

TMCM-612

**6-Axis
Controller / Driver
1.1A / 34V
+ Data Acquisition**

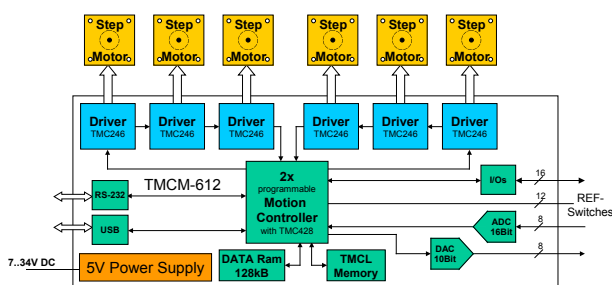
INFO The TCM-612 is a six axis 2-phase stepper motor controller and driver module with a high performance data acquisition part. The integrated 8 channel 16 bit ADC converter can be programmed to do a step-synchronous input voltage scan and store values at a high data rate. The module provides a high microstep resolution in order to do very exact positioning and measurement tasks. The measurement results can be transferred to a PC using the high-speed USB interface. A number of analog output channels and digital I/Os can be used to control further instrumentation.

This feature set makes the module pre-destined for analytical instruments.

The TCM-612 comes with the PC based software development environment TMCL-IDE for the Trinamic Motion Control Language (TMCL). User specific data acquisition extensions are available upon request. The TCM-612 can be controlled via the high-speed USB interface or via its RS-232 interface.

MAIN CHARACTERISTICS

- ELECTRICAL DATA**
 - up to 1.1A coil current RMS (1.5A peak)
 - 12V to 34V supply voltage
- SUPPORTED MOTORS**
 - two-phase bipolar motors with 0.3A to 1.1A coil current
- INTERFACE**
 - RS-232 and USB host interface
 - inputs for reference and stop switches
 - general purpose analog and digital I/Os
 - eight 16 bit ADC inputs (0...10V)
 - eight 10 bit DAC outputs (0...10V)
- FEATURES**
 - up to 64 times microstepping
 - memory for 2048 TMCL commands
 - automatic ramp generation in hardware
 - 500kHz, 16 bit AD converter
 - 128kbyte RAM for data acquisition
 - stallGuard™ 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**
 - pluggable connectors
 - RoHS compliant
 - size: 160 x 160 mm²



ORDER CODE	DESCRIPTION
TMCM-612/SG	6-axis controller/driver and data acquisition module, stallGuard™