



North Atlantic Industries

Excellence in ALL we do

I/O Boards • Single Board Computers • Power Supplies Embedded Systems • Instruments

Q1 Newsletter

April 2011

North Atlantic Industries Announces Industry's First 6U OpenVPX Multi-function I/O Board and is selected as Editor's Choice Product by VME and Critical Systems Magazine

The new [67C3](#) is a single slot, OpenVPX, 6U, Multi-function I/O and serial communications card. VME, Gigabit Ethernet and Serial RapidIO (sRIO) or PCI Express (PCIe) control interface options enable users to take advantage of the higher speed, switched fabric communication architectures, offering significantly greater capability. [More...](#)



Application Note: User Guide for NAI 2nd Generation Digital to Synchronous Resolver Converters

Scope

The intent of this application note is to provide a guide to the understanding and maximum utilization of NAI's 2nd Generation Digital to Synchronous Resolver (D/S) Converter Modules. The technology presented is used to distinguish the current converter design characteristics from NAI's total designs which are still popular in production and in new special use.

The new designs are the result of a "technology insertion" to the initial design architecture. Both designs use Digital Signal Processors (DSPs), Field Programmable Gate Arrays (FPGAs) and microcontroller software algorithms, along with conventional electronic components, to implement the converter functions.

The availability of more higher speed DSPs, and larger FPGAs is important to each module as opposed to earlier designs which shared less capable devices across multiple modules, thus reducing the choice of converters having unacceptable flexibility, programming options and enhanced performance. Many of the new features are also a result of years of experience and feedback from customer base.

Added Features / Programming options

The 2nd generation converters have many added features and programming options as follows:

- Auto Ranges 0-110 V rms reference voltage input
- Synthesized reference, eliminates noise and harmonics
- Measured Output 0-3.6 V
- Measured Reference Voltage and Frequency
- Choice of Fixed or Programmable Output Mode
- Programmable Output Levels 1-4
- Higher power outputs (1.5, 2, 2.2, 3, 3 V)
- Temperature (T_{case}) Monitor Output (active with user)
- Programmable Reference to Output Terminals (differential mode)
- Synchronized Stop (SS) for easy I/O Channel
- Programmable Loss of Signal (LOS) Interrupt
- Programmable Loss of Reference (LOR) Interrupt
- Choice of Internal or External Reference
- Phase Lock Loop (PLL) for Programmable Trigger for Holdup mode start
- Programmable phase shift

Get the most from NAI's 2nd Generation, feature-rich D/S Converters. [More...](#)

Introducing the Newest Single Board Computer

NAI Presents the Perfect Combination of Modular SBC with Multi-Function I/O – the 64EP3

- Ultra 200 Single Board Computer with configurable multi-function I/O card
- Low power consumption
- Low cost
- High performance
- High density
- High reliability
- High availability
- High security
- High performance
- High density
- High reliability
- High availability
- High security
- High performance
- High density
- High reliability
- High availability
- High security

North Atlantic Industries Embedded Boards | Power Supplies | Instruments
801-667-1100 | Fax: 801-667-1823 | www.nai.com

North Atlantic Industries Announces the Industry's First 6U VME Single Board Computer with Multi-Function I/O and is selected as Editor's Choice Product by VME and Critical Systems Magazine



The [64EP3](#) is a single slot, 6U VME, low-power and high-performance Single Board Computer (SBC) with configurable multi-function I/O. Powered by a choice of Freescale's 1.25 GHz MPC8536 PowerPC (U3) or Analog Devices' 500 MHz BF533 (U2) processor modules, the 64EP3 offers an extremely low power, cost-conscious SBC solution for today's demanding, space constrained and resource limited embedded systems. [More...](#)



64E3 – High Density Multi-function I/O Single Slot 6U VME Card

The [64E3](#) is a single slot, 6U VME Multi-function I/O card that can accept a multitude of I/O and a variety of communications modules. The card can be controlled via dual Ethernet (10/100/1000Base-T) or by the VME data bus.



44LS1 – Perfect Companion for all NAI DC/DC Converters – 3U cPCI DC/DC Holdup and DC Power Switch, 100 Watts

NAI's 44LS1 is a +28V IN DC power switch / holdup assembly that protects downstream DC-DC converters MIL-STD-704 transients, low voltage conditions and power interruptions; providing up to 50 milliseconds of holdup time. Designed to meet standard 3U cPCI mechanical requirements, the 44LS1 is a perfect companion for all NAI DC/DC converters. Configurable signals, BIT and reverse polarity protection are included.

Coming Soon

innovative solutions

Coming Soon

Corporate Overview Brochure