

Wei Wei
Senior Manager

Professional Profile

Mr. Wei Wei is a Senior Manager in Exponent's Electrical Engineering and Computer Science practice. Mr. Wei has extensive experience in the area of electronics product design, manufacturing, reliability, and failure analysis.

At Exponent, Mr. Wei specializes in investigations at both the electronics system and component level, particularly of issues related to materials, packaging, and their interaction with electronics systems. Mr. Wei led multi-disciplinary teams in solving problems such as printed circuit board plated through hole (PTH) defects, contamination issues, component mechanical and thermal failures, solder joint creep and fatigue, circuit board propagating fault and thermal events, electrostatic discharge (ESD), connector/cable failures, counterfeit electronics detection and screening, electrochemical migration and CAF, etc. The types of components he investigated include passive components, connectors and cables, discrete semiconductor devices, integrated circuits, circuit protection devices, smart cards, displays, rigid and flexible circuit boards, and MEMS devices and sensors. The systems he investigated include consumer electronics such as personal computers, smart phones, and tablets; industrial equipment such as credit card payment systems, network and communication equipment, automotive electronics, and appliances; and biomedical equipment such as angioplasty systems. Mr. Wei also conducted a number of product safety reviews on electronics products, performing tasks such as component stress level analysis, circuit board failure modes and effect analysis (FMEA), highly accelerated life testing (HALT), risk analysis, customized laboratory testing, and product recall support. In addition to his work in failure investigations, he had also been involved in several intellectual property litigation cases related to semiconductor IC design and manufacturing.

Prior to joining Exponent, Mr. Wei was a project leader at Atmel corporation, a major semiconductor company, where he had led the research and development work of several flash memory based IC devices such as Programmable Logic Devices (PLDs) and configuration memories for Field Programmable Gate Arrays (FPGAs). He had successfully produced several commercial IC products and also worked extensively on related customer or yield issues, such as ESD failures, noise problems, flash memory data retentions, etc.

Academic Credentials and Professional Honors

M.S., Electrical Engineering, University of Washington, 1999
B.S., Microelectronics, Peking University, Beijing, China, 1997

Languages

Chinese

Patents

Patent 7,110, 311 B2: Sense Amplifier for Reduced Sense Delay in Low Power Mode.

Publications

Pan Z, Wei W, Li F. Fast turn-around failure analysis of metal interconnection using FIB and LA ICP-MS. International Symposium for Testing and Failure Analysis (ISTFA), 2010.

Slee D, Stepan J, Wei W, Swart J. Introduction to printed circuit board failures. IEEE Product Compliance Symposium, 2009.

Presentations

Wei W. A PWB failure case study. CTIA Battery Registration Program Ad-Hoc Meeting, Menlo Park, CA, January 2007.

Prior Experience

Project Leader, Programmable Logic Device Group, Atmel Corporation, 2001–2004

Design Engineer, Programmable Logic Device Group, Atmel Corporation, 2000–2001

Teaching Assistant, Electrical Engineering Department, University of Washington, 1998–1999

Professional Affiliations

- IEEE (SSC, EDS, CPMT societies)
- ESDA
- Certified IPC Trainer (IPC-A-600), Serial No. 600-2895, valid through May 9, 2010