P/L3 Statistical pulsed signal characterization Procedure

Objectives

Characterize the capacity of the RFI Monitoring system to detect pulsed signals by statistical algorithms.

Steps to follow

- Turn on equipment
  - Power supply
  - Signal generator
- Configure to desired parameters
  - Power supply
    - Set Voltage to 3.3V
    - Set current limit to 0.3A
  - Signal generator
    - Set output frequency to some IF Band frequency periodic pulsed signals
- 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
  - Load the IF Input with a 50 Ohm perfectly matched load.

  Captura.PNG
  - 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.

    - 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 18:32:00 by roger.almirall
Updated 15 November 2024 18:53:04 by roger.almirall