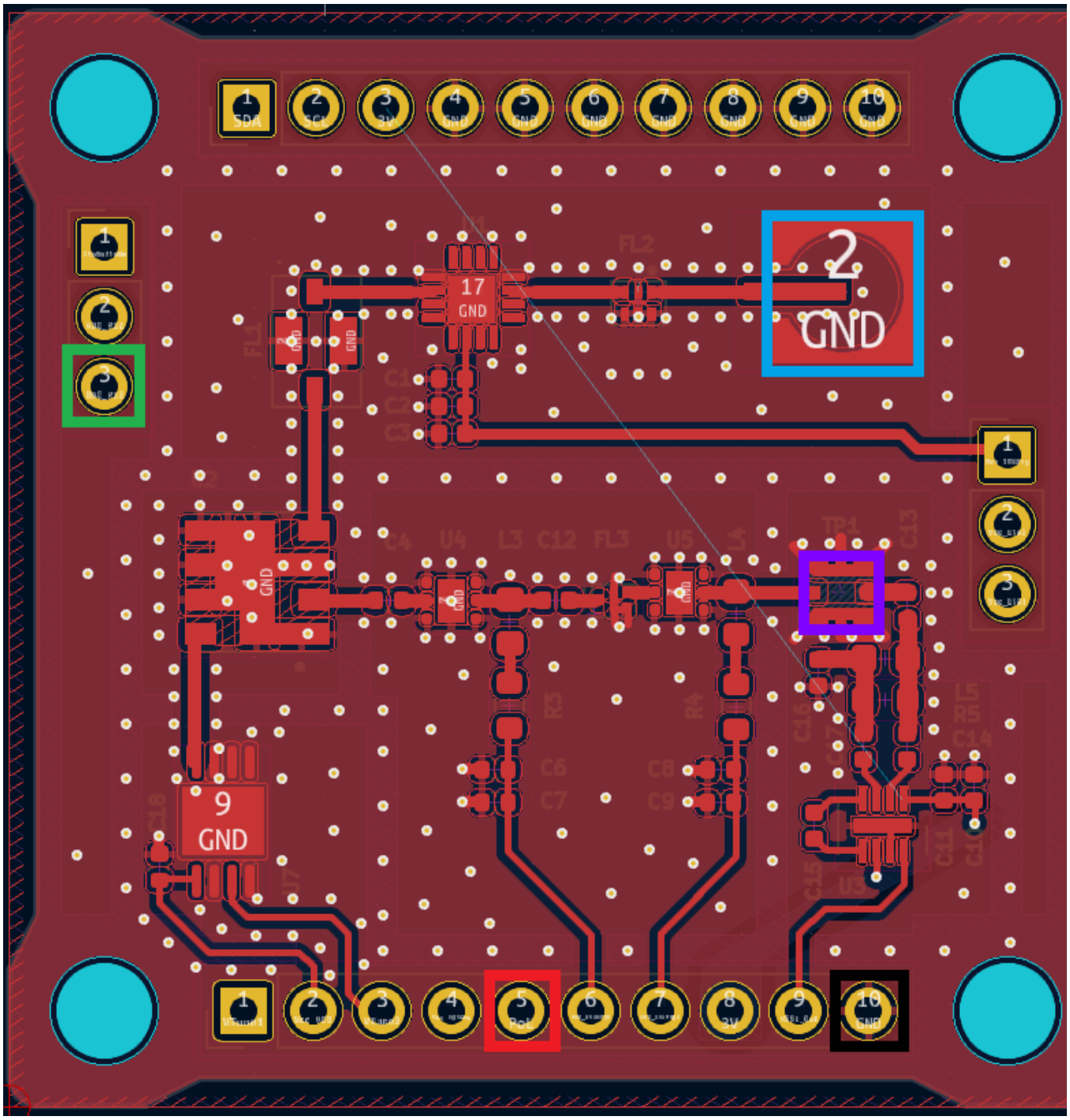
K-band CW characterization Procedure

Objective

Measure the RSSI obtained though all the 1GHz band when inputting a CW and characterize it.

Steps to follow

- Turn on equipment
  - Spectrum analizer
  - Signal generator
  - Power supply
- Configure to desired parameters
  - Spectrum analizer
    - Set center frequency in the middle of RSSI input band (869MHz)
    - Set enough span to observe the RSSI input band (30MHz)
    - Set RBW and VBW to an adecuate level
  - Power supply
    - Set Voltage to 3.3V
    - Set current limit to 0.3A
- Set up nucleo board and PC
  - Make sure the proper code is loaded into the nucleo board
- Make connections
  - Connect the power supply to the payload:
    - Vcc to PoL (RED)
    - GND to GND (BLACK)
  - Connect the DAC output to the DAC_In (GREEN)
  - Connect the ADC input to the ADC_Out
  - Connect the signal generator output to the IF input PIN (BLUE)
  - Connect the spectrum analizer to the switched measuring pin (PURPLE)



    - Connect PC to ground (plug in the charger).
    - Connect necleo board to computer by USB.
- Power on power supply.
- Begin the measurements procedure
    - Run the flashed program in Debug mode.
    - Measure the signal observed with the spectrum analyzer.
    - Disconnect the spectrum analizer connected to the switched measuring pin (PURPLE).
    - Once the program stops at the breakpoint, collect the calculated mean and plot it in a data processing software like Matlab.
- Analyze the collected data.

Revision #1
Created 15 November 2024 18:30:57 by roger.almirall
Updated 15 November 2024 18:53:04 by roger.almirall