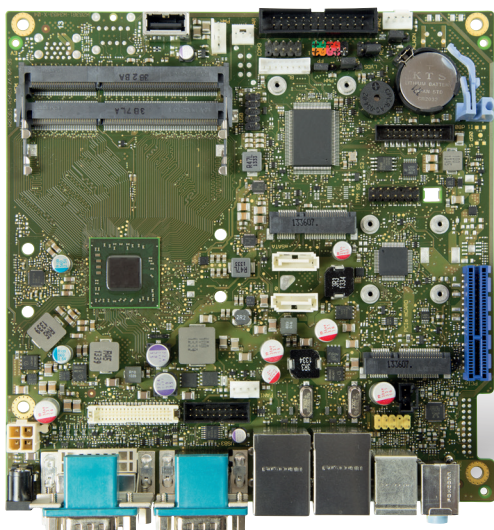


# INDUSTRIAL SBC

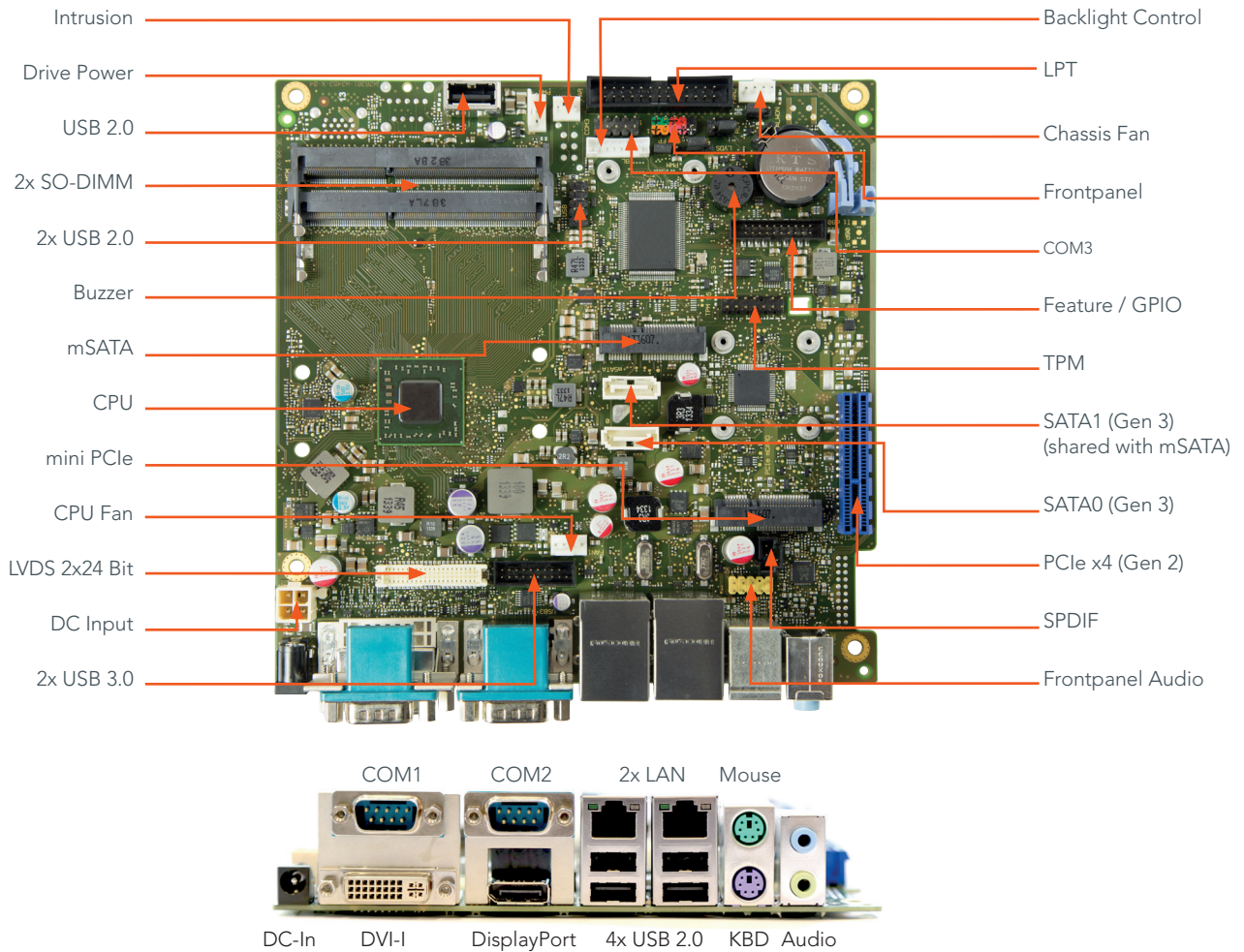
## conga-IGX



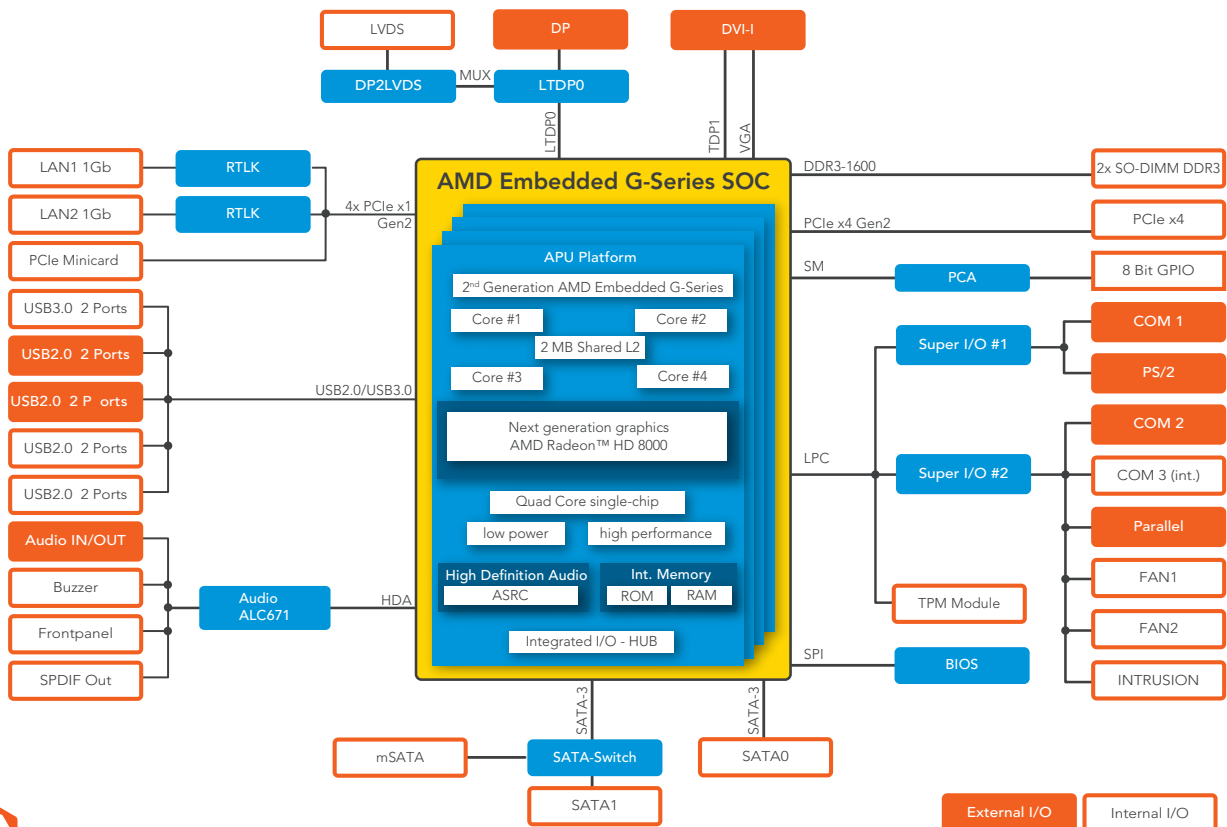
- AMD Embedded G-Series SOC (System on Chip)
- AMD integrated Radeon graphics
- Low power design for fanless or silent fan operation
- Dual range DC power supply 12V / 19-24V
- Long life components for 24/7 use

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



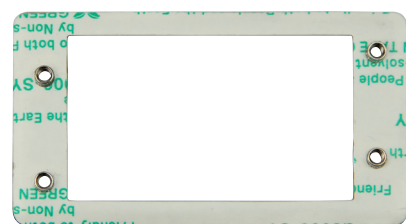
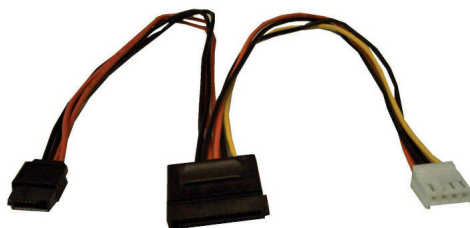
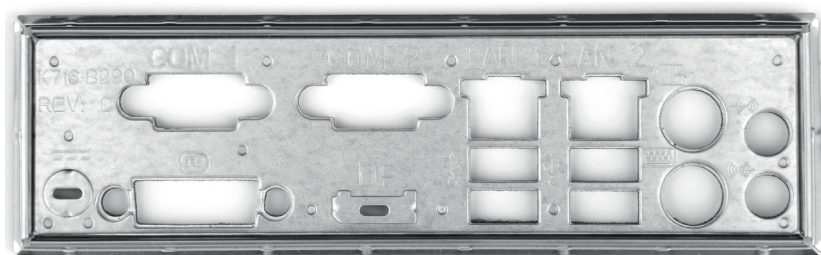
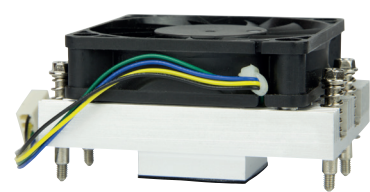
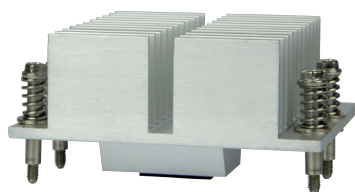
# conga-IGX | Order Information

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



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