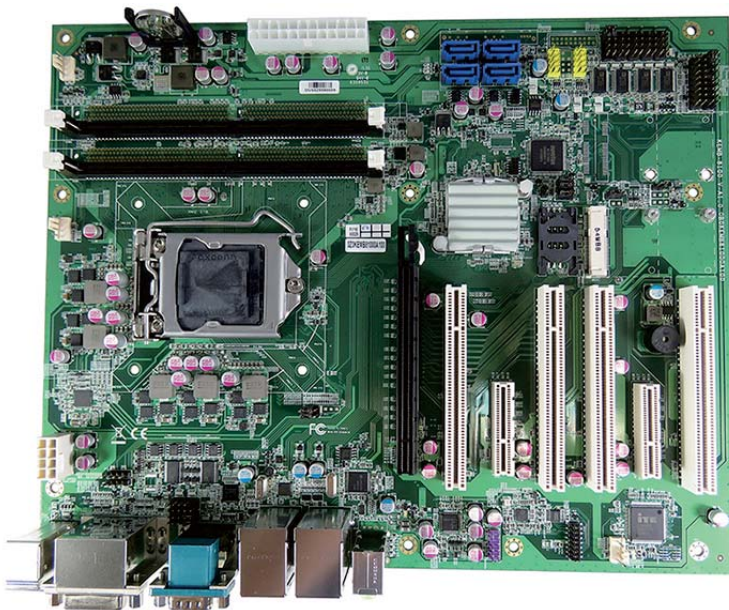


# ••• KEMB-8100 & ATX-KLS0 Series

Standard / Extended Temperature  
Industrial Motherboard in ATX Form Factor  
with Intel® Skylake / Kaby Lake S-Series Processors



- Intel® Skylake / Kaby Lake S-Series Processors
- Intel® H110 / Q170 Chipset
- 4x DDR4 UDIMM memory slot up to 64GB
- 1x DVI-D, 1x DP, 1x HDMI, 1x VGA for video output
- 2x GbE LAN for Ethernet
- Up to 6x USB3.0, up to 6x USB2.0, 6x COM, 16-bit DIO for peripherals
- 4x SATA, up to 2x mSATA for storage
- RAID support (models with Q170 chipset only)
- Up to 2x mPCIe, 4x PCI, 1x PCIe16, 2x PCIe1 or 2x PCIe4/x2/x1 for expansion
- Extended temperature model available: -20°C ~ 70°C



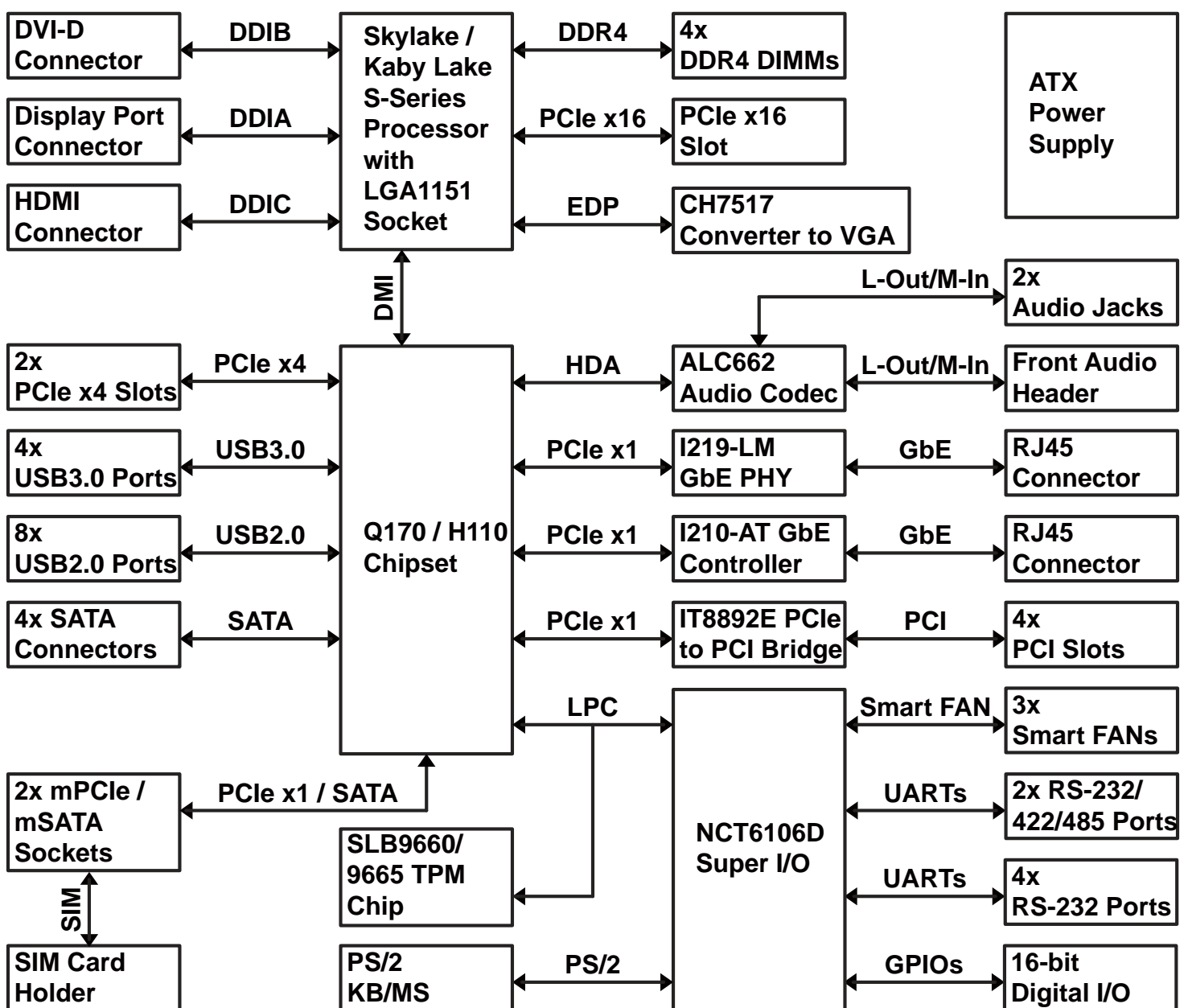
## Product Overview

The KEMB-8100 / ATX-KLS0 Series is an ATX form factor industrial-grade motherboard equipped with Intel® Skylake / Kaby Lake S-Series Processors. It delivers greatly improved graphics performance, power efficiency and wireless connectivity in comparison with the models powered by the previous generation processors. Thus, it allows developers to easily make a fanless system.

In addition to 1x DVI-D, 1x DP, 1x HDMI, 1x VGA, up to 6x

USB3.0, up to 6x USB2.0, 6x COM, 16-bit DIO and 2x GbE LAN for display support, peripheral applications and wired networking, it features a great number of expansion slots /sockets for wireless functionality, storage expansion and industrial legacy device connection, including PCI, PCIe x16, PCIe x4/PCIe x2/PCIe x1, mPCIe, SATA, mSATA slots / sockets. Finally, extended temperature models are offered for this series and allow operation at extreme temperatures.

## Block Diagram





## Ordering Information



Article	Description
KEMB-8100	Intel® Skylake-S CPU, H110 Chipset, 1x DP, 1x HDMI, 1x DVI-D, 1x VGA, 2x GbE, 4x USB3.0, 4x USB2.0, 2x RS-232/422/485, 4x RS-232, 16-bit DIO, 4xSATA, 1x mPCIe, 4x PCI, 1x PCIe16, 2x PCIe1, w/o TPM, w/o RAID support, Op. temp.: 0°C ~ 60°C
KEMB-8101	Intel® Skylake-S CPU, Q170 Chipset, 1x DP, 1x HDMI, 1x DVI-D, 1x VGA, 2x GbE, 6x USB3.0, 6x USB2.0, 2x RS-232/422/485, 4x RS-232, 16-bit DIO, 4xSATA, 2x mPCIe/mSATA, 4x PCI, 1x PCIe16, 2x PCIe4/PCIe2/PCIe1, w/ TPM 1.2, w/ RAID support, Op. temp.: 0°C ~ 60°C
KEMB-8101T	Intel® Skylake-S CPU, Q170 Chipset, 1x DP, 1x HDMI, 1x DVI-D, 1x VGA, 2x GbE, 6x USB3.0, 6x USB2.0, 2x RS-232/422/485, 4x RS-232, 16-bit DIO, 4xSATA, 2x mPCIe/mSATA, 4x PCI, 1x PCIe16, 2x PCIe4/PCIe2/PCIe1, w/ TPM 1.2, w/ RAID support, Op. temp.: -20°C ~ 70°C
ATX-KLSO	Intel® Kaby Lake-S CPU, H110 Chipset, 1x DP, 1x HDMI, 1x DVI-D, 1x VGA, 2x GbE, 4x USB3.0, 4x USB2.0, 2x RS-232/422/485, 4x RS-232, 16-bit DIO, 4xSATA, 1x mPCIe, 4x PCI, 1x PCIe16, 2x PCIe1, w/o TPM, w/o RAID support, Op. temp.: 0°C ~ 60°C
ATX-KLS1	Intel® Kaby Lake-S CPU, Q170 Chipset, 1x DP, 1x HDMI, 1x DVI-D, 1x VGA, 2x GbE, 6x USB3.0, 6x USB2.0, 2x RS-232/422/485, 4x RS-232, 16-bit DIO, 4xSATA, 2x mPCIe/mSATA, 4x PCI, 1x PCIe16, 2x PCIe4/PCIe2/PCIe1, w/ TPM 2.0, w/ RAID support, Op. temp.: 0°C ~ 60°C
ATX-KLS1T	Intel® Kaby Lake-S CPU, Q170 Chipset, 1x DP, 1x HDMI, 1x DVI-D, 1x VGA, 2x GbE, 6x USB3.0, 6x USB2.0, 2x RS-232/422/485, 4x RS-232, 16-bit DIO, 4xSATA, 2x mPCIe/mSATA, 4x PCI, 1x PCIe16, 2x PCIe4/PCIe2/PCIe1, w/ TPM 2.0, w/ RAID support, Op. temp.: -20°C ~ 70°C

## Accessories

Product Name	Description
COM Port Cable	DP-2.54-10P 2*5P Pitch: 2.54mm, L = 300 mm
USB 3.0 Cable	Internal DP 2.0 20 pin 2x10P to Type A, L = 450 mm
USB 2.0 Cable (2 Port)	2.54 mm 2x5P to 2x USB connectors, L = 34 cm
SATA Cable	With Lock, SATA 1x7P Pitch: 1.27 mm, L = 460 mm
VGA Cable	WL2004H-2x8P 2x8P 2.0 pitch to D-SUB 15P, L = 300 mm