Model 8266

SPARK PC Development System for Cobalt, Onyx, Flexor, and Jade Boards

PCIe

Features

- 4U 19-inch rackmount PC server chassis, 21-inch deep
- Windows® or Linux® workstation
- Intel® processor
- 8 GB DDR SDRAM
- Delivered with board-appropriate software installed: ReadyFlow® or Navigator® drivers and board support libraries
- Out-of-the-box ready-to-run examples

SPARK Development Systems

General Information

The SPARK® Model 8266 is a fully-integrated PC development system for Pentek Cobalt®, Onyx®, Flexor®, and Jade™ PCI Express (PCIe) software radio, data acquisition, and I/O boards. It was created to save engineers and system integrators the time and expense associated with building and testing a development system that ensures optimum performance of Pentek boards.

A fully-integrated system-level solution, the 8266 provides the user with a streamlined out-of-the-box experience. It comes pre-configured with Pentek hardware, drivers and software examples installed and tested to allow development engineers to run example applications out of the box.

System Implementation

Built on a professional 4U rackmount workstation, the 8266 is equipped with the latest Intel processor, DDR SDRAM, and a high-performance motherboard. These features accelerate application code development and provide unhindered access to the high-bandwidth data available with Cobalt, Onyx, Flexor, and Jade analog and digital interfaces.

The 8266 can be configured with Windows or Linux operating systems. The 8266 uses a 19-inch 4U rackmount chassis that is 21 inches deep. Enhanced forced-air ventilation assures adequate cooling for Pentek Cobalt, Onyx, Flexor, and Jade boards. The chassis is designed to draw cool air from the front and push warm air out the back. A 1000 W, 80+ Gold Power Supply guarantees more than enough power for additional boards.

Configuration

Pentek uses a variety of motherboards to provide the flexibility for operation and cooling of each system. Up to four Pentek Cobalt, Onyx, Flexor, or Jade boards in the 8266 can be supported. Please contact Pentek to configure a system that requires additional PCIe slots for third-party hardware.

ReadyFlow and Navigator Board Support Packages (BSPs)

SPARK systems are delivered with board-appropriate software installed:

- ReadyFlow software supports Cobalt, Onyx, and Flexor boards.
- Navigator software supports Jade boards.

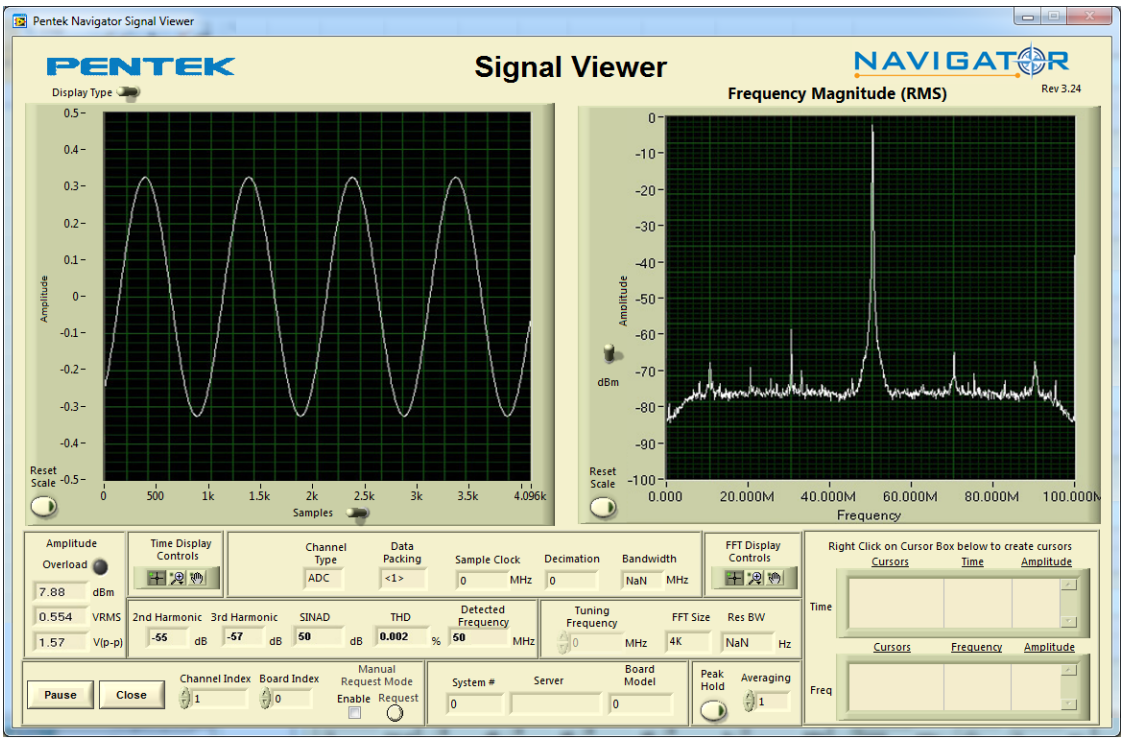
Users of high-performance data acquisition and signal processing boards often find themselves frustrated by the fact that when their new devices are delivered, they are unable to put them to immediate use. Because these boards are largely software-controlled and offer a flexible range of functionality, a certain amount of programming is generally necessary to put the new cards through their paces. Then, if something does not go as planned, there is no way of knowing for sure whether the problem lies with the new code, or with the hardware itself.

To address this issue, Pentek has developed BSPs for all its board-level products. Pentek's BSPs contain C-language examples that can be used to demonstrate the capabilities of Pentek products. They provide sample code that is known to work, giving new users a means of verifying that their board set is operational.

Pentek's BSPs are designed to reduce development time not only during the initial stages, but any time new hardware is added to the system. All packages are built with a consistent style and function-naming convention. Similar parameters on different boards have similar function calls, thereby allowing immediate familiarity with new hardware as it's added, further shortening the learning curve. The BSP command line interface provides access to precompiled executable examples that operate the hardware right out of the box, without the need to write any code.

Signal Viewer

The ReadyFlow and Navigator BSPs include the Signal Viewer, a full-featured analysis tool, which displays data in time and frequency domains. Built-in measurement functions display 2nd and 3rd harmonics, THD (total harmonic distortion), and SINAD (signal to noise and distortion). Interactive cursors allow users to mark data points and instantly calculate amplitude and frequency of displayed signals. With the Signal Viewer, users can start viewing analog signals immediately.



Specifications

Operating System: Windows or Linux
Processor: Intel Core i7 processor or better
SDRAM: 8 GB
Dimensions: 6U Chassis, 19" W x 21" D x 7" H
Weight: 35 lb, approx.
Operating Temperature: 0° to +50° C
Storage Temperature: –40° to +85° C
Relative Humidity: 5 to 95%, non-condensing
Power Requirements: 100 to 240 VAC, 50 to 60 Hz, 1000 W max.

These specifications are subject to change. Contact Pentek for details.

Ordering Information

Model 8266	**6U VPX Development System for PCIe Cobalt, Onyx, Flexor, and Jade Boards**
Option -004	Motherboard with four available Cobalt/Onyx/Flexor/Jade slots
Option -094	64-bit Linux OS
Option -095	Windows OS
Option -101	Upgrade to 64 GB DDR SDRAM
The addition of third-party PCIe boards may affect system performance. Please consult with us before doing so.	

Options

Options for high-end multicore CPUs and extended memory support applications that require additional horsepower are available.

Lifetime Support

Pentek offers the worldwide military embedded computing community shorter development time, reliable, rugged solutions for a variety of environments, reduced costs, mature software development tools, and **free** lifetime support that our customers can depend on: phone and email access to engineering staff as well as software updates. Take advantage of Pentek's expertise in delivering high-performance radar, communications, SIGINT, and data acquisition MIL-Aero solutions worldwide for over 30 years.

Pricing and Availability

To learn more about our products or to discuss your specific application please contact your local representative or Pentek directly:

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