

## Main Features

- ◆ Intel® Socket P, Core™ 2 Duo Family Processors
- ◆ Intel® GME965 Chipset
- ◆ 2 x DDR2 DIMM Socket Support Un-buffered Non-ECC DDR2
- ◆ Type 2 COM Express Module Support up to 21 Express lanes, 32 bit PCI Interface, One IDE and Gigabit LAN

## Product Overview

The ICES 300 is a Type 2 COM Express Module featuring Intel® GME965 and ICH8M chipset, which supports Intel® Core™ 2 Duo Merom/Core™ 2 Duo Merom LV processors with 667/800 MHz FSB and 2 x DDR2 memories with 533/677 MHz up to 4 GB. The ICES 300 supports 1 x PCI Express x16 for superb graphic display through the carried board; it also supports other display types include LFP, LVDS, and wide screen up to 1920 x 1200.

The high performance ICES 300 COM Express Module supports 3 x SATA, 8 x USB 2.0 and 5 x PCIe x1 Lanes through the carried board; and it is compatible with ICEB 8050 carried board. The ICES 300 offers the high processing power and vivid graphic display solution for advanced embedded applications.

## Specifications

### CPU Support

- ◆ Supports Intel® Socket P, Core™ 2 Duo Family Processors
- ◆ Supports 800 FSB CPU

### Main Memory

- ◆ 2 x DIMM, Dual channel DDR2 533/667 MHz up to 4 GB

### Chipset

- ◆ Intel® GME965
- ◆ ICH8M I/O Controller Hub

### BIOS

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

### LAN

- ◆ Intel® 82573L LAN Chip
- ◆ Supports PXE LAN boot function
- ◆ Supports Wake on LAN

### Display

- ◆ Intel® GME965 integrated graphics solution w/ Intel® Extreme Graphics 2 technology
- ◆ Up to 64 MB of dynamic video memory allocation
- ◆ One PCI Express x 16 Lane down to the carried board

- ◆ Drive a standard progressive scan analog monitor with resolution up to 2048 x 1536 @ 60Hz
- ◆ Supports LFP (local flat panel) LVDS interface resolution up to 1366 x 768
- ◆ Single- or dual-pixel LVDS panel support up to UXGA panel resolution (1600 x 1200)
- ◆ Supports Single channel for 24 bit/Dual channel for 24 bit
- ◆ Supports UXDA 1600 x 1200 @ 75Hz (4:3)
- ◆ Supports WUXDA 1920 x 1200 (Wide Screen)

### Audio

- ◆ HD Audio Interface

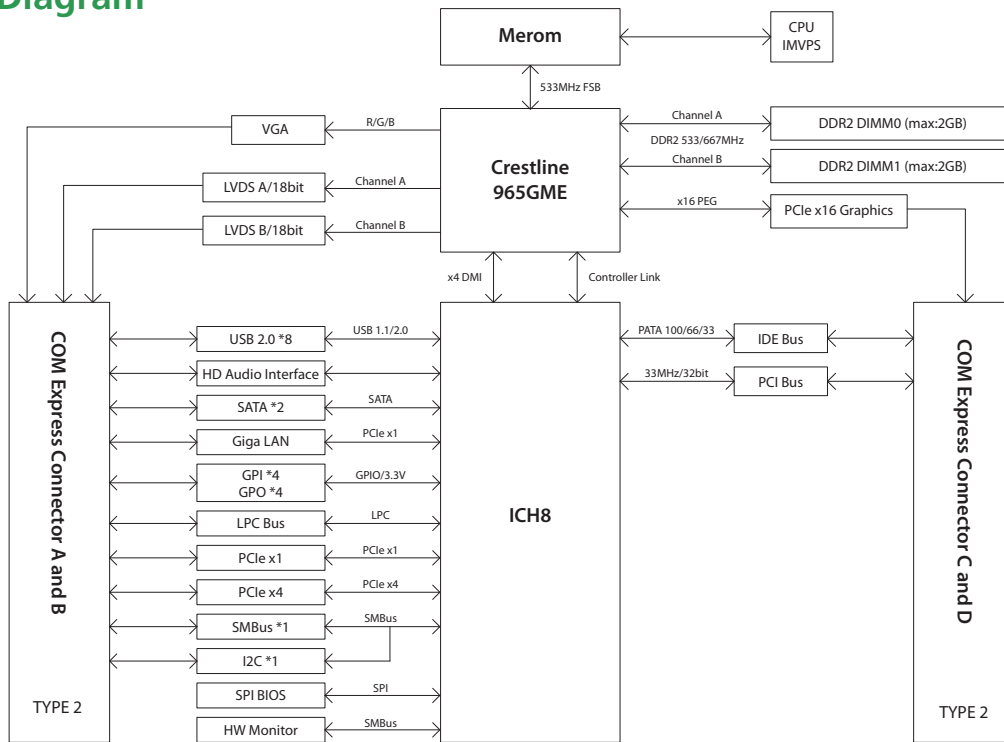
### COM Express Connectors

- ◆ AB  
VGA/LVDS/8 x USB 2.0/HD Audio/3 x SATA/LAN/GPIO/LPC bus/  
1 x PCIe x4/1 x PCIe x1/SMBus (I<sup>2</sup>C)/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 Extended Module Type 2  
155mm (L) x 110mm (W) (6.1" x 4.3")

### Environment

- Board Level Operating temperatures: 0°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)

### Certifications

- CE approval
- FCC Class A

## Ordering Information

- **ICES 300-SKT (PN:10K00030000X0)**

Type 2 COM Express Extended Module GME965 for advanced application