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## **CoreAVI and VeriSilicon Collaborate to Provide the Highest Levels of Safety Critical Graphics Compliant to ISO 26262, RTCA DO-178C and EUROCAE ED-12C**

*CoreAVI and VeriSilicon's fully integrated OpenGL SC graphics driver and IP stack will be on display at Embedded World, Nuremberg, March 14 to 16 in VeriSilicon's booth, Hall 3 booth 510. The demonstration includes DiSTI's GL Studio ISO 26262 3D Instrument Cluster HMI running on NXP's S32V234 ADAS SoC deploying VeriSilicon's VIVANTE GC3000 graphics core and CoreAVI's AutoCore™ ISO 26262 OpenGL graphics driver suite.*

March 7, 2017, Tampa, Florida. Core Avionics & Industrial Inc. ("CoreAVI") and VeriSilicon Holdings Co., Ltd. announce today that they have completed product integration to offer extensive graphics driver libraries and safety evidence, enabling the highest levels of safety critical use in certifiable graphics systems. The product collaboration includes CoreAVI's suite of GPU accelerated OpenGL drivers: AutoCore, compliant to ISO 26262 ASIL D for automotive applications, and ArgusCore SC™ compliant to RTCA DO-178C and EUROCAE ED-12C DAL A for use with FAA and EASA avionics certification, for VeriSilicon's family of VIVANTE GC graphics IP cores.

VeriSilicon's VIVANTE graphics cores are integrated with NXP's ARM based i.MX6, i.MX8 and S32V234 product families. Today, utilizing NXP's SoCs, CoreAVI and VIVANTE have been selected for, and are completing, several high profile civil aviation programs, including both FAA DO-178C and EASA ED-12C DAL A certifications. This close research and development collaboration and sharing of intellectual property (IP) allows both companies to deliver extensive support to the avionics market and design new product portfolios that include support for ISO 26262 safety certifiable graphics for automotive applications.

The availability of CoreAVI's ISO 26262 graphics driver suite, in combination with VeriSilicon's VeriSafe IP stack, significantly eases safety assessment as referenced in recent National Highway Traffic Safety Administration (NHTSA) Automated Vehicles Policy guidance addressing safety systems in autonomous vehicles. These developments are the beginning of significant change in automotive standards and in automotive development, similar to the long evolution of avionics safety under FAA guidance. The VIVANTE graphics IP and CoreAVI AutoCore driver stack enables automotive manufacturers to accelerate the certification of intelligent safety monitoring and display functions for Advanced Driver Assistance Systems (ADAS) focused on increasing safety for occupants, pedestrians, and surrounding vehicles.

AutoCore is a graphics and video driver suite that includes OpenGL SC 1.0 and 2.0 (safety critical), H.264 video decoder and encoder, GPU safety monitor and comprehensive GPU Built-In-Test capabilities. CoreAVI's OpenGL SC 2.0 is the latest industry standard safety critical OpenGL API which provides the flexibility and performance of GPU shader programming to safety critical applications. This, coupled with



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the TrueCore™ GPU safety monitor and certification evidence, CertCore26262™, provides the basis for a complete certifiable graphics solution for Automotive Safety Integrity Levels (ASIL) A through D. The software suite was developed following a process that is a super set of ISO 26262 and DO-178C/ED-12C providing best practices of the automotive and avionics safety critical guidance.

"AutoCore provides the automotive sector with the most cost-effective way to implement graphics and vision processing addressing critical functional safety requirements," said Lee Melatti, President of CoreAVI. "As the only OpenGL driver suite today that can deliver ISO 26262 ASIL D compliance, our customers designing safety-critical automotive graphics and video systems will benefit from a significant time-to-market advantage in meeting emerging government requirements."

"CoreAVI is VeriSilicon's proven partner to offer a complete graphics solution available to safety critical markets with ongoing long term support," said Rick Tewell, VP of System Solutions at VeriSilicon. "VeriSilicon based SoC developers receive a large benefit from the availability of graphics IP combined with driver suites capable of satisfying the stringent ISO 26262 automotive functional safety standard."

For more information, please contact CoreAVI.

### **Media Inquiries**

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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](http://www.coreavi.com)

About VeriSilicon Holdings Co., Ltd.

Smaller – Faster – Cooler: VeriSilicon Corporation, a leader in dedicated Vision Processing and multi-core GPU, Compute, CPC Composition Engine and Vector Graphics IP solutions, provides the highest performance and lowest power silicon characteristics across a range of Khronos Group API conformant standards based on the Vega architecture. VeriSilicon GPUs are integrated into customer silicon in devices targeting wearables, IoT, smartphones, tablets, HDTVs, automotive, consumer electronics and



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other embedded devices and running thousands of graphics/compute applications across multiple operating systems and software platforms. [www.verisilicon.com](http://www.verisilicon.com)