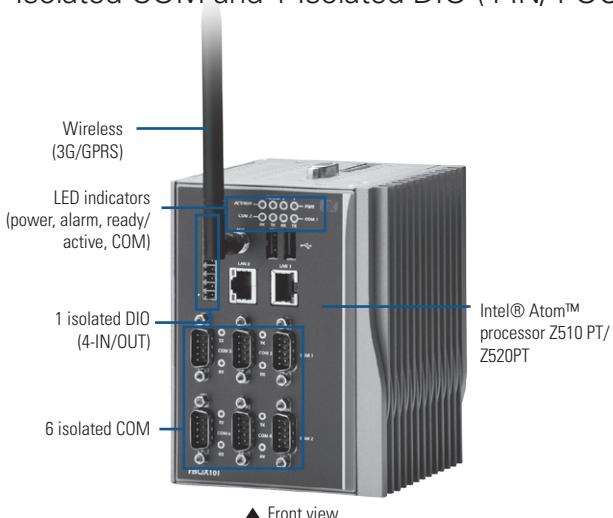


# rBOX101-6COM

Robust Din-rail Fanless Embedded System  
with Intel® Atom™ Processor Z510PT/  
Z520PT up to 1.33 GHz, Intel® US15WPT, 6  
Isolated COM and 1 Isolated DIO (4-IN/4-OUT)



▲ Front view



## Introduction

rBOX101-6COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX101-6COM is equipped with six isolated RS-232/422/485, one isolated 10/100/1000Mbps Ethernet & one isolated 10/100Mbps Ethernet and one isolated DIO port for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, rBOX101-6COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX101-6COM equipped with AXView monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Silver-Black   |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30             |   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz |   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB                 |   |
| System I/O Outlet | Serial Port  | 6 x Isolated RS-232/422/485 (COM 1~6)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 ~ COM 6 serial port speed up to 921.6kbps |
|                   | LAN  | 1 x 10/100/1000Mbps Ethernet<br>1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |
|                   | USB  | 2 x USB 2.0<br>USB power distribution control by software   |

## Features

- Fanless and cableless design
- Supports Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 6 isolated COM ports, 1 isolation DIO (4-IN/4-OUT)
- 2 isolated Ethernet ports
- 2 watchdog timer
- LED indicators
- 1 wireless (3G/GPRS)
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package



Din-rail kit ▲ Rear view

|                   |  |  |
|-------------------|--|--|
| System I/O Outlet | DIO  | 1 x DIO (4-IN/4-OUT)<br>DI :<br>Input channels : 4, source type<br>Input voltage : 0 to 30VDC<br>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 : 4, sink type<br>Output current: Max. 200 mA per channel<br>On-state voltage : 24VDC nominal,<br>open collector to 30V<br>Optical isolation protection 2 KV |
| VGA               | 1 x DB15 connector   |  |
| Power Input       | 2 x DC power input with terminal block   |  |
| Alarm Contact     | One relay output with current 0.5A @30VDC  |  |
| Wireless          | 1 x Mini Card (Full size, supports USB only)<br>1 x SIM socket onboard<br>Supports 3G/GPRS |  |
| Watchdog Timer    | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels      |  |
| LEDs              | System   | Power, Alarm, Ready/Active, COM (TXD,RXD)  |
|                   | Alarm  | DC PWR1 or PWR2 is lost (default)<br>User define event   |
| Storage           | Supports 1 x CompactFlash™<br>Supports 1 x SD card up to 32 GB (optional)                  |  |
| Installation      | Din-rail, wall mount   |  |

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

## Specifications

|                       |   |
|-----------------------|---|
| Power Supply          | 2 power paths<br>Power Input Range 12-48VDC<br>Power Input Rating 12-48VDC, 1.5-0.4A  |
| Power Protection      | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity              | 5% ~ 95%  |
| Weight (net/gross)    | 1.9 kg (4.18 lb) / 2.24 kg (4.93 lb)  |
| Dimensions            | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)  |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded  |
| ISO                   | Manufactured in an ISO9001 facility   |
| Safety Compliance     | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| EMI Compliance        | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS Compliance        | EN50121-4 (Railway application)<br>Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>ENG61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |

|                    |   |
|--------------------|---|
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft) |
|--------------------|---|

## Ordering Information

### Standard

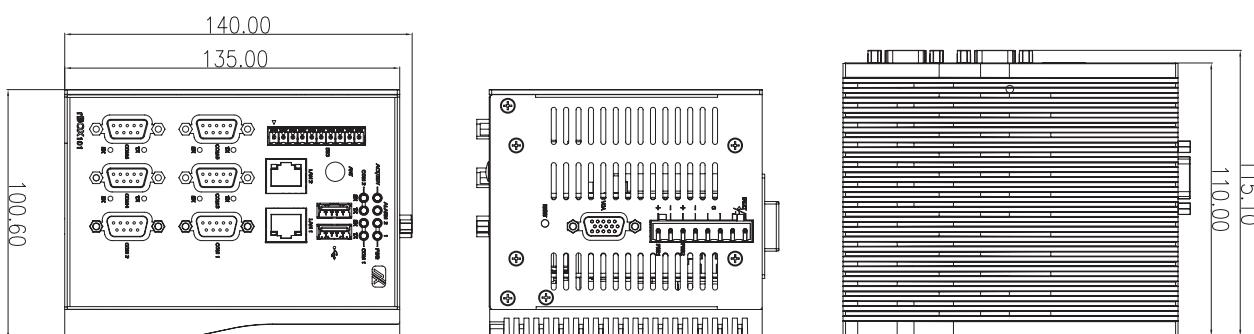
|                      |  |
|----------------------|--|
| rBOX101-6COM-FL1.1G  | Robust Din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 6 isolated COM ports (-40°C ~ +70°C)  |
| rBOX101-6COM-FL1.33G | Robust Din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 6 isolated COM ports (-40°C ~ +70°C) |

### Optional

|   |   |
|---|---|
| DDR2 SODIMM                               | 1 GB ~ 2 GB (with W.T. memory)  |
| DDR2 SODIMM                               | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C) |
| CompactFlash                              | 2 GB or above (with W.T. CF)  |
| Wall mount kit                            |   |
| Wireless (3G/GPRS) module for rBOX series |   |

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

## Dimensions





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

#### Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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