

WEBS Computing Systems

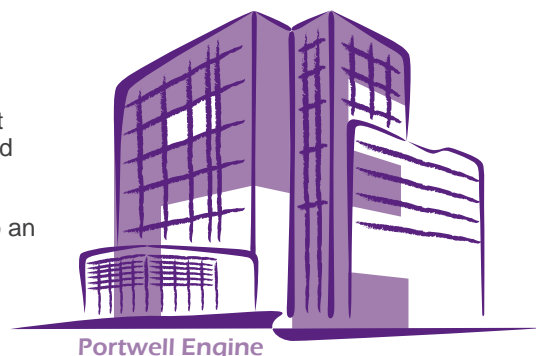
Portwell Intelligent Fan-less Embedded Solutions



About Portwell

Portwell, Inc. was founded in Taiwan in 1993 and entered the Industrial PC market in 1995 by developing single-board computers. Today, our continued development of leading-edge products has resulted in strong growth in market share and revenue, a firm place on the Taipei stock exchange (TAISDAQ), and has established Portwell as a major worldwide supplier of specialty computing application platforms and services. Portwell, Inc. is not only a member of the select group of Intel® Applied Computing Platform Providers (IACPP), but also an Associate member of Intel® Embedded Alliance as well as Advanced Telecom Computing Architecture (ATCA) and an executive member of PCI Industrial Computer Manufacturing group (PICMG).

Portwell, Inc. has worldwide offices in the U.S.A., Taiwan, Japan, China, Netherland, United Kingdom, and India.



Why Portwell Platforms and Services?

■ Complete Product Portfolio

Select from our full range of both off-the-shelf and versatile custom solutions to scale your products. Portwell provides not only board-level products, but also peripheral-level and complete system solutions.

■ Implement Latest Intel Technology

Partnering with Intel® since 1999, and with streamline access to the latest Intel® technologies and roadmap, Portwell delivers cutting-edge solutions not only to meet and exceed the demand for the technologies, but also the needs of the long product life cycle.

■ Faster Time-to-Market

Portwell experienced engineers, complete product solutions, global operation and flexible business service help you meet the time-to-market requirement and reduce your new product introduction cycle, as well as costs of conducting business.

■ Leading Edge Innovator

Portwell is committed to product and solution innovation, and not only has completed a variety of proof-of-concept designs with Intel®, but is also a leader in offering the latest technologies to the market.

■ Committed to Customer Satisfaction

Portwell operates a high standard process in determined pursuit of our commitment to continuously improve our products and services to satisfy and exceed our customers' needs.

What is Portwell Value Proposition?

Design, Develop, and Deliver

- Design, develop and deliver to meet customer requirements, such as production, reliability, stability, cost-effectiveness, and longevity of product.
- Experienced and sophisticated engineering capability includes electronic, mechanical, firmware and system integration expertise.

Portwell Manufacturing Excellence

- Supply chain and component inventory management with automation.
- In-house SMT lines and PCB assembly and functional testing.
- In-house system integration and testing.
- ISO 14001 and ISO 9001 certified manufacturing facilities (663,000 sq. ft. in Taipei).
- Flexible production capability.

Portwell Global Presence

- One point of contact, global support.
- Sales and technical support teams are available through Portwell worldwide offices in the U.S.A., Taiwan, Japan, China, Netherland, United Kingdom, and India.
- Customer-centric service and support.

WEBS: Portwell Intelligent Fan-less System

Compact, Flexible, Rugged Computing Systems

Using leading embedded computing technology, Portwell developed the industrial grade WEBS fan-less computing systems for harsh environment applications such as factory automation, transportation, facility management, networking and public works.

To meet these harsh environmental parameters, each WEBS computing system was designed by precise thermal simulation and verification to make the system stable and user friendly.

The all-aluminum chassis design provides effective heat dissipation and transfers the heat out of the system quickly and easily.

Built with the latest Intel® chipsets, the WEBS systems feature not only superior performance but also low power consumption. They are suitable for energy-critical applications and idea for environmental protection.



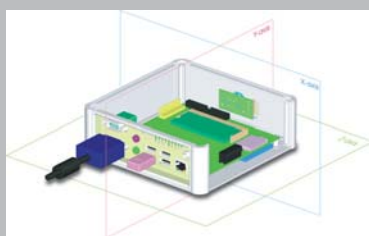
Quality Assurance

① Design & Analysis

Portwell WEBS systems use quality assurance reviewing procedures in the critical early stages of development. Designing a stable product makes it easy for quality checking and complies with Design for Quality (DFQ).

At the development stage the product design also involves the material and assembly important for production, with the focus on Design for Manufacturability (DFM). This develops simple, consistent and efficient system structures and endows the product with a stable quality.

With its experienced engineering team, plus the complete development facility with 3D, circuit and layout design equipments, Portwell is able to supply more efficient system development to support its customers in "Design Win".



Design & analysis is performed by 3D workstation. (WEBS-2120)

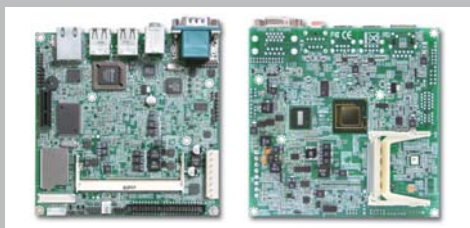


Circuit design & layout by advanced tools (NANO-8044)

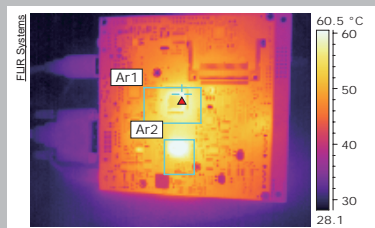
② Thermal Design

Since there is no fan and airflow inside the fan-less WEBS systems, handling the thermal output becomes one of the most important concerns. System heat comes from ICs on the embedded board and this is pre-determined by Intel®. Therefore, the key to developing a reliable fan-less system is determined by two major factors.

First is to balance the heat on the embedded board and make sure it does not accumulate. Determining the thermal balance for the hot components is a prime concern. The picture below shows the heat situation of the NANO-8044, NANO-ITX embedded board used in the WEBS-2120 system. The heat in this example is arranged and balanced for superior dissipation in a fan-less system design.

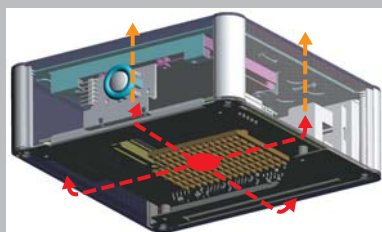


NANO-8044 M/B

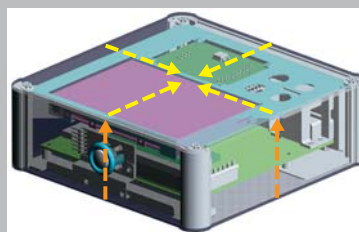


Thermal image of NANO-8044 M/B

Second is to maximize the arrangement of heat dissipation by system design. WEBS Systems are designed with an all-aluminum chassis that is ideal for heat dissipation. Heat sinks link the ICs on the embedded board and the aluminum chassis for direct heat transference. The heat transfers from the bottom up so the lower temperature is at the chassis top for greater ease of use and protection. The pictures below illustrate the heat flow of a WEBS system. Balancing the heat of the product in this way makes the perfect fan-less system.



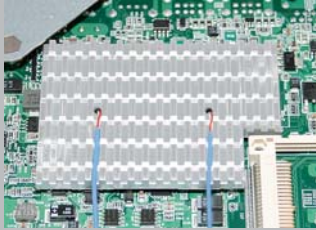
WEBS-2120 Heat-flow (Bottom)



WEBS-2120 Heat-flow (Top)

③ Thermal Validation

After completing the thermal design, the WEBS system starts the thermal validation by following Intel's thermal guide and the system is tested inside the calibrated chamber with defined temperatures. The efficacy of the WEBS system is further improved when the temperature of any component is over specification. Thermal tests are conducted until all the major ICs are below thermal specification.



Holes are made on the heat sink and thermal sensor cables are added for measuring the temperature



Thermal testing is performed on the WEBS system inside the calibrated chamber with defined temperature conditions

④ Safety & Reliability Validation

In addition to the thermal validation, the WEBS systems undergo safety assessment and tests and achieve CE and FCC certification. Testings include ESD, EMI and EMC.

To ensure product quality, complete quality assurance tests are performed during both the development and the manufacturing phases for all system-level products. Portwell WEBS systems are tested and comply with safety regulations, and are reliable to be used in the harsh environments.

-Based on customer's requirements, Portwell can do additional tests with a NRE (non-recurring engineering) charge.



ESD Test



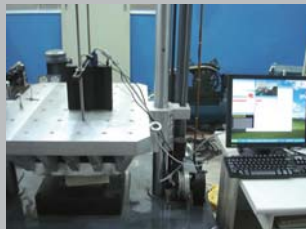
EMC Test



EMC Test



Vibration Test



Shock Test



Packing Vibration Test

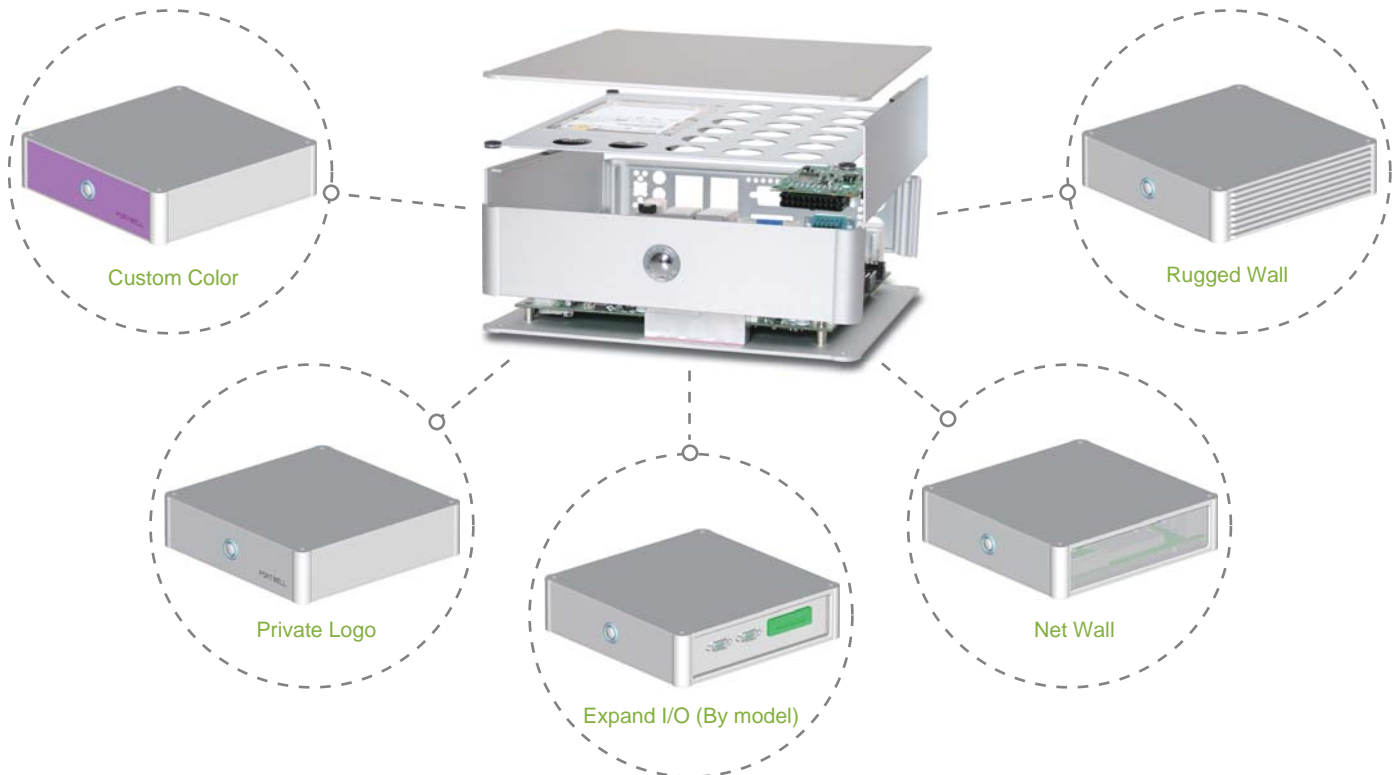


Packing Drop Test

Brick Concept

As well as stable quality requirements, users are always looking for a unique product to differentiate them from their competitors. To simplify system customization, Portwell created the Brick concept, an intelligent structure for the WEBS systems that builds the WEBS chassis using three simple elements: wall, pillar and cover. This makes the chassis flexible and easy for customization by following customer's requirements. The illustration below shows the segments for customization.

* May necessitate extra cost and MOQ for an individual customization.



With its flexible structure, a Portwell WEBS system can adjust the size of its form-factor to supply a customized chassis for customer. The three system sizes below illustrate the standard WEBS system form-factors. Customer can adapt any model to suit their applications. (Size unit is mm)



Configuration

- **Full System:** Chassis + (Power Module) + Adaptor + Cable + Embedded Board + Memory + HDD/CF
- **Bare System:** Chassis + (Power Module) + Adaptor + Cable + Embedded Board
- **Chassis Assembly:** Chassis + (Power Module) + Adaptor + Cable

WEBS-3330

Embedded compact fan-less system with Intel® Atom™ N270 based MINI-ITX board



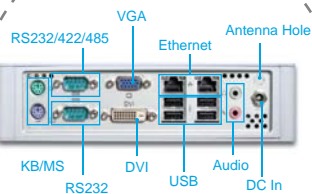
Features

- Intel® Atom™ N270 1.6GHz processor and Intel® 945GSE+ ICH7-M chipset
- One 200-pin SO-DIMM supports DDR2 SDRAM up to 2GB
- Dual display (VGA / DVI), Dual Gigabit Ethernet and Dual RS232
- Optional DVD module and PCI/e x1 expansion
- Fan-less design is ideal for environment-critical application
- Versatile mounting solutions such as Wall and Panel mount (Optional)

For DVD player requirement, the user could choose the optional DVD module for assembling on the top of WEBS-3330

When adding the PCI/e x1 add-on card, the user can choose an optional PCI/e x1 expansion module for assembling on the top of WEBS-3330

For mirror disk storage application, the user can choose the optional 2nd HDD for assembling on the top of WEBS-3330

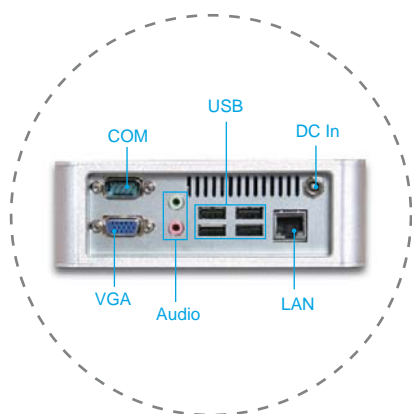


For WLAN requirements, the user choose the WLAN antenna kit to link their WLAN module assembled on Mini-PCI socket on the M/B inside of WEBS-3330

Ordering Guide

WEBS-3330-1600	System with WADE-8070 (Atom™ N270 1.6GHz) + 2GB DDR2 + 120GB HDD
WEBS-3330-1601	System with WADE-8070 (Atom™ N270 1.6GHz)
WEBS-3330-1602	System with WADE-8070 (Atom™ N270 1.6GHz) + 2GB DDR2 + 120GB HDD + DVD Module
WEBS-3330-1603	System with WADE-8070 (Atom™ N270 1.6GHz) + 2GB DDR2 + 120GB HDD + PCI/e x1 expansion
WEBS-3330 Chassis	Chassis Assembly with PSU (for WADE-8070)

WEBS-2120



Embedded compact fan-less system with Intel® Atom™ Z510/Z530 based NANO-ITX board

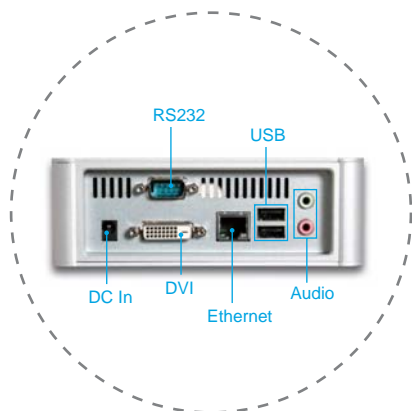
Features

- Intel® Atom™ processor Z510/Z530 and System Controller Hub US15W
- Ultra low power and fan-less design
- One 200-pin SO-DIMM supports DDR2 SDRAM up to 2GB
- Versatile interfaces such as Compact Flash and 2.5" HDD
- Compact and user-friendly design for easy installation and maintenance
- Versatile mounting solutions such as Wall, Panel and DIN mount (Optional)
- Vibration test (5grms/5~500Hz/operation) - Compact Flash
- Shock test (50g peak acceleration - 11msec. duration) - Compact Flash

Ordering Guide

WEBS-2120-1101	System with NANO-8044 (Atom™ Z510 1.1GHz)
WEBS-2120-1601	System with NANO-8044 (Atom™ Z530 1.6GHz)
WEBS-2120 Chassis	Chassis Assembly with PSU (for NANO-8044)

WEBS-2121



Embedded compact fan-less system with Intel® Atom™ Z510/Z530 based NANO-ITX board

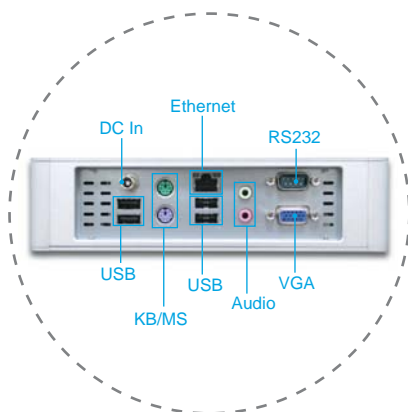
Features

- Intel® Atom™ processor Z510/Z530 and System Controller Hub US15W
- Ultra low power and fan-less design
- One 200-pin SO-DIMM supports DDR2 SDRAM up to 2GB
- Versatile interfaces such as Compact Flash and SATA 2.5" HDD
- Compact and user-friendly design for easy installation and maintenance
- Versatile mounting solutions such as Wall, Panel and DIN mount (Optional)
- Vibration test (5grms/5~500Hz/operation) - Compact Flash
- Shock test (50g peak acceleration - 11msec. duration) - Compact Flash

Ordering Guide

WEBS-2121-1100	System with NANO-8045 (Atom™ Z510 1.1GHz) + 1GB DDR2 + 120GB HDD
WEBS-2121-1101	System with NANO-8045 (Atom™ Z510 1.1GHz)
WEBS-2121-1600	System with NANO-8045 (Atom™ Z530 1.6GHz) + 2GB DDR2 + 120GB HDD
WEBS-2121-1601	System with NANO-8045 (Atom™ Z530 1.6GHz)
WEBS-2121 Chassis	Chassis Assembly with PSU (for NANO-8045)

WEBS-1320



Embedded compact fan-less system with Intel® Atom™ Z510PT/Z530 based 3.5" ECX board

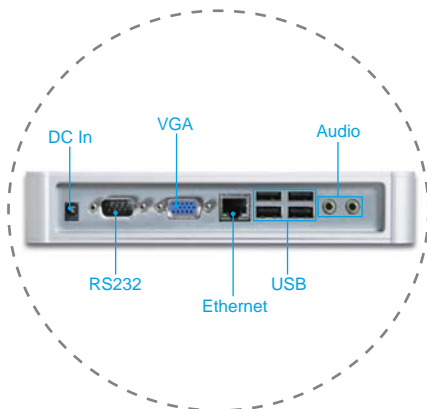
Features

- Intel® Atom™ processor Z510/Z530 and System Controller Hub US15W
- Ultra low power and fan-less design
- One 200-pin SO-DIMM supports DDR2 SDRAM up to 2GB
- Versatile interfaces such as Compact Flash and SATA 2.5" HDD
- Compact and user-friendly design for easy installation and maintenance
- Versatile mounting solutions such as Wall, Panel and DIN mount (Optional)

Ordering Guide

WEBS-1320-1100	System with PEB-2737 (Atom™ Z510 1.1GHz) + 1GB DDR2 + 120GB HDD
WEBS-1320-1101	System with PEB-2737 (Atom™ Z510 1.1GHz)
WEBS-1320-1600	System with PEB-2737 (Atom™ Z530 1.6GHz) + 2GB DDR2 + 120GB HDD
WEBS-1320-1601	System with PEB-2737 (Atom™ Z530 1.6GHz)
WEBS-1320 Chassis	Chassis Assembly with PSU (for PEB-2737)

WEBS-3331



Embedded slim fan-less system with Intel® Atom™ N270 based MINI-ITX board

Features

- Intel® Atom™ N270 1.6GHz processor and Intel®945GSE + ICH7-M chipset
- One 200-pin SO-DIMM supports DDR2 SDRAM up to 2GB
- Analog Display: Up to 2048 x 1536 (QXGA)
- 36mm height supports thin client and DS application
- Fan-less and cable-less design for easy maintenance
- Versatile mounting solutions such as Wall and Panel mount (Optional)

Ordering Guide

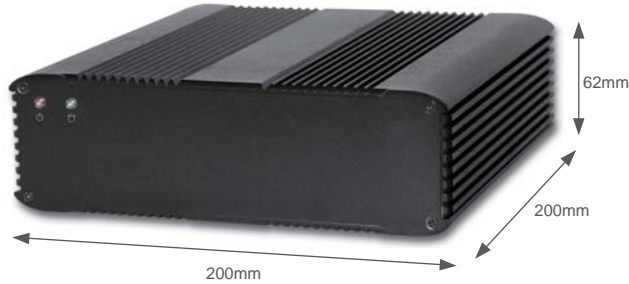
WEBS-3331-1600	System with WADE-8071 (Atom™ N270 1.6GHz) + 2GB DDR2 + 4GB CF
WEBS-3331-1601	System with WADE-8071 (Atom™ N270 1.6GHz) + 1GB DDR2 + 512MB CF
WEBS-3331-1602	System with WADE-8071 (Atom™ N270 1.6GHz)
WEBS-3331 Chassis	Chassis Assembly with PSU (for PEB-2738)

WEBS-4330

Embedded rugged compact fan-less system with Intel® Atom™ N270 based MINI-ITX board

Features

- Intel® Atom™ N270 1.6GHz processor and Intel® 945GSE+ ICH7-M chipset
- Two interfaces of 12V, 15V~24V wide range input
- Dual display (VGA / DVI), Dual Gigabit Ethernet and Dual RS232
- Optional GADIWA-R9271 (9~27V) for IVI application
- Rugged and Fan-less design is ideal for environment-critical application
- External GPIO (4 in, 4 out) for digital control
- Versatile mounting solutions such as Wall and Panel mount (Optional)



For digital control requirement, the user can link the WEBS-4330 through Digital I/O (4 in, 4 out)

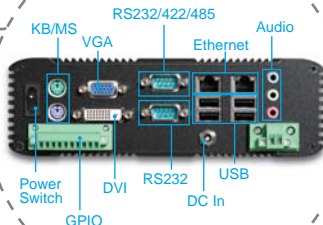
Convenient data access via an easy-to-open front cover

Customized Logo printing or customized color with MOQ



For IVI applications, the user can choose the GADIWA-R9271 module install inside WEBS-4330 for wide range power input

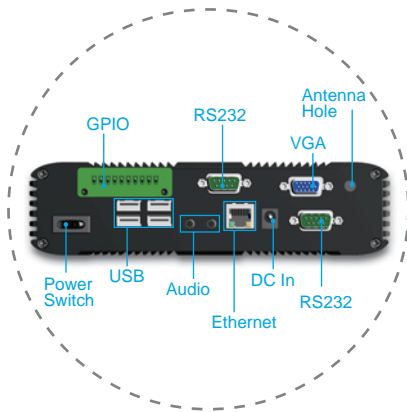
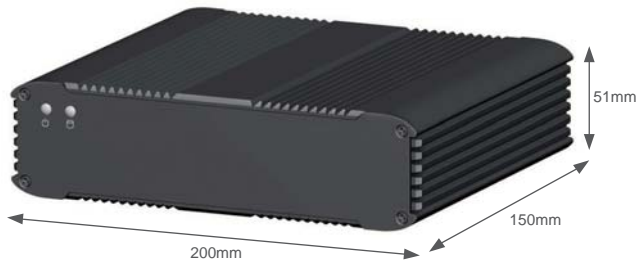
For easy power input, WEBS-4330 is designed with two power input interface. One is by adaptor plug, and the other is by wiring



Ordering Guide

WEBS-4330-1600	System with WADE-8170 (Atom™ N270 1.6GHz) with DC Jack + Adaptor + 2GB DDR2 + 160GB HDD
WEBS-4330-1601	System with WADE-8170 (Atom™ N270 1.6GHz) with DC Jack + Adaptor
WEBS-4330-1602	System with WADE-8170 (Atom™ N270 1.6GHz) with wire type power input interface
WEBS-4330-1603	System with WADE-8170 (Atom™ N270 1.6GHz) + GADIWA-R9271 with wire type power input interface
WEBS-4330 Chassis	Chassis Assembly with DC Jack + Adaptor (for WADE-8170)

WEBS-1310



Embedded rugged fan-less system with Intel® Atom™ Z510PT/Z520PT based 3.5" ECX board

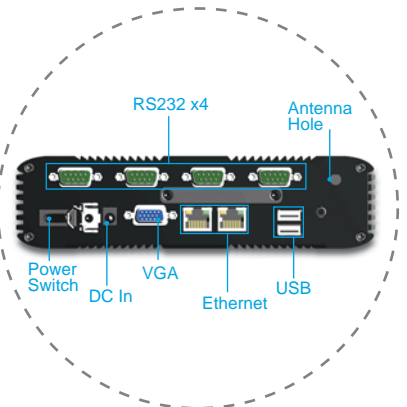
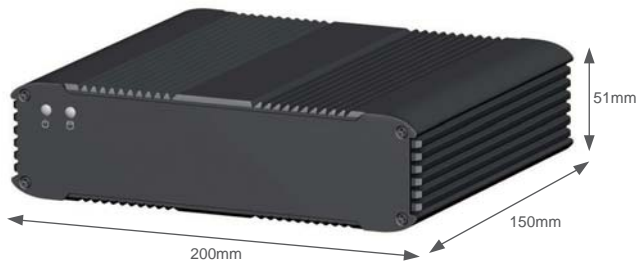
Features

- Intel® Atom™ processor Z510PT/Z520PT and System Controller Hub US15WPT
- Wide temperature range and fan-less design are perfect for environment-critical applications
- One Mini-PCI/e expansion and Antenna hole
- GPIO and rich I/O and good for versatile applications
- Rugged and compact are good for using at harsh environment
- Versatile mounting solutions such as Wall and Panel mount (Optional)

Ordering Guide

WEBS-1310-1100	System with PEB-2738 (Atom™ Z510PT 1.1GHz) + 1GB DDR2 + 512MB CF
WEBS-1310-1101	System with PEB-2738 (Atom™ Z510PT 1.1GHz)
WEBS-1310-1300	System with PEB-2738 (Atom™ Z520PT 1.3GHz) + 2GB DDR2 + 4GB CF
WEBS-1310-1301	System with PEB-2738 (Atom™ Z520PT 1.3GHz)
WEBS-1310 Chassis	Chassis Assembly with PSU (for PEB-2738)

WEBS-1330



Embedded rugged fan-less system with Intel® Atom™ N270 based 3.5" ECX board

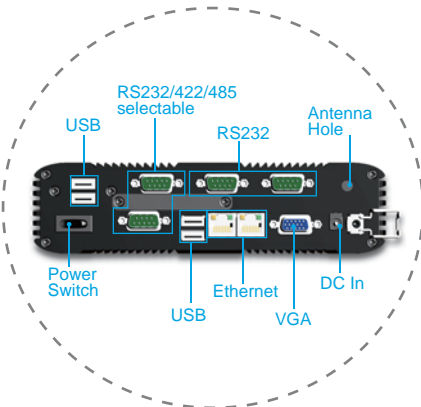
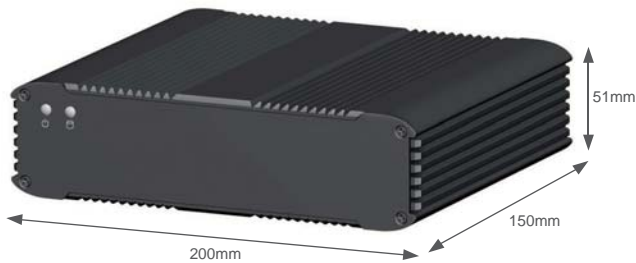
Features

- Intel® Atom™ N270 1.6GHz processor and Intel® 945GSE+ ICH7-M chipset
- Analog Display: Up to 2048 x 1536 (QXGA)
- One Mini-PCI/e expansion with an Antenna hole
- Dual LAN and 4 COMs (5V/12V selectable) are good for networking, POS and automation applications
- Rugged and compact are good for using at harsh environment
- Versatile mounting solutions such as Wall and Panel mount (Optional)

Ordering Guide

WEBS-1330-1600	System with PEB-2131 (Atom™ N270 1.6GHz) + 1GB DDR2 + 512MB CF
WEBS-1330-1601	System with PEB-2131 (Atom™ N270 1.6GHz)
WEBS-1330 Chassis	Chassis Assembly with PSU (for PEB-2131VG2A)

WEBS-1340



Embedded rugged fan-less system with Intel® Atom™ N450 based 3.5" ECX board

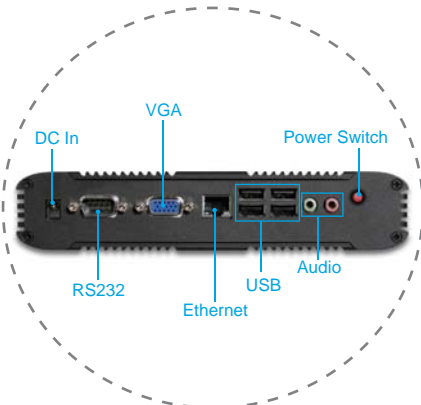
Features

- Intel® latest Atom™ N450 1.6GHz processor and Intel® ICH8-M chipset
- Dual LAN and 4 COMs (5V/ 12V selectable) are good for networking, POS and automation applications
- Rich I/O is good for versatile applications
- Rugged and compact are good for using at harsh environment
- Versatile mounting solutions such as Wall and Panel mount (Optional)

Ordering Guide

WEBS-1340-1600	System with PEB-2780 (Atom™ N450 1.6GHz) + 1GB DDR2 + 512MB CF
WEBS-1340-1601	System with PEB-2780 (Atom™ N450 1.6GHz)
WEBS-1340 Chassis	Chassis Assembly with PSU (for PEB-2780)

WEBS-3332



Embedded rugged slim fan-less system with Intel® Atom™ N270 based MINI-ITX board

Features

- Intel® Atom™ N270 1.6GHz processor and Intel® 945GSE + ICH7-M chipset
- One 200-Pin SO-DIMM supports DDR2 SDRAM up to 2GB
- Analog Display: Up to 2048 x 1536 (QXGA)
- 40mm height supports thin client and DS application
- Fan-less and cable-less design for easy maintenance
- Rugged and slim (H=40mm) ideal for environment-critical application
- Versatile mounting solutions such as Wall and Panel mount (Optional)
- Vibration test (5grms/5~500Hz/operation)
- Shock test (50g peak acceleration - 11msec. duration)

Ordering Guide

WEBS-3332-1600	System with WADE-8071 (Atom™ N270 1.6GHz) + 2GB DDR2 + 4GB CF
WEBS-3332-1601	System with WADE-8071 (Atom™ N270 1.6GHz) + 1GB DDR2 + 512MB CF
WEBS-3332-1602	System with WADE-8071 (Atom™ N270 1.6GHz)
WEBS-3332 Chassis	Chassis Assembly with PSU (for WADE-8071)

WEBS Embedded Fan-less Systems



Wide Temp. Range & Low Power

Low Power

Compact & Low Power

Low Power

Slim & Cable-less

Model		WEBS-3330	WEBS-2120	WEBS-2121	WEBS-1320	WEBS-3331
Embedded Board		WADE-8070	NANO-8044	NANO-8045	PEB-2737	WADE-8071
Platform	Form Factor	MINI-ITX	NANO-ITX	NANO-ITX	3.5" ECX	MINI-ITX
	Intel® Processor	Atom™ N270 1.6GHz	Atom™ Z510 1.1GHz Atom™ Z530 1.6GHz	Atom™ Z510 1.1GHz Atom™ Z530 1.6GHz	Atom™ Z510 1.1GHz Atom™ Z530 1.6GHz	Atom™ N270 1.6GHz
	Intel® Chipset	945GSE+ICH7-M	US15W	US15W	US15W	945GSE+ICH7-M
	FSB	533MHz	400MHz / 533MHz	400MHz / 533MHz	400MHz / 533MHz	533MHz
	BIOS	Award BIOS	AMI BIOS	AMI BIOS	AMI BIOS	Award BIOS
Memory	Socket	200-pin SO-DIMM	200-pin SO-DIMM	200-pin SO-DIMM	200-pin SO-DIMM	200-pin SO-DIMM
	Max. Memory	DDR2 2GB	DDR2 2GB	DDR2 2GB	DDR2 2GB	DDR2 2GB
Storage	Solid State	CF Socket	CF Socket	CF Socket	CF Socket	CF Socket
	HDD	2.5" SATA HDD	2.5" PATA	2.5" SATA HDD	2.5" SATA HDD	N/A
Networking	Controller (interface)	RTL8111C-VB (PCIE x1)	Intel® 82574L (PCIE x1)	RTL8111C-VC (PCIE x1)	RTL8111C-VC (PCIE x1)	RTL8111C-VC (PCIE x1)
Video	Controller	GMA 950	GMA 500	GMA 500	GMA 500	GMA 950
Audio	Codec	Realtek ALC662-GR	Realtek ALC262	Realtek ALC262	Realtek ALC262-VC2-GR	Realtek ALC662-GR
H/W Monitor	Controller	Winbond W83627UHG	Winbond W83627DHG	Winbond W83627DHG	Winbond W83627DHG	Winbond W83627HG-AW
	WDT	Programmable (1sec. to 255min.)	Programmable (1sec. to 255min.)	Programmable (1sec. to 255min.)	Programmable (1sec. to 255min.)	Programmable (1sec. to 255min.)
I/O	COM Ports	1x RS232; 1x RS232/422/485 selectable	1x RS232/422/485 selectable	1x RS232	1x RS232	1x RS232
	Digital I/O	N/A	N/A	N/A	N/A	N/A
	USB 2.0	4	2	2	4	4
	VGA	1 x VGA	1 x VGA	N/A	1 x VGA	1 x VGA
	DVI	N/A	N/A	1 x DVI	N/A	N/A
	LAN	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet
	PS/2	1 x KB; 1 x Mouse	N/A	N/A	1 x KB; 1 x Mouse	N/A
	Audio	Line-out and Mic-in	Line-out and Mic-in	Line-out and Mic-in	Line-out and Mic-in	Line-out and Mic-in
	Internal CF	1 x CF Socket	1 x CF Socket	1 x CF Socket	1 x CF Socket	1 x CF Socket
	Expansion	SDIO socket	N/A	N/A	SDIO socket	N/A
Power	System	12V DC-in	12V DC-in	12V DC-in	12V DC-in	12V DC-in
	Adaptor	100 ~ 240V	100 ~ 240V	100 ~ 240V	100 ~ 240V	100 ~ 240V
OS Supported		XP, Vista, CE, Linux	XP, XPe, CE, Linux	XP, XPe, CE, Linux	XP, Vista, CE, Linux	XP, Vista, CE, Linux
Environmental Parameters	Temperature	-5 ~ 45°C	-5 ~ 45°C	-5 ~ 45°C	-5 ~ 45°C	-5 ~ 45°C
	Hmidity (RH)	5 ~ 95%, non-condensing	5 ~ 95%, non-condensing	5 ~ 95%, non-condensing	5 ~ 95%, non-condensing	10 ~ 90%, non-condensing
Size (mm)		200 x 200 x 51	150 x 150 x 51	150 x 150 x 51	200 x 150 x 51	200 x 200 x 36

WEBS Embedded Fan-less Systems



Wide Range Power Input

Wide Temp. Range

Rich Function

Rich Function

Slim & Cable-less

Model		WEBS-4330	WEBS-1310	WEBS-1330	WEBS-1340	WEBS-3332
Embedded Board		WADE-8170	PEB-2738	PEB-2131VG2A	PEB-2780	WADE-8071
Platform	Form Factor	MINI-ITX	3.5" ECX	3.5" ECX	3.5" ECX	MINI-ITX
	Intel® Processor	Atom™ N270 1.6GHz	Atom™ Z510 1.1GHz Atom™ Z520 1.3GHz	Atom™ N270 1.6GHz	Atom™ N450 1.6GHz	Atom™ N270 1.6GHz
	Intel® Chipset	945GSE+ICH7-M	US15W PT	945GSE+ICH7-M	ICH8-M	945GSE+ICH7-M
	FSB	533MHz	400MHz / 533MHz	533MHz / 667MHz	667MHz	533MHz
	BIOS	Award BIOS	AMI BIOS	Award BIOS	Award BIOS	Award BIOS
Memory	Socket	200-pin SO-DIMM	200-pin SO-DIMM	200-pin SO-DIMM	200-pin SO-DIMM	200-pin SO-DIMM
	Max. Memory	DDR2 2GB	DDR2 2GB	DDR2 2GB	DDR2 2GB	DDR2 2GB
Storage	Solid State	CF Socket	CF Socket	CF Socket	CF Socket	CF Socket
	HDD	2.5" SATA HDD	2.5" SSD	2.5" SATA HDD	2.5" SATA HDD	N/A
Networking	Controller (interface)	ALC8111C (PCIe x1)	Intel® 82574IT (PCIe x1)	RTL8111D-VB-GR (PCIe x1)	1x Intel® 82657V 1x Intel® 82583V (PCIe x1)	RTL8111C-VC (PCIe x1)
Video	Controller	GMA 950	GMA 500	GMA 950	GMA 950	GMA 950
Audio	Codec	Realtek ALC655	Realtek ALC662-GR	Realtek ALC662	Realtek ALC262	Realtek ALC662-GR
H/W Monitor	Controller	ITE IT8712	Winbond W83627DHG	Winbond W83627UHG	Winbond W83627UHG	Winbond W83627HG-AW
	WDT	Programable (1sec. to 255min.)	Programable (1sec. to 255min.)	Programable (1sec. to 255min.)	Programable (1sec. to 255min.)	Programable (1sec. to 255min.)
I/O	COM Ports	2x RS232	2x RS232	4x RS232	2x RS232; 2x RS232/422/485 selectable	1x RS232
	Digital I/O	8-bit Digital I/O	8-bit Digital I/O	N/A	N/A	N/A
	USB 2.0	4	4	2	4	4
	VGA	1 x VGA	1 x VGA	1 x VGA	1 x VGA	1 x VGA
	DVI	1 x DVI-D	N/A	N/A	N/A	N/A
	LAN	2 x Gigabit Ethernet	1 x Gigabit Ethernet	2 x Gigabit Ethernet	1 x Gigabit Ethernet	1 x Gigabit Ethernet
	PS/2	1 x KB; 1 x Mouse	N/A	N/A	N/A	N/A
	Audio	Line in, Line-out and Mic-in	Line-out and Mic-in	Line-out	Line-out and Mic-in	Line-out and Mic-in
	Internal CF	1 x CF Socket	1 x CF Socket	1 x CF Socket	1 x CF Socket	1 x CF Socket
	Expansion	N/A	1 x Mini-PCI/e x1	1 x Mini-PCI/e x1	N/A	N/A
Power	System	12V, 15~24V	12V DC-in	12V DC-in	12V DC-in	12V DC-in
	Adaptor	100 ~ 240V	100 ~ 240V	100 ~ 240V	100 ~ 240V	100 ~ 240V
OS Supported		XP, Vista, CE, Linux	XP, Vista, CE, Linux	XP, Vista, CE, Linux	XP, Vista, CE, Linux	XP, Vista, CE, Linux
Environmental Parameters	Temperature	-5 ~ 45°C	-25 ~ 70°C	-5 ~ 45°C	-5 ~ 45°C	-5 ~ 50°C
	Hmidity (RH)	10 ~ 90%, non-condensing	5 ~ 95%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing
Size (mm)		200 x 200 x 62	200 x 150 x 51	200 x 150 x 51	200 x 150 x 51	200 x 200 x 40

WEBS Mounting Solution

Wall Mount Kit



WEBS-2120 / 2121 / 1320

System Size	150/200(W) x 150(D) x 51(H)mm
Ordering	WEBS-2120 Wall Mount Kit

WEBS-3330 / 3331

System Size	200(W) x 200(D) x 51/36(H)mm
Ordering	WEBS-3330 Wall Mount Kit



WEBS-3332 / 4330

System Size	200(W) x 200(D) x 40/62(H)mm
Ordering	WEBS-3332 Wall Mount Kit

WEBS-1310 / 1330 / 1340

System Size	200(W) x 150(D) x 51(H)mm
Ordering	WEBS-1310 Wall Mount Kit

DIN Mount Kit



WEBS-2120 / 2121 / 1320

System Size	150/200(W) x 150(D) x 51(H)mm
Ordering	WEBS-2120 Wall Mount Kit
Remark	DIN Rail H=35mm (w/o Rail)

Panel Mount Kit



WEBS-2120 / 2121

System Size	150(W) x 150(D) x 51(H)mm
Ordering	WEBS-2120 Panel Mount Kit
Remark	VESA 75/100

WEBS-1320

System Size	200(W) x 150(D) x 51(H)mm
Ordering	WEBS-1320 Panel Mount Kit
Remark	VESA 75/100

WEBS-3330 / 3331

System Size	200(W) x 200(D) x 51/36(H)mm
Ordering	WEBS-3330 Panel Mount Kit
Remark	VESA 75/100



WEBS-3332 / 4330

System Size	200(W) x 200(D) x 40/62(H)mm
Ordering	WEBS-3332 Panel Mount Kit
Remark	VESA 75/100

WEBS-1310 / 1330 / 1340

System Size	200(W) x 150(D) x 51(H)mm
Ordering	WEBS-1310 Panel Mount Kit
Remark	VESA 75/100



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