



Apogean Single Socket Intel 14th, 13th & 12th Gen Core Processors Workstation

IS4T-C9-A

Intel® W680 (LGA 1700) Tower Workstation, PCIe® 5.0, DDR5, dual Intel® 2.5 Gb Ethernet, three PCIe 4.0 M.2 slots, USB 3.2 Gen 2x2 front panel connector, SlimSAS, SATA 6 Gbps, HDMI®, DisplayPort and VGA.

Intel® LGA 1700 socket:

Ready for 13th Gen Intel® Core™ processors & 12th Gen Intel® Core™, Pentium® Gold and Celeron® Processors

Enhanced power solution:

DrMOS, ProCool connector, alloy chokes and durable capacitors for stable power delivery

Next-gen connectivity:

Dual PCIe 5.0 SafeSlots, dual PCIe 3.0 slots, 3 x M.2 PCIe 4.0, SlimSAS, dual Intel® 2.5Gb Ethernet, front panel USB 3.2 Gen2x2 Type-C®, Thunderbolt™ 4 header support, TPM header, LPT header

Comprehensive cooling:

Large VRM heatsink, M.2 heatsinks, hybrid fan headers and Fan Xpert 4

Advanced security management:

USB port management, software blacklisting and Regedit on/off controls.

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Specifications

CPU

Intel® Socket LGA1700 for 13th Gen Intel® Core™ Processors & 12th Gen Intel® Core™
Chipset Intel® W680
Chipset

Memory

4 x DIMM, Max. 128GB, DDR5 ECC and Non-ECC Unbuffered Memory
Dual Channel Memory Architecture
Supports Intel® Extreme Memory Profile (XMP)

Graphics

1 x DisplayPort**
1 x HDMI® port***
1 x VGA port

*Graphics specifications may vary between CPU types. Please refer to www.intel.com for any updates.

**Supports max. 8K@60Hz as specified in DisplayPort 1.4.

***Supports 4K@60Hz as specified in HDMI 2.1.

Expansion Slots

Intel® 13th & 12th Gen Processors*
- 2 x PCIe 5.0 x16 slots (support x16 or x8 / x8 mode)
Intel® W680 Chipset
- 2 x PCIe 3.0 x16 slots (supports x4 mode)
- 1 x PCIe 3.0 x1 slot

Storage

Total supports 3 x M.2 slots and 8 x SATA 6Gb/s ports*
Intel® 13th & 12th Gen Processors
- M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x mode) Intel® W680 Chipset**
- M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)
- M.2_3 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)
- 4 x SATA 6Gb/s ports
- 1 x SlimSAS Slot Support SlimSAS NVMe device (supports PCIe 4.0 x4 mode and up to 4 SATA devices)***
*Intel® Rapid Storage Technology supports PCIe RAID 0/1/5/10, SATA RAID 0/1/5/10.
* Intel® Rapid Storage Technology supports Intel® Optane Memory H Series on PCH attached M.2 slots.
* SlimSAS slot can support up to 4 SATA devices via a transfer cable. the cable is purchased separately.

Ethernet

2 x Intel® 2.5Gb Ethernet
Wireless & Bluetooth
M.2 slot only (Key E, CNVi & PCIe)*
*Wi-Fi module is sold separately.

USB

Rear USB (Total 8 ports)
- 2 x USB 3.2 Gen 2 ports (1 x Type-A, 1 x Type-C®)
- 4 x USB 3.2 Gen 1 ports (4 x Type-A)
- 2 x USB 2.0 ports (2 x Type-A)
Front USB (Total 7 ports)
- 1 x USB 3.2 Gen 2x2 connector (supports USB Type-C®) - 1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports - 2 x USB 2.0 headers support additional 4 USB 2.0 ports

Audio

Realtek 7.1 Surround Sound High Definition Audio CODEC - Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking - Supports up to 24-Bit/192 kHz playback"
Audio Features
- Audio Shielding
- Premium audio capacitors - Dedicated audio PCB layers
- Unique de-pop circuit

Back Panel I/O Ports

- x USB 3.2 Gen 2 ports (1 x Type-A, 1 x Type-C®)
- x USB 3.2 Gen 1 ports (4 x Type-A)
- x USB 2.0 ports (2 x Type-A)
- x DisplayPort -1 x HDMI® port
- x VGA port
- x Intel® 2.5Gb Ethernet ports
- x Audio jacks
- x BIOS Flashback™ button

Internal I/O Connectors

Fan and Cooling related
1 x 4-pin CPU Fan header
1 x 4-pin CPU OPT Fan header
1 x 4-pin W_PUMP+ header
3 x 4-pin Chassis Fan headers

Power related

1 x 24-pin Main Power connector
1 x 8-pin +12V Power connector
1 x 4-pin +12V Power connector
1 x 6-pin PCIe Power connector

Storage related

3x M.2 slots (Key M) 4
x SATA 6Gb/s ports
1 x SlimSAS port

USB

1 x USB 3.2 Gen 2x2 connector (supports USB Type-C®)
1 x USB 3.2 Gen 1 header supports 2 additional USB 3.2 Gen 1 ports
2 x USB 2.0 headers support 4 additional USB 2.0 ports

Miscellaneous

1 x LPT header
2 x T-sensor
3 x Clear CMOS header
1 x COM Port header
1 x BMC Header
1 x Front Panel Audio header (AAFP)
1 x Start button
1 x Flexkey button
1 x SPI TPM header (14-1pin)
1 x 20-3 pin System Panel header with Chassis intrude function
1 x M.2 slot (Key E)
1 x LPT_P80 Switch
1 x Thunderbolt™ header

Special Features 5X

PROTECTION III
- DIGI+ VRM (- Digital power design with DrMOS)
- ESD Guards
- LANGuard
- Overvoltage Protection
- SafeSlot
- Stainless-Steel Back I/O

Q-Design

- Q-Code
- M.2 Q-Latch
- Q-Connector
- Q-DIMM
- Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot

Device [yellow green]

- Q-Slot
Thermal Solution
- M.2 heatsink
- VRM heatsink design
EZ DIY
- CPU Socket lever protector
- SafeDIMM - SafeSlot
- BIOS FlashBack™ button
- BIOS FlashBack™ LED

Software Features

Exclusive Software
Armoury Crate
- Fan Xpert 4
- Power Saving
CPU-Z
WinRAR
IT Management software supported
Control Center Express

UEFI BIOS

EZ DIY
CrashFree BIOS 3
EZ Flash 3
FlexKey
BIOS
256 Mb Flash ROM, UEFI AMI BIOS
Manageability
WOL by PME, PXE

Operating System

Windows® 11, Windows® 10 64-bit
Form Factor
Tower Power
Supply
500W, 550W, 600W, 650W, 750W, 850W, 950W, 1000W, 1200W