

# Product Document

# Sensor Companion

[www.ams.com/AS8525](http://www.ams.com/AS8525)



## AS8525 – High side current sensor companion IC

- High side current sense amplifier
- Active offset compensation in conjunction with AS8510
- 2 LDOs to separate analog and digital system domains
- LIN 2.0/2.1 transceiver, load independent bus slew control
- SPI Interface, window watchdog, backup registers

We provide innovative analog solutions to the most challenging applications in sensor and sensor interfaces, power management, and wireless.

## General Description

The AS8525 is a companion IC for battery- and current sensor LIN slaves. Beside voltage regulators for analog and digital domain, the IC provides a LIN transceiver, a precision voltage attenuator, a programmable gain high side amplifier with input chopper and level shift to a low common mode differential output, a micro controller interface, and a window watchdog. The integrated chop clock synchronization enables a zero offset measurement system for small shunt signals in positive battery rail in conjunction with AS8510 or AS8501.

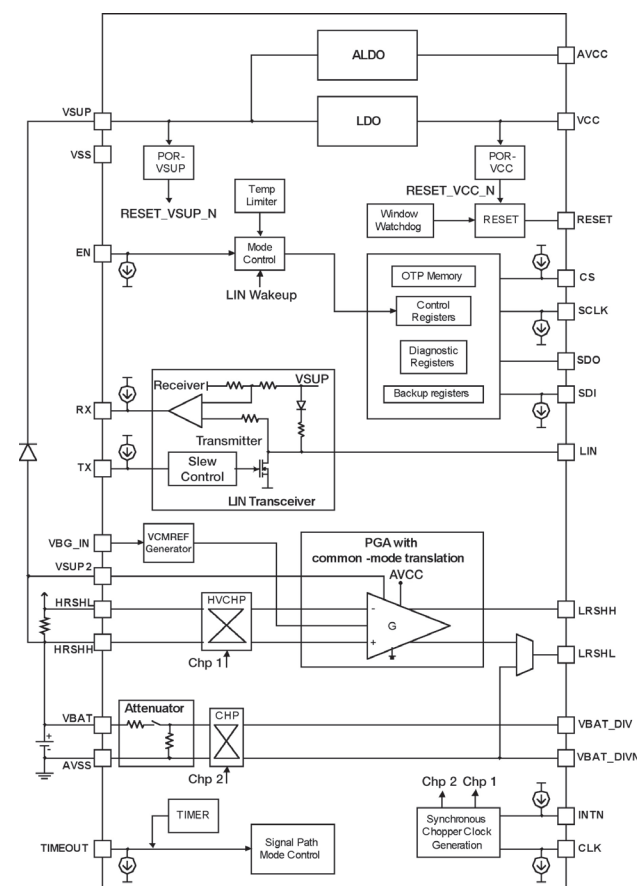
## Applications

- Battery sensor - High Side current sensor companion IC

## Features

- LDOs for 5V or 3.3V output – selected by factory programming
- LIN 2.0/2.1 transceiver, load independent slew control
- Micro controller interface for configuration, diagnosis and status readout, watchdog trigger and backup register access
- Normal-, standby- or sleep operating mode
- Window watchdog
- Reset generator with factory programmable reset time
- Output voltage monitor with factory adjustable level
- Resistive attenuator with power down in low power mode for battery voltage measurement
- Programmable gain, high performance, very low drift amplifier, auto zero offset in conjunction with AS8510 ADC and chopping
- Unique chip ID for traceability
- QFN-32 package

## AS8525 Block Diagram



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