

ICO310

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

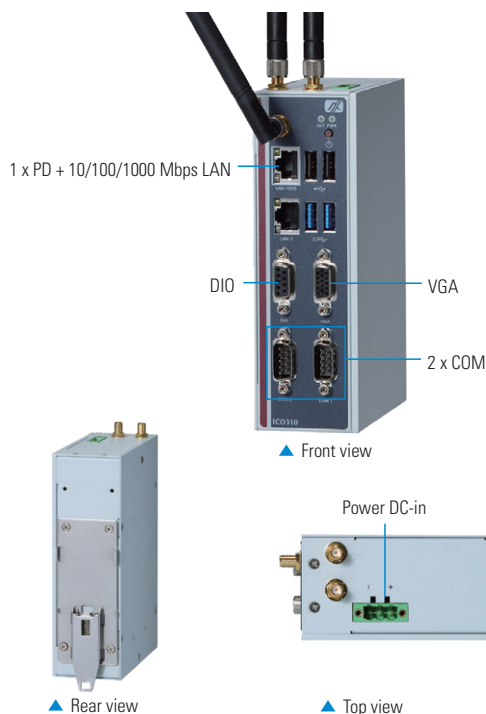
Features

- Cost-effective with fanless and cableless design
- Intel® Celeron® processor 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
- 2 PCI Express Mini Card slots (3G/GPRS & Wi-Fi)
- 1 mSATA & SATA SSD (or HDD)
- 12 to 24 VDC wide range power input
- eAPI intelligent remote monitoring software for IIoT



Specifications

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|-------------------|---|--------|---|-----|----------------------------|-----|-----------------|---------|------------------------------------|-----|--|-------------|---|---------|----------------------|----------|---|-----|--|
| Standard Color | Silver | | | | | | | | | | | | | | | | | | |
| Construction | Extruded aluminum and heavy-duty steel, IP40 | | | | | | | | | | | | | | | | | | |
| CPU | Intel® Celeron® processor 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 | <table border="0"> <tr> <td>Serial</td> <td>2 x RS-232/422/485 with DB9 connector interface selected by BIOS Supports Auto Flow Control in RS-485 mode</td> </tr> <tr> <td>USB</td> <td>2 x USB 3.0 2 x USB 2.0</td> </tr> <tr> <td>RTC</td> <td>Battery onboard</td> </tr> <tr> <td>Storage</td> <td>1 x mSATA 1 x SATA SSD (or HDD)</td> </tr> <tr> <td>LAN</td> <td>2 x 10/100/1000 Mbps Ethernet (Intel® I210-IT) 1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (ICO310-N3160-PD-DC)</td> </tr> <tr> <td>Power Input</td> <td>DC terminal block: 12 to 24V DC-In PoE: IEEE 802.3at</td> </tr> <tr> <td>Display</td> <td>VGA (DB15 connector)</td> </tr> <tr> <td>Wireless</td> <td>1 x Full-size PCI Express Mini Card slot 1 x Full-size PCI Express Mini Card slot with mSATA 1 x SIM card socket 3 x Antenna</td> </tr> <tr> <td>DIO</td> <td>1 x DIO - DB9 8-bit programming connector - The voltage of TTL is 5V - Without isolation function - The programming is as follow: 1. I/O sink current is 8 to 10mA (output drive current ±50 mA) 2. Input/output can programming</td> </tr> </table> | Serial | 2 x RS-232/422/485 with DB9 connector interface selected by BIOS Supports Auto Flow Control in RS-485 mode | USB | 2 x USB 3.0 2 x USB 2.0 | RTC | Battery onboard | Storage | 1 x mSATA 1 x SATA SSD (or HDD) | LAN | 2 x 10/100/1000 Mbps Ethernet (Intel® I210-IT) 1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (ICO310-N3160-PD-DC) | Power Input | DC terminal block: 12 to 24V DC-In PoE: IEEE 802.3at | Display | VGA (DB15 connector) | Wireless | 1 x Full-size PCI Express Mini Card slot 1 x Full-size PCI Express Mini Card slot with mSATA 1 x SIM card socket 3 x Antenna | DIO | 1 x DIO - DB9 8-bit programming connector - The voltage of TTL is 5V - Without isolation function - The programming is as follow: 1. I/O sink current is 8 to 10mA (output drive current ±50 mA) 2. Input/output can programming |
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| USB | 2 x USB 3.0 2 x USB 2.0 | | | | | | | | | | | | | | | | | | |
| RTC | Battery onboard | | | | | | | | | | | | | | | | | | |
| Storage | 1 x mSATA 1 x SATA SSD (or HDD) | | | | | | | | | | | | | | | | | | |
| LAN | 2 x 10/100/1000 Mbps Ethernet (Intel® I210-IT) 1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (ICO310-N3160-PD-DC) | | | | | | | | | | | | | | | | | | |
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| Watchdog Timer | 255 levels, 1 to 255 sec. | | | | | | | | | | | | | | | | | | |
| System Indicator | Power, active, COM (TX/RX) | | | | | | | | | | | | | | | | | | |



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|-----------------------|---|
| Power Supply | Power input range: 12 to 24 VDC Power input rating: 12 to 24 VDC, 2.09 to 1.09A Power protection: DC version OVP, reverse protection |
| Operating Temperature | -20°C to +60°C (-4°F to +140°F) *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% to 95% |
| Vibration Endurance | 2 Gms (5 to 500Hz, amplitude 0.35 mm; operation/storage/transport) |
| Weight (net/gross) | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb) |
| Certifications | 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® 10 IoT, Linux |
| Software Support | eAPI |

* mSATA and wireless can be either one.

Ordering Information

| Standard | |
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| IC0310-N3160-PB-DC (P/N: E22C310104) | Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3160 (1.6GHz/QC), 2 COM, 2 LAN, and DIO (-20°C to +60°C with power button) |
| IC0310-N3160-PB-PD-DC (P/N: E22C310105) | Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3160 (1.6GHz/QC), 2 COM, 2 LAN, PoE PD, and DIO (-20°C to +60°C with power button) |

Dimensions

