

KEMX-4060 Series

Industrial Motherboard in Mini-ITX form factor
with Intel® GM45/ ICH9M



- Intel® Core 2 Duo 45nm processor support
- Intel® GM45/ ICH9M chipset
- Mobile Intel® GMA 4500MHD supports DirectX 10, MPEG2, WMV9, and H.264
- VGA, DVI-D, HDMI, 18/24-bits dual channel LVDS
- Two DDR3 SO-DIMMs up to 8GB
- 3x SATA 3 Gb/s, CF socket, 1x mini PCIe slot, 1x PCIe x1 slot (w/ 3x PCIe x1 speed)
- 2 x GbEs, 11x USB2.0, 10x COMs, 1 x LPT, HD audio with 2W amplifier onboard
- Watchdog Timer, Hardware Monitor

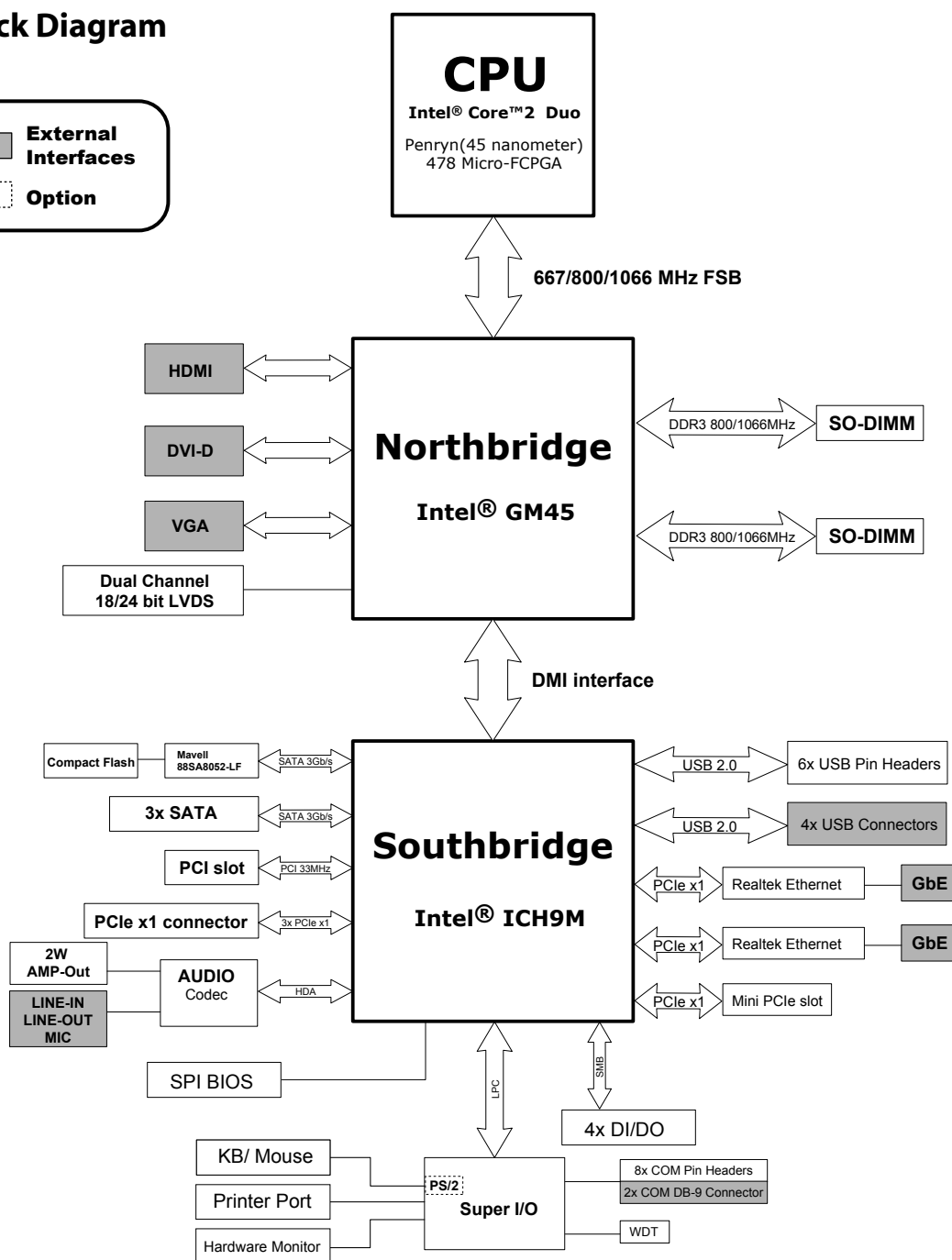
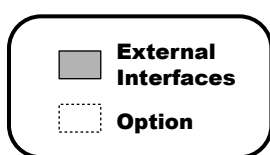


Product Overview

The new KEMX-4060 is a Mini-ITX form factor industrial motherboard combining the high performance Intel® Core 2 Duo 45nm processor with the high integration of the Intel® GM45/ ICH9M chipset. Featured are two DDR3-800/ 1066 SO-DIMM up to 8GB, Mobile Intel® Graphics Media Accelerator 4500MHD supports DirectX 10, MPEG2, WMV9(VC-1), H.264(AVC), 18/ 24-bit dual-channel LVDS,

DVI-D, HDMI, Gigabit Ethernet, SATA 3 Gb/s, mini PCIe expansion slot, CF, 11x USB 2.0, 10x COM ports with voltage support, HD audio, and keyboard/mouse. The KEMX-4060 is a compact, high performance industrial motherboard that is ideal for multimedia, gaming, digital signage and medical applications.

Block Diagram

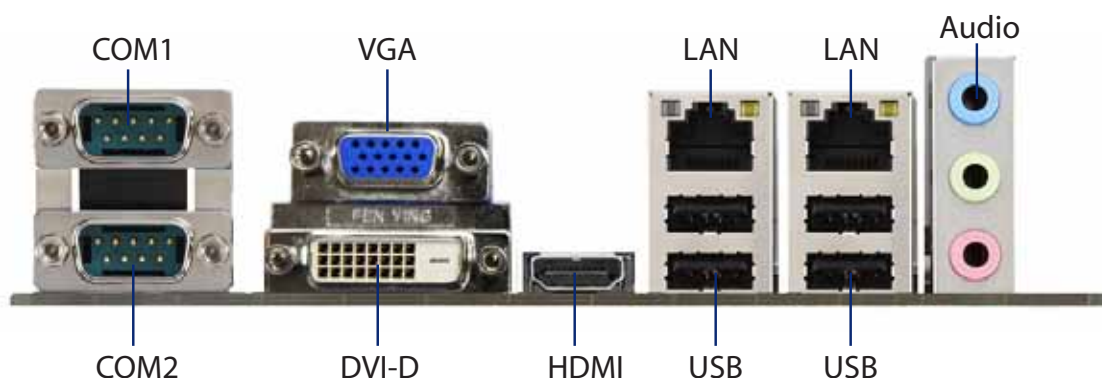


Technical Information

| | |
|---------------------------|---|
| CPU Support | Intel® Core 2 Duo (Socket P, Penryn Core) |
| Chipset | Intel® GM45 +ICH9M |
| Memory | 2x DDR3 800/1066 SO-DIMM Socket, up to 8GB |
| BIOS | AMI PnP Flash BIOS |
| Display | Mobile Intel® Graphics Media Accelerator 4500MHD 18/24-bit dual-channel LVDS 1x HDMI 1x DVI-D 1x VGA |
| Peripheral Support | 1x CompactFlash socket 3x SATA 3Gb/s 10x COMs (KEMX-4060), 6x COMs (KEMX-4062) • 2x DB-9 male connectors for COM1/2 • RS422/485 supports on COM1 • COM1 to 4 with +12V & +5V @ 1A support, select by jumper • 8x headers for COM3 to 10 (KEMX-4060) • 4x headers for COM3 to 6 (KEMX-4062) 11x USB 2.0 (4x connector+ 6x pin header +1 support by mini PCIe slot) 1x Parallel port (Pin Header) 1x IrDA (Pin Header) 1x Wafer connector for keyboard and mouse 4x DI/DO TPM 1.2 support (optional) |

| | |
|------------------------------|--|
| LAN | 2x RJ-45, Gigabit Ethernet |
| Audio | HD Audio Codec, supports Line-in, Line-out & Mic-in Onboard 2W audio amplifier 1x wafer connector for CD-In S/PDIF support One 2x5-pins HD front panel audio support |
| Power Connector | ATX-24P + ATX-4P |
| Expansion | 1x mini PClex1 slot 1x PCIe riser for 3x PCIe x1 1x PCI slot with 2 x PCI mster 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: 0°C - 60°C Storage Temp.: -10°C - 85°C Humidity: 0% - 90% |
| Certifications | CE, FCC Class A |

KEMX-4060 Rear I/O



Ordering Information

| Article | Part No. | Description |
|-----------|------------------|--|
| KEMX-4060 | BMMX4060-001000T | Mini-ITX motherboard, GM45/ICH9M, 2x DDR3, 2x GbE, 18/24-bit LVDS, HDMI, DVI-D, VGA, 3x SATAs, mini PCIe, 10x COMs, CF |
| KEMX-4062 | BMMX4060-021000T | Mini-ITX motherboard, GM45/ICH9M, 2x DDR3, 2x GbE, 18/24-bit LVDS, HDMI, DVI-D, VGA, 3x SATAs, mini PCIe, 6x COMs, CF |

Optional Accessories

| Article | Part No. | Description |
|-------------|------------------|--|
| COM Cable* | 0C5031002500020L | COM Port cable, pitch 2.54mm 10P, D-SUB 9P, L=250mm, with bracket, 180degree |
| PS/2 Cable* | 0C5020002500010L | Y-cable, 6-pin pitch 2.0mm wafer connector to KB&MS connector, L=25cm |
| SATA Cable* | 0C501ATA0746000L | SATA cable, 7-pin connector with lock, L=46cm |
| I/O Shield* | 0F0000000000130L | KEMX-4060 series I/O shield, w/ CF, H=8mm |
| USB Cable | 0C502USB0201010L | USB cable, 2.54mm 10-pin to 2xUSB connectors with bracket, L=30cm |
| SPDIF Cable | 0C5021002000020L | SPDIF CABLE pitch:2.54 1x2P to RCA connector, L=20cm, 180 degree |
| LPT Cable | 0C5040000000180L | LPT CABLE, 2x13-pins pitch=2.54mm 180degree to DB-25 connector, L=20cm |
| CPU Cooler | 0H05XX000000770L | Pentium-M Cooler, Heat Sink + FAN 50x50x23 mm, FAN Speed: 6500RPM |

* The item has been included in standard package.