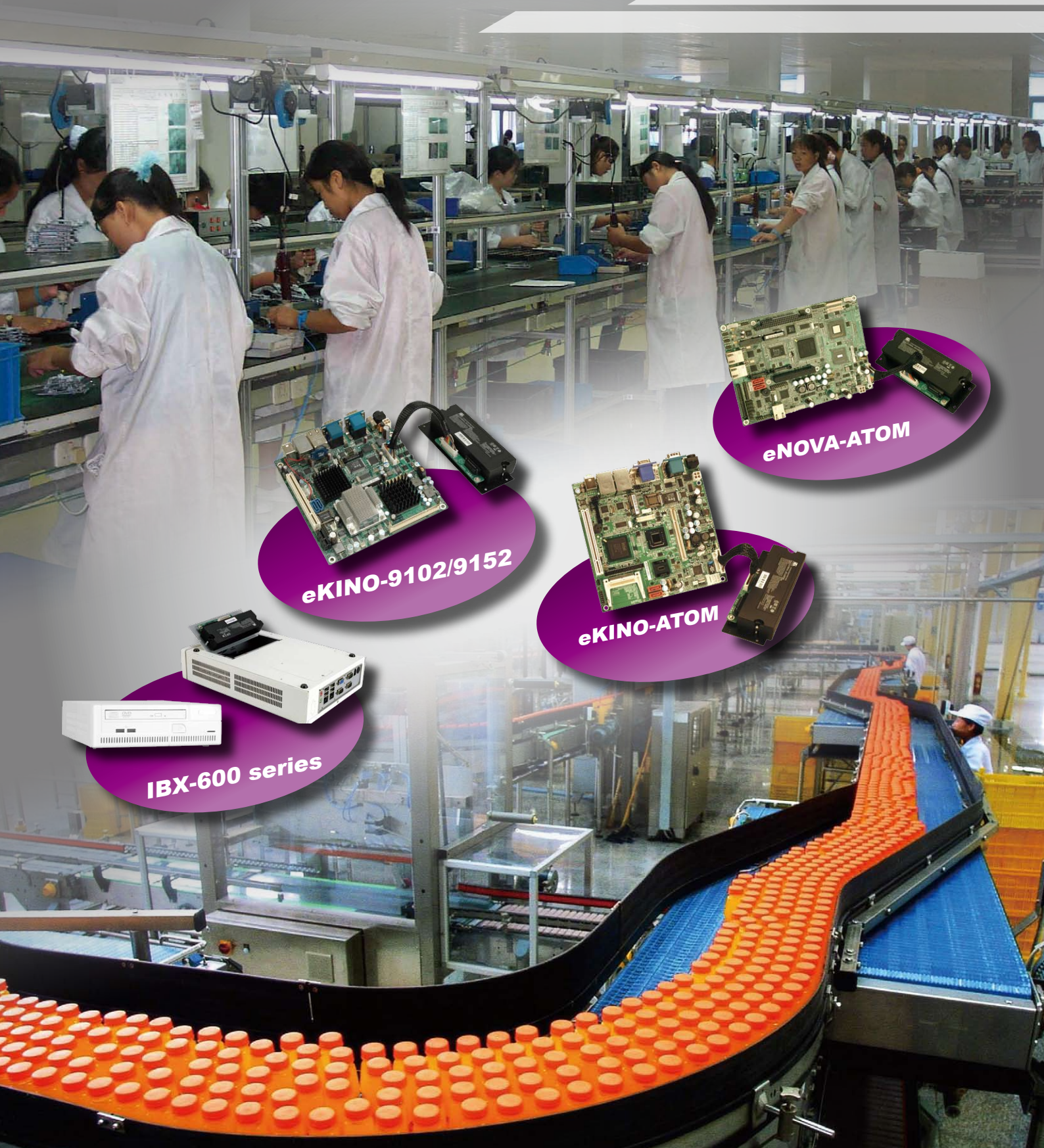
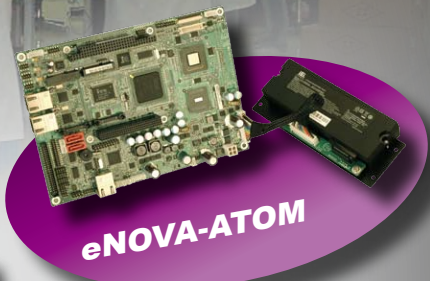




# **Industrial Motherboard with on board AUPS function**



**eKINO-9102/9152**



**eNOVA-ATOM**



**eKINO-ATOM**



**IBX-600 series**

# What is eKINO?

What is eKINO/eNOVA?

IEI eKINO/eNOVA series equipped with an AUPS sub-system acts as a simple UPS system and provides emergency power when the utility power is not available. IEI motherboard with AUPS sub-system provides wide range DC power input for regulator function to prevent unstable power input damage, and avoid unexpectedly power lost.

## What does e stand for?

- Economy
- Efficiency
- Easy Management
- Emergency power backup

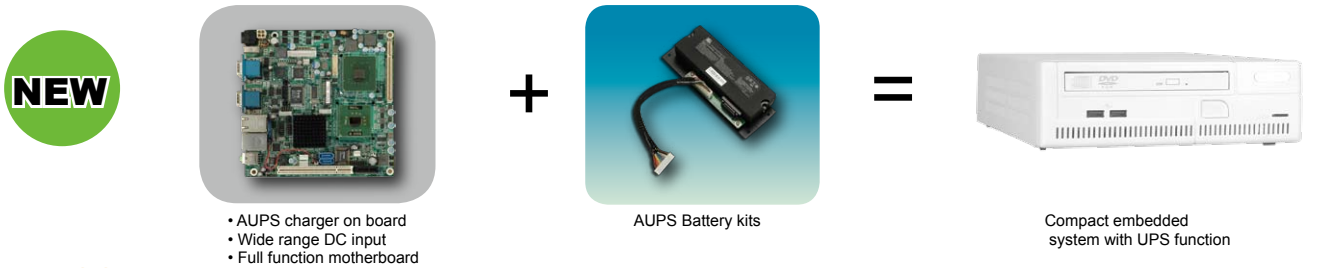


## Economy

Traditional UPS system is combined by expensive charger circuit, huge battery and many complicated cables.

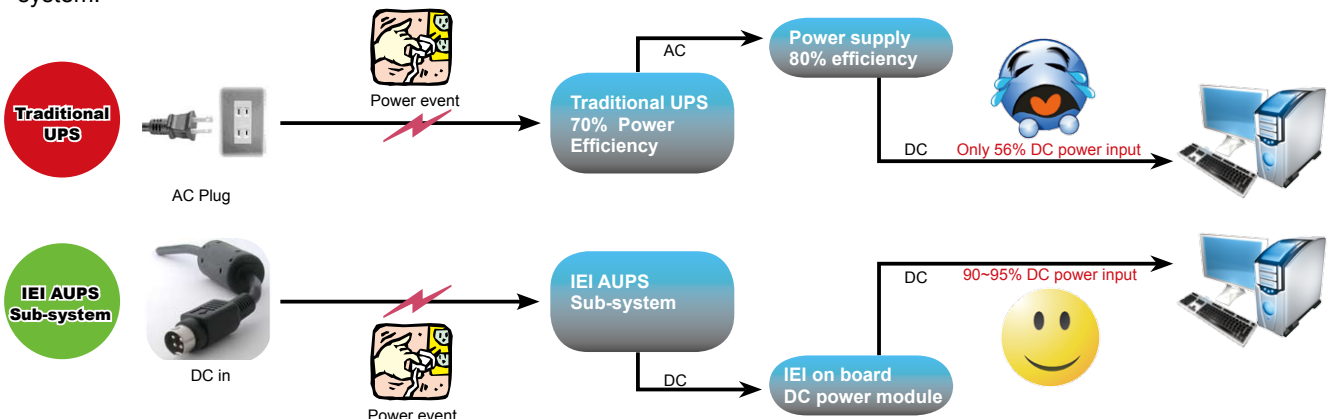


The IEI motherboard integrated with on-board battery charger circuit and a smart battery kit can act as a compact and simple UPS system. It is the best choice for those who are looking for a highly reliable industrial system with UPS function.



## Efficiency

All IEI motherboards embedded with wide range DC power module on board can provide high efficiency power for the system.



# Easy Management

IEI provides software utility and application program for user to monitor the AUPS sub-system real time status and remotely control system power on/off from anywhere and anytime through network. Remote management software allows users to use static IP or DHCP for remote management.



## Network Remote Management Software :

Click ALARM to get each AUPS status via internet

- STATUS
- Send E-mail
- Board configuration

### Remote control and monitor AUPS Sub-system via web access

**Board Configuration**  
This page allows the configuration of the board's network settings.  
CAUTION: Incorrect settings may cause the board to lose network connectivity. Recovery options will be provided on the next page.  
Enter the new settings for the board below:  
MAC Address: 10.20.20.000000  
Host Name: [IEI]  
IP Address: [10.4.10.1]  
Gateway: [10.4.10.1]  
Subnet Mask: [255.255.0.0]  
Primary DNS: [10.20.20.255]  
Secondary DNS: [ ]  
[ ] Enable DHCP  
[Save Config]

Reading/Setting IP address and enable DHCP via web interface

**Send E-Mail**  
By combining the SMTP client into an HTTP POST callback, a form can be developed that sends an e-mail to an administrator. For more details on the SMTP Client module, please see the TCP/IP Stack User's Guide.  
Enter the appropriate settings in the fields below:  
(Your SMTP server may not require a user name or password.)  
SMTP Server: [ ] Port: 25  
User Name: [ ]  
Password: [ ]  
To: [ ]  
Message: [ ]  
[Send Message]

Send Battery status by Email

**IEIUPS!**  
Stack Version: v1.1  
Build Date: Sep 30 2008 11:20:54  
• STATUS - display UPS status and change UPS ON/OFF  
• Send E-mail - Send UPS status with E-MAIL  
• Configuration - setup IP Address and enable DHCP...  
POWER ON/OFF: [ ]  
Shut Down: [ ]  
STATUS: USE  
Capacity(%): 80  
VOLTAGE(mV): 8000  
Current(mA): 0  
Temperature(C): 36  
RemainTime(min): 1534

UPS Status Monitoring

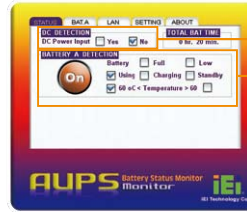
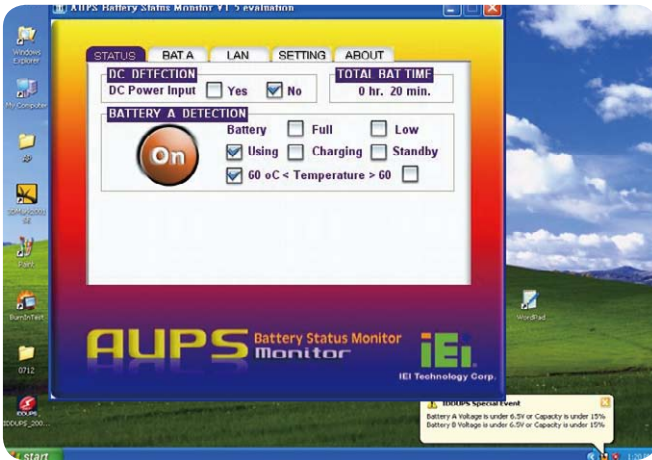
Power On/OFF

Battery Capacity Status

Monitor battery status and control system on/off remotely

# Easy Management

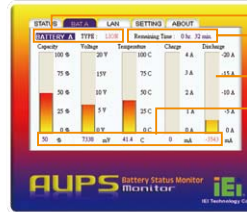
## AUPS Battery Monitoring Utility



- DC Input Detection
- Battery status detection

### STATUS

• STATUS shows DC / Battery power input



- Battery Type
- Battery usage remaining time
- Battery capacity bar
- Real time information updating

### BATA

• BATA shows real time battery status



### LAN

• LAN shows system IP address information



### SETTING

• SETTING shows detected port connection

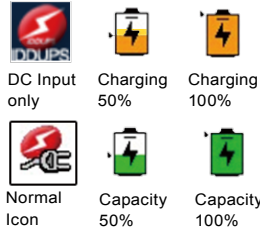


### ABOUT

• ABOUT shows AUPS utility information

### Icon indicator and Features

- Battery detection
- Battery capacity status
- Battery charge
- DC input indicator
- Battery indicator
- Over temperature indicator
- Low battery alarm
- Connected port detection



## AUPS API SDK/Content

IEI also provides AUPS API SDK and command list for customer to program under DOS or Linux system.

### AUPS API Content

- Inti()
- AUPS Close()
- WriteCommand()
- ReadCommand()
- Error Code Definition()

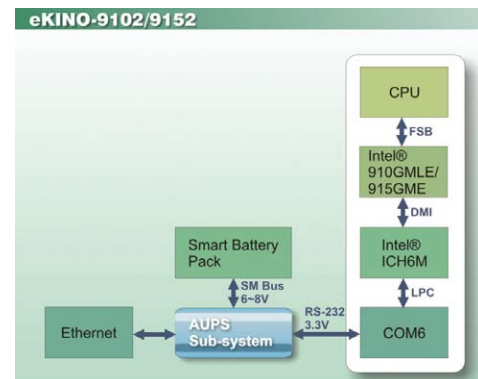


### AUPS API SDK

- AUPS API.pdf
- AUPSAPI.dll
- AUPSAPI.h
- AUPSAPI.lib



## System Block Diagram



# AUPS Sub-system Benefit

## WHY we need eKINO?

### IEI AUPS sub-system Benefit:

**Economy** --- Slim and compact AUPS sub-system is cost-effective and green Earth

**Efficiency** --- AUPS sub-system has higher power efficiency than traditional UPS

**Easy Management** --- Provides software utility for users to easily manage and monitor system via web access

**Emergency power backup** --- Provides power immediately and maintains power for a certain period of time



# AUPS Application

## IEI AUPS Sub-system Benefit:

- Provide power for certain period of time after a power fail has occurred.
- Continue to provide stable power to equipment during line sags & spikes.
- Absorb power surges & transients.
- Smooth out noisy power sources.

**With AUPS sub-system**  
The IEI Smart Battery is immediately enabled when power failed, and provides stable power so the operator can save important system parameter.

**Without AUPS sub-system**  
System shuts down or hangs-up suddenly and all data is lost because no backup power is available.

## Relative Application Field











# AUPS Battery Kits

**AUPS Battery Kits includes battery pack and install kit**

**Battery install kits includes:**

- Connection Board (PN:13ZD337-00-101-RS)
- Connection Cable (PN: 32100-186100-RS)
- Base board
- Battery screw (PN: 44003-020101-RS)
- Base board screw (PN:44003-030062-RS)

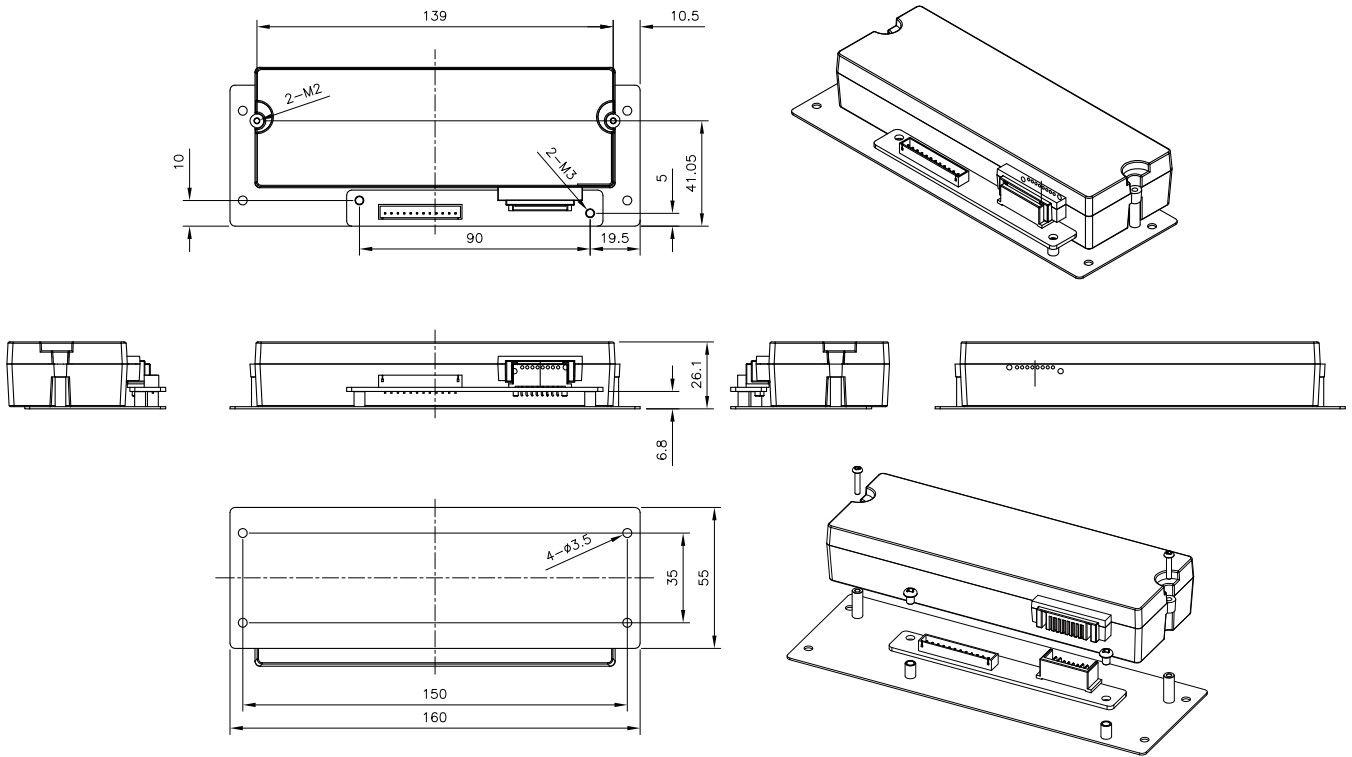


Battery Module spec				
Battery Model Name		BAT-LI-2S2P3800	BAT-LI-4S2P3800	
Battery	battery type	Li-Ion 2S2P 7.4V	Li-Ion 4S2P 14.8V	
	Battery capacity	7.4V 3800mAh	14.8V, 3800mAh	
	Maximum charge voltage	8.4V	16.8V	
	The end of discharging voltage	5.6V	11.2V	
	Suggestive charging current (Max.)	2A	2A	
	System continuous discharging current(Max)	7.6A	7.6A	
	The end of charge condition	250mA/1Min	200mA/1Min	
	Discharge protection	Under Voltage Protection / Over Current Protection		
	Charge protection	Over Voltage Protection / Over Current Protection		
	Ambient temp	0°C~40°C	0°C~40°C	
	Storage Tem	-20°C~60°C	-20°C~60°C	
	Self-discharge rate	340uA~440uA		
	Dimensions	139mm(L) * 47mm(W)*26mm(H)	165mm(L) * 76mm(W)*26mm(H)	
	Weight	236g	450g	
	Cycle life	300 charge/discharge cycles		
Backup	60W/10Min	100W/10Min		
Safety class	CE,UL,TUV			
Used on	eNOVA-ATOM eKINO-ATOM eKINO-9102/9152	eNOVA-ATOM eKINO-ATOM (DC input voltage should be over 18V)		
Battery installation kits	 <p>Base board PN: 41024-0125C2-00-RS</p>		 <p>Base board PN: 41024-0126C2-00-RS</p>	
	 <p>Connection board PN:13ZD337-00-101-RS</p>		 <p>Connection cable PN: 32100-186100-RS Length 180mm</p>	
	 <p>Connection board screw PN:44003-030062-RS M3*6 screw</p>		 <p>Battery screw PN: 44003-020101-RS M2*10 screw</p>	

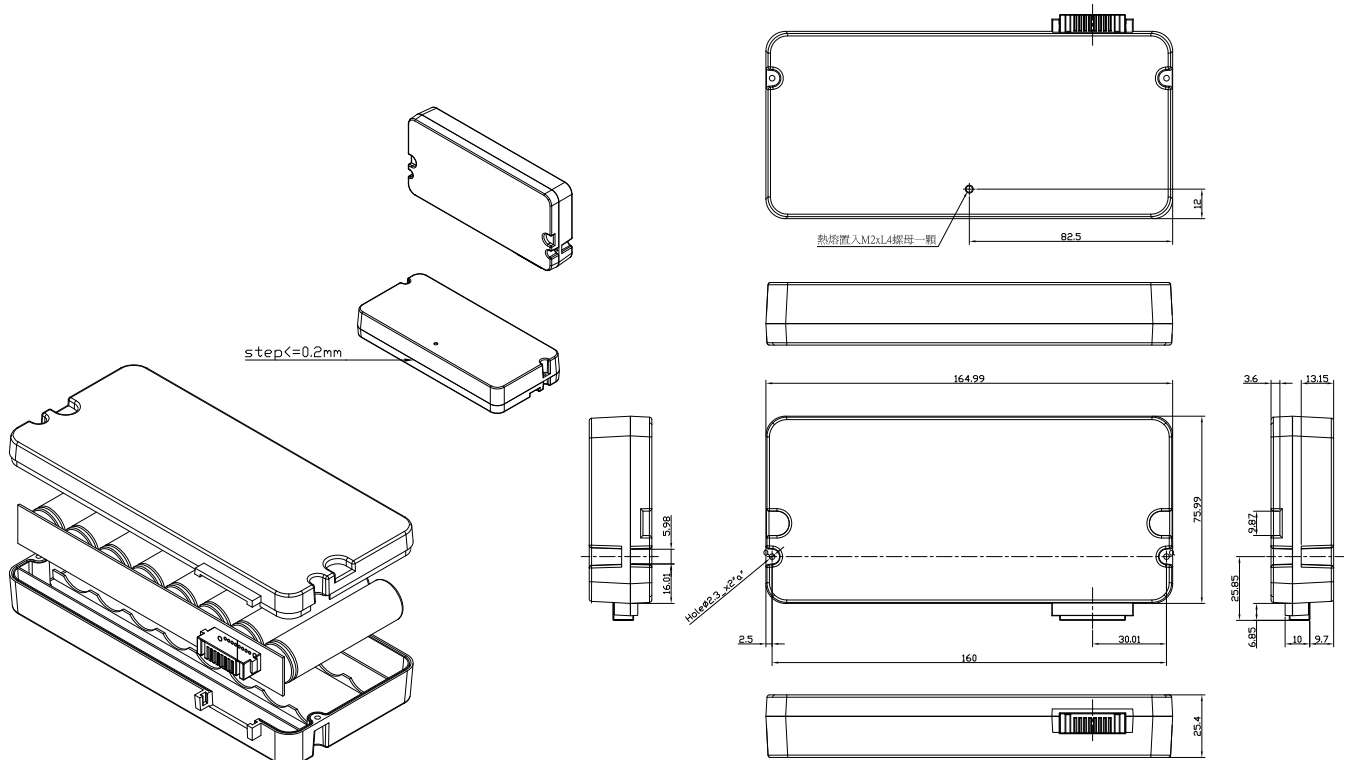
**Note: Suggest to replace Battery Module every 2 years.**

# Battery Dimensions (mm)

## BAT-LI-2S2P3800

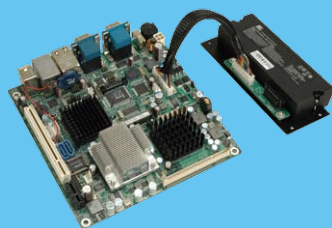


## BAT-LI-4S2P3800

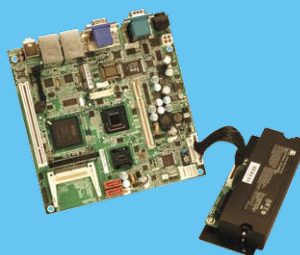


# IEI AUPS Motherboard

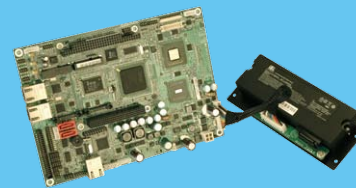
Complete  
AUPS  
Motherboard



• eKINO-9102/9152



• eKINO-ATOM



• eNOVA-ATOM

eKINO  
Peripheral  
Solution

IBX-600 series embedded  
system for eKINO series  
motherboard

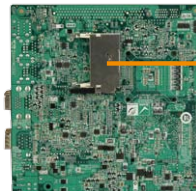
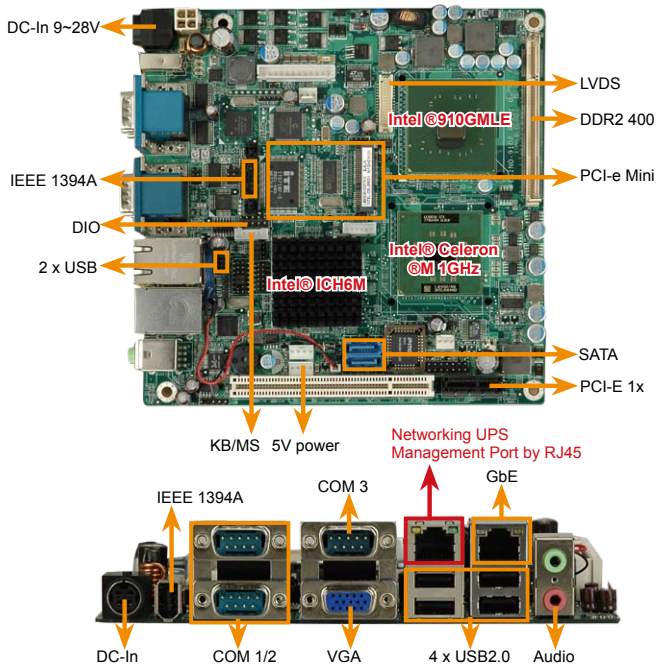


Model Name	eKINO-9152	eKINO-9102	eKINO-ATOM	eNOVA-ATOM
Form Factor	Mini-ITX	Mini-ITX	Mini-ITX	5.25" SBC
CPU	Socket479 Intel® Pentium®M/ Celeron® M CPU with 400/533 FSB	On board Intel® Celeron® M 1GHz with 512K L2 Cache CPU	Intel® Atom™ Processor N270 1.6GHz with 533MHz FSB 512K L2 Cache	Intel® Atom™ Processor N270 1.6GHz with 533MHz FSB 512K L2 Cache
TDP	~27W	5.5W	2.5W	2.5W
System Chipset	Intel® 915GME Intel® ICH6-M	Intel® 910GMLE Intel® ICH6-M	Intel® 945GSE Intel® ICH7M	Intel® 945GSE Intel® ICH7M
Memory	DDR2 400/533MHz SDRAM SO-DIMM supported (system max. 2GB)	DDR2 400MHz SDRAM SO-DIMM supported (system max. 2GB)	400/533MHz DDR2 SDRAM SO-DIMM supported (system max. 2GB)	400/533MHz DDR2 SDRAM SO-DIMM supported (system max. 2GB)
Ethernet	1 x PCIe GbE Controller	1 x PCIe GbE Controller	2 x PCIe GbE Controller	2 x PCIe GbE Controller
I/O Interface	6 x USB2.0	6 x USB2.0	6 x USB2.0	6 x USB2.0
	2 x SATA port with 5V DC output connector for 2.5" HDD used			
	2x RS-232 1x RS-232/422/485	2x RS-232 1x RS-232/422/485	3 x RS-232 1 x RS-232/422/485	3 x RS-232 1 x RS-232/422/485
	2 x IEEE1394A	2 x IEEE1394A	1 x IDE	1 x IDE 1 x LPT
	1 x 6pin header for KB/MS	1 x 6pin header for KB/MS	1 x 6pin header for KB/MS	1 x 6pin header for KB/MS
Graphic	Intel® Graphics Media Accelerator 900	Intel® Graphics Media Accelerator 900	Intel® Graphics Media Accelerator 950	Intel® Graphics Media Accelerator 950
VGA	Intel® 915GME	Intel® 910GMLE	Intel® 945GSE	Intel® 945GSE
TV-out	--	--	Support HDTV up to 1080i	Support HDTV up to 1080i
LVDS	18/24-bits	18/24-bits	18-bits	18-bits
DVI	--	--	DVI-D	--
Expansion	1x PCI 1x PCIe mini card 1x PCIe x1	1x PCI 1x PCIe mini card 1x PCIe x1	1x PCI 1x PCIe mini card	1 x PC/104+ (ISA+PCI bus) 2 x PCIe mini card
Digital I/O	8-bit digital I/O, 4-bit input/ 4-bit output	8-bit digital I/O, 4-bit input/ 4-bit output	8-bits digital I/O, 4-bits input/ 4-bits output	8-bits digital I/O, 4-bits input/ 4-bits output
Super IO	ITE IT8718F	ITE IT8718F	ITE IT8718F	ITE IT8718F
Audio	AC'97 with Realtek ALC655 codec	AC'97 with Realtek ALC655 codec	AC'97 with Realtek ALC655 codec	AC'97 with Realtek ALC655 codec
SPDIF	1x 5pin pinheader	1x 5pin pinheader	--	--
SSD	CompactFlash Type II	CompactFlash Type II	CompactFlash Type II	CompactFlash Type II
Power Supply	Maximum input voltage range 9V~28V Recommend operating input voltage range 12V~24V			
	1x external DIN 4pin DC jack	1x external DIN 4pin DC jack	1x external DIN 4pin DC jack	--
	1x internal 2x2pin power jack	1x internal 2x2pin power jack	1x internal 2x2pin power jack	1x internal 1x4pin power jack



# eKINO-9102/9152

Mini-ITX Motherboard with AUPS sub-system, Intel® Pentium®M/ Celeron®M CPU, Wide range 9-28VDC input



Solder Side

IEEE1394 port with bracket to 8pin(1x8) connector

19800-000103-RS

### IEI AUPS sub-system Benefit:

- Provides power immediately and maintains power for certain period of time.
- Continues to provide stable power to equipment and absorbs power surges
- Smooth out noisy power sources.

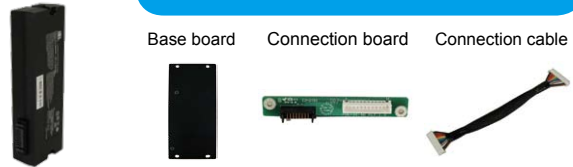


IEI motherboard with AUPS sub-system kits

PN:BAT-LI-2S2P3800  
2S2P 7.4V 3800mAH

### BAT-INSTKIT01-R10

Base board Connection board Connection cable



## Specifications

- ◆ Form Factor  
Mini ITX
- ◆ CPU  
On board Intel® Celeron® M 1GHz with 512K L2 Cache CPU  
Socket479 Intel® Pentium®M/ Celeron®M CPU with 400/533MHz FSB
- ◆ System Chipset  
Intel 910GML+ ICH6-M  
Intel 915GME+ ICH6-M
- ◆ BIOS  
AMI BIOS
- ◆ Memory  
One 200-pin DDR2 400MHz SDRAM SO-DIMM supported (eKINO-9102 system max. 2GB)  
One 200-pin DDR2 400/533MHz SDRAM SO-DIMM supported (eKINO-9152 system max. 2GB)
- ◆ Ethernet  
1 x RTL8111CP PCIe GbE LAN controller
- ◆ Display Output  
VGA Integrated in Intel® 910GML/915GME  
24-bits dual-channel LVDS by Intel® 910GML/915GME
- ◆ Graphic  
Intel® Graphics Media Accelerator 900
- ◆ I/O Interfaces  
6 x USB2.0 2 x SATA with 5V DC output  
2x RS-232 1x RS-232/422/485  
2 x IEEE1394A(1 port by Rear IO, 1 port by CN3)  
1 x 6pin box header (2.0mm pitch) for KB/MS
- ◆ Expansion  
1x PCI 1x PCIe mini card 1 x PCIe x1
- ◆ Digital I/O  
8-bit digital I/O, 4-bit input/ 4-bit output
- ◆ Super IO  
ITE IT8718F
- ◆ Audio  
AC'97 with Realtek ALC655 codec
- ◆ DC connector  
2pcs 1x4pin 5V power connector (Major for 2.5" HDD used)
- ◆ SSD  
CompactFlash Type II
- ◆ WDT  
Software programmable supports 1~255 sec. system reset
- ◆ Power Supply  
Maximum input voltage range 9V~28V  
Recommend operating input voltage range 12V~24V  
1x external DIN 4pin DC jack  
1x internal 2x2pin power connector
- ◆ Power Consumption  
2.57A@12V(Intel® Celeron®M 1GHz with 2GB DDR2)
- ◆ Temperature  
Operation: 0°C ~ 40°C with AUPS sub-system  
Operation: 0°C ~ 60°C without AUPS sub-system
- ◆ Humidity  
Operation: 5% ~95% non-condensing
- ◆ Dimensions  
170mm x 170mm
- ◆ Weight  
GW: 1100 g / NW: 400g

## Features

1. Equipped AUPS sub-system as a simple UPS system
2. IBX600 Series Embedded System
3. Intel® Pentium®M and Celeron®M FSB400/533 MHz CPU
4. Single voltage wide range 9~28VDC input
5. Support DDR2 400/533MHz SO-DIMM Memory up to 2GB
6. Support PCI Express Mini Card
7. VGA, 24 bits LVDS for Dual Display output
8. CF Socket for SSD Storage Expansion

## Packing List

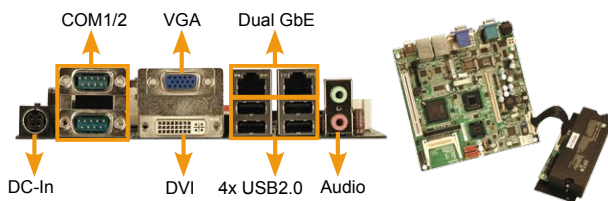
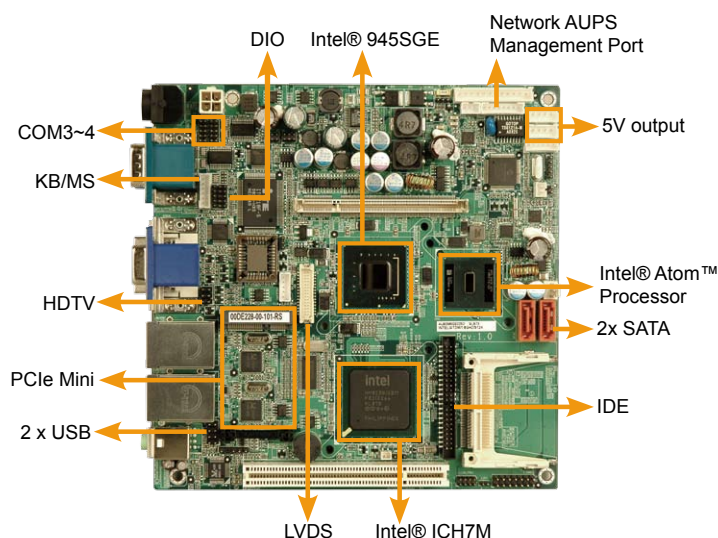
- 1 x eKINO-9102/eKINO-9152 single board computer
- 1 x KB/MS Y cable (PN:32000-023800-RS)
- 1 x I/O shielding (P/N:45014-0024C0-00-RS )
- 1 x Dual USB cable(PN:32000-070301-RS)
- 2 x SATA 5V power output cable Kits (P/N:32000-123000-RS )
- 1 x Mini Jumper Pack
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)

## Ordering Information

Part No.	Description
eKINO-9102-1G512-R10	Mini-ITX Motherboard with AUPS sub-system, Intel® Celeron® M 1GHz 512K Cache CPU, 910GML, Wide range 9-28VDC input
eKINO-9102CF-1G512-R10	Mini-ITX Motherboard with AUPS sub-system, Intel® Celeron® M 1GHz 512K Cache CPU, 910GML, Wide range 9-28VDC input, CF Card
eKINO-9152-R10	Mini-ITX Motherboard with AUPS sub-system, Intel® Pentium®M/ Celeron®M CPU, 915GME, Wide range 9-28VDC input
eKINO-9152CF-R10	Mini-ITX Motherboard with AUPS sub-system, Intel® Pentium®M/ Celeron®M CPU, 915GME, Wide range 9-28VDC input, CF Card
IBX-600-9102UPS-R10/CM373/512MB	Embedded system with UPS function, Intel® Celeron® M 1 GHz 512K cache CPU, 910GML, 512MB DDR2, 802.11b/g wireless, Li-ion Battery(2S2P), 9~28VDC in, 60W adaptor, white, RoHS
CF-479B-RS	CPU Cooler (50mm x 50mm x 26mm, 50W)
WMPCIE-V01-R10	PCIe Mini card wireless LAN Module
BAT-LI-2S2P3800	2S2P 7.4V 3800mA SMART BATTERY
BAT-INSTKIT01-R10	2S2P Smart battery install kits
19800-000103-RS	Single port 1394 Cable
63000-FSP0601AD101C746-RS	60W/12V Power Adaptor 90VAC~260VA, DIN 4 PIN
SAIDE-KIT01-R10	SATA/IDE/CF Converter board

# eKINO-ATOM

Mini-ITX SBC with AUPS sub-system, Intel® Atom™ N270 1.6GHz, Wide range 9-28VDC input, VGA/DVI/TV



## Specifications

- ◆ Form Factor  
Mini ITX
- ◆ CPU  
Intel® Atom™ Processor N270 1.6GHz with 533MHz FSB 512K L2 Cache
- ◆ System Chipset  
Intel® 945GSE + Intel® ICH7M
- ◆ BIOS  
AMI BIOS
- ◆ Memory  
One 200-pin 400/533 DDR2 SDRAM SO-DIMM supported (system max. 2GB)
- ◆ Ethernet  
Dual Realtek PCIe 8111CP GbE Controller
- ◆ I/O Interface  
6 x USB2.0      3 x RS-232      1 x IDE      2 x SATA with 5V DC output  
1 x RS-232/422/485  
1 x 6pin header for KB/MS
- ◆ Graphic  
On Intel® Graphics Media Accelerator 950 (Intel® GMA 950)
- ◆ Display Output  
VGA integrated in Intel® 945GSE  
Support HDTV resolution up to 1080i by component interface  
18-bits dual-channel LVDS by Intel® 945GSE  
DVI-D support by Silcon image SiI1362
- ◆ Expansion  
1x PCI      1x PCIe mini card
- ◆ DC connector  
2pcs 1x4pin 5V power connector (Major for 2.5" HDD used)
- ◆ Digital I/O  
8-bits digital I/O, 4-bits input/ 4-bits output
- ◆ Infrared Interface  
1x 5pin pinheader
- ◆ SSD  
1 x CF Type II
- ◆ Super IO  
ITE IT8718F
- ◆ Audio  
Realtek ALC655 AC'97 Codec
- ◆ WDT  
Software programmable supports 1~255 sec. system reset
- ◆ Power Supply  
Maximum input voltage range 9V~28V  
Recommend operating input voltage range 12V~24V  
1x external DIN 4pin DC jack  
1x internal 2x2pin power connector
- ◆ Power Consumption  
1A@12V (Intel Atom N270 with 1GB DDR2)
- ◆ Temperature  
Operation: 0°C ~ 40°C with AUPS sub-system  
Operation: 0°C ~ 60°C without AUPS sub-system
- ◆ Humidity  
Operation: 5% ~95% non-condensing
- ◆ Dimensions  
170mm x 170mm
- ◆ Weight  
GW: 1100g / NW: 400 g

PN:BAT-LI-2S2P3800  
2S2P 7.4V 3800mAh

### BAT-INSTKIT01-R10

Base board    Connection board    Connection cable

PN:BAT-LI-4S2P3800  
4S2P 14.8V 3800mAh

### BAT-INSTKIT02-R20

Base board    Connection board    Connection cable

(DC input voltage should be over 18V)

## Features

1. Intel® Atom™ N270 1.6GHz for ultra low voltage fan-less support
2. Wide range 9-28V DC input
3. Equipped with AUPS sub-system acts as a simple UPS system
4. Dual-display supported by VGA + DVI-D, LVDS + VGA, LVDS + DVI-D
5. IBX 600 Embedded System
6. Support 6 x USB2.0, 2 x SATA, 4x COM

## Packing List

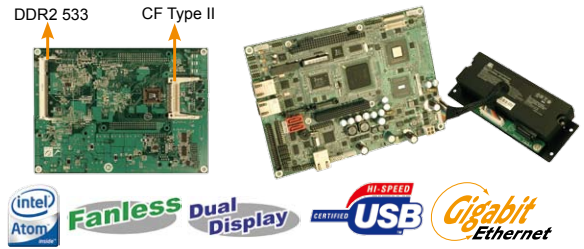
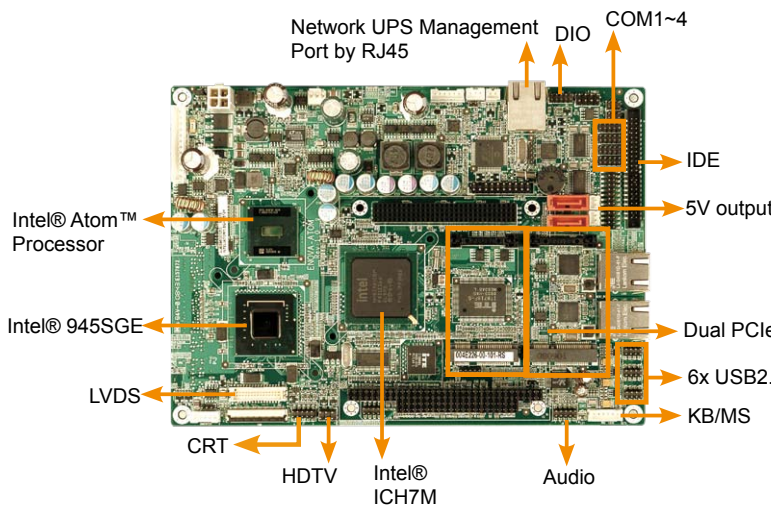
1 x eKINO-ATOM single board computer
1 x Dual RS-232 cable (P/N: 32200-028401-RS)
2 x SATA 5V power output Cable Kit (P/N: 32000-106100-RS)
1 x I/O shielding (P/N: 45014-0023C0-00-RS)
1 x KB/MS Y cable (PN:32000-023800-RS)
1 x Mini Jumper Pack
1 x Utility CD
1 x QIG (Quick Installation Guide)

## Ordering Information

Part No.	Description
eKINO-ATOM-N270-R10	Mini-ITX SBC with AUPS sub-system, Intel® Atom™ N270 1.6GHz, Wide range 9-28VDC input, VGA/DVI/TV
CB-USB02-RS	Dual USB cable
HDTV-CABLESET-01	HDTV Cable Set with S-Video, Composite and Component Interfaces
WMPCIE-V01-R10	PCIe Mini card wireless LAN Module
BAT-INSTKIT01-R10	2S2P Smart battery install kits
BAT-LI-2S2P3800	2S2P 7.4V 3800mA SMART BATTERY
BAT-INSTKIT02-R10	4S2P Smart battery install kits
BAT-LI-4S2P3800	4S2P 14.8V 3800mA SMART BATTERY
63000-FSP0601AD101C746-RS	60W/12V Power Adaptor 90VAC~260VA, DIN 4 PIN
32200-000009-RS	44pin 2.5" IDE cable

# eNOVA-ATOM

5.25" SBC with AUPS sub-system, Intel® Atom™ N270 1.6GHz, Wide range 9-28VDC input, Dual PCIe Mini card



## Specifications

- ◆ CPU  
Intel® Atom™ Processor N270 1.6GHz with 533MHz FSB 512K L2 Cache
- ◆ System Chipset  
Intel® 945GSE / Intel® ICH7M
- ◆ BIOS  
AMI BIOS
- ◆ Memory  
One 200-pin 400/533 DDR2 SDRAM SO-DIMM supported (system max. 2GB)
- ◆ Ethernet  
Dual Realtek PCIe 8111CP GbE Controller
- ◆ Graphic  
On Intel® Graphics Media Accelerator 950 (Intel® GMA 950)
- ◆ I/O Interface  
3 x RS-232  
1 x RS-232/422/485  
6 x USB2.0  
1 x LPT  
2 x SATA with 5V DC output  
1 x IDE  
1 x 6pin header for KB/MS
- ◆ Expansion  
1 x PC/104+ (ISA+PCI bus)  
2 x PCIe mini card
- ◆ DC connector  
2pcs 1x2pin 5V power connector (Major for 2.5" HDD used)
- ◆ Digital I/O  
8-bit digital I/O (4-bit input, 4-bit output)
- ◆ Infrared Interface  
1x 5pin pinheader
- ◆ Super IO  
ITE8718F
- ◆ Display Output  
Analog CRT Support for CRT Hot plug  
Support HDTV by component interface  
18-bit dual-channel LVDS Support up to UXGA (1600x 1200)
- ◆ Audio  
AC'97 ALC655 codec
- ◆ SSD  
CF Type II
- ◆ TPM  
1x 20pin pinheader
- ◆ WDT  
Software programmable supports 1~255 sec. system reset
- ◆ Power Supply  
Maximum input voltage range 9V~28V  
Recommend operating input voltage range 12V~24V  
1x internal 2x2pin power connector
- ◆ Power Consumption  
1.19A@12V (Intel Atom N270 with 1GB DDR2)
- ◆ Temperature  
Operation: 0°C ~ 40°C with AUPS sub-system  
Operation: 0°C ~ 60°C without AUPS sub-system
- ◆ Humidity  
Operation: 5% ~ 95%, non-condensing
- ◆ Dimension  
203mm x 146mm
- ◆ Weight  
GW:1000g, NW:400g

PN:BAT-LI-2S2P3800  
2S2P 7.4V 3800mAH

### BAT-INSTKIT01-R10

Base board    Connection board    Connection cable

PN:BAT-LI-4S2P3800  
4S2P 14.8V 3800mAH

### BAT-INSTKIT02-R10

Base board    Connection board    Connection cable

(DC input voltage should be over 18V)

## Features

1. Intel® Atom™ N270 1.6GHz for ultra low voltage fan-less support
2. Equipped with AUPS sub-system acts as a simple UPS system
3. Support Dual PCIe mini Card for expansion
4. Wide range 9-28V DC input
5. Support LVDS, TV-out, VGA display output
6. CF socket for storage expansion
7. TPM support

## Packing List

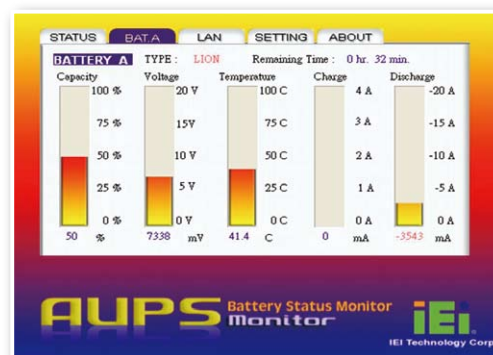
- 1 x eNOVA-ATOM Single Board Computer
- 1 x VGA cable (P/N: 32000-033804-RS)
- 1 x KB/MS Y cable (P/N: 32000-023800-RS)
- 1 x Audio cable (P/N: 32000-072100-RS)
- 4 x RS-232 cable (PN: 32200-000049-RS)
- 2 x SATA 5V power output Cable Kit (PN:32000-114000-RS)
- 1 x USB cable (PN:32000-070301-RS)
- 1 x Mini Jumper Pack
- 1 x Utility CD
- 1 x QIG

## Ordering Information

Part No.	Description
eNOVA-ATOM-N270-R10	5.25" SBC with AUPS sub-system, Intel® Atom™ N270 1.6GHz, Wide range 9-28VDC input, Dual PCIe Mini
HDTVCABLESET-01	HDTV Cable Set with S-Video, Composite and Component Interfaces
32100-088600-RS	SATA Power cable
32200-015100-RS	LPT cable
WMPCIE-V01-R10	802.11b+g PCIe mini card wireless LAN module with Atheros
WMUSB-V01-R10	802.11b+g USB embedded module with VIA
TPM-WI01-R10	20-pin WINBOND TPM Module, S/W management Tool
TPM-IN01-R10	20-pin INFINEON TPM Module, S/W management Tool
BAT-INSTKIT01-R10	2S2P Smart battery install kits
BAT-LI-2S2P3800	2S2P 7.4V 3800mA SMART BATTERY
BAT-INSTKIT02-R10	4S2P Smart battery install kits
BAT-LI-4S2P3800	4S2P 14.8V 3800mA SMART BATTERY

# IBX-600-ATOM

Mini ITX Intel® Atom™ Solution with AUPS sub-system  
Battery Support



## Features

1. Intel® Atom™ N270 1.6GHz Mini ITX solution
2. Supports Slim ODD, 2.5" hard drive
3. UPS function by Li-ion battery with easy assembly design
4. Built-in 802.11b/g wireless with FIPA antenna
5. 12 VDC ~ 24 VDC wide range input

IEI Smart Battery Monitoring Software. Can support remote monitoring from RJ-45.

## Specifications

Model	IBX-600-ATOM	IBX-600-ATOMUPS
SBC	eKINO-ATOM	
Processor	Intel® Atom™ N270 1.6GHz with 533 FSB	
Chipset	Intel® 945GSE + Intel® 82801GBM/CH7M	
System Memory	200-pin 1GB DDR2 SDRAM SO-DIMM	
Ethernet	Dual Realtek RTL8111CP GbE controllers	
Wireless	built in 802.11b/g wireless, PCIe mini card formfactor with USB interface	
Display	CRT interface intergrated in 945GSE with one VGA port DVI -D support by Chronitel Silicon Image Sil1362	
USB	6 x USB 2.0	
Serial Port	2x RS-232	
Audio	1 x mic in , 1 x speaker out	
Storage	1 x slim type ODD, 1 x 2.5" SATA HDD	
Power Input	12 VDC ~ 24 VDC in with 4 pin DC power DIN connector Ship with 60W power adaptor	
UPS Function	N/A	7.4V 2S2P 3800mAh Li-Ion smart battery
Chassis Construction	Heavy duty metal with plastic front panel	
Operating Temperature	0°C~45°C	0°C~40°C
Operating shock	Half-sine wave shock 3G; 11ms; 3 shocks per axis	
Operating Vibration	MIL-STD-810F 514.5C-1 (HDD) MIL-STD-810F 514.5C-2 (CompactFlash)	
Weight (Net/Gross)	2.1 kg / 3.9 kg	2.8kg / 4.6kg
Dimensions (DxWxH)	306.8mm x 209.8mm x 65mm	
Mounting	Desktop, wall mount	
EMC/Safety	CE, FCC class A	

## Packing List

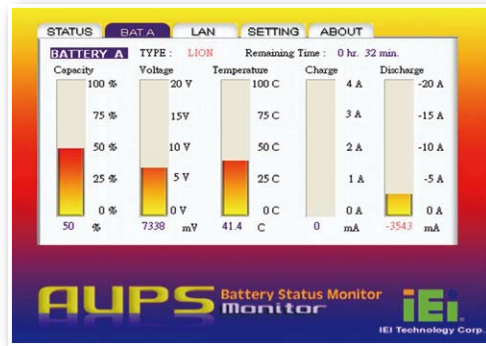
- 1 x QIG
- 1 x screw set with mini jumper
- 1 x wall mount kit
- 1 x power adaptor
- 1 x power cord
- 1 x SATA CD-ROM cable
- 1 x driver & manual CD
- 4 x foot pad

## Ordering Information

Part No.	Description
IBX-600-ATOM-R10/N270/1GB	Embedded system, Intel N270 1.6GHz CPU, Intel 945GSE, built in 1GB DDR2 memory, built-in 802.11b/g wireless, 12~24VDC in, with 60W adaptor, white, RoHS
IBX-600-ATOMUPS-R10/N270/1GB	Embedded system with UPS function, Intel N270 1.6GHz CPU, Intel 945GSE, built in 1GB DDR2 memory, built-in 802.11b/g wireless, Li-ion Battery(2S2P); 7.4V;3800mAh, 12~24VDC in, with 60W adaptor, white, RoHS

# IBX-600-9102

Mini ITX Intel® Celeron® M Solution with AUPS sub-system Support



IEI Smart Battery Monitoring Software. Can support remote monitoring from RJ-45.

## Features

1. Intel® Celeron® M 1.0GHz Mini ITX solution
2. Supports Slim ODD, 2.5" hard drive and CompactFlash and CompactFlash
3. UPS function by Li-ion battery with easy assembly design
4. Built-in 802.11b/g wireless with FIPA antenna
5. 12 VDC ~ 24 VDC wide range input

## Specifications

Model	IBX-600-9102	IBX-600-9102UPS
SBC	eKINO-9102	
Processor	Intel® Celeron® M 1GHz 512K cache with 400 MHz FSB	
Chipset	Intel® 910GMLE + Intel® ICH6M	
System Memory	200-pin 512MB DDR2 SDRAM SO-DIMM	
Ethernet	Realtek RTL8111CP GbE controllers	
Wireless	built in 802.11b/g wireless, PCIe mini card formfactor with USB interface	
Display	CRT interface integrated in 910GMLE with one VGA port	
USB	6 x USB 2.0	
Serial Port	3x RS-232	
Audio	1 x mic in , 1 x speaker out	
Storage	1 x slim type ODD, 1 x 2.5" SATA HDD, 1 x CompactFlash slot	
Power Input	12 VDC ~ 24 VDC in with 4 pin DC power DIN connector Ship with 60W power adaptor	
UPS Function	N/A	7.4V 2S2P 3800mAh Li-Ion smart battery
Chassis Construction	Heavy duty metal with plastic front panel	
Operating Temperature	0°C~45°C	0°C~40°C
Operating shock	Half-sine wave shock 3G; 11ms; 3 shocks per axis	
Operating Vibration	MIL-STD-810F 514.5C-1 (HDD) MIL-STD-810F 514.5C-2 (CompactFlash)	
Weight (Net/Gross)	2.1 kg / 3.9 kg	2.8kg / 4.6kg
Dimensions (DxWxH)	306.8mm x 209.8mm x 65mm	
Mounting	Desktop, wall mount	
EMC/Safety	CE, FCC class A	

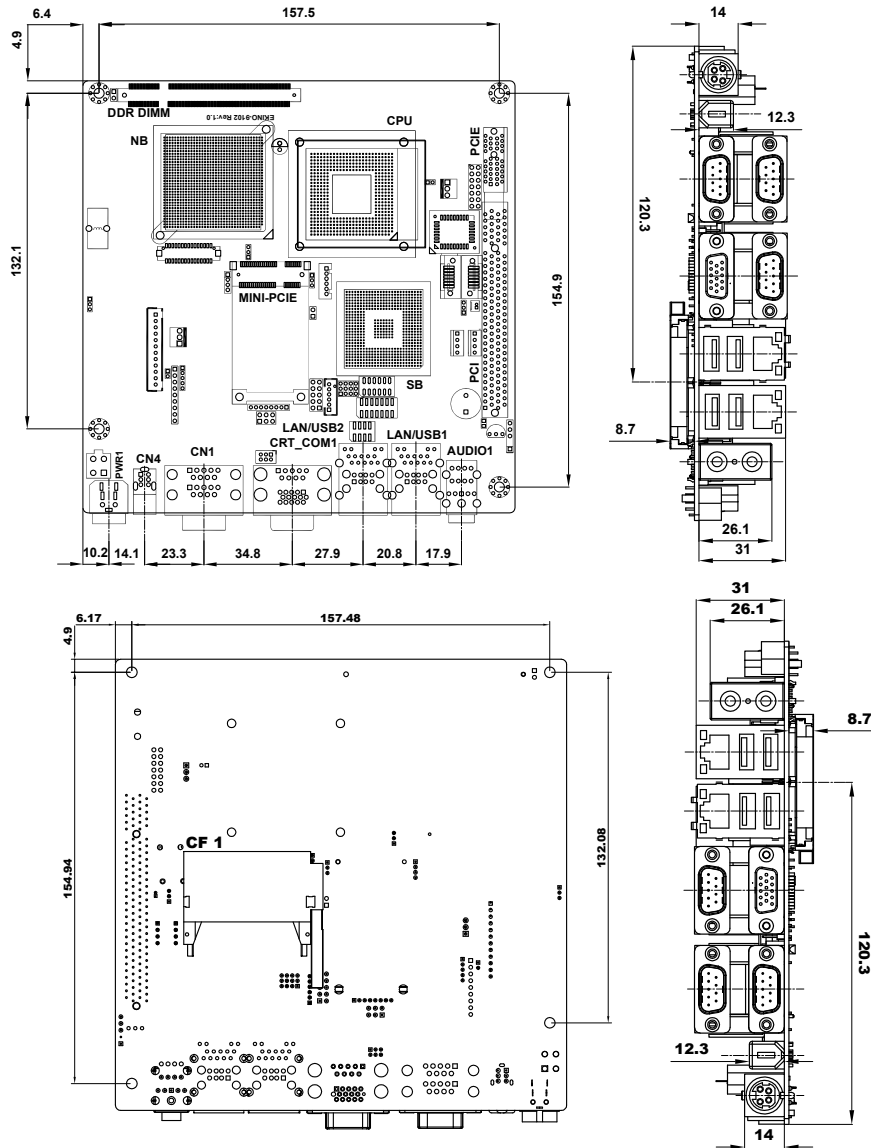
## Packing List

- 1 x QIG
- 1 x screw set with mini jumper
- 1 x wall mount kit
- 1 x power adaptor
- 1 x power cord
- 1 x SATA CD-ROM cable
- 1 x driver & manual CD
- 4 x foot pad

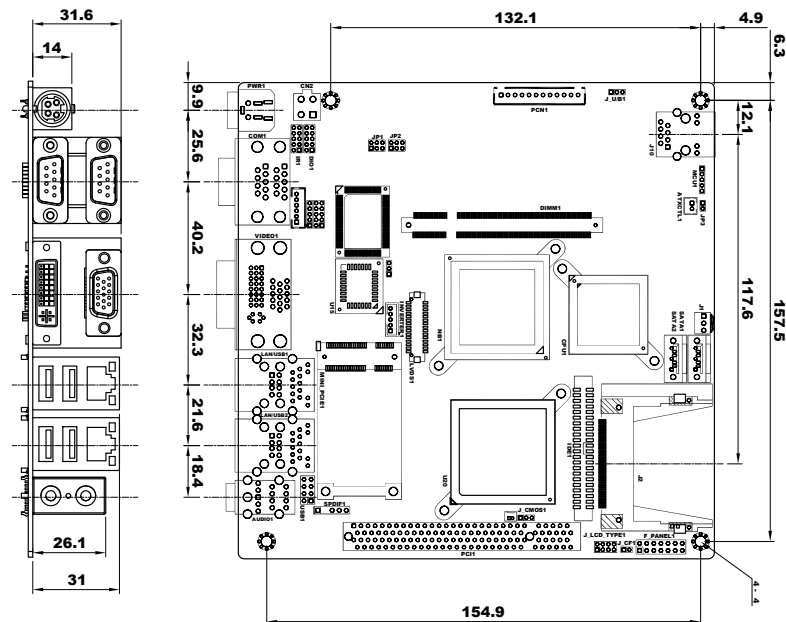
## Ordering Information

Part No.	Description
IBX-600-9102-R10/CM373/512MB	Embedded system, Intel Celeron M 1 GHz 512K cache CPU, Intel 910GMLE, built in 512MB DDR2 memory, built-in 802.11b/g wireless, 12~24VDC in, with 60W adaptor, white, RoHS
IBX-600-9102UPS-R10/CM373/512MB	Embedded system with UPS function, Intel Celeron M 1 GHz 512K cache CPU, Intel 910GMLE, built in 512MB DDR2 memory, built-in 802.11b/g wireless, Li-ion Battery(2S2P); 7.4V;3800mAh, 12~24VDC in, with 60W adaptor, white, RoHS

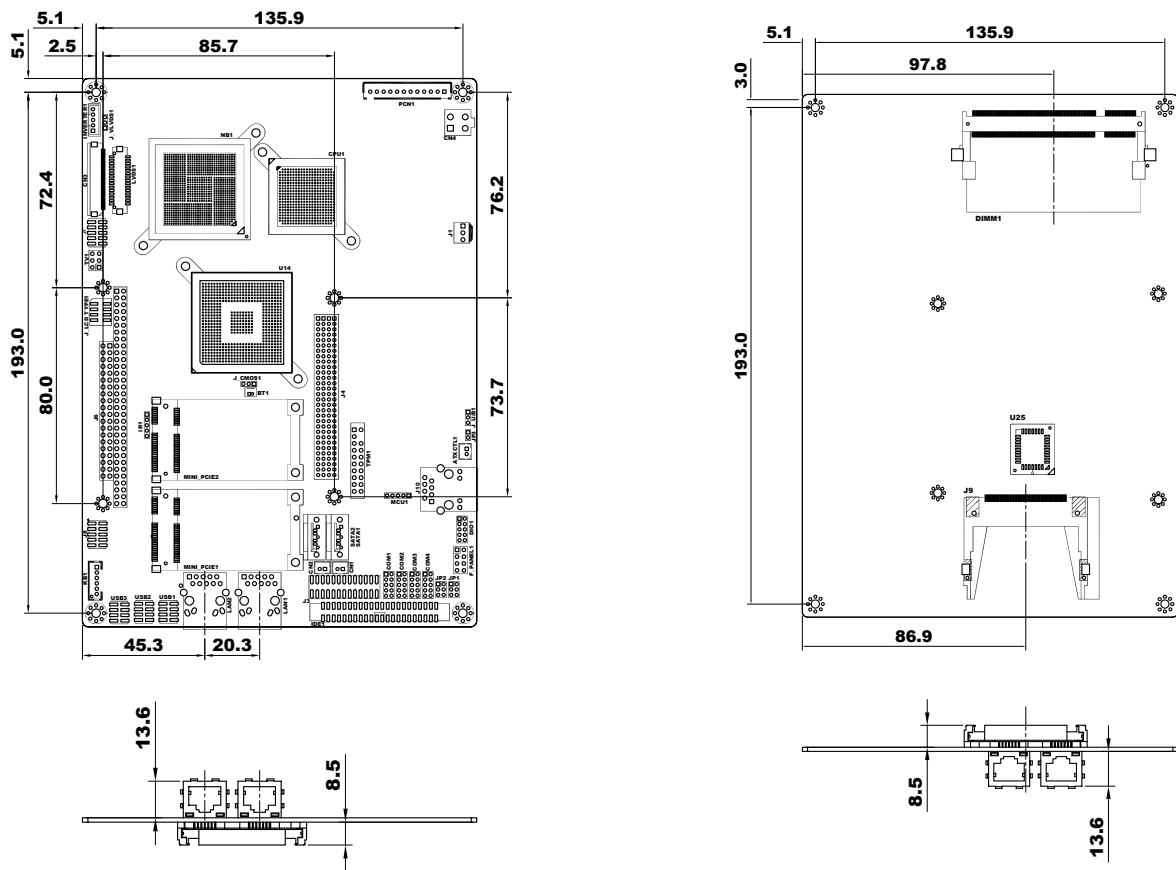
## eKINO-9102/9152 Dimensions (mm)



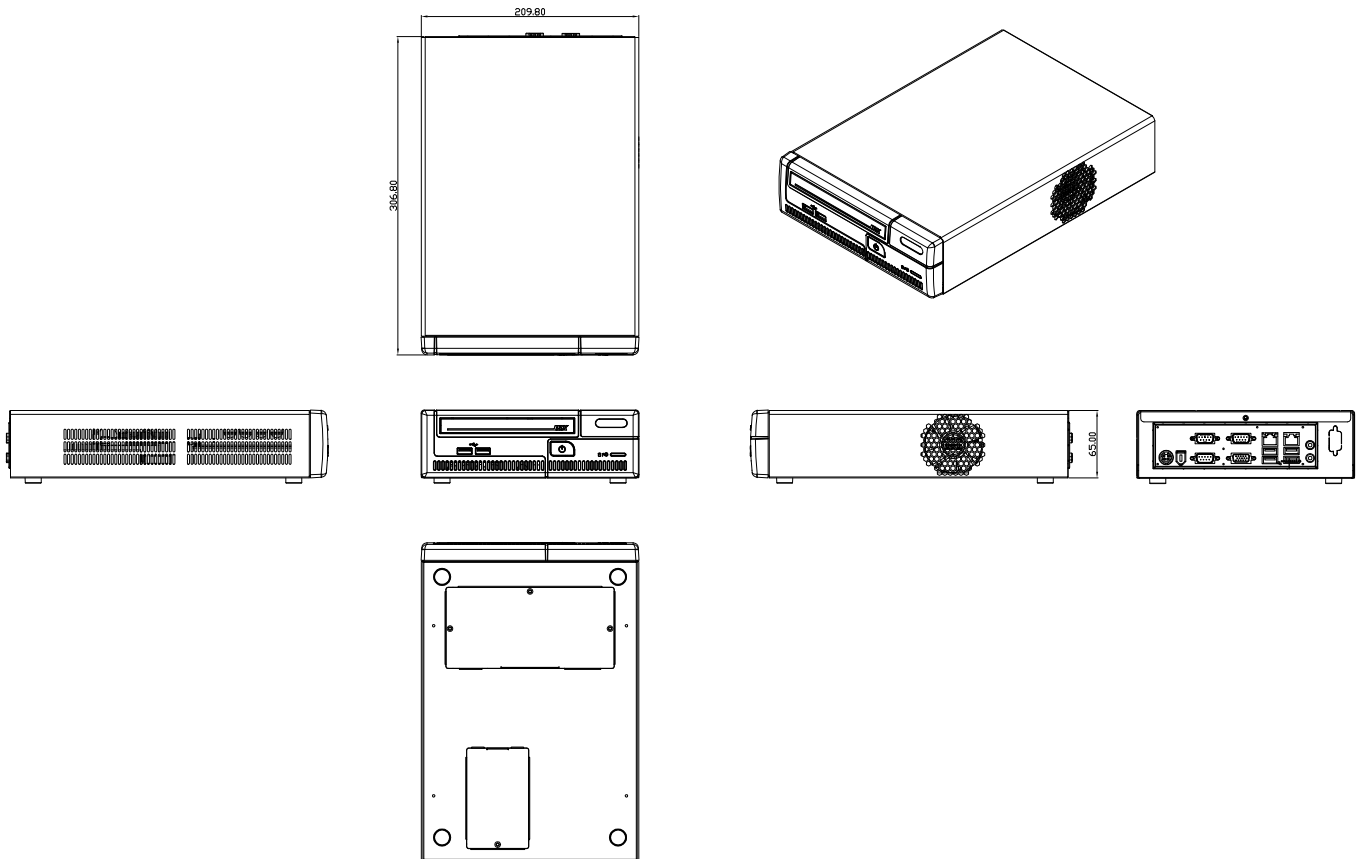
## eKINO-ATOM Dimensions (mm)

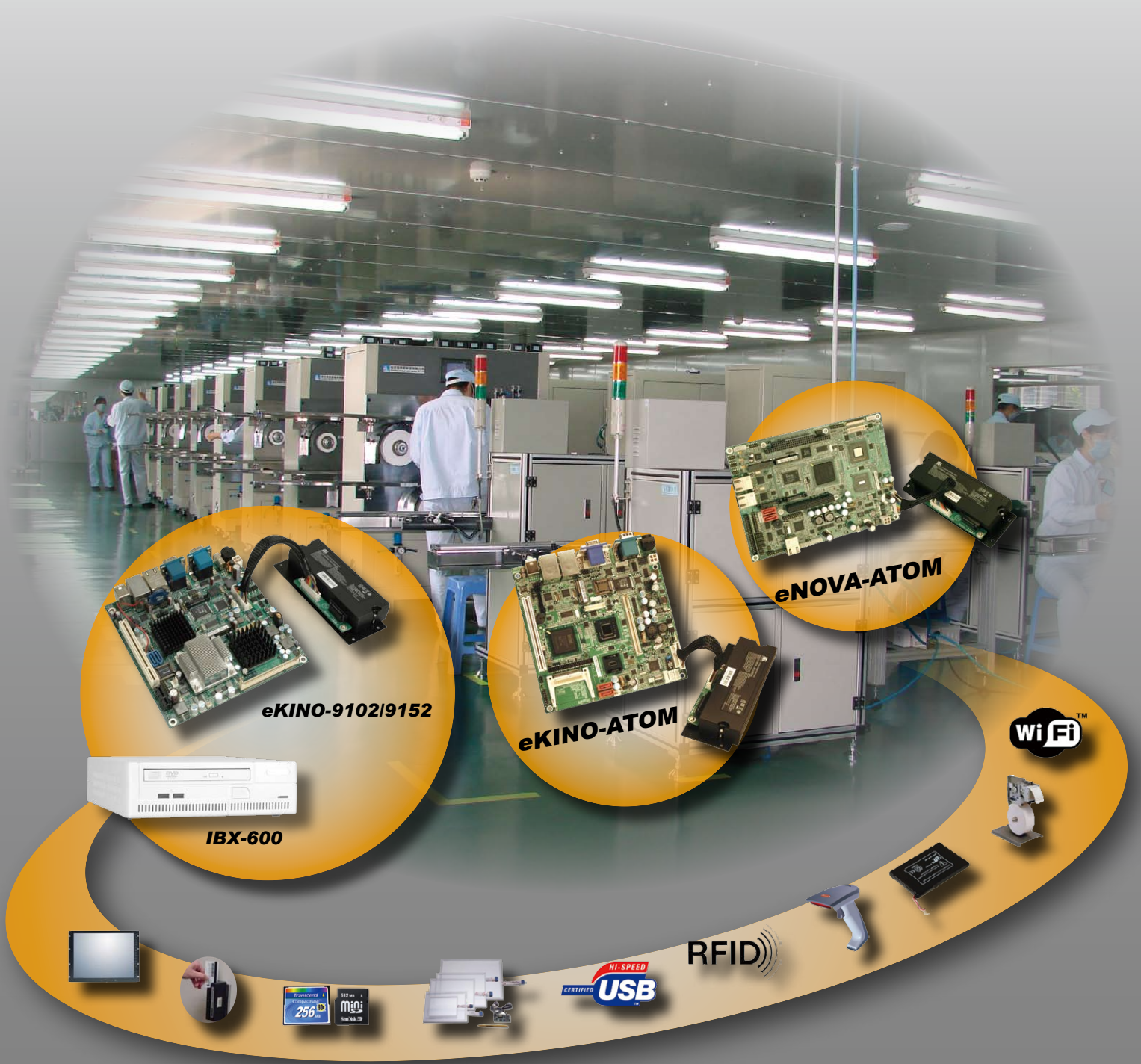


## eNOVA-ATOM Dimensions (mm)



## IBX-600-ATOM / 9102 Dimensions (mm)





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