

Swappable Battery Platform

Customizable to Meet Your
Application's Needs

Overview

The Swappable Battery Platform from Green Cubes is a pre-engineered energy storage platform available to equipment manufacturers to save time and money in their product's power system design. Green Cubes has 30 years of experience designing portable power platforms and integrating lithium-ion batteries, power management systems, and chargers.

The Swappable Battery Platform consists of 4 parts, a core battery assembly, a power system, a standalone charger that can be directly integrated into any portable platform, and a power dock. This system allows for up to 2 batteries on the platform to be hot swapped to provide uninterrupted power to the end devices.

The Swappable Battery Platform is configurable and customizable. Designed with the OEM in mind, it's as simple as design in and go. All the components can simply be integrated into a platform and provide all the power required.

Features

- Pre-engineered package
- Flexible configurations
 - 1 or 2 batteries
 - On or off-board charging
 - Pre-designed enclosure
 - Customized enclosure
 - Flexible Connector
- Hot-swap performance
- 320Whr of energy storage per battery
- 2000+ cycles

Components

1. Battery

Pre-Engineered and manufactured by Green Cubes this lithium iron phosphate battery pack stores 320Whr of energy. Features include complete Battery Management System, SOC and SOH calculations, and over 2000 cycles. Precertified to reduce time to market.



2. Power System

An AC and DC output mobile platform for managing on-board charging and discharging will support connecting up to two batteries in parallel, handle balancing, and enable hot-swapping during operation.

3. Charger

Control charging current, voltage, profile, and prioritization. Using field tested communication and battery management processes each battery is charged independently for the fastest time to full.

4. Power Dock

This accessory utilizes our standard battery, allowing users to easily swap, charge, and discharge through a standard USB-C port.

GCT Standard Swappable System

Battery	
Capacity	16.7Ah/320Wh
Voltage	19.2v Nominal
Dimensions	312mm x 109.55mm x 92.12mm
Weight	~ 6 lbs
Configuration	6S4P
Chemistry	LiFeP04
Charge Current	7.5A
Discharge Current	17A
SOC Display	5 LED's
Protection	Primary / Secondary
Cycle Life	2000 Cycles
Certifications	UN38.3, IEC62133

Power System	
Batteries Supported	1 or 2 Batteries
Power	300VA
Output Voltage	AC: 120V / 60Hz, 230V / 50Hz DC: 12V to 24V Configurable
Display	Remote
BUB - Backup Battery	Integrated
Communication	USB
Power Supply & Inverter	Integrated
Certification	IEC 60601, IEC 62368

Charger	
Batteries Supported	2 or 4 Independent Charging Bays
Power Supply	500W Universal AC Input
Communication	USB
Certification	IEC 60601, IEC 62368



GCT Lite Swappable Power Dock

Power Dock	
Output Power	100W
Charge Power	100W
Output Voltage	5V to 20V USB-C Standard
Connector	2 USB-C
Certification	EMC, CE



ABOUT GREEN CUBES TECHNOLOGY

Green Cubes Technology harnesses over 30 years of industry experience to ensure we design, develop and deliver solutions for the most challenging energy needs. We offer battery technology innovation, application design and performance management to drive productivity, scalability and sustainability.

For more information, email info@greencubes.com
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