TEST REPORT

COMMISSION REGULATION (EC) No 1275/2008, (EC) No 801/2013

implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment

Report Number. .....:	
Date of issue.....:	Apr. 23, 2021
Total number of pages.....:	11
Applicant's name.....:	Nebra Ltd
Address .....:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells TN3 9BJ
Test specification:	
Standard .....:	(EC) No 1275/2008, (EC) No 801/2013
Test method.....:	EN 50564: 2011
Test procedure .....:	Test Report
Non-standard test method.....:	N/A
Test Report Form No.....:	ERP_1275_2008_EC_A
Test Report Form(s) Originator .....:	JYTSZ
Master TRF.....:	Dated 2020-11-11
General disclaimer:	
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Test item description .....:	Nebra Smart Indoor LoRa Gateway, Nebra HNT Indoor Hotspot Miner
Trade Mark .....:	N/A
Manufacturer .....:	Nebra Ltd
Address .....:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells TN3 9BJ
Model/Type reference.....:	HNTIN-470-G, HNTIN-868-G, HNTIN-915-G, HNTIN-433-G, HNTIN-470, HNTIN-868, HNTIN-915, HNTIN-433
Ratings .....:	For adapter output: 12.0V⎓, 1.5A

Testing procedure and testing location:

Testing Laboratory.....:	Jianyan Testing Group Shenzhen Co., Ltd.
Testing location/ address.....:	No. 101, Building 8, Innovation Wisdom Port, No. 155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Prepare by (name + signature) .....:	
Reviewed by (name + signature) ...:	
Approved by (name + signature)....:	

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
The submitted samples were tested and found to comply with the requirements of: - (EC) No 1725/2008 - (EC) No 801/2013 - EN 50564: 2011	Jianyan Testing Group Shenzhen Co., Ltd. No. 101, Building 8, Innovation Wisdom Port, No. 155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

The sample(s) tested complies with the requirements of COMMISSION REGULATION (EC) No 1275/2008.

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

Measurements of power of 0.50 W or greater was made with an uncertainty of less than or equal to 2 % at the 95 % confidence level.

Measurements of power of less than 0.50 W was made with an uncertainty of less than or equal to 0.01 W at the 95 % confidence level.

Copy of marking plate

The artwork below may be only a draft. Until approval by National Certification Bodies and they shall not be affixed to products.

Nebra LTD, UK Co No 06732600
Made in P.R.C

Representative marking for all models. Marking plates of other models are identical except model name.

Test item particulars..... :	
Product category.....:	Nebra Smart Indoor LoRa Gateway
Power supply Connects to.....:	☐ AC Mains ☒ External adapter ☐ Others:
Availability of Standby mode .....:	☐ Yes ☒ No
Availability of Networked standby .....:	☒ Yes ☐ No
Availability of off mode.....:	☐ Yes ☒ No
Availability of display function in standby-mode .....:	☐ Yes ☒ No
Availability of any condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source .....:	☐ Yes ☒ No
Availability of power management function .....:	☒ Yes ☐ No
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing.....:	
Date of receipt of test item.....:	Mar. 12, 2021
Date(s) of performance of tests.....:	Apr. 12, 2021 to Apr. 13, 2021
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. **Throughout this report a ☐ comma / ☒ point is used as the decimal separator.** According to the EU decision 768/2008/EC and German product safety law (ProdSG), the name and address of manufacturer (an EU-based importer or authorized representative if the manufacturer is not based in EU) shall be affixed on the product or, where that is not possible, on its packaging or in a document accompanying the product before the product is placed on EU market.	
Name and address of factory (ies) .....:	SUNSOAR TECH CO., LIMITED 4/F, Block E, Fengze Building, Huafeng No.2 Industrial Park, Hangkong Road, XiXiang Town, BaoAn District, Shenzhen, China
General product information: The Nebra Smart Indoor LoRa Gateway power supply by external power adapter. The external power adapter for model TM-K018VP-01201500PE-Z complies with COMMISSION REGULATION (EU) 2019/1782. Relevant ecodesign requirements were not considered in this report.	

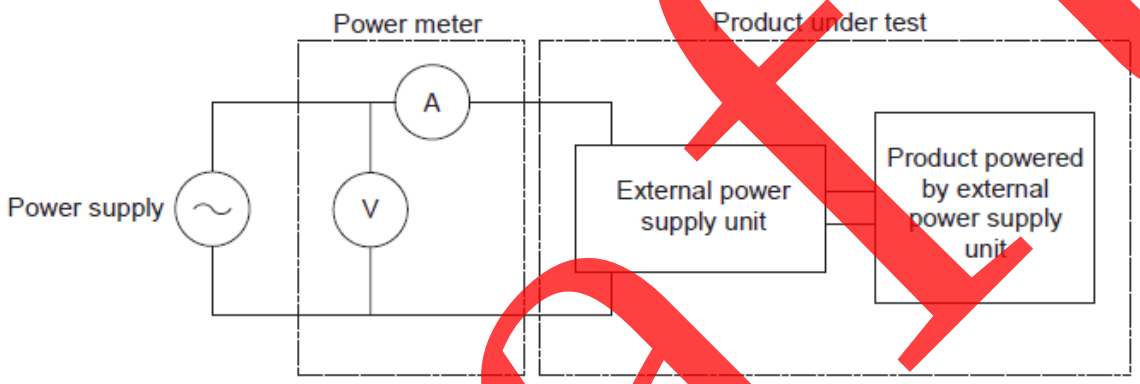
COMMISSION REGULATION (EC) No 1275/2008 ANNEX II, (EC) No 801/2013 ecodesign requirements			
Clause	Requirement + Test	Result - Remark	Verdict
1 & 2	Power consumption in “off mode”		P
1(a) & 2(a)	Power consumption of equipment in any off-mode condition	(See appended table 2)	P
1(b) & 2(b)	Power consumption in “standby mode(s)”		P
	The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function	(See appended table 2)	P
	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		N/A
1(c) & 2(c)	Availability of off mode and/or standby mode		P
	Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source		P
2(d)	Power management (this requirement is only applicable after this Regulation has come into force for four years)		P
	When equipment is not providing the main function, or when other energy-using product(s) are not dependent on its functions, equipment shall, unless inappropriate for the intended use, offer a power management function, or a similar function, that switches equipment after the shortest possible period of time appropriate for the intended use of the equipment, automatically into: — standby mode, or — off mode, or — Another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source. The power management function shall be activated before delivery		P
As of Jan. 01, 2015			
3(a)	Possibility of deactivating wireless network connection(s)		P
	Any networked equipment that can be connected to a wireless network shall offer the user the possibility to deactivate the wireless network connection(s). This requirement does not apply to products which rely on a single wireless network connection for intended use and have no wired network connection.		N/A
3(b)	Power management for networked equipment		P
	Equipment shall, unless inappropriate for the intended use, offer a power management function or a similar		P

COMMISSION REGULATION (EC) No 1275/2008 ANNEX II, (EC) No 801/2013 ecodesign requirements			
Clause	Requirement + Test	Result - Remark	Verdict
	function. When equipment is not providing a main function, and other energy-using product(s) are not dependent on its functions, the power management function shall switch equipment after the shortest possible period of time appropriate for the intended use of the equipment, automatically into a condition having networked standby. In a condition providing 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 and/or off mode. The power management function, or a similar function, shall be available for all network ports of the networked equipment. The power management function, or a similar function, shall be activated, unless all network ports are deactivated. In that latter case the power management function, or a similar function, shall be activated if any of the network ports is activated. The default period of time after which the power management function, or a similar function, switches the equipment automatically into a condition providing networked standby shall not exceed 20 minutes.		
3(c)	Networked equipment that has one or more standby modes shall comply with the requirements for these standby mode(s) when all network ports are deactivated.		P
3(d)	Networked equipment other than HiNA equipment shall comply with the provisions under 2(d) when all network ports are deactivated.		N/A
3(e)	Power consumption in a condition providing networked standby:		N/A
	The power consumption of HiNA equipment or equipment with HiNA functionality in a condition providing networked standby into which the equipment is switched by the power management function, or a similar function shall not exceed 12W.		N/A
	The power consumption of other networked equipment in a condition providing networked standby into which the equipment is switched by the power management function, or a similar function, shall not exceed 6W.		N/A

COMMISSION REGULATION (EC) No 1275/2008 ANNEX II, (EC) No 801/2013 ecodesign requirements			
Clause	Requirement + Test	Result - Remark	Verdict
	The power consumption limits as stipulated in point (e) shall not apply to: - printing equipment with a power supply of a rated power larger than 750 W - large format printing equipment - tele-presence systems - desktop thin clients - workstations - mobile workstations - small-scale servers - computer servers		N/A
	As of Jan. 01, 2017		
4	In addition to the requirements set out in point 3(a) and (b), the following provisions shall apply:		P
4(a)	Networked equipment that has one or more standby mode(s) shall comply with the requirements for these standby mode(s) when all wired network ports are disconnected and when all wireless network ports are deactivated		P
4(b)	Networked equipment other than HiNA equipment shall comply with the provisions under 2(d) when all wired network ports are disconnected and when all wireless network ports are deactivated.		P
4(c)	Power consumption in a condition providing “networked standby”:		P
	The power consumption of HiNA equipment or equipment with HiNA functionality, in a condition providing networked standby into which the equipment is switched by the power management function, or a similar function, shall not exceed 8 W.		P
	The power consumption of other networked equipment in a condition providing networked standby into which the equipment is switched by the power management function, or a similar function, shall not exceed 3W		N/A
	The power consumption limits as stipulated in point (c) shall not apply to: - large format printing equipment - desktop thin clients - workstations - mobile workstations - small-scale servers - computer servers		N/A
	As of Jan. 01, 2019		

COMMISSION REGULATION (EC) No 1275/2008 ANNEX II, (EC) No 801/2013 ecodesign requirements			
Clause	Requirement + Test	Result - Remark	Verdict
5	In addition to the requirements set out in point 3(a) and (b) and point 4(a), (b) and (c), the following provision shall apply for networked equipment other than HiNA equipment or other than equipment with HiNA-functionality:		N/A
	The power consumption of networked equipment other than HiNA equipment or other than equipment with HiNA functionality, in a condition providing networked standby into which the equipment is switched by the power management function, or a similar function, shall not exceed 2 W.		N/A
	As of Jan. 01, 2015		
6	For coffee machines, the delay time after which the product switches automatically into the modes and conditions referred to in Annex II, point 2, paragraph (d) shall be as follows:		N/A
	— for domestic drip filter coffee machines storing the coffee in an insulated jug, a maximum of five minutes after completion of the last brewing cycle or 30 minutes after completion of a descaling or self-cleaning process,		N/A
	— for domestic drip filter coffee machines storing the coffee in a non-insulated jug, a maximum of 40 minutes after completion of the last brewing cycle, or 30 minutes after completion of a descaling or self-cleaning process,		N/A
	— for domestic coffee machines other than drip filter coffee machines, a maximum of 30 minutes after completion of the last brewing cycle, or a maximum of 30 minutes after activation of the heating element, or a maximum of 60 minutes after activation of the cup preheating function, or a maximum of 30 minutes after completion of a descaling or self-cleaning process, unless an alarm has been triggered requiring users' intervention to prevent possible damage or accident.		N/A
	Until the above date the ecodesign requirements set out in Annex II.2.d shall not apply		N/A

COMMISSION REGULATION (EC) No 1275/2008 ANNEX II, (EC) No 801/2013 ecodesign requirements			
Clause	Requirement + Test	Result - Remark	Verdict
Table 1	Test parameters for measurements		P
The measurement method used .....:		EN 50564: 2011	
Test ambient temperature (°C) .....:		24.3	
Test ambient air speed (m/s) .....:		0.2	
Test voltage in V and frequency in Hz .....:		230V/50Hz	
Total harmonic distortion (THD) of the electricity supply system (%) :		0.306	
Sequence of events to reach the mode where the equipment automatically changes modes.....:		N/A	
Other notes regarding the operation of the equipment.....:		N/A	
Set-up and circuits used for electrical testing:			



COMMISSION REGULATION (EC) No 1275/2008 ANNEX II, (EC) No 801/2013 ecodesign requirements			
Clause	Requirement + Test	Result - Remark	Verdict
Table 2	Test result		P
Operating mode(s)		Measured (W)	Limit (W)
Off-mode condition.....:		N/A	0.5
Any condition which does not exceed the applicable power consumption requirements for off mode when the equipment is connected to the mains power source .....:		N/A	0.5
Power consumption in 'standby mode(s)' in			
Any condition providing only a reactivation function or providing only a reactivation function and a mere indication of enabled reactivation function.....:		N/A	0.5
Any condition providing only information or status display, or providing only a combination of reactivation function and information or status display .....:		N/A	1
Any condition which does not exceed the applicable power consumption requirements for standby mode when the equipment is connected to the mains power source .....:		N/A	--
HiNA equipment power consumption in networked standby mode ...:		5.86	8
Result:	The EUT complies with (EC) No 1275/2008 Annex II and (EC) No 801/2013		

Test instruments:

Name	Manufacturer	Model	Last cal. date	Next cal. date
AC Power Source	Shenzhen XinNuoEr Power Co., Ltd.	HE-1030	2020-09-23	2021-09-22
Power analysis meter	YOKOGAWA	WT310E	2020-09-26	2021-09-25
Air speed meter	MS6252	8712	2020-12-09	2021-12-08
Stopwatch	Shenzhen Huibo Industrial & Trade Co., Ltd.	PC396	2020-09-22	2021-09-21

Photo documentation

Details of: Overview 1

Details of: Overview 2

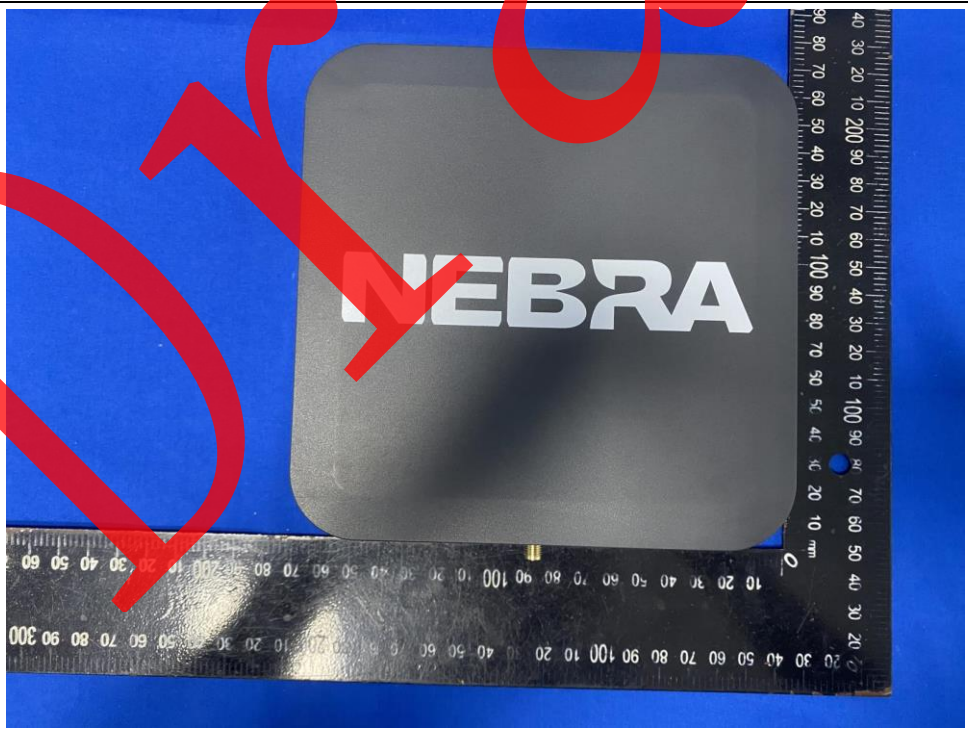


Photo documentation

Details of: Overview 3

—The report end—