

# HIGH PERFORMANCE

# conga-QA3



- 3<sup>rd</sup> Gen. Intel® Atom™ / Celeron® processors
- High resolution Intel® Gen. 7 graphics
- Temperature range up to -40°C .. +85°



Formfactor	Qseven Form Factor Rev. 2.0 compliant   70x70 mm			
CPU	Intel® Atom™ E3845	1.91 GHz QuadCore	L2 cache 2MB	10W TDP
	Intel® Atom™ E3827	1.75 GHz Dual Core	L2 cache 1MB	8W TDP
	Intel® Atom™ E3826	1.46 GHz Dual Core	L2 cache 1MB	7W TDP
	Intel® Atom™ E3825	1.33 GHz Dual Core	L2 cache 1MB	6W TDP
	Intel® Atom™ E3815	1.46 GHz Single Core	L2 cache 512kB	5W TDP
	Intel® Atom™ E3805	1.33 GHz Dual Core	L2 cache 1MB	3W TDP
	Intel® Celeron J1900	2.0 GHz Quad Core	L2 cache 2MB	10W TDP
	Intel® Celeron N2930	1.83 GHz Quad Core	L2 cache 2MB	7.5W TDP
	Intel® Celeron N2807	1.58 GHz Dual Core	L2 cache 1MB	4.5W TDP
DRAM	Dual Channel   up to 8GB onboard DDR3L with 1333 MT/s			
Chipset	Integrated in SoC			
Ethernet	Intel® I210 Gigabit Ethernet controller			
I/O Interfaces	6x USB 2.0 or 1x USB 3.0 and 5x USB 2.0   2x SATA   1x SDIO   3x PCIe   I <sup>2</sup> C Bus   LPC bus   1x SPI			
Mass Storage	eMMC 5.0 onboard flash up to 64 GByte (optional only for Intel® Atom™)			
Sound	Intel® High Definition Audio (Intel® HD Audio)			
Graphics	Intel® HD Graphics with support for DirectX11   OpenGL 3.0   OpenCL 1.2   OpenGLES 2.0   full HW acceleration for decode/encode of MPEG2, H.264   MVC and dual simultaneous display support			
LVDS	Dual channel LVDS transmitter   support for flat panels with 2x24 bit data mapping up to a resolution of 1920x1200@60Hz			
DisplayPort Interface (DDI)	DisplayPort 1.1 up to 2560x1600 or HDMI 1.4a up to 1920x1200			
congatec Board controller	Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board Information   Board Statistics I <sup>2</sup> C bus (fast mode   400 kHz   multi-master)   Power Loss Control			
Embedded BIOS Features	AMI Aptio® UEFI 2.x firmware; 8 MByte serial SPI with congatec Embedded BIOS features (OEM Logo   OEM CMOS Defaults   LD Control Display Auto Detection   Backlight Control   Flash Update)			
Power Management	ACPI 5.0 compliant   Smart Battery Management			
Operating Systems	Microsoft® Windows 8   Microsoft® Windows 8 embedded   Microsoft® Windows 7   Microsoft® Windows 7 embedded compact   Linux			
Power Consumption	Typ. application 4.5W...12W			
Temperature	Commercial :	Operating: 0 to +60°C	Storage: -20 to +80°C	
	Industrial :	Operating: -40 to +85°C	Storage: -45 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-QA3 | Block diagram



# conga-QA3 | Order Information

Article	PN	Description
conga-QA3/E3845-2G eMMC4	015100	Intel® Atom™ E3845 quad core processor, 1.91 GHz, 2MB L2 cache, 2GB 1333MT/s DDR3L onboard dual channel memory and 4GB eMMC onboard flash
conga-QA3/E3827-2G eMMC4	015101	Intel® Atom™ E3827 dual core processor, 1.75 GHz, 1MB L2 cache, 2GB 1333MT/s DDR3L onboard dual channel memory and 4GB eMMC onboard flash
conga-QA3/E3826-2G eMMC4	015102	Intel® Atom™ E3826 dual core processor, 1.46 GHz, 1MB L2 cache, 2GB 1066MT/s DDR3L onboard dual channel memory and 4GB eMMC onboard flash
conga-QA3/E3825-2G eMMC4	015103	Intel® Atom™ E3825 dual core processor, 1.33 GHz, 1MB L2 cache, 2GB 1066MT/s DDR3L onboard single channel memory and 4GB eMMC onboard flash
conga-QA3/E3815-2G eMMC4	015104	Intel® Atom™ E3815 single core processor, 1.46GHz, 512kB L2 cache, 2GB 1066MT/s DDR3L onboard single channel memory and 4GB eMMC onboard flash
conga-QA3/E3845-4G eMMC8	015105	Intel® Atom™ E3845 quad core processor, 1.91GHz, 2MB L2 cache, 4GB 1333MT/s DDR3L onboard dual channel memory and 8GB eMMC onboard flash
conga-QA3/E3815-1G	015106	Intel® Atom™ E3815 single core processor, 1.46GHz, 512kB L2 cache, 1GB 1066MT/s DDR3L onboard single channel memory
conga-QA3/E3845-4G	015107	Intel® Atom™ E3845 quad core processor with 1.91GHz, 2MB L2 cache, 4GB 1333MT/s DDR3L onboard dual channel memory. No onboard eMMC
conga-QA3/E3827-4G	015108	Intel® Atom™ E3827 dual core processor with 1.75GHz, 1MB L2 cache, 4GB 1333MT/s DDR3L onboard dual channel memory. No onboard eMMC
conga-QA3/E3845-2G	015109	Intel® Atom™ E3845 quad core processor with 1.91GHz, 2MB L2 cache, 2GB 1333MT/s DDR3L onboard memory. No onboard eMMC.
conga-QA3/E3805-2G eMMC4	015130	Intel® Atom™ E3805 dual core processor, 1.33GHz, 1MB L2 cache, 2GB 1067MT/s DDR3L onboard single channel memory and 4GB eMMC onboard flash
conga-QA3/i-E3845-2G eMMC4	015120	Intel® Atom™ E3845 quad core processor, 1.91GHz, 2MB L2 cache, 2GB 1333MT/s DDR3L onboard dual channel memory and 4GB eMMC onboard flash Industrial grade temperature range from -40°C to 85°C
conga-QA3/i-E3827-2G eMMC4	015121	Intel® Atom™ E3827 dual core processor, 1.75GHz, 1MB L2 cache, 2GB 1333MT/s DDR3L onboard dual channel memory and 4GB eMMC onboard flash Industrial grade temperature range from -40°C to 85°C
conga-QA3/i-E3825-2G eMMC4	015123	Intel® Atom™ E3825 dual core processor, 1.33GHz, 1MB L2 cache, 2GB 1066MT/s DDR3L onboard single channel memory and 4GB eMMC onboard flash Industrial grade temperature range from -40°C to 85°C
conga-QA3/i-E3815-2G eMMC4	015124	Intel® Atom™ E3815 single core processor, 1.46GHz, 512kB L2 cache, 2GB 1066MT/s DDR3L onboard single channel memory and 4GB eMMC onboard flash Industrial grade temperature range from -40°C to 85°C
conga-QA3/i-E3845-4G eMMC8	015125	Intel® Atom™ E3845 quad core processor, 1.91GHz, 2MB L2 cache, 4GB 1333MT/s DDR3L onboard dual channel memory and 8GB eMMC onboard flash Industrial grade temperature range from -40°C to 85°C
conga-QA3/i-E3805-2G eMMC4	015126	Intel® Atom™ E3805 dual core processor, 1.33GHz, 1MB L2 cache, 2GB 1067MT/s DDR3L onboard single channel memory and 4GB eMMC onboard flash Industrial grade temperature range from -40°C to 85°C
conga-QA3/J1900-2G	015111	Intel® Celeron J1900 quad core processor, 2.0 GHz, 2MB L2 cache, 2GB 1333MT/s DDR3L onboard dual channel memory.
conga-QA3/N2930-2G	015112	Intel® Celeron® N2930 quad core processor, 1.83GHz up to 2.16GHz, 2MB L2 cache and 2GB 1333MT/s DDR3L onboard dual channel memory. Low power consumption with 7.5W TD
conga-QA3/N2807-2G	015113	Intel® Celeron® N2807 dual core processor, 1.58GHz up to 2.16GHz, 2MB L2 cache and 2GB 1333MT/s DDR3L onboard single channel memory. Ultra-low power consumption with 4.5W TDP
conga-QA3/HSP-T	015190	Standard heatspreader for Qseven module conga-QA3. Standoff with 2.5mm thread
conga-QA3/HSP-B	015191	Standard heatspreader for Qseven module conga-QA3. All standoffs are with 2.7mm bore hole
conga-QA3/CSP-T	015192	Passive cooling solution for Qseven module conga-QA3. All standoffs are M2.5mm thread.
conga-QA3/CSP-B	015193	Passive cooling solution for Qseven module conga-QG. All standoffs are with 2.7mm bore hole.

## Accessories

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-HDMI/DisplayPort adapter	500014	The conga-HDMI/DisplayPort adapter is used to convert the graphic ports Port-B, Port-C and Port-D of to the HDMI or DisplayPort interface.
conga-Qseven/SBM3	025485	Mobility Starter Kit
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