

Reliable Automation Embedded BOXER Series

Your Trusted Platform



GSA Contract Holder
GS-35F-0470Y

Focus • Agility • Competitiveness

AAEON Fanless BOX PC Series

AAEON offers reliable Embedded BOX PCs to fulfill customer needs in all kinds of applications. We classify our BOX PCs into three categories: Value-Oriented BOXER with advanced technology, high performance systems and cost effective designs; Feature-Oriented BOXER with AAEON unique technology such as easy installation, stainless enclosure, NVRAM for data protection; Vertical-market BOXER with development focused on specific market needs to provide a reliable box PC.

Feature-Oriented

Competitive maintenance cost
Performance driven
User friendly



Feature-Oriented

Value-Oriented

BOXER-6900 Series
BOXER-6500 Series
BOXER-6400 Series



Your Trusted Platform

Vertical Market-Oriented

Railway
Vehicle



BOXER-6357VS
BOXER-6356
BOXER-6301VS
BOXER-6313VS

Value-Oriented

Cost-effective
Latest Processor
Time-to-market



BOXER-6800 Series
BOXER-6600 Series

Vertical-Oriented

oriented

Compact Fanless Embedded BOXER Series

AAEON's BOXER-6600 series is designed for cost-effective and compact size applications. This series supports Intel® Core™ i, Atom™, AMD and ARM processors with superior thermal solutions. In addition, BOXER-6600 supports AAEON's remote management software Hi-Safe and Hi-Manager for user remote diagnostics. For more benefit to users, BOXER-6600 is aligned with Wonderware® InTouch CE & thin-client software ACP for ease in developing their systems, making this series your best choice for budgetary applications.

Compact Size For Easy Installation

BOXER-6600 series is designed in a compact size form factor for installation ease.

(7.7" x 2.3" x 4.3" / 197mm x 57.2mm x 110mm)



Rich I/O Expansion

BOXER-6600 series provides rich I/O expansion.

• Communication:

CANbus, LAN x 4, Isolated Digital I/O, 2nd RS-485, 2nd VGA/HDMI, 3G, WiFi, Bluetooth®

• Storage:

NVRAM, 2nd Removable HDD

Power Protection



- Over-voltage protection
- Low-voltage protection
- Reverse protection
- Short circuit protection
- Surge protection for spike voltage: 1000VDC

Flexible Expansions



BOXER-6600 Series



Application:
 Factory Automation
 Machinery Automation
 Environment Monitoring Stations

Intel® Core™ i Processor



AAEON Remote Management Software

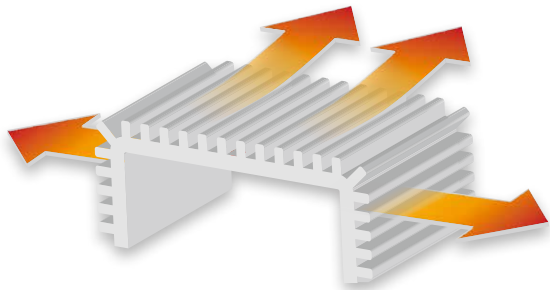


Expandable Fanless Embedded BOXER Series

BOXER-6800 series is designed as an expandable application-ready platform with two PCI/PCIe alternative module expansions. This series supports Intel® Core™ i, Atom™, AMD and ARM processors with superior thermal solutions. In addition, the BOXER-6800 supports AAEON's remote management software Hi-Safe and Hi-Manager for remote diagnostics. The BOXER-6800 series is an ideal choice for use in automation applications.

Superior Thermal Solution

AAEON's fanless Box PC adopts a "n" shaped enclosure and thermal pipe to dissipate internal heat to the outside enclosure. With superior thermal solution, the BOXER-6800 can utilize an Intel® Core™ i processor to provide a more stable system.



Rich Expansion

BOXER-6800 series can provide multi I/O expansion via PCI/PCIe slot.

• Communication:

CANbus, LAN x 3, Isolated Digital I/O, RS-485 x 2, VGA/HDMI x 2, 3G, WiFi, BlueTooth®

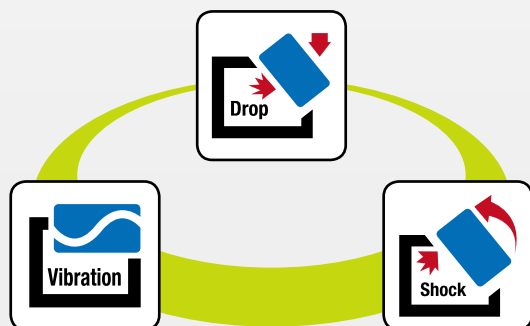
• Storage:

NVRAM,
Removable HDD kit x 2



Safety Mechanism Design

- Anti-Vibration
- Anti-Shock
- Anti-Drop



Power Protection



- Over-voltage protection
- Low-voltage protection
- Reverse protection
- Short circuit protection
- Surge protection for spike voltage: 1000V DC

BOXER-6800 Series



Application:
 Factory Automation
 Building Automation
 Machinery Automation

Easy-to-Expand: 2 PCIe/PCI



AAEON Remote Management Software



Fanless Embedded BOXER Series

The BOXER-6400 series is ultra-slim embedded box pc at just 20mm (0.79") thickness. This slim design enables the BOXER-6400 series to be installed in space constrained locations. Despite its compact size, the BOXER-6400 series is equipped with uniform I/O ports for easy expansion. Its mounting design also makes it easy to install on a wall/ DIN-rail/ desktop or on the rear of a VESA compatible monitor or display. The BOXER-6400 series fulfills customers application requirements in all types of installation environments and is particularly suitable for compact spaces.

Uniform I/O Ports

Fulfills customer's application needs with uniform I/O, such as USB, RJ-45 type RS-485, CANbus, HDMI ports, digital input/output and m-SATA for storage.

*The BOXER-6400 series also supports WiFi/3G/4G wireless.



Ultra Slim Design

Ultra slim with a full aluminum enclosure provides high protection and measures 6.22" x 3.74" x 0.79" (158mm x 95mm x 20mm). Its compact size allows it to be installed in nearly any operating environment.



Uniform I/O Equipment



Ultra-Slim 20mm Design



Easy For Installation Everywhere



Din Rail Kit

VESA Mounting Kit

BOXER-6400 Series



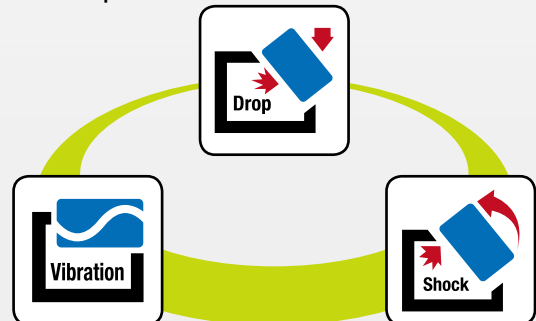
Application:
 Digital Signage
 Monitoring Station
 Infotainment

CANbus Module



Rugged Mechanical Design

- Aluminum Design Enclosure
- Anti-vibration
- Anti-shock
- Anti-drop

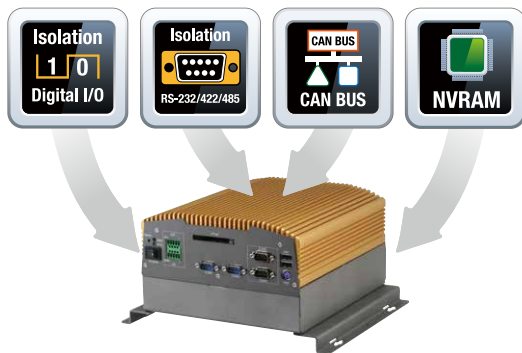


Rich I/O Expansion for Automation Fanless Embedded BOXER Series

AAEON BOXER-6900 series Box PCs are designed for high performance, and multiple, unique features such as expandability, isolated Digital I/O for data anti-interference, NVRAM for data protection and a CANbus expanded module. It also supports flexible expansion with two PCI or PCIe alternative expanded slots for easy user customization with additional devices. The BOXER-6900 series is the best choice for industrial automation applications.

Unique Feature

BOXER-6900 series supports unique technological features such as isolated Digital I/O, isolated RS-485, a CANbus module and NVRAM for data protection.



Easy Expansion

BOXER-6900 series supports expansion by:

• Communication

Digital I/O, COM port, Wi-Fi, Bluetooth®, RFID reader, CANbus card, 3rd party card by PCI/PCIe

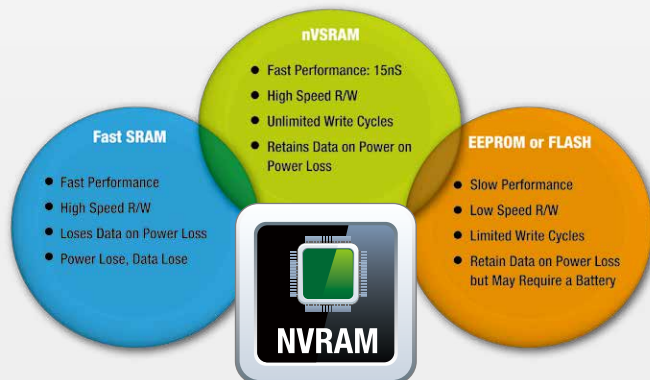
• Storage

2.5" Drive Bay x 2

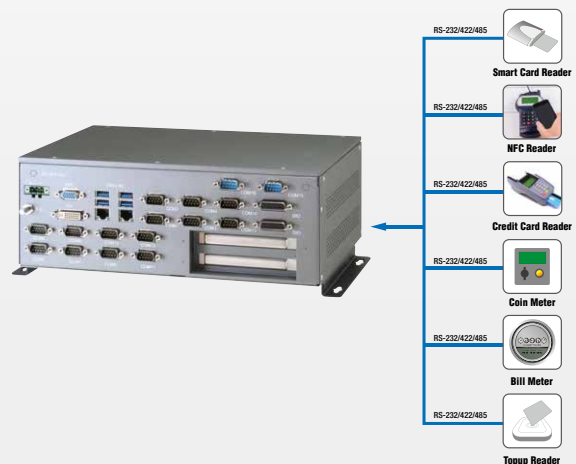


NVRAM Technology

When power on/off, data can be read or written in 1ms for protection.



CANbus Module



BOXER-6900 Series



Application:
 Factory Automation
 Building Automation
 Ticketing Machine

Easy-to-Expand: 2 PCI/PCle



Reliable Design:

- Isolated Digital I/O
- Isolated RS-485
- Power Protection: OVP, UVP, RVP, SVP
- Anti-Vibration
- Anti-Shock

In-Vehicle Fanless Embedded BOXER Series

BOXER-6301VS is designed as an embedded industrial grade vehicle Box PC which features a vehicle Power Supply Unit (PSU), wireless modules, on-board GPS and has e-Mark/E13 vehicle certification. The rugged cast aluminum case not only provides great protection from EMI, shock/vibration, but also transfers internal system heat outside to guarantee system stability. BOXER-6301VS can fulfill customer needs in vehicle applications.

Vehicle System Integration

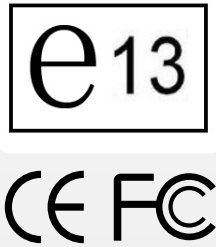


Digital Signage



Certification: e-Mark/E13/CE/FCC

e-Mark is based on EU Directive and is a safety certification mark which applies to motor vehicles, parts and systems. The BOXER-6301VS is E-Mark certified.



Vehicle Power Protection



- Under Voltage Protection
- Over Voltage Protection
- Reverse Voltage Protection
- Load Dump Protection
- Short Protection

Ignition Power On/Off Delay Time

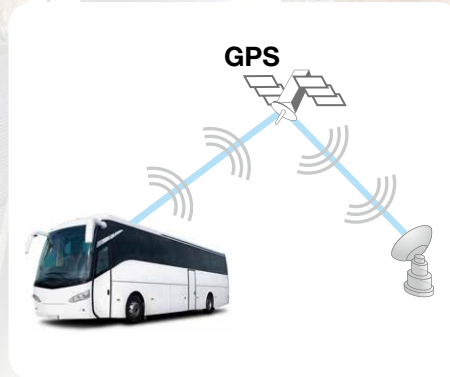
	1,2/ 5,6	20 Seconds
	Short	
	3,4/ 5,6	25 Seconds
	Short	
	1,2/ 3,4/ 5,6	30 Seconds
	Short	

BOXER-6301VS

Video Surveillance



GPS



Ticketing System



Supports 12/24V DC Mode

- ISO-7637 12/24V Certified
- Support Battery Type, 12V/24V
- Support Cold Crank and Load Dump



Multiple Wireless Interface

- 3G/4G/GPS/Wi-Fi/Bluetooth®



Railway Fanless Embedded BOXER Series

BOXER-6357VS is the highest performance railway embedded Box PC which adopts Intel® high performance Core™-i7-3517UE CPU. It passes the highest degree of railway certification EN50155-TX with wide-range operation temperature from $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$. BOXER-6357VS also provides a reliable power protection mechanism, M12 lockable connectors and supports multiple wireless devices, such as GPS, GPRS, Wi-Fi and 3G/4G modules. BOXER-6357VS is the best choice for railway application.

Intel® High Performance CPU

Intel® Core™ i7 CPU



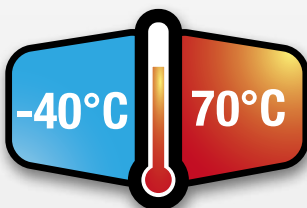
EN50155-TX

BOXER-6357VS is EN50155-TX certified which is the highest degree certification with wide temperature, from $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$.



Wide Temperature Design

- Fanless Design for $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$, $80^{\circ}\text{C}/10 \text{ min}$



Protection Mechanism



- Isolation: 500V DC
- Surge: 1000V DC
- Over-current: Over 50% max.
- Low-voltage: 14V DC (cut-off power)
- Short Circuit

BOXER-6357VS

Surveillance



Digital Signage



Central Control Center



Anti-drop Connector

- Anti-drop with M12 connector



Rich Wireless Interface

- Supports 3G, 4G, Wi-Fi, GPS, BlueTooth®



Video Surveillance Embedded Controller

AEC-VS01 fanless embedded controller supports AAEON USB type PoE module that can be easily installed. IP camera functions without using an additional mini PCIe slot and supports relative surveillance software to monitor and record images. AEC-VS01 provides a wide range of power inputs and multiple I/O devices and expanded features. Such features to suit the needs of a wide range of customer applications such as patient monitoring, inmate monitoring, city security, home monitoring and intelligent traffic systems.

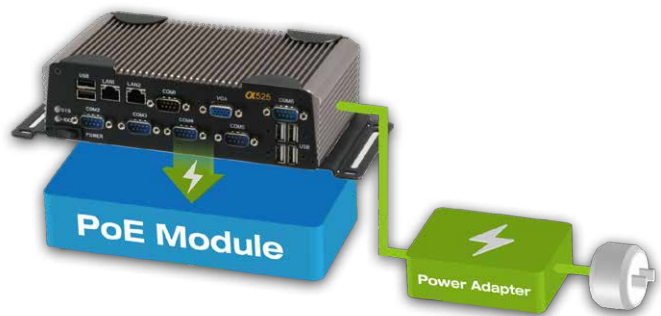
PoE Integration

AEC-VS01 provides IEEE 802.3af-compliant PoE module with 4 10/100 Mbps channels. It's USB type interface can avoid damage and be easily installed into any AAEON Box PC.



Single Power Resource

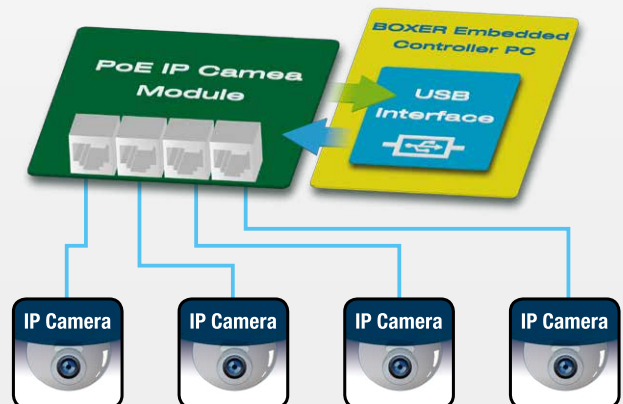
We integrate power supply to PC and PoE module by a single power adapter input that is convenient for user to install.



Fanless



Easily Install Into any BOXER



BOXER-6301VS



Application:
Vehicle Surveillance
Railway Surveillance
Building Automation

Wide Expendability

- Supports IP Camera x 4
- Digital I/O
- Mini Card
- Swappable HDD kit
- Wireless Module Support, Wi-Fi, BlueTooth®, GPS



3rd Party IP Camera and Surveillance

- Supports 4 IP Cameras by PoE
- Supports Video Surveillance Software



Hi-Safe

Hi-Safe is a free and powerful program providing SDKs for UIs running Microsoft® Windows® operating systems. It provides an easy way to develop the end user's own UI software to monitor vital system information such as those for the processor, RAM and VGA. It monitors received data from the Super I/O, fan, temperature and voltage, offers configuration options for Digital I/O pin direction and data patterns, provides watchdog timer and fan speed settings, SMBus base address detection and device ID settings. It also offers two modes for backlight display control if one uses the LVDS interface. Based on the user interface SDK, no coding is needed and customers can create their own customized user interface by using the function codes provided by AAEON.



Hi-Safe Advantages

- ▶ **Faster time-to-market**
- ▶ **Easy to use**



System Information:

Displays CPU, VGA and RAM information



Smart Fan:

Retrieves fan and temperature data; sets the fan speed into the smart fan mode



Hardware Monitor:

Retrieves super I/O, fan, temperature and voltage data



SM Bus:

Read and write SMBus device and detects SMBus base address automatically



DIO:

Obtain DIO information: set the pin direction and pin data



Backlight Controller:

Controls the backlight display; two modes



Watchdog:

Set the system reboot timer

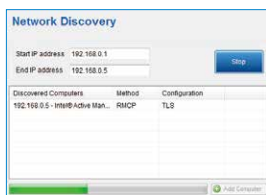
Hi-Manager

Hi-Manager is a tool based on the Intel® Active Management Technology 9.0 (iAMT 9.0) and has backward compatibility with earlier versions of iAMT. This allows users to locate all iAMT devices within the intranet, power On/Off target devices remotely, set power On/Off scheduling, arrange device groupings for better management, offer event logs and timer settings to wake up devices at specified times, recover systems that have crashed from virtual CD-ROM, remote KVM management and access to target device hardware information for asset management. Hi-Manager can be installed on all AAEON platforms and can remotely manage AAEON client devices that use Intel® Q77, Q87, QM77, QM87 chipsets and run Microsoft® Windows® XP, Windows® 7 Operating Systems.

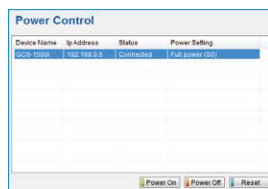


Hi-Manager Advantages

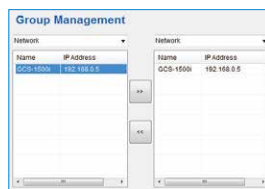
- ▶ Easy-to-use and build custom applications
- ▶ Supports AAEON products with iAMT
- ▶ In-depth technical support



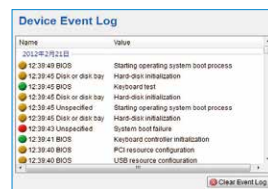
Network Discovery:
AMT device discovery



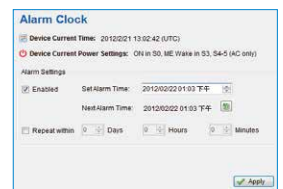
Power Control:
Powers on/off the target device



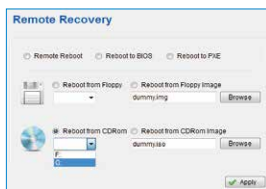
Group Management:
Arrange devices in this function



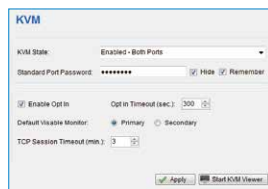
Event Log:
Logs boot records of the selected device



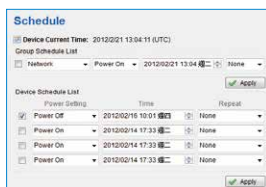
Alarm Clock:
Sets timer to wake up a sleeping device



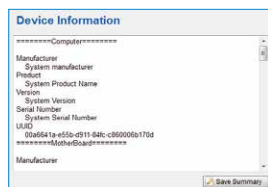
Remote Recovery:
Mounts boot image or physical CD-Rom to target device



KVM:
Controls remotely from the target device



Schedule:
Schedules the power on/off target devices



Device Information:
Shows target device assets

Intel® Active Management Technology Features

Intel® Chipset	QM67/ Q77/ QM77/ HM76/ B75A/ Q87/ QM87
Intel® AMT Version	AMT 7.0/8.0/9.0
HW Inventory	✓
SW Inventory	✓
Power State Management	✓
System Defense	✓
Remote Configuration	✓
Remote Boot Option	✓
KVM Redirection	✓
KVM Remote Control	✓
ME Wake on LAN	✓
Proactive Security Block, HW-Based and Remote Management Recovery	✓
Host-Based Provisioning	✓
Enhanced System Defense Filters	✓

BOXER-6600 Series

Compact Fanless BOX PC Solutions



Model	BOXER-6615	BOXER-6614	AEC-6613
CPU	Intel® Pentium® N3700, 1.6 GHz	Intel® Celeron™ J1900 2.0 GHz/ Celeron® N2930 1.83 GHz/ N2807 1.58 GHz/ Atom™ E3845, 1.91 GHz	Intel® Atom™ D2550 1.86 GHz
Chipset	SoC	Intel® System on Chip	Intel® NM10
System Memory	204-pin DDR3L 1600/1333 SODIMM x 1, up to 8 GB	DDR3L 1333 SODIMM x 1, up to 8 GB	DDR3 800/1066 SODIMM x 1, up to 4 GB
Display Interface	VGA	VGA x 1	DB-15 x 1
	DVI	—	—
	HDMI	HDMI x 1	HDMI x 1
	Others	—	—
Storage Device	CF-SATA	—	CFast™ Slot x 1 (w/Cover protection)
	HDD/SSD	2.5" HDD bay x 1, mSATA x 1	2.5" HDD Drive Bay x 1
	Others	—	2.5" SATA HDD bay x 1 (AEC-6613-A2/AEC6613-A2M)
Network	LAN	Gigabit Ethernet x 2	Intel® Gigabit Ethernet x 2
	Wireless	Optional by Mini-Card wireless module	—
Front I/O	USB Port	USB type A x 2 for USB 2.0	USB type A x 2 for USB 2.0
	LAN	—	—
	Serial Port	DB-9 x 2 for RS-232	—
	DIO	—	—
	Audio	Audio jack x 1 for Line-out	Line-out x 1
	KB/MS	—	—
	Others	Power switch x 1	Power On/Off Switch x 1, CFast™ slot x 1, Antenna hole x 2
	Power On/Off Switch x 1, Power LED x 1, HDD LED x 1, CFast™ slot x 1, antenna hole x 2	—	—
Rear I/O	USB Port	USB type A x 2 for USB 3.0 x 2	USB type A x 1 for USB 3.0, USB type A x 1 for USB 2.0
	LAN	RJ-45 x 2 for 10/100/1000Base-TX	RJ-45 x 2
	Serial Port	DB-9 x 2 for RS-232, DB-9x 2 for RS-232/422/485	DB-9 x 2 for RS-232, DB-9 x 2 for RS-232/422/485 with autoflow
	DIO	—	—
	Audio	—	—
	KB/MS	—	—
Expansion	PCIe	Full-size Mini-Card x 1, Half-size Mini-Card x 1 (mSATA), SIM card slot x 1	—
	PCI	—	—
	Mini-Card	—	Full-size Mini-Card x 1, Half-size Mini-Card x 1 (Only for Factory-install)
	Mini PCI	—	—
	Others	—	SIM Card Socket x 1
Indicator	Front	Power LED x 1	Power LED x 1, HDD active LED x 1
	Rear	HDD LED x 1	—
Power Requirement	DC-in 3-pin terminal block (9~30V) or DC Jack Locable for DC 12V	DC-in 3-pin terminal block (9~30V) or DC-in 12V with DC jack lockable	DC-in 12V, with DC jack lockable, DC 9 ~ 30V with 3-pin terminal block
Power Consumption	—	N2930 0.75A@12V (9W), without USB Loading	Intel® Atom™ D2550 1.86 GHz, 1.21A@12V (14.52W) without USB loading
System Cooling	Passive	Passive	Passive
Mounting	Wallmount	Wallmount/VESA/DIN Rail	Wallmount
Operating Temperature	-4°F ~ 140°F (-20°C ~ 60°C) According to IEC60068-2, 0.5m/s air flow	-4°F ~ 131°F (-20°C ~ 55°C) W/T CFast™ (with 0.5 m/s AirFlow) -4°F ~ 140°F (-20°C ~ 60°C) W/T HDD (with 0.5 m/s AirFlow) with industrial grade device (according to IEC68-2-14)	Ambient with airflow: 5°F ~ 131°F (-15°C ~ 55°C)- HDD 5°F ~ 140°F (-15°C ~ 60°C)- CFast™ No airflow: 5°F ~ 122°F (-15°C ~ 50°C)- HDD 5°F ~ 131°F (-15°C ~ 55°C)- CFast™
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C)
Anti-Vibration	5 Grms/ 5 ~ 500Hz/ operation – mSATA & SSD 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation –CFast™ Card 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – CFast™ 1 Grms/ 5 ~ 500Hz/ operation – HDD
Anti-Shock	50 G peak acceleration (11 msec. duration) – mSATA & SSD 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) –CFast™ Card 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFast™ 20 G peak acceleration (11 msec. duration) – HDD
MTBF (Hours)	—	64,000	56,000
Certification	EMC	CE/FCC class A	CE/FCC Class A
	Safety	—	—
	Others	—	—
Dimension (W x H x D)	7.76" x 4.33" x 2.17" (197mm x 110mm x 55.1mm)	8.35" x 4.21" x 2.53" (212.15mm x 107mm x 64.2mm)	8.35" x 3.1" x 2.25" (212.15mm x 78.88mm x 107mm)
Gross Weight	—	6.6 lb (2.8 kg)	8.38 lb (3.8 kg)
Net Weight	4.4 lb (2 kg)	4.4 lb (2 kg)	4.75 lb (2.76 kg)
Note	Windows® 7, Windows® 8/8.1, Windows® 10, Linux Fedora	Windows® 10, Windows® 8.1 (32/64-bit), Windows® 7(32/64-bit), WES7/WES8, Linux Ubuntu 14.04/ Kernel 3.13.0	Windows® XP, Windows® 7 32-bit, WES2009, WES7 32-bit, Linux Fedora15/Kernel 2.6.38.6

BOXER-6600 Series

Compact Fanless BOX PC Solutions



Model	AEC-6612 Rev. B	BOXER-6638U	AEC-6638	
CPU	Intel® Atom™ D525 1.8 GHz	Intel® 5th Generation Core™ i3-5010U Processor	4th Generation Intel® Core™ i7-4700EQ 2.4 GHz/ i5-4400E 2.7 GHz/ i3-4100E 2.4 GHz Processor (37W)	
Chipset	Intel® ICH8M	SoC	Intel® QM87	
System Memory	204-pin DDR3 SODIMM 667/800 MHz x 1, Max 4G	204-pin SODIMM DDR3L 1600 MHz, up to 8 GB	204-pin DDR3L 1333/1600 MHz SODIMM x 1, up to 8GB	
Display Interface	VGA	DB-15 x 1	DB-15 x 1 for VGA	
	DVI	—	DVI-D x 1	
	HDMI	—	HDMI x 1	
	Others	—	DP x 1	
Storage Device	CF-SATA	Compact Flash™ Slot x 1	CFast™ x 1	
	HDD/SSD	2.5" SATA HDD drive bay x 1	2.5" Drive bay x 1	
	Others	—	2.5" SATA 3 (6.0 Gb/s) HDD drive bay x 1	
Network	LAN	Gigabit Ethernet, RJ-45 x 2	Gigabit Ethernet x 2	
	Wireless	Optional WiFi kit (802.11b/g/n)	—	
Front I/O	USB Port	—	USB type A x 2 for USB 2.0	
	LAN	—	—	
	Serial Port	—	—	
	DIO	4 DI + 4 DO	—	
	Audio	—	Line-out x 1	
	KB/MS	—	—	
Others	Power input x 1, CompactFlash™ slot x 1	—	Antenna Hole x 2, Power switch x 1	
Rear I/O	USB Port	USB 2.0 x 2 (AEC-6612-B1/B1M-1010), USB 2.0 x 6 (AEC-6612-B2/B2M-1010)	USB type A x 2 for USB 3.0	
	LAN	Gigabit Ethernet, RJ-45 x 2	—	
	Serial Port	RS-232 x 1, RS-232/422/485 x 1 (AEC-6612-B1/B1M-1010) RS-232 x 5, RS-232/422/485 x 1 (AEC-6612-B2/B2M-1010)	DB-9 x 2 for RS-232, DB-9 x 2 for RS-232/422/485	DB-9 x 1 for RS-232/422/485 (Ring/ +5V/ +12V), RS-485 with auto flow
	DIO	—	—	
	Audio	—	Audio jack x 1 for Line-out	
	KB/MS	—	—	
Others	Power switch x 1, SYS LED x 1, HDD LED x 1, VGA x 1	Power switch x 1	3-pin terminal block x 1 for Power Input	
Expansion	PCIe	—	—	
	PCI	—	—	
	Mini-Card	1	Full-size Mini-Card and SIM slot x 1 (optional for mSATA), Half-size Mini-Card x 1	
	Mini PCI	—	—	
Others	—	—	—	
Indicator	Front	—	Power LED x 1, HDD LED x 1	
	Rear	Power LED x 1, Hard Disk Drive LED x 1	—	
Power Requirement	DC-in 12V/DC-in 9 ~ 30V	DC-in 9-24 V	DC 9 ~ 30V with 3-pin terminal block	
Power Consumption	Intel® Atom™ D525 1.8 GHz, 1.7A@12V (20.4W) without USB loading	—	Core i5-4400E 1.8A@19V (34.2W) without USB loading	
System Cooling	Passive	Passive	Passive	
Mounting	Wallmount	Wallmount	Wallmount	
Operating Temperature	Ambient with airflow	—	Intel® Core™ i7/i5/i3 37W BGA CPU:	
	-4°F ~ 122°F (-20°C ~ 50°C) - CFD	—	(1) 5°F ~ 122°F (-15°C ~ 50°C) W/T CFast™ (with AirFlow),	
	-4°F ~ 131°F (-20°C ~ 55°C) - HDD	-20°C ~ 60°C According to IEC60068-2, 0.5m/s air flow	(2) 5°F ~ 131°F (-15°C ~ 55°C) W/T HDD (with AirFlow) with industrial grade device (according to IEC68-2-14)	
	No airflow	—	—	
Storage Temperature	-4°F ~ 113°F (-20°C ~ 45°C) - CFD -4°F ~ 122°F (-20°C ~ 50°C) - HDD	-45°C ~ 80°C	-4°F ~ 158°F (-20°C ~ 70°C)	
Anti-Vibration	5 Grms/ 5 ~ 500Hz/ operation – CFast™ 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – mSATA & SSD 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – CFast™ 1 Grms/ 5 ~ 500Hz/ operation – HDD	
Anti-Shock	50 G peak acceleration (11 msec. duration) – CFast™ 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – mSATA & SSD 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFast™ 20 G peak acceleration (11 msec. duration) – HDD	
MTBF (Hours)	99,000	—	78,000	
Certification	EMC	CE/FCC Class A	CE/FCC Class A	
	Safety	—	—	
	Others	—	—	
Dimension (W x H x D)	7.76" x 2.26" x 4.34" (197mm x 57.2mm x 110mm)	7.76" x 5.63" x 2.17" (197mm x 143mm x 55mm)	8.35" x 6.14" x 2.53" (212.2mm x 156mm x 64.3mm)	
Gross Weight	4.85 lb (2.2 kg)	—	7.94 lb (3.6 kg)	
Net Weight	—	—	6.0 lb (2.7kg)	
Note	Windows® XP, Windows® 7 32-bit/64-bit, WES2009, WES7 32-bit/64-bit, WinCE 6.0, WEC7, Linux Fedora14/ Kernel 2.6.35.6	Windows® 7, Windows® 8/8.1, Windows® 10, Linux Fedora	Windows® 10, Windows® 8.1 (32/64-bit), Windows® 7(32/64-bit), WES7/ WES8, Linux Ubuntu 14.04/ Kernel 3.13.0	

BOXER-6600 Series

Compact Fanless BOX PC Solutions



Model	AEC-6635	AEC-6625	AEC-6646B
CPU	Intel® Core™ i7 620M 2.66 GHz/ Intel® Core™ i5 520M 2.4 GHz	Intel® P4500 1.86 GHz	LGA1155 socket for Desktop Intel® Core™/Pentium® processor (Max. 55W); supports: Intel® Pentium® G540 @ 2.50 GHz/ G850 @ 2.90 GHz, Intel® Core™ i3-2120 (3M Cache, 3.30 GHz)/ i3-3220 (3M Cache, 3.10 GHz)
Chipset	Intel® QM57	Intel® QM57	Intel® H61
System Memory	204-pin DDR3 SODIMM x 1, up to 4 GB	204-pin DDR3 SODIMM x 1, up to 4 GB	204-pin DDR3 1333/1066 MHz SODIMM x 2, up to 16 GB
Display Interface	VGA DB-15 x 1, shared system memory up to 512 MB DVI DVI-D x 1 HDMI — Others DisplayPort x 1	VGA DB-15 x 1, shared system memory up to 512 MB DVI DVI-D x 1 Others Display port x 1 (with cover protection)	VGA DB-15 x 1 HDMI HDMI x 2
Storage Device	CF-SATA CompactFlash™ Slot x 1 (w/Cover protection) HDD/SSD 2.5" SATA HDD drive bay x 1 Others —	2.5" SATA Slim Hard Disk Drive Bay x 1 (AEC-6625-AM-1010) Optional Dual 2.5" Slim Hard Disk Drive Kit Optional 2.5" Slim Hard Disk Drive + Slim CD-ROM Kit	2.5" SATA HDD bay x 1
Network	LAN Gigabit Ethernet x 2 Wireless —	Gigabit Ethernet Optional by Mini-Card	Gigabit Ethernet
Front I/O	USB Port USB 2.0 x 2 LAN — Serial Port — DIO 4 DI + 4 DO Audio — KB/MS — Others Power switch x 1, Power reset x 1, SYS LED x 1, HDD LED x 1	USB Port USB 2.0 x 2 (AEC-6625-A2M/A3M-1010) LAN — Serial Port — DIO — Audio — KB/MS — Others Power switch x 1, Reset Button x 1	USB Port USB 2.0 x 6 LAN RJ-45 x 2 Serial Port RS-232/422/485 x 1, RS-232 x 1 (AEC-6625-A1M-1010) DIO — Audio — KB/MS — Others Power input x 1, DVI-D x 1, VGA x 1
Rear I/O	USB Port USB 2.0 x 4 LAN RJ-45 x 2 Serial Port RS-232 x 3, RS-232/422/485 x 1 DIO — Audio — KB/MS — Others Power input x 1, DVI-D x 1, VGA x 1	USB Port USB 2.0 x 4 LAN RJ-45 x 2 Serial Port RS-232/422/485 x 1, RS-232 x 1 (AEC-6625-A1M-1010) DIO — Audio Line-in/Line-out x 1 KB/MS PS/2 x 1 for keyboard & mouse Others DVI x 1, VGA x 1, Power inlet x 1	USB Port USB 2.0 x 6 LAN RJ-45 x 2 Serial Port RS-232/422/485 x 1, RS-232 x 3 DIO — Audio Mic-In/ Line-Out/ Line-In KB/MS PS/2 x 1 for keyboard & mouse Others Power input x 1, Power Button x 1
Expansion	PCIe — PCI — Mini-Card 1 Mini PCI — Others —	PCIe — PCI — Mini-Card 1 Mini PCI — Others PCI-104 x 1 (AEC-6625-A3M-1010 only)	PCIe — PCI — Mini-Card Mini-Card x 1 Mini PCI — Others —
Indicator	Front Power LED x 1, HDD active LED x 1 Rear —	Front Power LED x 1, Hard Disk Drive LED x 1 Rear —	Front Power LED x 1, HDD active LED x 1 Rear —
Power Requirement	DC-in 9 ~ 30V	DC-in 9~30V	Lockable DC jack x 1 for DC12V
Power Consumption	Intel® Core™ i7 620M 2.56 GHz (35W), 1.58A@19V	Intel® P4500, 1.25A@30V	Core i3-3220 3.68A@12V (44.16W) without USB loading
System Cooling	Passive	Passive cooling	Passive
Mounting	Wallmount	Wallmount	Wallmount
Operating Temperature	-4°F ~ 122°F (-20°C ~ 50°C) without Airflow -4°F ~ 131°F (-20°C ~ 55°C) with Airflow	Ambient with airflow: -4°F ~ 140°F (-20°C ~ 60°C) No airflow: -4°F ~ 122°F (-20°C ~ 50°C)	23°F ~ 113°F (-5°C ~ 45°C) with W/T HDD (with Airflow) with industrial grade device (according to IEC68-2-14)
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 140°F (-20°C ~ 60°C)	14°F ~ 140°F (-10°C ~ 60°C)
Anti-Vibration	5 Grms/ 5 ~ 500Hz/ operation – CFD 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – CFD 1 Grms/ 5 ~ 500Hz/ operation – HDD	1 Grms/ 5 ~ 500Hz/ operation – HDD
Anti-Shock	50 G peak acceleration (11 msec. duration) – CFD 20 G peak acceleration (11 msec. duration) – HDD	20 G peak acceleration (11 msec. duration)	10 G peak acceleration (11 msec. duration)
MTBF (Hours)	50,000	50,000	115,000
Certification	EMC CE /FCC Class A Safety — Others —	EMC CE /FCC Class A Safety — Others —	EMC CE /FCC Class A Safety — Others —
Dimension (W x H x D)	8.35" x 2.52" x 9.8" (212mm x 64mm x 249mm)	8.35" x 2.52" x 6.22" (212mm x 64mm x 158mm)	11.81" x 3.05" x 7.48" (300mm x 77.5mm x 190mm)
Gross Weight	10.34 lb (4.7 kg)	10.34 lb (4.7 kg)	12.98 lb (5.9 kg)
Net Weight	—	—	—
Note	Win XP, Win7 32/64-bit, WES7 32/64-bit	Windows® XP Embedded, Windows® XP, Windows® 7 Support	Windows® XP, Windows® 7 (32/64-bit), Windows® 8.1 (32/64-bit), WES2009, WES7 32/64-bit, WES8 32/64-bit, Linux Fedora 15/ Kernel 2.6.38.6

BOXER-6600 Series

Compact Fanless BOX PC Solutions



Launching in Q2

Model	AEC-6643	BOXER-6652	BOXER-6651	BOXER-6639	
CPU	Onboard Intel® Atom™ D2550 B3 Processor	Intel® Core™ i5-4402E (2.7 GHz, 25W)	Intel® Atom™ E3845 Quad Core 1.91 GHz Processor SoC	Intel® Core™ i7-6700TE, Quad Core, 2.4 GHz, 8M cache i5-6500TE, Quad Core, 2.3 GHz, 6M cache i3-6100TE, Dual Core, 2.7 GHz, 4M cache (TDP: 35W)	
Chipset	Intel® NM10	Intel QM87 PCH	Intel® SoC	Q170	
System Memory	204-pin DDR3 800/1066 MHz SODIMM x 2, up to 4 GB	204-pin DDR3L 1333/1600MHz SODIMM x 1, up to 16 GB	204-pin DDR3L SODIMM x 1, support DDR3L 1333, up to 8 GB	204-pin DDR4 1866/2133 SODIMM x 2, up to 16 GB	
Display Interface	VGA	DB-15 x 1	VGA x 1	Support un-buffered and non-ECC type SODIMM	
	DVI	DVI-D x 1	DVI-D x 1	DVI-I x 1	
	HDMI	—	HDMI x 1	HDMI x 2	
	Others	—	—	—	
Storage Device	CF-SATA	—	CFast™ slot x 1 (with SIM Card Socket)	CFast slot x 1	
	HDD/SSD	2.5" SATA HDD bay x 1	2.5" HDD bay x 1	2.5" HDD bay x 1	
	Others	—	—	—	
Network	LAN	Gigabit Ethernet	Gigabit Ethernet x 2	Gigabit Ethernet x 3	
	Wireless	—	Optional by Mini-Card wireless module	Optional by Mini-Card wireless module	
Front I/O	USB Port	—	USB type A x 2 for USB 2.0	—	
	LAN	—	—	—	
	Serial Port	—	DB-9 x 2 for RS-232	DB9 x 2 for COM 5/6; RS-232	DB-9 x 6 for RS-232/422/485 with automatic flow control
	DIO	—	—	—	DB-44 or DC-37 Female for 32-pin non-isolation DIO (TTL level)
	Audio	—	Audio jack x 1 for Line-out	—	—
	KB/MS	—	—	—	—
	Others	Antenna hole x 2 for Optional Wi-Fi/Bluetooth kit	Power switch x 1, CFast slot x 1, SIM card slot x 1	CFast™ slot x 1 (with SIM Card Socket), Power switch x 1, LED x 6 for System/HDD/ LAN1 TX/ LAN1 RX/ LAN2 TX/ LAN 2 RX	Power switch x 1, 2 pin Remote power on/off connector x 1, Reset switch x 1, DVI-I x 1, HDMI x 2, 3-pin terminal block x 1 for DC9-30V
Rear I/O	USB Port	USB 2.0 x 6	USB type A x 2 for USB 3.0, USB type A x 2 for USB 2.0	USB 3.0 x 1, USB 2.0 x 3	USB type A x 6 for USB 3.0
	LAN	RJ-45 x 2	RJ-45 x 2 for 10/100/1000Base-TX	Intel® Gigabit Ethernet, RJ-45 x 2	RJ-45 x 3 for 10/100/1000Base-TX
	Serial Port	DB-9 x 3 for RS-232, DB-9 x 1 for RS-232/422/485 with 5/12V	DB-9 x 2 for RS-232 DB-9 x 2 for RS-232/422/485 (isolated)	DB9 x 4 for COM 1: RS-232 (Ring / +5V / +12V) (Jumper select), COM 2 RS-232 (Ring / +5V / +12V) (Jumper select), COM 3, 4 RS-232/422/485 with Auto Flow & isolation 2500Vdc (RS-232/422/485 by Jumper select)	—
	DIO	—	—	—	—
	Audio	Audio jack x 3 for Mic-in / Line-in / Line-in	—	Line-in x 1 / Line-out x 1	Audio jack x 1 (Mic-in, Line-out)
	KB/MS	—	—	VGA x 1, DVI-D x 1	—
Expansion	PCle	—	—	—	
	PCI	—	—	—	
	Mini-Card	Full-size Mini-Card (PCle[x1]+USB) x 1	Full-size Mini-Card x 1, Half-size Mini-Card x 1	Full size x 1, Half size x 1	Full-size Mini-Card x 2, Half-size Minicard x 1 (optional for mSATA)
	Mini PCI	—	—	—	—
Indicator	Others	—	—	—	SYS LED x 1, HDD LED x 1
	Front	—	System LED x 1, HDD LED x 1, LAN1 Tx LED x 1, LAN1 Rx LED x 1, LAN2 Tx LED x 1, LAN2 Rx LED x 1	LED x 6, for System/HDD/LAN1 TX/LAN1 RX/LAN2 TX/ LAN 2 RX	—
Power Requirement	Lockable DC jack x 1 for DC12V	DC-in 3-pin terminal block (9~30V)	DC 9 ~ 30V with 3-pin terminal block	DC-in 3-pin terminal block (9~30V)	
Power Consumption	D2550, 1.21A@12V (14.52W) without USB loading	—	—	—	
System Cooling	Passive	Passive	Passive cooling	Passive	
Mounting	Wallmount/VESA/Din Rail	Wallmount	—	Wallmount	
Operating Temperature	23°F ~ 113°F (-5°C ~ 45°C) with W/T HDD (with Airflow) with industrial grade device (according to IEC68-2-14)	-20°C ~ 60°C according to IEC60068-2, 0.5m/s air flow	-13°F ~ 149°F (-25°C ~ 65°C) with industrial grade device (with 0.5 m/s airflow, according to IEC68-2-14)	-4°F ~ 131°F (-20°C ~ 55°C) according to IEC60068-2, 0.5m/s air flow	
Storage Temperature	14°F ~ 140°F (-10°C ~ 60°C)	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C) with industrial grade device (according to IEC68-2-1, IEC68-2-2, IEC68-2-3)	-49°F ~ 176°F (-45°C ~ 80°C)	
Anti-Vibration	1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – mSATA & SSD 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/5~500Hz/ operation - CFast™ &SSD 1 Grms/5~500Hz/ operation - HDD	5 Grms/ 5 ~ 500Hz/ operation – mSATA & SSD 1 Grms/ 5 ~ 500Hz/ operation – HDD	
Anti-Shock	20 G peak acceleration (11 msec. duration)	50 G peak acceleration (11 msec. duration) – mSATA & SSD 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration - CFast™ Card 50 G peak acceleration - SSD, 20 G peak acceleration - HDD	100 G peak acceleration (11 msec. duration) – CFast/SSD/mSATA	
MTBF (Hours)	178,000	52,000	100,000	—	
Certification	EMC	CE/FCC Class A	CE/FCC class A	CE/FCC class A	
	Safety	—	—	—	
	Others	—	—	—	
Dimension (W x H x D)	11.81" x 1.83" x 7.48" (300mm x 46.5mm x 190mm)	10.4" x 2.74" x 7.62" (264.16mm x 69.62mm x 193.5mm)	10.4" x 2.7" x 7.6" (264.2 mm x 69.6 mm x 193.5 mm)	—	
Gross Weight	—	12.1 lb (5.5 kg)	1.1 lb (5 kg)	—	
Net Weight	—	—	—	—	
Note	Windows® XP Pro 32-bit, Windows® Embedded Standard 32-bit, Windows® 7 32-bit, Linux Ubuntu 15/ Kernel 2.6.38.6	Windows® 7, Windows® 8/8.1, Windows® 10, Linux Fedora	Windows® 7, Windows® 8.1, WES7, WES8, Linux Ubuntu 12.04 / Kernel 3.2.0	Windows® 7, Windows® 8/8.1, Windows® 10, Linux Fedora	

BOXER-6400 Series

Ultra Slim Fanless BOX PC Solutions



Model	BOXER-6401	BOXER-6402	BOXER-6403	BOXER-6403WT	
CPU	Intel® Atom™ Processor N2600	Intel® Atom™ Processor N2600	Intel® Celeron® Processor J1900, N2930, N2807, Atom™ Processor E3825	Intel® Celeron® Processor J1900, N2807	
Chipset	Intel NM10	Intel NM10	—	—	
System Memory	204-pin DDR3 800/1066 SODIMM x 1, Max. 4GB	204-pin DDR3 800/1066 SODIMM x 1, up to 4 GB	204-pin DDR3L 1333MHz SODIMM slot x 1, up to 8 GB (J1900/N2930/E3825) 204-pin DDR3L 1333MHz SODIMM x 1, up to 4 GB (N2807)	204-pin DDR3L 1333MHz SODIMM slot x 1, up to 8 GB (J1900) 204-pin DDR3L 1333MHz SODIMM x 1, up to 4 GB (N2807)	
Display Interface	VGA	—	—	—	
	DVI	—	—	—	
	HDMI	Mini HDMI x 1	Mini HDMI x 1	HDMI x 1	HDMI x 1
	DP	—	—	—	—
	Others	—	—	—	—
Storage Device	HDD/SSD	—	—	—	
	CFast	—	—	—	
	mSATA	Half-size mSATA bay x 1	Half-size mSATA bay x 1	Half-size mSATA bay x 1	Half-size mSATA bay x 1
Network	LAN	RJ-45 x 1	RJ-45 x 1	Intel® Gigabit Ethernet	Intel® Gigabit Ethernet
	Wireless	—	—	Optional by Mini-card module	Optional by Mini-card module
	USB Port	USB type A x 4 for USB2.0	USB type A x 2 for USB2.0	USB type A x 1 for USB3.0, USB type A x 3 for USB2.0	USB type A x 1 for USB3.0, USB type A x 3 for USB2.0
Front I/O	LAN	—	—	—	—
	Serial Port	—	—	—	—
	Display	Mini HDMI x 1	Mini HDMI x 1	—	—
	DIO	—	—	Digital input x 4, Digital output x 2 Support Dry Contact & Wet Contact	Digital input x 4, Digital output x 2 Support Dry Contact & Wet Contact
	Audio	—	—	—	—
	PS/2	—	—	—	—
	Others	Power button	Power button, 2-pins for CAN bus	Power button	Power button
	USB Port	—	—	—	—
Rear I/O	LAN	RJ-45 x 1 for 10/100/1000 base-TX	RJ-45 x 2 for 10/100/1000 base-TX	RJ-45 x 2 for 10/100/1000 base-TX	RJ-45 x 2 for 10/100/1000 base-TX
	Serial Port	RJ-45 x 2 for 2x RS-232/422/485, RJ-45 x 1 for RS-232	RJ-45 x 2 for 2x RS-232/422/485	RJ-45 x 2 for RS-232/422/485 (BIOS selection)	RJ-45 x 2 for RS-232/422/485 (BIOS selection)
	Display	—	—	HDMI x 1	HDMI x 1
	Others	Lockable DC-jack x 1	Lockable DC-jack x 1	Lockable DC-jack x 1	Lockable DC-jack x 1
	PCIe	—	—	—	—
Expansion	PCI	—	—	—	—
	Mini Card	Half size Mini-card slot x 1 for mSATA only	Half size Mini-card slot x 1 for mSATA only	Half size Mini-card slot x 1 for mSATA only, Full size Mini-card slot x 1	Half size Mini-card slot x 1 for mSATA only, Full size Mini-card slot x 1
	USB	Onboard USB pin header x 1	Onboard USB pin header x 1	Onboard USB 2.0 pin header x 1	Onboard USB 2.0 pin header x 1
	Others	—	—	Onboard LPC connector x 1, LVDS x 1	Onboard LPC connector x 1, LVDS x 1
	Indicator	Front	—	—	—
	Rear	—	—	—	
Power Requirement	DC 12V input with lockable connector	DC 12V input with lockable connector	DC 12V input with lockable connector	DC 12V input with lockable connector	
Power Consumption	—	—	—	—	
System Cooling	Passive	Passive	Passive	Passive	
Mounting	Din Rail mount	Yes (option)	Yes (option)	Yes (option)	
	VESA mount	VESA 75 (option)	VESA 75 (option)	VESA 75 (option)	
Operating Temperature	0°C ~ 40°C (-4°F ~ 104°F) without airflow 0°C ~ 50°C (-4°F ~ 122°F) with 0.5 m/s airflow	0°C ~ 40°C (-4°F ~ 104°F) without airflow 0°C ~ 50°C (-4°F ~ 122°F) with 0.5 m/s airflow	-30°C ~ 60°C (-22°F ~ 140°F) with 0.5m/s airflow	-30°C ~ 70°C (-22°F ~ 158°F) with 0.5m/s airflow	
Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F) 5 ~ 95% @ 40°C, non-condensing	-20°C ~ 70°C (-4°F ~ 158°F) 5 ~ 95% @ 40°C, non-condensing	-30°C ~ 80°C (-22°F ~ 176°F) 5 ~ 95% @ 40°C, non-condensing	-30°C ~ 80°C (-22°F ~ 176°F) 5 ~ 95% @ 40°C, non-condensing	
Anti-Vibration	3G rms/ 5 ~ 500Hz/ operation – mSATA	3G rms/ 5 ~ 500Hz/ operation –mSATA	3G rms/ 5 ~ 500Hz/ operation –mSATA	3G rms/ 5 ~ 500Hz/ operation –mSATA	
Anti-Shock	50G peak acceleration (11 msec. duration) – mSATA	50G peak acceleration (11 msec. duration) – mSATA	20 G peak acceleration (11 msec. duration) – mSATA	20 G peak acceleration (11 msec. duration) – mSATA	
MTBF (Hours)	50,000	50,000	94,101	—	
Certification	EMC	CE /FCC Class A	CE /FCC Class A	CE /FCC Class A	
	Safety	—	—	—	
Dimension (W x H x D)	136mm x 79.6mm x 20mm (5.35" x 3.13" x 0.79")	136mm x 79.6mm x 20mm (5.35" x 3.13" x 0.79")	158mm x 95mm x 20mm (6.22" x 3.74" x 0.79")	158mm x 95mm x 29mm (6.22" x 3.74" x 1.41")	
Gross Weight	1.20 Kg (2.64 lb)	1.20 Kg (2.64 lb)	1.16 Kg (2.56 lb)	1.35 Kg (2.98 lb)	
Note	Windows® 7 (32 bit) Windows® XP (32 bit), Windows® Embedded Standard 7 Windows® Embedded Standard 2009 Linux Fedora	Windows® 7 (32 bit) Windows® XP (32 bit), Windows® Embedded Standard 7 Windows® Embedded Standard 2009 Linux Fedora	Windows® 10 Windows® 8.1 Windows® 7 Windows® Embedded 8 Standard Windows® Embedded Standard 7 Linux Fedora	Windows® 10 Windows® 8.1 Windows® 7 Windows® Embedded 8 Standard Windows® Embedded Standard 7 Linux Fedora	

BOXER-6400 Series

Ultra Slim Fanless BOX PC Solutions



Model	BOXER-6403M	BOXER-6404	BOXER-6404WT	BOXER-6404M	
CPU	Intel® Celeron® Processor J1900, N2807	Intel® Celeron® Processor J1900, N2807	Intel® Celeron® Processor J1900, N2807	Intel® Celeron® Processor J1900, N2807	
Chipset	—	—	—	—	
System Memory	204-pin DDR3L 1333MHz SODIMM slot x 1, up to 8 GB (J1900) 204-pin DDR3L 1333MHz SODIMM x 1, up to 4 GB (N2807)	204-pin DDR3L 1333MHz SODIMM slot x 1, up to 8 GB (J1900) 204-pin DDR3L 1333MHz SODIMM x 1, up to 4 GB (N2807)	204-pin DDR3L 1333MHz SODIMM slot x 1, up to 8 GB (J1900) 204-pin DDR3L 1333MHz SODIMM x 1, up to 4 GB (N2807)	204-pin DDR3L 1333MHz SODIMM slot x 1, up to 8 GB (J1900) 204-pin DDR3L 1333MHz SODIMM x 1, up to 4 GB (N2807)	
Display Interface	VGA	—	—	—	
	DVI	—	—	—	
	HDMI	HDMI x 1	HDMI x 2	HDMI x 2	HDMI x 2
	DP	—	—	—	—
	Others	—	—	—	—
Storage Device	HDD/SSD	2.5" HDD/SSD bay x 1	—	—	2.5" HDD/SSD bay x 1
	CFast	—	CFast™ Slot x 1	CFast™ Slot x 1	CFast™ Slot x 1
	mSATA	Half-size mSATA bay x 1	—	—	—
Network	LAN	Intel® Gigabit Ethernet	Intel® Gigabit Ethernet	Intel® Gigabit Ethernet	Intel® Gigabit Ethernet
	Wireless	Optional by Mini-card module	Optional by Mini-card module	Optional by Mini-card module	Optional by Mini-card module
Front I/O	USB Port	USB type A x 1 for USB3.0, USB type A x 3 for USB2.0	USB type A x 1 for USB3.0, USB type A x 2 for USB2.0	USB type A x 1 for USB3.0, USB type A x 2 for USB2.0	USB type A x 1 for USB3.0, USB type A x 2 for USB2.0
	LAN	—	—	—	—
	Serial Port	—	—	—	—
	Display	—	HDMI x 2	HDMI x 2	HDMI x 2
	DIO	Digital input x 4, Digital output x 2 Support Dry Contact & Wet Contact	—	—	—
	Audio	—	—	—	—
	PS/2	—	—	—	—
	Others	Power button	Power button	Power button	Power button
Rear I/O	USB Port	—	—	—	—
	LAN	RJ-45 x 2 for 10/100/1000 base-TX	RJ-45 x 4 for 10/100/1000 base-TX	RJ-45 x 4 for 10/100/1000 base-TX	RJ-45 x 4 for 10/100/1000 base-TX
	Serial Port	RJ-45 x 2 for RS-232/422/485 (BIOS selection)	DB-9 x 1 for RS-232	DB-9 x 1 for RS-232	DB-9 x 1 for RS-232
	Display	HDMI x 1	—	—	—
	Others	Lockable DC-jack x 1	Lockable DC-jack x 1	Lockable DC-jack x 1	Lockable DC-jack x 1
Expansion	PCIe	—	—	—	—
	PCI	—	—	—	—
	Mini Card	Full size Mini-card slot x 1	Full size Mini-Card slot x 1 (USB Interface only)	Full size Mini-Card slot x 1 (USB Interface only)	Full size Mini-Card slot x 1 (USB Interface only)
	USB	Onboard USB 2.0 pin header x 1	—	—	—
	Others	Onboard LPC connector x 1, LVDS x 1	Onboard SATA connetor x 1	Onboard SATA connetorx 1	Onboard SATA connetorx 1
Indicator	Front	—	—	—	—
	Rear	—	—	—	—
Power Requirement	DC 12V input with lockable connector	DC 12V input with lockable connector	DC 12V input with lockable connector	DC 12V input with lockable connector	
Power Consumption	—	—	—	—	
System Cooling	Passive	Passive	Passive	Passive	
Mounting	Din Rail mount	Yes (option)	Yes (option)	Yes (option)	Yes (option)
	VESA mount	VESA 75 (option)	VESA 75 (option)	VESA 75 (option)	VESA 75 (option)
Operating Temperature	-30°C ~ 70°C (-22°F ~ 158°F) with 0.5m/s airflow	-30°C ~ 65°C (-22°F ~ 149°F) with 0.5m/s airflow	-30°C to 75°C (-22°F ~ 167°F) with 0.5m/s airflow	-30°C to 75°C (-22°F ~ 167°F) with 0.5m/s airflow	
Storage Temperature	-30°C ~ 80°C (-22°F ~ 176°F) 5 ~ 95% @ 40°C, non-condensing	-30°C ~ 80°C (-22°F ~ 176°F) 5 ~ 95% @ 40°C, non-condensing	-30°C ~ 80°C (-22°F ~ 176°F) 5 ~ 95% @ 40°C, non-condensing	-30°C ~ 80°C (-22°F ~ 176°F) 5 ~ 95% @ 40°C, non-condensing	
Anti-Vibration	3G rms/ 5 ~ 500Hz/ operation -HDD	5G rms/ 5 ~ 500Hz/ operation -CFast	5G rms/ 5 ~ 500Hz/ operation -CFast	5G rms/ 5 ~ 500Hz/ operation -CFast	
Anti-Shock	20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFast	50 G peak acceleration (11 msec. duration) – CFast	50 G peak acceleration (11 msec. duration) – CFast	
MTBF (Hours)	—	152,670	—	—	
Certification	EMC	CE /FCC Class A	CE /FCC Class A	CE /FCC Class A	CE /FCC Class A
	Safety	—	—	—	—
Dimension (W x H x D)	158.0mm x 95.0mm x 41.5mm (6.22" x 3.74" x 1.63")	166mm x 106.6mm x 30mm (6.53" x 4.20" x 1.18")	166mm x 106.6mm x 40.5mm (6.53" x 4.20" x 1.59")	166mm x 106.6mm x 52mm (6.53" x 4.20" x 2.05")	
Gross Weight	1.45kg (3.20 lb)	1.30kg (2.90 lb)	1.63kg (3.59 lb)	1.73kg (3.81 lb)	
Note	Windows® 10 Windows® 8.1 Windows® 7 Windows® Embedded 8 Standard Windows® Embedded Standard 7 Linux Federa	Windows® 10 Windows® 8.1 Windows® 7 Windows® Embedded 8 Standard Windows® Embedded Standard 7 Linux Federa	Windows® 10 Windows® 8.1 Windows® 7 Windows® Embedded 8 Standard Windows® Embedded Standard 7 Linux Federa	Windows® 10 Windows® 8.1 Windows® 7 Windows® Embedded 8 Standard Windows® Embedded Standard 7 Linux Federa	

BOXER-6800 Series

Expandable Fanless BOX PC Solutions



Model	BOXER-6852	AEC-6877	AEC-6876	
CPU	Intel® Core™ i5-4402E (2.7 GHz, 25W)	Intel® Core™ i7-3610QE 2.3 GHz, i5-3610ME 2.7 GHz/ i7-2710QE 2.1 GHz/ i5-2510E 2.5 GHz/ Celeron® B810 1.6 GHz with socket PGA988	Intel® Core™ i7-2710QE/ i5-2510E 2.5 GHz/ i3-2330E/ Celeron® B810 1.6 GHz	
Chipset	Intel QM87	Intel QM77	Intel QM67	
System Memory	204-pin DDR3L 1333/1600MHz SODIMM x 1, up to 16 GB	204-pin dual-channel DDR3 1066/1333/1600 MHz SODIMM x 2, up to 16 GB	DDR3 1066/1333 MHz SODIMM x 2, up to 16 GB	
Display Interface	VGA	VGA x 1	DB-15 x 1	
	DVI	DVI-D x 1	DVI-D x 1, supports 1920 x 1200 @ 60 Hz	DVI-D x 1
	HDMI	HDMI x 1	—	HDMI x 1, support 1920 x 1080 @ 60 Hz
	Others	—	DisplayPort™ x 2	—
Storage Device	CF-SATA	CFast slot x 1	CFast™ slot	CFast™ slot
	HDD/SSD	2.5" HDD bay x 1	SATA 6.0Gb/s x 2, support RAID 0,1	SATA 6.0 Gb/s x 1 (SATA 0, 2)
	Others	—	—	—
Network	LAN	Gigabit Ethernet x 2	10/100/1000Base-TX	Gigabit ethernet, RJ-45 x 2
	Wireless	Optional by Mini-Card wireless module	Optional by Mini-Card	Optional by Mini-Card
	USB Port	USB type A x 2 for USB 2.0	—	—
Front I/O	LAN	—	—	—
	Serial Port	DB-9 x 2 for RS-232	DB-9 x 1 for RS-232	RS-232 x 3
	DIO	—	—	—
	Audio	Audio jack x 1 for Line-out	—	—
	KB/MS	—	—	—
	Others	Power switch x 1, CFast slot x 1, SIM card slot x 1	Power button x 1, standard antenna hole x 2	Power button x 1
Rear I/O	USB Port	USB type A x 2 for USB 3.0, USB type A x 2 for USB 2.0	USB 3.0 x 4	USB 2.0 x 4
	LAN	RJ-45 x 2 for 10/100/1000Base-TX	RJ-45 x 2	RJ-45 x 2
	Serial Port	DB-9 x 2 for RS-232, DB-9 x 2 for RS-232/422/485 (isolated)	DB-9 x 1 for RS-232/422/485	RS-232/422/485 x 1
	DIO	—	—	—
	Audio	—	Mic-in, Line-in, Line-out	Mic-in, line-in, line-out
	KB/MS	—	PS/2 KB x 1+ MS x 1	PS/2 KB x 1+ MS x 1
Others	3-pin terminal block x 1 for DC 9-30V, DVI-D x 1, HDMI x 1	Power input x 1	Power input x 1	
Expansion	PCIe	PCIe [x1]	AxM: PCIe[x4], supports max. 217 mm (length) for expansion card	1 (optional), AxM: PCIe-E[x4], supports max. 217 mm (length) for expansion card
	PCI	PCI x 2	BxM: PCI x 2, supports max. 217 mm (length) for expansion card	2 (optional), BxM: PCI x 2, supports max. 217 mm (length) for expansion card
	Mini-Card	Full-size Mini-Card x 1, Half-size Mini-Card x 1	—	1
	Mini PCI	—	—	—
	Others	—	—	—
Indicator	Front	System LED x 1, HDD LED x 1, LAN1 Tx LED x 1, LAN1 Rx LED x 1, LAN2 Tx LED x 1, LAN2 Rx LED x 1	Power LED x 1, HDD active LED x 1	Power LED x 1, HDD active LED x 1
	Rear	—	—	—
Power Requirement	DC-in 3-pin terminal block (9~30V)	DC 9 ~ 30V with 3-pin terminal block	DC-in 12V, with DC lockable jack, DC 9 ~ 30V with 3-pin terminal block	
Power Consumption	—	Intel® Core™ i7-3610QE 2.3 GHz, 3.02A@19V (57.38W) without USB loading	Intel® Core™ i7-2710QE 3.02A@19V(57.38W) without USB loading	
System Cooling	Passive	Passive cooling	Passive cooling	
Mounting	Wallmount	Wallmount	Wallmount	
Operating Temperature	-20°C ~ 60°C according to IEC60068-2, 0.5m/s air flow	32°F ~ 122°F (0°C ~ 50°C) – without airflow	No airflow: 32°F ~ 122°F (0°C ~ 50°C) wide temperature CFD with WT RAM x 2 Ambient with airflow: 5°F ~ 131°F (-15°C ~ 55°C) wide temperature CFD with WT RAM x 2	
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C) 10%~95% @40°C, non-condensing	-4°F ~ 158°F (-20°C ~ 70°C)	
Anti-Vibration	5 Grms/ 5 ~ 500Hz/ operation – mSATA & SSD 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – CFast™ 1 Grms/ 5 ~ 500Hz/ operation – HDD	5 Grms/ 5 ~ 500Hz/ operation – CFD 1 Grms/ 5 ~ 500Hz/ operation – HDD	
Anti-Shock	50 G peak acceleration (11 msec. duration) – mSATA & SSD 20 G peak acceleration (11 msec. duration) – HDD	20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFD 20 G peak acceleration (11 msec. duration) – HDD	
MTBF (Hours)	—	50,000	50,000	
Certification	EMC	CE/FCC class A	CE/FCC class A	CE/FCC class A
	Safety	—	—	—
	Others	—	—	—
Dimension (W x H x D)	10.4" x 7.62" x 4.3" (264.16mm x193.5mm x 109.3mm)	8.19" x 4.02" x 9.37" (208mmx 102mm x 238mm)	8.19" x 4.02" x 9.37" (208mmx 102mm x 238mm)	
Gross Weight	11 lb (5 kg)	13.2 lb (6 kg)	13.2 lb (6 kg)	
Net Weight	—	—	—	
Note	Windows® 7, Windows® 8/8.1, Windows® 10, Linux Fedora	Windows® XP Embedded, Windows® 7 32/64-bit, WES2009, WES 7 32/64-bit, Linux Fedora 13/ kernel 2.6.33.3	Windows® XP Embedded, Windows® 7 32/64-bit, WES 2009, WES 7 32/64-bit, Linux Fedora 14/ Kernel 2.6.35.3	

BOXER-6900 Series

Automation Fanless BOX PC Solutions



Model	BOXER-6914	AEC-6977	AEC-6967	
CPU	Intel® Atom™ D2550 (1M Cache, 1.86 GHz)	Intel® Core™ i7/i5/i3/Celeron® processor with (BGA)	Intel® 2nd generation Core™ i Series Processor	
Chipset	Intel® NM10	Intel® QM77	Intel® QM67 or Intel® QM77	
System Memory	DDR3 800/1066 SODIMM x 2, Max. 4 GB	DDR3 1066/1333 MHz SODIMM x 2, up to 16 GB	DDR3 1066/1333 MHz SODIMM x 2, up to 16 GB	
Display Interface	VGA	DB-15 x 1 for VGA	DB-15 x 1	
	DVI	DVI-D x 1	DVI-D x 1 (optional 2nd DVI), supports 1920 x 1200 @ 60 Hz	
	HDMI	—	HDMI x 1, supports 1920 x 1200 @ 60 Hz	
	Others	—	Dual-channel 24-bit LVDS (optional extension kit)	
Storage Device	CF-SATA	CFast™ slot x 1 (w/ cover protection)	CFast™ slot	
	HDD/SSD	2.5" HDD bay x 1	SATA 6.0 Gb/s x 2 (SATA 0, 2), SATA 3.0 Gb/s x 2 (SATA 2, 3), Support RAID 0,1,5,10	SATA 6.0 Gb/s x 2 (SATA 0, 2), SATA 3.0 Gb/s x 2 (SATA 2, 3), support RAID 0,1,5,10
Network	LAN	Gigabit Ethernet	Gigabit Ethernet	
	Wireless	Optional by Mini-Card wireless module	Optional by Mini-Card	
	USB Port	USB type A x 2 for USB 2.0	USB 2.0 x 2	USB 2.0 x 2
Front I/O	LAN	—	—	
	Serial Port	—	RS-232 x 1, RS-232/422/485 x 1, both support optional 2.5KV isolation, RS-232 x 2	
	DIO	—	8-bit programmable, optional 2.5KV isolation protection	
	Audio	—	—	
	KB/MS	—	PS/2 x 1	
	Others	Power On/Off Button x 1, CFast™ slot x 1, SIM card slot x 1, Line-out x 1, 2-pin terminal block x 1 for remote power on/off	Power switch x 1, Reset button x 1, LED x 2, SMA antenna x 3 if needed	Power switch x 1, Reset button x 1
	USB Port	USB type A x 2 for USB 3.0, USB type A x 2 for USB 2.0	USB 3.0 x 4	USB 2.0 x 4
Rear I/O	LAN	RJ-45 x 2 for Gigabit Ethernet (Intel®)	RJ-45 x 2	
	Serial Port	DB-9 x 2 for RS-232/422/485 (cableless), DB-9 x 12 for RS-232 (cableless) DB-9 x 2 for RS-232 by cable (optional)	RS-232 x 2	
	DIO	Programmable 30 channel digital I/O	—	
	Audio	—	Mic-in, line-in, line-out	
	KB/MS	—	—	
	Others	DC-in 3-pin terminal block (9~30V), Antenna hole x 2, DB-15 x 1 for VGA, DVI-D x 1	VGA x 1, DVI-D x 1, HDMI x 1, mic in x 1	DB-15 x 1 for VGA, DVI-D x 1, HDMI x 1
Expansion	PCIe	—	Riser card: PCI-E[x4] x 2, or PCI-E[x4] and PCI x 1, supports up to 167 mm (length) for expansion card	
	PCI	—	Riser card: PCI x 2, supports up to 167 mm (length) for expansion card	
	Mini-Card	Full-size Mini-PCIe x 2	2	
	Mini PCI	—	—	
	Others	—	SIM x 1	
Indicator	Front	HDD LED x 1, System LED x 1 on power button	System LED x 1, HDD LED x 1	
	Rear	—	—	
Power Requirement	DC-in 3-pin terminal block (9~30V)	DC-in 9~30V input, 100~240V (optional)	DC-in 9~30V input, optional 100~240V	
Power Consumption	—	—	Intel® Core™ i7-2610UE, 3.46A@9V or 1A@30V	
System Cooling	Passive	Passive	Passive	
Mounting	Wallmount	Wallmount	Wallmount	
Operating Temperature	—	-4°F ~ 140°F (-20°C ~ 60°C), ambient with airflow, with wide-temp CFast™ & RAM -4°F ~ 131°F (-20°C ~ 55°C), ambient with airflow, with wide-temp HDD & RAM -4°F ~ 131°F (-20°C ~ 55°C), without airflow, with wide-temp CFast™ & RAM -4°F ~ 122°F (-20°C ~ 50°C), without airflow, with wide-temp HDD & RAM	Without airflow, with wide-temp storage & RAM -4°F ~ 122°F (-20°C ~ 50°C) -35W TDP CPU -4°F ~ 149°F (-20°C ~ 65°C) -17W TDP CPU, not include riser card Ambient with airflow, with wide-temp storage & RAM -4°F ~ 140°F (-20°C ~ 60°C) -35W TDP CPU -4°F ~ 167°F (-20°C ~ 75°C) -17W TDP CPU, not include riser card	Without airflow (not include riser card) -4°F ~ 122°F (-20°C ~ 50°C) -35W TDP CPU -4°F ~ 149°F (-20°C ~ 65°C) -17W TDP CPU Ambient with airflow (not include riser card) -4°F ~ 140°F (-20°C ~ 60°C) -35W TDP CPU -4°F ~ 167°F (-20°C ~ 75°C) -17W TDP CPU
	Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C)
	Anti-Vibration	5 Grms/ 5 ~ 500Hz/ operation – CFast™, 1 Grms/ 5 ~ 500Hz/ operation – HDD	3 Grms/ 5 ~ 500Hz/ operation – CFD, 1 Grms/ 5 ~ 500Hz/ operation – HDD	3 Grms/ 5 ~ 500Hz/ operation – CFast™, 1 Grms/ 5 ~ 500Hz/ operation – HDD
	Anti-Shock	50 G peak acceleration (11 msec. duration) – CFast™ 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFD 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFD 20 G peak acceleration (11 msec. duration) – HDD
MTBF (Hours)	55,000	59,000	43,000	
Certification	EMC	CE/FCC class A	CE/FCC class A	
	Safety	—	—	
	Others	—	—	
	Dimension (W x H x D)	13.10" x 5.39" x 7.48" (332.8mm x 136.8mm x 190mm)	8.19" x 4.9" x 9.37" (208mm x 124.4mm x 238mm)	8.19" x 4.9" x 9.37" (208mm x 124.4mm x 238mm)
Gross Weight	9.7 lb (4.4 kg)	13.2 lb (6.0 kg)	—	
Net Weight	6.17 lb (2.8 kg)	—	—	
Note	Windows® 7, Windows® XP, Linux Fedora	Windows® XP Embedded, Windows® XP, Windows® 7, Linux Fedora 10	Windows® XP Embedded, Windows® XP, Windows® 7, Linux Fedora 15-2.6.38.6 Support	

BOXER-6900 Series

Automation Fanless BOX PC Solutions



Model	AEC-6950	AEC-6913
CPU	Intel® Core™ i7 3517UE 1.7 GHz	Intel® Core™ D2550 1.86 GHz
Chipset	Intel® QM77PCH	Intel® NM10
System Memory	DDR3 1333/1600 SODIMM x 2, up to 16 GB	DDR3 800/1066 MHz SODIMM x 1, up to 4 GB
Display Interface	VGA	—
	DVI	DVI-I x 1
	HDMI	DVI-D x 1
	Others	—
Storage Device	CF-SATA	CFast™ slot x 1
	HDD/SSD	2.5" SATA HDD x 1
	Others	—
Network	LAN	Gigabit Ethernet
	Wireless	Optional by Mini-Card
Front I/O	USB Port	USB type A x 2 for USB 2.0, USB type A x 2 for USB 3.0
	LAN	—
	Serial Port	DB-9 x 2 for RS-232/422/485 x 2, DB-9 x 4 for RS-232 x 4
	DIO	—
	Audio	Line out
	KB/MS	—
	Others	DVI-I x 1, DVI-D x 1, SIM card slot x 1, SMA antenna opening x 3, CFast™ slot x 1, Power switch x 1, Indicator x 2 (System x 1 and HDD x 1)
	Others	DVI-I x 1, antenna hole x 3, Power switch, LED x 2, CFast™ slot x 1, SIM card slot x 1
Rear I/O	USB Port	USB type A x 2 for USB 2.0
	LAN	RJ-45 x 2
	Serial Port	Isolated Digital Input/Output x 10 pins (DI x 4, DO x 4)(3KV) Isolated DB-9 x 2 for RS-232/422/485 x 2 (3KV, jumper selection)
	DIO	—
	Audio	Isolated DI x 10 pins (DI x 4 and DO x 4, 2KV)
	KB/MS	—
Expansion	Others	3-pin terminal block x 1, Grounding screw x 1, Isolated CAN Bus x 2 (optional, 2KV), PCI x 2 or PCe [x1]/PCe [x16]
	PCIe	Riser card: PCe [x1]/PCe [x16]
	PCI	Riser card: PCI x 2 (optional)
	Mini-Card	—
	Mini PCI	—
Indicator	Others	SIM card slot x 1
	Front	HDD LED x 1, System LED x 1
Power Requirement	Front	—
	Rear	System LED x 1, HDD LED x 1
Power Requirement	DC-in 9~30V input, optional AC-in 100~240V	DC-in 9~30V input, optional AC-in 100~240V
Power Consumption	—	—
System Cooling	Passive	Passive
Mounting	Wallmount	Wallmount
Operating Temperature	Front	-4°F ~ 122°F (-20°C ~ 50°C) w/o airflow -4°F ~ 131°F (-20°C ~ 55°C) with airflow *Power consumption of add-on PCI/PCI-E card must be under 30W.
	Rear	-4°F ~ 149°F (-20°C ~ 65°C) w/o airflow -4°F ~ 167°F (-20°C ~ 75°C) w/ airflow Power consumption of add-on PCI/PCI-E card must be under 30W.G40
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)	-4°F ~ 158°F (-20°C ~ 70°C)
Anti-Vibration	3 Grms/ 5 ~ 500Hz/ operation – CFast™, 1 Grms/ 5~ 500Hz/ operation – HDD	3 Grms/ 5 ~ 500Hz/ operation – CFD 1 Grms/ 5 ~ 500Hz/ operation – HDD
Anti-Shock	50 G peak acceleration (11 msec. duration) – CFD 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFD 20 G peak acceleration (11 msec. duration) – HDD
MTBF (Hours)	54,000	55,000
Certification	EMC	CE/FCC class A, UL
	Safety	—
	Others	—
Dimension (W x H x D)	8.4" x 3.9" x 9.5" (214mm x 100mm x 241mm)	8.4" x 3.9" x 9.5" (214mm x 100mm x 241mm)
Gross Weight	11 lb (5 kg)	11 lb (5 kg)
Net Weight	—	—
Note	—	Windows® XP Embedded, Windows® XP, Windows® 7, Linux Fedora 10

Transportation BOX PC Solutions



Model	BOXER-6313VS	BOXER-6301VS	Model	AEC-6357VS	
CPU	Intel® Atom™ E3845 1.91 GHz Processor (Optional for J1900, N2807)	Intel® Core™ i5-4402E 1.6 GHz	CPU	Intel® Core™ i7-3517UE (4M Cache, up to 2.80 GHz)	
Chipset	—	Intel® QM87	Chipset	Intel® QM77	
System Memory	204-pin DDR3L 1066/1333MHz SODIMM x 1, up to 8 GB (J1900 & N2807 don't support 1066MHz SODIMM)	DDR3L 1333/1600MHz SODIMM x 1, up to 8 GB	System Memory	DDR3 1333/1600 SODIMM x 2, up to 16 GB	
Display Interface	VGA	VGA x 1	Display Interface	VGA	DB-15 x 1 for VGA
	DVI	—		DVI	DVI-I x 1
	HDMI	HDMI x 1		HDMI	—
	Others	—		Others	—
Storage Device	CF-SATA	CFAST slot x 1	Storage Device	CF-SATA	CFAST™ slot x 1
	HDD/SSD	2.5" HDD bay x 2		HDD/SSD	2.5" SATA HDD bay x 2 (w/ HDD Pluggable LED Switch), *Hot pluggable, hot swappable *Supports RAID 0, 1
	Others	—		Others	—
Network	LAN	Gigabit Ethernet x 2	Network	LAN	Gigabit Ethernet
	Wireless	Optional by Mini-Card wireless module		Wireless	Optional by Mini-Card wireless module
Front I/O	USB Port	—	Front I/O	Serial Port	M12 female x 1 for RS-232/422/485
	LAN	—		Others	Power on/off LED button x 1, VGA x 1, DVI-I x 1, CFAST™ slot x 1 (covered), SIM card slot x 1 (covered), Removable 2.5" HDD kit (SATA III-6.0 G) x 2, HDD pluggable LED switch (via cable), PoE x 4 (802.3af)
	Serial Port	—			
	DIO	—			
	Audio	—		USB Port	USB type A x 2 for USB 3.0
	KB/MS	—		LAN	RJ-45 x 2 for Gigabit Ethernet (Intel®)
Others	VGA, HDMI, CANbus, Power on/off	SIM card slot x 3, antenna hole x 6, 2.5" HDD Tray x 2	Serial Port	DB-9 x 1 for RS-232/422/485 (isolated), DB-9 x 2 for RS-232/422/485	
Rear I/O	USB Port	USB type A x 1 for USB 3.0, USB type A x 3 for USB 2.0	Rear I/O	DIO	Digital input x 4 (isolated), Digital Output x 2 (isolated)
	LAN	RJ-45 x 2 for 10/100/1000Base-TX		Audio	Line-out x 1, mic x 1
	Serial Port	DB-9 x 2 for RS-232, DB-9 x 2 for RS-232/422/485 (isolated)		KB/MS	—
	DIO	—		Others	M12 4-pin male x 1 for DC-in (16.5 ~ 75V, 43~160V), Antenna hole x 3
	Audio	Audio jack x 1 (Mic-in, Line-out)		PCIe	—
	KB/MS	—		PCI	—
	Others	—		Mini-Card	Full-sized Mini-Card x 3 (BOM optional mSATA)
	Others	—		Mini PCI	—
Expansion	PCIe	—	Expansion	Others	Sim card socket x 3
	PCI	—		Front	System LED x 1 on power button
	Mini-Card	Full-size Mini-PCIe x 2		Rear	—
	Mini PCI	—		Power Requirement	M12 4-pin male x 1 for DC-in (16.5 ~ 75V, 43~160V)
Indicator	Front	Onboard system power LED x 1 (green), Onboard HDD active LED x 1 (red) Onboard power status LED x 1 (green)	Indicator	Power Consumption	—
	Rear	—		System Cooling	Passive
Power Requirement	DC-in 3-pin terminal block (9~30V)	DC 12/24V	Mounting	Wallmount	
Power Consumption	—	—	Operating Temperature	-40°C to 70°C, 85°C for 10 minutes	
System Cooling	Passive	Passive	Humidity	Conforms to EN 50155/EN50125-1 Test method EN 60068-2-30 (variant 1)	
Mounting	Wallmount	Wallmount	Altitude	<2500meters	
Operating Temperature	5°F ~ 149°F (-15°C ~ 65°C) according to IEC60068-2, 0.5m/s air flow	-4°F ~ 122°F (-20°C ~ 50°C) w/o airflow -4°F ~ 131°F (-20°C ~ 55°C) w/ airflow	Salt Mist	Conforms to EN50155	
Storage Temperature	-49°F ~ 176°F (-45°C ~ 80°C)	-4°F ~ 158°F (-20°C ~ 70°C)	Insulation Resistance	Conforms to EN50155	
Anti-Vibration	1 Grms/5 ~ 500Hz/ operation – HDD	3 Grms/5 ~ 500Hz/ operation – CFAST™ 1 Grms/5 ~ 500Hz/ operation – SSD	Voltage withstand	Conforms to EN50155	
Anti-Shock	50 G peak acceleration (11 msec. duration) – mSATA & SSD 20 G peak acceleration (11 msec. duration) – HDD	50 G peak acceleration (11 msec. duration) – CFAST™ 20 G peak acceleration (11 msec. duration) – SSD		- Conforms to EN50155 - Power supply voltage range conforms to Italian standard ST306158 0.6<U/Un<1.5 - Power supply variation conforms to Italian SCMT 0.6<U/Un<1.67 during 0,1 sec - Power supply voltage switching (EN 50155 § 3.1.3) Class C1	
MTBF (Hours)	55,000	54,000	Mechanical Earth Continuity	Conforms to Standard STM-E-001 Acceptance criteria = R<100 mΩ Every metallic part accessible to the user must be connected to mechanical earth (NF F 60100)	
Certification	EMC	CE/FCC class A	Pollution	Compliant with EN60721-3-5 standard	
	Safety	—	EMC	Compliant with EN50121 standard, EN55022/ EN55024	
	Others	E13, ISO 7637	ESD	Conforms to EN 50155	
Dimension (W x H x D)	—	10" x 7.5" x 3.5" (255mm x 190mm x 88mm)	Expansion Slot	PCIe Mini-Card x 3	
Gross Weight	—	10.8 lb (4.9 kg)	Radiated Electromagnetic Fields	Radiated immunity test method EN 61000-4-3	
Net Weight	—	8.6 lb (3.9 kg)	Immunity to Fast Transients Bursts	Conforms to Standard reference: EN 50155 (§ 10.2.7)/ EN 50121-3-2 Fast transient burst immunity, Test method EN 61000-4-4	
Note	Windows® 7, Windows® 8/8.1, Windows® 10, Linux Fedora	Windows® 7, Windows® 8/8.1, Linux Fedora	Surges Immunity	Standard reference: EN 50155 (§ 10.2.6.2)/ EN 50121-3-2 Surge immunity, Test method EN 50155 (§ 10.2.6.2)	
			Conducted Disturbances Induced By Radio-Frequency Fields	Test method EN 61000-4-6, 150kHz-80MHz 1kHz, 80%AM, 10 Vrms	
			Emission Measurement	Conducted emissions standard reference: EN 50155 (§ 10.2.8.2)/ EN 50121-3-2 Radiated emission, test method EN 55011, Class A, 30MHz-230MHz 40dBµV, 230MHz-2.4GHz 47dBµV.	
			Protection Against Electrical Hazards	PD2 environment as defined in EN50124, Over-Voltage degree (OV2) rationale	
			Fire and Smoke	Conforms to NF F 16101 for cables and NF F 16102 for equipment	
			Shocks and Vibrations	Test method EN 61373 (random vibration)	
			Dimension (W x H x D)	11.26" x 6.86" x 5.32" (286mm x 174.2mm x 135mm)	
			Gross Weight	18.2 lb (8.3 kg)	
			Net Weight	—	
			Note	Windows® 7, Windows® 8.1, Windows® XP	

Transportation BOX PC Solutions



Model	AEV-6356
System	
Processor	Intel® Core™ i7-3517UE up to 2.8 GHz, Intel® Celeron® 827E, 1.4 GHz
Chipset	Intel® QM77
System Memory	DDR3 SODIMM x 1, up to 8 GB
Display Interface	DB-15 x 1 for VGA DVI-D x 1
Storage Device	CFAST™ x 1, SATA 6.0 Gb/s x 2 (Support RAID 0,1)
Front I/O connector	USB 2.0 x 2 (M12), RS-232/422/485 x 1 (M12), Giga LAN x 2 (M12), VGA x 1 (DB-15), DVI-I x 1, Power button, CFAST™ slot x 1, SIM card slot x 1
Rear I/O connector	Digital input x 6, Digital output x 2, USB 3.0 x 2 (Type A), RS-232 x 2 (DB-9), RS-232/422/485 x 1 (DB-9, Isolated), Line-out x 1, mic x 1, Power input (17 ~ 30VDC) (M12)
Digital Input	Isolated digital input Max. voltage input: Logic level 0: +2.5 V max. Logic level 1: +5 V
Digital Output	Isolated digital output Max. frequency of IDO Max. voltage output: +5 V, Max. current output: 50mA Isolated 5V Output (with short protection) Max. voltage output: +5 V max. Max. current output: 200mA
Serial Interface	RS-485: isolated 1000V _{DC} (Rear I/O)
Expansion Slot	Full-size Mini-PCIe x 1, Half-size Mini-PCIe x 1 (WiFi/ 3G/ GPS)(Optional)
Indicator	System LED x 1
OS Support	Window® XP Embedded, Window® XP, Windows® 7, Window® Embedded Standard 7, Linux Fedora
Mechanical	
Mounting	Wallmount
Dimension	11.26" x 6.46" x 3.62" (286mm x 164.2mm x 92mm)
Gross Weight	15.4 lb (7 kg)
Net Weight	—
Power Supply	
DC Input	DC 17 ~ 30V (M12) Over-voltage protection, Low-voltage protection, Short circuit protection
Environment Test	
System	
Operation Temperature	-40°F ~ 158°F(-40°C ~ 70°C)(85°C for 10 Minutes), EN500155 Tx
Humidity	Conforms to EN 50155/EN50125-1, Test method EN 60068-2-30 (variant 1): Yearly average at 75 % HR, 30 days at 95 % HR, Occasionally at 100 % HR Tropicalisation and mist constraints
Insulation Resistance	Conforms to EN50155
Voltage withstand	Conforms to EN50155, Power supply voltage range 0.7u < u < 1.25u, u = normal Voltage, 24V
Mechanical Earth Continuity	Compliant with EN50155 standard
Pollution	Compliant with: EN60721-3-5 standard
EMC	Compliant with EN50121 standard
ESD	Conforms to EN 50155
Radiated Electromagnetic Fields	Radiated immunity test method EN 61000-4-3: The frequency range for the tests shall be done until 2.4 GHz, and an attenuation of 20 V/m.
Immunity To Fast Transients Bursts	Conforms to Standard reference: EN 50155 (§ 10.2.7) / EN 50121-3-2 Fast transient burst immunity, Test method EN 61000-4-4, ± 2kV- repetition frequency: 5 kHz, ports referenced to the battery: direct injection, other signals: capacitive coupling.
Surges immunity	Standard reference: EN 50155 (§ 10.2.6.2) / EN 50121-3-2 Surge immunity, Test method EN 50155 ±1kV
Conducted Disturbances Induced By Radio-Frequency Fields	Test method EN 61000-4-6, 150kHz-80MHz 1kHz, 80%AM, 10 Vrms
Emission Measurement	Conducted emissions standard reference: EN 50155 (§ 10.2.8.2) / EN 50121-3-2 radiated emission, Test method EN 55011, Class A, 30MHz-230MHz 40dBµV, 230MHz-2.4GHz 47dBµV.
Shocks and Vibrations	Test method EN 61373 (random vibration), operating test (duration > 10 min), Frequency range = 5-150 Hz, 0.7 m/s2 (longitudinal & transversal axis), 1 m/s2 Test method EN 61373 (random vibration), frequency range = 5-150 Hz, Test with equipment powered down for 5 hr, 5.5 m/s2 (longitudinal & transversal axis). Test method EN 61373 (random vibration), 50 m/s2 for 30 ms (longitudinal & transversal axis), 30 m/s2 for 30 ms (vertical axis), 3 shocks x 2 directions x 3 axes = 18 shocks
Certification	CE, FCC, EN50155, EN50121, EN45545

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