nMCS notebook PXIe Measurement & Control System

HW-1693n

Compliant with PXIe/PXI bus standard specifications
Built-in HOUWU® PXIe-9170 controller
Built-in HOUWU® 3U 9-slot PXIe backplane
One 3U PXIe system slot and eight 3U PXIe/PXI hybrid expansion slots
System slot bandwidth 8GB/s
Three 4GB/s expansion slots and five 2GB/s expansion slots
Compatible with PXIe/PXI modules such as data acquisition, modular instruments, aviation bus, FPGA, etc.
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
Active heat dissipation design
The fan speed can be automatically adjusted according to the internal temperature of the chassis
Simple and professional industrial design
Real-time monitoring of system power, fan, and temperature status

The industry's first high-performance 3U 9-slot PXIe ruggedized notebook

HW-1693n is the industry's first 15.6" PXIe ruggedized notebook with built-in Intel® Core™ 6th or 9th or 11th Gen i7 Quad-core eight-thread or six-core twelve-thread or eight-core sixteen-thread CPU, embedded PXIe controller, PXIe backplane, 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 and waterproof silicone keyboard, 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-1693n built in high-performance HOUWU® 3U 9-slot PXIe high-speed backplane, based on PCIe Gen2.0 technology, in compliant with PXIe/PXI bus standard specifications, with one 3U PXIe system slot and eight PXIe/PXI hybrid expansion slots (compatible with PXIe and PXI modules). The system slot bandwidth is 8GB/s, providing three dedicated 4GB/s bandwidth PXIe/PXI hybrid expansion slots and five dedicated 2GB/s bandwidth PXIe/PXI hybrid expansion slots, is compatible with PXIe/PXI modules such as high-speed data acquisition, high-speed digitizer, digital multimeter, aviation bus, FPGA, RF and switch modules. This PXIe notebook supports PWM fan speed control, according to the internal temperature of the chassis fan adaptive speed adjustment to the controller and module cooling.

HW-1693n 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.

Operating System	Windows® 7 (Option 1, Option 2) Windows® 10 (Option 1, Option 2, Option 3, Option 4, Option 5)
CPU	Intel® Core™ 6th Gen i7-6822EQ 2.0GHz (8MB Cache, up to 2.8GHz) Quad-Core Eight-Thread (Option 1) Intel® Core™ 6th Gen i7-6820EQ 2.8GHz (8MB Cache, up to 3.5GHz) Quad-Core Eight-Thread (Option 2) Intel® Core™ 9th Gen i7-9850HL 1.9GHz (9MB Cache, up to 4.1GHz) Six-Core, Twelve-Thread (Option 3) Intel® Core™ 9th Gen i7-9850HE 2.7GHz (9MB Cache, up to 4.4GHz) Six-Core, Twelve-Thread (Option 4) Intel® Core™ 11th Gen i7-11850HE 2.6GHz (24MB Cache, up to 4.7GHz) Octa-Core Sixteen-Thread (Option 5)

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RAM	16GB DDR4 (upgradeable to 32GB)
Storage	Original dual solid state drive SSD design: 1, NVMe 500GB SSD x1 (system disk) 2, 2.5" SATA3.0 1TB SSD x1 (data disk)
Link Configuration	**PXIe-9170 Controller** PCIe Gen3.0 Specification 2 Link: PCIe3.0 x8 + PCIe3.0 x8
LCD	15.6" high-definition industrial display with 1920x1080 resolution
Touch Screen	Multi-point capacitive touch screen
Backplane	3U 9-slot PXIe backplane based on PCIe Gen2.0 technology 1 PXIe system slot and 8 PXIe/PXI hybrid expansion slots System slot bandwidth 8GB/s, slots 2 through 4 bandwidth 4GB/s, slots 5 through 9 bandwidth 2GB/s
IO	LAN x2, USB3.0 x4, USB2.0 x2, RS232 x1, DP x2, VGA x1, SMB x1, RESET x1, LED x4 PXIe cage retracts 45mm and the aviation connector IO adapter panel area is 290mm x 134mm.
Keyboard	Waterproof silicone keyboard
Heat Dissipation	The fan supports PWM operation mode, adaptive speed regulation, active heat dissipation, and complies with PXIe/PXI bus standard specifications.
Power Supply	400W, industrial grade, AC input, 90VAC~264VAC, 47Hz~63Hz, aviation connector design
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)
Dimension	395 x 291 x 200 mm(excluding corners and handles)
Weight	10.6KG (including HOUWU® PXIe-9170 controller)
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.*

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