PXI Interface Modules for AFDX, ARINC 429 and MIL-STD-1553 Avionics Standards

National Instruments announced its offering of PXI interface modules for MIL-STD-1553, ARINC 429 and AFDX military and aerospace avionics applications as a result of the company's collaboration with AIM, a leading provider of avionics instrumentation.

By configuring, distributing and servicing PXI systems that feature AIM interfaces, NI now can serve as a single point of purchase for military/aerospace customers who require avionics interfaces as part of their NI PXI-based systems. This new offering is suited for many military and aerospace design and test engineers working on advanced real-time and HIL avionics solutions.

"The use of PXI for HIL testing continues to play an expanding role in military and aerospace systems," said Troy Troshynski, director of marketing and product development at AIM. "It's a natural fit for us to work with NI on delivering customers the solutions they need in the most efficient manner possible. By combining our expertise in avionics configurations with the National Instruments expertise in global PXI system configuration, service and support, this collaboration will benefit everyone involved in mil/aero engineering and testing."

Military and aerospace customers often prefer a comprehensive solution from a single vendor for dependable system integration, efficient support and a straightforward approval and purchasing process.

It also is critical that mil/aero systems retain the ability to interface with various avionics buses from a single, modular test platform such as PXI. To meet these demands, NI is collaborating with AIM to directly offer NI customers the MIL-STD-1553, ARINC 429 and AFDX AIM avionics-interface modules for PXI. The NI selection of AIM PXI modules includes single-, dual- and quad-channel MIL-STD-1553 interfaces; eight- and 32-channel ARINC 429 interfaces; and a dual-channel AFDX interface. Every module features a common-core architecture, an onboard application support processor, multiple bus interface unit processors, generous onboard memory and an IRIG-B time code generator/decoder to provide uniform flexibility to meet a variety of demands.

All modules also offer host backplane bus master capability and deterministic operation for advanced HIL applications. Additionally, the modules are fully compatible with NI LabVIEW, the NI LabVIEW Real-Time Module, NI LabWindowsTM/CVI, C and C++. Onboard driver software and support for databus analyzer/visualizer software simplify programming along with a common API for engineers to easily port applications between hardware platforms.

Readers can obtain detailed specifications on each interface module and configure

a system by visiting www.ni.com/pxi.

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