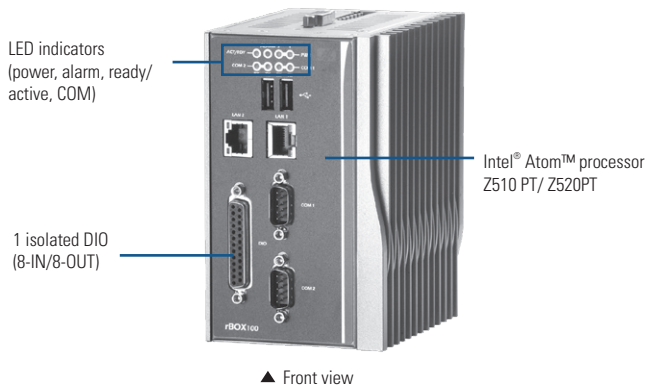


rBOX100

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT Chipset and 1 Isolated DIO (8-IN/8-OUT)



Introduction

rBOX100 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.

Its 8-IN/8-OUT DIO port provides users with the digital devices connection, and its redundant Ethernet connection provides greater availability and reliability. Two power paths input minimizes the risk of data loss in the event of a single power failure. Besides, rBOX100 is also specifically built for rugged work environments, has met Safety Agency requirements and passed heavy industrial EMI/EMS testing. The robust rBOX100 is specifically built for remote control/ monitoring management applications like unmanned control room, industrial machine, automatic parking lot, traffic cabinet and more.

The ready-to-run rBOX100 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 heavy-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	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 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
- Supports Intel® Atom™ processor Z510 PT 1.1 GHz or Z520 PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 1 isolated DIO (8-IN/8-OUT)
- 2 isolated Ethernet
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports 1 CompactFlash™, 1 SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package



System I/O Outlet	DIO	1 x DIO (8-IN/8-OUT) DI: Input range : 0-30 VDC Logic level 0 : +/- 3V max. Logic level 1 : +/- 10V min. (COM to DI) DO: Max. 200 mA per channel, current sink type 24VDC normal, open collector to 30V Optical isolation protection 3 KV	
	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	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™ 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 Protection	DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection	
	Power Consumption	With no load on 2 USB ports: 0.77A @ 12V, 9.24W 0.39A @ 24V, 9.36W 0.29A @ 36V, 10.44W 0.20A @ 48V, 9.6W	
		With full load on 2 USB ports: 1.25A @ 12V, 15W 0.62A @ 24V, 14.88W 0.42A @ 36V, 15.12W 0.32A @ 48V, 15.36W	

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

Specifications

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 Embedded
ISO	Manufactured in an ISO9001 facility
Safety	UL508 Heavy Industrial CE, including: EN60950-1, IEC60950-1
Safety Compliance	UL60950-1
EMI	FCC Part 18 Heavy Industrial CE, including: EN61000-6-4, EN61000-3-2, EN61000-3-3
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

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)
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Ordering Information

Standard

rBOX100-FL 1.1G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 1 isolated DIO (8-IN/8-OUT) (-40°C ~ +70°C)
rBOX100-FL 1.33G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 1 isolated DIO (8-IN/8-OUT) (-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)
Wall mount kit	

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

Dimensions

