

Mercury Computer Systems achieves new levels of innovation with high performance ADI converters and expert ADI customer support



For over twenty years, Mercury Computer Systems has counted on Analog Devices for high performance components and world-class customer support to meet aggressive design goals for its embedded computing systems. With customers spanning aerospace and defense, homeland security, telecommunications, and other industries characterized by intensive computing requirements, Mercury has earned its reputation as an industry-leading provider of advanced signal, image, and sensor processing solutions for today's most complex computational challenges.



Mercury's new DCM-8R250-VXS mixed-signal, multichannel analog-to-digital data converter card exemplifies the company's spirit of innovation and raises the performance bar for data acquisition applications spanning radar, test and measurement equipment, and industrial instrumentation. Delivering unmatched performance with 8 channels,

16-bit, 250 MHz, the DCM-8R250-VXS features Analog Devices' new analog-to-digital converter (ADC), the AD9467: 16-bit, 250 MSPS—the industry's fastest 16-bit ADC. The AD9467 features a high dynamic range and signal-to-noise ratio (SNR) performance of 75 dBFS up to a 140-MHz signal frequency at a sampling frequency of 250 million samples per second (MSPS), distinguishing it as the ideal ADC for system designs requiring superior resolution and throughput. For Mercury customers using the DCM-8R250-VXS for radar applications, for example, the high SNR and SFDR (>90 dB) provided by the AD9467's ensures ability to acquire and track smaller targets with better accuracy, enabling new levels of radar system sensitivity.



Mercury utilizes a host of other precision ADI components within the DCM-8R250-VXS, including ADI's ultralow noise 150 mA ADP150 and adjustable output 300 mA ADP171A low dropout (LDO) linear regulators. These components' low dropout voltage, at 105 mV and 55 mV, respectively, improve efficiency and allow operation over a wide input voltage range.

Equally critical to the success of Mercury's system designs is the comprehensive engineering support provided by ADI at every step in the design engagement. By affording Mercury timely access to component samples and direct access to its component and evaluation board designers, ADI ensures that loyal customers like Mercury are well enabled to minimize design complexity and accelerate time to market.

“The AD9467—with high SFDR and low power consumption—is indicative of ADI's clear technology leadership, and the technical support that they provide to our design team allowed us to bring our product to market quickly.”

Lorne Graves, engineering manager, IF product group, Mercury