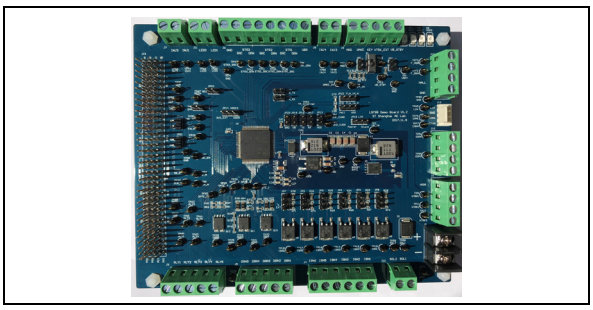
EVAL-L9788

EVAL-L9788 evaluation board

Data brief



Features

- Voltage min/max: 0 to 36 V
- Engineered for ISO26262 compliant system
- 1 pre-boost regulator and 1 pre-buck regulator
- 1 linear 5 V regulator with 1 A output current
- 3 independent self-protection 5 V tracking regulators with 150 mA output.
- 1 input voltage pin for monitor external tracking
- Coordinated soft start-up of all regulators
- 4 channels LS injector LS drivers
- 2 channels LS drivers for O2H load with current sense
- 2 channels LS camshaft or solenoid drivers
- 5 channels LS relay drivers
- 2 channels LS LED drivers
- 3 channels LS/HS drivers with low battery function for smart start
- 1 channel LS main relay driver (MRD) with internal diode for reverse battery protection
- 5 channels pre-drivers for external FET drivers
- Pre-driver 1&3 configurable for O2H load with external Rshunt-on the source of ext. N-Channel Mos
- 6 channels pre-drivers for internal or external igniter drivers
- 1 K-Line ISO9141/LIN 2.1 compliant
- Integrated charge-pump
- VRS-interface
- Watchdog
- Pin Wake-up
- Temperature sensor and monitoring
- Stop-counter with Wake-up
- Dual bandgap reference & oscillator
- Micro-second-channel MSC for differential single ended mode
- SEO function
- CAN-FD with wake up by CAN function
- Device registers setting and the full diagnostic are available through MSC
- Access to all relevant pins by test points
- Input signal connector compatible with the SPC563M-DISP
- Possibility to connect a generic microcontroller board using a simple adapter

Description

The EVAL-L9788 is an evaluation board designed to evaluate L9788, a smart power device designed by STMicroelectronics in advanced BCD technology.

The L9788 is an integrated circuit designed for automotive engine management system. It is a device realized in ST BCD proprietary technology, able to provide the full set of power supplies and signal pre-processing peripherals needed to control a 4 cylindres internal combustion engine. All the device function configurations can be done via MSC 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.

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

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 Channels and enable pin
  - +5 V or 3.3 V (Vcc)

2 Development toolchain

- Labview and UDE VISUAL PLATFORM
- USB – RS232 cable

3 Demonstration software

Software is available for demonstration purpose.

For more information and download, please refer to *www.st.com*.

4 Ordering information

Table 1. Order code

Order code	Reference
EVAL-L9788	EVAL-L9788 evaluation board

5 Revision history

Table 2. Document revision history

Date	Revision	Changes
26-Apr-2019	1	Initial release.
22-May-2019	2	Minor text changes.

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