# ARC-15W42

15.6" 13th Generation Intel® Core™ 3/5/7 Processors
Fanless Rugged Touch Panel PC with IET Expansion




## Features

- Intel® 13th Gen Raptor Lake-PS Core™ 3/5/7 Processor (LGA1700 Socket Type)
- Full flat front panel with projected capacitive touch supports multi touch
- One 262-pin SODIMM socket max. up to 32GB DDR5 4800MHz
- 3 x USB3.2, 1 x USB2.0, 1 x USB Type C, 1 x COM
- Dual Intel Gigabit LAN
- 3 x M.2 slots (Key-B 2242/3052/2280, Key-E 2230, Key-M 2280)
- Support Wi-Fi / BT / 4G / 5G (by option)
- Wide voltage +12V ~ +24V input, ErP power
- Available expansion for audio, USB, COM, HDMI, MPCIe, GPIO, CAN bus
- IP65 compliant front panel, IP41 rear box

+12V ~ +24V | PCAP | Fanless | Wide Temp. -10°C ~ 50°C | Front IP65 Rear IP41

## Specifications

| | |
|---|---|
| **System Information** | |
| Processor | Intel® 13th Gen Raptor Lake-PS Core™ 3/5/7 Processor (LGA1700 Socket Type)<br>Intel® Core™ 3 processor 100UL (10M Cache, up to 4.50 GHz)<br>Intel® Core™ 5 processor 120UL (12M Cache, up to 4.60 GHz)<br>Intel® Core™ 7 processor 160UL (12M Cache, up to 5.20 GHz) |
| System Memory | 1 x 262-pin SODIMM socket max. up to 32GB DDR5 4800MHz |
| I/O Chipset | EC ITE IT5782VG |
| Watchdog Timer | H/W reset, 1sec. ~ 65535min. and 1sec. or 1min./step |
| H/W Status Monitor | Monitoring CPU & system temperature and voltage |
| TPM | Onboard NuvoTon NPCT754AABYX support TPM 2.0 |
| SBC | HID-2340 SBC |
| CPU Cooler (Type) | Fanless heatsink |
| Other | 7 x Knockouts for antenna mounting<br>*5 from rear cover + 2 from IET bracket |
| **Expansion** | |
| Expansion | 1 x M.2 Key B 3042/3052/2280 (PCIe, USB3, SATA) for 4G/5G/Capture Card<br>1 x M.2 Key E 2230 (PCIex1, USB2.0) for WIFI<br>1 x M.2 Key M 2280 (PCI-e x4) slot for storage<br>1 x 80-pin IET interface |
| **Storage** | |
| Storage | 1 x M.2 Key M 2280 (PCI-e x4) slot for storage) |
| **Display** | |
| Graphic Chipset | Intel® Raptor Lake-PS integrated graphics |
| Spec. & Resolution | HDMI: Max. Resolution 4096x2160 @ 24Hz(optional by IET module) |
| **Audio** | |
| Audio Codec | Realtek ALC888S |
| Speaker Output | 2 x 2W |
| **Ethernet** | |
| LAN Chipset | 1 x Intel® I225LM 2.5 Gigabit Ethernet<br>1 x Intel® I226LM 2.5 Gigabit Ethernet |
| Ethernet Interface | Intel® I225LM: 10/100/1000/2.5G Base-Tx GbE compatible<br>Intel® I226LM: 10/100/1000/2.5G Base-Tx GbE compatible |
| **Power Requirement** | |
| DC Input | +12V ~ +24V |
| DC Input Connector | Lockable DC Jack (default)<br>Optional for phoenix connector |
| ACPI | Single power ATX support S0, S3, S4, S5 and ACPI 3.0 compliant |
| **Software Support** | |
| OS | Win10 / Win11 / Linux |
| **Certification** | |
| Certification Information | CE / FCC Class A / VCCI |

| | |
|---|---|
| **Panel** | |
| LCD Size | 15.6", 16:9 |
| Display Type | FHD |
| Resolution | 1920 x 1080 |
| Pixel Pitch | 0.17925mm (H) x 0.17925mm (V) |
| Luminance | 350 cd/m² |
| Contrast Ratio | 800 |
| Viewing Angle | 89 (U), 89 (D), 89 (L), 89 (R) |
| Response Time | 11 ms |
| Backlight | LED |
| Touch Type | Projective capacitive multi-touch up to 10 points |
| Touch Light Transmission | 88% |
| Touch Controller | EETI |
| **External I/O** | |
| USB | 3 x USB3.2, 1 x USB2.0, 1 x USB type C (output for USB 3.1 & display, 5V/3A 15W, no power receiving function) |
| LAN Port | 2 x RJ-45 |
| COM Port | 1 x RS-232/422/485 |
| **System Control** | |
| LED Indicator | HDD LED, power LED |
| **Mechanical & Environmental** | |
| Operating Temp. | -10°C ~ 50°C (14°F ~ 122°F) |
| Storage Temp. | -20°C ~ 60°C (-4°F ~ 140°F) |
| Operating Humidity | 40°C @ 95% Relative humidity, non-condensing |
| Dimension (W x L x H) | 391.21 x 293.21 x 61 mm |
| Weight | 3.7 Kg |
| Vibration Test | With SSD/M.2 SSD : 2Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 30mins/axis |
| Shock Test | Operating with SSD/M.2 : MIL-STD-810G, method 516.6, procedure I, functional shock=20G |
| Drop Test | ISTA 2A, IEC-60068-2-32 Test:Ed |
| IP Rating | Front panel IP65, Back cover IP41 |
| Mounting Kit | Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm<br>Panel mount with mounting kits |
| Power Mode | AT/ATX (ATX is default) |
| System Fan | Fanless |
| Construction - Front | Die casting with cover lens |
| Construction - Rear | Black die casting |
| **Component** | |
| Adapter | Input: 100-240V~,2.0A, 50-60Hz<br>Output: 120W adapter (AC/DC adapter 24V/5A 120W, Screw Type) |

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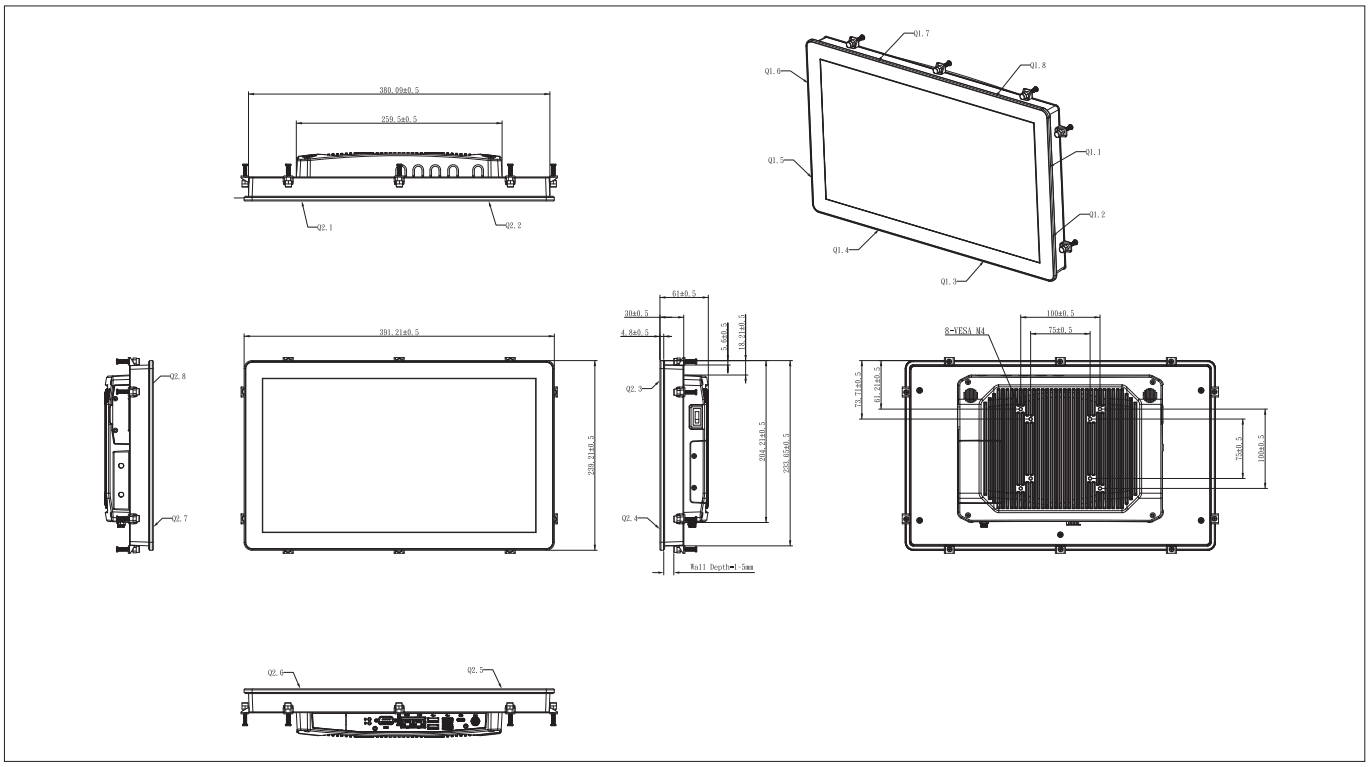
## Mechanical Drawing



## Ordering Information

| P/N | Touch Type | Processor | Memory | Storage | Resolution | Luminance | COM | USB | LAN | Power Input | Operating Temp. | OS Support |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARC-15W42-100-B1R | PCAP | 100UL | 262-pin DDR5 4800MHz SO-DIMM | 1 x 2.5" Drive bay (7mm HDD restricted) | 1920 x 1080 | 350 | 1 | 5 | 2 | +12V ~ +24V | -10°C ~ 50°C | Win10 / Win11 / Linux |
| ARC-15W42-120-B1R | PCAP | 120UL | 262-pin DDR5 4800MHz SO-DIMM | 1 x 2.5" Drive bay (7mm HDD restricted) | 1920 x 1080 | 350 | 1 | 5 | 2 | +12V ~ +24V | -10°C ~ 50°C | Win10 / Win11 / Linux |
| ARC-15W42-160-B1R | PCAP | 160UL | 262-pin DDR5 4800MHz SO-DIMM | 1 x 2.5" Drive bay (7mm HDD restricted) | 1920 x 1080 | 350 | 1 | 5 | 2 | +12V ~ +24V | -10°C ~ 50°C | Win10 / Win11 / Linux |

## Packing List

| Item | P/N | Quantity |
|---|---|---|
| AC/DC adapter 24V/5A 120W, Screw Type | ACC-ADP-120N-05R | 1 |
| HDD shockproof Rubber | ACC-RUBBER-0001R | 4 |
| M4 x 6mm Screw for VESA | ACC-SCREW-0002R | 4 |
| M3 x 8mm Screw for HDD | ACC-SCREW-0005R | 4 |
| Screw-Round M4 x 25mm | E1935052510R | 10 |
| Bracket for Panel Mount SECC | E195BKAR120915R | 10 |
| Plastics spacer support D7.7 x 8 | E199PS00002R | 10 |

## Optional Items

| Item | P/N |
|---|---|
| 4 x USB 3.0 Kit for ARC Series | ACC-ARC-USB-01R |
| HDMI + 5.1 CH Audio Kit for ARC Series | ACC-ARC-AUDIO-01R |
| HDMI + MPCIE w/SIM Kit for ARC Series | ACC-ARC-MPCIE-02R |
| 2 x Isolated RS-232 Kit for ARC Series | ACC-ARC-COM-01R |
| 3 x RS-232 Kit for ARC Series | ACC-ARC-COM-02R |
| 2 x RS-232 + USB Kit for ARC Series | ACC-ARC-COM-03R |
| 2 x RS-232 + LAN Kit for ARC Series | ACC-ARC-COM-04R |
| 12-bit GPIO + 2-pin CAN Bus Kit for ARC Series | ACC-ARC-GPIO-03R |
| OBDII - CAN Bus Kit for ARC Series (OBDII/EOBD for Small Vehicle) | ACC-ARC-OBDII-01R |
| OBDII - CAN Bus Kit for ARC Series (J1939J1708 for Large Vehicle) | ACC-ARC-OBDII-02R |
| OBDII - CAN Bus Kit for ARC Series (ISO15765-4 for Special Large Vehicle) | ACC-ARC-OBDII-03R |
| 2 x HDMI output + USB2.0 for ARC Series | AUX-080-HDMI-A1R |
| LAN + Mini PCIe + SIM for ARC Series | AUX-086-LAN-A01R |
| USA Power Cord | E1702031833R |
| EU Power Cord | E1702031000R |
| Japan Power Cord | E1702031834R |
| UK Power Cord | E170P060380R |
| Australia Power Cord | E1702031831R |

## I/O Overview

