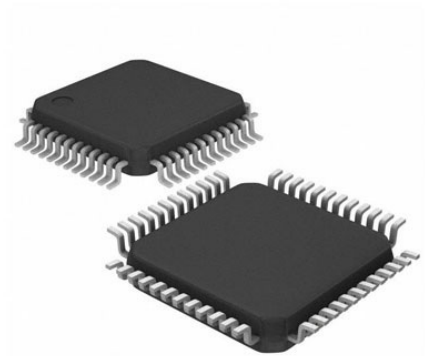


12 Channel Multicell Battery Monitor

Manufacturers	Analog Devices, Inc
Package/Case	48-Lead LQFP_EP (7mm x 7mm x 1.60mm w/ EP)
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ADBMS6815WCSWZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADBMS6815 is a multicell battery stack monitor that measures up to 12 series connected battery cells with a lifetime total measurement error (TME) of less than 1.5 mV. The cell measurement range of 0 V to 5 V makes the ADBMS6815 suitable for most battery chemistries. All 12 cells can be measured in 304 μ s, and lower data acquisition rates can be selected for high noise reduction.

Multiple ADBMS6815 devices can be connected in series, permitting simultaneous cell monitoring of long, high voltage battery strings. Each ADBMS6815 has an isoSPI™ interface for high speed, RF immune, long distance communications.

Multiple devices are connected in a daisy chain with one host processor connection for all devices. This daisy chain can be operated bidirectionally, ensuring communication integrity even in the event of a fault along the communication path.

The ADBMS6815 can be powered directly from the battery stack or from an isolated supply. The ADBMS6815 includes passive balancing for each cell, with individual pulse-width modulation (PWM) duty cycle control for each cell. Other features include an on-board 5 V regulator, seven general purpose input/output (GPIO) lines, and a sleep state, where current consumption is reduced to 5.5 μ A.

The ADBMS6815WFS models are designed for use in ISO 26262 applications for Automotive Safety Integrity Level Capability D (ASIL D).

APPLICATIONS

Features

- Measures up to 12 battery cells in series
- Maximum lifetime total measurement error: 1.5 mV
- Stackable architecture for high voltage battery packs
- Built-in isoSPI interface
- 2 Mb isolated serial communications

Application

- Electric and hybrid electric vehicles
- Backup battery systems
- Grid energy storage
- High power portable equipment

Uses a single twisted pair, up to 20 meters

Low EMI susceptibility and emissions

Bidirectional for broken wire protection

Capacitor or transformer coupled

ADBMS6815WFS models designed for use in ISO 26262 applications for Automotive Safety Integrity Level Capability D (ASIL D)

ADBMS6815M includes LPCM for Cell & Temperature Monitoring in Key-off State

2 Mb isolated serial communications

Uses a single twisted pair, up to 20 meters

Low EMI susceptibility and emissions

Bidirectional for broken wire protection

Capacitor or transformer coupled

Hot plug tolerant without external protection

Diagnostics for IC and application circuit failure modes

304 μ s to measure all cells in a system

16-bit ADC with programmable noise filter

Passive cell balancing up to 300 mA per channel with programmable PWM

7 GPIO or analog inputs

Temperature or other sensor inputs

Configurable as an I

2

C or SPI master

Sleep state supply current: 5.5 μ A

48-lead LQFP package with exposed pad

AEC-Q100 qualified for automotive applications

Temperature or other sensor inputs

Configurable as an I

2

C or SPI master

Related Products



[ADP3336ARMZ-REEL7](#)

Analog Devices, Inc
MSOP-8



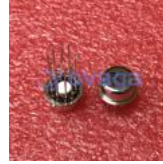
[AD737JRZ](#)

Analog Devices, Inc
SOP-8



[ADP3367ARZ](#)

Analog Devices, Inc
SOIC-8



[AD636JH](#)

Analog Devices, Inc
TO-100-10



[ADP3330ARTZ3.3-RL7](#)

Analog Devices, Inc
SOT-23-6



[ADR434BRZ](#)

Analog Devices, Inc
SOIC-8



[ADR421ARZ](#)

Analog Devices, Inc
SOP-8



[ADR3412ARJZ-R7](#)

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