

## MM3659

2023/07/20

### Outline

This IC is 4.5A switch mode charge control IC with power path with USB OTG.

Synchronous switching charge control enables power supply to system and charge control with low heat generation and high efficiency simultaneously.

Expensive current sensing resistor, Power FET, and Diode for reverse current protection are not necessary, so BOM cost can be reduced.

### Product Series

Switching Charger IC

### Features

1. High efficiency 4.5A 1.5MHz switch mode charge control and power supply management to system.
2. Wide range of input voltage(3.9V~17V) ex)USB Power Delivery 5V, 9V, 15V
3. USB Battery Charging Spec.1.2 compliant,can be set input current limit (100mA~3000mA)
4. Built-in USB OTG function (5V/1.3A),can be supplied power to external device
5. I2C interface enables optimum customization ex) charge voltage/charge current/charge timer, others

### Applications

Digital Still camera, Digital Video camera, other mobile device

### Main Specification

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## Major Specification

| Parameter                      | Specifications | Unit |
|--------------------------------|----------------|------|
| Rating voltage (VIN)           | 22             | V    |
| Operating voltage range (VIN)  | 3.9~17.0       | V    |
| Input current limit            | 100 - 3000     | mA   |
| Switching frequency            | 1.5            | MHz  |
| Charge voltage                 | 3.50 - 4.40    | V    |
| Fast charge current            | 512 - 4544     | mA   |
| Pre charge current             | 128 - 2048     | mA   |
| Fast charge starting voltage   | 2.8 - 3.0      | V    |
| Full charge current            | 128 - 2048     | mA   |
| Thermal regulation temperature | 120            | °C   |
| Charge timer                   | 5 - 20         | Hour |

## Package

SQFN-24B