



Research associate for new design concepts (m/f/d) – Design Kit test and development for RF assembling & RF chip design

Job-ID: 7011/22 | Department: Technology | Salary: according TV-L | Working time: 40h/week (part-time work option) | Limitation: initially 2 years with option of extension | Entry Date: 01.04.2022

IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultra high-frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. IHP employs approximately 350 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25 μm -SiGe-BiCMOS technologies, located in a 1500 m² cleanroom that meets the highest industrial nanotechnology requirements.

The position:

As a member of the group Research and Prototyping Service within the department Technology you will contribute to research into development of new design concepts and technologies for RF interfaces and assembly. Your tasks will include development and modeling RF interface components such as Cu-pillar and solder-balls. In addition, basic technology developments and modeling of various material based interposers (Si, glass, PCB, etc...) for THz applications will also be covered. The ultimate goal will be the development of the design environment to combine all the developed models and technologies under one platform for the easy access of the users of the technology. An international core team of 7 scientists are looking forward to you. Our team is working together with research groups in all departments of IHP and cooperates with external research institutions and industrial customers. Flat hierarchies and mutual support are important to us. We see diversity of perspectives as a great advantage for our team. We strive for a balanced gender mix in our team.

Your tasks:

You will manage on-going projects on modeling and development of RF interfaces and assembly techniques and at the same time you will develop new design concepts for RF interface and assembly techniques and basic interposer technologies based on different substrates for mm-wave and THz applications. Furthermore you will process the electro, RF and thermomechanical models for RF interface components and interposers and additionally develop and integrate of the full-design kit for the developed interposer and RF interface components.





Your qualifications:

You are holding a PhD degree in electrical engineering or a comparable study area. You already have good knowledge about modelling and CAD tools (Cadence, Matlab, ADS, HFSS, etc.). You have strong experience in project management of IC development and packaging related projects and knowledge in RF Systems, mixed signal, sensor systems, VLSI and IC packaging. You have Hands-on experience in lab equipment and measurement capabilities as well as an experience in semiconductor fabrication processes.

You are also a strong team player. We are looking for a team member, who is able to structure his or her own work and to bring a well-organized and systematic way of working into the cooperation with creative minds. You are an ideal match for this position, when you have experimental, analytical and problem-solving skills, very strong communicative skills and the ability to quickly learn how to operate the latest technical equipment including various software. It is necessary that you confidently handle the English language. Knowledge of the German language is welcome. The deepening of German language skills is expected and highly encouraged, for example in in-house language courses and intensive courses.

Our Offer:

Do research in a challenging, multinational environment giving you excellent career opportunities. You will have the chance to establish international reputation at the edge of top-notch technologies. An orientation guide will help you to quickly integrate into the institute and to familiarize yourself with the field.

It is important to us to support the individual career developments (e.g. conferences, advanced trainings) as well as the personal needs of our employees by offering flexible working hours and the possibility to work off-site. The compatibility of work and family is highly valued. More information about our scientific excellence and the working environment at IHP can be found on our website.

IHP is TOTAL E-QUALITY-certified for equal opportunities for women and men at work and actively pursues the equality of all gender and all groups of people. We promote the professional development of women and strongly encourage them to apply. Disabled applicants, qualified according to the above criteria, will be given preference over other candidates with equivalent relevant qualifications.

Your application:

Have we sparked your interest? Then we look forward to receiving your application until **February 20th, 2022** via our [online application form](#).

For further information about the position, please contact Dr. René Scholz: career@ihp-microelectronics.com.

