



Integrated COM Express Compact or Basic Module

Bootable mini-SATA/ CFAST-SSD on ICEB8060 with 10.4" LCD and Flex-ATX 110/220V AC input

Main Features

- COM Express Type 6, COM.0, Rev2.0 Evaluation Starter-Kit
- COM Express Compact or Basic Modules with passive or active fan-sink
- Bootable mini-SATA/ CFAST-SSD with 10.4" LCD/ 18-bit LVDS Display
- PCIe16, PCIe4, 2x PCIe1, 1x PEG/DDI/SDVO and mini-PCIe for Wi-Fi
- 3x DDI/ 4x USB3.0/ 2x SATA3.0/ 6x COM/ VGA/ LVDS/ 2x GbE/ 5.1 Audio S/PDIF
- Integrated Flex-ATX PSU for AC 110/ 220V Input

Product Overview

NEXCOM ICEK8060-T6 as proof-of-concept as pre-configured system of COM Express starter-kit join-design-win assistance package based on COM Express type 6, pin-out defined by PICMG, COM.0 Rev. 2.0 specification. NEXCOM configure and assembly to order service with COM Express Type 6 Basic Module (125x 95mm) like ICES667 or ICES668 with active heat-sink for embedded processors up to i7-3610QE or i7-3615QE (2x 2.3Ghz/ 6MB/ max. TDP 45W) of Intel® 3rd. Generation Core™ i7/ i5/ i3 processors to adapt wide range of Industrial and embedded applications.

ICEK8060-T6 features bootable CFAST/ SSD from external access or mini-SATA/ SSD via mini-PCIe slot (half-/ full-size slot) from internal build-in onto ICEB8060 ICEK8060-T6 also support legacy SATA 2.0 as bootable interfaces. ICEK8060-T6 support added-on card slots of 1x PCIe16, 1x PCIe4, 2x PCIe1 and 1x DDI (port B/ SDVO/ DP/ HDMI) slot may adapt our add-in EBK-A2HDMI (HDMI/ DP) for your evaluation of three independent displays during project development.

- Faster system Time-to-market: ICEK8060-T6 as Type 6 starter-kit as pre-configured system ready to help your system design customer to reduce total development cycle time from our proof-of-concept and design-assistance support for your target OS and applications.
- Various CPU SKUs support Intel® 3rd. generation Intel® Core™ i7/ i5/ i3, Celeron Mobile processors supported by COM Express Type 6 Basic module (125x 95mm) like ICES667 or ICES668
- Longevity for your multi-generation durable equipment: Once you pre-tested your OS and Application onto our ICEK8060-T6 starter-kit, You may easy to design your own customized I/O carrier solution board which you may adapt multiple COM Express modules for your target application.

Specifications

Form factor:

- Rugged Plastic (HDPE) Suitcase dimension: 47x 42x 12 cm³
- Integrated ICEB 8060 Type 2, Carrier CRB for COM Express Basic Module

Display:

- 10.4" AUO, G1045N03 V5

Expansion:

- 1x PCIe 16 (Gen 3.0) slot, 1x PEG/ DDI (port B for SDVO/ EBKA2-HDMI)
- 1x PCIe4 slot, 2x PCIe1 slot and
- 1x mini-PCIe slot for Wi-Fi with optional SIM tray

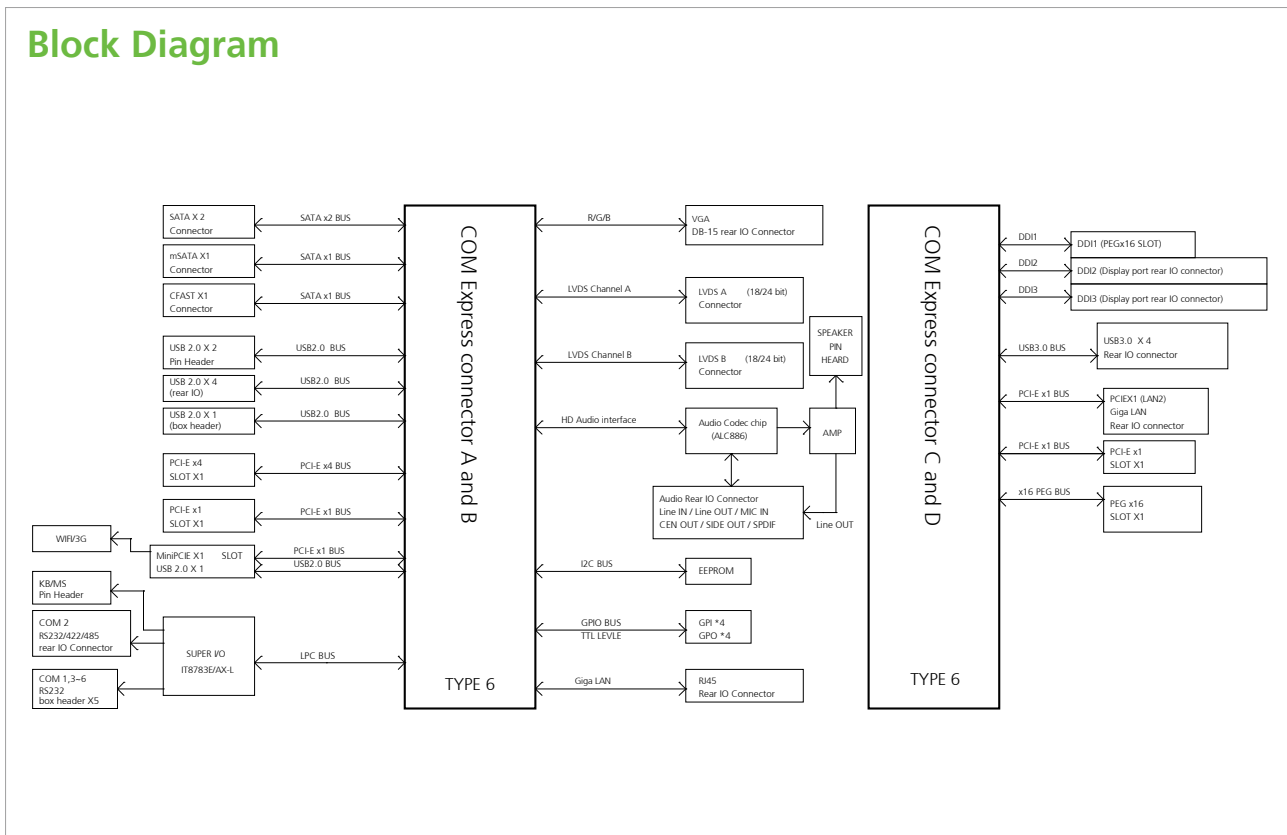
Graphic Interfaces:

- CRT: support analog VGA with DB15 connector on the I/O edge
- LVDS: dual channels 18/ 24-bit LVDS connector (dual DF-13-20P)

Super I/O:

- ITE IT8783

Block Diagram



I/O Interface:

- Serial COM: 6 ports
 - 1x edge DB9 connector to support RS232/ 422/ 485 (+5/ +12V by Ring)
 - 5x internal box-header 2.0 pitch to support RS232
- USB 3.0/ 2.0: 8 ports
 - 4x USB 3.0/ USB2.0 ports by stack Type A on edge
 - 3x USB 2.0 by 4pins JST 2.0mm header connector
 - 1x internal USB 2.0 to mini-PCIe slot for external wi-fi module
- SATA 2.0: 4 ports
 - 2x SATA 3.0/ SATA 2.0 ports
 - 1x mini-SATA by mini-PCIe slot for half-/ full size mSATA-SSD
 - 1x CFast slot for CFast-SSD/ SATA 2.0
- PS/2: 2x 4pins header for Keyboard/ Mouse
- GPIO ports: 2x + 8x pins header GPIO from COMe (default 5V TTL/ option 3.3V)

Network

- ETH0: LAN chip: from COMe CPU module
- ETH1: 2nd. RJ45/ GbE port by Intel 82574L
- Support total 2x RJ45/ GbE ports on the edge I/O

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

EEPROM

- 1x 2K EEPROM to record PCI Express Lane configuration
- ATMEL AT24C32 (or C02) and address 0x57 or (0xAE)

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

- Build-in AC 110/ 220V Input for Flex-ATX PSU in this Starter-Kit

Ordering Information

• ICEK8060-T6 (P/N: MISC by Project Registered)

COM Express Type 6 Starter Kit ready for NEXCOM COM Express Type 6 Basic modules assembly SO-DIMM system memory with passive/ active fan-sink onto Type 6 carrier ICEB8060 with bootable mini-SATA/ CFast-SSD, pre-load Win 7 trial version OS with 10.4" LCD/ LVDS display and build-in Flex-ATX PSU AC 110/220V Input

NEXCOM Computer-On-Modules Support List:

Models	ICES667	ICES668
Processors SKUs	3rd. Generation Core™ i7/ i5/ i3 rPGA 988	3rd. Generation Core™ i7/ i5/ i3 FCBGA 1023
Chipset	QM77/ HM76	QM77
Max. Memory	16GB	16GB
SO-DIMM	2	2
Memory Type	non-ECC	ECC-DDR3
Heat-spreader	Yes	Yes
Heat-Sink	Yes	Yes
Cooling Fan	Yes	Yes