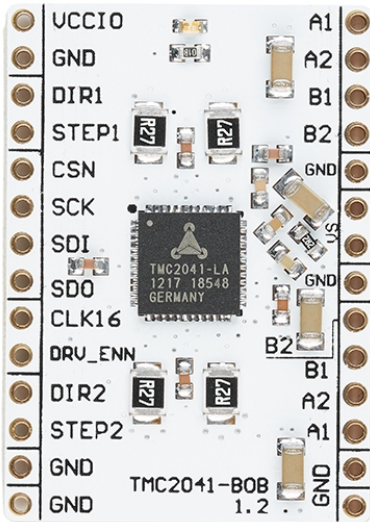


# TMC2041-LA BOB Description

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## Module Top View



## Features and additional Resources

- TMC2041-LA stepper driver
- Supply voltage 5-26V,  $I_{phase,RMS}$  up to 2x1.1A
- Config via SPI, control via step/direction
- Use off-board electrolyte cap with your supply
- Optional cooling using bottom side with gap pad
- Board width 1.0", board height 1.4"
- 2x14 pin 0.1" header rows for pins/connectors
- Link to [additional information and IC Datasheet](#)
- Link to [Evaluation Kit](#)

## Pin List

Left	Signal	Right	Signal
1	VCCIO (3.3V or 5V)	15	O1A1 (Motor Axis 1)
2	GND	16	O1A2
3	DIR1	17	O1B1
4	STEP1	18	O1B2
5	CSN (active low)	19	GND
6	SCK (up to 6MHz with external CLK)	20	VS (5-26V)
7	SDI (data in)	21	VS (5-26V)
8	SDO (data out)	22	GND
9	CLK16 (pull to GND for internal CLK)	23	O2B2 (Motor Axis 2)
10	DRV_ENN (active low)	24	O2B1
11	STEP2 (on V1.2 this is labelled wrong as DIR2)	25	O2A2
12	DIR2 (on V1.2 this is labelled wrong as STEP2)	26	O2A1
13	GND	27	GND
14	GND	28	GND

## Bill of Materials

Pcs.	MPN	Value	Footprint	Description
1	MC0603B223K500CT	22nF	0603	Cap, Multicomp
5	MC0603F104M500CT	100nF	0603	Cap, Multicomp
1	MC0603X474K160CT	470nF	0603	Cap, Multicomp
1	MC0603X475K100CT	4.7uF	0603	Cap, Multicomp
4	MC1206X106K250CT	10uF	1206	Cap, Multicomp
1	LTST-C191TBKT-5A	20mA,2.8V,465nm	0603	LED, Lite-On
1	TMC2041-LA	TMC2041-LA	QFN48,7x7,0.5	Driver,TRINAMIC
4	RCWE1206R270FKEA	0R27,1%R1206	1206	Res, Vishay
1	MC0063W0603110K	2R2,1%	0603	Res, Multicomp
1	MC0063W060311K	1k	0603	Res, Multicomp



## BOB Schematics

