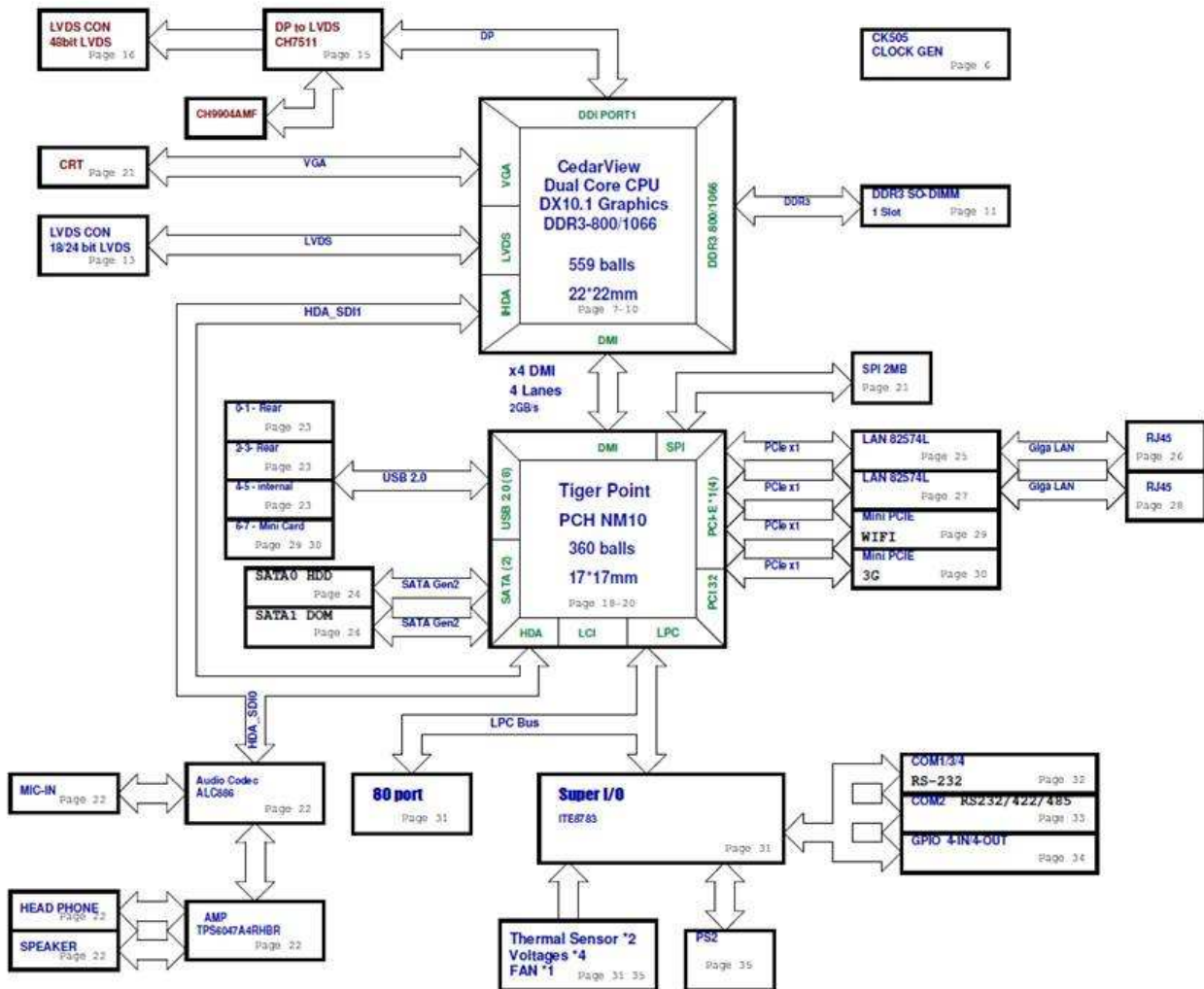


EBC 354DL

3.5" ECX On-board Intel® Atom™ processor D2550 1.86GHz with 24-bit LVDS & 24/48Bit LVDS Dual channels Support

Block diagram:

EBC354DL Block Diagram



- Main Features
- Onboard Intel® Atom™ processor D2550 1.86GHz CPU
- Intel® NM10 Express chipset
- One 204-pin SO-DIMM socket supports up to 4 GB DDR3 800/1066 MHz SDRAM
- Display: VGA & LVDS1 (1 x DF13 20-pin 18/24-bit Single channel) & LVDS2 (2 x DF13 20-pin 24/48-bit Single channel)
- 2 x Mini-PCIe
- 2 x Intel 82574L PCI Express Gigabit Ethernet
- 2 x SATA
- 6 x USB, 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 +12 Vdc input

Product Overview

The EBC 354DL is a 3.5" ECX embedded board with an on-board Intel® Atom™ processor D2550 1.86GHz CPU with 1MB L2 cache, which supports DDR3 800/1066 memory, along with integrated SGX545 PowerVR Core @ 400/640 MHz Enhanced Gfx & Video , support DX*10.1,OpenGL 3.0 , Full HD-Decode (MPEG2,VC1,AVC,H.264), along with integrated graphics for large display application to support Multiple Display. Intel® NM10 Express chipset provides two SATA, four serial ports, six USB 2.0 ports, two Gigabit Ethernet LAN port, two Mini-PCIe interface for application. The EBC 354DL is a great solution featuring a low power consumption processor and small footprint with versatile displays and numerous I/O port support at multi-media applications.

Specifications

CPU Support

- Intel® Atom™ processor D2550 1.86GHz CPU

Main Memory

- One 204-pin SO-DIMM socket supports up to 4 GB DDR3 800/1066 MHz SDRAM

Chipset

Intel® NM10 Express chipset

BIOS

- AMI BIOS
- Plug & Play support
- Advanced Power Management
- Advanced Configuration & Power Interface
- 8M bits SPI ROM

On-board LAN

- 2 x Intel® PCI Express Gigabit Ethernet
- Support Boot From LAN (PXE)
- 2 x RJ45 with LED

Display

- Intel® Atom™ processor D2550 integrated 3D graphics engine, Enhanced Gfx & Video , support DX*10.1,OpenGL 3.0 , Full HD-Decode (MPEG2,VC1,AVC,H.264) ,delivers sophisticated graphics for large display application, dual independent display support, at graphics base frequency up to 640MHz, provides a wealth of options for high-resolution displays

Analog VGA interface:

1 x VGA within DSUB connector

Resolution up to 1920x1200 75Hz

LVDS-1 interface:

Single (24bit) LVDS panel, resolution up to 1440 x 900 DF13 20-pin LVDS connector for

internal connection

CCFL interface:

1 x CCFL for LCD Panel Backlight Inverter & PWM/Analog dimming control

LVDS-2 interface:

Single (24bit / 48bit) LVDS panel, resolution up to 2560 x1600 with two DF13 20-pin

LVDS connector for internal connection

CCFL interface:

1 x CCFL for LCD Panel Backlight Inverter & PWM/Analog dimming control

Audio

- Realtek ALC886 CODEC for High Definition
- 1 x Mic-in and 1 x Line-out Pin header

Expansion

- 2 x Mini-PCIe

I/O Interface

- Serial port: 4 port
COM1,3,4 support RS232 with 10-pin box header
COM2 support RS232/422/485 with 10-pin box header
- USB 2.0: 6 ports
4 ports edge connector
1 ports by 2.0mm JST connector
- 8 GPIO lines via header (GPI 0~3 and GPO0~3) TTL Level (0/5 V)
- On-board Power LED and HDD Active LED Pin Header
- 1 x 3-pin fan connector (for CPU)
- 1 x Keyboard/Mouse pin header
- On board Buzzer/SMBus2.0/Reset SW/ On &Off switch button

Edge I/O Interface

- 1x VGA D-SUB connector
- 2x dual stack USB connector
- 2x RJ45 with LED connector

Watchdog Timer

- Watchdog timeout 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)

Storage

- 2 x SATA port

System Monitor

- Monitoring of 4 voltages and 2 temperatures
- 4 Voltage (Vcore, +12V , +3.3V , 5V)
- 2 Temperatures (CPU, System)

- 1 Fan Speed detection

On-board RTC

- On-chip RTC with battery backup
- 1 x External Li-Ion battery

Power Input

- Support AT and ATX mode

Power Requirements

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

Dimensions

- 3.5" ECX form factor/146mm (L) x 105mm (W) (5.7"x4.1")

Environment

- Operating temperatures: -15°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: Operating 10% to 90%, non-condensing

Certifications

- CE approval
- FCC Class A

Ordering Information

EBC 354DL (P/N: 10E00035402X0) RoHS Compliant

Low power Embedded Board with Intel® Atom™ D2550 processor and based on Intel® integrated graphics engine w/ VGA/24bit LVDS1 / 48bit LVDS2/6 x USB2.0/4 x COMs/2 x Mini-PCle/2 x Gigabit LAN/2 x SATA

Packing List (P/N: TBD Option)

Part number	Name	SPEC	QTY
60233ATA73X00	SATA CABLE ACMELUX:19922413	STANDARD L:300mm	1.00000000
60233PS203X00	EBC563IO PS2 KB/MS CABLE EDI:201061080201-RS	PS2 TO JST 8PIN 2.54mm L:200mm+-10mm	1.00000000
60233PW148X00	SATA POWER CABLE BEST:901-0405-300R	HOUSING 4P TO HOUSING 5P L:300mm	1.00000000
60233SIO62X00	COMPORT CABLE CP:NEX-110819-01	UL2651#28x9C-DB9+TU1001-10 L:200mm	2.00000000
60233USB59X00	USB CABLE EDI:262082060204-RS	DUAL PORT USB CON TO JST 6PIN 2.0mm L:200+-10mm	1.00000000