

# ARC-1239-B

**12.1" Intel® Processor N97/ X7433RE /N150  
Fanless Rugged Touch Panel PC with IET  
Expansion**



## Product Features

- 12.1" XGA LCD with Projective capacitive multi-touch
- 1 x 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 16GB max (non ECC only)
- 1 x USB type C (w/ PD(20V/3A input), USB3.2(Gen2x1, 10Gbps, 5V/3A output), display function)
- 2 x M.2 slots (Key-B 2242/3042/3052 with SIM slot1, Key-E 2230)
- Rugged design for vibration & shock protection
- Wide range DC power input +12 ~ 24Vdc
- IP65 compliant front panel, IP41 rear box
- Intel® Processor N97/ X7433RE /N150 (Option Core i3-N305/ i3-N355)
- 2 x LAN (2.5GbE), 2 x COM, 2 x USB3.2
- Available expansion for audio, USB, COM, HDMI, MPCle, GPIO, CAN bus
- Wi-Fi / BT / 4G / 5G (by option)
- Fanless operation
- Service window for storage and memory module
- TPM2.0

## Specification

### System Information

|                           |                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Processor</b>          | Intel® Alder Lake-N N97, 6M Cache, up to 3.6 GHz, 12W<br>Intel® Amston Lake X7433RE, 6M Cache, up to 3.40 GHz, 9W<br>Intel® Twin Lake N150, 6M Cache, 0.8 GHz up to 3.60 GHz, 6W |
| <b>System Memory</b>      | 1x 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 16GB max (non ECC only)                                                                                                   |
| <b>Watchdog Timer</b>     | H/W reset, 1sec. ~ 65535sec                                                                                                                                                      |
| <b>H/W Status Monitor</b> | Monitoring CPU & system temperature monitoring and voltages monitoring                                                                                                           |
| <b>TPM</b>                | TPM 2.0 (by default)                                                                                                                                                             |
| <b>SBC</b>                | ARC-ASL                                                                                                                                                                          |
| <b>CPU Cooler (Type)</b>  | 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<br>(*not support PCIe2 device)<br>1 x M.2 (Key-E, 2230, PCIe1, USB2.0)<br>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)<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 / UKCA |
|---------------------------|-------------------------|

## Panel

|              |                           |
|--------------|---------------------------|
| LCD Size     | 12.1", 4:3                |
| Display Type | XGA                       |
| Resolution   | 1024 x 768                |
| Pixel pitch  | 0.240mm (H) x 0.240mm (V) |

|                          |                                                   |
|--------------------------|---------------------------------------------------|
| Luminance                | 600 cd/m2                                         |
| Contrast ratio           | 1000                                              |
| Viewing angle            | 89 (U), 89 (D), 89 (L), 89 (R)                    |
| Response time            | 13 ms                                             |
| Backlight                | LED                                               |
| Touch Type               | Projective capacitive multi-touch up to 10 points |
| Touch Light Transmission | 89%                                               |
| Touch Controller         | USB touch (EETI)                                  |

## External I/O

|          |                                                                                                                                      |
|----------|--------------------------------------------------------------------------------------------------------------------------------------|
| USB Port | 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<br>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 PCIe1x1(via OEM BIOS request), USB2.0, SIM slot for LTE cards<br>(*Not support PCIe2 device)<br>1 x M.2 (Key-E, 2230, PCIe1, USB2.0)<br>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                                                                                                                                                                                                           |

## 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) | 292.86 x 225.4 x 51.5mm                                                  |
| Weight                | 2.54 Kg                                                                  |
| Vibration Test        | With SSD/M.2 SSD : 2Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 30mins/axis |

|                             |                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------|
| <b>Shock Test</b>           | Operating with SSD/CFast/mSATA : MIL-STD-810G, method 516.6, procedure I, functional shock=20G |
| <b>Drop Test</b>            | ISTA 2A, IEC-60068-2-32 Test:Ed                                                                |
| <b>IP Rating</b>            | Front panel IP65<br>Back cover IP41                                                            |
| <b>Mounting Kit</b>         | Wall / Stand / VESA 75mm x 75mm, 100mm x 100mm                                                 |
| <b>Power Mode</b>           | AT/ATX (ATX is default)                                                                        |
| <b>System Fan</b>           | Fanless                                                                                        |
| <b>Construction - Front</b> | Die casting with cover lens                                                                    |
| <b>Construction - Rear</b>  | Black die casting                                                                              |

## Component

|                |                                                                                           |
|----------------|-------------------------------------------------------------------------------------------|
| <b>Adapter</b> | Input: 100 ~ 240Vac/ 50 ~ 60Hz<br>Output: 72W adapter (19V @ 3.78A adapter) AC-DC adapter |
|----------------|-------------------------------------------------------------------------------------------|

## Ordering Information

ARC-1239-150-B1R

12.1" 1024x768 600nits Industrial Touch Panel PC, ErP Design,  
PCAP Multi TouchIntel Processor N150 0.8 GHz up to 3.60 GHz CPU/2GLAN/2COM/2USB3/USB  
typeC/SPK/12~24V input/72W Adapter

ARC-1239-355-B1R

12.1" 1024x768 600nits Industrial Touch Panel PC, ErP Design, PCAP Multi Touch

Intel Processor i3-N355, 3.90 GHz CPU/2GLAN/2COM/2USB3/USB typeC/SPK/12~24V  
input/72W Adapter

ACC-ARC-USB-1R

4 x USB 3.0 Kit for ARC Series

ACC-ARC-AUDIO-1R

HDMI + 5.1 CH Audio Kit for ARC Series

ACC-ARC-MPCIE-1R

HDMI + MPCIE w/SIM Kit for ARC Series

ACC-ARC-COM-1R

2 x Isolated RS-232 Kit for ARC Series

ACC-ARC-COM-2R

3 x RS-232 Kit for ARC Series

ACC-ARC-COM-3R

2 x RS-232 + USB Kit for ARC Series

ACC-ARC-COM-4R

2 x RS-232 + LAN Kit for ARC Series

ACC-ARC-GPIO-1R

12-bit GPIO + 2-pin CAN Bus Kit for ARC Series

ACC-ARC-OBDII-1R

OBDII - CAN Bus Kit for ARC Series (OBDII/EOBD for Small Vehicle)

ACC-ARC-OBDII-2R

OBDII - CAN Bus Kit for ARC Series (J1939J1708 for Large Vehicle)

ACC-ARC-OBDII-3R

OBDII - CAN Bus Kit for ARC Series (ISO15765-4 for Special Large Vehicle)

E1702031835R

USA Power Cord

E170203183DR

EU Power Cord

E170203183BR

Japan Power Cord

E170P060370R

UK Power Cord

E170P060392R

Australia Power Cord