

[Home](#) > [Products](#) > [Embedded Modules](#) > [TMCM-1161](#)

# Modules

## TMCM-1161

[Buy now ▶](#)

The TMCM-1161 is a single axis stepper motor controller/driver module for sensorless load dependent current control. The device is powered by Trinamic StallGuard2™, CoolStep™ and SpreadCycle™ chopper technology and has a trapezoidal ramp generator. The TMCM-1161 is capable of driving up to 4A of current from each output (with proper heatsinking). It is designed for an operating voltage of 10...30V. The device provides a RS485 and USB interface. An integrated protocol processor supplies a high level TMCL communication.

All you need to get started is a power supply and Trinamic's free and easy to use TMCL-IDE. This graphical user interface allows quick setup and supports the use of commands in direct mode, monitors real-time behavior visualized in graphs, and logs and stores data.

[More about the TMCL-IDE](#)

### Special Features

[StallGuard2™](#)[CoolStep™](#)[SpreadCycle™](#)[Technical Details ▶](#)[Block Diagram / Pinout ▶](#)[Datasheet ▶](#)[Documentation ▶](#)[Software ▶](#)[Drawings ▶](#)[PCNs ▶](#)

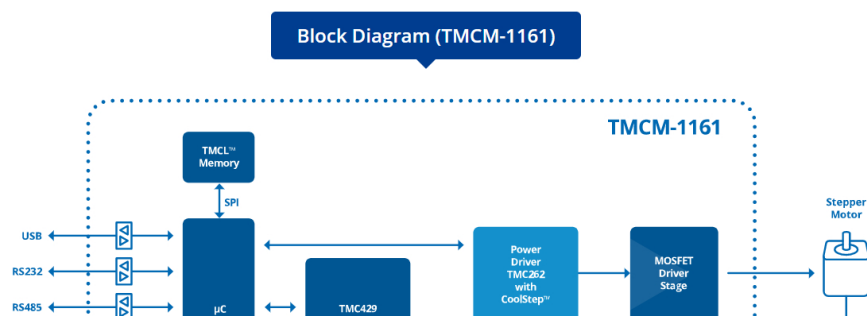
## Technical Details

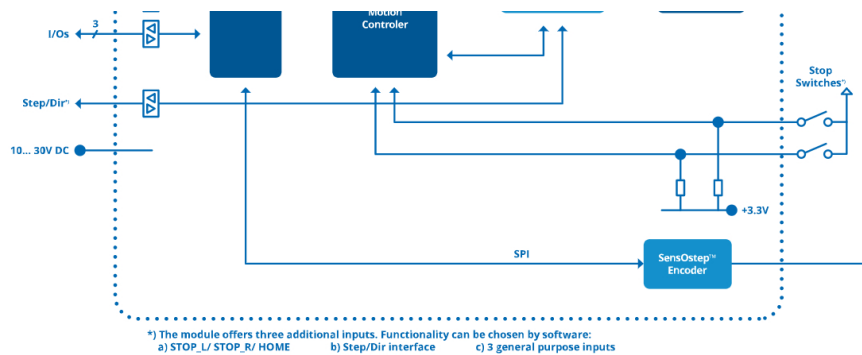


TCM-1161

|                    |          |
|--------------------|----------|
| Status             | active   |
| Axes               | 1        |
| Motor Supply       | 10...30V |
| Phase Current, RMS | 2.8A     |
| Microsteps         | 1...256  |
| RS232              | ✓        |
| RS485              | ✓        |
| USB                | ✓        |
| SensOstep™         | ✓        |
| TMCL™              | ✓        |
| trapezoidal        | ✓        |
| StallGuard2™       | ✓        |
| CoolStep™          | ✓        |
| SpreadCycle™       | ✓        |
| Width              | 60mm     |
| Length             | 60mm     |
| Height             | 12mm     |

## Block Diagram / Pinout





## Downloads

## Datasheet

| File                     | Type | Size   | Date                   |
|--------------------------|------|--------|------------------------|
| Hardware Manual Rev 1.14 |      | 850 KB | Feb 12, 2021, 10:32 AM |

## Documentation

| File                                                   | Type | Size   | Date                  |
|--------------------------------------------------------|------|--------|-----------------------|
| TMCL Firmware Manual Revision V1.09 for Firmware V1.42 |      | 1.5 MB | Jan 11, 2018, 8:22 AM |
| TMCL Firmware Manual Revision V1.08 for Firmware V1.29 |      | 1.6 MB | Nov 3, 2016, 3:21 PM  |

## Software

| File                                 | Type | Size   | Date                   |
|--------------------------------------|------|--------|------------------------|
| Setup Information (Trinamic_inf_cat) |      | 6.9 KB | Dec 12, 2017, 2:08 PM  |
| TMCL Firmware V1.42                  |      | 150 KB | Jul 20, 2017, 11:02 AM |
| TMCL Firmware V1.35                  |      | 150 KB | Nov 10, 2016, 10:33 AM |
| TMCL Firmware V1.29                  |      | 160 KB | Nov 10, 2016, 10:33 AM |
| TMCL Firmware V1.27                  |      | 160 KB | Nov 10, 2016, 10:33 AM |
| TMCL Firmware V1.24                  |      | 160 KB | Nov 10, 2016, 10:33 AM |
| TMCL Firmware V1.21                  |      | 160 KB | Nov 10, 2016, 10:33 AM |

## Drawings

| File           | Type                                                                                | Size   | Date                  |
|----------------|-------------------------------------------------------------------------------------|--------|-----------------------|
| STEP-File V1.0 |  | 1.5 MB | Jan 19, 2017, 3:13 PM |

## PCNs

| File                           | Type                                                                                | Size   | Date                  |
|--------------------------------|-------------------------------------------------------------------------------------|--------|-----------------------|
| PCN-2017-07-02 - Firmware 1.42 |  | 44 KB  | Jul 31, 2017, 7:13 AM |
| PCN Firmware V1.27             |  | 130 KB | Feb 1, 2017, 12:18 PM |

## Looking for a Custom Solution?

Save time, cost, and money with decades of experience. Using proven building blocks, Trinamic's Engineers will develop the perfect solution you need to be the market leader.

[Visit Trinamic Customs ▶](#)



## Related Products



### PD57/60-x-1161

The PANdrive PD57-1161 and PD60-1161 family is a mechatronic solution including a 57mm or 60mm flange motor, a controller board and a SensOstep™ encoder. It can be controlled via serial interface or operated in standalone mode.

[Details ▶](#)

Need Support?



From basic questions to complex issues, our experts help you find the right solution. Use the technical support form and tell us what you need to get moving.

Technical Support ▶



## Products

- Overview
- Integrated Circuits
- Embedded Modules
- Motors & Encoders
- PANdrive Smart Motors
- Evaluation Kits
- Custom Solutions

## Solutions

- Overview
- 3D Printing
- Home Automation
- Industrial Automation
- Lab Automation
- Medical & Healthcare
- Battery-Powered
- Success Stories
- White Papers
- Research

## Technology

- Overview
- What Is Motion Control
- Motor Control Technology
- Motion Control Technology
- Interfaces & Protocols

## Support

- Overview
- Technical Support
- Evaluation Kits
- Software & Tools
- Application Notes
- Technical FAQ

## Buy Here

- Distributors
- Sales Reps

## Company

- Overview
- About Trinamic
- Quality
- Careers
- Locations
- Partnerships
- News
- Events

