

DPX® Diagnostics

Platform Validation and Diagnostic Framework for DPX Gaming Platforms



Features

Platform Validation

- Structured validation of DPX platform hardware resources
- Support for development, release, and production verification workflows

Modular Test Framework

- Plugin-oriented architecture supporting custom test modules
- Configurable test coverage and execution profiles

Hardware Resource Testing

- DPX Core-based validation of memory, digital I/O, watchdog, and platform monitoring resources
- Communication interface

Logging and Reporting

- Configurable test execution and result logging



Introduction

DPX Diagnostics provides a structured platform validation and diagnostic framework for DPX gaming platforms. It is designed to support hardware verification, software release validation, and production-level testing. The framework enables testing of platform hardware resources and associated software interfaces prior to deployment during test and trouble shooting.

DPX Diagnostics is available free of charge for supported DPX platforms and is intended for OEM developers building regulated gaming systems.

Architecture & Capabilities

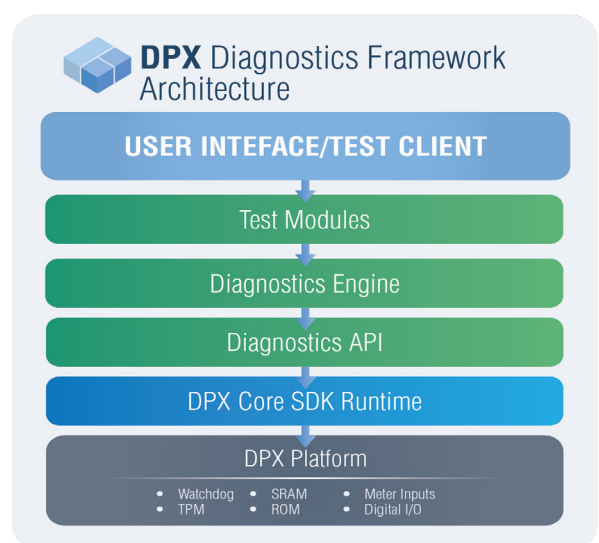
DPX Diagnostics operates as a validation layer above the DPX Core SDK runtime environment, enabling structured interaction with DPX platform hardware resources.

The architecture supports:

- Modular test execution engine
- Integration with DPX Core hardware abstraction layer
- Logging and configuration management components
- Can run independently from USB

DPX Diagnostics is intended for use during:

- Development validation
- Production-level hardware verification
- Field-level troubleshooting and maintenance workflows



Package Contents

The Diagnostics package may include:	Diagnostic test engine
	Diagnostic test modules
	Command-line interface utilities
	Documentation covering installation, APIs, and test configuration

System Requirements

Development Environment	Supported Windows and Linux operating systems aligned with the selected DPX platform
	Standard OEM development toolchains
	DPX Core runtime environment
Target Platform	Supported DPX Series motherboard or integrated system

Integration & Compatibility

DPX Diagnostics complements:

- DPX Core SDK
- DPX Connector SDK
- DPX SAS Connector
- DPX Media Validation Toolkit (MVTk)
- DPX Gaming Platform Security Architecture (GPSA)

This layered structure supports consistent validation practices across DPX platform generations.

DPX Diagnostics integrates with the DPX Core SDK to enable controlled access to platform hardware resources during validation and testing. It operates independently of application software in validation scenarios and can support both development and production test environments.

Benefits

Provides structured hardware and software validation framework
Supports controlled pre-deployment verification workflows
Enables configurable production-level testing
Maintains consistency across long lifecycle DPX platform deployments
Supports regulated gaming development and validation processes
Supports automated and scripted test execution

OEM Customization and Product Development

Advantech Gaming Solutions provides PC-based hardware and software design services for regulated gaming applications, supporting customized platform development and long-term product lifecycle management.

Specifications are subject to change without notice. E&OE.
Copyright © 2026 Advantech Co., Ltd. All rights reserved.
Advantech and DPX are trademarks of Advantech Co., Ltd.
Other trademarks belong to their respective owners.