# IRU131 NEW

Robust RISC-based DIN-rail Fanless Embedded System with i.MX 6UL Processor, COM, LAN, DIO (2-in/2-out) and 2 Mini Card Slots

## Features

- RISC-based (i.MX 6UltraLite) processor 528 MHz
- 512MB DDR3 SDRAM onboard
- 8GB eMMC flash onboard
- 2 Mini Card slots (Wi-Fi, 3G/4G or LoRa)
- 9 ~ 48 VDC wide range power input with terminal block
- Embedded Linux operating system (Yocto)
- Wide operating temperature range from -40°C to +70°C

6 LED (for wireless and DIO status)
USB port
LAN port
COM port
DIO
Device ID

Console/COM switch
4 antenna hole
Power/UPS DI port
Micro SD Card socket
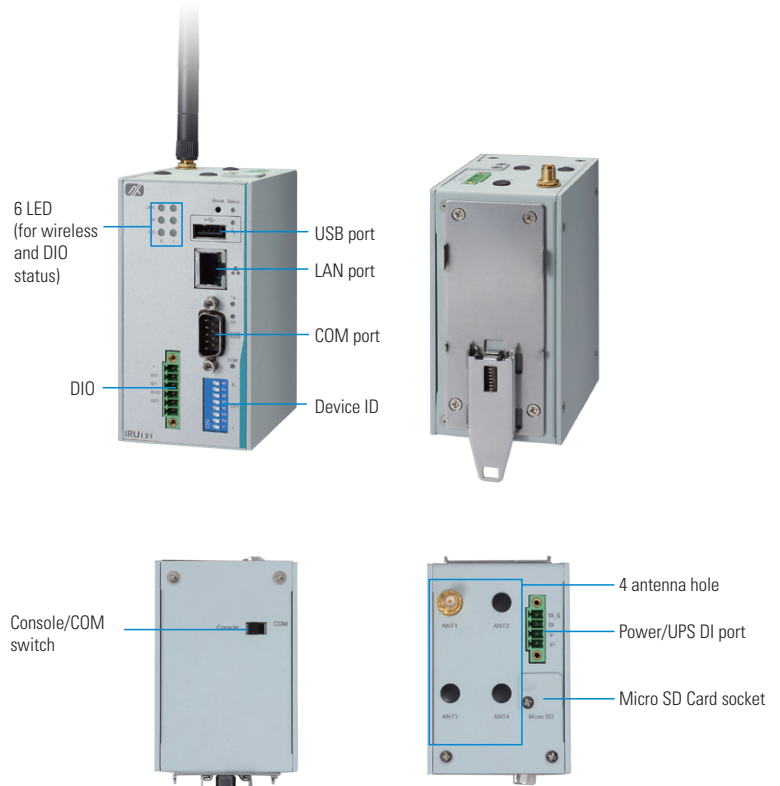
i.MX6 UL | Ext. Temp | IP40 | Fanless | Low Power

## Introduction

The IRU131 DIN-rail fanless embedded system utilizes a low power RISC based (i.MX6 UL) processor and is designed to withstand temperatures ranging from -40°C to +70°C for applications in extreme operating environment and industrial automation.

The IRU131 supports one RS-232/422/485 serial ports, one LAN port, two digital input channels, two digital output channels and two wireless sockets. Its vertical DIN-rail form factor makes it easy to install the system in a small cabinet. The ready-to-run IRU131 is specially designed for remote control/ monitoring management applications ideal in a unmanned control room, an industrial machine, an automatic parking lot, a traffic cabinet, just to name a few.

## Specifications

| Construction | Extruded aluminum and heavy-duty steel, IP40 | |
|---|---|---|
| CPU | NXP i.MX 6 UL processor, ARM® Cortex®-A7 @ 528 MHz | |
| System Memory | 1 x DDR3-1600 onboard, 512 MB | |
| System I/O Outlet | Serial Port | 1 x RS-232/422/485<br>Magnetic isolation protection 2KV |
| | LAN | 1 x 10/100 Mbps Ethernet<br>Magnetic isolation protection 1.5KV |
| | USB | 1 x USB 2.0 |
| | DIO | 1 x DIO (2-in/2-out) with isolation 2KV<br>Di: Wet/Dry<br>DO : Wet<br>DI:<br>Input channels: 2 source type<br>Input voltage: 0 to 30 VDC digital input levels for dry contacts:<br>-Logic level 0: close to GND<br>-Logic level 1: open<br>Digital input levels for wet contacts:<br>-Logic level 0: +10V to +24V (DI to COM-)<br>-Logic level 1: +3V max.<br>DO:<br>Output channels: 2, sink type<br>Output current: max. 200 mA per channel<br>On-state voltage: 24VDC nominal, open collector to 30V<br>Optical isolation protection 2 KV |

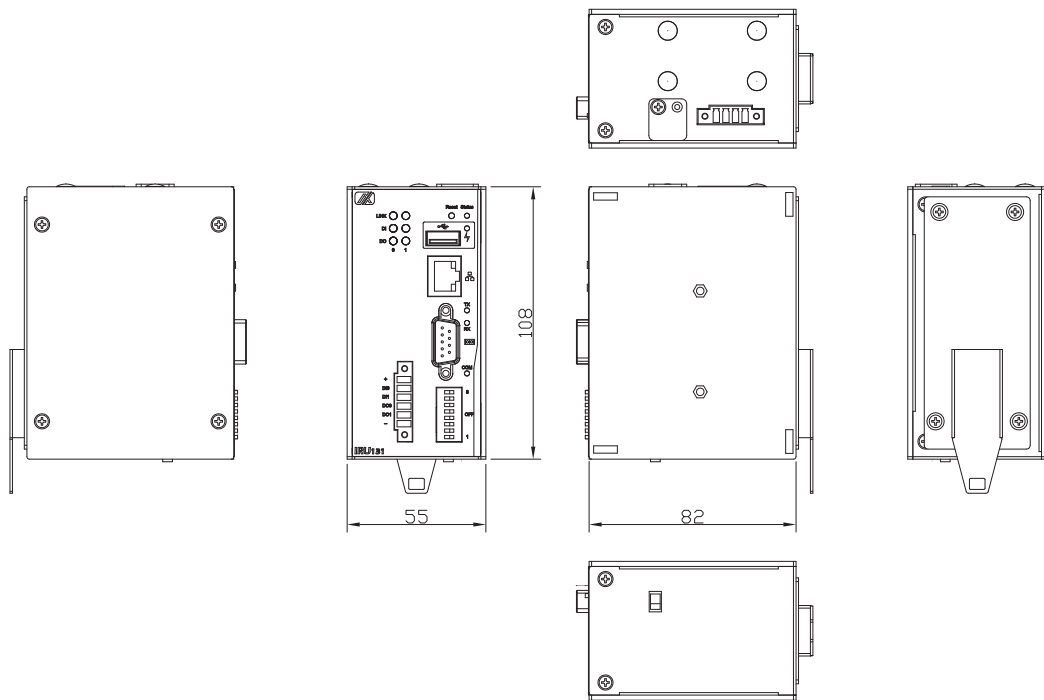| System I/O Outlet | Console Port | Yes<br>For user setting with debug |
|---|---|---|
| | EEPROM | 1 x EEPROM (2 Kb) |
| | Device ID | ID setting  0 ~ 255 |
| | Wireless | 2 x Mini Card slot<br>1 x SIM Card socket |
| Watchdog Timer | WDT 1: 0.5 to 128 sec. with a time resolution of 0.5 sec. | |
| RTC | Yes ( RTC battery on board) | |
| LEDs | 2 x LED for dual wireless status<br>2 x LED for DI status<br>2 x LED for DO status | |
| Storage | 1 x eMMC 8GB flash onboard | |
| Power Supply | 9 ~ 48 VDC power input range | |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) | |
| Storage Temperature | -45°C ~ +85°C (-49°F ~ +185°F) | |
| Humidity | 10% ~ 95% | |
| Vibration Endurance | 2 Gms @ (10 ~ 150Hz sine wave; operation) | |
| Dimensions | 55 mm (2.16") (W) x 82 (3.23") mm (D) x 108 (4.25") (H) | |
| Weight (net/gross) | 0.3 kg (0.66 lb)/0.50 kg (1.10 lb) | |
| Installation | DIN-rail | |
| Certificate | FCC Part 15<br>Heavy Industrial CE | |

## Ordering Information

### Optional

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

## Dimensions