

Hookup Guide - TMC6300 BLDC Motor Driver

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1. Getting Started

1.1 Introduction

Brushless Motor Driver - 3 Phase (TMC6300)

SKU: ROB-21867



Product Video

The TMC6300 from [ADI + Trinamic](#) is a powerful and easy to use three phase motor driver that was designed to control our [Brushless Gimbal Motor](#). However, it can be used to control any 3-phase [BLDC](#) or [PMSM](#) motor with up to 2A ($1.4A_{RMS}$) of total drive current. Separate high-side and low-side control of the three half-bridges allows for incredible control of each phase of the [motor commutation](#). The driver also provides temperature and short circuit protections; and a diagnostic output to indicate system faults. With a 1.8V regulated power output and an operating voltage down to 2V, the TMC6300 is suitable for low-power microcontroller and battery powered designs (min. 2 AA/NiMh cells, or 1-2 Li-Ion cells).

Our board layout has been designed with the LEDs and labels facing up,