Elettronica has the design authority for system integration of Ground, Naval and Air Units. On this basis Elettronica provides turnkey solutions according to customer wishes for operational capabilities. The design covers mechanical, electrical and electromagnetic aspects as well as sensor design if applicable.

Until now Elettronica has delivered more than 150 vehicles of more than 15 types to its worldwide customers. All solutions are validated in the field.

Severe constraints are successfully managed by Elettronica through the use of innovative design, tools and materials. From simple electronic enclosures through antenna chassis up to ISO containers, Elettronica has provided its Customers with unique composite solutions that are already in operation.
PUBLIC SECURITY SOLUTIONS

MUROS C Interception is equipped with a set of communication interception antennas, providing all signals of interest and a direction finding capability. Mounting the antennas on a mast provides ideal conditions for receiving signals. The operator workstation provides all software tools to analyse and decrypt the communication.

COMINT (C-ESM) Sensors, GSM interception sensors, Open source databases and Internet, and human observers are merged to a complete situational picture. Additionally, the system is empowered with mass data analysis software, superior text analysis and ontology capabilities (COGITO Intelligence Platform), Interactive Analysis (faceting, correlation, clustering) and Visual Analysis, integrated in Geographic Information Systems (GIS).

Electrical and Mechanical Design
- Software aided design
- Autocad Inventor, CATIA V5, E-PLAN, HARNESS, HFSS, CST, SAVANT
- Partner of VW and Mercedes
- Structural Simulation
- Finite Element Analysis
- Static and dynamic (crash analysis)
- Thermal Simulation

Sensor Networking and Functional Integration
- Open architecture for interfaces
- Data Storage
- Integration with Mission Planning and Fleet Management

Framework Software
- Providing single User Interface to the Operator
- Data collection, management and storage
- Control of legacy devices and sensors
- Integration of sensor specific User Interfaces
- Centralized status monitoring
- BIT on request or continuous BIT functions
- Enables full remote operation via secure data link

The multi-disciplinary work – required by complex integration tasks – is carried out by Elettronica through an agile design & development process to which mechanical design, structural, thermodynamic simulation, electrical design and electro-magnetic simulation synergically contribute.

The available library of building blocks and proven solutions drastically shorten the time-to-production, as well as the partnership agreements with the manufacturers of the platform and favorite suppliers.

Simulation and testing of systems, units or vehicles in operational conditions allow proper design of ancillary functions such as HVAC, liquid-cooling, air ventilation, environmental conditions controller. Similarly, EMI/EMC aspects are carefully addressed based on EU/MIL standards, as well as security aspects related to signal leakage.

ELETTRONICA open architecture for sensor and actuator networking allow the required real-time interactions among the integrated sensors and the platform. The physical layer varies and include CANBUS, point-to-point cable connections, ETHERNET, WIRELESS, as well as different protocols to exchange this data.

INTEGRATION SERVICES