







# ABOUT DEFSYS

**Defsys Solutions Pvt. Ltd.** is a leading electronic systems integration company in India leveraging its capabilities to provide advanced solutions for a variety of defence and aerospace applications. We are a privately held entity having valuable experience in design, manufacture and integration of advanced electronic systems. Established in 2007, Defsys has grown from a small Bangalore based design team to a multinational globally recognized company with state of the art manufacturing facilities and newest technologies.

We design and manufacture : Integrated Electronic Systems, Electro-Optical Payloads, Thermal Imagers, Flight and Firing Simulators, Weapon Replicas, Electro-Mechanical systems, On-board electronic sub-systems, Automated Test Equipments (ATEs), RF & Microwave Sub-assemblies, Radar & Seeker Simulators, RF Test and Measurement systems. The Company also provides a range of support services such as maintenance and on-site upgradation of existing military systems.

**Defsys Solutions** is an ISO 9001:2008, AS9100C, certified company spread across five locations in India; two of them being the manufacturing units.





# PRODUCTS

## Strategic Electronic Systems

#### Integrated Systems

Defsys designs customized technological solutions for military platforms. We manufacture advanced integrated systems to meet customer requirements and specifications. We integrate our strategic electronic systems on all type of mobile platforms including military shelters, ships and boats, aircrafts and vehicles.



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Command & Control Systems

Defsys provides full turn-key solutions for all types of Command and Control systems. We design, develop (mechanical, hardware and software), manufacture and install our systems on all ground, naval and airborne platforms.

Our wide product range consists of:

- Ground command operations
- Weapon, radar, warfare system consoles
- On-board naval control station

All our products are ruggedized and tested for environmental conditions, according to MIL-STD, and used for operating complex military systems.





#### On-board Electronics

Defsys provides wide range of solutions for Built-to-Spec Military computerized units as:

- Mission computers
- On-board controllers
- Interface and Command units.

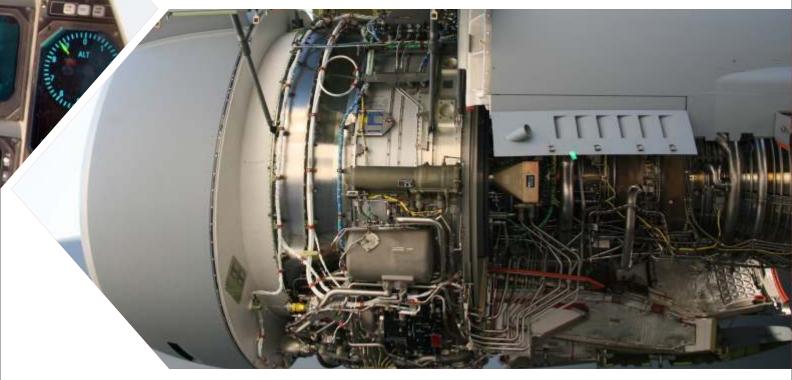
We develop operational software based on Linux or Windows, according to the customer specifications.

Defsys delivers full turn-key solutions project including design, MIL-STD environmental tests, qualification, manufacturing, and the on-platform system integration.





## Strategic Electronic Systems



#### **Electro-Mechanical Systems**

Defsys offers full turnkey solutions, design, development and manufacturing of electro-mechanical systems as per customer requirements. Our products are ruggedized and qualified as per military standards and the products are used by troops, installed on tanks, ships and submarines.





#### Airborne EO/IR Payloads

Defsys provides airborne EO payloads for Border Security, Coast Guard & Sea patrol, search & rescue applications. Our products are used for UAV's, helicopters, and fixed wing aircraft platforms.

Our airborne thermal imaging camera payloads are ideal for a wide range of air surveillance and security requirements onboard airplanes of different sizes and capabilities.

Defsys' stabilized payloads utilize a unique proprietary development including very powerful continuous optical zoom lens for the thermal imaging cameras (up to X36), image processing, built-in video tracker, as well as extremely high level of stabilization, velocity, accuracy with superb quality and reliability.







www.defsys.co.in



### **Electro-Optical Systems**

#### Land EO/IR Payloads

Defsys offers Land EO payloads for Panoramic Automatic Intruder Detection & Recognition System which uses scan mode for Intruder Detection & observation mode for Intruder identification and tracking.

Defsys has comprehensive Electro-Optical systems for short, medium and long range land use. Our products applications include installation on buildings, tripods, poles, towers or vehicles as well as onboard installation on land-based EO/IR scanning systems for border surveillance and military bases security.



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#### Maritime EO/IR Payloads

Defsys Solutions has an established range of products for Day/Night Observation System for Maritime Vessels. We provide short range solutions for small boats and long range solutions for large battleships which is suitable for all private commercial & military requirements.

Defsys offers comprehensive solutions for sea applications, with variety of Electro-Optical systems for short, medium and long range maritime security and protection.

Defsys also provides several EO/IR scanning systems which are ideal for sea safety, coastline and harbor security.





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QUAD



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## **Electro-Optical Systems**

#### UAV EO/IR Payloads Defsys UAV Payloads

Defsys UAV Payloads are designed for very low weight requirements, incorporating light weight technologies and utilizing a lightweight dome cover and window, in order to minimize the weight, for Day or Night use on board tactical mini-UAVs.

The UAV payloads are airborne sensors which are designed to be carried on mini- UAVs and are ruggedized for high shock landings.

Our UAV payloads are suitable to be mounted on small UAV's, small helicopters and aircrafts, aerostats and tactical small observation balloons.





D-STAMP/HD U-STAMP/Z/DF



M-STAMP/HD Dual Sensor



T-STAMP Dual Sensor



TR-STAMP Triple Sensor

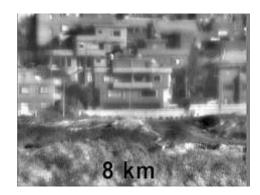


#### Thermal Imaging Cameras

Defsys Thermal Imaging Cameras are night vision cameras which provide excellent image quality for day and night use. These homeland security cameras are suitable for a wide range of air surveillance, land and sea applications.

Defsys' wide-range of EO/IR Infrared Cameras includes cooled and uncooled Thermal Imaging Cameras.

Defsys develops and manufactures unique Thermal Imaging Infrared Cameras that are suitable for observation purposes, short to long ranges and security of weapon sites.





FOX 320Z





FOX 450Z/ZE FOX 720/ZE



FOX 250Z/ZE

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FOX 1400Z



HOUSING



### **ATE's & Simulators**



#### Automated Test Equipments (ATE's)

Defsys specializes in design and manufacture of Automated Test Equipment (ATE) for all types of weapons and military systems. Our ATE's are used for development, production as well as maintenance and integration at all levels.

We have in-depth knowledge in ATE software and hardware, especially in sophisticated electro-optical and RF systems together with their test requirements and testing methodology.









#### Firing Trainers

Defsys has expertise in design and manufacture of Small Arms Training Simulator configured as an upgradable multiple lane flat screen system to impart basic as well as advanced training to number of users at a time. Our modular design assures an extended life cycle of many years, mainly because the system is based on COTS products in combination with a dedicated maintenance service anywhere in India.





#### Simulators

Defsys designs, develops and manufactures state of the art training simulators. We have expertise in developing complicated systems consisting of hardware and software components for simulation of real environment to Missiles, Weapon Control Systems, Datalinks and to other defence applications.

Our mission is to provide customers with quality products and services. Defsys is actively involved in indigenization of technologies, which is beneficial to Indian armed forces.

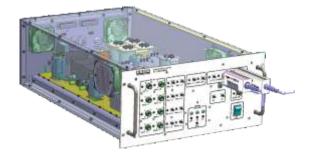


## **RF & Microwave Systems**

Defsys has exceptionally high level of knowledge and experience in RF & Microwave design, manufacturing & integration for wide range of solutions (up to 40GHz) such as:

- Data-links and RF Communications
- Target simulators and Range simulators
- RF Drawers and Switching boxes (spec.)









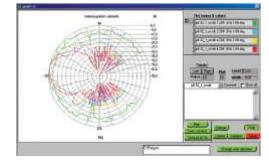
### **RF Test & Measurement**

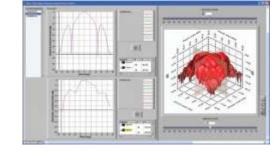


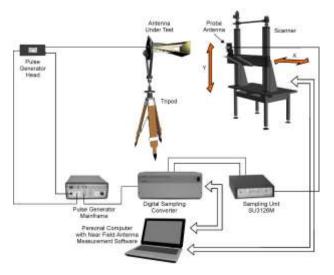
Defsys provides highly skilled in-house engineering capabilities to assist scientists to meet their test & measurement requirements.

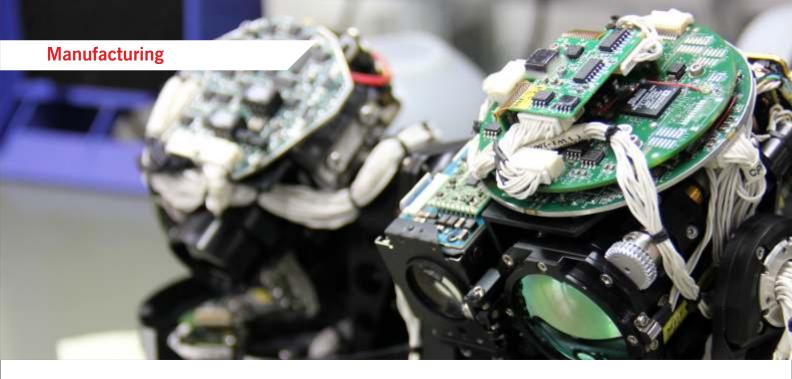
Our company specializes in turn-key measurement systems and solutions for antennas, radoms, radars, DF elements and full EW systems used both indoors and outdoors.

Defsys provides solutions implementing the newest technologies and algorithms in time-domain & frequency domain measurements for Near-Field, Far-Field, and Compact Ranges. As a turn-key solution provider, we deliver the entire testing project, including mechanical & electro-mechanical subsystems, special RF instrumentation, customized measurement software, anechoic chambers design and overall system design, integration, installation and on-site support.









## CAPABILITIES

Defsys has modern state of the art factories to carry out BTP manufacturing of complicated electronic systems for international defence OEM's as well as for Indian clients.

We have the following manufacturing capabilities and equipment's:

- Electro-Mechanical assembly halls
- Clean Rooms for optical assemblies and microwave sub-systems
- Electronic boxes integration and testing lab
- Large System Integration Facilities
- Compressed air and Compressed nitrogen systems
- Vibration Machines, Thermal Chambers and remote conditioners
- · Collimators and Special optical test equipment
- RF Test and measurement equipment's up to 40 GHz









## Engineering



Defsys engineering team has strong experience and capabilities to design and deliver the most complicated military electronic systems for airborne, ground and naval applications.

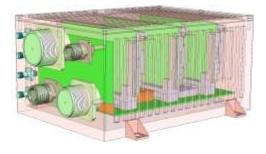
We do:

- System Level and Platforms Design
- Complicated Mechanical & Electro-Mechanical modelling
- Hardware & Software Development
- Electro-Optical Systems and Payloads

Defsys is using highly sophisticated design tools for design, simulation and verification of our systems performance and reliability the customers require. Our products meet the harshest environmental conditions and military standards.









#### Head Office:

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