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REVISION HISTORY

REV	DESCRIPTION	SALES	RFS	DATE	APPROVED
A	Initial Release	DH	24776	5/10/2013	HM
B	Add Pin 1 location to the connector.	DH	24956	6/21/2013	HM
C	Add UN38.3 and CB Report	DH	25529	5/22/2014	HM
D	Add ambient pressure	DH	25544	6/2/2014	HM
E	Change humidity from 65±20% to 10-85% RH	DH	25553	6/13/2014	HM
F	Revise Label	AM	25577	7/11/2014	HM
G	Mark wire length as critical, add second shrink wrap, add packing info, update dimensions to max values, add label size	DH	25724	12/2/2014	HM
H	Change cable length from 160mm to 110mm, update battery case max, dimensions from 67.0*76.0*28.5 to 67.0*75.0*27.0 Max	DH	25752	12/18/2014	HM
I	Clarify wire length is including connector, add wire colors for pin 3,4,5, add JST terminal P/N, correct wire type, add carton weight	DH	25763	1/2/2015	HM
J	Update battery pack dimensions	NF	25205	2/12/2016	HM
K	Update fuel gauge from BQ20Z95 to BQ40Z50, update dimensions from 67.0*70*27(Max) to 67.0*76.0*27.0(Max), update Model No. from 18650 to BL2600C18654S1PG2646, add IEC Designation Code to Model No.	SV	27069	4/19/2019	HM
L	Remove Notes from Mechanical drawing; update "Cell protection" parameters; update Maximum Continuous Discharge from 3.5A to 1C; update internal impedance from TBA to ≤300mΩ; update Recommended Discharge Cutoff from 11.0-12V to 11.2 ± 50mV (2.8V/cell); update Maximum Charge Voltage from 16.8(±50mV) to 16.8 ±50mV (Recommended 16.4V (4.1V/cell))	SV	27417	8/21/2019	DR
M	Removed (Recommended 16.4V (4.1V/cell)) from Maximum Charge Voltage.	SV	27443	10/14/2019	DR
N	Rename Section 3 "CHARGER SPECIFICATIONS" to "RECOMMENDED CHARGING SOURCE SPECIFICATIONS", Rename "CHARGER INPUT" to "CHARGING SOURCE INPUT VOLTAGE", Rename "CHARGER INPUT CURRENT" to "CHARGING SOURCE INPUT CURRENT".	SV	27484	1/2/2020	DR
O	Add BATTERY STORAGE MAINTENANCE INTERVAL	DR	27526	6/9/2020	DR
O1	FORMAT UPDATE	DR	27545	7/2/2020	DR


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 Pack 14.8 Volts @ 2600mAh	
	186 Veterans Drive, Northvale, NJ 07467 Tel. 201-784-1000 Fax 201-784-0111	Model No. : BL2600C18654S1PG2646 (4ICR19/65) Part No.: BL2600C18654S1PG2646

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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**
https://en.globtek.com/safety-cautions#.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 GlobTek battery pack products (Customer) agrees that they are a "Sophisticated user" who understands battery technology and 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. GlobTek products are only designed for professional use and integration by companies into their products and may not be used by consumers directly. GlobTek provides batteries and battery packs as a component of an end system.

The acceptance of GlobTek specifications, the information on this page and use of the product(s) described in this or other GlobTek documents indicate that the product was qualified for use (tested and/or sample waiver signed), and 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:

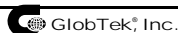
Customer P/N:

Quote Number:

Date:

Authorized Representative Name:

Authorized Representative Signature:



186 Veterans Drive, Northvale, NJ 07467
Tel. 201-784-1000 Fax 201-784-0111

Drawing Title: Li-Ion Cylindrical Battery Pack

14.8 Volts @ 2600mAh

Model No: BL2600C18654S1PG2646 (4ICR19/65)

Part No: BL2600C18654S1PG2646

Rev. 01

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1. GENERAL SPECIFICATION:

Battery with safety circuit:

Cell:	Samsung 18650-26J
PCM:	BQ24610/MM328INREH/BQ40Z50
NTC:	10K NTC
ID:	N/A
Fuel Gauge	Brand: TI PN: BQ40Z50
Configuration:	4S1P

2. ELECTRICAL SPECIFICATION:

Rated Capacity:	2600mAh
Nominal Voltage:	14.8V
Watt-Hour Rating:	38.48Ah
Charging Method:	0.2C CC charge to 16.8V then CV charge till charge current decline to $\leq 0.02C$.
Maximum Charge Voltage	16.8 $\pm 50mV$
Charge Current:	0.5C
Recommended Charge Cut-Off:	By current 52mA or timer 5-8 hours
Maximum Continuous Discharge Current:	1C
Recommended Discharge Cut-Off:	11.2 $\pm 50mV$ (2.8V/cell)
Internal Impedance:	$\leq 300m\Omega$
Expected Cycle Life:	>300 cycles > 70% of initial capacity (0.5C charge/0.5C discharge)

CELL PROTECTION:

Over charge voltage detection:	4.25V/cell (Recovery voltage 4.15V/cell)
Over discharge voltage detection:	2.80 V/cell (Recovery voltage 3.0V/cell)
Over discharge current protection:	4.0A to 6.0 A (Protection delay 2 seconds, recovery condition disconnect load or charge)

3. RECOMMENDED CHARGING SOURCE SPECIFICATIONS:

Charger Source Input Voltage:	19-27 V
Charging Source Input Current:	800mA

4. AMBIENT CONDITIONS

Ambient Pressure:	86kPa - 106kPa
Temperature Range for Charge:	0°C to +45°C
Temperature Range for Discharge:	-20°C to +60°C
Charge Retention/Storage [%]:	≤ 1 month at -20°C to +45°C >80%
	≤ 3 months at 0°C to +30°C >80%
	≤ 6 months at 20°C $\pm 5^\circ C$ >80%



Internal Fuel Gauge with SMBus

Internal Charger for Plug+Play

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 Pack

14.8 Volts @ 2600mAh

Model No: BL2600C18654S1PG2464 (4ICR19/65)

Part No: BL2600C18654S1PG2646

Rev.01

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Battery storage maintenance interval (for batteries stored at approx. 40% state of charge)

Every 3 months @ -20°C TO 25°C

Every 1 month @ -20°C TO 60°C

Relative Humidity: 45% - 75% RH

5. ENVIORMENTAL AND SAFETY

Please follow GlobTek, Inc. Handling and Safety Precautions for Lilon & LiPolymer Batteries

6. CELL REGULATORY APPROVALS: Cell approved to UL1642

7. 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: Approved to UN38.3

Safety: CB to IEC 62133: 2012 (2 nd Edition), Designed to meet UL 2054, IEC61960:2003, Japanese PSE Standards JIS C 8712:2006, JIS C 8714:2007



Internal Fuel Gauge with SMBus

Internal Charger for Plug+Play

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Drawing Title: Li-Ion Cylindrical Battery Pack

14.8 Volts @ 2600mAh

Model No. : BL2600C18654S1PG2646 (4ICR19/65)

Part No.: BL2600C18654S1PG2646

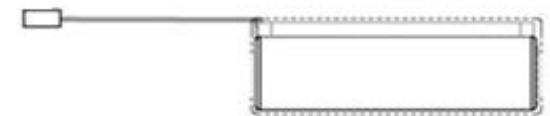
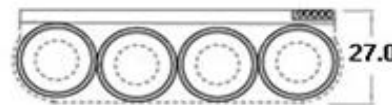
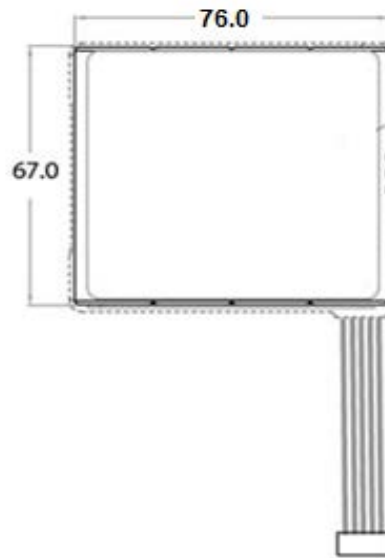
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8. MECHANICAL:

DIMENSIONS:	67.0(L)x76.0(W)x27(T)mm(Max)
SHRINK WRAP:	2 layers Blue PVC
	The second shrink wrap shall be 90° displaced from the first one
WIRE TYPE:	UL3239, 24AWG
WIRE LENGTH WITH CONNECTOR:	100.0 mm ± 5.0 mm
L1 WIRE POLARITY:	RED = INPUT (Charger 19V-27V)
L2 WIRE POLARITY:	BLACK GND
L3 WIRE POLARITY:	GREEN OUTPUT (14.8V nominal)
L4 WIRE POLARITY:	YELLOW SMBD (data)
L5 WIRE POLARITY:	BLUE SMBC (Clock)
CONNECTOR TYPE:	see next page
STRIP LENGTH:	N/A
TIN LENGTH:	N/A
ADDITIONAL REQUIREMENTS:	10A melting fuse integrated in L3 (OUTPUT)



Internal Fuel Gauge with SMBus

Internal Charger for

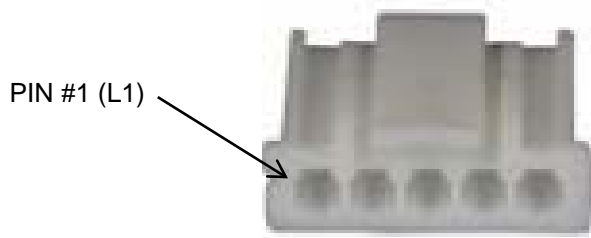
[ADDITIONAL OUTPUT PLUG OPTIONS ARE AVAILABLE BY CLICKING THIS LINK.](#)
[STANDARD PLUGS AND CONNECTORS CAN BE SEEN ONLINE BY CLICKING THIS LINK](#)

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9.CONNECTOR:

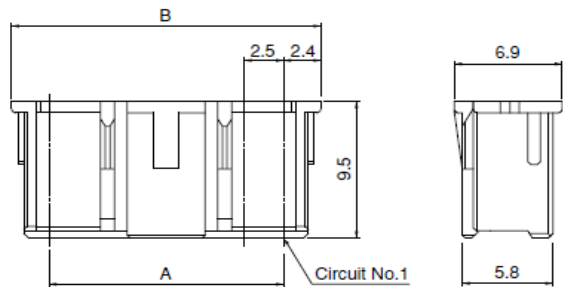
ACTUAL CONNECTOR'S, OVERMOLDS, MAY VARY SLIGHTLY FROM THE PICTURE BELOW



REAR VIEW

	EQUIVALENT	Y / N	
PLUG TYPE		Y	JST-XAP-05V-1
HOUSING TYPE			STANDARD TYPE
TERMINALS		Y	JST-XAP-5P
TERMINAL TYPE			FEMALE
OVER MOLD ORIENTATION			N/A
PLUG DIMENSIONS			N/A
BARREL PLUG INTERNAL SPRING CLIP			N/A
BARREL PLUG LOCKING NOTCH			N/A
POLARITY			N/A
ADDITIONAL REQUIREMENTS			N/A

[ADDITIONAL OUTPUT PLUG OPTIONS ARE AVAILABLE BY CLICKING THIS LINK.](#)
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A=10.0 mm
 B=14.8 mm

Internal Fuel Gauge with SMBus

Internal Charger for Plug+Play

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10. LABEL:

MATERIAL:	TBD
BACKGROUND COLOR:	WHITE
TEXT COLOR:	BLACK
LABEL WIDTH: (mm)	50.0 mm
LABEL HEIGHT: (mm)	35.0 mm
ADDITIONAL REQUIREMENTS:	N/A
ADDITIONAL REQUIREMENTS:	N/A

**Internal Fuel
Gauge with
SMBus**

**Internal
Charger for
Plug+Play**






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www.globtek.com

PART NO: BL2600C18654S1PG2646 IEC designation: 4ICR19/65
MODEL NO: BL2600C18654S1PG2646

**Input: 19V-27V for onboard charger
Output: 14.8V, 2600mAh, 38.48Wh**

CAUTION:

- May explode if disposed of in fire
- Use specified charger only
- Do not short circuit

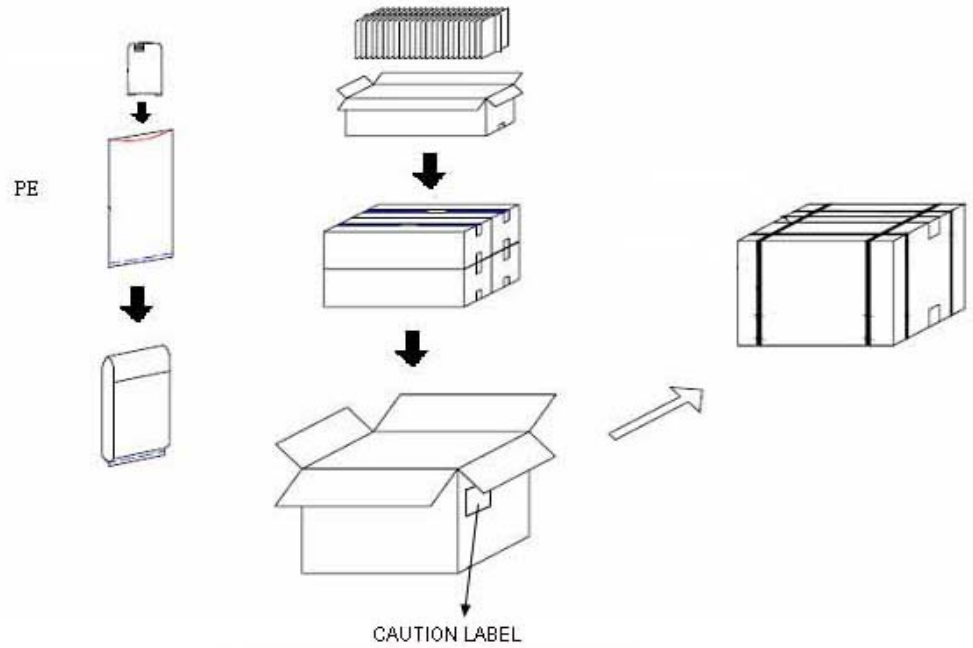
YYYYMM MADE IN CHINA

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11. PACKAGING:

PE BAG SIZE	TBD
CARTON SIZE:	302 x 247 x 154 mm
QUANTITY PER CARTON:	24 pcs
G.W.	5.85 kg/carton



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