Avionic Systems & Integration Capabilities
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ASELSAN performs design, production, test, integration, installation and logistic support activities of high-tech avionic systems for fixed/rotary wing aircrafts and unmanned air vehicles.

We offer,
• Customer satisfaction
• High levels of reliability
• Increased pilot situational awareness
• Increased safety
• Improved reliability
• Reduced pilot work load
• High level man-machine interface
• Customer support and customized services

to our customers...

ASELSAN develops and produces the following Avionic Systems:

• Airborne Electro-Optical Systems
• Helmet Integrated Cueing Systems
• Inertial Navigation Systems
• Flight & Mission Management Systems
• Cockpit Management Systems
• Airborne Communication Systems
• Identification, Friend or Foe Systems
Airborne Electro-Optical Systems

ASELSAN offers a wide range of Electro-Optical reconnaissance, surveillance, and targeting systems for fixed/rotary wing aircrafts and unmanned air vehicles.

- **CATS Targeting System:**
  IR Camera, Full-HD Color TV Camera, Low-Light NIR Camera, Laser Range Finder, Laser Designator, Laser Pointer, Laser Illuminator

- **ASELPOD Targeting System:**
  IR Camera, TV Camera, Laser Range Finder, Laser Designator, Laser Pointer, Laser Spot Tracker

- **ASELFLIR-300T Targeting System:**
  IR Camera, Color TV Camera (optional), 3-CCD Spotter Camera, Laser Range Finder, Laser Designator, Laser Pointer (optional), Laser Spot Tracker

- **Laser Warning Receiver System:**
  Laser Threats Detection, Identification of Threat Type and Direction, Full Band Coverage
LASER WARNING RECEIVER SYSTEM

ASELPod TARGETING SYSTEM
Helmet Integrated Cueing Systems

AVCI Helmet Integrated Cueing System (HICS) is a visor-projected system designed for helicopter platforms to improve the pilot's situational awareness by increasing the capabilities of the pilot and aerial vehicle with its night vision, video, symbology and accurate head tracking inside.

Main features:
- Night vision, IR video, navigation and weapon symbology
- Generation of head tracking information for accurate line of sight cueing and targeting
- Personalized inner liner for the pilot
- Protection of the head and face region from impact and sharp objects
Inertial Navigation Systems

Inertial navigation systems are the main source of navigation for the airborne platforms. ASELSAN’s indigenous design inertial navigator ANS-510 is a highly accurate system with ring laser gyroscope and embedded GPS receiver.

The inertial sensor data is combined with the GPS data using a tightly coupled Kalman filter mechanization, to supply highly accurate hybrid navigation solution, free inertial navigation solution and GPS only navigation solution simultaneously. ANS-510 can either use SAASM compliant GPS receiver or commercial SPS GPS receiver as embedded GPS receiver.

ANS-510 product family has an open architecture and flexible hardware/software infrastructure which can be adapted to various airborne, land and naval applications.
ASELSAN’s fully integrated avionics systems include advanced Flight Management Systems (FMS) that combine workload-reduction with multi-sensor navigation, communication and mission capabilities. We offer a full range of FMS solutions designed to meet all aircraft needs. Based on open architecture technologies ruggedized for harsh environmental conditions, we offer scalable avionics solutions with maximized component re-use and minimized development and integration cost. The FMS architecture also features improved obsolescence management to keep the system at high performance throughout its life cycle.

- Rugged design.
- Wide application range from military helicopters to fighter.
- Various enclosure options.
- High-end, multi-core processing capabilities
- Support for contemporary and legacy avionic interfaces
- Internal graphics generation
Cockpit Management Systems

ASELSAN offers indigenous design Multifunction Display family for various applications both rotary and fixed wing platforms. Our products increase situational awareness and reduce pilot work load.

ASELSAN cockpit management systems can be configured with either dumb or smart, color display units, keyboard display units.

ASELSAN manufactures:
- VMFD-68 Multifunction Display
- CMFD-55 Multifunction Display
- KDU-44 Keyboard Display Unit
- Mission Grip
- Multi-Function Slew Controller
Airborne Radios

ASELSAN Software Defined Networking Radios (SDR) ensures increased survivability against Electronic Warfare threat by providing alternative communication means in HF and V/UHF bands. Software configurable architecture enables supporting various tactical radio waveforms and EPM techniques.

ASELSAN produces the below listed systems:

- ASELSAN V/UHF SDNR Airborne Radio (30-512 MHz.)
- ASELSAN HF SDNR Airborne Radio (2-30 MHz.)
- Remote Control Unit for SDNR Airborne Radios
Identification Friend or Foe Systems

STANAG 4193 compatible ASELSAN Mode 5/S IFF Transponder satisfies military and civilian air traffic control systems’ needs while supporting Mode 1, Mode 2, Mode 3/A, Mode C, Mode S and encrypted modes Mode 4/Mode 5 with NATO and National algorithms.

Mode 5/S IFF Transponder can easily be adapted for Reverse IFF (STANAG 4722) requirements by software upgrade.

Having advanced controlling system, Mode 5/S IFF Transponder can be controlled over Ethernet, MIL-STD-1553 data bus or Remote Control Unit.
Avionic Integration Capabilities

Together with the capability to develop and produce highly improved avionic systems, ASELSAN is also able to perform both hardware and software integration of avionic systems to fixed wing and rotary wing air platforms.

By utilizing its own abilities and core capabilities ASELSAN has established the state of the art technology for designing and producing:

- Flight & Mission Management Systems
- Display Management Systems
- Navigation Management Systems
- Communication Management Systems
- Identification Management Systems
- Weapon Systems.
ASELSAN has airborne system integration expertise on the following fixed and rotary wing platforms:

- T-129 ATAK
- AH-1P/S Cobra
- AH-1W Super Cobra
- AS-532 Cougar
- UH-1H/AB-205
- S70A Blackhawk
- S70B Seahawk
- RF-4E Reconnaissance Fighter
- F-4E Fighter
- CN-235
- T-38
- Mi-17