10 mm

TMCM-342

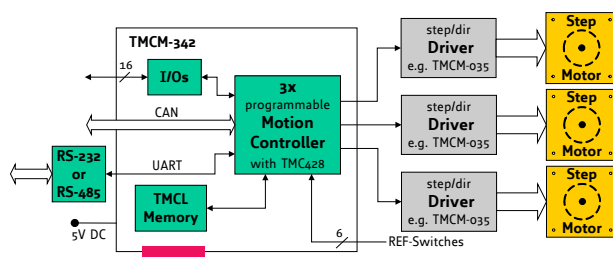### 3-Axis
Step / Direction
Controller

INFO   The TMCM-342 is a triple axis stepper motor controller module for external power drivers with step / direction interface. With its very small size it is dedicated to embedded applications, where de-centralized high power drivers are desired. The board can be connected to a baseboard or customized electronics with a pin connector. The TMCM-342 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-342 can be controlled via the serial UART interface (e.g. using a RS-232 or RS-485 level shifter), via CAN or optinal via USB. Communication traffic is kept very low since all time critical operations, e.g. ramp calculation, are performed on board. The TMCL operations can be stored in the on board EEPROM for stand-alone operation. An optional firmware allows to control the TMCM-342 via CANopen. The firmware of the module can be updated via the serial or via CAN interface.

ELECTRICAL DATA
- 5V DC logic supply voltage
- TTL / CMOS step / direction outputs

SUPPORTED DRIVERS
- step / direction drivers
  (e.g. TMC401, TMCM-013, TMCM-023, TMCM-078, IDX7505 or TMCM-171)

INTERFACE
- UART (RS-232, RS-485, up to 115200 bit/s) or CAN 2.0b host interface (up to 1 Mbit/s) or USB (optional)
- inputs for reference and stop switches
- general purpose analog and digital I/Os

FEATURES
- three motion controllers for high step frequency
- memory for 2048 TMCL commands
- ready for CANopen
- automatic ramp generation in hardware
- on the fly alteration of motion parameters (e.g. position, velocity, acceleration)
- high dynamics: step frequencies up to 300kHz
- 1.8µs step pulse length and step to direction delay

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
- size: 80 x 50 mm²

ORDER CODE	DESCRIPTION
TMCM-342 (-option)	3-axis step / direction controller module
Related products:	*BB-302, BB-323-02, TMCM-EVAL, TMCM driver with step / direction input*
OPTIONS	
H	Horizontal pin connector (standard)
V	Vertical pin connector (on request)