

EVAL-L9301 Demo board

Data brief



Features

- Operating battery supply voltage: 5V - 18V
- Operating Vdd supply voltage: 4.75V - 5.25V
- Logic inputs TTLcompatible
- SPI interface for outputs control and for diagnosis data communication
- Power MOS:
- 8 Low side On-off driver
- 4 High side + 4 Low side on-off driver
- 4 configurable output configurations
- Access to all relevant pins by test points and jumper.
- Input signal connector compatible with SPC560P-DISP discovery board
- Possibility to connect a generic microcontroller boards by using a simple adapter.
- ISO PULSE circuit protection
- Reset button or Reset uC

Description

The EVAL-L9301 is an Evaluation Board designed to evaluate L9301, a smart power device mainly for ABS valves applications.

L9301 is able to drive electronic on-off valves with or without external freewheeling diode.

The OUT1-8 can be driven by parallel input in PWM mode or SPI command. Through the SPI it is possible to configure the device parameters like configuration, Slew-rate, Overcurrent threshold, to send the drivers EVAL-L9301 commands and to read back the diagnosis results.

The device is protected against over temperature, open load, short to GND and short to Vbattery condition. The overcurrent diagnostics can be set in latched or unlatched mode for each channel.

This kit includes L9301 Demo Board; Firmware for SPC560P-DISP; Graphical User Interface developed in LabView environment Documentation, Demo board and GUI user manual.

Table 1. Device summary

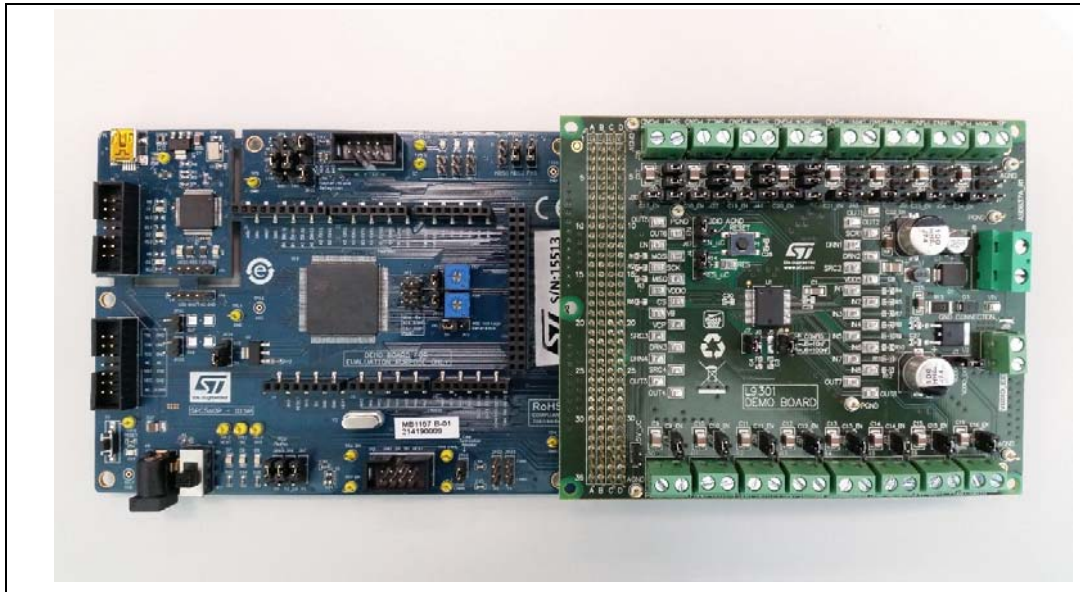
Order code	Reference
EVAL-L9301	EVAL-L9301 Evaluation board

1 EVAL-L9301 overview

1.1 Evaluation kit contents

The EVAL-L9301 board can be directly connected to the SPC560P-DISP uC discovery board (see [Figure 1](#)). SPC560P-DISP is not included into the kit.

Figure 1. SPC560P-DISP+L9301 Demo board



1.2 System requirements

- Power Supply: 5 V ÷ 18 V; max 8A
- SPC560P-DISP Discovery
- Windows PC

1.3 Loads

- Electronic valves for ABS applications (inductance=1,14mH, resistance=4,6 Ω)
- Freewheeling diodes (if required)

1.4 Development toolchain

- LabView and UDE VISUAL PLATFORM
- Mini USB - B

1.5 Promotional software

- out.elf: firmware for SPC560P-DISP uC.
- L9301 - *PICTUS.exe*: Graphical User Interface to configure the device for diagnosis feedback.

2 Revision history

Table 2. Document revision history

Date	Revision	Changes
26-Jul-2016	1	Initial release.

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