NAI Integrates ARM Cortex-A9 Processor to its Compact NIU1 Nano Intelligent I/O™ Communications System

NIU1A provides embedded computing capability via an integrated SoC dual ARM Cortex-A9 processor to add distributed network sensor data interfaces to mission-critical computers without expensive chassis or backplane redesign.

Bohemia, NY, September 9, 2014 – North Atlantic Industries, Inc. has expanded the functionality of its Nano Interface Unit (NIU1) to include embedded computing capability. The advanced NIU1A with added SoC dual ARM Cortex-A9 processor, delivers smaller size, lower power, higher bandwidth, shared memory and lower latency in a small package. In addition, the NIU1A offers comprehensive processor software programming support for Wind River® Linux, VxWorks and Xilinx® PetaLinux.

The compact, nano-sized subsystem with unprecedented I/O capability connects to existing platform Ethernet networks, making data available to any system on the network. The Nano Interface Unit (NIU1A) easily adds sensor data acquisition, distribution and communication interfaces to mission computers without expensive chassis and backplane redesign, for use in military and aerospace embedded applications.

Built on NAI’s Custom-On-Standard Architecture™ (COSA™), the NIU1A offers a choice of more than 40 intelligent I/O and communications functions. These pre-existing, fully-tested functions can be selected quickly and easily to meet system requirements. Available functions include A/D, D/A, TTL, RTD, discrete I/O, differential transceiver, synchro/resolver, LVDT/RVDT measurement, simulation and excitation, strain gage, quad channel redundant BC/RT/MT MIL-STD-1553, high-speed sync/async RS232/422/423/485, ARINC 429/575 and CANBus.

“The ARM Cortex-A9 processor gives customers unprecedented capability in support of their embedded computing, SWaP constrained systems,” explained Lino Massafra, VP of Sales & Marketing. “Independent local processing of new or existing I/O and communications can be integrated quickly into any Ethernet based system with no NRE.”

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The low-cost, SWaP-optimized, processor-enabled, multi-function I/O system has three mounting options. Total power consumption is minimal (NIU1: 6-10W, NIU1A: 8-12W), depending upon which I/O module is selected.

For more information about North Atlantic Industries’ rugged NIU1A systems, go to http://www.naii.com/Nano-Interface-Unit-NIU1A/P278

North Atlantic Industries
NAI is a specialized provider of embedded electronics and computing for sense & response-intensive, Mil-Aero applications. We accelerate our clients’ time-to-mission with a unique approach based on a Custom-on-Standard Architecture™ (COSA™) that delivers the best of both worlds: custom solutions from standard COTS components.