

Department: Transport R&D

Title of job: **Firmware, VHDL development Engineer**

Date of hire: 01/09/2021

Workplace: Lannion

Type of contract: Permanent full time

Description of the job:

Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world.

As a firmware development engineer based in Lannion, you will have responsibilities for developing, debugging and testing embedded firmware and VHDL code on transport modules for our OTN/WDM hardware platforms. You will integrate an international hardware design team (France / Brazil) to develop, transponders, optical amplifiers, ROADMs, OTN Line and Switching cards for optical transport networks.

Skill of the applicant

Education

- Engineer with strong hardware background.

Main knowledge

- Strong knowledge in VHDL RTL code :
 - o Synchronous design (Justification, Bit rate adaptation, PLL, FIFO...)
 - o Serial interfaces design (I2C, SPI, PCIe...)
 - o High-speed transceivers configuration (Emphasis, Equalization, PRBS, Eye scan, > 20Gb...)
- Strong skill in FPGA design software tools (Quartus, Vivado, Modelsim...)
- Good knowledge on FPGA embedded processor architecture (NIOS, μ Blase...)
- Strong knowledge in C++ code for embedded firmware and in real time environment. Knowledge in Keil development suite would be appreciated.
- Good knowledge in test bench setup (Oscilloscope, protocol analyzer, BERT...) and used to develop Python scripts for test automation.
- Good understanding in Telecom and Datacom standards (SONET/SDH, Ethernet, OTN, Fiber channel...).
- Used to Versioning Control System such as Gitlab.
- Used to Agile development methodology (Scrum, Kanban)

Experience

Minimum of 5 years in FPGA/FW development is required.

Particular abilities

- You are used to work in a telecom environment
- You are comfortable working in an international environment in English language
- You are autonomous and self-learning
- You are continuously looking for improvement and you make proposals and alerts

Contact : hr@ekinops.com