Silicon photonics chip Project Engineer

Job Responsibilities:

1. Participate in the development and testing of integrated device and chip projects;

2. Responsible for review reports, formulation of DFMEA, document writing, related to product development

3. Product development revision, process optimization, proposal and design of cost reduction plan;

4. Responsible for tracking and solving problems in the R&D and trial production stage of the product;

5. Patent output.

Qualifications:

1. Doctor degree or above, major in optoelectronic science and technology;

2. Experience in data center, silicon photonic chip design and tape-out, rich experience in design and tape-out of grating coupler, SSC coupler, MMI, Spliter, high-speed MZ modulator, high-speed Ge/Si PD, etc. is preferred ;

3. Proficiency in using mainstream optical waveguide design software such as Lumerical FDTD and Phenix Software;

4. Proficiency in using HFSS or other high-frequency transmission line design software;

5. Proficiency in using semiconductor carrier analysis software such as Atlas;

6. Able to use Matlab to model the simulation results of the above three types of software, and output the chip performance simulation results;

7. Proficiency in using L-edit or other software to draw silicon photonics chip layout;

8. Understand the various processes of CMOS tape-out, and be able to follow up the silicon photonics design tape-out process.

Radio Frequency Automation Development Engineer

Job Responsibilities:

1. BAW filter design: related work on modeling and calculation of equivalent RF circuits (linear, nonlinear,)RF test data fitting and high power of BAW;

2. PDK software automation: ADS/comsol/HFSS simulation software, connecting with python/matlab and other automation software;

3. MEMS technology: conducting statistical analysis on the knowledge and data of real production and microelectronics technology.

Qualifications:

1. Doctor degree or above, major in communication engineering, microwave, radio frequency design, etc., familiar with RF, microwave, electromagnetic theory, etc.;

2. Have a certain basic programming ability, and be able to use MATLAB, Python, C, Ruby, etc. for algorithm simulation;

3. Familiar with the design and support of components such as RF filter (filter), power amplifier (PA), low noise amplifier (LNA), switch (Switch), etc. FBAR development experience is preferred;

4. Have experience in electromagnetic simulation such as ADS, HFSS, etc., and be familiar with the use of related software;

5. Familiar with the use and calibration methods of test equipment such as network analyzers, spectrum analyzers, power generators, and RF probes is preferred;

6. Be proficient in writing technical documents, and have good document preparation habits and writing standards.

MEMS chip design and development engineer

Job Responsibilities:

1. Responsible for MEMS sensor chip layout design, structural design, process confirmation and development;

2. Responsible for the simulation of MEMS sensor chips, using finite element analysis software for multi-physics simulation, writing simulation programs, etc.;

3. Responsible for the development of MEMS sensor chip process flow, including laboratory process verification and mass production process development and optimization;

4. Responsible for microscopic analysis of MEMS sensor chips, using SEM, X-RAY, etc. for chip failure analysis;

5. Maintain close contact with the foundry, and commit to promoting the MEMS production process from prototype to mass production;

6. Analyze MEMS product data in production and engineering tests, verify MEMS process changes, design and execute engineering tests to solve process problems or optimize process performance;

7. Assist in completing the design, testing and verification of related module-level products.

Qualifications:

1. Doctor degree or above, major in electronics, microelectronics, MEMS or semiconductor materials;

2. Proficiency in using MEMS layout design software for layout design, with related work experience in plate making and plate casting;

3. Proficiency in using related design and simulation software for chip structure design and finite element analysis, including thermoelectric, fluid, piezoresistive, piezoelectric and other multi-physical field simulations;

4. Understand the conventional MEMS process of chip processing, such as photolithography, etching, coating, etc., and be able to formulate the processing process of chip samples;

5. Ability to test and analyze chip performance indicators, experience in MEMS pressure chip design is preferred.