

**AIMB-232****Intel® SKYLAKE U Dual Core Mini-ITX with HDMI/  
LVDS(eDP)/DP++, 2 COM, and Dual LAN  
Startup Manual****Packing List**

Before you begin installing your card, please make sure that the following items have been shipped:

1. AIMB-232 Intel® SKYLAKE U Dual Core Mini-ITX motherboard
2. SATA HDD cable x 2
3. SATA Power cable x 2
4. Fanless Heatsink x 1
5. I/O port bracket x 1
6. Startup manual x 1
7. Warranty card x 1

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

**Note:** Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: [www.adobe.com/Prodindex/acrobat/readstep.html](http://www.adobe.com/Prodindex/acrobat/readstep.html) (Acrobat is a trademark of Adobe).

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the AIMB-232 series Rev.A1.

Part No. 2006B23200

1st Edition,

Printed in China

May 2017

**Specifications****Standard SBC functions**

- **CPU:** Supports Intel® SKYLAKE U Dual Core i3/i5/i7/Celeron
  - **BIOS:** AMI uEFI 16 Mbits, SPI
  - **Chipset:** Intel® SUNRISE Point LP
  - **System memory:** Up to 32 GB in two 260-pin SODIMM sockets. Supports DDR4 2133 MHz SDRAM
- Note:** Due to the inherent limitations of PC architecture, the system may not fully detect 16 GB RAM when 16 GB RAM is installed.
- **SATA3 Interface:** Two on-board Serial ATA3 connectors with a data transmission rate of up to 600 MB/s supporting Advanced Host Controller Interface (AHCI) technology
  - **mSATA Interface:**
    - One mSATA slot with data transmission (Celeron sku does not support it)
  - **Serial ports:** Two serial ports
  - **Keyboard/mouse connector:** Supports 5-pin wafer PS/2 keyboard and mouse
  - **Watchdog timer:** 1~255 level timer intervals
  - **USB 2.0:** Supports up to two USB 2.0 ports
  - **USB 3.0:** Supports up to two USB 3.0 ports

**Graphic Interface**

- **Chipset:** Supports Intel HD Graphics Support DirectX 11.2, OpenGL 5.0, OpenCL 2.1, full HW accelerated video decoding for AVC/VC1/MPEG2/HEVC/VP8/JPEG.
- **Resolution:** Supports HDMI 2.0 for HD Video playback Max resolution up to 4096x2304 at 60 Hz on DisplayPort, 4096x2160 at 60 Hz on HDMI and single channel 24-bit/ dual channel 48-bit LVDS, Max 1920 x 1200 @ 60 Hz

**Ethernet Interface**

- **Interface:** 10/100/1000 Mbps
- **Controller:**
  - LAN1: Intel Clarkville i219LM GbE PHY;
  - LAN2: Intel Springville i211AT GbE

**Mechanical and Environmental**

- **Dimensions (L x W):** 170 x 170 mm
- **Power supply voltage:** DC 12V
- **Operating temperature:**
  - 0 ~ 60° C (Standard Operating Temperature),
  - -20~70° C (Wide Temperature)
- **Weight:** 0.365 kg (weight of board)

## Jumpers and Connectors

The board has a number of connectors and jumpers that help configure the system to suit your application requirements. The tables below list the functions of the connectors and jumpers.

Label	Function
SATA1 ~ SATA2	SATA Signal Connector
SATA_PWR1 ~ SATA_PWR2	SATA Power Connector
ATX12V2	ATX 12V Power Supply Connector
USB56	USB Header
LVDS1	LVDS Panel Connector
INV1	LVDS Backlight Inverter Power Connector
HDMI1	HDMI Connector
DP1	DP++ Connector
LAN12,LAN2	RJ45 Connector
COM1, COM2	COM Port
MINIPCIE1	F/S MINIPCIE & mSATA Connector
MINIPCIE2	F/S MINIPCIE & SIM card holder
CPUFAN1	CPU FAN Power Connector
SYSFAN1	SYSTEM FAN Power Connector
JFP2	HDD LED/SMBUS/Speaker Pin Header
KBMS1	PS/2 Keyboard and Mouse 5-pin Wafer
BAT1	Battery Wafer
U92	CPU
JFP1	Power Switch/Reset Switch
DIMMA1, DIMMB1	DDR3 SO-DIMM Socket
GPIO1	General Purpose I/O Pin Header
SPDIF_01	HD Digital Audio Interface
AUDIO1, AUDIO2, FP_AUDIO1	HD Analog Audio Interface
ATX12V1, ATX12V2	ATX Power Supply Connector
DCIN1	12 V DC Input
BIOS1	BIOS Socket
LPC1	Low Pin Count Header

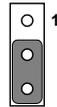
### CMOS1: Clear CMOS

Closed Pins	Result
1-2*	Keep CMOS data*
2-3	Clear CMOS data

\* Default



Keep CMOS data

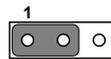


Clear CMOS

### PSON1: ATX, AT Mode Selector

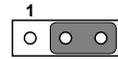
Closed Pins	Result
1-2	AT Mode
2-3*	ATX Mode*

\* Default



AT Mode

1-2 closed



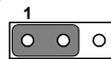
ATX Mode

2-3 closed

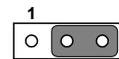
### JWDT1: Watchdog Timer Output Option

Closed Pins	Result
1-2	NC (Watchdog Timer Disabled)
2-3*	System reset* (Reset System when Watchdog Timer Triggered)

\* Default



NC 1-2 Closed



System Reset 2-3 Closed

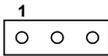
## Jumpers and Connectors

### JLVDS1/JLVDS2: Voltage 3.3 V / 5 V / 12 V Selector Connector

Closed Pins	Result
JLVDS1	
3-4	For 12 V LVDS Panel
4-6	For 3.3 V LVDS Panel
2-4	For 5 V LVDS Panel

JLVDS1

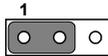
12 V



5 V

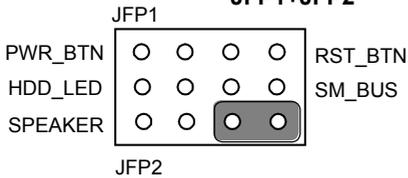


3.3 V



## Installation Note

### JFP1+JFP2



## Declaration of Conformity

The device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation.

## Software Installation

You can download driver from [advantech website](http://advantech.com.tw).  
[www.advantech.com.tw](http://www.advantech.com.tw).

## CAUTION

The computer is supplied with a battery-powered real-time clock circuit. There is a danger of explosion if the battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

# Board Diagram

