To request the full datasheet, please visit www.intersil.com/products/IS95852A.

ISL95852A

Integrated Power Management IC for IMVP8™ Platforms

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The ISL95852A 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 ISL95852A is offered in a thermally efficient 4mmx4mm, 64 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. Also provided is a temperature alert signal indicating the PMIC is operating at an elevated temperature and an ALERT signal indicates if any other fault or warning has occurred. 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, enable control
 - PS4 power domain entry/exit fully supported
- Output voltage offset programming through SVID I²C

Applications

· Ultrabook, notebook and tablet computers

Related Literature

- TB451, "PCB Assembly Guidelines for Intersil Wafer Level Chip Scale Package Devices"
- TB500, "Computing Power Reference Design Adaptation Guide"
- TB501, "Computing Power Regulator Layout Checklist"
- UG041, "ISL95852EVAL1Z Evaluation Board User Guide"

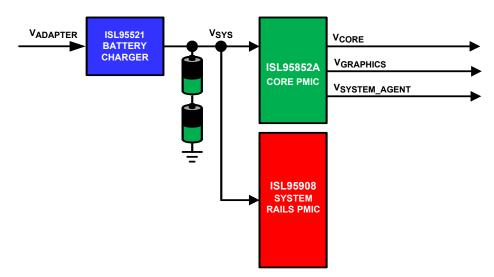


FIGURE 1. COMPUTER SYSTEM POWER MANAGEMENT SOLUTION

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Renesas Electronics America Inc. 1001 Murphy Ranch Road, Milpitas, CA 95035, U.S.A. Tel: +1-408-432-8888, Fax: +1-408-434-5351

Renesas Electronics Canada Limited 9251 Yonge Street, Suite 8309 Richmond Hill, Ontario Canada L4C 9T3 Tel: +1-905-237-2004

Renesas Electronics Europe Limited Dukes Meadow, Milliboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K Tel: +44-1628-651-700, Fax: +44-1628-651-804

Renesas Electronics Europe GmbH

Arcadiastrasse 10, 40472 Düsseldorf, German Tel: +49-211-6503-0, Fax: +49-211-6503-1327

Renesas Electronics (China) Co., Ltd.
Room 1709 Quantum Plaza, No.27 ZhichunLu, Haidian District, Beijing, 100191 P. R. China Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

Renesas Electronics (Shanghai) Co., Ltd.
Unit 301, Tower A, Central Towers, 555 Langao Road, Putuo District, Shanghai, 200333 P. R. China Tel: +86-21-2226-0898, Fax: +86-21-2226-0999

Renesas Electronics Hong Kong Limited

Unit 1601-1611, 16/F., Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong Tel: +852-2265-6688, Fax: +852 2886-9022

Renesas Electronics Taiwan Co., Ltd.

13F, No. 363, Fu Shing North Road, Taipei 10543, Taiwan Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

Renesas Electronics Singapore Pte. Ltd.

80 Bendemeer Road, Unit #06-02 Hyflux Innovation Centre, Singapore 339949 Tel: +65-6213-0200, Fax: +65-6213-0300

Renesas Electronics Malaysia Sdn.Bhd. Unit 1207, Block B, Menara Amcorp, Amco Amcorp Trade Centre, No. 18, Jin Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia

Unit 1207, Block B, Menara Amcorp, Amcorp Tel: +60-3-7955-9390, Fax: +60-3-7955-9510

Renesas Electronics India Pvt. Ltd. No.777C, 100 Feet Road, HAL 2nd Stage, Indiranagar, Bangalore 560 038, India Tel: +91-80-67208700, Fax: +91-80-67208777

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Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,

Промышленная ул, дом № 19, литера Н,

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