Role: FPGA Engineer

Permanent employee, Full-time Location: **Remote or On-Site in Galway or Cork**

Introduction to the job:

Is your drive to be at the bleeding edge of technology? Being key in achieving the ultimate goal? Then working on Mbryonics' satellite optical communication systems to create a space internet is your job! **Be part of pioneering the future of connectivity.**

Role and responsibilities

As a FPGA engineer on the Antenna Control Unit design team, you will be designing, developing, and testing FPGA gateware that supports safety critical logic, sensors, cameras, optical, real time hardware control and communications systems on the StarCom optical antenna.

- Own the conceptual, architectural, and design components of digital, mixed signal processing, DSP, and communication systems supporting Mbryonics optical communications systems
- Implement logic designs and signal processing algorithms in RTL
- Integrate designs onto FPGA/SoC platforms
- Bring up and validate devices that communicate to and fly in space

Education and Experience

- Bachelor's degree in electrical, computer engineering, computer science, or related STEM fields
- 2+ years of experience working with FPGAs or ASICs (internship and research experience qualifies)
- 2+ years of experience using Verilog, SystemVerilog, or VHDL

Preferred Skills And Experience

- 5+ years of experience working with complex digital designs
- Experience in different stages of silicon development: RTL design, verification, synthesis, timing analysis, lab bring up/validation
- Experience integrating logic onto SoC platforms and designing high-throughput PS/PL interfaces
- Solid understanding of DSP fundamentals
- Experience interfacing with high-rate conversion interfaces (Xilinx RFSoC, AD9361)
- Experience designing and modeling DSP blocks and algorithms (filters, modems, etc)
- Software development skills (C/C++)
- Scripting skills (bash, Perl, Python)
- Ability to work in a dynamic environment with changing needs, requirements, and challenges

ADDITIONAL REQUIREMENTS:

- Ability to work extended hours and weekends as needed

WHY YOU SHOULD WORK WITH US

- Get in on the ground floor with a LaserCom scale-up company set to revolutionize connectivity.
- Work closely with some of the brightest innovators in lasercom technologies.
- Enjoy a fast-paced and fun environment where you can take risks while tackling cutting-edge challenges every day.
- Work in an exciting, international environment.
- Inclusive and open company culture.
- Develop your own skills and contribute to company growth.
- Competitive salary, benefits, and flexible hours

Diversity & Inclusion:

Mbryonics is an Equal Opportunity Employer; employment with Mbryonics is governed on the basis of merit, competence and qualifications and will not be influenced in any manner by race, color, religion, gender, national origin/ethnicity, veteran status, disability status, age, sexual orientation, gender identity, marital status, mental or physical disability or any other legally protected status.

About Mbryonics:

At Mbryonics, we specialise in creating and forging the tools and technologies to master light. We are engineering and manufacturing the next generation of optics and photonics to power the digital space age and to ensure the long term sustainability of the cislunar space environment. We believe that hard work and innovative solutions result in big gains, so we prioritize hiring top talent and cultivating a culture based on merit. From building our satellite optical transport network technologies to working with satellite operators and system integrators on designing and deploying satellite communication systems, all Mbryonics employees directly contribute to making our mission of connecting the solar system with lightF a reality.

On a daily basis, Mbryonics employees work on programs and projects with the potential to notably impact our lives on Earth and beyond the stars. Our optics will be used to bridge the digital divide, turn the clock back on climate change and enable the safe and responsible expansion of the human race throughout the solar system. Our employees take pride in solving hard problems that can have tangible impacts on our future in space.