Optical Assembly and Test
Electro-Optics Capability
BAE Systems Australia’s Product and Support Group, located in Holden Hill, South Australia offers dedicated systems analysis, engineering design, prototype fabrication and production build to stringent customer requirements. BAE Systems has a long history of providing repair and refurbishment of a comprehensive range of electro-optical systems including:
- laser range finders
- target designator systems
- laser radar
- laser mapping
- thermal imagers
- infrared (IR) tracking
- image intensification systems

Optical Assembly
BAE Systems Australia’s Optical Assembly allows for a wide range of assembly projects with high levels of technical complexity and specialised environmental requirements.

The assembly areas vary from a temperature and humidity controlled general assembly room where laminar flow tables are arranged into work cells, to a large Class 7 (AS/NZS ISO 14644) clean room complex.

This Class 7 clean room 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.

A Zygo Maxim-3D non-contact Profilometer is utilised for surface roughness measurements. A range of spectrophotometers are available to conduct measurements from UV to far IR.

Thermal Imaging Systems
BAE Systems Australia provides expertise in the design and manufacture of land, marine and airborne thermal imaging systems for customers around the world.

BAE Systems Australia is the authorised service centre for FLIR Systems Inc. This includes the maintenance, service and support for all FLIR Systems products throughout Australia and New Zealand.

To support these functions, BAE Systems Australia has the required test capabilities to perform black body calibration, minimum resolvable temperature difference (MRTD) test, alignment and bore sight activities.

Optical Testing
BAE Systems Australia’s Optical Testing facility utilises a number of precision test methods to ensure the final quality of individual components and assemblies.

Zygo Mk4 interferometers are available for surface analysis as well as radius of curvature measurements. An IR interferometer is used for test and evaluation. The facility also has a range of general-purpose collimators, optical benches and specialised image intensifier test and evaluation equipment. Included in this area is a general purpose Modulation Transfer Function (MTF) bench and associated test fixtures.

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BAE SYSTEMS AUSTRALIA

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