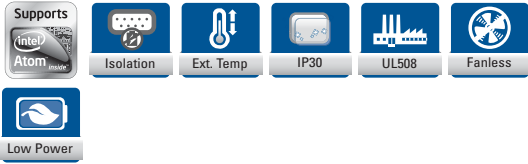
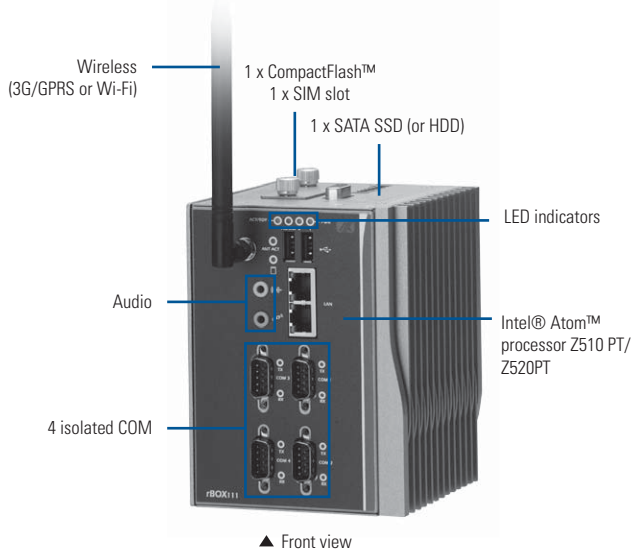


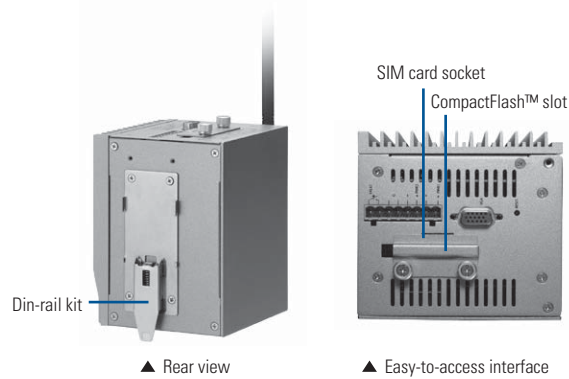
# rBOX111-4COM

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



## Features

- Fanless and cableless design
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated COM ports
- 2 isolated 10/100/1000Mbps Ethernet port
- Supports one x 2.5" SATA SSD (or HDD) & one x CompactFlash
- R&TTE wireless certification
- EN50121-4 compliance for railway application
- SNMP V1/V2c
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX111-4COM 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 rBOX111-4COM is equipped with 4 isolated RS-232/422/485, 2 isolated 10/100/1000Mbps Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. In addition, the RTC battery (battery onboard & gold-capacity onboard) reduces maintenance efforts and is ideally suited to vibration environment. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX111-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The rBOX111-4COM has passed heavy industrial CE and FCC part-18 testing and obtained R&TTE wireless certification, besides, also pre-test ok EN50121-4 to provide high operational reliability and stability.

The ready-to-run rBOX111-4COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

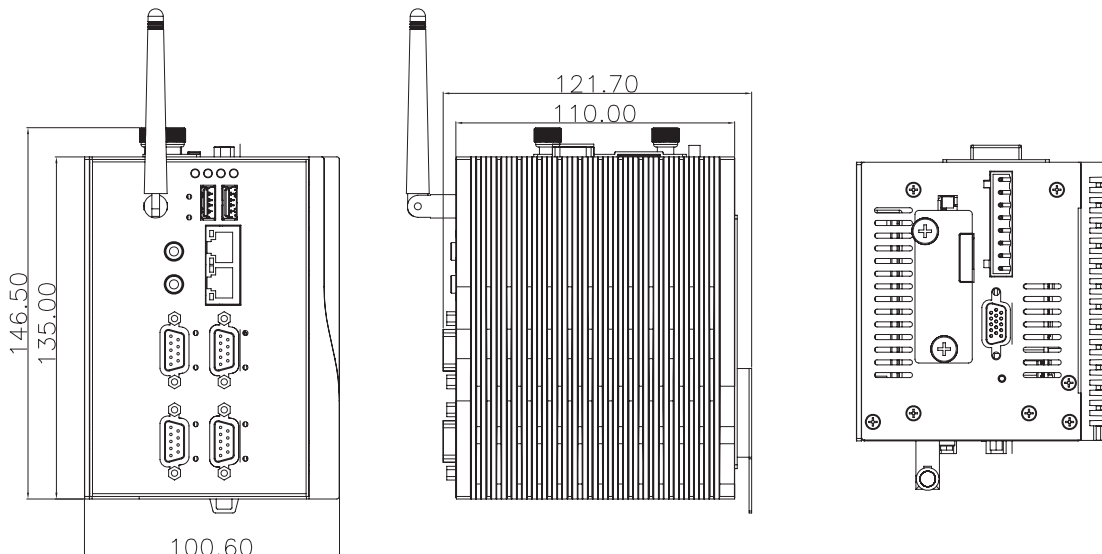
Standard Color	Sliver-Black
Construction	Extruded aluminum and heavy-duty steel, IP30
CPU	Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB
System I/O Outlet	Serial Port 4 x Isolated RS-232/422/485 (COM 1-4) Interface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15 KV Magnetic isolation protection 2KV COM 1 & COM 2 speed up to 115.2kbps COM 3 - COM 4 serial port speed up to 921.6kbps

System I/O Outlet	LAN	2 x 10/100/1000Mbps Ethernet Magnetic isolation protection 1.5 KV
	USB	2 x USB 2.0 USB power distribution control by software
	Audio	1 x Audio (Line-in/Line-out)
	RTC	Battery onboard & Gold capacity onboard (1st backup battery when power shut-down)
	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
Watchdog Timer	Wireless	1 x Mini Card - 3G/GPRS or Wi-Fi - Supports USB interface on 3G/GPRS - supports PCIe interface on Wi-Fi 1 x SIM socket (Easy-to-access)
	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 2.5" SATA SSD or HDD Supports 1 x CompactFlash™ (Easy-to-access) Supports 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, 1.99-0.52A

## Specifications

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)	1.5 kg (3.3 lb)/1.88 kg (1.14 lb)
Dimensions	100.6 mm (3.96") (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	Heavy Industrial CE, including: EN60950-1, IEC60950-1
Safety Compliance	UL60950-1, UL508
EMI	FCC Part 18 Heavy Industrial CE, including: EN61000-6-4, EN61000-3-2, EN61000-3-3
EMS Compliance	EN50121-4 (Railway application)
EMS	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

## Dimensions



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)
R&TTE Wireless Certificate	rBOX111 with PHS8-P 3G module obtain R&TTE Wireless Certification, including: ETSI EN 301 489-1 V1.9.2:2011-09 ETSI EN 301 489-7 V1.3.1:2005-11 ETSI EN 301 489-24 V1.5.1:2010-10 EN 55022:2010, Class B EN 61000-3-2:2006+A1:2009+A2:2009 and EN 61000-3-3:2008 EN 61000-4-2:2009 / EN 61000-4-3:2006+A1:2008+A2:2010 / EN 61000-4-4:2004:A1:2010 / EN 61000-4-6:2009 / EN 61000-4-5:2006 / EN 61000-4-11:2004 ETSI EN 301 511 V9.0.2:2003-03 TS 151 010-1 ETSI EN 301 908-1 V5.2.1:2011-05 ETSI EN 301 908-2 V5.2.1:2011-07

## Ordering Information

Standard	
rBOX111-4COM-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)
rBOX111-4COM-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 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)
2.5" SATA SSD or HDD	
Wall mount kit	
Wireless (3G/GPRS or Wi-Fi) module for rBOX series	

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

