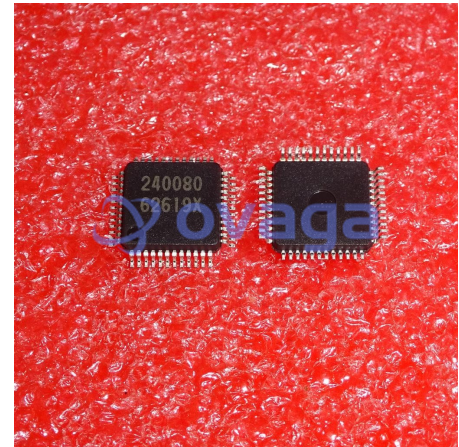


2 to 5 Series Li-ion Battery Manager

Manufacturers	Renesas Technology Corp
Package/Case	QFP-48
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for RAJ240080A20DFP#BC0 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The RAJ240080DFP is a Li-ion battery management and fuel gauge IC that supports two to five series connected cells. This device provides complete battery and pack monitoring and control, including automatic shutdown and recovery from out-of-bounds conditions, automatic cell balancing, and high accuracy remaining state of charge reporting.

The RAJ240080 combines an RL78 MCU and tailored analog front end to serve as a programmable standalone battery management solution.

Features

Fully integrated battery management solution with battery capacity measurement and programmable protection capability.

Supports up to 5 Li-ion or Li-Polymer battery cells in series.

Integrated with Renesas Ultra Low Power RL78 CPU core for multi-function process

Memory Code flash memory: 64KB Data flash memory (up to 100,000 erase/write cycles): 4 KB SRAM: 5.5KB

Clock generator High-Speed on-chip oscillator: up to 32 MHz Low speed on-chip oscillator: 32 KHz AFE on-chip oscillator: 4.194MHz

General Purpose I/O Ports Total: 22 pins CMOS input/output: 16 CMOS input: 2 High voltage input [VCC tolerance]: 1 High voltage input/output [VCC tolerance]: 1

Serial interface CSI (SPI): 1 channel I2C: 1 channel UART: 2 channels Simplified I2C: 1 channel

Timer MCU 16-bit timer: 5 channels MCU 12-bit interval timer: 1 channel AFE timer: 2 channels AFE timer A: setting range: 125 ms to 64 s AFE timer B: setting range: 30.52 us to 125 ms

Embedded A/D converter AFE 15-bit resolution sigma-delta A/D converter

Current integration circuit 18-bit resolution sigma-delta A/D converter

Impedance measurement circuit Simultaneous measurement of battery voltage and current

Over current detection circuit Short circuit current detection Charge overcurrent detection Discharge overcurrent detection Charge wakeup current detection Discharge wakeup current detection

Series regulator 3.3V CREG2 1.8V CREG1

Charge and Discharge MOSFET control High side Nch MOSFET drive circuit embedded Programmable MOSFET control by 8-bit PWM

Fuse control FUSEOUT pin can support fuse blow function.

Intel® Dynamic Battery Power Technology support

Voltage and temperature condition Power supply voltage: = -20 to +85°C

Package Information 48 pin plastic mold QFP ([Body] 9.0 mm x 9.0 mm, 0.5 mm pitch)



Related Products



[ISL69127IRAZ-T](#)

Renesas Technology Corp
QFN 48



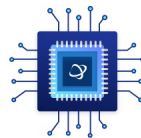
[ISL69125IRAZ-T](#)

Renesas Technology Corp
40-TQFN



[ISL68137IRAZ](#)

Renesas Technology Corp
48-QFN



[ISL80112IRAJZ](#)

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[ISL68127IRAZ](#)

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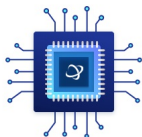
QFN-48



[RAJ240045A20DNP](#)

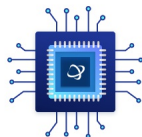
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