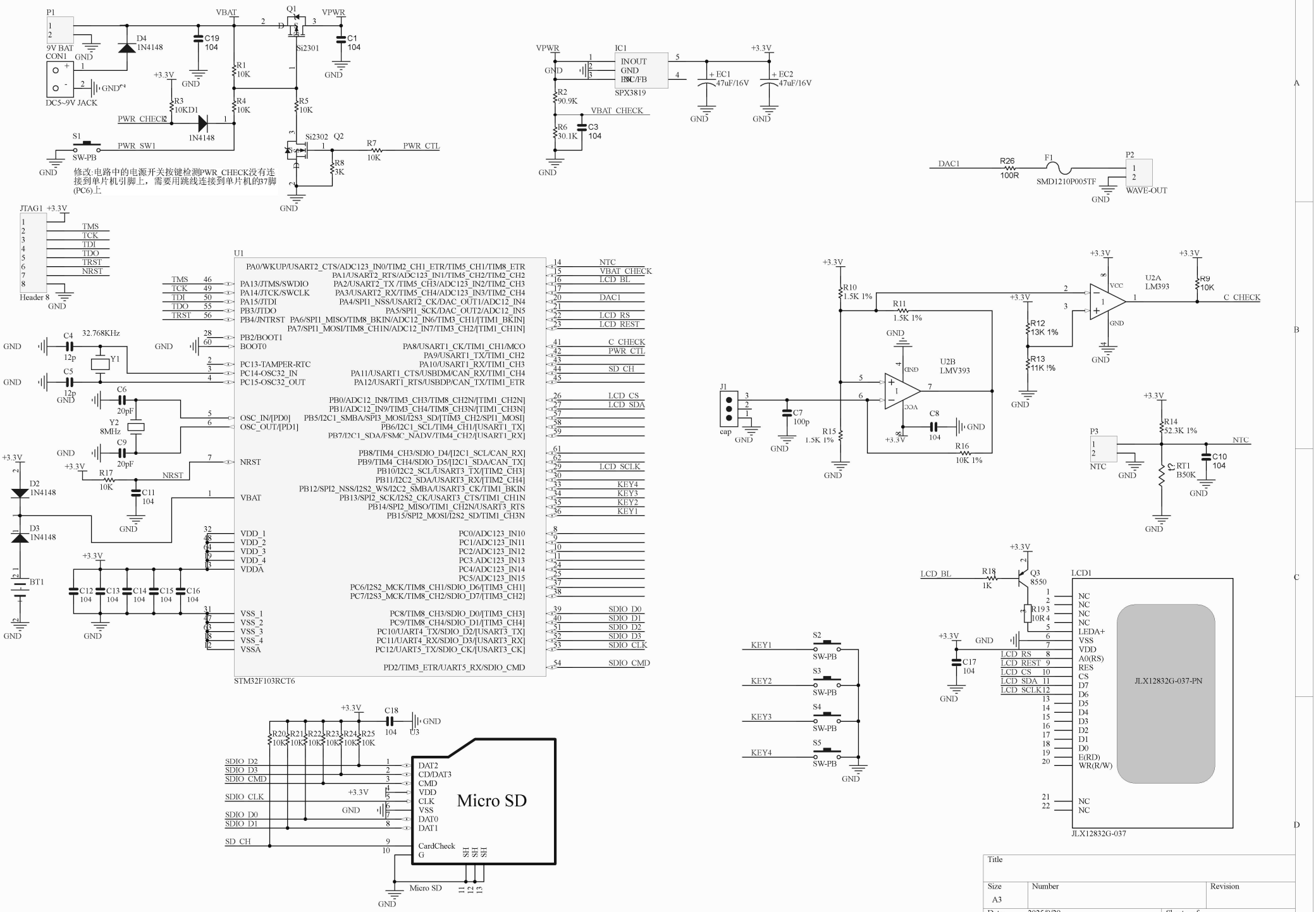
P1
9V BAT
CON1
DC5~9V JACK
D4
1N4148
C19
104
VBAT
Q1
Si2301
VPWR
C1
104
R1
10K
R3
10KD1
R4
10K
R5
10K
PWR_CHECK
1N4148
S1
SW-PB
PWR_SW1
Si2302
Q2
R7
10K
PWR_CTL
R8
3K
修改:电路中的电源开关按键检测PWR_CHECK没有连接到单片机引脚上，需要用跳线连接到单片机的37脚(PC6)上
IC1
SPX3819
IN
OUT
GND
BYP
FB
R2
90.9K
R6
30.1K
C3
104
VBAT_CHECK
EC1
47uF/16V
EC2
47uF/16V
DAC1
R26
100R
F1
SMD1210P005TF
P2
WAVE-OUT
JTAG1
Header 8
TMS
TCK
TDI
TDO
TRST
NRST
U1
STM32F103RCT6
PA0/WKUP/USART2_CTS/ADC123_IN0/TIM2_CH1_ETR/TIM5_CH1/TIM8_ETR
PA1/USART2_RTS/ADC123_IN1/TIM5_CH2/TIM2_CH2
PA2/USART2_TX /TIM5_CH3/ADC123_IN2/TIM2_CH3
PA3/USART2_RX/TIM5_CH4/ADC123_IN3/TIM2_CH4
PA4/SPI1_NSS/USART2_CK/DAC_OUT1/ADC12_IN4
PA5/SPI1_SCK/DAC_OUT2/ADC12_IN5
PA6/SPI1_MISO/TIM8_BKIN/ADC12_IN6/TIM3_CH1/[TIM1_BKIN]
PA7/SPI1_MOSI/TIM8_CH1N/ADC12_IN7/TIM3_CH2/[TIM1_CH1N]
PA8/USART1_CK/TIM1_CH1/MCO
PA9/USART1_TX/TIM1_CH2
PA10/USART1_RX/TIM1_CH3
PA11/USART1_CTS/USBDM/CAN_RX/TIM1_CH4
PA12/USART1_RTS/USBDP/CAN_TX/TIM1_ETR
PB0/ADC12_IN8/TIM3_CH3/TIM8_CH2N/[TIM1_CH2N]
PB1/ADC12_IN9/TIM3_CH4/TIM8_CH3N/[TIM1_CH3N]
PB10/I2C2_SCL/USART3_TX/[TIM2_CH3]
PB11/I2C2_SDA/USART3_RX/[TIM2_CH4]
PB13/SPI2_SCK/I2S2_CK/USART3_CTS/TIM1_CH1N
PB14/SPI2_MISO/TIM1_CH2N/USART3_RTS
PB15/SPI2_MOSI/I2S2_SD/TIM1_CH3N
PC0/ADC123_IN10
PC1/ADC123_IN11
PC2/ADC123_IN12
PC3.ADC123_IN13
PC4/ADC123_IN14
PC5/ADC123_IN15
PC8/TIM8_CH3/SDIO_D0/[TIM3_CH3]
PC9/TIM8_CH4/SDIO_D1/[TIM3_CH4]
PC10/UART4_TX/SDIO_D2/[USART3_TX]
PC11/UART4_RX/SDIO_D3/[USART3_RX]
PC12/UART5_TX/SDIO_CK/[USART3_CK]
PD2/TIM3_ETR/UART5_RX/SDIO_CMD
NTC
VBAT_CHECK
LCD_BL
DAC1
LCD_RS
LCD_REST
C_CHECK
PWR_CTL
SD_CH
LCD_CS
LCD_SDA
LCD_SCLK
KEY4
KEY3
KEY2
KEY1
SDIO_D0
SDIO_D1
SDIO_D2
SDIO_D3
SDIO_CLK
SDIO_CMD
C4
12p
C5
12p
32.768KHz
Y1
C6
20pF
Y2
8MHz
C9
20pF
R17
10K
C11
104
D2
1N4148
D3
1N4148
BT1
C12
C13
C14
C15
C16
104
R10
1.5K 1%
R11
1.5K 1%
R12
13K 1%
R13
11K 1%
U2A
LM393
R9
10K
U2B
LMV393
J1
cap
C7
100p
R15
1.5K 1%
C8
104
R16
10K 1%
P3
NTC
R14
52.3K 1%
C10
104
RT1
B50K
LCD_BL
R18
1K
Q3
8550
R19
10R
C17
104
LCD1
JLX12832G-037-PN
JLX12832G-037
NC
LEDA+
VSS
VDD
A0(RS)
RES
CS
D7
D6
D5
D4
D3
D2
D1
D0
E(RD)
WR(R/W)
LCD_RS
LCD_REST
LCD_CS
LCD_SDA
LCD_SCLK
S2
S3
S4
S5
SW-PB
C18
104
U3
R20
R21
R22
R23
R24
R25
10K
Micro SD
DAT2
CD/DAT3
CMD
VDD
CLK
VSS
DAT0
DAT1
CardCheck
G
SD_CH
Micro SD
GND
+3.3V
Title
Size
A3
Number
Revision
Date:
2025/9/29
Sheet of
File:
D:\南方科技大学\..\低成本电容测量仪器\振荡器.SchDoc