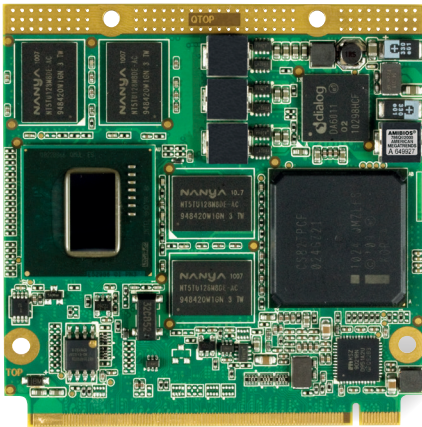


# INTEL® ATOM™ PROCESSOR E600 FAMILY

## conga-QA6

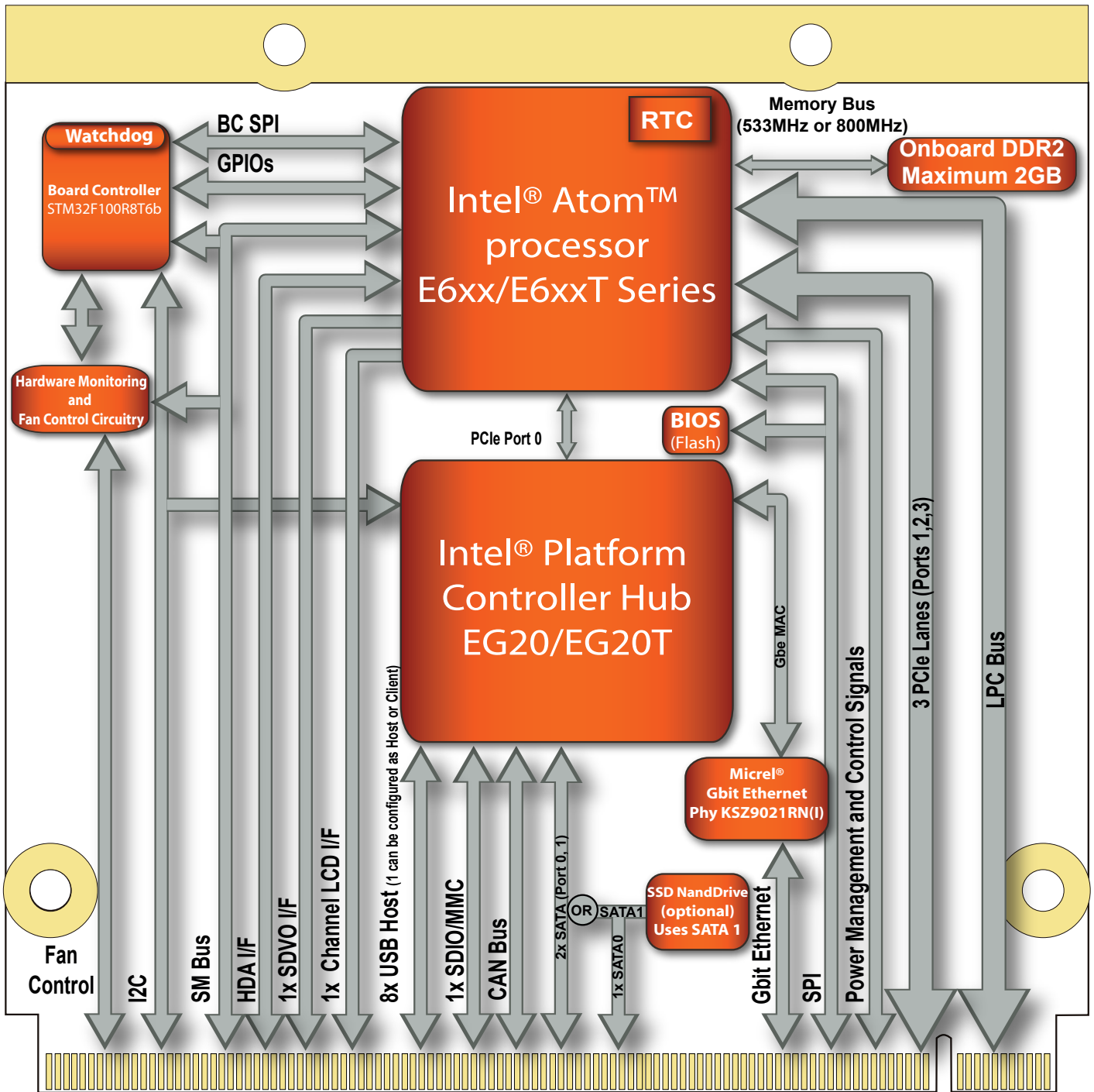


- Extended Temperature Range -40° .. +85°C
- Intel® 3D Graphics
- CAN Bus



Formfactor	Qseven Form Factor   70x70 mm
CPU	Intel® Atom™ processor E6xx series with 1.6 GHz   1.3 GHz   1.0 GHz   600 MHz   45 nm process Intel® Atom™ E680T / E680 1.6 GHz L2 cache 512KB 4.5W TDP Intel® Atom™ E660T / E660 1.3 GHz L2 cache 512KB 3.6W TDP Intel® Atom™ E640T / E640 1.0 GHz L2 cache 512KB 3.6W TDP Intel® Atom™ E620T / E620 600 MHz L2 cache 512KB 3.3W TDP
DRAM	Up to 2 GByte onboard DDR2 memory with 533/800 MT/s
Chipset	Qualcom Atheros AR8035
Ethernet	Micrel® Gbit Ethernet Phy KSZ9021RN
I/O Interfaces	8x USB 2.0   2x SATA (AHCI only)   1x SDIO   3x PCIe   I²C Bus   1x USB client   LPC bus   CAN Bus
Mass Storage	Onboard SATA Solid State Drive up to 32 GByte (optional)
Sound	Intel® High Definition Audio (Intel® HD Audio)
Graphics	Intel® Graphics Core with 2D and 3D hardware Accelerator and dual independent display support
Video Decode Acceleration	Full hardware acceleration for MPEG2   MPEG4   H.264   WMV9 and VC1
Motion Video Support	Single channel 80MHz LVDS transmitter   support for flat panels with 1x18 and 1x24 bit data mapping up to a resolution of 1280x768@60Hz Single channel 160MHz SDVO interface   supports resolutions up to 1920x1080@60Hz and 1280x1024@85Hz Dual independent display support
congatec Board Controller	Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board information   Board Statistics I²C bus (fast mode   400 kHz   multi-master)   Power Loss Control
Embedded BIOS Features	OEM Logo   OEM CMOS Defaults   LCD Control   Display Auto Detection   Backlight Control   Flash Update   based on AMI Aptio UEFI
Power Management	ACPI 3.0 compliant   Smart Battery Management
Operating Systems	Windows® XP   Windows® XP embedded Standard   Windows® CE 6.0   Linux 2.6   QNX 6.x
Power Consumption	Typ. application ~5 Watt @ 5V
Temperature	Operating: 0 to +60°C (opt. -40 to +85°C) Storage: -20 to +80°C (opt. -40 to +85°C)
Humidity	Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.
Size	70 x 70 mm (2¾" x 2¾")

# conga-QA6 | Block diagram



# conga-QA6 | Order Information

Article	PN	Description
conga-QA6/E640-1G	015031	Intel® Atom™ E640 processor 1.0GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T
conga-QA6/E660-1G	015030	Intel® Atom™ E660 processor 1.3GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T
conga-QA6/E620T-1G	015037	Intel® Atom™ E620T processor 600MHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. No SSD. Industrial grade temperature range from -40°C to 85°C
conga-QA6/E640T-1G	015036	Intel® Atom™ E640T processor 1.0GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. No SSD. Industrial grade temperature range from -40°C to 85°C
conga-QA6/E660T-1G	015035	Intel® Atom™ E660T processor 1.3GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. No SSD. Industrial grade temperature range from -40°C to 85°C
conga-QA6/E680T-1G	015038	Intel® Atom™ E680T processor 1.6GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. No SSD. Industrial grade temperature range from -40°C to 85°C
conga-QA6/E680T-2G	015041	Intel® Atom™ E680T processor 1.6GHz   512kB L2 cache and 2GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. No SSD. Industrial grade temperature range from -40°C to 85°C
conga-QA6/E640T-1G SSD2	015039	Intel® Atom™ E640T processor 1.0GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. Industrial grade temperature range from -40°C to 85°C. Onboard 2 GB SLC SATA flash
conga-QA6/E680-2G	015042	Intel® Atom™ E680 processor 1.6GHz   512kB L2 cache and 2GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T
conga-QA6/E680-1G SSD8-MLC	015046	Intel® Atom™ E680 processor 1.6GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. Onboard 8 GB MLC SATA flash
conga-QA6/E640-1G SSD4-MLC	015047	Intel® Atom™ E640 processor 1.0GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. Onboard 4 GB MLC SATA flash
QA6/HSP-B	015060	Standard heatspreader for Qseven module conga-QA6 with Intel Atom processor E6xx series. All standoffs are with 2.7mm bore hole
QA6/HSP-T	015061	Standard heatspreader for Qseven module conga-QA6 with Intel Atom processor E6xx series. All standoffs are M2.5mm thread
QA6/CSP-B	015062	Passive cooling solution for Qseven module conga-QA6 with Intel Atom processor E6xx series. All standoffs are with 2.7mm bore hole

## Accessories

conga-QEVAL 2.0	007003	Evaluation platform for Qseven 2.0 modules
conga-QKIT	077455	Starterkit for Qseven including conga-QEVAL   conga-LDVI/EPI   conga-FPA1   Dual DVI-D ADD2 Card   ATX power supply..
Qseven Mobility Kit	077460	Complete ready-to-use starter-kit for mobile applications
conga-MCB/Qseven SDVO	020730	Mini Carrier Board for Qseven with smart battery manager interface for mobile applications and SDVO display interface support for Intel® mobile platforms.
conga-MCB/Qseven DP	020731	Qseven mini carrier board for mobile applications with DisplayPort
conga-MCB/Qseven Cable Kit	14000041	Complete cable kit for Qseven mini carrier board
Qseven MXM connector Foxconn	400017	Socket for Qseven Carrier Boards. 10pcs package. Foxconn standard type   SMT   lead free   230 positions   0.50mm pitch   7.8mm height.
Qseven MXM Connector Aces	400018	Socket for Qseven Carrier Boards. 10pcs package. ACES standard type   SMT   lead free   230 positions   0.50mm pitch   7.8mm height.
conga-LDVI/EPI	011115	LVDS to DVI converter board for digital flat panels with onboard EEPROM
Single DVI-D ADD2 Card	058500	ADD2 display adapter card with single DVI-D digital output. Suitable for all Intel based platforms that support Serial Digital Display Outputs (SDVO) on the standard x16 PCI Express Graphics (PEG) port.