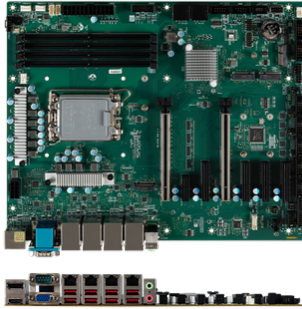




INDUSTRIAL MOTHERBOARD

CT-ARL01

ATX Industrial Motherboard with LGA 1700 Socket Supporting 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3, Pentium®, Celeron® Processor, Intel® R680E Chipset



Features

- Intel® 14th/13th/12th Gen Raptor Lake-S/Alder Lake-S Series with R680E Chipset
- 4 DDR5 4400 MHz ECC/non-ECC UDIMM slots up to 128GB
- Triple independent displays: VGA, DP, HDMI
- 4 2.5GbE LAN with RJ-45
- 1 PCIe x16 (Gen 5) Slot or 2 PCIe x8 (Gen 5), 1 PCIe x4 (Gen 4), 3 PCIe x4 (Gen 3), 1 M.2 E key, 1 M.2 B key slots
- 2 M.2 M key, 4 SATA 3.0 for storage
- 4x SATA 3.0, RAID 0/1/5/10
- 8 USB 3.2 Gen 2, 2 USB 3.2 Gen 1, 3 USB 2.0, 6 COM (6 RS-485), GPIO, PS/2, Audio, 3 System FAN
- Onboard TPM 2.0
- SMBus, I2C, PMBus, iAMT 16.x, Chassis Intrusion
- ATX Power



Specifications

System	
Processor	• 14th Gen Intel® Raptor Lake-S i9/i7/i5/i3/Pentium®/Celeron® IOTG Series Processor, Max 125W • 13th Gen Intel® Raptor Lake-S i9/i7/i5/i3/Pentium®/Celeron® IOTG Series Processor, Max 125W • 12th Gen Intel® Alder Lake-S i9/i7/i5/i3/Pentium®/Celeron® IOTG Series Processor, Max 125W
System Chipset	Intel® R680E Express
LAN Chipset	Intel® I225-LM
Audio Codec	Realtek® ALC897 Audio Codec (Co-lay ALC888S)
System Memory	• 4x 288-pin UDIMMs • Dual Channel DDR5 (ECC / non-ECC) 4400 MHz • Up to 128GB Max
Graphics	Intel® UHD Graphics
BIOS	AMI UEFI
Watchdog	256-level Watchdog Timer
Super I/O	FINTEK F81966D-I
TPM	Infineon® SLB9672VU2.0
Display	
Display Port	1x DP (4096x2160 @60Hz)
HDMI	1x HDMI (4096x2304 @60Hz)
Multiple Display	3 Independent Displays
VGA	1x VGA (1920x1200 @60Hz)
Storage	
SATA	4x SATA 3.0 (RAID 0/1/5/10)
Expansion	
M.2	• 1x M key (Signal from CPU) 2280/22110, • 1x M key (Signal Shared by PCIe Slot5) 2242/2280 • 1x E key (PCIe x1), 2230 • 1x B key (PCIe x2), 2242/2280
PCIe	• 2x PCIe x16 (Signal configured as 1x PCIe x16 or 2x PCIe x8) • 4x PCIe x4 • 1x PCIe x1
I/O	
Audio	1x Mic-in, 1x Line-out
COM	• 6 x COM-Ports for COM1 ~ 6 (1 x Rear, 5 x Internal) • COM1/2 RS-232/422/485 with Ring/0V/5V/12V Auto-flow Control Supported (Default set to Ring) • COM3/4/5/6 RS-232/422/485 with 0V/5V/12V Auto-flow Control Supported
GPIO	16-bits (8 x GPI; 8 x GPO), 5V
LAN	4x 2.5GbE LAN
USB	• 8 x USB 3.2 Gen 2 x1 Ports (8 x Rear) • 2 x USB 3.2 Gen 1 Ports (2 x Internal) • 3 x USB 2.0 Ports (3 x Internal with one Vertical Type-A Connector)
Others	1 x PS/2 port by Y-cable for keyboard and mouse
Operating System	
Windows	• Windows 10 IoT Enterprise 2021 LTSC (64-bit) • Windows 11 IoT Enterprise 22H2 (64-bit)
Linux	Linux Kernel 5.xx, Ubuntu 22.04 LTS Pre-scan
Power	
Power Mode	ATX-Power 24P, 12V-8P

Environment	
Operating Temperature	0 ~ 60°C
Storage Temperature	-20 ~ 80° C
Relative Humidity	10 ~ 90%, non-condensing
Certification	CE, FCC Class-B, DSMT, RCM, VCCI
Physical	
Form Factor	ATX
Dimensions	305 x 244 mm
Weights	0.779 kg

Available Models

- CT-ARL01-MB-A
- ATX Industrial Motherboard with LGA 1700 Socket Supporting 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3, Pentium®, Celeron® Processor, Intel® R680E Chipset
MFG-No : 916-CF05P3-102
COO: Taiwan

Packing List

- 2x SATA Cable 500mm
- 1x USB 2.0 Cable, 330mm
- 1x I/O SHIELDING For 4 LANs

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

