

# ARC-1542

15" 13th Generation Intel® Core™ 3/5/7 Processors Fanless Rugged Touch Panel PC with IET Expansion



## Product Features

- Intel® 13th Gen Raptor Lake-PS Core™ 3/5/7 Processor (LGA1700 Socket Type)
- One 262-pin SODIMM socket max. up to 32GB DDR5 4800MHz
- Dual Intel Gigabit LAN
- Support Wi-Fi / BT / 4G / 5G (by option)
- Available expansion for audio, USB, COM, HDMI, MPCle, GPIO, CAN bus
- TPM 2.0 function
- 5-wire resistive touch
- 3 x USB3.2, 1 x USB2.0, 1 x USB Type C, 1 x COM
- 3 x M.2 slots (Key-B 2242/3052/2280, Key-E 2230, Key-M 2280)
- Wide voltage +12V ~ +24V input, ErP power
- IP65 compliant front panel, IP41 rear box
- Fanless operation from -10°C ~ 50°C (14°F ~ 122°F)

## Specification

### 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 IT8528E                                                                                                                                                                                                                                                       |
| 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 |
|           | 1 x M.2 Key E 2230 (PCIex1, USB2.0) for WIFI                           |
|           | 1 x M.2 Key M 2280 (PCI-e x4) slot for storage                         |
|           | 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", 4:3                       |
| Display Type             | XGA                            |
| Resolution               | 1024 x 768                     |
| Pixel pitch              | 0.297mm(H) x 0.297mm(V)        |
| Luminance                | 500 cd/m2                      |
| Contrast ratio           | 2500                           |
| Viewing angle            | 88 (U), 88 (D), 88 (L), 88 (R) |
| Response time            | 16 ms                          |
| Backlight                | LED                            |
| Touch Type               | 5 wires resistive              |
| Touch Light Transmission | 80%                            |
| Touch Controller         | Onboard USB touch (PenMount)   |

| External I/O |                                        |
|--------------|----------------------------------------|
| USB Port     | 3 x USB3.2, 1 x USB2.0, 1 x USB Type C |
| 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)      | 350.51 x 274.51 x 54.5mm                                                                  |
| 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<br>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       | Silver aluminum                                                                           |
| Construction - Rear        | Black die casting                                                                         |
| Component                  |                                                                                           |
| Adapter                    | Input: 100 ~ 240Vac/ 50 ~ 60Hz<br>Output: 72W adapter (19V @ 3.78A adapter) AC-DC adapter |

Ordering Information

ARC-1542-100-A1R  
 15" 1024x768 Industrial Touch Panel PC, ErP Design, Resistive Touch(ALC888S)  
 13th Gen Core™ 3 processor 100UL (10M Cache, up to 4.50  
 GHz)/2GLAN/1COM/4USB/TypeC/SPK/12~24V input/12V Adapter

ARC-1542-120-A1R  
 15" 1024x768 Industrial Touch Panel PC, ErP Design, Resistive Touch(ALC888S)  
 13th Gen Core™ 5 processor 120UL (12M Cache, up to 4.60  
 GHz)/2GLAN/1COM/4USB/TypeC/SPK/12~24V input/12V Adapter

ARC-1542-160-A1R  
 15" 1024x768 Industrial Touch Panel PC, ErP Design, Resistive Touch(ALC888S)  
 13th Gen Core™ 7 processor 160UL (12M Cache, up to 5.20  
 GHz)/2GLAN/1COM/4USB/TypeC/SPK/12~24V input/12V Adapter

Optional IET Module list:

ACC-ARC-USB-01R  
 4 x USB 3.0 IET module for ARC-1535/38

ACC-ARC-AUDIO-01R  
 HDMI + 5.1 CH audio IET module for ARC-1535/38

ACC-ARC-MPCIE-02R  
 HDMI + MPCIE w/SIM IET module for ARC-1535/38

ACC-ARC-COM-01R  
 2 x Isolated RS-232 IET module for ARC-1535/38

ACC-ARC-COM-02R  
 3 x RS-232 IET module for ARC-1535/38

ACC-ARC-COM-03R  
 2 x RS-232 + USB IET module for ARC-1535/38

ACC-ARC-COM-04R  
 2 x RS-232 + LAN IET module for ARC-1535/38

ACC-ARC-GPIO-01R  
 12-bit GPIO + 2-pin CAN bus IET module for ARC-1535/38

ACC-ARC-OBDDII-01R  
 OBDDII - CAN bus IET module for ARC-1535/38 (OBDDII/EOBD for small vehicle)

ACC-ARC-OBDDII-02R  
 OBDDII - CAN bus IET module for ARC-1535/38 (J1939J1708 for large vehicle)

ACC-ARC-OBDDII-03R  
 OBDDII - CAN bus IET module for ARC-1535/38 (ISO15765-4 for special large vehicle)

E1702031833R  
 USA Power Cord

E1702031000R  
 EU Power Cord

E1702031834R  
 Japan Power Cord

E1702031830R  
 UK Power Cord

E1702031831R  
 Australia Power Cord