FLEX LOGIX UNVEILS FIRST AI INTEGRATED MINI-ITX SYSTEM TO SIMPLIFY EDGE AND EMBEDDED AI DEPLOYMENT

InferX Hawk AI system reduces time to market, risk and costs with an AI Mini-ITX x86 system for new edge AI appliances and a drop-in upgrade for existing solutions

MOUNTAIN VIEW, Calif. – September 13, 2022 – Flex Logix® Technologies, Inc., supplier of high performance and efficient edge AI inference accelerators and the leading supplier of eFPGA IP, today announced the InferX™ Hawk – a hardware and software-ready mini-ITX x86 system designed to help customers quickly and easily customize, build and deploy edge and embedded AI systems. The InferX Hawk system includes the Flex Logix InferX X1 AI accelerator chip, AMD Ryzen™ Embedded R2314 SoC, InferX Runtime software, and the EasyVision platform running Linux or Windows to deliver an integrated low power, high-performance AI system.

The AMD Ryzen Embedded R2314 delivers performance per watt efficiency using “Zen+” core architecture and Radeon™ Graphics. With the Hawk mini-ITX solution, customers can save over six months of hardware and software development time, additional system costs and power over NVIDIA and other solutions.

“Our design was driven by the need to offer customers a high-performance, low-power solution that can be easily integrated into existing systems,” said Barrie Mullins, VP of Product Management for Flex Logix. “The InferX Hawk system is an out-of-the-box solution that delivers increased performance, lower power and decreased costs over NVIDIA and other competitive solutions.”

“We designed our Ryzen Embedded R2000 Series to deliver the performance and functionality needed for emerging AI and machine learning applications,” said Rajneesh Gaur, corporate vice president and general manager, Adaptive & Embedded Computing Group at AMD. “Whether a customer is designing an industrial application, thin client, or mini-PCs, the ability to have high performance at optimized power and great graphics is a key competitive advantage.”

Target Markets
The InferX Hawk system is designed for a wide range of smart vision and video applications, many that are traditionally based on Windows. The Hawk system now offers edge AI
developers flexibility to meet their customer needs with their operating system of choice and enables:

- Safety and Security
  - Mask, personal protection equipment (PPE) detection, building access, data anonymization and privacy
- Manufacturing and Industrial Optical Inspection
  - Employee safety, logistics and packaging, and inspection of parts, processes and quality
- Traffic and Parking Management
  - Traffic junction monitoring, vehicle detection and counting, public and private parking structures, toll booths
- Retail
  - Logistics, safety, consumer monitoring, automated checkout, and stock management
- Healthcare
  - Medical image analytics, patient monitoring, mask detection, staff and facility access control and safety
- Agriculture
  - Crop inspection, weed and pest detection, automated harvesting, yield and quality analysis, animal monitoring and health analysis
- Robotics
  - First/last mile delivery, forklifts, tuggers, drones, and autonomous machines

The Hawk Advantage
The Hawk system leverages Flex Logix’s InferX accelerator, which is the industry’s most efficient AI inference chip for edge systems, offering a price/performance advantage over existing edge inference solutions. Customers using Hawk can also take advantage of Flex Logix’s EasyVision platform that provides ready-to-use models that are trained to perform the most common object detection capabilities such as hard-hat detection, people counting, face mask detection and license plate recognition.

Below are a few high-level technical features of the InferX Hawk system.

Processing:
- Dual InferX X1 accelerators
- AMD Quad-core Zen+ @ 2.1GHz
- Hexa-core Radeon Vega GPU
- Video Codec Accelerator inc. H.264, HEVC (H.265), VP9
- Standard Mini-ITX Form Factor
- 2x DDR4 SO-DIMM up to 32GB capacity

Standard I/O:
- Dual Gigabit Ethernet
- 2xUSB 3.1, 2 USB 2.0 all type A
- 1xUSB 3.2 type C
- 2xDisplay Port
- Dual COM ports

Storage:
- M.2 M Key for NVMe SSD and SATA
- M.2 E-Key for Wi-Fi/LTE support
- Internal SATA Gen3 connector

TDP Power:
- 25W – 40W based on performance
- Typical power is workload dependent

Dimensions:
- 6.7” x 6.7” Mini ITX

About Flex Logix

Flex Logix is a reconfigurable computing company providing AI inference and eFPGA solutions based on software, systems and silicon. Its InferX™ X1 is the industry’s most-efficient AI edge inference accelerator that will bring AI to the masses in high-volume applications by providing much higher inference throughput per dollar and per watt. Flex Logix eFPGA enables volume FPGA users to integrate the FPGA into their companion SoC resulting in a 5-10x reduction in the cost and power of the FPGA and increasing compute density which is critical for communications, networking, data centers, and others. Flex Logix is headquartered in Mountain View, California and has offices in Austin, Texas and Vancouver, Canada. For more information, visit https://flex-logix.com.

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MEDIA CONTACTS
Kelly Karr
Tanis Communications
kelly.karr@taniscomm.com
+408-718-9350

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