KEMX-6000

Industrial Motherboard in Mini-ITX form factor
with Intel® Core™ i7/i5 Processors and QM67 Express Chipset

- 2nd Generation Intel® Core™ i7/i5 Processors
- Intel® QM67 Express Chipset
- 1x VGA, 1x DVI-D, 1x HDMI, and 2x 24-bit dual-channel LVDS
- 2x Dual Channel DDR3 SO-DIMM Socket, total up to 8 GB
- 1x PCIE x 16, 2x Mini PCIe slot, 1x Compact Flash Socket
- 5x SATA, 2x USB 3.0, 8x USB 2.0, 6x COM Ports
- 2x GbE, iAMT 7.0 supported
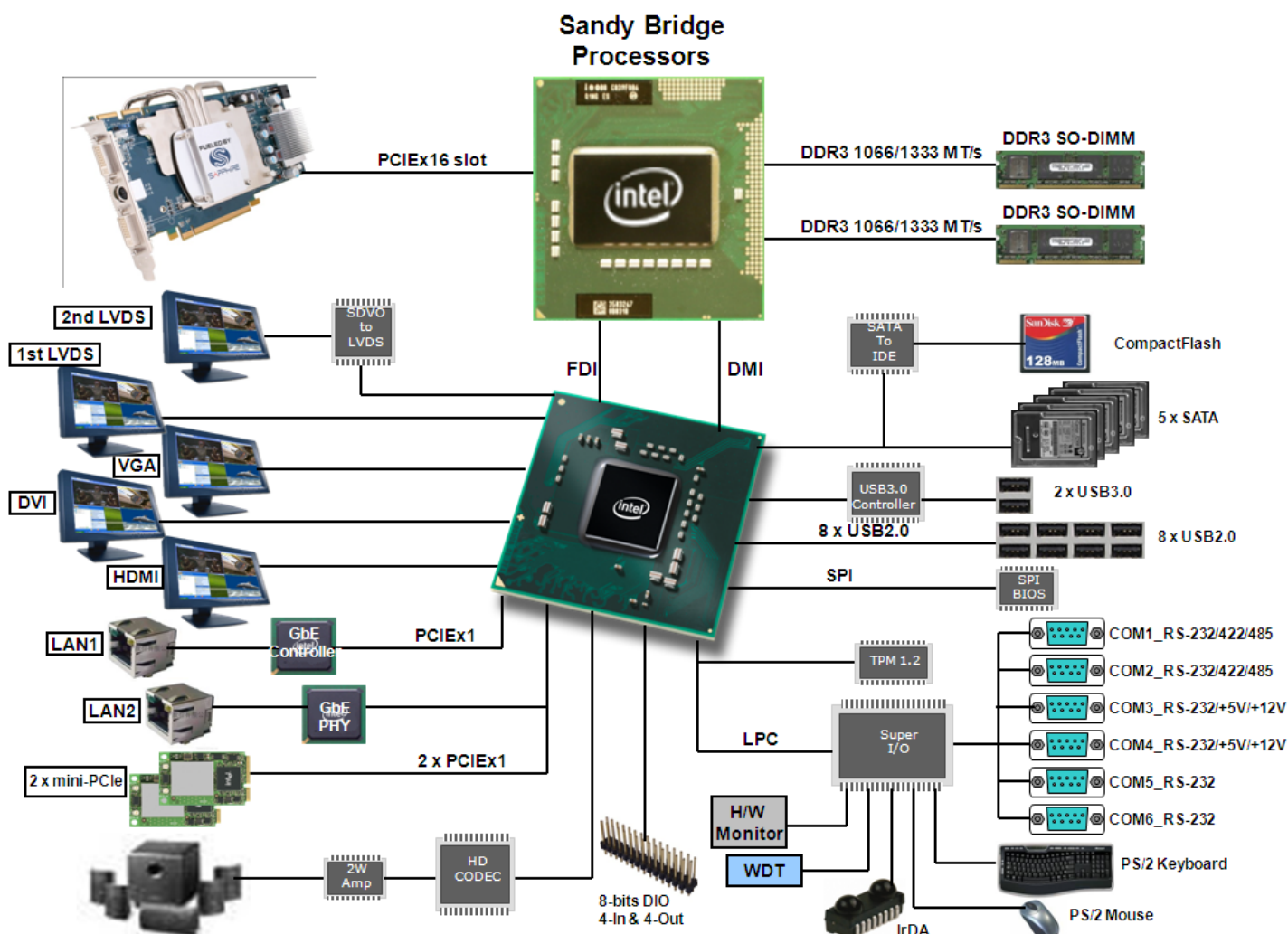- Watchdog Timer, Hardware Monitor

Quanmax

Product Overview

The KEMX-6000 is a Mini-ITX form factor industrial motherboard combining the latest 2nd generation Intel® Core™ i7/i5 processors with the high integration of the Intel® QM67 chipset. Featured are DDR3 1066/1333 SO-DIMM up to 8GB, 24-bit LVDS, HDMI, DVI-D, VGA, 2x Gigabit Ethernet, 5x SATA, 1x PCIE x 16, mini PCIe Expansion slot, 2x USB 3.0, 8x USB 2.0, 6x COM ports with Power Selection, HD audio, keyboard/mouse and CompactFlash.

The KEMX-6000 is a compact, high performance industrial motherboard that is ideal for a variety of applications.

Block Diagram

Technical Information

CPU Support
2nd Generation Intel® Core™ i7/i5 Processors

Chipset
Intel® QM67 Express Chipset

Memory
2x DDR3 1066/1333 SO-DIMM Socket, up to 8GB

BIOS
AMI PnP BIOS/iAMT 7.0 supported

Display
1x HDMI
1x DVI-D
2x 24-bit dual-channel LVDS
1x VGA (DB15)

Peripheral Support
Storage supported
  Five 7-pins SATA connectors supported
  Raid 0/1/5/10 supported
  One CF socket supported
2x USB 3.0 ports support
  Two USB 2.0 ports stack with RJ-45 connector on rear I/O
8x USB 2.0 ports support
  Two USB 2.0 ports stack with RJ-45 connector on rear I/O
  Six more USB 2.0 ports via four 2x5-pins 2.54mm pitch headers
  for internal
One 2x5-pins 2.54mm pitch header for 8-bits DIO supported
One 6-pin pitch 2.0mm wafer connector for PS/2 Keyboard/Mouse
Six COM ports supported
  Two DB-9 male connectors for COM1, COM2 on rear I/O
  COM1 & COM2 with RS-232/422/485 supported
  Four 2x5-pins pitch 2.54mm headers for COM3 ~ COM6
  COM3 & COM4 with +12V & +5V supported, select by jumper
  COM5 & COM6 with RS-232 only.
One 1x5-pins pitch 2.54mm header for IrDA supported
Buzzer onboard
TPM1.2 supported
Two fans supported
  One 3-pin FAN for CPU
  One 3-pin FAN for system
  Fans speed control supported

Audio
Realtek ALC888 HD audio codec onbaord
One audio stack connector for Line-Out, Line-In and Mic-In on rear I/O
One S/PDIF connector on rear I/O for S/PDIF out supported
One 2x5-pins pitch 2.54mm headers for front panel audio supported
One 2Watts audio amplifier onboard
Two pitch 2.0mm wafer connectors for Right/Left speaker out

LAN
2x RJ-45, Gigabit Ethernet
Intel GbE PHY 82579 and 82574 GbE controller onboard

Power Connector
One 24-pins standard ATX power connector for power input
One 4-pins ATX power connector for CPU core power +12V & GND input
AT/ATX supported

Expansion
Two Mini-PCIe slot supported
  Support Mini-PCIe Spec, version 1.2 only
  One 1x 6-pins pitch 1.25mm wafer connector for 2G/3G SIM Card
  module supported
One PCIe x 16 slot supported

ACPI
ACPI 3.0b supported

Watchdog Timer
1-255 step

Hardware Monitor
Operating voltage, CPU temperature and fan speed

Dimensions
Mini-ITX (170 x 170 mm)

Environmental Factors
Operation Temp: 0ºC - 60ºC
Storage Temp.: -10ºC - 85ºC
Humidity: 0% - 90%

Certifications
CE, FCC Class A

KEMX-6000 Rear I/O

COM   VGA   RJ-45   RJ-45   S/PDIF

COM   DVI-D   HDMI   USB 2.0   USB 3.0   Audio Stack

Quanmax