



# STEVAL-ISA076V1

## Battery charger demonstration board with integrated power switch for Li-Ion/Li-Polymer batteries based on the L6924D

Data brief

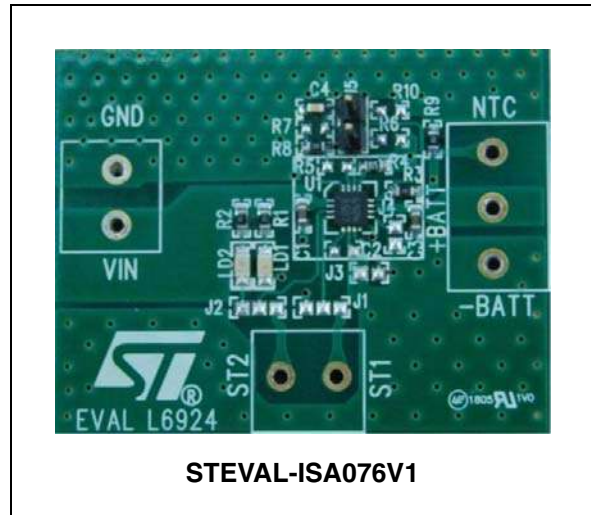
### Features

- Operating input voltage up to 12 V
- Fully integrated solution with power MOSFET, reverse blocking diode, sense resistor, and thermal control
- Both linear and quasi-pulse operation
- Programmable charge current both in fast charge (up to 1 A) and in pre-charge mode
- Selectable 4.1 V and 4.2 V output voltage ( $\pm 1\%$  accuracy)
- Programmable termination current
- Programmable pre-charge mode voltage threshold
- Programmable charge timer
- Multifunction pin for flexible charge process termination
- Status outputs to drive LEDs or host processor interface
- Battery absence detection
- Closed loop thermal control
- NTC or PTC thermistor interface for battery temperature monitoring and protection
- RoHS compliant

### Description

The STEVAL-ISA076V1 demonstration board is based on the L6924D battery charger system with integrated power switch. The L6924D device is a fully monolithic battery charger dedicated to single-cell lithium-ion polymer (Li-Pol) battery packs, and is the ideal solution for space-limited applications such as PDAs, handheld equipment, cellular phones, and digital cameras.

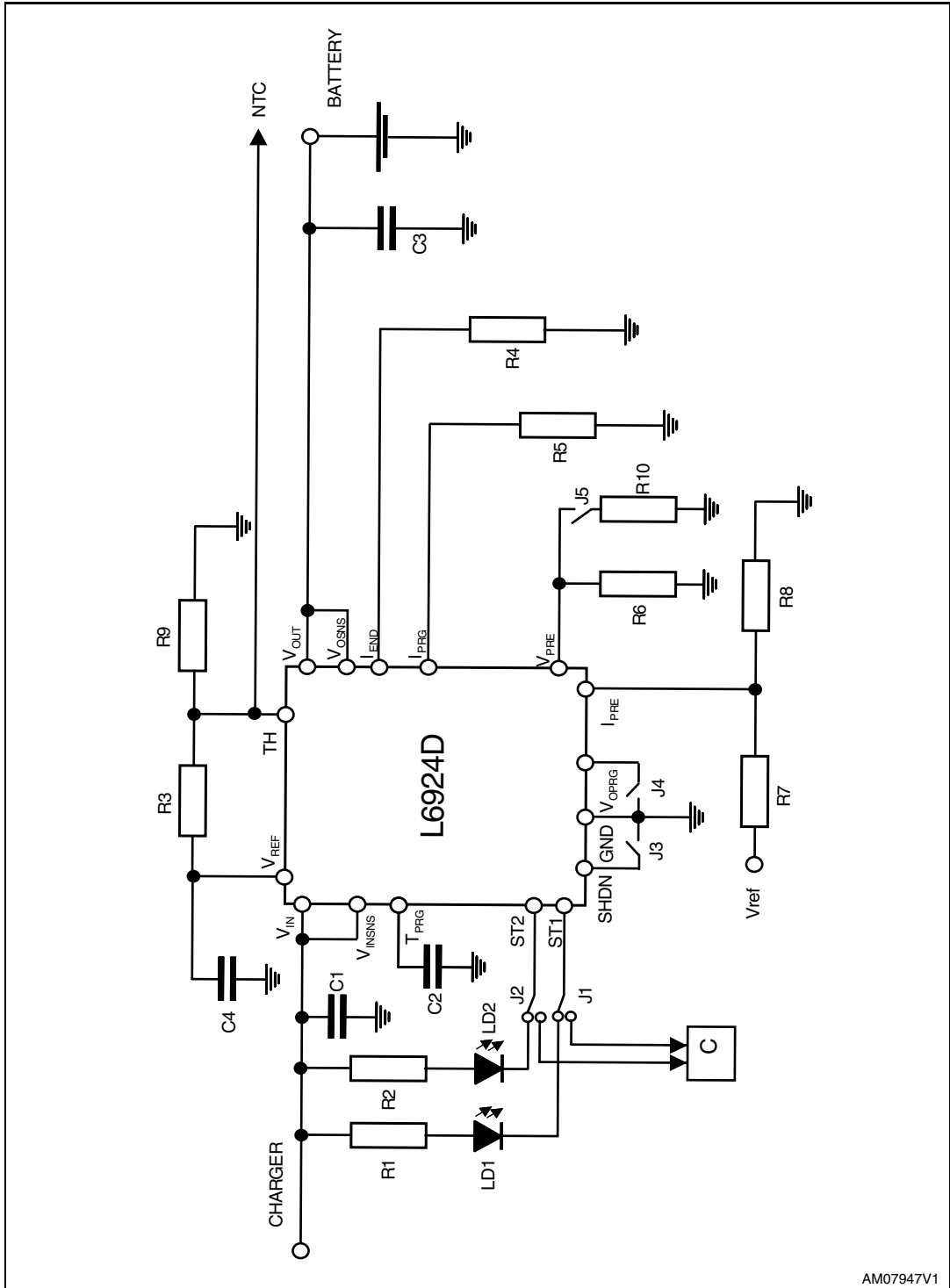
When an external voltage-regulated wall adapter is used, the L6924D works in linear mode, and charges the battery using a constant current/constant voltage (CC/CV) profile.



When a current-limited adapter is used, the device can operate in quasi-pulse mode, dramatically reducing power dissipation.

# 1 Schematic diagram

Figure 1. Internal schematic



## 2 Revision history

Table 1. Document revision history

| Date        | Revision | Changes  |
|-------------|----------|--|
| 18-Oct-2010 | 1        | Initial release.   |
| 03-May-2011 | 2        | <ul style="list-style-type: none"><li>– Minor text changes to the Title and <a href="#">Description on page 1</a>.</li><li>– Reformatted <a href="#">Internal schematic on page 2</a>.</li></ul> |

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