

Main Features

- COM Express COM.0, Rev 2.0 Evaluation CRB, ATX form-factor
- Support Type 6 pin-out, COMe Extended/Basic/Compact Module
- Display: 3 x DDI (2DP/HDMI), VGA & dual channels 18/24-bit LVDS
- 4 x USB3.0/2 x SATA3.0, PCIe Gen 3.0, Bootable CFAST or Mini-SATA
- PCIe16, DDI (PCIe16), PCIe4, PCIe1 and Mini-PCIe for Wi-Fi
- VGA/RS232/422/485/5COM, Dual GbE/12USB/5.1, S/PDIF

Product Overview

NEXCOM ICEB 8060 is a Carrier CRB of COM Express type 6, pin-out defined by PICMG, COM.0 Rev. 2.0 specification with ATX form-factor. NEXCOM in-house designed features with bootable CFAST/SATA or Mini-SATA/SATA via Mini-PCIe slot (half-/full-size slot) as well as advanced 2 x SATA3.0 interfaces. ICEB 8060 support added-on card slots of 1 x PCIe16 (up to PCIe Gen 3.0), 1 x DDI (SDVO/HDMI/DVI/DP by PCIe16 slot) 1 x PCIe4, 1 x PCIe1 and 1 x Mini-PCIe slots. Onboard Super I/O ITE8783 may support up to 6 x COM including COM2 defined by RS232/422/485 on edge I/O connector. Additional 2nd GbE LAN supported by Intel® 82574L and up to 4 x USB3.0 external devices interfaces, up to 2 x SATA 3.0 internal devices interfaces to support most-updated CPU technology from Intel® 3rd generation Core™ i7/i5/i3 of Ivy bridge-Mbl + ECC onto NEXCOM Computer-On-Module ICES 668 family together.

Specifications

Form factor

- ATX Carrier MB, dimension: 305mm x 244mm (12" x 9.6")
- COM Express Evaluation CRB: PICMB COM Express board-to-board interconnectors, type 6 pin-out, female, 8mm stack-up height, COM.0 Rev. 2.0
- NEXCOM Computer-On-Modules Support List:
- Basic Size (125 x 95mm) : ICES 668

Expansion

- 1 x PCIe16 slot, support PEG interfaces
- 1 x DDI (SDVO/HDMI/DP by orange color PCIe16 slot)
- 1 x PCIe4 slot, optional 4 x PCIe1 signals
- 1 x PCIe1 slot and 1 x Mini-PCIe slot for Wi-Fi with SIM tray

Graphic Interfaces

- Graphic Chip: from Type 6 pin-out, COM Express module
- CRT: support analog VGA with DB15 connector on the I/O edge
- LVDS: dual channels 18/24-bit LVDS connector (dual DF-13-20P)
- DDI (in PCIe16): optional EBK-A2HDMI riser card for HDMI or DP

Super I/O

- ITE8783

I/O Interface

- Serial COM: 6 ports
 - 1 x edge DB9 connector to support RS232/422/485 (+5/+12V by Ring)

- 5 x internal box-header 2.0 pitch to support RS232
- USB: 12 ports 4 x USB3.0 and 8 x USB2.0 ports
 - 4 x USB3.0/4 x USB2.0 ports by stack Type A on edge
 - 3 x USB2.0 by 4-pins JST 2.0mm JST connector,
 - 1 x internal USB2.0 to Mini-PCIe slot for external wi-fi module
- SATA: 4 ports
 - 2 x SATA 3.0 ports
 - 1 x Mini-SATA by Mini-PCIe slot for half-/full size Mini-SATA/SSD
 - 1 x CFAST slot for CFAST/SATA 2.0
- PS/2: internal 2 x 4-pins header for Keyboard/Mouse
- GPIO ports: 2 x + 8 x pins GPIO signals from COMe (default 5V TTL/option 3.3V)

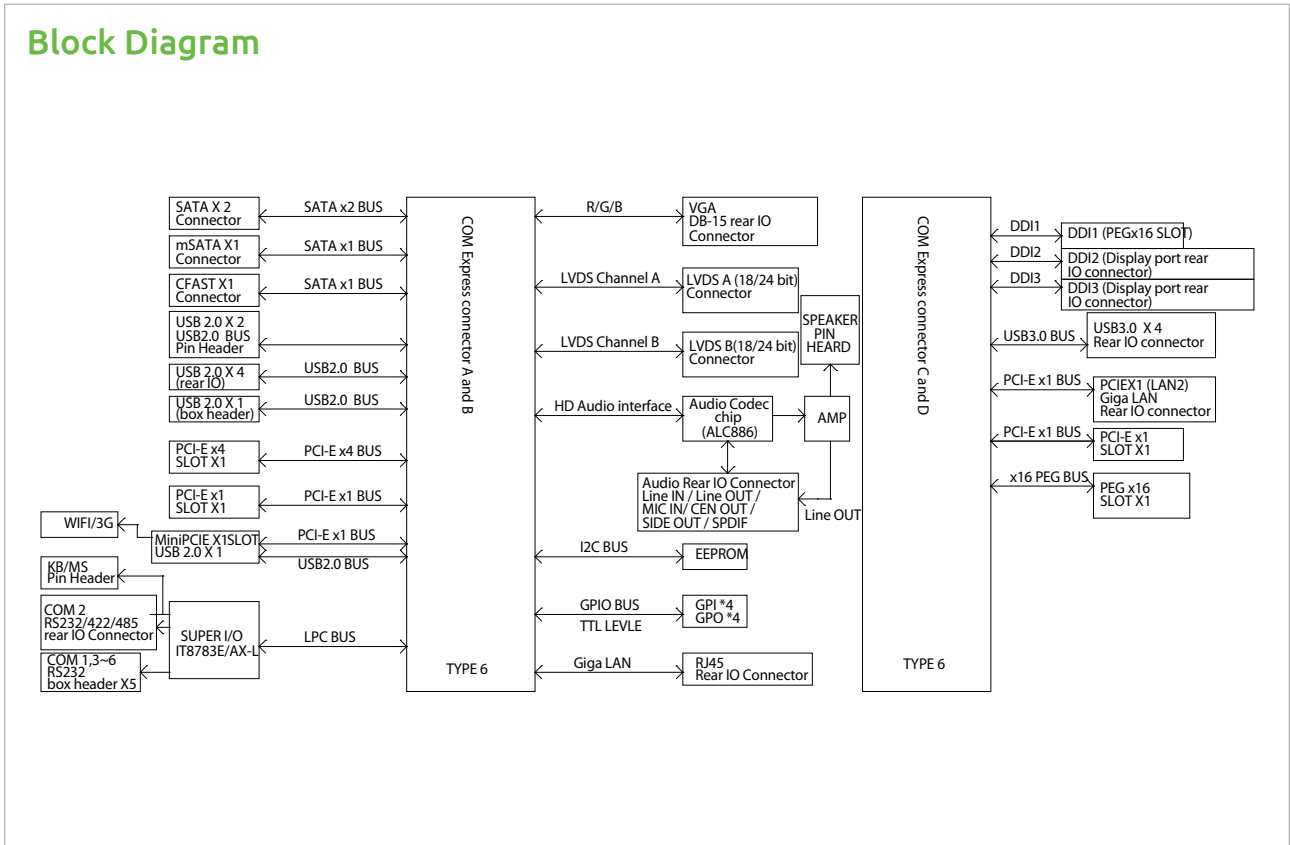
Network

- ETH0: LAN port Connected from COMe CPU module (ICES 668)
- ETH0: Support 1 x RJ45/GbE LAN port on the edge I/O
- ETH1: Support 2nd RJ45/GbE LAN port by Intel® 82574L on the edge I/O
- ETH0 and ETH1 support Boot from LAN (PXE)
- ETH0 and ETH1 support Wake-on-LAN (when +5Vsb power available)

Audio

- HD Audio AL886 with 5.1 channels
- Support external S/PDIF interface
- Support internal pin-header for L/R speaker-out 2W/ 4 Ohm
- Onboard buzzer

Block Diagram



EEPROM

- 1 x 2K EEPROM to record PCI Express Lane configuration
- ATMEL AT24C32 (or C02) and address 0 x 57 or (0 x AE)

Watchdog Timer

- Watchdog timeout can be programmable by Software from 1 second to 255 seconds and from 1 minute to 255 minutes (Tolerance 15% temperature 25°C)

On-board RTC

- On-chip RTC with battery BR2032

Power Input

- Standard ATX 24 pins and AUX 4-pins with 12V

Dimensions

- ATX form factor, 305 x 244mm (Lx W, 12"x9.6")

Environment

- Operating temperatures: -20°C to 60°C
- Storage temperature: -40°C to 85°C
- Relative humidity: Operating 10% to 90%, non-condensing

Certifications

- CE approval
- FCC Class A

Ordering Information

• ICEB 8060 (P/N: 10KB0806000X0) RoHS Compliant

COM Express Type 6, COM.0 Rev. 2.0 Evaluation CRB, 3DDI/VGA/LVDS/4USB3.0/8USB2.0/6COM/2GbE/5.1 HD, SPDIF/2SATA3.0/mSATA/CFAST/PClex16/PClex4/PClex1/mPCIe, ATX power input