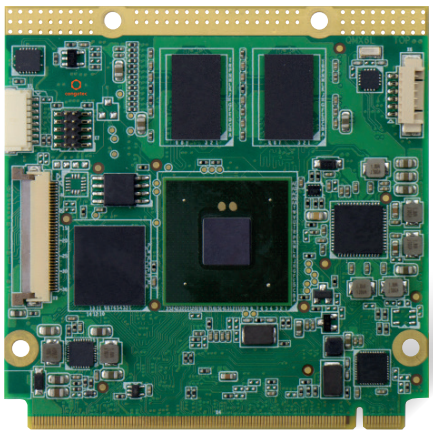
LOW POWER CONSUMPTION

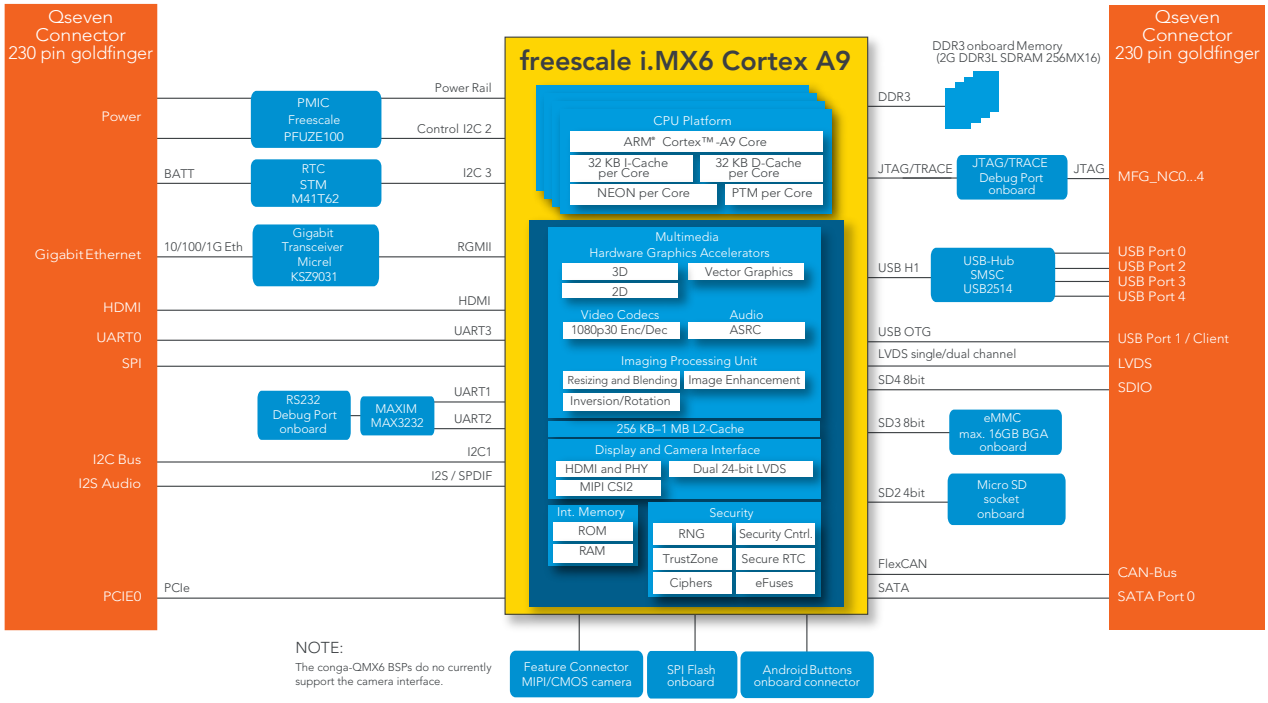
conga-QMX6



- Up to Freescale 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	Freescale® i.MX6 ARM Processors Freescale® i.MX6 Solo ARM Cortex A9 up to 1.0 GHz* L2 cache 512kB Freescale® i.MX6 Dual Lite ARM Cortex A9 up to 1.0 GHz* L2 cache 512kB Freescale® i.MX6 Dual ARM Cortex A9 up to 1.0 GHz* L2 cache 1MB Freescale® 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 | I²C Bus | CAN Bus | SPI
Mass Storage	Onboard Solid State Drive (eMMC) up to 16 GByte (optional) | Onboard MicroSD socket
Sound	I²S
Graphics	Integrated in Freescale 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 I²C 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	Typ. 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 95% r. H. non cond.
Size	70 x 70 mm (2¾" x 2¾")

conga-QMX6 | Block diagram



conga-QMX6 | Order Information

Article	PN	Cores	Clock speed	L2 cache	3D Graphics	2D Graphics	RAM	SATA
conga-QMX6/SC-1G eMMC4	016100	1	1 GHz (commercial temperature)	512 KB	1 shader	1 engine	1 GByte DDR3 400 Mhz	-
conga-QMX6/DCL-1G eMMC4	016101	2		512 KB	1 shader	1 engine	1 GByte DDR3 400 Mhz	-
conga-QMX6/DC-1G eMMC4	016102	2		1 MB	4 shader	2 engines	1 GByte DDR3 533 Mhz	SATA II
conga-QMX6/QC-1G eMMC4	016103	4		1 MB	4 shader	2 engines	1 GByte DDR3 533 Mhz	SATA II
conga-QMX6/QC-2G eMMC4	016104	4		1 MB	4 shader	2 engines	2 GByte DDR3 533 Mhz	SATA II
conga-QMX6/iSC-1G eMMC4	016110	1	800MHz (industrial temperature)	512 KB	1 shader	1 engine	1 GByte DDR3 400MHz	-
conga-QMX6/iDCL-1G eMMC4	016111	2		512 KB	1 shader	1 engine	1 GByte DDR3 400MHz	-
conga-QMX6/iDC-1G eMMC4	016112	2		1 MB	4 shader	2 engines	1 GByte DDR3 533MHz	SATA II
conga-QMX6/iQC-1G eMMC4	016113	4		1 MB	4 shader	2 engines	1 GByte DDR3 533MHz	SATA II
QMX6/HSP1-T	016160		Standard heatspreader with 1mm gap pad for Qseven module conga-QMX6 for processors with LIDDED FCBGA package.					
QMX6/HSP2-T	016161		Standard heatspreader with 2mm gap pad for Qseven module conga-QMX6 for processors with plastic MAP BGA package.					
QMX6/HSP3-T	016162		Standard heatspreader with heat stack solution for Qseven module conga-QMX6 for processors with open silicon FCBGA package.					

Accessories		
conga-HDMI/ADD2 Card	500025	The conga-HDMI ADD2 Card is used to connect a HDMI Display directly to the SDVO ADD2-N Slot of the QEVAL
conga-LDVI/EPI	011115	LVDS to DVI converter board for digital flat panels with onboard EEPROM
conga-QKIT/ARM	077500	Starterkit for Qseven evaluation arrier boards | including conga-QEVAL/ARM