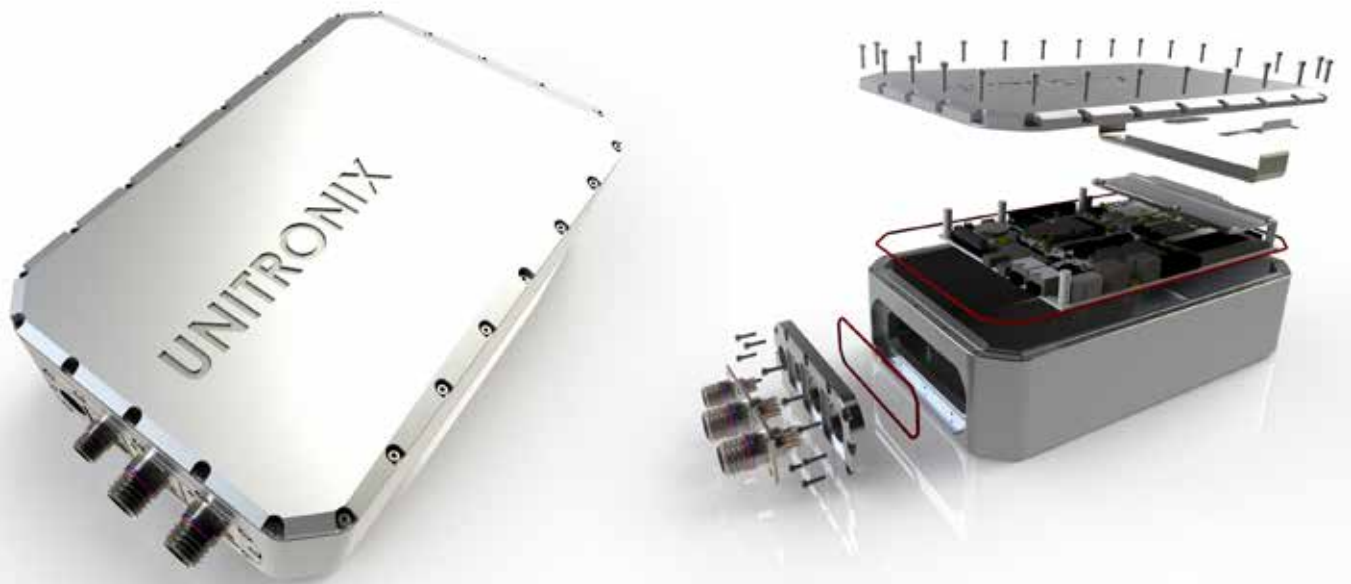


Unitronix

Capabilities



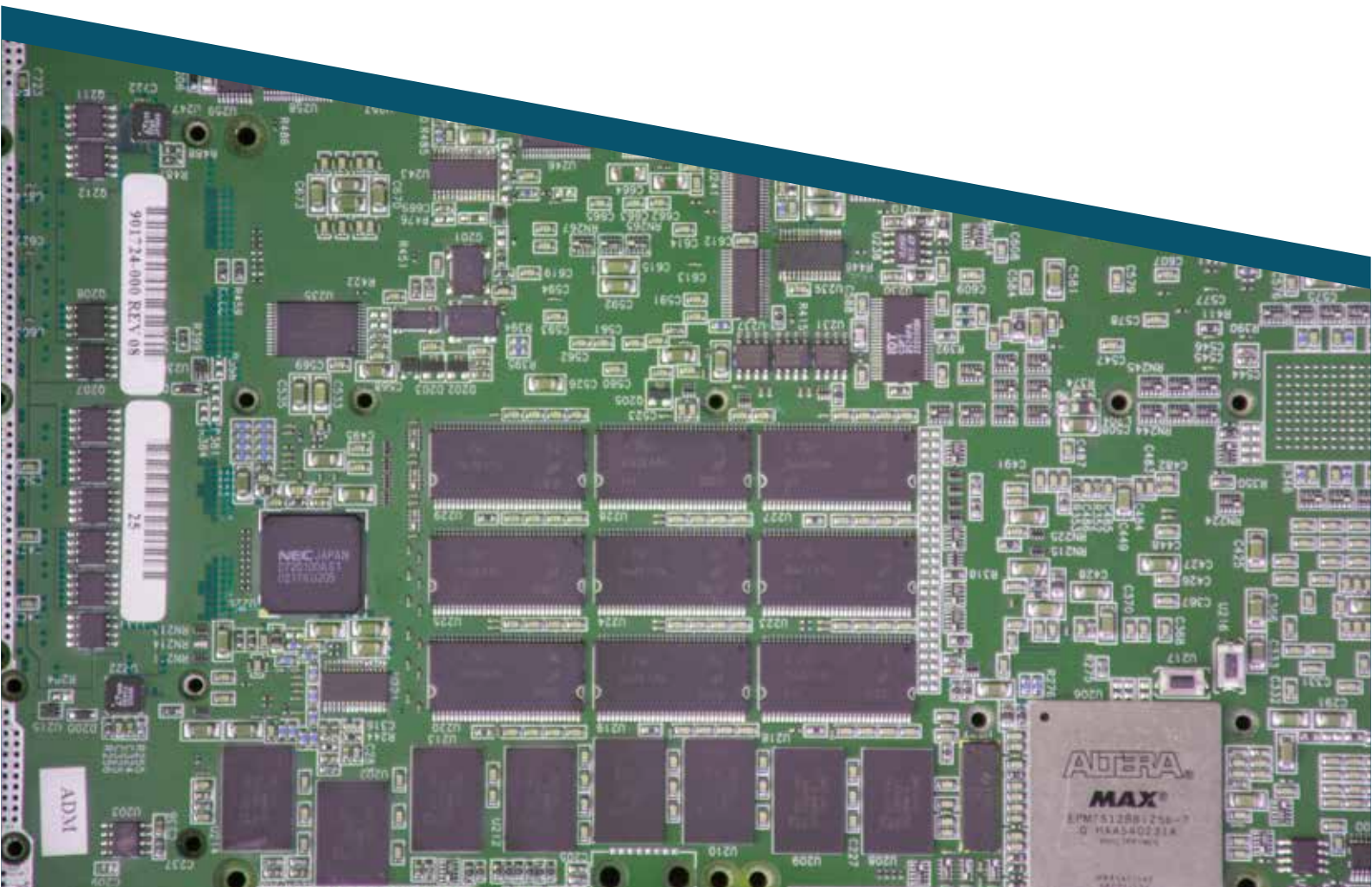
Rugged Embedded Computing for
the 21st Century

Who We Are

Unitronix are a value added distributor that specialise in the support and supply of Rugged Embedded Computing equipment for deployed systems within the Military, Mining, Medical and high-end industrial sectors.

Established in 1984 we supply Engineers and System Integrators in Australia and New Zealand with equipment that is Reliable and Predictable within the Mission profile. We are now expanding our operation to support customers in the UK and Spain with an initial sub set of products based on Rugged Screens and Servers.

Our customers are Professionals that have complex problems to solve that encompass Technical, Environmental and Life Cycle support issues. Unitronix is of service to these customers providing the “glue” in the supply chain that is complementary to our suppliers and of value to our customers. All of our equipment is sourced from Europe or the USA providing **Security of Supply**.



What We Do

Unitronix represents a number of suppliers of embedded COTS equipment from the UK, Europe and the USA. The Open Standards products we supply are designed for use in applications for harsh environments with high reliability and long life expectancy.

These products are Boards, Backplanes, Black Boxes, Chassis, LCD's, PSU's, and Servers.

Boards: From Industrial Standards like EBX, PC104, EPCI to backplane Standards including cPCI, AMC, VME, VXS and VPX. These cards include Single board computers, IO, FPGA and RF digitisers that are the building blocks of all modern 21st Century deployed embedded systems.

Backplanes: cPCI, AMC, VME, VXS, VPX, custom VPX.

Black Boxes: Computers, Switches, Routers, IO nodes, RF Tuners, Recorders, Transceivers, Jammers.

Chassis: ATRs, Bench-top, 19 inch rack-mounting Air Cooled and Conduction Cooled.

LCD's: For Aircraft, Naval, Ground vehicles, Trains, Industrial, literally hundreds of LCD solutions, including safety certified.

PSU's: For Aircraft and very tough conditions.

Servers: High reliability, Short, Medium and Long 19 inch rack mounting, Certified and tested for Naval standards MIL-STD-901D / 810G with MIL-STD-461 optional. Designed and manufactured in the USA.

All of the products we supply are fully supported by Unitronix both pre sales and after sales through integration phase and the deployed life. We hold and configure **demo equipment** and have a number of our own internal development projects in Fully Sealed Computing and Signals Processing.

For more information visit www.unitronix.com.au





Our Customers

Unitronix supports a wide range of critical embedded markets including:

Military/Aerospace/Government

Many of these applications require Board's and systems based on VPX /VME that are designed to work in extended operating temperature ranges and to survive in rough environmental conditions.

Typical applications include:

- Intelligence, Surveillance, Reconnaissance (ISR)
- Command, Control, Communications Compute(C4)
- RADAR/SONAR
- Video Processing
- LIDAR
- Signals Intelligence (SIGINT)
- Electronic Intelligence (ELINT)
- Counter Measures
- Legacy Interfacing

Suitable products include Black Boxes, Backplane Systems, Video Processing systems.

Communications

These applications require high availability and secure networking.

Typical applications include:

- Switching and Routing
- Mobile Networks
- Host Media Processing
- Encryption and Decryption
- Video Distribution and Local Storage

Suitable products include AMC, uTCA, 3U/6U cPCI and Black Boxes.

Industrial

Typical applications include:

- Gas and Oil Exploration and Control
- Production Control
- Powerline Control
- Big Data Filtering
- Renewable Energy
- Mining

Suitable products include EBX/PC104 Boards, Time Servers and LCD's.

Transportation

Unitronix has supplied the transportation industry for many years. We have customers using current generation VME, 3U cPCI, and EBX boards.

Typical applications include:

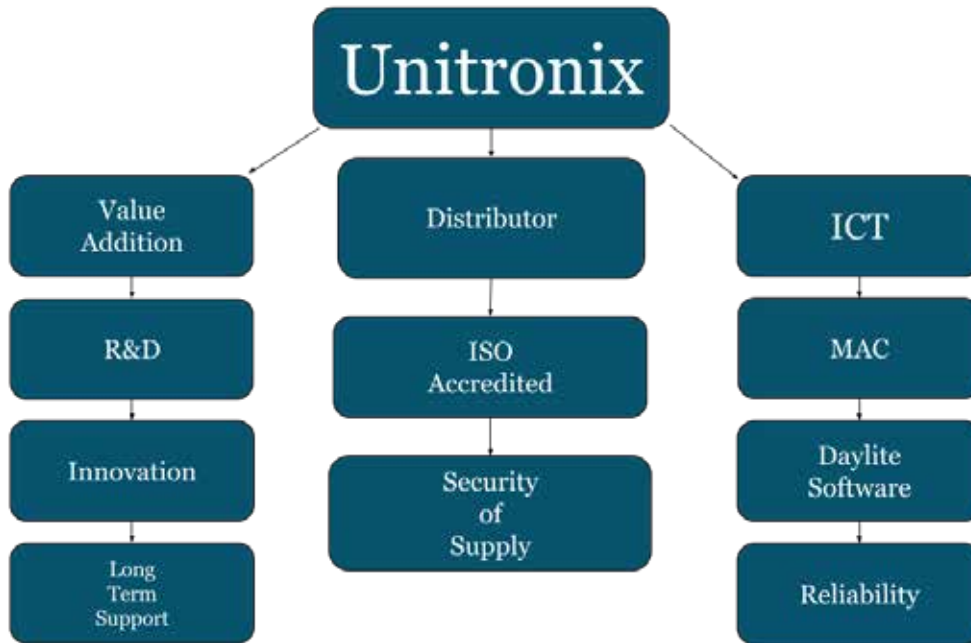
- Driverless Freight Trains
- Signalling
- Automatic Number Plate Recognition
- Signage and Control
- Ticketing Solutions
- Air Traffic Control

Suitable products include VME, cPCI, Boards, WAN Controllers, LCD's, and RADAR Systems.



How we do it

Our Professional Services include Hardware support, System Engineering, Customisation, and Integration, On-site trouble shooting and assembly level repair.



Key	Description
Distributor:	A contracted agent operating on behalf of the supplier
ISO 9001: 2008	International Quality Standard
Security of Supply:	Sourced from USA/UK/German Manufacturers
Value Addition:	On-site engineering and installation
R&D:	Product testing and development of in house solutions
Innovation:	Novel use of items of utility into new applications
Long term support:	Assistance throughout the products lifespan
ICT:	Information and Communication Technology
MAC:	Apple Macintosh
Daylite:	Customer Relationship/Enterprise Management System
Reliability:	30+ Years in business NSW, Australia



Product Breakdown

Form

AMC
cPCI
EBX
Epic
MiniPCIe
PC/104
PMC/XMC
VME
VPX
VXS
Backplanes
Boards
Black Box
Power
Screens
Server 19" Rack Mt
Systems

Fit

Airborne
Agriculture
Custom
Emergency Services
Ground Fixed
Ground Mobile
Industrial
Man Portable
Maritime
Medical
Military
Mining
Naval
R&D

Function

Avionics 1553
A-D, D-A, I/O
Chassis
Communications
Displays
DSP, FPGA
GPS Time Distribution
Graphics & Radar
Mobile Computing
Networking
RF Digitisation
RF Recording
RF Tuners
RF wide-band DRFM
Sonar Sigma Delta HD





In House Development

REN

Cooling high powered processing chips is an issue especially when they have to be housed in sealed boxes and operated at ambient air temperatures over **50C**.

Military grade equipment can do this but at a cost base starting at 20K.

Some Industrial and Mining applications need this type of sealed high power system, but without the military price tag.

Unitronix has been investigating how to **conduction cool** Intel's Core i7 processors in fully sealed environments and the finished product for 2016 is code name **REN**.

The fully sealed box can cool **57W CPU** running flat out in a fully sealed environment and an ambient of **60C**.

Our project is now going through final revision modifications before being made available as a product.

POPEYE

We are looking at how we can develop a real time scheduler built in FPGA hardware and how that might be used to achieve a very low latency reconfigurable EW system that is able to adapt its operation to its immediate requirements as dictated by the active environment.



Function In Action



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