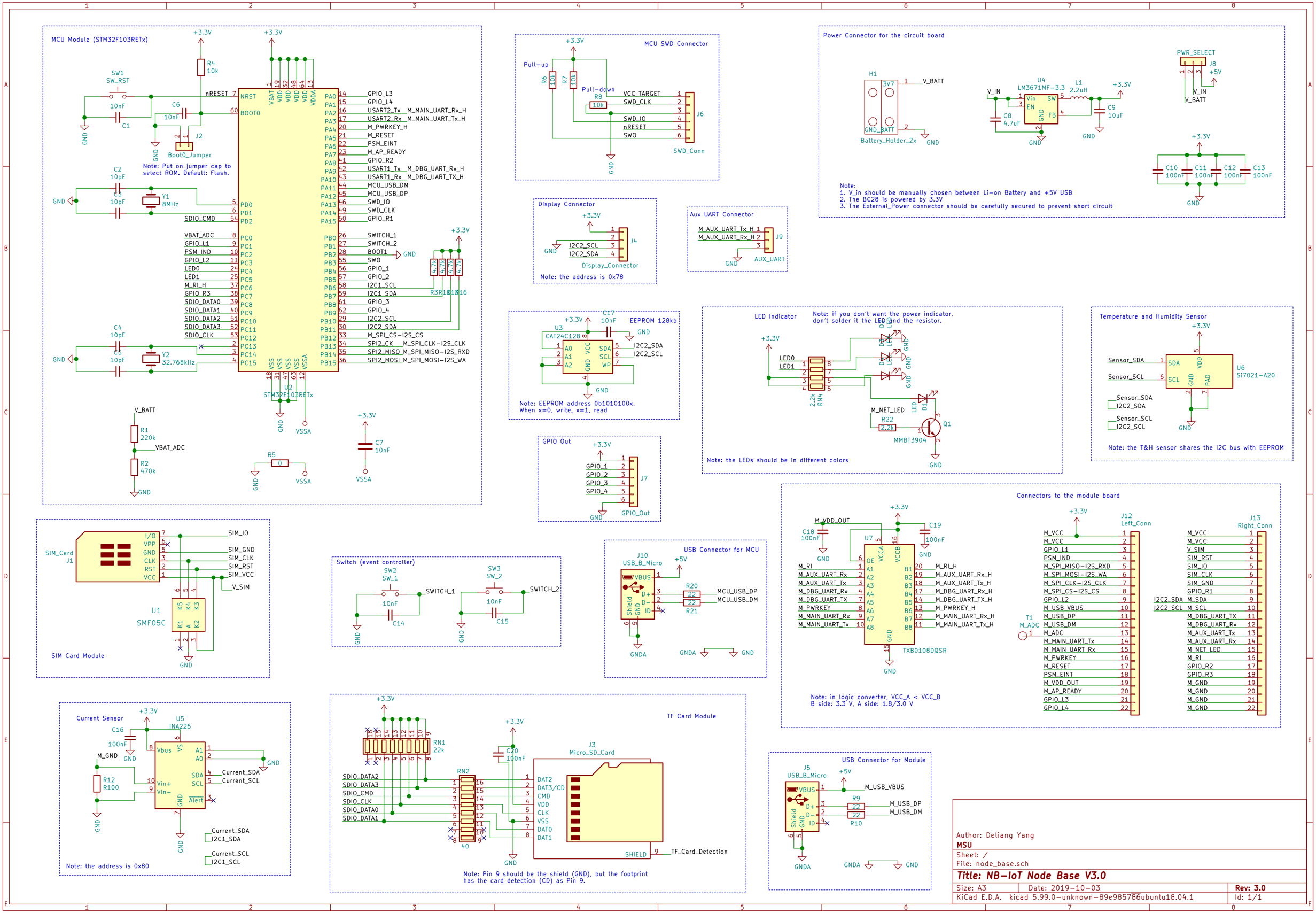
MCU Module (STM32F103RETx)
U2
STM32F103RETx
Note: Put on jumper cap to select ROM. Default: Flash.
MCU SWD Connector
Pull-up
Pull-down
SWD_Conn
Power Connector for the circuit board
Battery_Holder_2x
LM3671MF-3.3
Note:
1. V_in should be manually chosen between Li-on Battery and +5V USB
2. The BC28 is powered by 3.3V
3. The External_Power connector should be carefully secured to prevent short circuit
Display Connector
Display_Connector
Note: the address is 0x78
Aux UART Connector
AUX_UART
EEPROM 128kb
CAT24C128
Note: EEPROM address 0b1010100x.
When x=0, write, x=1, read
LED Indicator
Note: if you don't want the power indicator, don't solder it the LED and the resistor.
Note: the LEDs should be in different colors
Temperature and Humidity Sensor
Si7021-A20
Note: the T&H sensor shares the I2C bus with EEPROM
GPIO Out
GPIO_Out
SIM_Card
SIM Card Module
Switch (event controller)
USB Connector for MCU
Connectors to the module board
TXB0108DQSR
Note: in logic converter, VCC_A < VCC_B
B side: 3.3 V, A side: 1.8/3.0 V
Current Sensor
INA226
Note: the address is 0x80
TF Card Module
Micro_SD_Card
Note: Pin 9 should be the shield (GND), but the footprint has the card detection (CD) as Pin 9.
USB Connector for Module
Author: Deliang Yang
MSU
Sheet: /
File: node_base.sch
Title: NB-IoT Node Base V3.0
Size: A3
Date: 2019-10-03
Rev: 3.0
KiCad E.D.A. kicad 5.99.0-unknown-89e985786ubuntu18.04.1
Id: 1/1