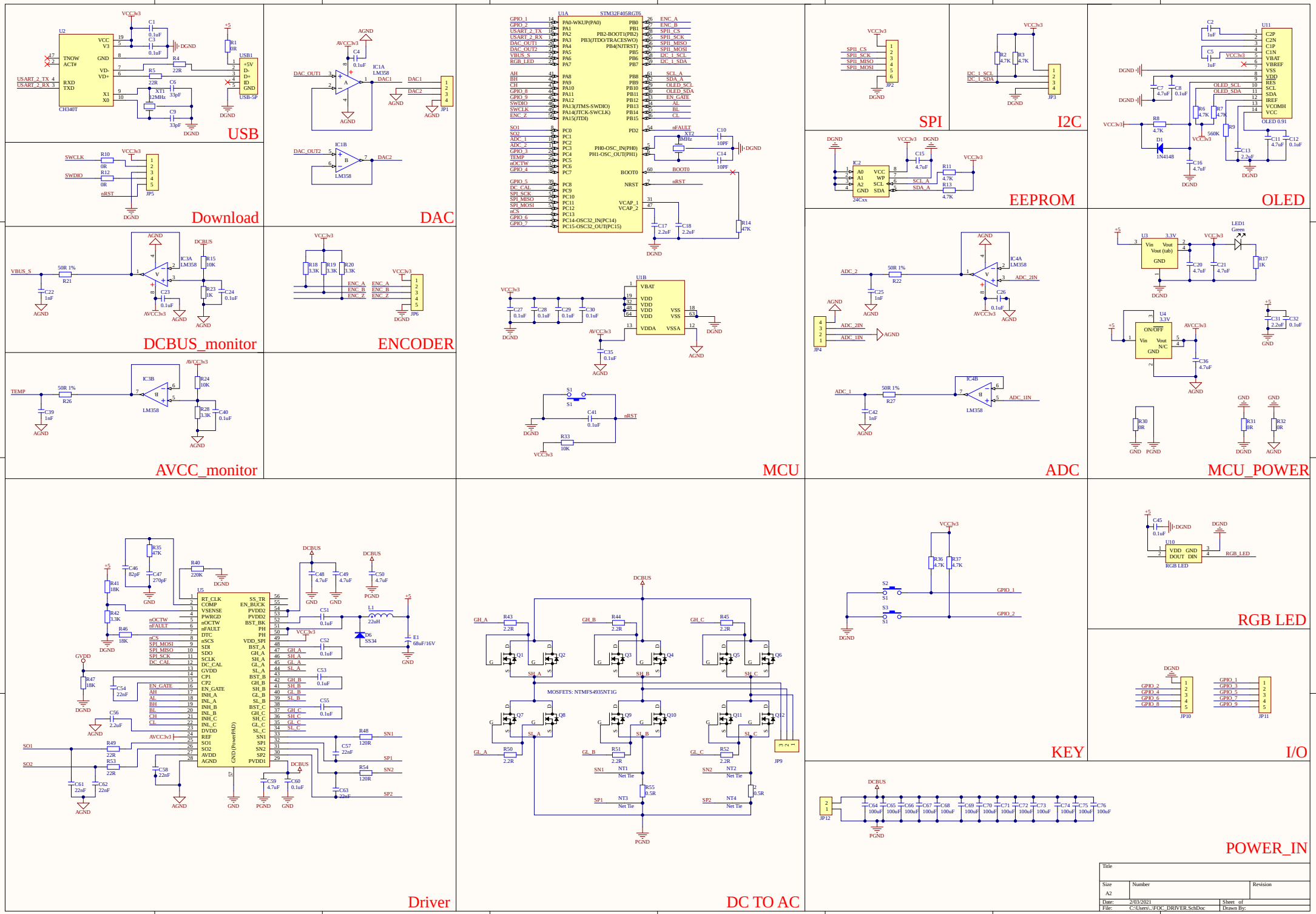
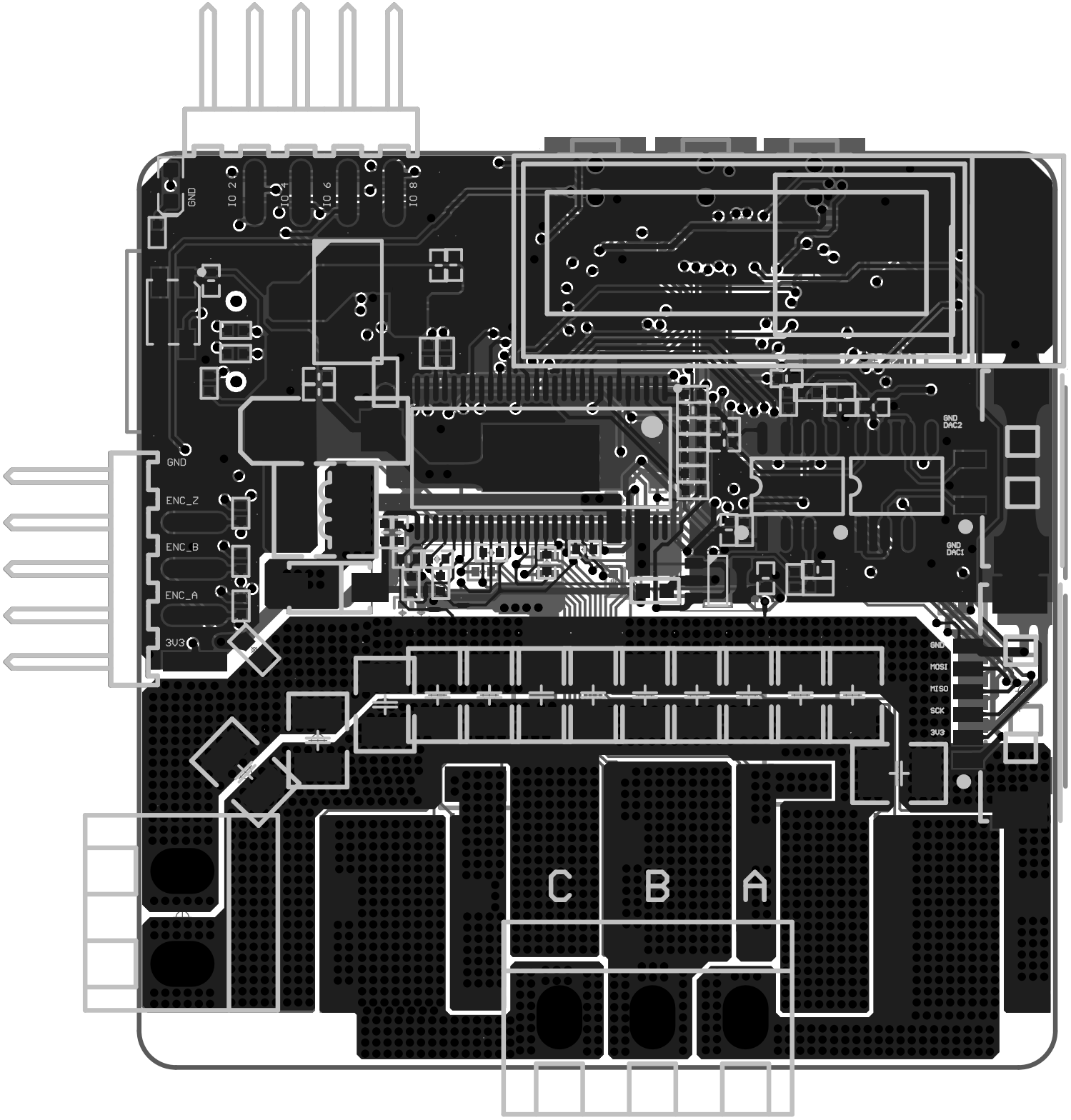

USB
Download
DAC
DCBUS_monitor
ENCODER
AVCC_monitor
MCU
SPI
I2C
EEPROM
OLED
ADC
MCU_POWER
RGB LED
KEY
I/O
POWER_IN
Driver
DC TO AC
Title
Size
A2
Number
Revision
Date: 2/03/2021
Sheet of
File: C:\Users\...\FOC_DRIVER.SchDoc
Drawn By:


GND
IO 2
IO 4
IO 6
IO 8
GND
ENC_Z
ENC_B
ENC_A
3V3
GND
DAC2
GND
DAC1
GND
MOSI
MISO
SCK
3V3
C
B
A

Comment	Description	Designator	Footprint	LibRef	Quantity
0.5R	贴片电阻	2, R55	R 2512_L	R	2
0.1uF	无极性贴片电容	C1, C3, C4, C8, C12, C23, C24, C26, C27, C28, C29, C30, C32, C35, C40, C41, C45, C51, C52, C53, C55, C60	C 0402_L	C	22
1uF	无极性贴片电容	C2, C5	C 0402_L	C	2
33pF	无极性贴片电容	C6, C9	C 0402_L	C	2
4.7uF	无极性贴片电容	C7, C11, C15, C16, C20, C21, C36, C48, C49, C50, C59	C 0402_L	C	11
10PF	无极性贴片电容	C10, C14	C 0402_L	C	2
2.2uF	无极性贴片电容	C13, C17, C18, C31, C56	C 0402_L	C	5
1nF	无极性贴片电容	C22, C25, C39, C42	C 0402_L	C	4
82pF	无极性贴片电容	C46	C 0402_L	C	1
270pF	无极性贴片电容	C47	C 0402_L	C	1
22nF	无极性贴片电容	C54, C57, C58, C61, C62, C63	C 0402_L	C	6
100uF	无极性贴片电容	C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76	C 1210_L	C	13
1N4148	高速开关二极管	D1	SOD-323	1N4148	1
SS34	肖特基二极管	D6	DO214_SMA	SS34	1
68uF/16V	贴片钽电容	E1	CD C(6032)	C-CD	1
LM358	双路运放	IC1, IC3, IC4	SOP8_N	LM358	3
24Cxx	外置EEPROM	IC2	SOP8_L	24Cxx	1
HDR-1X4	4P接插件	JP1, JP3, JP4	MX 1.25-WS-4P	Header 4	3
HDR-1X6	6P接插件	JP2	MX 1.25-WS-6P	Header 6	1
HDR-1X5	5P接插件	JP5, JP6, JP10, JP11	HDR2.54-WS-5P	Header 5	4
HDR-1X3	3P接插件	JP9	KF128-5.08-3P	Header 3	1
HDR-1X2	2P接插件	JP12	KF128-5.08-2P	Header 2	1
22uH	贴片功率电感	L1	CD42	L-CD	1
Green	LED GREEN CLEAR 0603 SMD	LED1	LED-0603-GREEN	LTST-C190KGKT	1
	MOSFET N-CH 30V 13A SO8FL	Q1, Q3, Q5, Q7, Q8, Q9, Q10, Q11, Q12	SO8FL	NTMFS4935NT1G	9
FILL_FOOTPRINT	MOSFET N-CH 30V 13A SO8FL	Q2, Q4, Q6	SO8FL	NTMFS4935NT1G	3
0R	贴片电阻	R1, R10, R12	R 0402_L	R	3
4.7K	贴片电阻	R2, R3, R6, R7, R8, R11, R13, R36, R37	R 0402_L	R	9
22R	贴片电阻	R4, R5, R49, R53	R 0402_L	R	4
560K	贴片电阻	R9	R 0402_L	R	1
47K	贴片电阻	R14, R35	R 0402_L	R	2
10K	贴片电阻	R15, R24, R33	R 0402_L	R	3
1K	贴片电阻	R17, R23	R 0402_L	R	2
3.3K	贴片电阻	R18, R19, R20, R28, R42	R 0402_L	R	5
50R 1%	贴片电阻	R21, R22, R26, R27	R 0402_L	R	4
0R	贴片电阻	R30, R31, R32	R 0603_L	R	3
220K	贴片电阻	R40	R 0402_L	R	1
18K	贴片电阻	R41, R46, R47	R 0402_L	R	3
2.2R	贴片电阻	R43, R44, R45, R50, R51, R52	R 0402_L	R	6
120R	贴片电阻	R48, R54	R 0402_L	R	2
S1	轻触按键2P	S1, S2, S3	SW-SMD_TS-1066B-B3D2	KEY_2P	3
	ARM Cortex-M4 32-bit MCU+FPU, 210 DMIPS, 1024 kB Flash, 192 kB Internal RAM, 51 I/Os, 64-pin LQFP, -40 to 85 degC, Tray	U1	STM-LQFP64_N	STM32F405RGT6	1
CH340T		U2	CH340T	CH340T	1
3.3V	IC REG LDO 3.3V 1A SOT223	U3	SOT223	AZ1117EH-3.3TRG1	1
3.3V	IC REG LDO 3.3V 0.25A SOT23-5	U4	SOT23-5	LP5907MFX-3.3/NOPB	1
	MOTOR DRIVER, 3PH, 56HTSSOP	U5	TSSOP50P810X120_HS-57N	DRV8301	1
RGB LED		U10	LED 3528-4Pin	RGB LED	1
OLED 0.91		U11	OLED-SMD_QG-2832XXX	OLED 0.91	1
USB-5P	微型USB母座	USB1	USB-MINI-A	USB-5P	1
8 MHz	Crystal 8MHz ± 10ppm 10pF 200 Ohm -10°C ~ 60°C Surface Mount 4-SMD, No Lead (DFN, LCC)	XT1, XT2	OSC 3225-4P	ABM3B-8.000MHZ-10-1-U-T	2