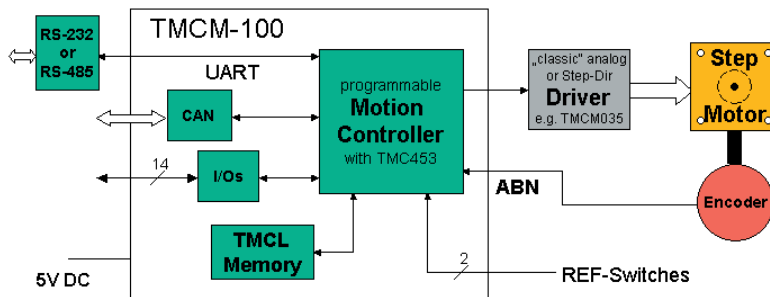


# TMCM-100

## 1-Axis Closed Loop Controller Module

The **TMCM-100** is a one axis high performance closed loop stepper motor controller module for external power drivers. The external driver can be attached via the classical analog interface or via the step & direction interface. With its very small size it is dedicated to embedded applications. The board can be connected to a baseboard or customized electronics with a pin connector. The TMCM-100 comes with the PC based software development environment TMCL-IDE for the Trinamic Motion Control Language (TMCL). Using predefined TMCL high level commands like „move to position“ or „constant rotation“, rapid and fast development of motion control applications is guaranteed. The TMCM-100 can be controlled via the serial UART interface (e.g. using a RS-232 or RS-485 level shifter) or via CAN. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation, are performed on board. The TMCL program can be stored in the on board EEPROM for stand-alone operation. The firmware of the module can be updated via the serial interface.



ORDER CODE	DESCRIPTION
TMCM-100 (-option)	1-axis Module
<i>Related products:</i>	<i>BB-100, TMCM-EVAL</i>
OPTION	
- H	horizontal pin connector (standard)
- V	vertical pin connector (on request)

### Electrical data

- 5V DC logic supply voltage
- TTL outputs
- three 8 bit DAC (0 to 2.55V) analog outputs

### Supported motors

- 2, 3, and 5 phase motors with suitable driver
- incremental encoder (2 or 3 channel)

### Interface

- RS232, RS485 or CAN host interface
- Step / Direction output for drivers (TTL/CMOS signal)
- classical analog interface for drivers
- inputs for reference and stop switches
- general purpose analog and digital I/Os

### Features

- 8 bit microstepping via analog outputs
- any resolution via Step / Direction output
- automatic S-shaped ramp generation
- closed loop for exact position maintenance or position check / retry

### Software

- stand-alone operation using TMCL or remote controlled operation
- PC-based application development software TMCL-IDE included

### Other

- 68 pin connector carries all signals
- for medical applications only (no RoHS)
- Size: 80x50mm<sup>2</sup> (credit card)

For further detailed information and datasheets please refer to our website <http://www.trinamic.com>.