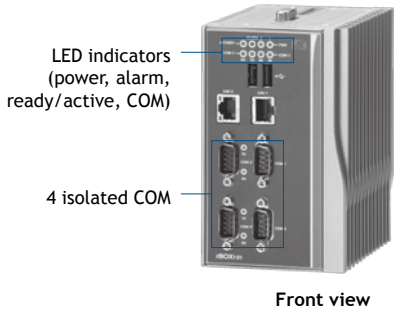
rBOX101-4COM

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 and cableless design
- Wide temperature operation of -40°C ~ +70°C
- Supports 4 isolated COM ports
- Supports 2 isolated Ethernet
- 2 watchdog timer
- LED indicators
- Optional 1 wireless (Wifi or 3G)
- SNMP V1/V2c
- Support one CompactFlash™, one SD card (potional)
- 2 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. 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 heary-duty steel, IP30	
CPU	Intel® Atom™ processor Z510 PT (1.1 GHz) or Z520 PT (1.33 GHz)	
System Board	RM820	
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB	
System I/O Outlet	Serial Port	4 x 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 USB2.0 USB power distribution control by software
	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 (upon request)	1 x Mini Card (supports USB only) 1 x SIM socket onboard
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 (option)

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 Consumption (COM port link up)	With no load on 2 USB ports: 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
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)	1.38 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	
ISO	Manufactured in an ISO9001 facility	
Safety Compliance	UL508 UL60950-1 EN60950-1 IEC60950-1	
EMI Compliance	FCC part 15, class A EN61000-6-4 * EN55022 * EN61000-3-2 * EN61000-3-3	

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

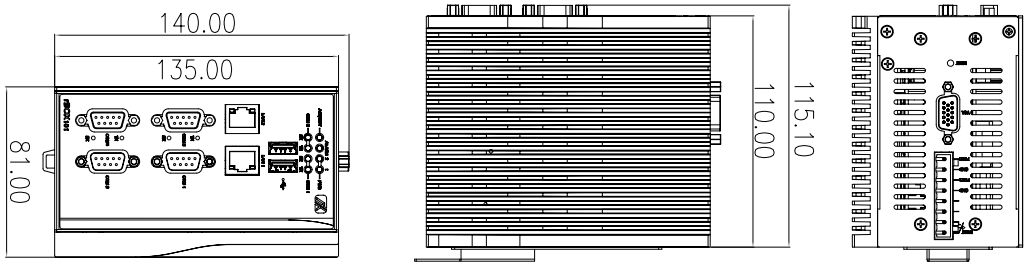
EMS Compliance	EN61000-6-2 EN61000-4-2 (ESD standards) * Contact: +/- 6 KV; criteria B * Air: +/- 8 KV; criteria B EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000 MHz; 80% AM criteria A EN61000-4-4 (burst standards) * Signal ports: +/- 2 KV; criteria B * DC power ports: +/- 2 KV; criteria B 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-FL 1.1G	Robust Din-rail fanless embedded system with Intel® Atom™ rocessor Z510PT 1.1 GHz and 4 isolated COM ports (-40˚C ~ +70˚C)
rBOX101-4COM-FL 1.33G	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™	1 GB or above (with W.T. CF)
Wall mount kit	
Wireless (wifi or 3G) upon request	

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

Dimensions



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