Press Release

SolidRun Unveils Hailo-15H System-on-Module (SOM): A Breakthrough in Edge AI Processing

With the first market-ready SOM based on the powerful and efficient Hailo-15H AI vision processor, SolidRun is empowering the quick development of AI Vision applications with unprecedented performance and efficiency

TEL AVIV, March 28, 2024 – SolidRun, a leading innovator in high-performance System on Module (SOM) solutions and developer of embedded systems, is proud to announce the release of its ultra-compact Hailo-15H SOM. Leveraging the cutting-edge Hailo-15H AI vision processor, this groundbreaking deployment-ready solution sets a new standard in AI vision applications, offering unparalleled performance, efficiency, and flexibility.

"SolidRun's SOM based on our Hailo-15H SOC represents a significant milestone for in-camera edge AI processing and provides engineers with a compact solution that delivers unparalleled performance and energy efficiency for a wide range of AI vision applications. Working with SolidRun, we're able to empower customers to quickly unlock the full potential of AI at the edge, and drive innovation across countless industries," said Yaron Ofer, Regional General Manager at Hailo.

The Hailo-15H SOM marks a pivotal moment in the evolution of edge AI, providing engineers with the tools they need to develop and quickly bring to market powerful AI vision applications for a variety of industries, including security, industrial automation, smart cities,

retail, automotive and more. With its unique combination of AI inferencing capabilities and advanced computer vision engines, the Hailo-15H SOM empowers engineers to push the boundaries of what's possible in edge AI.

“Our vision at SolidRun has always been to simplify the complex world of embedded systems and empower engineers to innovate without constraints,” said Dr. Atai Ziv, CEO at SolidRun. “Collaborating with Hailo to develop the Hailo-15H SOM, we've introduced an integrated solution that achieves just that. This market-ready solution seamlessly combines cutting-edge AI inferencing capabilities with ease of integration, ultimately reducing engineering time and costs. Most importantly, it enables developers and engineers to devote their energies entirely to realizing their product vision.”

Unprecedented AI Performance

The Hailo-15H SOM revolutionizes AI processing with its unmatched performance capabilities. Featuring a powerful quad-core Arm processor and a high-performance AI accelerator integrated onto a single System-on-a-Chip (SoC), the Hailo-15H delivers up to 20 TOPs (Tera Operations Per Second). This high compute capacity enables leveraging the AI for both image enhancement, such as low-light denoising and high dynamic range, as well as for superior video analytics. This unique combination empowers developers to process multiple complex deep learning AI applications in parallel, providing unrivaled speed and efficiency and unparalleled video quality. Additionally, the Hailo-15H enables high FPS DL model processing, ensuring fast and highly accurate detection of objects in real-time. All these cutting-edge features are delivered within the standard camera power consumption and cost envelope, making the Hailo-15H SOM the go-to solution for next-generation AI-powered applications.

Superior Image Quality

Equipped with AI-powered vision enhancement capabilities, the Hailo-15H SOM ensures exceptional image quality with support for premium 4K60 or 2x4K30 resolution and a 12MP ISP video pipeline. Leveraging its comprehensive vision library and advanced image processing algorithms, the Hailo-15H SOM delivers unmatched clarity and precision, enhancing the accuracy and reliability of AI vision applications.

Moreover, the Hailo-15H SOM is compatible with various micro camera solutions, including models from Leopard Imaging. Its pre-tuned MIPI-CSI2 interface seamlessly integrates with a range of micro camera solutions, providing developers with a hassle-free, plug-and-play experience. This ensures effortless incorporation of high-quality imaging capabilities into AI-powered applications, further enhancing their functionality and performance.

Flexible, Secure, and Compact

The Hailo-15H SOM offers unparalleled flexibility and security, packed into an ultra-compact form factor measuring just 47mm x 30mm. Despite its small size, this SOM is designed to withstand extreme environmental conditions, with a temperature range spanning from -40°C to 85°C. This ensures reliable operation in a variety of industrial settings, making it ideal for deployment in harsh environments.

Comprehensive Software and Security

The Hailo-15H SOM comes with a comprehensive software suite, including drivers, libraries, and tools designed to streamline the development of AI vision applications. With support for standard ML frameworks such as Keras, TensorFlow, PyTorch, and ONNX, as well as specialized image and video processing algorithms, the Hailo-15H SOM provides engineers with everything they need to accelerate their AI projects.

Additionally, the Hailo-15H SOM features industry-standard infrastructures and frameworks, coupled with robust security measures such as secure boot and debug with hardware-accelerated crypto library, TrustZone, TRNG, and Firewall.

Availability

The Hailo-15H SOM is now available through SolidRun's official website and select distributors, with a starting price of $149. Additionally, SolidRun will soon announce an expansion to the Hailo SOM product line, which will include a Hailo-15M SOM, featuring the same pinout for seamless integration, as well as a new carrier board to expand the development and prototyping with these new SOMs.

The Hailo-15 SOM will be demonstrated at the Embedded World exhibition in Nuremberg, April 9-11, at the Hailo booth #126 in Hall 1, as well as at the ISC-West exhibition in Las Vegas, April 10-12, at the Hailo booth #31065. To schedule a meeting at the Hailo booths, click here.

For more information about the Hailo-15H SOM, please visit https://www.solid-run.com/hailo-15-som/. For more information about SolidRun, please visit www.solid-run.com.

About SolidRun

SolidRun is a global leading developer of embedded systems and network solutions, focused on a wide range of energy-efficient, powerful, and flexible products. Our innovative compact embedded solutions are based on ARM and x86 architecture and offer a variety of platforms including SOMs (System-on-Module), SBCs (Single Board Computer) and industrial mini-PCs.

SolidRun offers a one-stop-shop for developers and OEMs, providing a complete service from hardware customization to software support and even product branding and enclosure design. With a mission to simplify application development while overcoming deployment challenges, SolidRun proudly provides customers faster time-to-market and lower costs.

About Hailo

Hailo, an AI-focused chipmaker, is developing specialized AI processors that enable data center-class performance on edge devices. Hailo's processors are the product of a rethinking of traditional computer architecture, enabling smart devices to perform sophisticated deep learning tasks such as object detection and segmentation in real-time, with minimal power consumption, size, and cost. The processors are designed to fit into a multitude of smart machines and devices, impacting a variety of sectors including automotive, security, industry 4.0, and retail. For more information visit https://hailo.ai.

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