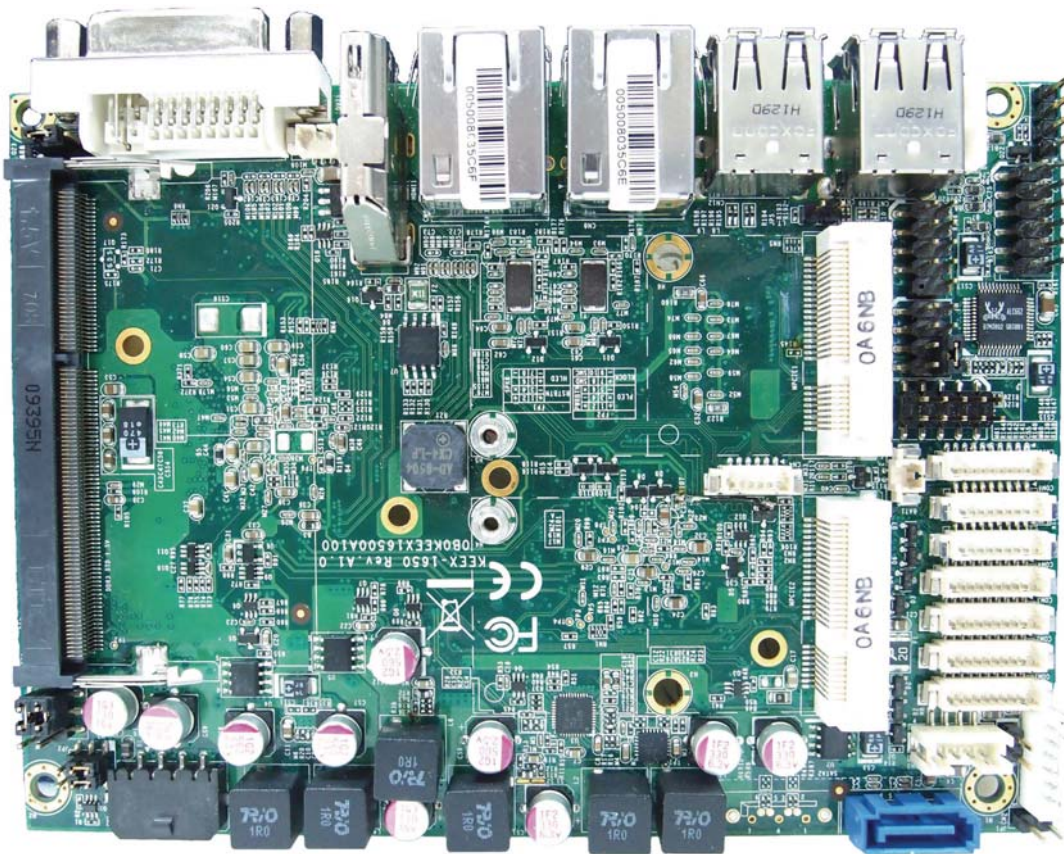


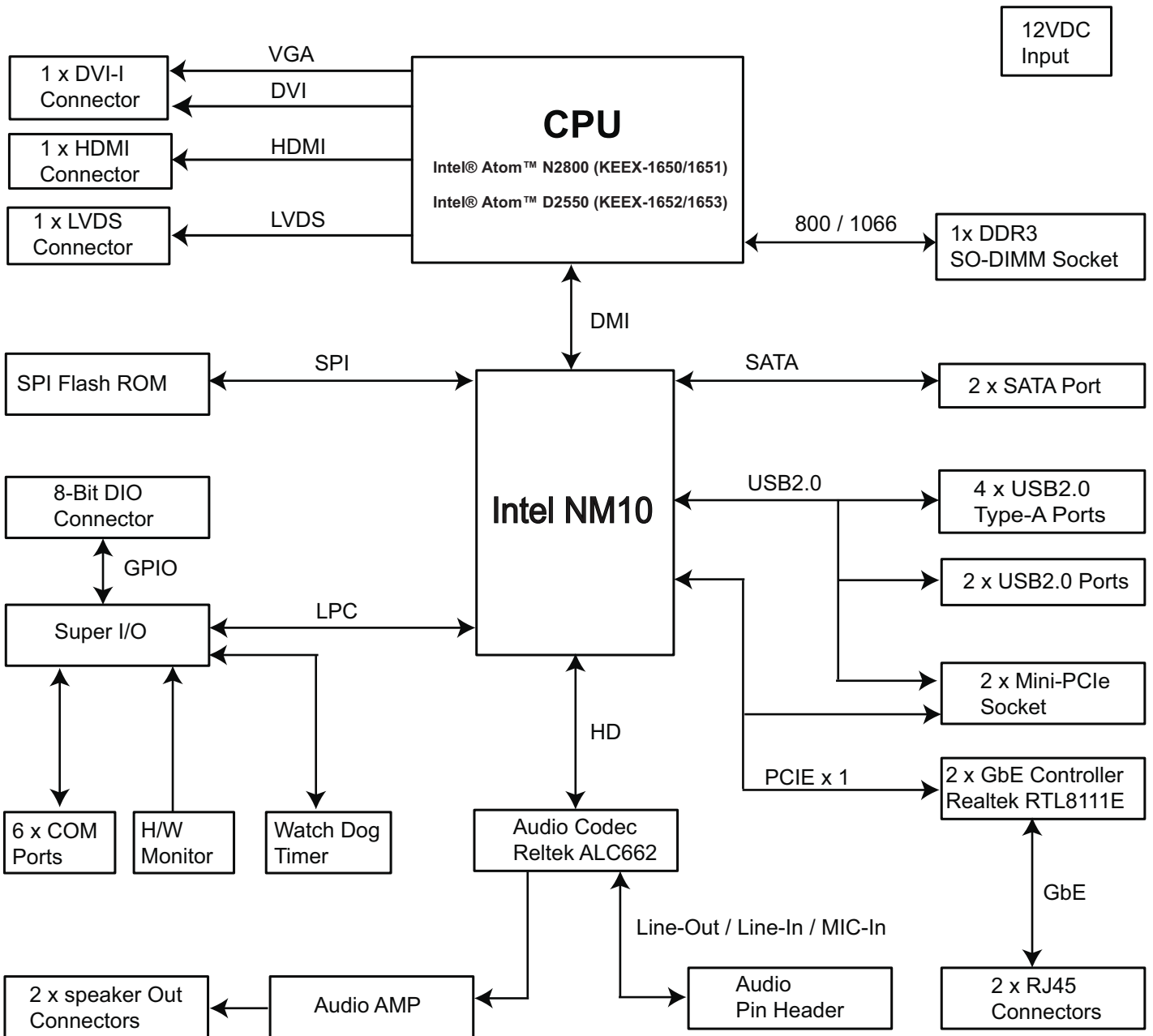
KEEX-1650 Series

Intel® Embedded Compact Extended Form Factor with
Dual Core Intel® Atom™ Processor D2550/ N2800



- Intel® Atom™ Processor N2800 (KEEX-1650/1651)
- Intel® Atom™ Processor D2550 (KEEX-1652/1653)
- Intel® NM10 Express Chipset
- Intel® Graphics Media Accelerator 3600/3650
- Single-channel DDR3 800/1066 MHz memory support
- 6xUSB2.0, 6xCOM, 2xGbE LAN, 2xSATA
- 8-bits Digital I/O supported
- LVDS, HDMI, DVI-I Supported
- Mini-PCIe expansion

Block Diagram

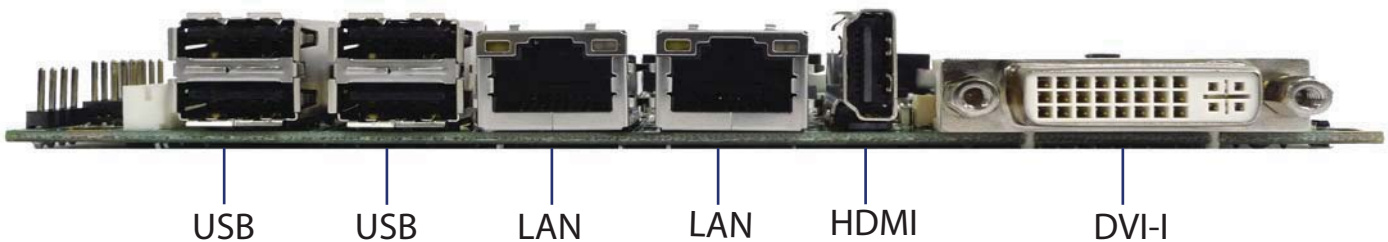


Technical Information

CPU Support	KEEX-1650/1651: Intel® Atom™ Processor N2800 (1M Cache, 1.86GHz) KEEX-1652/1653: Intel® Atom™ Processor D2550 (1M Cache, 1.86GHz)
Chipset	Intel® NM10 Express Chipset
Memory	1x Single-channel DDR3 800/1066 MHz memory support (4GB max)
BIOS	AMI uEFI BIOS (16Mb SPI flash ROM)
Display	Intel® Graphics Media Accelerator 3600/3650 1x Single channel 18-bit/24-bit LVDS (KEEX-1652/1653) 1x Single channel 18-bit (KEEX-1650/1651) 1x HDMI type A connector on rear I/O 1x DVI-I connector on rear I/O
LAN	2x Gigabit Ethernet (Realtek RTL8111E) PXE/RPL/WOL supported
Audio	Realtek ALC662-VC HD Codec w/ 2W Audio Amplifier Line-In, Line-Out and Mic-In Supported
Storage	KEEX-1650/1652 comes with 1x SATA and 1x mSATA, KEEX-1651/1653 comes with 2x SATA
USB	6x USB 2.0 supported

COM	6x COM ports supported (4x COM[RS-232] ports with power selection on COM1~4) (1x COM port with RS-232/422/485 selection on COM1) (2x COM[RS-232] ports without power selection on COM5~6)
DIO	1x 8-bits programmable DIO
Expansion Slot	KEEX-1650/1652 comes with 1x Mini-PCIe and 1x mSATA KEEX-1651/1653 comes with 2x Mini-PCIe
Hardware Monitor	Operating voltage, CPU temperature and fan speed
Watchdog Timer	1-255 step, can be set with software on Super I/O
Power	AT/ATX Power Mode supported 1x4 pin power connector for single +12VDC power input
OS Supported	Windows 7
Dimensions	ECX, 146 mm x 105 mm
Environment	Operation Temp: 0°C - 60°C Storage Temp.: -20°C - 80°C Humidity: 0% - 95%
Certification	CE, FCC Class A

KEEX-1650 Rear I/O



Ordering Information

Article	Part No.	Description
KEEX-1650*	B3EX1650-001000T	Industrial ECX Board with Intel® Atom N2800, NM10 Express chipset, Gb Ethernet, 18-bit LVDS, DVI, SATA, mSATA, MiniPCIe, USB 2.0
KEEX-1651*	B3EX1650-011000T	Industrial ECX Board with Intel® Atom N2800, NM10 Express chipset, Gb Ethernet, 18-bit LVDS, DVI, 2xSATA, MiniPCIe, USB 2.0
KEEX-1652 (Default)	B3EX1650-021000T	Industrial ECX Board with Intel® Atom D2550, NM10 Express chipset, Gb Ethernet, 18/24-bit LVDS, DVI, SATA, mSATA, MiniPCIe, USB 2.0
KEEX-1653*	B3EX1650-031000T	Industrial ECX Board with Intel® Atom D2550, NM10 Express chipset, Gb Ethernet, 18/24-bit LVDS, DVI, 2xSATA, MiniPCIe, USB 2.0

* By project

Optional Accessories

Product Name	Quanmax P/N	Description
PS/2 Cable	0C5020002500010L	Y-cable, 6-pin pitch 2.0mm wafer connector to KB&MS connector, L=25cm
COM Cable	0C5020000000910L	COM Port cable, 10-pin pitch=1.25mm to DB-9 connector, L=35cm
USB Cable	0C502USB0201010L	USB cable, 2.54mm 10-pin to 2xUSB connectors with bracket, L=30cm
SATA Power Cable*	0C5020000001590L	SATA power cable, WL2000H 1x4P 2.0pitch to SATA 1x15P 1.27pitch, L=46cm
SATA Cable*	0C5010000000030L	SATA cable, 7-pin connector with lock, L=46cm
DC Jack cable*	0C5020000001580L	DC In cable, MX3.0 1x4P 3.0pitch connector to DC-Jack 5.5x2.5, L=30cm
Heat Spreader	0ZHKKEEX16500001	KEEX-1650 Heat spreader kit

* The item has been included in standard package.