

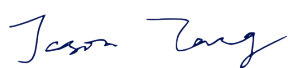









Prüfbericht-Nr.: <i>Test Report No.:</i>	CN22KQWU 001	Auftrags-Nr.: <i>Order No.:</i>	168360508	Seite 1 von 20 <i>Page 1 of 20</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2022.02.25	
Auftraggeber: <i>Client:</i>	ShenZhen Intelligent Energy Co., Ltd No.3 Building, Floor 2, Lilin Industrial Area, Guanguang Road, Guangmin new Strict, Shenzhen City, P.R. China			
Prüfgegenstand: <i>Test item:</i>	PORTABLE POWER STATION			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	G1000			
Auftrags-Inhalt: <i>Order content:</i>	Commission test report			
Prüfgrundlage: <i>Test specification:</i>	Clauses 42, 46, 48, 49, 51, 55, 56, 57 and 58 of ANSI / CAN / UL 2743:2020 Portable Power Packs			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2022.04.01			
Prüfmuster-Nr.: <i>Test sample No.:</i>	G1000			
Prüfzeitraum: <i>Testing period:</i>	2022.04.01 - 2022.04.11			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
erstellt von: <i>created by:</i>	 Bruce Li Project Engineer	genehmigt von: <i>authorized by:</i>	 Jason Tang Reviewer	
Datum: 2022.05.06 <i>Date:</i>		Datum: 2022.05.06 <i>Date:</i>		
Stellung / Position		Stellung / Position		
Sonstiges / Other: This report is under supervision by Project Engineer: William Xian  This report does not evidence compliance of the provided sample with the relevant standards but only with the referred tests. This test report documents the findings of examination conducted on the delivered product mentioned above only. This report does not entitle the applicant to carry any safety mark on this or similar products. Further for sales or other application purposes of the tested product, any reference to TÜV Rheinland or a test through TÜV Rheinland is only permissible with prior written consent of TÜV Rheinland.				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

TEST REPORT ANSI/CAN/UL 2743 Portable Power Packs	
Report reference No	: CN22KQWU 001
Tested by (printed name and signature)	: See cover page
Approved by (printed name and signature)	: See cover page
Date of issue	: See cover page
Testing Laboratory Name	: See cover page
Address	: See cover page
Applicant's Name	: See cover page
Address	: See cover page
Test specification	
Standard	: See cover page
Test procedure	: Commission test report
Non-standard test method	: N/A
Test Report Form No.	
TRF originator	: TÜV RH SZ
Master TRF	: ANSI/CAN/UL 2743_2020A
Test item description	: PORTABLE POWER STATION
Trademark	: N/A
Manufacturer	: ShenZhen Intelligent Energy Co.,Ltd (Dongguan) Branch
Model and/or type reference	: G1000
Rating(s)	: See rating label in page 3

List of Attachments (including a total number of pages in each attachment): Attachment 1 : photo documentation (14 pages)	
Summary of testing:	
Tests performed (name of test and test clause): Clauses 42, 46, 48, 49, 51, 55, 56, 57 and 58 as client's requirement. (Test data is based on TÜV report No.: CN21PC5F 001)	Testing location: See cover page
Copy of marking plate: The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <h2 style="margin: 0;">PORTABLE POWER STATION</h2> <p>Type: G1000 Battery Capacity: 22.2V, 45Ah, 999Wh DC Input: 12V-26V, 150W(MAX) PV Input: 12V-26V, 150W(MAX) DC Output DC 5.5mm by 2.5mm Output(2): 12V-5A(Each) Cigarette Lighter Output: 12V-10A USB-A Output(3): 5V-3A, 9V-2A, 12V-1.5A(18W Max) USB-C Output: 5V-3A, 9V-3A, 12V-3A 15V-3A, 20V-3A (Max.60W) AC Output: Pure Sine Wave 110V~ 60Hz, 1000W Wireless Charge: 10W Charge temperature: 32 to 104°F, 0 to 40°C Discharge temperature: 5 to 113°F,-15 to 45°C</p> <p>Production Date: S/N</p> <div style="border: 1px solid white; width: 100px; height: 100px; margin: 10px auto;"></div> <p>This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. FCC ID :2A4UPG1000MV1000</p> <p style="text-align: center;">Made In China</p> <div style="display: flex; justify-content: center; align-items: center; gap: 10px;">       </div> <p style="font-size: small; text-align: center;">株式会社 サンライズ Li-ion</p> </div> <div style="width: 45%;"> <h3 style="margin: 0;">⚠ WARNING!</h3> <ol style="list-style-type: none"> 1. Do not short-circuit the device. To avoid short circuits, keep the device away from all metal objects (such as coins, hairpins, keys, etc.). 2. Do not heat the device or put it in fire, water or other liquids for disposal. Keep away from high temperatures. Do not expose the device to direct sunlight. 3. Please keep away from high humidity and dusty places. 4. Do not disassemble or reassemble this device. 5. Do not put heavy objects on the device or cause strong impact on the device. Be careful when handling & transporting. 6. This equipment is not suitable for persons with reduced physical, sensory or mental abilities or lack of experience and knowledge (including children), unless they have been supervised or instructed on the use of equipment by persons responsible for their safety. 7. Children should be supervised to ensure that they do not play with equipment. 8. When charging, the adapter and the device may become hot. this is normal. 9. Please Use the device correctly to avoid electric shock. 10. This product is only used in emergency power stations. It can not replace standard DC or AC power, home appliances or digital products. 11. Do not overcharge the internal battery. See Instruction Manual. <h3 style="margin: 0;">⚠ AVERTISSEMENT!</h3> <ol style="list-style-type: none"> 1. Ne court-circuitez pas l'appareil. Pour éviter tout court-circuit, éloignez l'appareil de tout objet métallique (par exemple, pièces de monnaie, épingles à cheveux, clés, etc.). 2. Ne chauffez pas l'appareil et ne le jetez pas dans le feu, l'eau ou d'autres liquides. Tenir à l'écart des températures élevées. N'exposez pas l'appareil à la lumière directe du soleil. 3. Tenir à l'écart des endroits humides et poussiéreux. 4. Ne démontez pas et ne réassemblez pas cet appareil. 5. Ne laissez pas tomber, ne placez pas d'objets lourds dessus et ne laissez pas de chocs violents sur cet appareil. 6. Cet appareil n'est pas destiné à être utilisé par des personnes (y compris des enfants) ayant des capacités physiques, sensorielles ou mentales réduites, ou un manque d'expérience et de connaissances, à moins qu'elles n'aient reçu une supervision ou des instructions concernant 7. l'utilisation de l'appareil par une personne responsable de leur sécurité. 8. Les enfants doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'appareil. 9. L'appareil peut devenir chaud pendant la charge. C'est normal. Soyez prudent lors de la manipulation. 10. Utilisez l'appareil correctement pour éviter les chocs électroniques. Le produit n'est utilisé que pour la centrale électrique de secours, il ne peut pas remplacer l'alimentation CC ou CA standard des appareils ménagers ou des produits numériques. 11. Ne pas surcharger la batterie interne. Consulter le manuel d'utilisation. </div> </div>	

Test case verdicts

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

Testing

Date of receipt of test item : See cover page
Date(s) of performance of test : See cover page

General remarks

This report shall not be reproduced except in full without the written approval of the testing laboratory.
The test results presented in this report relate only to the item(s) tested.
"(see remark #)" refers to a remark appended to the report.
"(see Annex #)" refers to an annex appended to the report.
Throughout this report a point is used as the decimal separator.

General product information:

1. This portable power pack is intended for indoor used only.
2. The product rating see page 3.
3. Charge temperature: 0-40°C, Discharge temperature: -15-45°C
4. The cells module is 10P6S.
5. The weight is 8.2kg.

Remark:

This report does not evidence compliance of the provided sample with the relevant standards but only with the referred tests. This test report documents the findings of examination conducted on the delivered product mentioned above.

ANSI/CAN/UL 2743			
Clause	Requirement + Test	Result - Remark	Verdict
PERFORMANCE			
42	Power Input Test		P
42.1	The current input to a power pack shall not exceed 110 percent of the marked current rating of the power pack, when the power pack is operated under the conditions of maximum normal load.		P
42.2	Maximum normal load shall consist of the maximum current draw while the power pack is operating in all possible modes. For example, this may include running an air compressor, while a light is on, and the internal battery is charging. Any load that can be operated at the same time shall be operated in order to obtain the maximum normal load.		P
46	Leakage Current Test		P
46.1	A power pack shall be tested in accordance with 46.2 - 46.7. Leakage current shall not be more than 0.5 mA.		P
46.2	All accessible conductive parts are to be tested for leakage currents. Leakage currents from these parts are to be measured to the grounded supply conductor individually as well as collectively if simultaneously accessible, and from one part to another if simultaneously accessible. A part is considered to be accessible unless it is guarded by an enclosure that has been evaluated for protection against the risk of electric shock. Conductive parts are considered to be simultaneously accessible if they can be readily contacted by one or both hands of a person at the same time. These measurements do not apply to terminals operating at voltages that are not considered to involve a risk of electric shock. If all accessible conductive parts are bonded together and connected to the grounding conductor of the power supply cord, the leakage current can be measured between the grounding conductor and the grounded supply conductor.		P
46.3	If a conductive part other than metal is used for an enclosure or part of an enclosure, leakage current is to be measured using a metal foil with an area of 10 by 20 cm (4 by 8 inches) in contact with the surface. If the conductive surface has an area less than 10 by 20 cm (4 by 8 inches), the metal foil is to be the same size as the surface. The metal foil is to conform to the shape of the surface but is not to remain in place long enough to affect the temperature of the product.		P

ANSI/CAN/UL 2743			
Clause	Requirement + Test	Result - Remark	Verdict
46.4	A typical measurement circuit for leakage current with the ground connection open is illustrated in Figure 46.1. The measurement instrument is defined in Figure 46.2. The meter that is actually used for a measurement need only indicate the same numerical value for a particular measurement as would the defined instrument; it need not have all the attributes of the defined instrument. Over the frequency range 20 Hz to 1 MHz with sinusoidal currents, the performance of the instrument is to be as follows:		P
	a) The measured ratio $V1/I1$ with sinusoidal voltages is to be as close as feasible to the ratio $V1/I1$ calculated with the resistance and capacitance values of the measurement instrument shown in Figure 46.2.		P
	b) The measured ratio $V3/I1$ with sinusoidal voltages is to be as close as feasible to the ratio $V3/I1$ calculated with the resistance and capacitance values of the measurement instrument shown in Figure 46.2. $V3$ is to be measured by the meter M in the measuring instrument. The reading of meter M in RMS volts can be converted to MIU by dividing the reading by 500 ohms and then multiplying the quotient by 1,000. The mathematic equivalent is to multiply the RMS voltage reading by 2.		P
46.5	Unless the measurement instrument is being used to measure leakage current from one part of the power pack to another, it is to be connected between accessible parts and the supply conductor connected to ground.		P
46.6	A sample of a product is to be tested for leakage current starting with the as received condition - the as received condition being without prior energization, except as may occur as part of the production line testing. The supply voltage is to be adjusted to rated voltage.		P
48	Dielectric Voltage Withstand Test		P
48.1	While in a well-heated condition, a power pack shall withstand for 1 minute without breakdown the application of a 60 Hz essentially sinusoidal potential of:		P

ANSI/CAN/UL 2743			
Clause	Requirement + Test	Result - Remark	Verdict
	a) 1000 volts plus twice the maximum rated voltage between: 1) The primary circuit and dead metal parts; 2) The primary and secondary circuits; 3) Secondary circuits operating above 50 V and dead metal parts; and 4) Secondary circuits operating above 50 V and secondary circuits operating below 50 V.		P
	b) 500 volts between: 1) Secondary circuits operating below 50 volts and dead metal parts, and 2) Secondary circuits operating below 50 volts and other secondary circuits operating below 50 V.		P
48.2	To determine if the power pack complies with the requirements in 48.1, the power pack is to be tested using a 500 volt-ampere or larger capacity transformer, the output voltage of which can be varied. The applied potential is to be increased from zero until the required test level is reached, and is to be held at that level for 1 minute. The increase in applied potential is to be at a substantially uniform rate as rapid as is consistent with correct identification of its value by a voltmeter.		P
	Exception: The ac potentials shown above may be replaced with a dc potential equal to 1.414 times the ac potential for this test.		N/A
49	Leakage Current Following Humidity Conditioning		P
49.1	A power pack shall comply with the requirements for leakage current in Section 46, Leakage Current Test, following exposure for 48 hours to air having a relative humidity of 88 ± 2 percent at a temperature of $32 \pm 2^{\circ}\text{C}$ ($90 \pm 4^{\circ}\text{F}$).		P
49.2	To determine whether a product complies with the requirement in 49.1, a sample of the power pack is to be heated to a temperature just above 34°C (93°F) to reduce the likelihood of condensation of moisture during conditioning. The heated sample is to be placed in the humidity chamber and is to remain for 48 hours under the conditions specified in 49.1.		P

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Clause	Requirement + Test	Result - Remark	Verdict
49.3	Following the conditioning, the sample is to be tested as described in the Leakage Current Test, Section 46, while either in the humidity chamber or immediately after removal of the conditioned sample from the humidity chamber. For each test condition, the maximum leakage current is to be recorded and the test is to be discontinued when the leakage current stabilizes or decreases.		P
51	Vibration Test		P
51.1	Cells shall not catch fire nor explode during or immediately following the Vibration Test.		P
51.2	The Vibration Test shall consist of vibration for 4 hours at a frequency of 22 cycles per second with a displacement of 6.4 mm (1/4 inch) in a vertical plane. The unit is to be mounted as intended during the test.		P
55	Strength of Enclosure Tests		P
55.1	General		P
55.1.1	A power pack shall be tested as described in 55.2 and 55.3. Following these tests, the power pack shall:		P
	a) Not permit a probe, as illustrated in Figure 7.1, to contact an uninsulated live part that may involve a risk of electric shock;		P
	b) Comply with the Dielectric Voltage Withstand Test, Section 48, with the potential applied between live parts and accessible dead metal parts; and		P
	c) Not have a permanent distortion of a metallic enclosure that reduces spacings below the minimum values, as specified in Spacings, Section 29.		P
55.1.2	The test in 55.3 is to be performed on a power pack weighing less than 19 kg (40 pounds) and provided with one or more handles for carrying the product.		P
55.2	Impact test		P
55.2.1	Two samples of the power pack are to be subjected to the Impact Test. The first sample is tested in the as-received condition. The second sample is to be conditioned in a cold chamber at 0°C (32°F) for 4 hours. The sample is to be removed from the cold chamber and immediately subjected to the impact described in 55.2.2. During handling of the sample, gloves are to be worn to minimize heat transfer.		P

ANSI/CAN/UL 2743			
Clause	Requirement + Test	Result - Remark	Verdict
55.2.2	An enclosure, guard, or cover is to be subjected to an impact of 6.78 N-m (5 foot-pounds) on any surface that may be subjected to an impact during intended use. The impact is to be produced by dropping a steel sphere, 50.8 mm (2 inches) in diameter and weighing approximately 0.535 kg (1.18 pounds), from a height of 1.30 m (51 inches). For surfaces other than the top, the steel sphere is to be suspended by a cord and allowed to swing as a pendulum dropping through a vertical distance of 1.30 m (51 inches). The impact shall be applied one time to each surface that is exposed to a blow during any condition of intended use.		P
55.3	Drop test		P
55.3.1	Two samples of the power pack are to be subjected to this test. The first sample is to be tested in the as-received condition. The second sample is to be conditioned in a cold chamber at 0°C (32°F) for 4 hours. The sample is to be removed from the cold chamber and immediately subjected to the impact described in 55.3.2. During handling of the sample, gloves are to be worn to minimize heat transfer. Following the test, the power pack shall be in accordance with 55.1.1 (a) - (c).		P
55.3.2	The sample is to be dropped three times from a height of 0.9 m (3 feet) to strike a concrete surface in the positions most likely to produce adverse results.		P
56	Mold Stress Test		P
56.1	One sample, consisting of the complete equipment or the complete enclosure, is to be subjected to this test.		P
56.2	The sample is to be placed in an air circulating oven at a temperature equal to 10 degrees higher than the maximum temperature observed on the enclosure during the temperature test, but not less than 80°C (176°F) or 70°C (158°F) if marked in accordance with 70.22. The sample is to be conditioned in the oven for 7 hours.		P
56.3	After the conditioning, the sample shall not show any signs of distortion, deterioration, shrinkage, warping, or softening that would allow access to hazardous live parts.		P
57	Strength of Handles Test		P

ANSI/CAN/UL 2743			
Clause	Requirement + Test	Result - Remark	Verdict
57.1	A handle used to lift or carry a power pack shall withstand a force of four times the weight of the power pack without breakage of the handle, its securing means, or that portion of the enclosure to which the handle is attached.		P
57.2	To determine whether a power pack complies with the requirements in 57.1, a force equal to four times the weight of the power pack is to be uniformly applied over a 76-mm (3-inch) width at the center of the handle, without clamping. The load is to be started at zero and is to be gradually increased so that the test value will be attained in 5 to 10 seconds and maintained at that value for 1 minute. If more than one handle is provided on a power pack and the power pack cannot be carried by one handle alone, the force is to be distributed between the handles. The distribution of forces is to be determined by measuring the percentage of the weight of the power pack sustained by each handle with the power pack in the normal carrying position. If a power pack is furnished with more than one handle and can be carried by one handle only, each handle shall withstand the total force.		P
58	Stability Test		P
58.1	Under conditions of normal use, a power pack shall not become physically unstable to the degree that it poses a risk of injury to persons.		P
58.2	A power pack shall not tip over but shall return to its normal at rest position when: a) Tipped through an angle of 10 degrees from an at rest position on a horizontal surface; or b) Placed on an inclined plane inclined at an angle of 10 degrees from the horizontal.		P
58.3	A power pack is not to be energized during this test. The test is to be conducted under conditions most likely to cause the power pack to overturn.		P
58.4	With reference to the requirements in 58.2, for a power pack that is constructed so that while being tipped through an angle of 10 degrees, a part or surface of the power pack not normally in contact with the horizontal supporting surface touches the supporting surface before the power pack has been tipped through an angle of 10 degrees, the tipping is to be continued until the surface or plane of the surface of the power pack originally in contact with the horizontal supporting surface is at an angle of 10 degrees from the horizontal supporting surface.		P

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Clause	Requirement + Test	Result - Remark	Verdict

42	TABLE: Power Input Test						P
fuse #	Prated (W)	U (V)	P (W)	I (A)	lfuse (A)	condition/status	
-	150	12	41.04	3.42	-	DC/PV input with empty batteries and charging current of unit: 3.42A	
-	150	19	144.02	7.58	-	DC/PV input with empty batteries and charging current of unit: 7.58A	
-	150	26	155.22	5.97	-	DC/PV input with empty batteries and charging current of unit: 5.97A	
Note1: $\leq 110\%$ of Rated current under the conditions of max. normal load (max. current draw while the device is operating in all possible modes at the same time)							

48	Table: Dielectric Voltage Withstand Test		P
test voltage applied between:		test voltage (V)	breakdown Yes / No
AC socket output to DC/PV input port		1240	No
AC socket output to USB/Cigarette Lighter Output		1240	No
AC socket output to foil wrapped around the plastic enclosure		1240	No
supplementary information			
Note1: Test voltage ac., 60Hz, 1minute.			
Note2: Actual measured AC output voltage is 114V, client selected 120V as AC output voltage.			

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Clause	Requirement + Test	Result - Remark	Verdict

List of Critical Components:

Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
System components						
1.	Plastic enclosure	SABIC INNOVATIVE PLASTICS US L L C	HRA222F(f1)(GG)	PC/ABS, min. 2.0 mm thick, rated V-0, 90°C (RTI)	-	Test with appliance
2.	Display panel	SABIC INNOVATIVE PLASTICS US L L C	HRA222F(f1)(GG)	PC/ABS, min. 2.0 mm thick, rated V-0, 90°C (RTI)	-	Test with appliance
3.	DC fan	SHENZHEN BAODIKAI ELECTRONIC CO LTD	BD(H)6015(X)	12Vdc/0.18A	-	Test with appliance
4.	Label	Shenzhen Xinmao Printing Co., Ltd	PVC	80°C	-	Test with appliance
5.	AC outlet	LECI Electronics Co., LTD	DB-F-M	125Vac, 15A	-	Test with appliance
6.	Internal connection wire	DONGGUAN ZHONGZHEN ENERGY TECHNOLOGY CO., LTD	3239	10-22AWG, 150°C	-	Test with appliance
7.	Cigarette Lighter Socket	Dongguan Yujie Electronics Technology Co., Ltd	DS1011	12Vdc, 10A	-	Test with appliance
8.	Handle(Black plastic)	SABIC INNOVATIVE PLASTICS US L L C	HRA222F(f1)(GG)	PC/ABS, min. 2.0 mm thick, rated V-0, 90°C (RTI)	-	Test with appliance
9.	LED	HLNGLITRONIC Group Co., Ltd.	2835H421W	3.2V/60mA	-	Test with appliance
10.	Sponge	JIAN FEN PACKGING CO., LTD	G1000	80°C	-	Test with appliance
11.	Button	Zhuhai iSmart Ware Technology Co., Ltd.	SW3526D	35V/3.5A	-	Test with appliance
12.	Cells	JIANGXI BATTERY WAY NEW ENERGY TECHNOLOGY CO LTD	INR 21700-45EC	3.7V, 4500mAh	-	Test with appliance
Components in BMS board						

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Clause	Requirement + Test		Result - Remark	Verdict		
Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
13.	PCB	SHANGHAI GLOBAL ELECTRONIC MATERIAL LTD	GEM-R1	V-0, 130°C	-	Test with appliance
14.	Fuse (FU1, FU2, FU3, FU4, FU5, FU6, FU7, FU8, FU9)	BAODIAN (SHENZHEN) INDUSTRIAL CO LTD	JFC1206-2150FS	32V, 20A	-	Test with appliance
15.	Fuse (FC)	AEM Components (Suzhou) Co., Ltd.	AF2-20.0V065T	65V, 20A	-	Test with appliance
16.	MOSFET (QD1, QD2, QD3, Q5, QD6, QD7, QD8, QD9, Q10, QD11, Q12, QD13, Q14, QD15, QD16)	Huayi Microelectronics Co., Ltd.	HY1904C2	VDSS: 40V, VGSS: ±20V, IS: 65A, TJ: 150°C	-	Test with appliance
17.	MOSFET (QC1, QC2, QC3, QC4)	Huayi Microelectronics Co., Ltd.	HY19P03D	VDSS: -30V, VGSS: ±20V, IS: -90A, TJ: 150°C	-	Test with appliance
18.	U1	CellWise Semiconductor	CW1072ALAS	VOC: 4.25V±0.025V, VOD: 2.7V±0.030V, VCC: -0.3~35V TA: -40 to 85°C	-	Test with appliance
19.	U2	CellWise Semiconductor	CW1073AAA S	VOC: 4.25V±0.025V, VOD: 2.7V±0.030V, VCC: -0.3~35V TA: -40 to 85°C	-	Test with appliance
Components on main board						
20.	PCB	DONGGUAN PINSHENG PRECISION ELECTRONICS CO LTD	PS-D	V-0, 130°C	-	Test with appliance

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Clause	Requirement + Test		Result - Remark		Verdict	
Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
21.	Connector (CN4)	Dongguan Xinmei Electronics Co., Ltd.	DC200T02-S10	30Vdc, 3A	-	Test with appliance
22.	USB-C(Type-C)	Dongguan Zhengyue ELECTRONIC Co., Ltd.	TYPE C	20Vdc, 5A	-	Test with appliance
23.	USB-A(Quick Charge 3.0)	Dongguan Zhengyue ELECTRONIC Co., Ltd.	USB2.0AF	5Vdc, 3A	-	Test with appliance
24.	Connector (CN3)	NINGBO XINLAIYA ELECTRONIC TECHNOLOGY CO LTD	XT304	80V, 15A, 120°C	-	Test with appliance
25.	Fuse (F1)	BETTE FUSE CO LTD	312	125Vdc/50A	-	Test with appliance
26.	Inductor (L1)	Dongguan Haidian ELECTRONIC Co., Ltd.	JL201106B	130°C	-	Test with appliance
	-Winding	WUGANG JIUHENG ELECTRONIC TECHNOLOGY CO LTD	*EI/AIW-220	Min. 130°C	-	Test with appliance
	-Base	KINGBOARD LAMINATES HOLDINGS LTD	PDX-PCA-98551	V-0, 130°C	-	Test with appliance
Components on inverter board(Big)						
27.	PCB	GLOBAL SUCCESS CIRCUITS CO LTD	T-1	V-0, 130°C	-	Test with appliance
28.	Transformer(T 3a)	Haining JingYuan Electronic CO.LTD	PQ40400010	Class B, 130°C	-	Test with appliance
	-Bobbin	CHANG CHUN PLASTICS CO LTD	T375HF	V-0, 150°C	-	Test with appliance
	-Primary Winding Wire	ZHEJIANG HONGBO TECHNOLOGY CO LTD	UEW/155, QA-x/155 MW 79-C	Min. 155°C	-	Test with appliance
	-Secondary Winding Wire	Interchangeable	Interchangeable	Min. 155°C	-	Test with appliance

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Clause	Requirement + Test		Result - Remark		Verdict	
Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
	-Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT* (c)(g)	130°C	-	Test with appliance
	Tape -Alternative	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PF* (d)(g)	130°C	-	Test with appliance
	-Tube	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	-	Test with appliance
	-Varnish	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD	T-4260(a)	130°C	-	Test with appliance
	-Heat shrink tubing	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR-H	125°C	-	Test with appliance
	-Core	Tongxiang Yutong Electronic Technology Co. LTD	NH9 PQ4040	--	-	Test with appliance
	-Barrier	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF* (c)(h)	130°C	-	Test with appliance
29.	Inductor (L3, L5)	XIAMEN LIANXU ELECTRONICS CO., LTD	YPSB400-801K	130°C	-	Test with appliance
30.	Fuse (F1, F2, F3)	Littelfuse Inc	0257040.	32Vdc/40A	-	Test with appliance
31.	Optocoupler(I C6, IC7, IC8, IC9)	Toshiba Electronic Devices & Storage Corporation	TLP350(LF1, TP1)	2.5A, 125°C	-	Test with appliance
32.	Electrolytic capacitor (C52, C53)	Nantong Jianghai Capacitor Co.,Ltd	CD286	35V, 4700µF,	-	Test with appliance
33.	Connector (CN4)	CHANGZHOU AMASS ELECTRONICS CO LTD	XT90PB-M	500V, 30A, 120°C	-	Test with appliance

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Clause	Requirement + Test		Result - Remark	Verdict		
Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
34.	MOSFET(Q29, Q30, Q31, Q32)	Infineon Technologies	IRF100B201	Min. 100V/120A	-	Test with appliance
35.	Diode (D2, D3, D4, D7)	PANJIT international Inc.	ER1006	Min. 600V/10A	-	Test with appliance
36.	IGBT(Q25, Q26, Q27, Q28)	Hangzhou Silan Microelectronics Co.,Ltd.	SGT60N60FD 2PN	Min. 600V/60A	-	Test with appliance
37.	Electrolytic capacitor (C91, C92)	Nantong Jianghai Capacitor Co.,Ltd	CD287	Min. 400V, 220 μ F	-	Test with appliance
38.	Y-capacitor (C99, C102)	JYH CHUNG ELECTRONIC CO.LTD	JD	Min. 400V, 4700pF, 85°C	-	Test with appliance
39.	X-capacitor(C95)	SHENZHEN SINCERITY TECHNOLOGY CO., LTD	MMKP82-224J630V	Min. 630V, 220nF	-	Test with appliance
40.	Heat sink(HS1)	Zhenjiang Goethe Radiator	W225H50	High:50mm; weigh:225mm	-	Test with appliance
41.	Heat sink(HS2, HS3)	Zhenjiang Goethe Radiator	W20H25	High:25mm; weigh:20mm	-	Test with appliance
42.	IC11	Shanghai Magntek Microelectronics Inc.	MT9223	5.0V Single Supply Operation -40°C~125°C Operating Temperature Primary Conductor Resistance ---1.2m Ω Sensing Current Range: (AC or DC) --- \pm 20A, \pm 25A, \pm 30A, \pm 40A, \pm 50A ---+20A, +30A, +35A	-	Test with appliance
43.	Capacitor(C21)	Xiamen Core Tech Electronics co.,Ltd	CBB21 475/400V	Min.400V, 4.7 μ F	-	Test with appliance
44.	Capacitor(C82)	Xiamen Core Tech Electronics co.,Ltd	CBB21 105/630V	Min. 630V, 1 μ F	-	Test with appliance

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Clause	Requirement + Test		Result - Remark		Verdict	
Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
45.	Inductor(L7)	XIAMEN LIANXU ELECTRONICS CO., LTD	LX221408_5 MH	130°C	-	Test with appliance
46.	Connector(CN 11, CN12)	ZHEJIANG HONGXING ELECTRICAL Co.,LTD	VH-2A	10A	-	Test with appliance
47.	Fixed glue	Shenzhen Opute Industry Materials Co., Ltd	6158	V-0, 105°C	-	Test with appliance
Components on inverter board(Small)						
48.	PCB	DONGGUAN PINSHENG PRECISION ELECTRONICS CO LTD	PS-D	V-0, 130°C	-	Test with appliance
49.	Diode(D1, D7, D5, D4)	Microdiode Electronics(jiangsu) Co.,Ltd	US1D	Min. 200V/1A	-	Test with appliance
50.	Transformer(T 1)	GUANGZHOU FEINENG ELECTRIC CO LTD	EE 19-30-13	Class B	-	Test with appliance
	-Core	GUANGZHOU FEINENG ELECTRIC CO LTD	EE 19	-	-	Test with appliance
	-Bobbin	Guangzhou Pengwei Plastic Products Co., Ltd	KE3386	V-0, 150°C	-	Test with appliance
	-Primary Winding Wire	Guangzhou Wanbao Electronic Material Co., ltd	Wanbao DTM	Class B	-	Test with appliance
	-Secondary Winding Wire	Guangzhou Wanbao Electronic Material Co., ltd	Wanbao DTM	Class B	-	Test with appliance
	-Tape	SHENZHEN ZHONGDIAN CHENGUANG ELECTRONIC CO., LTD	CG-L	200°C	-	Test with appliance

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Clause	Requirement + Test			Result - Remark	Verdict	
Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
51.	NTC(NTC1)	GUANGDONG HONGZHI ELECTRONIC TECHNOLOGY CO., LTD	NTC2.5D13M BS	2.5Ω	-	Test with appliance
52.	MOSFET(Q1)	Wuxi Nce Power Co., Ltd.	NCE40P70K	VDS =-40V, ID =-70A RDS(ON) <10mΩ @ VGS=-10V	-	Test with appliance
Components on inverter board(MCU)						
53.	PCB	HUIZHOU APL ELECTRONIC CO LTD	PS-D	V-0, 130°C	-	Test with appliance
54.	IC2	STMicroelectronics	STM32F030C8	Arm® 32-bit Cortex®-M0 CPU, frequency up to 48 MHz	-	Test with appliance
55.	IC3	STMicroelectronics	LM258	Low input bias current: 20 nA (temperature compensated) Low input offset voltage: 2 mV Low input offset current: 2 nA Input common-mode voltage range includes negative rails Differential input voltage range equal to the power supply voltage Large output voltage swing 0 V to (VCC+ - 1.5 V)	-	Test with appliance
56.	IC4	onsemi	NCS20072	Wide Supply Range: 2.7 V to 36 V Low Input Bias Current: 5 pA typical Wide Temperature Range: -40°C to 125°C	-	Test with appliance

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Clause	Requirement + Test	Result - Remark	Verdict
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Item No.	Object/part no.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity
57.	IC6	TEXAS INSTRUMENTS	SN74HC08	Wide Supply Range: 2 V to 6 V Wide Temperature Range: -40°C to 85°C	-	Test with appliance
58.	IC7	TEXAS INSTRUMENTS	SN74HC08	Wide Supply Range: 2 V to 6 V Wide Temperature Range: -40°C to 85°C	-	Test with appliance

Supplementary information: The approval/list evidences of all critical components are provided by client and not checked.

Product: PORTABLE POWER STATION

Type Designation: G1000



Figure 1. Front View of Model



Figure 2. Back View of Model

Product: PORTABLE POWER STATION

Type Designation: G1000

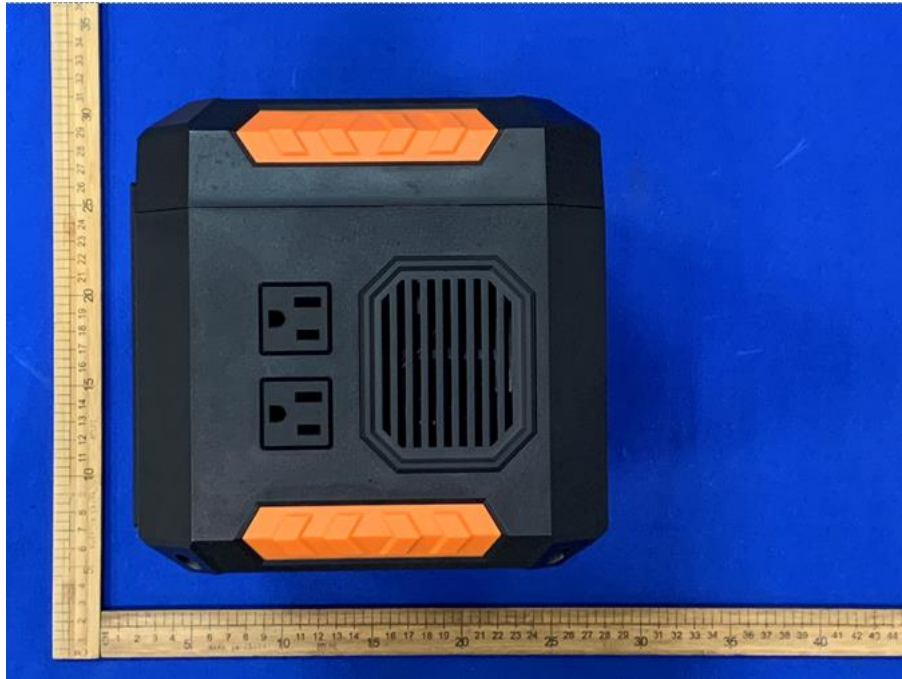


Figure 3. Side View of Model

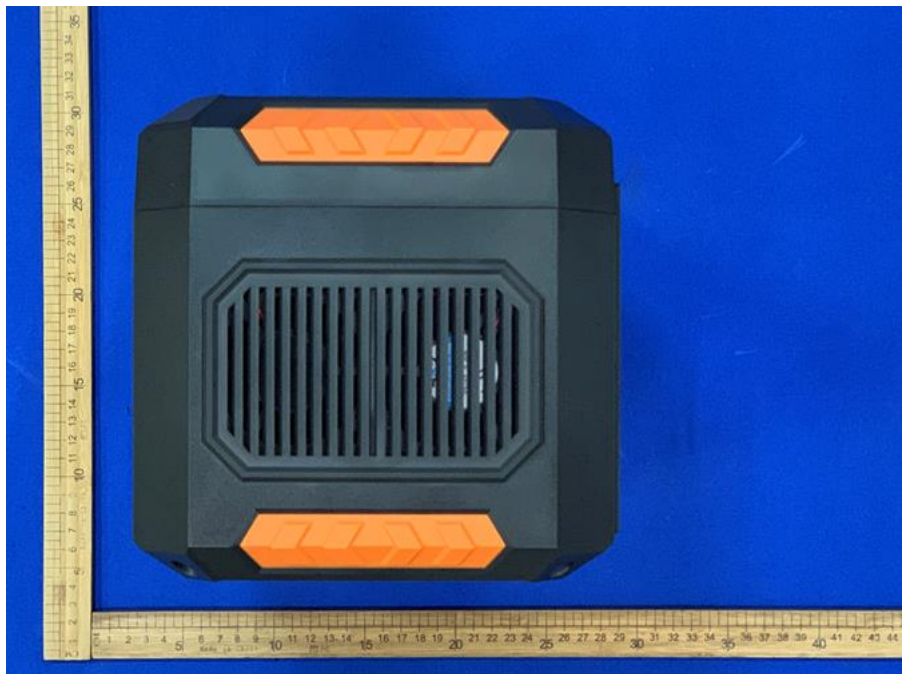


Figure 4. Side View of Model

Product: PORTABLE POWER STATION

Type Designation: G1000



Figure 5. View of Model ports

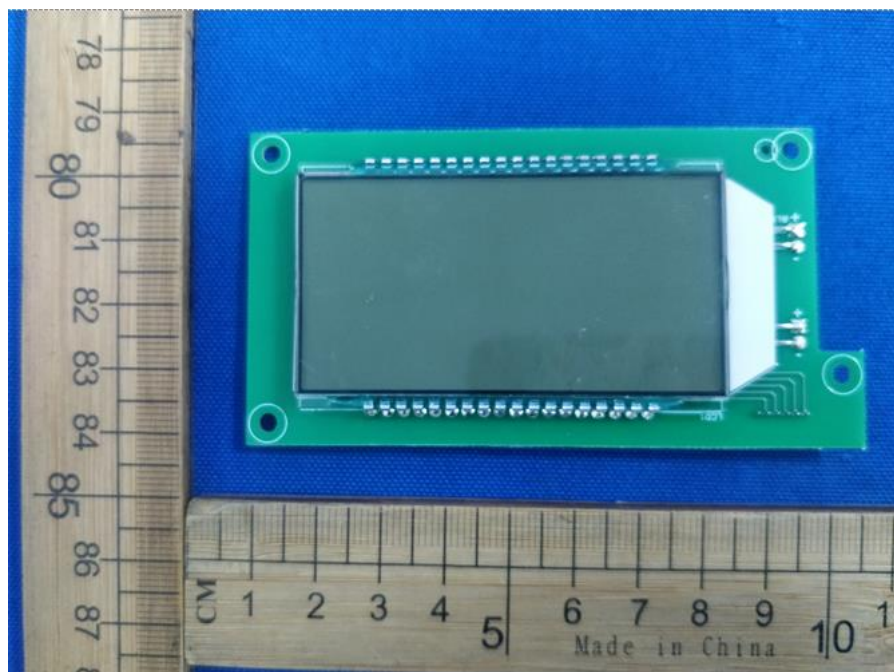


Figure 6. Front View of Panel board

Product: PORTABLE POWER STATION

Type Designation: G1000

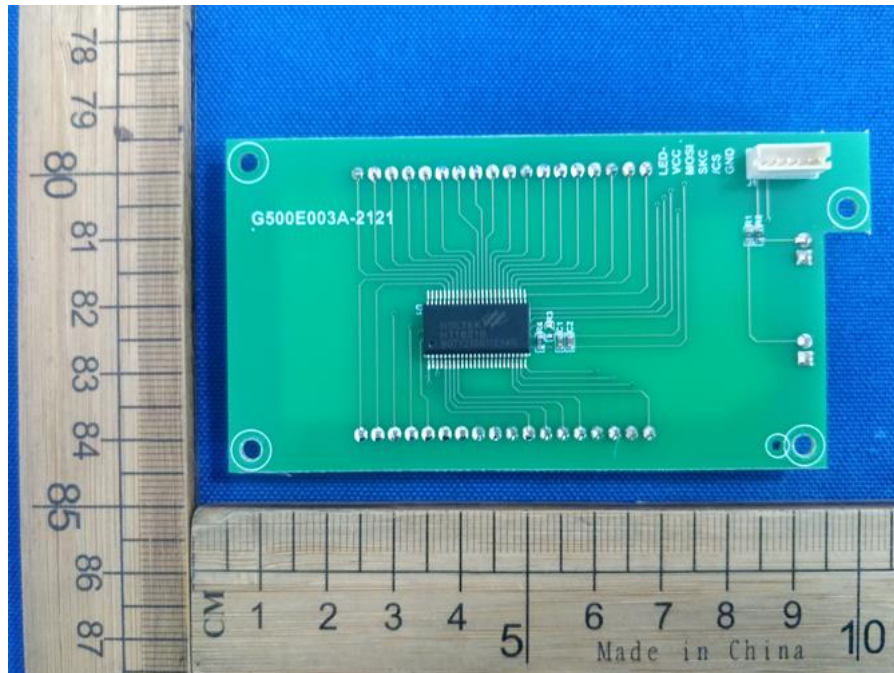


Figure 7. Back View of Panel board

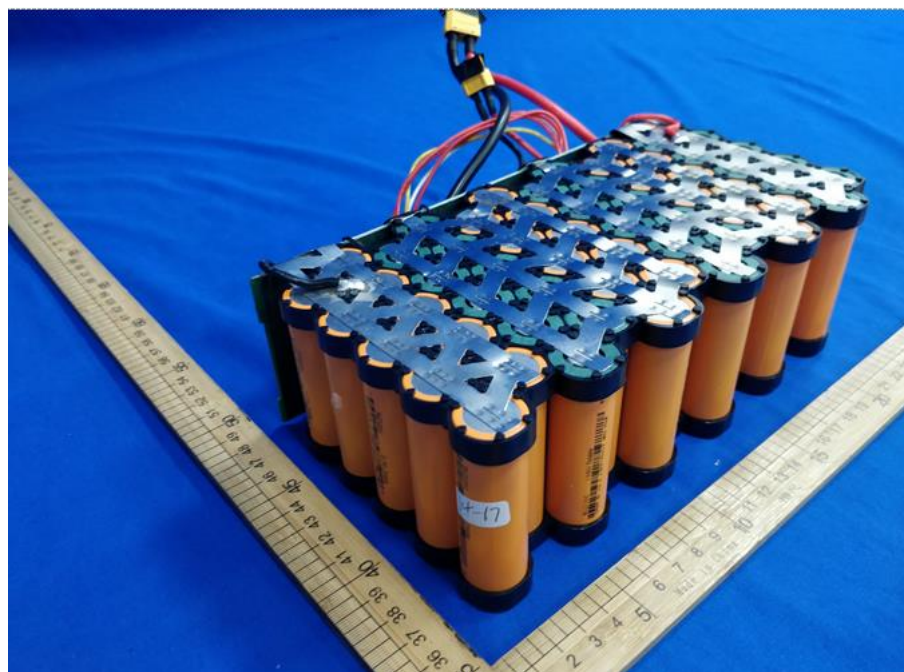


Figure 8. View of Cells

Product: PORTABLE POWER STATION

Type Designation: G1000



Figure 9. Connection View of Model

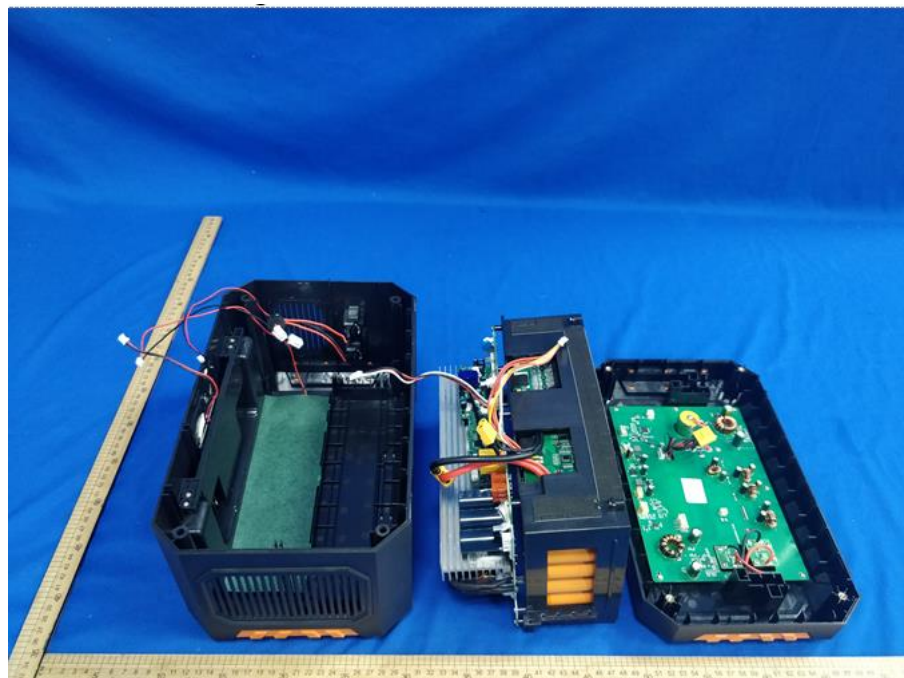


Figure 10. Connection View of Model

Product: PORTABLE POWER STATION

Type Designation: G1000

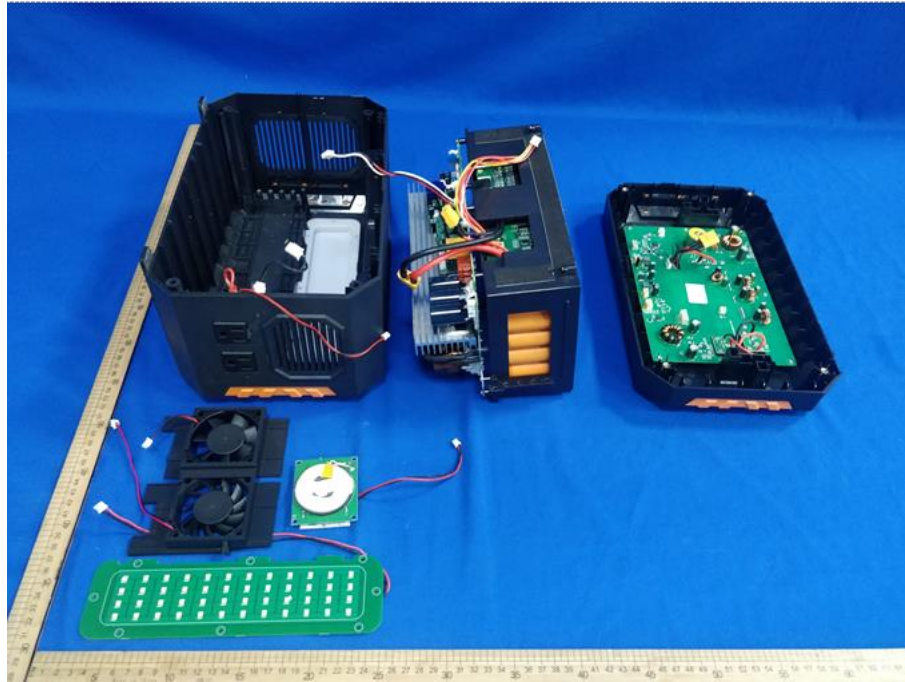


Figure 11. Connection View of Model

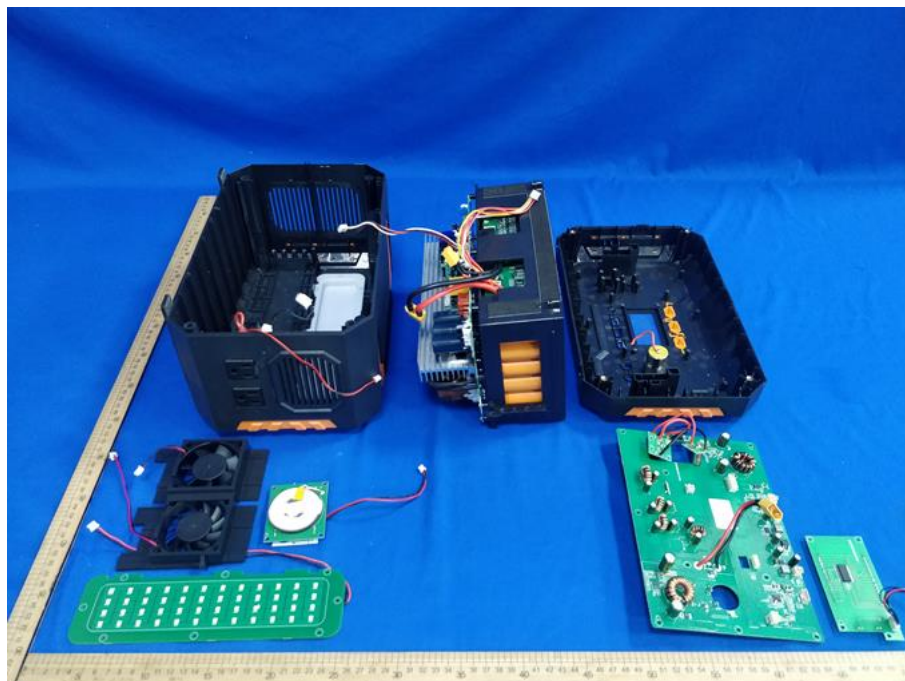


Figure 12. Connection View of Model

Product: PORTABLE POWER STATION

Type Designation: G1000

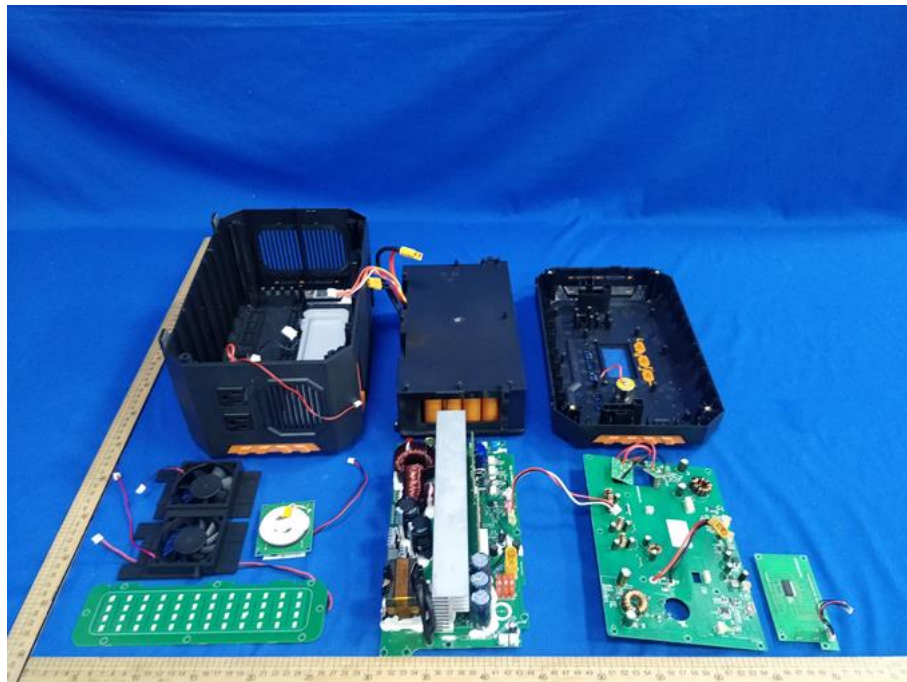


Figure 13. Connection View of Model



Figure 14. Connection View of Model

Product: PORTABLE POWER STATION

Type Designation: G1000

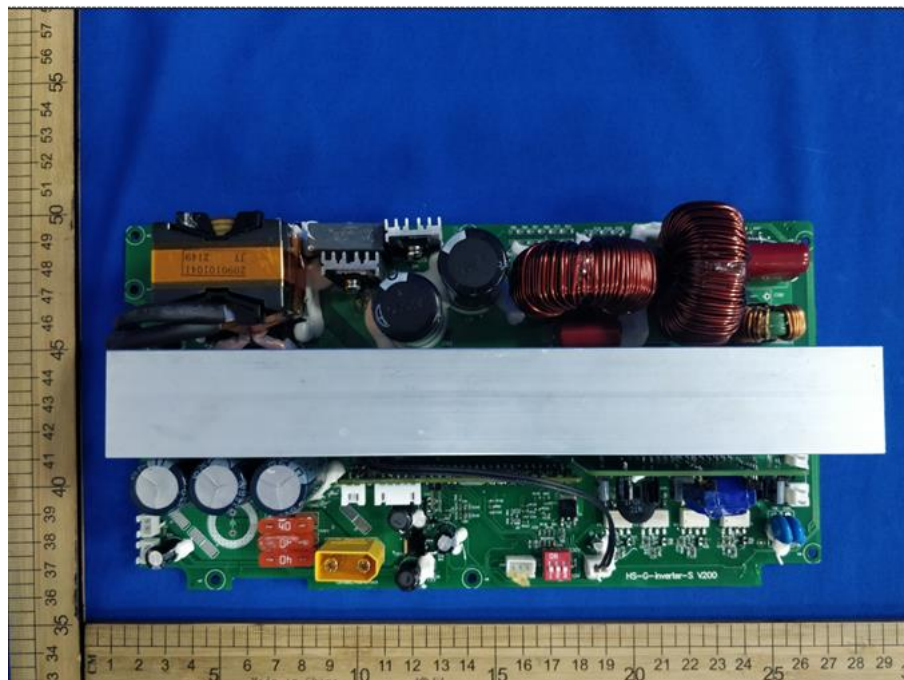


Figure 15. Front View inverter board

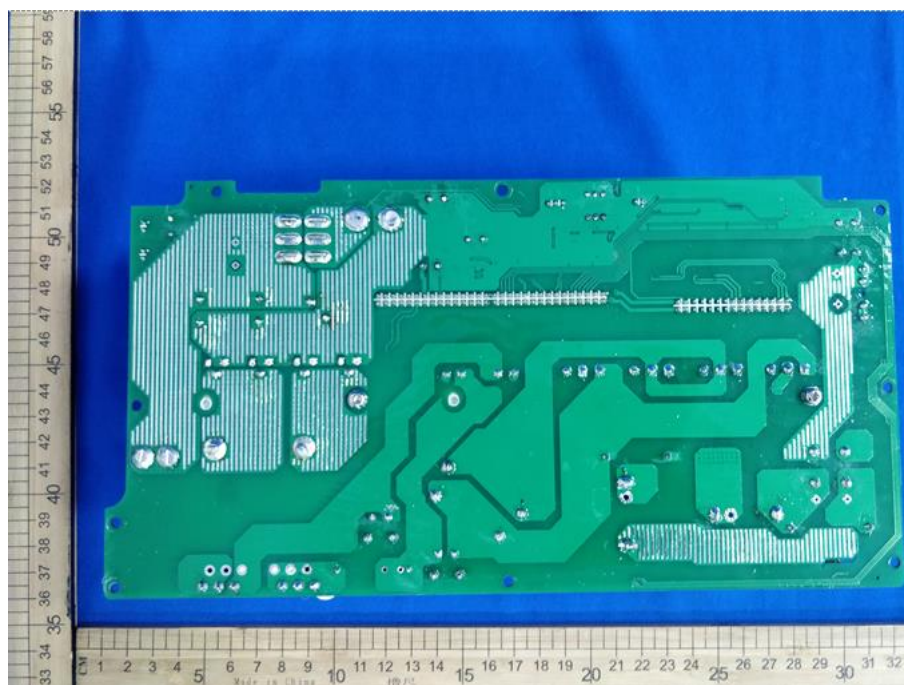


Figure 16. Back View inverter board

Product: PORTABLE POWER STATION

Type Designation: G1000

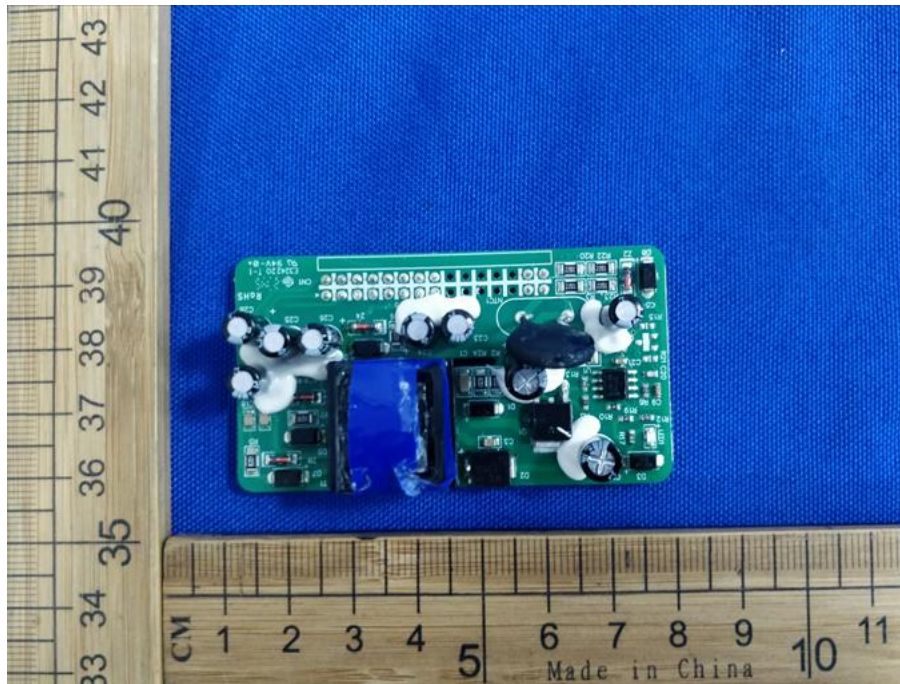


Figure 17. Front View of Little Board in inverter board

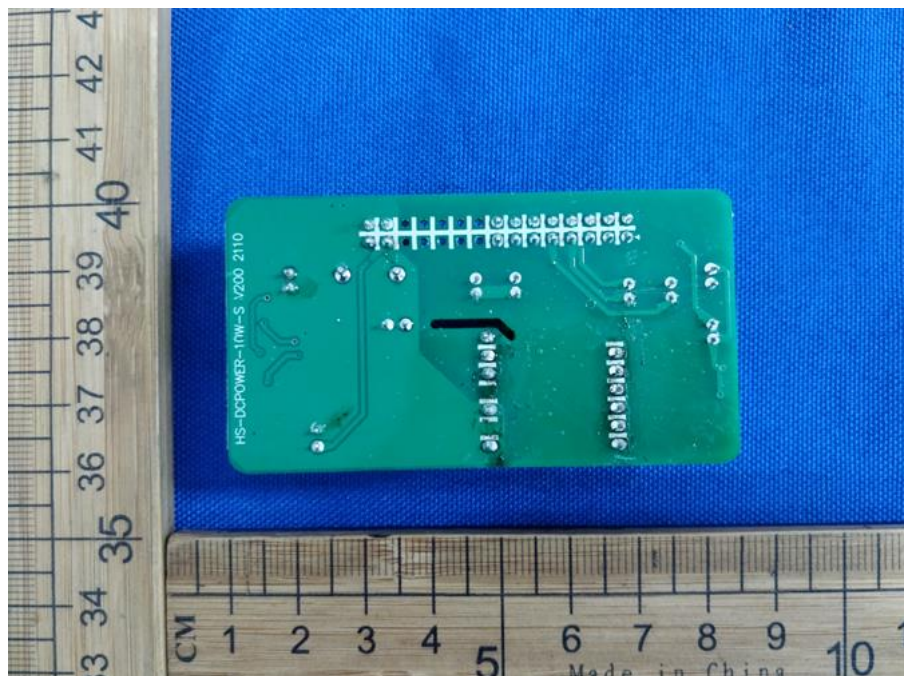


Figure 18. Back View of Little Board in inverter board

Product: PORTABLE POWER STATION

Type Designation: G1000

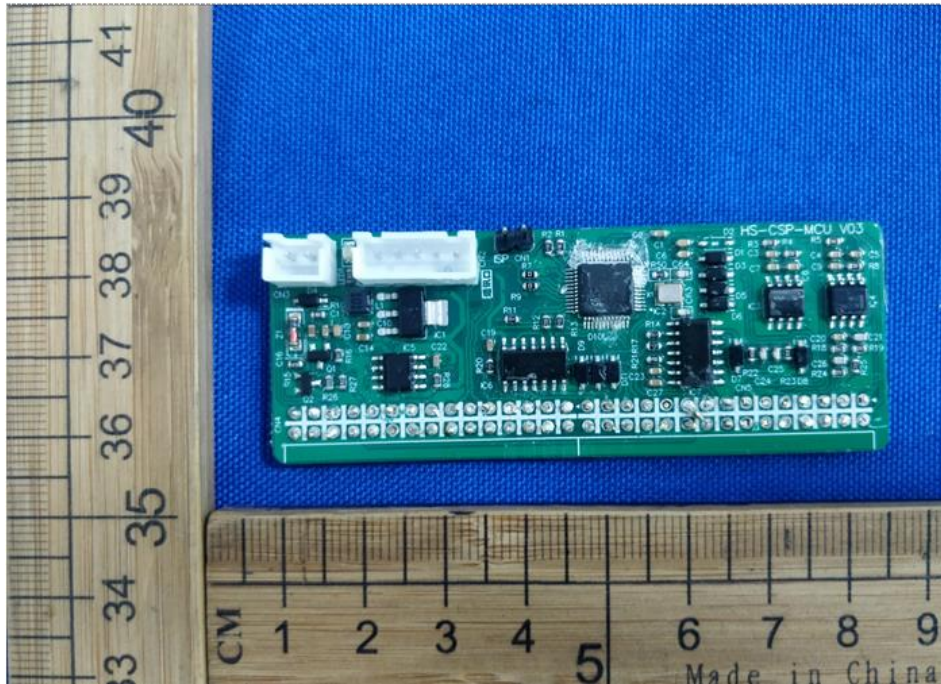


Figure 19. Front View of MCU Board in inverter board

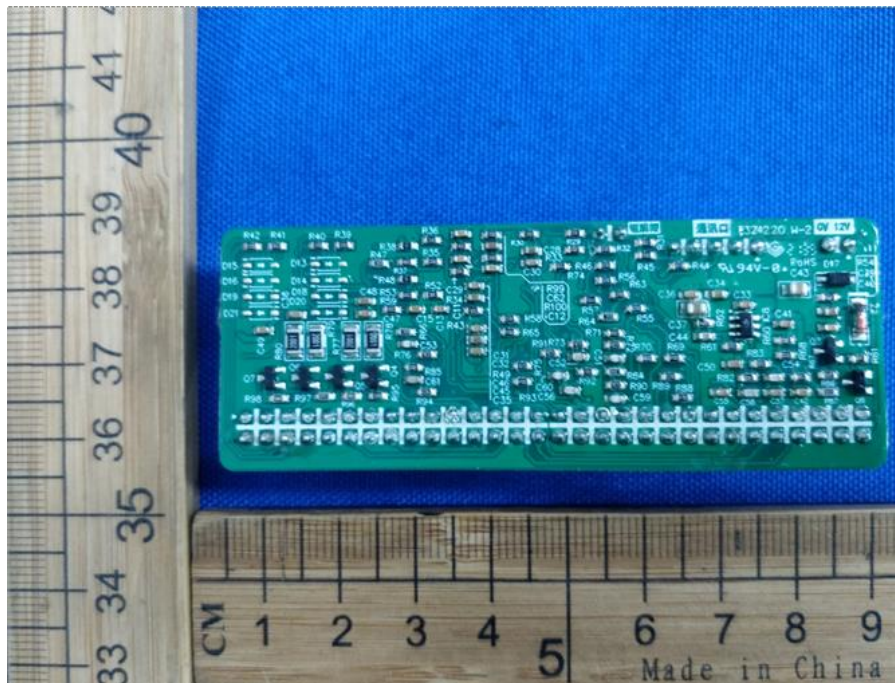


Figure 20. Back View of MCU Board in inverter board

Product: PORTABLE POWER STATION

Type Designation: G1000

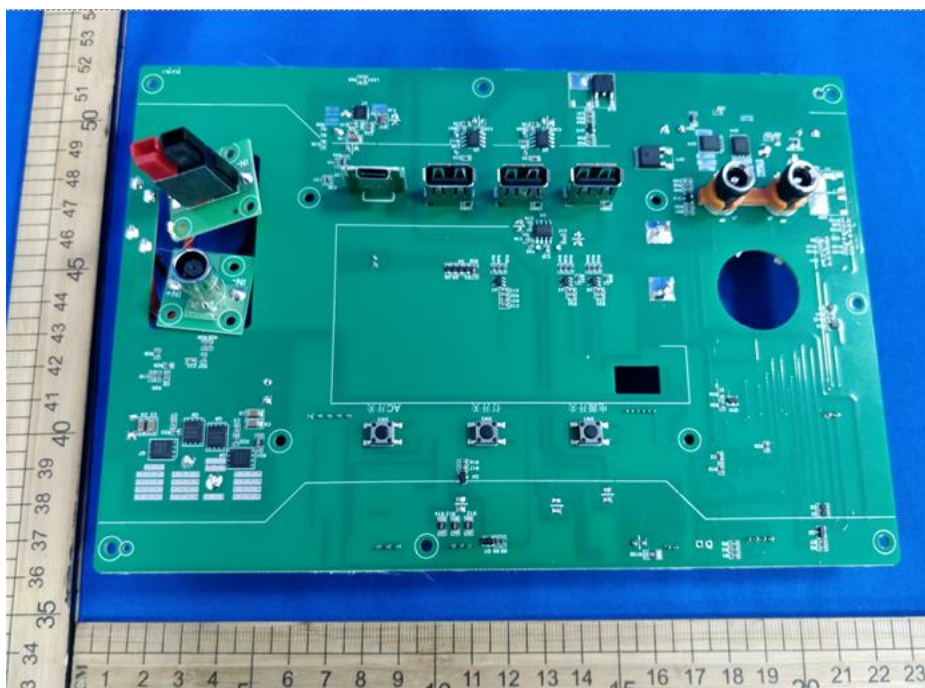


Figure 21. Front View of Main Board



Figure 22. Back View of Main Board

Product: PORTABLE POWER STATION

Type Designation: G1000

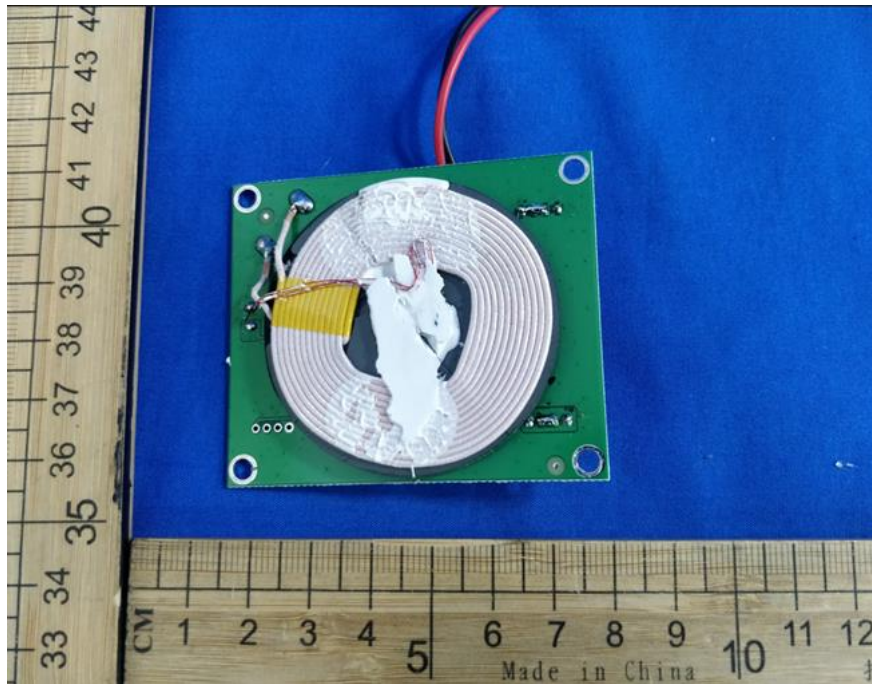


Figure 23. Front View of wireless Board

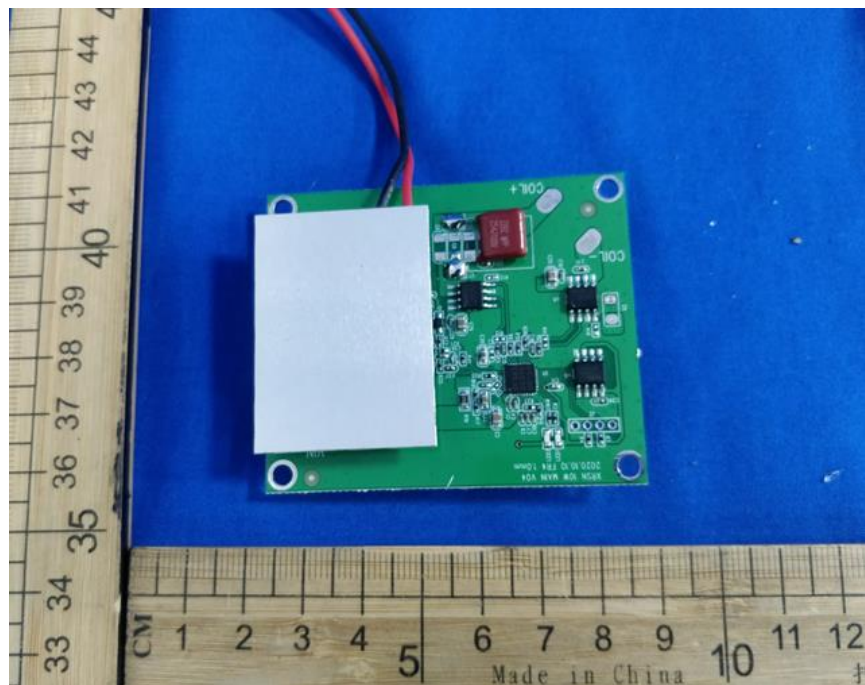


Figure 24. Back View of wireless Board

Product: PORTABLE POWER STATION

Type Designation: G1000

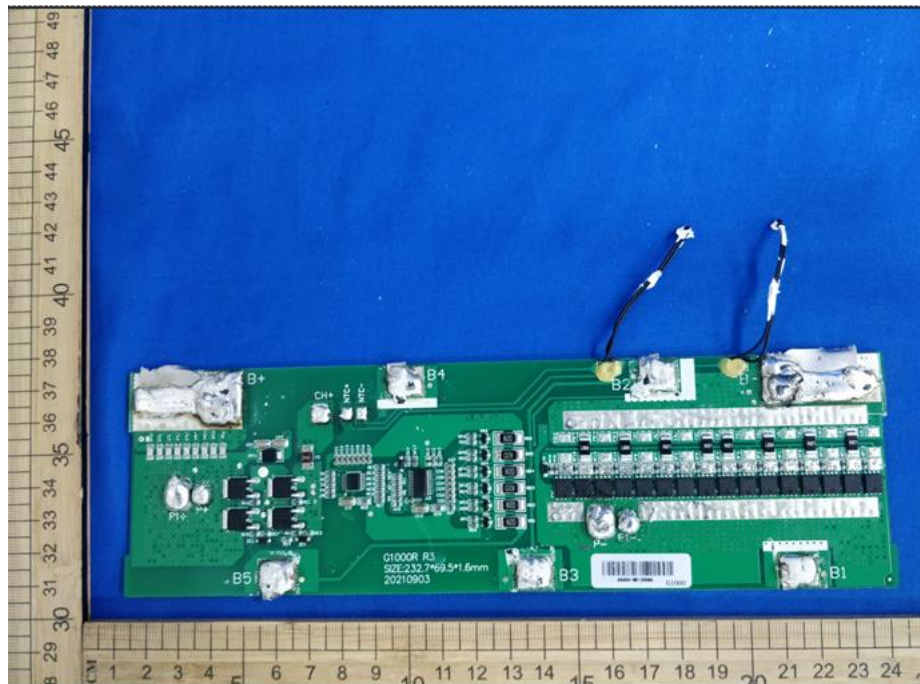


Figure 25. Front View of BMS Board

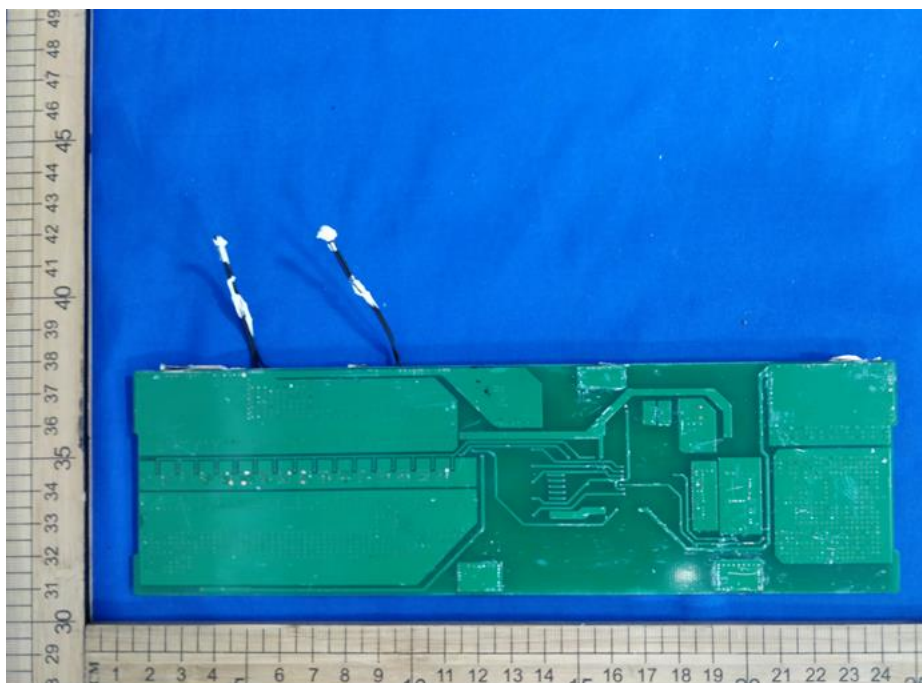


Figure 26. Back View of BMS Board

Product: PORTABLE POWER STATION

Type Designation: G1000



Figure 27. Front View of LED board

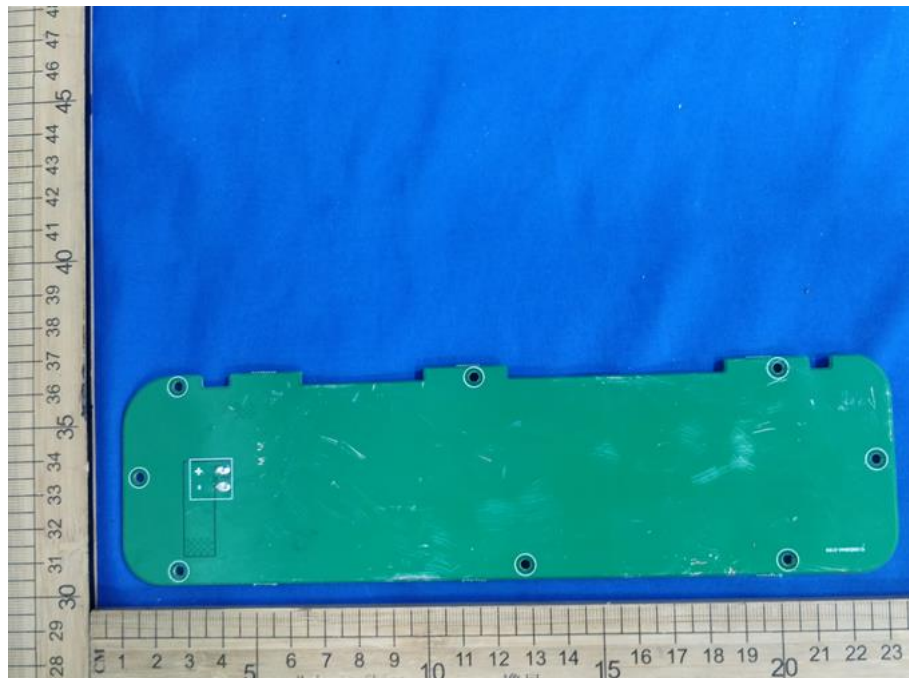


Figure 28. Back View of LED board