BAE Systems is Australia’s most versatile defence and security company. We have a long history of designing, build to print, manufacture & support of Electro-Optic systems.

Our integrated team’s capabilities cover Systems Modelling, Design, Optical Component Manufacturing, Assembly, Test and Product Support.

Our Electro-Optic capability covers both fielded equipment and training systems and addresses the areas of Night Vision, Thermal Imaging, Lasers, Scanners & Gimballed equipment with associated Product, Tooling and Test equipment design.

Underpinning this capability is a set of robust processes directly aligned to international standards ISO-9001:2008 and AS9100.

We are experienced in the entire product life cycle – Design, Manufacture, Qualification, Acceptance, Introduction into Service and Through Life Support.

We are partnered with a range of companies in the areas of integrated military and civil systems and value added support solutions.

### Optical Component Manufacture and Diamond Turning

BAE Systems Australia has the most comprehensive Optical Production facility in Australia.

Our Optical Production and Single Point Diamond Turning (SPDT) facility produces optical elements with plano, spherical and aspheric surfaces to demanding customer requirements. This includes lenses, prisms, windows, laser slabs and mirrors in a diverse range of Infrared, Visible and Non-ferrous materials.

Our Optical Coating department designs and manufactures coatings for optical components and SPDT parts. Optical coatings are designed for applications from Ultra-Violet through to Long-wave Infra-Red and achieve high production yields.

Our customers’ desired performance and unit cost outcomes whether for small volume prototypes or high volume production runs are enhanced through feedback available from our manufacturing and design team in the areas of Manufacturing Process and Component Design.

### Electro-Optic system assembly and test

Our assembly areas include Dark Rooms for Night Vision equipment, areas dedicated to Thermal Imagers, Aerospace, ITAR and Security controlled access areas, a large Clean Room complex and general assembly areas which are temperature and humidity controlled with laminar flow tables arranged into work cells.

The Clean Room complex includes a general laser assembly area, five dedicated laser-firing rooms with appropriate safety interlocks, and a number of dedicated assembly and test rooms for special purposes. An indoor laser test range for distances up to 150 metres is also available.

Our Electro-Optic Testing facility utilises a large range of visible and infrared interferometers, along with spectrophotometers to ensure final product quality. IR collimator benches which enable Modulation Transfer Function (MTF) to be measured are used for test and evaluation. This facility includes a specialised range of image intensifier test and evaluation equipment. A full Environmental Test facility is also available.

Specialised and tailored Quality Systems allow for products from multiple countries to be produced and tested through the various stages of Prototype, Qualification, Low Rate Initial Production and high volume Production.
Electro-Optic system maintenance and repair

Leveraging off our Design, Assembly and Test capability we provide repair and refurbishment for a comprehensive range of Electro-Optical systems including:

- Thermal Imagers
- Thermal weapon sights
- Infrared tracking
- Night Vision equipment
- Laser range finders
- Target designator systems
- Laser radar
- Laser mapping

We have the capability to modify or upgrade current EO Sensors.

We are the authorised service centre for FLIR Systems Inc. and are partnered with ITT Exelis for supply and support of their products throughout Australia and New Zealand.

Our Deeper Maintenance capability includes:

- Design of Special To Type Test Equipment
- Broad range of repair and maintenance capabilities: mechanical, optical, electronic & software.
- Close meshing with customer logistics chain.

Supporting the above, BAE Systems Australia has the embedded processes and culture for:

- Process control
- Labour skills competencies and training
- Configuration baselines and changes
- Configuration status accounting
- Support to FRACAS & DRACAS systems
- Source material traceability
- Obsolescence management
- Quality assurance
- Feed back of productivity enhancement recommendations

Electro-Optic design of equipment, tooling and test equipment for In Service use, Simulation and Training

For more than two decades our Electro-Optical design and performance analysis capability has been applied to advanced developments in Visible, Infrared, Laser and multi-sensor equipment.

This capability is routinely applied to analysis, design and production engineering for product in the areas of:

- Long range naval Thermal Imaging
- Diode pumped Q-Switched IR laser systems
- Night Vision
- Soldier systems
- Day/night aiming devices
- Target detection, designation and illumination
- Navigation
- Specialised telescope design
- Laser 3D profiling
- Laser classification and safety analysis
- Sensor performance prediction

Niche products have resulted from the application of our design capability in the areas above and we currently supply and support these within Australia and Worldwide.

We provide repair and refurbishment for a comprehensive range of Electro-Optical systems

We supply and support worldwide product in Australia and New Zealand
This document gives only a general description of the product(s) or services except where expressly provided otherwise shall not form part of any contract. From time to time, changes may be made in the products or the conditions of supply.

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