Sheet: SIM7080_module

File: SIM7080_module.sch

Sheet: SIM7080_peripherals

File: SIM7080_peripherals.sch

Designed By: Henry Cheung

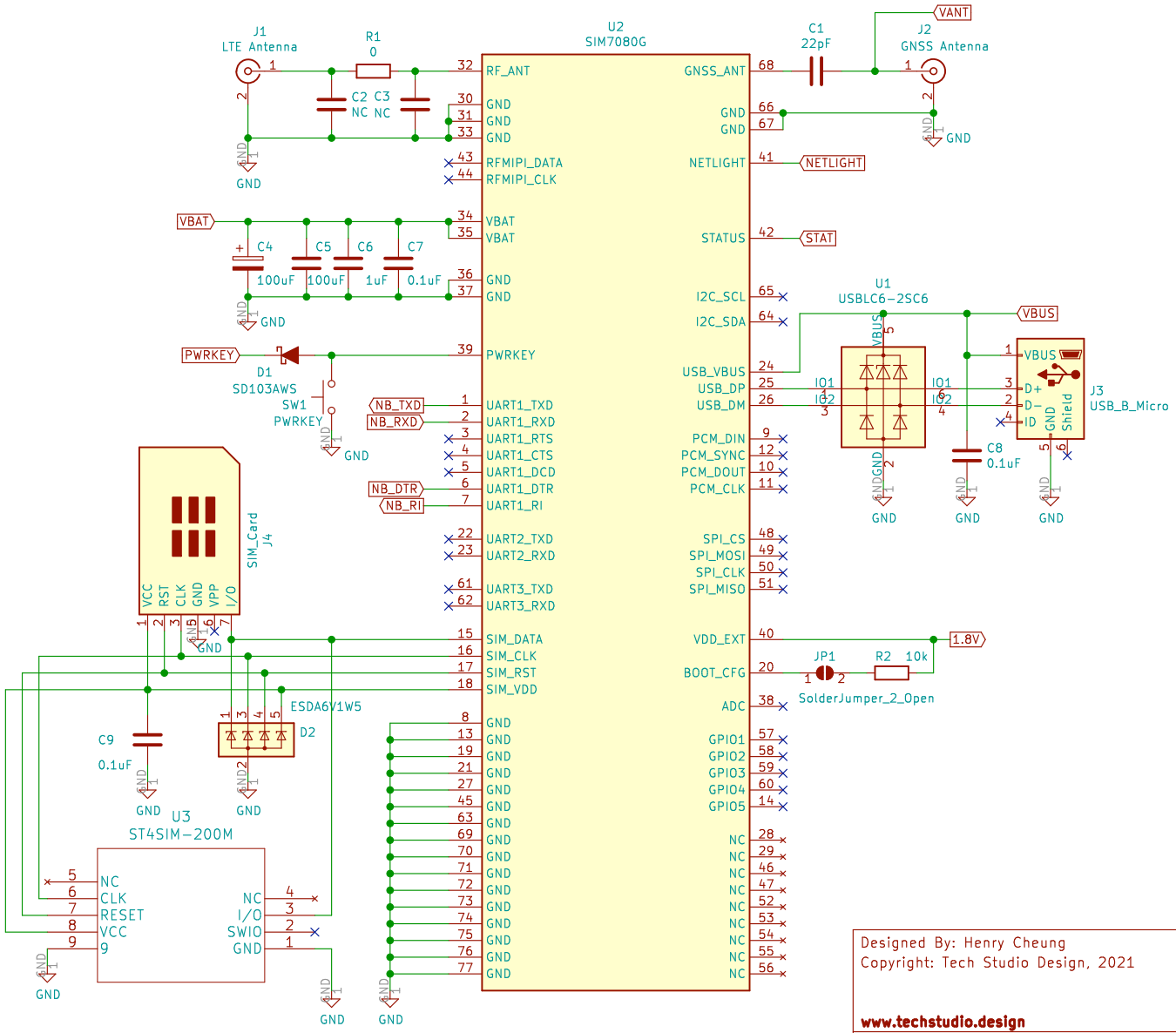
www.techstudio.design

Sheet: /

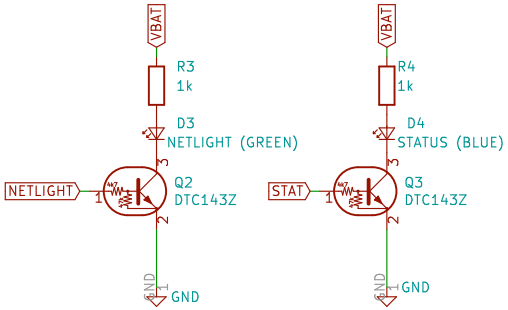
File: SIM7080.sch

Title: TechStudio.Design SIM7080G NB-IoT Shield

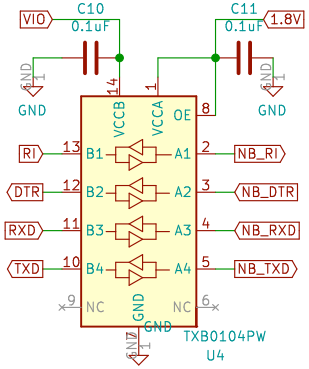
Size: A4	Date: 2021-08-25	**Rev: V1.2**
KiCad E.D.A. kicad (5.1.4-0)		Id: 1/3


J1
LTE Antenna
R1
0
C2 C3
NC NC
U2
SIM7080G
C1
22pF
J2
GNSS Antenna
VANT
RF_ANT
GNSS_ANT
GND
NETLIGHT
RFMIPI_DATA
RFMIPI_CLK
VBAT
C4
C5
C6
C7
100uF
100uF
1uF
0.1uF
STATUS
PWRKEY
D1
SD103AWS
SW1
PWRKEY
NB_TXD
NB_RXD
NB_DTR
NB_RI
UART1_TXD
UART1_RXD
UART1_RTS
UART1_CTS
UART1_DCD
UART1_DTR
UART1_RI
UART2_TXD
UART2_RXD
UART3_TXD
UART3_RXD
I2C_SCL
I2C_SDA
USB_VBUS
USB_DP
USB_DM
PCM_DIN
PCM_SYNC
PCM_DOUT
PCM_CLK
SPI_CS
SPI_MOSI
SPI_CLK
SPI_MISO
VDD_EXT
1.8V
BOOT_CFG
JP1
R2
10k
SolderJumper_2_Open
ADC
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
U1
USBLC6-2SC6
VBUS
J3
USB_B_Micro
C8
0.1uF
SIM_Card
J4
VCC
RST
CLK
GND
VPP
I/O
SIM_DATA
SIM_CLK
SIM_RST
SIM_VDD
ESDA6V1W5
D2
C9
0.1uF
U3
ST4SIM-200M
NC
CLK
RESET
VCC
I/O
SWIO
Designed By: Henry Cheung
Copyright: Tech Studio Design, 2021
www.techstudio.design
Sheet: /SIM7080_module/
File: SIM7080_module.sch
Title: TechStudio.Design SIM7080G NB-IoT Shield
Size: A4
Date: 2021-08-25
Rev: V1.2
KiCad E.D.A. kicad (5.1.4-0)
Id: 2/3

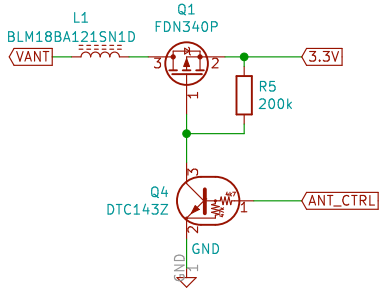
LED Indicators



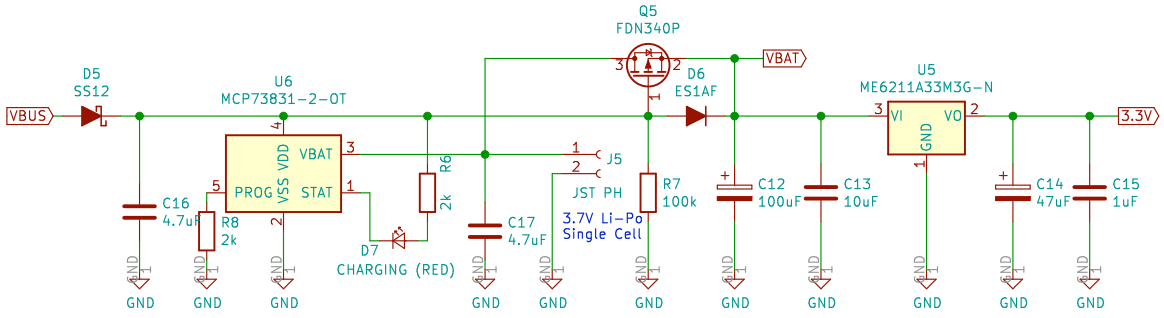
Level Shifter



GNSS Antenna Control

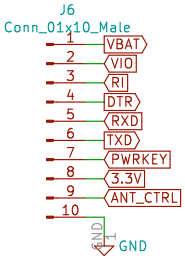


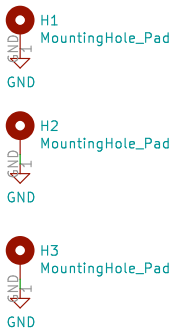
Battery Charger



3.3V LDO

Interface Connector





CHARGING LED:
ON while charging
OFF when fully charged
Charging Current 500mA

VBAT = 4.3V (Powered via USB)
VBAT = 3.3 – 4.2V (Powered via Li-Po)

3.3V Maximum Output 600mA

Host MCU must supply either a 5V or 3.3V to VIO to activate the Level Shifter.

GNSS Active Antenna can be turn on by applying a logic HIGH to ANT Pin.

www.techstudio.design

Sheet: /SIM7080_peripherals/
File: SIM7080_peripherals.sch

Title: TechStudio.Design SIM7080G NB-IoT Shield

Size: A4	Date: 2021-08-25	**Rev: V1.2**
KiCad E.D.A. kicad (5.1.4-0)		Id: 3/3