

TMC222

**Microstep
Controller / Driver
for up to 0.8A
with IIC Interface**

INFO The TMC222 is a single chip micro stepping motor driver and motion controller with integrated sequencer, bipolar stepper motor driver and two wire serial slave interface (IIC). It is specially intended for de-centralized mechatronic functions. A user-programmable OTP memory is integrated to store motor parameters and configuration settings. The TMC222 allows up to four bit of micro stepping and is capable of driving a phase current of up to 800 mA peak. After initialization, it performs all time critical tasks autonomously based on target positions and velocity parameters. Together with an inexpensive microcontroller the TMC222 forms a complete motion control system. For using the evaluation board together with the PC software a USB-2-X interface is needed.

MAIN CHARACTERISTICS

- build-in ramp generator for autonomous positioning
- programmable speed and acceleration
- on-the-fly alteration of target position
- up to 16 times microstepping
- reference switch input read out
- full protection and diagnostics
- automatic fast decay and slow decay
- low power stand-by mode

INTERFACE

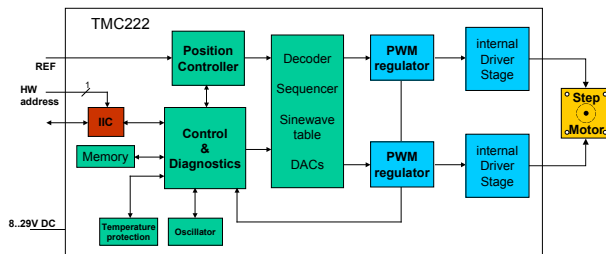
- two wire serial interface (IIC bus)
- field programmable node addresses (32)

ELECTRICAL DATA

- up to 800 mA coil current (peak)
- supply voltage 8V to 29V

PACKAGE

- standard SO20 package
- chip size QFN32 7x7 mm² package
- RoHS compliant



| ORDER CODE | DESCRIPTION |
|-------------------------|---|
| TMC222-SI | Stepper IC with I2C in SO20 package |
| TMC222-LI | Stepper IC with I2C in QFN32 package |
| TMC222-EvalBoard | Evaluation board for TMC222 |
| Related product: | USB-2-X V2 interface converter, TCM-Motor |