



Main Features

- Intel® Atom™ Dual Core processor D2550, 1.86GHz
- Intel® ICH10R to support Intel® Matrix Storage RAID 0/1/5/10
- 1x DDR3 SO-DIMM socket up to 4GB
- Type 2 COM Express compact size to support 5 Express lanes, 32 bit PCI interface, one IDE, Gigabit LAN and HDMI

Product Overview

The ICES 254 is a COM Express Type 2 compact module that features Intel® Atom™ Dual-Core processor D2550 with ICH10R chipset to support RAID 0/1/5/10, and one DDR3 SO-DIMM memory socket up to 4GB DDR3 SDRAM/ 1067MHz.

The ICES 254 integrates with Intel® HD graphics engine to support dual displays of CRT resolution up to 1920 x 1200 @ 60Hz, single channel 18-/ 24-bit LVDS up to 1440 x 900 and HDMI 1080p. The high performance ICES 254 COM Express module supports 4 x SATA, 8 x USB 2.0, IDE, PCI, five PCIe x1 lanes and HDMI through the in-house designed carrier board of ICEB 8050C with riser card EBK-A2HDMI for optional HDMI or DisplayPort.

Specifications

CPU Support

- Intel® Atom™ Dual Core processor D2550 1.86Ghz

Chipset

- Intel® ICH10R chipset

Main Memory

- One DDR3 1067MHz SO-DIMM socket up to 4GB

BIOS

- AMI System BIOS
- Plug and play support
- ACPI 3.0b

Display

- Intel® HD graphics with DX9 support
- One HDMI down to the carried board
- Support single channel 18/24-bit LVDS

Audio

- HD audio interface

On-board LAN

- Intel® 82574L GbE controller, support boot from LAN, wake on LAN function
- Signals down to I/O board

COM Express Connector

- AB
VGA/ LVDS/ GbE/ 8 x USB 2.0/ HD Audio/ 4 x SATA/ LAN/ GPIO (3.3V)/
LPC bus
Five PCIe X1/ SMBus (I2C)/ SPI BIOS
- CD
IDE, PCI, HDMI

Power Requirements

- +12V, +5VSB
- Support both AT and ATX power supply mode
- One 3-pins 90 degree edge-connector for DC + 12V fan

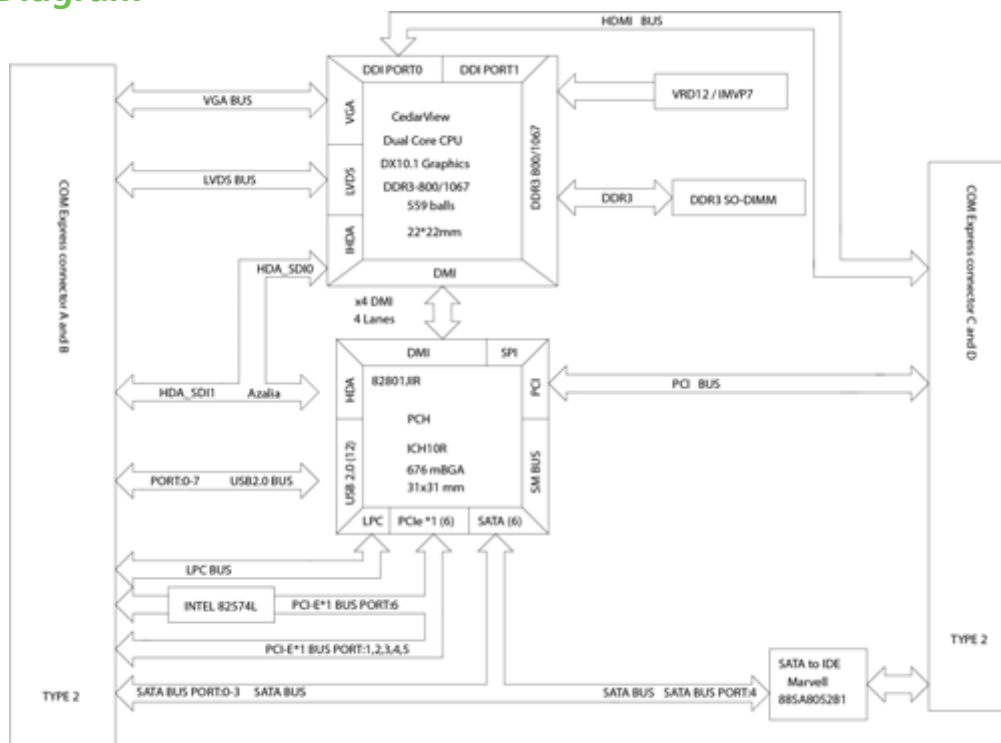
Dimensions

- 95mm (W) x 95mm (L)

Environment

- Board level operating temperatures: -15°C to 60°C
- Storage temperatures: -20°C to 80°C
- Relative humidity:
 - 10% to 90% (operating, non-condensing)
 - 5% to 95% (non-operating, non-condensing)

Block Diagram



Certifications

- CE approval
- FCC Class A

Ordering Information

- ♦ **ICES 254 (P/N: 10K00025400X0)**
COM Express Type 2 compact module with Intel® Atom™ D2550 1.86GHz/ ICH10R/ DDR3/ GbE/ 4SATA/ IDE/ LVDS/ 5x PCIe and HDMI
- ♦ **ICES 254-2800 (P/N: 10K00025403X0)**
COM Express Type 2 compact module with Intel® Atom™ N2800 1.86GHz/ ICH10R/ DDR3/ GbE/ 4STAT/ IDE/ LVDS/ 5x PCIe and HDMI
- ♦ **ICEB 8050C (P/N: 10KB0805001X0)**
COM Express Type 2 R2.0 evaluation board with PCIe/ PCI/ SATA/ CF/ mPCIe/ IDE/ COM/ USB/ VGA/GbE and bootable from cFAST or Mini-SATA.
- ♦ **EBK-A2 HDMI (P/N: 10EA2HDMI00X0)**
ADD2 module with HDMI or DP by PCIe x16 for ICES 254 onto ICEB 8050C