

# 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 Green Cubes 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
- 290Whr of energy storage per battery
- 2000+ cycles

## Components

### 1. Battery

Pre-Engineered and manufactured by Green Cubes this lithium iron phosphate battery pack stores 290Whr 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 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          | 15.2Ah/290Wh               |
| Voltage           | 19.2v Nominal              |
| Dimensions        | 312mm x 109.55mm x 92.12mm |
| Weight            | 6 lbs                      |
| Configuration     | 6S4P                       |
| Chemistry         | LiFePO4                    |
| 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   |
| Power Supply         | Integrated                     |
| Inverter             | Integrated                     |
| BUB - Backup Battery | 2 Minute run time for Hot Swap |
| Display              | Remote                         |
| Communication        | USB                            |
| Certification        | IEC 60601                      |

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



## GCT Lite Swappable Power Dock

| Power Dock     |                           |
|----------------|---------------------------|
| Output Power   | 100W                      |
| Charge Power   | 100W                      |
| Output Voltage | 15V 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.

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