

# UBI-2590 / SMBus Higher Capacity

## Technical Datasheet



### Features

- Flexible dual mode output voltage
- SmartCircuit Technology - communication with host and charge equipment
- Accurate state-of-charge display for each side of the battery
- Rugged, military tough case construction can handle severe environments
- Highest energy density solution in the Ultralife UBI-2590 family

### Applications

- Rugged, portable electronics
- Robotics / AUVs / UUVs
- Military communication devices
- AN/PRC-117G, AN/PRC-117F, AN/PRC-119, AN/PSC-5D

### Optional Accessories

- CA0003: Vehicle Adapter
- CA0006: 15/30V, 2 Conductor Cable
- CA0007: 15/30V 2 Conductor Cable
- CA0008: 15/30V, 4 Conductor Cable
- CH0002: COTS Desktop Charger
- MRC-135A: Single Unit Solar Charger
- MRC-143A: 3-Unit Solar Charger
- UCA0039: Shielded Smart Cable
- UCA0114: Low Profile Smart Cable
- UCH0053: 6-bay Charger
- UCH0054: 2-bay Charger
- UCH0056: Smart Desktop Charger
- UKT0011: Portable Battery System

### Technical Specifications

<b>Part No.</b>	UBBL13-01	
<b>NSN</b>	6140-01-640-8702	
<b>Voltage Range</b>	30V Mode:	20.0 to 33.6V
	15V Mode:	10.0 to 16.8V
<b>Average Voltage</b>	30V Mode:	28.8V
	15V Mode:	14.4V
<b>Capacity</b>	Nominal <sup>1</sup>	30V mode: 10.0Ah 15V mode: 20.0Ah
	Minimal <sup>1</sup> :	30V mode: 9.6Ah 15V mode: 19.2Ah
<b>Max. Continuous Discharge</b>	30V Mode:	10.0A
	15V Mode:	20.0A
<b>Max. Pulse Discharge<sup>2</sup></b>	30V Mode:	18.0A
	15V Mode:	36.0A
<b>Energy<sup>1</sup></b>	288Wh	
<b>Energy Density</b>	208Wh/kg, 334Wh/l	
<b>Weight</b>	1451g, 3.2lbs	
<b>Cycle Life<sup>3</sup></b>	> 300 cycles	
<b>Operating Temperature</b>	-32°C to 60°C discharging -20°C to 50°C charging	
<b>Storage Temperature</b>	-20°C to 50°C	
<b>Self-Discharge @ 23°C</b>	<10% per month	
<b>Exterior/Housing</b>	Hard plastic (Noryl N190X-701)	
<b>Color</b>	Standard color is Desert Tan. Available in black by phone order.	
<b>Terminals/Connector</b>	Connector SC-C-179495	
<b>Communications</b>	Physical layer:	SMBus v1.1
	Protocol:	SBD v1.1 compliant
<b>State of Charge Indicator</b>	5-segment LCD display	
<b>Harmonized Tariff Schedule</b>	8507.60.0020	
<b>Protection</b>	Over Voltage:	4.30V (per cell)
	Under Voltage:	2.40V (per cell)
	Transient Currents:	23.0A > 15ms 30.0A > 305us
	Short Circuit	
	Overcharge Protection:	Up to 40V
	Thermal Cutoff Device:	Activates 70±5°C Resets 50±5°C
	Thermal Fuse:	Activates 93±5°C
<b>Charging</b>	Connect each side of the battery to a DC power source using correct polarity and apply a maximum voltage of 16.8V. Limit the current to the recommended rate of 3.0A and hold to 16.8V until the current declines to 300mA. Maximum charge rate is 4.8A.	
<b>Safety</b>	Material Safety Datasheet - MSDS041 Refer also to Safety Guide UBM-5112	
<b>Certifications</b>	Designed to meet MIL-PRF-32383 IEC 62133:2012	
<b>Transportation</b>	Class 9 International and within U.S. <sup>4</sup> unless shipped by motorcar or rail within U.S. UN Testing Summary - UNTS-0024	
<b>Harmonized Tariff Schedule</b>	8507.60.0000	

### Notes

1. Using a C/5 discharge rate at 25°C.
2. Load has a pulse width of 5 seconds with a total period of 30 seconds.
3. Number of consecutive 2A rate discharges while in 30V mode and recommended charges at 25±5°C until the battery reaches 80% of initial capacity.
4. Transportation regulations, classifications and lithium content are available on the Ultralife website.

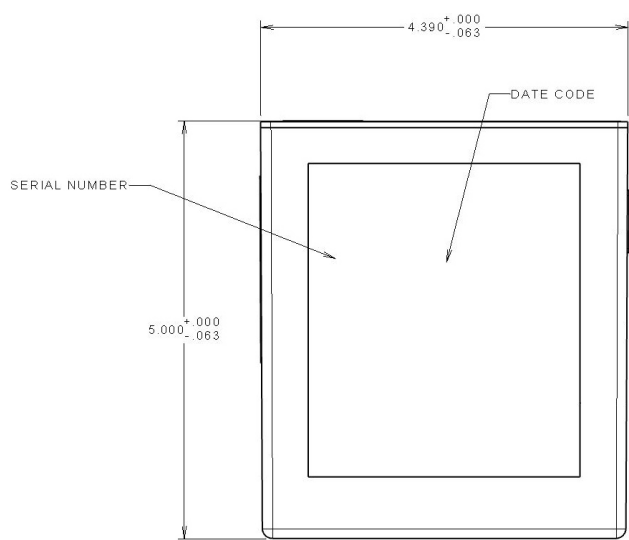
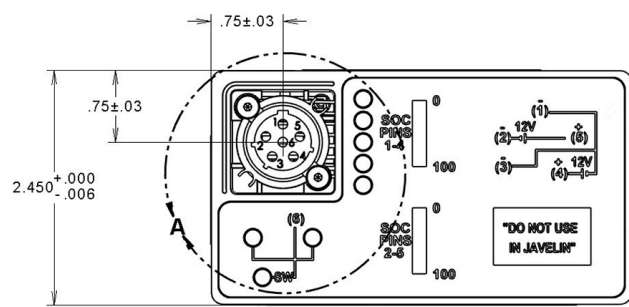
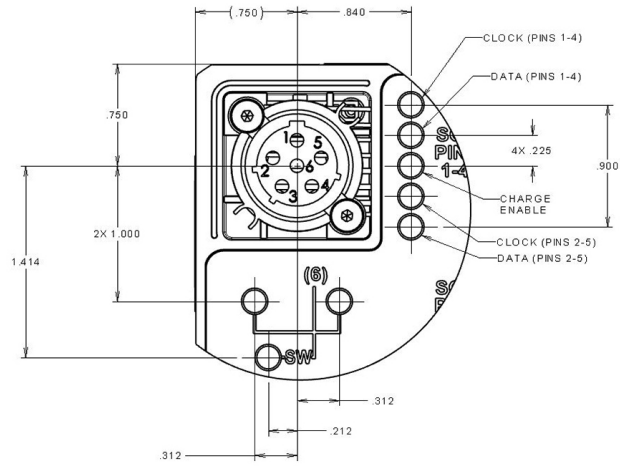
UBBL13-01

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# Dimensions



# Performance Graphs

