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QuickLogic and Zero-Error Systems Partner to Deliver Radiation-Tolerant eFPGA IP for Commercial Space Applications

- Australis™ IP Generator creates eFPGA IP that is optimized to meet customers' unique PPA requirements

- ZES's radiation-hardened-by-design cell libraries deliver 3.5x better PPA than current solutions, with proven reliability

SAN JOSE, Calif., March 14, 2024 /PRNewswire/ -- QuickLogic Corporation (NASDAQ: QUIK), a developer of embedded FPGA (eFPGA) IP, ruggedized FPGAs and Endpoint AI/ML solutions, today announced a strategic partnership with Zero-Error Systems America (ZES), a leading provider of radiation-hardened-by-design (RHBD) semiconductor solutions and intellectual property (IP). This partnership enables the creation of radiation-tolerant eFPGA IP for commercial space applications, targeting ASICs and SoCs that require high reliability in flight and space environments.

A MarketsandMarkets report states the LEO (Low Earth Orbit) satellite market, valued at $9.6 billion in 2021, is expected to grow from $12.6 billion in 2023 to $19.8 billion by 2026, with a CAGR of 15.5%. Growth is driven by the demand for services provided by LEO satellite constellations and cost reductions in launch services. Innovations include smaller, lighter batteries and reusable hardware designs, emphasizing the need for hardware reprogrammability and reducing Size, Weight, and Power (SWAP) of electronic systems. However, conventional eFPGA IP, crucial for post-launch reprogrammability, lacks optimization for these radiation-tolerant commercial and space applications.

Utilizing ZES' robust RHBD cell libraries, QuickLogic and ZES will partner to address this need by delivering state-of-the-art, reliable, radiation-tolerant eFPGA IP cores and customization options.

Why Choose QuickLogic and ZES for Your eFPGA Needs?

- **Unparalleled reliability:** The combination of ZES's RHBD cell libraries and QuickLogic's Australis eFPGA IP Generator ensures that the resulting eFPGA IP cores are highly reliable and can withstand space environments in and near LEO orbits.
- **Fast turnaround time:** QuickLogic's Australis IP Generator can develop a customized

and/or application-specific eFPGA IP significantly faster than alternative eFPGA IP vendors, and well within the design time requirements of this market.
- **Meeting Power x Performance x Area (PPA) requirements:** The collaboration ensures that the resulting eFPGA IPs reduce SWAP.

Mao Wang, Senior Director Product Marketing at QuickLogic, commented, "By leveraging ZES's RHBD cell libraries and QuickLogic's Australis eFPGA IP generator, we can provide our customers with IP cores that meet the unique requirements of their missions. These offerings ensure the reliability and customization necessary for success in mission-critical applications."

"QuickLogic's decades-long reputation in the programmable logic industry, and their ability to rapidly deliver customized eFPGA IP cores, makes our collaboration an excellent opportunity to extend our RHBD IP offering beyond our current portfolio of Latchup Detection and Protection (LDAP), Point of Load and Voter integrated circuits," said Craig Gavin, Director of Zero-Error Systems America.

For more information, please visit www.quicklogic.com/applications/aerospace-and-defense.

Availability
The ZES RHBD standard cell library is currently available for a 55nm process with the ability to scale their capabilities down to 28nm to suit customer needs. Interested commercial customers can contact QuickLogic at info@quicklogic.com regarding their radiation-tolerant eFPGA IP needs.

About Zero-Error Systems
Zero-Error Systems America (ZES) specializes in high-reliability semiconductor solutions and intellectual properties for space and power management applications. Singapore-based ZES has established patented radiation-hardened semiconductor integrated circuits technologies that enable low-cost commercial-off-the-shelves (COTS) semiconductor devices for space applications by ascertaining power reliability and data integrity for COTS. ZES effectively addresses the growing demand for radiation protection, power reliability, and data integrity solutions specifically designed for Low Earth Orbit satellites, deep space rovers and landers, and a wide array of power management application needs on Earth.

About QuickLogic
QuickLogic Corporation (NASDAQ: QUIK) is a fabless semiconductor company that develops innovative embedded FPGA (eFPGA) IP, discrete FPGAs, and FPGA SoCs for a variety of industrial, aerospace and defense, edge and endpoint AI, consumer, and computing applications. Our wholly owned subsidiary, SensiML Corporation, completes the end-to-end solution portfolio with AI / ML software that accelerates AI at the edge/endpoint. For more information, visit quicklogic.com.

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