



NEWS RELEASE

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Curtiss-Wright Selected by Kappa Optronics to Provide Video Management Technology for Driver's Vision Enhancer

For use on Norwegian Army's WiSENT 2 Armored Recovery Vehicle program

ASHBURN, Va. – August 27, 2019 – [Curtiss-Wright's Defense Solutions division](#) today announced that it was awarded a contract by [Kappa Optronics](#) to provide its [video management system \(VMS\)](#) technology to support the Driver's Vision Enhancer (DVE) system used on the [Norwegian Army's WiSENT 2 armored recovery vehicle](#). Under the contract, Curtiss-Wright will provide Kappa Optronics with its [Generic Vehicle Architecture \(GVA\)-ready RVG-SDX 3G-SDI Rugged Video Gateway](#) and [GVDU2610 Ground Vehicle Rugged Display](#). Curtiss-Wright's VMS solution supports the DVE by processing and displaying video data from the vehicle's multiple Kappa cameras, providing enhanced driver vision to help increase mission capabilities.

"We are very proud to have been selected by Kappa Optronics to provide our rugged video management solutions for use on the Norwegian Army's WiSENT 2 recovery vehicle," said Lynn Bamford, Senior Vice President and General Manager, Defense and Power. "This is our first contract with Kappa Optronics and we are very pleased that our video switch and touchscreen technology will help support this important ground vehicle's Driver's Vision Enhancer."

"A lot of effort has been put into the Driver's Vision Enhancer system's fast signal processing and straight forward electrical design," said Axel Zimmer, Director of Product Management, Kappa. "We have overcome well-known latency problems associated with

first generation digital driver vision enhancement systems, and we are proud to have achieved a latency of less than 40 ms to ensure safe and ergonomic operation of the vehicle. Our DVE system sets the standard for the industry.”

About the DVE

Kappa Optonics' DVE supports Full HD or 1MP/LWIR video and shutterless, low latency operation. Excellent daytime visibility is achieved through the use of state-of-the-art CMOS Full HD cameras. In addition, the system's night vision performance has been significantly improved, compared to traditional solutions, through the use of superior 1 MP LWIR microbolometer technology. The DVE's LWIR cameras were further enhanced with shutterless functionality to ensure permanent availability and sharp images under all conditions. Additional features include quad display views, picture-in-picture, and blending and overlaying of images, as required, to provide improved navigation and operation.

The DVE features Ethernet and CAN bus connectivity, and live images can be distributed to 3rd parties to provide important mission information. The system's CAN bus interface enables the DVE to be fully integrated into the WiSENT 2's vehicle architecture.

About the WiSENT 2

The WiSENT 2, developed by Flensburger Fahrzeugbau Gesellschaft (FFG), is one of the world's most advanced multi-functional vehicle platforms. Due to its modular design, the WiSENT 2 can be converted quickly from an armored recovery vehicle (ARV) to an armored engineer vehicle (AEV) in less than five hours.

About the RVG-SDX Video Switch

The RVG-SDX (Kappa variant of Curtiss-Wright's standard RVG-MS1) is a rugged, size, weight, power, and cost (SWaP-C) optimized 3G-SDI video switch. It supports 24 inputs and 17 outputs from a wide variety of digital and analog sensor types. Designed for use in the harsh environmental conditions occurring in aerospace and defense applications, the RVG-SDX is the latest member of Curtiss-Wright's Rugged Video Gateway (RVG) family. Its small size allows it to be incorporated into space-constrained manned and unmanned vehicles of all types.

About the GVDU2610 Ground Vehicle Display Unit

The GVDU2610 is a mission critical rugged display optimized for the ground vehicle market with superior Projected Capacitive (PCAP) multipoint touch screen technology. Multipoint touchscreen technology enables operators to use familiar smartphone interface techniques to annotate, draw, and manipulate screen images. In contrast, traditional resistive touch screens are only able to respond to the touch of a single finger. What's more, in harsh aerospace and military environments, resistive touch panels typically have lower resistance to shock and shorter lifecycles, when compared to rugged PCAP displays. Additional benefits of PCAP include improved brightness and contrast, a thinner and lighter display head. The new GVDU displays are built GVA/VICTORY-ready, with support for DEF-STAN 00-250 compliant bezel buttons that deliver optimal tactile response in high vibration environments. The display's bezel buttons are positioned along the sides of the unit and are fully programmable via USB. In addition, to address growing requirements for open standards-based vehicle electronics architectures, the GVDU displays support DEF-STAN 00-82 video over Ethernet (VoE), ensuring that the display will work in any GVA/VICTORY compliant Ethernet system architecture.

Curtiss-Wright is manufacturing the products covered by this agreement at its facilities in Letchworth, UK. The products will be shipped to Kappa Optronics in Gleichen, Germany.

For more information about Curtiss-Wright's Defense Solutions division, 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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