

Manufacturing Test Engineer

Are you looking for challenging career opportunities? Do you truly want to make a difference in the world through technology innovation? Delta-Q could be the place for you.

Delta-Q Technologies, founded in 1999, supplies vehicle manufacturers with power conversion solutions enabling the shift away from internal combustion engines to environmentally friendly electric drive systems. Considered the technology benchmark in industrial AC-DC battery chargers and integrated DC-DC power converters, Delta-Q products are installed on hundreds of thousands of vehicles such as golf cars, aerial work platforms, industrial floor cleaning machines, Neighborhood Electric Vehicles, and plug-in hybrid and utility vehicles.

To support our continued business growth and to resource several new product development programs, Delta-Q is recruiting for a variety of Engineering, Product Management, Product Support, and Sales positions. Our vision is "Delta-Q in electric vehicles everywhere!" and our focus is to hire the best and brightest to make that happen. Find out how rewarding it is to help advance the state of vehicle electrification while working in a dynamic culture that embraces honesty, integrity, perseverance and innovation.

POSITION SUMMARY

The Manufacturing Test Engineer is responsible for creating processes that test Delta-Q products in production and for ensuring that Delta-Q products are designed in a manner that is optimized for testing. The Manufacturing Test Engineer will continuously identify and champion improvements to existing products and processes related to testing as required. The Manufacturing Test Engineer must have a detailed knowledge of the manufacture and testing of power electronics products. This must include the following:

- In-circuit tests (ICT)
- Standard-alone JTAG tests
- Automated optical inspection (AOI) tests
- Board functional tests (BFT)
- Finish unit functional tests (FT)
- Burn-in tests
- Ongoing reliability tests (ORT)
- System tests (ST)
- Design for Testability (DFT)
- Final quality audit process (FOA) tests
- Highly Accelerated Life Tests (HALT)
- Highly accelerated stress screening (HASS) tests
- Environmental stress screening (ESS) tests
- Design for Manufacturability (DFM)]

PRINCIPAL RESPONSIBILITIES

The Manufacturing Test Engineer will take responsibility for all Design for Testability activities within their given brief in addition to pro-actively identifying where Delta-Q products could be better optimized for testing in a mass production environment.. The Manufacturing Test Engineer must possess the capabilities to drive their requirements into the development and continuous improvement of products. Specifically the Manufacturing Test Engineer's duties will include the following:

- Representing and enforcing DFT in design review including:
 - Schematics review - to ensure all components and data/electrical paths are accessible and testable
 - Board layout review - to ensure all labels and components are accessible, that no components are near the edges, covers or movable parts etc. that would result into higher probability of a components being knocked off the board
 - Electrical specifications review - to ensure we can drive the needed power into the board with any fixture needed in any of the process
 - Diagnostics specifications review - to ensure command output formats are followed for simplification of whatever test automation tools will be developed.
 - Ensures that commands are available to test all components
- Designing and making test jigs and/or fixtures for mass production
- Integrating test platform for automatic testing solution in mass production
- Identifying suitable test platform for automatic testing solution with cost benefit analysis to allow senior evaluation and approval
- Creating work instructions for testing in mass production and/or prototype build
- Developing application software for production testing solution
- Creating equipment requirements for testing process in mass production and prototype build

- Identifying and managing suitable test equipment suppliers to include formal bid packages, supplier quote analysis and project management of selected suppliers
- Identifying DFT improvements to existing products to include cost benefit analysis facilitating evaluation and approval
- Supporting Delta-Q Quality department in the production testing process and stability analysis

QUALIFIED CANDIDATES SHOULD POSSESS

- At least 3 years experience as a manufacturing test engineer in a high volume power electronics production environment
- One year automotive power electronics manufacturing experience is preferred
- Experience participating in a product development team from inception through to manufacturing launch, imposing DFT into the design
- Hands on experience of design test systems and jigs/fixtures for mass production
- A degree (or equivalent) in Electronics Engineering or other suitable discipline
- Familiar with different operating systems including MS windows and Linux
- Familiar with different programming languages such as C, C++, LabView etc.
- Knowledge of ISO/TS16949 and ISO 9001 requirements
- Excellent organisational skills with the ability to overcome obstacles to meet deadlines
- Excellent written and verbal communication skills with the ability to communicate with people whose English is a second language.
- A tenacious personality that will not let an issue be left unresolved.
- Must possess a continuous improvement mentality and be keen to apply this to personal capability/knowledge and to the company's products and processes
- Mandarin speaking will be an asset.

Please send resume as an attachment to careers@delta-q.com quoting "Manufacturing Test Engineer" in the subject line.

Delta-Q is located in Burnaby, BC, the geographical centre of Metro Vancouver. With a diverse economy and a growing high-technology sector, Vancouver is a world-class multi-cultural city set amidst the natural beauty of the ocean, lakes, rivers and mountains of the Pacific Northwest region. It is no wonder that so many people from around the world have made Vancouver their home and those raised here have chosen to remain.

Challenging career opportunities, competitive benefits and an outstanding location make Delta-Q a great place to be.

For more information about Delta-Q Technologies and current career opportunities please visit us at www.delta-q.com.