Imagination and CoreAVI partner for safety-critical automotive graphics applications
IMG B-Series and CoreAVI drivers enable safety-critical automotive compute and graphics at Embedded World

London, England – 14th March 2023 – Imagination Technologies and Core Avionics & Industrial Inc. ("CoreAVI") are bringing advanced safety-critical drivers to PowerVR GPUs, starting with the IMG B-Series. CoreAVI will provide graphics driver support for the IMG BXS GPU, enabling next-generation safety-critical applications for automotive platforms.

CoreAVI will be displaying a dashboard demo at Embedded World 2023, combining Imagination's IP with Visteon and TI's innovative solutions. See it live at Booth 4-638.

Neil Stroud, General Manager of Automotive and Embedded, CoreAVI, says: "Imagination is a long-established player in the automotive segment, with a significant market share for its GPU IP in graphics and compute applications. We are excited to join forces in building a strong safety-critical software base, supporting developers and OEMs in the automotive industry. Given the increasing demand for high-performance GPUs, we see true potential in Imagination's IP for embedded safe applications across our common markets and we look forward to exploring this future together."

Jake Kochnowicz, Senior Director of Product Management, Imagination, says: "CoreAVI has extensive expertise in building reliable and secure solutions across automotive, industrial and avionics. By working together on our BXS GPU driver support, we're ensuring that we meet the complex safety requirements for graphics in a rapidly evolving automotive market. Our customers will benefit from enhanced access to API support, for faster product deployment. We are looking forward to our collaboration expanding beyond ADAS, with scope for industrial and avionics markets."

CoreAVI's Vulkan® SC™ - based safety critical GPU acceleration driver, VkCore® SC, is designed from the ground up for high performance and flexibility and offers ISO 26262 certification up to ASIL D. The driver supports the B-Series of Imagination GPUs and allows the developer to migrate their safety critical software stack seamlessly across different silicon implementations, dramatically increasing flexibility, scalability and reducing the overall total cost of ownership for safety systems. VkCoreGL® SC1 and VkCoreGL® SC2 OpenGL® SC 1™ and OpenGL® SC 2™ libraries running on VkCore SC enable integrators to gain the benefits of the Vulkan API while developing in OpenGL. VkCore SC is also supported by TrueCore™, a GPU safety monitor, as well as ComputeCore™, a suite of algorithms for accelerated vector and matrix math operations. VkCore SC is the foundation of CoreAVI's Platforms for Safety Critical Applications, addressing the needs of any safe graphics and compute application across all market verticals.

Imagination is a market leader in safe human-machine interface (HMI) compute and graphics, thanks to its GPU, AI and connectivity solutions for automotive applications. Thanks to their multicore, scalable design, Imagination's GPUs can enable enhanced ADAS applications, being perfectly suited for intensive compute scenarios where real-time car sensor data requires processing.

The IMG BXS GPU is ISO 26262 certified for automotive safety and reliability, making it an optimal choice for OEMs and Tier 1s who are looking to integrate efficient, high-performing graphics and compute in functionally safe automotive designs.

Imagination will be at Embedded World showcasing its latest solutions for embedded systems. In addition to GPU, Imagination will also be highlighting its Catapult RSIC-V CPUs, connectivity and AI accelerator solutions, as part of its heterogeneous approach to chip design. Visit booth Hall 4 Booth 558.

About CoreAVI

CoreAVI is the global leader in architecting and delivering safety critical graphics and compute software drivers and libraries, embedded 'system on chip' and discrete graphics processor components, and certifiable platform hardware IP. CoreAVI's comprehensive software suite enables development and deployment of complete safety critical solutions for automotive, industrial and aerospace applications requiring certification to the highest integrity levels coupled with full lifecycle support. CoreAVI's solutions support both graphics and compute applications including safe autonomy, machine vision and AI in the automotive, unmanned vehicle and industrial IoT markets, as well as commercial and military avionics systems. www.coreavi.com

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CoreAVI's Press Contacts:

Mary Beth Barrans   marybeth.barrans@coreavi.com

About Imagination Technologies

Imagination is a UK-based company that creates silicon and software IP (intellectual property) designed to give its customers an edge in competitive global technology markets. Its GPU, CPU, and AI technologies enable outstanding power, performance, and area (PPA), fast time-to-market, and lower total cost of ownership. Products based on Imagination IP are used by billions of people across the globe in their smartphones, cars, homes, and workplaces. See https://www.imaginationtech.com/.

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Imagination Technologies' Press Contacts:

David Harold   david.harold@imgtec.com   **+44 (0)1923 260 511**

Cosmin Balan   cosmin.balan@imgtec.com   **+44 (0)1923 260 511**

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