

EXPERT IN CABLES AND INTERCONNECT SOLUTIONS



Axon' Cable is a world leader in specialist interconnect systems. The company excels in the design and manufacture of wires, cables, terminated harnesses, connectors and integrated systems for high technology applications including aeronautics, military, space, oil and gas exploration, medical electronics, research centres, automotive and consumer electronics.

EXPERT IN CABLING ENGINEERING

How to interconnect electronic devices provided by different suppliers in one system? As an expert in cabling engineering, Axon' Cable is able to design the whole cabling network. Axon' engineers assist customers with the most appropriate tools including simulation software (INVENTOR, CATIA, SEE ELECTRICAL HARNESS) and co-design in all the development stages : idea, concept, prototypes, industrialisation, volume rampup and mass production. Axon' will bring you cost-effective solutions based on Lean Engineering and Lean Manufacturing principles.

CONCENTRATED BRAINPOWER

Innovation is at the forefront of the Axon' Group which invests 10 % of its annual turnover into Research & Development. Electromagnetic compatibility (EMC), RF, high data rates, extreme miniaturisation, flex-life, hermeticity, magneticity, radiation, weight saving and bio-compatibility are just a few examples of the many challenging requirements Axon' can meet.

A dedicated team in process engineering and machine design continuously improves the reliability of the manufacturing process and ability to adapt to market requirements.

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AERONAUTICS



APPLICATIONS ✓ On-board electronic devices in civil and military aircraft, helicopters, unmanned aerial vehicles (UAV).

CHALLENGES > Weight and space saving, miniaturisation, extreme temperatures, reliability, mechanical resistance, high frequency, high data rates.

- Rugged cable assemblies and harnesses
 Rectangular and circular miniature connectors : Micro-D, Nano-D
- Lightweight and flexible wires and cables
- Microwave coaxial cables
- High data rate interconnects : Fibre Channel, Ethernet, IEEE1394





APPLICATIONS ✓

Axon' Cable has a wealth of proven flight heritage in interconnect solutions for space applications including launchers, LEO, MEO and GEO satellites, thrusters, rovers, International Space Station equipment and ground testing.



CHALLENGES > Weight saving, resistance to radiation, high frequency and extreme temperatures

- Aluminium and ESA approved wires for the cabling of satellites
- High temperature electric propulsion wires for thrusters
- Aluminium bus bars for power distribution
- Microwave / RF cables
- Harnesses and connector savers
- SpaceWire links
- Micro D connectors (ESCC3401/029 EPPL2)

MILITARY



APPLICATIONS ✓

Radars, antennae, navigation and communication systems, missiles, counter measures, radio and audio communication systems, naval systems, soldier systems.

CHALLENGES > Severe

environment, electromagnetic protection, reliable signal transmission, secure data communication, weight and space saving, high pressure, flex-life, waterproofness.

• Equipment wires including halogen free wires

Coaxial cables

• Rugged rectangular and circular micro-D connectors and cable assemblies

• Rugged multi-branched harnesses

• High speed 10 Gb/s Ethernet interconnects: RJ 45 integrated into a MIL-DTL-38999 body.

• Low loss microwave assemblies up to 50 GHz.



ENERGY AND OFF-SHORE



APPLICATIONS ✓

Oil and gas exploration, down hole applications, renewable energy (solar panels), nuclear power, batteries.

CHALLENGES > High temperature, radiation, flexibility, power distribution, hermeticity, miniaturisation, pressure and vibration.

- Composite cables : hybrid, spiral, flat or round interconnects.
- Radiation resistant wires and cables
- Flexible power cables
- Diverse overmoulded cable assemblies and harnesses
- Flat cables
- Rectangular and circular micro-D connectors



APPLICATIONS ✓

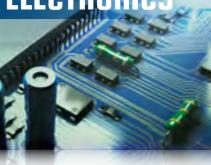
Advanced driver assistance systems, airbag systems (Switch Rotary Connectors), sensors, infotainment systems, cruise control, car radio, GPS systems and displays.



CHALLENGES > Weight and space saving, electromagnetic protection, high temperature, resistance to fluids.

- Wires and composite cables
- Flexible power cables
- Flat Flexible Cables (FFC) and FFC assemblies
- Precision stamped, formed and overmoulded componentry and mechatronics

CONSUMER ELECTRONICS



APPLICATIONS ~

Notebooks, CD or DVD players, HD displays, printers, household appliances, sensors, printed circuit boards.

CHALLENGES > Miniaturisation, space saving, electromagnetic protection

- Flat Flexible Cables (FFC)
- Equipment wires
- Miniature Coaxial cables
- Composite cables
- Micro-D connectors

INDUSTRY



APPLICATIONS ~ Automation and robotic systems, iron and steel industries

CHALLENGES > Resistance to extreme temperatures and chemical products, flexibility, flexlife, space saving.

- Equipment wires
- Hybrid flat or round cables
- Custom designed composite cables
- Harnesses connected with different types of contacts and connectors
- Flat flexible cables for dynamic applications
- Flexible power cables



APPLICATIONS ✓

Medical devices, microcatheters, external systems for medical implants, monitoring, patient diagnostics, dental equipment, endoscopy, medical imaging, medical displays, X-ray and Imaging (MRI), ultrasound probes, biological analysis devices, diagnostic devices, heart sensors.



CHALLENGES > Biocompatibility, sterilisation, antibacterial properties, miniaturisation, electromagnetic protection, reliable signal transmission.

• Sterilisable cable and cable assemblies

- Miniature wires and cables
- Miniature coaxial cables
- Flat flexible cables
- Circular and rectangular Micro-D connectors

RESEARCH CENTRES



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APPLICATIONS ~

Particle accelerators, colliders, synchrotrons, general scientific research

CHALLENGES > Extreme temperatures, radiation, vacuum applications, electromagnetic protection, signal transmission, vibration and acceleration, hermeticity, non magnetic applications.

- Radiation resistant wires and cables
- Coaxial cables including low noise versions
- Micro D connectors including hermetic and non magnetic versions.
- Custom designed composite cables.





GLOBAL SALES, ENGINEERING & MANUFACTURING FOOTPRINT ACROSS 3 CONTINENTS

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AMERICAS

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