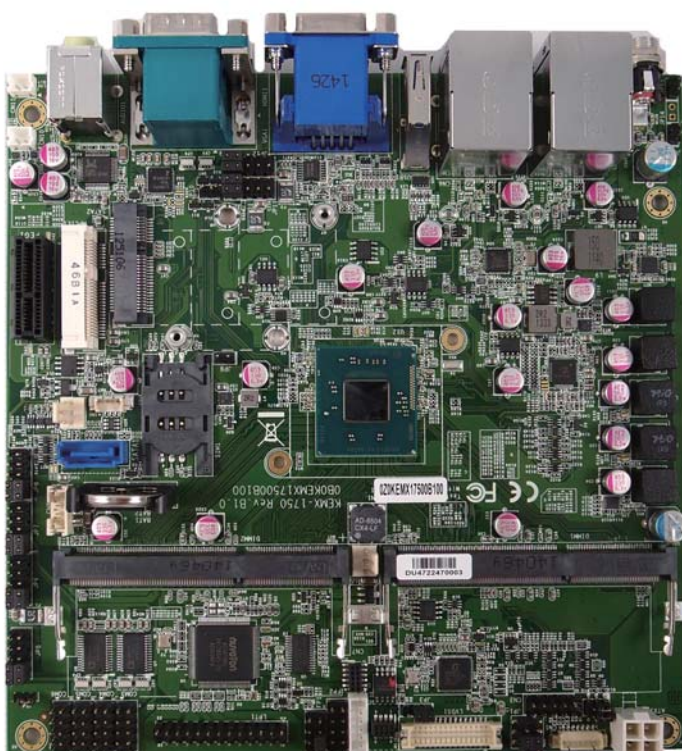


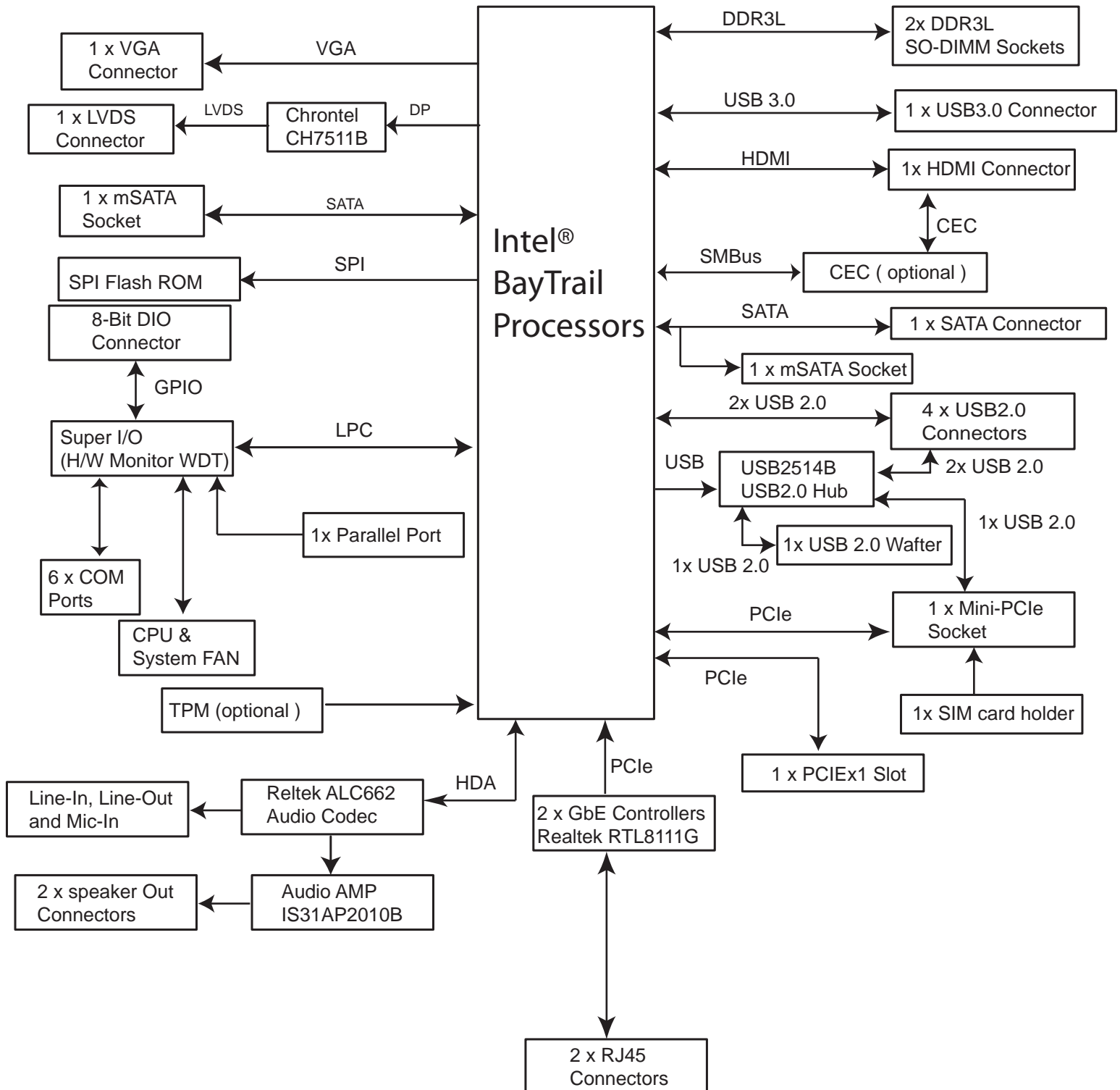
KEMX-1750 Series

Standard / Extended Temperature
Industrial Motherboard in Mini-ITX Form Factor
with Intel® BayTrail Processor



- Intel® BayTrail Processors
- 2x/1x DDR3L SO-DIMM Socket
- 2x GbE, 6x COM, 5x USB 2.0, 1x USB 3.0, 8-bit DIO
- 1x LVDS, 1x VGA, 1x HDMI
- 1x PS/2 KB&MS, 1x Parallel port
- 1x mPCIe socket, 1x PCIe1 slot
- 1x SATA port, 1x mSATA socket
- Extended temperature model available: -20°C to 70°C

Block Diagram

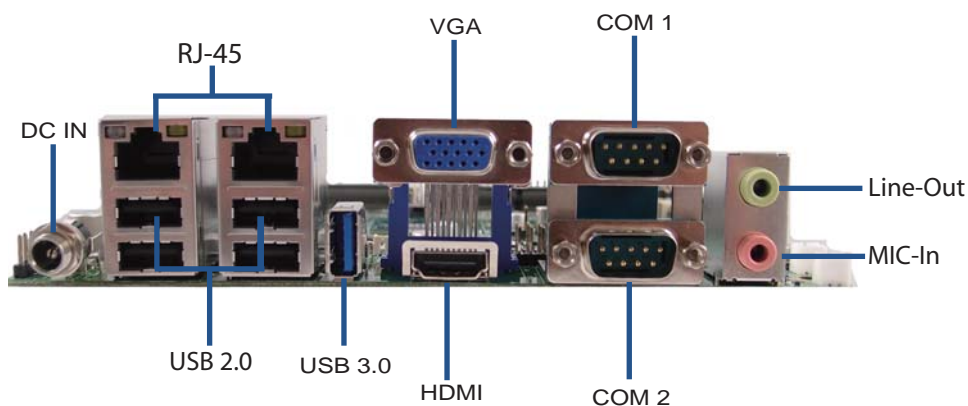


Technical Information

CPU Support
KEMX-1750: Intel® Celeron® J1900 SoC Processor (Quad Core, 2M Cache, up to 2.42 GHz, FCBGA1170, 10W TDP)
KEMX-1751/175A: Intel® Atom™ E3845 SoC Processor (Quad Core, 2M Cache, 1.91 GHz, FCBGA1170, 10W TDP)
KEMX-1752: Intel® Atom™ E3825 SoC Processor (Dual Core, 1M Cache, 1.33 GHz, FCBGA1170, 6W TDP)
Memory
2x DDR3L 1333 SO-DIMM up to 8GB (KEMX-1750/1751/175A)
1x DDR3L 1067 SO-DIMM up to 4GB (KEMX-1752)
Graphic Controller
Intel® HD Graphics
Display Interfaces
1x LVDS (24-bit, 2-ch, 1920 x 1200 @ 60Hz)
1x HDMI (on rear, 1920 x 1080 @ 60Hz)
1x VGA (by header, 2560 x 1600 @ 60Hz)
Multiple Display
Dual
Audio Chipset
Realtek ALC662
Audio Interfaces
2x Speaker-out (3W)
1x Line-out (on rear)
1x Mic-in (on rear)
Ethernet
2x LAN (RJ-45 on rear, Realtek RTL8111G)
USB
1x USB3.0 (Type A on rear)
5x USB2.0 (4x Type A on rear, 1x by header)
Serial Ports
2x RS-232/422/485 (DB9 on rear, w/ power selection)
4x RS-232 (by header, w/ power selection)
Other I/O Ports
1x PS/2 Keyboard / Mouse (by header)
1x 8-bit DIO (by wafer)
1x Parallel Port (by header)

Storage & Expansion
1x SATA
1x mSATA (full size)
1x mPCIe (half size)
1x PCIe1
1x SIM Card Cage (optional)
Power Supply
Connector: Lockable DC Jack (on rear), 2x2-pin ATX Connector
Input Voltage: DC 12V ~ 24V (DC Jack), DC 12V (ATX Connector)
Firmware
BIOS: AMI uEFI BIOS w/ 64Mb SPI Flash
Watchdog: Programmable WDT to generate system reset event
H/W Monitor: Voltages, Temperatures
Real Time Clock: SoC integrated RTC
TPM: optional (Infineon SLB 9635 TPM 1.2)
System Control & Monitoring
1x Header for Reset button, HDD LED & External Speaker
1x Header for Power button, Power LED, Keyboard Lock & SM bus
1x Header for mPCIe activity LED
Cooling
1x Wafer for CPU Smart Fan
1x Wafer for System Smart Fan
OS Support
Windows 7, Windows 8, Linux
Dimensions (L x W)
Mini-ITX (170 x 170 mm / 6.70" x 6.70")
Environmental Characteristics
Operation Temp.: 0°C ~ 60°C / 32°F ~ 140°F (Standard)
-20°C ~ 70°C / -4°F ~ 158°F (Extended)
Storage Temp.: -20°C ~ 80°C / -4°F ~ 176°F (Standard)
-40°C ~ 85°C / -40°F ~ 185°F (Extended)
Humidity: 0% ~ 95%
Certification
CE, FCC Class A

KEMX-1750 Series Rear I/O



Ordering Information

Article	Part No.	Description
KEMX-1750 (Default)	BMMX1750-001000T	Mini-ITX CPU Board, Intel® Celeron® BayTrail Quad Core J1900 Processor, 2x DDR3L SODIMM up to 8GB, 1x VGA, 1x HDMI, 1x USB3.0, 5x USB2.0, 6 x COM, DIO, 2 x GbE, 1 x mPCIe, Operation Temp.: 0°C ~ 60°C
KEMX-1751*	BMMX1750-011000T	Mini-ITX CPU Board, Intel® Celeron® BayTrail Quad Core E3845 Processor, 2x DDR3L SODIMM up to 8GB, 1x VGA, 1x HDMI, 1x USB3.0, 5x USB2.0, 6 x COM, DIO, 2 x GbE, 1 x mPCIe, Operation Temp.: 0°C ~ 60°C
KEMX-1752*	BMMX1750-021000T	Mini-ITX CPU Board, Intel® Celeron® BayTrail Dual Core E3825 Processor, 1x DDR3L SODIMM up to 4GB, 1x VGA, 1x HDMI, 1x USB3.0, 5x USB2.0, 6 x COM, DIO, 2 x GbE, 1 x mPCIe, Operation Temp.: 0°C ~ 60°C
KEMX-175A (Wide Temp.)	BMMX175A-011000T	Mini-ITX CPU Board, Intel® Celeron® BayTrail Quad Core E3845 Processor, 2x DDR3L SODIMM up to 8GB, 1x VGA, 1x HDMI, 1x USB3.0, 5x USB2.0, 6 x COM, DIO, 2 x GbE, 1 x mPCIe, Operation Temp.: -20°C ~ 70°C



* By project