



Specification Approval Sheet

Name: Power Bank

Model: 51126

SPEC: 2500mAh (Black body, support 20mA output)

Approved By	Checkup	Make
Jun Xu	---	Tristan Shen
2019-10-01	---	2019-9-20

Customer Confirmation	Signature	Date
	Company Name :	
	Stamp :	

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Amendment Records

Revision	Description	Issued Date	Approved By
A0	New release	2019-10-01	Jun Xu

1 Scope

This document describes the performance characteristics for Power Bank produced by Tenergy Corporation.

2 Product type and model number

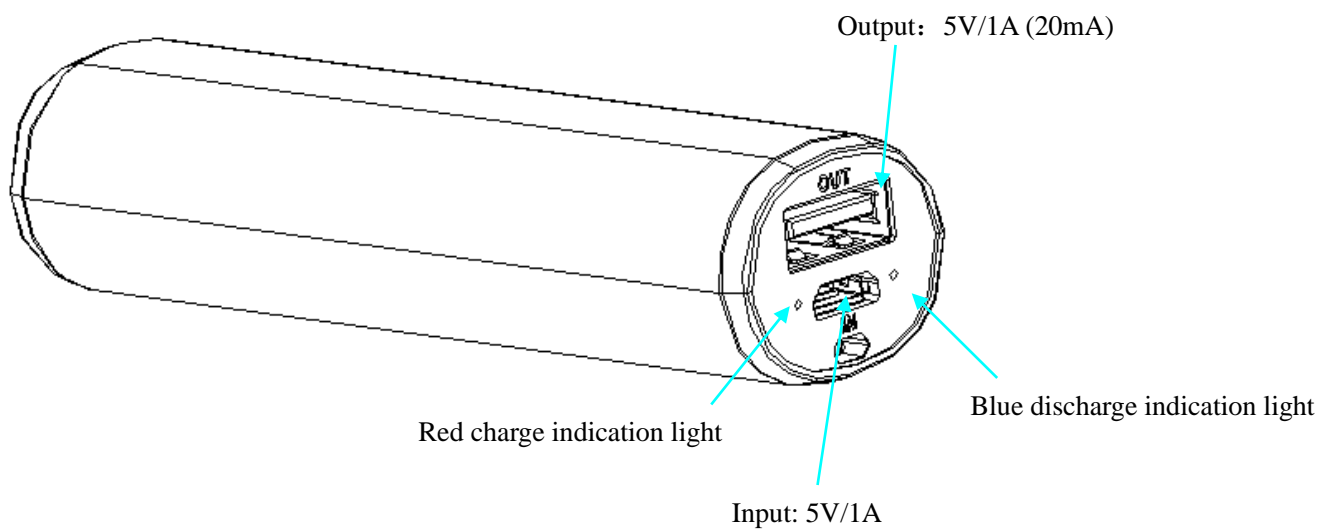
2.1 Product type

Power Bank

2.2 Model number 51126

2500mAh (Black body, support 20mA discharge current)

3 Product Structure













4 Specification

NO.	Item	Specifications
4.1	Input	5.0V/1A
4.2	Output	5.0V/1A (Support 20mA output)
4.3	Working type	DC-DC
4.4	Capacity	2500mAh
4.5	Nominal Voltage	3.6V
4.6	Weight	Approx.: 60g
4.7	Working temperature	Charge: 0°C~45°C Discharge: 0°C~45°C
4.8	Storage temperature	-10°C~50°C
4.9	Humidity	≤75% RH

5 Electrical Specification

1	Input Specification			
NO.	Item	Specifications	Unit	Remark
5.1.1	Rated Input voltage	5.0	Vdc	+0.1/-0.1
5.1.2	Constant Current Charging current	1000 (SOC<75%)	mA	+300/-500
5.1.3	Charging stop current	150	mA	±50
5.1.4	Charging voltage range (input)	5V±0.25V	Vdc	
2	Output Specification			
NO.	Item	Specifications	Unit	Remark
5.2.1	Open circuit voltage	5.0	Vdc	+0.3/-0.1
5.2.2	Max output voltage (with load)	5.0	Vdc	+0.2/-0.3
5.2.3	Rated output current	Out: 1A	A	Support 20mA output
5.2.4	Over current	1.6A	A	±0.3
5.2.5	Over current protection	Cut off output		
3	PCM Specification			
NO.	Item	Specifications	Unit	Remark
5.3.1	Over voltage protection	4.275	Vdc	+25mV/-50mV
5.3.2	Over voltage recover	4.1	Vdc	±0.05V
5.3.3	Over discharge protection	2.5	Vdc	±75mV
5.3.4	Over discharge recover	3.10	Vdc	±0.10
5.3.5	Short circuit protection	Cut off output		



5.3.6	Self discharge	<100	uA	
4	Button and SOC indicator			
NO.	Item	Specifications	Unit	Remark
5.4.1	In Charging	 0% < 100%  100%		 stands for blink  stands for always on
5.4.2	In discharging	 1% ≤ 100%  0%		 stands for always on  stands for off

6 Battery cell specification

6.1 Charge/Discharge function

No.	Item	Test methods and condition	Criteria
6.1.1	Standard charge	CC: 0.2C to 4.2V CV: 4.2V until the current ≤0.01C	
6.1.2	Capacity	After standard charge, 0.2C discharge to 2.75V	≥2480mAh
6.1.3	Cycle life	One cycle stands for 1 full charge/discharge cycle. When the discharge capacity is less than 80% of the original capacity, the cycles will be this cell's cycle life	≥300 cycles
6.1.4	High/Low temperature discharge specs	After standard charge, discharge the cell at different temperature (0.2C to 2.75V), and compare the discharge SOC.	Discharge at -10°C ≥70% Discharge at 55°C ≥90%
6.1.5	Self discharge	After standard charge, store the battery cell at 25°C±2°C for 30days. and discharge at 0.2C current to 2.75V.	Left capacity ≥90%
6.1.6	Impedance	After standard charge, test with AC 1KHz.	≤60mΩ
6.1.7	Nominal Voltage	Rated	3.6V

6.2 Safety Specification

No.	Item	Test methods and condition	Criteria
6.2.1	Over charge	After fully charged, continue charging with CC 0.5C for 24hours	No explosion, no fire
6.2.2	Over discharge	After discharge to 2.75V, connect the battery with 10Ω load and discharge for 24 hours	No explosion, no fire
6.2.3	Shor circuit	After fully charge, connect the battery with 0.1Ω load and short for 24 hours	No explosion, no fire

7 Dimension

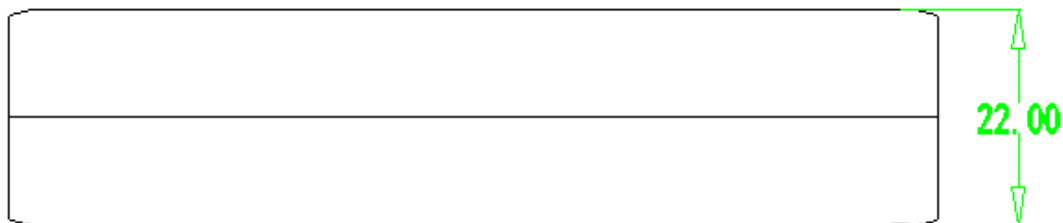
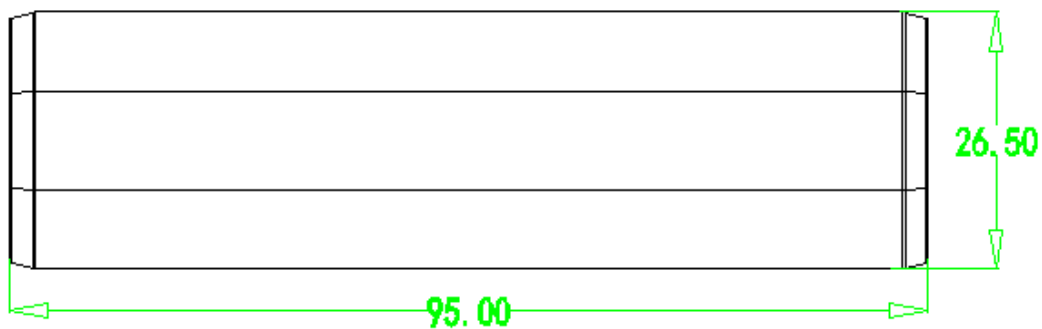
Unite: mm

Tolerance: $\pm 0.2\text{mm}$

L=95.0mm $\pm 0.2\text{mm}$

W=26.5mm $\pm 0.2\text{mm}$

H=22.0mm $\pm 0.2\text{mm}$



8 Caution

- Do not crash, disassemble or punch the power bank
- Do not put the power bank into high temperature environment, through into the fire or water.
- Please place the power bank away from kids
- Stop using the power bank immediately once you find the power pack is overheating, miss shaped, or strong unusual odor.