

## **MEMS Process Engineer (REF 1810 ENGR MEMSE)**

### **JOB DESCRIPTION**

The candidate will follow the Industrialization and transfer to manufacture of disposables for Medical Research and IVD Markets.

He/she will take new products from prototype to production by developing the silicon wafer fabrication processes. This will include front-end wafer fabrication processes and back-end processes.

He/she should have hands-on experience and be able to work independently or as part of a cross-functional team to support the development in terms of design for manufacturing, design for testability and transfer to manufacturing.

### **DUTIES AND RESPONSIBILITIES**

- Develop and refine fabrication processes for the manufacture of silicon MEMS wafers, coordinating activities with external Foundry
- Transfer a product from the development phase to production, develop process flows for new technologies and make them suitable for transfer into a production environment, taking into account technical, regulatory, quality, and economic constraints.
- Follow prototype lots through the fabrication process including identifying and solving process issues
- Design and analyze DOE to evaluate process corners and set appropriate process tolerances
- Perform failure analysis and yield analysis for prototype and mass production products
- Develop die testing protocols, implementation of optimized production technologies, testing tools and industrial tools for new products and/or for the optimization of existing production lines. Document new processes in written procedures.
- Assist manufacturing with failure analysis and yield improvement
- Prepare and verify manufacturing and technical reports for non-conformities management in compliance with the prescribed standards.
- Diagnose errors or technical problems and determine proper solutions, capable of performing a failure analysis and come up with creative solutions to product issues

### **BASIC REQUIREMENTS**

- Master degree in Electrical Engineering, Chemical Engineering, Physics, or similar fields with at least 5 years related experience
- Hands-on experience with silicon MEMS wafer fabrication processes and equipment including photolithography, dry and wet etching, thin film deposition, diffusion, and wafer bonding
- Working knowledge of process metrology tools and techniques
- Capability to develop technical solutions autonomously
- Capability to manage multidisciplinary projects involving international partners
- Good English knowledge (written and spoken)

### **PREFERRED REQUIREMENTS**

- Knowledge of ISO 13485 and USA 21 CFR 820 quality system regulation
- Knowledge of IEC/UL 61010, ISO 14971, UNI EN ISO 12100, IEC 60812 standards, IEC 62304,
- Knowledge of injection molding fabrication processes
- Experience in microfluidics

- Experience in biomedical application instruments
- Experience with Six Sigma and lean manufacturing concepts

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