

Fuel Gauge with Smart Engine

Description

The SM5602 is a stand-alone fuel gauge device that supports a wide range of battery capacities for wearable, tablet and other devices through an adjustable external sense resistor. The device features auto-calibration for aging battery by analyzing all kinds of information about battery characteristic such as cell voltage and current in real time. The embedded pre-programmed profiles save the user much time and trouble in firmware configuration. The device is available in a 9-bump, 1.47 mm x 1.47 mm WLCSP package.

Applications

- Mobile and Smart Phones
- Tablets
- Wearable Devices
- Internet of Things (IoT)

Ordering Information

Part	Temp. Range	Pb-Free	Package
SM5602	-40°C to +85°C	Yes	9 WLCSP 0.5 mm Pitch

Features

- 1-Cell Li-Ion Battery Fuel Gauge
 - Up to ± 8 A Current Sensing
 - High-side or Low-side Current Sensing
 - Supports Embedded or Removable Battery
 - Provides Three Selectable Pre-programmed Profiles for 4.2 V, 4.35 V and 4.4 V
- Adjustable External Sense Resistor (Typ. 10 m Ω)
 - Down to 5 m Ω for High Current Sensing
 - Up to 150 m Ω for Enhanced Current Resolution
- Automatically Refreshes SOC for Aging Battery (SOH)
- Eco-Friendly Technology in Normal Mode (35 μ A)
- Rapidly-adapting SOC in Low Temperature
- Support Thermistor in Battery Module or System Side
- Resistance Compensation Functions
 - Current Sensing Compensation
 - Voltage Sensing Compensation
- 400 kHz Full-Speed I²C Interface
- 9-Bump, 1.47 mm x 1.47 mm WLCSP Package

SM5602

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