



## NEWS RELEASE

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FOR IMMEDIATE RELEASE

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### **Curtiss-Wright Debuts New 40Mbps IRIG-106 PCM Module for Industry Leading Axon™ DAU for Flight Test**

***New AXN/ENC/401 IRIG-106 IRIG-106 PCM (Chapter 4) Encoder Module brings 2x speed improvement for telemetering FTI data to the ground***

**EUROPEAN TEST AND TELEMETRY CONFERENCE 2019 (ETTC 2019), TOULOUSE, France** (Booth #12-16) – **June 11, 2019** – Curtiss-Wright's Defense Solutions division today announced that its Aerospace Instrumentation business unit, a leading supplier of [flight test instrumentation \(FTI\) system solutions](#), has introduced a new module that further expands the capabilities of its industry-leading commercial-off-the-shelf (COTS) [Axon™ data acquisition unit \(DAU\)](#). Today's flight test engineers are collecting increasing quantities of data, but are only able to telemeter a fraction of that data to ground for real-time replay. The [AXN/ENC/401 IRIG-106 Chapter 4 PCM encoder Module](#) improves FTI data telemetering with double the speed previously available for encoding system-wide data into PCM streams. With support for data rates up to 40Mbps, the module boosts performance and speed for downlinking FTI data from the airborne test platform to a ground-based data recorder or transmitter. It also features an integrated Ethernet bus monitor, enabling data from multiple networked chassis to be encoded into PCM, eliminating the need for an external Ethernet bus monitor module. The module, which can encode data from both its host Axon chassis and from external networked chassis, supports 10 PCM codes at the 40Mbps rate, including NRZ-L/M/S, RZ, and RNRZ-L, BI-Phase L/M/S, DM-M/S. Additional outputs include TTL NRZ-L (up to 16Mbps), and pre-modulated filter output (up to 8Mbps). The module's dual RS-422 outputs are capable of encoding a PCM stream into two independent line codes simultaneously, enabling a stream to be encoded in different schemes for different targets (e.g. send NRZ to a recorder and RNRZ to the transmitter).

## About the Axon DAU

Curtiss-Wright's commercial-off-the-shelf (COTS) Axon DAU is one of the industry's fastest and most flexible data acquisition systems (DAS). It combines unprecedented flexibility with outstanding reliability for demanding applications, and enables flight test engineers to quickly develop, install and scale a highly reliable data collection solution for FTI that easily adapts to evolving requirements. With a 1 Gbps Ethernet link dedicated to each data acquisition module distributed on the test platform, Axon can currently deliver a throughput of 380 Mbps. It features increased integration flexibility through the use of unique Axonite™ remote mountable modules (unmatched 10m link distance) and wireless topologies. Uniquely, Axon also supports iNET, DARV3, Chap 10, iNET-X and IENA.

## AXN/ENC/401 Performance Features

- Sixth order linear phase (Bessel) PMF with programmable cutoff from 175 kHz to 6 MHz and output voltage from  $\pm 0.5$  Vp to  $\pm 2$  Vp
- Up to 10 PCM codes at up to 40 Mbps
- 2 to 250K words per major frame and 4 to 8K words per minor frame
- 1 to 64 bits and parity (odd/even/none) programmable word by word
- Supports any sync word and sub-frame strategy

## Live Technology Demonstrations

In its booth at ETTTC 2019 (Booth #12-16), Curtiss-Wright will host a live demonstration of the Axon System that will feature the AXN/ENC/401, as well as the recently announced [AXN/TDC/401, a 15 channel Thermocouple Module](#), [AXN/UBM/401, a 16-channel RS-232 / 422 / 485 Serial bus Monitor / Packetizer](#), also demonstrated are the [AXN/ABM/401, a 24 channel ARINC-429 Parser Packetizer](#), [AXN/ADC/401, 8 channel flexible analog module](#) and the [AXN/ITE/01U, a remote Axon module housing](#) mounted 10 meters away from the DAU itself. The Axon System live demo features an example of a fully integrated system with the latest technologies for FTI. Shown will be two Axon units, an [Acra KAM-500 DAU](#) and a [Gigabit Ethernet \(GbE\) ADSR data recorder](#) connected via a [high speed NSW-12GT 12 port gigabit switch](#).

## Axon Quick Start Kit Option

Curtiss-Wright also offers an [Axon Quick Start Kit \(QSK\)](#). The Axon QSK (AXN/QSK/001) enables FTI engineers to 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, Axon chassis, 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.

Sales inquiries: Please forward all Sales and reader service inquiries to [ds@curtisswright.com](mailto:ds@curtisswright.com).

For more information about the Curtiss-Wrights Defense Solutions division, please visit [www.curtisswrightds.com](http://www.curtisswrightds.com).

### **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 9,000 people worldwide. For more information, visit [www.curtisswright.com](http://www.curtisswright.com).

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