North Atlantic Industries
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Boeing Defense, Space & Security Selects North Atlantic Industries' COSA® Architecture for Advanced Flight Control Computer for RASCAL Research Helicopter

BOHEMIA, NY -- North Atlantic Industries, Inc. (NAI), a leading independent supplier of embedded electronic and computing systems, announces an initial contract award from The Boeing Company (Boeing) to provide a dual-redundant, Flight Control Computer (FCC) for the RASCAL Research Helicopter. The RASCAL is a Blackhawk that has been modified for fly-by-wire control systems research and is essentially an airborne laboratory for pilots and researchers. The FCC incorporates DDC-I's Deos multicore ARINC-653 RTOS and safety-critical dual-redundant Time Triggered Ethernet, providing the most technologically advanced safety-critical FCC in the industry.

"For North Atlantic Industries, our selection as the FCC supplier represents a major step forward in our efforts to develop advanced safety-critical system solutions. This includes single board computers, multifunction I/O motherboards, function modules, and intelligent power supplies - all based on NAI's Configurable Open Systems Architecture ™ (COSA®) technology," states William Forman, CEO of North Atlantic Industries. "The RASCAL program will demonstrate and expand NAI's ability to manage complex, safety-critical programs and enable our customers to take advantage of NAI's COSA® architecture for safety-critical applications."

All work will be performed at North Atlantic Industries' Bohemia, NY facilities.

About North Atlantic Industries

NAI is a leading independent supplier of embedded computing, Input/Output, communications, measurement, simulation, power and systems products for commercial, industrial and military applications built on a Configurable Open Systems Architecture™ (COSA®). COSA offers the greatest modularity, flexibility, adaptability and configurability in the industry that accelerates our customers' time-to-mission. COSA supports a Modular Open Systems Approach (MOSA) that delivers the best of both worlds: custom solutions from COTS components with No NRE. For over 50 years, companies like Lockheed Martin, Boeing, Northrop Grumman and Raytheon have leveraged NAI's capabilities to meet the demanding requirements of a wide range of processing, I/O and communication-centric applications, and do so with uncompromising quality, efficiency and responsiveness. Information about NAI and its products can be found at www.naii.com.

Advanced FCC for RASCAL Research Helicopter

North Atlantic Industries

Features

- 5x 6U OpenVPX Boards Per FCC
- Supports up to 30 Smart Function Modules Per FCC
- Dimensions w/ Connectors (w x h x d): 13.281” x 7.789” x 12.690”
- Weight / lbs (fully populated); < 54.0
- Forced Air Flow Chassis
- Est. Typ. Power Dissipation ~440 W
- Ethernet 2 x 10/100/1000Base-T & 1 x Redundant TTE per FCC

Dual Redundant Flight Control Computer (FCC)

67PPC2 T2080 SBC	Enhanced Discrete I/O DT4 (24)	MIL-STD-1553 FTC (4, Redundant)	TTE/AFDX/A664p7 TE2	AC Excitation AC (2)	FireWire FW1 (2 Ch, 3 Port)	ARINC429 AR1 (12)	
67G6 MFIO CCA	Analog Input ADF (16)	Analog Output DA2 (12)	LVDT Measurement LVDT (4)	LVDT Measurement LD2 (4)	LVDT Measurement LD2 (4)	Servo Driver DA3 (4)	Discrete I/O DT1 (24)
67G6 MFIO CCA	Analog Input ADF (16)	Analog Output DA2 (12)	LVDT Measurement LD2 (4)	LVDT Measurement LD2 (4)	LVDT Measurement LD2 (4)	AC Excitation AC2 (2)	Discrete I/O DT1 (24)
67G6 MFIO CCA	Analog Input ADF (16)	Analog Input ADF (16)	Analog Input ADF (16)	Analog Input ADF (16)	Analog Input ADF (16)	Analog Input ADF (16)	Discrete I/O DT1 (24)
67G6 MFIO CCA	Analog Input ADF (16)	Analog Output DA2 (12)	LVDT Measurement LD2 (4)	LVDT Measurement LD2 (4)	LVDT Measurement LD2 (4)	AC Excitation AC2 (2)	Discrete I/O DT1 (24)

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