



SEDECAL Improves PCBA Testing and Efficiency

“To eliminate human error, enhance test repeatability, and streamline documentation, SEDECAL needed to automate its testing process. The system chosen had to be flexible, easy to use, and suitable for both in-house and supplier-level testing. After evaluating multiple test solutions, SEDECAL selected XJTAG as the most effective option.”

Founded in Spain, SEDECAL has grown over 3 decades to become a leading global manufacturer of X-ray generators and robotic systems, serving customers in over 180 countries and operating branches across three continents. While SEDECAL's primary focus is the medical industry, including radiology, pre-clinical, medical ozone and even veterinary, it also serves some industrial markets as well.

To improve efficiency and reliability in its manufacturing process, SEDECAL recently decided to upgrade the testing of circuit boards supplied by external vendors. “Previously, we were doing manual testing, but it was very error-prone,” said José Luis Albert Pérez, Test Automation Engineer at SEDECAL. “XJTAG testing allows us to have repeatable and self-documenting results, improving the quality of our production.”

SEDECAL has been making the most of XJRunner's ability to work with packaged test projects, having the initial tests performed by their suppliers. This gives much higher confidence in the quality of the incoming boards, reducing rework and returns, and allowing the supplier to test the boards without giving them full access to the confidential design documentation. “The main benefit is in having an automated test that we can deliver to our board suppliers. The XJTAG system is very flexible and allows us to make changes rapidly.”

The boards under test contain a wide array of analogue and digital components, including PWM generators, DACs and ADCs, OPAMs, various memory devices and communication systems such as Ethernet and CAN. To address this complexity, SEDECAL uses the XJIO Board to provide the additional analogue and digital signals required for testing. To ensure maximum coverage, SEDECAL has produced a three step testing process,

starting with a test of the digital portions of the circuit using XJTAG, followed by checking the analogue parts with the onboard converters in the UUT and the XJIO board, and finally running a functional test by passing data through the XJIO board's serial interface.

Mr Pérez was very happy with his interactions with XJTAG. “It came down to a choice between two test systems, using one of our main boards as a test case for comparison. We found XJTAG to be more user-friendly, reliable and backed by excellent customer support. Its intuitive interface, extensive library of supported devices, and seamless integration between reports, tools, and viewers made it the perfect choice for our testing needs.”

Ease of use was a standout feature when working with XJTAG. The XJEase programming language was quick to learn and highly flexible, which made it easy to modify existing library files and troubleshoot issues around microprocessors and DSPs. “Friendliness and usability were clear highlights throughout the experience.”

Thanks to XJTAG, SEDECAL has significantly improved its circuit board testing process—achieving higher reliability, faster development cycles, and better collaboration with suppliers. With intuitive tools, outstanding support, and robust functionality, XJTAG proved to be the ideal choice for SEDECAL's evolving needs in medical electronics manufacturing.

opinion

José Luis Albert Pérez
Test Automation Engineer
SEDECAL

“Previously, we were doing manual testing, but it was very error-prone. XJTAG testing allows us to have repeatable and self-documenting results, improving the quality of our production.”

“The main benefit is in having an automated test that we can deliver to our board suppliers. The XJTAG system is very flexible and allows us to make changes rapidly.”

“XJTAG is very user-friendly, reliable, and has excellent customer support. Its extensive library of supported devices and seamless integration between reports, tools and viewers made it the perfect choice for our testing needs.”

Data Bank



Company	SEDECAL S.A. (Sociedad Española de Electromedicina y Calidad)
Nature of business	Leading OEM Developer and Manufacturer of medical equipment
Main products	High-frequency X-ray generators and robotic systems for diagnostic imaging
Customers	Medical
Founded	1994
Employees	900
Location	Madrid, Spain
Web site	www.sedecal.com