous function providing information or indicating the status of the equipment in a display, including clocks.
 5. 'Active mode(s)' means a condition in which the equipment is connected to the mains power source and at least one of the main function(s) providing the intended service of the equipment has been activated.
 6. 'Automatic power down' means a function which switches the active mode of an SSTB into standby mode after a period in the active mode following the last user interaction and/or channel change.
 7. 'Second tuner' means a part of the SSTB available for independent recording while allowing to watch a different programme.
 8. 'Conditional access' (CA) means a provider-controlled broadcasting service requiring a market subscription television service.

*Article 3***Ecodesign requirements**

The ecodesign requirements for SSTBs are set out in Annex I.

*Article 4***Relationship with Regulation (EC) No 1275/2008**

The requirements laid down in this Regulation shall prevail over the requirements laid down in Regulation (EC) No 1275/2008.

*Article 5***Conformity assessment**

The procedure for assessing conformity referred to in Article 8(2) of Directive 2005/32/EC shall be the internal design control system set out in Annex IV to Directive 2005/32/EC or the management system set out in Annex V to Directive 2005/32/EC.

*Article 6***Verification procedure for market surveillance purposes**

Surveillance checks shall be carried out in accordance with the verification procedure set out in Annex II.

*Article 7***Benchmarks**

The indicative benchmarks for best-performing products and technology currently available on the market are identified in Annex III.

*Article 8***Revision**

No later than five years after the entry into force of this Regulation the Commission shall review it in the light of technological progress and present the result of this review to the Consultation Forum.

*Article 9***Entry into force**

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

Point 1 of Annex I shall apply as from one year after the date referred to in the first paragraph.

Point 2 of Annex I shall apply as from three years after the date referred to in the first paragraph.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

▼ B*ANNEX I***Ecodesign requirements**

1. One year after this Regulation has come into force, SSTBs placed on the market shall not exceed the following power consumption limits; SSTBs with an integrated hard disk and/or second tuner are exempt from that requirement:

	Standby mode	Active mode
Simple STB	1,00 W	5,00 W
Allowance for display function in standby	+1,00 W	—
Allowance for decoding HD signals	—	+3,00 W

2. Three years after this Regulation has come into force SSTBs, placed on the market shall not exceed the following power consumption limits:

	Standby mode	Active mode
Simple STB	0,50 W	5,00 W
Allowance for display function in standby	+0,50 W	—
Allowance for hard disk	—	+6,00 W
Allowance for second tuner	—	+1,00 W
Allowance for decoding HD signals	—	+1,00 W

3. **Availability of standby mode**

One year after this Regulation has come into force, SSTBs shall provide standby mode.

4. **Automatic power-down**

One year after this implementing measure has come into force, SSTBs shall be equipped with an ‘automatic power-down’ or similar function with the following characteristics:

— the SSTB shall be automatically switched from active mode into standby after less than three hours in active mode following the last user interaction and/or a channel change with an alert message two minutes before going into standby mode.

— the ‘automatic power-down’ function shall be set as default.

5. **Measurements**

The power consumption referred to in Points 1 and 2 shall be established by a reliable, accurate and reproducible measurement procedure, which takes into account the generally recognised state of the art.

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▼ B**6. Information to be provided by the manufacturers for the purposes of conformity assessment**

For the purposes of conformity assessment pursuant to Article 5, the technical documentation shall contain the following elements:

(a) For standby and active modes

- The power consumption data in Watts rounded to the second decimal place including consumption data for the different additional functions and/or components
- The measurement method used
- Period of measurement
- Description of how the appliance mode was selected or programmed
- Sequence of events to reach the mode where the equipment automatically changes modes
- Any notes regarding the operation of the equipment

(b) Test parameters for measurements

- Ambient temperature
- Test voltage in V and frequency in Hz
- Total harmonic distortion of the electricity supply system
- The fluctuation of the power supply voltage during the tests
- Information and documentation on the instrumentation, set-up and circuits used for electrical testing
- Input signals in RF (for digital terrestrial broadcasts) or IF (for satellite broadcasts)
- Audio/video test signals as described in the MPEG-2 transport stream
- Adjustment of controls

The power requirements of peripheral devices powered by the STB for broadcast reception, such as active terrestrial antenna, satellite LNB or any cable or telecom modem are not required to be included in the technical documentation.

7. Information to be provided by the manufacturers for the purposes of consumer information

Manufacturers shall ensure that consumers of SSTBs are provided with the power consumption in Watts rounded to the first decimal place of standby and active modes of the SSTB.

▼ M1*ANNEX II***Product compliance verification by market surveillance authorities**

The verification tolerances defined in this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the manufacturer or importer as an allowed tolerance to establish the values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

When verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, for the requirements referred to in this Annex, 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 2 of Annex IV to Directive 2009/125/EC (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the manufacturer or importer than the results of the corresponding measurements carried out pursuant to paragraph (g) thereof; and
 - (b) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer or importer does not contain values that are more favourable for the manufacturer or importer than 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 1.

- (3) If the results referred to in point 2(a) or (b) are not achieved, the model 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.

- (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 verification tolerances given in Table 1.

- (6) If the result referred to in point 5 is not achieved, the model 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.

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

The Member State authorities shall only apply the verification tolerances that are set out in Table 1 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 1
Verification tolerances

Provisions in Annex I, Points 1 and 2, as applicable	Verification tolerances
For power consumption above 1,00 W	The determined value shall not exceed the declared value by more than 10 %.
For power consumption less than or equal to 1,00 W	The determined value shall not exceed the declared value by more than 0,10 W.

▼ B*ANNEX III***Benchmarks**

The following indicative benchmarks are identified for the purpose of Annex I, part 3, point 2, of Directive 2005/32/EC. They refer to the best available technology at the date of adopting this Regulation:

SSTB without any additional features:

- Active mode: 4,00 W
- Standby mode excluding the display function: 0,25 W
- Off-mode: 0 W

SSTB with an integrated hard drive:

- Active mode: 10,00 W
- Standby mode excluding the display function: 0,25 W
- Off-mode 0 W:

The above benchmarks are established on the basis of a SSTB with a basic configuration, an ‘automatic power down’ function and a hard-off switch.