



NEWS RELEASE

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Contact: John Wranovics
M: 925.640.6402
jwranovics@curtisswright.com

Curtiss-Wright Debuts Industry's First Ethernet-based High-Speed HD Video Camera with H.265 Compression for Aerospace Instrumentation Applications

New HDC-430-1 Ethernet camera significantly reduces bandwidth needed to downlink HD video captured during flight tests

EUROPEAN TELEMETRY & TEST CONFERENCE, TOULOUSE, France (Booth #12-16) –

June 11, 2019 – [Curtiss-Wright's Defense Solutions division](#) today announced that its Aerospace Instrumentation business unit, a trusted leading supplier of [flight test instrumentation \(FTI\) solutions](#), has introduced the first rugged FTI HD video camera that supports H.265 HEVC compression/decompression and 100/1000BASE-T Ethernet connectivity. The new [HDC-430-1 is a cost-effective HD Ethernet IP camera](#) designed for use in flight test, space test and cockpit monitoring applications (for external application requirements, please [contact the factory](#)).

Requirements for integrating Ethernet-based HD cameras with FTI data acquisition equipment, network recorders, and telemetry devices have increased as Ethernet-based networks have become the dominant choice for FTI applications. However, the amount of data raw HD video contains adds complexity and limits the number of video frames that can be distributed through a network, transmitted over a PCM link and stored. To address this issue, the HDC-430-1 uses the H.265 CODEC, which can compress images more efficiently than H.264 -based alternatives. This enables flight test engineers to downlink video images with the same quality using less bandwidth, or deliver higher quality images using the same bandwidth, as H.264 compression. The HDC-430-1 also ensures video data accuracy with industry standard synchronization and time-stamping protocols, such as IEEE 1588 PTP.

“With this introduction of the FTI industry’s first HD video camera to support H.265 compression over Ethernet networks, Curtiss-Wright further extends its commitment to be the leading supplier of advanced solutions for FTI systems,” said Lynn Bamford, Senior Vice President and General Manager, Defense Solutions division. “The HDC-430-1 camera’s support for H.265 compression and multiple output streams means more quality and lower realistic bit rates for recording, viewing and transmission. Its rugged construction and proven low light and dynamic range performance makes it ideal for demanding applications.”

The HDC-430-1 supports image data downloads to network-based solid state recorders such as the Teletronics [ADSR-4003F series recorder](#). For recording, the camera’s primary resolution is HD (720p60 or 1080p/60). A second and third SD stream is also supported for preview display or telemetry. Bitrates and resolution for each of the camera’s video streams can be independently configured to meet unique test flight viewing, telemetering or recording bandwidth requirements.

The camera incorporates a high-resolution image sensor with Wide Dynamic Range (WDR) imaging that ensures high accuracy by removing over and under saturation artifacts. The HDC-430-1 is packaged in an environmentally rugged FTI ready housing with +28V DC power.

The HDC-430-1 also supports H.264 compression for legacy applications that require this older compression scheme. It also outputs both RS170 and 3G-SDI, which enables the camera’s use with older FTI systems, as well as modern Ethernet networked devices.

Designed to Reduce Size, Weight and Power

This size, weight, and power (SWaP) optimized camera measures only 2.6” W x 1.5” H x 4.4” D (66.7 mm W x 38.1 mm H x 110.7 mm D) and weighs only 5.5 oz. (157 grams) without lens. Additional SWaP benefits include the ability to use lighter Ethernet cables and fewer conversion boxes. It also enables the use of existing data acquisition Ethernet switches, eliminating the need for dedicated video splitters.

System Level FTI Solutions

Curtiss-Wright provides FTI system solutions that integrate with data acquisition and recording systems. The HDC-430-1 can be rapidly integrated with Curtiss-Wright’s industry-leading range

of Ethernet enabled FTI products – including network switches, data recorders and DAUs – to develop a fully integrated system solution.

For more information on Curtiss-Wright Defense Solutions products, please visit 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.

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