



**Czech Metrology Institute**

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Notified Body Id. No.:1383



TESTCOM – Certifying Body for Certification of Products No. 3136,  
accredited by CAI according to ČSN EN ISO/IEC 17065:2013  
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## **EU-type examination CERTIFICATE**

**(Radio Equipment Directive 2014/53/EU, Annex III)**

No. 0120-CC-V0017-18

Product:	Wireless room thermostat
Trade name / brand name	Wireless room thermostat
Model / Type:	<b>eSTER_x40</b>
Manufacturer	PLUM sp. z o.o.
Manufacturer address:	Wspólna 19, Ignatki 16-001 Kleosin, Poland
Software version:	1.21.01
Hardware version:	RFM69CW 868S2
Frequency bands of operation:	865,0 MHz – 868,0 MHz

The Notified Body No.:1383 - Czech Metrology Institute,  
after the examination of the technical documentation as drawn by the manufacturer,  
announces

that the essential requirements of Article 3.1a, 3.1b and Article 3.2  
of Radio Equipment Directive 2014/53/EU (Government Decree No.: 426/2016 Coll.).  
have been met.

The conformity assessment on the radio equipment listed above and as described in Annex 1 to this EU-type examination certificate has been carried out in accordance with Annex III ( module B) of RADIO Equipment Directive 2014/53/EU (Government Decree No.: 426/2016 Coll., Annex 3).

A list of documentation forming the basis for the EU-type examination is provided in Annex 2 to this EU-type examination certificate.

This EU-type Examination certificate relates only to the documents as provided to CMI.

Brno, October 26, 2018



Dr. Pavel Klenovský  
Head of Notified Body and  
Director General

## Annex 1 to EU-type examination certificate for RED 2014/53/EU

No.: 0120-CC-V0017-18

Model: eSTER\_x40

Date of issue: October 26, 2018

### Technical description

The eSTER\_x40 room thermostat is designed for wireless collaboration with an ISM\_xSMART radio transmission module. The thermostat is installed in a selected room and is designed to maintain the preset room temperature by sending a radio signal to the ISM\_xSMART module connected to the main controller. Bi-directional ISM radio communication allows the transmission of information from the main regulator to the thermostat. The thermostat on the backlit LCD displays information about the room temperature, the selected operating mode, the current time and the date with the simultaneous synchronization of the clock with the main controller. Built-in buzzer for acoustic signaling.

Transmission: two-way communication.

### Basic technical parameters:

Radio module type: RFM69CW 868S2

Radio band: ISM 868MHz (frequency range: 865.0 –868.0 MHz)

Antenna type: fixed ceramic, 50Ω, -4dB (model: Jonson Tech, 086AT43A0020E)

Transmitter power: 20mW (+13dBm)

Bitrate: 30 kb/s

Modulation: GFSK (BT = 0,5)

Modulation index: 2

BW RX: 125 kHz

Polite spectrum access with CCA + AFA, 15 channels (1 broadcast, 14 work)

Degree of protection: IP20

Power supply: 3 VDC standard 2xAA battery, replaceable

Operating temperature range: 5°C to 35°C,  
relative humidity 5% to 85% without steam condensation

Dimensions: (85 x 85 x 27) mm

Weight: 0,1kg

Network topology: star: - one master(ISM Smart),  
- multiple slave devices (ESTER x40)

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**Annex 2 to EU-type examination certificate for RED 2014/53/EU**

**No.: 0120-CC-V0017-18**

**Model eSTER\_x40**

**Date of issue: October 26, 2018**

<b>1. Test report:</b>	<b>Report number:</b>	<b>Dated:</b>
RA	8551-PT-R0218-18	October 22, 2018
EMC	8551-PT-E0218-18	October 15, 2018
Product Safety	8551-PT-B0218-18	October 9, 2018
RF safety	CE RF Exposure Report	August 29, 2018

**2. Certificate: - - -**

**3. Technical Documentation provided:**

Datasheet antenna 0868AT43A0020.pdf  
Datasheet board ecoSTER\_100\_button\_v\_1\_1\_wyk\_A1.pdf  
Datasheet board ecoSTER\_100\_v\_2\_1\_wyk\_A1.pdf  
Datasheet RFM69CW-V1.1.pdf  
eSTER\_x40\_User manual\_EN\_v 1.0.pdf  
Radiation test RFM69CW-868S2-ETSI.pdf  
Conformity Risk Assessment 29.08.2018  
Plum Radio technical characteristics v1  
Parameters and Tests ETSI EN300 220-1 v2  
EN 62479 RF Exposure Report

**4. Standards used to demonstrate conformity with the essential requirements of Radio Equipment Directive 2014/53/EU:**

Radio Spectrum ((Article 3.2):	ETSI EN 300 220-1 V3.1.1 Final draft ETSI EN 300 220-2 V3.1.1
EMC (Article 3.1.b):	ETSI EN 301 489-1 V2.2.0 ETSI EN 301 489-3 V2.1.1
Product Safety (Article 3.1a)	EN 62 368-1:2016 EN 60 730-1:2016 EN 60 730-2-9:2011
RF Safety (Article 3.1a)	EN 62 479:2010

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**No.: 0120-CC-V0017-18**

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**Additional information:**

This is Class 1 device.

Radio Equipment Directive 2014/53/EU, Article 10.4: Manufacturers shall keep the technical documentation and the EU declaration of conformity for 10 years after the radio equipment has been placed on the market.

Radio Equipment Directive 2014/53/EU, Article 10.6: Manufacturers shall ensure that radio equipment which they have placed on the market bears a type, batch or serial number or other element allowing its identification, or, where the size or nature of the radio equipment does not allow it, that the required information is provided on the packaging, or in a document accompanying the radio equipment.

Radio Equipment Directive 2014/53/EU, Article 10.7: Manufacturers shall indicate on the radio equipment their name, registered trade name or registered trade mark and the postal address at which they can be contacted or, where the size or nature of radio equipment does not allow it, on its packaging, or in a document accompanying the radio equipment. The address shall indicate a single point at which the manufacturer can be contacted. The contact details shall be in a language easily understood by end-users and market surveillance authorities.

Radio Equipment Directive 2014/53/EU, Article 10.8: Manufacturers shall ensure that the radio equipment is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned. Instructions shall include the information required to use radio equipment in accordance with its intended use. Such information shall include, where applicable, a description of accessories and components, including software, which allow the radio equipment to operate as intended. Such instructions and safety information, as well as any labelling, shall be clear, understandable and intelligible.

The following information shall also be included in the case of radio equipment intentionally emitting radio waves:

- (a) frequency band(s) in which the radio equipment operates;
- (b) maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates.

Radio Equipment Directive 2014/53/EU, Article 10.9: Manufacturers shall ensure that each item of radio equipment is accompanied by a copy of the EU declaration of conformity or by a simplified EU declaration of conformity. Where a simplified EU declaration of conformity is provided, it shall contain the exact internet address where the full text of the EU declaration of conformity can be obtained.

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Radio Equipment Directive 2014/53/EU, Article 10.10: In cases of restrictions on putting into service or of requirements for authorization of use, information available on the packaging shall allow the identification of the Member States or the geographical area within a Member State where restrictions on putting into service or requirements for authorization of use exist. Such information shall be completed in the instructions accompanying the radio equipment.

Radio Equipment Directive 2014/53/EU, Article 19.2: On account of the nature of radio equipment, the height of the CE marking affixed to radio equipment may be lower than 5 mm, provided that it remains visible and legible.

Radio Equipment Directive 2014/53/EU, Article 20.1: The CE marking shall be affixed visibly, legibly and indelibly to the radio equipment or to its data plate, unless that is not possible or not warranted on account of the nature of radio equipment. The CE marking shall also be affixed visibly and legibly to the packaging.

Radio Equipment Directive 2014/53/EU, Annex III, Module B7: The manufacturer shall inform the notified body that holds the technical documentation relating to the EU-type examination certificate of all modifications to the approved type that may affect the conformity of the radio equipment with the essential requirements of this Directive or the conditions for validity of that certificate. Such modifications shall require additional approval in the form of an addition to the original EU-type examination certificate.

In accordance with Notified Body guidance; if there are no changes, a Notified Body EU-type examination certificate has a validity of 10 years from the date of issue.

The Declaration of Conformity under Directive 2014/53/EU or a copy thereof must be supplied with each device.

Device designation:



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