

CAST and Fraunhofer IPMS Mark 20-Year Partnership with Product of the Year Win

Woodcliff Lake, New Jersey and Dresden, Germany — June 16, 2022 — Electronic systems research and development organization Fraunhofer IPMS and semiconductor intellectual property provider CAST have been partnered to successfully develop, deliver, and support reusable IP cores for ASICs and FPGAs since 2002. The quality and utility of the team's work were recently recognized by Elektronik Magazine, which awarded the EMSA5-FS Functional Safety Embedded RISC-V Processor the 2022 Product of the Year award in the Automotive category.

Two Decades of Better IP

The scientists and engineers at the Fraunhofer Institute for Photonic Microsystems (IPMS) focus on applied research and development in fields such as smart industrial solutions, medical & health applications, and improved quality

of life. They successfully deliver innovative electronic, mechanical and optical components and integrate them into miniaturized modules and systems. One business unit develops advanced digital core modules, especially for automotive applications.

By the early 2000s, IP pioneer CAST had already built an innovative marketing, sales, and technical support organization coupled with long-term partnerships with IP developers around the world. The company was one of the few to focus exclusively on reusable IP, and also one of the few IP startups to thrive.

The two organizations found they had a symbiotic relationship, and signed their first contract together – for the CAN Bus Controller IP Core – in 2002. The joint product line grew and today features some of the industry's highest-quality, lowest-risk IP cores for the LIN and CAN buses, Time-Sensitive Networking (TSN) Ethernet, and most recently the EMSA5-FS RISC-V processor. Close to 200 different customers are using this IP, many for multiple projects.

20th Anniversary:
CAST and Fraunhofer IPMS

Partnered to
develop & deliver
some of the best
silicon IP available
anywhere.



“This year we celebrate 20 years of working closely with CAST to bring our leading-edge IP cores to market. Together we’ve successfully served customers from the automotive, aerospace, and other industrial sectors with world-class platform-independent IP cores” said Frank Deicke, head of business unit WMS for Fraunhofer IPMS. “Here’s to the next 20 years!”

About Product of the Year EMSA5-FS

The [EMSA5-FS Functional Safety Embedded RISC-V Processor](#) is the first fault-tolerant, functional safety processor using the popular RISC-V instruction set. It has already been certified at the most stringent ISO 26262 safety level, ASIL D. This 32-bit processor is fast and efficient on FPGAs or ASICs, and it is supported by development tools from IAR and Lauterbach as well as many open-source RISC-V toolsets.



“Fraunhofer’s vision and professional execution enable us to ship the first RISC-V embedded processor that is ASIL D certified,” said Nikos Zervas, chief executive officer of CAST. “This is just one example of how well our 20-year partnership works to benefit customers around the world, and we plan to continue expanding our mutual product offerings and satisfied customer base for the foreseeable future.”

Celebration at Embedded World

The companies plan to celebrate their 20th anniversary — and the Product of the Year award — throughout Embedded World, June 21–23, 2022, in Nuremberg, Germany. They have adjacent stands — booths 4-569 and 4-462 — and on Wednesday, June 22nd at 4:00 pm CAST is hosting an open beer party on the show floor. All are welcome, for refreshments then or to stop by any time.

About Fraunhofer IPMS

The Fraunhofer Institute for Photonic Microsystems IPMS stands for applied research and development in the fields of industrial manufacturing, medical technology and improved quality of life. Our research focuses on miniaturized sensors and actuators, integrated circuits, wireless and wired data communication, and customized MEMS

systems. Fraunhofer IPMS has years of experience in the design of IP cores for automotive communication and has a family of TSN IP cores. The multidisciplinary IP design team of Fraunhofer IPMS with expertise in domain-specific computer architectures, network structures, RTL design and implementation of electronic systems is also available as a competent development partner for application-specific adaptations of the IP cores and their integration into complex architectures. Learn more at www.ipms.fraunhofer.de.

About CAST

Computer Aided Software Technologies, Inc. (CAST) is a silicon IP provider founded in 1993. CAST's ASIC and FPGA IP product line includes RISC-V and other microcontrollers and processors; image, video, and data compression engines; interfaces for automotive, aerospace, and other applications; various common peripheral devices; and comprehensive SoC security modules.

Learn more by visiting www.cast-inc.com.

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