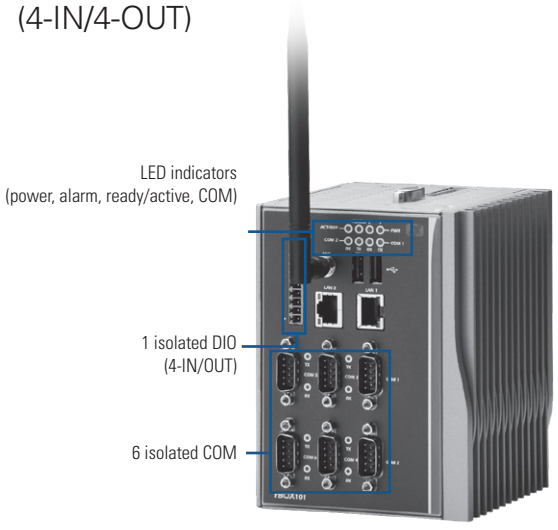
rBOX101-6COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT Chipset, 6 Isolated COM and 1 Isolated DIO (4-IN/4-OUT)



▲ Front view

Supports Intel Atom inside | EN60950-1 | Isolation | Extended Temperature | IP30 | UL508 | Fanless | Low Power

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
- 6 isolated COM ports, 1 isolation DIO (4-IN/4-OUT)
- 2 isolated Ethernet
- 2 watchdog timer
- LED indicators
- 1 wireless (3G/GPRS)
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package



▲ Rear view

Introduction

rBOX101-6COM 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 rBOX101-6COM is equipped with six isolated RS-232/422/485, one isolated 10/100/1000Mbps Ethernet & one isolated 10/100Mbps Ethernet and one isolated DIO port for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, rBOX101-6COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX101-6COM 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 Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB	
System I/O Outlet	Serial Port	6 x RS-232/422/485 (COM 1~6) 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 6 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
System I/O Outlet	DIO	1 x DIO (4-IN/4-OUT) DI : Input channels : 4, source type Input voltage : 0 to 30VDCDigital input levels for dry contacts : -Logic level 0: close to GND -Logic level 1: open Digital input levels for wet contacts : -Logic level 0: +10V to +24V (DI to COM-) -Logic level 1: +3V max. DO : Output channels : 4, sink type Output current: Max. 200 mA per channel On-state voltage : 24VDC nominal, 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
	Wireless	1 x Mini Card (Full size, supports USB only) 1 x SIM socket onboard Supports 3G/GPRS
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

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

Specifications

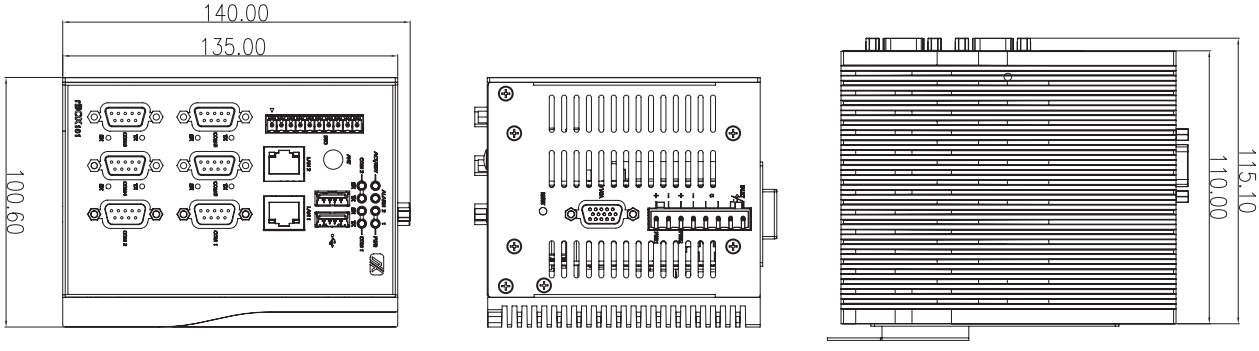
Storage	Supports 1 x CompactFlash™ Supports 1 x SD card up to 32 GB (optional)	
Installation	Din-rail, wall mount	
Power Supply	2 power paths	
	Power Input Range	12-48VDC
	Power Protection	DC Version: OVP (over voltage protection) UVP (under voltage protection) Reverse protection
	Power Consumption (COM 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°C ~ +158°C)	
Storage Temperature	-45°C ~ +85°C (-49°C ~ +185°C)	
Humidity	5% ~ 95%	
Weight (net/gross)	1.9 kg (4.18 lb)/ 2.24 kg (4.93 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, Windows® 7 Embedded	
ISO	Manufactured in an ISO9001 facility	
Safety Compliance	UL508, UL60950-1 Heavy Industrial CE, including: EN60950-1, IEC60950-1	
EMI Compliance	FCC Part 18 Heavy Industrial CE, including: EN61000-6-4, EN61000-3-2, EN61000-3-3	
EMS Compliance	EN50121-4 (Railway application) 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)	

Ordering Information

Standard	
rBOX101-6COM-FL1.1G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 6 isolated COM ports (-40°C ~ +70°C)
rBOX101-6COM-FL1.33G	Robust Din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 6 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)
Wall mount kit	
Wireless (3G/GPRS) module for rBOX series	

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

Dimensions



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