

# RISE 3000 series

## Qseven based Industrial DIN-Rail Embedded PC

CHASSIS	
Construction	Full size stainless steel Aluminum cooling plate with fins
Mounting configuration	DIN Rail
Cooling system	Passive heatsink, fanless
LED indicator	Power on/off, HDD access, LAN access
Expansion slot	1 x Mini PCI Express, 1 x Express Card 34 (USB driven)
Dimensions	163 x 111 x 83 (mm)
Power switch	Bottom side
Reset Switch	Bottom side
HARDWARE	
Processors	Intel Atom Z530 @ 1.6GHz, 533MHz FSB Intel Atom Z520 @ 1.3GHz, 533MHz FSB Intel Atom Z510 @ 1.1GHz, 400MHz FSB
Cores	2 by Hyperthreading
CPU socket	Q7 module
BIOS	Phoenix-Award
Chipset	US15W
MEMORY	
Memory type	DDR 512MB
Memory socket	Soldered onto Q7 module
BIOS	8MBit SuperFlash
VIDEO	
VGA Controller	Graphics Memory Controller Hub integrated in US15W
Video RAM	up to 128MB frame buffer
Interface	VGA
Resolution	Up to 1280 × 1024 / 32bit
Extras	MPEG-2, MPEG-4, VC1, WMV9 and H.264 video decoding acceleration
INTEGRATED DEVICES	
HDD/SSD Bay	1 x 1.8" SATA HDD or SSD
CF card slot	1 x CF card in True IDE mode
Audio	Mic-in, 1 x Speaker-out
Real Time clock	Standard
Keyboard/Mouse	Connect at USB, Internal pin header for PS/2 Keyboard and Mouse
CONNECTIVITY	
LAN	2 x RJ45 GigaLAN
USB	4 x USB 2.0 Supports boot function from USB
VGA	1 x 15-pin connector
Com Ports	2 x RS232 DB9 male, max. 115.200bps 1 x RS232 DB9 male, max. 500.000bps. Replicable by CAN 1 x RS422/485 on terminal block
RS422/485	Up to 1 Mbit/s (theor. 12 MBit/s) RS422 Full-Duplex RS485 bus mode configured by DIP switch RS485 Automatic Transceiver control Signals on Terminal Block
HD-Audio	Line-in (Mic-in) Line-out ear-jet connectors

The RISE 3000 series of DIN-Rail PC are 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 with mechanical vibrations, extremely hot or cold environments, power failures or environmental electrostatic discharges.

The RISE 3000 series has a modular and reliable design based on the newly emerged standard of Qseven core modules, which supports Intel's Atom Z5xxP high performance CPUs. The RISE 3000 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 and POE+ to match different industrial application requests.

<b>DIGITAL and ANALOGUE I/O</b>																																	
Input	4 x Digital, TTL level (0.0 to 0.8V, 2.0 to 5.0V) Wake-Up Capability																																
Output	4 x Digital, TTL level Source: 32mA@High (2.0 to 5.0V) Sink: 64mA@Low (0.0 to 0.6V)																																
Counter	2 x TTL level, programmable count period																																
ADC	2 x Single Ended, 0.0 to 10.0V Input, 10 Bit																																
I <sup>2</sup> C	1 x for external Wake-Up																																
Connectors	Terminal Blocks on Top and Bottom																																
<b>POWER SUPPLY</b>																																	
Power supply	DC 10-30V																																
Consumption	Min. 17W																																
<b>ENVIRONMENT</b>																																	
Operating Temp.	-20° to +60°C																																
Storage Temp.	-20° to +80°C																																
<b>SUPPORTED OS</b>																																	
Windows	Win 7, Win XP, Win XPE																																
Linux	Kernel 2.4 / 2.6																																
<b>CAN INTERFACE (optional)</b>																																	
Speed	CAN High Speed (up to 1Mbit/s) for transmit/receive																																
Signals	CAN_H, CAN_L, CAN_GND, CAN_V+, 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, replaces RS232 port 3																																
Library	Functions for simple access																																
CANFestival	CANopen examples showing Master/Slave communication																																
<b>PoE+ (optional)</b>																																	
Standards	802.3at																																
Levels	25W																																
<b>Approvals</b>																																	
EMC	FCC Class A, CE Class A																																
Environment	RoHS																																
<b>ORDERING INFORMATION</b>																																	
Art.No	3880																																
Product Name	RISE 3000 series																																
Order Options	<table border="1"> <thead> <tr> <th>RISE</th> <th><b>3</b></th> <th><b>X</b></th> <th></th> <th><b>Y</b></th> <th></th> <th><b>Z</b></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>3</td> <td>Z530</td> <td>1.6GHz</td> <td>0</td> <td>no CAN</td> <td>0</td> <td>no PoE+</td> </tr> <tr> <td></td> <td>2</td> <td>Z520</td> <td>1.3GHz</td> <td>1</td> <td>with CAN</td> <td>1</td> <td>with PoE+</td> </tr> <tr> <td></td> <td>1</td> <td>Z510</td> <td>1.1GHz</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	RISE	<b>3</b>	<b>X</b>		<b>Y</b>		<b>Z</b>			3	Z530	1.6GHz	0	no CAN	0	no PoE+		2	Z520	1.3GHz	1	with CAN	1	with PoE+		1	Z510	1.1GHz				
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Packing list	RISE 3000 series Embedded System, Terminal blocks for Digital-I/O and Power supply CD, English documentation																																
Optional Accessories	mPCIe module for Wireless LAN Express card module for 3G/UMTS/HSDPA/GPRS/GSM mPCIe module for Bluetooth																																

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