

VCC_IO

GND

SDO

SDI

SCK

CSN

GND

DRV_ENN

CLK16

SG_TST

D1

R5

C5

C1

C6

R1

R2

R4

R3

TMC2660_BOB_V1.2

IC1

C2

C11

C7

C8

C9

C3

C10

VS

GND

A1

A2

B1

B2

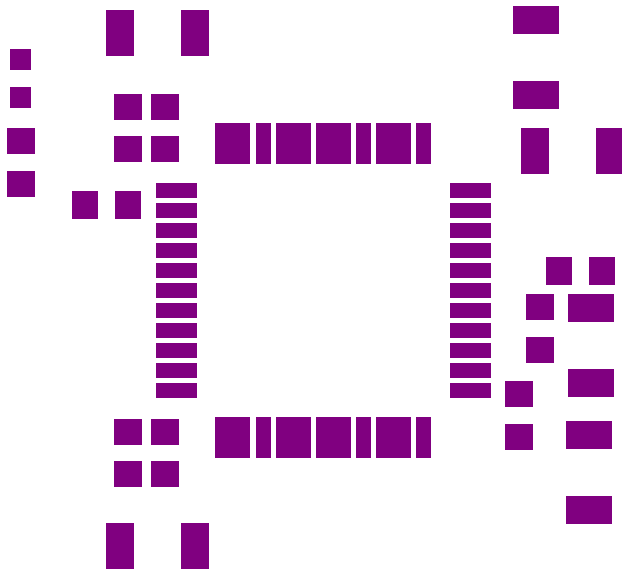
GND

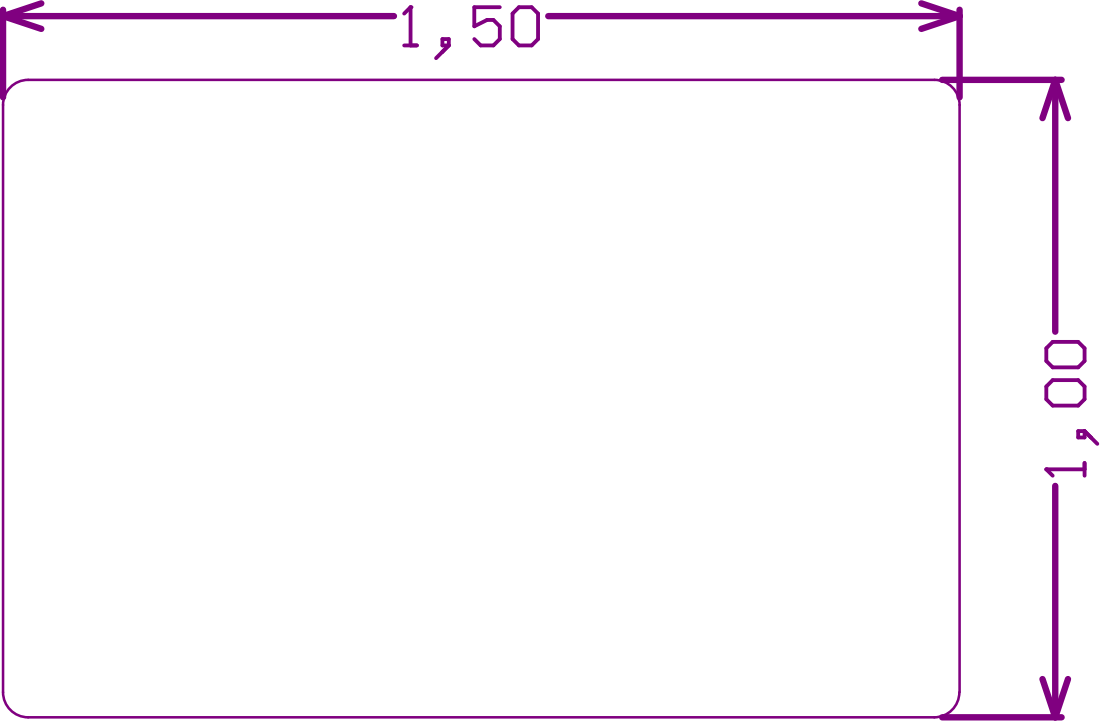
STEP

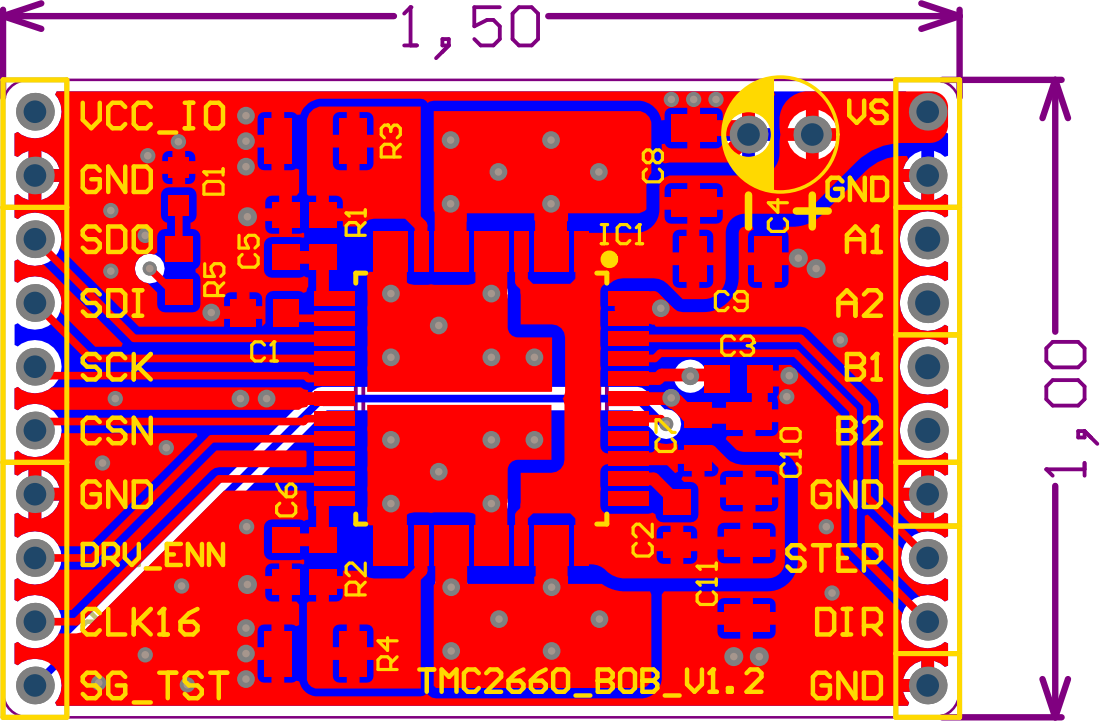
DIR

GND

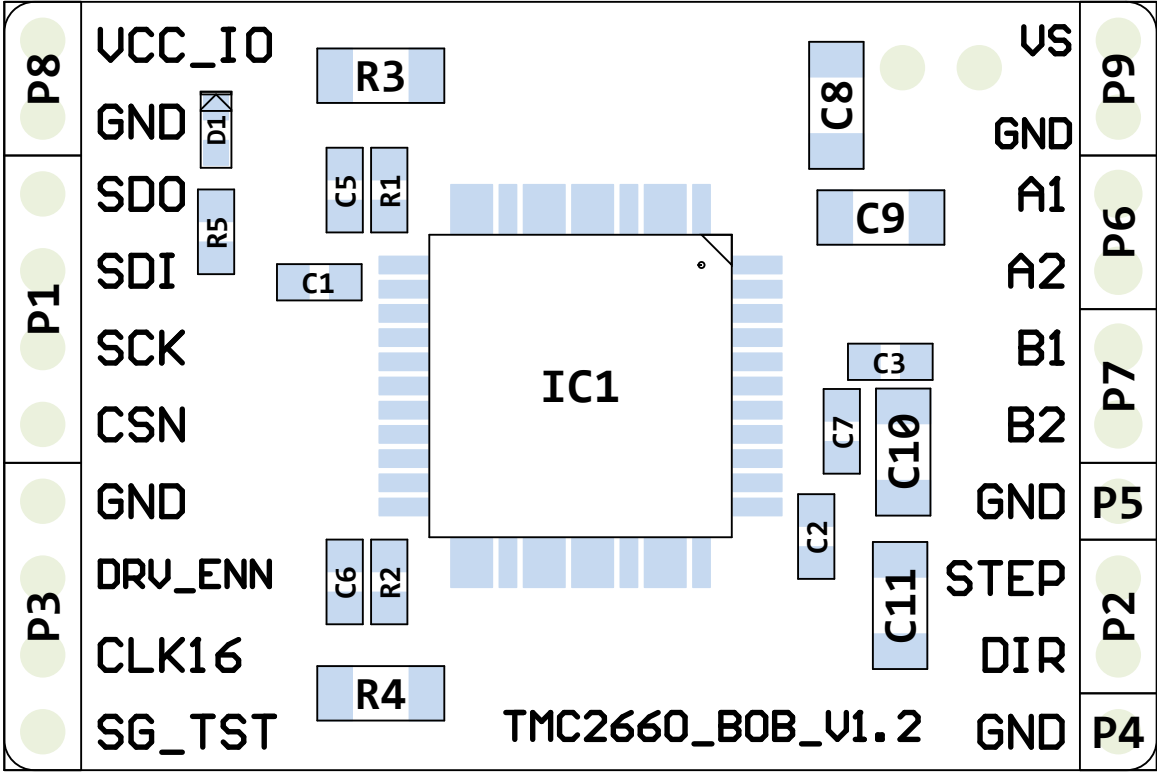
VS		VCC_IO
GND		GND
A1		SDO
A2		SDI
B1		SCK
B2		CSN
GND		GND
STEP	TMC2660_BOB_V1.2	DRV_ENN
DIR	IC name: TMC2660-PA Supply range: VS = 9...30V	CLK16
GND	Max. current: IRMS = 2A	SG_TST



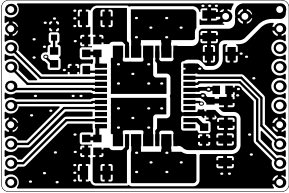




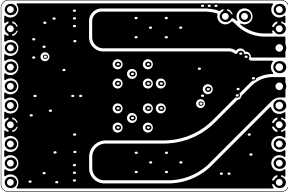
View from Top side (Scale 4:1)



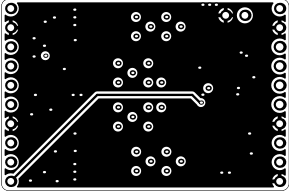
Top (Scale 1:1)



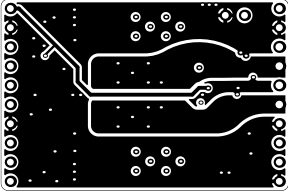
GND1 (Scale 1:1)

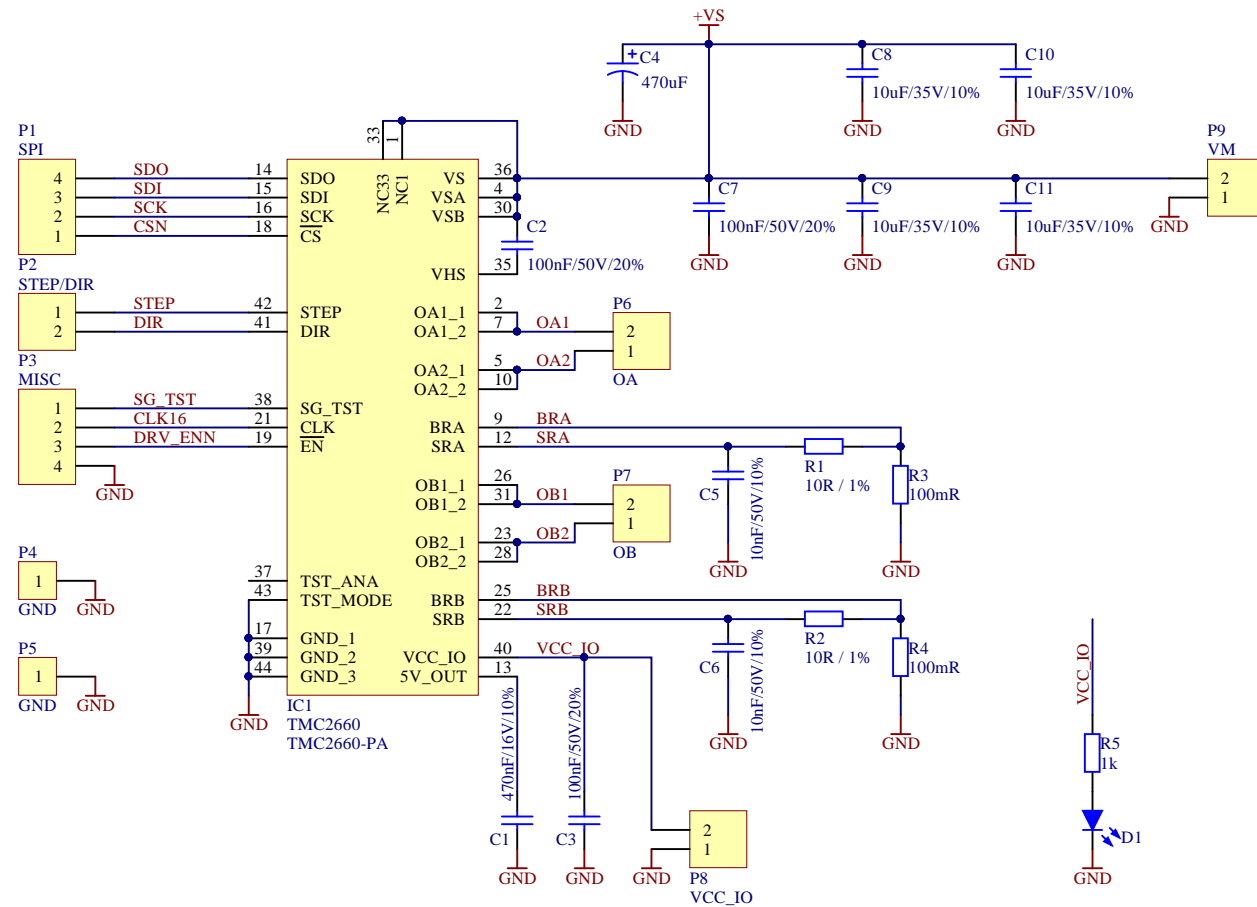


Bottom (Scale 1:1)



GND2 (Scale 1:1)





Title TMC2660_BOB		
Size A4	Number	Revision 1.2
Date: 18.07.2017	Sheet of	
File: C:\Users\...\TMC2660_BOB_V1_2.SchDoc	Drawn By:	

Drawn By:

ChangeLog

V1.0 - Initial design

V1.1 - Redesign and Optimization after 1st Round

- + Added 2 additional 10uF ceramic caps.
- + Added two solder holes +/- for an optional 470µF Elko
- + Added bottom side labels (IC Name, Supply range, Max. current):
TMC2660-PA, VS = 9...30V, IRMS = 2A
- + Changed sense Rs to 100mOhm for 3A peak
- + Changed left connector: pin 1 = VCCIO, pin 2 = GND
STEP and DIR had to be moved to the right connector.
- + Changed right connector: signals starting from top: VS / GND / A1 / A2 / B1 / B2.
- + Changed silkscreen text width from 5mil to 7mil.
- + Changed board name text height to 35mil.

V1.2 - Changed pin hole diameters from 0.9mm to 1mm for headers P6 (OA) and P7 (OB).

Title			<i>TMC2660_BOB</i>		
Size	Number			Revision	
A4				<i>1.2</i>	
Date:	18.07.2017			Sheet	of
File:	C:\Users\...\ChangeLog.SchDoc			Drawn By:	

BOM

Project: TMC2660_BOB

Version: 1.2

Date: 18.07.2017

#	Quantity	MPN	Comment	Designator	Footprint	Description	Note	MF
1	1	MC0603X474K160CT	470nF/16V/10%	C1	C0603	Ceramic capacitor		Multicomp
2	3	MC0603F104M500CT	100nF/50V/20%	C2, C3, C7	C0603	Ceramic capacitor		Multicomp
3	2	MC0603B103K500C	10nF/50V/10%	C5, C6	C0603	Ceramic capacitor		MULTICOMP
4	4	GRM31CC8YA106KA12L	10uF/35V/10%	C8, C9, C10, C11	C1206	Ceramic capacitor		MURATA
5	1	LTST-C191TBKT-5A	LED, Blue, SMD, 20mA, 2.8V, 465 nm	D1	LED_0603	LED, Blue, SMD, 20mA, 2.8V, 465 nm		Lite-On
6	1	TMC2660-PA	TMC2660	IC1	TMC26x_PQFP44_0.8_10X10_TMC236	coolStep™ driver with Step/Dir Interface and SPI, up to 30V, internal MOSFET for up to 4 A, PQFP-44		TRINAMIC
7	2	MCWR06X10R0FTL	10R / 1%	R1, R2	R0603	SMD Chip Resistor, Thick Film, 10 ohm, 50 V, 0603 [1608 Metric], 100 mW, ± 1%, MCWR Series		Multicomp
8	2	ERJ8BWFR100V	100mR / 1W / 1%	R3, R4	R1206	SMD Current Sense Resistor, 0.1 ohm, 1 W, 1206 [3216 Metric], ± 1%, ERJ8B Series		PANASONIC ELECTRONIC COMPONENTS
9	1	MC0063W060311K	1k	R5	R0603	1 kohm, 50 V, 0603 [1608 Metric], 63 mW, ± 1%, MC Series		MULTICOMP

Approved	Notes	26

