



TMC262

Energy Efficient
Microstep Driver
for External MOSFETs
for up to 8A
with coolStep™

INFO The **TMC262** is the first energy efficient high current high precision microstepping driver IC for bipolar stepper motors. The unique high resolution sensorless load detection **stallGuard2™** is used to for the world's first integrated load dependent current control feature called **coolStep™**. The ability to read out the load and detect an overload makes the **TMC262** an optimum choice for drives where a high reliability is desired at a low cost. The new patented **spreadCycle** PWM mixed decay chopper scheme ensures best zero crossing performance as well as high speed operation. The **TMC262** can be driven with Step & Direction signals as well as by serial SPI™ interface.

Using the **microPlyer** allows to operate the motor with highest 256 μ Step smoothness reducing the input frequency to 16 μ Steps. A full set of protection and diagnostic features makes this device very rugged. It directly drives external MOSFETs for currents of up to 8A. This way it reaches highest energy efficiency and allows driving of a high motor current without cooling measures even at high environment temperatures.

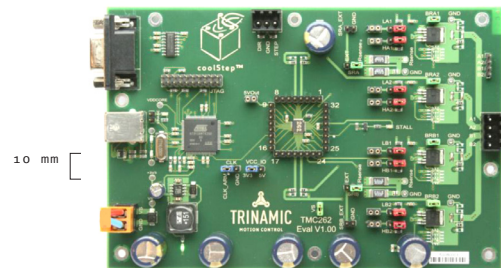
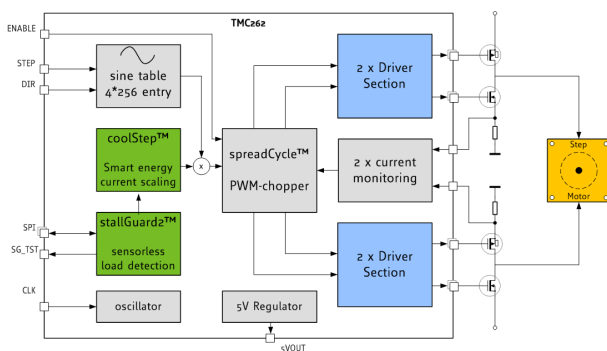
MAIN CHARACTERISTICS

- **stallGuard2™** sensorless load detection
- **coolStep™** load dependent current control
- **spreadCycle** hysteresis PWM chopper
- 256 μ Steps/fullstep (51200 pos/rev.)
- **microPlyer** 16-to-256 μ Step multiplier
- full protection and diagnostics
- lowest power dissipation
- programmable slope control for low EME
- standby and shutdown mode
- stall / load detection output
- Step & Direction
- easy-to-use SPI™ (2obit)
- up to 8A coil current (peak) with
- just 4 external dual MOSFETs
- 9V to 60V motor supply
- 3.3V or 5V operation for digital part
- QFN32 5x5 mm² chip size package
- RoHS compliant

INTERFACE

ELECTRICAL DATA

PACKAGE



ORDER CODE	DESCRIPTION
TMC262-LA	coolStep™ driver for external MOSFETs, QFN32
Related Products	
TMC262-EVAL	Evaluation board for TMC262 (RS232, USB)
TMC429+TMC26x-EVAL	Evaluation board for TMC429, TMC260, TMC261, TMC262 and TMC424