

# mITX-BYT60

## Mini-ITX Intel® Bay Trail-D Embedded Motherboard



### Features

- Intel Bay Trail-D Celeron processor, fanless design
- Single channel DDR3L up to 8GB
- Intel HD Graphics, display interfaces: VGA, HDMI, LVDS(eDP, optional)
- 10/100/1000Mbit ethernet card
- SATA2.0, mSATA, Mini-PCIe, eMMC (optional)
- 12V DC input



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## Introduction

Powered by Intel® Quad-core Celeron® processor J1900 or dual-core Celeron® processor J1800, this embedded board is power efficient (rated at a TDP of 10 watts) and adequate power-sensitive applications. It carries one DDR3L SO-DIMM slot with a total maximum capacity of 8GB to add higher bandwidth and lower latencies for processes. It has 1×SATA and 1× mSATA(2×SATA and mSATA can be set as mini-PCIe) for storage requirement.

This embedded board features 1080p HD display display via VGA interface. It has 7×USB2.0 (max.), 1×USB3.0, 2×LAN(max.), 1×PS/2, 1×LPT, 6×COM(max.), 1×Mic-in and 1×Audio-out, which meets most requirements in the market.

This board can deliver cutting-edge performance with very low power consumption. With Celeron® processor you will enjoy stunning visuals, effortless multi-tasking, increased speed and enhanced security to help you create, play, entertain and achieve. Another special feature of this board is its 6×COM interfaces, which makes it an ideal for applications like transportation, communication and so on.



H/W Monitor



Watchdog

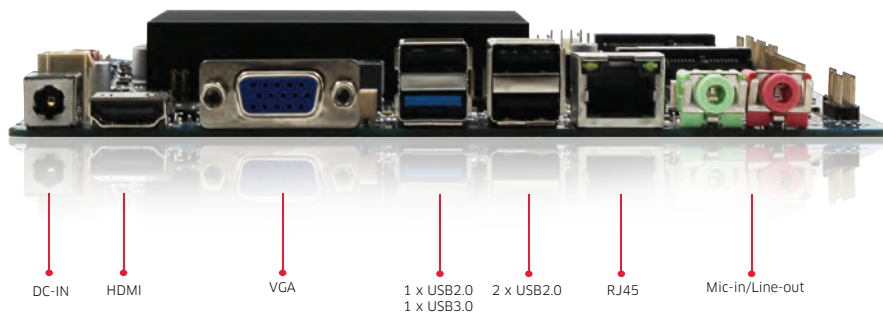


GPIO

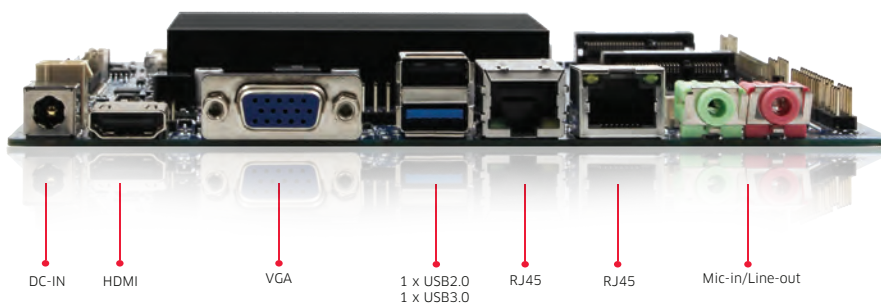


Brightness

## 1 LAN option



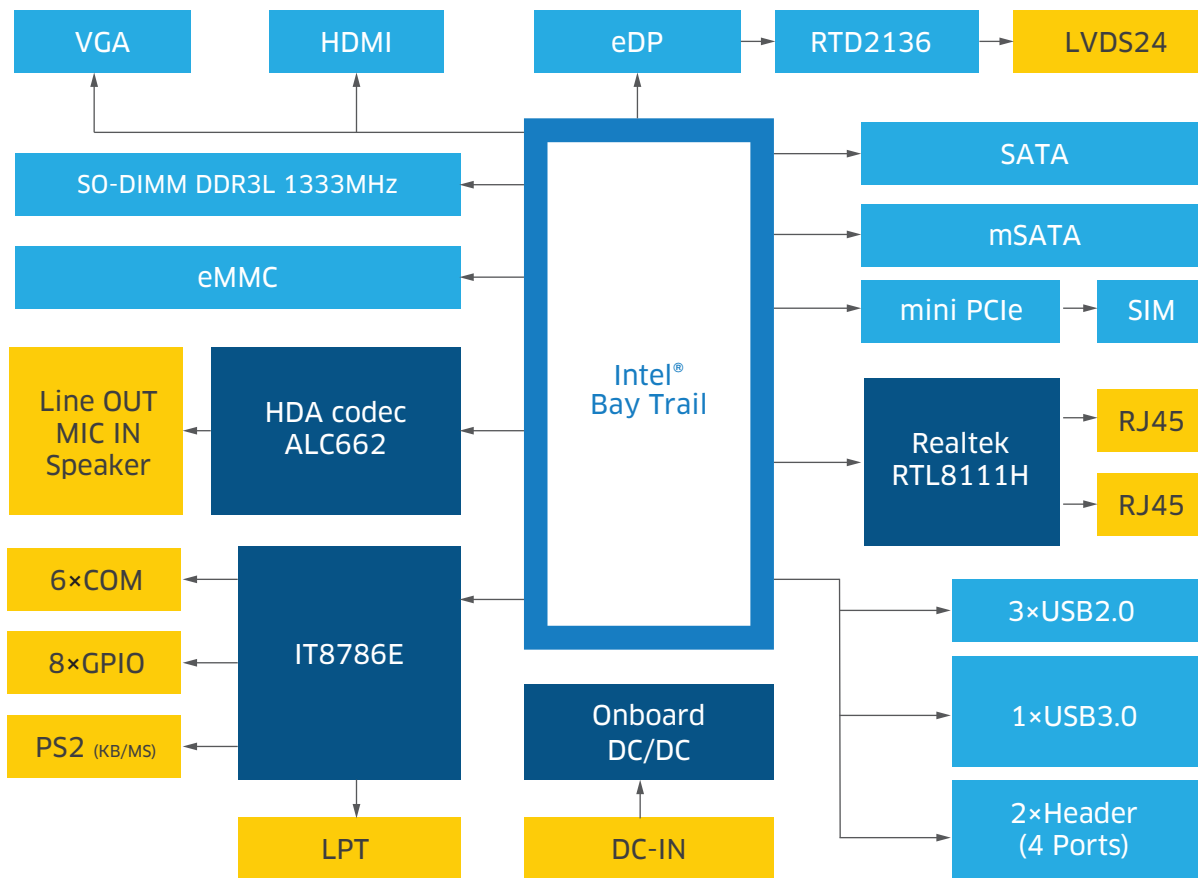
## 2 LAN option



## Technical Specifications

| Processor                  | CPU                                     | J1800   | J1900               |
|----------------------------|---|---|---------------------|
|                            | Core frequency                          | 2.41 GHz, dual-core   | 2.00 GHz, quad-core |
| Turbo frequency            | 2.58 GHz                                | 2.42 GHz  |                     |
| Cache                      | 1MB                                     | 512 KB L2   |                     |
| BIOS                       | AMI 8MB UEFI BIOS                       |   |                     |
| Memory                     | Type                                    | Single channel 1×DDR3L 1333MHz                                    |                     |
|                            | Max.                                    | 8GB   |                     |
| Display                    | GPU                                     | Intel HD Graphics   |                     |
|                            | VGA                                     | Yes   |                     |
|                            | LVDS                                    | Dual channel 24bit LVDS(2-Lane eDP, optional)                     |                     |
|                            | HDMI                                    | HDMI 1.4  |                     |
|                            | Dual display                            | VGA+HDMI+LVDS(eDP)  |                     |
| Ethernet                   | Speed                                   | 10/100/1000Mbps   |                     |
|                            | Controller                              | Realtek RTL8111H  |                     |
|                            | Interface                               | 2×RJ45 (One is optional with USB2.0 interfaces)                   |                     |
|                            | Wake on LAN                             | Yes   |                     |
| Audio                      | Audio codec                             | Realtek HD ALC662   |                     |
|                            | Interface                               | Line-out, MIC-in, 1xSPDIF   |                     |
| Hardware                   | watchdog, Auto power on                 |   |                     |
| Storage                    | SATA2.0                                 | 2×SATA2.0, and SATA2 is optional with mSATA                       |                     |
|                            | mSATA                                   | 1×mSATA   |                     |
|                            | eMMC                                    | 1×eMMC (optional)   |                     |
| Expansion                  | Mini-PCIe                               | 2×Mini-PCIe ( one is optional with mSATA)                         |                     |
|                            |   | The other one supports WIFI, 3/4G ethernet with SIM slot          |                     |
| Rear Panel I/O             | Audio                                   | 1×Line-out, 1x Mic-in   |                     |
|                            | LAN                                     | 2 Max.(10/100/1000Mbps)   |                     |
|                            | USB2.0                                  | 3 Max.  |                     |
|                            | USB3.0                                  | 1   |                     |
|                            | VGA                                     | 1   |                     |
|                            | HDMI 1.4                                | 1   |                     |
| I/O header                 | USB2.0                                  | 4×USB2.0  |                     |
|                            | COM                                     | 6, default: 6×RS232, and COM6 can be set as Rs485 by Maxtang only |                     |
|                            | PS/2                                    | 1×PS/2  |                     |
|                            | I/O                                     | 8×GPIO  |                     |
|                            | Others                                  | 1×LPT   |                     |
| Power                      | Standard port                           | 1×12V DC_IN/4PIN POWER  |                     |
|                            | Peripheral                              | For fan and SATA  |                     |
| Mechanical & Environmental | Type                                    | Mini-ITX  |                     |
|                            | Size                                    | 170mm×170mm   |                     |
|                            | Operating Temp.                         | -40°C ~60°C   |                     |
|                            | Storage Temp.                           | -40°C ~85°C   |                     |
| Operating System           | Win7/8/8.1/10 32/64bit, Linux 32/64 bit |   |                     |

## BYT60 Functional Block Diagram



## Ordering Information

| Model       | CPU          | Memory           | HDMI | LVDS<br>eDP, optional | VGA | LAN | Audio | COM | USB3.0 | USB2.0 | SATA2.0 | Mini-PCIe | mSATA | LPT | Power      | Cooling |
|-------------|--------------|------------------|------|-----------------------|-----|-----|-------|-----|--------|--------|---------|-----------|-------|-----|------------|---------|
| DTJ1900-E5  | J1900<br>10W | SO-DIMM<br>DDR3L | 1    | 24-bit                | 1   | 2   | Yes   | 6   | 1      | 5      | 1       | 1         | 1     | 1   | DC-IN, 12V | Passive |
| DTJ1900-E5A | J1900<br>10W | SO-DIMM<br>DDR3L | 1    | 24-bit                | 1   | 1   | Yes   | 6   | 1      | 7      | 1       | 1         | 1     | 1   | DC-IN, 12V | Passive |
| DTJ1900-E5B | J1900<br>10W | SO-DIMM<br>DDR3L | 1    | 24-bit                | 1   | 1   | Yes   | 2   | 1      | 7      | 1       | 1         | 1     | 1   | DC-IN, 12V | Passive |
| DTJ1900-E5C | J1900<br>10W | SO-DIMM<br>DDR3L | 1    | 24-bit                | 1   | 1   | Yes   | 1   | 1      | 7      | 1       | 1         | 1     |     | DC-IN, 12V | Passive |

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