

Product Overview

LC709204F: Battery Fuel Gauge for 1-Cell Lithium-Ion/Polymer (Li+) [Smart Lib Gauge] with low-power 2 μ A operation

For complete documentation, see the data sheet.

LC709204F is a Fuel Gauge (in other words, Gas Gauge, Battery Monitor or Battery Gauge) for 1-Cell Lithium-Ion/Polymer batteries. It is a member of our Smart LiB Gauge family of Fuel Gauges that use a unique algorithm called HG-CVR2 to accurately measure a battery's RSOC (Relative State of Charge) even under unstable conditions such as changes in battery temperature, loading, aging and self-discharge. The HG-CVR2 algorithm can be easily configured to begin taking battery measurements by setting up a few parameters after battery insertion, reducing complexity in the development process. LC709204F also includes SOH reporting and multiple integrated alarm functions to support battery safety.

Features

- High accuracy gauging
- Low power consumption
- Stable gauging
- Small footprint
- Alarm function: RSOC / Voltage / Temperature
- Battery lifetime measurement
- Multi-thermistor support
- I2C interface (up to 400kHz supported)

Applications

- Battery Management for portable and wireless applications

Benefits

- Accurate RSOC even in low temperature ranges
- Longer battery life
- Stable gauging under different battery conditions such as battery aging
- 40% size reduction through elimination of current sensing resistor
- Provides system safety
- Integrated safety monitoring of SOH (State of Health), Time to Full, Time to Empty
- Monitoring of system and battery temperature
- Easy configuration over the I2C control bus

End Products

- Wearables
- Portable headsets
- Smartphones / PDA devices
- Wireless handsets
- Portable game players

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Battery Type	Number of Cells Charged	Interface	V _{DD} Min (V)	V _{DD} Max (V)	I _{DD} (μ A)	Tolerance (%)	T _A Min ($^{\circ}$ C)	T _A Max ($^{\circ}$ C)	Package Type
LC709204FXE-01TBG	0.9683	Pb-free Halide free non AEC-Q and PPAP	Active	Li-Ion/Polymer	1	I2C	2.5	5	2	2	-40	85	WLCSP 12, 1.48x1.91x0.51

For more information please contact your local sales support at www.onsemi.com.

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