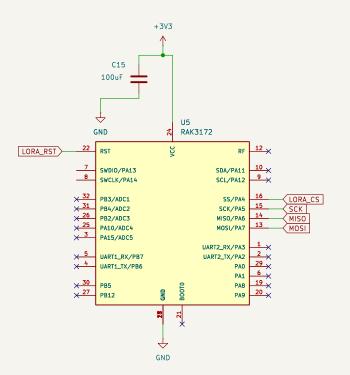
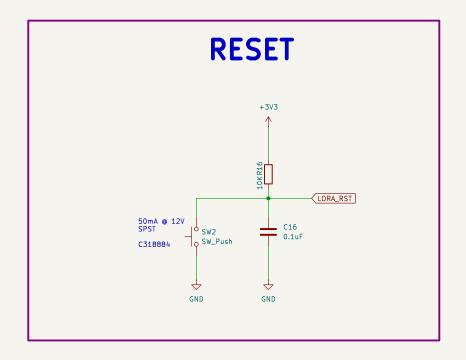


## **ANTENNAE SIM7080G** STATUS LEDS J2 Conn\_Coaxial 50Ω 50Ω GNSS\_ANT +1V8 U2 SIM7080G R12 100 R5 100 +1V8 PWR\_KEY V(s)=1.8V V(f)=1.2V R=50 I(f)=12mA GND GND GND NETLIGHT USB\_BOOT HAN1102W-1-TR R1 10KSolderJumper\_2\_Open RF\_ANT NETLIGHT X 4 UART1\_CTS X 5 UART1\_DCD X 6 UART1\_DTR X 7 UART1\_RI X 3 UART1\_RTS UART1\_RTS UART1\_RXD J3 Conn\_Coaxial 50Ω RF\_ANT ANT\_CONTROL1 ANT\_CONTROL0 43 × 44 × C8 50Ω R9 47K 12C\_SCL< 65 × 64 × 1 UART1\_TXD USB\_VBUS 24 × 26 × USB\_DP 25 × ×23 UART2\_RXD UART2\_TXD GND GND GND PCM\_CLKC 11 × 9 × PCM\_DOUT 10 × 12 × The input and output impedance are matched × 62 × 61 UART3\_RXD UART3\_TXD LEVEL SHIFTER +1V8 15 SIM\_DATA 17 SIM\_RST 18 SIM\_VDD R7 100 R13 100 +3V3 +1V8 × 57 GPI01 GPI02 GPI03 GPI04 GPI05 59 60 X 14 X \* \* \* \* V(s)=1.8V V(f)=1.2V R=50 I(f)=12mA ESDA6V1SC5 GND 8 GND\_1 13 GND\_2 19 GND\_3 21 GND\_5 30 GND\_6 31 GND\_6 33 GND\_6 33 GND\_7 GND\_7 35 GND\_1 45 GND\_1 65 GND\_1 65 GND\_1 67 GND\_1 67 GND\_1 7 GND\_2 0 GND\_2 7 GND\_2 R4 4.7K C10 0.1uF HAN1102W-1-TR STATUS UART1\_TXD UART1\_RXD SCL\_1v8 SDA\_1v8 GND R11 47K GND GND SIM CARD GND U8 NANO SIM XG6P H1.35 SIM POWER CONTROL GND 11 10 SIM\_VDD SIM\_RST SIM\_CLK PWR\_KEY C5 0.1uF R2 4.7K **DECOUPLING CAPS** SIM\_DATA Q1 SS8050 +3V3 SIM7080G\_PWR R3 47K C2 10uF C3 10uF C1 10uF Approved By: Jones Kisaka Designed By: Rodney Osodo Abstract Machines Sheet: /SIM7080G/ File: peripherals.kicad\_sch Title: IoT Gateway Size: A3 Date: 2024-10-15 KiCad E.D.A. 8.0.8

## **DECOUPLING CAPS** MCU-ESP32-C3-MINI C11 C12 10uF 0.1uF U1 ESP32-C3-MINI-1U-H4 +3V3 GND RC\_CS RC\_SDN **RESET** MCU\_RST) 13 +3V3 GND GND 16 GND × 17 18 MOSI 19 MISO SCK 20 21 LORA\_CS 22 23 SIM7080G\_PWR MCU\_RST 24 25 50mA @ 12V SPST 26 27 USB\_D-C13 SW1 0.1uF USB\_D+ 1019 SW\_Push × 28 C318884 GND × 29 NC 30 SIM7080G\_TXD SIM7080G\_RXD GND GND GND Approved By: Jones Kisaka Designed By: Rodney Osodo **Abstract Machines** Sheet: /MCU/ File: mcu.kicad sch Title: IoT Gateway Size: A4 Date: 2024-10-15 Rev: v0.1.0 KiCad E.D.A. 8.0.8 ld: 4/6

## LORA MODULE





Approved By: Jones Kisaka Designed By: Rodney Osodo

Abstract Machines

Sheet: /LoRa/ File: lora.kicad\_sch

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 Size: A4
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 Rev: v0.1.0

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