

Main Features

- ♦ Intel® Atom® x6000 processor
- ♦ 1 x SO-DIMM DDR4 with non-ECC SO-DIMM 3200 MHz up to 32GB
- ♦ Support triple display VGA, HDMI, LVDS
- ♦ 2 x Intel® GbE LAN, 2 x USB 3.2 (Gen1), 3 x USB 2.0, 3 x RS232
- ♦ 1 x RS232/485/422, 1 x SATA3.0, 8-bit GPIO, HD audio
- ♦ 1 x M.2 Key B
- ♦ TPM 2.0
- ♦ 12V or 24 V auto detect

Product Overview

The EBC 358X is an 3.5" SBC. It is equipped with Intel Atom® x6000 processor. It comes with four DDR4 SO-DIMM sockets up to 32GB DDR4 3200MHz with non-ECC support and integrated UHD graphic controller.

EBC 358X operates at a temperature range from -40°C to 80°C, this design is ideal for embedded applications that run in outdoor or semi-outdoor environments, such as outdoor systems installed in harsh environments, home automation, and thin clients.

3.5" SBC Target Market:

Energy and environment/traffic signal control and monitoring/speed cameras/railway gates/MRT-TVM/charging stations

Specifications

CPU/Chipset

- ♦ Intel Atom® x6000 series processors, BGA 1493
 - Intel® Atom® x6425E processor, Quad Core, 1.5M Cache, 2.0GHz (3.0GHz), 12W
 - Intel® Atom® x6413E processor, Quad Core, 1.5M Cache, 1.5GHz (3.0GHz), 9W
 - Intel® Atom® x6211E processor, Dual Core, 1.5M Cache, 1.3GHz (3.0GHz), 6W

Main Memory

- ♦ DDR4-3200 SO-DIMM sockets supported

BIOS

- ♦ AMI (UEFI)

Display

- ♦ 1 x VGA (resolution up to 1920 x 1080@60Hz)
- ♦ 1 x HDMI 1.4b (resolution up to 3840 x 2160@30Hz)
- ♦ 1 x Dual channel 18/24-bit LVDS (resolution up to 1920 x 1080@60Hz)

Storage

- ♦ 1 x SATA 3.0/1 x SATA power connector x 1(+5V)

Expansion Slot

- ♦ 1 x Full size mPCIe with nano-SIM (support PCIe/USB 2.0 Interface)
- ♦ 1 x M.2 3042 Key B (support SATA/PCIe/USB 3.2 Gen1) with nano-SIM

Rear I/O

- ♦ 2 x USB 3.2 Gen 1
- ♦ 2 x GbE LAN (Intel i210-IT)
- ♦ 2 x USB 2.0
- ♦ 1 x VGA, 1 x HDMI connector

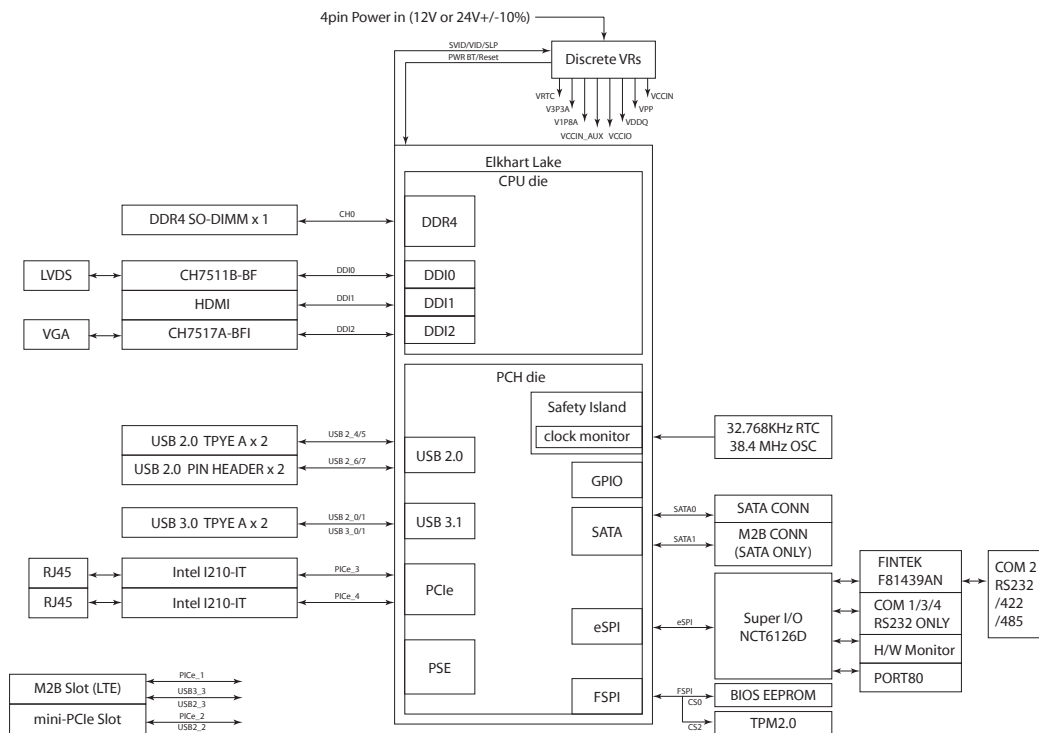
Internal I/O

- ♦ 2 x USB 2.0 (pin header)
- ♦ 4 x Serial ports:
 - ♦ 1 x RS232, 2 x RS232/485/422.
- ♦ 1 x Front panel header, 8-bit digital I/O(4-In/4-Out)
- ♦ WDT, supports onboard TPM 2.0
- ♦ HD Audio (Line-Out, SPK-Out, Mic-In)
- ♦ 1 x Fan connector
- ♦ 1 x 4-pin (2 x 2) ATX power connector

Power Requirement

- ♦ 1 x 4-pin (2 x 2) ATX power connector
 - Input power DC 12V or 24V only
- ♦ Support both AT and ATX power supply mode

Block Diagram



Dimensions

- 3.5" SBC form factor, (146mm x 105mm)

Environment

- Board level operation temperature: -40°C to 80°C (base on the cooler kit)
- Storage temperature: -40°C to 85°C
- Relative humidity:
 - 10% to 95% (operating, non-condensing)
 - 5% to 95% (non-operating, non-condensing)

Certifications

- Meet CE/FCC Class A

Ordering Information

Barebone

- EBC 358X (P/N: 10E00035803X0)**
3.5" SBC, Intel® Atom® x6425E processors, temperature: -40°C to 80°C

- EBC 358X-6413E (P/N: 10E00035805X0)**

3.5" SBC, Intel® Atom® x6413E processors, operation temperature: -40°C to 80°C

- EBC 358X-6211E (P/N: 10E00035806X0)**

3.5" SBC, Intel® Atom® x6211E Processors, temperature: -40°C to 80°C

Optional Accessories

- EBC358X cooler kit (P/N: 685050203581F)**
- EBC358 heat spreader kit (P/N: 685050403583F)**

* Heat Spreader: Please note that the heat spreader is a thermal coupling device that comes in contact with the CPU through thermal gap fillers. It is designed to transfer the heat away from the CPU and is different to a heatsink in terms of cooling properties. Please do not consider it as a heatsink. Additional thermal gap fillers can be used on other components on the module to allow them to come in contact with the heat spreader for heat dissipation.

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