

Model:

OPS-12U (With Intel 12th generation CPU)

OPS-13U (With Intel 13th generation CPU)

Version: V1.1A

Installable Motherboard Model	OPS-12U OPS-13U (PCB Model: OPS-12U; Version: V1.1A; Specification updated: March 7th, 2024)
Chassis	Color: Black; European standard dimensions: 180x120x30mm(LxWxH); Material: Metal. Option laser-engraving customized logo on the chassis.
External I/O Interfaces	1xDC_IN 12V or 19V, 1xDP, 1xHD MI, 1xRJ45 LAN, 1xType-C(Only has USB function), 2xUSB3.2, 2xUSB2.0, 1xLine-out. 1xMic-in, 1x80-pin OPS interface. Button: GHOST(One-key recovery system), CMOS(Clear CMOS),RST(Restart), ON/OFF (Switch).
Cooling System	Muted fan (Support temperature control)
Option Processor (FCBGA1744 Socket)	Support Intel 12th Generation Alder Lake Processors: i3-1210U, i3-1220P, i5-1235U, i5-1240P, i5-12450H, i7-1255U, i7-1260P, i7-12600H, i9-12900H, etc; Support Intel 13th Generation Raptor Lake Processors: i3-1305U, i5-1335U, i5-1340P, i5-13500H, i7-1355U, i7-1360P, i7-13700H, i9-13900H, etc.
Memory	1xSODIMM 2133/2400/2666/3200MHz DDR4 Memory Socket, up to 32GB RAM.
Storage	1xM.2 2280 NVME Key-M PCIE 4.0 interface(Option SATA signal; 2242 size); Option 1x2.5-inches SATA3.0 SSD/HDD interface (Choosing another case, please inform us).
Power Supply	Support DC 12V or 19V ; DC Jack 5.5x2.5mm; U-series CPU's power consumption:55W; P-series CPU's power consumption:64W; H-series CPU's power consumption:115W.
Ethernet	1xIntel I219V 1000Mbps RJ45 LAN interface; Support Wake-on-LAN and PXE function
Display Function	Integrated with Intel® UHD Graphics / Iris® Xe Graphics eligible in CPU; Support up to 2~4 displays(Need OPS expansion card to support 3~4 displays). DP interface supports 4K resolution 4096/3840x2160@60Hz; Support DP++; HD MI 2.0 interface supports 4K resolution 4096/3840x2160@60Hz.
HD Audio	Integrated Realtek 897 HD Audio chip; Support 1xLine_out, 1xMic_in interfaces.
Wi-Fi & BT	1xM.2 2230 PCIE 3.0 Key-E Socket for WIFI&BT module.
CMOS Battery	CR2032 3V battery with cable (Detachable)
BIOS	AMI BIOS supports power on,timing switch,remote switch,intelligently identify devices. Option UEFI Secure Boot; Option Trusted Platform Module (TPM) version 2.0; Option customized boot logo in OS.
Watch Dog	Watchdog programming; Support hardware reset function (256 levels, 0~255 seconds)
Operating Environment	Operating temperature: -10°C~60°C; Working humidity: 5%~95% Relative humidity, no condensation.
Support OS	Compatible with Win 11 versions 21H2/22H2/23H2/24H2, Win 10 versions 21H2/22H2, Linux; If using Win 11 OS, please inform us in advance.