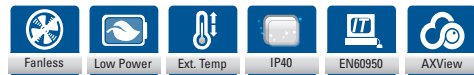


# ICO310

Robust DIN-rail Fanless Embedded System with Intel® Celeron® Processor N3060/N3160, 2 COM, 4 USB, 2 GbE LANs (1 PoE PD), DIO and RTC

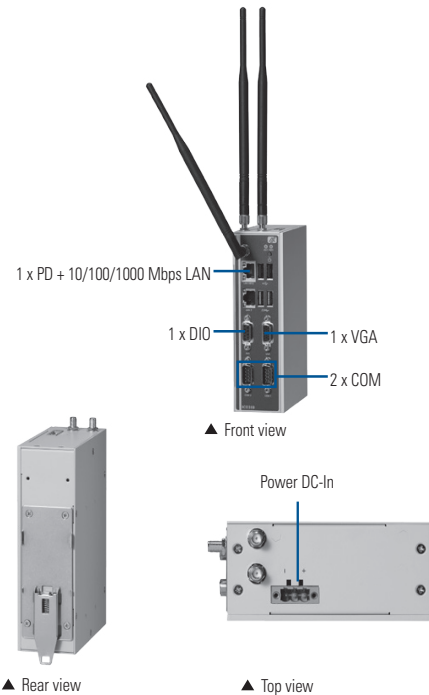
## Features

- Fanless design
- Intel® Celeron® processor N3060 (1.6 GHz/2-core) or N3160 (1.6 GHz/4-core)
- 2 RS-232/422/485 ports
- 4 USB ports
- 2 isolated 10/100/1000 Mbps Ethernet ports
- 1 PoE PD compliant with IEEE 802.3at standard through LAN 1
- 1 DIO port
- Supports wireless (3G/GPRS & Wi-Fi)
- 1 mSATA & SATA SSD (or HDD)
- 12-24 VDC wide range power input



## Specifications

|                   |                                                                            |                                                                                                                                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Color    | White                                                                      |                                                                                                                                                                                                                                                  |
| Construction      | Extruded aluminum and heavy-duty steel, IP40                               |                                                                                                                                                                                                                                                  |
| CPU               | Intel® Celeron® processor N3060 (1.6 GHz/2-core) or N3160 (1.6 GHz/4-core) |                                                                                                                                                                                                                                                  |
| System Board      | SBC87887                                                                   |                                                                                                                                                                                                                                                  |
| System Memory     | 1 x DDR3L-1600 SO-DIMM, up to 8GB                                          |                                                                                                                                                                                                                                                  |
| BIOS              | AMI UEFI BIOS                                                              |                                                                                                                                                                                                                                                  |
| System I/O Outlet | Serial Port                                                                | 2 x RS-232/422/485 (COM 1/2) with DB9 connectors<br>Interface select by BIOS<br>Supports Auto Flow Control in RS-485 mode                                                                                                                        |
|                   | USB                                                                        | 2 x USB 3.0<br>2 x USB 2.0                                                                                                                                                                                                                       |
|                   | RTC                                                                        | Battery onboard                                                                                                                                                                                                                                  |
|                   | Storage                                                                    | 1 x mSATA<br>1 x SATA SSD (or HDD)                                                                                                                                                                                                               |
|                   | LAN                                                                        | 2 x 10/100/1000 Mbps Ethernet (Intel® i211AT)<br>1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (IC0310-N3060-PD-DC, IC0310-N3160-PD-DC)                                                                                          |
|                   | Power Input                                                                | DC terminal block: 12-24V DC-In<br>PoE: IEEE 802.3at                                                                                                                                                                                             |
|                   | Display                                                                    | VGA                                                                                                                                                                                                                                              |
|                   | Wireless                                                                   | 2 x full-size PCI Express Mini Card slots<br>1 x SIM socket<br>3 x Antenna<br>(PS: one of Mini Card slots co-lay mSATA, supports either mSATA or full size PCI Express Mini Card)                                                                |
|                   | DIO                                                                        | 1 x DIO<br>- DB9 8-bit programming connector<br>- The voltage of TTL is 5V.<br>- Without isolation function<br>- The programming is as follow:<br>1. I/O sink current is 8~10mA (Output drive current ±50 mA)<br>2. Input/Output can programming |



|                            |                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Watchdog Timer             | 255 levels, 1~255 sec.                                                                                                                                                                    |
| System Indicator           | Power, active, COMs (TX/RX)                                                                                                                                                               |
| Power Supply               | Power Input Range: 12-24 VDC                                                                                                                                                              |
|                            | Power Input Rating: 12-24 VDC, 2.09-1.09A                                                                                                                                                 |
|                            | Power Protection: DC Version<br>OVP, Reverse protection                                                                                                                                   |
| Operating Temperature      | -20°C ~ +60°C (-4°F ~ +140°F)<br>*The frequency of CPU will down when system operating temperature over 55°C (ICO310-N3060, ICO310-N3060-PD, ICO310-N3160) or over 50°C (ICO310-N3160-PD) |
| Humidity                   | 10% ~ 95%                                                                                                                                                                                 |
| Vibration Endurance        | 2G @ 5 ~ 500Hz, amplitude 0.35 mm (operation/storage/transport)                                                                                                                           |
| Weight                     | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)                                                                                                                                                          |
| Certificate                | CE, FCC                                                                                                                                                                                   |
| Dimensions                 | 48 mm (1.88") (W) x 110 mm (4.33") (D) x 155 mm (6.1") (H)                                                                                                                                |
| Mounting                   | DIN-rail, wall mount                                                                                                                                                                      |
| OS Support                 | Windows® 7 Embedded<br>Windows® 8 Embedded<br>Windows® 8, Windows® 10<br>Linux support package                                                                                            |
| Remote Management Software | AXView 2.0<br>Intelligent Remote Management Solution for IoT                                                                                                                              |

\* mSATA and wireless can be either one.

## Ordering Information

| Standard           |                                                                                                                                               |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| IC0310-N3060-DC    | Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3060 (1.6 GHz/2-core), 2 COM, 2 GbE LANs (-20°C ~ +60°C)              |
| IC0310-N3060-PD-DC | Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3060 (1.6 GHz/2-core), 2 COM, 1 GbE LAN, 1 PoE PD+LAN (-20°C ~ +60°C) |
| IC0310-N3160-DC    | Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3160 (1.6 GHz/4-core), 4 COM, 2 GbE LANs (-20°C ~ +60°C)              |
| IC0310-N3160-PD-DC | Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3160 (1.6 GHz/4-core), 2 COM, 1 GbE LAN, 1 PoE PD+LAN (-20°C ~ +60°C) |

### Optional

2.5" SATA SSD or HDD (with W.T. SSD or HDD)

mSATA 16GB ~ 512GB (with W.T. mSATA)

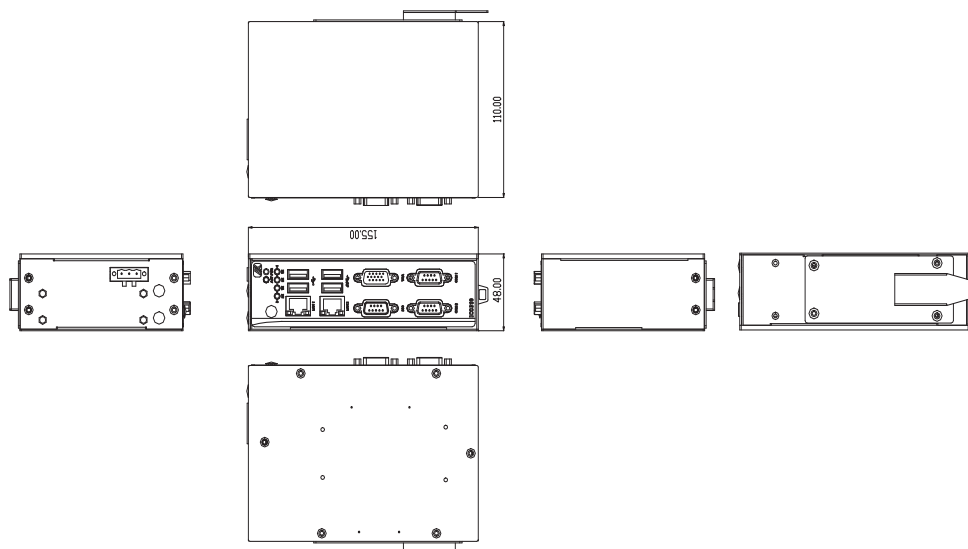
DDR3L SO-DIMM 2GB ~ 8GB (with W.T. memory)

Wall mount kit

Wireless (3G/GPRS or Wi-Fi) module

\*Specifications and certifications are based on options and may vary.

## Dimensions



## 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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