



Main Features

- Intel® Socket M, supports Core™ 2 Duo/Core™ 2 Duo LV Processor Family
- Intel® 945GME Chipsets
- One DDR2 SO-DIMM socket support un-buffered non-ECC DDR2 533/667 up to 2GB
- Supports 2 x Serial ATA for high speed drivers, 8 x USB 2.0 for fast peripherals
- Type 2 COM Express Module support up to 21 Express lanes, 32 bit PCI interface, one IDE and Gigabit LAN

Product Overview

The ICES 200 is a COM Express Type 2 basic module featuring Intel® 945GME and ICH7M chipset, which supports Intel® Core™ 2 Duo and Intel® Core™ 2 Duo LV processors with 533/667 MHz FSB and one DDR2 memory socket up to 2GB. The ICES 200 integrated with Intel® Graphics Media Accelerator (GMA950) or expands via PCI Express Graphic 1 x16 lanes to carrier board; it also supports other display types include LFP or Dual channel LVDS.

The high performance ICES 200 COM Express Module supports 2 x SATA, 8 x USB 2.0 and 4 PCIe x1 Lanes through the carrier board; and it is compatible with ICEB 8050 carrier board.

Specifications

CPU Support

- Support Intel® Socket M, Core™ 2 Duo Family Processors
- Supports 533/667 MHz FSB CPU
- Intel® Embedded Processor List (Intel® Longevity CPU):
Core™ 2 Duo Processor (T7400 2.16GHz)
Core™ Duo Processor (T2500 2.0GHz)
Core™ Solo Processor (Celeron® M 440 1.86GHz)

Main Memory

- 1 x DDR2 SO-DIMM socket

Chipset

- Intel® 945GME
- ICH7M I/O Controller Hub

BIOS

- Award System BIOS
- Plug & Play support
- 8M bits Flash ROM

On-board LAN

- Realtek PCI Express GbE 8111C-GR
- Supports PXE LAN boot function
- Supports Wake on LAN

Display

- Integrated with Intel® Graphics Media Accelerator (GMA950) or expand via PCI Express Graphic 1 x16 lanes/Dual SDVO
- CRT resolution up to 2048 x 1536 @ 60Hz, 1600 x 1200 @ 85Hz
- One PCI Express x 16 Lane down to the carrier board
- Supports LFP (local flat panel) LVDS interface resolution up to 1366 x 768
- Supports Single channel for 18 bit/Dual Channel for 18 bit

Audio

- HD Audio Interface

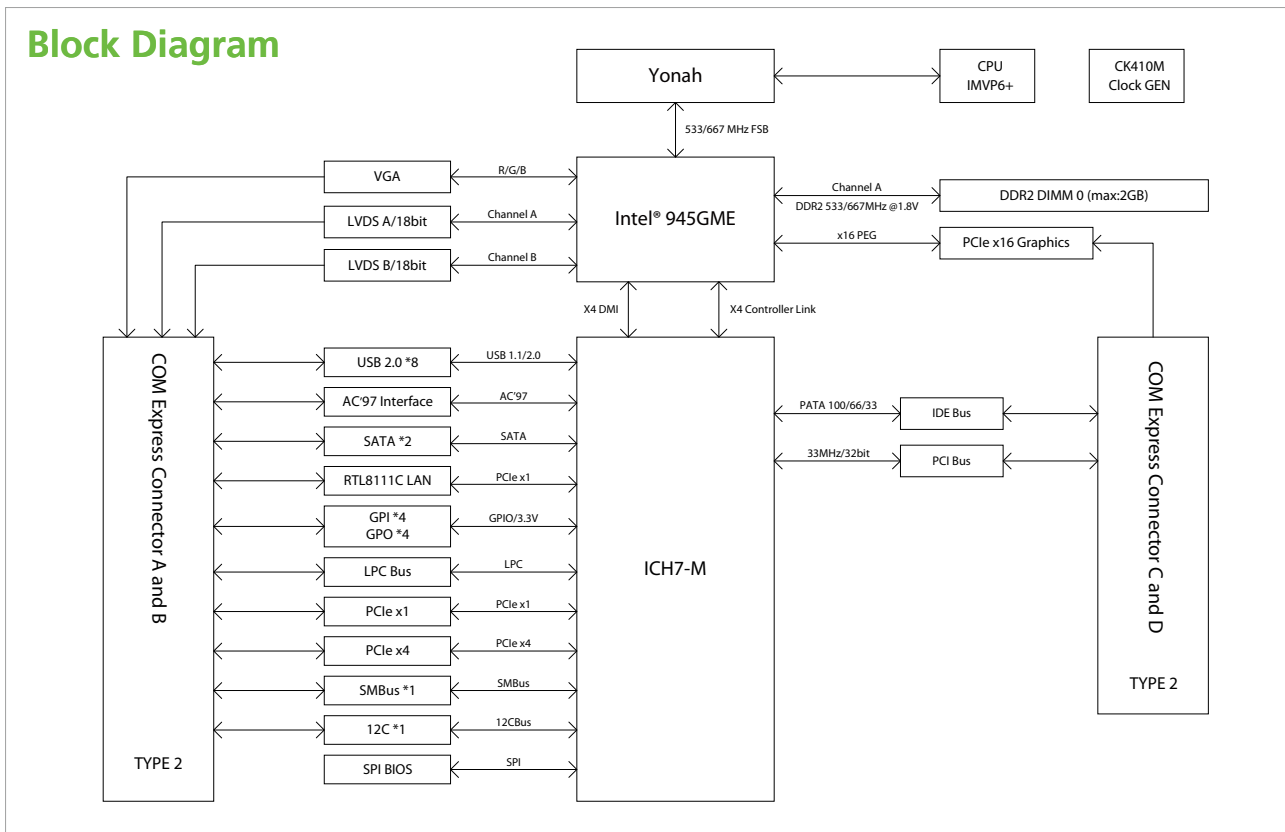
COM Express Connectors

- AB
- VGA/LVDS/8 x USB 2.0/HD Audio/2 x SATA/LAN/GPIO/LPC bus/
- 1 x PCIe x4/1 x PCIe x1/5 x PCIe x1/SMBus (I²C)/SPI BIOS
- CD
- PCIe x16/IDE/PCI

System Monitor

- Derived from HW monitor
- Monitoring of 4 voltages, 2 temperatures and 1 fan Speed
- 4 voltage (For +3.3 V, +5 V, +12 V, Vcore)
- 2 Temperatures (CPU and one external Temperature Sensor)

Block Diagram



Power Requirements

- + 12 V, + 5 VSB, + 3.3 V RTC

Dimensions

- COM Express Basic Module Type 2
- 95mm x 125mm

Environment

- Board Level Operating temperatures: 0°C to 60°C
- Storage temperatures: -20°C to 80°C
- Relative humidity:
Operating 10% to 90%, non-condensing
Non-operating 5% to 95% (non-condensing)

Certifications

- CE approval
- FCC Class A

Ordering Information

◆ ICES 200-SKT (P/N: 10K00020001X0)

COM Express Type 2 basic module support socket M, Intel® Core™/ Duo/ Solo/ Celeron® Family Processors

◆ ICES 200-423 (P/N: 10K00020002X0)

COM Express Type 2 basic module with onboard Celeron® M 1.06GHz Processor

◆ ICEB 8050 (P/N: 10KB0805000X0)

COM Express Type 2 evaluation board with PCIe/ PCI/ SATA/ CF/ IDE/ COM/ USB/ LVDS/ VGA/ LAN