

Model Information



■ Main Features

- Sitara AM3352 Cortex-A8 @ 600MHz
- 256MB DDR3
- 256MB NAND Flash (for boot)
- 1 x microSD-Slot
- 1 x Gigabit LAN
- 8 x RS232
- 16 x Digital-I/O (8 Input, 8 Output)
- 1 x WLAN 802.11b/g/n (optional)
- 1 x antenna socket (optional)
- 1 x Console serial Port (internal)
- Low Power, fanless, no cables
- Power over Ethernet supply
- Operating Temperature -20°C - 65°C
- Debian GNU/Linux
- 19-inch mountable
- Starter kit available

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Baltos 1080

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■ More Pictures



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■ Overview

OnRISC Baltos 1080 is a fanless industrial embedded PC for 19-inch mounting. It is based on an ARM Cortex-A8 with NEON SIMD Coprocessor, up to 1GHz CPU clock speed. See [VS-SOM-AM335x](#) for more details. Low power consumption, wide temperature range -20°C to 65°C and flexible power supply (15-54V DC and Power-over-Ethernet) make it an ideal system for industrial automation. WLAN is available as well as Gigabit Ethernet. Models with further extended temperature range are available, allowing for remote installations.

The interfaces of serial ports and Digital Input/Output make it easy to connect various industrial devices to the Baltos.

The embedded computer runs Linux on ARM operating system Kernel 3.18. This system is installable on the internal NAND Flash memory, or on a microSD card in the internal slot. For boot from NAND Flash a system configuration with buildroot is supported. With Debian's repository database it is easy to install and update the free software on the Baltos. VS provides information for configuration and sample installations of Linux for Baltos.

■ Application

- | | |
|------------------------------|--|
| ■ Building automation system | ■ Automatic warehouse control system |
| ■ SCADA system | ■ Self-service banking system (ATM) |
| ■ Wafer fabrication system | ■ Industrial / Factory / Laboratory automation |
| ■ Print server | |

■ System

Hardware	<ul style="list-style-type: none"> • Sitara AM3352 ARM Cortex-A8 RISC CPU @ 600MHz • 256MB DDR3 • Real time clock with battery backup
Mass Storage	<ul style="list-style-type: none"> • 256MB NAND Flash memory (bootable) • SD 2.0 / SDHC microSD-card slot (internal, bootable)
Network	1x 1000/100/10 Mbps Gigabit Ethernet
Wireless LAN	Option: IEEE 802.11b/g/n 2.4GHz SMA antenna socket
Serial ports	<ul style="list-style-type: none"> • 8x RS232 high speed • 1x Console Port RS232 (internal)
Digital Input/Output	<ul style="list-style-type: none"> • 8x Relay Output signals • 8x TTL Input signals, isolated wet contacts • IRQ for input signals • Terminal block connector
LED	<ul style="list-style-type: none"> • 1x Power, 1x WLAN, • LAN: Link and Speed

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■ Serial Ports

Features	<ul style="list-style-type: none"> • 8x RS232 • Highspeed UART, 128 Byte FIFO • up to 1000 kbps
Signals	TxD,RxD, RTS,CTS, DTR,DSR, DCD, RI, GND

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■ Digital Input / Output

Input	8x isolated input signals
Contact	Wet contacts on clamp pairs provide 5V. To activate close contact by button / switch / relay / ...
Output	8x relay signals on three clamps (normal open/closed)
Switching	<ul style="list-style-type: none"> • 1A 30V DC • 0.25A 250V AC

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■ Power and Environment

Power Connector	3-pin Terminal Block with Protective Earth
Power Requirements	15 - 54V DC, 0.4A @ 15V, 6W
Power over Ethernet	Alternative supply, presents as Class 0 Device (802.3af)
Operating Temp	−20°C - 65°C
Storage Temp	−20°C - 85°C
Approvals	<ul style="list-style-type: none"> • EMC: FCC Class A, CE Class A • Environment: RoHS

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■ Mechanical

Dimension	196×147×44 mm ³ (W×L×H)
Weight	0.9kg
Construction Material	SECC sheet metal (1mm)
Mounting	<ul style="list-style-type: none"> • 19-inch Rack • Wall mount • DIN Rail

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■ Software Specifications

Linux

Debian:

Latest stable release available as ready-to-run SD card image or can be built/customized via vsdebootstrap project ([Github](#))

Buildroot:

BSP with Kernel and bootloader patches and basic configuration ([Github](#))

Yocto:

layer-baltos with Kernel and bootloder patches suitable for new projects or integration into already available projects ([Github](#))

Buildroot and Yocto are suitable for installation to NAND Flash

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■ Ordering Information

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■ Options

6689 WLAN Kit internal
internal module 802.11b/g/n, pigtail and antenna
Purchase time option, not for later retrofitting

6830 Power supply adapter 15V DC, 1A

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■ Serial Null-Modem adapter 9PF-9PF, change male to female

6835 Starter Kit

- 4GB microSD card for Linux
- Power adapter 15V
- Adapter cable for console port
- Documentation and Development Software on DVD

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■ Packaging

Packing list

- OnRISC Baltos 1080 system
- Terminal blocks for Power Supply and Digital-I/O
- 19" mounting angles
- Wall mounting plates

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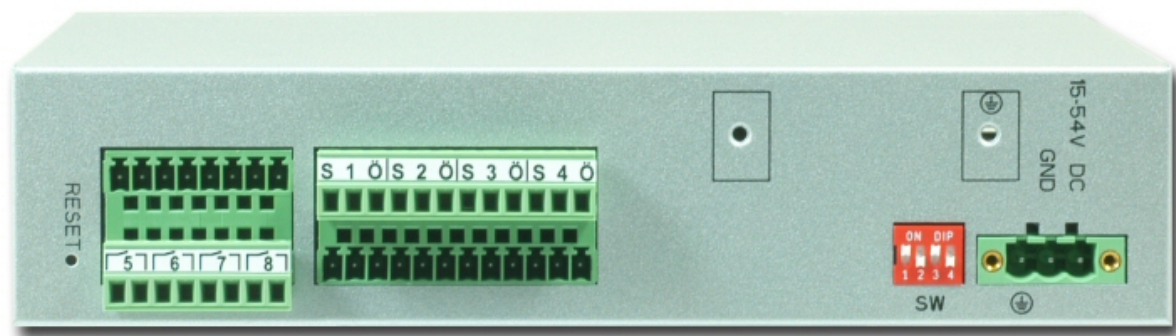
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Baltos 1080 rear side with sample Terminal blocks

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Baltos 1080 Rackmount Kit

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