

PR/161236 | Senior DFT & Manufacturing Testability Engineer

Job Information

Recruiter
JAC Recruitment Malaysia

Job ID
1618545

Industry
Other (Manufacturing)

Job Type
Permanent Full-time

Location
Malaysia

Salary
Negotiable, based on experience

Refreshed
November 3rd, 2026 09:00

General Requirements

Minimum Experience Level
Over 6 years

Career Level
Mid Career

Minimum English Level
Fluent Level

Minimum Japanese Level
None

Minimum Education Level
Associate Degree/Diploma

Visa Status
No permission to work in Japan required

Job Description

A global technology manufacturing solutions organization is seeking a Senior DFT & Manufacturing Testability Engineer to join its Hardware Product Solutions (HPS) engineering team.
In this role, you will be responsible for driving Design for Testability (DFT) excellence across complex electronic products from design development through manufacturing ramp-up. You will lead testability reviews, manufacturing test coverage analysis, boundary scan implementation, and early production debug activities to ensure products achieve robust test coverage and high manufacturing quality before design release.
You will work closely with Hardware Design Engineers, PCB Layout Engineers, Software/Firmware Developers, Product Engineers, Manufacturing Test Engineers, and Factory Operations teams to identify testability risks early, optimize production test strategies, and improve overall quality and yield performance.
The ideal candidate possesses strong experience in DFT methodologies, ICT, Boundary Scan (JTAG), functional test development, and manufacturing test coverage analysis. You are highly analytical, detail-oriented, and passionate about designing products that are both manufacturable and fully testable in high-volume production environments.

Key Responsibilities

- Lead Design for Testability (DFT) reviews throughout product development to ensure compliance with manufacturing test requirements.

- Review schematics, PCB layouts, and design documentation to identify testability gaps before design freeze.
- Evaluate test point accessibility, signal coverage, component accessibility, and manufacturing test readiness.
- Assess Boundary Scan (JTAG) implementation and verify scan chain integrity, programming access, and debug capability.
- Analyze manufacturing test coverage using ICT, Boundary Scan, Functional Test, and other structural test methodologies.
- Model and report test coverage against Manufacturing Test Requirements Specifications (MTRS) and project quality targets.
- Collaborate with Hardware Design and PCB Layout teams to implement DFT improvements, including test point additions and design corrections.
- Drive resolution of testability challenges through cross-functional discussions and engineering trade-off evaluations.
- Support manufacturing test strategy development, including ICT, Functional Test, Programming, and System-Level Test requirements.
- Participate in New Product Introduction (NPI) activities to ensure successful transfer from development into production.
- Support prototype builds, engineering validation, and pilot production by troubleshooting manufacturing test failures and coverage issues.
- Validate actual test coverage achieved during first fixture and first article builds and compare results against planned coverage targets.
- Work closely with Manufacturing Test Engineering teams to optimize fault detection capability, test effectiveness, and test cost efficiency.
- Investigate manufacturing escapes, test coverage gaps, and yield loss trends to improve future test strategies.
- Generate DFT review reports, test coverage reports, risk assessments, and technical recommendations.
- Drive continuous improvement initiatives to enhance DFT standards, test methodologies, fixture effectiveness, and overall product quality.
- Develop and maintain DFT guidelines, best practices, and lessons learned for future product platforms.
- Support customer audits, design reviews, and manufacturing readiness assessments when required.

Key Requirements

- Bachelor's Degree in Electrical Engineering, Electronics Engineering, Mechatronics Engineering, Computer Engineering, or a related technical discipline.
- Minimum 5 years of experience in Design for Testability (DFT), Manufacturing Test Engineering, Product Engineering, Hardware Development, or Electronics Manufacturing.
- Strong understanding of PCB design, electronic circuit analysis, and manufacturing test methodologies.
- Hands-on experience with Boundary Scan (JTAG), ICT (In-Circuit Test), and Functional Test development.
- Experience performing test coverage analysis and evaluating manufacturing test effectiveness.
- Strong knowledge of electronics manufacturing processes, NPI, and high-volume production environments.
- Experience reviewing schematics and PCB layouts from a testability perspective.
- Familiarity with manufacturing test fixtures, programming systems, and production diagnostics.
- Strong troubleshooting and root cause analysis capabilities.
- Experience supporting prototype validation, product qualification, and production ramp activities.
- Excellent analytical skills with the ability to identify risks and implement practical engineering solutions.
- Strong verbal and written communication skills with the ability to collaborate across global teams.
- Ability to manage multiple projects and priorities in a fast-paced environment.

Preferred Qualifications

- Experience with JTAG tools such as XJTAG, Corelis, JTAG Technologies, or equivalent platforms.
- Knowledge of ICT platforms such as Teradyne, Keysight/Agilent, SPEA, or Takaya systems.
- Experience supporting server, storage, networking, industrial, automotive, telecommunications, or high-complexity electronics products.
- Familiarity with Design for Manufacturing (DFM), Design for Assembly (DFA), and Design for Excellence (DFX) methodologies.
- Experience with manufacturing yield improvement, test optimization, and quality enhancement initiatives.
- Understanding of IPC standards, electronic manufacturing quality systems, and industry best practices.
- Experience working within EMS, ODM, OEM, or electronics manufacturing environments.
- Exposure to automated test development, hardware debugging, and production diagnostics.
- Knowledge of data analytics tools and test coverage reporting systems.

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Company Description