

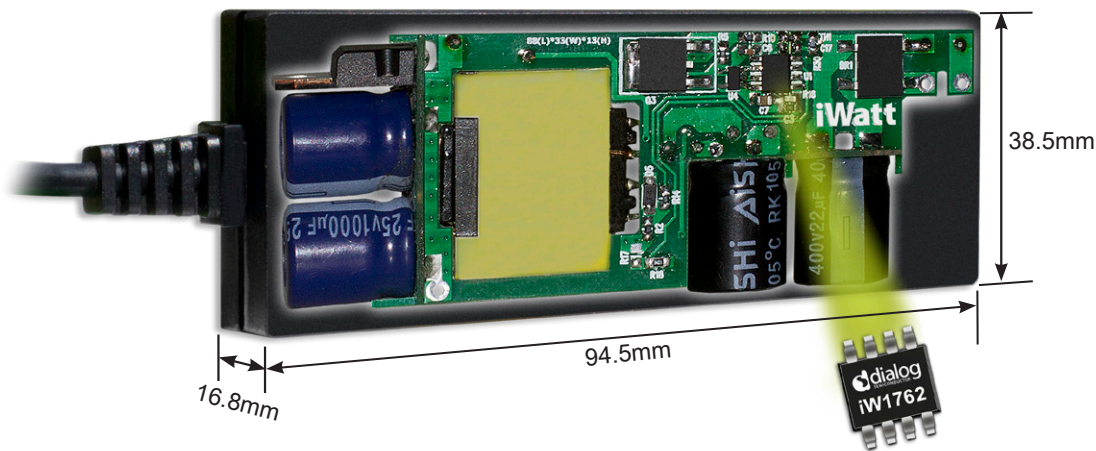
## PrimAccurate™ Digital AC/DC ICs Enable the Smallest Ultrabook™ Power Adapters

### Ultra-Slim Adapters

- ▶ 45W adapter is less than 17mm thick
- ▶ 12W travel adapter fits easily in your pocket

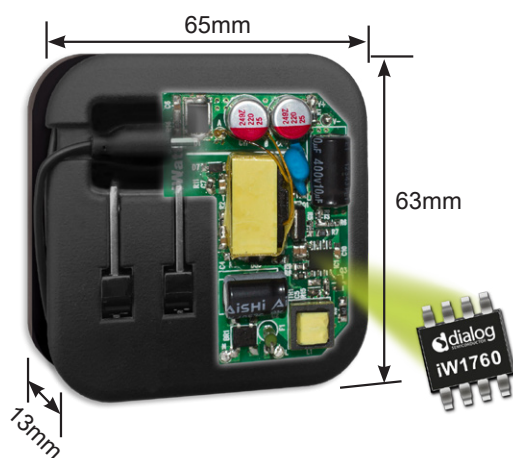
- Ultra Light
- Ultra Green
- Ultra Convenient

### 45W Ultra-Slim Ultrabook Adapter



- ▶ Up to 1/3<sup>rd</sup> the size of typical 45W power adapters
- ▶ 94.5mm x 38.5mm x 16.8mm
- ▶ Supports Intel® Turbo Boost Technology with 82W peak power capability

### Pocket Size 12W Ultrabook Travel Adapter



- ▶ Charge overnight in under 5 hours!
- ▶ 65mm x 63mm x 13mm
- ▶ Compact – pocket size!

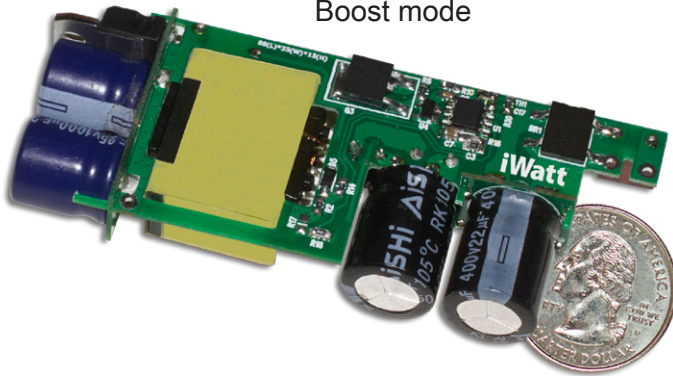


## PrimAccurate™ Control Reduces Size, Lowers BOM Cost

Dialog's ultra-low standby power AC/DC PWM controllers are designed with patented PrimAccurate™ primary-side control. This unique technology uses proprietary digital algorithms to eliminate the need for a secondary side regulator and opto-isolator, lowering the total BOM cost, reducing the overall solution size, and improving reliability. PrimAccurate technology enables accurate control of the output over a wide range of operating conditions and ensures tight load and line regulation, along with full protection from fault conditions, without costly additional components.

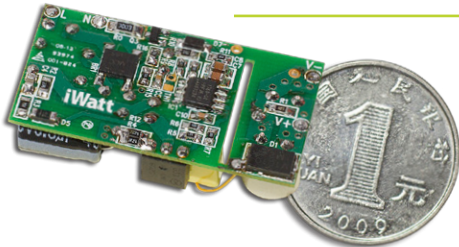
### 45W Ultra-Slim Power Adapter Reference Design

- ▶ Board dimensions: 88mm x 33mm x 13mm
- ▶ 45W average power, 82W peak power at 10% duty cycle supports Intel Turbo Boost mode



- ▶ No-load power consumption < 100mW – exceeds U.S. DoE requirements
- ▶ Meets U.S. DoE active average efficiency requirement for AC/DC power adapters
- ▶ Rugged solution – iW1762 PrimAccurate technology eliminates opto-isolator for improved line-voltage surge protection
- ▶ Easily meets output ripple voltage requirements  $\leq 380\text{mV}_{\text{PP}}$  across all load/line conditions

### 12W Ultrabook Travel Adapter Reference Design



- ▶ Board dimensions: 40mm x 22mm x 12mm\*
- ▶ 12W average power, 82W peak power at 2% duty cycle supports Intel Turbo Boost mode
- ▶ No-load power consumption < 50mW – exceeds U.S. DoE requirements – ultra green
- ▶ Rugged solution - iW1760 PrimAccurate technology eliminates opto-isolator for improved line-voltage surge protection
- ▶ Charges a typical Ultrabook in under 5 hours

\* 12mm is height of 12W reference design board. Height of board used in actual pocket-size adapter is 9.5mm.

**Dialog Semiconductor**  
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