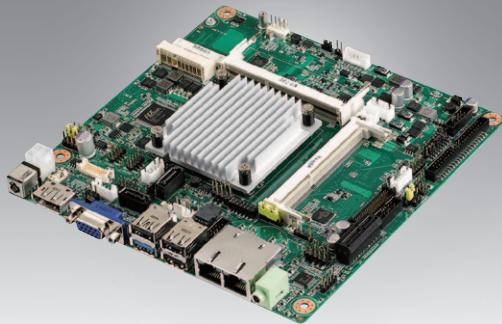


# AIMB-215

**Intel® Celeron® Quad Core J1900/N2930/N2807  
Mini-ITX with CRT/LVDS/DP++, 6 COM,  
and Dual LAN**

**NEW**



**susIAccess** **RoHS COMPLIANT** **CE** **FCC**

## Features

- Supports Intel Celeron Quad Core J1900/N2930/N2807 processor
- Two 204-pin SO-DIMM up to 8 GB DDR3L 1333 MHz SDRAM
- Supports VGA/DP1.2 /24-bit dual channel LVDS
- Supports 1 PCIe x1 and 2 mini-PCIe expansion slot, 6 COMs, 9 USB 2.0, and 1 USB 3.0
- Lower total cost of ownership with DC12V support and onboard TPM1.2(optional)
- Supports SUSIAccess and Embedded Software APIs

### Software APIs:



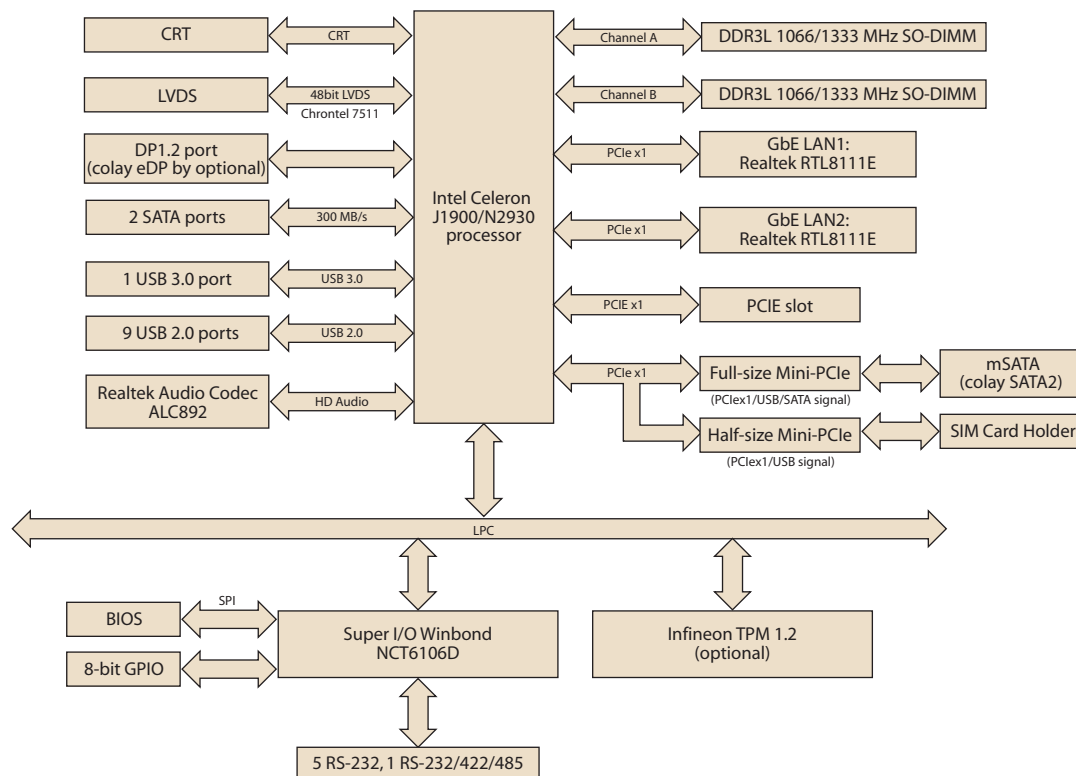
### Utilities:



## Specifications

| Processor System         | CPU (32nm)                | Intel J1900                                                                                                                  | Intel N2930          | Intel N2807          |
|--------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|
|                          | Max. Speed                | 2.0 GHz (Quad core)                                                                                                          | 1.83 GHz (Quad core) | 1.58 GHz (Dual core) |
|                          | L2 Cache                  | 2 MB                                                                                                                         | 2 MB                 | 1 MB                 |
|                          | BIOS                      | AMI 16 Mbit SPI                                                                                                              | AMI 16 Mbit SPI      | AMI 16 Mbit SPI      |
| Expansion Slot           | PCI                       | -                                                                                                                            |                      |                      |
|                          | Mini-PCIe                 | 2 (F/S x 1 support mSATA, H/S x 1 with SIM card holder)                                                                      |                      |                      |
|                          | PCIe                      | PCI Express x1 (Gen2)                                                                                                        |                      |                      |
| Memory                   | Technology                | Dual channel DDR3L 1066/1333 MHz SDRAM                                                                                       |                      |                      |
|                          | Max. Capacity             | 8 GB/4 GB per SO-DIMM                                                                                                        |                      |                      |
|                          | Socket                    | 2 x 204-pin SO-DIMM (Non-ECC)                                                                                                |                      |                      |
| Graphics                 | Controller                | Intel Gen 7 Graphics Engines and media encode/decode engine; GPU Frequency: 688 MHz for J1900; 313 MHz for N2930             |                      |                      |
|                          | VRAM                      | Shared system memory up to 224 MB SDRAM                                                                                      |                      |                      |
|                          | VGA                       | Supports up to 2560 x 1600                                                                                                   |                      |                      |
|                          | LVDS                      | Supports dual channel 48-bit up to 1920 x 1200                                                                               |                      |                      |
|                          | Display Port 1.2          | 1, Supports DP++, resolution up to 2560 x 1600 colay eDP port (optional)                                                     |                      |                      |
| Ethernet                 | Dual Display              | VGA+DP1.2, VGA+LVDS, LVDS+DP1.2, VGA+eDP (optional), LVDS+eDP (optional), Supports extended mode and clone mode              |                      |                      |
|                          | Interface                 | 10/100/1000 Mbps                                                                                                             |                      |                      |
| Ethernet                 | Controller                | GbE LAN1: Realtek 8111E<br>GbE LAN2: Realtek 8111E                                                                           |                      |                      |
|                          | Connector                 | RJ-45 x 2                                                                                                                    |                      |                      |
| SATA                     | Max Data Transfer Rate    | 300 MB/s                                                                                                                     |                      |                      |
|                          | Channel                   | 2, SATA 2 colay mSATA (optional); SATA 1 support SATA-DOM device                                                             |                      |                      |
| Rear I/O                 | CRT                       | 1                                                                                                                            |                      |                      |
|                          | DP1.2                     | 1                                                                                                                            |                      |                      |
|                          | Ethernet                  | 2                                                                                                                            |                      |                      |
|                          | USB                       | 4 (3 x USB 2.0/1 x USB 3.0)                                                                                                  |                      |                      |
|                          | Audio                     | 1 (Mic-in or Line out)                                                                                                       |                      |                      |
|                          | DC jack                   | 1 (2.5 mm)                                                                                                                   |                      |                      |
| Internal Connector       | LVDS & Inverter           | 1/1                                                                                                                          |                      |                      |
|                          | eDP                       | 1 (optional)                                                                                                                 |                      |                      |
|                          | USB                       | 6 (USB 2.0 compliant)                                                                                                        |                      |                      |
|                          | Serial                    | 6 (5 x RS-232, 1 x RS-232/422/485; COM 3 support RS-232/422/485 auto flow control; COM 6 support 5V/12V by jumper selection) |                      |                      |
|                          | IDE                       | None                                                                                                                         |                      |                      |
|                          | SATA                      | 2                                                                                                                            |                      |                      |
|                          | SATA PWR Connector        | 2                                                                                                                            |                      |                      |
|                          | Parallel                  | None                                                                                                                         |                      |                      |
|                          | GPIO                      | 8-bit                                                                                                                        |                      |                      |
| Watchdog Timer           | PS/2 KB & MS              | 1                                                                                                                            |                      |                      |
|                          | Output                    | System reset                                                                                                                 |                      |                      |
| Power                    | Interval                  | Programmable 1 ~ 255 sec/min                                                                                                 |                      |                      |
|                          | Power Type                | Single voltage 12V DC input; 1 x External DC jack; 1 x Internal 4-pin (2x2) power connector; Supports AT/ATX mode            |                      |                      |
| Environment              | Typical Power Consumption | Win Idle 10.17 W (Intel Celeron J1900 2.0 GHz / DDR3L 1600 MHz 4GB x 2)                                                      |                      |                      |
|                          | Operating                 | Non-Operating                                                                                                                |                      |                      |
| Physical Characteristics | Temperature               | 0 ~ 60° C (32 ~ 140° F) with 0.7m/s air flow                                                                                 |                      |                      |
|                          | Dimensions                | -40 ~ 85° C (-40 ~ 185° F)                                                                                                   |                      |                      |
| Physical Characteristics | Dimensions                | 170 mm x 170 mm (6.69" x 6.69")                                                                                              |                      |                      |

## Block Diagram



## Ordering Information

| Part Number     | CPU   | Memory | DP++/eDP | CRT | LVDS | GbE LAN | COM | SATA II | USB3.0/2.0 | MiniPCle                        | TPM | AMP      | PClex1 | Thermal Solution |
|-----------------|-------|--------|----------|-----|------|---------|-----|---------|------------|---------------------------------|-----|----------|--------|------------------|
| AIMB-215D-S6A1E | J1900 | 2      | 1 (1)    | 1   | 1    | 2       | 6   | 2       | 1/9        | 2 (1 x F/S; 1 x H/S)            | (1) | (2 x 6W) | 1      | Passive          |
| AIMB-215N-S6A1E | N2930 | 2      | 1 (1)    | 1   | 1    | 2       | 6   | 2       | 1/9        | 2 (1 x F/S; 1 x H/S)            | (1) | (2 x 6W) | 1      | Passive          |
| AIMB-215U-S6A1E | N2807 | 1      | 1 (1)    | 1   | 0    | 1       | 2   | 1       | 1/3        | 1 x F/S (PCle/SATA signal only) | (1) | (2 x 6W) | 1      | Passive          |
| AIMB-215L-S6A1E | J1900 | 2      | 1 (1)    | 1   | 0    | 1       | 2   | 1       | 1/3        | 1 x F/S (PCle/SATA signal only) | (1) | (2 x 6W) | 1      | Passive          |

Note: Passive = fanless

\* ( ) BOM options available on MP version

## Packing List

| Part Number    | Description                          | Quantity |
|----------------|--------------------------------------|----------|
| 1700003194     | SATA HDD cable                       | 1        |
| 1700018785     | SATA power cable                     | 1        |
| 1700008876     | 1-to-4 serial ports cable kit, 35 cm | 1        |
| 1700100250     | 1-to-1 serial port cable, 25 cm      | 2        |
| 1920000569T000 | I/O port bracket                     | 1        |
| 2006021500     | Startup manual                       | 1        |
| 2066021500     | Driver CD                            | 1        |
| 1960064228N001 | Fanless heatsink                     | 1        |

## Optional Accessories

| Part Number   | Description                            |
|---------------|----------------------------------------|
| 1757003995    | Adapter AC100-240V 60W +12V/5A         |
| 1757003064    | Adaptor AC100-240V 84W, 12V/7A         |
| 1703060191    | KBMS cable 1*6P-2.5/DIN-6P(F)*2, 25 cm |
| 1700022989-01 | A Cable USB-A(F)*2/2*5P-2.0 25CM       |

## Optional Chassis

| Part Number     | Description                               |
|-----------------|-------------------------------------------|
| AIMB-B2000-00YE | Mini-ITX chassis with optional DC Adaptor |

## Embedded OS/API

| OS/API | Part No. | Description        |
|--------|----------|--------------------|
| WES8   | TBD      | Windows Embedded 8 |
| WES7   | TBD      | Windows Embedded 7 |

## I/O View

