FLEX LOGIX AND CEVA ANNOUNCE FIRST WORKING SILICON OF A DSP WITH EMBEDDED FPGA TO ALLOW A FLEXIBLE/CHANGEABLE ISA

Flex Logix® EFLX embedded FPGA brings reconfigurable computing to CEVA-X2 DSP instruction extension to support demanding and changing workloads

MOUNTAIN VIEW, Calif. – June 27, 2022 – Flex Logix® Technologies, Inc., the leading supplier of reconfigurable computing solutions, architecture and software, and CEVA, Inc. (NASDAQ:CEVA), the leading licensor of wireless connectivity and smart sensing technologies and integrated IP solutions, have announced today the world's first successful silicon implementation using Flex Logix's EFLX® embedded FPGA (eFPGA) connected to a CEVA-X2 DSP instruction extension interface. Enabling flexible and changeable instruction sets to meet demanding and changing processing workloads, the ASIC, known as SOC2, was designed and taped out in a TSMC 16 nm technology by Bar-Ilan University SoC Lab, as part of the HiPer Consortium, backed by the Israeli Innovation Authority (IIA).

"The ability to add custom instructions to minimize power and maximize performance efficiency of embedded processors has been around for decades," said Andy Jaros, VP of Sales and Marketing for Flex Logix's eFPGA IP. "The ISA extension capability works great for targeted applications, but it can be a costly solution when the application changes or new use cases need different instructions requiring a new chip to be developed. By working with CEVA and the HiPer Consortium, the SOC2 proves that reconfigurable computing is here with a DSP Instruction Set Architecture (ISA) that can be adapted to different workloads with custom hard-wired instructions that can be changed at any time in the future."

"Being part of the HiPer Consortium, we were excited to work with Bar-Ilan University SoC Lab team and Flex Logix to test out new capabilities for the CEVA-X2 DSP that had never been tried before," said Erez Bar-Niv, CEVA's Chief Technology Officer. "The SOC2 contains two processing clusters, each containing two CEVA-X2 DSP cores and EFLX eFPGA for programming and executing DSP instructions extensions, connected using the CEVA-Xtend mechanism. Flex Logix and CEVA's mutual customers can now confidently utilize custom instructions to extract more value from their ASIC by being able to target different DSP applications on top of communication and sound with a customizable ISA post manufacturing."

EFLX eFPGA can be used anywhere in an ASIC architecture. In addition to the ISA extension interface, EFLX has been used for packet processing, security, encryption, IO muxes, and general purpose algorithm acceleration. Using EFLX, chip developers can implement eFPGA from a few thousand LUTs to over a million LUTs with performance and density per square millimeter similar to leading FPGA companies in the same process generation. EFLX eFPGA is modular so arrays can be spread throughout the chip, can have all-logic or be heavy-DSP, and can integrate RAM. EFLX eFPGA is available today in

popular 12, 16, 22, 28 and 40 nm process nodes and in development at 7 nm with more advanced nodes planned for future release.

Product briefs for EFLX eFPGA are available now at https://www.flex-logix.com/resources/

The CEVA-X2 is a multipurpose hybrid DSP and Controller based on a 5-way VLIW/SIMD architecture with a 10-stage pipeline, operating at over 1GHz at a 16nm process. As an advanced DSP optimized for intensive workloads, it has been specifically designed to tackle use-cases such as 5G PHY control, multi-microphone beamforming, AI processing and neural network implementations. CEVA-X2 supports various software needs using the extensive CEVA DSP Library, CEVA Neural Network Library, and a vast ecosystem partner offerings of software solutions for any application. For more information on CEVA's DSP product offerings for communication and sound, based on CEVA-X2 and its successor CEVA-BX2, visit https://www.ceva-dsp.com/app/wireless-communication/ and https://www.ceva-dsp.com/app/audio-voice-and-speech/

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's eFPGA platform enables chips to flexibly handle changing protocols, standards, algorithms, and customer needs and to implement reconfigurable accelerators that speed key workloads 30-100x compared to general purpose processors. 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.

About CEVA, Inc.
CEVA is the leading licensor of wireless connectivity and smart sensing technologies and integrated IP solutions for a smarter, safer, connected world. We provide Digital Signal Processors, AI engines, wireless platforms, cryptography cores and complementary software for sensor fusion, image enhancement, computer vision, voice input and artificial intelligence. These technologies are offered in combination with our Intrinsix IP integration services, helping our customers address their most complex and time-critical integrated circuit design projects. Leveraging our technologies and chip design skills, many of the world's leading semiconductors, system companies and OEMs create power-efficient, intelligent, secure and connected devices for a range of end markets, including mobile, consumer, automotive, robotics, industrial, aerospace & defense and IoT.

Our DSP-based solutions include platforms for 5G baseband processing in mobile, IoT and infrastructure, advanced imaging and computer vision for any camera-enabled device, audio/voice/speech and ultra-low-power always-on/sensing applications for multiple IoT markets. For sensor fusion, our Hillcrest Labs sensor processing technologies provide a broad range of sensor fusion software and inertial measurement unit ("IMU") solutions for markets including hearables, wearables, AR/VR, PC, robotics, remote controls and IoT. For wireless IoT, our platforms for Bluetooth (low energy and dual mode), Wi-Fi 4/5/6/6E (802.11n/ac/ax), Ultra-wideband (UWB), NB-IoT and GNSS are the most broadly licensed connectivity platforms in the industry.

Visit us at www.ceva-dsp.com and follow us on Twitter, YouTube, Facebook, LinkedIn and Instagram.

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