



Defence

Ansys Defence



Name Surname

Position

Company

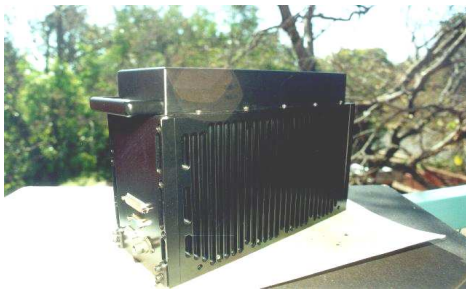
OVERVIEW

Ansys Limited is a JSE-altX listed, ISO9001 accredited, Black Empowered, CIDB listed engineering, project management and software company whose strength, much like South Africa's, lies in its diversity.

Established in 1987, Ansys specialises in the design, development, manufacture, integration and support of advanced technology systems and products for the rail, industrial and defence environments.

In the Defence Segment the Ansys Group specialises in:

- Avionics and Communications
- Simulators and Consoles
- Test Equipment
- Photonics

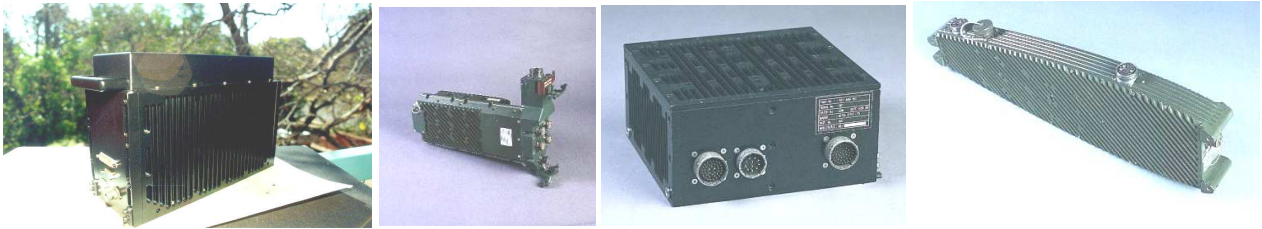


AVIONICS AND COMMUNICATIONS

Products in the Avionics and Communications category include:

Avionics:

- **Avionics Enclosures (3MCU)** - enclosures for the electronics for the Helmet Mounted Sight for the Gripen Fighter both in the RSA and Sweden.
- **Launcher Electronics Unit (LEU)** – the electronics interface between the aircraft and the missile/launcher developed for the Mokopa Missile Launcher.
- **Rocket Launcher System (RLS)** – the electronics interface between the aircraft and the launcher developed for the for the Rooivalk Attack Helicopter ballistic rocket launcher.
- **Grip Multiplexer (GMU)**. electronically multiplexing functions on the control grip (i.e. for weapon selections, etc) developed for the Rooivalk Attack Helicopter.
- **Air to Air Missile Electronic Unit (AEU)** – the electronics interface between the aircraft and the missile/launcher developed for the Mistral Missile Launcher.



Communications:

- **LAN Interface Unit (LIFU)** - interface between the data/audio source and the communications channel (radio/cable, etc.) developed for GBADS. Features include Voice Over IP (VOIP) and Ethernet voice transmission protocol support. It can also be used as an intercom controller.
- **SPLOOM** – a man portable field deployable fiber optic line incorporating an in-line optic to electric (100Base-T Ethernet) converter for easy interface to standard electrical data links developed for GBADS. Distances of up to 3000m are theoretically possible.



DEFENCE SIMULATORS AND CONSOLES

Products in the defence simulators and consoles category include the following:

Simulators

- **Fire Unit Trainer (FUT)** - a simulator developed for the GBADS Fire Unit with full 3-D graphics for immersion training of the Missile Launcher crews and observation units. It features automated evaluation, target generation (client specified) and realistic terrain maps (topographical information geographically correct for selected training area). Troops deploy the actual equipment in a classroom for use.
- **Mirage F1 Simulator Upgrade** – an upgrade to the computational unit of the Mirage F1 Fighter Simulator (70s technology replaced with modern equipment). It includes development of/and modification to the software models and also features seamless interfacing to the previously existing interfaces.
- **Mokopa Missile Simulator** – a simulator developed to emulate the Mokopa missile communication data bus used on the Rooivalk Attack Helicopter.
- **Mil Std 1760 Simulator** – a simulator developed to emulate the 1760 communication data bus used in modern aircraft and specifically developed for the Mokopa missile development.

Consoles

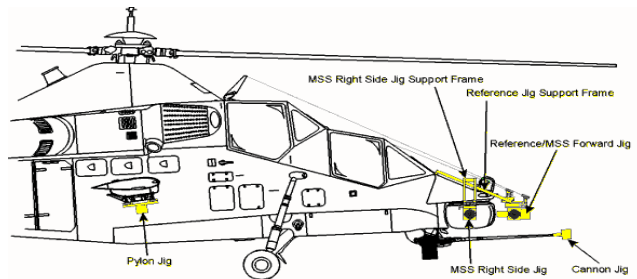
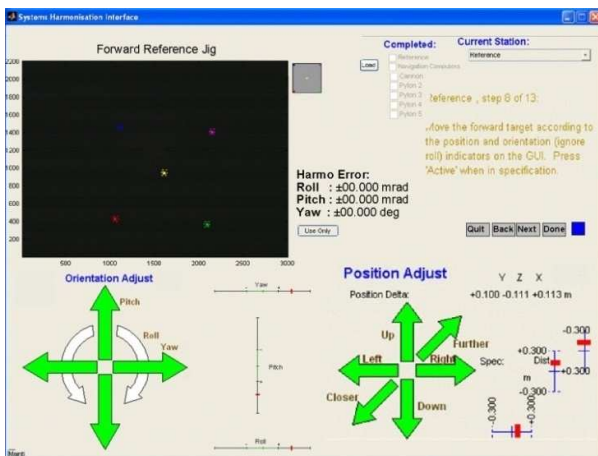
- **Submarine Weapons Console** – a weapons console developed and delivered for submarines for the SAN.



DEFENCE TEST EQUIPMENT

Ansys provides the following defence test equipment:

- **Rooivalk Harmonisation Kit** – an automated boresighting system for the Rooivalk Attack Helicopter which can be adapted to other weapon platforms which have multiple weapons to be boresighted.
- **Rooivalk Weapons Test Bench** – a full weapons test bench developed for the Rooivalk Attack Helicopter weapons systems.
- **SAL 29 Tester** – test equipment developed for the Rooivalk Attack Helicopter pylon actuator controller.
- **HMDEU Test Bench** – a full test bench developed for the Gripen fighter for the helmet mounted sighting electronic unit as used in both RSA and Sweden.

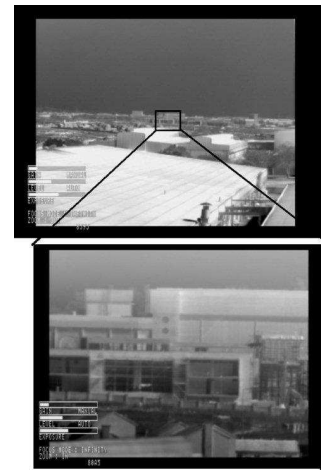
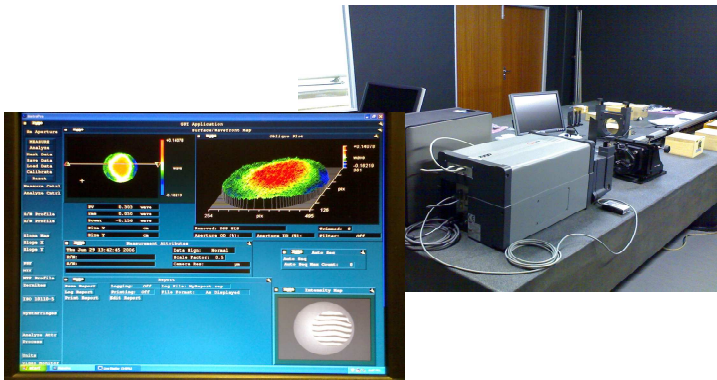
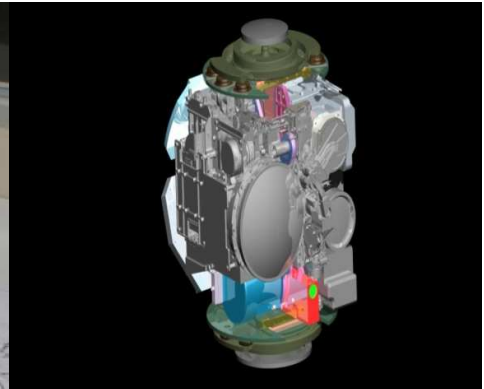
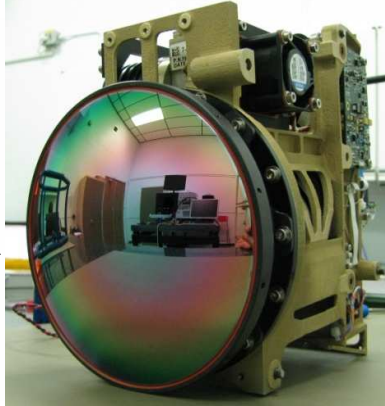
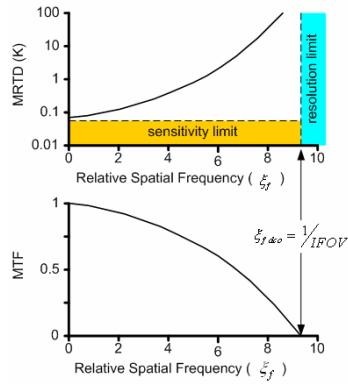


DEFENCE PHOTONICS

The following are among the defence products in the Photonics category:

- LCS 100 – a fire directing system incorporating a day camera, thermal imaging camera (TI), Laser Range Finder and controller with display.
- High Performance GS – Gunner Sight developed for the Hoefyster project
- Thermal Imaging Systems – TIs – Cooled and Uncooled
- High Performance Video Systems
- EO Systems Design and Modelling
- Optical Lens Design and Analysis
- Opto-Mechanical Design and Analysis
- EO Performance Testing
- Precision Optical Component Manufacturing
 - Conventional Fabrication
 - Thin Film Coatings
 - Assembly and Testing
 - Centring
 - MTF Measurements
 - Spectrophotometer
 - Interferometry





Continuous Zoom From Narrow To Wide

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