

Features

- Intel Comet Lake-S Core i9/i7/i5/i3/Pentium/Celeron LGA1200 processor
- Intel Gen. 9.5 Intel Graphics DX 12, OGL 4.4/4.5
- Support Dual Channel DDR4 2666/2933 MHz
- 2 x DDR4 SO-DIMM, up to 32GB
- 1 x HDMI 2.0, 2 x HDMI 1.4, 1 x Dual Channel 24-bit LVDS
- 4 x USB 3.0, 4 x USB 2.0, 2 x SATA3
- 1 x Mini-PCIe, 1 x PCIe (x16), 1 x M.2 wifi, 1 x M.2 SSD
- 2 x Intel Gigabit Ethernet
- 1 x TPM Module IC (Optional)
- DC-in 12/19 - 24V power input



Core System

CPU	Intel 10th Comet Lake-S LGA1200 Socket i9/i7/i5/i3/Pentium/Celeron Processor TDP Max. 65W
System Memory	Dual Channel DDR4 2666/2933 MHz SO-DIMM, up to 32GB
Chipset	H410
BIOS	AMI
Storage	2 x SATAIII, 1 x M.2 2280 SATA/PCIe slot
Watchdog Timer	1 - 255 steps by software program
Expansion Slot	1 x Full size Mini-PCIe slot co-lay with mSATA 1 x PCIe (x16) slot 1 x M.2 wifi, 1 x M.2 SATA/PCIe
Power Input	DC-in 12V/ 19 - 24V, 4-pin ATX power connector
Smart Fan Control	-
Dimensions	220 x 200 x 56 mm
Weight	1.4 kg (barebone)
Operating Temperature	0°C to +60°C (+32°F to +140°F)
Storage Temperature	-20°C to +70°C (-4°F to +158°F)
Humidity	10% to 95% relative humidity, non-condensing

System I/O

USB	4 x USB 3.0 (Rear side) 2 x USB 2.0 (Front side)
Display I/O	1 x HDMI 2.0, 2 x HDMI 1.4
Audio I/O	1 x Mic-in / 1 x Line-out
LAN I/O	2 x RJ-45, Intel I219V Giga LAN + Intel I211-AT Giga LAN
Serial Port	-
PS/2 Port	-
Others	1 x DC Jack

Internal Connectors

USB	4 x USB 2.0 compliant
Display I/O	0 x VGA (Optional, co-lay with HDMI) 1 x LVDS, 1 x Inverter
Audio I/O	-
Serial Port	2 x RS-232
Parallel Port	-
GPIO	1 x GPIO Header (Programmable support 4 in/4 out)
FAN	Support
Power	12/ 19 - 24 VDC-in, 4-pin ATX Power Connector, co-lay with pheonix con.
Others	1 x Mini-PCIe, 1 x I2C, 1 x SMBUS, 1 x SATA Power output

Graphics

Chipset	Intel Gen. 9.5 Graphics DX 12, OGL 4.5
VGA	Default is HDMI, VGA is optional
DVI	-
HDMI	Up to 4K (3840 x 2160) @ 60Hz
Display Port	-
LVDS	Support
eDP	-

Others

OS Support	Windows 10, Linux
Certifications	CE / FCC