

# ARC-1037

10.4" Intel® Processor N97 Fanless Rugged Touch Panel PC with IET Expansion



## Features

- 10.4" XGA LCD with 5-wire resistive touch
- Intel® Processor N97
- 1 x 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 16GB max (non ECC only)
- 2 x LAN (2.5GbE), 2 x COM, 2 x USB3.2
- 1 x USB type C (w/ PD (20V/3A input), USB3.2 (Gen2x1, 10Gbps, 5V/3A output), display function)
- Available expansion for audio, USB, COM, HDMI, PCIe, GPIO, CAN bus
- 2 x M.2 slots (Key-B 2242/3042/3052 with SIM slot1, Key-E 2230)
- Wi-Fi / BT / 4G / 5G (by option)
- Rugged design for vibration & shock protection
- Wide range DC power input +12 ~ 24Vdc
- Service window for storage and memory module
- IP65 compliant front panel, IP41 rear box



+12V ~ +24V



Resistive



Fanless



0°C ~ 50°C



Front IP65  
Rear IP41

## Specifications

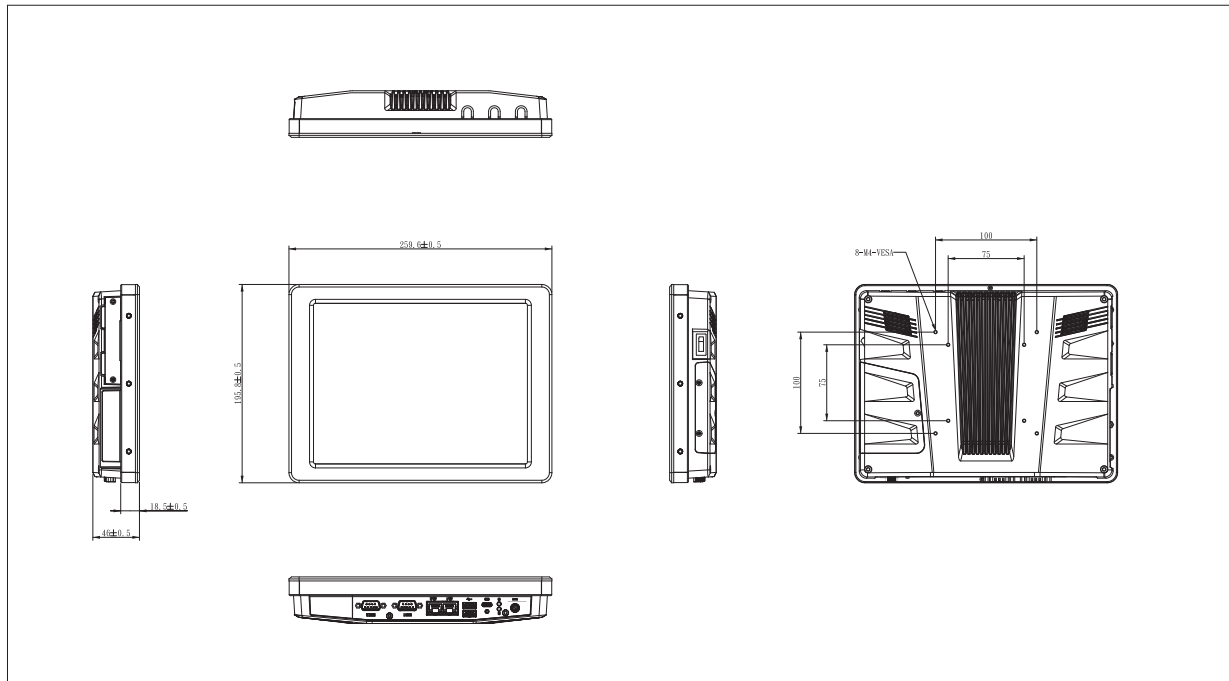
| System Information        |                                                                                                                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                 | Intel® Processor N97, 6M Cache, up to 3.6 GHz                                                                                                                                                                                          |
| System Memory             | 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 16GB max (non ECC only)                                                                                                                                                            |
| Watchdog Timer            | H/W reset, 1sec. ~ 65535sec                                                                                                                                                                                                            |
| H/W Status Monitor        | Monitoring CPU & system temperature monitoring and voltages monitoring                                                                                                                                                                 |
| TPM                       | TPM 2.0 (by default)                                                                                                                                                                                                                   |
| SBC                       | ARC-ADLN                                                                                                                                                                                                                               |
| CPU Cooler (Type)         | Fanless heatsink                                                                                                                                                                                                                       |
| Expansion                 |                                                                                                                                                                                                                                        |
| Expansion                 | 1 x M.2 (Key-B, 2242/3042/3052, SATAIII, USB3.2 Gen1x1 (default, 5Gbp/s) or PCIe1 (via OEM BIOS request), USB2.0, SIM slot for LTE cards (*not support PCIe2 device)<br>1 x M.2 (Key-E, 2230, PCIe1, USB2.0); 1 x 80-pin IET interface |
| Storage                   |                                                                                                                                                                                                                                        |
| Storage                   | 1 x 2.5" Drive bay (7mm HDD restricted)                                                                                                                                                                                                |
| HDD/ SSD                  | 1 x SATA3                                                                                                                                                                                                                              |
| Other Storage Device      | 1 x M.2 Key-B 2242/3042/3052 for M.2 SATAIII SSD                                                                                                                                                                                       |
| Audio                     |                                                                                                                                                                                                                                        |
| Audio Codec               | Realtek ALC888S                                                                                                                                                                                                                        |
| Speaker Output            | 2 x 2W                                                                                                                                                                                                                                 |
| Ethernet                  |                                                                                                                                                                                                                                        |
| LAN Chipset               | 2 x Intel® I226IT 2.5 Gigabit Ethernet                                                                                                                                                                                                 |
| Ethernet Interface        | 10/100/1000/2.5G Base-Tx GbE compatible                                                                                                                                                                                                |
| Power Requirement         |                                                                                                                                                                                                                                        |
| DC Input                  | +12V ~ +24V                                                                                                                                                                                                                            |
| DC Input Connector        | Lockable DC Jack (default), 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 B / UKCA / VCCI                                                                                                                                                                                                         |
| System Control            |                                                                                                                                                                                                                                        |
| LED Indicator             | HDD LED, power LED                                                                                                                                                                                                                     |
| Component                 |                                                                                                                                                                                                                                        |
| Adapter                   | Input: 100 ~ 240Vac/ 50 ~ 60Hz<br>Output: 72W adapter (19V @ 3.78A adapter) AC-DC adapter                                                                                                                                              |

| Panel                      |                                                                                                                                                                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LCD Size, Display Type     | 10.4" 4:3, XGA                                                                                                                                                                                                                         |
| Resolution                 | 1024 x 768                                                                                                                                                                                                                             |
| Pixel Pitch                | 0.0685mm (H) x 0.2055mm (V)                                                                                                                                                                                                            |
| Luminance                  | 500 cd/m²                                                                                                                                                                                                                              |
| Contrast Ratio             | 1200                                                                                                                                                                                                                                   |
| Viewing Angle              | 88 (U), 88 (D), 88 (L), 88 (R)                                                                                                                                                                                                         |
| Response Time              | 25 ms                                                                                                                                                                                                                                  |
| Backlight                  | LED                                                                                                                                                                                                                                    |
| Touch Type                 | 5 wires resistive                                                                                                                                                                                                                      |
| Touch Light Transmission   | 80 %                                                                                                                                                                                                                                   |
| Touch Controller           | Onboard USB touch (penmount)                                                                                                                                                                                                           |
| External I/O               |                                                                                                                                                                                                                                        |
| USB                        | 2 x USB3.2 (1 x double deck, type A);<br>1 x USB type C (w/ PD (20V/3A input), USB3.2 (Gen2x1, 10Gbps, 5V/3A output), display function)                                                                                                |
| LAN Port                   | 2 x RJ-45                                                                                                                                                                                                                              |
| COM Port                   | 1 x RS-232/422/485, 1 x RS-232                                                                                                                                                                                                         |
| Internal I/O               |                                                                                                                                                                                                                                        |
| Expansion                  | 1 x M.2 (Key-B, 2242/3042/3052, SATAIII, USB3.2 Gen1x1 (default, 5Gbp/s) or PCIe1 (via OEM BIOS request), USB2.0, SIM slot for LTE cards (*Not support PCIe2 device)<br>1 x M.2 (Key-E, 2230, PCIe1, USB2.0); 1 x 80-pin IET interface |
| DIO                        | 12-bit GPIO + 2-pin CAN bus (by ARC-BYT DB-E)                                                                                                                                                                                          |
| Other                      | 3 x Knockouts for antenna mounting                                                                                                                                                                                                     |
| Mechanical & Environmental |                                                                                                                                                                                                                                        |
| Operating Temp.            | 0°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)      | 259.6 x 195.8 x 46mm                                                                                                                                                                                                                   |
| Weight                     | 2.3 Kg                                                                                                                                                                                                                                 |
| Vibration Test             | With SSD/mSATA : 2.24Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1hr/axis                                                                                                                                                                 |
| Shock Test                 | Operating with SSD/CFast/mSATA : 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                                                                                                                                                                                         |
| Power Mode                 | AT/ATX (ATX is default)                                                                                                                                                                                                                |
| Construction               | Silver aluminum (Front), Black die casting (Rear)                                                                                                                                                                                      |

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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-1037-N97-A1R | Resistive  | N97       | 262-pin DDR5<br>4800MHz<br>SO-DIMM | 1 x 2.5" Drive bay<br>(7mm HDD<br>restricted) | 1024 x 768 | 500       | 2   | 3   | 2   | +12V ~ +24V | 0°C ~ 50°C      | Win10 / Win11 /<br>Linux |

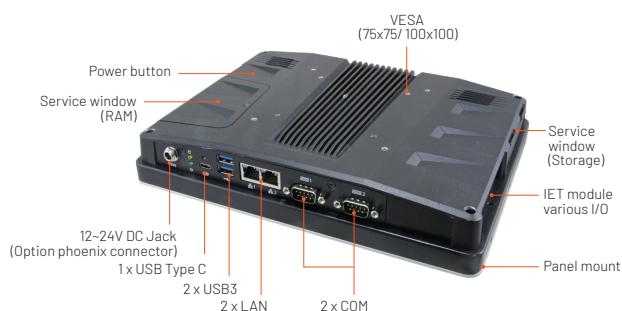
## Packing List

| Item                               | P/N              | Quantity |
|------------------------------------|------------------|----------|
| AC/DC adapter 19V/3.78A Screw Type | ACC-ADP-072N-02R | 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        |

## Optional Items

| Item                                                                         | P/N              |
|------------------------------------------------------------------------------|------------------|
| 4 x USB 3.0 Kit for ARC Series                                               | ACC-ARC-USB-1R   |
| HDMI + 5.1 CH Audio Kit for ARC Series                                       | ACC-ARC-AUDIO-1R |
| HDMI + MPCIE w/SIM Kit for ARC Series                                        | ACC-ARC-MPCIE-1R |
| 2 x Isolated RS-232 Kit for ARC Series                                       | ACC-ARC-COM-1R   |
| 3 x RS-232 Kit for ARC Series                                                | ACC-ARC-COM-2R   |
| 2 x RS-232 + USB Kit for ARC Series                                          | ACC-ARC-COM-3R   |
| 2 x RS-232 + LAN Kit for ARC Series                                          | ACC-ARC-COM-4R   |
| 12-bit GPIO + 2-pin CAN Bus Kit for ARC Series                               | ACC-ARC-GPIO-1R  |
| OBDII - CAN Bus Kit for ARC Series<br>(OBDII/E0BD for Small Vehicle)         | ACC-ARC-OBDII-1R |
| OBDII - CAN Bus Kit for ARC Series<br>(J1939/J1708 for Large Vehicle)        | ACC-ARC-OBDII-2R |
| OBDII - CAN Bus Kit for ARC Series<br>(ISO15765-4 for Special Large Vehicle) | ACC-ARC-OBDII-3R |
| USA Power Cord                                                               | E1702031835R     |
| EU Power Cord                                                                | E170203183DR     |
| Japan Power Cord                                                             | E170203183BR     |
| UK Power Cord                                                                | E170203183ER     |
| Australia Power Cord                                                         | E1702031800R     |

## I/O Overview



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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