

## Device Modelling Engineer

INEX Microtechnology designs, develops and manufactures MEMS and compound semiconductor devices for a broad range of customers and market sectors including Sensing, Connectivity and RF & Power Devices. The company was formed 5 years ago and is rapidly growing a reputation for producing novel solutions to customer requirements. This is a chance to join a dynamic and highly skilled team and be part of a continuing growth story.

### SUMMARY OF RESPONSIBILITIES:

This position is to join the Engineering team to perform RF device characterization, device design and foundry PDK development for INEX's GaN MMIC foundry processes. Initially the work will concentrate on the IG50 process (INEX's half-micron GaN HEMT process) to be followed by new developments in shorter-gate processes and a range of other material systems and technologies. The candidate will work within a multi-disciplinary engineering team supporting an expanding manufacturing business that services a number of technologies including: MEMS, sensors, electronic devices, and photonic devices.

### REQUIREMENTS – ESSENTIAL

- Minimum Degree in Engineering, Physics, Maths or other related field.
- A minimum 2 years professional or post-graduate experience is desirable. An experienced engineer is preferred though the depth of experience required is dependent on the calibre of the candidate. Both experienced candidates and early-stage engineers with a suitable background able to develop the necessary skill-set will be considered.

### PERSONAL QUALITIES & QUALIFICATIONS

- RF device characterization including on-wafer DC and, S-parameters.
- An understanding of; pulsed-IV, load-pull, third order intercept, noise measurements.
- Analysis of modelling device data and extraction of device models.
- EM simulation.
- Development of small and large-signal compact models and their validation.
- Implementation of models into MMIC process design kits.
- Documentation and development of design manuals.
- Software development (familiarity with Keysight's ADS and AEL desirable).
- Experience of automated test systems is desired.
- Familiarity with RF compound semiconductor device physics is essential.
- Familiarity with RF analogue circuit basics is desired.
- Ability to work in a team environment and to work to project timelines is essential.