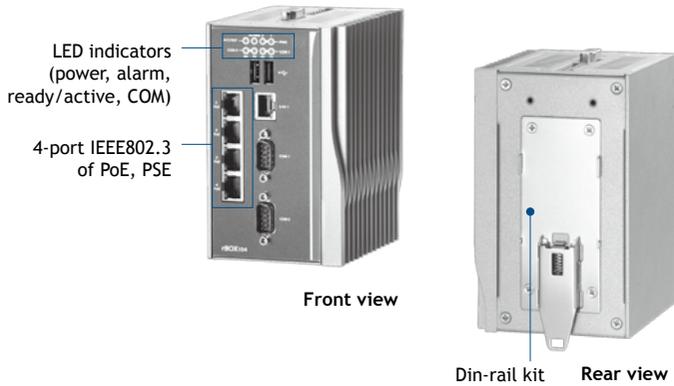


# rBOX104

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



## Features

- Fanless and cableless design
- Wide temperature operation of  $-40^{\circ}\text{C}$  -  $+70^{\circ}\text{C}$
- Supports 4-port IEEE802.3af Power over Ethernet (PoE) Power Sourcing Equipment (PSE)
- Supports 1 isolated 10/100/1000Mbps Ethernet
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 48VDC
- Supports AXView monitoring software package

## Introduction

rBOX104 Din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of  $-40^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  for use in extreme operating environments.

The fanless design increases reliability, extends MTTR, and ultimately reduces maintenance efforts. Front accessible I/O cabling is very convenient for wiring and maintenance. The rBOX104 Din-rail computer features a redundant Ethernet LAN connection for greater availability and reliability. Supporting Power-over-Ethernet on ports 1 to 4, the rBOX104 Din-rail computer can power IEEE802.3af compliant devices and transmit data simultaneously, which helps save wiring costs

and makes it ideally suited for outdoor applications such as PoE IP camera, PoE Access Point and intercoms. Two power paths input minimize the risk of data loss in the event of a single power failure. The rBOX104 Din-rail computer meets Safety Agency requirements and has passed heavy industrial EMI/EMS testing.

The ready-to-run rBOX104 equipped with AXView monitoring software is a total solution for intelligent transportation systems, power plant automation, intelligent transportation systems, facility monitoring systems, IP video surveillance, APs, intercoms, and more.

## Specifications

Standard Color	Sliver-Black	Storage	Supports 1 x CompactFlash™ Supports 1 x SD card up to 32 GB (optional)
Construction	Extruded aluminum and heavy-duty steel, IP30	Installation	Din-rail, wall mount
CPU	Intel® Atom™ processor Z510PT (1.1 GHz) or Z520PT (1.33 GHz)	Power Supply	2 power paths Power Input Range 48VDC Power Protection DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection Power Consumption With no load on 2 USB ports: (PoE port link up) 1.70A @ 48V, 81.6W With full load on 2 USB ports: 1.81A @ 48V, 86.88W
System Board	RM820	Operating Temperature	$-40^{\circ}\text{C}$ - $+70^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ - $+158^{\circ}\text{F}$ )
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB	Storage Temperature	$-45^{\circ}\text{C}$ - $+85^{\circ}\text{C}$ ( $-49^{\circ}\text{F}$ - $+185^{\circ}\text{F}$ )
System I/O Outlet	Serial Port 2 x RS-232/422/485 (COM 1/2) (isolated COM as option) Interface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15 KV Serial port speed up to 115.2kbps LAN 1 x 10/100/1000Mbps Ethernet Magnetic isolation protection 1.5 KV PoE 4 x PoE (IEEE802.3af) 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	Humidity	5% - 95%
Watchdog Timer	2 WDT WDT 1: one step is 1 sec, 255 levels WDT 2: one step is 250ms, 255 levels	Weight (net/gross)	1.38 kg (3 lb)/1.72 kg (3.78 lb)
LEDs	System Power, Alarm, Ready/Active, COM(TXD,RXD) Alarm DC PWR1 or PWR2 is lost (default) User define event (option)	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	EN60950-1, IEC60950-1
		Compliance	UL60950-1 UL508
		EMI	FCC part 15, class A EN61000-6-4 * EN55022 * EN61000-3-2 * EN61000-3-3

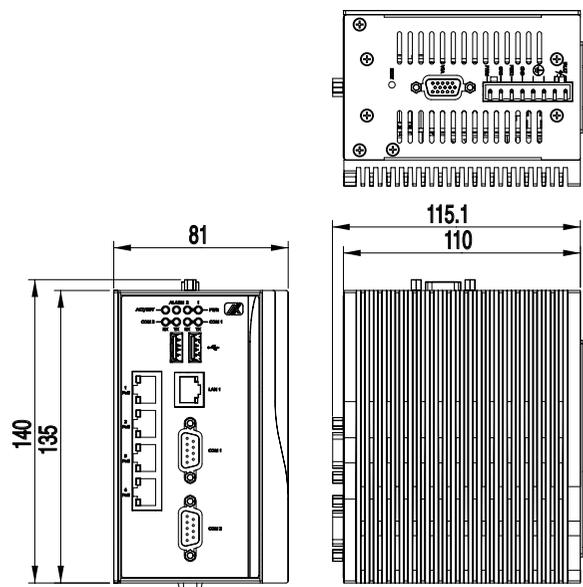
EMS	EN61000-6-2 EN61000-4-2 (ESD standards) * Contact: +/- 6 KV; criteria B * Air: +/- 8 KV; criteria B
	EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000 MHz; 80% AM criteria A
Environmental Test Compliance	EN61000-4-4 (burst standards) * Signal ports: +/- 2 KV; criteria B * DC power ports: +/- 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	
rBOX104-FL 1.1G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 4 PoE (-40°C - +70°C)
rBOX104-FL 1.33G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 4 PoE (-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	

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

## Dimensions



Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories