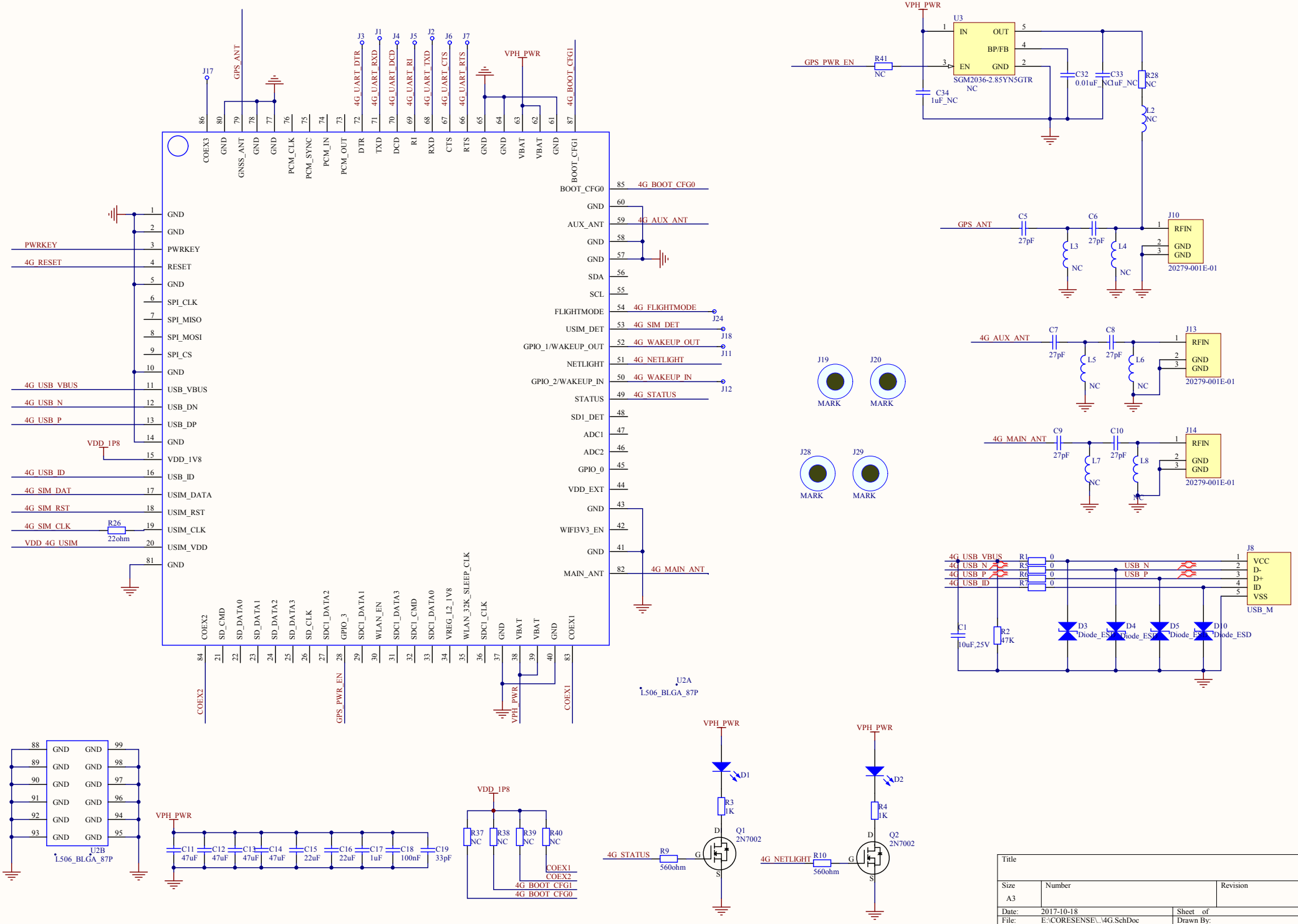

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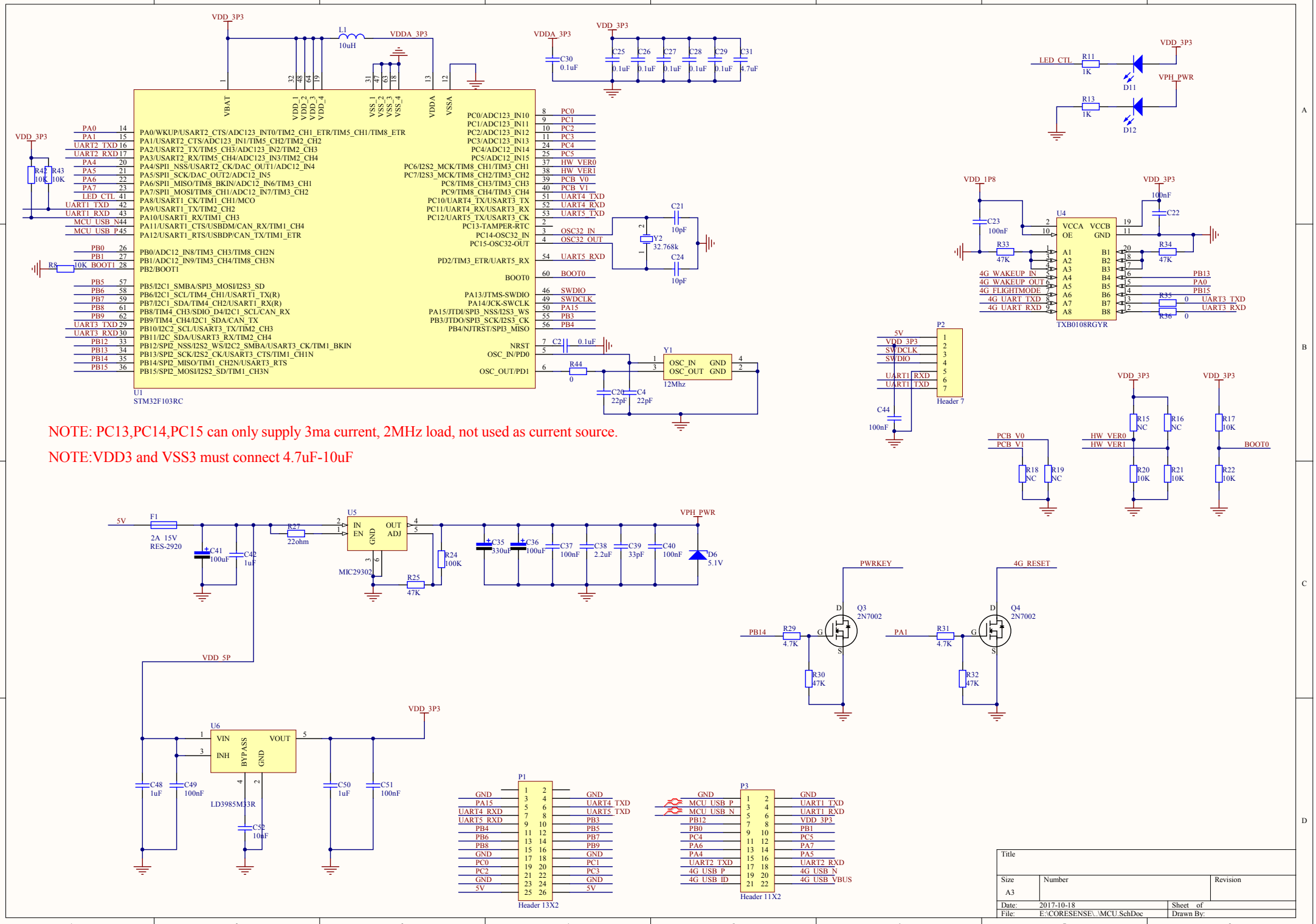
VDD_3P3
L1
10uH
VDDA_3P3
C30
0.1uF
C25 C26 C27 C28 C29 C31
0.1uF 0.1uF 0.1uF 0.1uF 0.1uF 4.7uF
LED_CTL
R11
1K
D11
R13
1K
D12
VPH_PWR
VBAT
VDD_1 VDD_2 VDD_3 VDD_4
VSS_1 VSS_2 VSS_3 VSS_4
VDDA
VSSA
PA0/WKUP/USART2_CTS/ADC123_IN0/TIM2_CH1_ETR/TIM5_CH1/TIM8_ETR
PA1/USART2_CTS/ADC123_IN1/TIM5_CH2/TIM2_CH2
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
PA7/SPI1_MOSI/TIM8_CH1/ADC12_IN7/TIM3_CH2
PA8/USART1_CK/TIM1_CH1/MCO
PA9/USART1_TX/TIM2_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
PB1/ADC12_IN9/TIM3_CH4/TIM8_CH3N
PB2/BOOT1
PB5/I2C1_SMBA/SPI3_MOSI/I2S3_SD
PB6/I2C1_SCL/TIM4_CH1/USART1_TX(R)
PB7/I2C1_SDA/TIM4_CH2/USART1_RX(R)
PB8/TIM4_CH3/SDIO_D4/I2C1_SCL/CAN_RX
PB9/TIM4_CH4/I2C1_SDA/CAN_TX
PB10/I2C2_SCL/USART3_TX/TIM2_CH3
PB11/I2C_SDA/USART3_RX/TIM2_CH4
PB12/SPI2_NSS/I2S2_WS/I2C2_SMBA/USART3_CK/TIM1_BKIN
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/ADC12_IN14
PC5/ADC12_IN15
PC6/I2S2_MCK/TIM8_CH1/TIM3_CH1
PC7/I2S3_MCK/TIM8_CH2/TIM3_CH2
PC8/TIM8_CH3/TIM3_CH3
PC9/TIM8_CH4/TIM3_CH4
PC10/UART4_TX/USART3_TX
PC11/UART4_RX/USART3_RX
PC12/UART5_TX/USART3_CK
PC13-TAMPER-RTC
PC14-OSC32_IN
PC15-OSC32-OUT
PD2/TIM3_ETR/UART5_RX
BOOT0
PA13/JTMS-SWDIO
PA14/JCK-SWCLK
PA15/JTDI/SPI3_NSS/I2S3_WS
PB3/JTDO/SPI3_SCK/I2S3_CK
PB4/NJTRST/SPI3_MISO
NRST
OSC_IN/PD0
OSC_OUT/PD1
U1
STM32F103RC
R42 10K
R43 10K
R8 10K
C21 10pF
Y2 32.768k
C24 10pF
C2 0.1uF
R44 0
Y1 12Mhz
C20 22pF
C4 22pF
VDD_1P8
C23 100nF
U4
TXB0108RGYR
VCCA VCCB OE GND
A1 A2 A3 A4 A5 A6 A7 A8
B1 B2 B3 B4 B5 B6 B7 B8
R33 47K
R34 47K
100nF
C22
4G_WAKEUP_IN
4G_WAKEUP_OUT
4G_FLIGHTMODE
4G_UART_TXD
4G_UART_RXD
PB13
PA0
PB15
R35 0
R36 0
UART3_TXD
UART3_RXD
P2
Header 7
C44 100nF
PCB_V0
PCB_V1
R18 NC
R19 NC
R15 NC
R16 NC
R17 10K
R20 10K
R21 10K
R22 10K
HW_VER0
HW_VER1
BOOT0
NOTE: PC13,PC14,PC15 can only supply 3ma current, 2MHz load, not used as current source.
NOTE:VDD3 and VSS3 must connect 4.7uF-10uF
5V
F1
2A 15V
RES-2920
C41 100uF
C42 1uF
R27 22ohm
U5
MIC29302
IN EN GND OUT ADJ
R24 100K
R25 47K
C35 330uF
C36 100uF
C37 100nF
C38 2.2uF
C39 33pF
C40 100nF
D6 5.1V
VDD_5P
U6
LD3985M33R
VIN INH BYPASS GND VOUT
C48 1uF
C49 100nF
C52 10nF
C50 1uF
C51 100nF
PWRKEY
4G_RESET
PB14
R29 4.7K
Q3 2N7002
R30 47K
PA1
R31 4.7K
Q4 2N7002
R32 47K
P1
Header 13X2
GND
PA15
UART4_RXD
UART5_RXD
PB4
PB6
PB8
PC0
PC2
5V
UART4_TXD
UART5_TXD
PB3
PB5
PB7
PB9
PC1
PC3
P3
Header 11X2
MCU_USB_P
MCU_USB_N
PB12
PB0
PC4
PA6
PA4
UART2_TXD
4G_USB_P
4G_USB_ID
UART1_TXD
UART1_RXD
VDD_3P3
PB1
PC5
PA7
PA5
UART2_RXD
4G_USB_N
4G_USB_VBUS
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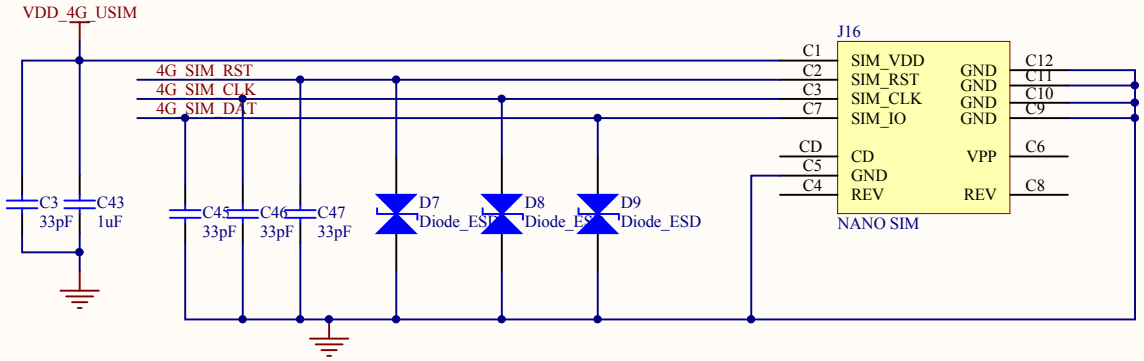

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