

OPS Module

OPS

INTRODUCTION

OPS is designed to simplify the deployment and maintenance of IFP by allowing for easy installation and upgrades of computing modules without the need for complex cabling or external devices. The OPS module, which is a small form-factor computer, can be inserted into a slot on the back of an OPS-compatible IFP, effectively turning it into a powerful interactive computing platform.



FEATURES

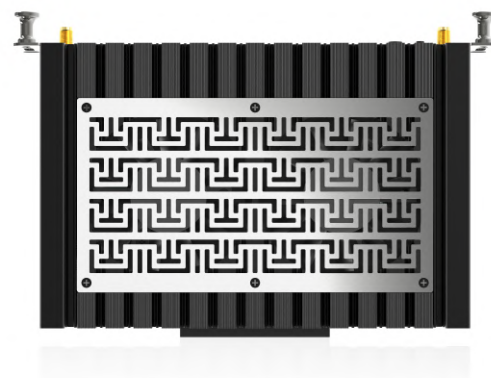
- The board-mounted 4G D4 has a 128-bit independent display, which is the only one in the industry that can achieve a thickness of 30MM.
- Anti-fouling, dust-proof, fully enclosed body, preventing dust from affecting product life
- Low CPU temperature and strong performance (Turbo on)
- TPY-C interface
- Strong anti-static (static cloth and cotton to prevent short circuit of OPS caused by static electricity)
- Normal operation at minus 15°-75°
- Maximum support for 6 3.0USB
- 8-layer PCB board with strong performance and double-layer design
- On-board WiFi, 2-in-1 audio
- Support: 4th-9th generation CPU/dual memory-up to 64G/5GWiFi Bluetooth/2.4G dual-band
- 30-42 Chassis Thickness/Japan Imported JAE Plug 4K 60HZ

OPS

FEATURES IN DETAIL

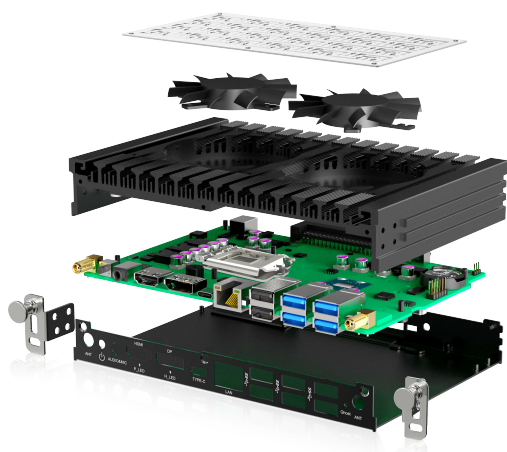
All Aluminum Material

All-aluminum integrated heat dissipation, wide groove design on the body surface for better heat dissipation, including double copper tubes and double radiators



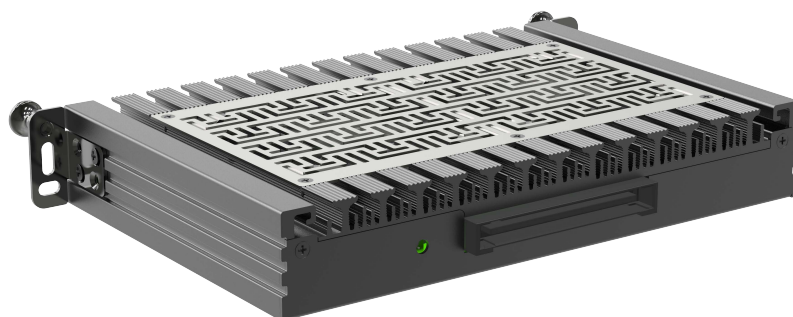
Double Cooling Fan

Double cooling fan to dissipate the heat generated by electronic components and maintain an optimal operating temperature.



Ultra Light

At the same time of high performance, the lightweight module design makes the installation very convenient



SPECIFICATIONS

Model	OPS-i5-12	OPS-i5-19	OPS-i7-12	OPS-i7-19
Processor	CPU Model: Core i5 11320H 8M Cache 3.2GHz frequency capacity 4.5GHz 35W 4 cores 8 threads	CPU Model : i5 1145G7 2.6GHz 4 Core 8 Threads	CPU Model : Core i7 11370H 12M Cache 3.3GHz 4 cores 8 threads	CPU Model : i7-1165G7<Main frequency-2.8G><Overclockable> 4 cores 8 threads
RAM	Technology: 1 X SODIMM DDR4 Memory: DDR4-8G: (maximum support 32G)	Technology: 1 x SODIMMs DDR4 Memory: DDR4-8G;DDR4-16G;DDR4-32G;	Technology: 1 x SODIMM DDR4 Memory: DDR4-4G;DDR4-8G;DDR4-16G;DDR4-32G;	Technology : 1 x SODIMMs DDR4 Memory: DDR4-4G;DDR4-8G;DDR4-16G;DDR4-32G;
Show	Front-end output: DP-Max.7680 x 4320 8K@60Hz HDMI-Max.3840 X 2160 4K@60Hz JAE End: HDMI-Max.5120 x 2880 5K60Hz	Front End Output: DP-Max.3840 x 2160@60Hz HDMI-Max.3840 x 2160@30Hz JAE End: HDMI-Max.3840 x 2160@60Hz	Front-end output: DP-Max.3840 x 2160 4K@60Hz HDMI-Max.3840 x 2160 4K@30Hz JAE End: HDMI-Max.3840 x 2160 4K@60Hz	Front-end output: DP 3840 x 2160 HD 4K60Hz HDMI-1.4 3840 x 2160 HD 4K30Hz JAE End: HDMI-2.0 3840 x 2160 HD 4K60Hz
Graphics Card	Model: Intercore Graphics card	Model: CPU Integrated Graphics	Model: Inter® Core Graphics	Model CPU Integrated Graphics card
Harddisk	SSD: M.2 2280(256G)	SSD: M.2 2280 Solid State Hard Disk Interface	SSD M.2 2280	SSD M.2 solid state drive interface
WIFI	Interface: M.2 PCIe 2230 Support: Support Wi-Fi5/Wi-Fi6 standard 2.4g (optional 2.4+5g dual-band)	Interface: M.2 2230 PCIe Support: Standard 2.4G (optional 2.4+5g dual frequency)	Interface: M.2 PCIe 2230 Support : Support Wi-Fi5/Wi-Fi6 standard 2.4g (optional 2.4+5g dual-band)	Interface : M.2 PCIe 2230 Support: Wi-Fi5/Wi-Fi6 5g dual frequency
I/O Interface	JAE Connector: 1(JAE TX25 80-PIN) LAN: 1x10/100/1000Mbps(RJ45) USB: 4*USB3.0 & 2*USB2.0 Type-c: USB3.0 SUPER IO: Implement serial port function (default TTL) fan speed control	JAE Connector: 1(JAE TX25 80-PIN) LAN: 1 x RJ45.Gigabit USB: 3 x USB3.0 & 3 x USB2.0 Type-c: USB3.0 audio frequency: 1 x AUDIO OUT + 1 x MIN IN Super IO: Main board reserved support RS232 Intelligent regulation of fan speed	JAE Connector: 1(JAE TX25 80-PIN) LAN: 1x10/100/1000Mbps(RJ45) USB : 4*USB3.0 & 2*USB2.0 Type-c: USB3.0 SUPER IO: implements serial port function (default TTL) Fan speed control	JAE Connector: 1(JAE TX25 80-PIN) DP: DP3840 x 2160 HD 4K60Hz HDMI: HDMI 3840 x 2160 HD 4K30Hz LAN : 1x10/100/1000Mbps(RJ45) USB: 3 x USB3.0 & 3 x USB2.0 Type-c: 1xUSB3.0 Audio 2-in-1 < AUDIO OUT + MIN IN >
Extension Ports	Mini-PCLe (built-in): 1*2 2230(Wi-Fi) 1M.2 2280(SSD)	Mini-PCLe(Built-in): 1 x M.2 2230(WIFI) 1 x M.2 2280(SSD)	Mini-PCLe (built-in): 1*M.2 2230(Wi-Fi) 1*M.2 2280(SSD)	Mini-PCLe (built-in): 1 x M.2 1 x M.2
Power Requirements	Input voltage: DC-IN 19V5A	Input voltage: DC-IN 19V-5A Complete machine calculation with CPU power	Input voltage: DC-IN 19V5A	Input voltage: DC-IN 19V/5A with CPU power for complete computer calculation
Physical Properties	Size: 180x 195x 30MM (180x 195x 42MM-optional) shell material: iron sheet	Size: 180x 119x 30MM Shell material: Iron sheet	Size: 180x 195x 30MM (180x 195x 42MM - optional) Shell material: iron sheet	Size : All aluminum 180x 119x 30MM Shell material: Iron shell
Dissipate heat	5V Dual Fan Cooling	5V Dual Fan Cooling	5V Dual Fan Cooling	Heat dissipation method: all-aluminum double fan cooling
Environment	Operating Temperature: -20℃ ~60℃ Relative humidity: 10%~90% non-condensing	Working temperature: 0 - 40℃ relative humidity: 10%~90℃ (non-condensing)	Working temperature: -20℃ ~60℃ Relative humidity: 10%~90% non-condensing	Working temperature: -20℃~60℃ Relative humidity: 10%~90% non-condensing
Software Development Kit	Operating System: Windowse10 Windowse11	Operating System: Windows®7 Windows®10 Windows®11	Operating System: Windowse10 Windowse11	Operating System: Windowse7 Windowse10

Product Display Diagram

