



INS8365A

Intel® 9/8th Gen. Coffee Lake Refresh Processor Mini ITX

Motherboard with Q370 Express Chipset



Extended
Temperature
+70°C
-20°C

CPU Full Speed



- Supports Intel® 9th/ 8th Gen (Coffee Lake-S) Core™ Processors, up to 65W
- Supports Dual Channel DDR4 SODIMM 2400/2666, up to 64GB
- 3 x Display port, 1 x eDP, 1 x Dual Channel 24bit LVDS
- 4 x USB 3.0, 4 x USB 2.0, 2 x SATA, 4 x COM
- 1 x PCIe x 16, 1 x mini-PCIe, 2 x M.2 Expansion Slot
- 2 x Intel Gigabit Ethernet
- TPM2.0 on board
- 12V/19~28V DC-IN
- Extended operating temp. -20~70°C

Specifications

System

CPU	Intel® 9th/ 8th Gen (Coffee Lake-S) Core™ Processors, up to 65W
Chipset	Intel® Q370
TPM2.0	On board
Memory Type	Intel® Core i9/i7/i5 CPUs support up to 64GB (32GB per DIMM) Intel® Core i3/Pentium/Celeron CPUs support up to 32GB (16GB per DIMM)
BIOS	AMI® UEFI BIOS
Watchdog	1-255 sec

Expansion Slot

Mini PCIe	1 x (PCIe x 1, USB 2.0)
PCIe	1 x PCIe x 16
M.2 Slot	1 x 2230 (PCIe x 1, USB 2.0), 1 x 2242/2260/2280 (PCIe x 4, SATA3)

Display

Chipset	Intel® HD Graphics Gen9 Engines with Low power 16 execution unit, Supports DX11.3/12, OpenGL 4.3/4.4/4.5 and OpenCL 1.2/2.0/2.1
Display Port	Resolution up to 4096x2304@60Hz
eDP	Resolution up to 4096x2304@60Hz
LVDS	Dual Channel 24bit, max resolution up to 1920x1200@60Hz

Ethernet

Chipset	1 x Intel® I210-AT, 1 x I219-LM GbE
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Power Requirements

Power Type	12V/19~28V DC-IN
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Audio

Codec	Realtek ALC887
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Rear I/O

Display Port	3
Ethernet	2 x RJ45
USB	4 x USB 3.0
Audio	1 x Line-out, 1 x Mic-in

DC-IN	1
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Internal I/O

SATA	2 x SATAIII (6Gb/s)
COM	2 x RS232, 2 x RS232/422/485
eDP	1
LVDS	1
USB	4 x USB2.0
GPIO	4 x GPI, 4 x GPO

Mechanical and Environmental

Form Factor	Mini ITX
Power Type	12V/19~28V DC-IN
Dimension	170mm x 170mm
Operating Temperature	-20 to 70°C
Storage Temperature	-40 to 85°C
Relative humidity	10% to 90%, non-condensing

Standard Compliance

Standard Compliance	CE/FCC
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OS

OS Support	Windows®10 64bit Linux(Support by request)
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Ordering Information

Model	Description
INS8365A-ET	Intel® Coffee lake-S LGA1151 with Q370 chipset, 3 x DP/ 1 x eDP/ 1 x LVDS, PCIe x 16, 2 x M.2 Slot, 2 x Gigabit LAN, 2 x SATA, 4 x COM, DC 12V/19~28V Input