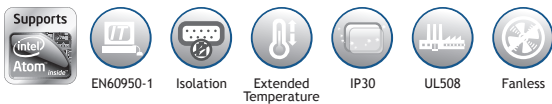
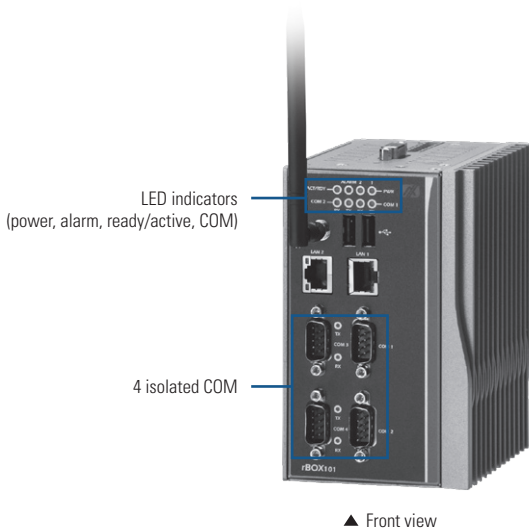


# rBOX101-4COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT Chipset and 4 Isolated COM



## Introduction

rBOX101-4COM 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 rBOX101-4COM is equipped with four isolated RS-232/422/485, one isolated 10/100/1000Mbps Ethernet & one isolated 10/100Mbps Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. Featuring IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, rBOX101-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX101-4COM equipped with AXView monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

Standard Color	Sliver-Black
Construction	Extruded aluminum and heavy-duty steel, IP30
CPU	Intel® Atom™ processor Z510 PT 1.1 GHz or Z520 PT 1.33 GHz
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB
System I/O Outlet	<p>Serial Port</p> <p>4 x RS-232/422/485 (COM 1~4) nterface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15 KV Magnetic isolation protection 2 KV COM 1 &amp; COM 2 speed up to 115.2kbps COM 3 &amp; COM 4 serial port speed up to 921.6kbps</p> <p>LAN</p> <p>1 x 10/100/1000Mbps Ethernet 1 x 10/100Mbps Ethernet Magnetic isolation protection 1.5 KV</p> <p>USB</p> <p>2 x USB2.0 USB power distribution control by software</p>

## Features

- Fanless and cableless design
- Supports Intel® Atom™ processor Z510 PT 1.1 GHz or Z520 PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated COM ports
- 2 isolated Ethernet
- 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



System I/O Outlet	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 MiniCard (Full size, supports USB only) 1 x SIM socket onboard Supports 3G/GPRS
Watchdog Timer	2 WDT	
	WDT 1 : one step is 1 sec, 255 levels 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) User define event
Storage	Supports 1 x CompactFlash™	
	1 x SD card up to 32 GB (optional)	
Installation	Din-rail, wall mount	
Power Supply	2 power paths	
	Power Input Range	12-48VDC
Power Protection	DC Version:	
	OVP (over voltage protection)	
	UVP (under voltage protection)	
	Reverse protection	
	Power	With no load on 2 USB ports:
	Consumption	1.05A @ 12V, 12.6W
	(COM port link up)	0.53A @ 24V, 12.72W
		0.36A @ 36V, 12.96W
		0.28A @ 48V, 13.44W
		With full load on 2 USB ports:
	1.48A @ 12V, 17.76W	
	0.74A @ 24V, 17.76W	
	0.50A @ 36V, 18W	
	0.38A @ 48V, 18.24W	
Operating Temperature	-40°C ~ +70°C (-40°C ~ +158°C)	
Storage Temperature	-45°C ~ +85°C (-49°C ~ +185°C)	
Humidity	5% ~ 95%	

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

## Specifications

Weight (net/gross)	1.38 kg (3 lb)/1.72 kg (3.78 lb)
Dimensions	81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)
EOS Support	XPE, WinCE, Linux, Windows® 7 Embedded
ISO	Manufactured in an ISO9001 facility
Safety Compliance	UL508, UL60950-1 Heavy Industrial CE, including: EN60950-1, IEC60950-1
EMI Compliance	FCC Part 18 Heavy Industrial CE, including: EN61000-6-4, EN61000-3-2, EN61000-3-3
EMS Compliance	EN50121-4 (Railway application) Heavy Industrial CE, including: EN61000-6-2 EN61000-4-2 (ESD standards) * Contact: +/- 6 KV; criteria B * Air: +/- 8 KV; criteria B EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000 MHz; 80% AM criteria A EN61000-4-4 (burst standards) * Signal ports: +/- 2 KV; criteria B * DC power ports: +/- 2 KV; criteria B EN61000-4-5 (surge standards) * Signal ports: +/- 1 KV; line-to-line; criteria B * DC power ports: +/- 0.5 KV; line-to-earth; criteria B EN61000-4-6 (induced RFI standards) * Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A * DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A EN61000-4-8 (magnetic field standards) * 30 A/m @ 50, 60 Hz; criteria A
Environmental Test Compliance	IEC60068-2-6 Fc (vibration resistance) 5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport) IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport) IEC60068-2-32 Ed (free fall) 1 M (3.281ft)

## Ordering Information

Standard	
rBOX101-4COM-FL1.1G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 4 isolated COM ports (-40°C ~ +70°C)
rBOX101-4COM-FL1.33G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 4 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.	

Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories

## Dimensions

