



Associated Electronic Services Pty Ltd

Unit 2, 44 Cheviot Road Salisbury South, South Australia 5106

- *Information Technology Consultants*
- *Systems Design and Installation Specialists*
- *Communications Project Managers*

Established in 1979, **Associated Electronic Services Pty Ltd (AES)** is a South Australian company with a significant customer base both within South Australia and interstate. *AES is committed to providing quality products and services on time to its clients.* The company has implemented and is operating a quality management system to ISO 9001:2000 standard, which is pending accreditation.

Recently, AES (USA Inc.) was launched, opening an office in Texas. AES (USA Inc.) is an AES company, formed to conduct business in the US and provide a vehicle for business between Australia and the USA.

AES works in both the civil and defence markets and is involved in:

- Electronic systems
- Avionics
- Simulation and Modeling
- Computer Based Training Aids
- Part Task Trainers
- Information Technologies
- Communications
- Electronic components
- Manufacturing and support
- Biomedical Engineering.

AES has experience in working with partners in strategic alliances within contracts and is a member of the Defence Teaming Centre (DTC). The DTC is an initiative of the Australian Defence Industry, which has the mission... "To lead members and industry to identify, qualify and collaborate to win more Defence business nationally and internationally. "AES also has links to Australian Universities for cooperative research and development. AES is committed to achieving customer satisfaction by providing innovative solutions to problems implemented with positive technical leadership and teamwork.

AES SERVICES

AES has the capability to provide services spanning all aspects of project management and consultancy relating to electronics, Information Technology, communications, design, fabrication, procurement, testing and production of mission critical technologies. Our personnel have wide-ranging backgrounds with combined skill sets that include:

- Project management of commercial and Defence projects
- Systems Engineering
- Innovation, research and development of electronic communication, control systems and sensor packages
- Software Engineering
- Software design from embedded systems to distributed real-time applications.
- Modelling and Simulation
- Development of operations and maintenance training systems
- Installation, set to work and support of Flight Simulation Systems
- IT networking and database support
- Electronic board design including multilayer printed circuit boards
- Electronic board prototyping and small batch production for through-hole and surface mount boards
- Analogue and digital electronic systems design
- Developing switch mode power supplies for car audio and airborne applications
- Integration of electronic components into avionics packages to meet Defence standards (Australian, US and NATO)
- System Qualification testing to Defence standards.
- VHDL
- DSP
- Inmarsat Broadband Global Access Network (BGAN)
- Satellite signal interception
- Supply chain management (sourcing of specialised components from Asia, Europe and the USA)
- Documentation to both commercial and Defence standards.
- Telecommunications consultancy
- Fabrication of cable assemblies including fibre optic cables terminated to commercial or military standard connectors
- EMI testing with near field measurement capable of tracing emissions to an individual PWB track and performing spectrum analysis to 23 GHz.



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AES Simulation & Training Solutions

AES has the capability to design, develop, market and deliver computer based training, desktop simulation systems and part task training aids to the ADF. Our Staff have experience in analysis, design and implementation of simulation systems now in use for the basic training of sensor operators for the RAAF.

AES is working with partner organisations to develop training solutions to support ADF initial training and continuation training requirements. AES works with the ADF to identify areas where Simulation or Part Task Training solutions can be developed to achieve economies in effort and clearly definable reduction in costs and valuable resource schedule pressures.

The AES design and development process for a simulation begins with understanding the training requirements, gained through a sound appreciation of training syllabus objectives, supported by essential input from Subject Matter Experts (SME's). The SME's interpret the syllabus and the requirements in cohort with the end users, to ensure the result accurately reflects the syllabus and will achieve the training objectives. Continuous input from SME's including course instructors from the user organisation is utilised throughout the development phase of the project.



Testing a flight simulator installation.

AES Projects

TIGER

AES also project managed the installation of the TIGER (Tasman International Geospace Environment Radar) project for Latrobe University. TIGER will be part of the expanding Super Dual Auroral Radar Network (SuperDARN) developed by scientists from different countries to study the ionosphere. The installation is on Bruny Island which is a 25 minute ferry trip south of the Tasmanian mainland.



Tiger Antenna Array



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JORN

AES performed the team lead role for the installation and set to work of Vertical and Oblique Ionospheric Sounders and Transponders for the JORN (Jindalee Operational Radar Network) with RLM Systems Pty Ltd (Victoria).

AES Engineering Services

AES, operating out of its Salisbury South Office in South Australia, has the capability to augment other industry organisations with provision of highly skilled and experienced Electronic and Software Engineers, Technical Writers, and Consultants. Customers include large Defence Organisations and Industry Contractors who we support with specific skills and experience, not always available in the market place when required, or are competencies outside the core capability of an organisation.

Through Life Support

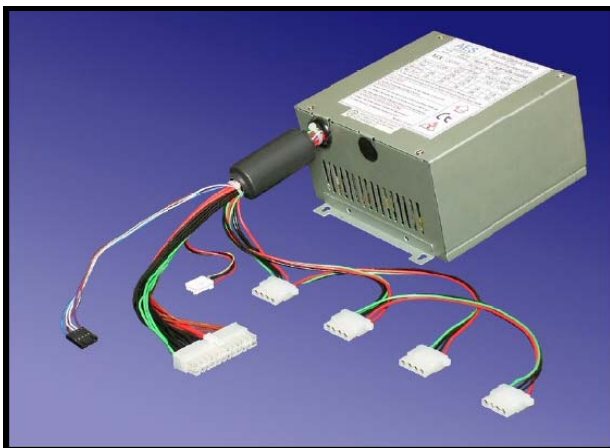
AES offers Through Life Support for all its products and delivered services. Current examples include the support services provided to the RAAF School of Aviation Medicine for its flight simulator, under a subcontract to ETC, the simulator Original Equipment Manufacturer. We also have a Through Life Support contract for the EMU product, designed and manufactured by AES for the RAAF navigation training aircraft stationed at RAAF Base East Sale. This subcontract is for the current life of type, concluding in 2013.

AES Electronic Components Supply

AES has established contacts and access to component suppliers globally, to specialise in sourcing electronic components not normally available through normal supply chains. AES can respond to supply chain management requests at short notice to meet urgent requirements, sourcing specialised components from Asia, Europe and the USA.

AES Products

DYHE Series DC to DC ATX Switching Power Supply

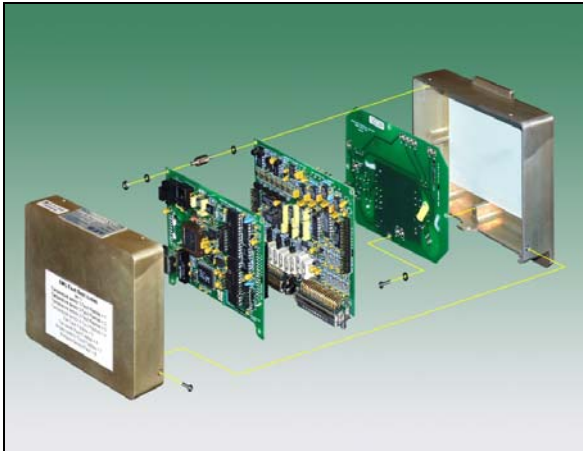


The model APT-DY300HE power supply has 300W continuous total output power, an ATX form factor, input voltage of +28V DC and an input voltage range from +18V DC to +36V DC.



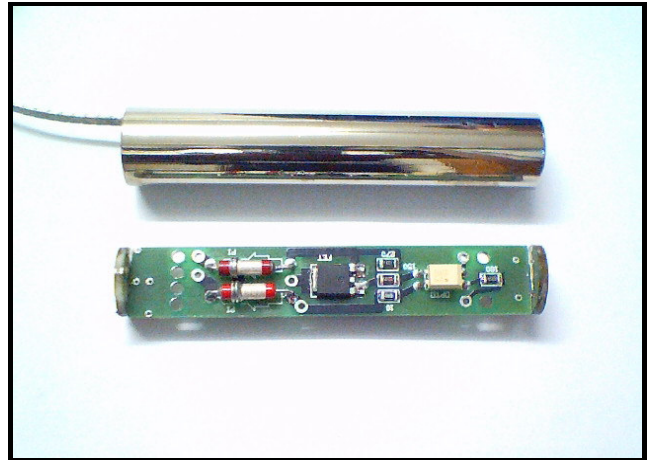
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Environmental Monitoring Unit (EMU)



AES specified, designed and manufactured the EMU to facilitate the safe use of Commercial Off The Shelf (COTS) computing equipment in an aircraft environment, which can be subject to environmental extremes outside the normal operating limits of the COTS equipment. The EMU operates on the aircraft 28V DC Category Z power supply and controls the switching of power to COTS modules within the aircraft environment, only activating COTS modules after determining that the aircraft temperature and pressure are within normal operating limits for the modules.

PIC Panel Light Driver Backlight



AES designed and manufactured the PIC Panel Light Driver to solve a customer's problem with excessive noise from existing driver circuits causing failure of the lighting controller circuit. Using its EMI testing capability, AES identified deficiencies in the existing driver design and engineered a solution to ensure no significant noise from the new driver circuit would interfere with the lighting controller.



AES Partnerships



Marops is a technology based New Zealand company specialising in interactive 2D and 3D graphics, surveillance and training in the defence and commercial sectors.

Marops training packages and training aids are developed to provide hands on training in a classroom environment, on line and self paced where required.



AES Avionics is a small company with the capacity to deliver high quality services to discerning clients in the Aviation market. We specialise in upgrading and modifying aircraft avionics to suit client's specific needs, while providing reliable and quality maintenance and support services.