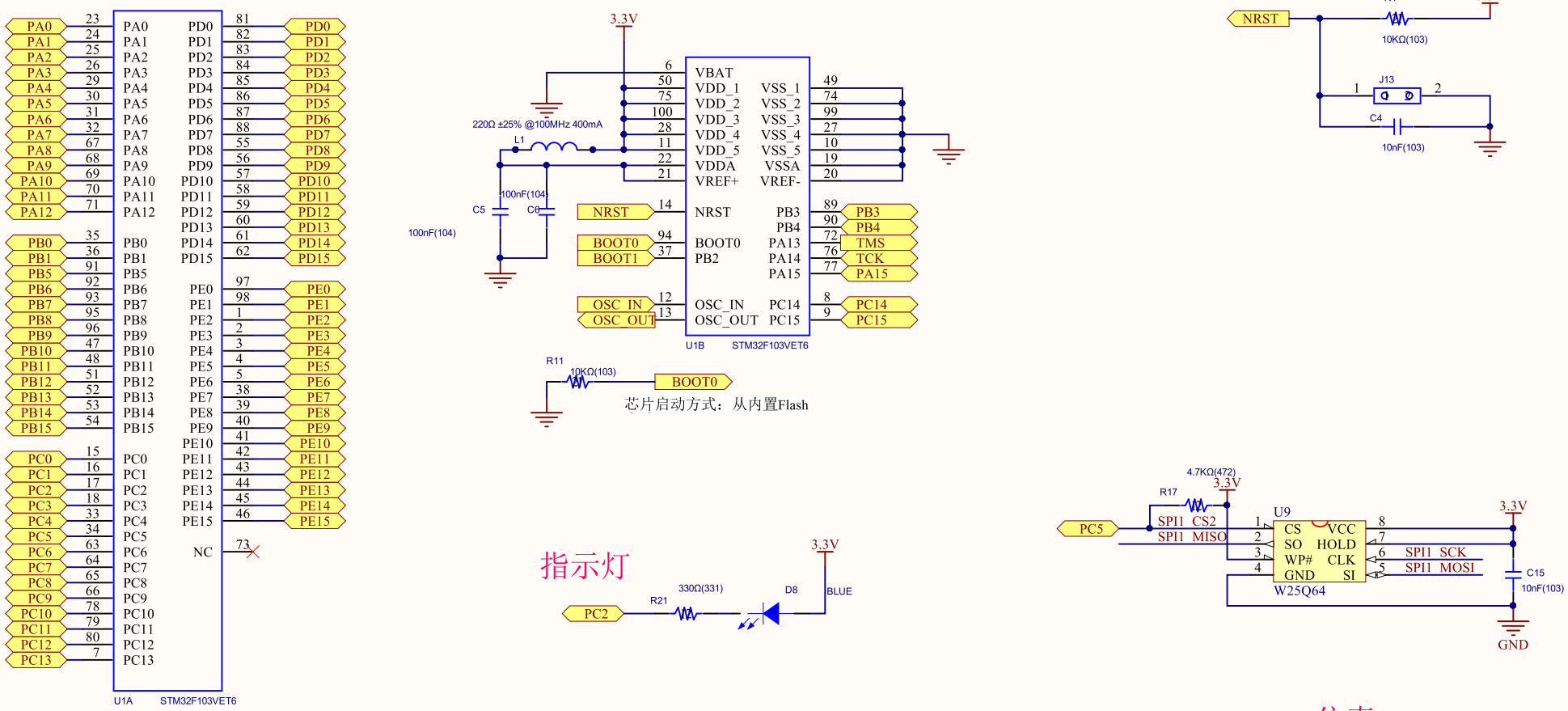
PA0 PA1 PA2 PA3 PA4 PA5 PA6 PA7 PA8 PA9 PA10 PA11 PA12
PB0 PB1 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15
PC0 PC1 PC2 PC3 PC4 PC5 PC6 PC7 PC8 PC9 PC10 PC11 PC12 PC13
PD0 PD1 PD2 PD3 PD4 PD5 PD6 PD7 PD8 PD9 PD10 PD11 PD12 PD13 PD14 PD15
PE0 PE1 PE2 PE3 PE4 PE5 PE6 PE7 PE8 PE9 PE10 PE11 PE12 PE13 PE14 PE15
NC
U1A STM32F103VET6
3.3V
220Ω ±25% @100MHz 400mA
L1
100nF(104)
C5
C6
VBAT VDD_1 VDD_2 VDD_3 VDD_4 VDD_5 VDDA VREF+
VSS_1 VSS_2 VSS_3 VSS_4 VSS_5 VSSA VREF-
NRST BOOT0 BOOT1 PB2 OSC_IN OSC_OUT
PB3 PB4 PA13 PA14 PA15 PC14 PC15
U1B STM32F103VET6
R11
10KΩ(103)
BOOT0
芯片启动方式：从内置Flash
NRST
R1
10KΩ(103)
J13
C4
10nF(103)
指示灯
PC2
R21
330Ω(331)
D8
BLUE
4.7KΩ(472)
R17
PC5
SPI1_CS2
SPI1_MISO
U9
CS SO WP# GND VCC HOLD CLK SI
SPI1_SCK
SPI1_MOSI
W25Q64
C15
10nF(103)
GND
3.0MM
N1
N2
N3
N4
C10 C11 C12 C13 C14
靠近芯片的VDD_n引脚放置0.1uF电容
C17
20pF(200)
C19
20pF(200)
OSC_IN
OSC_OUT
Y1
HC-49US 8MHZ 20PF 20PPM
板材:FR-4
阻焊颜色:黑色
板厚:1.6mm
铜箔厚度：35um
字符颜色:白色
过孔属性:过孔盖油
焊盘喷镀:无铅喷锡
ULINK仿真
TMS
TCK
NRST
SWDIO
SWCLK
J1
2.54X5
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Size A4
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Date: 2018/7/30
Sheet of
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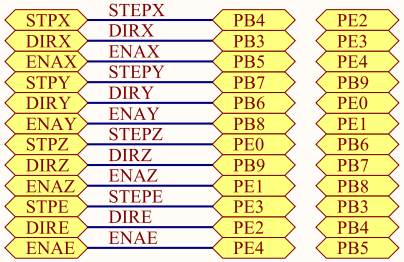
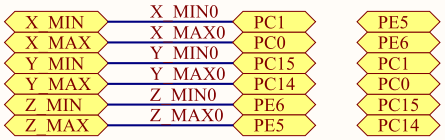
Drawn By:

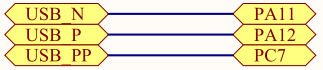
MOTOR



LIMIT SENSOR



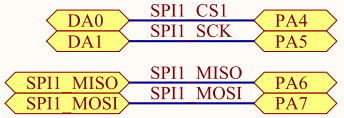
USB



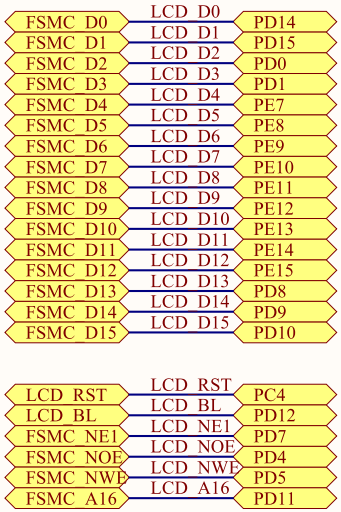
HEATER

TEMPERATURE SENSOR

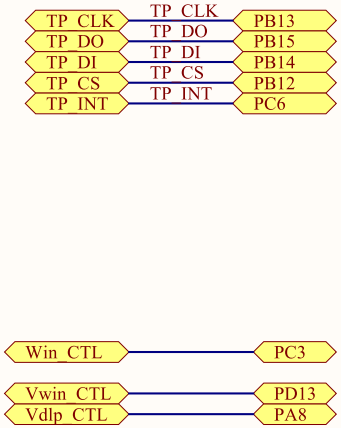
DAC OUT/SPI1



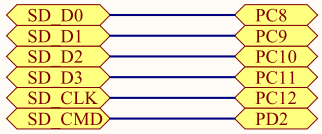
LCD



TOUCH PANEL



TFCARD



USART

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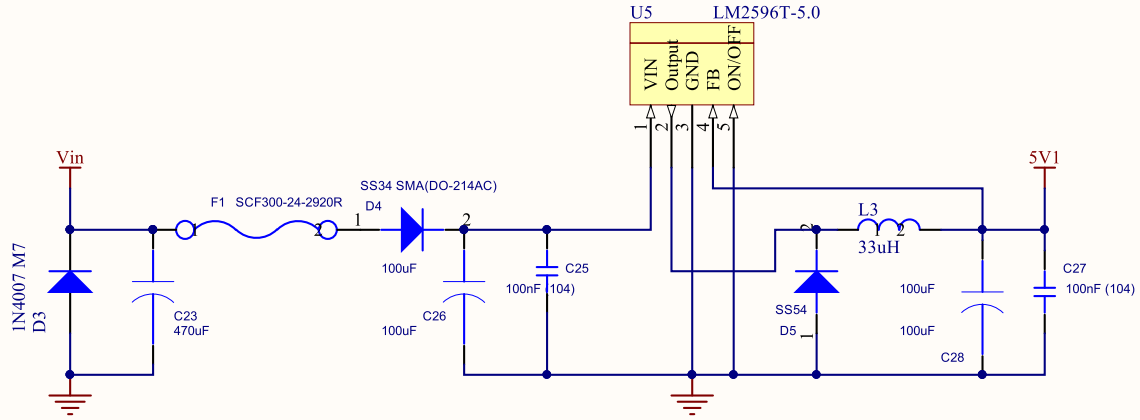
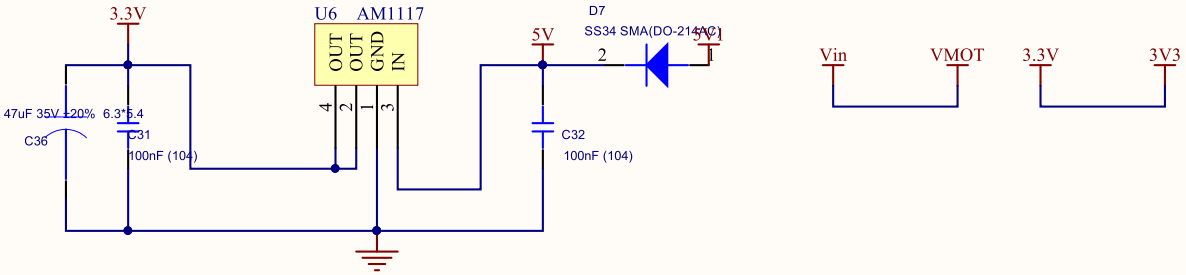
外接开关

12V/24V -> 5V



5V->3.3V



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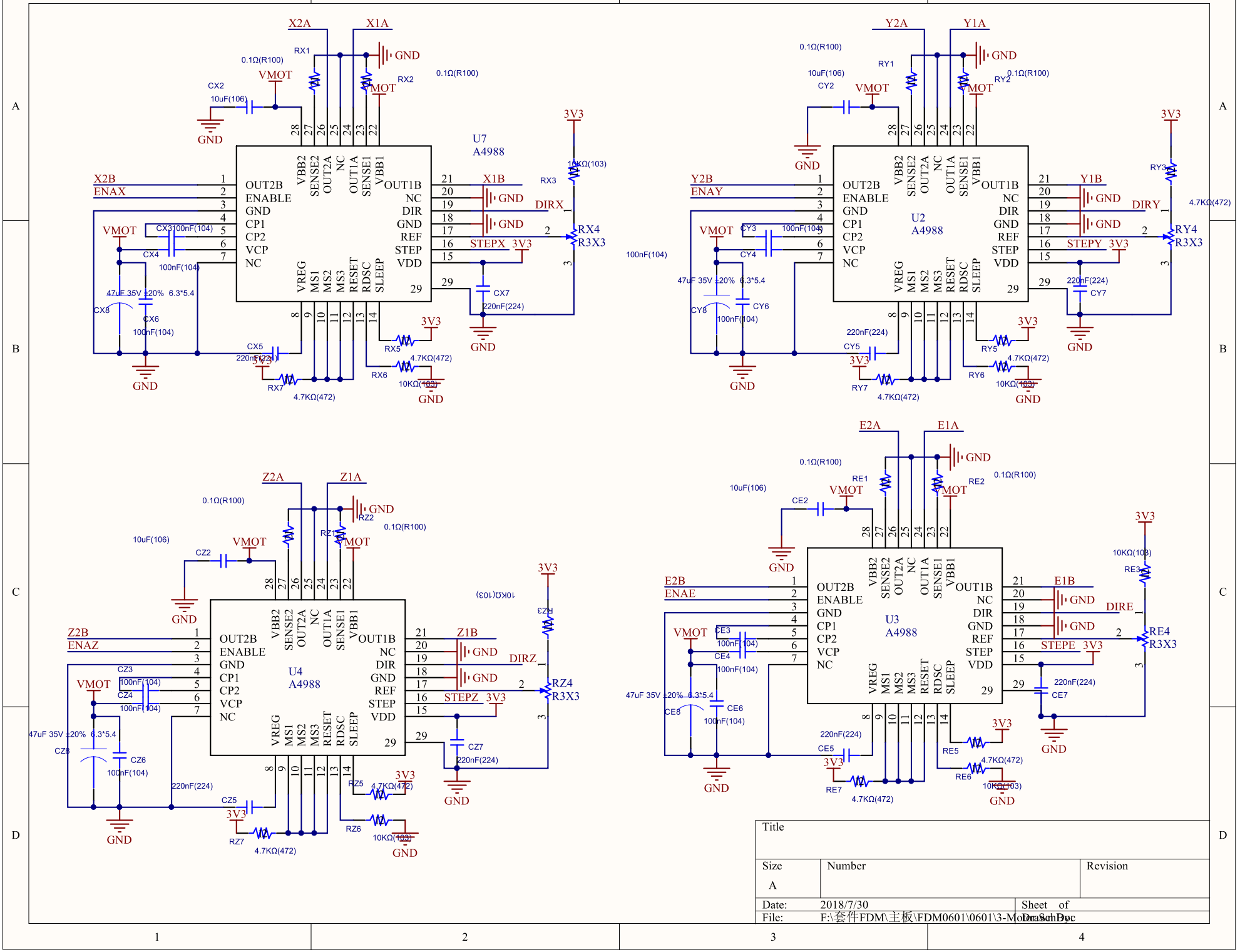
X2A
X1A
RX1
0.1Ω(R100)
GND
VMOT
RX2
CX2
10uF(106)
U7
A4988
X2B
ENAX
OUT2B
ENABLE
GND
CP1
CP2
VCP
NC
VBB2
SENSE2
OUT2A
NC
OUT1A
SENSE1
VBB1
OUT1B
NC
DIR
GND
REF
STEP
VDD
VREG
MS1
MS2
MS3
RESET
RDSC
SLEEP
X1B
DIRX
STEPX
3V3
RX3
10KΩ(103)
RX4
R3X3
CX3100nF(104)
CX4
100nF(104)
47uF 35V ±20% 6.3*5.4
CX8
CX6
CX5
220nF(224)
RX7
4.7KΩ(472)
RX5
RX6
Y2A
Y1A
RY1
RY2
CY2
Y2B
ENAY
U2
Y1B
DIRY
STEPY
RY3
RY4
CY3
CY4
CY8
CY6
CY5
RY5
RY6
RY7
Z2A
Z1A
RZ1
RZ2
CZ2
Z2B
ENAZ
U4
Z1B
DIRZ
STEPZ
RZ3
RZ4
CZ3
CZ4
CZ8
CZ6
CZ5
RZ5
RZ6
RZ7
E2A
E1A
RE1
RE2
CE2
E2B
ENAE
U3
E1B
DIRE
STEPE
RE3
RE4
CE3
CE4
CE8
CE6
CE5
RE5
RE6
RE7
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2018/7/30
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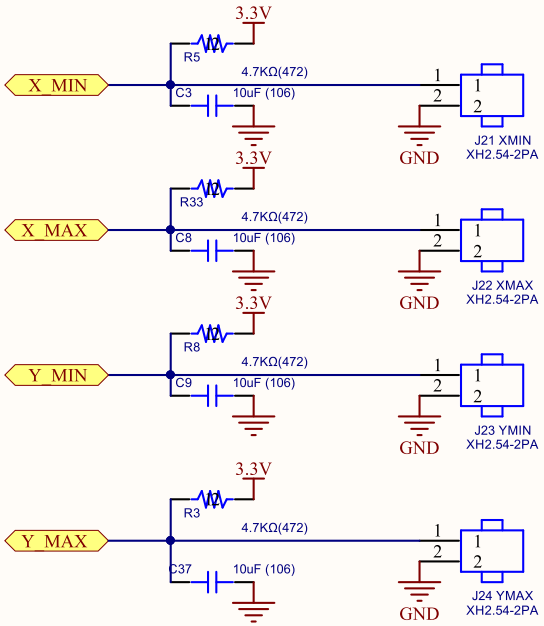

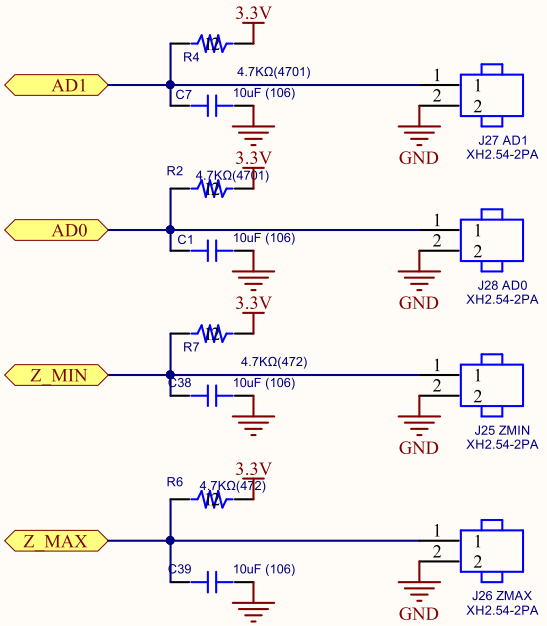

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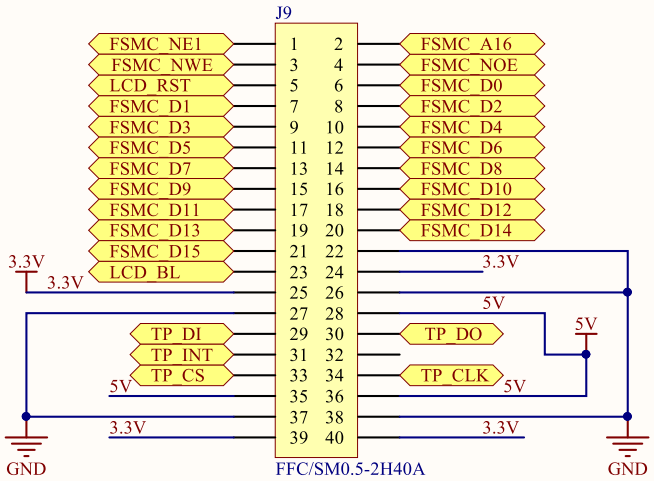

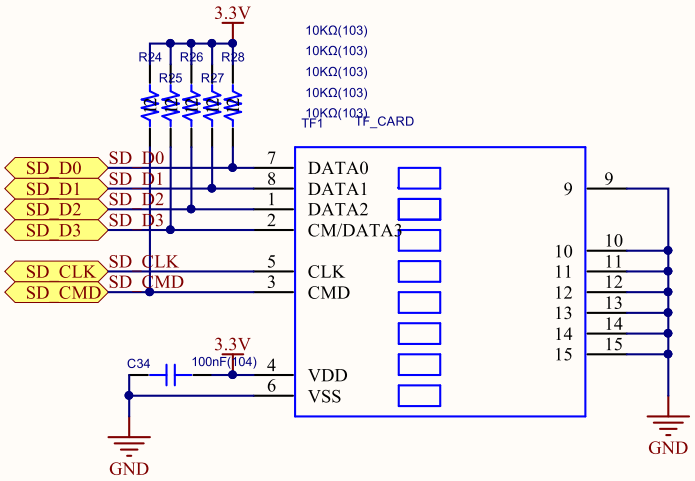

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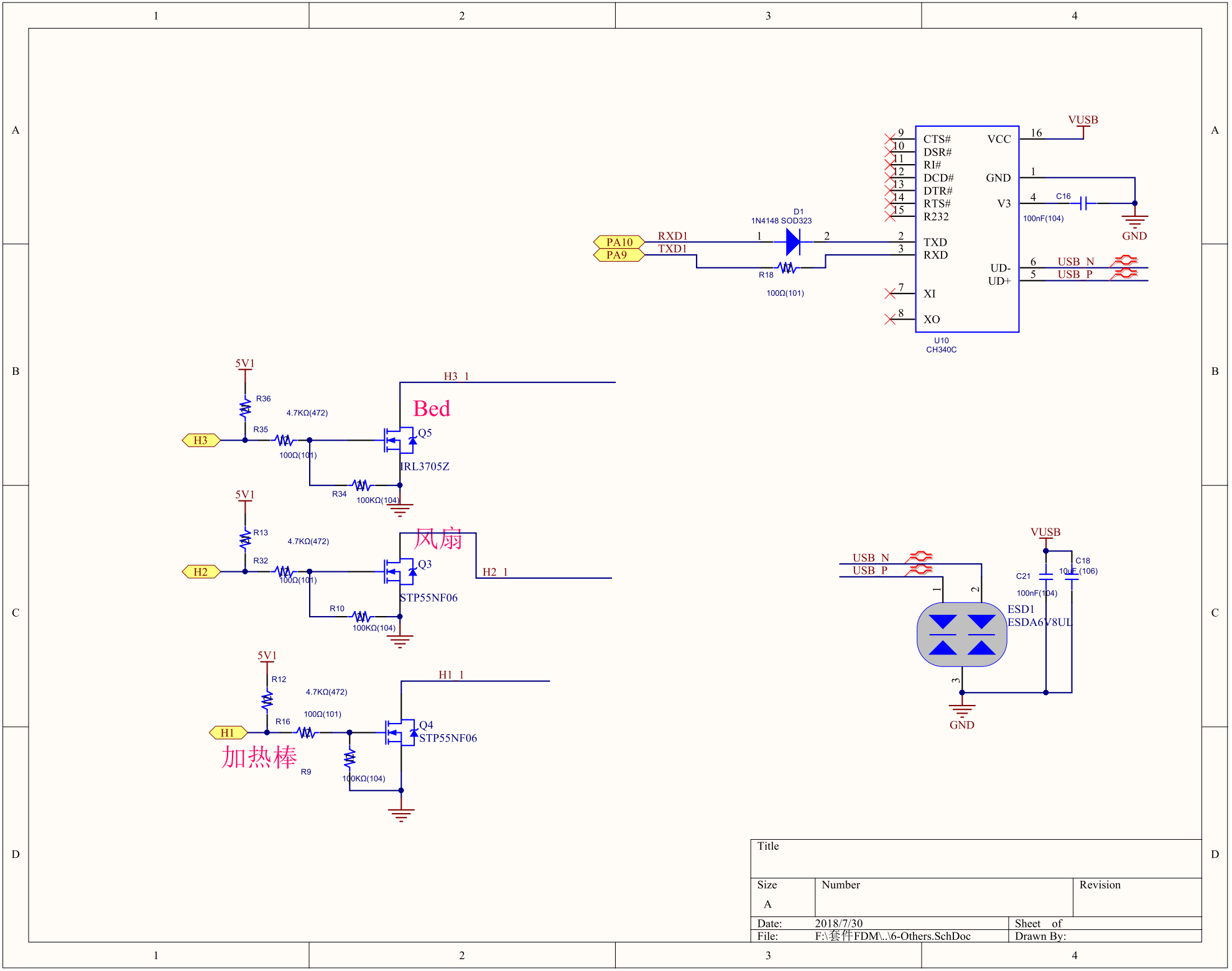
1
2
3
4
A
B
C
D
VUSB
CTS#
DSR#
RI#
DCD#
DTR#
RTS#
R232
VCC
GND
V3
TXD
RXD
UD-
UD+
XI
XO
U10
CH340C
16
1
4
C16
100nF(104)
GND
6
5
USB_N
USB_P
9
10
11
12
13
14
15
7
8
D1
1N4148 SOD323
PA10
PA9
RXD1
TXD1
R18
100Ω(101)
5V1
R36
4.7KΩ(472)
R35
H3
100Ω(101)
H3_1
Bed
Q5
IRL3705Z
R34
100KΩ(104)
R13
H2
R32
风扇
Q3
STP55NF06
H2_1
R10
R12
H1
R16
H1_1
Q4
STP55NF06
加热棒
R9
USB_N
USB_P
C21
100nF(104)
C18
10uF(106)
ESD1
ESDA6V8UL
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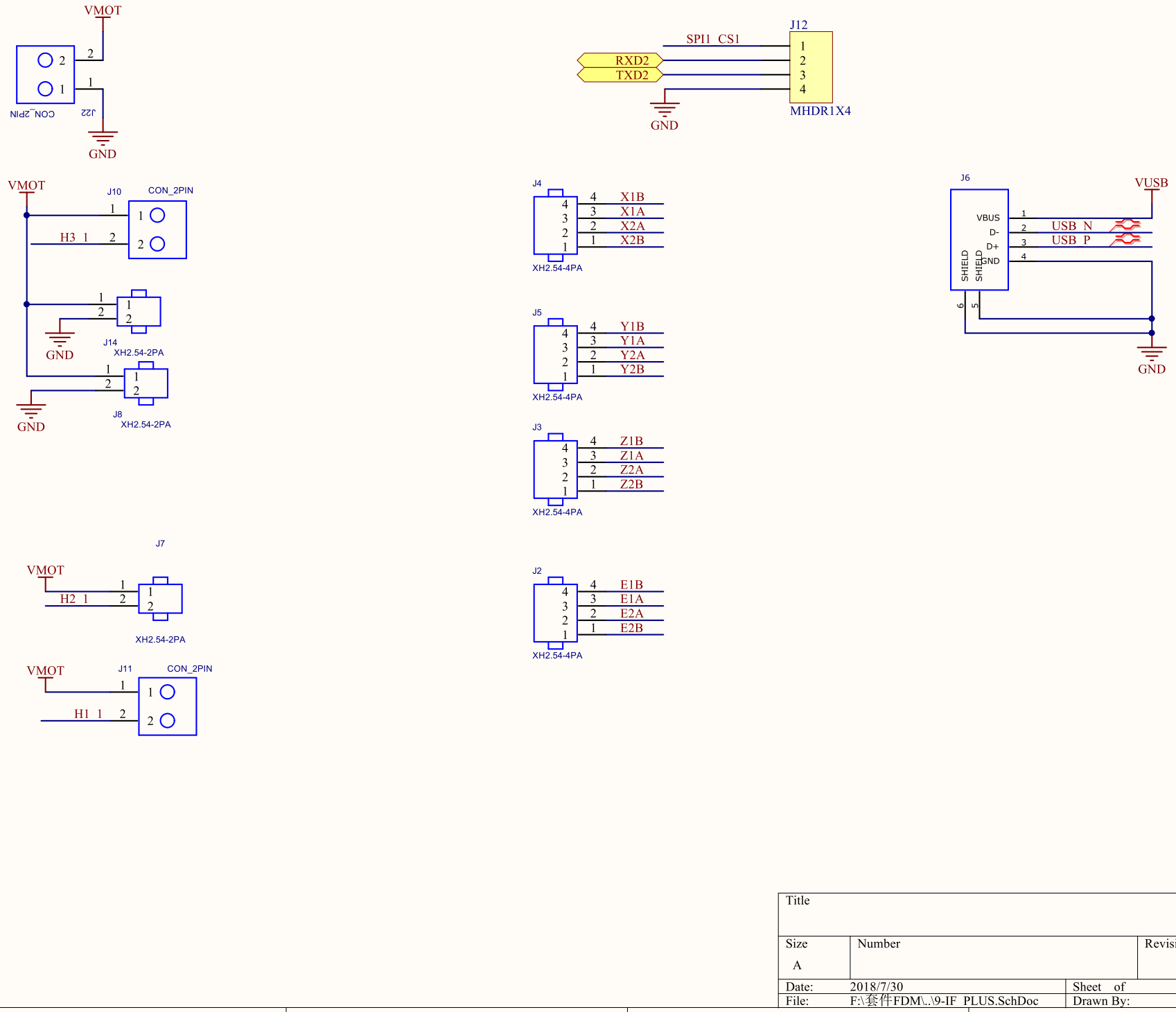

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