

## Product Description

The **PE25200** is an ultra-high efficiency charge pump that is configurable to divide down an input voltage by two or three and deliver up to 45 watts at 97% peak efficiency.

The PE25200 supports an input voltage range of 5.5V to 10V in divide-by-two mode and 8.2V to 15V in divide-by-three mode.

## Features

- Proprietary architecture enables industry leading efficiency with an ultra-low profile
- Wide input voltage range, from 5.5V to 15V, supports two- or three-cell mobile computers and 12V-bus point-of-load applications
- Peak efficiency of 97.9%
- Pin-selectable cycle skipping mode for improved light load efficiency
- Configurable in either divide-by-two or -three modes
- Low EMI fixed-frequency operation under heavy load conditions
- Fully protected input under-voltage, output overcurrent and thermal shutdown

## Typical Applications

- Two-cell and three-cell lithium platforms
- Ultrabook and notebook computers
- Full-size tablet computers
- Ultra-thin form factor designs
- 12VIN point of load designs in networking and telecommunications

## Efficiency

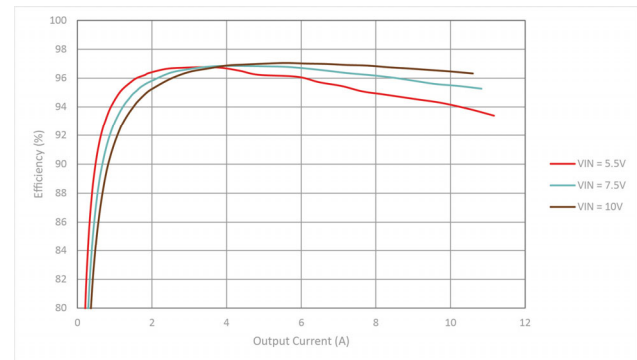


Figure 1. Typical Efficiency Divide-by-Two, Fixed Frequency Mode

## Simplified Application

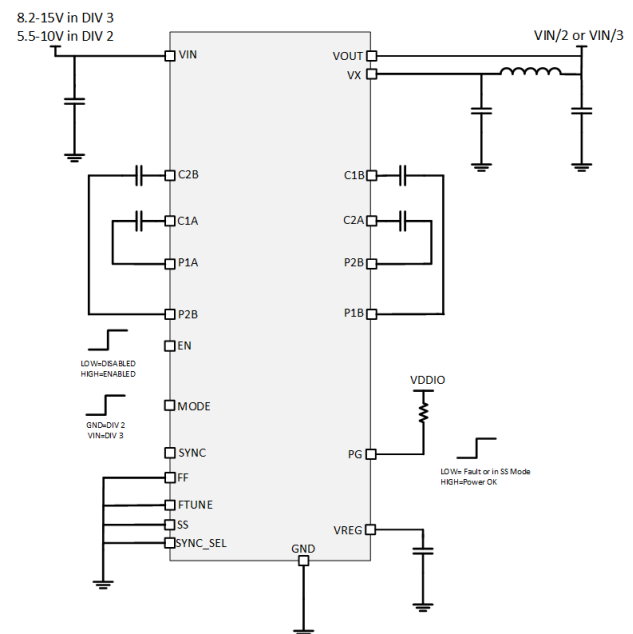


Figure 2. Application Schematic Showing Device Configured in Divide-by-Two Mode, Fixed Frequency, with a 0.1A Soft Start

## Evaluation Kit

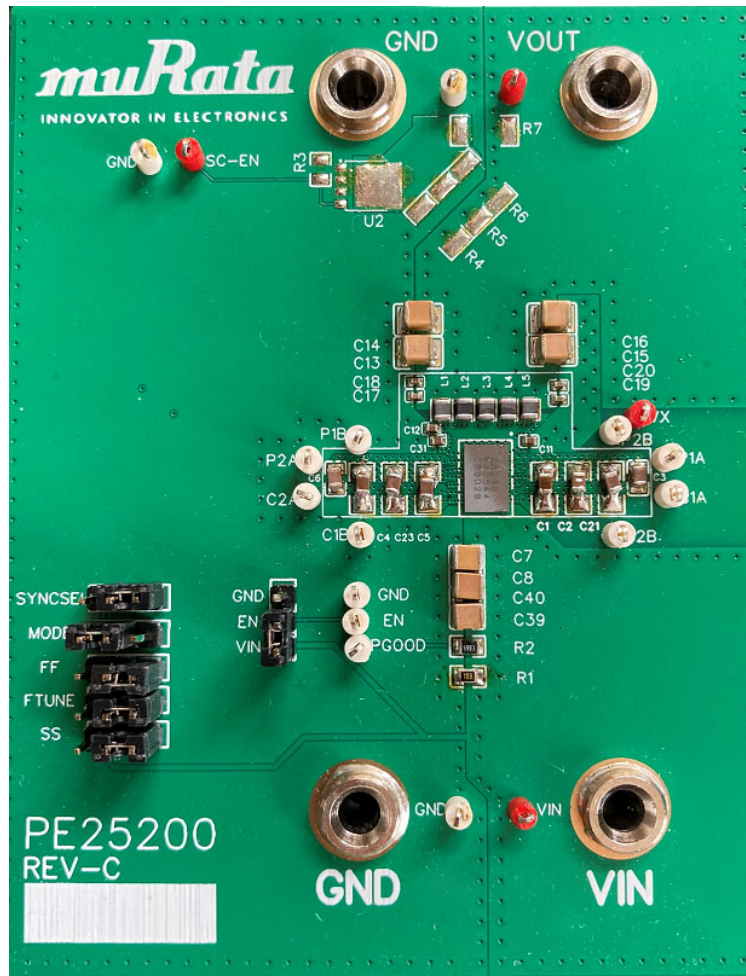


Figure 3. PE25200 Evaluation Board Assembly

## Order Codes

Table 1 lists the available ordering codes for the PE25200 as well as available shipping methods.

ORDER CODES	DESCRIPTION	PACKAGING	SHIPPING METHOD
PE25200A-X	45W Charge Pump Divide 2/3	WLCSP on Tape and Reel	500 Units / T&R
EK25200-HDI-FG	45W Charge Pump EVK	PCB Board	1 Unit

**Table 1. Order Codes**

## Notices

### **CAUTION**

#### **Limitation of Applications**

Please contact us before using our products for the applications listed below which require especially high reliability for the prevention of defects which might lead to damage to life, body or property.

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Surgical implants
- Transportation equipment (vehicles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Application of similar complexity and/or reliability requirements to the applications listed in the above

### **Note**

1. Please make sure that your product has been evaluated and confirmed to your specifications when our product is used in your product.
2. All the items and parameters in this approval sheet for product specification are based on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product in a manner deviating from such agreement.
3. If you have any concerns about materials other than those listed in the RoHS directive, please contact us.
4. Be sure to provide an appropriate fail-safe functionality in your product to prevent secondary damage that could be caused by the abnormal function or failure of our product.
5. Do not allow our product to be exposed to excess moisture under any circumstances.

## Document Categories

### Advance Information

The product is in a formative or design stage. The datasheet contains design target specifications for product development. Specifications and features may change in any manner without notice.

### Preliminary Specification

The datasheet contains preliminary data. Additional data may be added at a later date. Murata reserves the right to change specifications at any time without notice in order to supply the best possible product.

### Product Specification

The datasheet contains final data. In the event Murata decides to change the specifications, Murata will notify customers of the intended changes by issuing a CNF (Customer Notification Form).

### Product Brief

The datasheet contains summary product information.

## Sales Contact

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