

MADE IN USA

RELIABILITY

FLEXIBILITY

FAST DELIVERY

ENGINEERING
SUPPORT

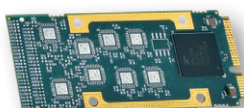
ONE STOP
SOLUTIONS



EMBEDDED COMPUTING SOLUTIONS



FPGA Modules



I/O Modules



SFF Embedded Computers



Single Board Computers



Depend on Acromag

Experience counts – especially when engineering the right embedded solution. And with more than 60 years experience, Acromag can help you reduce your costs and increase your productivity.



Acromag: The I/O Leader

Acromag is focused on developing embedded computing solutions that provide the best long term value in the industry. Compare and you will find that Acromag offers an unmatched balance of price, performance and features.

60+ Years of I/O Experience

With over 60 years of industrial I/O design experience, Acromag stands alone in the high-performance bus-board market. Developing VMEbus I/O boards since 1984, we combine our process control expertise with extensive experience in embedded computing. This background gives us unrivaled insight to many unique concerns when interfacing computer systems to various sensors and controllers in a wide range of applications.

Acromag processors, embedded computers, FPGAs and I/O products are commonly used in these industries:

- military/defense
- aerospace
- transportation
- manufacturing
- semiconductors
- scientific
- communication
- research labs

Quality You Can Count On

We take every measure to guarantee dependable operation with ISO9001 and AS9100 certified quality management. State-of-the-art manufacturing with industrial-grade components adds extra ruggedness. Advanced inspection and testing further ensure that Acromag I/O performs at or beyond their rated specs.

Technical Support

Drawing on a wealth of embedded I/O experience, our sales engineers are well qualified to support you in the use of our products in your end-applications. We take pride in our highly experienced staff that excels at after-sale technical support.

Global Representation

Great care has been put into building a team of highly skilled representatives and distributors. They are located around the world to service your needs.

Online Ordering

Find full documentation and pricing information online. You can get quotes and even order directly on our website.

Become a fan: www.facebook.com/acromaginc

Follow us: www.twitter.com/acromag

Connect with us: www.linkedin.com/company/acromag

Subscribe to our channel: www.youtube.com/acromagio

Acromag, Incorporated ■ 30765 South Wixom Road ■ Wixom, Michigan 48393 ■ USA

Embedded Processing Solutions



Photo credit: US Air Force



VPX Single Board Computers

AcroExpress® 3U and 6U VPX carrier cards with an Intel® CPU provides superior support of modern high-speed signals.

- Economical
- 45W thermal design power
- Air-cooled or conduction-cooled



VME Single Board Computers

VME multi-core 6U single board computers provide high-performance embedded computing with a range of CPU, I/O and memory configurations.

- Intel® Core™ i7 or i5 CPU
- Intel Celeron™ CPU
- Air-cooled or conduction-cooled



XMC Ethernet Interface Modules

Ethernet interface modules deliver reliable, high-speed communication for data-intensive real-time embedded computing.

- Quad SFP+ copper/fibre or dual XAUI ports; quad RJ45, SFP or rear ports
- ASIC provides TCP/IP, FCoE, RDMA and stateless offload engine
- Air-cooled or conduction-cooled
- 1 and 10 Gb Ethernet



Embedded SFF Computers

The ARCX is the complete rugged embedded computing solution, coming equipped with CPU, carrier, power supply and optional power filter.

- Cableless and fanless design for rugged applications
- I/O expansion is available via XMC/PMC/Mini PCIe/mSATA modules
- Modify I/O with custom front panel designs



VPX Carriers

Acromag offers a full line of rugged OpenVPX™ carrier cards to deliver high-speed performance for data-intensive, high-bandwidth applications.

- 3U and 6U form factors
- Supports AcroPack®, Mini PCIe, PMC and XMC modules
- PCIe x8 interface



Rear Transition Modules

VME and VPX Rear transition modules add a variety of new connectors to a single board computer.

Software Support

Acromag offers board support packages and drivers for Windows® (32-bit and 64-bit), Linux™ and VXWorks™.



For more embedded computing, please see: www.Acromag.com/Boards

FPGA Computing Solutions



Photo credit: US Navy



XMC FPGA Modules with AXM Support

XMC FPGA modules add high-speed, multi-lane serial interconnects to a high-bandwidth PCI Express interface ensuring fast data throughput.

- Up to 410k optimized logic cells
- Up to 8-lane PCIe bus interface
- Plug-in I/O extension modules available (AXM)



High-Speed Serial I/O Modules

Advanced XMC FPGA modules feature multiple high-throughput serial interfaces supporting PCIe, SRIO, 10GbE, or Aurora implementation.

- Dual SFP+ ports for Fibre Channel or 10GbE
- Up to 410k optimized logic cells
- High-speed interface for PCIe



AcroPack® Reconfigurable FPGA

These reconfigurable Xilinx FPGA modules allow for custom user defined digital I/O designs.

- Rugged design
- PCIe Bus Interface
- -40 to 85°C standard operating temperature



PMC FPGA Modules with AXM Support

PMC FPGA modules feature a high-speed I/O interface, user-customizable FPGA, and plenty of memory for efficient data handling.

- Up to 155K optimized logic cells
- -40 to 85°C and conduction-cooled models
- Plug-in I/O extension modules available (AXM)



AXM I/O Extension Modules

AXM multi-function extension modules add I/O to Acromag FPGAs. They plug right into the front mezzanine on the FPGA modules.

- Analog I/O, digital I/O and custom functions



FPGA Engineering Design Kits

These kits provide utilities to communicate with the FPGA. They help load VHDL code and establish DMA transfers to the CPU.



Software Library Support

For easier development, Acromag function libraries greatly simplify the interface between our I/O boards and your application program.

For more FPGA modules, please see: www.Acromag.com/FPGAs



COM Express Carriers Type 6 Single & Double Width

COM Express double width carrier boards feature a rugged design and save valuable space with a variety of expansion options.

- Interfaces: Type 6 COM Express modules, dual Mini PCIe/mSATA modules, and dual PMC/XMC modules
- -40 to 85°C operating temperature
- High-density Samtec SEARAY connectors provide all field connections



COM Express CPU Modules

COM Express modules feature a CPU and secure removable memory for use with a carrier card to provide custom and compact I/O.

- Type 6 interconnects
- Intel Core i7 or i5 CPU, 4th Gen (Haswell)
- Exclusive SODIMM hold-down mechanism secures up to 16GB of removable memory

Accessories

MIL-DTL-38999 CPU peripheral I/O breakout cable, power cable and cable connectors to complete field wiring the production front panels.



COM Express Carriers Type 10

Quickly combine a COM Express Type 10 CPU module with a mix of I/O modules for custom computing applications.

- Mini ITX form factor
- Four AcroPack or mPCIe I/O expansion slots



Engineering Design Kit and Development System

For easier development and testing, the break-out board routes all I/O signals from the carrier's high-density connector to standard peripheral connectors.

Get just the break-out board or have it mounted on a panel with cooling fans.

Available for Type 6 or Type 10 COM Express.



Production Front Panels

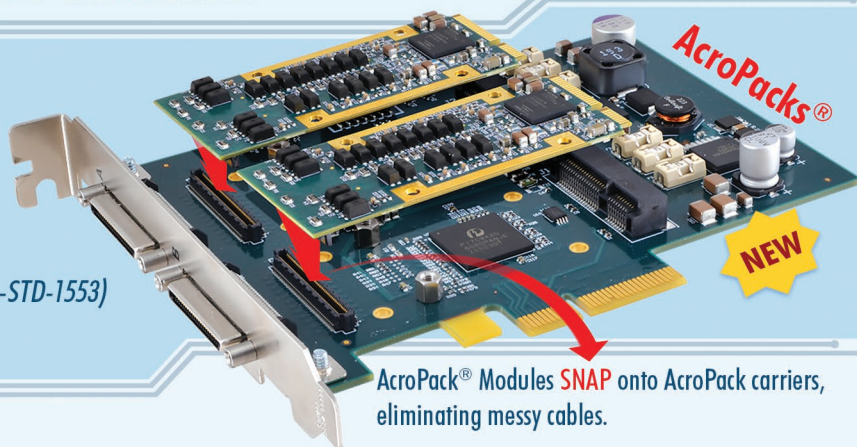
Front panels are available for the single and double-width carrier cards, featuring MIL-DTL-38999 cylindrical connectors to help prepare for field deployment.

For more COM Express, please see: www.Acromag.com/COMExpress

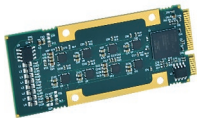
Embedded I/O Solutions

Ruggedized mPCIe I/O Modules

- User-Configurable FPGA
- Analog I/O
- Digital I/O
- Counter/Timers
- Communication (Serial, 1Gb Ethernet, MIL-STD-1553)
- PCIe, VPX & XMC Bus Carrier Options



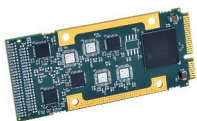
AcroPack® I/O Modules



Analog I/O

These modules perform high-speed and high-resolution A/D and D/A conversion.

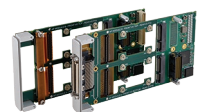
- Mix and match endless I/O combinations in a single slot
- PCIe Bus Interface
- -40 to 85°C standard operating temperature



Communication

These rugged modules offer high-performance at a low cost.

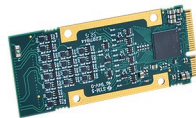
- 1Gb Ethernet with optional POE
- Mil-STD-1553
- RS232; RS422/485; CAN bus



AcroPack Carrier Cards

Rugged cable-free carriers for PCIe, VPX and XMC based systems.

- Cable-free interface
- Combination XMC & AcroPack carrier
- Non-Intelligent carrier cards
- Coming soon: CompactPCI® Serial and PCIe/104



Digital I/O

These modules interface TTL, on/off, hi/lo logic levels to an embedded computer system.

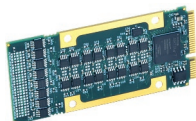
- High voltage, isolated input or isolated output
- PCIe Bus Interface
- -40 to 85°C standard operating temperature



Reconfigurable FPGA

These reconfigurable Xilinx FPGA modules allow for custom user defined digital I/O designs.

- Mix and match endless I/O combinations in a single slot
- PCIe Bus Interface
- -40 to 85°C standard operating temperature



Counter/Timers

These modules perform event counting, timing and frequency measurement functions.

- TTL or RS422/485 or TTL & RS422/485 combo
- PCIe Bus Interface
- -40 to 85°C standard operating temperature



Software Support

For easier development, Acromag function libraries greatly simplify the interface between our I/O boards and your application program.

For more AcroPack I/O, please see: www.Acromag.com/AcroPacks

Embedded I/O Solutions



Photo credit: US Navy



PMC I/O Modules

PMC I/O modules are available in a variety of analog and digital I/O functions for a balance of performance, features, and price.

- Analog I/O, digital I/O, multi-function I/O, counter/timer, serial communication
- Rugged design with long product lifecycles
- -40 to 85°C extended temperature option



Industry Pack I/O Modules

Industry Pack plug-in I/O modules deliver mix-and-match flexibility and high channel density for custom space-saving combinations.

- Analog I/O, digital I/O, counter/timer, serial
- Available termination panels, cables, and adapters simplify system integration
- -40 to 85°C extended temperature option



PCI I/O Boards

PCI boards provide time-tested reliability with high-performance parts to withstand more demanding environments.

- Analog I/O, digital I/O, multi-function I/O, counter/timer
- Rugged design with long product lifecycles
- Available termination panels, cables, and adapters simplify system integration



CompactPCI I/O Boards

CompactPCI I/O boards implement high-performance components into reliable design, which is ideal for defense and industrial systems.

- Analog I/O, digital I/O, multi-function I/O, counter/timer
- Rugged design with long product lifecycles
- Available termination panels, cables, and adapters simplify system integration



PCI Express Carrier Cards

These carrier cards interface XMC, PMC, AcroPack and Industry Pack modules to a PCI Express bus in a PC-based embedded computer.

- Non-intelligent
- PCIe x4 lane or x8 lane
- -40 to 85°C extended temperature option



Software Development Tools

For easier development, Acromag function libraries for Windows, Linux, VxWorks and other operating systems quickly integrate with your application.

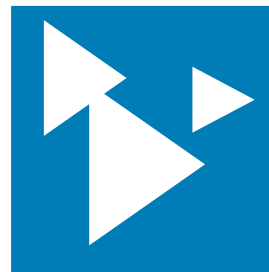
- Easy-to-use C function routines (with source code)
- Demonstration programs exercise the software and I/O board before attaching your application

For more embedded I/O, please see: www.Acromag.com/EmbeddedI/O

60 YEARS OF DESIGN MANUFACTURING EXPERIENCE



Visit us on the web!
Acromag.com



- Product data sheets, manuals, and price information
- Order online with your credit card or purchase order
- Technical support, tutorials, and application notes
- Subscribe to our monthly e-newsletter

Other quality Acromag services and products

Remote Networking

- Ethernet
- Modbus
- Profibus

Signal Conditioning

- Isolators
- Transmitters
- Converters

Electronics Mfg Services

- PCB assembly
- Surface mount technology
- Conformal coating & more

ISO9001
AS9100



Tel: 877-295-7092 or 248-295-0310 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 S Wixom Rd, Wixom, MI 48393 USA

All trademarks are the property of their respective owners.

Iron Fist Photo by Ereshkigal1 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=7988312>

8400-828d © Acromag, Inc. 2019. Data subject to change without notice. Printed in USA 10/2019