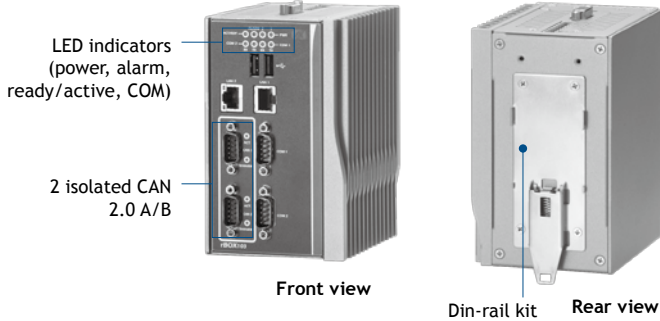


rBOX103

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



Features

- Fanless without internal cabling
- Wide temperature operation of -40°C ~ $+70^{\circ}\text{C}$
- Supports 2 isolated CAN
- Supports two isolated Ethernet
- 2 watchdog timer
- LED indicators
- Optional 1 wireless (Wifi or 3G)
- SNMP V1/V2c
- Support one CompactFlash™
- Two power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package

Introduction

rBOX103 Din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to $+70^{\circ}\text{C}$ for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact rBOX103 is equipped with two isolated CAN 2.0 A/B, two isolated Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. rBOX103 is powered by IP30 housing, wide operating

temperature range and Safety/EMI/EMS compliance. Besides, it is also specially designed for remote control/ monitoring management applications like automatic parking lot, traffic cabinet and more.

rBOX103 features rich expansion for communication such as CAN bus in-vehicle network. The ready-to-run rBOX103 equipped with AXView monitoring software is a total solution for facility monitoring systems, intelligent transportation systems, and more.

Specifications

Standard Color	Sliver-Black	LEDs	System	Power, Alarm, Ready/Active, COM (TXD, RXD), CAN (Act, Termination Indicator)
Construction	Extruded aluminum and heavy-duty steel, IP30		Alarm	DC PWR1 or PWR2 is lost (default) User define event (option)
CPU	Intel® Atom™ processor Z510 PT (1.1 GHz) or Z520 PT (1.33 GHz)	Storage	Supports 1 x CompactFlash™	
System Board	RM820	Installation	Din-rail, wall mount	
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB	Power Supply	2 power paths	
System I/O Outlet	Serial Port	Power Input Range	12-48VDC	
	2 x RS-232/422/485 (COM 1/2)	Power Protection	DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection	
	Interface select by software or BIOS	Power Consumption	With no load on 2 USB ports: (COM port link up) 0.99A @ 12V, 11.88W 0.5A @ 24V, 12W 0.34A @ 36V, 12.24W 0.26A @ 48V, 12.48W with full load on 2 USB ports: 1.4A @ 12V, 16.88W 0.7A @ 24V, 17W 0.47A @ 36V, 17.24W 0.36A @ 48V, 17.48W	
	Supports Auto Flow Control in RS-485 mode	Operating Temperature	-40°C ~ $+70^{\circ}\text{C}$ (-40°F ~ $+158^{\circ}\text{F}$)	
	ESD protection 15 KV	Storage Temperature	-45°C ~ $+85^{\circ}\text{C}$ (-49°F ~ $+185^{\circ}\text{F}$)	
	Serial port speed up to 115.2kbps	Humidity	5% ~ 95%	
	LAN	Weight (net/gross)	1.38 kg (3 lb)/1.72 kg (3.78 lb)	
	1 x 10/100/1000Mbps Ethernet	Dimensions	81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)	
	1 x 10/100Mbps Ethernet	EOS Support	XPE, WinCE, Linux, Windows® 7	
	Magnetic isolation protection 1.5 KV	ISO	Manufactured in an ISO9001 facility	
	USB	Safety	UL508	
	2 x USB2.0	Compliance	UL60950-1 EN60950-1 IEC60950-1	
	USB power distribution control by software			
	CAN			
	2 CAN 2.0 A/B (DB9 connector)			
	Meets ISO 11898 standard			
	Software control termination resistor 120 ohm			
	Magnetic isolation protection 2.5KV			
	Transmitter baud rate from 5kb/s to 1Mb/s			
	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			

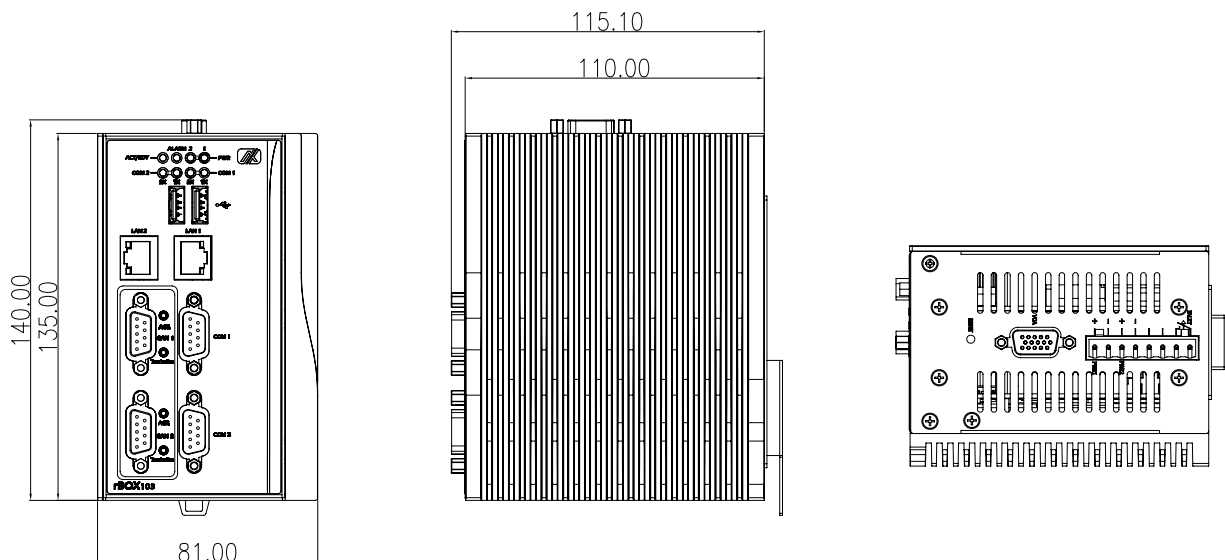
EMI Compliance	FCC part 15, class A
	EN61000-6-4 * EN55022 * EN61000-3-2 * EN61000-3-3
EMS Compliance	EN61000-6-2
	EN61000-4-2 (ESD standards)
	* Contact: +/- 6 KV; criteria B
	* Air: +/- 8 KV; criteria B
	EN61000-4-3 (radiated RFI standards)
	* 10V/m, 80 to 1000 MHz; 80% AM criteria A
	EN61000-4-4 (burst 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	
rBOX103-FL 1.1G	Fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz
rBOX103-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)
Wall mount kit	
Wireless (wifi or 3G) upon request	

*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