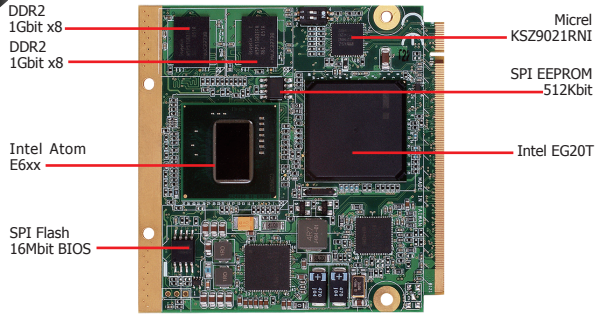




Intel® Atom™ E600 Series Qseven

QB700-B

Atom

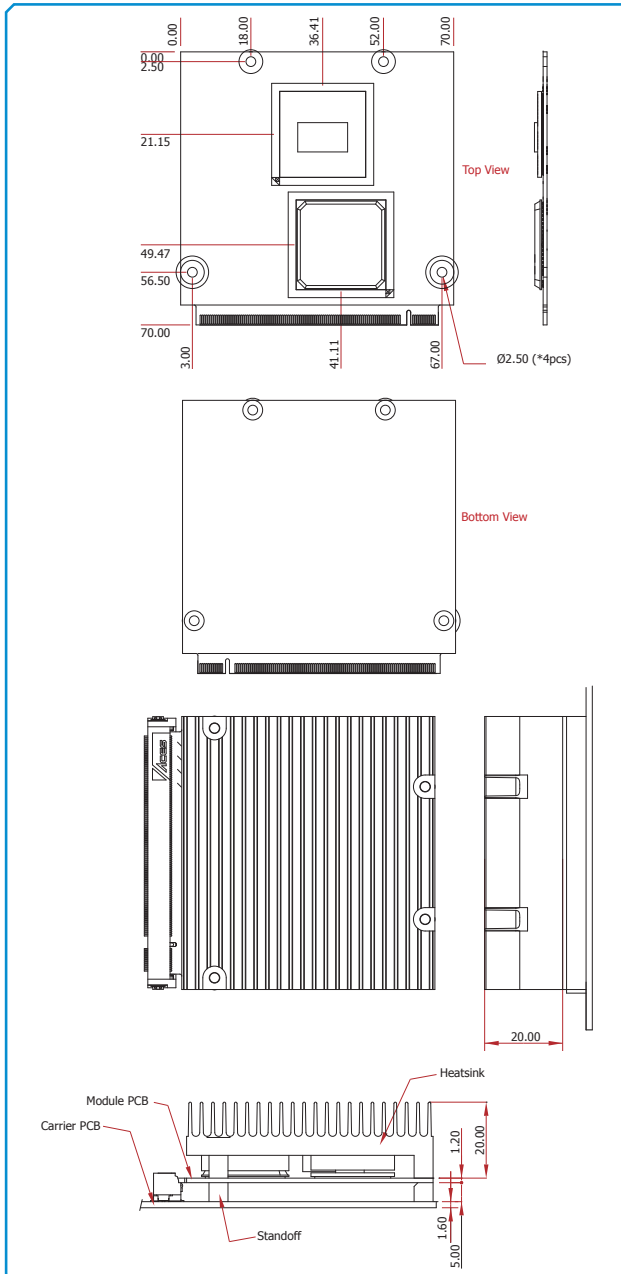


Features

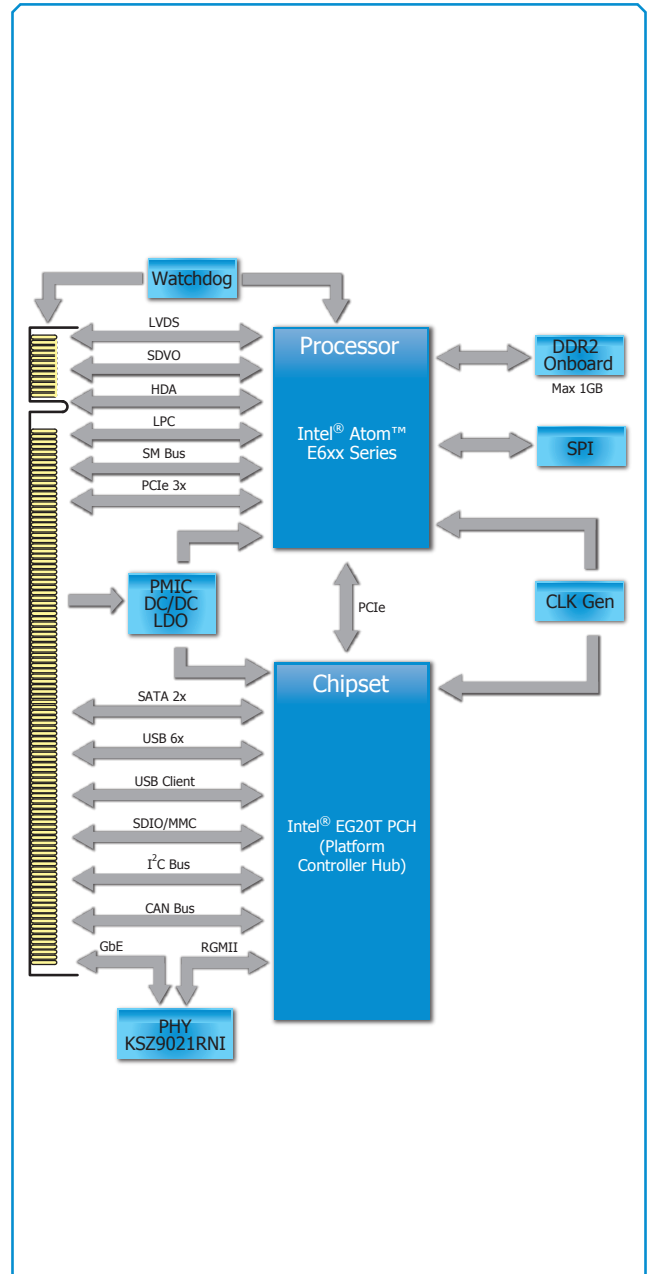
MEMORY	512MB DDR2 SDRAM onboard
EXPANSION	3 PCIe x1 1 LPC, 1 SMBus, 1 I ² C, 1 CAN-bus 1 LVDS, 1 SDVO 6 USB 2.0, 1 USB Client 2 SATA 2.0 1 SDIO/MMC
LAN	1 LAN
DIMENSIONS	Qseven R1.1 70mm x 70mm (2.76" x 2.76")



Mechanical Drawing



Block Diagram



QB700-B

► Specifications

PROCESSOR

- Intel® Atom™ E680 : QB700-B680
- Intel® Atom™ E660 : QB700-B660
- Intel® Atom™ E640 : QB700-B640
- Intel® Atom™ E620 : QB700-B620

CHIPSET

- Intel® EG20T PCH (Platform Controller Hub)

SYSTEM MEMORY

- Supports memory down (single 32-bit channel)
- Supports DDR2 800MHz
- Supports up to 1GB system memory (default: 512MB)

ONBOARD GRAPHICS FEATURES

- Intel® GMA 600
- Supports up to 400MHz graphics frequency
- Ultra low power integrated 3D graphics
- High definition hardware video decoder and encoder engine
- Supports LVDS and SDVO interfaces
 - LVDS: Supports pixel clock depths of 18/24-bit, single channel, max. pixel clock of 80MHz, equates to 1280x768 @ 60Hz
 - SDVO: Up to 160MHz pixel clock, equates to 1280x1024 @ 85Hz

ONBOARD AUDIO FEATURES

- Supports High Definition Audio interface

ONBOARD LAN FEATURES

- Integrated Intel® PCH GbE MAC
- One Micrel KSZ9021RNI Ethernet PHY
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

SERIAL ATA (SATA) INTERFACE

- Supports two Serial ATA interfaces
- SATA speed up to 3Gb/s (SATA 2.0)

SDIO/MMC INTERFACE

- Supports 1 SD/SDIO/MMC
- Supports SDA Standard Ver 1.0, SD memory card specification Ver 2.0, SDIO card specification Ver 1.0, MMC System specification Ver 4.1
- Conforms to Secure Digital Host Controller (SDHC) speed class 6

EXPANSION INTERFACES

- Supports 6 USB ports (USB 1.1/2.0 host controllers)
- Supports 1 USB Client interface
- Supports LPC interface
- Supports SMB and I²C interfaces
- Supports 3 PCIe x1 interfaces
- Supports CAN-bus (Controller-Area Network) interface

BIOS

- 16Mbit SPI Flash BIOS (UEFI BIOS)

ENERGY EFFICIENT DESIGN

- Supports ACPI 2.0/1.0 specification
- Enhanced Intel® SpeedStep Technology

POWER

- Input: VCC_RTC, 5V standby, 5V

POWER CONSUMPTION

- 15.94 W with E680 at 1.6GHz and 512MB DDR2 onboard

OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit)
- Windows 7 Ultimate x86 & SP1 (32-bit)

TEMPERATURE

- 0°C to 60°C

HUMIDITY

- 10% to 90%

PCB

- Dimensions
 - Qseven form factor
 - 70mm (2.76") x 70mm (2.76")
- Compliance
 - Qseven specification revision 1.1

CERTIFICATION

- CE
- FCC Class B
- RoHS

► Ordering Information

Model Name	Part Number	Description
QB700-B680	777-QB7001-310G	Intel® Atom™ E680, onboard DDR2 1GB
	777-QB7001-300G	Intel® Atom™ E680, onboard DDR2 512MB
QB700-B660	777-QB7001-210G	Intel® Atom™ E660, onboard DDR2 1GB
	777-QB7001-200G	Intel® Atom™ E660, onboard DDR2 512MB
QB700-B640	777-QB7001-110G	Intel® Atom™ E640, onboard DDR2 1GB
	777-QB7001-100G	Intel® Atom™ E640, onboard DDR2 512MB
QB700-B620	777-QB7001-010G	Intel® Atom™ E620, onboard DDR2 1GB
	777-QB7001-000G	Intel® Atom™ E620, onboard DDR2 512MB

► Packing List

- 1 QB700-B board
- 1 QR (Quick Reference)
- 1 DVD

► Optional Items

- Q7-951 carrier board kit
- Heat sink: A71-012000-000G
- 1 Bracket