

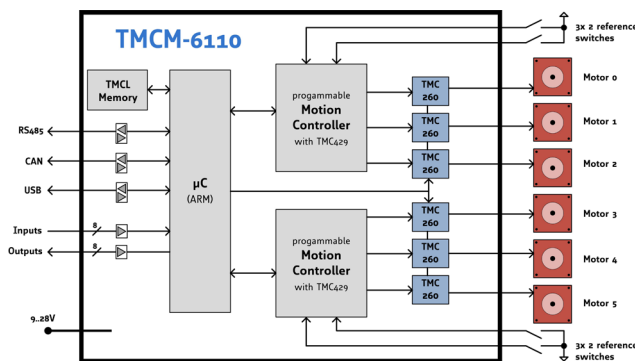
# TMCM-6110

**6-Axis  
Controller / Driver  
1.1A / 24V  
with stallGuard2™  
and coolStep™**

**INFO** The TCMC-6110 is an intelligent, compact and "ready to use" motion control solution at low cost for up to six bipolar 2-phase stepper motors. It fully supports the common and easy to use programming language TMCL™, where predefined high level motion control commands like "Move to Position" or "Constant Rotation" guarantee convenient and rapid development. Besides user programmable I/O controlled stand alone operation (onboard memory), a variety of high level interfaces allow remote controlled operation. Since all time critical operations, e.g. ramp calculation are performed onboard, the communication traffic is kept very low. Inimitable smooth, precise and fast movements are given by a resolution of up to 256 electrically equidistant microsteps and by the ultimate spreadCycle™ chopper scheme for optimal motor currents. In addition the TCMC-6110 features the following market revolutionizing technologies: stallGuard2™ can detect and monitor dynamic load changes in high resolution without the need of a sensor and it builds the basis for the automatized load dependent current control coolStep™ for energy and heat efficient motor control and unlimited motor performance.

### MAIN CHARACTERISTICS

- |                                   |  |
|-----------------------------------|--|
| <b>ELECTRICAL DATA</b>            | <ul style="list-style-type: none"> <li>• 24V DC (nom.) supply voltage</li> <li>• up to 1.1A RMS coil current (programmable)</li> </ul>   |
| <b>SUPPORTED MOTORS INTERFACE</b> | <ul style="list-style-type: none"> <li>• two-phase bipolar stepper motors</li> <li>• USB, RS485 and CAN interface</li> <li>• 2 ref. &amp; stop switches inputs per axis</li> <li>• 8 general purpose inputs</li> <li>• 8 general purpose outputs</li> </ul>  |
| <b>FEATURES</b>                   | <ul style="list-style-type: none"> <li>• up to 256 times microstepping</li> <li>• memory for up to 2048 TMCL™ commands</li> <li>• stallGuard2™ sensorless load detection</li> <li>• coolStep™ sensorless load dependent current control</li> <li>• automatic ramp generation in hardware</li> <li>• on the fly alteration of motion parameters</li> <li>• TRINAMIC driver technology: No heatsink required</li> <li>• Integrated protection: overtemperature / undervoltage</li> </ul> |
| <b>SOFTWARE</b>                   | <ul style="list-style-type: none"> <li>• stand-alone operation using TMCL™ or remote controlled operation</li> <li>• PC-based application development software</li> <li>• TMCL-IDE included</li> </ul>   |
| <b>OTHER</b>                      | <ul style="list-style-type: none"> <li>• pluggable JST connectors</li> <li>• RoHS compliant</li> <li>• size: 130 x 100 mm<sup>2</sup></li> </ul>   |



ORDER CODE	DESCRIPTION
TMCM-6110	6-axis controller / driver module 1.1A / 24V
TMCM-6110-CABLE	cable loom including all necessary cables (single ended)