



Job Title:	Junior or Senior FPGA Hardware Designer	Job Category:	Product Team
Location:	Montreal (in office)	Travel Required:	No
Level/Salary Range:	Based on Experience	Position Type:	Full Time

Job Description

MuxLab Inc., a leading technology designer and manufacturer of connectivity solutions for the Pro AV, Broadcast and Structured Cabling market, is actively seeking an FPGA Hardware Designer to work on high-speed digital systems, from concept through production. You will be involved in schematic design, FPGA development, board bring-up, and system debugging.

Hardware Responsibilities, Skills and Experience

- **Schematic design:** create new schematics and symbols, select and review components, and maintain documentation
- **PCB design support:** define constraints, layer stack-up, perform design reviews, and support transition to production
- Strong understanding of **signal integrity (SI)** and **power integrity (PI)**
- Experience with the following interfaces:
 - **High-speed parallel:** DDR memory, eMMC, RGMII
 - **High-speed serial:** 10/25GbE, SDI, HDMI, PCIe
 - **Low-speed control:** SPI, I²C, UART
- **Hands-on lab work:** prototyping, board bring-up, debugging, and rework
- **PCB tools:** Altium, Cadence, OrCAD

FPGA Responsibilities, Skills and Experience

- Proficiency in **VHDL, Verilog, or SystemVerilog**
- Experience with **clock domain crossing (CDC) design**
- Experience with **module-level simulation and verification**
- Strong knowledge of:
 - **FPGA debugging** (e.g., ChipScope, SignalTap)
 - **Static Timing Analysis (STA)**
 - **Design troubleshooting and performance optimization**
- Experience with **SoC FPGAs** (e.g., Zynq family)
- **FPGA tools:** Vivado, Quartus

Software Responsibilities, Skills and Experience

- Experience with video/audio interfaces and standards
- Experience programming SoC platforms

Minimum experience in a related position: 3 years

Compensation and Benefits: Salary varies upon experience

Apply to careers@muxlab.com