

ISL95862

1+1+1 PMIC with Integrated MOSFETs for Intel IMVP8 CPUs

FN8849
Rev.1.00
Apr 25, 2017

The [ISL95862](#) is a Power Management Integrated Circuit (PMIC) for ultrabook, notebook, and tablet computers powered by 2-cell Li-ion batteries. It integrates control, MOSFET drivers, power MOSFETs, fault protection, and fault monitoring functions for three highly efficient synchronous buck regulators. Integrated into one package are the regulators for the core, graphics, and system agent voltages. The ISL95862 is offered in a thermally efficient 8mmx12mm, 96 bump, 0.5mm pitch WLCSP package.

The PMIC regulators convert the system voltage from a battery or adapter into the three necessary processor voltages required by Intel's IMVP8 specifications. The switching regulators operate at high frequency and are based on Intersil's proprietary R3™ Technology, which provides high light-load efficiency and fast transient response with minimal external compensation.

The PMIC provides overcurrent, overvoltage, and over-temperature fault protections. The controller also features a temperature alert signal that indicates when the PMIC is operating at an elevated temperature. An ALERT signal provides notice of any fault or warning outside of the temperature alert signal. The PMIC also offers I²C capability compatible with Intel's SMBus specification.

Features

- Highly integrated power management IC
- Efficient high-frequency integrated FET switching regulators
- Integrated regulators to produce core, graphics, and system agent rails
- Extensive fault protection
 - Overcurrent, overvoltage, and over-temperature protection
 - Temperature alert signal
- SVID I²C bus allows system fault monitoring, enables control
- Output voltage offset programming through SVID I²C

Applications

- Ultrabook, notebook, and tablet computers

Related Literature

- For a full list of related documents, visit our website
 - [ISL95862](#) product page

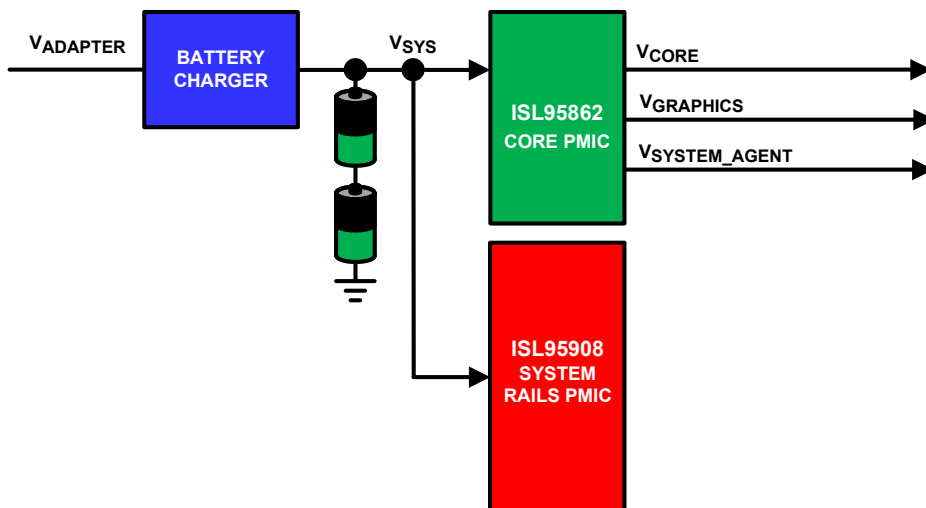


FIGURE 1. COMPUTER SYSTEM POWER MANAGEMENT SOLUTION

**© Copyright Intersil Americas LLC 2016-2017. All Rights Reserved.
All trademarks and registered trademarks are the property of their respective owners.**

For additional products, see www.intersil.com/en/products.html

Intersil products are manufactured, assembled and tested utilizing ISO9001 quality systems as noted in the quality certifications found at www.intersil.com/en/support/qualandreliability.html

Intersil products are sold by description only. Intersil may modify the circuit design and/or specifications of products at any time without notice, provided that such modification does not, in Intersil's sole judgment, affect the form, fit or function of the product. Accordingly, the reader is cautioned to verify that datasheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com