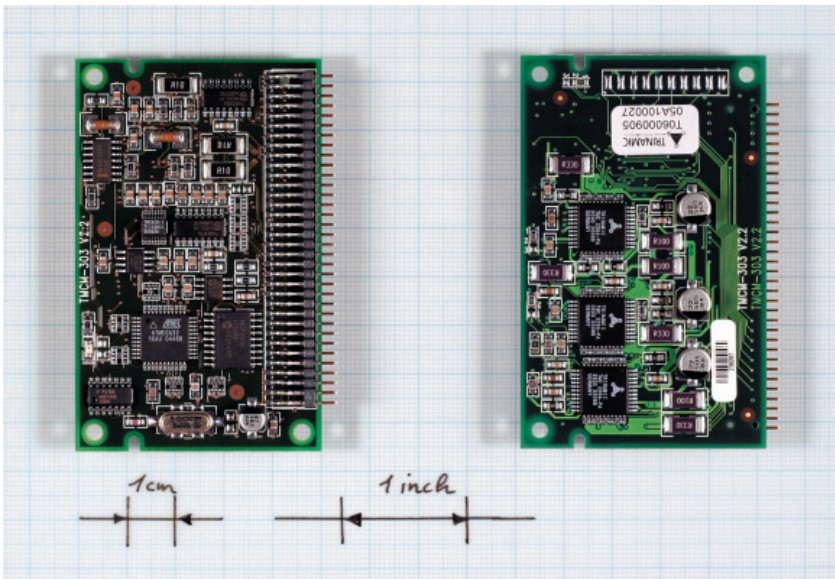




# TMCM-303



## 3-Axis Controller / Driver Module 1.1A / 34V

The **TMCM-303** is a compact and versatile triple axis 2-phase stepper motor controller and driver module. It provides a complete motion control solution at a very small size for embedded applications. Using the integrated additional I/Os it even can do complete system control applications. The board can be connected to a baseboard or customized electronics with a pin connector. The TMCM-303 comes with the PC based software development environment TMCL-IDE. Using predefined TMCL (Trinamic Motion Control Language) high level commands like „move to position“ or „constant rotation“ rapid and fast development of motion control applications is guaranteed. Host communication is possible via the serial UART interface (e.g. using a RS-232 or RS-485 level shifter) or via CAN. All time critical operations, e.g. ramp calculation are performed on board. A user 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. With the optional StallGuard feature it is possible to detect overload and stall of the motor.

**Electrical data**

- up to 1.1A coil current RMS (1.5A peak)
- 7V to 34V motor supply voltage
- 5V DC logic supply voltage

**Supported motors**

- two-phase bipolar motors with 0.3A to 1.1A coil current

**Interface**

- RS232, RS485 or CAN 2.0b host interface
- inputs for reference and stop switches
- general purpose analog and digital I/Os

**Features**

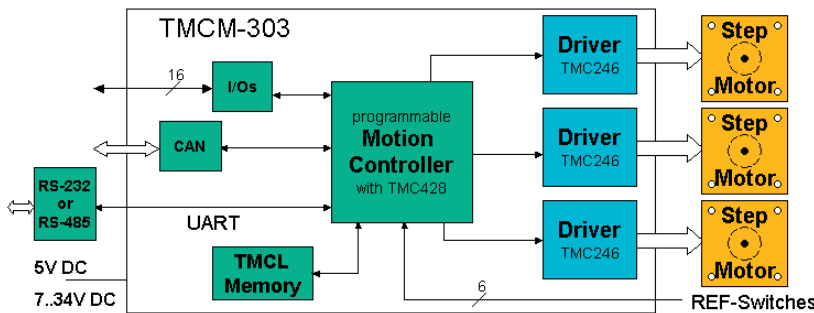
- up to 16 times microstepping
- memory for 2048 TMCL commands
- automatic ramp generation in hardware
- on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
- StallGuard™ option for sensorless motor stall detection
- full step frequencies up to 20kHz
- dynamic current control
- TRINAMIC driver technology: No heatsink required

**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
- RoHS compliant from 1 Januar 2006
- Size: 80x50mm<sup>2</sup>



ORDER CODE	DESCRIPTION
TMCM-303 (-option)	3-axis controller/driver 1.1A/34V
TMCM-303/SG (-option)	3-axis controller/driver 1.1A/34V with StallGuard
<i>Related products:</i>	<i>BB-303, TMCM-EVAL</i>
OPTION	
- H	horizontal pin connector (standard)
- V	vertical pin connector (on request)

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