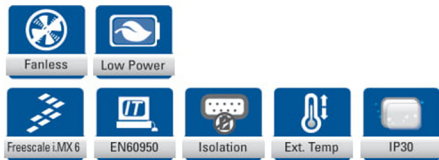


rBOX630

Robust RISC-based DIN-rail Fanless Embedded System with i.MX 6 Processor, 4 COM, 2 CAN Bus and DIO

Features

- Fanless design
- RISC-based module (i.MX 6) processor
- 1GB DDR3 SDRAM onboard
- 8GB eMMC on board
- Completed industrial AP development software
- 12~48 VDC wide range power input with terminal block
- Ready-to-run embedded Linux operating system
- Wide operating temperature range from -40°C to +70°C



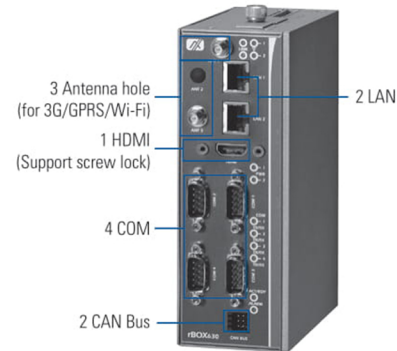
Introduction

The rBOX630 cost-effective DIN-rail fanless embedded system utilizes the low power RISC-based module (i.MX 6) processor and is designed to withstand temperatures ranging from -40°C to +70°C for using in harsh environment and industrial automation applications.

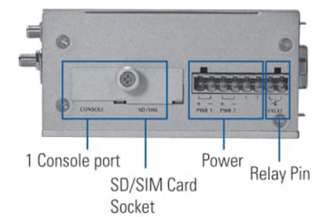
The rBOX630 features 4 RS-232/422/485 serial ports, dual LANs, 8 digital input channels, 8 digital output channels, 2 CAN bus and 1 eMMC onboard 8 GB & 1 x SDHC socket for storage expansion (easy to access) in a compact, IP30 protected, industrial-strength robust case. Two power paths input minimize the risk of data loss in the event of a single power failure. Its vertical DIN-rail form factor makes it easy to install the system in a small cabinet. Because of ARM's low power consumption architecture, rBOX630 generate little heat while being operated. The ready-to-run rBOX630 is specially designed for industrial machine, automatic parking lot, traffic cabinet and more.

Hardware Specifications

| | | |
|-------------------|--|---|
| Standard Color | Sliver-Black | |
| Construction | Extruded aluminum and heavy-duty steel, IP30 | |
| CPU | i.MX 6, Cortex-A9 RISC CPU, 800MHz | |
| System Board | Q7M120 | |
| System Memory | 1 x DDR3-1600 onboard, 1GB | |
| System I/O Outlet | Serial Port | 4 x RS-232/422/485 (COM 1-4) COM 1-4 with TX/RX/RTS/CTS signals RS-232/422/485 interface select by software |
| | LAN | 1 x 10/100/1000 Mbps Ethernet 1 x 10/100 Mbps Ethernet Magnetic isolation protection 1.5 KV |



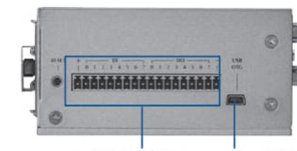
▲ Front view



▲ Easy-to-access interface



▲ Rear view



▲ Easy-to-access interface

| System I/O Outlet | System I/O Outlet | System I/O Outlet |
|-------------------|--|-------------------|
| HDMI | 1 x HDMI (Support screw lock) | |
| USB | 1 x USB 2.0 OTG | |
| CAN | 2 CAN 2.0 B (Phoenix connector, non-isolation) Meets ISO 11898 standard Software control termination resistor 120 ohm can high speed up to 1Mbit/s for transmit/receive | |
| DIO | 1 x DIO (8-in/ 8-out) with Isolation 2 KV DI: Wet/Dry DO: Wet DI: Input channels: 8, source type Input voltage: 0 to 30 VDC digital input levels for dry contacts: -Logic level 0: close to GND -Logic level 1: open Digital input levels for wet contacts : -Logic level 0: +10V to +24V (DI to COM-) -Logic level 1: +3V max. DO : Output channels: 8, sink type Output current: Max. 200 mA per channel On-state voltage: 24 VDC nominal, open collector to 30 V Optical isolation protection 2 KV | |
| Console Port | DB9 connector For user setting with debug | |
| RTC | Battery onboard Provides power for the internal real time clock & calendar Ideal for vibration environment & reduces maintenance efforts | |
| Alarm Contact | One relay output with current 0.5A@ 30 VDC | |

* All specifications and photos are subject to change without notice.

Hardware Specifications

| | | |
|-----------------------|---|--|
| System I/O Outlet | Wireless | 1 x Mini card socket (supports USB interface) with 1 x SIM Socket by outside access and is easy plug/pull. 1 x Mini card socket (supports USB&PCIE interface) with 1 x SIM Socket by inside |
| Watchdog Timer | WDT 1: one step is 1 sec, 255 levels | |
| LEDs | System | Power, Alarm, Ready/Active, COM (TX, RX), Wireless |
| | Alarm | DC PWR1 or PWR2 |
| Storage | 1 x eMMC 8 GB onboard (for boot disk) Supports 1 x SDHC Card (easy-to-access, for store only.) | |
| Installation | DIN-rail, wall mount | |
| Power Supply | Power Input | 2 power paths with terminal block |
| | Power Input Range | 12-48 VDC |
| | Power Input Rating | 12-48 VDC, 0.74-0.23A |
| | Power Protection | DC Version: OVP (Over voltage protection) UVP (Under voltage protection) Reverse protection |
| Operating Temperature | -40°C to +70°C (-40°F to +158°F) | |
| Humidity | 10% - 95% | |
| Vibration Endurance | 5G @ 10-150Hz, amplitude 0.35ms | |
| Weight (net/gross) | 0.9 kg (2 lb)/1.3kg (2.87 lb) | |
| Dimensions | 55 mm (2.16") (W) x 155 mm (6.10") (D) x 110 mm (4.33") (H) | |
| OS Linux | Linux | |
| | Host OS/ Development OS : Ubuntu 12.04 Yocto Dora LTS | |
| | Toolchain/ Cross compiler : Freescale Yocto | |
| | Kernel : 3.0.35 (with Freescale and Axiomtek hardware modified patch) | |
| Certificate | FCC Part 18 Heavy Industrial CE | |

Ordering Information

Standard

| | |
|--------------------------------------|---|
| rBOX630-8E-FL-DC (P/N:E26M630101) | Robust DIN-rail fanless embedded system with 07-RISC module (i.MX 6), 4 COM, 2 CAN and DIO (-40°C to +70°C) |
|--------------------------------------|---|

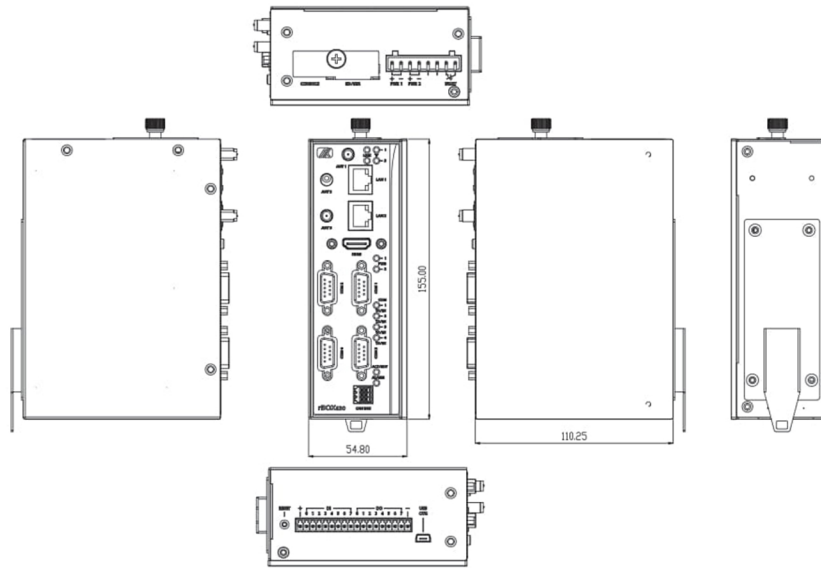
Optional

| | |
|-----------------------------------|----------------|
| 826M1000040E | Wall mount kit |
| Wireless (3G/GPS or Wi-Fi) module | |

Packing list

| |
|--|
| 1 x CD |
| 8 x Screws |
| 1 x Din-rail kit |
| 1 x Console cable |
| 1 x 6-pin terminal block for CANbus port |
| 1 x 8-pin terminal block for power port |
| 1 x 18-pin terminal block for DIO port |

Dimensions



* All specifications and photos are subject to change without notice.