



# TRINAMIC TMC2225-BOB Breakout Board Installation Guide

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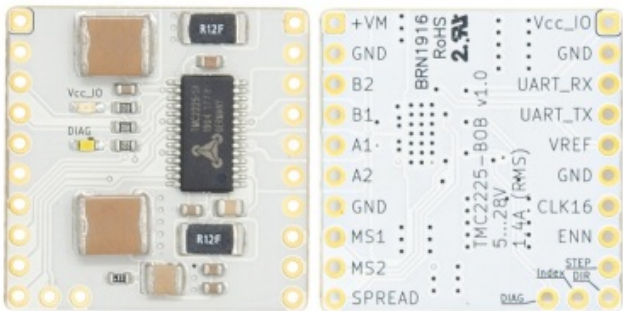
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TMC2225-BOB

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Module Top View

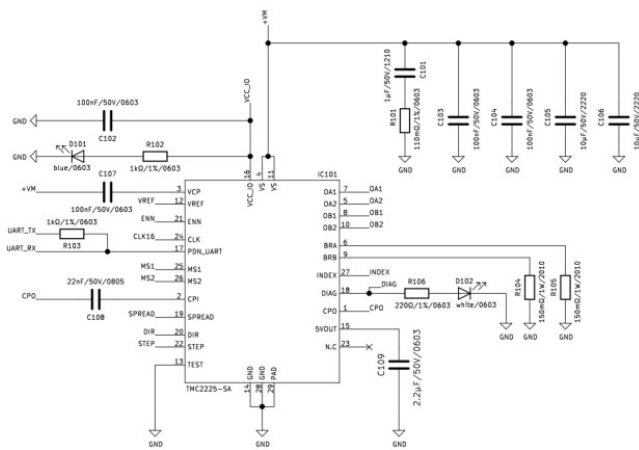


Pin List

| Left | Signal | Right | Signal |
|------|--------|-------|--------|
| 1    | VCC_IO | 11    | +VM    |
| 2    | GND    | 12    | GND    |

|    |         |    |                    |
|----|---------|----|--------------------|
|    |         |    |                    |
| 3  | UART_RX | 13 | B2 (Motor Phase B) |
| 4  | UART_TX | 14 | B1 (Motor Phase B) |
| 5  | VREF    | 15 | A1 (Motor Phase A) |
| 6  | GND     | 16 | A2 (Motor Phase A) |
| 7  | CLK16   | 17 | GND                |
| 8  | ENN     | 18 | MS1                |
| 9  | STEP    | 19 | MS2                |
| 10 | DIR     | 20 | SPREAD             |
|    |         |    |                    |
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## Schematics



## Features and additional Resources

- TMC2225-SA stepper motor driver
- Supply voltage 5-28V
- $I_{phase}$  up to 4A<sub>RMS</sub>
- Quiet operation with StealthChop™
- Configuration and extended diagnostics via UART
- Control via Step&Dir interface
- Board width 0", board height 1.0"
- 2×10 pin 1" header rows for pins/connectors
- [Link to additional information and IC data sheet](#)

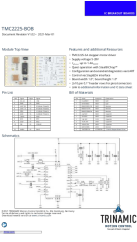
## Bill of Materials

| Pcs. | Value         | Footprint | Description                   |
|------|---------------|-----------|-------------------------------|
| 1    | blue/0603     | 0603      | LED                           |
| 1    | white/0603    | 0603      | LED                           |
| 1    | R0603/0R11/1% | 0603      | Resistor                      |
| 2    | R0603/1k/1%   | 0603      | Resistor                      |
| 1    | R0603/220R/1% | 0603      | Resistor                      |
| 1    | 2u2/50V       | 0603      | Capacitor                     |
| 1    | 22n/50V       | 0603      | Capacitor                     |
| 1    | 1uF, 50V      | 1210      | Capacitor                     |
| 2    | 10uF, 50V     | 2020      | Capacitor                     |
| 4    | 100nF, 50V    | 0603      | Capacitor                     |
| 2    | R2010/0R15    | 2010      | Resistor                      |
| 1    | TMC2225-SA    | HTSSOP28  | Trinamic Stepper Motor Driver |

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