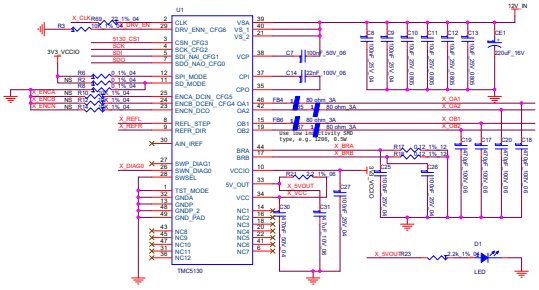
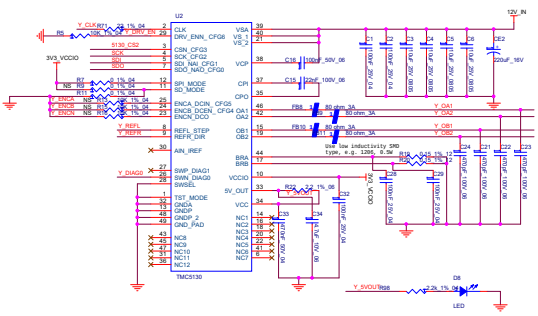
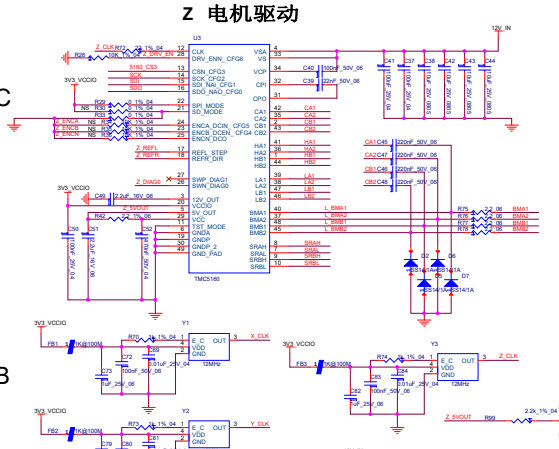
X 电机驱动



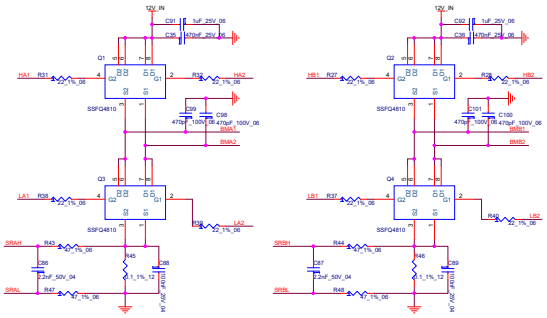
Y 电机驱动

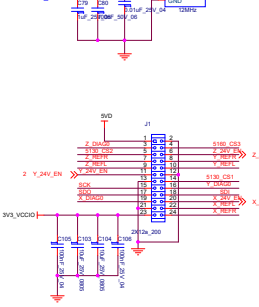


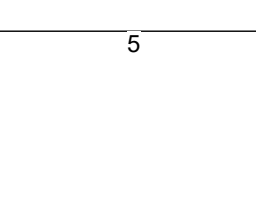
Z 电机驱动

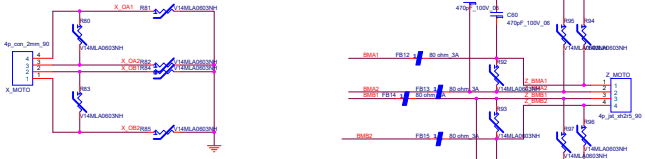


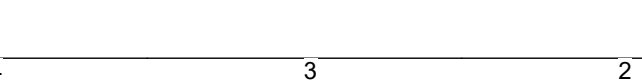
470pF close to bridge reduce ringing and improve EMC











TMC5130电机电流感应电阻：

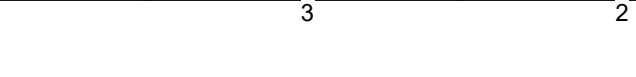
CHOICE OF R_{SENSE} AND RESULTING MAX. MOTOR CURRENT		
R_{SENSE} [Ω]	*RMS current [A] (CS=31, vsense=0)*	*RMS current [A] (CS=31, vsense=1)*
1.00	0.23	0.12
0.82	0.27	0.15
0.75	0.30	0.17
0.68	0.33	0.18
0.50	0.44	0.24
0.47	0.47	0.26
0.33	0.66	0.36
0.27	0.79	0.44
0.22	0.96	0.53
0.15	1.35	0.75
0.12	1.64	0.91
0.10	1.92*)	1.06

*) Value exceeds upper current rating.

TMC5160电机电流感应电阻：

R_{SENSE} 的阻值和 GLOBALSCALER=255 时对应的最大电机电流		
R_{SENSE} [Ω]	*RMS 电流[A] (CS=31)*	*正弦波峰值电流 [A] (CS=31)*
0.22	1.1	1.5
0.15	1.6	2.2
0.12	2.0	2.8
0.10	2.3	3.3
0.075	3.1	4.4
0.066	3.5	5.0
0.050	4.7	6.6
0.033	7.1	10.0
0.022	10.6	15.0

型号 MODEL	保持转矩 HOLDING TORQUE N · m	oz-in	额定电流 RATED CURRENT A/PHASE	相电阻 RESISTANCE Ω/PHASE	相电感 INDUCTANCE (PINS) mH/PHASE
J-4218HBR1401	0.31	44	1.4	2.3	3.8
J-4218HBR2401	0.46	65	1.7	2.1	4
J-4218HBR3401	0.60	85	1.96	1.9	4
J-4218HBR4401	0.89	126	2.3	1.6	4



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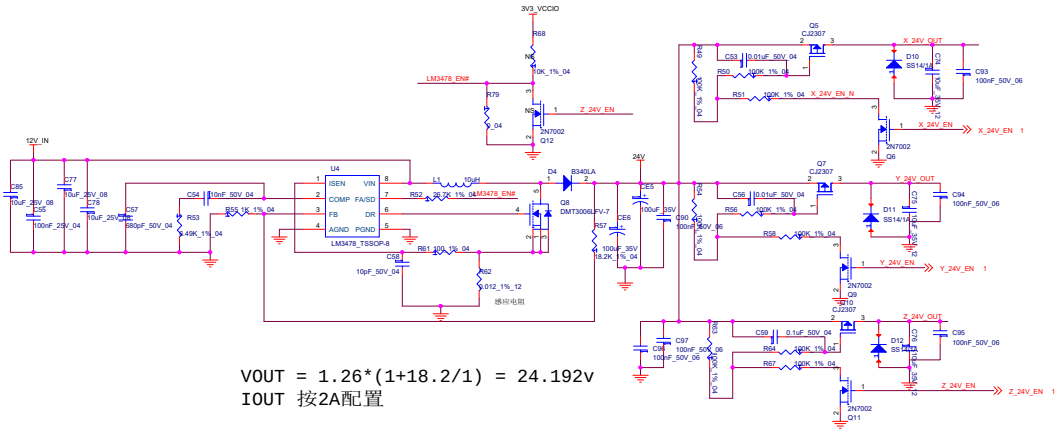
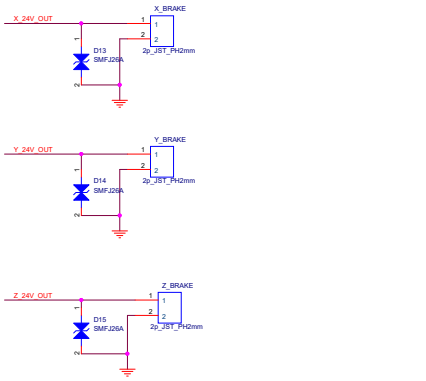
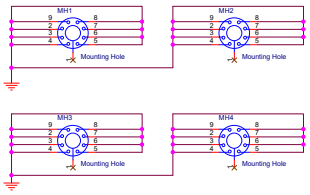
Size A2	Document Number <Doc>
Rev	<RevCode>
Date: Friday, April 10, 2020	Sheet 1 of 2



VOUT = 1.26*(1+18.2/1) = 24.192v
IOUT 按2A配置





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Date: Wednesday, April 08, 2020	Sheet 2 of 2	