

NEWS RELEASE

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Curtiss-Wright Expands Axon[™] Flight Test Module Family with New 3-Phase Power Monitor Module

AXN/ADC/408 module is first to support ISO 12384 data rates

INTERNATIONAL TELEMETERING CONFERENCE (ITC), GLENDALE, Ariz. (Booth #101) – November 6, 2018 – – Curtiss-Wright's Defense Solutions division today announced that its Aerospace Instrumentation (AI) business unit has introduced its latest Axon[™] data acquisition unit (DAU) module, the <u>AXN/ADC/408 3-phase power monitor module</u>. As aircraft design shifts from constant to variable frequency electrical power requirements, Flight Test Instrumentation (FTI) engineers increasingly need a power monitoring solution able to collect data from generators that output power at up to 1 kHz. What's more, variable frequency data acquisition needs to be able to capture unexpected fluctuations in power frequency (voltage and current transients for RMS max./min. voltage, current, frequency). With data transfer rates up to 800 mbps over its backplane, the Axon DAU uniquely enables previously unattainable performance.

The rugged AXN/ADC/408 is the first FTI module designed to monitor transients while supporting high enough data capture rates to support the ISO 12384 standard. The module detects the presence of power transients based on pre-set voltage, current, and frequency threshold parameters. After a transient is detected, the module can output the raw data at speeds high enough to enable the plotting of any detected transients. To support this intensive throughput requirement, the AXN/ADC/408 module transmits Ethernet packet streams over each of its 6 input channels, with raw data sampled at 450ksps. Input signals are captured at data bandwidths rated up to 120 KHz. The raw captured data can be packetized into any standard format, including iNET-X, IENA, TmNS, Ch10, and DARv3. The module also enables data bandwidth to be down-filtered, using a built-in digital filter, prior to processing by the math engine.

"The aircraft industry is rapidly moving to variable frequency electrical power in order to eliminate the bulky transformer equipment needed to support constant frequency power," said Lynn Bamford, Senior Vice President and General Manager, Curtiss-Wright Defense Solutions division. "Our new variable frequency power monitoring Axon module provides an ideal solution for gathering power and transient information in a coherent data acquisition system. Our Axon DAU delivers unprecedented flexibility, combined with advanced packaging, to set a new standard for size, weight and power optimization."

About the AXN/ADC/408

Because voltage is divided down on the module, the AXN/ADC/408 does not require an external transformer for voltage channel. To ease design-in, the DAU supports all legacy parameters provided by current Curtiss-Wright power monitoring solutions. It also supports many more parameters listed in ISO 12384 / GJB181A-2003, including steady state and transient parameters. For example, the AXN/ADC/408 is the industry's only variable frequency power monitoring solution that supports 1.8 Msps sampling rates, enabling a wider range of measurements to address a variety of power monitoring applications.

The AXN/ADC/408 Performance Features:

- Three-phase power monitoring
- Three voltage input channels
- Three current input channels
- 200 to 1000 Hz input range
- ±10V, ±1V input range
- 16-bit resolution on all parameters
- Measures voltage, current and power (active and apparent) RMS
- · Measures period, power-factor and total power
- Parameters supported include 13 steady state and 3 transient parameters
- Programmable gain amplifier
- 65,536-point conversion table for each of the six channels (sampled simultaneously at 2 Msps)

Axon Quick Start Kit Option

Curtiss-Wright also recently introduced the <u>Axon Quick Start Kit (QSK)</u>. Using the Axon QSK (AXN/QSK/001), FTI engineers can rapidly familiarize themselves with the DAU as it includes everything needed in the supplied flight case. The QSK is also 100% usable in a full flight test campaign and can be augmented with more modules, <u>Axon chassis</u>, or other DAUs from Curtiss-Wright. The Axon QSK lets FTI engineers easily familiarize themselves with our innovative new Axon data acquisition platform. With its miniature size and unprecedented flexible installation options, Axon lets FTI engineers lower the weight of equipment and wiring, gather more data, and meet demanding time schedules while ensuring that none of their critical data is lost during flight test. Available at a one-time only introductory cost, the Axon QSK makes it easier for FTI engineers to discover for themselves why Axon represents the future of flight test, missile and aircraft monitoring applications.

The Benefits of Complete DAU System Solutions

Axon systems are easy to integrate and expand. Multiple Axon modules can be integrated into a single Axon chassis. The Axon chassis, Axon user modules, and Axonite remote housing are designed to work with Curtiss-Wright's TTC DAU and KAM-500 DAU family of products, including high-speed cameras, data recorders, and switches. Axon DAUs provide the most powerful and

modern solution on the market by combining unprecedented flexibility with outstanding reliability for demanding applications. Axon modules and chassis, now available in 6, 9, and 16-slot configurations, enable FTI engineers to quickly configure and deploy the vast amounts of data acquisition required to support demanding flight test, missile test, and space developmental/operation flight instrumentation programs. Ideal for use in flight test, system monitoring, power system upgrades, or life extension programs.

About the Curtiss-Wright Aerospace Instrumentation Group

In 2017, Curtiss-Wright integrated its Dublin business unit (Ireland) with the Teletronics Technology Corporation business unit (based in Newtown, Pennsylvania), to form the Industry's broadest and most experienced single source for customers of commercial and defense aerospace instrumentation system solutions. With the merger of the two business units, Curtiss-Wright now supports more aerospace flight test customers, platforms, and programs than any other competitor around the world. What's more, with its increased resources and global reach, the Company is able to significantly expand the availability of its unmatched quality and customer support, while bringing even larger system-level solutions to market.

Sales inquiries: Please forward all Sales and reader service inquiries to ds@curtisswright.com.

For more information about the Curtiss-Wrights Defense Solutions division, please visit <u>www.curtisswrightds.com</u>.

About Curtiss-Wright Corporation

Curtiss-Wright Corporation is a global innovative company that delivers highly engineered, critical function products and services to the commercial, industrial, defense and energy markets. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing reliable solutions through trusted customer relationships. The company employs approximately 8,600 people worldwide. For more information, visit www.curtisswright.com.

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