

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 I ² C Bus CAN Bus SPI		
Mass Storage	Onboard Solid State Drive (eMMC) up to 16 GByte (optional) Onboard MicroSD socket		
Sound	I ² S		
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 I ² C 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 DDR3L 400 Mhz	-
conga-QMX6/DCL-1G eMMC4	016101	2		512 KB	1 shader	1 engine	1 GByte DDR3L 400 Mhz	-
conga-QMX6/DC-1G eMMC4	016102	2		1 MB	4 shader	2 engines	1 GByte DDR3L 533 Mhz	SATA II
conga-QMX6/QC-1G eMMC4	016103	4		1 MB	4 shader	2 engines	1 GByte DDR3L 533 Mhz	SATA II
conga-QMX6/QC-2G eMMC4	016104	4	800MHz (industrial temperature)	1 MB	4 shader	2 engines	2 GByte DDR3L 533 Mhz	SATA II
conga-QMX6/QC-2G eMMC8	016105	4		1 MB	4 shader	2 engines	2 GByte DDR3L 533 Mhz	SATA II
conga-QMX6/QC-1G eMMC8	016106	4		1 MB	4 shader	2 engines	1 GByte DDR3L 533 Mhz	SATA II
conga-QMX6/SC-512MB	016107	1		512 KB	1 shader	1 engine	512 MB DDR3L 400 Mhz	-
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

Cooling	PN	Compatible conga-QMX6 Variants (PN)	Description
conga-QMX6/HSP1-T	016160	016112 016113	Standard heatspreader with 1mm gap pad for Qseven module conga-QMX6 for processors with LIDDED FCBGA package.
conga-QMX6/HSP2-T	016161	016100 016101 016110 016111	Standard heatspreader with 2mm gap pad for Qseven module conga-QMX6 for processors with plastic MAP BGA package.
conga-QMX6/HSP3-T	016162	016102 016103 016104	Standard heatspreader with heat stack solution for Qseven module conga-QMX6 for processors with open silicon FCBGA package.

Accessories	PN	Description
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 on-board EEPROM
conga-QKIT/ARM	077500	Starterkit for Qseven evaluation arrier boards including conga-QEVAL/ARM

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