MCU1

VBAT
PC13-TAMPER-RTC
PC14/OSC32
PC15/OSC32
PD0/OSCIN
PD1/OSCOUT
NRST
PC0/ADC10
PC1/ADC11
PC2/ADC12
PC3/ADC13
VSSA
VDDA
PA0/WKUP/ADC0
PA1/ADC1
PA2/USART2_TX/ADC2
PA3/USART2_RX/ADC3
VSS_4
VDD_4
PA4/SPI1_NSS
PA5/SPI1_SCK
PA6/SPI1_MISO
PA7/SPI1_MOSI
PC4/ADC14
PC5/ADC15
PB0/ADC8
PB1/ADC9
PB2/BOOT1
PB10/USART3_TX
PB11/USART3_RX
VSS_1
VDD_1

3V3 GND
R1 10k
TIM4_CH2
TIM4_CH1
RXD
TXD
SWCLK
3V3 GND
SWDIO
45 CAN_TX
44 CAN_RX
43
42
41
40
39
38
37 CSN_MAG
36 MO
35 MI
34 CLK
33 RES

CH3_L
CH2_L
CH1_L
RESET
AD
CH1
CH2
CH3
HALL_A
HALL_B
HALL_C
PB0
KEY
CSN
DC

C1 20PF
C2 20PF
Y1 8M
R2 1M

R3 10k
RESET
C3 0.1u
S1

R4 10k

C4 0.1u C5 0.1u C6 0.1u C7 0.1u C8 0.1u C9 0.1u

P1: RXD TXD 1 2 3 4
P2: SWDIO SWCLK 1 2 3
R7 4K7 R6 4K7 TIM4_CH1
TIM4_CH2 5V
P3: PGND 1 2 3
P4: CSN MAG CLK MI MO 1 2 3 4 5 6
P5: PGND MO MI CLK CSN MAG 5V GND 1 2 3 4 5 6
P6: CLK MO MI RES DC CSN 1 2 3 4 5 6 7

P9 Header 4
CAN_L
CAN_H
PGND
VIN

P8 Header 8
C
B
A
PGND
HALL_C
HALL_B
HALL_A
5V

C19 0.1u
CAN_TX TXD TJA1
CAN_RX RXD GND Vcc
8 CAN_H
7
6 CAN_L
5
R21 120
P7 1 2
TJA1050

R9 10k 5V PGND
R10 10k VIN PGND
R11 10k 3V3 PGND
R12 10k D5 GND
R13 10k PB0 PB0
KEY S2 R8 10k GND

FD1
VCC
HIN1
HIN2
HIN3
LIN1
LIN2
LIN3
COM
14
13
12
9
17
16
15
10
20
19
18
11
FD6288

注意这里↓的顺序

C22 0.1u
CH3 CH2 CH1
CH1_L CH2_L CH3_L

D9 C21 0.1u
D10 C23 0.1u
D11 C24 0.1u

R28 10 MOS1 NMOS?
R29 10 MOS2 NMOS?
R30 10 MOS3 NMOS?
R31 10 MOS4 NMOS?
R32 10 MOS5 NMOS?
R33 10 MOS6 NMOS?

ACS1
IP+
IP+
IP-
IP-
8 7 6 5
ACS712
R19 10k
C16 0.1u AD
C17 10nf
R18 10k

R16 0 3V3
R17 0 GND

U1 TPS5430
VIN
ENA
NC
NC
GND
1
8
2
4
C10 0.1u
D7 Diode
L1 22uH
R14 10K
C11 220μF
R15 3.3K
C12 10uF
C20 μF

RT1 RT9193
VIN
GND
EN
5
4
C13 0.1μF
C15 22nf
C14 0.1u

Title

Size A3
Number
Revision
Date: 2019/2/28
Sheet of
File: D:\documents\..\driver.SchDoc
Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
IED	LED	3V3, 5V, D5, PB0, VIN	0805D	00-D-LED	5
ACS712	Sensor Current	ACS1	self_sop_8	ACS712	1
Cap	Capacitor	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C14, C16, C17, C19, C21, C22, C23, C24	CAP-MLCC-0603	Cap_1	18
220µF	钽电容	C11	CAP-TAN-6032/CAPC	CAP-TAN	1
Cap	Capacitor	C12	0805C	Cap	1
0.1µF	无极性电容	C13	CAP-MLCC-0603	CAP	1
22nf	无极性电容	C15	CAP-MLCC-0603	CAP	1
*µF	电解电容	C20	C_ELE	CAP-ELE	1
Diode		D7	SS34	Diode	1
IN59819		D9, D10, D11	LED_0805_YELLOW	D_0805	3
FD6288		FD1	TSSOP_E170_P0.65_20	FD6288	1
Ind-CD52	Inductor	L1	CD54	Ind_CD52	1
STM32F103RC	MCU	MCU1	LQFP_P0.5_64	STM32F103RC	1
MOSFET_N	MOSFET	MOS1, MOS2, MOS3, MOS4, MOS5, MOS6	TO-252AA	MOSFET_N	6
HDR1x4_2.54	Header	P1, P2	HDR1x4_2.54_180	HDR1x4_2.54	2
HDR1x4_2.54	Header	P3	Green 4P	HDR1x4_2.54	1
HDR1x6_2.54	Header	P4	HDR1X6_2.54_180	HDR1x6_2.54	1
HDR1x6_2.54	Header	P5	1.25mm_1X6_SMT	HDR1x6_2.54	1
HDR1x7_2.54	Header	P6	HDR1X7_2.54_180	HDR1x7_2.54T	1
HDR1x2_2.54	Header	P7	HDR1X2_2.54_180	HDR1x2_2.54	1
Header 8	Header, 8-Pin	P8	Green_8P	Header 8	1
Header 4	Header, 4-Pin	P9	Green_4P	Header 4	1
Res1	Resistor	R1, R2, R3, R4, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R21, R28, R29, R30, R31, R32, R33	RES-0603	Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1, Res1_1, Res1, Res1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1, Res1_1	25
RT9193	Power	RT1	SOT23-5	RT9193	1
ButtonTACT_3x4x2_180	Button	S1	ST-1185 3*4*2	ButtonTACT_3x4x2_180	1
SW-PB	Switch	S2	key - duplicate	SW-PB	1
TJA1050		TJA1	self_sop_8	TJA1050	1
TPS5430		U1	self_sop_8	TPS5430	1
8M	Crystal Oscillator	Y1	Osc-6032	C-Osc	1