**LOW POWER CONSUMPTION**

**conga-QMX6**

- Up to NXP i.MX6 Quad ARM Cortex A9
- Multimedia Performance with HDMI & LVDS
- Camera Interface MIPI CSI-2 on flat foil connector
- Extended longevity, min. 10 years
- Temperature range up to -40°C .. +85°C

**Formfactor**
Qseven Rev. 2.0 | 70x70 mm

**CPU**
- NXP i.MX6 ARM Processors
  - NXP i.MX6 Solo ARM Cortex A9 up to 1.0 GHz* L2 cache 512kB
  - NXP i.MX6 Dual Lite ARM Cortex A9 up to 1.0 GHz* L2 cache 512kB
  - NXP i.MX6 Dual ARM Cortex A9 up to 1.0 GHz* L2 cache 1MB
  - NXP i.MX6 Quad ARM Cortex A9 up to 1.0 GHz* L2 cache 1MB
  - * Core Frequency: 1.0 GHz for commercial grade | 800 MHz for industrial grade

**DRAM**
- Up to 2 GByte onboard DDR3 memory | 1066 MT/s

**Ethernet**
- 1x 1 Gbit Ethernet

**I/O Interfaces**
- 5x USB 2.0 (shared with 1x USB OTG client) | 1x SATA II (optional) | 1x SDIO | 1x PCIe 2.0 | 1x CAN Bus | SPI

**Mass Storage**
- Onboard Solid State Drive (eMMC) up to 16 GByte (optional) | Onboard MicroSD socket

**Sound**
- PS

**Graphics**
- Integrated in NXP i.MX6 Series
  - Video (VPU) | 2D Graphics (GPU2D) and 3D Graphics (GPU3D) | 3D graphics with 4 shaders up to 200MT/s
dual stream 1080p/720p decoder/encoder. OpenGL | OpenCL and OpenVG 1.1

**Video Interfaces**
- HDMI v1.4 support supported by Qseven specification.
  - 2x LVDS (2x 24 bit) | 1x LVDS (1x 24 bit) up to WUXGA resolution | 1920x1200 pixel and HD1080.
  - Supports 18bit and 24bit dual channel up to WUXGA 1920x1200.

**Features**
- Watchdog Timer
- PCI bus (fast mode | 400 kHz | multi-master)
- JTAG debug interface
- CAN interface
- Camera Interface MIPI CSI-2 on flat foil connector
- High Precision Real Time Clock

**Embedded BIOS Features**
- U-Boot boot loader

**Operating Systems**
- Android | Windows Embedded Compact 7 | Linux | BSPs with OS drivers and tools

**Power Consumption**
- Typl. application ~3.5 Watt @ 5V

**Temperature**
- Operating: 0 to -60°C commercial grade
  - -40 to +85°C industrial grade
- Storage: -40 to +85°C

**Humidity**
- Operating: 10 to 90% r. H. non cond.
  - Storage: 5 to 90% r. H. non cond.

**Size**
- 70 x 70 mm (2¾” x 2¾")
conga-QMX6 | Block diagram

conga-QMX6 | Order Information

<table>
<thead>
<tr>
<th>Article</th>
<th>PN</th>
<th>Clock speed</th>
<th>L2 cache</th>
<th>3D Graphics</th>
<th>2D Graphics</th>
<th>RAM</th>
<th>SATA</th>
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</thead>
<tbody>
<tr>
<td>conga-QMX6/SC-1G eMMC4</td>
<td>016300</td>
<td>1 GHz (commercial temperature)</td>
<td>512 KB</td>
<td>1 shader</td>
<td>1 engine</td>
<td>1 GByte DDR3L 400 MHz</td>
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<td>512 KB</td>
<td>1 shader</td>
<td>1 engine</td>
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<td>016302</td>
<td>1 MB</td>
<td>4 shader</td>
<td>2 engines</td>
<td>1 GByte DDR3L 533 MHz</td>
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Cooling

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<th>Article</th>
<th>PN</th>
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<tr>
<td>conga-QMX6/HSP1-T</td>
<td>016160</td>
<td>Standard heatspreader with 1mm gap pad for Qseven module conga-QMX6 for processors with LIDDOED FCBGA package.</td>
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<tr>
<td>conga-QMX6/HSP2-T</td>
<td>016161</td>
<td>Standard heatspreader with 2mm gap pad for Qseven module conga-QMX6 for processors with plastic MAP BGA package.</td>
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<td>conga-QMX6/HSP3-T</td>
<td>016162</td>
<td>Standard heatspreader with heat stack solution for Qseven module conga-QMX6 for processors with open silicon FCGBGA package.</td>
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Accessories

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<tr>
<th>Article</th>
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<th>Description</th>
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<tr>
<td>conga-HDMI/ADD2 Card</td>
<td>500025</td>
<td>The conga-HDMI ADD2 Card is used to connect a HDMI Display directly to the SDVO ADD2-N Slot of the QEVAL</td>
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<tr>
<td>conga-LDVI/EPI</td>
<td>011115</td>
<td>LVDS to DVI converter board for digital flat panels with onboard EEPROM</td>
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<tr>
<td>conga-KIT/ARM</td>
<td>077500</td>
<td>Starterkit for Qseven evaluation carrier boards</td>
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