EVAL-L9177A

EVAL-L9177A Evaluation Board

Data brief



Features

- Voltage min/max: 3.9 V to 30 V.
- No. channels:
  - 2 injector driver
  - 1 Lambda sensor heater
  - 3 relay driver
  - 1 LED/Lamp driver
  - Tachometer driver
  - Stepper motor driver
  - 1 Protected High side dirver
- Device registers setting and the full diagnostic are available through SPI.
- Communication protocols: SPI, Kline.
- 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 boards by using a simple adapter.
- Package: TQFP-64

Description

The EVAL-L9177A is an Evaluation Board designed to evaluate L9177A, a smart power device designed by STMicroelectronics in advanced BCD technology.

L9177A is able to drive all the relevant loads used in one/two cylinder powertrain applications (Injectors, Relay, stepper motor, tachometer, etc.), to interface with Variable Reluctance Sensors and Hall sensors, to monitor diagnostic functionalities and to interact with the main networks present in powertrain environment (K-Line).

All channels are protected against short circuit and over-temperature condition.

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

Table 1. Device summary

Order code	Reference
EVAL-L9177A	EVAL-L9177A Evaluation Board

For further information contact your local STMicroelectronics sales office. www.st.com

1 System requirements, HW and SW resources

1.1 System requirements

- Power Supply: 4 V ÷ 24 V; up to 10 A
- SPC56 discovery board or microcontroller board able to offer:

1. SPI signals
2. Serial interface for K-line
3. 10 GPIO in order to drive injector ,ignition and to monitor device status pin.
4. 1 PWM signal to control the stepper motor driver
5. +5 V or 3,3 V (Vcc)

1.2 Development toolchain

- Labview and UDE VISUAL PLATFORM
- USB - RS232 cable

1.2.1 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
14-Jul-2017	1	Initial release.
22-May-2019	2	Minor text changes.

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