**AMD Embedded G-Series SOC**

- Power saving „Steppe Eagle“ processors
- ECC protected memory up to 8 GByte
- High performance integrated graphics
- Extended longevity, min. 10 years

**Formfactor**

| COM Express® Compact | (95 x 95 mm) | Type 6 Connector Layout |

**CPU**

- AMD Embedded GX-420CA 2.0 GHz Quad Core L2 cache 2MB shared 25W TDP
- AMD Embedded GX-415GA 1.5 GHz Quad Core L2 cache 2MB shared 15W TDP
- AMD Embedded GX-217GA 1.65 GHz Dual Core L2 cache 1MB shared 15W TDP
- AMD Embedded GX-209HA* 1.0 GHz Dual Core L2 cache 1MB shared 25W TDP
- AMD Embedded GX-411GA* 1.1 GHz Dual Core L2 cache 2MB shared 7W TDP

**DRAM**

- Up to 8 GByte DDR3L-1600 with ECC protection

**Chipset**

- Integrated in SOC (single-chip)

**Ethernet**

- Gigabit Ethernet

**I/O Interfaces**

- 4x PCI Express™ 2.0 lanes
- 2x SATA® 3Gb/s
- 2x USB 3.0
- 8x USB 2.0
- LPC bus
- PC bus (fast mode, 400 kHz, multi-master)
- SD
- SPI
- SM-Bus
- LPC bus (fast mode, 400 kHz, multi-master)

**Sound**

- High Definition Audio Interface

**Graphics**

- Integrated AMD Radeon™ HD 8000E Graphics supports DirectX 11.1, OpenGL 4.2, and OpenCL™ 1.2; up to two simultaneous displays
- Unified Video Compression Engine 2.0 (Video conferencing, wireless display, H.264, SVC)
- Security Asset Management Unit 2.1 (DRM offloaded from CPU, HDCP2)

**LVDS**

- 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

**Digital Display Interface**

- One DisplayPort 1.2 / HDMI 1.4a

**congatec Board Controller**

- Multi Stage Watchdog
- non-volatile User Data Storage
- Manufacturing and Board Information
- Board Statistics
- BIOS Setup Data Backup
- PC bus (fast mode, 400 kHz, multi-master)
- Power Loss Control
- Backlight

**Embedded BIOS Features**

- AMI Aptio® UEFI 2.0 firmware
- 8 MByte serial SPI firmware flash

**Security**

- The conga-TCG 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 Management**

- ACPI 3.0 with battery support

**Operating Systems**

- Microsoft® Windows 10
- Microsoft® Windows 10 IoT Enterprise
- Microsoft® Windows 8
- Microsoft® Windows 7
- Linux
- Microsoft® Windows® 7/8 Embedded Standard
- Microsoft® Windows® 7 Embedded Compact

**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 - 90% r. H. non cond.
- Storage: 5 - 95% r. H. non cond.

**Size**

- 95 x 95 mm (3.74” x 3.74”)

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### Article Information

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### Accessories

- **conga-TEVAL**: 065800 - Evaluation carrier board for Type 6 COM-Express modules
- **conga-LDV/EP**: 011115 - LVDS to DVI converter board for digital flat panels with onboard EEPROM
- **COM-Express-carrier-Socket-5**: 400007 - Connector for COM-Express carrier boards | height 5mm | packing unit 4 pieces
- **COM-Express-carrier-Socket-8**: 400004 - Connector for COM-Express carrier boards | height 8mm | packing unit 4 pieces

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