



Elexon Electronics, is an Australian industry leader specialising in the design and manufacturing of rugged electronic products for defence applications, all proudly produced in Australia. We are a comprehensive solution provider of sensor technologies offering product design, design-for-manufacture services and Industry 4.0 electronics manufacturing capability.



CAPABILITIES

- + Electronics Engineering
- + Design
- + Design for Manufacturing
- + Prototyping
- + R&D Testing
- + Aerospace Certified Electronics Manufacturing Facility



DISCRIMINATORS

- + AS 9100D Certification for Design, Manufacture and Servicing of PCB
- + Product Lifecycle Management, Development, Manufacturing, Service and Support
- + Full Traceability
- + Industry 4.0 Factory – customised set up for Defence/Space projects
- + Extensive IP in Ruggedised Smart Sensor Monitoring and Communication Technologies



AREAS OF EXPERTISE

Engineering Development Competencies:

- + Blast-proof and Crush Resistant Electronic Monitoring Systems
- + Wireless In-ground and Through-rock Communication and Location Systems
- + Battery Power Management
- + Ultrasonic Monitoring and Recording Systems
- + Low-frequency RFID Reader Systems
- + IoT Devices



ACREDITATIONS, AWARDS AND CERTIFICATIONS

- + AS9100D and ISO 9001
- + ISO 14001
- + IEC 80079-34: 2018
- + IPC-A-600/610/620
- + J-STD-001




KEY MARKETS AND PARTNERS





Land 400 Phase 2

Land 400 Phase 4 is an acquisition program providing the Australian Army with modern armoured fighting vehicles. Rheinmetall Defence Australia supplies ADF with Boxer CRV (Combat Reconnaissance Vehicle) which are highly mobile, well-protected, and equipped with advanced weapon systems to support the Army in various combat scenarios.

Elexon Electronics contribution:

Printed Circuit Board Assembly and Testing

Special Requirements:

- + Flying Probe tester
- + Capability Mix - wide range of different technologies
- + High AIC content requirement

Specialised Equipment:

- + Flying Probe Tester
- + 3D Automated Optical Inspection



Satcom On The Move Terminals

RF PCBA's in one of the most time-critical subsystems used in the EM Solutions Marine Satcom On the Move Terminals.

Elexon Electronics contribution:

Printed Circuit Board Assembly

Special Requirements:

- + 100% surface mount
- + Thermally challenging 12 layer 32 mm thick PCB
- + 1400 components including BGAs
- + QFN and special RF components requiring grounding and thermal relief
- + Reflow soldering of connectors
- + Vapour Phase Vacuum Soldering
- + X-Ray inspection



Enclustra Mercury+ XU8 Processor Engine

Elexon Electronics contribution:

Challenge: The production of high-density boards with a high level of integration posed challenges in ensuring reliable soldering processes.

Solution: We successfully addressed this challenge by introducing a Jet printer into our manufacturing process. This technology allows us to precisely apply the required amount of solder paste to components, ensuring a more reliable soldering process.

Benefits:

- + Enhanced Assembly Integration Capability (AIC)
- + Improved reliability in our soldering processes
- + Enhanced thermal performance in our high-density boards
- + Achieving these advantages with cost-efficiency in mind

