nMCS notebook PXIe Measurement & Control System

HW-1643

Built-in ultra-long-life smart lithium battery
Optional high-capacity external smart lithium battery to realize long-term operation of equipment
Compliant with PXIe/PXI bus standard specifications
Built-in HOUWU® controller
Built-in HOUWU® 3U 4-slot PXIe backplane
One 3U PXIe system slot and three 3U PXIe/PXI hybrid expansion slots
Compatible with PXIe/PXI modules such as data acquisition, modular instruments, aviation bus, FPGA, etc.
Built-in system status monitoring and management software HMCSP
Built-in smart lithium battery monitoring and management software HBSSM
All aluminum-magnesium alloy reinforced compact design
Special impact resistant corners and reinforced silicone handle design
15.6" high-definition industrial display with 1920x1080 resolution
Multi-point capacitive touch screen
Industrial touch pad and waterproof silicone keyboard
9V~32V DC power supply wide voltage input (with dedicated 24V power adapter)
Power input with aviation connector design
PXIe cage retracted 45mm design
Flexibly customizable IO interface with aviation connector

The industry's first high-performance 3U 4-slot PXIe ruggedized notebook

HW-1643 is the industry's first 15.6" PXIe ruggedized notebook with built-in high-performance CPU, embedded PXIe controller, PXIe backplane, smart lithium battery, high-definition industrial display and ruggedized chassis. This PXIe notebook adopts professional industrial appearance design, all aluminum-magnesium alloy structure reinforced compact design, integrated 15.6" high-definition industrial display, multi-point capacitive touch screen, industrial touch pad, waterproof silicone keyboard and smart lithium battery, etc. It has the characteristics of high integration, robustness, portability, and is suitable for various harsh indoor and outdoor environments or complex working conditions where test equipment needs to be portable and mobile.

HW-1643 built in HOUWU® 3U 4-slot PXIe backplane, in compliant with PXIe/PXI bus standard specifications, with one 3U PXIe system slot and three 3U PXIe/PXI hybrid expansion slots (compatible with PXIe and PXI modules), compatible with PXIe/PXI modules such as high-speed data acquisition, high-speed digitizer, digital multimeter, aviation bus, FPGA, RF and switch modules. The machine has built-in system status monitoring and management software HMCSP, which can monitor the voltage of each power supply, chassis internal temperature and fan speed in real time, and supports PWM fan speed control. According to the high and low temperature inside the chassis, the fan speed is adaptively adjusted to dissipate heat for the controller and modules. The machine has built-in smart lithium battery monitoring and management software HBSSM, which can monitor all status parameters of the smart lithium battery in real time, including battery voltage, charging and discharging current, real-time power, battery life, charging and discharging times, etc.

HW-1643 makes full use of the characteristics of PXIe/PXI bus, such as stability, reliability, good compatibility, solid structure, large data throughput, high performance. According to the different project applications, this PXIe notebook can be built with various PXIe/PXI modules to realize the test and measurement of microwave, radio frequency, high-speed digital, signal simulation, prototype validation, voltage, current, temperature, frequency, stress, strain, vibration, shock, audio, video and various aviation bus, etc. Users can quickly build various measurement, test and control system on this portable measurement & control platform, which is suitable for military defense, aerospace, weapons, electronics, ships and other field actual combat applications and scientific experimental research occasions.

SHENZHEN HOUWU TECHNOLOGY CO., LTD.
4th Floor, Building B, Taohuayuan Science and Technology Innovation Park
No. 9 Furong Road, Songgang, Bao'an District, Shenzhen, China
+86-755-29982022
http://www.houwu.com.cn

Operating System	Windows® 7 (Option 1) Windows® 10 (Option 1, Option 2)
CPU	Intel® Core™ 7th Gen i5-7300U 2.6GHz (3MB Cache, up to 3.5GHz) Dual-Core, Four-Thread (Option 1) Intel® Xeon® W-11555MLE 1.9GHz (12MB Cache, up to 4.4GHz) Six-Core, Twelve-Thread (Option 2)
RAM	16GB DDR4 (upgradeable to 32GB) (Option 1) 32GB DDR4 (upgradeable to 64GB/96GB) (Option 2)
Storage	NVMe 1TB SSD x1 (upgradeable to 2TB/4TB) (Option 1) mSATA 1TB SSD x1 (Option 2)
Link Configuration	PXIe-9110 Controller (Option 1) 4 Link: 1 x PCIe3.0 x2 + 1 x PCIe3.0 x2 + 1 x PCIe3.0 x1 + 1 x PCIe3.0 x1 (Option 1) PXIe-9111 Controller (Option 2) 4 Link: 1 x PCIe3.0 x4 + 1 x PCIe4.0 x4 + 1 x PCIe4.0 x4 + 1 x PCIe4.0 x4 (Option 2)
LCD	15.6" high-definition industrial display with 1920x1080 resolution
Touch Screen	Multi-point capacitive touch screen
Backplane	3U 4-slot PXIe backplane, 1 PXIe system slot and 3 PXIe/PXI hybrid expansion slots based on PCIe Gen3.0 technology, System slot bandwidth 6GB/s, slot 2 bandwidth 2GB/s, slot 3 bandwidth 1GB/s, slot 4 bandwidth 1GB/s (Option 1) based on PCIe Gen4.0 technology, System slot bandwidth 28GB/s, slot 2 bandwidth 8GB/s, slot 3 bandwidth 8GB/s, slot 4 bandwidth 8GB/s (Option 2)
IO	LAN x2, USB3.0 x3, DP x1 (Option 1) LAN x2, USB3.1 x2, DP x1 (Option 2) PXIe cage retracts 45mm and the aviation connector IO adapter panel area is 285mm x 86mm.
Keyboard	Waterproof silicone keyboard
Aviation Connector	Users can flexibly customize IO interfaces with aviation connectors for PXIe/PXI modules
Heat Dissipation	The fan supports PWM operation mode, adaptive speed regulation, active heat dissipation, and complies with PXIe/PXI bus standard specifications.
Internal Battery	Smart lithium battery 150WH (default)
External Battery	Smart lithium battery 300WH (optional)
Power Supply	9V~32V DC wide voltage input, aviation connector design With dedicated power adapter 330W: input AC 100V~240V, output DC 24V / 13.75A Rated load power 200W
Environment	Operating temperature: 0°C ~ 50°C (Commercial Grade) Operating temperature: -20°C ~ 60°C (Industrial Grade) Storage temperature: -40°C ~ 70°C Relative humidity: 5% ~ 95% (No Condensation)
Shock Resistance	30G peak, half-sine, 11ms pulse
Vibration Resistance	2.4Grms@5~500Hz (1 hour each in X, Y, Z directions)

SHENZHEN HOUWU TECHNOLOGY CO., LTD.
4th Floor, Building B, Taohuayuan Science and Technology Innovation Park
No. 9 Furong Road, Songgang, Bao'an District, Shenzhen, China
+86-755-29982022
http://www.houwu.com.cn

Dimension	399 x 291 x 107 mm (excluding corners and handles)
Weight	8.5KG (including HOUWU® PXIe-9110 / PXIe-9112 controller, 150WH smart lithium battery)
Packaging	Customized aviation trolley case
Category	nMCS, notebook PXIe Measurement & Control System

Note: *Due to regular product upgrades, for more updated and accurate specifications and configuration information, please contact HOUWU TECHNOLOGY at +86-755-29982022.*

SHENZHEN HOUWU TECHNOLOGY CO., LTD.
4th Floor, Building B, Taohuayuan Science and Technology Innovation Park
No. 9 Furong Road, Songgang, Bao'an District, Shenzhen, China
+86-755-29982022
http://www.houwu.com.cn