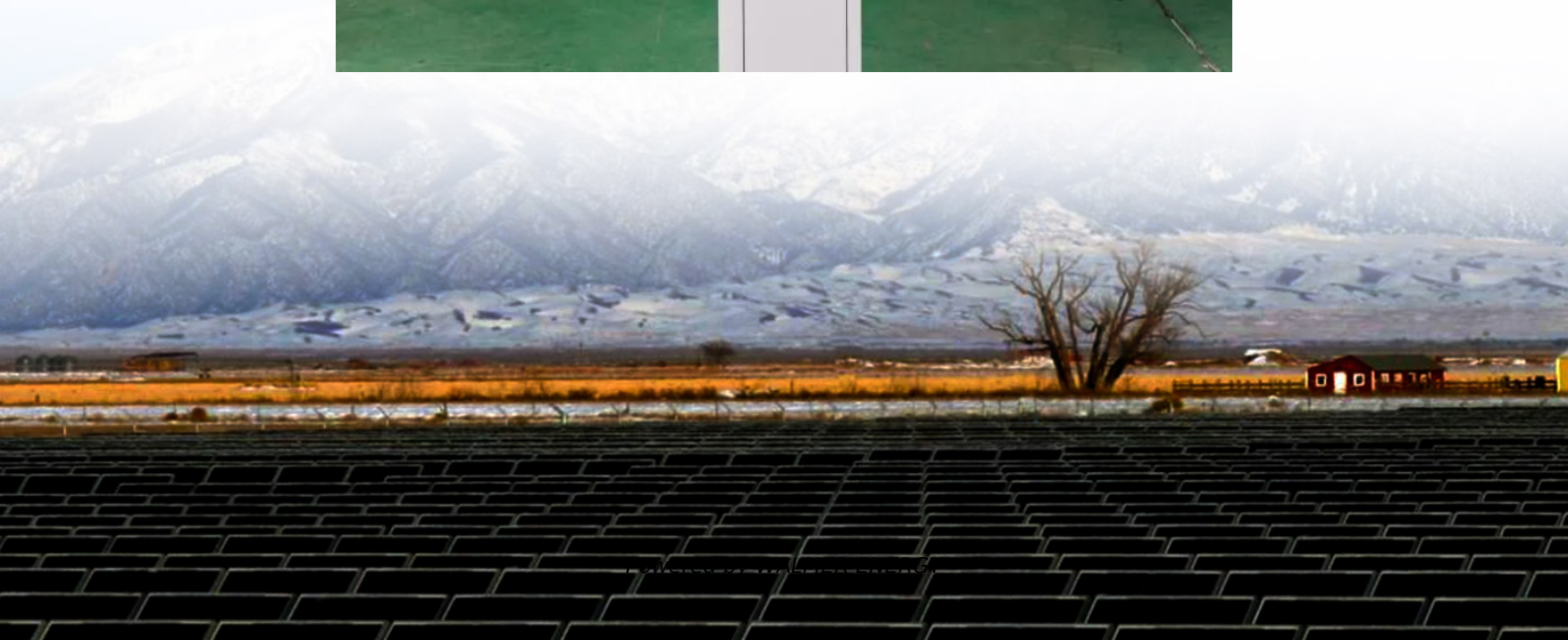


Portable device power supply design





Overview

What is USB PD?

It is a power conversion solution with low quiescent power. The new USB power protocols require precise two-way communication between the device being powered and the power source. USB PD enables the load and power supply to set multiple power delivery and voltage levels with power.

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.

What is the difference between USB PD and PPS?

USB PD enables the load and power supply to set multiple power delivery and voltage levels with power up to 100 W (even higher power is now being proposed). PPS is targeted primarily at faster charging for batteries and goes one step further, enabling the I.

Why do portable batteries need a buck conversion?

In order to maintain battery life, portable applications require both high conversion efficiency and low standby power dissipation. Multi-cell battery packs may require step-down (buck) conversions and single cell batteries often require step-up (boost) conversions to maintain consistent power levels while the batteries discharge.



Portable device power supply design

Portable Device Power Supply Design Strategy-EEWORLD

From the perspective of product definition planners, the two most important power design indicators for portable devices are continuous working time and standby time. So, for a system ...

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DC Power Supply Design in Portable Systems , SpringerLink

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