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**REVISION HISTORY**

| REV | DESCRIPTION  | SALES | RFS     | DATE       | APPROVED |
|-----|--|-------|---------|------------|----------|
| A   | Initial Release  | SV    | 26586   | 12/1/2016  | DR       |
| B   | Update wire polarity : (PIN5) from black negative (-) to green negative(-)   | RC    | 26676   | 3/6/2017   | DR       |
| C   | Remove PVC Shrinkwrap  | SV    | 26868   | 8/21/2017  | DR       |
| D   | Add IEC62133 approval; update label adding IEC62133 file designation   | SV    | 26966   | 11/29/2017 | DR       |
| E   | Remove PVC Shrinkwrap  | SV    | 27066   | 4/16/2018  | DR       |
| F   | Update connector drawing to show locking latch   | SV    | 27183   | 4/19/2018  | DR       |
| G   | Update connector P/N from S1SS+05-28C-GF-03.00-L to ASD-203184-02; wire harness length from 40±3mm to 31mm±3mm, battery dimensions from 78mm*31mm*9.0mm(max) to 78mm*31mm*8.7mm(max) | SV    | 27191   | 10/15/2018 | DR       |
| H   | Update overcharge detection from 4.28V to 4.25V; Over discharge detection from 3.00V to 2.50V<br>overcurrent detection from 4.0A to 6.0A   | SV    | 27221   | 11/26/2018 | DR       |
| I   | Update Max. charge Voltage to 4.1V Max (+/-3mV) 4.1V recommended for safety purposes   | DR    | 27522   | 5/22/2020  | DR       |
| I1  | Format update  | DR    | 27532   | 6/30/2020  | DR       |
| J   | Add to Plug type: Mates with Samtec T1M-02-F-SH-L or T1M-02-F-SV-L   | DR    | 27557   | 7/13/2020  | DR       |
| J1  | UPDATE THERMISTOR WITH DETAILED VALUES, 10k ±10%, B=3435   | DR    | RFI-137 | 8/27/2020  | DR       |

See Page 2 for important battery warranty and usage information.


**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

|  |  |        |
|--|--|--------|
|  <b>GlobTek, Inc.</b><br><a href="http://www.globtek.com">www.globtek.com</a> | Drawing Title: Li-Ion Polymer Battery Pack (NMC) |        |
|  | 3.7VOLTS @ 3000mAh                               |        |
| 186 Veterans Drive, Northvale, NJ 07467<br>Tel. 201-784-1000 Fax 201-784-0111  | MODEL NO: 903178                                 |        |
|  | PART NO: BL3000F9031781S1PCRV                    | Rev.J1 |

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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**  
[http://en.globtek.com/safety-cautions.php#.UUD-NRzU\\_I8](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 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/>

**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](http://www.globtek.com)

186 Veterans Drive, Northvale, NJ 07467

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

Drawing Title: Li-Ion Polymer Battery Pack (NMC)

3.7 VOLTS @3000Mah

MODEL NO: 903178

PART NO: BL3000F9031781S1PCRVR

Rev.J1

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**1. GENERAL SPECIFICATION:**

**BATTERY WITH SAFETY CIRCUIT**

|                |                            |
|----------------|----------------------------|
| CELL:          | Globtek 903178             |
| PCM:           | Globtek Standard           |
| NTC:           | 10k ±10%, B=3435           |
| ID:            | N/A                        |
| CONFIGURATION: | 1S1P                       |
| WEIGHT:        | Aprox 63 grams (Reference) |

**2. ELECTRICAL SPECIFICATION:**

|                                    |   |
|------------------------------------|---|
| RATED CAPACITY:                    | 3000mAh @0.2C discharge   |
| NOMINAL VOLTAGE:                   | 3.7   |
| WATT-HOUR RATING:                  | 11.1WH  |
| CHARGING METHOD:                   | CONSTANT CURRENT + CONSTANT VOLTAGE   |
| MAX. CHARGE VOLTAGE [V]:           | 4.1V Max (+/-3mV) 4.1V recommended for safety purposes  |
| CHARGE CURRENT:                    | 0.5C (Standard), 0.9C (Maximum)   |
| REC. CHARGE CUT OFF:               | By current to 0.01C or timer 5.0 hours (Standard); 2.5 hours (Rapid)  |
| MAX. CONTINUOUS DISCHARGE CURRENT: | 1C  |
| REC. DISCHARGE CUT OFF:            | 3.0V  |
| INTERNAL IMPEDANCE:                | ≤30 mΩ  |
| EXP. CYCLE LIFE:                   | >500 cycles, >80% of initial cap. of cells(CC charge 1C to 4.2V; CV to 0.01C 5 min. delay; CC discharge 1C to 3V) |

**CELL PROTECTION:**

|                           |   |
|---------------------------|---|
| OVER CHARGE DETECTION:    | 4.25 ±0.025V<br>(Max. 1400msec. delay, resume 4.08 ±0.025V) |
| OVER DISCHARGE DETECTION: | 2.50 ±0.5V<br>(Max. 173msec. delay )                        |
| OVER CURRENT DETECTION:   | 6.0 A Minimum(11msec. Max delay) remove load to recover     |

**3. AMBIENT CONDITIONS**

|                      |                  |
|----------------------|------------------|
| TEMPERATURE RANGE:   |                  |
| CHARGE:              | 0 to +55°C       |
| DISCHARGE:           | -20 to +85°C     |
| STORAGE TEMPERATURE: | -5 to +35°C >80% |

|           |                   |
|-----------|-------------------|
| HUMIDITY: | ≤ 75%RH Bare Cell |
|-----------|-------------------|

**4. ENVIRONMENTAL AND SAFETY**

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

**5. CELL REGULATORY APPROVALS:**

|     |                    |
|-----|--------------------|
| UL: | Approved to 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: | Approved to UN38.3  |
| UL:             | Approved to IEC62133  |

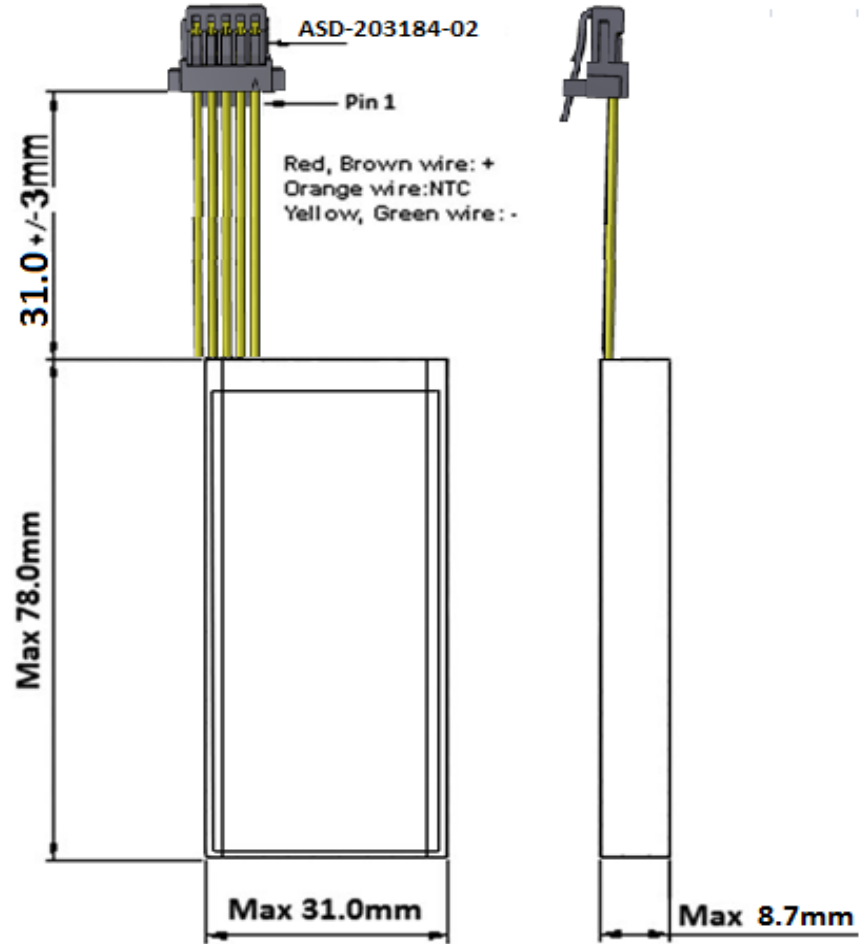


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**7. MECHANICAL:**

|                          |                           |
|--------------------------|---------------------------|
| DIMENSIONS:              | 78mm x 31mm x 8.7mm(Max.) |
| SHRINK WRAP:             | N/A                       |
| WIRE TYPE:               | N/A                       |
| WIRE LENGTH:             | 31mm +/- 3.0              |
| WIRE POLARITY: (Pin 1)   | BROWN POSITIVE (+)        |
| WIRE POLARITY: (Pin 2)   | RED POSITIVE (+)          |
| WIRE POLARITY:(Pin 3)    | ORANGE NTC                |
| WIRE POLARITY: (Pin 4)   | YELLOW NEGATIVE (-)       |
| WIRE POLARITY: (Pin 5)   | GREEN NEGATIVE (-)        |
| ADDITIONAL REQUIREMENTS: | N/A                       |



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**8. OUTPUT CONNECTOR:**



|           | EQUIVALENT | Y / N   |
|-----------|------------|---|
| PLUG TYPE |            | N   |
|           |            | Samtec ASD-203184-02                                |
|           |            | Mates with Samtec T1M-02-F-SH-L<br>or T1M-02-F-SV-L |
|           |            |   |
|           |            |   |

**SAMTEC P/N ASD-203184-02  
5 PIN FEMALE CONNECTOR WITH  
LOCKING LATCH**



| Pin Number | Wire Color | Function | Notes                                |
|------------|------------|----------|--------------------------------------|
| 1          | BROWN      | +BATT    | Two pins share+                      |
| 2          | RED        | +BATT    | Two pins share+                      |
| 3          | ORANGE     | 10K NTC  | 10K thermistor; return path is -BATT |
| 4          | YELLOW     | -BATT    | Two pins share-                      |
| 5          | GREEN      | -BATT    | Two pins share-                      |

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**9. LABEL:**

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

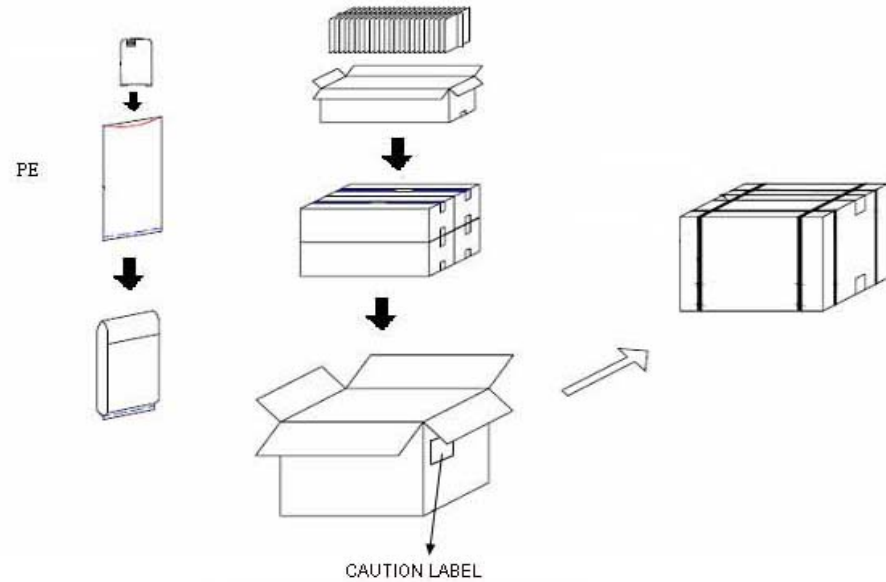


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**10. PACKAGING:**

|                      |     |
|----------------------|-----|
| PE BAG SIZE          | TBD |
| CARTON SIZE:         | TBD |
| QUANTITY PER CARTON: | TBD |
| G.W.                 | TBD |
|                      |     |
|                      |     |



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3.7VOLTS @ 3000mAh

MODEL NO: 903178

PART NO: BL3000F9031781S1PCR

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