



TEST REPORT

EN 14604
Smoke alarm devices

Tested by (+ signature)	Tanac
Checked by (+ signature)	Roger ZHENG
Approved by (+ signature)	Tim YOU
Date of issue	2026-09-19



Testing Laboratory Name	Dongguan Jun'an Testing and Certification Co., Ltd.
Address	Room 303, Building 1, No.316, Renzhou Road, Shatian Town, Dongguan City, Guangdong Province
Address	Same as above.

Applicant's Name	Wanlin Fire Technology Co., Ltd.
Address	Room 595, Block A, No.43 Guofang Road, Xiji Town, Tongzhou District, Beijing, P.R.China
Standard	EN 14604:2005+AC:2008
Test procedure	Commissioned inspection
Procedure deviation	N/A.
Test item description	Standalone Photoelectric Smoke Alarm
Manufacturer	Wanlin Fire Technology Co., Ltd. Shenzhen Branch
Address	Room 1B301, Factory B, Building 1, Bestar Medical Device Mansion, No.28 Nantong Avenue, Baolong Community, Baolong Sub-district, Longgang District, Shenzhen City, Guangdong Province, P.R.China
Trademark	WANLIN
Model and/or type reference	WANLIN-307, WANLIN-303, WANLIN-304, WANLIN-309
Ratings	DC3 V

**Test case verdicts:**

Test case does not apply to the test object : N(/A.)

Test item does meet the requirement..... : P(ass)

Test item does not meet the requirement..... : F(ail)

Testing:

Date of receipt of test item.....: 2026-09-11

Date(s) of performance of test: 2026-09-11 to 2026-09-19

Label:

Standalone Photoelectric Smoke Alarm

Model: WANLIN-307

Rating: 3VDC

Wanlin Fire Technology Co., Ltd.

**Made in China**



General remarks: "(see remark #)" refers to a remark appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator. The test results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the testing laboratory. Unless otherwise specified, test are made under normal conditions at an ambient temperature within the range of 15°C to 35°C, RH45% to 75% and an air pressure of 860mbar of 1060mbar.	Attachment with: 1) Photo documentation
Declaration of different models	1. The appearance is different. 2. They have different display models.



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Clause	Requirement - Test	Result - Remark	Verdict
4	General requirements		P
4.1	Compliance		-
	In order to comply with this document the smoke alarm shall meet the requirements of this clause, which shall be verified by visual inspection or engineering assessment, shall be tested as described in clause 5 and shall meet the requirements of the tests. For smoke alarms which a manufacturer claims are suitable for leisure accommodation vehicles, the tests in Annex L shall be applied.		P
4.2	Individual alarm indicator (optional)		P
	Alarm indicators, if fitted, shall be red and shall be separate from the mains-on indicator. This visual indicator may also perform another additional function but the alarm indication needs to be distinct from this additional function. The failure of any visual indicator shall not prevent the emitting of a fire alarm signal.		P
4.3	Mains-on indicator		P
	A smoke alarm intended to be connected to the AC mains shall be provided with a continuous mains-on indicator to indicate energization of the unit. This indicator shall be coloured green and shall be separate from any other indicators.		P
	If more than one light-emitting indicator is provided on the smoke alarm, the mains-on indicator shall be green, an alarm indicator shall be red, and a fault indicator shall be amber or yellow.		N
4.4	Connection of external ancillary devices		N
	The smoke alarm may provide for connections to external ancillary devices (e.g. remote indicators, control relays, transmitters), but open- or short-circuit failure of these connections shall not prevent the correct operation of the smoke alarm.		P
4.5	Means of calibration		P
	The manufacturer's means of calibration shall not be readily adjustable, on site, after manufacture.		P
4.6	User replaceable components		P



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	Except for batteries or fuses, a smoke alarm shall have no user replaceable or serviceable components.		P
4.7	Normal power source		P
	The power source of the smoke alarm may be internal or external to the smoke alarm housing.		P
	Where the power source is internal to the smoke alarm, the source shall meet the following requirements.		N
	The power source shall operate the smoke alarm for at least one year's life, including routine testing see 4.15).		N
	A distinctive audible fault signal shall be given before the battery is incapable of operating for alarm purposes (see 5.16).		P
	The smoke alarm shall be capable of producing an alarm signal for at least 4 min at the battery voltage at which a fault signal is normally obtained or 30 days of fault signal operation (see 4.15).		N
	The internal power source shall be replaceable by the user unless its operating life (see 4.15) in the smoke alarm is 10 years or greater.		P
4.8	Standby power source		P
4.8.1	General		P
	For smoke alarms intended for connection to an external power supply, for which an integral backup/standby power facility is provided, the following requirements shall apply: a) primary cell battery back-up: the back-up power supply shall be capable of meeting the requirements of 4.15; b) rechargeable back-up power sources: the back-up power source shall be capable of supplying the quiescent load of the smoke alarm for a minimum period of 72 h followed by an alarm signal specified in 5.17 for at least 4 min in the event of fire, or in the absence of a fire, a fault warning for at least 24 h.		P
	In the absence of suitable test procedures to verify the back-up power source, data concerning the smoke alarm loads and the back-up facility characteristics shall be used to indicate that the above requirements can be met.		N



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4.8.2	Monitoring of back-up power source		N
	The back-up power source shall be monitored by the smoke alarm for faults. These faults shall include low back-up, open circuit and short circuit failure of the back-up (see 5.23).		N
4.9	Electrical safety requirements		P
	The apparatus shall be designed and constructed so as to present no danger, either in normal use or under fault conditions, as determined by the tests and requirements in 5.24.		P
4.10	Routine test facility		P
	A routine test facility shall be provided on all smoke alarms to simulate either mechanically or electrically the presence of smoke in the sensing assembly. The test feature shall be accessible from outside the smoke alarm when installed as specified in the installation instructions.		P
4.11	Terminals for external conductors		P
	The smoke alarm or base, as appropriate, if intended to have external connections, shall provide for the connection of conductors by means of screws, nuts or equally effective devices. For mains-powered smoke alarms which utilize a "flying lead"-type connector, this connector shall be regarded as a conductor. If terminals are provided, they shall allow the connection of conductors having nominal cross-sectional areas of between 0,4 mm ² and 1,5 mm ² . Disconnection of the conductors, or access to the conductors for disconnection, shall not be possible without the use of a tool. Terminals shall be designed so that they clamp the conductor between metal surfaces without rotation of those surfaces but with sufficient contact pressure and without damage to the conductor.		P
	Flying lead type connectors shall be subjected to a pull test, such that when the connector is subjected to a pull of 20 N without jerks for 1 min in any direction allowed by the design, the connector does not become detached.		N
4.12	Smoke alarm signals		P



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	In a smoke alarm which employs one or more non-fire alarm features the following operation shall be obtained: a) the smoke alarm fire alarm signal shall take precedence over any other signal even when such other signal is initiated first. b) distinctive signals shall be obtained between a smoke alarm's fire alarm and other non-fire alarm functions. Use of a common sounder is permitted if distinctive signals are obtained. If an audible fault signal is provided it shall be distinctive from all alarm signals but may be common to all functions employed.		P
4.13	Battery removal indication		N
	The removal of any user-replaceable battery used to power, or provide back-up power, for the smoke detection circuit/sounder, from a battery or mains powered d.c. backed smoke alarm, shall result in a visual, mechanical or audible warning that the battery has been removed. The visual warning shall not depend upon a power source.		N
4.14	Battery connections		N
	Lead or terminal connections to batteries shall be identified with the proper polarity (plus or minus). The polarity may be indicated on the unit adjacent to the battery terminals or leads.		N
	Any leads connecting the terminal connectors of batteries in smoke alarms to the smoke alarm circuit board shall be provided with strain relieving devices adjacent to both battery terminal connectors and the smoke alarm circuit board so that when the leads are subjected to a pull of 20 N without jerks for 1 min in any direction allowed by the design, the pull is not transmitted to the joints between the leads and the battery terminal connectors or between the leads and the smoke alarm circuit board.		N
4.15	Battery capacity		N



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	The batteries supplied with or specified for use in smoke alarms shall be capable of supplying the quiescent load of the smoke alarm together with the additional load resulting from a routine weekly 10 s test, for at least 1 year before the battery fault warning is given. At the point when the battery fault warning commences, the batteries shall have sufficient capacity to give an alarm signal as specified in 5.17 for at least 4 min in the event of fire, or in the absence of fire a battery fault warning for at least 30 days.		N
	In the absence of suitable test procedures to verify battery capacity, data concerning the smoke alarm loads and the battery characteristics shall be used to indicate that the above requirement can be met.		N
4.16	Protection against the ingress of foreign bodies		N
	The smoke alarm shall be so designed that a sphere of diameter $(1,3 \pm 0,05)$ mm cannot pass into the sensor chamber(s).		N
4.17	Additional requirements for software controlled smoke alarms		N
4.17.1	General		N
	For smoke alarms, which rely on software control in order to fulfil the requirements of this document, the requirements of 4.17.2, 4.17.3 and 4.17.4 shall be met.		N
4.17.2	Software documentation		N



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4.17.2.1	The manufacturer shall submit documentation which gives an overview of the software design. This documentation shall be in sufficient detail for the design to be inspected for compliance with this document and shall include at least the following: a) a functional description of the main program flow (e.g. as a flow diagram or structogram) including: 1) a brief description of the modules and the functions that they perform; 2) the way in which the modules interact; 3) the overall hierarchy of the program; 4) the way in which the software interacts with the hardware of the smoke alarms; 5) the way in which the modules are called, including any interrupt processing. b) a description of which areas of memory are used for the various purposes (e.g. the program, site specific data and running data); c) a designation, by which the software and its version can be uniquely identified.		N
4.17.2.2	The manufacturer shall have available detailed design documentation, which only needs to be provided if required by the testing authority. It shall comprise at least the following: a) an overview of the whole system configuration, including all software and hardware components; b) a description of each module of the program, containing at least: 1) the name of the module; 2) a description of the tasks performed; 3) a description of the interfaces, including the type of data transfer, the valid data range and the checking for valid data. c) full source code listings, as hard copy or in machine-readable form (e.g. ASCII-code), including all global and local variables, constants and labels used, and sufficient comment for the program flow to be recognized; d) details of any software tools used in the design and		N



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	implementation phase (e.g. CASE-tools, compilers).		
4.17.3	Software design		P
	In order to ensure the reliability of the smoke alarm, the following requirements for software design shall apply: a) the software shall have a modular structure; b) the design of the interfaces for manually and automatically generated data shall not permit invalid data to cause errors in the program operation; c) the software shall be designed to avoid the occurrence of deadlock of the program flow.		P
4.17.4	The storage of programs and data		N
	The program necessary to comply with this document and any preset data, such as manufacturer's settings, shall be held in non-volatile memory. Writing to areas of memory containing this program and data shall only be possible by the use of a special tool or code and shall not be possible during normal operation of the detector.		N
	Site-specific data shall be held in memory which will retain data for at least two weeks without power from the mains or any replaceable battery, unless provision is made for the automatic renewal of such data, following loss of power, within 1 h of power being restored.		N
4.18	Inter-connectable smoke alarms		P



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	If a means of connecting a number of smoke alarms to give a general alarm signal is provided the following shall apply (see 5.19). a) The audible alarm signal shall be emitted by all of the interconnecting smoke alarms when the smoke is detected by any one or more of them. If the smoke alarms are provided with an alarm silence facility, initiation of the alarm silence period of one of the smoke alarms shall not prevent the audible alarm signal being emitted by that smoke alarm when the smoke is detected by any of the other alarms. b) The interconnection of the maximum number of smoke alarms allowed by the manufacturer shall not have a significant effect on the sensitivity of the smoke alarms nor their ability to meet the battery capacity or sound output requirements (see 4.15 and 5.17). c) For battery-operated smoke alarms, open or short-circuits of the interconnecting leads either shall not prevent the smoke alarms from functioning individually or shall result in an alarm condition or fault warning.		N
4.19	Marking and data		P
4.19.1	Smoke alarm marking		P
	Each alarm shall be indelibly marked with the following: a) the number and date of this document, i.e. EN 14604:2005; b) the name or trade mark and address of the manufacturer or supplier; c) the date of manufacture, or the batch number; d) the manufacturer's recommended date for replacement, subject to normal, regular maintenance; e) smoke alarms incorporating user replaceable batteries: the type or numbers of batteries recommended by the manufacturer and an instruction to the user "Test the alarm for correct operation using the test facility, whenever the battery is replaced"; which shall be visible during the operation of changing the batteries; f) smoke alarms incorporating non-replaceable batteries: the warning "WARNING — Battery not replaceable —		P



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	See instruction manual" which shall be visible during normal use.		
	Conformity shall be checked by visual inspection. The indelibility of the marking shall be checked by establishing that it cannot be removed when rubbed lightly with a piece of cloth soaked with petroleum spirit and then water.		P
4.19.2	Packaging marking		P
	The point-of-sale carton, in which a smoke alarm employing a radionuclide is packaged, shall be permanently marked on the exterior with the trefoil symbol, name of radionuclide, and activity.		P
4.19.3	Data		P
	Information supplied on or with smoke alarms shall include instructions on siting, installation and maintenance.		P
	The information provided with smoke alarms incorporating user-replaceable batteries shall include specific guidance on changing the batteries. This guidance shall include any advice which is necessary to ensure that the battery is properly connected. It shall also include a recommendation that the operation of the alarm is tested with the test facility whenever the batteries are replaced.		P
	For smoke alarms incorporating non-replaceable batteries, information shall be given on the action to be taken if a battery fault warning is emitted.		N
	Information for inter-connectable smoke alarms shall state the maximum number that may be interconnected. Details of suitable cables shall also be given.		N
	Information for smoke alarms intended for connection to mains supplies shall include a warning that draws attention to the hazards associated with mains voltages and recommends that the smoke alarm, together with any associated supply and interconnect wiring, be installed in accordance with appropriate national electrical installation regulations.		N



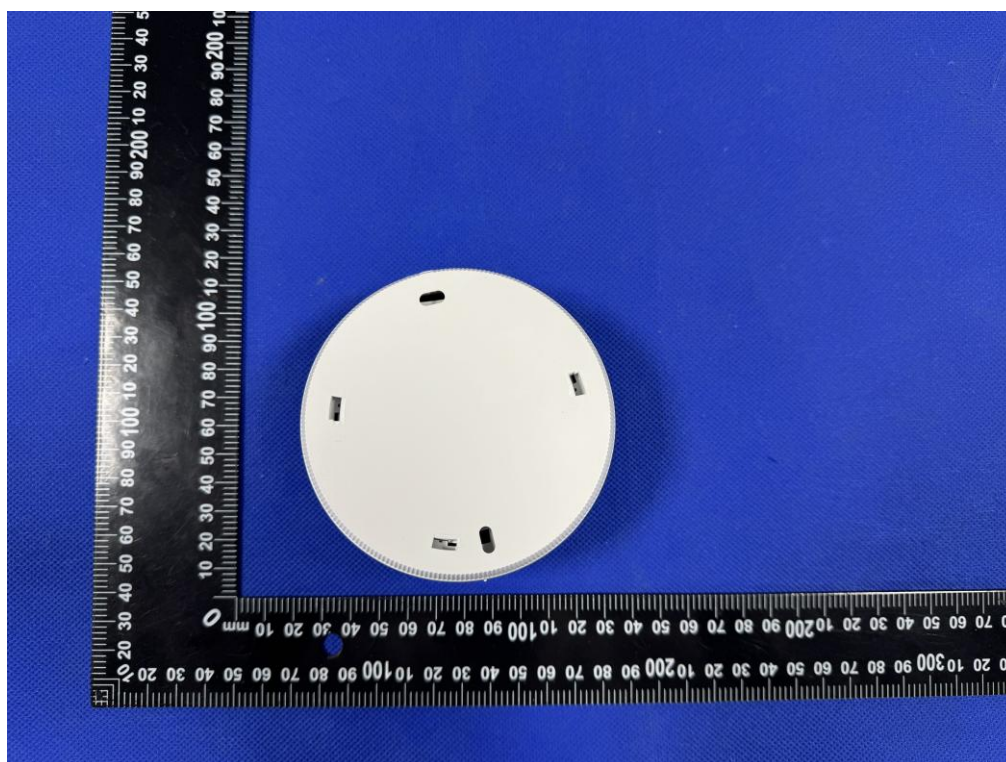
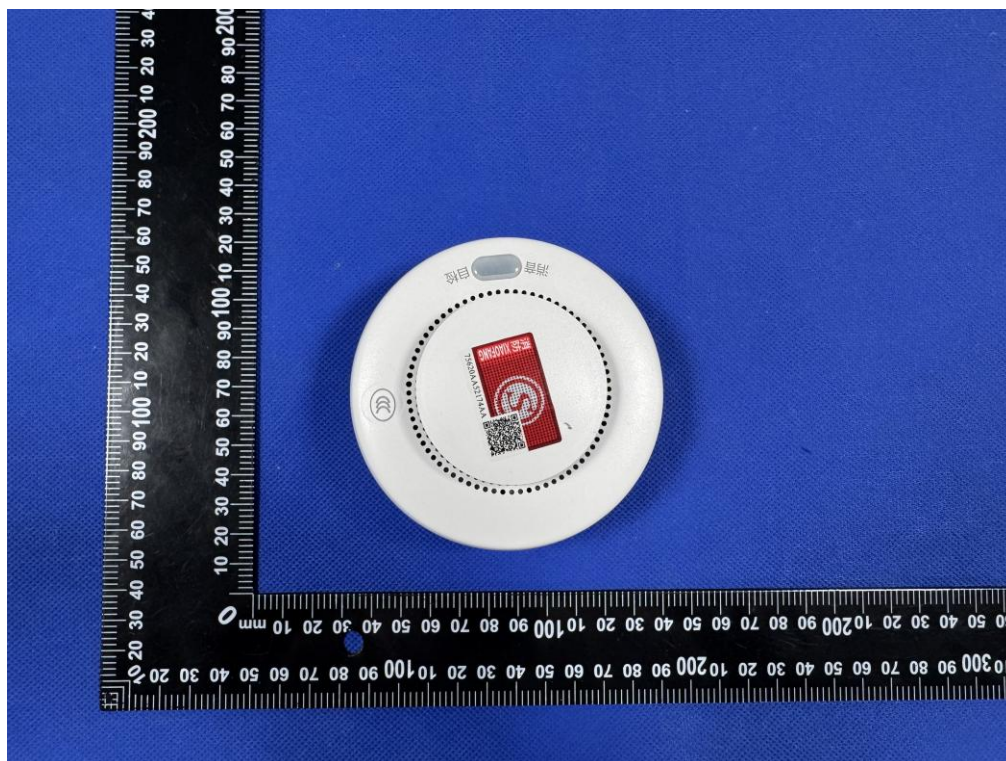
DONGGUAN JUN'AN TESTING AND CERTIFICATION CO., LTD

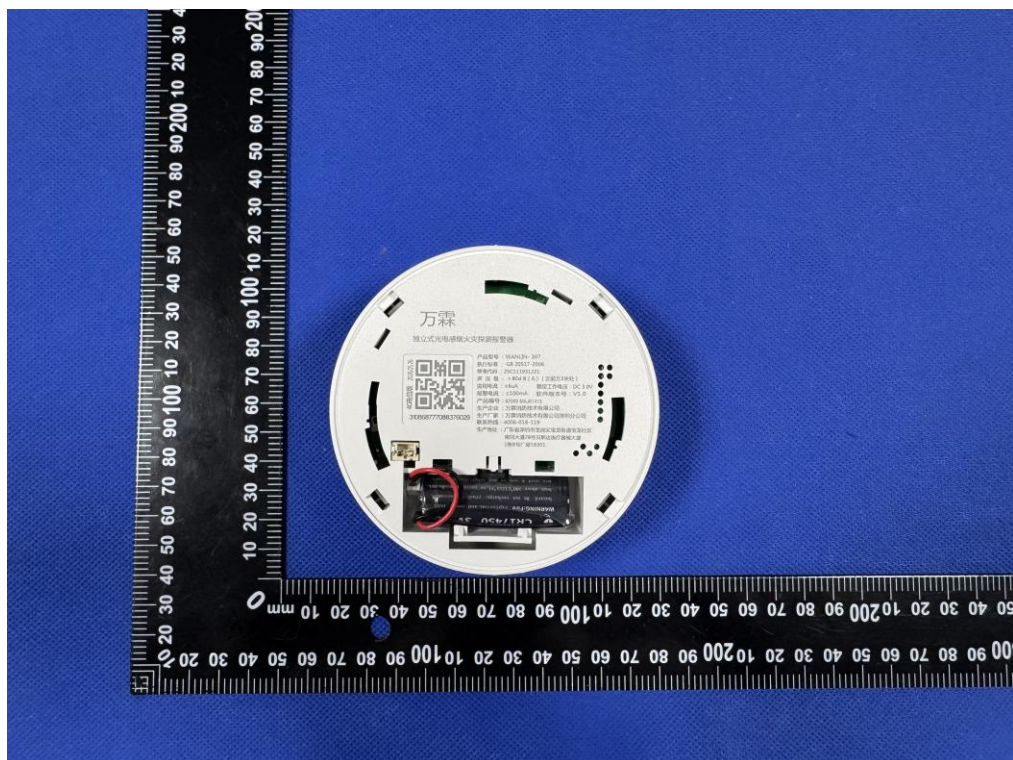
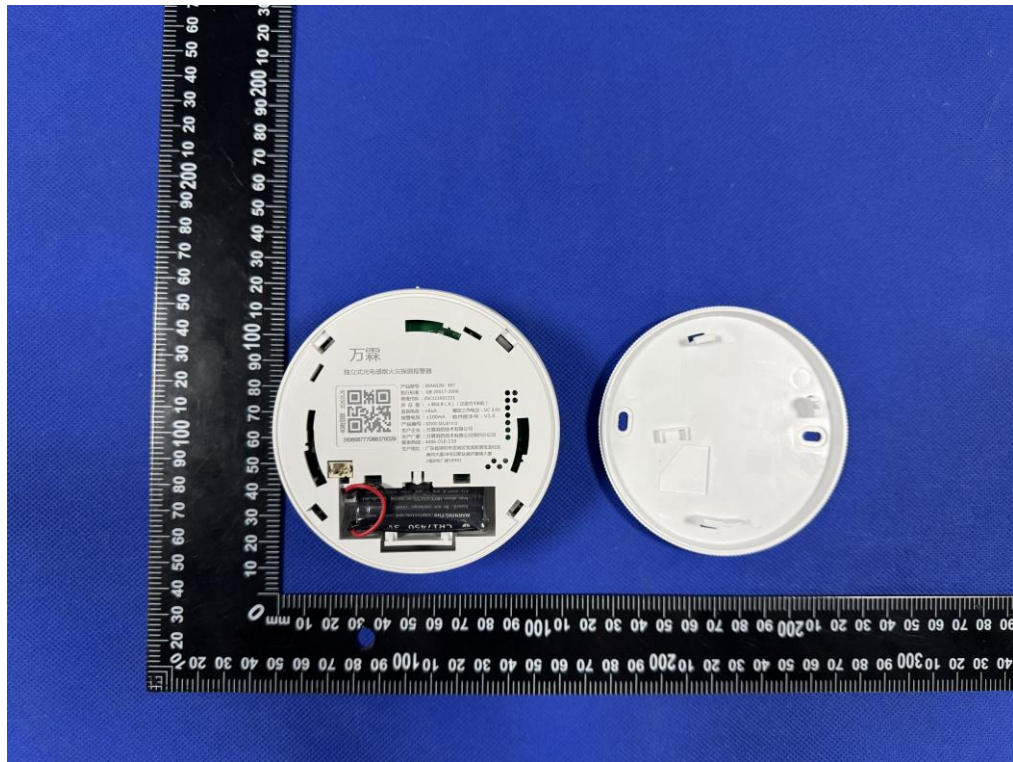
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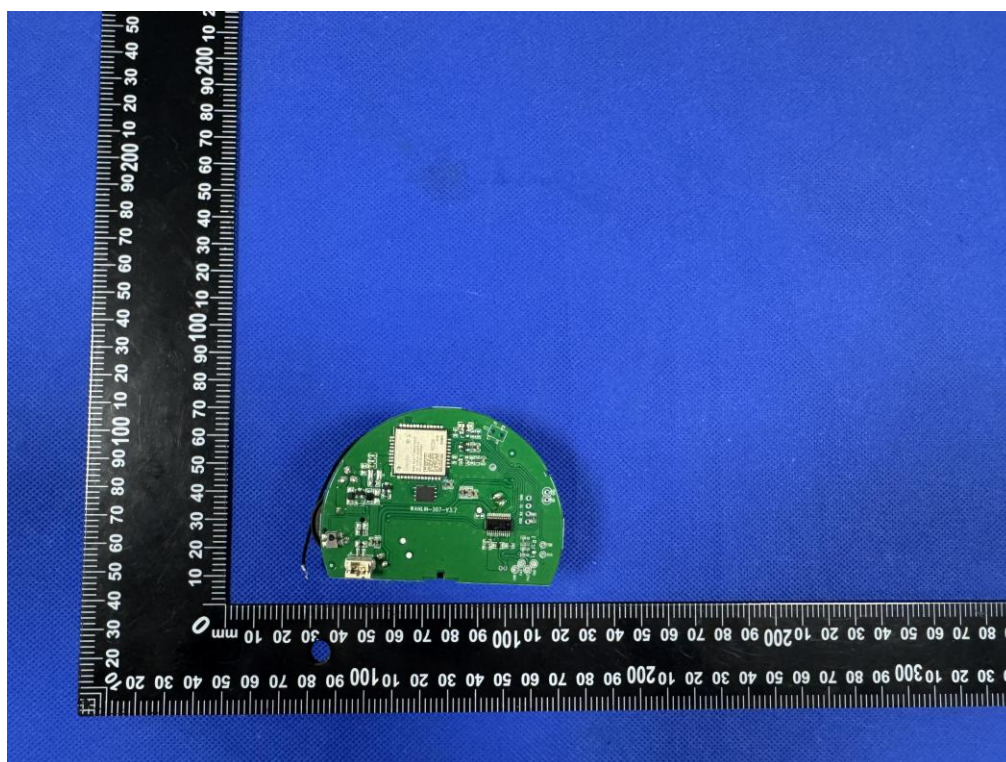
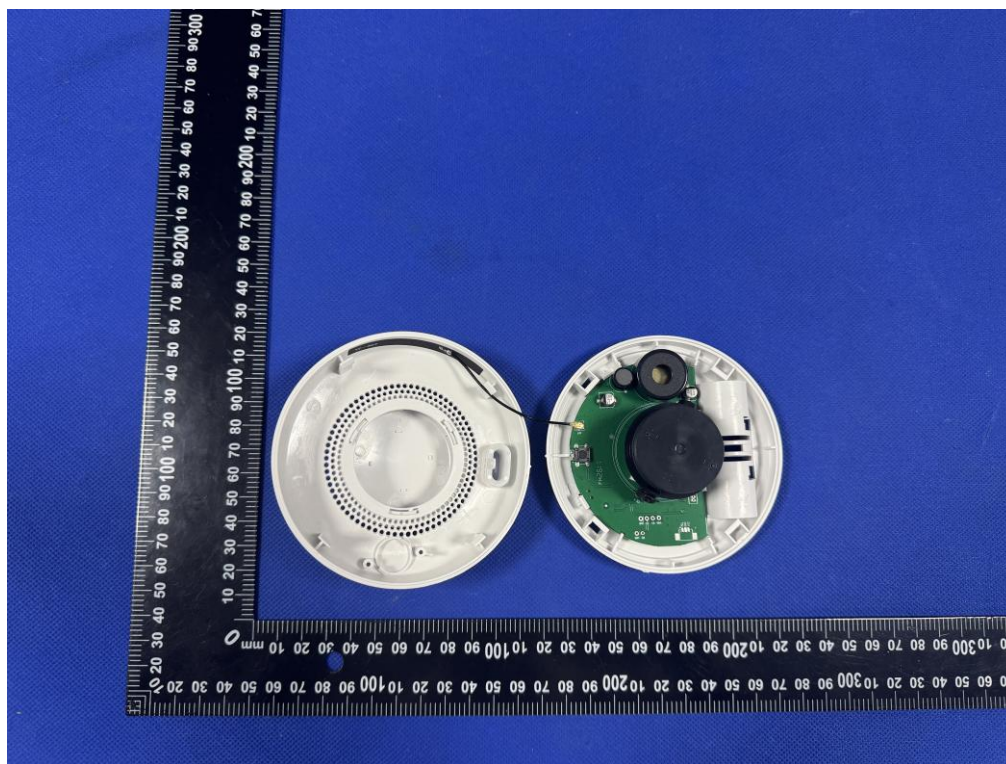
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	If it is claimed that the smoke alarm is also suitable for use in leisure accommodation vehicles (LAVs) this shall be clearly stated in the information supplied on or with the smoke alarm.		N

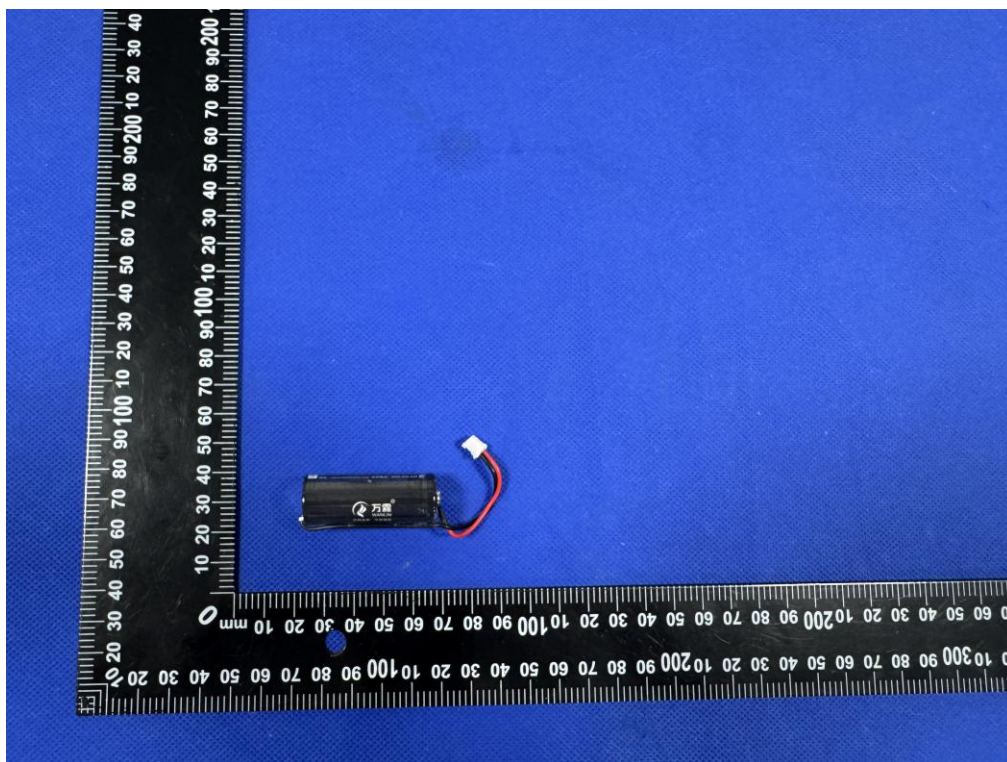
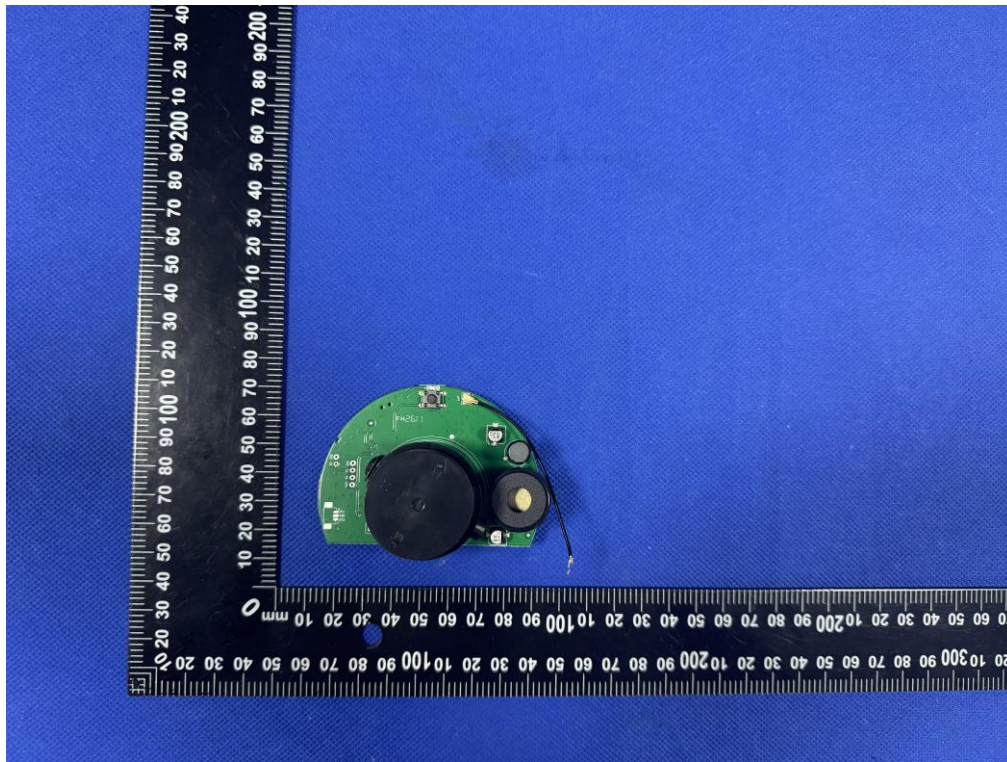


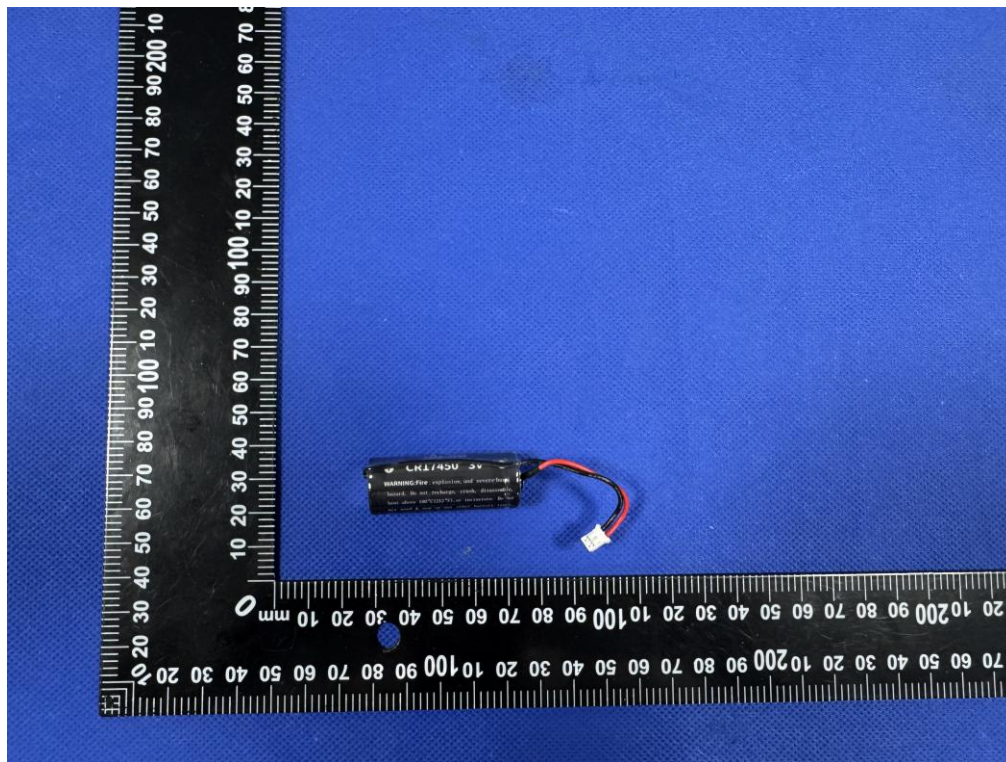
APPENDIX
(Photos of EUT)











===End of report===