

Firmware Test Engineer

Advanced Silicon is a fabless chip design company developing and delivering mixed-mode Integrated Circuits (ICs) for standard and specific applications (ASSPs, ASICs). We develop SOCs dedicated to medical imaging applications and touch screens. Our advanced IC technology enables optimized cutting-edge photon detectors and interactive displays with outstanding performance.

Job description

Test Engineer with solid **electronic** background for the **validation and verification** of microcontroller boards in their application. This role focuses on executing test activities to ensure firmware behavior meets defined requirements, specifications, and quality standards.

The candidate will develop and perform **manual and automated testing**, document results, and report defects, working closely with firmware, hardware, and system teams while remaining independent from firmware design and implementation. The role supports product quality from early integration through production readiness.

Main Tasks

- Develop electronic control boards based on our in-house or off the shelf integrated circuits.
- Develop and execute **test plans, test cases, and test procedures** for products firmware and applications
- Perform **functional, regression, system, and acceptance testing** on products with embedded systems
- Perform required **Industrial EMC test (CDT / EFT / ESD/ etc.)** when required based on defined specification for platform and document / generate the results
- Perform **firmware parameters tuning and configuration** using available tools to ensure the system meets defined functional, performance, and quality requirements
- Verify firmware compliance with **product requirements, specifications, and acceptance criteria**
- Support **system integration and validation testing pre-release**
- Execute **test automation scripts** where applicable and report results
- Participate in **test reviews, requirement reviews, and release readiness assessments**
- Ensure testing activities follow defined **QA processes and quality standards**

Your Profile

- ES or HES degree in electronics with at least **10 years of professional experience**
- Experience in **PCB design and layout** using standard CAD tools
- Experience in **developing firmware and embedded systems**
- Experience in **testing firmware and embedded systems**
- Hands-on experience testing **HMI systems**
- Experience using lab tools for firmware and hardware validation
- Familiarity with **embedded communication interfaces** (I²C, SPI, UART, USB, HID) from a test perspective
- Ability to interpret **requirements, specifications, and test criteria**
- Strong attention to detail and ability to follow test procedures precisely
- Clear written and verbal communication skills for defect reporting and test documentation

Nice to have specific qualifications

- ORCAD PCB design suite knowledge
- Experience with **automated test execution** for embedded or firmware systems
- Familiarity with **display technologies** (LCD, OLED, TFT) and touch sensors
- Knowledge in testing **touch displays and performance metrics**
- Knowledge of **touch controllers' calibration, sensitivity tuning, and noise filtering**
- Scripting experience (Python, Shell) for **test automation or log analysis**
- Experience working within **regulated quality system environments** (ISO, automotive, industrial, medical)
- Familiarity with **CI-based test execution or test reporting workflows**
- Experience supporting **manufacturing test or production qualification** activities

Language Proficiency

- English
- French

Contract conditions

- Unlimited duration
- Fulltime

Start date

- As soon as possible

Contacts for application:

Has this job description attracted your attention, and do you recognize yourself in this profile?

Send us your confidential file on:

- jobs@advancedsilicon.com