

# 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



Front view



Rear view



## Features

- Fanless operation
- Wide temperature operation of -40°C ~ +70°C
- Supports 4 isolated COM ports, 2 USB ports, VGA port
- Supports one isolated 10/100/1000Mbps & one isolated 10/100Mbps Ethernet
- SNMP V1/V2c
- Support one CompactFlash™
- Two power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package

## 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. Powered by 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	Power Consumption	With no load on 2 USB ports: (COM port link up) 1.05A @ 12V, 12.6W 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
Construction	Extruded aluminum and heavy-duty steel, IP30	Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F)
CPU	Intel® Atom™ processor Z510 PT (1.1 GHz) or Z520 PT (1.33 GHz)	Storage Temperature	-45°C ~ +85°C (-49°F ~ +185°F)
System Board	RM820	Humidity	5% ~ 95%
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB	Weight (net/gross)	1.38 kg (3 lb)/1.72 kg (3.78 lb)
System I/O Outlet	4 x isolated RS-232/422/485 (COM 1 ~ 4) 1 x isolated 10/100/1000Mbps Ethernet 1 x isolated 10/100Mbps Ethernet 2 x USB 2.0 1 x VGA 1 x DC power input with terminal block	Dimensions	81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)
Watchdog Timer	255 levels, 0 ~ 255 sec.	EOS Support	XPE, WinCE, Linux, Windows® 7
Storage	Supports 1 x CompactFlash™	ISO	Manufactured in an ISO9001 facility
Installation	Din-rail	Safety	UL508
Power Supply	2 power paths Power Input Range Power Protection	Compliance	UL60950-1 EN60950-1 IEC60950-1
	12-48VDC DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection	EMI Compliance	FCC part 15, class A EN61000-6-4 * EN55022 * EN61000-3-2 * EN61000-3-3

EMS Compliance	EN61000-6-2
	EN61000-4-2 (ESD standards) * Contact: +/- 6 KV; criteria B * Air: +/- 8 KV; criteria B
Environmental Test Compliance	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
	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-FL 1.1G	Fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz
rBOX101-4COM-FL 1.33G	Fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz
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™	1 GB or above (with W.T. CF)

\*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

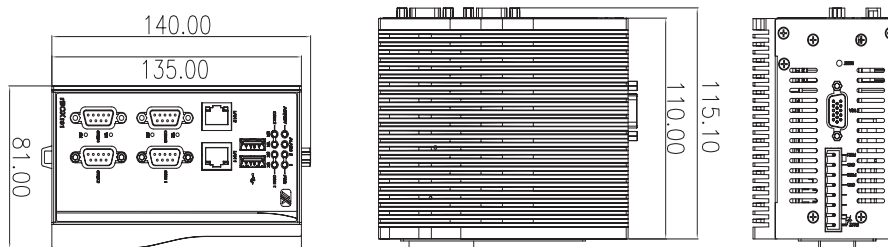
Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories

## Dimensions



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508

Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050

Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660