

## PRODUCT APPLICATION

# DESIGN

solutions

### Peripherals

## Sanders picks Folsom Research radar scan converter for EA-6B upgrade

Engineers at Sanders, a Lockheed Martin company in Nashua, N.H., needed a radar scan converter for the latest upgrade to the U.S. Navy Northrop Grumman EA-6B Prowler electronic warfare jet aircraft.

They found their solution in the RSC 1100V1 Single-Slot Radar Scan Converter from Folsom Research Inc. of Rancho Cordova, Calif. The RSC-1100V1 is a commercial off-the-shelf 6U VME module that generates a high-resolution radar window by processing radar video, trigger, and azimuth signals.

The EA-6B is one of the last remaining dedicated electronic warfare aircraft in the U.S. inventory after the recent retirement of the EF-111 Raven. The aircraft detects, identifies, locates,



and jams a wide variety of radio signals related to enemy communications, radar, and navigation. The aircraft is particularly well suited for helping to suppress enemy radar-guided surface-to-air missiles.

The compact qualities of the RSC 1100V1 were top on the list of needs at Sanders. The RSC 1100V1 card fits into a radar subsystem that must fit behind the electronic countermeasures officer aboard the four-man EA-6B.

The subsystem, in addition to the RSC 1100V1, includes an Ethernet card, two single-board computers, and a series of mezzanine cards, explains Eric Dano, product engineer for the Tactical Display Subsystem Interface Unit (TDSIU) integrated product team at Sanders.

"First and foremost, the most attractive thing was it is a one-card solution," Dano says. "Many others were two cards, and some even had a video card on the other end," he says.

Folsom engineers substituted some Industrial-grade components on the board for commercial parts to meet the environmental demands of EA-6B upgrade designers, Dano says. The RSC 1100V1 operates in temperatures from -35 to 40 degrees Celsius, and is required to operate for short intervals in temperatures as hot as 71 C.

The latest electronics upgrade of the EA-6B is the so-called ICAP-3 (increased capability-3) project. This initiative is replacing the display system in the aircraft with flat-panel liq-

uid crystal displays. The RSC 1100V1 converts signals from the aircraft's radar processors to a raster video format that can mix with the graphics on the new displays. — J.K.

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