



WIO
3 AOC in 1U
Dual 1GbE

Key Features

3rd Gen Intel® Xeon® Scalable processors, Single Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP

Intel® C621A

Up to 2TB 3DS ECC RDIMM, DDR4-3200MHz; Up to 2TB 3DS ECC LRDIMM, DDR4-3200MHz
Up to 2TB Intel® Optane™ Persistent Memory 200 Series, in 8 DIMM slots

1 PCI-E 4.0 x16 Right Riser Slot,
1 PCI-E 4.0 x32 Left Riser Slot,
4 PCI-E 4.0 NVMe x4 Internal Port(s)

M.2 Interface: PCI-E 3.0 x4 and SATA

M.2 Form Factor: 2280, 22110

M.2 Key: M-Key

Intel® C621A controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10

Dual LAN with 1GbE with Intel® I210

I/O: 1 VGA, 2 COM, TPM header

2 SuperDOM with built-in power

Product SKUs

- **MBD-X12SPW-F** ■ X12SPW-F

Physical Stats

- **Form Factor** ■ Proprietary WIO
- **Dimension** ■ 8" x 13" (20.32cm x 33.02cm)

Processor

- **CPU** ■ 3rd Gen Intel® Xeon® Scalable processors
 - Single Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP
- **Core** ■ Up to 40 cores

System Memory

- **Memory Capacity** ■ 8 DIMM slots
 - Up to 2TB Intel® Optane™ Persistent Memory 200 Series
 - Up to 2TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 2TB 3DS ECC RDIMM, DDR4-3200MHz
- **Memory Type** ■ ECC , DDR4 LRDIMM (3DS), RDIMM (3DS)
- **DIMM Sizes** ■ LRDIMM 3DS: 128GB, 256GB
 - LRDIMM: 64GB, 128GB
 - RDIMM: 8GB, 16GB, 32GB, 64GB
- **Memory Voltage** ■ 1.2V
- **Error Detection** ■ Corrects single-bit errors

On-Board Devices

- **Chipset** ■ Intel® C621A
- **SATA** ■ Intel® C621A controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10
- **IPMI** ■ ASPEED AST2600 BMC
- **Graphics** ■ ASPEED AST2600 BMC
- **Network Controllers** ■ Dual LAN with 1GbE with Intel® I210

Input / Output

- **SATA** ■ 10 SATA3 (6Gbps) port(s)
- **LAN** ■ 2 RJ45 Gigabit Ethernet LAN ports
- **USB** ■ 4 USB 2.0 port(s) (2 rear; 2 via header)
 - 5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)
- **Video Output** ■ 1 VGA port(s)
- **Serial Port** ■ 2 COM Port(s) (1 header; 1 rear)
- **DOM** ■ 2 SATA DOM (Disk on Module) power connector support
- **TPM** ■ 1 TPM Header

Expansion Slots

- **PCI-E** ■ 1 PCI-E 4.0 x16 Right Riser Slot,
 - 1 PCI-E 4.0 x32 Left Riser Slot
- **M.2** ■ M.2 Interface: PCI-E 3.0 x4; SATA
 - Form Factor: 2280, 22110
 - Key: M-Key

System BIOS

- **BIOS Type** ■ AMI UEFI
- **BIOS Features** ■ ACPI 6.0
 - RTC (Real Time Clock) Wakeup
 - SMBIOS 3.0 or later

Management

- **Software** ■ SuperDoctor® 5, NMI, SUM, KVM with dedicated LAN, SPM, Intel® Node Manager, IPMI2.0, Watchdog
- **Power Configurations** ■ Power-on mode for AC power recovery, ACPI Power Management

PC Health Monitoring

- **Voltage** ■ VBAT, Supports system management utility, Monitors CPU voltages, HT, Chassis intrusion header, 3.3V standby, +5V standby, +5V, +3.3V, +12V, +1.8V, 7-fan status
- **LED** ■ UID/Remote UID
 - Suspend static indicator LED
 - CPU / System Overheat LED
- **Temperature** ■ CPU thermal trip support
 - PECI
- **FAN** ■ 7x 4-pin fan headers (up to 7 fans)
 - System level control
 - PWM fan speed control
 - Fan speed control
 - Overheat LED indication
- **Other Features** ■ WOL
 - UID
 - RoHS
 - Control of power-on for recovery from AC power loss
 - ACPI power management

Operating Environment

- **Operating Temperature Range** ■ 0°C - 50°C (32°F - 122°F)
- **Non-Operating Temperature Range** ■ -40°C - 70°C (-40°F - 158°F)
- **Operating Relative Humidity Range** ■ 8% - 90% (non-condensing)
- **Non Operating Relative Humidity Range** ■ 5% - 95% (non-condensing)