

# conga-QG

## Qseven module

### conga-QG

Qseven module based on the high-performance, low-power AMD Embedded G-Series SOC platform

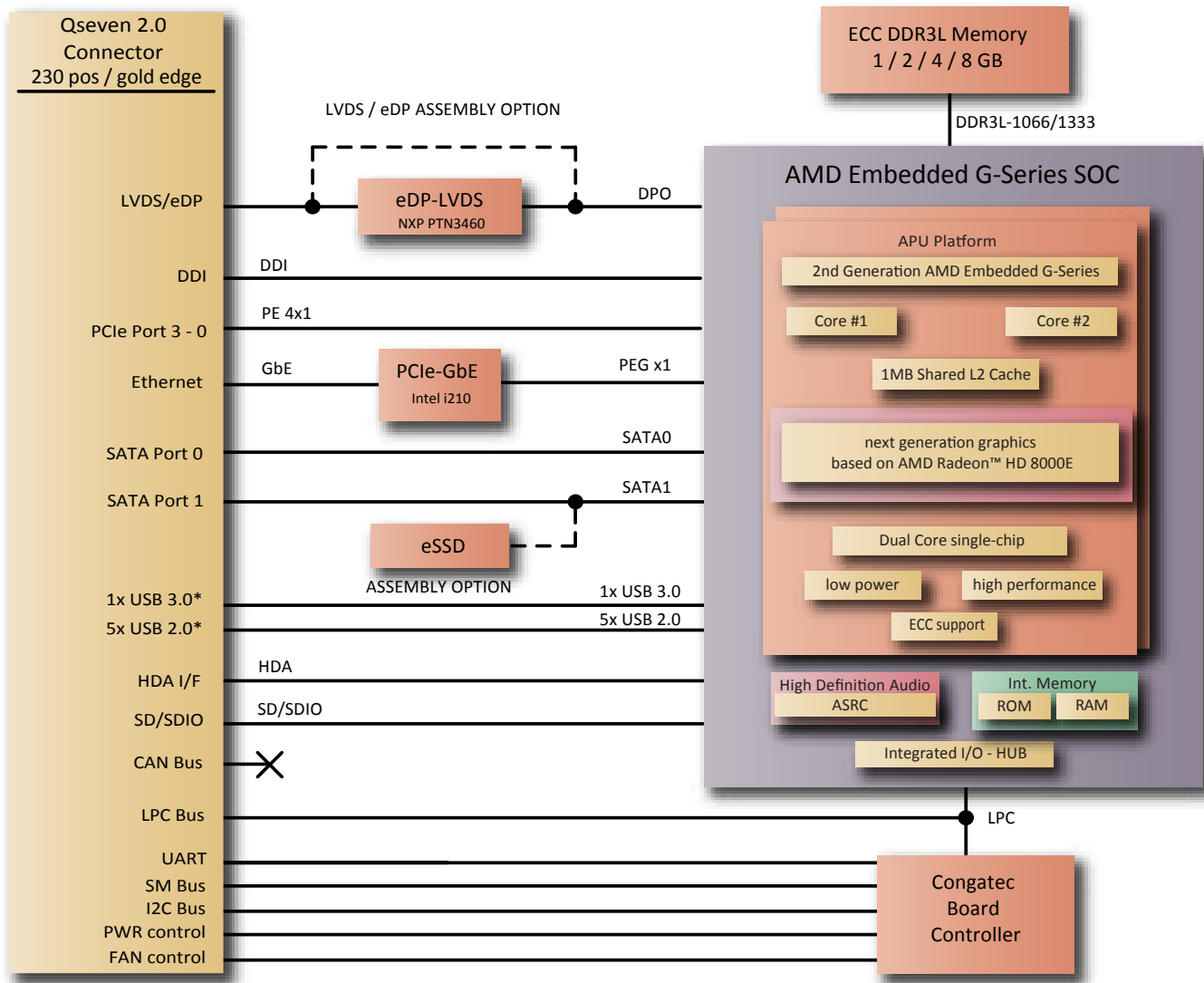
Onboard ECC memory option and industrial temperature range for rugged applications

Q S E V E N



<b>Formfactor</b>	<b>Qseven Form Factor Rev. 2.0 compliant, 70x70 mm</b>
<b>CPU</b>	AMD Embedded GX-210HA SOC with AMD Radeon™ HD 8210E Graphics (Dual-core, 9W TDP, CPU freq. 1.0GHz, GPU freq. 300MHz) AMD Embedded GX-210JA SOC with AMD Radeon™ HD 8180E Graphics (Dual-core, 6W TDP, CPU freq. 1.0GHz, GPU freq. 225MHz) AMD Embedded GX-209HA SOC with AMD Radeon™ HD 8180E Graphics (Dual-core, 9W TDP Ext. Temp, CPU freq. 1.0GHz, GPU freq. 225MHz)
<b>DRAM</b>	Up to 8GB ECC DDR3L-1333
<b>Chipset</b>	Integrated in SOC (single-chip)
<b>Ethernet</b>	Gigabit Ethernet
<b>I/O Interfaces</b>	up to 4x PCI Express™ 2.0 lanes, 2x SATA® 3Gb/s, 1x USB 3.0, 5x USB2.0, LPC bus, SMBus, I²C bus (fast mode, 400 kHz, multi-master), SD Card or SDIO, UART
<b>Mass Storage</b>	Silicon Motion FerriSSD® up to 64GB
<b>Sound</b>	High Definition Audio Interface
<b>Graphics</b>	integrated AMD Radeon™ HD 8000E Graphics, High Performance Video, DirectX 11.1 GPU supports two simultaneous displays, Unified Video Decoder 4.2 (H.264, MPEG-2, VC-1, MPEG4 and WMV), Video Compression Engine 2.0 (Video conferencing, wireless display, H.264, SVC), Security Asset Management Unit 2.1 (DRM offloaded from CPU, HDCP2)
<b>LVDS</b>	18/24-bit Single/Dual Channel LVDS Interface, resolutions up to 1920X1200@60Hz, VESA standard or JEIDA data mapping, Automatic Panel Detection via EDID/EPI
<b>Digital Display Interface (DDI)</b>	One DisplayPort 1.2 / HDMI 1.4a
<b>congatec Board Controller</b>	Multi Stage Watchdog, non-volatile User Data Storage, Manufacturing and Board Information, Board Statistics, BIOS Setup Data Backup, I²C bus (fast mode, 400 kHz, multi-master), Power Loss Control, Backlight
<b>Embedded BIOS Features</b>	AMI Aptio® UEFI firmware with congatec Embedded BIOS features
<b>Security</b>	The conga-QG can be optionally equipped with a discrete "Trusted Platform Module" (TPM). It is capable of calculating efficient hash and RSA algorithms with key lengths up to 2,048 bits and includes a real random number generator. Security sensitive applications such as gaming and e commerce will benefit also with improved authentication, integrity and confidence levels.
<b>Power Management</b>	ACPI 3.0 with battery support
<b>Operating Systems</b>	Microsoft® Windows 8, Microsoft® Windows 7, Linux, Microsoft® Windows® 7/8 embedded Standard, Microsoft® Windows® 7 Embedded Compact
<b>Power Consumption</b>	Typ. application: tbd., see manual for full details
<b>Temperature:</b>	Operating: 0 .. +60°C Storage: -20 .. +80°C Industrial : Operating: -40 to +85°C Storage: -45 to +85°C
<b>Humidity Operating:</b>	Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.
<b>Size</b>	70 x 70 mm (2¾" x 2¾")

# conga-QG Block diagram



# conga-QG Order Information

Article	PN	Description
conga-QG/210HA-2GECC	015600	Qseven 2.0 module based on AMD Embedded GX-210HA SOC with AMD Radeon™ HD 8210E Graphics (TDP 9W) with on-board memory 2GB ECC DDR3L-1333
conga-QG/210JA-2GECC	015601	Qseven 2.0 module based on AMD Embedded GX-210JA SOC with AMD Radeon™ HD 8180E Graphics (TDP 6W) with on-board memory 2GB ECC DDR3L-1066
conga-QG/210HA-2GECC-SSD4	015602	Qseven 2.0 module based on AMD Embedded GX-210HA SOC with AMD Radeon™ HD 8210E Graphics (TDP 9W) with on-board memory 2GB ECC DDR3L-1333 and 4GB MLC SATA Solid State Disk.
conga-QG/i-209HA-2GECC	015610	Qseven 2.0 module iTemp based on AMD Embedded GX-209HA SOC with AMD Radeon™ HD 8180E Graphics (9W TDP) with on-board memory 2GB ECC DDR3L-1066
conga-QG/HSP	015650	Standard heatspreader for Qseven module conga-QG

Engineering Tools / Accessories for Qseven		
conga-QEVAL 2.0	007003	Evaluation platform for Qseven 2.0
conga-QKIT	077455	Starterkit for Qseven including conga-QEVAL, conga-LDVI/EPI, conga-FPA2, Dual DVI-D ADD2 Card, ATX power supply...
conga-Qseven/SBM3	025485	Mobility Starter Kit
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

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