

L99SM81V evaluation board



Features

- MOSFET reverse battery protection, with the possibility to replace it with two diodes through a dedicated jumper configuration
- ISO pulse protection (not soldered)
- Normally powered at 12 V through a specific daughterboard connector
- Possibility to solder output capacitors at the motor terminals
- L99SM81VQ6 internal 5 V linear voltage regulator output connector available on the daughterboard
- The motherboard allows selecting the digital power supply of the L99SM81VQ6 between 5 V and 3.3 V through a dedicated jumper

Description

The **EVAL-L99SM81VQ** is an evaluation board designed to drive one bipolar stepper motor in micro-stepping mode together with coil voltage measurement for stall detection. The evaluation board consists in a motherboard and a daughterboard on which the L99SM81VQ6 is mounted. Both of the evaluation boards provide electronic control modules with enhanced power management power supply functionalities including one standby mode.

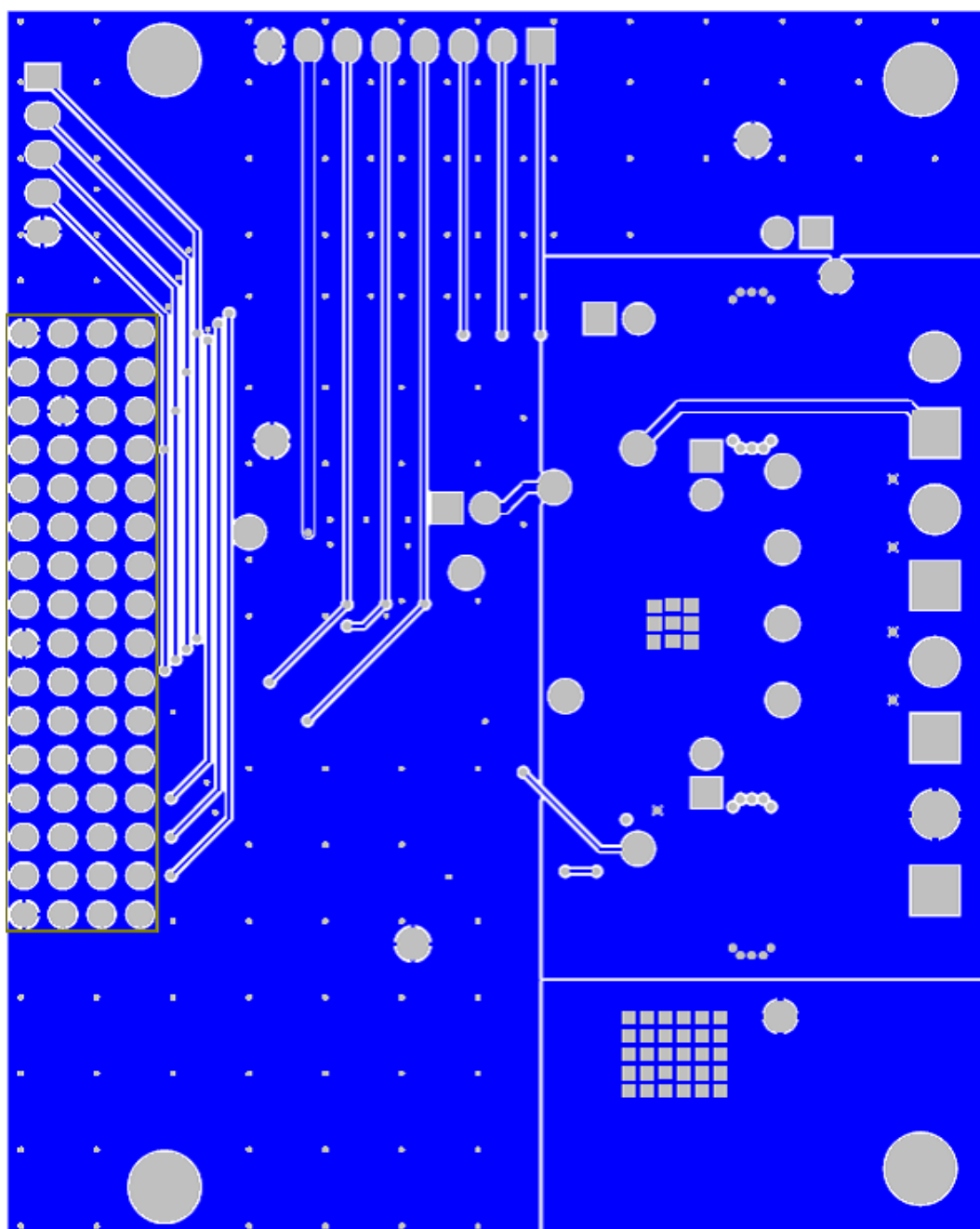
The motherboard, based on SPC56 microcontroller, provides the logic section for monitoring and driving the L99SM81VQ6 assembled on the daughterboard.

With the aim of making the board usage and settings simpler, ST provides dedicated user-friendly software with a Graphic User Interface (GUI). This enables the user to set L99SM81VQ6 parameters and at the same time to get real time information from the device, such as voltage measurements, main power supply voltage, fault flags, device junction temperature and much more.

Product summary	
Order code	EVAL-L99SM81VQ
Reference	L99SM81VQ6 evaluation board

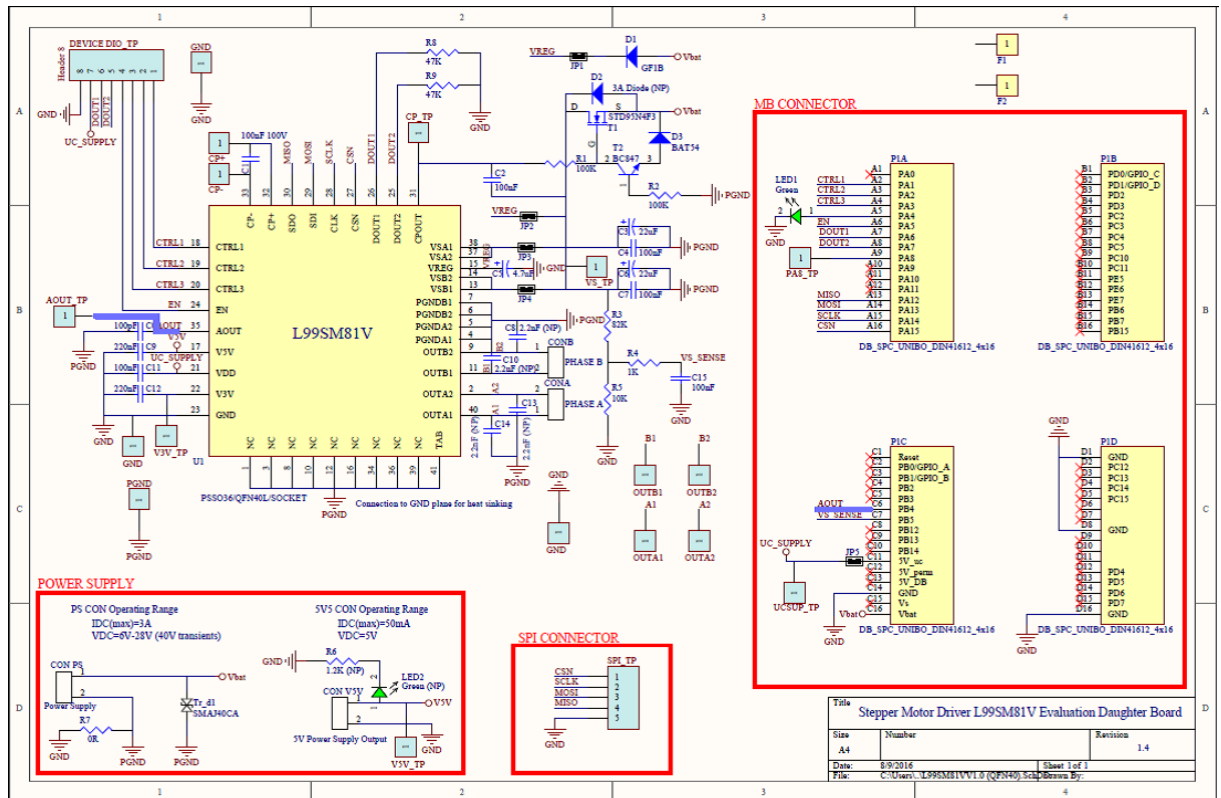
1.1 EVAL-L99SM81VQ6 daughterboard

Figure 2. Eval-L99SM81VQ bottom layer



1.2 L99SM81VQ6 schematic

Figure 3. Eval-L99SM81VQ schematic



2 Demonstration software

A software GUI (Graphical User Interface) for easy demonstration of the L99SM81VQ6 features is delivered on customer request.

3 System requirements

- Windows OS (XP, 7, 8)
- USB type B

Revision history

Table 1. Document revision history

Date	Version	Changes
17-Dec-2018	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2018 STMicroelectronics – All rights reserved

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[STMicroelectronics:](#)

[EVAL-L99SM81VQ](#)