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REVISION HISTORY						
REV DESCRIPTION SALES RFS DATE				DATE	APPROVED	
Α	Initial Release	SV	27382	6/28/2019	DR	
В	Update NTC from 10K to 100K	SV	27392	7/9/2018	DR	
С	Update NTC P/N from NTCG164KF104FT1 to NTCG163JF103FT1, nominal voltage from 3.7V to 3.6V, Watt-hour rating from	SV	27398	7/23/2019	DR	
	17.76Wh to 17.28Wh, charge temperature from 0 to 50C to 0 to 45C					

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 **RELEASED**

By pudxc at 1:41 pm, Jul 24, 2019

GlobTek, Inc.	Drawing Title: Li-Ion Cylindrical Battery	
www.globtek.com	3.7 Volts @ 4800mAh	
186 Veterans Drive, Northvale, NJ 07467 Tel.	Model No. 21700 (1ICR21/71)	
201-784-1000 Fax 201-784-0111	Part No.: BL4800C2170001S1PCHS	Rev. C

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** <u>http://en.globtek.com/safety-cautions.php#.UUD-NRzU_I8</u>

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:

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186 Veterans Drive, Northvale, NJ 07467 Tel.	Model No: 21700 (1ICP21/71)	
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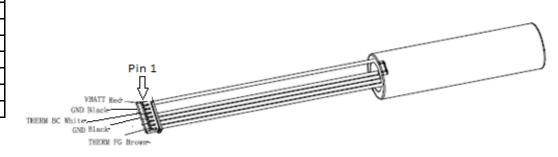
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CELL:	21700		tion of Hacas austance
PCM:	IC:DW01AZ		
NTC:	10K±1% (P/N NTCG163JF103FT	1) Qty 2	
ID:	N/A		
CONFIGURATION:	1S1P		RoHS
2.ELECTRICAL SPECIFICATION:			
RATED CAPACITY:	4800mAh(Typ)		
NOMINAL VOLTAGE:	3.6V		STAR
WATT-HOUR RATING:	17.28Wh		PARTN
CHARGING METHOD:	Constant Current/Constant Voltage	ge	
MAXIMUM CHARGE VOLTAGE [V]:	4.2V/cell (Recommended 4.1V±1		
CHARGE CURRENT:	0.3C (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:			
INTERNAL IMPEDANCE:	≤35mΩ		
EXPECTED CYCLE LIFE:	>500 cycles > 80% of initial capa	city (charge CC 0.3C to 4.2V; discharge 1.0C to 3.0V)	
CELL PROTECTION:	· ·		
OVER CHARGE DETECTION VOLTAGE	: 4.30 ±0.05Volts		
	lelay 70msec., resume 4.1 ±0.05V		
OVER DISCHARGE DETECTION VOLTAGE:			
	lelay 35msec., resume 3.0±0.1V)		
OVER CURRENT DETECTION CURRENT:	2.5A - 3.5A (typical delay 6ms	ec., release condition cut load)	
3. AMBIENT CONDITIONS			
TEMPERATURE RANGE:			
CHARGE:	0°C to +45°C		
DISCHARGE:	-20°C to +60°C		
DISCHARGE: CHARGE RETENTION/STORAGE [%]:	-20°C to +60°C ≤1 vear at -20°C to +25°C (≥90%	6 capacity)	
	≤1 year at -20°C to +25°C (≥90%		
DISCHARGE: CHARGE RETENTION/STORAGE [%]:	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90%	capacity)	
CHARGE RETENTION/STORAGE [%]:	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90%	capacity)	
CHARGE RETENTION/STORAGE [%]:	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90%	capacity)	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH	capacity) capacity)	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH	capacity) capacity)	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I	capacity) capacity)	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL:	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH	capacity) capacity)	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS:	≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved	capacity) capacity) FOR Lilon & LiPolymer.	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS:	≤1 year at -20°C to +25°C (≥90%) ≤3 months -20°C to 45°C (≥90%) ≤1 months -20°C to 55°C (≥90%) 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL:	≤1 year at -20°C to +25°C (≥90%) ≤3 months -20°C to 45°C (≥90%) ≤1 months -20°C to 55°C (≥90%) 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark:	≤1 year at -20°C to +25°C (≥90%) ≤3 months -20°C to 45°C (≥90%) ≤1 months -20°C to 55°C (≥90%) 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark: TRANSPORTATION:	 ≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3 Designed to meet UN38.3 	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO 3:2007	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark:	≤1 year at -20°C to +25°C (≥90%) ≤3 months -20°C to 45°C (≥90%) ≤1 months -20°C to 55°C (≥90%) 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO 3:2007	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark: TRANSPORTATION: Safety: UL:	 ≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3 Designed to meet UN38.3 	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO 3:2007 51960:2003, IEC 62133, 2133	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark: TRANSPORTATION: Safety:	 ≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3 Designed to meet UN38.3 Designed to meet UL 2054, IEC6 	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO 3:2007	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark: TRANSPORTATION: Safety: UL:	 ≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3 Designed to meet UN38.3 Designed to meet UL 2054, IEC6 	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO 3:2007 1960:2003, IEC 62133, 2133 Drawing Title: Li-Ion Cylindrical Battery	
CHARGE RETENTION/STORAGE [%]: HUMIDITY: 4.ENVIORMENTAL AND SAFETY PLEASE FOLLOW GlobTek, Inc. HANDLIN 5. CELL REGULATORY APPROVALS: UL: 6. BATTERY PACK APPROVALS: RoHS: CE Mark: TRANSPORTATION: Safety: UL: obTek; Inc.	 ≤1 year at -20°C to +25°C (≥90% ≤3 months -20°C to 45°C (≥90% ≤1 months -20°C to 55°C (≥90% 60±25%RH G AND SAFETY PRECAUTIONS I UL1642 approved COMPLIES WITH EU 2002/95/E COMPLIES WITH EU 2002/95/E COMPLIES WITH 2004/108/EC EL EN61000-6-1:2007, EN61000-6-3 Designed to meet UN38.3 Designed to meet UL2054, IEC6 Design to meet UL2054, IEC6 	capacity) capacity) FOR Lilon & LiPolymer. C AND CHINA SJ/T 11363-2006 ECTROMAGNETIC COMPATIBILITY INCLUDING BUT NOT LIMITED TO 3:2007 51960:2003, IEC 62133, 2133	

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8. MECHANICAL:

DIMENSIONS:	21.80mm * 72.50mm (Max)
SHRINK WRAP:	PVC
WIRE TYPE:	UL1007 AWG #22
WIRE LENGTH:	90mm ± 5.0 mm
Wire Polarity: (Pin 1)	VBatt Red (+)
Wire Polarity: (Pin 2)	GND Black (-)
Wire Polarity: (Pin 3)	Therm BC White (10K)
Wire Polarity: (Pin 4)	GND Black (-)
Wire Polarity: (Pin 5)	N/C
Wire Polarity: (Pin 6)	N/C
Wire Polarity: (Pin 7)	Therm FG Brown (10K)





ADDITIONAL OUTPUT PLUG OPTIONS ARE AVAILABLE BY CLICKING THIS LINK. STANDARD PLUGS AND CONNECTORS CAN BE SEEN ONLINE BY CLICKING THIS LINK

GlobTek; Inc.	Drawing Title: Li-Ion Cylindrical Battery	
www.globtek.com	3.7 Volts @ 4800mAh	
186 Veterans Drive, Northvale, NJ 07467 Tel.	Model No. 21700 (1ICR21/71)	
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7.CONNECTOR:

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

Wire Polarity: (Pin 7)

				1
		EQUIVALENT		
				HIROSE DF3-7S-2C HIROSE DF3-22SCF
		Terminal	Ť	HIRUSE DF3-225CF
		Pin 1 VBAITT Red GND Black EERM BC White GND Black THERM PG Brown		
	F			
	/ire Polarity: (Pin 1)	VBatt Red (+)		
	/ire Polarity: (Pin 2)	GND Black (-)		
	/ire Polarity: (Pin 2)	Therm BC White (10K)		
	/ire Polarity: (Pin 4)	GND Black (-)		
	ire Polarity: (Pin 5)	N/C		
	/ire Polarity: (Pin 6)	N/C		
VV	nie Folancy. (Fill 0)			

-		
GlobTek; Inc.	Drawing Title: Li-Ion Cylindrical Battery	
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Therm FG Brown (10K)

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



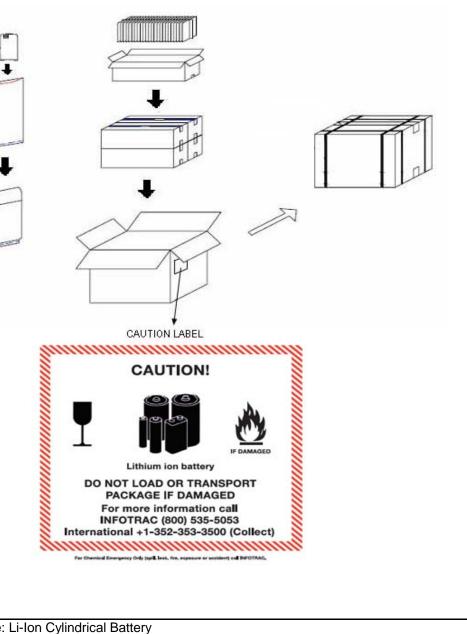
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9. PACKAGING:

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

PE



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