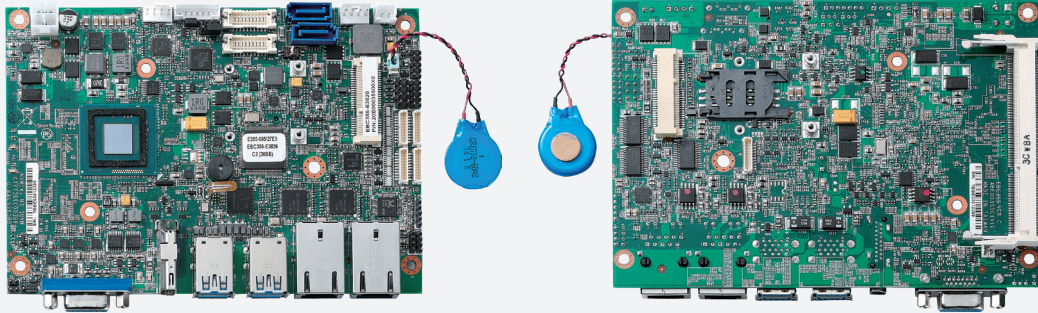


EBC 355U Series

3.5" SBC On-board Intel® Atom™ Processor E3800/J1900 Product
HDMI/VGA/1 x 24/48-bit LVDS Dual Channel, Dual mini-PCIe



Main Features

- Onboard Intel® Atom™ processor E3800/J1900 product
- One 204-pin SO-DIMM socket supports up to 8 GB DDR3L 1066/1333 MHz SDRAM
- Display: HDMI/VGA/1 x LVDS (2 x DF13 20-pin 24/48-bit dual channel)
- 2 x mini-PCIe
- 2 x Intel® I211 PCIe Gigabit Ethernet
- 2 x SATA 2.0
- 4 x USB 3.0, 4-in/4-out GPIO, Mic-in, Speak-out
- Serial port: 3 x RS232, 1 x RS232/422/485 port
- Support AT/ATX mode and single +12VDC input

Product Overview

EBC 355U series is a 3.5" ECX embedded board with an onboard Intel® Atom™ processor E3800/J1900 product (formerly codenamed "Bay Trail-I & D") with 1MB L2 cache, which supports DDR3 1066/1333 memory, along with integrated Intel® Gen 7 graphics engine enhanced Gfx & video, support DX 11*, OGL3.2, Full HD decode (MPEG2, VC1, AVC, H.264), along with integrated graphics for large display applications to support multiple displays. Intel® Atom™ processor E3800/J1900 product provides two SATA, four serial ports, four USB 3.0 ports, two Gigabit Ethernet LAN port, and two mini-PCIe interfaces for application. Able to support matrix-displays with rich I/O, the EBC 355U series is a great solution featuring a low power consumption and small footprint for multimedia applications.

Specifications

CPU/Chipset

- Support Intel® Atom™ processor E3800/J1900 product (formerly codenamed "Bay Trail-I")

Main Memory

- Single 204-pin SO-DIMM socket supports up to 8 GB DDR3L 1066/1333 MHz SDRAM

BIOS

- AMI System BIOS

Display

- Integrated Intel® Gen 7 graphics engine
- Supports VGA and HDMI interface
- Analog VGA interface: 1 x DB-15 connector, resolution up to 1920 x 1200 @75Hz
- HDMI interface: 1 x HDMI connector, resolution up to 1920 x 1200
- LVDS interface: 1 x dual (24/48-bit) LVDS panel, resolution up to 1920 x 1200 DF13 20-pin LVDS connector for internal connection

System

- 4 x USB 3.0
- 3 x RS232, 1 x RS232/485/422
- Realtek ALC888 CODEC for high definition:
- 1 x Front panel header, 8-bit digital I/O (in/out programmable), WDT
- 1 x Fan connector

Storage

- 2 x SATA 2.0
- 1 x mini-PCIe

Expansion Slot

- 2 x mini-PCIe

Rear I/O

- 4 x USB 3.0
- 1 x VGA, 1 x HDMI
- 2 x RJ45
 - Intel® I210-AT GbE LAN x 2

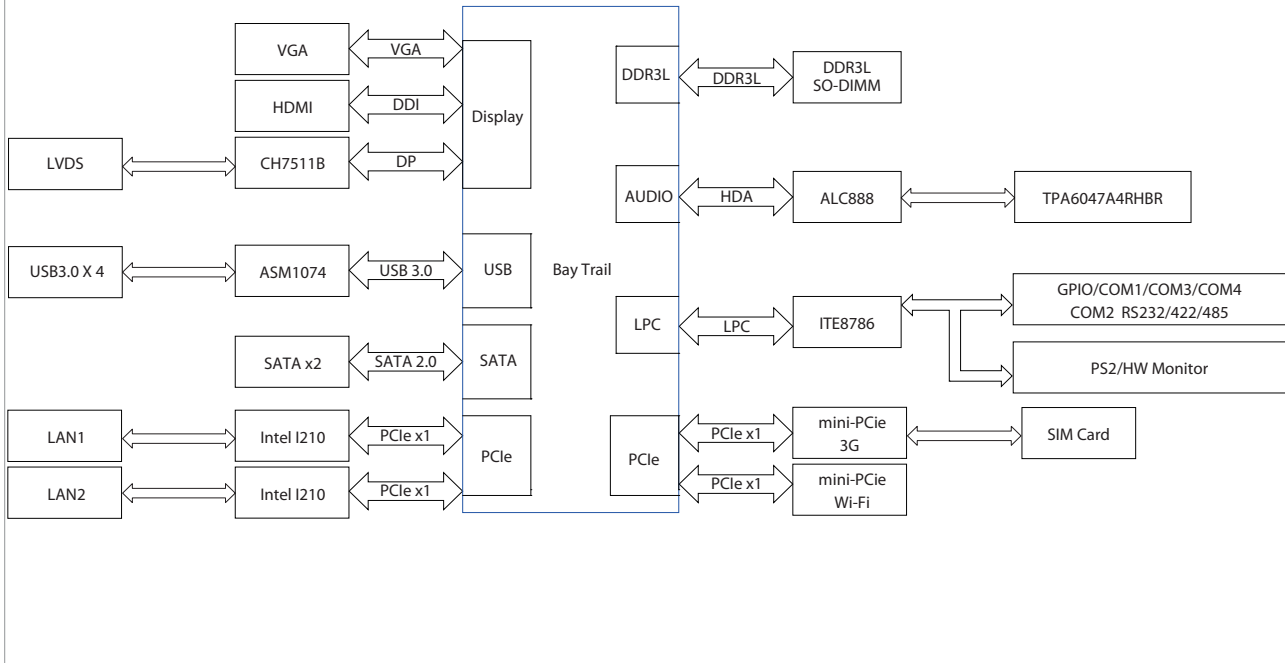
Internal I/O

- 2 x 2 deck USB 3.0
- 1 x VGA, 1 x HDMI
- 1 x Keyboard/mouse pin header
- 1 x 8 GPIO lines via header (GPI 0~3 and GPO 0~3) TTL level (0/5V)
- 1 x 4-pin fan connector (for CPU)
- Onboard buzzer/SMBus2.0/reset SW/on & off switch button
- 1 x 3 ports HD Audio Jack (speaker out, Mic-in, Line-out)

Power Requirements

- Power requirement: +12V DC Input one 4-pin power connector

Block Diagram



Dimensions

- 146mm (L) x 102mm (W) 5.7" x 4.0"

Environment

- Board Level operating temperatures: -20°C to 60°C
- Storage temperatures: -25°C to 85°C
- Relative humidity:
 - 10% to 90% (operating, non-condensing)
 - 5% to 95% (non-operating, non-condensing)

Watchdog Timer

- Watchdog time-out can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)

System Monitor

- Monitoring of 4 voltages and 2 temperatures
- 4 x Voltage (Vcore, +12V, +3.3V, 5V)
- 2 x Temperatures (CPU, system)
- 1 x Fan speed detection

Certifications

- Meet CE
- FCC Class A

Ordering Information

Barebone

- **EBC 355U-J1900 (P/N: 10E00035527X0)**
3.5: SBC, Intel® Atom™ processor J1900
- **EBC 355U-E3845 (P/N: 10E00035532X0)**
3.5: SBC, Intel® Atom™ processor E3845
- **EBC 355U-E3826 (P/N: 10E00035534X0)**
3.5: SBC, Intel® Atom™ processor E3826

Optional Accessories

- **EBC 355 cable kit (P/N: 10E00035501X0)**
2 x COM cable, 1 x PS2 KB/MS cable, 1 x SATA cable, 1 x SATA power cable
- **EBC 355 heatsink kit (P/N: 10E00035504X0)**
- **Power adapter fsp: FSP060-DHAN3 (P/N: 74000600044X00)**
- **DC Power cable (P/N:603POW0057X00)**