



## Product Introduction

The WEBS-5400 series fanless Box PC is ideal for video/graphic and automation control applications. This fanless, embedded ultra-low power platform is designed with an Intel® Core i3/i5/ i7™ processor which is the 4th generation Intel® Core™ ULT processor designed with triple-display support, and dual-core technology speeds up to 2.5 GHz while maintaining the same low power consumption and powerful computing ability. The WEBS-5400 series has a highly reliable chassis with a thermally-enhanced ripple fin design offering great thermal performance (-20~55°C) while also integrating anti-vibration and shock resistance. The WEBS-5400 series is the ideal fanless Box PC controller for use with digital signage, surveillance, image processing, or machine automation industries.

## Product Highlight

- (1) Intergrade Intel Newest ULT SOC(System on chip)  
Compared with the previous generation, the new 4<sup>th</sup> generation Intel Core enable greater integration into mobile 2-in-1 system designs, the new 4<sup>th</sup> generation Intel Core is also the first to deliver a single SoC (System-on-Chip) solution that will give OEMs the flexibility to design even smaller, sleeker and lighter form factors. By eliminating the traditional 2-chip platform, the single BGA package which combines both CPU and PCH helps free up precious real estate space within the device, simplifying thermal designs as well as board complexity for highly integrated devices like ultrabooks and convertibles. This single chip processor will be available as the U-series with thermal design power as low as 15W.

New! 1-Chip BGA Solution	Traditional 2-Chip platform
	
<ul style="list-style-type: none"><li>• CPU and PCH Integrated into single BGA package</li><li>• 15W &amp; 28W TDPs, 6W and below SDP</li><li>• Supports LPDDR3 and DDR3L memory</li></ul>	<ul style="list-style-type: none"><li>• 2 chip scalable solution:CPU and chipset</li><li>• BGA and rPGA packages</li><li>• 57W,47W, and 37W TDPs</li><li>• Supports DDR3L Memory</li><li>• GT3e graphics</li></ul>

- (2) Compact & Rich function /Anti Vibration & Shock /Wide temperature system

The WEBS-5400 series is a small footprint box computer designed to be both fanless and ruggedized. Withstands industrial operation environments for temperatures between -20~55°C, and it supports up to 16 GB of DDR3L memory, triple display with DVI-D, HDMI and DP, 5.1-CH audio and dual Intel® Gigabit Ethernet ports. It also provides 2x mini-PCIe socket, 1x SIM card holder, 1x 2.5" SATA HDD/SSD, 2x USB3.0, 2x USB2.0, 1x 8 bits GPIO, and 2x COM ports. Product reliability and stability are certified by industrial product quality tests, including anti-vibration (continuous vibrations) of up to 5 Grms, and anti-shock of up to 50 Grms tests.



- (3) 5 display output is available

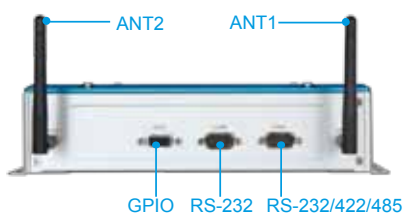
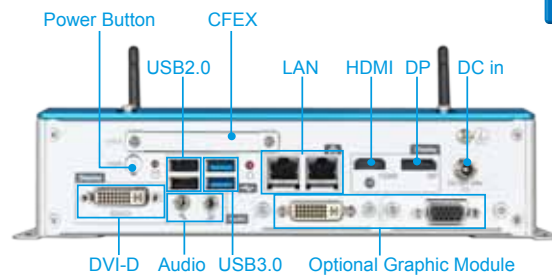
WEBS-5481 can support 5 displays output in OS mode by extended mode or mirror mode. This system default can extend 2 additional display device by Optional Graphic Module, and customer can easily to remove or install this module by 2 screws.





# WEBS-5481

Embedded rugged fan-less system with Intel® Celeron and Core™ i3/i5/i7 based specific form factor board



The WEBS-5481 builds on Intel® Haswell ULT Low Power SoC and takes advantages of Intel® Core™ mobile processor technologies that can support dual channel DDR3L memory. Support two Gigabit Ethernet ports and two Mini-PCle sockets, even up to 5 displays by option. The WEBS-5481 is an ideal platform with HD graphic output for POS, kiosk, digital signage and transportation applications.

## FEATURES

- 4<sup>th</sup> generation Intel® Celeron & Core™ i3/i5/i7 ULT SoC
- Intel® Haswell ULT SoC Low Power & High Performance Embedded Fan-less System.
- Dual Channel SO-DIMM socket up to 16GB DDR3L Memory
- 1x 2.5" SATA HDD/SSD, 1x CFEX, 1x mSATA
- 2x Mini-PCle socket can be used in a diversity of applications
- 1x RS-232/422/485, 1x RS-232, 2x USB3.0, 2x USB2.0, 2x Gigabit Ethernet Port
- 5 Display by VGA/HDMI/DP + Optional Graphic Module
- 2x Antenna hole + 1x onboard SIM card holder for WiFi or 3G/GPS module to use
- OP Vibration: 5Grms/5~500Hz
- OP Shock: 50G, 11msec
- IP40 Rating

## ORDERING GUIDE

AS5-3366	(R).ATO.WEBS-5481.Haswell ULT. Fanless System
----------	---

## System

M/B	PEB-5731-W Series
System Chipset	Intel® Haswell ULT SoC
CPU	- Intel® Core™ i7-4650U, 1.7GHz, 4M L2 Cache, up to 3.3 GHz, 15W TDP (2C/4T) - Intel® Core™ i5-4300U, 1.9GHz, 3M L2 Cache, up to 2.9 GHz, 15W TDP (2C/4T) - Intel® Core™ i3-4010U, 1.7GHz, 3M L2 Cache, 15W TDP (2C/4T) - Intel® Celeron® 2980U, 1.6GHz, 2M L2 Cache, 15W TDP (2C/2T)
BIOS	AMI uEFI BIOS (SPI ROM)
System Memory	Dual 204-pin SO-DIMM sockets supports DDR3L 1333/1600 up to 16 GB
Storage	1x 2.5" SATA HDD/SSD, 1x CFEX, 1x mSATA
Watchdog Timer	Programmable via S/W from 1 sec. to 255 sec.
H/W Status Monitor	- Temperature (CPU & System) - Voltage (CPU Vcore, VBAT, 5VSB, 12V, 5V, 3.3V)
Expansion	- 1x Full-size Mini-PCle socket (USB+PCle) + SIM Card holder - 1x Half-size Mini-PCle socket (mSATA+PCle)

## External I/O

Serial Port	2x COM port (1x RS-232/422/485 by BIOS, 1x RS-232)
Display	1x DVI-D, 1x HDMI, 1x DP 2x Optional Graphic Module
USB	2x USB3.0, 2x USB2.0
Audio	Line-out/Mic-in (ALC892)
Ethernet	2x Gigabit Ethernet (Intel® WGI218LM + WGI210AT)
GPIO	1x Programmable 8-bit Digital I/O
Other	2x Antenna hole for WiFi or 3G/GPS module

## Power Supply Unit

Power Input	DC 12V~24V
-------------	------------

## Environmental

Operation Temperature	-20°C to 55°C
Storage Temperature	-40°C to 80°C
Relative Humidity	95%@40°C, non-condensing
Operation Vibration	5Grms/5-500Hz, IEC 60068-2-64
Operation Shock	50G, 11 msec, IEC 60068-2-27

## Mechanical

Dimension	235(W) x 160(D) x 60(H) mm; 9.2"(W) x 6.2"(D) x 2.3"(H)
Weight	2 kg
Mounting	Wall mounting

