

EVAL-L9945 evaluation board

Data brief



Features

- Voltage min/max: 3.8 V to 36 V.
- 8-channel configurable MOSFET pre-driver:
 - High-side (N-channel and P-channel MOS)
 - Low-side (N-channel MOS)
 - H-bridge (up to 2 H-bridge)
 - Peak & Hold (2 loads)
- Device registers setting and the full diagnostic are available through SPI.
- Access to all relevant pins by test points.
- Input signal connector compatible with the SPC563M-DISP (SPC563M64L Discovery+ evaluation board).
- Possibility to connect a generic microcontroller board by using a simple adapter.

Description

The EVAL- L9945 is an evaluation board designed to evaluate L9945, a smart power device designed by STMicroelectronics in advanced BCD technology.

L9945 is a flexible high-side/ low-side configurable pre-driver able to drive both NMOS and PMOS. It is possible to configure the device as independent 8 high-side and low-side pre-driver or as 2 H-Bridge pre-driver or 2 pick and hold pre-driver by using SPI configuration and jumper on the board.

All channels are protected against short circuit, over current and over-temperature conditions.

The board can be connected to the SPC563M-DISP, the Discovery+ board developed for the SPC563M64L.

Table 1. Device summary

Order Code	Reference
EVAL-L9945	EVAL-L9945 evaluation board

1 System requirements, HW and SW resources

1.1 System requirements

- Power supply: 4 V ÷ 40 V; up to 30 A
- SPC56 discovery board or microcontroller board able to offer:
 - SPI signals
 - 12 GPIO in order to drive injector and ignition and to monitor status channels and enable pin
 - +5 V or 3,3 V (Vcc)

1.2 Development toolchain

- Labview and UDE VISUAL PLATFORM
- USB – RS232 cable

1.3 Demonstration software

Software is available for demonstration purpose.

For more information and download, please refer to ST web.

2 Revision history

Table 2. Document revision history

Date	Revision	Changes
10-Oct-2017	1	Initial release.
02-May-2019	2	Updated figure in cover page.
23-May-2019	3	Minor text changes.