NEWS RELEASE

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Curtiss-Wright Introduces New 6-Channel Signal Conditioning Module For TTC MDAU Flight Test Instrumentation Systems

New MSCW-606D 6-channel plug-in signal conditioning module supports Current and Voltage Excitation, Programmable Digital Filtering, & Simultaneous Sampling

INTERNATIONAL TELEMETERING CONFERENCE (ITC), BALLY'S HOTEL & CONVENTION CENTER, LAS VEGAS, NEVADA. (Booth #2327) – OCTOBER 21-24, 2019 – Curtiss-Wright's Defense Solutions division today announced that its Aerospace Instrumentation (AI) group, a trusted leading supplier of flight test instrumentation (FTI) system solutions, has introduced the MSCW-606D, a new 6-channel plug-in signal conditioning module for use in its TTC MEDAU, TTC MCDAU, TTC MWDAU and TTC MnACQ-2000 data acquisition products. The MSCW-606D is the first wideband acquisition module developed for use with those DAUs, and supports the highest ICP sampling speeds of any such module. It enables FTI system operators to acquire wideband data from the applicable range of sensors (i.e., ICP, bridge or potentiometer). The MSCW-606D is ideal for use in air vehicle test, certification or development, avionics data acquisition unit, and missile applications.

About the MSCW-606D

The MSCW-606D is designed for applications that require high channel density, significant signal conditioning flexibility and/or simultaneous sampling capability. The module provides AC and DC input coupling, constant current and constant voltage excitation, programmable pre-sample digital filtering, calibration, and user programmable gain and offset. It has selectable IIR/FIR filtering and can support sample rates up to 100 ksps on a subset of its 6 channels simultaneously.

Flight test engineers need to ensure that their data acquisition system can collect data reliably each and every flight, can be developed and installed quickly, and is capable of adapting to changing needs, both during and after the development cycle. Using a commercial off-the-shelf (COTS) approach allows systems to be rapidly built, altered and scaled for future needs. A system that can be modified quickly to meet new requirements lowers costs and allows for minimal schedule risk if changes occur late in system development and for any future additional data needs. Curtiss-Wright provides one of the most extensive, flexible and widely-installed airborne data acquisition systems (DAS) in the world that have been developed to meet these needs. The Curtiss-Wright COTS approach facilitates rapid system development, adaptability and scalability.

Each digital filter on the MSCW-606D is phase locked to the channel format sample rate to maintain time correlation between the input signal and the data output. FIR or IIR digital pre-sample filtering may be selected on a per channel basis. The filter can be set for 3, 4, 5, 6, 8 or 10 times oversampling (the filter -3dB point will be automatically set to the format sampling rate divided by the oversampling value). Alternatively, a 6-pole Butterworth filter with software-specified -3dB point may be selected on any channel. The conditioned channel signals are digitized and available at up to 16-bit resolution for transmission in the system data output format. The MSCW-606D-1 is compatible with ICP type accelerometers as well as numerous bridge and potentiometer input sensor configurations.

MSCW-606D-1 Performance Features:

- 6 channels per module
- Simultaneous sampling capability
- Programmable digital FIR or IIR pre-sample filtering
    - Software selected FIR filters: 120, 90, 60 and 40 taps
    - 120 tap FIR filter provides comparable response to 12-pole Butterworth filter
    - Software selected IIR filters: 6-pole and 8-pole Butterworth, 6-pole Bessel and 6-pole Chebyshev
    - Automatic adaptive filter based on format sample rate
    - Analog anti-aliasing filter
    - Filter characteristic selectable on per channel basis
- Sequential sampling, simultaneous sampling or divided rate simultaneous sampling (thinning, -13 only) (per-channel basis)
- Constant voltage and fixed constant current excitation

- Programmable gain and offset
- AC and DC input coupling
- Zero calibration
- ZIN ~5 MegΩ (power on), >1 MegΩ (power off)
- ±0.5% system accuracy at most gains
- Automatic parasitic offset correction on power up and ZCAL - this feature can be disabled
- ±35VDC overvoltage protection
- Microsoft Windows application software included

About the Curtiss-Wright Aerospace Instrumentation Group

In 2017, Curtiss-Wright integrated its Dublin (Ireland) business unit (formally Acra Control Ltd.) with its Newtown (Pennsylvania, USA) business unit (formally Teletronics Technology Corporation), to form Aerospace Instrumentation. This integration created 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.

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.

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