

URB003S: X5-SuperLite Hold-Up Battery

Technical Datasheet

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The URB003S is Ultralife's 20.4Wh optional Hold-Up Battery (HUB) for the X5-SuperLite (P/N: UCA-X5-3USBC) battery cradle.

The HUB provides 100W for up to 5 minutes of device operation whilst URB-X5 batteries are swapped.

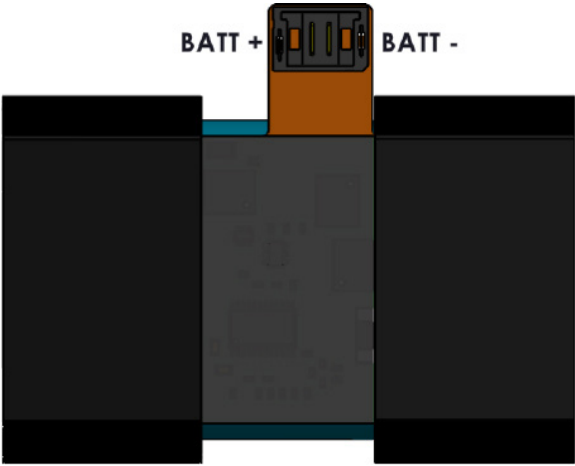
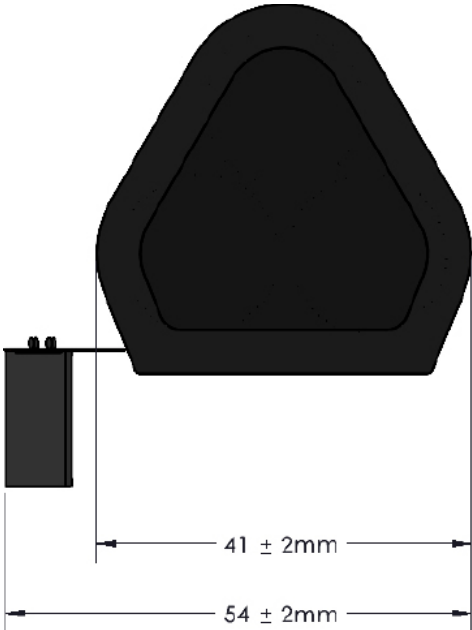
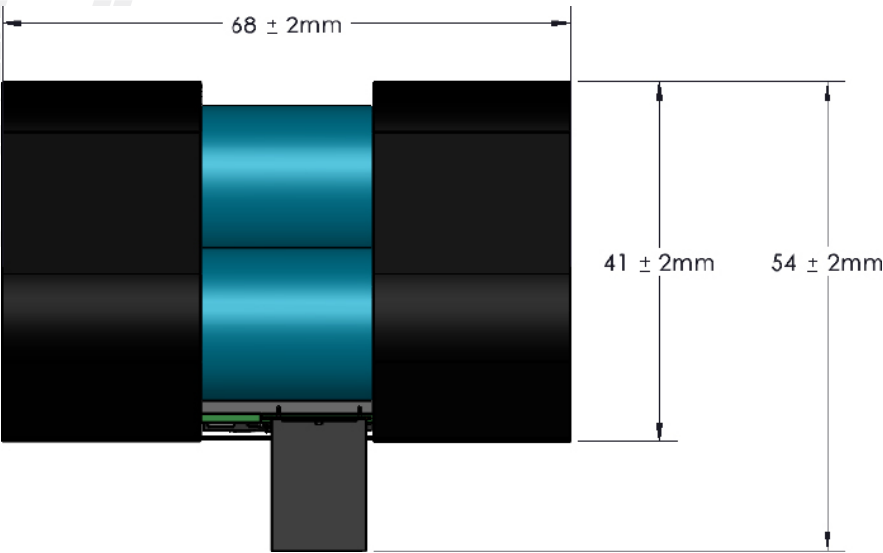
The use of highly reliable Lithium-ion technology ensures the X5-SuperLite remains operational whenever URB-X5 hot-swap batteries need to be replaced.

Technical Specifications		
Part No.	URB003S	
Voltage Range	9.0 – 11.4V	
Average Voltage	10.2V	
Nominal Capacity	2.0Ah	
Max. Continuous Discharge	10A	
Energy	20.4Wh	
Energy Density	102Wh/kg	
Weight	200g	
Cycle Life	>500 cycles	
Memory	No Memory Effect	
Operating Temperature	-10°C to +65°C discharging 0°C to +50°C charging	
Storage Temperature	-20°C to +65°C	
Internal Resistance	≤100mΩ	
Self-Discharge @ +23°C	<5% per month	
Exterior/Housing	Black Formex and Shrink	
Terminals/Connector	Samtec Connector: UMPT-02-12.5	
Dimensions	68mm (length) x 41mm (width) x 41mm (height)	
Protection	Over Charge	3.80 ± 0.025V (per cell)
	Over Discharge	2.50 ± 0.05V (per cell)
	Over Current	12.5-25A >0.7-1.4s
	Overtemperature	
	Discharge	+65°C, (+55°C recovery)
	Charge	+50°C, (+40°C)
	Undertemperature	
	Discharge	-10°C, (0°C)
	Charge	0°C, (+10°C)
	Short Circuit	Yes, auto recovery
Charging	Hardware Fuse	Yes, 60A
	Cell Balancing	Yes
Charging	Charging voltage: 11.4V – 15.0V	
	Max. 150mA @ 15.0V ¹	
Charging	Estimated charge time from empty: 21 hours	
Certifications	IEC 62133-2 (pending)	
Transportation	UN 3480 Dangerous Goods Class 9, Total Energy <100Wh If packed in or with equipment (UN 3481) contact Ultralife for guidance. UN Testing Summary - TBD	

Notes

- The URB003S internally conditions the charge power from a higher voltage charge source and limits charge current to safe thermal values.

Dimensions



Product Usage

The URB003S HUB is a Lithium-ion battery that behaves as a backup power source for the X5-SuperLite (UCA-X5-3USBC).

Nominally, the URB-X5 battery provides all power to the USB-C loads. In the event that the URB-X5 battery cannot supply power (e.g. the URB-X5 battery is out of capacity, is removed for hot-swap, or has an internal fault), the URB003S immediately supplies power to the DC bus to prevent disruption to any USB-C loads.

When not in use, the URB003S automatically charges directly from the URB-X5 battery or a USB-C supply/charger connected to the X5-SuperLite. Once fully charged, the URB003S will sit idle awaiting operation.

The URB003S internally conditions the proper charging levels for the internal cells. An un-regulated voltage supply between 11.4V – 15.0V can be used to charge the battery; the URB003S will limit the charge current to safe thermal values. Charge times will vary depending on the voltage level; typical charge times are around 21 hours for a completely depleted battery.

Product Installation

Reference the X5-SuperLite (UCA-X5-3USBC) Technical Datasheet for proper installation of the URB003S.

Product Maintenance and Service

Ensure that the URB003S is not physically damaged and is free of debris prior to use. If it is damaged, do not attempt to use.

The URB003S should be stored per the listed temperature requirements. Storing at cooler temperatures (0°C (32°F) - 25°C (77°F)) will prolong the life of the cells. Storing at warmer temperatures (>25°C) will result in a shorter module lifetime.

A URB003S in storage should be monitored and recharged to ~60% capacity (11.0V OCV) when the capacity falls to below ~15% capacity (10.2V OCV).

URB003S connectors should be kept clear of moisture and excessive dust. If exposed to dirt or dust, the connectors should be cleaned with compressed air.

The URB003S product is not user serviceable. Any service, repair, or replacement should be performed only by the manufacturer.

Product Cleaning

The URB003S product can be spot cleaned with the following, as needed, over the life of the product:

- Cloth moistened with 70% isopropyl alcohol (IPA) solution

Ensure that the cloth does not overly saturate the circuit board when cleaning. Do not clean any portions of exposed metal or circuit board. Ensure product is dry from cleaning before use.

Product Support Contact

If you have any questions regarding the URB003S product, call +1 281-240-4000 and ask for URB003S support.

Return / Disposal

The URB003S and its lithium-ion cells are hazardous materials and should be disposed or recycled per applicable, local regulations.

To arrange a return of material, contact the supplier to make arrangements or contact the customer service line at +1 281-240-4000 Ext 201. A Return Material Authorization (RMA) is required for all products.

Safety Notices / Symbols

- This product is intended for use only with the Ultralife X5-SuperLite battery cradle and URB-X5 battery. This product has not been tested, and should not be used, with other batteries without direction from Ultralife.
- Do not short circuit, force discharge, force overcharge, disassemble, reverse polarity, crush, or penetrate.
- Battery may leak or explode if heated above rated temperature.
- This product should not be disassembled for any reason.
- This product is not intended to be used by children. Children shall not play with the product. Cleaning and user maintenance shall not be done by children.
- This product is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.



Universal waste; do not dispose with general waste



Recycle per local Li-ion regulations

Warning: fire, explosion, leak and severe burn hazard. Do not short circuit, overcharge, disassemble, reverse polarity, crush, or penetrate. Do not dispose in fire or expose to heat above rated temperature.

Avertissement : risque d'incendie, d'explosion, de fuite et de brûlures graves. Ne pas court-circuiter, surcharger, démonter, inverser la polarité, écraser ni percer. Ne pas jeter au feu ni exposer à une chaleur supérieure à la température nominale.