



# 18 Channel Li-Ion Battery Cell Controller IC ASIL D

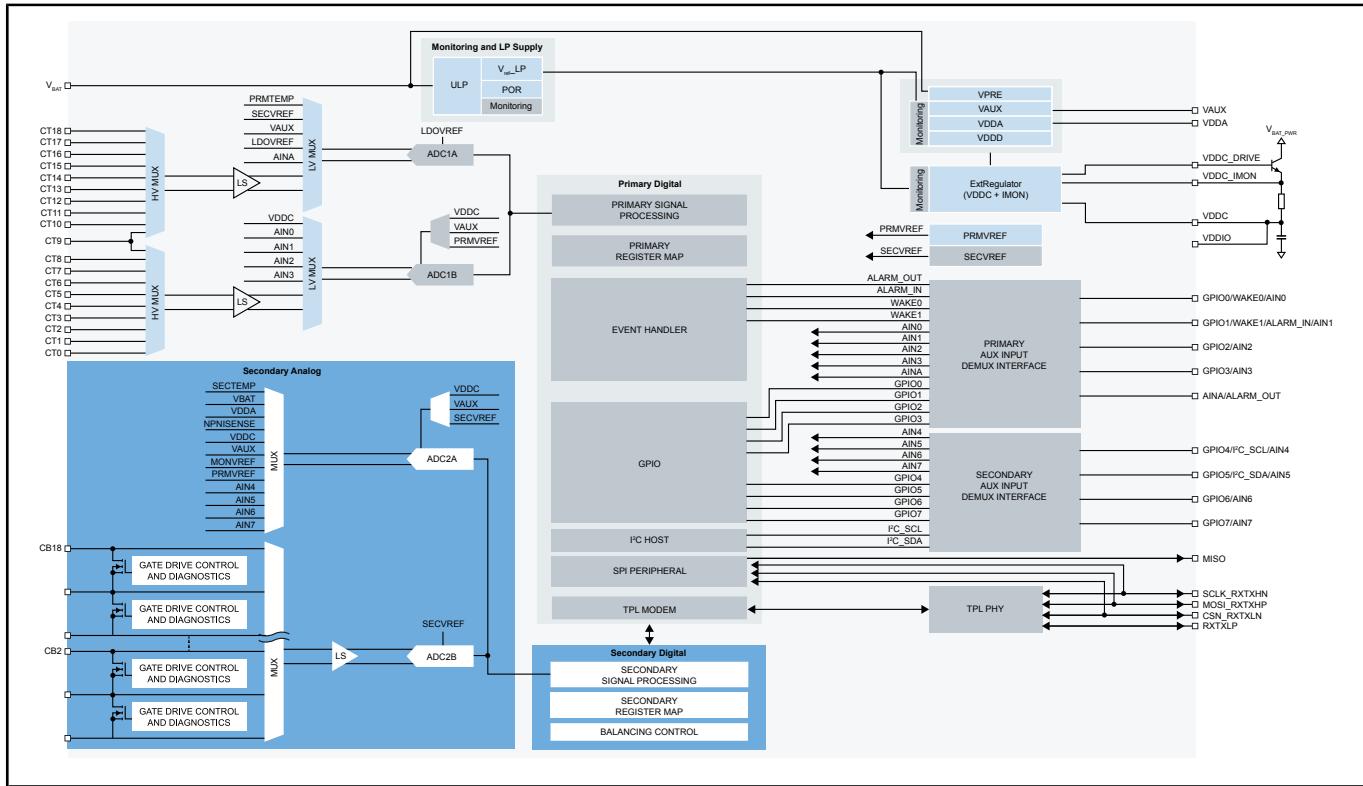
## MC33774

Last Updated: Dec 23, 2025

The MC33774 is an 18-Channel battery cell controller IC designed for the most demanding applications. The IC is lifetime qualified for less than 1.5 mV of voltage measurement error over the full temperature and cell voltage range. A fully redundant and independent internal architecture enables achieving ASIL D Functional Safety targets at cells voltage as well as for cells temperature measurements. Busbar monitoring is supported thanks to an input voltage ranging down to -3 V.

Configurable on-chip averaging of the high frequency voltage measurement signals acts as a digital filter and allows for a reduction in external filtering. Highly advanced functions are available to control passive cell balancing with up to 300mA per channel and all the way up to 125 degree C. ambient temperature. It gives the possibility for maximizing the assets utilization (e.g. ESS and EV Fleet) via fast real-time balancing. An I<sup>2</sup>C interface allows to control external devices, e.g.. EEPROMs. Up to 62 devices can be daisy-chained via the isolated ETPL bus.

## MC33774 Block Diagram



[View additional information for 18 Channel Li-Ion Battery Cell Controller IC ASIL D.](#)

**Note:** The information on this document is subject to change without notice.

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