COTS HARDWARE SUPPORTING LYNX SOFTWARE

CURTISS - WRIGHT

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+ Products + Capabilities + Solutions









TAKE FULL ADVANTAGE OF OUR PARTNERSHIP

Curtiss-Wright and Lynx Software Technologies have partnered to offer state-of-the-art rugged embedded hardware combined with a proven, deterministic real-time operating system purpose-built for rugged deployed applications.

The Curtiss-Wright / Lynx Software Technologies partnership advantage:

- · Lower your risk with software tested and pre-validated on Curtiss-Wright hardware
- Speed your time to market
- Enhance your application's security with Curtiss-Wright's Trusted COTS and Lynx's layered security functionality
- Ease your safety certification cost and effort with LynxOS-178, designed to fulfill the stringent needs of DO-178C DAL A in safety-critical applications, paired with Curtiss-Wright's DO-254 certifiable hardware
- Depend on the mission-critical stability and reliability of Curtiss-Wright hardware and Lynx software to meet the flawless performance requirements in demanding environments



LYNXOS RTOS AND HYPERVISOR TECHNOLOGY

LynxOS 7.0 RTOS

Key Features:

- Proprietary high-performance, POSIX-compliant SMP RTOS
- Built-in security functionality for connected devices
- Reliable, safe, and secure RTOS

Lynx0S-178 RT0S

Key Features:

- DO-178 Level-A certified partitioned safety-critical RTOS
- POSIX, ARINC-653, FACE interfaces with Reusable Software Components (RSCs)
- RTOS is FAA accepted as an RSC

LynxSECURE Separation Kernel Hypervisor



Key Features:

- Virtualization technology designed to support embedded, real-time, and safety- and securitycritical solutions
- Small, high-performance, full-featured secure virtualization
- Lock down security configurations, small trusted code base, multi-core support, real-time scheduling, flexible device configurations, and bare-metal applications.



Proven COTS Technology Building Blocks

Curtiss-Wright's COTS modules are building blocks for embedded rugged computing platform systems. Lynx Software Technologies provides Curtiss-Wright customers with BSPs for the following Single Board Computers:

LynxOS 7.0



LynxOS-178

> 3U VPX3-1258

> 3U VPX3-1259

> 3U VPX3-1220

4th Gen Haswell

5th Gen Broadwell



Intel Xeon and Intel Core i7 SBCs

- > 3U VPX3-1258 4th Gen Haswell
- > 3U VPX3-1259 5th Gen Broadwell
- > 3U VPX3-1220 7th Gen Kaby Lake Xeon Low-power SBC
- > 6U VME-1908B 4th Gen Haswell
- > 6U VME-1909 5th Gen Broadwell
- > 6U VPX6-1958 4th Gen Haswell
- > 6U VPX6-1959 5th Gen Broadwell



NXP Power Architecture SBCs

- > 3U VPX3-131 NXP P4080 Octal-Core Processor
- > 3U VPX3-133 NXP T2080 Quad-Core Processor
- > 6U VPX6-197 NXP T2080 Quad-Core Processor
- > 6U VPX6-187 NXP QorlQ P4080 Processor
- > 6U VME-196 NXP T2080 Quad-Core Processor









NXP Power Architecture SBCs

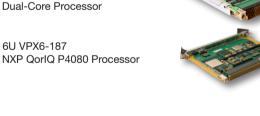
7th Gen Kaby Lake Xeon Low-power SBC

> 3U VPX3-133 NXP T2080 Quad-Core Processor

Intel Xeon and Intel Core i7 SBCs

- > 3U VPX3-152 Safety-certifiable NXP T2080 Quad-Core Processor
- > 3U VPX3-150 Safety-certifiable NXP P5020 Dual-Core Processor
- > 6U VPX6-187











Pre-Validated Embedded Solutions

Below are some examples of the rugged, powerful, pre-engineered solutions created by Curtiss-Wright and Lynx Software Technologies, designed to save you time and money, reduce your program risk, and speed your time to deployment.

Safety-Certifiable SWaP-Optimized Application Processor

- NXP P5020 dual-core processor
- Best-in-class, real-time safety-critical RTOS used in avionics to the highest safety levels
- VPX3-150 Safety-Certifiable Single Board Computer
- LynxOS-178 Safety-Critical RTOS

Low-Power, High-Performance x86 Applications Engine

- Intel Core i7 processor
- High functionality, real-time performance, and determinism
- VPX3-1220 Single Board Computer
- LynxOS 7.0 High Performance RTOS

High-Performance Multi-Head Graphical or Mapping Display

- Intel Core i7 processor
- High performance graphics with full GPU and bandwidth performance
- RTOS with performance, reliability, safety and security
- CoreAVI FACE-aligned graphics drivers

- VPX3-1259 Single Board Computer
- VPX3-716 Graphics Processor
- LynxOS 7.0 High Performance RTOS
- OpenGL ES/SC Graphics Driver

Safety-Certifiable High-Performance Graphics Display for Avionics

- NXP T2080 processor
- High-performance graphics with GPU and capture
- Safety-certifiable hard real-time operating system with Open APIs & FACE alignment
- CoreAVI FACE-aligned graphics drivers

- VPX3-152 Single Board Computer
- VPX3-719 Graphics Processor
- LynxOS-178 Safety-Critical RTOS
- OpenGL ES/SC Graphics Driver





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