

# Remote FPGA Configuration Guide

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This guide outlines the steps to set up and configure FPGA boards remotely using WireGuard VPN, Remote Desktop, and Vivado.

## Prerequisites

- Ensure you have administrative privileges on your system.
- Verify that you have a stable internet connection for remote operations.

## 1. Setting Up WireGuard VPN

1. Download and install WireGuard from the official site: [WireGuard Installation](#)
2. Use the provided configuration for a single user/PC setup. (Ensure the configuration file is attached or linked here).

## 2. Connecting to Remote Desktop

1. Open Remote Desktop Connection on your PC.
2. Connect to the remote server at [vlsi.doelab.site](#).
3. Log in with the following credentials:
  - **User:** lab209\_riscv
  - **Password:** lab209

## 3. Accessing Vivado on the Remote Machine

1. On the connected remote desktop, open Vivado.
2. Navigate to the 'Open Hardware Manager'.
3. Connect to the remote board server located at [kintex7.doelab.site](#).

## 4. Remote Desktop to FPGA Board

1. Once the board configuration is complete, use Remote Desktop to connect to [192.168.2.203](#).
2. Log in with these credentials:
  - **User:** link
  - **Password:** BMDT1234

## 5. Checking FT232R UART Connection

1. On the connected system, open the Device Manager.
2. Verify the connection status of the FT232R USB UART, which should appear under the 'Ports (COM & LPT)' section.

## 6. Continuing with OpenOCD

1. Refer to the previously provided OpenOCD guide to continue setting up and configuring your environment for FPGA board operations.

## Support

For any issues during setup or configuration, please refer to the support contact provided with your remote access credentials or consult the troubleshooting sections of the provided guides or [hungtuan.nguyen@seasemi.net](mailto:hungtuan.nguyen@seasemi.net)