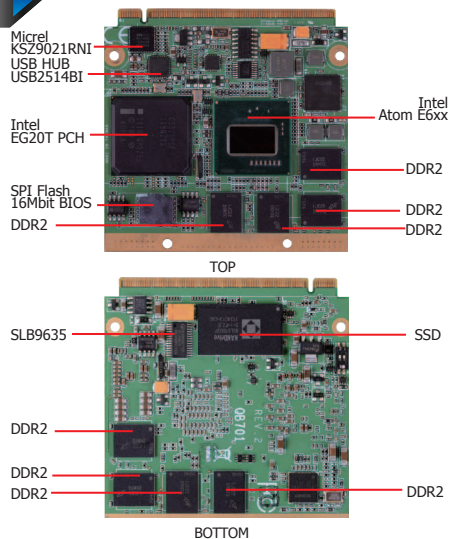




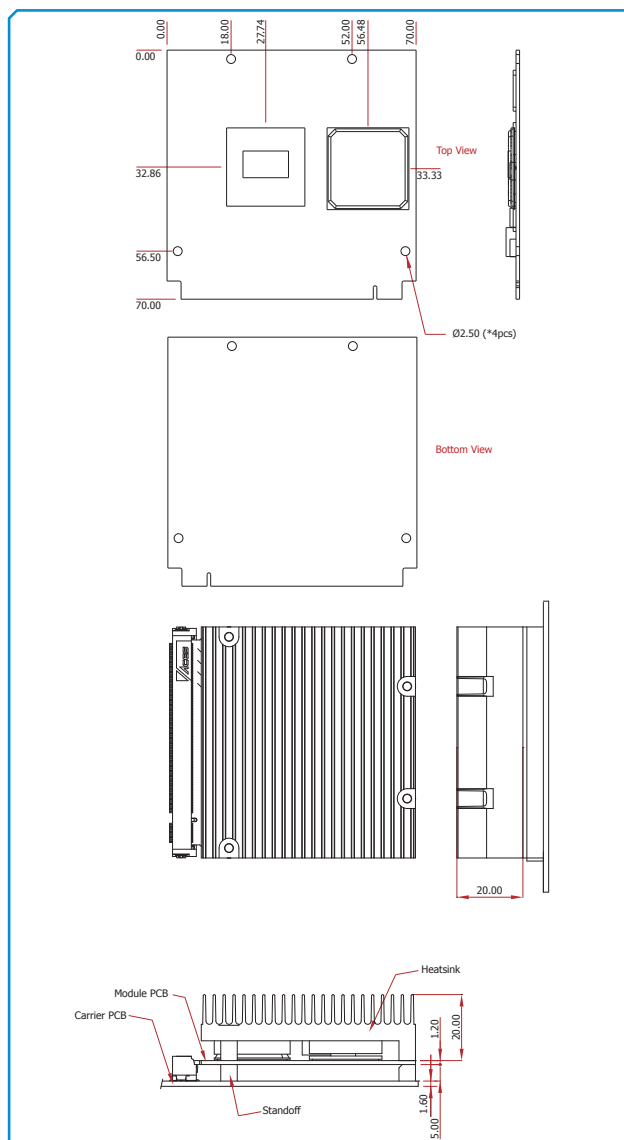
Intel® Atom™ E600 Series Qseven

QB701-B

Atom



Mechanical Drawing

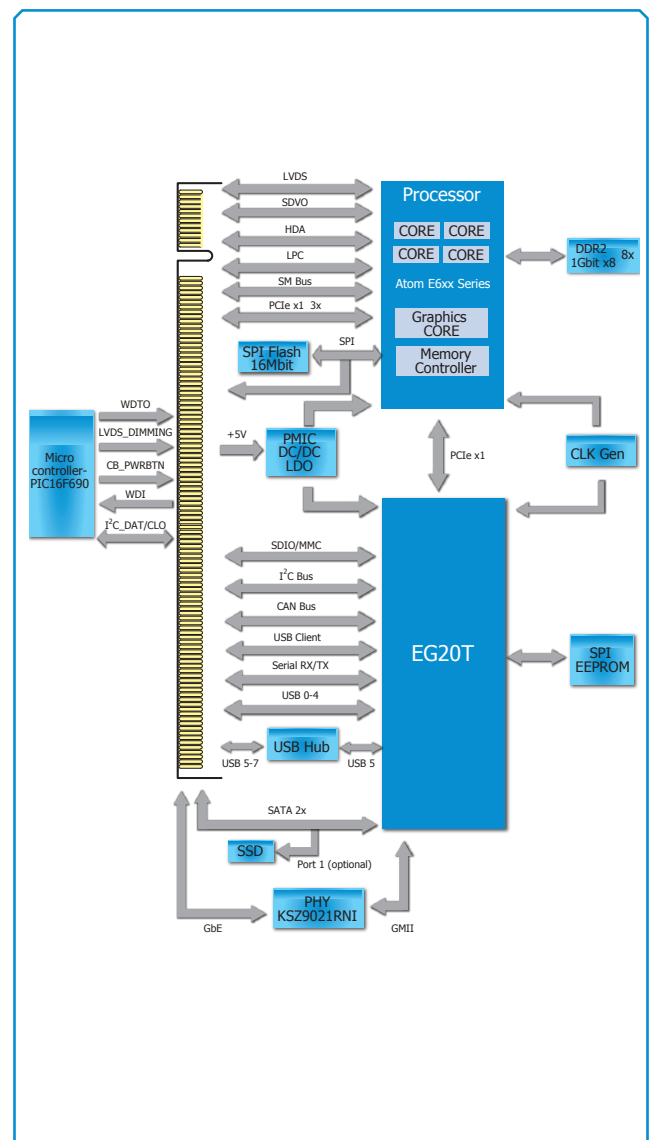


Features

MEMORY	512MB/1GB/2GB DDR2 SDRAM onboard
EXPANSION	3 PCIe x1 1 LPC, 1 SMBus, 1 I ² C, 1 CAN-bus, 1 serial 1 LVDS, 1 SDVO 7 USB Host and 1 USB Host/Client 2 SATA 2.0 1 SDIO/MMC
LAN	1 LAN
DIMENSIONS	Qseven R1.2 70mm x 70mm (2.76" x 2.76")



Block Diagram



QB701-B

► Specifications

PROCESSOR

- Intel® Atom™ E600 Series processors
- Please refer to the Ordering Information below

CHIPSET

- Intel® EG20T PCH (Platform Controller Hub)

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

TRUSTED PLATFORM MODULE (TPM) - optional

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

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

EXPANSION INTERFACES

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

WATCHDOG TIMER

- Software programmable from 1 to 255 seconds

ENERGY EFFICIENT DESIGN

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

BIOS

- 16Mbit SPI Flash BIOS (UEFI BIOS)

POWER

- Input: VCC_RTC, 5V standby, 5V

POWER CONSUMPTION

- 12.42 W with E660T at 1.3GHz and 1GB DDR2 onboard

OS SUPPORT

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

HUMIDITY

- 10% to 90%

PCB

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

CERTIFICATION

- CE, FCC Class B, UL, RoHS

► Ordering Information

Model Name	Part Number	Description
QB701-B620T201	777-QB7011-4F0G	Intel® Atom™ E620T, onboard DDR2 2GB, -20°C to 70°C
QB701-B620T101	777-QB7011-4C0G	Intel® Atom™ E620T, onboard DDR2 1GB, -20°C to 70°C
QB701-B620T011	777-QB7011-4A0G	Intel® Atom™ E620T, onboard DDR2 512MB, 2GB SSD onboard, -20°C to 70°C
QB701-B640T201	777-QB7011-5F0G	Intel® Atom™ E640T, onboard DDR2 2GB, -20°C to 70°C
QB701-B640T101	777-QB7011-5C0G	Intel® Atom™ E640T, onboard DDR2 1GB, -20°C to 70°C
QB701-B640T121	777-QB7011-5E0G	Intel® Atom™ E640T, onboard DDR2 1GB, 4GB SSD onboard, -20°C to 70°C
QB701-B660T101	777-QB7011-6C0G	Intel® Atom™ E660T, onboard DDR2 1GB, -20°C to 70°C
QB701-B680T101	777-QB7011-7C0G	Intel® Atom™ E680T, onboard DDR2 1GB, -20°C to 70°C
QB701-B680T201	777-QB7011-7F0G	Intel® Atom™ E680T, onboard DDR2 2GB, -20°C to 70°C
QB701-B620100	777-QB7011-0C0G	Intel® Atom™ E620, onboard DDR2 1GB, 0°C to 60°C
QB701-B640100	777-QB7011-1C0G	Intel® Atom™ E640, onboard DDR2 1GB, 0°C to 60°C
QB701-B660100	777-QB7011-2C0G	Intel® Atom™ E660, onboard DDR2 1GB, 0°C to 60°C
QB701-B680100	777-QB7011-3C0G	Intel® Atom™ E680, onboard DDR2 1GB, 0°C to 60°C

► Packing List

- 1 QB701-B board
- 1 QR (Quick Reference)
- 1 Drivers/utilities disk

► Optional Items

- Q7-100 carrier board kit
- Heat sink: A71-012001-000G
- 1 Bracket