

Applicant.....: Chengdu Leiqu Information
Technology Co., Ltd.

Product: 4G CPE 3i

Model(s) or Type(s)...: B313-322

Report No.: BTL-ERP-1-S2408C010



BTL Inc. (Dongguan)

東莞信寶電子產品檢測有限公司



TEST REPORT

COMMISSION REGULATION (EU) 2023/826

Ecodesign requirements for off mode, standby mode, and networked standby energy consumption of electrical and electronic household and office equipment pursuant to Directive 2009/125/EC of the European Parliament and of the Council

Report Reference No. : BTL-ERP-1-S2408C010

Tested by (+ signature).....: Marco Liu

Marco Liu

Approved by (+ signature): Ben Liu

Date of issue: 2024-09-30

Total number of pages 21

Testing laboratory

Name: **BTL Inc (Dongguan).**

Address.....: No.3, JinShaGang 1st Road, Dalang, DongGuan, Guangdong, China.

Testing location.....: Room 108, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan, Guangdong, China.

Applicant

Name: **Chengdu Leiqu Information Technology Co., Ltd.**

Address.....: No.1102,11th Floor,Building 1,No.69 Tianfu 3rd Street, Chengdu High-tech Zone, China (Sichuan) Pilot Free-Trade Zone

Test specification

Standard: Commission Regulation (EU) 2023/826

Test procedure.....: EN 50564: 2011

Test Report Form/blank test report

Test Report Form No.: ERP_2023/826

Master TRF: Dated 2023

Testing

Date of receipt of test item.....: 2024-08-20

Date(s) of performance of test.....: 2024-08-22 to 2024-08-28

Test item:

Description.....: 4G CPE 3i

Trademark: **LEIQU**

Manufacturer.....: Same as applicant

Model and/or type reference.....: B313-322

Rating(s): Input: 12V  1A

Copy of marking plate:

The artwork of label below may be only a draft. The use of certification marks or other information on the product must be complies with the concerned standard.

LEIQU

Model:B313-322



IMEI:XXXXXXXXXXXXXX



S/N:XXXXXXXXXXXXXX

Chengdu Leiqu Information Technology Co., Ltd. Chengdu 610213 PRC

Wi-Fi Name:XXXXXXXXXXXXXX

Wi-Fi Password:XXXXXXXXXXXXXX

IP:192.168.8.1

Password:xxxxxxx

WPS PIN:xxxxxxx

INPUT:12V 1A



Scan to connect Wi-Fi

MADE IN CHINA

Test case verdicts

Test case does not apply to the test object : N/A (Not Applicable)
 Test item does meet the requirement..... : P (Pass)
 Test item does not meet the requirement..... : F (Fail)
 Test case has not been checked : —

GENERAL REMARKS:

- 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 Issuing testing laboratory.
- When determining the test conclusion, the nominal variations in some test parameters have little effect on the uncertainty of the measurement result. The decision rules are based on IEC Guide 115 with complying the relevant requirements of environment and equipment.
- "(See Enclosure #)" refers to additional information appended to the report.
- "(See appended table)" refers to a table appended to the report.
- The harmonised standard EN 50564:2011 using which have been published for this purpose under the previously Commission Regulation in the Official Journal of the European Union.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

GENERAL PRODUCT INFORMATION:



Product Description –

- The equipment is a 4G CPE 3i using for electrical and electronic household and office equipment.
- The test samples were pre-production samples without serial numbers.
- The equipment is supplied by external power supply which test by ErP according to the the relevance regulation on ecodesign of external power supplies.

Models difference:

- N/A

External Power Adapter :

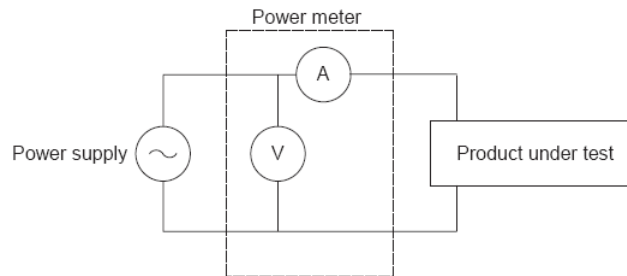
Manufacturer	Model	Technical data
SHENZHEN HUNTKEY ELECTRIC CO., LTD	HW-120100E03 HW-120100B03	I/P: 100-240V~, 50/60Hz, 0.5A. O/P: 12V  1.0A
Dongguan Shilong Fuhua Electronic Co., Ltd.	HW-120100E03 HW-120100B03	I/P: 100-240V~, 50/60Hz, 0.5A. O/P: 12V  1.0A

Notes: Two models are same except different plug, the difference do not affect the result of power consumption.

Category of equipment	<input checked="" type="checkbox"/> Networked equipment	<input type="checkbox"/> Non-networked equipment
Category of networked equipment....	<input checked="" type="checkbox"/> HiNA equipment	<input type="checkbox"/> Equipment with HiNA functionality
	<input type="checkbox"/> Other networked equipment	
Network connection port(s).....	<input checked="" type="checkbox"/> wired	
	<input checked="" type="checkbox"/> number and type of port(s):	
	LAN/WAN port: 1 pcs(s);	
	SIM port: 1 pcs(s);	
	<input checked="" type="checkbox"/> wireless	
	<input type="checkbox"/> not provided	
Off mode.....	<input checked="" type="checkbox"/> Provided	<input type="checkbox"/> Not provided
Standby mode.....	<input type="checkbox"/> Provided	<input checked="" type="checkbox"/> Not provided
Information or Display Function.....	<input type="checkbox"/> Provided	<input checked="" type="checkbox"/> Not provided
External power supply	<input checked="" type="checkbox"/> Provided (Complied with the relevance regulation on ecodesign of external power supplies)	
	<input type="checkbox"/> Not provided	

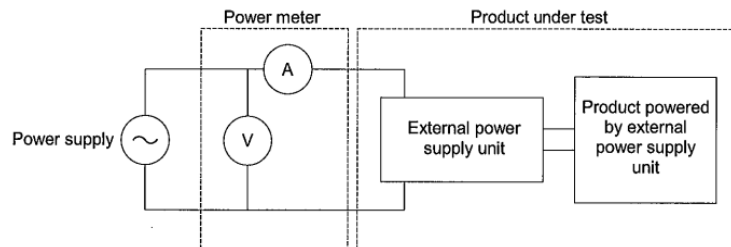
Connection arrangement for testing:

☐ Connection 1: Connection arrangement for products powered directly from an a.c. power supply for lower power loads



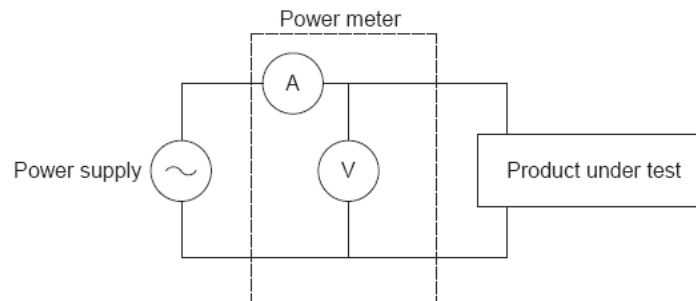
IEC 176/11

☒ Connection 2: Connection arrangement for a product powered via an external power supply for lower power loads



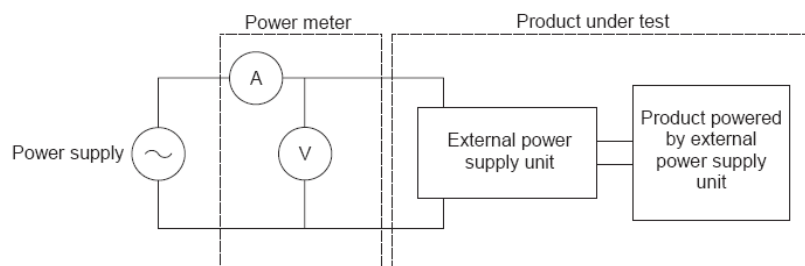
IEC 177/11

☐ Connection 3: Connection arrangement for a product powered directly from the a.c. main supply for higher power loads



IEC 178/11

☐ Connection 4: Connection arrangement for a product powered via an external power supply for higher power loads



IEC 179/11

COMMISSION REGULATION (EU) 2023/826			
Clause	Requirement-test	Measuring result - Remark	Verdict
1	Measurement of low power consumption		P
1.2	General conditions for measurements	See below.	P
1.2.2	Ambient temperature (23 ± 5)°C	Ambient: 23.1°C	P
1.2.3	Air speed ≤ 0.5 m/s	Air speed: ≤ 0.35m/s	P
1.2.4	Test voltage 230 V ± 1%	(See appended TABLE 1a~1b for the test result)	P
1.2.5	Test frequency 50 Hz ± 1%	(See appended TABLE 1a~1b for the test result)	P
1.2.6	Total harmonic distortion of the electricity supply system ≤ 2%	Complied.	P
1.2.7	The ratio of peak value to r.m.s. value of the test voltage (i.e. crest factor) shall be between 1.34 and 1.49	Complied.	P
1.3	Power management uncertainty (See EN 50564 Annex D and the result complies with clause 4.4.1)		P
1.4	Information and documentation on the instrumentation, set-up and circuits used for electrical testing	Lower power loads measurement circuit used.	P

1.5	Measurements procedure / method		P
1.5.1	Name of mode	See below.	—
1.5.2	How is the mode selected or programmed	The product power consumption of networked standby and off mode within a mode is stable. The sampling method is the preferred method of measurement.	—
1.5.3	Sequence of events to reach the mode where the product automatically changes mode	Data recorded throughout the total period.	—
1.5.4	Test method	<input checked="" type="checkbox"/> Sampling method <input type="checkbox"/> Average reading method <input type="checkbox"/> Direct meter reading method	—
1.5.4.1	Sampling method	See below.	P
	Sampling interval	0.25s	—
	Total duration of test	See appended table.	—
	Measurement time	See appended table.	—
	Stability (mW/h)	See appended table.	—
	Limited applied	See appended table.	—
	Test result in W :	See appended table.	—

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Clause	Requirement-test	Measuring result - Remark	Verdict
1.5.4.2	Average reading method		N/A
	Average power approach	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	Accumulated energy approach	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	Sampling interval		—
	Stability (mW/h)		—
	Measurement duration (Averaging / Accumulated)		—
	Limited applied		—
	Test result in W		—
1.5.4.3	Direct meter reading method		N/A
	Sampling interval		—
	Stability (mW/h)		—
	Measurement time		—
	Limited applied		—
	Test result in W		—

2.	Energy efficiency requirements		P
2.1	Power consumption in off mode	See below.	P
	– From 2025, Power consumption of equipment in off mode shall not exceed 0.50 W	(See appended TABLE 1a~1b for the test result)	P
	– From 2027, Power consumption of equipment in off mode shall not exceed 0.30 W	(See appended TABLE 1a~1b for the test result)	P
2.2	Power consumption in standby mode		N/A
	The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and an indication of enabled reactivation function, shall not exceed 0.50 W		N/A
	The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, or providing only a reactivation function and an indication of enabled reactivation function and information or status display shall not exceed 0.80 W. (except for household tumble driers covered by Commission Regulation (EU) No 932/2012 for which this value shall be 1.00 W.)		N/A
	Networked equipment that has one or more standby modes shall comply with the requirements for those standby modes when all wired network ports are disconnected and all wireless network ports are		N/A

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Clause	Requirement-test	Measuring result - Remark	Verdict
	deactivated.		
2.3	Power consumption in networked standby	See below.	P
2.3.1	The power consumption of HiNA equipment or equipment with HiNA functionality	(See appended TABLE 1a~1b for the test result)	P
	– From 2025, in networked standby shall not exceed 8.00 W. Two years after the application of this Regulation, the power consumption of HiNA equipment or equipment with HiNA functionality	(See appended TABLE 1a~1b for the test result)	P
	– From 2027, in networked standby shall not exceed 7.00 W.		P
2.3.2	Other than HiNA equipment or equipment with HiNA functionality		N/A
	In networked standby shall not exceed 2.00 W		N/A

3.	Functional requirements		P
3.1	Availability of off mode and standby mode		P
	Equipment shall provide one or more of the following conditions: – off mode – standby mode – another condition which does not exceed the applicable power consumption requirements for off mode or standby mode when the equipment is connected to the mains power source.		P
3.2	Power management function for all equipment other than networked equipment		N/A
3.2.1	Power management function for all equipment other than networked equipment: Unless inappropriate for the intended use, equipment shall provide a power management function. When equipment is not providing a main function, and another energy-related product is not dependent on its functions, the power management function shall switch equipment, after the shortest possible period appropriate for the intended use of the equipment, automatically into either of the following conditions: – standby mode, – off mode, – another condition which does not exceed the applicable power consumption requirements for off mode or standby mode when the equipment is connected to the mains power source.		N/A
3.2.2	For household coffee machines, the period		N/A

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Clause	Requirement-test	Measuring result - Remark	Verdict
	referred to in clause 3.2.1 shall be as follows: – for drip filter household coffee machines storing the coffee in an insulated jug, a maximum of five minutes; – for drip filter household coffee machines storing the coffee in a non-insulated jug, a maximum of 40 minutes; – for household coffee machines other than drip filter household coffee machines, a maximum of 30 minutes.		
3.2.3	For other equipment, the period referred to in clause 3.2.1 shall not exceed 20 minutes.		N/A
3.2.4	The power management function described in clause 3.2.1 shall be activated when the equipment is placed on the market or put into service and activated with its initial setup after the equipment is reset to its factory default settings.		N/A
3.2.5	The equipment may offer the user the option to deactivate the power management function. In such cases the users shall be warned about the increased energy consumption of that action. That warning shall be included in the instruction manuals and, where applicable, be made available on the displays integrated in or connected to the equipment, excluding information or status displays. That option shall not be part of the installation procedure of the equipment and shall require a separate user action on the equipment.		N/A
3.3	Power management for networked equipment		P
3.3.1	Unless inappropriate for the intended use, equipment shall provide a power management function. When equipment is not performing a main function, and another energy-related product is not dependent on its functions, the power management function shall switch equipment, after the shortest possible period appropriate for the intended use of the equipment, automatically into networked standby. That period shall not exceed 20 minutes.	EUT can be automatically into networked standby mode in 20 min when main function was not provided.	P
3.3.2	In networked standby, the power management function may switch equipment automatically into standby mode or off mode or another condition, which does not exceed the applicable power consumption requirements for standby or off mode.		N/A
3.3.4	The power management function shall be available for all network ports of the networked equipment.		P
3.3.5	Unless all network ports are deactivated, the power management function shall be activated when the equipment is placed on the market or put into service. After the equipment is reset to its factory		P

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Clause	Requirement-test	Measuring result - Remark	Verdict
	default settings, the power management function shall be activated if any of the network ports is activated.		
	The equipment may offer the user the option to deactivate the power management function. In such cases, the user shall be warned about the increased energy consumption of that action. That warning shall be included in the instruction manuals and, where applicable, be made available on the displays integrated in or connected to the equipment. That option shall not be part of the installation procedure of the equipment and shall require a separate user action on the equipment.		N/A
	Networked equipment other than HiNA equipment shall comply with the requirements set out in clause 3.2 when all wired network ports are disconnected and all wireless network ports are deactivated.		N/A
3.4	Possibility of deactivating wireless network connections		P
	Any networked equipment that can be connected to a wireless network shall offer the user the possibility to deactivate the wireless network connections. That requirement does not apply to equipment that relies on a single wireless network connection for intended use and have no wired network connection.		P
3.5	The indication 'standby' and its translations in all Union official languages shall not be used in describing, either alone or in combination with other information, any condition in which the equipment is not compliant with the requirements set out in clause 2.2 or 2.3.		P

4.	Information requirements		P
4.1	The instruction manuals for end-users, and free access websites of manufacturers, importers or authorised representatives shall include the following information for all equipment, as applicable:		P
4.1.1	For each off mode, standby mode (or another condition which does not exceed the applicable power consumption requirements for off mode or standby mode) and networked standby into which the equipment is switched by the power management function or similar function: <ul style="list-style-type: none"> – the power consumption expressed in watts rounded to the first decimal place; – the period after which the equipment reaches automatically standby mode, off mode or networked 		P

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Clause	Requirement-test	Measuring result - Remark	Verdict
	standby in minutes and rounded to the nearest minute		
4.1.2	The power consumption of the equipment in networked standby if all wired network ports are connected and all wireless network ports are activated	Test result see the appended table.	P
4.1.3	For equipment that needs an external power supply, but it is placed on the market without one, the manufacturer, importer or authorised representative shall provide information on the technical characteristics of the product model of the external power supply to be used with that equipment.	Placed on the market with an external power supply.	N/A
4.1.4	Guidance on how to activate and deactivate wireless network ports		P

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Clause	Requirement-test	Measuring result - Remark	Verdict
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TABLE 1a: TEST RESULTS								P
Mode of operation	U _{in} (V) / F _n (Hz)	P _{in} (W)	I _{in} (mA)	THD (%)	Total duration	Test duration	Stability (mW/h)	Condition/status
OFF mode	230 / 50	0.149	2.88	0.052	60mins	40mins	0.926	--
Networked Standby mode	230 / 50	2.192	26.81	0.302	60mins	40mins	1.012	Only LAN port activate
	230 / 50	2.784	32.78	0.349	60mins	40mins	1.200	Only 2.4G wireless activate
	230 / 50	2.190	26.39	0.299	60mins	40mins	0.278	Only WAN port activate
	230 / 50	2.730	32.61	0.359	60mins	40mins	4.350	Only SIM activate (WCDMA) clients' requirement
	230 / 50	4.799	53.65	0.498	60mins	40mins	5.787	Only SIM activate (LTE) clients' requirement
The default time after which the power management function for automatically into standby mode, or off mode, or another condition.							N/A	
The default time after which the power management function for automatically into networked standby mode or another condition.							< 20min	
The power consumption of the product in networked standby if all wired network ports are connected and all wireless network ports are activated							5.68W	
Notes:								
Test Adapter model: HW-120100E03 (Manufacturer: SHENZHEN HUNTKEY ELECTRIC CO., LTD.)								

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Clause	Requirement-test	Measuring result - Remark	Verdict
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TABLE 1b: TEST RESULTS								P
Mode of operation	U _{in} (V) / F _n (Hz)	P _{in} (W)	I _{in} (mA)	THD (%)	Total duration	Test duration	Stability (mW/h)	Condition/status
OFF mode	230 / 50	0.174	2.80	0.038	60mins	40mins	0.286	--
Networked Standby mode	230 / 50	2.179	23.94	0.238	60mins	40mins	0.103	Only LAN port activate
	230 / 50	2.783	29.83	0.281	60mins	40mins	4.424	Only 2.4G wireless activate
	230 / 50	2.179	23.93	0.238	60mins	40mins	0.082	Only WAN port activate
	230 / 50	2.753	29.55	0.280	60mins	40mins	1.146	Only SIM activate (WCDMA) clients' requirement
	230 / 50	4.813	48.71	0.409	60mins	40mins	4.053	Only SIM activate (LTE) clients' requirement
The default time after which the power management function for automatically into standby mode, or off mode, or another condition.							N/A	
The default time after which the power management function for automatically into networked standby mode or another condition.							< 20min	
The power consumption of the product in networked standby if all wired network ports are connected and all wireless network ports are activated							5.71W	
Notes: Test Adapter model: HW-120100E03 (Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd.)								

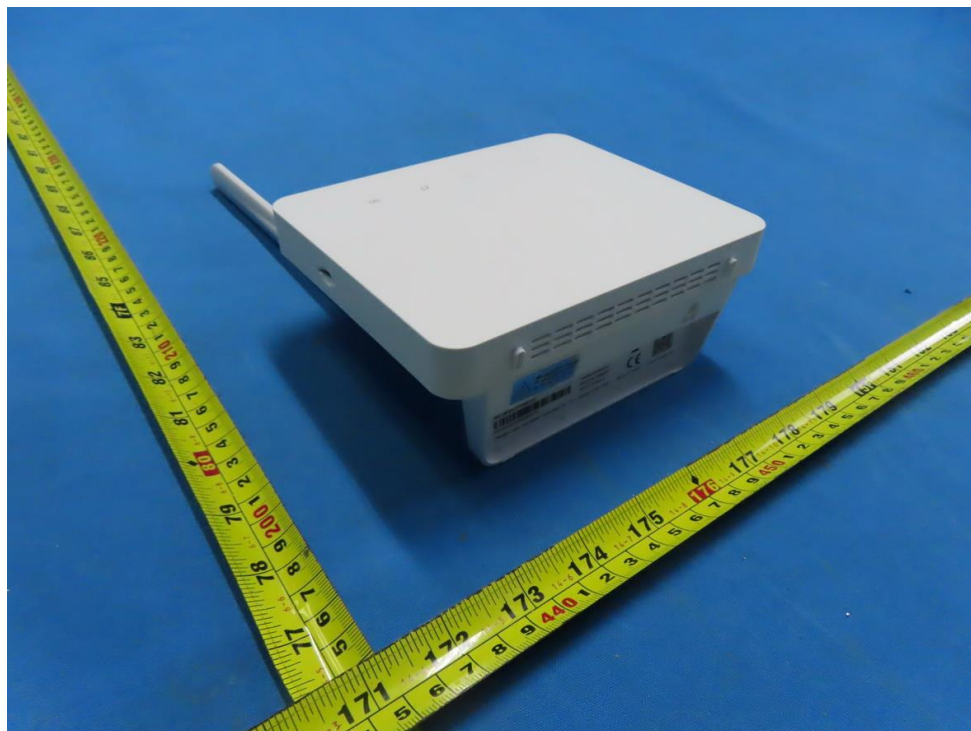
COMMISSION REGULATION (EU) 2023/826

Clause	Requirement-test	Measuring result - Remark	Verdict
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TABLE 2	Summary of testing result(s)			P
Item	Requirement - Limit			—
OFF mode	--	From 2025	$\leq 0.50W$	P
		From 2027	$\leq 0.30W$	P
Standby mode	Without information or status display	From 2025	$\leq 0.50W$	N/A
	With information or display function	From 2025	$\leq 0.80W$	N/A
Networked standby	HiNA equipment, or Equipment with HiNA functionality	From 2025	$\leq 8.00W$	P
		From 2027	$\leq 7.00W$	P
	Non-HiNA equipment	From 2025	$\leq 2.00W$	N/A
Power management (Period)	All equipment other than Household coffee machines and networked equipment	--	≤ 20 min	N/A
	Drip filter Household coffee machines	In an insulated jug	≤ 5 min	N/A
		In a non-insulated jug	≤ 40 min	N/A
	Household coffee machines other than drip filter household coffee machines	--	≤ 30 min	N/A
	Networked equipment	--	≤ 20 min	P
Stability	Input power $\leq 1W$	≤ 10 mW/h		P
	Input power $> 1W$	1 % of the measured input power		P

List of test equipment used					
ID No	DESCRIPTION	MANUF.	MODEL NO.	CAL. DATE	DUE DATE
A13	Frequency Conversion Power Supply	Ainuo	AN97005H	2024-06-22	2025-06-21
HR15	Humidity & Temp. Recorder	ZOGLAB	DSR-THUA	2024-06-12	2025-06-11
HW2	Hot-Wire Anemometer	testo	405-V1	2024-04-22	2025-04-21
SW2	Stopwatch	TF	PC396	2024-08-06	2025-08-05
H-PM4	Power Meter	YOKOGAWA	WT310E	2024-01-21	2025-01-20

PHOTOS



External view - 1



External view - 2

PHOTOS

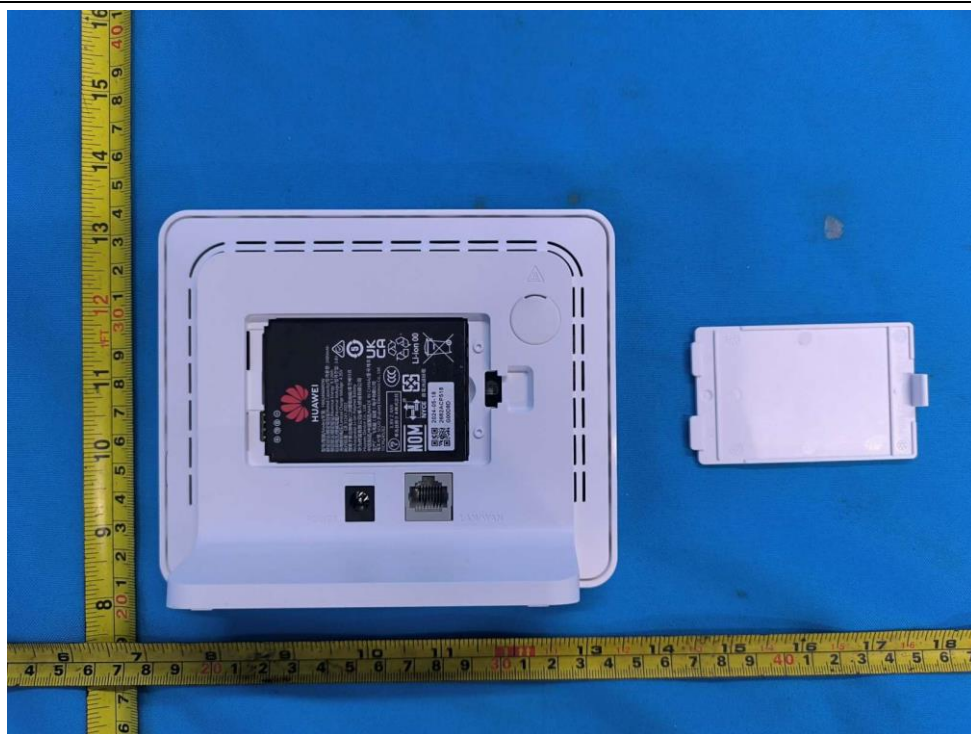


Connector view - 1

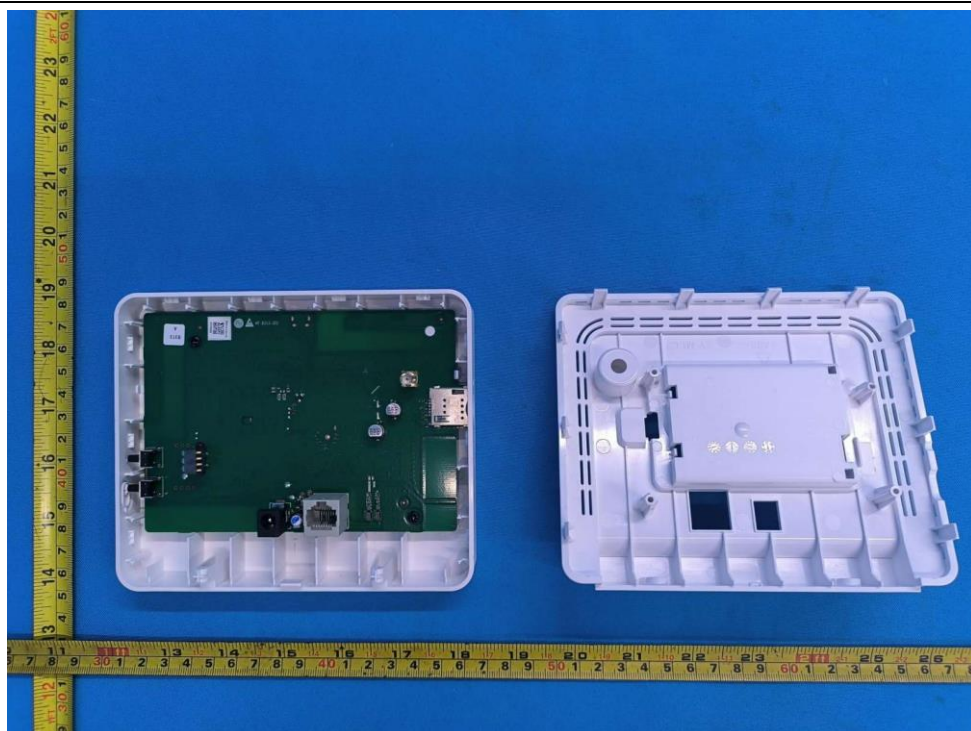


Connector view - 2

PHOTOS



Internal view - 1



Internal view - 2

PHOTOS



Adapter view - 1 Model: HW-120100E03
(Manufacturer: SHENZHEN HUNTKEY ELECTRIC CO., LTD.)



Adapter view - 2 Model: HW-120100E03
(Manufacturer: SHENZHEN HUNTKEY ELECTRIC CO., LTD.)

PHOTOS



Adapter view - 1 Model: HW-120100B03
(Manufacturer: SHENZHEN HUNTKEY ELECTRIC CO., LTD.)



Adapter view - 2 Model: HW-120100B03
(Manufacturer: SHENZHEN HUNTKEY ELECTRIC CO., LTD.)

PHOTOS



Adapter view - 1 Model: HW-120100E03
(Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd.)



Adapter view - 2 Model: HW-120100E03
(Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd.)

PHOTOS



Adapter view - 1 Model: HW-120100B03
(Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd.)



Adapter view - 2 Model: HW-120100B03
(Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd.)

- End of Test Report -