Mercury Introduces Digital Signal Processing Products Powered by Altera's Newest Agilex™ 9 FPGAs

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ANDOVER, Mass., Dec. 11, 2024 (GLOBE NEWSWIRE) -- Mercury Systems, Inc. (NASDAQ: MRCY, www.mrcy.com), a technology company that delivers mission-critical processing power to the edge, today introduced a system-on-module (SOM) and 3U SOSA-aligned OpenVPX board powered by Altera's™ most advanced Agilex 9 Direct RF FPGA chips.

Mercury's DRF2270 system-on-module, featuring Altera's latest Agilex 9 FPGA.

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The DRF2270 SOM and DRF5270 3U board are the latest additions to Mercury's portfolio of Direct RF digital signal processing products that use Altera FPGAs to detect and process information from a wide portion of the electromagnetic spectrum. These commercially available products directly digitize radio frequency signals at the antenna, eliminating the analog signal down conversion stages required by legacy hardware. This approach requires extremely fast converters, high-bandwidth digital data links, and powerful real-time digital signal processing. The results are reductions in size, weight, power, cost, and latency that can benefit a variety of radar, communications, electronic warfare, SIGINT, and industrial applications.

Mercury's DRF2270 is an 8-channel SOM that converts between analog and digital signals at 64 gigasamples per second. It features Altera's latest-generation Agilex 9 AGRW027 FPGA, which delivers enhanced performance with double the number of channel converters, 47% more logic elements, and 34% more memory than the previous generation chip. The DRF5270 board incorporates the DRF2270 SOM into a defense-ready 3U form factor with 10, 40, and 100 GigE optical interfaces. The flexible SOM design allows the DRF5270 to be easily customized to specific applications without requiring the board to be redesigned from scratch. The DRF2270 SOM can also be packaged into other small form factor and customized designs.

Mercury continues to offer the DRF2580 SOM based on the earlier Agilex 9 AGRW014 FPGA, and the DRF4580L, a small-form-factor module that incorporates the DRF2580 within a ruggedized, conduction-cooled enclosure that is ready for defense applications. All of Mercury's Direct RF products come with the Navigator® Board Support Package and FPGA Design Kit that allow customers to develop custom IP for the module that can be installed within hours.

"The Mercury Processing Platform brings advanced commercial technologies to defense missions, allowing customers to save time and cost by deploying easily customized hardware that leverages the same core technology and IP across different programs," said Ken Hermanny, Mercury's Vice President of Signal Technologies. "With a growing portfolio of products that make Direct RF spectrum digitization possible, our customers now have more options to deploy this technology to capture, process, and exploit signals at the edge."

"Altera's Agilex™ 9 Wideband Direct RF FPGAs integrate either four or eight 64 Gsps ADC/DAC data converter pairs in the package with FPGA resources that provide real-time processing of up to an unprecedented 32 GHz of instantaneous bandwidth," said Ben Esposito, Senior Principal Engineer, Military, Aerospace, and Government Business Unit at Altera. "By integrating circuitry that used to be done in the analog domain, these devices address size, weight, and power challenges of next-generation aerospace and defense missions. Our partnership with Mercury brings this cutting-edge RF technology to military customers, enabling rapid deployment via the different wideband platforms Mercury has developed."

The DRF2270 and DRF5270 feature:

- 2.6" x 4.75" system on module architecture
- Altera Agilex 9 SoC FPGA AGRW027
- Eight 64 GSPS A/D and D/A converters
- 16 GB DDR4 SDRAM
- Built-in multichip and multi-board synchronization circuitry for high channel, phased array antenna systems
- GT connections for gigabit serial communication
- Ruggedized and conduction-cooled options for DRF5270
- FPGA design kit for custom IP development
- Board Support Package (BSP) for software development
- IP functions suite and example applications
- Carrier Design Kit

Mercury will be showcasing the DRF2270 and DRF5270 at booth 616 at the AOC International Symposium and Convention in National Harbor, MD, December 11-13, 2024.

Mercury Systems – Innovation that matters®
Mercury Systems is a technology company that delivers mission-critical processing power to the edge, making advanced technologies profoundly more accessible for today's most challenging aerospace and defense missions. The Mercury Processing Platform allows customers to tap into innovative capabilities from silicon to system scale, turning data into decisions on timelines that matter. Mercury's products and solutions are deployed in more than 300 programs and across 35 countries, enabling a broad range of applications in mission computing, sensor processing, command and control, and communications. Mercury is headquartered in Andover, Massachusetts, and has 23 locations worldwide. To learn more, visit mrcy.com.

(Nasdaq: MRCY)

Forward-Looking Safe Harbor Statement

This press release contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to the Company's focus on enhanced execution of the Company's strategic plan. You can identify these statements by the words “may,” “will,” “could,” “should,” “would,” “plans,” “expects,” “anticipates,” “continue,” “estimate,” “project,” “intend,” “likely,” “forecast,” “probable,” “potential,” and similar expressions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, continued funding of defense programs, the timing and amounts of such funding, general economic and business conditions, including unforeseen weakness in the Company's markets, effects of any U.S. federal government shutdown or extended continuing resolution, effects of geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in or cost increases related to completing development, engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, changes in, or in the U.S. government’s interpretation of, federal export control or procurement rules and regulations, changes in, or in the interpretation or enforcement of, environmental rules and regulations, market acceptance of the Company's products, shortages in or delays in receiving components, supply chain delays or volatility for critical components, production delays or unanticipated expenses including due to quality issues or manufacturing execution issues, capacity underutilization, increases in scrap or inventory write-offs, failure to achieve or maintain manufacturing quality certifications, such as AS9100, the impact of supply chain disruption, inflation and labor shortages, among other things, on program execution and the resulting effect on customer satisfaction, inability to fully realize the expected benefits from acquisitions, restructurings, and operational efficiency initiatives or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, effects of shareholder activism, increases in interest rates, changes to industrial security and cyber-security regulations and requirements and impacts from any cyber or insider threat events, changes in tax rates or tax regulations, changes to interest rate swaps or other cash flow hedging arrangements, changes to generally accepted accounting principles, difficulties in retaining key employees and customers, litigation, including the dispute arising with the former CEO over his resignation, unanticipated costs under fixed-price service and system integration engagements, and various other factors beyond our control. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 28, 2024 and subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made.

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A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/ed700210-8665-49fb-89d8-993023fc563a