

# TEST REPORT

For

Fast Charger

Model: LD-PQS20WUL

**Prepared for:**

Jiangxi Liandi technology Co.,LTD

4 to 5 floors north of 6 Chuangzhi Science Park High-tech Industrial Development Zone, Fuzhou City, Jiangxi Province

**Prepared by:**

Shenzhen Promise Test Technology Co., Ltd.

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**Report Number:**

PRMS2407109-03SR

**Date of Test:**

Jul. 12, 2024 to Aug. 16, 2024

**Date of Issue:**

Aug. 16, 2024

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## TEST REPORT

### 10 CFR Part 430

Report reference No.....	PRMS2407109-03SR
Date of issue .....	Aug. 16, 2024
Total number of pages.....	12 pages
Tested by (signature).....	Pahsien Ma 
Approved by (signature).....	Kind Yang 
Testing Laboratory Name.....	Shenzhen Promise Test Technology Co., Ltd.
Address.....	103, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Testing location.....	As above
Applicant's Name.....	Jiangxi Liandi technology Co.,LTD
Address .....	4 to 5 floors north of 6 Chuangzhi Science Park High-tech Industrial Development Zone, Fuzhou City, Jiangxi Province
Test specification	
Standard.....	10 CFR Appendix Z to Subpart B of Part 430
Test method .....	Uniform Test Method For Measuring The Energy Consumption Of External Power Supplies 10 CFR Part 430
Non-standard test method.....	N/A
Test item description.....	Fast Charger
Trademark.....	
Manufacturer.....	Same as applicant
Address.....	Same as applicant
Model and/or type reference.....	LD-PQS20WUL
Rating(s).....	Input: 100-240V~ 50/60Hz 0.5A Max Output: USB-C: 5V= 3.0A, 9V= 2.22A, 12V= 1.67A 20.04W USB-A: 5V= 3.0A, 9V= 2.0A, 12V= 1.5A 18.0W PPS: 3.3-5.9= 3.0A, 3.3-11.0V= 1.8A USB-A+USB-C: 5V= 3A Output 20W Max
Integral Input power Switch .....	N/A
Ambient Temp.( °C) .....	25

**Possible test case verdicts:**

- test case does not apply to the test object..... : N (N/A)
- test object does meet the requirement..... : P (Pass)
- test object does not meet the requirement..... : F (Fail)

**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.

"(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.

**General product information:**

Existing Roman Numeral Marking, if marked (i.e. III, IV, V, VI)	VI		
External Power Adapter Product Class ID	<input checked="" type="checkbox"/> B	Direct Operation, AC-DC, Basic-Voltage	
	<input type="checkbox"/> C	Direct Operation, AC-DC, Low-Voltage with nameplate output voltage of less than 6 volts and its nameplate output current is greater than or equal to 550 milliamps.	
	<input type="checkbox"/> D	Direct Operation, AC-AC, Basic-Voltage	
	<input type="checkbox"/> E	Direct Operation, AC-AC, Low-Voltage with nameplate output voltage of less than 6 volts and its nameplate output current is greater than or equal to 550 milliamps.	
	<input type="checkbox"/> H	Direct Operation, Multiple-Voltage	
Output cord cross-sectional areas	Min.24AWG		
Output Cord Length (cm)	Max.180CM		
Each sample was tested at:	<input type="checkbox"/> 115V, 60Hz	<input type="checkbox"/> 230V, 50Hz	<input checked="" type="checkbox"/> Both

**Copy of marking plate:**

**Fast charger**  
 Model: LD-PQS20WUL  
 Input: 100-240V~ 50/60Hz 0.5A  
 Output-A:5.0V=3.0A ,9.0V=2.0A  
           12.0V=1.5A 18W MAX  
 Output-C:5.0V=3.0A ,9.0V=2.22A  
           12.0V=1.67A 20.04W MAX  
 PPS:3.3-5.9V=3.0A 3.3-11.0V=1.8A  
 USB-A+USB-C:5.0V=3.0A 20W MAX



CONFORMS TO UL STD. 62368-1  
 CERTIFIED TO CSA STD. C22.2  
 NO. 52368-1

Made in China 2408  
**Jiangxi Liandi Technology Co.,LTD**

Note:/

**Table II-2 Proposed Energy Conservation Standards for Direct Operation External Power Supplies**

AC-DC, Basic-Voltage External Power Supply		
Nameplate Output Power ( $P_{out}$ )	Minimum Average Efficiency in Active Mode (expressed as a decimal)	Maximum Power in No-Load Mode [W]
$P_{out} \leq 1 \text{ W}$	$\geq 0.5 * P_{out} + 0.16$	$\leq 0.100$
$1 \text{ W} < P_{out} \leq 49 \text{ W}$	$\geq 0.071 * \ln(P_{out}) - 0.0014 * P_{out} + 0.67$	$\leq 0.100$
$49 \text{ W} < P_{out} \leq 250 \text{ W}$	$\geq 0.880$	$\leq 0.210$
$P_{out} > 250 \text{ W}$	$\geq 0.875$	$\leq 0.500$
AC-DC, Low-Voltage External Power Supply		
Nameplate Output Power ( $P_{out}$ )	Minimum Average Efficiency in Active Mode (expressed as a decimal)	Maximum Power in No-Load Mode [W]
$P_{out} \leq 1 \text{ W}$	$\geq 0.517 * P_{out} + 0.087$	$\leq 0.100$
$1 \text{ W} < P_{out} \leq 49 \text{ W}$	$\geq 0.0834 * \ln(P_{out}) - 0.0014 * P_{out} + 0.609$	$\leq 0.100$
$49 \text{ W} < P_{out} \leq 250 \text{ W}$	$\geq 0.870$	$\leq 0.210$
$P_{out} > 250 \text{ W}$	$\geq 0.875$	$\leq 0.500$
AC-AC, Basic-Voltage External Power Supply		
Nameplate Output Power ( $P_{out}$ )	Minimum Average Efficiency in Active Mode (expressed as a decimal)	Maximum Power in No-Load Mode [W]
$P_{out} \leq 1 \text{ W}$	$\geq 0.5 * P_{out} + 0.16$	$\leq 0.210$
$1 \text{ W} < P_{out} \leq 49 \text{ W}$	$\geq 0.071 * \ln(P_{out}) - 0.0014 * P_{out} + 0.67$	$\leq 0.210$
$49 \text{ W} < P_{out} \leq 250 \text{ W}$	$\geq 0.880$	$\leq 0.210$
$P_{out} > 250 \text{ W}$	$\geq 0.875$	$\leq 0.500$
AC-AC, Low-voltage External Power Supply		
Nameplate Output Power ( $P_{out}$ )	Minimum Average Efficiency in Active Mode (expressed as a decimal)	Maximum Power in No-Load Mode [W]
$P_{out} \leq 1 \text{ W}$	$\geq 0.517 * P_{out} + 0.087$	$\leq 0.210$
$1 \text{ W} < P_{out} \leq 49 \text{ W}$	$\geq 0.0834 * \ln(P_{out}) - 0.0014 * P_{out} + 0.609$	$\leq 0.210$
$49 \text{ W} < P_{out} \leq 250 \text{ W}$	$\geq 0.870$	$\leq 0.210$
$P_{out} > 250 \text{ W}$	$\geq 0.875$	$\leq 0.500$
Multiple-Voltage External Power Supply		
Nameplate Output Power ( $P_{out}$ )	Minimum Average Efficiency in Active Mode (expressed as a decimal)	Maximum Power in No-Load Mode [W]
$P_{out} \leq 1 \text{ W}$	$\geq 0.497 * P_{out} + 0.067$	$\leq 0.300$
$1 \text{ W} < P_{out} \leq 49 \text{ W}$	$\geq 0.075 * \ln(P_{out}) + 0.561$	$\leq 0.300$
$P_{out} > 49 \text{ W}$	$\geq 0.860$	$\leq 0.300$

Tested model:	LD-PQS20WUL			Test specimen 1		at 115V/60Hz
Nameplate Output:	USB-C 5V= 3.0A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	115	115	115	115	115	
Input Frequency (Hz)	60	60	60	60	60	
RMS Input Power (W)	0.04	4.47	9.06	13.73	18.64	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.45	0.61	0.86	1.06	1.26	
True Power Factor	--	0.455	0.475	0.500	0.526	
RMS Output Voltage (Vdc)	5.10	5.03	4.98	4.94	4.88	
RMS Output Current (A)	--	0.75	1.5	2.25	3	
Active Output Power (W)	--	3.77	7.47	11.12	14.64	Output Power (Pout)
Power Consumed by UUT (W)	0.04	0.7	1.59	2.61	4	<0.1Wat no load *)
Efficiency (%)	--	84.34	82.45	80.99	78.54	(Pout/Pin)*100%
Average Efficiency (%)	--	81.58			>81.39% at active mode *)	
Tested model:	LD-PQS20WUL			Test specimen 1		at 230V/50Hz
Nameplate Output:	USB-C 5V= 3.0A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	230	230	230	230	230	
Input Frequency (Hz)	50	50	50	50	50	
RMS Input Power (W)	0.07	4.48	9.11	13.63	18.49	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.62	0.64	0.61	0.63	0.64	
True Power Factor	--	0.386	0.429	0.446	0.462	
RMS Output Voltage (Vdc)	5.09	5.02	4.98	4.93	4.87	
RMS Output Current (A)	--	0.75	1.5	2.25	3	
Active Output Power (W)	--	3.77	7.47	11.09	14.61	Output Power (Pout)
Power Consumed by UUT (W)	0.07	0.71	1.64	2.54	3.88	<0.1Wat no load *)
Efficiency (%)	--	84.15	82.00	81.36	79.02	(Pout/Pin)*100%
Average Efficiency (%)	--	81.63			>81.39% at active mode *)	
Note: *) see table II						

Tested model:	LD-PQS20WUL			Test specimen 1		at 115V/60Hz
Nameplate Output:	USB-C 12V= 1.67A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	115	115	115	115	115	
Input Frequency (Hz)	60	60	60	60	60	
RMS Input Power (W)	0.04	6.02	11.89	17.73	23.43	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.44	0.72	0.98	1.22	1.44	
True Power Factor	--	0.465	0.490	0.522	0.550	
RMS Output Voltage (Vdc)	12.22	12.19	12.17	12.14	12.12	
RMS Output Current (A)	--	0.4175	0.835	1.2525	1.67	
Active Output Power (W)	--	5.09	10.16	15.21	20.24	Output Power (Pout)
Power Consumed by UUT (W)	0.04	0.93	1.73	2.52	3.19	<0.1Wat no load *)
Efficiency (%)	--	84.55	85.45	85.79	86.38	(Pout/Pin)*100%
Average Efficiency (%)	--	85.54			>85.48% at active mode *)	
Tested model:	LD-PQS20WUL			Test specimen 1		at 230V/50Hz
Nameplate Output:	USB-C 12V= 1.67A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	230	230	230	230	230	
Input Frequency (Hz)	50	50	50	50	50	
RMS Input Power (W)	0.07	6.04	11.92	17.71	23.41	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.62	0.61	0.63	0.65	0.63	
True Power Factor	--	0.406	0.442	0.458	0.475	
RMS Output Voltage (Vdc)	12.21	12.19	12.19	12.15	12.12	
RMS Output Current (A)	--	0.4175	0.835	1.2525	1.67	
Active Output Power (W)	--	5.09	10.18	15.22	20.24	Output Power (Pout)
Power Consumed by UUT (W)	0.07	0.95	1.74	2.49	3.17	<0.1Wat no load *)
Efficiency (%)	--	84.27	85.40	85.94	86.46	(Pout/Pin)*100%
Average Efficiency (%)	--	85.52			>85.48% at active mode *)	
Note: *) see table II						

Tested model:	LD-PQS20WUL			Test specimen 1		at 115V/60Hz
Nameplate Output:	USB-A 5V= 3.0A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	115	115	115	115	115	
Input Frequency (Hz)	60	60	60	60	60	
RMS Input Power (W)	0.04	4.48	9.13	13.89	18.99	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.42	0.65	0.87	1.10	1.30	
True Power Factor	--	0.458	0.478	0.503	0.530	
RMS Output Voltage (Vdc)	5.09	5.08	5.05	5.02	4.99	
RMS Output Current (A)	--	0.75	1.5	2.25	3	
Active Output Power (W)	--	3.81	7.58	11.3	14.97	Output Power (Pout)
Power Consumed by UUT (W)	0.04	0.67	1.55	2.59	4.02	<0.1Wat no load *)
Efficiency (%)	--	85.04	83.02	81.35	78.83	(Pout/Pin)*100%
Average Efficiency (%)	--	82.06			>81.39% at active mode *)	
Tested model:	LD-PQS20WUL			Test specimen 1		at 230V/50Hz
Nameplate Output:	USB-A 5V= 3.0A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	230	230	230	230	230	
Input Frequency (Hz)	50	50	50	50	50	
RMS Input Power (W)	0.07	4.55	9.16	13.74	18.69	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.59	0.62	0.63	0.65	0.64	
True Power Factor	--	0.386	0.430	0.446	0.462	
RMS Output Voltage (Vdc)	5.09	5.06	5.03	5.01	4.98	
RMS Output Current (A)	--	0.75	1.5	2.25	3	
Active Output Power (W)	--	3.8	7.55	11.27	14.94	Output Power (Pout)
Power Consumed by UUT (W)	0.07	0.75	1.61	2.47	3.75	<0.1Wat no load *)
Efficiency (%)	--	83.52	82.42	82.02	79.94	(Pout/Pin)*100%
Average Efficiency (%)	--	81.97			>81.39% at active mode *)	
Note: *) see table II						

Tested model:	LD-PQS20WUL			Test specimen 1		at 115V/60Hz
Nameplate Output:	USB-A 12V≡ 1.5A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	115	115	115	115	115	
Input Frequency (Hz)	60	60	60	60	60	
RMS Input Power (W)	0.04	5.41	10.71	16.04	21.18	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.43	0.67	0.95	1.17	1.38	
True Power Factor	--	0.461	0.484	0.512	0.539	
RMS Output Voltage (Vdc)	12.23	12.20	12.19	12.17	12.14	
RMS Output Current (A)	--	0.375	0.75	1.125	1.5	
Active Output Power (W)	--	4.58	9.14	13.69	18.21	Output Power (Pout)
Power Consumed by UUT (W)	0.04	0.83	1.57	2.35	2.97	<0.1Wat no load *)
Efficiency (%)	--	84.66	85.34	85.35	85.98	(Pout/Pin)*100%
Average Efficiency (%)	--	85.33			>85.01% at active mode *)	
Tested model:	LD-PQS20WUL			Test specimen 1		at 230V/50Hz
Nameplate Output:	USB-A 12V≡ 1.5A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	230	230	230	230	230	
Input Frequency (Hz)	50	50	50	50	50	
RMS Input Power (W)	0.07	5.42	10.73	16.00	21.16	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.60	0.62	0.66	0.64	0.62	
True Power Factor	--	0.401	0.438	0.454	0.470	
RMS Output Voltage (Vdc)	12.21	12.18	12.16	12.14	12.12	
RMS Output Current (A)	--	0.375	0.75	1.125	1.5	
Active Output Power (W)	--	4.57	9.12	13.66	18.18	Output Power (Pout)
Power Consumed by UUT (W)	0.07	0.85	1.61	2.34	2.98	<0.1Wat no load *)
Efficiency (%)	--	84.32	85.00	85.38	85.92	(Pout/Pin)*100%
Average Efficiency (%)	--	85.15			>85.01% at active mode *)	
Note: *) see table II						



Tested model:	LD-PQS20WUL			Test specimen 1		at 115V/60Hz
Nameplate Output:	USB-A+USB-C 5V <sup>==</sup> 3.0A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	115	115	115	115	115	
Input Frequency (Hz)	60	60	60	60	60	
RMS Input Power (W)	0.04	4.39	8.82	13.23	17.90	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.50	0.62	0.82	1.06	1.24	
True Power Factor	--	0.456	0.476	0.501	0.526	
USB-C Output Voltage (Vdc)	5.07	5.02	4.98	4.93	4.89	
USB-C Output Current (A)	--	0.375	0.75	1.125	1.5	
USB-C Active Output Power (W)	--	1.88	3.74	5.55	7.34	Output Power (Pout)
USB-A Output Voltage (Vdc)	5.07	5.02	4.98	4.92	4.87	
USB-A Output Current (A)	--	0.375	0.75	1.125	1.5	
USB-A Active Output Power (W)	--	1.88	3.74	5.54	7.31	
Total Active Output Power (W)	--	3.76	7.48	11.09	14.65	
Power Consumed by UUT (W)	0.04	0.63	1.34	2.14	3.25	<0.3W at no load *)
Efficiency (%)	--	85.65	84.81	83.82	81.84	(Pout/Pin)*100%
Average Efficiency (%)	--	84.03				>76.42% at active mode *)
Tested model:	LD-PQS20WUL			Test specimen 1		at 230V/50Hz
Nameplate Output:	USB-A+USB-C 5V <sup>==</sup> 3.0A					
Percent of Nameplate Current	0%	25%	50%	75%	100%	Remark
RMS Input Voltage (V)	230	230	230	230	230	
Input Frequency (Hz)	50	50	50	50	50	
RMS Input Power (W)	0.07	4.49	8.93	13.26	17.84	Input Power (Pin)
Total Harmonic Distortion (THD <sub>v</sub> , %)	0.62	0.61	0.62	0.65	0.66	
True Power Factor	--	0.384	0.428	0.444	0.459	
USB-C Output Voltage (Vdc)	5.07	5.03	4.99	4.95	4.91	
USB-C Output Current (A)	--	0.375	0.75	1.125	1.5	
USB-C Active Output Power (W)	--	1.89	3.74	5.57	7.37	Output Power (Pout)
USB-A Output Voltage (Vdc)	5.07	5.02	4.98	4.93	4.89	
USB-A Output Current (A)	--	0.375	0.75	1.125	1.5	
USB-A Active Output Power (W)	--	1.88	3.74	5.55	7.34	
Total Active Output Power (W)	--	3.77	7.48	11.12	14.71	
Power Consumed by UUT (W)	--	0.72	1.45	2.14	3.13	<0.3W at no load *)

Efficiency (%)	0.07	83.96	83.76	83.86	82.46	(Pout/Pin)*100%
Average Efficiency (%)	--	83.51				>76.42% at active mode *)
Note: *) see table II						

**Test Equipment List:**

Equipment	Model	Manufacturer	Parameter	Uncertainty	Cal. Date	Valid Date
Digital Power Meter	WT210 E	YOKOGA WA	0-600Vac, 0-20A, 0-10000W, 45-65Hz, PF:-1~+1	Vol: Urel=0.8%(k=2); Cur: Urel=0.9%(k=2); Pow: Urel=0.1%(k=2); Fre: Urel=0.2%(k=2); Ene: Urel=0.2%(k=2); V(Thd): Urel=0.1%(k=2); I(Thd): Urel=0.1%(k=2); PF: U=0.002(k=2)	2024.05.13	2025.05.14
DC Electronic Load	IT8511	ITECH	120Vdc, 30A, 300W	Vol: Urel=0.05%(k=2); Cur: Urel=0.1%(k=2)	2024.05.13	2025.05.14
Temperature and Humidity Recorder	MC505	KEYAN	-10°C~60°C; 10%-99%RH	Tem: U=0.6°C(k=2); Hum: U=3%RH(k=2)	2024.05.13	2025.05.14

## Photos of EUT

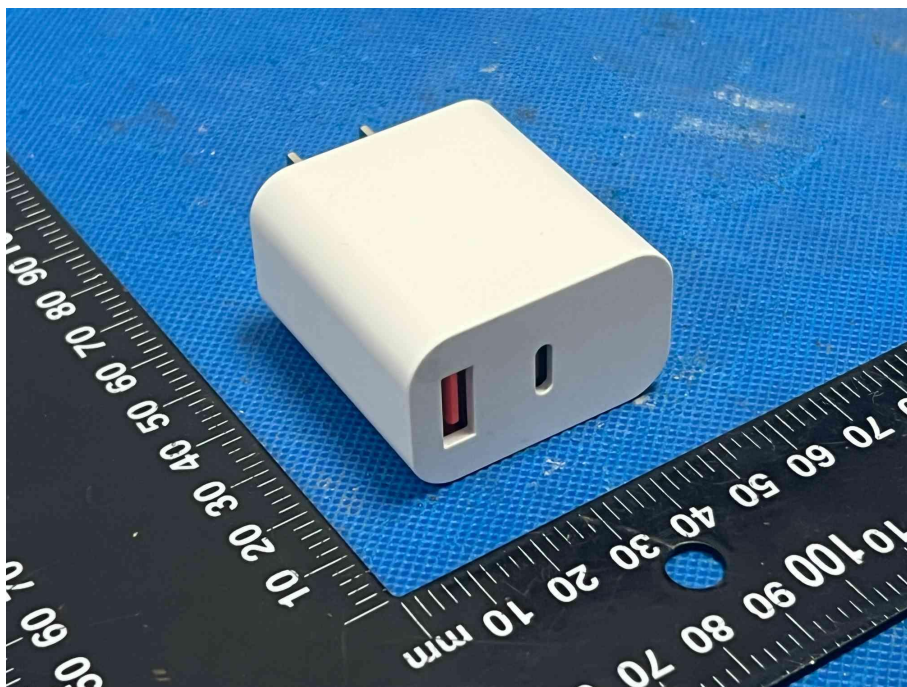


Figure 1. Overall view

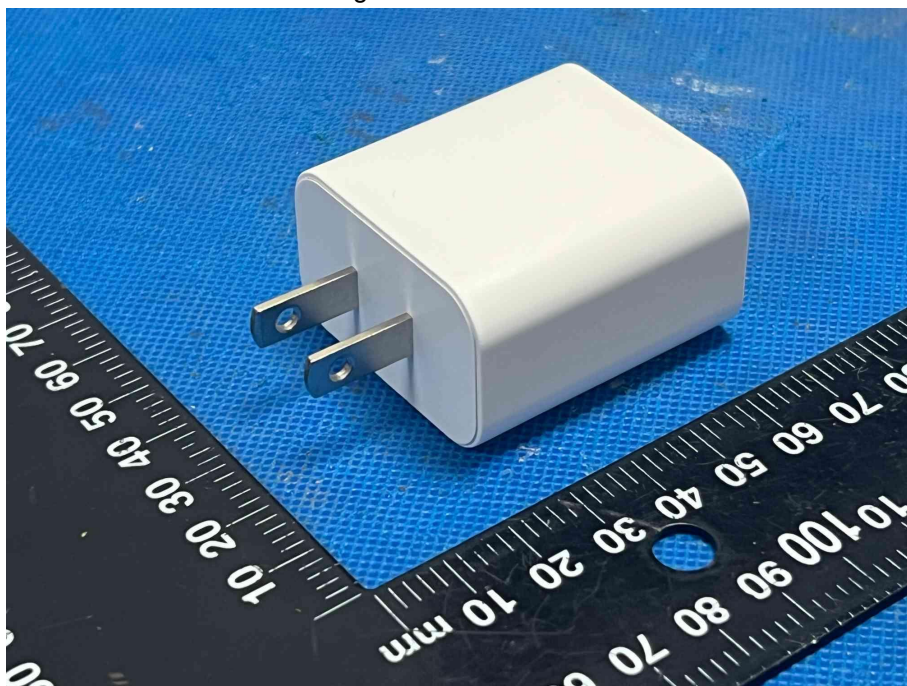


Figure 2. Overall view

\*\*\*\*\* END OF REPORT \*\*\*\*\*