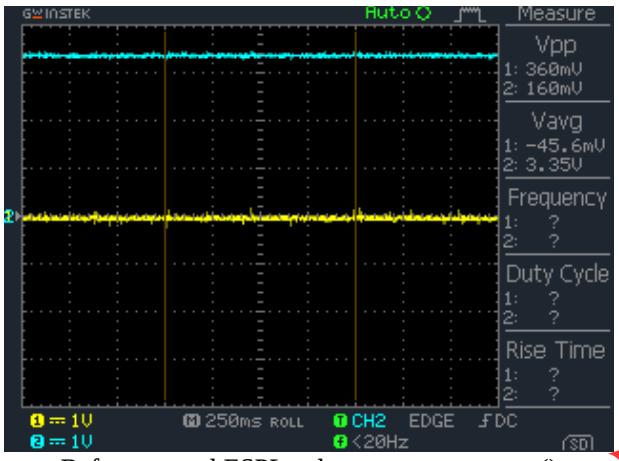
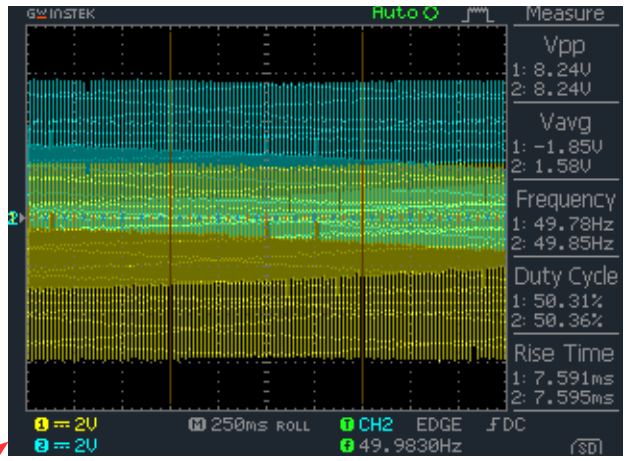
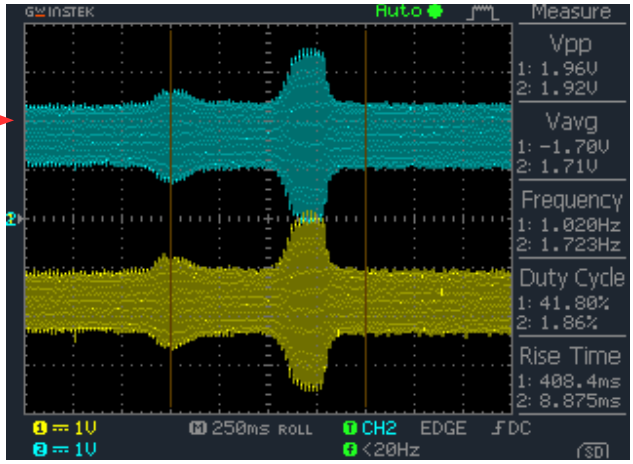
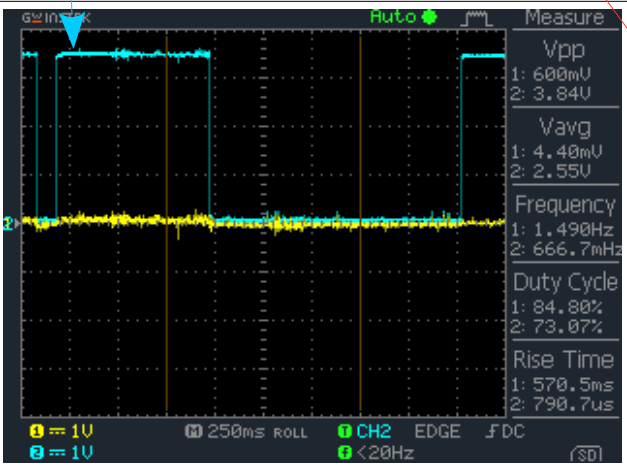
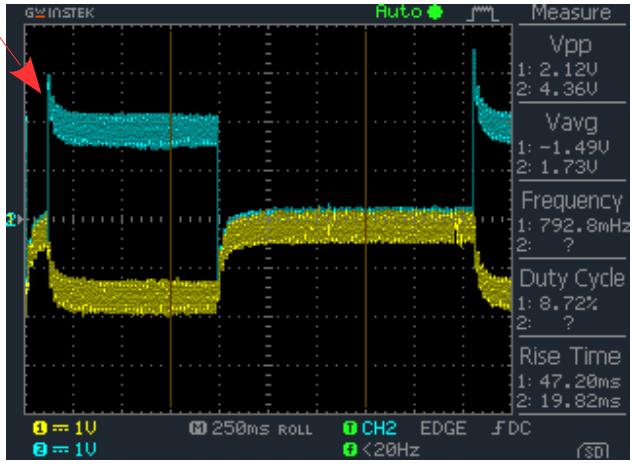
Why Windows 10 has difficulty connecting to a ESP32DevKitV1 board that was embedded with a ESP32D0WDQ6(revision1) chip?

Linux + ESP32DevKitV1	Windows 10 + ESP32DevKitV1
 Before esptool.ESPLoader._connect_attempt()	 Before esptool.ESPLoader._connect_attempt()
ESP32DevKitV1 is plugged in to computer but esptool.ESPLoader._connect_attempt() has not execute yet. Voltage waveform adhered exactly to esptool.ESPLoader._connect_attempt() RTS settings.	 Before esptool.ESPLoader._connect_attempt()
 During esptool.ESPLoader._connect_attempt()	 During esptool.ESPLoader._connect_attempt()

EN == Blue color curve; GND == Yellow color curve

Observations:

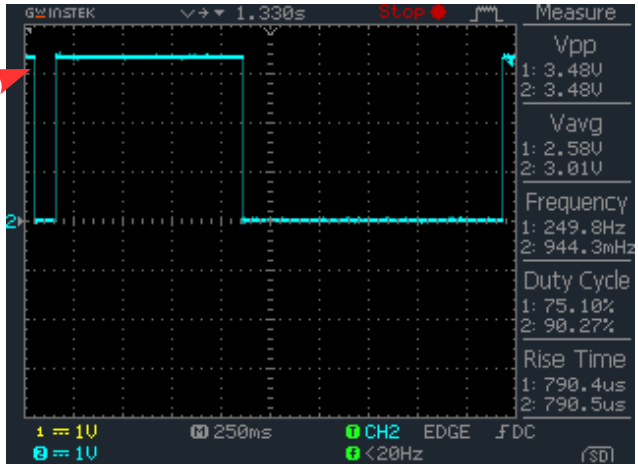
The voltages at the EN and GND pins of the ESP32 board, being derived from a Windows 10 system, were highly noisy. The measured voltage waveform did not conform to ESP32 specifications and esptool.py RTS settings. These voltage failings were not observed at the EN and GND pins of the same ESP32 board when it was plugged in, and when it was subsequently connected, to a Linux system.

Erradicating noisy signals:

To irradicated the failings that I had observed earlier, I had to ensure that the ground on the oscillascope's probe was connected to the GND pin of the ESP32 board; this was not an option. Below shows the corresponding clean voltage signal from the EN pin of the ESP32 board when it was connected to the Windows 10 system.

Voltage waveform adhered exactly to esptool.ESPLoader._connect_attempt() RTS settings.

Windows 10 + ESP32DevKitV1



During esptool.ESPLoader._connect_attempt()