

# Portable power supply structure design





## Overview

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What is a portable power supply?

A portable power supply is a device that can store and provide electrical energy for various purposes. It can power small appliances, charge electronic devices, or supply emergency backup power in case of a blackout. Portable power supplies are usually rechargeable and have different capacities and features depending on the intended use.

Can a monolithic CMOS DC power supply meet a hand-held device?

A monolithic CMOS DC power supply could meet the severe size and efficiency requirements of a hand-held device. This chapter describes a design methodology for such converters. These keywords were added by machine and not by the authors. This process is experimental and the keywords may be updated as the learning algorithm improves.

Can a monolithic CMOS DC power supply save battery capacity?

To facilitate portability and conserve battery capacity, this conversion should be accomplished in minimal space and mass, with the high efficiency more easily realized in larger converters. A monolithic CMOS DC power supply could meet the severe size and efficiency requirements of a hand-held device.

What are some good books about power electronics?

J. Kassakian, M. Schlecht, and G. Verghese, *Principles of Power Electronics*, Addison-Wesley, 1991. J. Locascio and W. Cho, "New controllers for battery systems increase systems efficiency," in *Power Quality USA*, 1993. D. Maksimovic, "A MOS Gate Drive with Resonant Transitions," *IEEE Power Electronics Specialists Conference*, pages 96-105, 1990.



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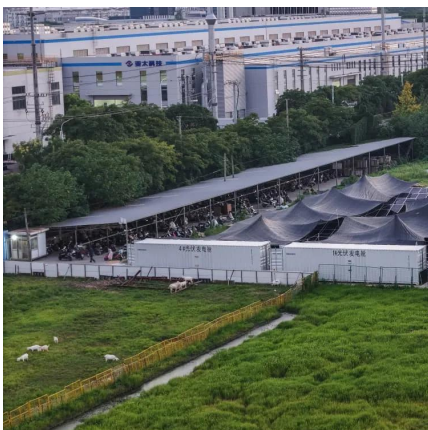
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### [DC Power Supply Design in Portable Systems., SpringerLink](#)

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