

APPLICATION FOR ERP TEST REPORT

On Behalf of

Prepared For : Shenzhen Honestar Electronic co., Ltd
601Room, 6F, Block A6, Tianrui Industry Park, No.35 Fuyuan 1st Rd,
Xinhe Community Fuhai Street, Baoan District, Shenzhen China

Product Name : Wall charger

Model : HS-H43, CNE-CHA05W, CNE-CHA05B, HS-H43-UK, CNE-CHA05W-UK,
CNE-CHA05B-UK

Prepared By : Shenzhen POCE Technology Co., Ltd.
H Building, Hongfa Science And Technology Park, Tangtou, Shiyan,
Bao'An District, Shenzhen, China


Test Date : Jun. 17, 2020-Jun. 22, 2020

Date of Report : Jun. 22, 2020

Report No. : POCE200622046KRS

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of Shenzhen POCE Technology Co., Ltd.

ERP Test Report for Energy Efficiency of External Power Supplies

Reportreference No: POCE200622046KRS		
Reviewed by (printed name and signature)	Xiao Jian Fei	
Approved by (printed name and signature)	Machael Mo	
Date of issue: Jun. 20, 2020		
Testing laboratory: SHENZHEN POCE TECHNOLOGY CO., LTD.		
Location: H Building, Hongfa Science And Technology Park, Tangtou, Shiyan, Bao'An District, Shenzhen, China		
Applicant: Shenzhen Honestar Electronic co., Ltd		
Address: 601Room, 6F, Block A6, Tianrui Industry Park, No.35 Fuyuan 1st Rd, Xinhe Community Fuhai Street, Baoan District, Shenzhen China		
Manufacturer.....: Shenzhen Honestar Electronic co., Ltd		
Address: 601Room, 6F, Block A6, Tianrui Industry Park, No.35 Fuyuan 1st Rd, Xinhe Community Fuhai Street, Baoan District, Shenzhen China		
Standards	<input type="checkbox"/> COMMISSION REGULATION (EU) 2019/1782 of 1 October 2019, laying down ecodesign requirements for external power supplies pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 278/2009 <input checked="" type="checkbox"/> Code of Conduct on Energy Efficiency of External Power Supplies Version 5. <input checked="" type="checkbox"/> EN 50563:2011+A1:2013: External a.c. – d.c. – a.c. power supplies – Determination of no-load power and average efficiency of active modes.	
Energy performance mark: Tier 2 (VI)		
Type of test equipment.....: Wall charger		
Trademark: N/A		
Model/Type designation: HS-H43, CNE-CHA05W, CNE-CHA05B, HS-H43-UK, CNE-CHA05W-UK, CNE-CHA05B-UK		
Rating.....: Input: 100-240V~, 50/60Hz 0.6A Max Output: USB1+USB2: 5.0V=== 2.1A 10.5W Max USB1+USB2: 5.0V=== 2.1A 10.5W Max		
Test Room Ambient temp: 23.6 °C		
Test Room Humidity.....: 47 %		
Test Room Air Speed.....: < 0.5 m/s		

Copy of marking plate:

Wall charger

Model: HS-H43

Input: 100-240V~, 50/60Hz 0.6A Max

Output: USB1+USB2: 5.0V--- 2.1A 10.5W Max

USB3+USB4: 5.0V--- 2.1A 10.5W Max



Shenzhen Honestar Electronic co.,Ltd
Made in China

Remarks: This report is based on model HS-H43. The models covered are identical except for the appearance and plugs.

TEST PROGRAM AND CONDITIONS:

1. The EUT was test in still air at an ambient temperature of $23^{\circ}\text{C}\pm 5^{\circ}\text{C}$.
2. Measurements were mode for supply voltage of 115V/60Hz and 230V/50Hz;
3. The test sample was operated at 100% of nameplate current output for at least 30 minutes immediately prior to conducting efficiency measurements. After this warm-up period, if the power level does not drift by more than 5% from the maximum value observed, of the 5 minutes period. Subsequent load conditions can then be measured under the same 5 minute stability guidelines.
4. The total harmonic distortion (THD) of the supply voltage was $<2\%$ for all measurement.

THE LIMITS FOR EXTERNAL POWER SUPPLY:

☒ According stage 2 of COMMISSION REGULATION (EU) 2019/1782 of 1 October 2019

1. Energy efficiency requirements:

(a) from 1 April 2020, the no-load condition power consumption shall not exceed the following values:

	AC-AC external power supplies, except low voltage and multiple voltage output external power supplies	AC-DC external power supplies, except low voltage and multiple voltage output external power supplies	Low voltage external power supplies	Multiple voltage output external power supplies
$P_o \leq 49,0 \text{ W}$	0,21 W	0,10 W	0,10 W	0,30 W
$P_o > 49,0 \text{ W}$	0,21 W	0,21 W	0,21 W	0,30 W

(b) from 1 April 2020, the average active efficiency shall be not less than the following values:

	AC-AC external power supplies, except low voltage and multiple voltage output external power supplies	AC-DC external power supplies, except low voltage and multiple voltage output external power supplies	Low voltage external power supplies	Multiple voltage output external power supplies
$P_o \leq 1,0 \text{ W}$	$0,5 \times P_o/1\text{W} + 0,160$	$0,5 \times P_o/1\text{W} + 0,160$	$0,517 \times P_o/1\text{W} + 0,087$	$0,497 \times P_o/1\text{W} + 0,067$
$1 \text{ W} < P_o \leq 49,0 \text{ W}$	$0,071 \times \ln(P_o/1\text{W}) - 0,0014 \times P_o/1\text{W} + 0,67$	$0,071 \times \ln(P_o/1\text{W}) - 0,0014 \times P_o/1\text{W} + 0,67$	$0,0834 \times \ln(P_o/1\text{W}) - 0,0014 \times P_o/1\text{W} + 0,609$	$0,075 \times \ln(P_o/1\text{W}) + 0,561$
$P_o > 49,0 \text{ W}$	0,880	0,880	0,870	0,860

TEST RESULTS:

Test item	Test at 115V, 60Hz	Test at 230V, 50Hz	Efficiency requirements
No load power (W)	0.05	0.09	≤ 0.1
Average efficiency (%) ²⁾	83.75	84.78	≥ 83.35
Complies with performance mark	Tier 2		

Note:

1.) The average efficiency of 25%, 50%, 75% and 100% full load.

Test Data:

Sample No. 1							
Test Model		HS-H43					
Test Results		Pass					
Measured and Calculated Data at 115V, 60Hz							
Measured and Calculated Data							
	No load		Active Power Values				Average
Percent of nameplate current	0%	10%	25%	50%	75%	100%	--
Output Current (mA)		420	1050	2100	3150	4200	
Output Voltage (V)		4.97	5	5.05	5.1	5.04	
Output Power (W)		2.07	5.25	10.6	16.06	21.19	
AC Input Voltage (V)	115	115	115	115	115	115	--
AC Input Current (mA)	1.36	48.75	111.64	216.04	316.85	408.24	
AC Input Power (W)	0.05	2.44	6.17	12.55	19.29	25.78	
Total Harmonic Distortion (THD)	0.65	0.77	0.89	1.18	1.5	1.76	
True Power Factor (W/VA)	0.32	0.44	0.48	0.51	0.53	0.55	
AC Input Frequency (Hz)	60	60	60	60	60	60	
Power Consumed by UUT (W)	0.05	0.37	0.92	1.95	3.23	4.59	--
Efficiency (%)	--	84.84	85.09	84.46	83.26	82.2	83.75
Supplementary information:							
Tier 1 limit:							
1.) 1) Average active mode efficiency limit $\geq 0.0834 \cdot \ln(P_o) - 0.0014 \cdot P_o + 0.609 = 83.35 \%$							
The no-load condition consumption shall not exceed 0.1W.							

Test Data:

Sample No. 1							
Test Model		HS-H43					
Test Results		Pass					
Measured and Calculated Data at 115V, 60Hz							
Measured and Calculated Data							
	No load		Active Power Values				Average
Percent of nameplate current	0%	10%	25%	50%	75%	100%	--
Output Current (mA)		420	1050	2100	3150	4200	
Output Voltage (V)		4.92	4.94	4.98	5.05	5.01	
Output Power (W)		2.06	5.18	10.42	15.92	21.04	
AC Input Voltage (V)	230	230	230	230	230	230	--
AC Input Current (mA)	3.31	36.12	72.24	128.89	187.72	238.81	
AC Input Power (W)	0.09	2.52	5.94	12.27	19.02	25.26	
Total Harmonic Distortion (THD)	0.63	0.64	0.6	0.6	0.6	0.64	
True Power Factor (W/VA)	0.12	0.3	0.36	0.41	0.44	0.46	
AC Input Frequency (Hz)	60	60	60	60	60	60	
Power Consumed by UUT (W)	0.09	0.46	0.76	1.85	3.1	4.22	--
Efficiency (%)	--	81.75	87.21	84.92	83.7	83.29	84.78
Supplementary information:							
Tier 1 limit:							
1.) 1) Average active mode efficiency limit $\geq 0.0834 \cdot \ln(P_o) - 0.0014 \cdot P_o + 0.609 = 83.35 \%$							
The no-load condition consumption shall not exceed 0.1W.							

Test equipment list

Equipment	Manufacturer	Type	Series No	Cal.	Due.
Digital power meter	YOKOGAWA	WT210	POCE-SY-074	2019-08-15	2020-08-14
DC electronic load	Maynuo	M9710	POCE-SY-035-1	2019-08-15	2020-08-14
Tape measure	Hengda	16ft	POCE-SY-055	2019-08-15	2020-08-14

Photograph:

Photo 1:



Photo 2:

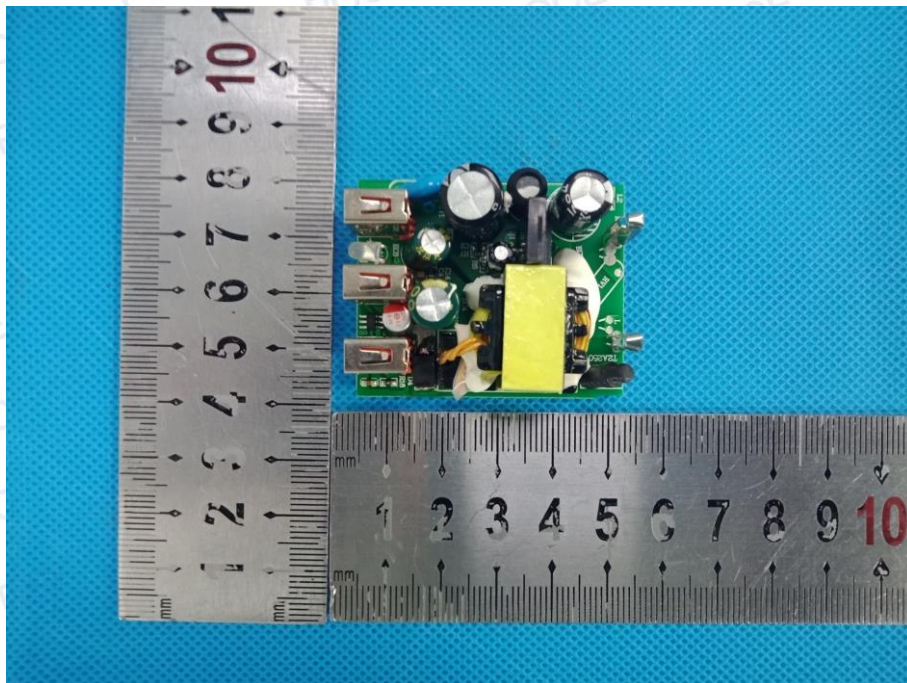
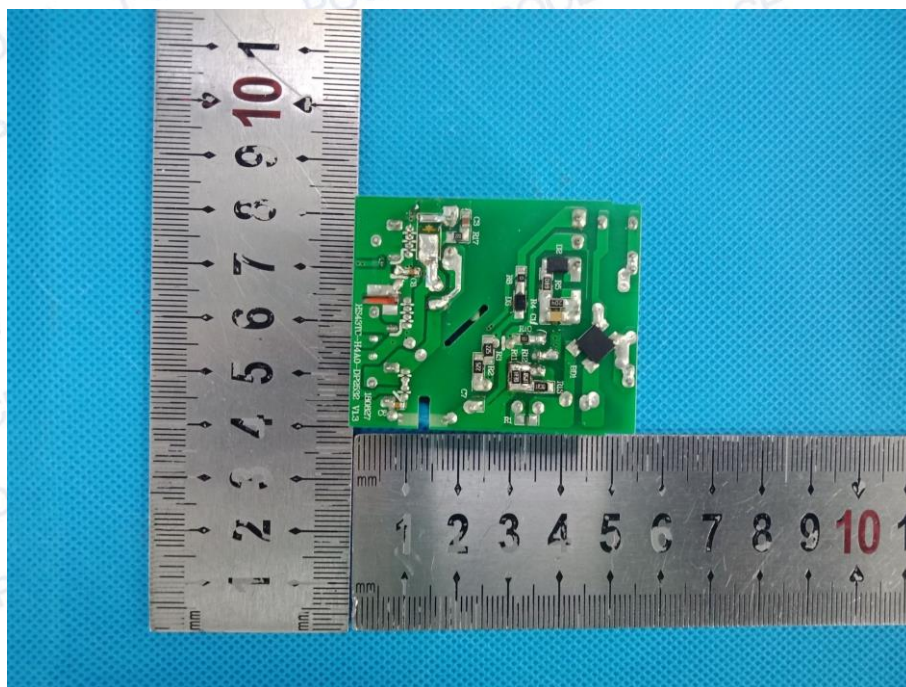


Photo 3:



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