NEWS RELEASE

FOR IMMEDIATE RELEASE

Contact: Robert F Coveny
VP of Business Development
rcoveny@curtisswright.com

John Wranovics
Director of Communications
M: 925.640.6402
jwranovics@curtisswright.com

New Axon Modules Are First to Enable Real-time FFT Processing of High-Speed Accelerometers and TEDS Onboard the Aircraft for Flight Test Programs

New Axon data acquisition modules lower the time required to complete a flight test campaign by maximizing the number of flight test points completed per flight

European Test & Telemetry Conference (ETTC) Toulouse, France (Booth #20/21) – June 13, 2023 – Curtiss-Wright's Defense Solutions division today announced that it has expanded the capabilities of its Axon product family with the introduction of the new Axon ICP data acquisition module range. The two Axon ICP modules, AXN/ICP/401/B/10V and AXN/ICP/402 (ADAU versions are also available) help reduce the time required to complete a flight test campaign by enabling the in-module analysis of high sample rate accelerometer measurements (which are critical for understanding and quantifying the vibration frequencies experienced by the airframe). Unprocessed raw accelerometer data requires large amounts of limited PCM bandwidth and limits the quantity of vibration parameters, or other data, that can be telemetered. In contrast, the data analysis results, typically derived from FFT processing, use significantly less of the available PCM bandwidth.

By performing the analysis of accelerometer data onboard the aircraft and sending only the FFT results over the PCM stream, flight test engineers can speed up post-test data analysis on the ground while freeing additional PCM bandwidth to telemeter more vibration channels and other valuable data. As an example, 12 ICP channels sampled at 8,192 Hz inside a 100-word wide minor

frame with 256 minor frames per 16 Hz major frame would require 24%% of an available PCM frame. In comparison, the top 32 FFT frequencies and respective powers per channel will only require 3% of the available PCM space.

The AXN/ICP/401/B/10V module (ADAU version: AICP-412A-1) supports 12 channels with a sampling speed of 25 ksps. The AXN/ICP/402 (ADAU version: AICP-404A-1) supports four channels at 100 ksps. These modules can perform an FFT on all of their channels, with the resulting data, along with the original sampled data, available as output parameters.

The Axon ICP modules and their ADAU equivalents also provide support for TEDS (transducer electronic datasheet). TEDS allows a small amount of information to be stored on the sensor, which in turn can be read by configuration software and enable the automatic entry of configuration data, which saves time and reduces human error. TEDS also enables calibration data to be stored, which, for example, could serve as an excellent rapid pre-flight check to confirm that all sensors are connected correctly.

About the Axon Product Family

The Axon product family is the most advanced airborne data acquisition system available today, offering low SWaP with the best feature set, data acquisition, and thermal performance on the market. The Axon product family builds on Curtiss-Wright's heritage as the leading supplier of rugged reliable data acquisition for aerospace applications.

Axon's future-proof design, using a high-speed serial backplane (1 Gbps dedicated link per module) ensures future high data rates are supported. Its low SWaP design means it can be located in tight spaces and operates reliably without requiring bulky heatsinks. This design also allows any of the Axon family user modules to be placed in ultra-miniature "Axonite" housings and located remotely, separated from the chassis by up to 10 meters. Locating data acquisition closer to the sensors can significantly decrease the installation time and cost of the instrumentation while simultaneously reducing wiring weight. Axonites can also offer significant system cost saving in larger installations by reducing the number of DAUs required in remote locations and thus cutting down on extra chassis, controller, and power supply costs.

Axon AXN family modules are optimized for use with Curtiss-Wright's Acra KAM-500 network-based DAUs and DAS Studio software, while Axon ADAU modules are optimized for use with Curtiss-Wright's TTC networked-based DAUs and TTCWare Software.

For additional information about Curtiss-Wright Defense Solutions products, please visit www.curtisswrightds.com, LinkedIn, and Twitter @CurtissWrightDS.

About Curtiss-Wright Corporation

Curtiss-Wright Corporation (NYSE:CW) is a global integrated business that provides highly engineered products, solutions and services mainly to Aerospace & Defense markets, as well as critical technologies in demanding Commercial Power, Process and Industrial markets. We leverage a workforce of approximately 8,100 highly skilled employees who develop, design and build what we believe are the best engineered solutions to the markets we serve. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing innovative solutions through trusted customer relationships. For more information, visit www.curtisswright.com.

###