

Open Mission Processor

Open Mission Systems-Compliant Solution

**CURTISS-
WRIGHT**

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Key Features

- Intel® 8th Gen Xeon® “Coffee Lake” processor
- 6-Core (12-thread) Xeon E-2176M at 2.7 GHz with Turbo up to 4.4 GHz
- 64 GB DDR4 at 2,400 MT/s with ECC
- 40 GbE/10 GbE/1 GbE networks for in-the-box communications
- Isolated 1 GbE network in the box
- 1 GbE and 10 GbE in and out of the box
- Optional direct-attached external storage
- Supports Red Hat® Linux®, CentOS Linux, RedHawk Linux, and VxWorks®

Applications

- OMS-compliant mission systems

Overview

The Open Mission Systems (OMS) Standard is a consensus-based, non-proprietary, and open architecture approach for integrating payloads and software services into airborne platforms.

In support of the OMS standard, Curtiss-Wright developed the Open Mission Processor (OMP). The OMP supports the key systems interfaces between payloads and sensors on the avionics service bus (ASB) and between mission software services and the open computing elements that host them.

Because the OMP will interface with any user’s CAL (critical abstraction layer), the OMP provides several key benefits:

- Enhanced interoperability and deployment flexibility – as software and hardware modules can be swapped out independently to meet changing mission requirements
- Longer lifecycle of components – some modules can remain constant while others are upgraded separately
- Reduced technical risks – components can be upgraded or replaced independently
- Portability across different systems – modules can be shared across various vehicles and programs
- Reduced costs, including startup, sustainment, and maintenance costs

Curtiss-Wright Defense Solutions

Whether the intent is to maximize COTS content or leverage an existing custom solution, Curtiss-Wright is the trusted, proven leader. Take advantage of our decades of experience in assembling systems upon which you can build your applications.

Alternatively, you can leverage specific system solutions that focus on addressing full compliance to platform/program requirements. Regardless, Curtiss-Wright has the products, open standard technologies, and system platforms to keep your program ahead of schedule and on budget. Your success is the standard upon which we base our performance.

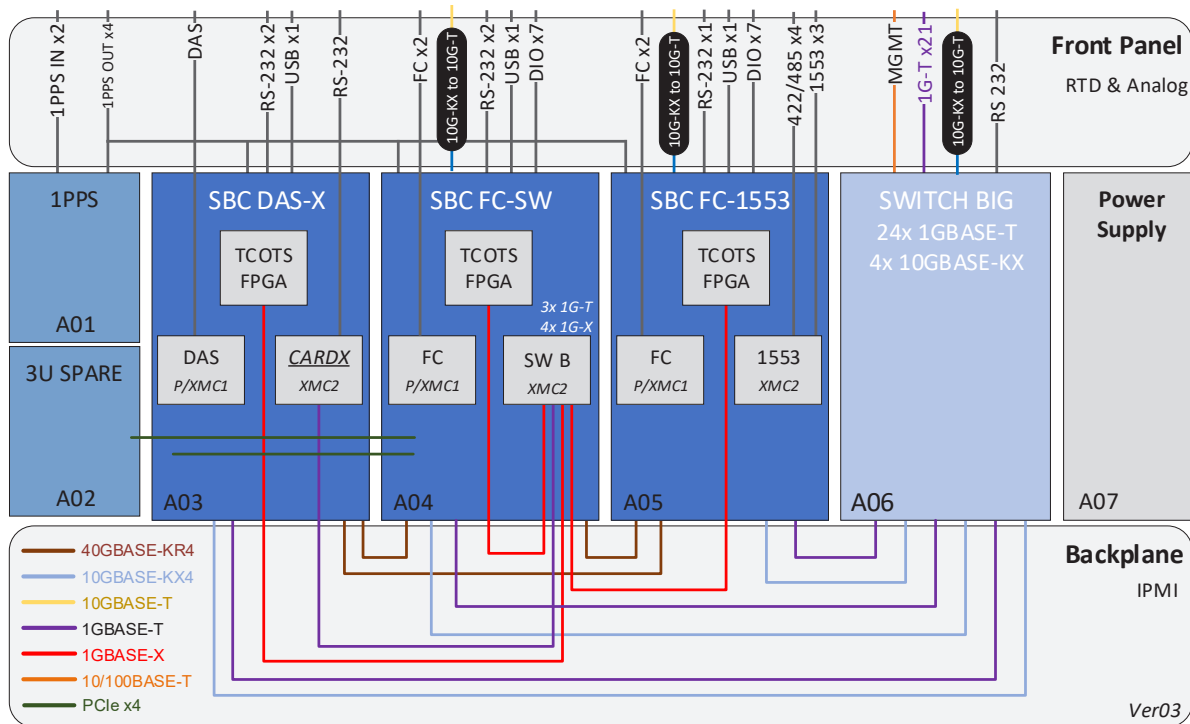


Figure 1: Open Mission Processor block diagram

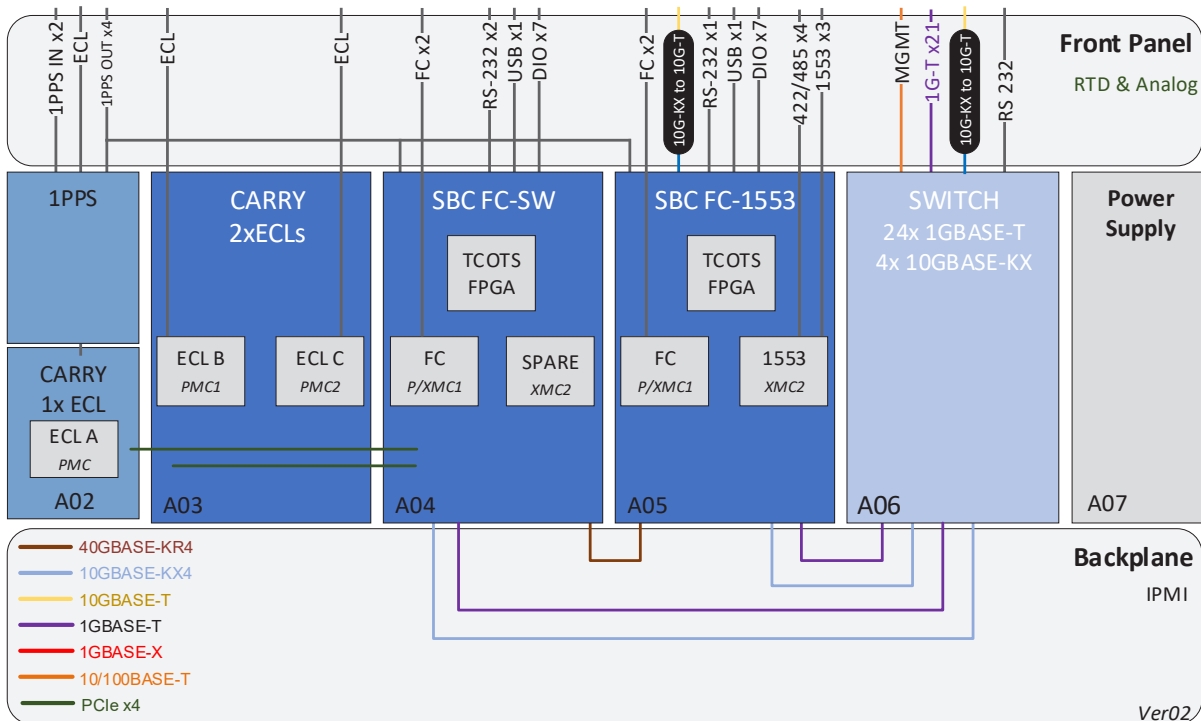


Figure 2: Open Mission Processor with optional ECL configuration

Specifications

Chassis assembly

- Dimensions: 8.49" x 9.87" x 9.81"
(215.6 x 250.7 x 249.2 mm)
- Weight: 48.94 lbs (22.20 kg)
- Optional external direct attached storage solution

3 x VPX6-1960 single board computers

(Optional ECL configuration uses 2x SBCs – see below)

- Intel 8th Gen Xeon “Coffee Lake” processor
- 6-Core (12-thread) Xeon E-2176M at 2.7 GHz with Turbo up to 4.4 GHz
- 64 GB DDR4 at 2,400MT/s with ECC
- Supports two XMC expansion mezzanines

Emitter-coupled logic (ECL) configuration - optional

- 2 x VPX6-1960 single board computers
- 3 x ECL PCI mezzanine cards

VPX6-688 Ethernet switch

- 24 x 1GBase-T ports
- 4 x 10GBase-KX4 ports
- 1 x 10/100 management port
- 1 x RS-232 serial

VITA 62 power supply

- 800W max output power
- 91% typical efficiency
- 18V-40V input range

1PPS card

- Distributes 1-PPS signal to multiple outputs
- Includes three 10V outputs and one 5V output
- Internal test signal output (power-up, reset, IBIT)

Ordering Information

Please contact the factory. We build every system to your specifications, so custom solutions are always available and lead times will vary.