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REVISION HISTORY					
REV	DESCRIPTION	SALES	RFS	DATE	APPROVED
A	Initial Release	SV	27386	7/3/2019	DR
B	Change CELL Samsung 21700-48G to LR2170SD	MK	27807	7/30/2023	DR
	RATED CAPACITY: 4800mAh Typical changed to 5000mAh Typical, 4800(Minimim)				
	NOMINAL VOLTAGE: 3.7 Volts changed to 3.6Volts				
	WATT-HOUR RATING: 17.76Wh changed to 18.50Wh				
	INTERNAL IMPEDANCE: TBD changed to ≤60 MΩ				
	OVER CHARGE DETECTION VOLTAGE: 4.30 ±0.05Volts changed to 4.28 ±0.02Volts				
	(typical delay 70 msec., resume 4.1 ±0.05V) changed to (MAX delay 1100msec., resume 4.28 ±0.02V)				
	OVER DISCHARGE DETECTION VOLTAGE: 2.40 ±0.1Volts changed to 2.40 ±0.035Volts				
	(typical delay 35msec., resume 3.0±0.1V) changed to (MAX delay 135msec., resume 2.40 ±0.035V)				
	OVER CURRENT DETECTION CURRENT: 13A-15A (typical delay 6msec., release condition cut load) is changed to				
	13A-15A (typical delay 10msec., release condition cut load)				
	CHARGE: 0°C to +50°C changed to 0°C to +45°C				
	DISCHARGE: -20°C to +60°C changed to -20°C to +55°C				
	CHARGE RETENTION/STORAGE [%]:≤1 year at-20 °C to +25°C (≥90% capacity) Change to ≤1 year at-20 °C to +25°C (≥80% capacity)				
	≤3 months -20°C to 45°C (≥90% capacity) Changed to ≤3 months -20°C to 45°C (≥80% capacity)				
	≤1 months -20°C to 55°C (≥90% capacity) Changed to ≤1 months -20°C to 60°C (≥80% capacity)				
	Update label				
C	Update size to 23.5mm*76.0mm(Max), update wire type to UL1007 AWG #20 and length to L=100+/-10mm,	MK	27811	8/22/2023	DR
	Add packing drawing, outline drawing				
D	Update Watt-Hour rating from 18.5Wh to 18.0Wh, update IEC code from 1ICR21/71 to 1ICR22/71	MK	27816	9/11/2023	DR
D1	UPDATE: MAXIMUM CONTINUOUS DISCHARGE CURRENT: 1C, OVER CHARGE DETECTION VOLTAGE: 4.20 ±0.05Volts,	MK	27828	10/31/2023	DR
	OVER DISCHARGE DETECTION VOLTAGE: 3.00 ±0.035Volts, OVER CURRENT DETECTION CURRENT: 6A	MK	27828	11/1/2023	DR
D2	Update INTERNAL IMPEDANCE: ≤100mΩ	MK	27831	11/14/2023	DR
D3	RATED CAPACITY: 5000mAh Typical, 4800(Minimim) changed to 5000mAh Typical, 4800(Minimim) Discharge at 0.2C to 2.5V				
	MAXIMUM CHARGE VOLTAGE [V]: 4.2V/cell (Recommended 4.1V±1%/cell)" changed to 4.2V				
	INTERNAL IMPEDANCE: ≤100 MΩ changed to ≤100 mΩ				
	OVER CHARGE DETECTION VOLTAGE: 4.2 ±0.05Volts changed to 4.28 ±0.02V				
	(typical delay 70 msec., resume 4.1 ±0.05V) changed to (MAX delay 1100msec., resume 4.28 ±0.02V) changed to (MAX delay 1100msec., resume 4.28 ±0.02/-0.035V)				
	OVER DISCHARGE DETECTION VOLTAGE: 3.00 ±0.035Volts changed to 2.80 ±0.035V				
	typical delay 35msec., resume 3.0±0.1V) changed to (MAX delay 135msec., resume 2.40 ±0.035V)" changed to "(MAX delay 135msec., resume 2.80 ±0.035V)				
	OVER CURRENT DETECTION CURRENT: 6A changed to 6.0±0.5A				
Foot Note: Globtek Inc. will not be liable for the safety and performance of these power supplies if unauthorized access and repair occurs. End user should consult applicable UL, CSA or EN standards for proper installation instruction. Limitation of Use: Globtek product are not authorized for use as mission critical components in life support hazardous environment, nuclear or aircraft applications without prior written approval from the CEO of Globtek Inc. Contents of this document are subject to change without prior notice					
 GlobTek®, Inc. www.globtek.com		Drawing Title: Li-Ion Cylindrical Battery 3.6 Volts @ 5000mAh Model No. 21700 (1ICR22/71) Part No.: BL4800C2170001S1PCAS			
186 Veterans Drive, Northvale, NJ 07467 Tel. 201-784-1000 Fax 201-784-0111		Rev. D3			

PRELIMINARY SPECIFICATION

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Important battery warranty and usage information

By customer signing or accepting this document, they agree to acknowledge and accept the

Guidelines and cautions, Safety Notes, and Safety Precautions published on GlobTek's website

http://en.globtek.com/safety-cautions.php#.UUD-NRzU_I8

GlobTek offers a 5-year warranty on workmanship and electrical components assembly on all new battery pack products excluding the battery cells themselves which are covered by the Manufacturer's original warranty at their published warranty period. Please refer to the manufacturer's manufacturer's warranty policy for cells. For GlobTek brand cells, GlobTek provides a 12-month warranty for Li-Ion batteries. The warranty period is based upon the expectation that the battery will deliver 80% of its initial capacity after 300 cycles at low to moderate power loads. High power loads may cause a battery to reach 80% of initial capacity in less than the 12-month warranty period. Li-Ion batteries will continue to operate below the 80% capacity threshold; however, the capacity (run time) delivered between charges will continue to decrease.

The purchaser of this product (Customer) agrees that it is their sole responsibility to determine suitability of the product described for their application and to take precautions for protection against any hazards attendant to the handling and use of the product. Products sold are not returnable. GlobTek, Inc. will produce or provide its products to our published specifications. The purchaser of this product (Customer) shall be solely responsible for determining the products' fitness for use in their applications.

The acceptance of this specification and use of the product described in this document indicates the acceptance and binding of the customer to Globtek terms and conditions, which supersede all other agreements, terms and conditions (<http://en.globtek.com/terms-and-conditions/>).

Lithium Ion batteries are inherently dangerous. Continuous usage or charging without allowing the battery to discharge is a hazard.

FIRE HAZARD: This like all Li-Ion battery packs must be regularly discharged and charged. it is not recommended to be kept on permanent full charge and in a full state of charge.

Customer Approval of Specification:

Please approve, sign and send back to GlobTek so we can complete order processing.

A delay in receipt of this form will delay delivery schedule.

Company Name:

Customer P/N:

Quote Number:

Date:

Authorized Representative Name:

Authorized Representative Signature:



GlobTek® Inc.

www.globtek.com

186 Veterans Drive, Northvale, NJ 07467

Tel. 201-784-1000 Fax 201-784-0111

Drawing Title: Li-Ion Cylindrical Battery

3.6 Volts @ 5000mAh

Model No: 21700 (1ICR22/71)

Part No.: BL4800C2170001S1PCAS

Rev. D3

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1. GENERAL SPECIFICATION:

BATTERY WITH SAFETY CIRCUIT

CELL: LR2170SD

PCM: TBD

NTC: N/A

ID: N/A

CONFIGURATION: 1S1P

2. ELECTRICAL SPECIFICATION:

RATED CAPACITY: 5000mAh Typical, 4800(Minimim) Discharge at 0.2C to 2.5V

NOMINAL VOLTAGE: 3.6V

WATT-HOUR RATING: 18.00Wh

CHARGING METHOD: Constant Current/Constant Voltage

MAXIMUM CHARGE VOLTAGE [V]: 4.2V

CHARGE CURRENT: 0.33C (typical); 1.0C (maximum)

RECOMMENDED CHARGE CUT OFF: By current 0.02C or timer approx. 6.0hours

MAXIMUM CONTINUOUS DISCHARGE CURRENT: 1C

RECOMMENDED DISCHARGE CUT OFF: 3.0V/cell

INTERNAL IMPEDANCE: $\leq 100\text{m}\Omega$

EXPECTED CYCLE LIFE: >500 cycles > 80% of initial capacity (charge CC 0.3C to 4.2V; discharge 1.0C to 3.0V)

CELL PROTECTION:

OVER CHARGE DETECTION VOLTAGE: $4.28 \pm 0.02\text{V}$

(MAX delay 1100msec., resume $4.28 + 0.02/-0.035\text{V}$)

OVER DISCHARGE DETECTION VOLTAGE: $2.80 \pm 0.035\text{V}$

(MAX delay 135msec., resume $2.80 \pm 0.035\text{V}$)

OVER CURRENT DETECTION CURRENT: $6.0 \pm 0.5\text{A}$

3. AMBIENT CONDITIONS

TEMPERATURE RANGE:

CHARGE: 0°C to $+45^{\circ}\text{C}$

DISCHARGE: -20°C to $+55^{\circ}\text{C}$

CHARGE RETENTION/STORAGE [%]: ≤ 1 year at -20°C to $+25^{\circ}\text{C}$ ($\geq 80\%$ capacity)

≤ 3 months -20°C to 45°C ($\geq 80\%$ capacity)

≤ 1 months -20°C to 60°C ($\geq 80\%$ capacity)

HUMIDITY: $60 \pm 25\%\text{RH}$

4. ENVIRONMENTAL AND SAFETY

PLEASE FOLLOW GlobTek, Inc. HANDLING AND SAFETY PRECAUTIONS FOR Lilon & LiPolymer.

5. CELL REGULATORY APPROVALS:

UL: Designed to meet UL1642

6. BATTERY PACK APPROVALS:

RoHS: COMPLIES WITH EU 2002/95/EC AND CHINA SJ/T 11363-2006

CE Mark: COMPLIES WITH 2004/108/EC ELECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO

EN61000-6-1:2007, EN61000-6-3:2007

TRANSPORTATION: Designed to meet UN38.3

Safety: Designed to meet UL 2054, IEC61960:2003, IEC 62133,

UL: Design to meet UL2054, IEC62133



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Tel. 201-784-1000 Fax 201-784-0111

Drawing Title: Li-Ion Cylindrical Battery

3.6 Volts @ 5000mAh

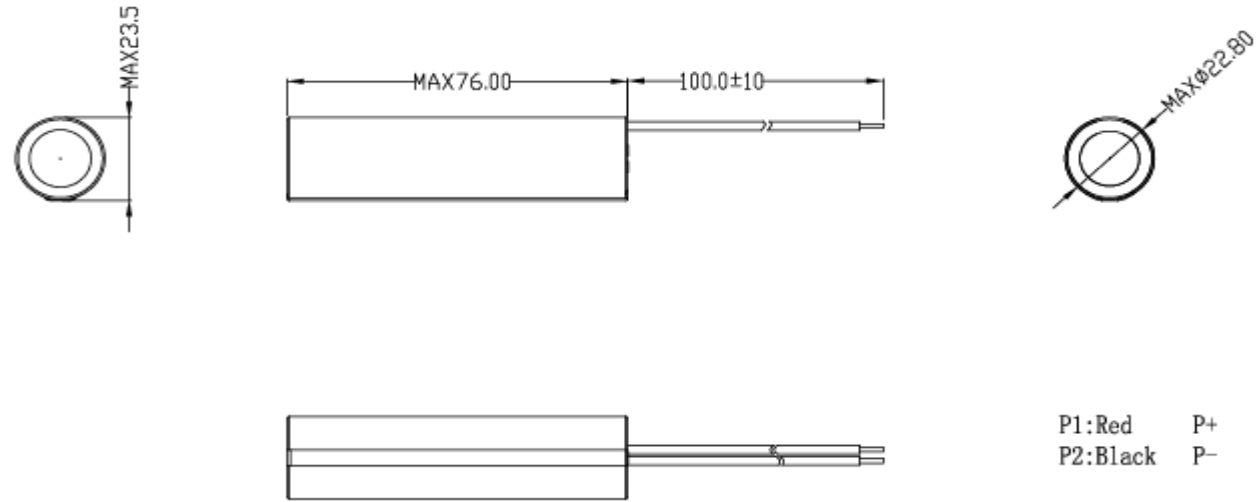
Model No. 21700 (1ICR22/71)

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8. MECHANICAL:

DIMENSIONS:	23.5mm*76.0mm(Max)
SHRINK WRAP:	PVC
WIRE TYPE:	UL1007 AWG #20
WIRE LENGTH:	L=100+/-10mm
Wire Polarity:	VBatt Red (+)
Wire Polarity:	GND Black (-)

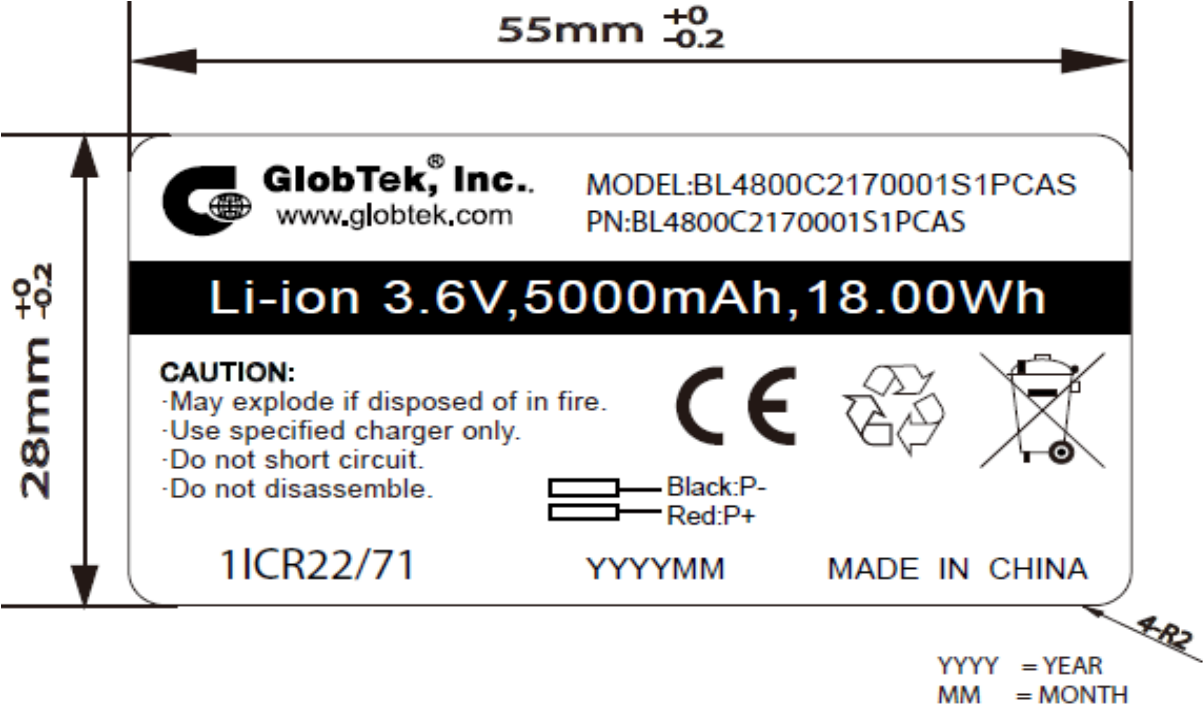


[ADDITIONAL OUTPUT PLUG OPTIONS ARE AVAILABLE BY CLICKING THIS LINK.](#)
[STANDARD PLUGS AND CONNECTORS CAN BE SEEN ONLINE BY CLICKING THIS LINK](#)

7.CONNECTOR:
ACTUAL CONNECTOR'S, OVERMOLDS, MAY VARY SLIGHTLY FROM THE PICTURE BELOW

EQUIVALENT	Y / N	
Plug Type	Y	TBD
Terminal	Y	TBD

MATERIAL:	TBD
BACKGROUND COLOR:	WHITE
TEXT COLOR:	BLACK
LABEL WIDTH: (mm)	55
LABEL HEIGHT: (mm)	28
ADDITIONAL REQUIREMENTS:	N/A
ADDITIONAL REQUIREMENTS:	N/A

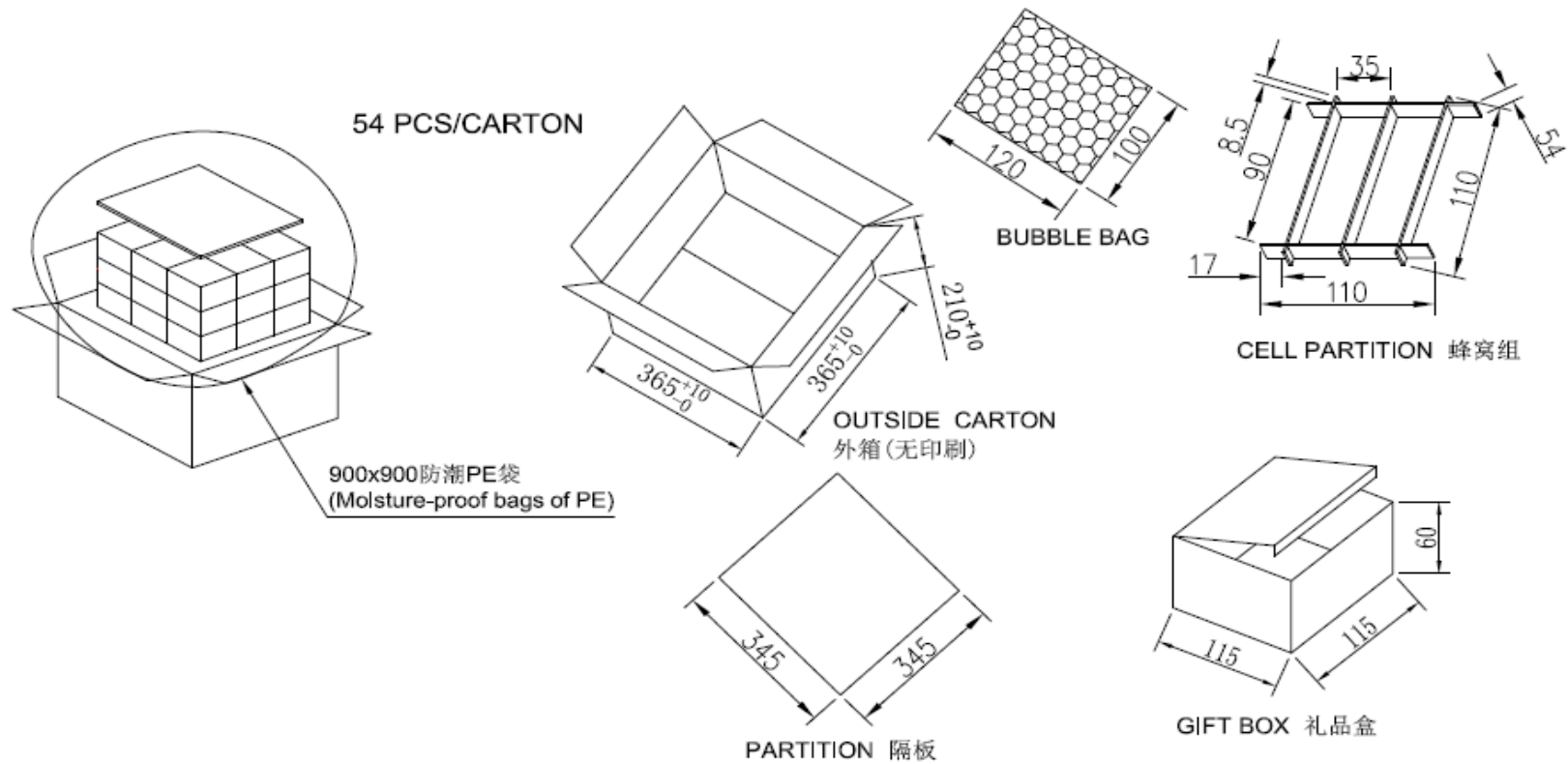


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9. PACKAGING:

PE BAG SIZE	TBD
CARTON SIZE:	365*365*210mm
QUANTITY PER CARTON:	54
G.W.	TBD



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