

Aethertek Advances PCBA Testing for AI Server Manufacturing with Early ICT Detection

As demand for AI servers and high-performance computing continues to grow, PCBA complexity and board value are rising, driving manufacturers to improve quality, yield, and testing efficiency. With increasing PCBA layer counts, component density, and power consumption, early detection of manufacturing defects has become increasingly important.

AI servers, in particular, incorporate high-performance GPUs and high-capacity HBM, significantly increasing the value of individual boards. Defects in components, solder joints, or circuits detected at later manufacturing stages can result in costly rework, scrap, and repairs. Moving testing earlier in the production process can help identify defects sooner, reduce manufacturing risks, and improve yield.

As a critical board-level quality control process, ICT verifies components, circuit connections, and electrical characteristics at an early stage. By identifying process defects before they move to subsequent production stages, ICT helps reduce rework and scrap while supporting production efficiency and product reliability.

Aethertek provides mass-production testing solutions from ICT to FCT for complex PCBAs and diverse manufacturing requirements. Its T1000 and T3000 test platforms feature modular architectures integrating proprietary test software and flexible hardware configurations, with up to 3,000 test points. Supporting MDA, ICT, and FCT, the platforms can be configured to meet different product and production requirements.

Aethertek also provides Keysight test fixture design and boundary scan testing services, addressing challenges such as fixture flexibility and hard-to-test points. Through integrated testing capabilities, Aethertek helps manufacturers improve test coverage, production efficiency, and quality across different manufacturing stages.

For more details, please visit Aethertek at Booth A4.639.

About us

Established in 1992 and listed on the Taiwan Stock Exchange (TWSE: 3219), Aethertek Technology is a global provider of production testing solutions for consumer electronics, automotive electronics, AI servers, and other advanced applications. With strong engineering capabilities and comprehensive testing expertise, Aethertek delivers reliable and flexible solutions to leading brands and EMS providers worldwide.

Aethertek also provides 5G FR2 mmWave technologies, including Antenna-in-Module solutions, supporting the development of next-generation wireless communications. By combining advanced technology, engineering expertise, and system integration capabilities, Aethertek continues to expand its solutions across emerging industries and drive innovation in electronics manufacturing and communications.

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