



INDUSTRIAL MOTHERBOARD

CT-XRL02

Mini-ITX Industrial Motherboard with LGA 1700 Socket Supporting 14th/13th/12th Gen Intel Core i9/i7/i5/i3, Pentium, Celeron Processor, Intel Q670E Chipset



Features

- Support 14/13/12th Gen. Intel Alder Lake-S / Raptor Lake-S Processor
- Intel Q670E chipset
- 2x 260-pin DDR4 SO-DIMM. Max. up to 64GB
- 3x 2.5GbE (Support Wake-on-LAN and PXE)
- 3x independent display supported DP, HDMI
- 1x PCIe x16 (Gen 4) via PCB Golden Finger
- 1x M.2 B-Key (3042) with Nano SIM Holder for 4G/5G support
- 6x USB 3.2 Gen 2 (Rear), 2x USB 3.2 Gen 1 (Internal), 2x USB 2.0 (Internal)
- 2x RS-232/422/485 (Rear), 2x RS-232 (Internal)
- 3x SATA Gen 3 6.0 Gb/s
- TPM 2.0

Specifications

System

Processor

- 14th Gen Intel Raptor Lake-S i9/i7/i5/i3/Pentium /Celeron IOTG Series Processor, Max 65W
- 13th Gen Intel Raptor Lake-S i9/i7/i5/i3/Pentium /Celeron IOTG Series Processor, Max 65W
- 12th Gen Intel Alder Lake-S i9/i7/i5/i3/Pentium /Celeron IOTG Series Processor, Max 65W

System Chipset Intel Q670E Express

LAN Chipset GbE1: Intel I226LM PCIe 2.5GbE LAN PXE Support

GbE2: Intel I226V PCIe 2.5GbE LAN PXE Support

GbE3: Intel I226V PCIe 2.5GbE LAN PXE Support
Audio Codec Realtek ALC897 High Definition Audio CODEC (Co-lay ALC888S-VD2)

System Memory 2 x 260-pin DDR4 SO-DIMMs 3200 MHz (Non-ECC) 64 GB Max

Graphics Intel Integrated Iris Xe Graphic (CPU Dependent)

BIOS AMI 256Mbit SPI BIOS

Watchdog 1 ~ 255 second timer

iAMT AMT 16.x

TPM TPM 2.0

Display

Display Port 2x DP (4096x2304 @60Hz)

HDMI 1x HDMI (4096x2304 @24Hz)

Multiple Display Triple Displays

Storage

M.2 1 x M.2 M-Key (2242/2280, PCIe x4 Gen3) for NVMe SSD

SATA 3x SATA Gen 3 6.0 Gb/s (RAID 0/1/5)
AHCI Mode Supported

Expansion

- 1x M.2 E-Key (2230, PCIe x1 + USB 2.0) for WiFi 6E & BT-5.1
- 1x M.2 B-key (3042, PCIe x1 + USB 3.2 Gen 2x1 + USB 2.0) with Nano SIM Holder for 4G/5G support

PCIe 1 x PCIe x16 Gen4 via PCB customized 200-pin Golden Finger (Support riser card, one x16 or two x8 via BIOS setting)

Rear I/O

Audio 1x Mic-in, 1x Line-out

COM 2x RS-232/422/486

LAN 3x 2.5 GbE LAN

USB 6 x USB 3.2 Gen 2 (10 Gbps)

Internal I/O

Audio 1x Front panel audio

DIO 1x 16-bit DIO (8-in/8-out)

SATA 3x SATA Gen 3, support RAID 0/1/5

USB 2x USB 3.2 Gen 1 (5 Gbps), 2x USB 2.1

Operating System

Windows Windows 10/11

Linux Linux Kernel

Power

Power Mode ATX-Power 24P, 12V-8P

Environment

Form Factor Mini-ITX

Operating Temperature 0°C to 60°C

Storage Temperature -20°C to 80°C

Relative Humidity 10% ~ 90% relative humidity, non-condensing

Certification CE, FCC Class A

Physical

Dimensions 170mm x 170mm

Available Models

- CT-XRL02-MB

Mini ITX, LGA 1700 Socket, Q670E CH (I225-V), 6x USB, 2xDP, HDMI

- CT-XRL02-1E16-P

Mini ITX, LGA 1700 Socket, Q670E CH (I225-V), 6x USB, 2xDP, HDMI w/ 1x PCIe x16 Riser Card, w/ Power Adapter

- CT-XRL02-2E8-P

Mini ITX, LGA 1700 Socket, Q670E CH (I225-V), 6x USB, 2xDP, HDMI w/ 2x PCIe x8 Riser Card, w/ Power Adapter

US Exports And Tariff Codes

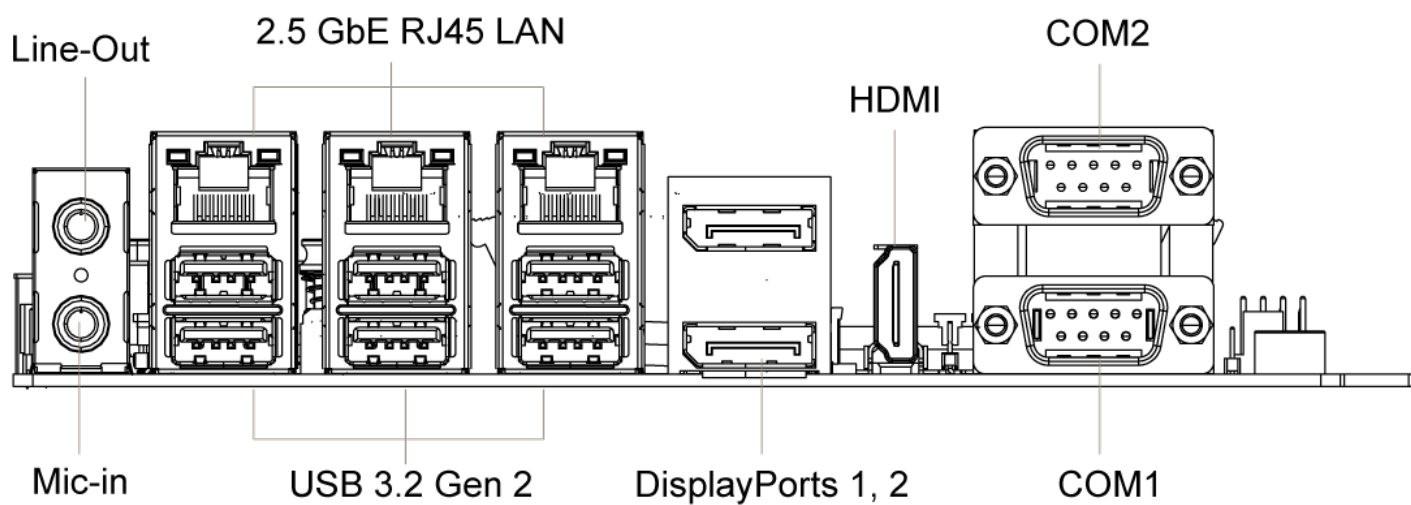
ECCN 5A992.c

HTS 8504.90.2000

ScheduleB 8473.30.0002

* All specifications and photos are subject to change without notice.

External I/O Mechanical Layout



Dimension

Unit: mm

