



Development platform for Mercury's SCFE6931 processing module

- 1-slot, small footprint chassis
- Up to eight optional MP0 interfaces support 100 GigE
- Supports VITA 66.4

- Navigator® BSP for software development
- Navigator® FDK for custom IP development



The 8258 is a low-cost 6U VPX development platform ideal for developing applications on Mercury's SCFE6931 heterogeneous processing module. Providing power and cooling to match the SCFE6931 in a small desktop footprint, the chassis allows access to all required interfaces on the SCFE6931 front panel. The 8258 can be configured with up to eight optional MPO optical connectors to support the 100 GigE interfaces on the SCFE6931 module.

#### DEVELOPMENT ENVIRONMENT

Mercury's SCFE6931 is a versatile OpenVPX<sup>™</sup> heterogeneous processing module designed for high performance and agile system integration. Incorporating Xilinx's Versal® ACAP (Adaptive Compute Acceleration Platform) processors and advanced networking architecture, this advanced module maximizes application performance by combining scalar processing, vector processing and programmable logic into a single 6U design.

Developers can connect a notebook or desktop PC with Xilinx's Vivado® Design Suite and Mercury's Navigator® Design Suite and develop, run and debug their application on the SCFE6931.

## **OPTICAL INTERFACE**

The 8258 can be optioned with optical support, providing a path from the VITA 66.4 backplane interface on the SCFE6931 to the exterior of the chassis with standard MPO connectors. While the built-in functions of the SCFE6931 include a dual 100 GigE interface, data acquisition, and waveform generator engines, the 8258 development platform supports high-speed data streaming through the optical interface.



#### NAVIGATOR DESIGN SUITE

Mercury's Navigator Design Suite is available to expedite your development efforts. The suite consists of the Navigator FPGA Design Kit (FDK) and Navigator Board Support Package (BSP).

- The Navigator FDK includes the board's FPGA design as a block diagram that can be edited in Xilinx's Vivado® IP Integrator. Developers can integrate their own IP along with the factory-installed functions or use the Navigator kit to replace the Mercury IP with their own.
- The Navigator BSP provides a C-callable library for control of the board's hardware and IP. The BSP includes examples that can be used right out of the box for immediate operation and as a code foundation for custom applications.

#### **ACCESSORY PRODUCTS**

Model	Description
4811	Navigator FPGA Design Kit
4814	Navigator Board Support Package (BSP) for Linux

#### **SPECIFICATIONS**

Dimensions: 192.8mm W x 307.8mm D x 425.5mm H

• Weight: 17.8 lb

Power Supply: 300 Watts
Operating Temp: 0° to +50° C
Storage Temp: -40° to +85° C

Relative Humidity: 5 to 95%, non-condensing

Power Req: 100 to 240 VAC, 50 to 60 Hz, 1000 W max.

#### ORDERING INFORMATION

Model	Description
8258	1-slot 6U VPX development platform for SCFE6931 processing module

Options	Description
-110	Up to eight MPO optical interfaces
Contact Mercury for compatible option combinations and complete	

specifications.

# DESIGNER'S JOURNEY: NAVIGATING THE TRANSITION TO VERSAL ACAP

This white paper follows a Mercury design engineering team's journey toward ACAP development methodologies. By starting simply, our team was able to better understand the tools and technology behind the ACAP architecture before taking on more complex implementations. Click below to read the white paper.



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