OUT-OF-WARRANTY REPAIR COST REDUCED BY 50% ON RUGGEDIZED MISSION CRITICAL COMPUTING & SCANNER PRODUCTS

SANMINA

Ruggedized mobile computing devices and scanners are used in fast paced retail and logistics environments, 24 hours a day. The products withstand robust user handling. Repairs when required must be cost effective. A tier one OEM chose Sanmina as its after-market partner and saved 50% on each product repair with an annual volume of 600,000 devices.

THE CHALLENGE

A tier one OEM supplied ruggedized mobile computing devices and scanners to multi-national retail and logistics companies. The OEM was obligated to guarantee functional performance of the products during their operational life. Typical operational life of the systems is 5 years. However, manufacturers of components and sub-assemblies provide a 12 months warranty. 600,000 systems required repair every year. The OEM required a cost effective repair solution to keep the systems operational for 5 years plus.

WHY SANMINA

The OEM had already experienced Sanmina's performance as their repair partner for other products for many years. They valued Sanmina's technical knowledge, innovative repair solutions and pro-active approach in continually reducing the cost to repair.

SANMINA'S APPROACH

- The Sanmina IT repair system identified products for which a manufacturer's warranty was still valid. These items were routed for repair by the original manufacturer

- The Sanmina engineering team developed solutions to repair sub-assemblies at component level.

- A system for harvesting fully functional components from products that were deemed non-repairable was developed.

- The Sanmina engineering team worked with equipment suppliers and local universities to develop innovative re-pair methods for complex devices including BGA, BGA POP and BGA with underfill.

- A process was developed using an industrial microscope, infra-red and hot air devices to enable repair of fine pitch components.

- A method to repair physical damage to the PCB was developed using pad, track and via replacement.

- Sanmina engineers developed a process to dis-assemble faulty multi-layer display touch panels to enable repair and replacement at the component level instead of replacing a full sub-assembly.

- Product design improvements were recommended where certain connector damage caused the entire product to be non-repairable. The recommendations ruggedized the design and were implemented by engineering change on all products returned for repair to reduce future failure rates.

RESULTS

- Sanmina reduced the material cost to repair each unit by 50%

- Lifetime cost to repair was reduced by over $1M per product portfolio.

ABOUT SANMINA
Sanmina makes some of the most complex and innovative optical, electronic and mechanical products in the world. Recognized as a technology leader, Sanmina provides end-to-end design, manufacturing and logistics solutions, delivering superior quality and support to Original Equipment Manufacturers (OEMs) primarily in the communications networks, computing and storage, medical, defense and aerospace, industrial and semiconductor, multimedia, automotive and clean technology sectors.

More information regarding the company is available at www.sanmina.com