

# **Systems and E-Mech Solutions**

Embedded computing & displays, time synchronisation systems, rugged computing and connectivity products

APC's Systems team plays a critical role in the successful delivery of complex integration projects, particularly within high-reliability sectors such as Defence & Aerospace, Critical National Infrastructure, Medical and Broadcast. With decades of combined expertise, our team partner with customers to define scalable, future-proof solutions tailored to the unique challenges faced in demanding industries and environments.

From early-stage design through to deployment, APC deliver technical insight, reliability and performance backed by trusted, long-term support from a network of leading technical partners.

## **Embedded and Rugged Computing, Peripherals and Displays**

### ADVANTECH

### **Advantech**

- Embedded platforms and intelligent IoT systems including Edge AIU & GPU systems
- Computer on Modules, embedded SBCs and fanless rugged Box PCs
- Industrial Display systems
- · Servers, Gateways and switches for intelligent connectivity
- Industrial storage/memory and wireless modules

### Advantech iHealthcare

- · Medically certified panel PCs and tablets
- Surgical and clinical displays
- · Healthcare information terminals
- Medical box PCs and computing carts



- · High performance processing and connectivity solutions for use in defence, aerospace and space flight applications
- Rugged, open architecture VME, VPX and high-speed serial fabric-based computers and subsystems
- Small form factor standalone SWaP-optimised Ethernet switches and Al computing solutions
- Advanced Intel and PowerPC SBCs and NVIDIA based GPU boards



### Astrodyne

- AC/DC and DC/DC Power Suppliers and EMI/EMC Filters for Medical, Semiconductor and Defence certified solutions
- Rectifiers and DC converter solutions from a few watts **Winmate** up to 165k
- Convection/conduction/liquid cooling solutions
- Toroidal transformers and PDU systems



### **Durabook**

- Rugged and MIL-STD mobile computing solutions
- A full range of modular accessories and rugged upgrades for expanding capabilities



### DDC-I

- Safety critical real-time embedded operating systems
- Deos<sup>™</sup> a time and space partitioned, multi-core enabled, RTOS verified to DO-178C/ED-12C DAL A
- Multi-language compilers
- Integrated development environments
- Run-time systems
- Custom software development services and legacy software system modernisation solutions



### **Enercon Technologies Europe**

- SWAP optimised military rugged IP-based Ethernet switches, power and PDU solutions
- MIL-STD USB 2/3 hubs and storage devices
- Military routers with up to 10G transmission speeds for fibre and copper ports
- Gigabit military-grade fully-managed media converters



### Medigenic

- Infection control keyboards and mice with automated cleaning alerts
- Developed in conjunction with the NHS



### Trenton Systems

- TAA-compliant computing solutions for defence, government, industrial & commercial
- · Robust commercial-off-the-shelf (COTS) and modifiedoff-the-shelf (MOTS) computing solutions
- Rugged storage solutions and rapidly deployable 5G network in a box



### Winmate

- Industrial, defence and marine grade tablets, panel PCs, displays and computing solutions
- · Defence and marine grade computing solutions



Comprehensive technical support and servicing from APC's own team of experts

# Connectors, Cables and Glands

- Cable protection products and solutions including those suitable for EMC applications
- Specialist metallic and non-metallic flexible conduit systems



### Harting

Adaptaflex

- Connectors, including EMC solutions, and interconnection systems
- Industrial Ethernet and networking solutions
- Solutions designed for machinery, food and beverage equipment, rail, automotive, energy distribution, wind power and robotics
- Board level electronics products including Ethernet and miniaturisation technologies



### Hummel

- Portfolio of cable glands for industrial applications including a wide range of EMC cable glands with 360 degree protection
- Circular and hybrid connectors in sizes M8 to M40



### Lapp

- Industrial cable and accessories
- · Highly flexible control and data cables for static and robotic applications



### **PMA**

- Corrosive & harsh environment including **EMC** protection
- Liquid ingress protection

## **Precision Time Synchronisation**



#### Δrtc

- Broadcast-quality media transport solutions for direct fibre, IP and managed optical networks
- PTP switches for broadcast, defence, telecoms and finance



### **Oregano Systems**

- FPGA Integration for PTPv2
- Low latency PTPv2 switches for research
- PTPv2 PCI Express cards
- PPS Measurement systems



### Meinberg

- Flexible solutions and technical support from APC's own team of experts to support a wide range of different industries
- High capacity PTPv2 Master, with Slave functionality
- High performance and Enterprise grade NTP Time Server options
- Multi constellation and multi-channel GNSS Receivers



### **Pendulum Instruments**

- Calibration, measurement and analysis solutions for time and frequency
- 3D and 4D high resolution EMC scanners

### **GNSS Solutions**



### Locosys Technology

- High precision and sub meter GPS/GNSS positioning modules
- Smart antenna modules
- Real-time kinematic and dead-reckoning modules
- Modules based on Mediatek, SiRF and ST-Micro chipsets



#### **OHB Austria**

- GNSS jamming and spoofing monitoring and detection
- GNSS signal simulation for optimisation of development, qualification and certification of equipment and applications



### Septentrio

- Resilient, high-accuracy GNSS receivers, modules and boards
- Ultra rugged GNSS systems with centimetre RTK positioning accuracy
- Low profile, rugged GNSS antennas

### **Secure Communications and Data Solutions**

Offering hardware and software solutions to ensure data security tailored for deployment in even the most secure defence, security, and critical national infrastructure environments. Our team can provide technology solutions to suit cross-domain applications that demand both flexibility and speed, such as enforced one-way data transmission to maintain secure communications and transfers between high and low security networks.

APC Technology Group also offers highly specialised SCIF (Secure Compartmented Information Facility) solutions designed to meet stringent military and intelligence standards. Our SCIFs are tailored for mission critical environments and are compliant with standards such as MIL-STD-188-125, DEF-STAN-59-188, and SDIP-29. Engineered to block electromagnetic interference (EMI), including protection against HEMP (High-altitude Electromagnetic Pulse) and IEMI (Intentional Electromagnetic Interference), each SCIF is bespoke, with options for acoustic and thermal insulation, full electrical systems, HVAC, dehumidification, UPS, and solar power.

Including, where required, Secure Communications and Surveillance & Monitoring, APC provides turnkey solutions, that are ISO-compliant for transport and can be deployed in various environments, including offshore and marine settings. APC can also design and supply portable SCIF solutions for flexible and rapid deployment.

Find out more about our SCIF design services:





## Helping to drive forward projects in

## the most demanding sectors and industries

As a trusted supplier of high reliability, high quality and technologically advanced systems and solutions, APC is recognised as a supplier of choice for an impressive list of clients within the Defence, Aerospace, Automotive, Industrial and Healthcare arenas. In addition, our technical insight and network of global, leading technology partners help to underpin the technologies that keep the UK's and Ireland's Critical National Infrastructure fit for purpose.

### **EV** charging solutions

With increasing demand for electric vehicle charging points across the UK, APC are primed to support organisations involved in the rapid roll-out of the EV charging point infrastructure. Up to 145,000 extra charging points will need to be installed across the UK each year in the run up to 2030 when the sale of new petrol and diesel cars will cease in the UK.

APC is supporting infrastructure providers, charging station design/manufacturers and EV test system providers with a range of technologies to help drive this growth.

### Precision network timing for when every nano-second counts

As the exclusive distributor in the UK and Ireland for Meinberg, APC have a successful heritage supporting industries with bespoke Network Time Protocol (NTP) and Precision Time Protocol (PTP) synchronisation solutions. From 'something defence related', to supporting the rollout of modern, digital smart power grids, our PTP specialists provide expert knowledge and project support

### **Cutting edge C4IS Systems**

APC's Systems team provide a range of rugged and MIL-STD computing solutions. Designed to enable Command, Control, Communications, and Computer Information Systems (C4IS), our solutions include rugged laptops, rugged tablets, innovative 5G networking solutions and Military Media Converters. All engineered to meet rigorous SWaP-C constraints whilst providing reliable performance in the harshest environments.





### Supporting the medical industry with the latest healthcare technologies

Medical equipment design is a complex landscape. Design engineers and medical OEMs require reliable, efficient, cost-effective parts to produce equipment that is future-proofed and safe. APC helps customers to resolve the challenges of delivering new medical products to market efficiently acting as a reliable, knowledgeable partner. As medical equipment typically requires a longer design cycle than other types of equipment, with a greater life expectancy, many of APC's technical partners offer long-term support for their standard and custom-designed solutions.

### **Embedded Computing and Systems for Robotics and Automation**

Embedded computing plays a critical role in robotics development, enabling precise control, real-time decision-making, and seamless communication. APC's Systems team offers technical insight into a wide range of solutions, from single-board computers that integrate processing power, memory, and interfaces into one board to System-on-Chip solutions that combine multiple components (such as CPUs, GPUs, and memory) into a single chip.

## All of the technologies and components you need in one place

- High-reliability components
- RF & microwave components and sub-systems
- Test and measurement solutions
- EMC compliance and testing
- Shielded compartmented information facilities (SCIFs) and authentication
- Embedded computing and displays

- Time and frequency synchronisation
- Medical computing
- Connectors, cables and cable glands
- Component sourcing, component testing



See all of the products and services we offer online, with detailed specifications and access to the latest manufacturer data sheets.

Contact our team for details

0330 313 3220 | systems@apctech.com

www.apctech.com