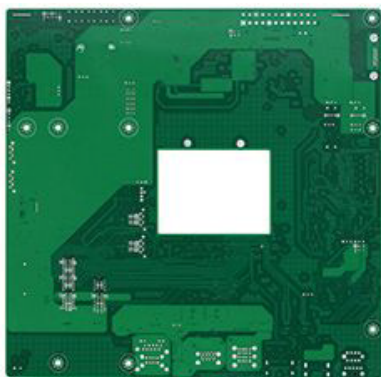
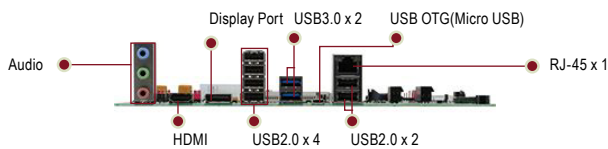
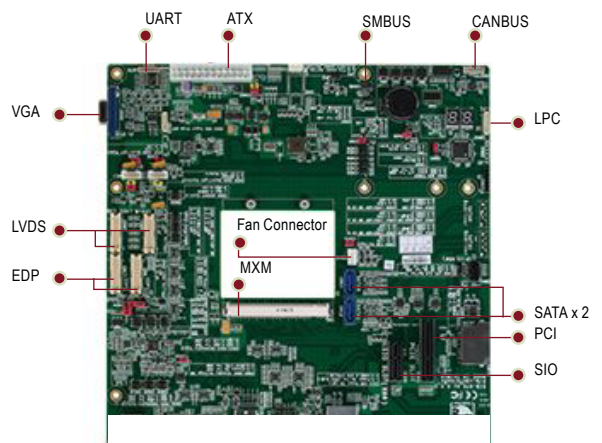


# Onyx Single Board Computer Unit

# ECB-970

Qseven Rev. 2.0 Carrier Board for ARM/x86 Solutions



## Features

- Supports Qseven Module
- Support both ARM/x86 Based Q7 CPU module
- Supports Gigabit Ethernet, RJ-45 x 1
- Up to 18-bit Single-Channel LVDS Connector, VGA (for X86)
- Up to 24-bit Dual-Channel LVDS Connector or EDP, DP or HDMI (for ARM)
- High Definition Audio (for X86), I2S Audio Interface (for ARM)
- SATA Port x 2, SDIO x 1 (for X86), SATA Port x 1 (for ARM)
- USB 2.0 x 8, USB 3.0 x 2 (for X86), USB 2.0 x 5 (Share One USB OTG)
- Qseven Specification 2.0
- LPC Connector x 1, Micro ATX Form Factor

## Specifications

### Main Specifications

|                     |   |              |
|---------------------|---|--------------|
| System              | x86   | ARM          |
| Form Factor         | Micro ATX   |              |
| Chipset             | N/A (Legacy Support)  | —            |
| Expansion Interface | Interface PCI Express [x4] x 1 (Super I/O Card only), LPC Connector x 1 | PCIe[ x1] x1 |

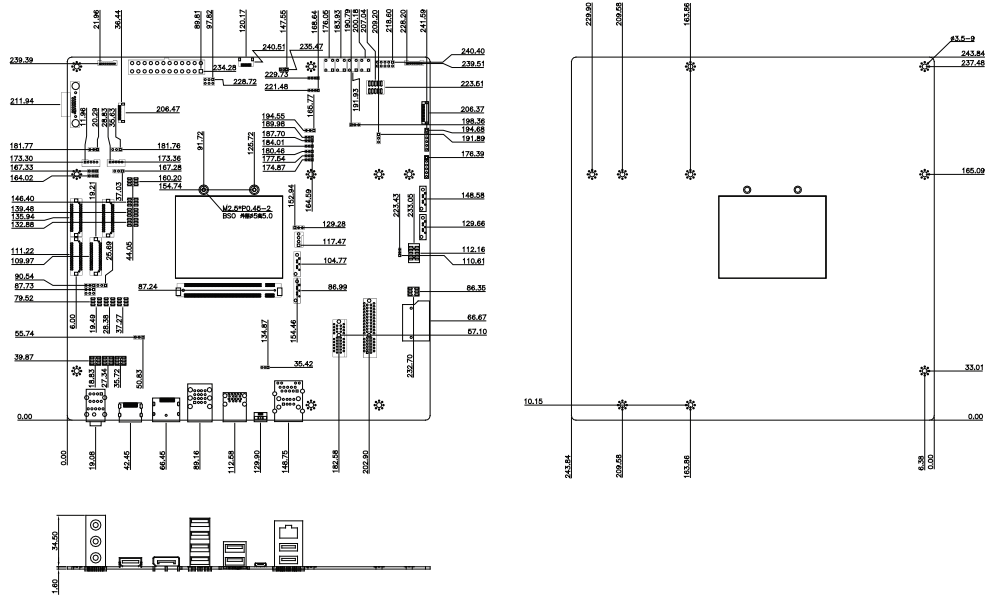
### I/O

|             |  |                             |
|-------------|--|-----------------------------|
| USB         | USB 2.0 x 8, USB3.0 x 2                          | USB 2.0 x 5(1 USB OTG)      |
| Serial Port | RS-232 x 1, RS-232/422/485 x 1                   | One, For debug only         |
| Ethernet    | 10/1000/1000Base-TX, RJ-45 x 1 (From CPU module) |                             |
| Storage     | SATA x 2, SDIO x 1                               | SATA 2 x 1, eMMC (optional) |
| Audio       | Line-in, Line-out, Microphone                    | Headphone                   |
| Display     | LVDS or EDP, DP or HDMI                          |                             |
| DVI/CRT     | VGA x 1  | —                           |
| LVDS        | 18-bit Single Channel LVDS                       | 24-bit Dual Channel LVDS    |
| DDI         | —  | LVDS x 2, eDP x 2, HDMI x 1 |
| PS/2 Port   | —  | —                           |
| Debug LED   | Port 80  | —                           |

### Mechanical and Environmental

|                       |  |              |
|-----------------------|--|--------------|
| Power Consumption     | —  | 3~5 Watt @5V |
| Power Requirement     | +5V DC                                     |              |
| Operating Humidity    | 0% ~ 90% relative humidity, non-condensing |              |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C)                  |              |
| Storage Temperature   | -40 °F ~ 185 °F (-40 °C ~ 85 °C) by E3815  |              |
| Gross weight          | 1.32 lb (0.6 Kg)                           |              |
| Dimensions(W x D x H) | 9.65" x 9.65" (243.84mm x 243.84mm)        |              |
| MTBF (Hours)          | 75,000                                     |              |

Dimension / Unit: mm



### Ordering Information

- ECB-970-A10  
Qseven Carrier Board, GbE, LVDS, Audio, COM, USB2.0, USB3.0, DC, Rev. A1.0 for X86
- ECB-970-A10-01  
Qseven Carrier Board, GbE, LVDS, Audio, COM, USB2.0, USB3.0, USB OTG, DC, Rev. A1.0 for ARM