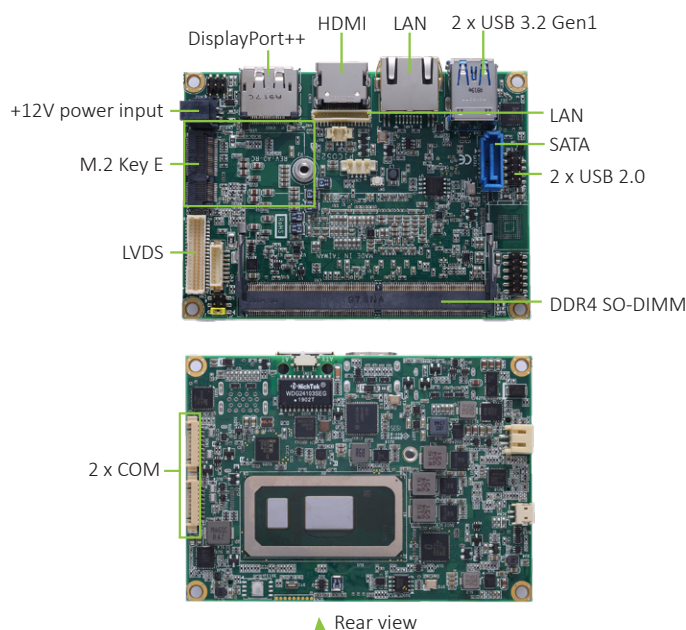


# PIC052R

Pico-ITX SBC with 8th Gen Intel® Core™ i7/i5/i3 & Celeron® Processor, DisplayPort++, HDMI, LVDS, and 2 GbE LAN



## Features

- 8th gen Intel® Core™ i7/i5/i3 and Celeron® processor
- 1 DDR4 SO-DIMM for up to 32GB of memory
- 2 USB 2.0 and 2 USB 3.2 Gen1
- 2 GbE LAN
- M.2 Key E
- Supports Intel® AMT 11



▲ APC201

## Specifications

### Core System

|                     |                                                                                                                                                                                                                                                                      |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | 8th gen Intel® Core™ i7/i5/i3 and Celeron® processor onboard                                                                                                                                                                                                         |
| System Memory       | 1 x 260-pin DDR4-2400 SO-DIMM, up to 32GB                                                                                                                                                                                                                            |
| Chipset             | N/A                                                                                                                                                                                                                                                                  |
| BIOS                | AMI                                                                                                                                                                                                                                                                  |
| SSD                 | 64GB/128GB eMMC (optional)                                                                                                                                                                                                                                           |
| Watchdog Timer      | 65536 levels, 0 to 65535 sec.                                                                                                                                                                                                                                        |
| Expansion Interface | 1 x M.2 Key E 2230 (PCIe x1/USB 2.0)                                                                                                                                                                                                                                 |
| Battery Lithium     | Lithium 3V/220 mAh                                                                                                                                                                                                                                                   |
| Power Input         | 2 x 2-pin +12V DC-in connectors with AT auto power on                                                                                                                                                                                                                |
| Power Requirements  | Intel® Core™ i7-8665UE @1.7 GHz 16GB DDR4, min. RMS. +12V@2.9A<br>Intel® Core™ i5-8365UE @1.6 GHz 16GB DDR4, min. RMS. +12V@2.7A<br>Intel® Core™ i3-8145UE @2.2 GHz 16GB DDR4, min. RMS. +12V@2.3A<br>Intel® Celeron® 4305UE @2.0 GHz 16GB DDR4, min. RMS. +12V@2.0A |

### Display

|                   |                                                                              |
|-------------------|------------------------------------------------------------------------------|
| Chipset           | Intel® HD Graphics                                                           |
| Memory Size       | Shared system memory                                                         |
| Display Interface | 1 x DisplayPort++<br>1 x HDMI 1.4<br>1 x LVDS; 18/24-bit single/dual channel |

### I/O

|                     |                                                                                                                                                                                  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SATA                | 1 x SATA-3                                                                                                                                                                       |
| Hardware Monitoring | Detect CPU/system temperature, voltage and fan speed                                                                                                                             |
| Ethernet            | 1 x 10/100/1000 Mbps Ethernet with Intel® I219-LM supporting Wake-on-LAN, PXE Boot ROM<br>1 x 10/100/1000 Mbps Ethernet with Intel® I210-AT supporting Wake-on-LAN, PXE Boot ROM |
| Audio               | N/A                                                                                                                                                                              |
| USB                 | 2 x USB 2.0<br>2 x USB 3.2 Gen1                                                                                                                                                  |
| Serial              | 2 x RS-232/422/485                                                                                                                                                               |
| TPM                 | N/A                                                                                                                                                                              |
| SMBus               | Yes; compatible with I²C                                                                                                                                                         |
| Digital I/O         | 4-channel in/out programmable                                                                                                                                                    |

#### Mechanical and Environmental

|                       |                                              |
|-----------------------|----------------------------------------------|
| Dimensions            | 100 x 72 mm                                  |
| Board Thickness       | 1.6 mm                                       |
| Operating Temperature | -20°C to +60°C (-4°F to 140°F)               |
| Humidity              | 10% to 95% relative humidity, non-condensing |

## Packing List

#### Accessories

|              |                                      |
|--------------|--------------------------------------|
| 8593A241000E | AX93A24, RJ-45 I/O board             |
| 594H52R2700E | LAN cable, P=2.0, L=200 mm           |
| 591000014500 | Power cable, L=100mm                 |
| 59406308010E | SATA cable, L=150mm                  |
| 59429070600E | SATA power cable 2P, P=2.0, L=200 mm |

## APC201, Industrial Chassis

|                                       |                                                                                     |
|---------------------------------------|-------------------------------------------------------------------------------------|
| SBC Option                            | PICO52RHPGG-i3-8145UE w/fan                                                         |
| I/O                                   | 1 x GbE LAN<br>2 x USB 3.2 Gen2<br>1 x DisplayPort++<br>1 x HDMI<br>1 x 12V DC Jack |
| Dimensions<br>(with wall mount ear)   | 152.5 mm (6") (W) x 107.5 mm (4.23") (D) x 50mm (1.97") (H)                         |
| Operating Temperature                 | -10°C to +50°C (+14°F to +122°F)                                                    |
| APC201-i3-8145UE<br>(P/N: E27P201100) | APC201 w/i3-8145UE, 8GB RAM, 64GB eMMC and 12V/60W adapter                          |

## Ordering Information

#### Standard

|                                                 |                                                                                    |
|-------------------------------------------------|------------------------------------------------------------------------------------|
| PICO52RHPGG-i7-8665UE<br>(P/N: E38H52R100)      | Pico-ITX SBC with Intel® Core™ i7-8665UE, DisplayPort++, HDMI, LVDS, and 2 GbE LAN |
| PICO52RHPGG-i5-8365UE<br>(P/N: E38H52R101)      | Pico-ITX SBC with Intel® Core™ i5-8365UE, DisplayPort++, HDMI, LVDS, and 2 GbE LAN |
| PICO52RHPGG-i3-8145UE<br>(P/N: E38H52R102)      | Pico-ITX SBC with Intel® Core™ i3-8145UE, DisplayPort++, HDMI, LVDS, and 2 GbE LAN |
| PICO52RHPGG-Celeron-4305UE<br>(P/N: E38H52R103) | Pico-ITX SBC with Intel® Celeron® 4305UE, DisplayPort++, HDMI, LVDS, and 2 GbE LAN |

#### Optional

|                                                       |                                                                                         |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|
| PICO52RHPGG-i7-8665UE W/FAN<br>(P/N: E38H52R107)      | Pico-ITX SBC with Intel® Core™ i7-8665UE, DisplayPort++, HDMI, LVDS, 2 GbE LAN, and fan |
| PICO52RHPGG-i5-8365UE W/FAN<br>(P/N: E38H52R108)      | Pico-ITX SBC with Intel® Core™ i5-8365UE, DisplayPort++, HDMI, LVDS, 2 GbE LAN, and fan |
| PICO52RHPGG-i3-8145UE W/FAN<br>(P/N: E38H52R109)      | Pico-ITX SBC with Intel® Core™ i3-8145UE, DisplayPort++, HDMI, LVDS, 2 GbE LAN, and fan |
| PICO52RHPGG-CELERON-4305UE W/FAN<br>(P/N: E38H52R110) | Pico-ITX SBC with Intel® Celeron® 4305UE, DisplayPort++, HDMI, LVDS, 2 GbE LAN, and fan |
| 7128H51R000E                                          | Heatspreader                                                                            |
| 590000086600                                          | DC power cable for adapter, L=180 mm                                                    |
| 50966124050E                                          | Adapter 12V 60W FSP060-DHAN3 with screw                                                 |
| 59380880250E                                          | COM port cable DB9--9x1P, P=125 mm, L=250 mm                                            |
| 594H51R2810E                                          | USB cable 2 x 5P-cut P9 P2.0/2 x USB-4P, L=180 mm                                       |
| 594H3186800E                                          | Buzzer cable 9 x 5.5 mm 2-pin, L=40mm                                                   |