

Computing Solutions for Tough Conditions

Military
Capabilities and Services



Quality
ISO 9001
SAI GLOBAL

APC 
Technology

Introduction to APC Technology

Since 1984 **APC Technology** has provided specialist computer solutions for applications in some of the most severe environments on earth. **APC Technology** designs and manufactures state of the art computer/control technology packages for industrial and military customers who have critical applications where failure is not an option.

APC Technology offers a comprehensive range of solutions including touchscreen displays and Panel PC's, rugged laptop/PDA mobile solutions, components and motherboards, AITECH VME products, keyboards and pointing devices.

APC Technology's approach to harsh environment solutions is one of robust and rugged construction methodology ensuring trouble free operation in harsh environment applications as found across the diverse range of operational environments in industries such as Rail, Oil and Gas, Chemical, Mining and other industrial manufacture and process.

Our dedicated range of solutions are versatile and offer full expansion capabilities providing our clients with customisable certified platforms tailored to their exacting requirements.

Accreditation and Certifications

APC Technology is supported by a proven quality methodology and by processes which are fully certified to ISO9001. Regular internal and independent external audits are conducted to identify where improvements can be made to current processes, and where new processes are required. **APC Technology** is committed to the ongoing improvement of the quality system based on these audits.

Ability to design and manufacture to Military environmental specifications MIL-SPEC 810, 167, 461, 901 and ACSI-61B/

Current certification status as a recognised supplier to the Australian Defence Force.

"Fully defence ready with no gaps" achievement in Commercial Defence Ready Program.

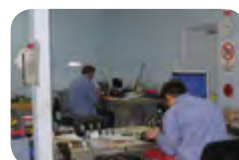
Our Hazardous Area solutions are tested and approved as per IEC International certification and Are suitable for applications in Zone 0, Zone 1, and Zone 2 areas.

Ability to design and manufacture to EN50128, EN50155, IEC61508 SIL 3/4 ATCS Specification 110'

Facilities

Head Office / Manufacturing Facility
Adelaide, South Australia

State Office
Sydney, New South Wales



PROUDLY AUSTRALIAN OWNED AND OPERATED

Command and Control



24" ET40240 Display



20" ET40200 Display



19" ET40190 Display



Vehicle Command Computer



Custom design keyboards and pointers

Situational Awareness is the ability to identify, process, and comprehend the critical elements of information with regards to the mission. Our command and control equipment delivers optimal awareness and performance for the operator within a versatile ergonomically designed format.

Command and Control

- Displays (hi-bright, wide dimming range)
- Keyboards
- Trackballs and pointers
- Touch screen
- Laptops and tablets
- Rugged computers
- MIL-STD-UPS
- Consoles

Designed to your operational criteria:

MOTS

COTS

FULL CUSTOM

Field

- Vehicle displays and computers
- Keyboards
- Trackballs and pointers
- Rugged laptops for mobile deployment

Air

- Lightweight aviation displays (hi-bright, wide dimming range)
- Aviation computers
- Keyboards
- Trackballs and pointers
- Touch screen
- Consoles



Surveillance Australia installation

Naval Solutions

Naval Vessels have unique requirements due to space restrictions and require a full understanding of the applications specific to this environment for any solution to be effective. APC Technology designs and manufactures proven hardware solutions fully compliant with Naval requirements.

Fully sealed units for use on deck and large screen displays with touchscreens for use in control rooms. **APC Technology** have the equipment that will not only survive but excel in these environments.

APC Technology has many solution platforms currently in service through out the Royal Australian Navy. Solution examples include:

- MIL-Spec 19" rack mount power distribution systems

Collins Class Submarine

- External Communications and control modules
- External Communications Rack Consoles and infrastructure.
- Keyboards
- Trackballs and pointers
- Military Printers
- Displays

RAN Huon Minehunter

- MIL-Spec 19" Rack server consoles
- MIL-Spec 19" PABX rack, communications hubs, UPS and infrastructure
- MIL-Spec pointers
- MIL-Spec displays

Poseidon and Mercury Communication systems hardware

- MIL-Spec 19in rack mount communications processors
- MIL-Spec 19in rack mount displays
- MIL-Spec 19in rack mount communication hubs
- MIL-Spec 19in rack mount keyboards and pointers
- MIL-Spec 19in rack mount Delta power UPS systems

RAN ANZAC Frigate Message Handling system

- MIL-Spec 19in rack mount communications processors
- MIL-Spec 19in rack mount 15 and 17in displays
- Rugged QWERTY keyboards and trackballs

Air Warfare Destroyer

- MIL-Spec Bridge Radar consoles
- MIL-Spec Radar equipment enclosures
- MIL-Spec 19in rack UPS systems



15" Military Display



Rack mount MIL-STD printer



Retractable keyboard & pointer



MIL-STD 3KVA UPS



ANZAC keyboard



Communications Control Module
CCM1008 as fitted to Collins
Class Submarine

Land Warfare



Drivers display

The Battlefield Management System is a Command and Control system especially developed for Land Warfare Applications.

APC Technology's Battlefield Management System utilises ruggedised hardware specifically developed for harsh environmental requirements.

Tougher than Tough, they deliver unsurpassed reliability where it counts the most.



10" Tactical Displays

Command and Control

- Displays (hi-bright, wide dimming)
- Keyboards
- Trackballs and pointers
- Touch screen
- Laptops and tablets
- Rugged computers
- MIL-STD-UPS
- Consoles

Designed to your operational criteria:

MOTS

COTS

FULL CUSTOM



20" Tactical Displays

Field Requirements

- Vehicle displays and computers
- Keyboards
- Trackballs and pointers
- Rugged laptops for mobile deployment



BMS Communications Module



Briefcase Server



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Prototype Designs

As a designer, manufacturer and supplier of ruggedised systems, **APC Technology** has demonstrated capabilities in



LT12150 Custom Designed
Portable Computer

- Systems Design and Integration
- Systems Engineering
- Product specification
- Contract R & D
- Military environmental specifications (MIL-Spec- 810,167, 461,901 and ACSI-61B)
- Education and Training
- Integrated Logistics support
- Authoring of Technical Documentation
- PC and Peripheral components and products
- Hazardous Environments
- Intrinsically Safe Systems



10" Tactical Displays

As part of the design and manufacture process, **APC Technology** is able to produce product prototypes to enable clients the opportunity to provide feedback prior to product development.



20" Tactical Displays



BMS Communications Module



MIL-Spec 19" rackmount Power Distribution Panel



Briefcase Server

Mission Critical



Air, Land, Sea or Space.

Our partnership with **Aitech** further reinforces **APC Technology's** ability to provide solutions for the most stringent operational requirements.

Our range of Aitech products deliver tried and proven embedded computing solutions for the most complex applications within the commercial, military and aerospace sectors.



Mission Critical Rugged Enclosures

Aitech's Chassis/Enclosures are available in a variety of space-saving sizes to accommodate exact board configuration requirements.



Mission Critical Power Supplies

Aitech's power supplies are offered in a variety of models as spares or replacements for our chassis customers.



Mission Critical Memory Boards

Aitech's memory boards for VMEbus applications offer enhanced capacity for embedded systems schemes, with versatile choices for Flash and SRAM memory. Shock and vibration resistant designs are available in multiple levels of ruggedisation; air-cooled or conduction-cooled.



Mission Critical Peripheral I/O Boards

Aitech's peripheral I/O boards accommodate numerous I/O configuration options for a variety of signal formats and protocols.



Single board and general purpose processors

A market pioneer in the field of rugged computing for Defence applications, Aitech was the first company to market full MIL-SPEC VME computers based on Motorola's microprocessor families, and now also offers Intel based processors to the same standards for Windows. VPX Processor range based on Power PC and Intel CPU's



PMC Mezzanines

Aitech's PCI Mezzanine Cards (PMCs) are convenient add-on modules that provide the task-specific I/O and signal processing capabilities through the Peripheral Component Interface.

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Rugged Mobile

Statistically, 75% of all reported damage incidents involve dropping, spilling liquid and falling objects. The range of rugged notebooks and tablets provided by APC Technology are toughened to withstand harsh use in industrial and field environments. Environments may be dirty, dusty, wet, in-motion, vibrating, hot, cold, or generally hostile.

Backed by APC Technology's comprehensive technical support program, the following range of tablets and notebook PCs are designed to not only withstand, but survive in your harsh environment.

Portable - Rugged PDA

Variety of options dependent on customer requirements incorporating features such as MIL-STD-810F compliance, transfective 3.5" or 3.7" TFT LCD, GPS, bluetooth and wireless capabilities and long life battery providing all day power.

Compact - Tablet PC

Tablet PCs featuring sunlight readable displays, touchscreen, lightweight design for portable use, MIL-STD-810F and IP54 compliance and shock mounted HDD.



Versatile - Convertible Tablet/Laptop

Convertible tablet/laptop options with sunlight readable LCD display available in 10.4", 12.1" or 13.3", MIL-STD-810F and IP54 compliance, full magnesium alloy case with fanless design, shock-mounted removable HDD, vibration and shock resistant, versatile wireless access with bluetooth, wireless, integrated GPS and waterproof reversible camera.

Large screen - 13.3", 14", 15" Rugged Notebook

Full Magnesium alloy case with fanless design, sunlight readable LCD screen available in 14.1" or 15", sealed ports and connectors, shock mounted removable HDD, vibration and shock resistant



Expansion & Control - Fully Ruggedised Notebook

For high end military and industrial applications, multi bay features maximum flexibility and customised applications. Features of the unit include sunlight readable LCD display in 12.1" or 14.1", MIL-STD-810F and IP54 compliance with optional MIL-STD-461E. Sealed ports and connectors and shock mounted removable HDD, vibration and shock resistant.



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Custom design

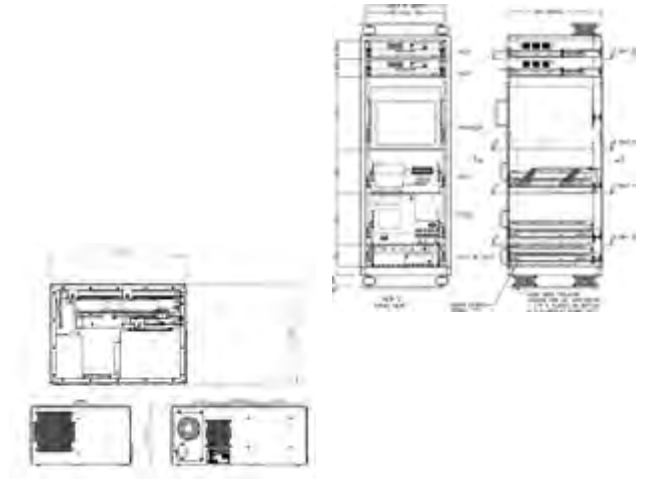
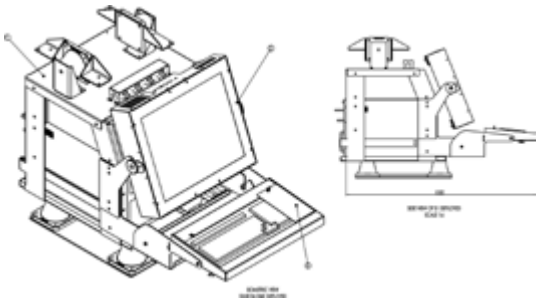
APC Technology is regarded for our innovative approach to product research and development. **APC Technology** products have a proven track record for effective operation in freezing arctic conditions, stifling desert heat or in the tropics at extreme humidity.

APC Technology is a specialist designer and manufacturer of ruggedised computer solutions. Examples of solutions previously designed for specific customer needs include:

TADS field deployable console

Rugged shock and vibration mounted tactical air defence consoles for airborne and land deployment missions.

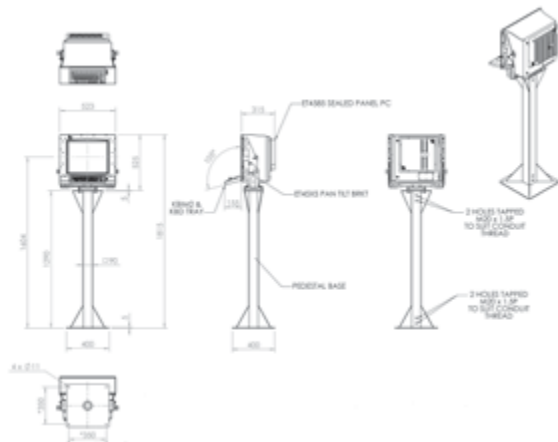
Built to Vibration MIL-STD-167 and Shock MIL-STD-810E (MIL-STD-901 with additional shock mounting)



Examples of other APC Technology custom design solutions

Standalone heavy industrial workstation

Workstation designed for SCADA operators. Possibility of exposure to caustic solutions and high temperature environments. 19" 316 stainless steel with keyboard/pedestal arrangement.



Mounting Arrangements

APC Technology have developed a range of mounting options to suit your requirements.



Solution Alliances

Software Development Tools

Esterel Technologies is the worldwide leader of model-based design, verification and code generation tools for mission and safety-critical embedded systems.

Over 50 aerospace and defence programs, both manned and unmanned systems, including certified applications under DO-178B up to Level A, use Esterel Technologies solutions, including the SCADE® product family and accompanying professional services, to develop and deploy safety-critical embedded control applications. SCADE customers include the largest aerospace and defence, naval and military land vehicle manufacturers in the world, including Airbus, BAE SYSTEMS, Boeing, EADS, GE, Lockheed, Pratt & Whitney, the U.S. Army, and Embraer, to name just a few.

Applications developed using SCADE include:

- Flight controls in both manned and unmanned aircraft
- Engine controls (FADECs)
- Cockpit display systems
- Primary Flight Display
- Navigation Display
- System Display
- Heads-up displays
- GPS systems
- Automatic pilots
- Missile software
- Guidance and inertial navigation
- Launch control
- Brake-by-wire
- Braking and steering
- Fuel control and management
- Load management



Certified Secure Operating Systems

A strategic alliance between APC Technology and Green Hills Software is providing next generation rugged, secure, reliable hardware / software platforms that provides a deterministic hypervisor suitable for mission critical systems which need to meet the highest standards of security and reliability.

For the first time you can leverage INTEGRITY, a COTS real time operating system, to mix mission-critical and commercial applications at different levels of trust and security.

Our secure hypervisor leverages the same operating system used for the flight control systems on the Joint Strike Fighter, and the Mission Control Computer for NASA's next manned space vehicle (Orion). It has been certified to the highest levels of safety (DO-178B Level A) and security (Common Criteria EAL6+).



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Capability and Service Overview

Product Testing

APC Technology has environmental stress and testing facilities based at our manufacturing centre in South Australia.

This enables us to fully test and qualify any solution. we provide to our clients further mitigating the risk of failure.

Furthermore, we are also able to offer formal testing and qualification to Military and EN standards via our associated 3rd party independent test houses.

Design Services

APC Technology is a specialist designer of custom MOTS and COTS solutions specifically tailored to suit client requirements. Our in-house drafting capability using advanced 3D software allows the development of a proof of concept design for sign off by the client prior to manufacture of the desired solution.

Warranty, Service and Support

APC Technology has established a reputation for supplying products recognised for their reliability and innovation in critical applications.

We utilise reputable and proven components and constantly monitor sub-component and sub-system reliability.

To support our customers we provide:

- Technical support, via phone or e-mail
- Australia wide field service
- Return to base exchange
- Hardware and sub-component repair
- Defect analysis and reporting
- Bulletin and internet support
- After Hours Technical Support

APC Technology offers 12 month manufacturers warranty as standard on all of our units. We are also able to offer extended or lifetime warranty options if required.



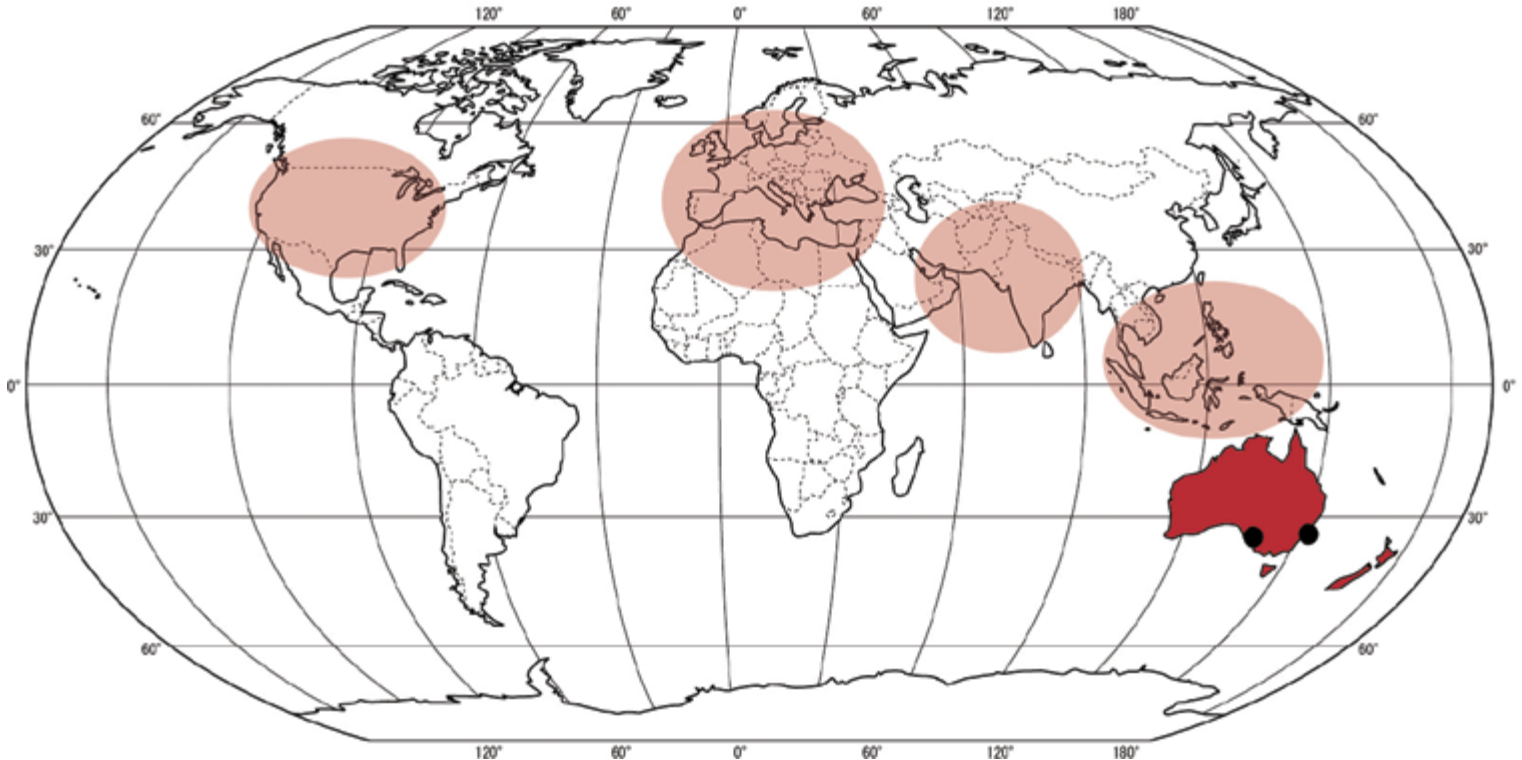
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- APC Technology
- Regional representation



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