

Case Study

HANDHELD 3D LASER SCANNER

Executive Summary

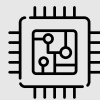
The client is a Switzerland based leader of surveying & geographical measurement products.

Leveraging its parent's company expertise in sensors, software and autonomous, the client wanted to develop one-of-its-kind portable 3D laser scanner. The scanner captures images via multiple camera to recreate 3D images and models.

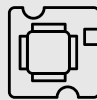
The client's existing product line was based on an application processor that was going end-of-life. They were looking for a partner who can help with processor evaluation and re-engineering of the entire product. They wanted a partner who has strong experience re-design, firmware porting and camera sensor integration. Leveraging strong experience on Qualcomm based design and in-house labs and infrastructure eInfochips took the complete responsibility of product development including hardware design, embedded software, camera sensor integration and Image sensor tuning.



Highly portable, automated and efficient



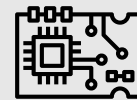
Based on Qualcomm QS8550 module



Small form-factor, compact LGA package



Multi-camera solution, ISP tuning



Custom carrier board for camera and other connectivity interfaces



Client

Revolutionizing the world of measurement and survey for 200 years, the Europe-based client is known for premium products and innovative solution development. Professionals from various industries, such as aerospace and defense, safety and security, construction, and manufacturing, trust our client for all their geospatial needs.



Challenge

The client's existing product was based on a platform that was reaching end-of-life. They needed a technology partner with strong expertise in various platforms, re-engineering, firmware porting, and camera design, to help redesign their next-generation product.



Solution

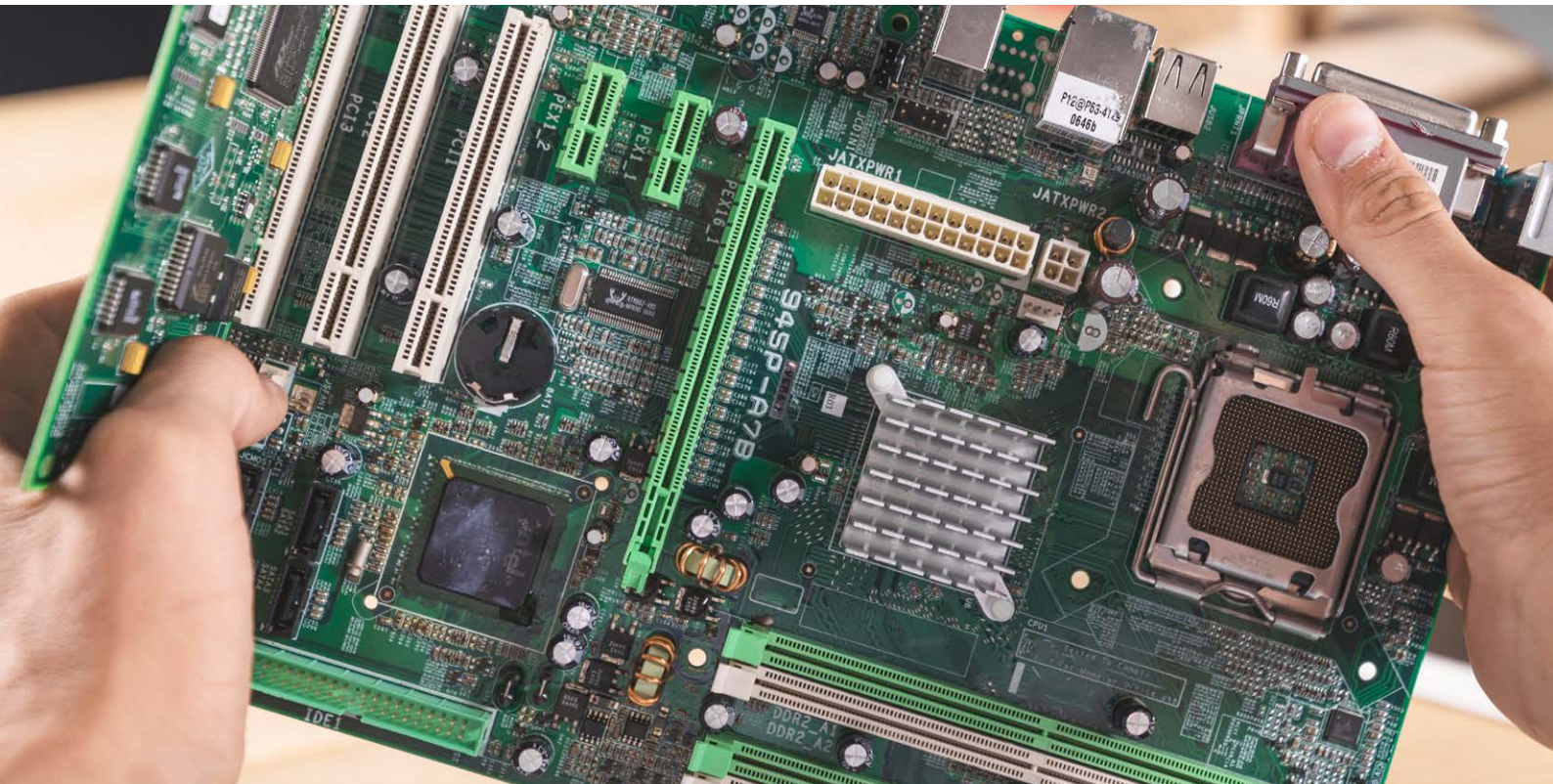
eInfochips took complete ownership of the end-to-end development of their next-generation product, including:

- Hardware design based on QCS8550
- Schematic design, PCB Layout and Gerber generation for Carrier board, camera modules, Ethernet, USB and more
- Detailed component selection & BOM analysis
- Electro-mechanical design
- Board Bring-up & Functional Testing
- Electronics Design Validation Testing (EDVT), Thermal Testing & Report creation
- Firmware porting and camera integration



Benefits

eInfochips successfully helped the client redesign the product and ensure faster time-to-market by leveraging its System on Module based on Qualcomm QCS8550. eInfochips also ensured a cost optimized design and product longevity of 10 years.



About eInfochips

eInfochips, an Arrow Electronics company, is a leading provider of digital transformation and product engineering services. eInfochips accelerates time to market for its customers with its expertise in the areas of IoT, AI/ML, security, sensors, wireless, cloud, and power. eInfochips has been recognized as a leader in Engineering R&D services by many top analysts and industry bodies, including Gartner, Zinnov, ISG, IDC, Nasscom and others.

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