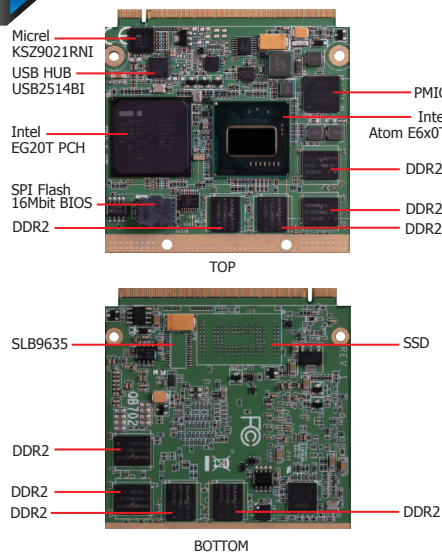




QB702-B

Atom

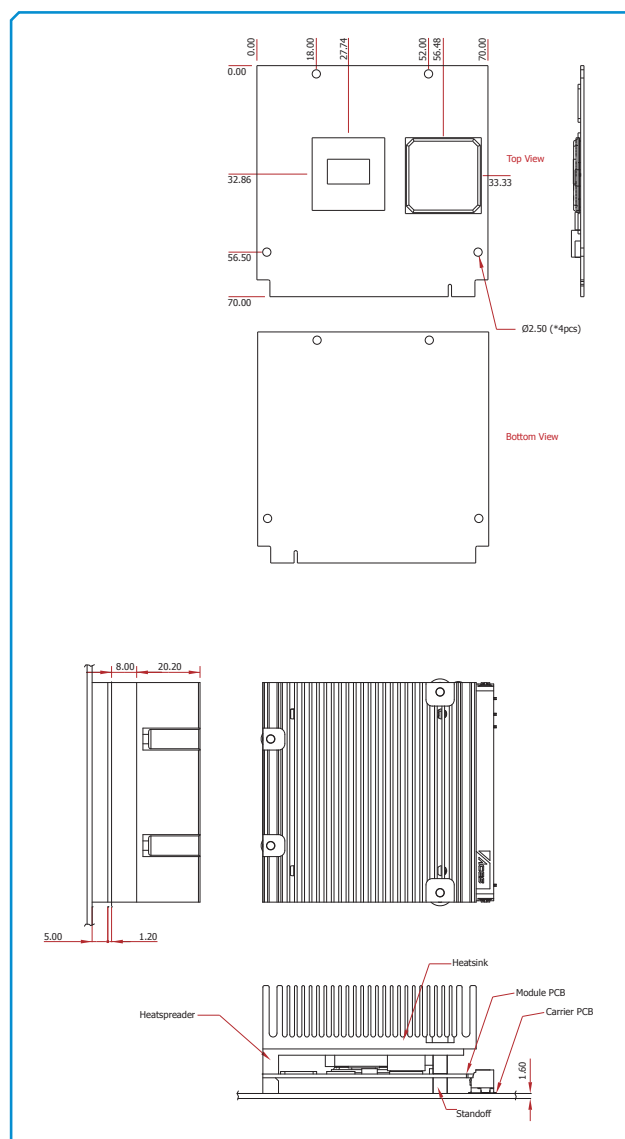


Features

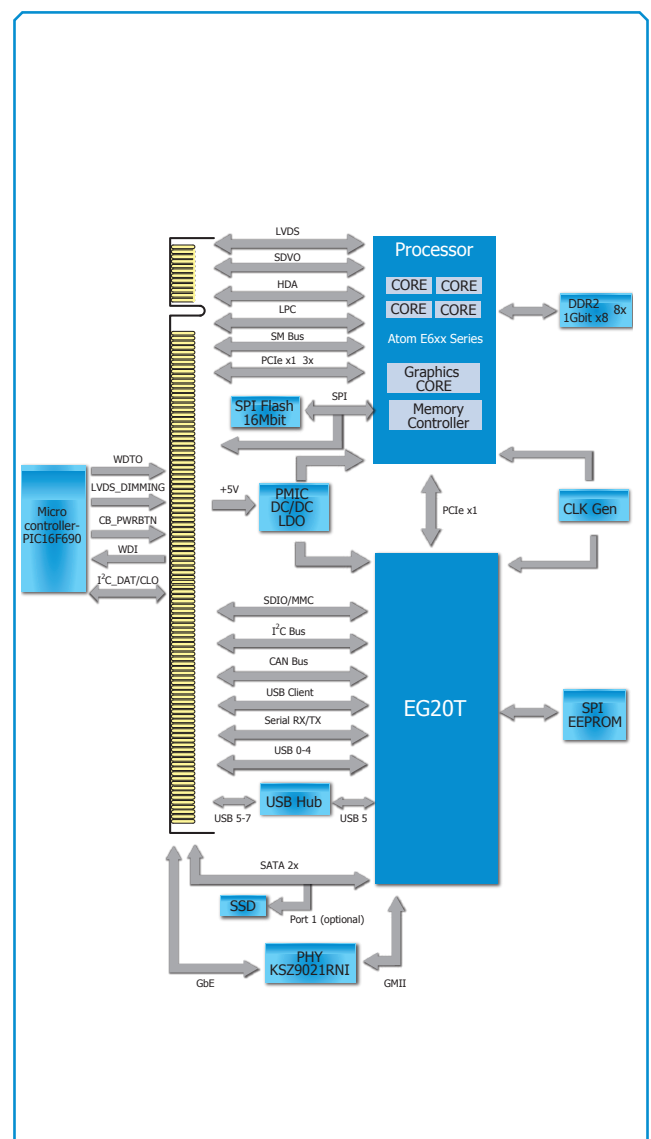
MEMORY	1GB DDR2 onboard
EXPANSION	3 PCIe x1 1 LPC, 1 SMBus, 1 I ² C, 1 CAN-bus, 1 serial 1 LVDS, 1 SDVO 8 USB 2.0 2 SATA 2.0 1 SDIO/MMC 1 ExpressCard
LAN	1 LAN
DIMENSIONS	Qseven R1.2 70mm x 70mm (2.76" x 2.76")



Mechanical Drawing



Block Diagram



QB702-B

► Specifications

PROCESSOR

- QB702-B620T102
 - Intel® Atom™ E620T (512KB L2 cache, 600 MHz, 3.3W)
- QB702-B640T102
 - Intel® Atom™ E640T (512KB L2 cache, 1.0 GHz, 3.6W)
- QB702-B660T102
 - Intel® Atom™ E660T (512KB L2 cache, 1.3 GHz, 3.6W)
- QB702-B680T102
 - Intel® Atom™ E680T (512KB L2 cache, 1.6 GHz, 4.5W)

CHIPSET

- Intel® EG20T PCH

SYSTEM MEMORY

- 1GB DDR2 onboard
- Supports memory down (single 32-bit channel)

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 2 SATA interfaces
 - One port shared with SSD
- SATA speed up to 3Gb/s (SATA 2.0)

SSD (optional)

- 2GB/4GB/8GB/16GB/32GB

SDIO/MMC INTERFACE

- Supports 1 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

TRUSTED PLATFORM MODULE (TPM) - optional

- Provides a Trusted PC for secure transactions
- Provides software license protection, enforcement and password protection

EXPANSION INTERFACES

- Supports 8 USB 2.0 interfaces:
 - 7 Host and 1 Host/Client (selectable)
- Supports 3 PCIe x1 interfaces
- Supports 1 LPC interface
- Supports 1 SMBus interface
- Supports 1 I²C interface
- Supports CAN-bus (Controller-Area Network) interface
- Supports ExpressCard (PCIe signal only)
- Supports 1 serial interface (TX/RX)

ENERGY EFFICIENT DESIGN

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

BIOS

- AMI BIOS
 - 16Mbit SPI Flash BIOS (UEFI BIOS)

WATCHDOG TIMER

- Software programmable from 1 to 255 seconds

POWER

- Input: VCC_RTC, 5V standby, 5V
- Supports ATX/AT mode

POWER CONSUMPTION

- 7.6 W with E680 at 1.6GHz and 1GB DDR2 onboard

OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit)

TEMPERATURE

- Operating: -40°C to 85°C
- Storage: -40°C to 85°C

HUMIDITY

- 10% to 90%

PCB

- Dimensions
 - Qseven form factor
 - 70mm (2.76") x 70mm (2.76")
- Compliance
 - Qseven specification revision 1.2

► Ordering Information

Model Name	Part Number	Description
QB702-B620T102	777-QB7021-4C0G	Intel® Atom™ E620T, 600 MHz, 3.3W, onboard DDR2 1GB, RoHS
QB702-B640T102	777-QB7021-5C0G	Intel® Atom™ E640T, 1.0 GHz, 3.6W, onboard DDR2 1GB, RoHS
QB702-B660T102	777-QB7021-6C0G	Intel® Atom™ E660T, 1.3 GHz, 3.6W, onboard DDR2 1GB, RoHS
QB702-B680T102	777-QB7021-7C0G	Intel® Atom™ E680T, 1.6 GHz, 4.5W, onboard DDR2 1GB, RoHS

► Packing List

- 1 QB702-B board
- 1 QR (Quick Reference)
- 1 DVD

► Optional Items

- Q7-100 carrier board kit
- Heat spreader with heat sink: 761-Q70000-000G
- Heat spreader: A71-012002-000G
- 1 Bracket