

## Model Information



### ■ Features

- VIA Nano 1.3GHz
- VX800 chipset, 800/500MHz FSB
- 1 GB DDR2 SDRAM
- Express Card 34 slot (USB interface)
- HD Audio, speaker and microphone
- HDD/SSD drive bay
- 2 x Giga LAN
- CAN Bus 1Mbit/s
- Digital and Analogue I/O
- Option: WLAN, Bluetooth, GPS, 3G/GSM

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# RISE 4310

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### ■ Overview

The RISE series of DinRail-PC is designed for harsh industrial environments. It features fanless and cableless, low power consumption and operating over wide temperature ranges. Its reliable design allows to withstand mechanical vibrations, extremely hot or cold environments, power failures or environmental electrostatic discharges.

The RISE series has a modular and reliable design based on the newly emerged standard of Qseven core modules, which supports both Intel's Atom Z5xxP and Via's Nano/Eden high performance CPUs. The RISE series integrates a rich choice of connectivity devices, such as multiple LANs, USB and serial ports, VGA, digital I/O and optionally WLAN, Bluetooth, 3G/GPRS modems, CAN to match different industrial application requests.

### ■ Chassis

<b>Construction</b>	Full size stainless steel Aluminum cooling plate with fins
<b>Mounting configuration</b>	DIN Rail
<b>Cooling system</b>	passive heatsink, fanless
<b>LED indicator</b>	Power on/off, HDD access, LAN access
<b>Expansion slot</b>	<ul style="list-style-type: none"> <li>● 1 x Mini PCI Express</li> <li>● PCIe x1</li> <li>● USB 2.0 and 1.x</li> </ul>

<b>Expansion slot</b>	<ul style="list-style-type: none"> <li>• 1 x Express Card 34</li> <li>• USB 2.0 and 1.x only</li> </ul>
<b>Dimensions</b>	163 x 111 x 83 mm <sup>3</sup>
<b>Power switch</b>	Bottom side
<b>Reset Switch</b>	Bottom side

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## ■ Hardware

<b>Processor</b>	VIA NANO 64 bit @ 1.3GHz, 800MHz FSB
<b>CPU socket</b>	Q7 module
<b>BIOS</b>	Phoenix - Award BIOS
<b>Chipset</b>	VIA VX800

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## ■ Memory

<b>Memory type</b>	DDR2 1GB
<b>Memory socket</b>	soldered onto Q7 module
<b>BIOS</b>	4MBit SPI Flash

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## ■ Video

<b>VGA Controller</b>	VIA Chrome9™ HC3 integrated graphics
<b>Video RAM</b>	up to 256MB frame buffer
<b>Interface</b>	VGA
<b>Resolution</b>	Up to 1920 × 1080 / 32bit
<b>Extras</b>	MPEG-2, MPEG-4, VC1 and DivX video decoding acceleration

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## ■ Integrated Devices

<b>HDD/ SSD Bay</b>	1 x 1.8" SATA HDD or SSD
<b>CF card slot</b>	1 x CF card in True IDE mode
<b>HD-Audio</b>	Mic-in 1 x Speaker-out
<b>Real Time clock</b>	Standard
<b>Keyboard/ Mouse</b>	Connect at USB Internal pin header for PS/2 Keyboard and Mouse

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## ■ Connectivity

<b>LAN</b>	2 x RJ45 GigaLAN (Marvell 88E8057) support PXE boot
<b>USB</b>	4 x USB 2.0, support boot function
<b>VGA</b>	1 x 15-pin connector
<b>Com Ports</b>	<ul style="list-style-type: none"> <li>• 2 x RS232 DB9 male, max. 115.200bps</li> <li>• 1 x RS422/485 on terminal block</li> </ul>
<b>RS422/ 485</b>	<ul style="list-style-type: none"> <li>• Up to 1 Mbit/s (theor. 12 MBit/s).</li> <li>• RS422 Full-Duplex, RS485 bus mode configured by DIP switch.</li> <li>• RS485 Automatic Transceiver control.</li> <li>• Signals on Terminal Block.</li> </ul>
<b>HD-Audio</b>	Line-in (Mic-in)

Line-out ear-jet connectors

## Digital I / O

Terminal Blocks on Top and Bottom side

- 4 x Output
- 4 x Input
- 2 x Counter
- 2 x ADC
- 1 x I<sup>2</sup>C

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### ■ CAN interface

#### Speed

CAN High Speed (up to 1Mbit/s) for transmit/receive

#### Signals

CAN\_H, CAN\_L, CAN\_GND

#### Controller

SJA1000 (Philips)

#### Transceiver

TJA1050 (Philips)

#### Standards

CAN 2.0A and 2.0B, ISO11898

#### CAN Listen mode

Passive receive of CAN Frames, neither ACK bits nor Error Frames

#### Connector

DB9 male

#### Library

Functions for simple access

#### CANFestival

CANopen examples showing Master/Slave communication

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### ■ Power supply

#### Power input

DC 10-30V

#### Power consumption

min 17W

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### ■ Environment

#### Operating Temp.

-20° to +55°C

#### Storage Temp.

-20° to +80°C

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### ■ Supported OS

#### Microsoft

Windows XP/XPE, Windows 7

#### Linux

Kernel 2.4 / 2.6 / 3.x

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### ■ Ordering Information

#### Art.No

3873, available On Special Request

#### Product Name

RISE 4310

#### Packing list

RISE 4310 Embedded System  
Terminal blocks for Digital-I/O and Power supply  
CD-ROM with English documentation, drivers and tools

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