DNx-MIL Series

Introducing the New DNx-MIL Series of DAQ and I/O Control Platforms

UEI is proud to offer the first of its kind DNx-MIL Series of data acquisition and I/O control platforms. The new DNA-MIL and DNR-MIL platforms are designed for MIL-STD-461/810/1275 compliance and for environmentally harsh I/O acquisition and control applications. They are tested and guaranteed to withstand 5 g vibration and 100 g shock. All connectivity is through ROHS-compliant 38999 connectors.

Rugged Construction

Rugged chassis constructions make the DNR-MIL and DNA-MIL perfect for the toughest military and aerospace deployments, as well as challenging I/O applications such as oil drilling platforms and refineries, liquid and gas storage tanks, heavy machinery, and outdoor test stands. The rugged, IP66/NEMA6 sealed chassis allows you to deploy your I/O system in the field, without any additional enclosure and protection.

Modular COTS Configurability

Unlike other products, the DNx-MIL platforms are Configurable COTS solutions, meaning they are 100% COTS and highly modular to support ANY analog/digital, interface/sensor, input/output. With over 50 plug-in compatible analog and digital I/O boards from which to choose, either platform can be customized for functionality and optimized for performance.

Any Input, Any Output, Any Sensor

All DNx-MIL platforms and boards are made in the USA and supported by UEI's family of analog, digital and interface I/O cards for thermocouples, RTDs, ICP/IEPE, ARINC-429/453/708, AFDX, MIL-STD-1553, CAN, RVDT/LVDT, synchro/resolver, RS-232/422/485, strain gauge, quadrature encoder, high-voltage analog outputs and high drive currents, analog inputs up to 24-bits, function generator outputs and much more. On-board BIT (Built-in-Test) diagnostics help ensure uptime and failsafe operation. Download a copy of our new catalog for details.

Programmable Versatility

Their patented architecture uses a single API layer to ease multi-channel configurability and improve system scalability. The DNA-MIL and DNR-MIL can deliver I/O access and control as either computer hosted or standalone platforms. Extensive software support includes all popular OS, RTOS and DAQ applications such as Linux, VxWorks, Windows, LabVIEW, SimuLink, QNX and RTX to name a few.

10-Year Availability Guarantee

For long-life programs and legacy I/O systems like LRUs (Line Replaceable Units) and VME-based systems that face end-of-life (EOL) issues, UEI guarantees 10-years of availability on every DNx-MIL platform and compatible I/O board sold. The DNx-MIL platforms also include built-in self-test capabilities and signal conditioning to ensure uptime and accuracy.

United Electronic Industries

United Electronic Industries, Inc.
Tel: **(508) 921-4600**
http://www.ueidaq.com
Fax: **(508) 668-2350**

Unmatched Reliability

Electronically, the DNA-MIL and DNR-MIL are identical to their standard Cube and RACKtangle cousins, except for hold-up and protection circuitry added to the power supply inputs—required to meet MIL-STD-1275. They are also designed to meet commonly required elements of MIL-STD-461 and MIL-STD-810 and are sealed to at least IP66/NEMA6 standards. No rotary cooling fans are used in the design, which maximizes MTBF and mechanical reliability. All internal printed circuit boards are conformal coated to ensure the highest reliability.

Universal Support

No I/O system is complete without software support. The 12-slot DNR-MIL and 4-slot DNA-MIL use UEI's standard I/O boards and support all popular OS distributions, real-time operating systems, programming languages as well as an array of application packages:

- Operating Systems: VxWorks, Windows, Linux, QNX , RTX and InTime
- Programming languages: C, C#, C++, VB, VB.NET, JAVA
- Application Packages: LabView, Simulink and many others

Health and Diagnostics – The Guardian Advantage

The DNA-MIL and DNR-MIL feature a real-time Built-In Test (BIT) mode to verify I/O voltage and current thresholds, faults and isolation levels. Not only can you monitor the health (i.e., temperature, voltage and current draw) of our chassis, but many of our I/O boards contain circuitry to test and protect against harmful operating conditions on a per channel basis. Our unique Guardian Series boards provide real time diagnostics to help you quickly and easily diagnose and avoid catastrophic failures. Guardian Series boards feature over-voltage and current sensors, programmable circuit breakers, programmable logic thresholds and voltage/current/power read-back circuits to circumvent short circuits, open circuits, over-voltage and over current conditions, and other common failures.

Any Deployment, Any I/O

Whether your application is on a ship or boat, in an aircraft, in a rocket, on an outdoor test cell, on an oil platform or simply left outside and exposed to the elements, our 12-slot DNR-MIL platform offers an ideal solution. If you need less I/O, you should consider the smaller 4.45" x 6.375" x 7.35" DNA-MIL, which offers many of the same features and options, with slots for up to four I/O boards in a smaller chassis.

The beauty of these DNx-MIL platforms is the versatility for deployment as a high-density Power DNA (Distributed Networked Automation) system, Programmable Automation/Embedded Controller, MODBUS TCP interface, or a Simulink I/O platform. These high-density I/O deployments require precise, real-world measurement and control capabilities. The DNx-MIL Series' PowerDNA® (Distributed Networked Automation) architecture hosts a rugged, Ethernet-based data acquisition (DAQ) interface, suited for various industrial, aerospace and laboratory data acquisition and control environments. A MODBUS messaging protocol is used to establish master-slave/client-server communication between devices that measure voltage, current, strain gages, thermocouples and more. The UEIPAC (Programmable Automation Controller) is nicely suited for embedded data acquisition (DAQ) applications, as it allows systems to be developed without the cost or the additional space required by an external host computer. Finally, UEISIM offers Simulink developers a powerful and flexible I/O target. Models built in Simulink are deployed directly on the UEISIM using Real-Time Workshop to create, for example, an efficient tuning solution for real-time and non-real-time applications, including simulation model verification, rapid prototyping, and hardware-in-the-loop testing.

Backed by DAQ Experts

You can count on us for support. UEI's engineering and field applications staff is committed to delivering the highest quality hardware and software support services to engineers and scientists worldwide. Using Commercial Off- The-Shelf (COTS) Systems to build state-of-the-art DAQ technologies, UEI's charter is to serve the needs of OEMs, systems integrators, commercial and military/defense researchers, developers and technicians alike. Talk to one of our deployment experts and see for yourself how UEI can deliver innovative DAQ solutions for you. Or visit us at www.UEIDAQ.com and download our White Paper entitled, "Everything You Ever Wanted to Know About DAQ and Embedded Control".

United Electronic Industries, Inc.
Tel: **(508) 921-4600**
http://www.ueidaq.com
Fax: **(508) 668-2350**