rBOX101-4COM
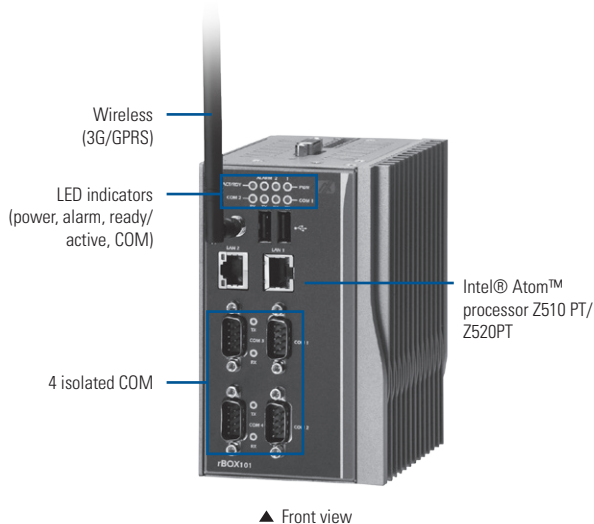
Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 4 Isolated COM

Wireless (3G/GPRS)

LED indicators (power, alarm, ready/ active, COM)

4 isolated COM

Intel® Atom™ processor Z510 PT/ Z520PT

▲ Front view

| Supports | Isolation | Ext. Temp | IP30 | UL508 | Fanless |

Introduction

The 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°Cfor 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, the 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 remote 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 heary-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	4 x Isolated RS-232/422/485 (COM 1~4) Interface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15 KV Magnetic isolation protection 2 KV COM 1 & COM 2 speed up to 115.2kbps COM 3 & COM 4 serial port speed up to 921.6kbps
	LAN	1 x 10/100/1000Mbps Ethernet 1 x 10/100Mbps Ethernet Magnetic isolation protection 1.5 KV
	USB	2 x USB 2.0 USB power distribution control by software

Features

- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated COM ports
- 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 remote monitoring software package

Din-rail kit   ▲ Rear view

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 Input Rating	12-48VDC, 1.5-0.4A
	Power Protection	DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F)	
Storage Temperature	-45°C ~ +85°C (-49°F ~ +185°F)	
Humidity	10% ~ 95%	
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 support package, Windows® 7 Embedded	
ISO	Manufactured in an ISO9001 facility	
Safety Compliance	UL508, UL60950-1 Heavy Industrial CE, including: EN60950-1, IEC60950-1	

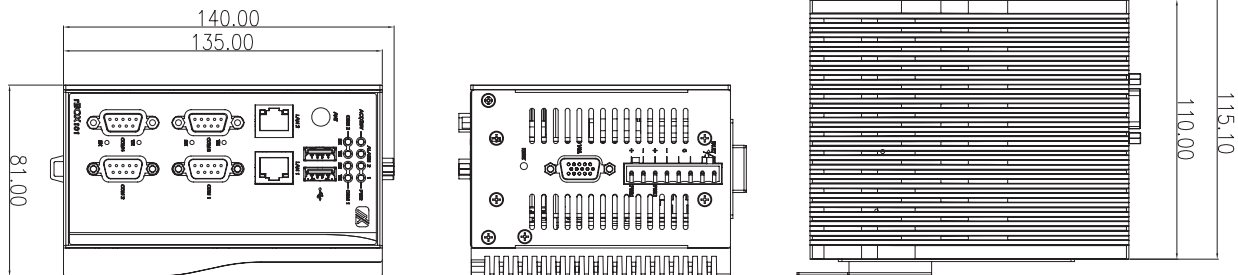## Specifications

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	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-DC	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-DC	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 SO-DIMM	1 GB ~ 2 GB (with W.T. memory)
DDR2 SO-DIMM	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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Axiomtek](#):
  [RBOX101-4COM-1.1G/DC](#) [rBOX101-4COM-FL1.1G-RC-DC](#) [rBOX101-4COM-FL1.3G-RC-DC](#)