Qseven® Module
based on Freescale® i.MX6 ARM Processor

conga-QMX6

Up to Freescale i.MX6 Quad ARM Cortex A9 with 1.0 GHz

Multimedia Performance with HDMI & LVDS interface

Extended longevity, up to 10 years

Extended temperature

Formfactor	**Qseven Rev. 2.0, 70x70 mm**
CPU	Freescale® i.MX6 Solo ARM Cortex A9 up to 1.0 GHz, 512B L2 cache Freescale® i.MX6 Dual Lite ARM Cortex A9 up to 1.0 GHz, 512KB L2 cache Freescale® i.MX6 Dual ARM Cortex A9 up to 1.0GHz, 1MB L2 cache Freescale® i.MX6 Quad ARM Cortex A9 up to 1.0GHz, 1MB L2 cache 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, AC97
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 Software 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 Range	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")

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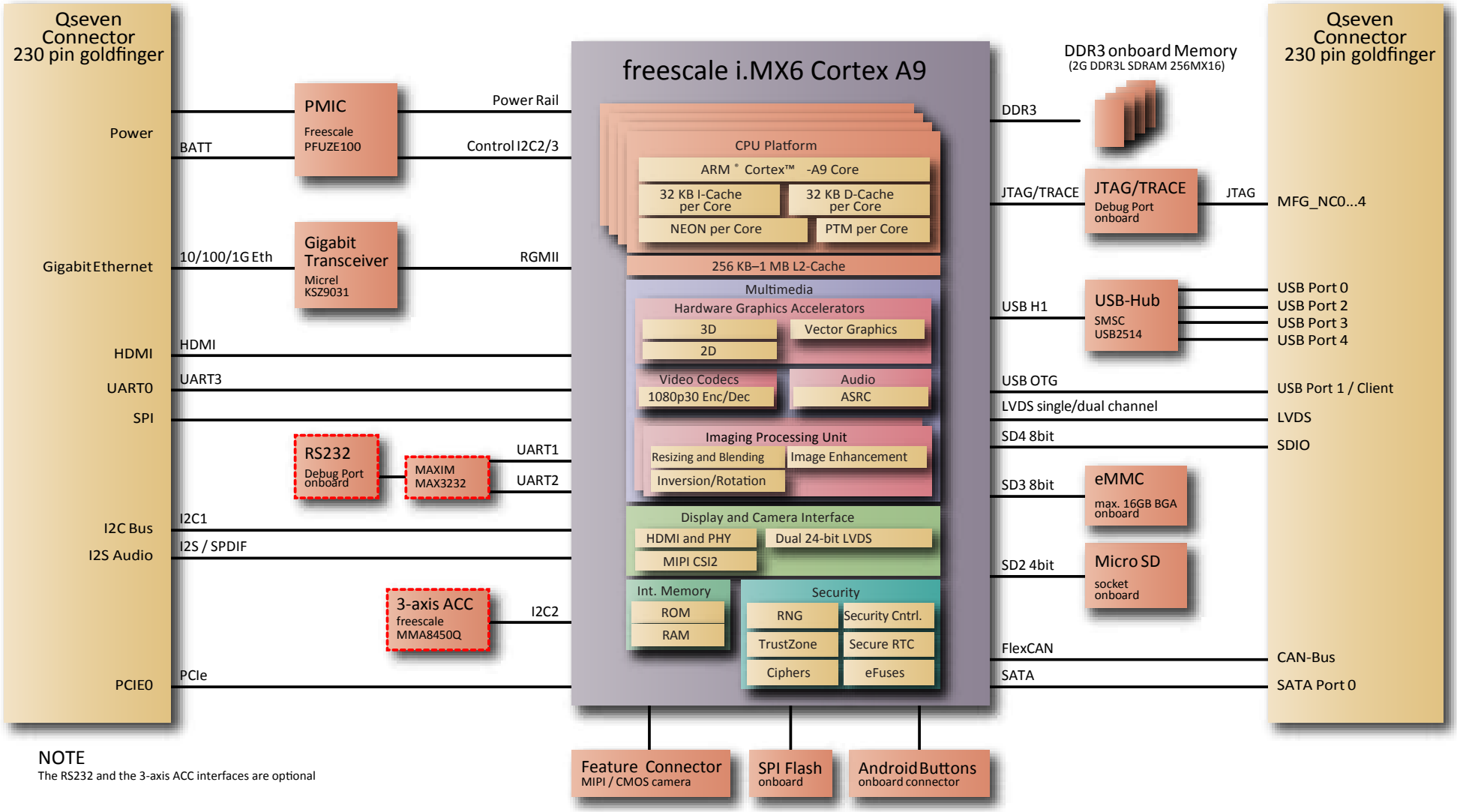
conga-QMX6 - Block diagram



NOTE
The RS232 and the 3-axis ACC interfaces are optional

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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 tempe-rature)	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 533MHz	SATA II
conga-QMX6/QC-2G eMMC4	016104	4		1 MB	4 shader	2 engines	2 GByte DDR3 533MHz	SATA II
conga-QMX6/iSC-1G eMMC4	016110	1	800 MHz (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
conga-QMX6/HSP1	016160	Standard heatspreader with 1mm gap pad for Qseven module conga-QMX6 for processors with LIDDED FCBGA package.						
conga-QMX6/HSP2	016161	Standard heatspreader with 2mm gap pad for Qseven module conga-QMX6 for processors with plastic MAP BGA package.						
conga-QMX6/HSP3	016162	Standard heatspreader with heat stack solution for Qseven module conga-QMX6 for processors with open silicon FCBGA package.						

Engineering Tools / Accessories for Qseven		
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

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