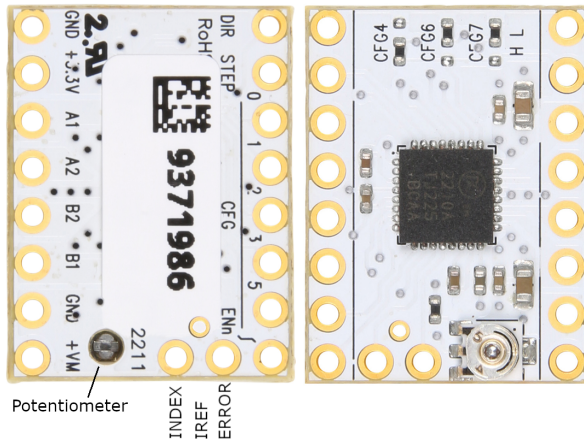


TMC2210STEPSTICK User Guide

Hardware Version V1.00 | 19-101828, Rev 0, 12/23

Module Top/Bottom View



Features and Additional Resources

- TMC2210 Stepper Motor Driver
- Supply Voltage 4.5V to 36V
- I_{phase} up to $2.0A_{RMS}$
- 1...256 Microsteps
- **StealthChop2** Silent PWM Mode
- **StallGuard4** Sensorless Motor Load Detection
- Control through STEP&DIR Interface
- Board Width 0.6", Board Height 0.8"
- 2 x 8 Pin 0.1" Header Rows for Pins/Connectors
- Link to [Additional Information and IC Data Sheet](#)

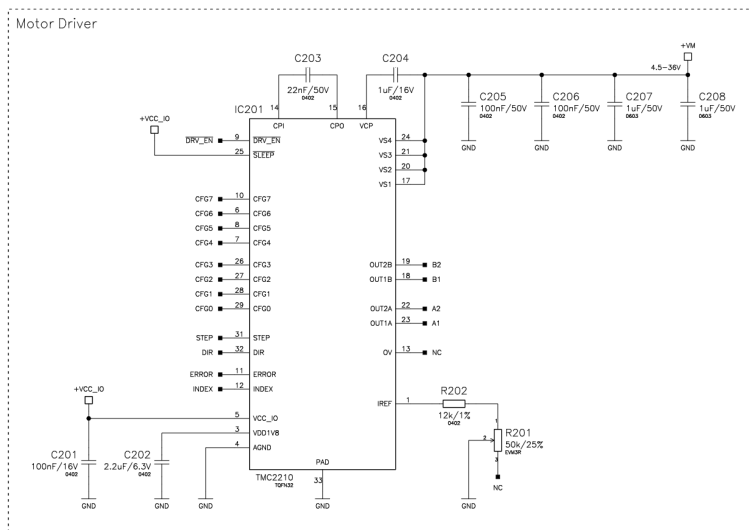
Pin List

Pin	Left Header	Right Header
1	GND	Dir
2	VIO (+3.3V)	Step
3	M1A (Motor Phase A)	CFG0
4	M2A (Motor Phase A)	CFG1
5	M2B (Motor Phase B)	CFG2
6	M1B (Motor Phase B)	CFG3
7	GND	CFG5
8	VM	DRV_ENn
TP	INDEX	ERROR

Bill of Materials

Pcs.	Value	Footprint	Description
3	0R	0402	Resistor
1	12k/1%	0402	Resistor
1	50k/25%	POT_EVM3R	Potentiometer
1	1 μ F, 16V	0402	Capacitor
2	1 μ F, 50V	0603	Capacitor
1	2.2 μ F, 6.3V	0402	Capacitor
1	22n, 50V	0402	Capacitor
1	100nF, 16V	0402	Capacitor
2	100nF, 50V	0402	Capacitor
1	TMC2210	TQFN32	TRINAMIC Stepper Motor Driver

Schematic



Pin Configuration

CFG1	CFG0	Microstep Resolution
Low	Low	8 microsteps
Low	High	16 microsteps
High	Low	32 microsteps
High	High	64 microsteps
CFG3	CFG2	Run Current
Low	Low	1A Peak
Low	High	2A Peak
High	Low	3A Peak
High	High	not used (3A Peak)
CFG4	Digital Current Scale	
Low	2A Peak	
High	3A Peak	
CFG5	Chopper Mode	
Low	SpreadCycle	
High	StealthChop	
CFG7	CFG6	Hold Current Reduction
Low	Low	No Reduction
Low	High	Reduction to 50%
High	Low	Reduction to 25%
High	High	Reduction to 12.5%

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