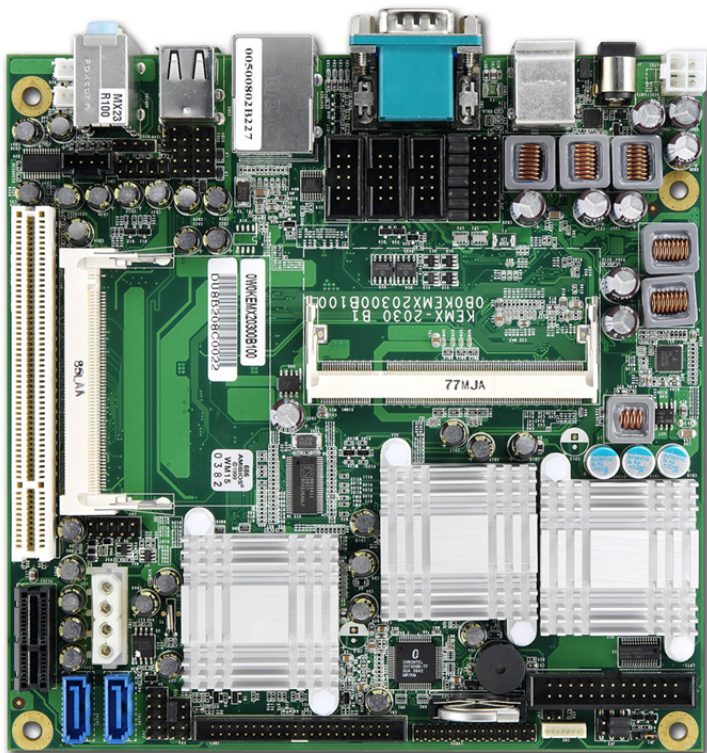


KEMX-2031

Industrial Motherboard in Mini-ITX form factor
with Intel® Atom N270 + Intel® 945GSE/ ICH7-M



- Intel® Atom™ Processor N270
- Intel® 945GSE / ICH7-M
- Supports Dual Display, VGA, 18/24-bit LVDS
- DDR2 SO-DIMM Socket, total up to 2 GB
- Mini PCI Socket, PCI slot, PCIe riser for 3x PCIe x1
- 2x SATA, 8x USB 2.0, 1x GbE
- 4x COM ports, 4x DI/DO
- Watchdog Timer, Hardware Monitor, TPM 1.2

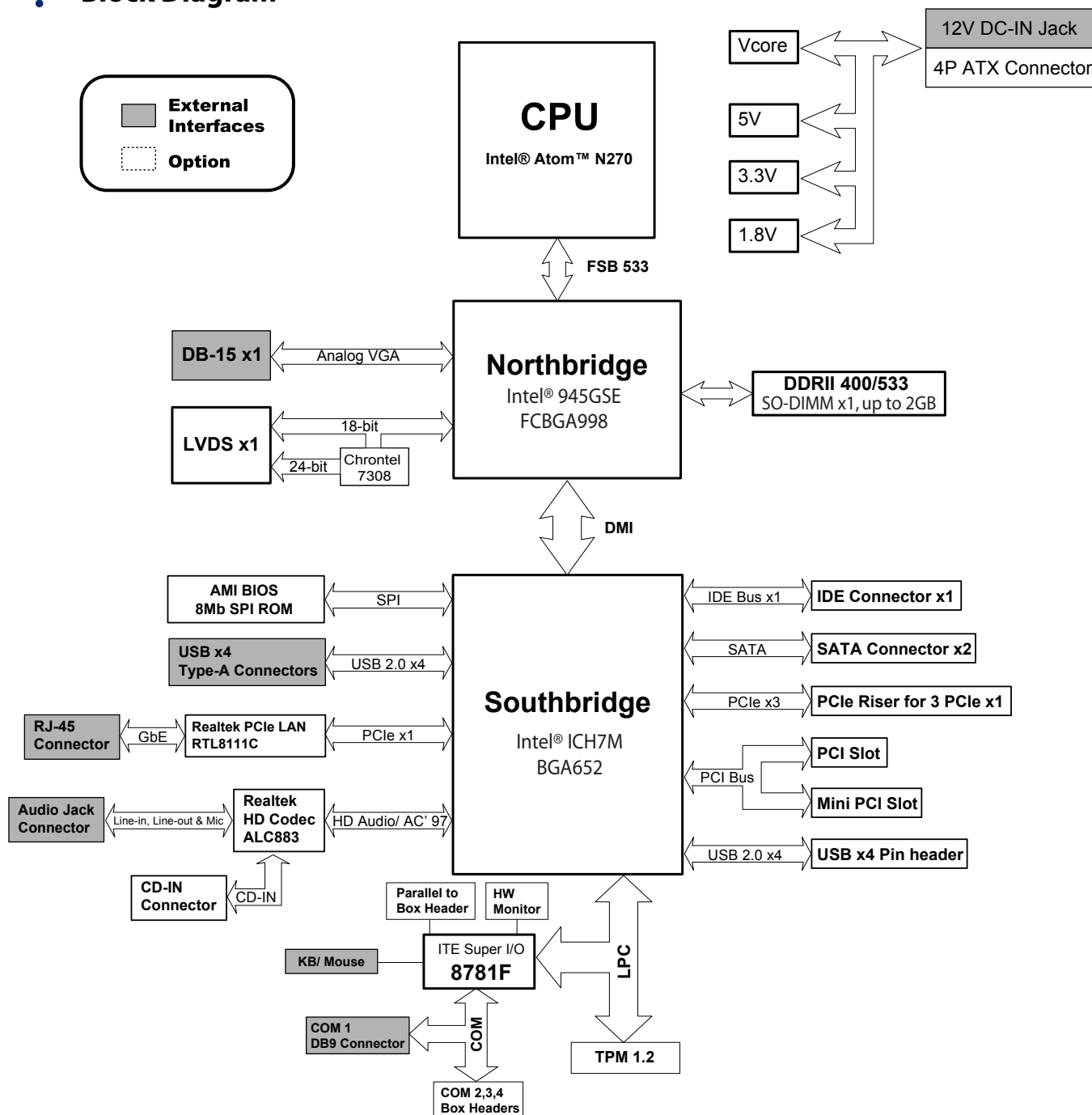
Product Overview

The KEMX-2031 is a Mini-ITX form factor industrial motherboard combining the latest Intel 45nm Intel® Atom™ processor with the high integration of the Intel® 945GSE/ ICH7-M chipset. The new architecture of Atom™ N270 enable the lowest power consumption and smallest form factor for thin client and fundamental use. Featured are DDR2-400/533 SODIMM up to 2GB, 18/ 24-bit LVDS, GbE,

SATA, PCIe riser for 3x PCIe x1/ PCI/ mini PCI Expansion slot, 8x USB 2.0, 4 COM ports with Power Selection, HD audio, and keyboard/mouse.

The KEMX-2031 is a compact, high performance industrial motherboard that is ideal for multimedia, gaming, mobile PC, and thin client applications.

Block Diagram

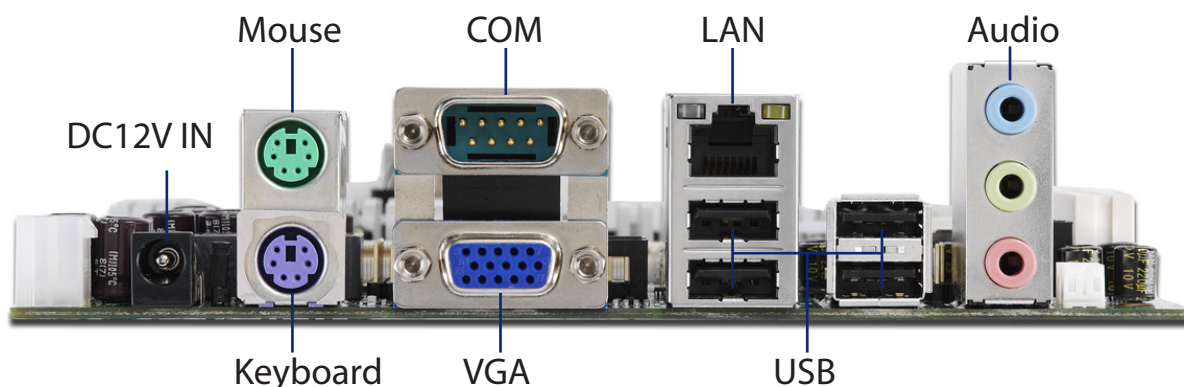


Technical Information

CPU Support	Intel® Atom™ N270
Chipset	Intel® 945GSE + ICH7-M
Memory	1x DDR2 400/533 SO-DIMM Socket, up to 2GB
BIOS	AMI PnP 8Mb SPI ROM
Display	Integrated on Intel® 945GSE Chipset 18/24-bit dual-channel LVDS from Chronitel CH7308 18-bit Dual channel LVDS from 945GSE optional 1x VGA
LAN	1x RJ-45, Gigabit Ethernet (Realtek RTL8111C)
Audio	HD Audio Codec, supports Line-in, Line-out & Microphone (Realtek ALC883) Speak-out with AMP. 2x 2W
Peripheral Support	1x IDE (UltraDMA 100 / 66 / 33) 2x SATA 4x COMs with Power Selection (1x RS-232/422/485, 3x RS-232) 8x USB 2.0 1x PS/2 Keyboard connector 1x PS/2 Mouse connector 1x Parallel port (Box Header) 4x DI/DO

TPM	TPM 1.2
Power Connector	ATX-4P or DC Jack for 12V Power Input only
Expansion	1x PCI slot, 1x Mini PCI 1x PCIe riser for 3x PCIe x1
Watchdog Timer	1-255 step, can be set with software on Super I/O
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-2031 Rear I/O



Ordering Information

Article	Part No.	Description
KEMX-2031	BMMX2030-011001T	Mini-ITX Motherboard with Intel® Atom N270, Intel® 945GSE/ ICH7-M, 18/24-bit LVDS, Audio with Amplifier, SATA, USB 2.0, COMs with Power Support, GbE x1

Accessories

Article	Part No.	Description
SATA cable*	0C501ATA0746000L	SATA cable , 7-pin connector with lock, L=46cm
SATA power cable	0C501ATA1510000L	SATA power cable, 4-pin to 15-pin connector, L=10cm
IDE cable	0C501ATA4445300L	IDE cable, 2.0mm 44-pin to 44-pin connector, L=45cm
USB cable	0C502USB0201010L	USB cable, 2.54mm 10-pin to 2xUSB connectors with bracket, L=30cm
COM port cable	0C5031002500020L	COM port cable, 2.54mm 10-pin to DB9 connector with bracket, L=25cm
LPT port cable	0C5021002000030L	LPT port cable, 2.54mm 26-pin to DB25 connector with bracket, L=20cm
Power Adapter	0I09020501Q1202L	Power Adapter, Input: AC100V ~ AC240V, Output: DC12V/4.16A/50W
I/O Shield*	0F0000000000010L	KEMX-2030/KEMX-2031 I/O shield
SPDIF Cable	0C5021002000020L	SPIDF CABLE pitch:2.54 1x2P to RCA connector ,L=20CM ,180 degree

* The item has been included in standard package.