

At Unibap Space Solutions, we innovate and manufacture edge computing hardware, software and services for intelligent space missions. Our solutions enhance real-time surveillance and high-speed communication, and make every space operation more agile, cost-efficient and sustainable.

PCB Layout Engineer – High-Speed Computers for Space

About the job

As a PCB Layout Engineer, you will become a key member of our high-performing hardware team. We are looking for someone with deep expertise in advanced, high-density PCB layout to take on a responsible role in the physical realization of our computers for space applications. Your primary focus will be on stackup definition, component placement, and precision routing of complex digital systems, with a special emphasis on high-speed interfaces and low-impedance power distribution networks (PDN).

In this role, you are not only expected to deliver layouts of the highest manufacturing and electrical quality, but also to maintain a keen eye for the overall system. You will work at the intersection of electrical design, mechanics, and manufacturing, collaborating closely with schematic engineers and mechanical designers to ensure our boards are optimized for the extreme thermal and mechanical conditions of space. You will join a passionate team where your specialist knowledge will be highly valued.

Responsibilities

- **Advanced PCB Layout & Stackup Design:** Act as a technical expert and drive the physical layout of complex, high-density interconnect (HDI) printed circuit boards in Altium Designer, including stackup definition, impedance control, component placement, and high-speed/power routing.
- **Electromechanical & System Collaboration:** Collaborate closely with schematic capture engineers to implement SI/PI rules and with mechanical design engineers (ECAD/MCAD) to optimize thermal conduction paths, connector placement, and enclosure integration.
- **Design for Manufacturing (DFM):** Own the generation of fabrication and assembly outputs, ensuring strict adherence to high-reliability manufacturing tolerances and acting as the technical point of contact for PCB fabricators and assemblers.
- **Test & Verification Support:** Support prototype "bring-up" and troubleshooting in the lab, particularly regarding physical board issues, signal integrity measurements, and thermal performance.

- **Technical Contribution & Review:** Actively participate in and lead PCB layout reviews, DRC verification, and technical discussions to ensure high physical and electrical quality.
- **Documentation:** Be responsible for ensuring that thorough fabrication drawings, assembly documentation, and layout guidelines are produced in accordance with the company's established templates and processes.

Required Qualifications

- Master of Science (M.Sc.) or Bachelor of Science (B.Sc.) in Electrical Engineering, Mechatronics, or equivalent practical experience in advanced PCB layout.
- Solid and extensive experience laying out complex, multi-layer, high-density PCBs from placement to fabrication release.
- Deep expertise in laying out digital high-speed interfaces (DDR4/5 length matching, PCIe, Ethernet, etc.) and practical experience with Signal Integrity (SI) principles, return paths, and crosstalk mitigation.
- In-depth knowledge of power layout for complex digital systems, including high-current SMPS layout, thermal vias, plane splitting, and Power Integrity (PI) / PDN optimization.
- Expert-level proficiency in PCB layout, rule constraints, and 3D ECAD/MCAD workflows in Altium Designer or equivalent EDA tools.
- Strong understanding of electromechanical interplay, including conductive thermal management, board stiffness, and connector/enclosure constraints.
- Fluent in English and Swedish, both written and spoken.

Preferred Qualifications

- Experience laying out PCBs for harsh environments (vacuum thermal conduction, vibration/shock, outgassing constraints).
- Knowledge of space and high-reliability PCB standards (ECSS, IPC-6012 Class 3 / IPC-2221).
- Knowledge of EMI/EMC layout best practices, shielding, chassis grounding, and containment techniques.

Some of the assignments we carry out for our customers may require placement in a security class. This means that in such cases you will need to undergo a security clearance with a register check in accordance with the Security Protection Act (Säkerhetsskyddslagen (2018:585)).

About you

We are looking for a self-driven, structured, and pragmatic individual with a genuine passion for technology. You are a detail-oriented problem-solver who sees the bigger picture and understands the importance of cross-disciplinary collaboration. You are confident in your skills, humble, and happy to share your knowledge.

Why join us?

At Unibap, we value innovation, collaboration, and the pursuit of excellence. You will have the opportunity to make a significant impact in a supportive, flexible and engaging environment with room to grow.

As an employee of Unibap Space Solutions AB, you can enjoy a benefit package that includes the following:

🌴 30 days of vacation each year

🌟 A comprehensive technical career for personal growth

💰 ITP1-equivalent occupational pension

💌 Extensive insurance package including private healthcare and medical checkups

🏸 Yearly wellness allowance

👶 Generous parental leave

We are based in Uppsala, Sweden where we have our HQ and production facility. The company consists of 50+ staff (both employees and consultants) including our international sales team and our American subsidiary.

Unibap is a publicly traded company on Nasdaq First North Growth Market.

How to apply:
If you're ready to take your career to the next level, apply by sending you resumé to jobs@unibap.com.

Join us and be part of something great!