
CoreAVI and HENSOLDT Demonstrate RTCA DO-178C and EUROCAE ED-12C Safety Certifiable 4K Video Output Capability on HENSOLDT's Mission Computer

Enabling Next Generation Avionics Sensor and Display Systems

Tampa, Florida June 20, 2017. Core Avionics & Industrial Inc. ("CoreAVI") and HENSOLDT Sensors GmbH ("HENSOLDT") have announced the world's first RTCA DO-178C and EUROCAE ED-12C safety certifiable 4K video output hosted on HENSOLDT's RTCA DO-254 and EUROCAE ED-80 safety certifiable Mission Computer. This continues the long relationship between CoreAVI and HENSOLDT to provide innovative and cost effective graphics and video processing solutions for safety critical applications such as synthetic vision systems (SVS).



This solution enables system integrators and end-users to leverage the high-resolution imagery provided by aircraft-installed sensors and available databases as well as large area displays to be installed in future aviation cockpits. Thus, the HENSOLDT Mission Computer with CoreAVI graphics drivers is already supporting the requirements of tomorrow's avionic architectures.

The demonstration of a 4K video output is running with an integrated DO-178C and ED-12C level C digital map application (as a partition application software image) that processes map data stored in the internal mass memory of the Mission Computer. The AMD Embedded Radeon graphics processor generates the graphics output with a resolution of 3840x2160 with 24-bit color range at 30Hz delivered through a dual-link DVI electrical interface.

Applications interface with CoreAVI's safety critical OpenGL drivers using Ada and C++ programming languages running with Wind River's VxWorks 653 real-time operating system (RTOS) to provide deterministic performance, all with data packages to support DO-178C and ED-12C safety certification.

The HENSOLDT Mission Computer is a flexible ARINC-600 system utilizing COTS industry standard OpenVPX modules designed to DO-254 and ED-80 Design Assurance Level (DAL) C. The base configuration, as used for the demonstration, includes both a NXP P5020 Power Architecture based Single Board Computer and an AMD Embedded Radeon E4690 based graphics module with integrated sensor data capture and are offered with data packages to support DO-254 and ED-80 safety certification and supported with long-term availability.



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"CoreAVI's partnership with HENSOLDT is an example of how CoreAVI continues to collaborate with our partners to introduce truly innovative solutions addressing aircraft requirements for today and the future," said Dan Joncas, Vice President of Sales and Marketing at CoreAVI. "This collaboration provides system integrators and end-users with a cost-effective safety certifiable solution addressing the needs of next generation avionics sensor and display systems."

For more information, please contact CoreAVI.

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About Core Avionics & Industrial Inc.

Core Avionics & Industrial Inc. ("CoreAVI"), a Channel One company, is a global leader in providing products and services designed to enable complete solutions for safety critical applications. A supplier of real-time and safety-critical graphics and video drivers, compute drivers, "program ready" embedded graphics processors, and DO-254/ED-80 certifiable COTS hardware IP, CoreAVI's suite of products enables commercial GPUs, SoC components, and COTS hardware designs to meet the requirements of long-term high-reliability and safety-critical embedded systems with long-term support. CoreAVI's products may be purchased with certification data kits for the most stringent levels of RTCA DO-254/DO-178C and EUROCAE ED-80/ED-12C. www.coreavi.com

HENSOLDT Sensors GmbH

HENSOLDT is a leading global provider of premium electronics in the areas of protection, reconnaissance and surveillance. The company equips armed forces and security organisations around the world on the basis of a 100-year tradition and experience gained from renowned technological predecessors such as Dasa, Aérospatiale-Matra, Telefunken, Dornier and Zeiss. HENSOLDT employs some 4,000 employees generating revenues of approximately €1 billion per year. www.hensoldt.net