

## nMCS notebook PXIe Measurement & Control System

### HW-1363

Compliant with PXIe/PXI bus standard specifications  
HW-1363(G3) and HW-1363(G2) are available for selection  
Built-in HOUWU® PXIe-9170 controller

#### HW-1363(G3)

Built-in HOUWU® 3U 6-slot PXIe Gen3.0 high-speed backplane  
One 3U PXIe system slot and five 3U PXIe/PXI hybrid expansion slots  
System slot bandwidth 16GB/s  
Each expansion slot has a dedicated bandwidth 8GB/s

#### HW-1363(G2)

Built-in HOUWU® 3U 6-slot PXIe backplane  
One 3U PXIe system slot and five 3U PXIe/PXI hybrid expansion slots  
System slot bandwidth 16GB/s

Compatible with PXIe/PXI modules such as data acquisition, modular instruments, aviation bus, FPGA, etc.  
Built-in system status monitoring and management software HMCSP  
All aluminum-magnesium alloy reinforced compact design  
Special impact resistant corners and reinforced silicone handle design  
13.3" high-definition industrial display with 1920x1080 resolution  
Multi-point capacitive touch screen or industrial resistive touch screen  
Industrial touch pad and waterproof silicone keyboard  
Built in 300W high-quality industrial power supply (600W optional)  
9V~36V DC power supply wide voltage input (Support 28V aviation power supply)  
Power input with aviation connector design  
PXIe cage retracted 45mm design  
Flexibly customizable IO interface with aviation connector



HW-1363方案

### The industry's first high-performance 3U 6-slot PXIe ruggedized notebook

HW-1363 is the industry's first 13.3" PXIe ruggedized notebook with built-in Intel® Core™ 6<sup>th</sup> or 9<sup>th</sup> or 11<sup>th</sup> Gen i7 Quad-core eight-thread, 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 13.3" high-definition industrial display, multi-point capacitive touch screen or resistive 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-1363(G3)

Built in high-performance HOUWU® 3U 6-slot PXIe high-speed backplane, based on PCIe Gen3.0 technology, in compliant with PXIe/PXI bus standard specifications, with one 3U PXIe system slot and five 3U PXIe/PXI hybrid expansion slots (compatible with PXIe and PXI modules). The system slot bandwidth is 16GB/s, each expansion slot has a dedicated bandwidth 8GB/s.

#### HW-1363(G2)

Built in high-performance HOUWU® 3U 6-slot PXIe backplane, based on PCIe Gen2.0 technology, in compliant with PXIe/PXI bus standard specifications, with one 3U PXIe system slot and five 3U PXIe/PXI hybrid expansion slots (compatible with PXIe and PXI modules), slot 2 bandwidth 4GB/s, slot 3 bandwidth 4GB/s, slot 4 bandwidth 4GB/s, slot 5 bandwidth 2GB/s, slot 6 bandwidth 2GB/s, resulting in a total system slot bandwidth 16GB/s.

HW-1363 is 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.

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HW-1363 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.

<b>Operating System</b>	Windows® 7 (Option 1, Option 2) Windows® 10 (Option 1, Option 2, Option 3, Option 4, Option 5)
<b>CPU</b>	Intel® Core™ 6 <sup>th</sup> Gen i7-6822EQ 2.0GHz (8MB Cache, up to 2.8GHz) Quad-Core, Eight-Thread (Option 1) Intel® Core™ 6 <sup>th</sup> Gen i7-6820EQ 2.8GHz (8MB Cache, up to 3.5GHz) Quad-Core, Eight-Thread (Option 2) Intel® Core™ 9 <sup>th</sup> Gen i7-9850HL 1.9GHz (9MB Cache, up to 4.1GHz) Six-Core, Twelve-Thread (Option 3) Intel® Core™ 9 <sup>th</sup> Gen i7-9850HE 2.7GHz (9MB Cache, up to 4.4GHz) Six-Core, Twelve-Thread (Option 4) Intel® Core™ 11 <sup>th</sup> Gen i7-11850HE 2.6GHz (24MB Cache, up to 4.7GHz) Octa-Core Sixteen-Thread (Option 5)
<b>RAM</b>	16GB DDR4 (upgradeable to 32GB/64GB)
<b>Storage</b>	Original dual solid state drive SSD design: 1, NVMe 500GB SSD x1 (system disk) (upgradeable to 1TB/2TB/4TB) 2, 2.5" SATA3.0 1TB SSD x1 (data disk) (upgradeable to 2TB/4TB/8TB)
<b>Link Configuration</b>	<b>HW-1363(G3) with PXIe-9170 Controller</b> PCIe Gen3.0 Specification 2 Link: PCIe3.0 x8 + PCIe3.0 x8 <b>HW-1363(G2) with PXIe-9170 Controller</b> PCIe Gen3.0 Specification 4 Link: 4 x PCIe3.0 x4
<b>LCD</b>	13.3" high-definition industrial display with 1920x1080 resolution
<b>Touch Screen</b>	Multi-point capacitive touch screen / Industrial resistive touch screen (optional)
<b>Backplane</b>	<b>HW-1363(G3)</b> 3U 6-slot PXIe backplane based on PCIe Gen3.0 technology 1 PXIe system slot and 5 PXIe/PXI hybrid expansion slots System slot bandwidth 16GB/s, each expansion slot has a dedicated bandwidth 8GB/s <b>HW-1363(G2)</b> 3U 6-slot PXIe backplane based on PCIe Gen2.0 technology 1 PXIe system slot and 5 PXIe/PXI hybrid expansion slots System slot bandwidth 16GB/s, slot 2 bandwidth 4GB/s, slot 3 bandwidth 4GB/s, slot 4 bandwidth 4GB/s, slot 5 bandwidth 2GB/s, slot 6 bandwidth 2GB/s
<b>IO</b>	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 285mm x 86mm.
<b>Keyboard</b>	Waterproof silicone keyboard
<b>Aviation Connector</b>	Users can flexibly customize IO interfaces with aviation connectors for PXIe/PXI modules
<b>Heat Dissipation</b>	The fan supports PWM operation mode, adaptive speed regulation, active heat dissipation, and complies with PXIe/PXI bus standard specifications.

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<b>Power Supply</b>	Default Power: 9V~36V DC wide voltage input, aviation connector design With dedicated power adapter 330W: Input AC 100V~240V, Output DC 24V /13.75A Rated load power 300W  Optional Power: AC voltage input, 85V~264V, aviation connector design For high-power RF and microwave application Rated load power 600W
<b>Environment</b>	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)
<b>Shock Resistance</b>	30G peak, half-sine, 11ms pulse
<b>Vibration Resistance</b>	2.4Grms@5~500Hz (1 hour each in X, Y, Z directions)
<b>Dimension</b>	370 x 308 x 134 mm (excluding corners and handles)
<b>Weight</b>	<b>HW-1363(G3)</b> 11.6KG (including HOUWU® PXIe-9170 controller)  <b>HW-1363(G2)</b> 11.4KG (including HOUWU® PXIe-9170 controller)
<b>Packaging</b>	Customized aviation trolley case
<b>Category</b>	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.](#)