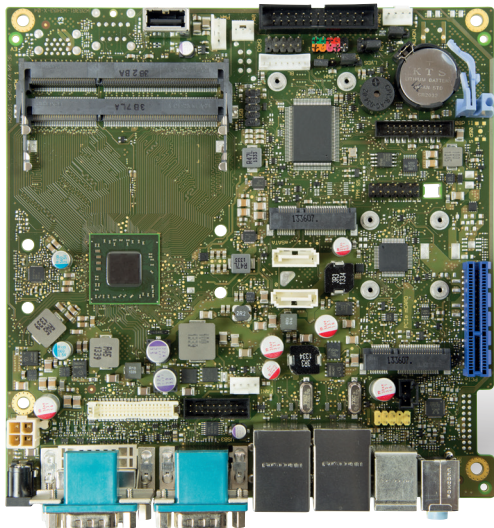


INDUSTRIAL SBC

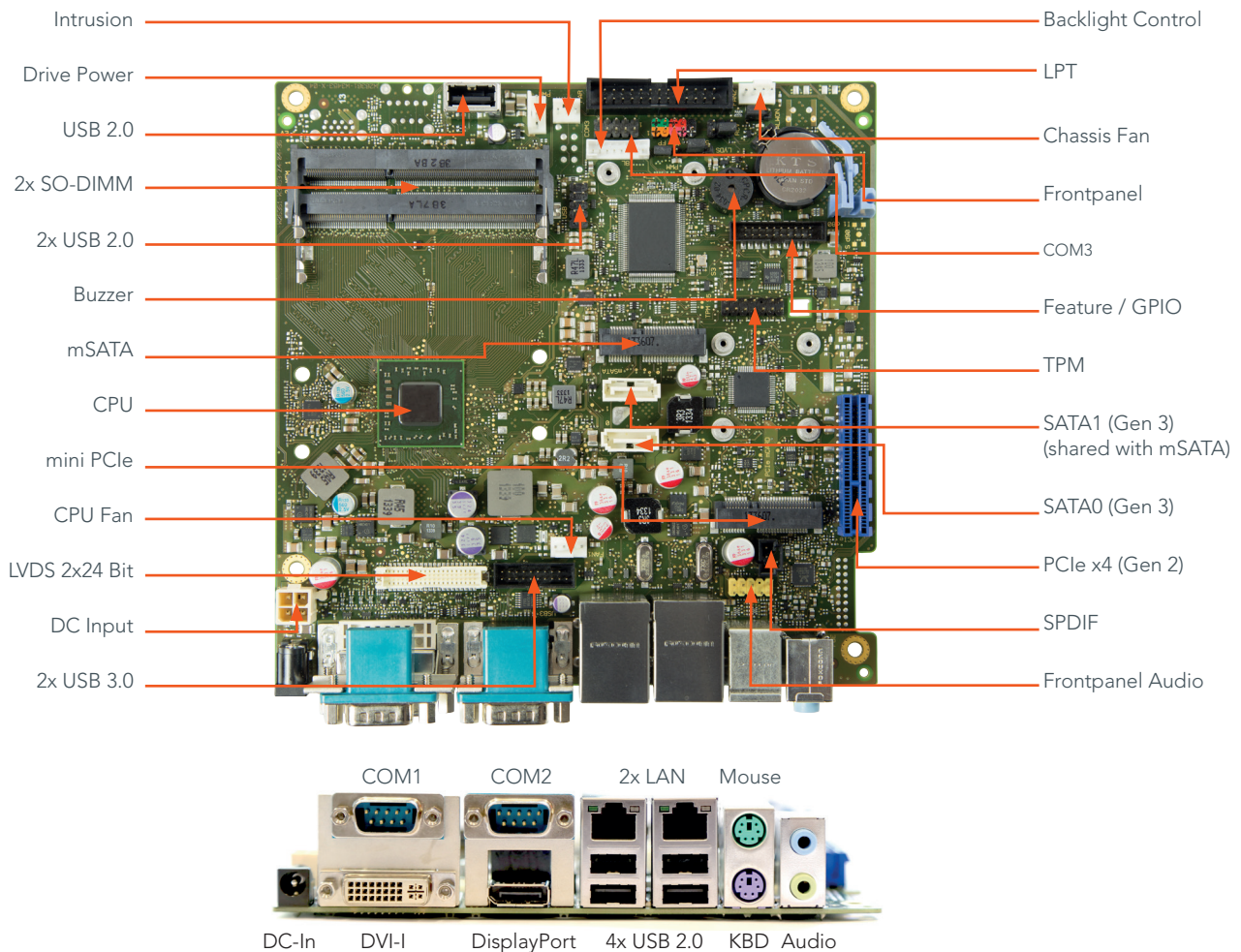
conga-IGX



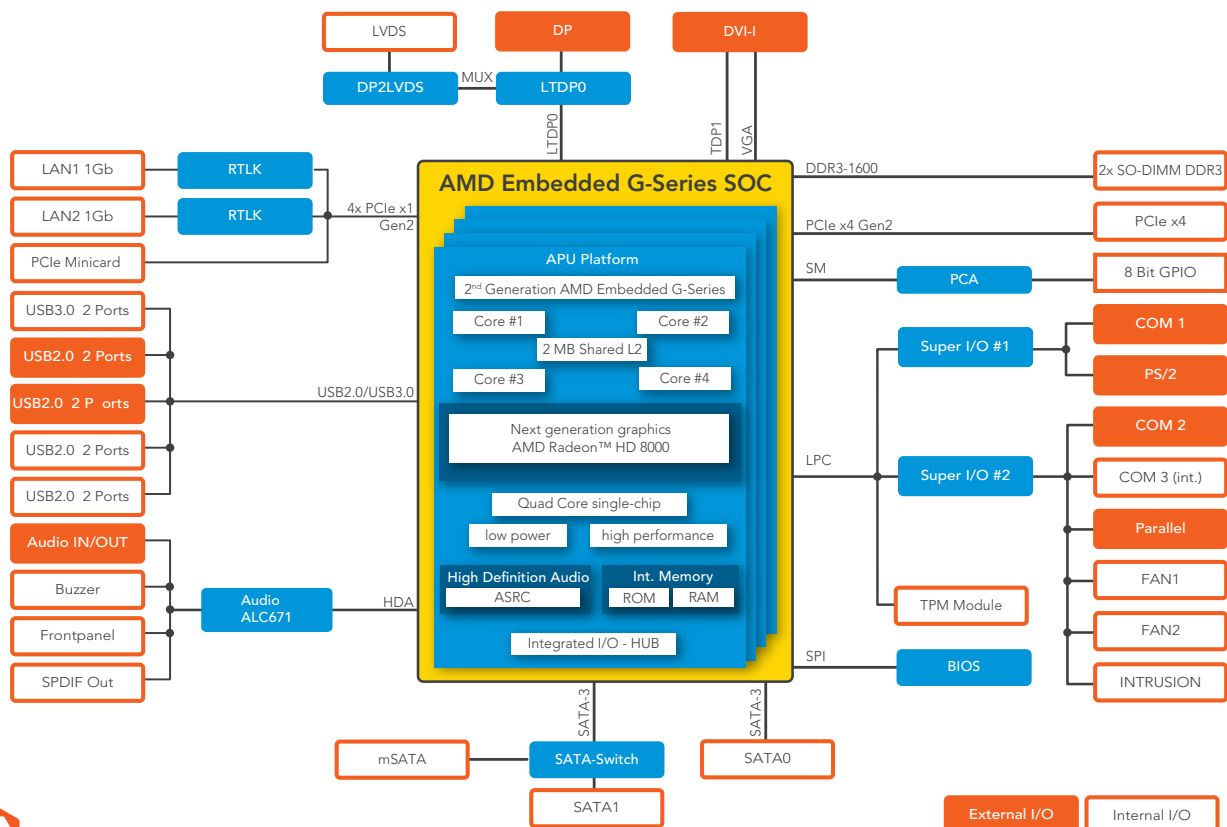
- AMD Embedded G-Series SOC (System on Chip)
- AMD integrated Radeon graphics
- Low power design for fanless or silent fan operation
- Dual range DC power supply 12V / 19-24V
- Long life components for 24/7 use

Formfactor	Industrial Mini-ITX, 170 x 170 mm					
CPU	AMD Embedded GX-Series Processors GX-420CA 2.0 GHz Quad Core L2 cache 2MB shared AMD Radeon™ HD 8400E Graphics DDR3/1600 25W TDP GX-217GA 1.65 GHz Dual Core L2 cache 1MB shared AMD Radeon™ HD 8280E Graphics DDR3/1600 15W TDP GX-210HA 1.0 GHz Dual Core L2 cache 1MB shared AMD Radeon™ HD 8210E Graphics DDR3/1333 9W TDP GX-222GC 2.2 - 2.4 GHz Dual Core* L2 cache 1MB shared AMD Radeon™ R5E Graphics DDR3/1600 10/15 TDP** GX-412HC 1.2 - 1.6 GHz Quad Core* L2 cache 2MB shared AMD Radeon™ R3E Graphics DDR3/1333 5/7W TDP** * Supports Turbo Mode ** Configurable max. TDP (BIOS Option)					
Chipset	Chipset Integrated in SOC (single-chip)					
DRAM Memory	Support for 2x SO DIMM Socket (1.5V / 1.35V), max. 16GB, Single Channel DDR3-1333 (CL9) / DDR3-1600 (CL11) SDRAM, unbuffered, no ECC					
Ethernet	Dual LAN Gbit / 100 Mbit / 10 Mbit; Realtek RTL 8111G					
Sound	High Definition Audio Interface, Realtek ALC 671, 5.1-channel					
Graphics	Integrated AMD Radeon™ HD 8000E / R3E / R5E Graphics supports DirectX 11.1, OpenGL 4.2 and OpenCL™ 1.2; up to 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)					
Graphic Interfaces	18/24-bit Single/Dual Channel LVDS Interface, 1x DisplayPort, 1x DVI					
Features	FAN monitors & controlled CPU / AUX1, TEMP monitored CPU ONB1 / ONB2, Silent FAN / System Guard / Silent Drives, Recovery BIOS / Desk Update / Multi Boot, HDD Password / HW Diagnostic Tool / EraseDisk / TPM (opt.), Boot Logo Option					
Internal Connectors	1x PCIe x4 Slot (Gen.2), Mini PCIe Slot (incl. USB 2.0), Socket for TPM 1.2 module, 2x SATA (600), 1x mSATA (SATA-III; 600), SPDIF OUT, 2x USB 2.0, 2x USB 3.0, Specific Socket for intern. USB 2.0 Stick, Serial (FIFO, 16550 compatible = COM3), FAN CPU, System AUX1, Intrusion (Case Open), Backlight Inverter, Feature Connector (8 Bit General Purpose I/O), Frontpanel (Power Switch, LEDs, Intel 10 pin header), Onboard Power Output (+5V/2A, +12V/2A) for drives, Onboard (internal input) DC-In 12V / 19-24V					
External Connectors (Frontpanel)	1x DVI, 1x DisplayPort, Audio In, Line Out, 2x LAN RJ45, PS/2 Mouse, Keyboard, 4x USB 2.0, 2x Serial (RS232, FIFO, 16550 compatible), 1x DC-In (external input) 12V / 19-24V @ 5A max.					
Embedded BIOS	AMI Aptio® 4.X (UEFI) BIOS; Recovery BIOS, SM-BIOS, BIOS Update, Quick Boot, Logo Boot, Quiet Boot, integrated HW diagnostic tool, EraseDisk Option					
Security	The conga-IGX 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.					
Power Specification	Power Management , ACPI S3/S4, Wake on time from S5, 12V / 19-24V (max. 5A via external DC connector / max. 10A via internal DC connector) 3.3V Auxiliary Supply Voltage on PCIe Slot (Wake-Up Support) Onboard CPU Core Voltage Regulator					
Operating Systems	Microsoft® Windows 8, Microsoft® Windows 7, Linux, Microsoft® Windows® 7/8 embedded Standard, Microsoft® Windows® 7 Embedded Compact					
Power Consumption	Typ. application: tbd., see manual for full details					
Temperature:	Operating: 0 .. +60°C					
Humidity Operating:	Operating: 10 - 90% r. H. non cond.					
Size	170 x 170 mm (6.7" x 6.7")					

conga-IGX | Connectors



conga-IGX | Block diagram

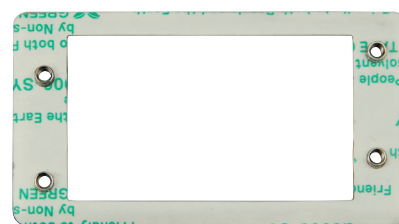
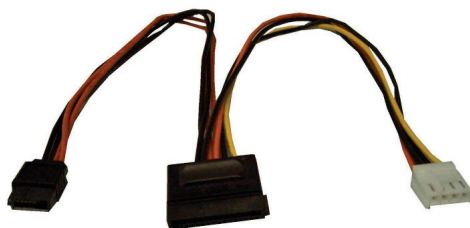
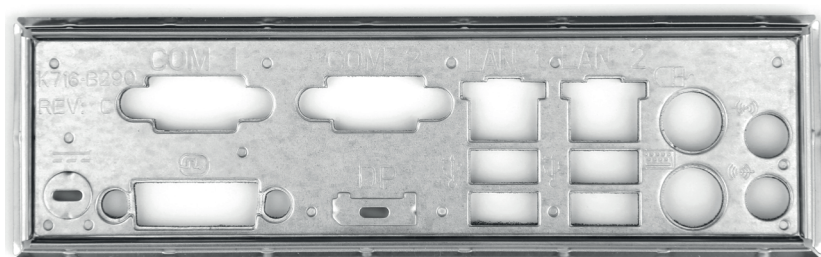
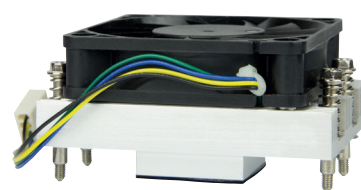
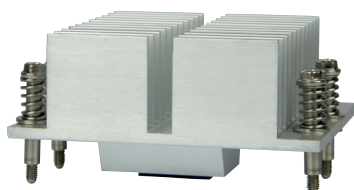


conga-IGX | Order Information

Article	PN Bulk*	PN Kit**	Description
conga-IGX/420CA	052402	052412	Mini-ITX based on AMD Embedded GX-420CA 2.0 GHz Quad Core (L2 cache 2MB shared, 25W) with AMD Radeon™ HD 8400E Graphics 600 MHz, DDR3/1600
conga-IGX/217GA	052401	052411	Mini-ITX based on AMD Embedded GX-217GA 1.65 GHz Dual Core (L2 cache 1MB shared, 15W) with AMD Radeon™ HD 8280E Graphics 450 MHz, DDR3/1600
conga-IGX/210HA	052400	052410	Mini-ITX based on AMD Embedded GX-210HA 1.0 GHz Dual Core (L2 cache 1MB shared, 9W) with AMD Radeon™ HD 8210E Graphics 300 MHz, DDR3/1333
conga-IGX/222GC	052403		Mini-ITX based on AMD Embedded GX-222GC 2.2-2.4 GHz Dual Core (L2 cache 1MB shared, 10-15W) with integrated AMD Radeon™ R5E Graphics, DDR3/1600
conga-IGX/412HC	052404		Mini-ITX based on AMD Embedded GX-412HC 1.2-1.6 GHz Quad Core (L2 cache 2MB shared, 5-7W) with integrated AMD Radeon™ R3E Graphics, DDR3/1333
* Bulk = Package with 20 units without accessories Kit = Single package including I/O shield, SATA cable, SATA power cable and quick start guide			

Accessories

conga-IGX Power Drive Cable	052435	Power cable for SATA drives.
Industrial Mini-ITX chassis	052436	Chassis for conga-IGX with HDD cage, 4pin fan and power cable.
conga-IGX I/O shield	052431	IO shield for conga-IGX with standard Mini-ITX height.
conga-IGX mSATA/mPCIe distance screws	052444	Distance screws and standoffs for mSATA or mini-PCIe add-on cards for conga-IGX.
conga-IGX Active Cooler	052432	Active cooling solution for conga-IGX Mini-ITX boards with 12V PWM fan and retention frame.
conga-IGX Passive Heatpipe Cooler	052433	Passive cooling solution with integrated heatpipes and retention frame.
conga-IGX Passive Cooler	052434	Passive cooling solution alloy with retention frame.
DDR3L-SODIMM-1600 (2GB) IGX	668752	Certified DDR3L Memory Module with 1600 MT/s (PC3L-12800S) and 2GB RAM for conga-IGX
DDR3L-SODIMM-1600 (4GB) IGX	668753	Certified DDR3L Memory Module with 1600 MT/s (PC3L-12800S) and 4GB RAM for conga-IGX
DDR3L-SODIMM-1600 (8GB) IGX	668754	Certified DDR3L Memory Module with 1600 MT/s (PC3L-12800S) and 4GB RAM for conga-IGX



© 2015 congatec AG. All rights reserved.

All data is for information purposes only. Although all the information contained within this document is carefully checked, no guarantee of correctness is implied or expressed. Product names, logos, brands, and other trademarks featured or referred are the property of their respective trademark holders. These trademark holders are not affiliated with congatec AG. Rev. Juli 17, 2015 MR

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[congatec:](#)

[conga-IGX Passive Heatpipe Cooler](#) [conga-IGX/210HA](#) [conga-IGX/217GA](#) [conga-IGX Passive Cooler](#) [conga-IGX/420CA KIT](#) [conga-IGX IO Shield](#) [conga-IGX/420CA](#) [conga-IGX Power Drive Cable](#) [conga-IGX Chassis](#) [conga-IGX Active Cooler](#) [conga-IGX/222GC](#) [conga-IGX mSATA/mPCIe distance screws](#) [conga-IGX/412HC](#)