

## Quadmo747



<b>CPU</b>	Intel® Atom™ serie Z5XX from 1.1GHz up to 1.6GHz
<b>Chipset</b>	Intel® System Controller Hub US15W
<b>DRAM</b>	Up to 1GB DDR2 400/533MHz
<b>CACHE</b>	512KB L2
<b>Graphic Interface</b>	integrated Intel® GMA500 Graphic accelerator
<b>LVDS:</b>	Single Channel 18/24 Bit LVDS Transmitter
<b>PCI-e ports</b>	1 x PCI Express x1 ports
<b>USB</b>	8x USB 2.0 ports
<b>ETHERNET</b>	Gigabit Ethernet port
<b>SD I/O</b>	1 x 8-bit interface + 1 x µSD slot onboard
<b>Mass Storage</b>	Onboard Flash Disk up to 8GB 1 x S-ATA channel
<b>SDVO</b>	
<b>Audio</b>	HD Audio Interface
<b>Interface Buses</b>	I <sup>2</sup> C Bus LPC BUS for legacy peripherals SM Bus
<b>Power management signals</b>	
<b>Thermal cooling interface</b>	
<b>Power supply</b>	+5V <sub>DC</sub> ± 5%
<b>TDP</b>	Typical 5W with Intel® Atom™ Z510
<b>Dimensions</b>	70x70 mm (2.7559" x 2.7559")

## Quadmo747-XL



<b>CPU</b>	Intel® Atom™ Z510PT@ 1,1GHz Intel® Atom™ Z520PT@ 1,33 GHz
<b>Chipset</b>	Intel® SCH US15WPT
<b>DRAM</b>	up to 1GB DDR2 400/533MHz
<b>CACHE</b>	512KB L2
<b>Graphic Interface</b>	integrated Intel® GMA500 Graphic accelerator
<b>LVDS:</b>	Single Channel 18/24 Bit LVDS Transmitter
<b>SDVO interface</b>	
<b>PCI-e ports</b>	2 x PCI Express x1 ports
<b>USB</b>	8x USB 2.0 ports
<b>ETHERNET</b>	Gigabit Ethernet port
<b>SD I/O</b>	1 x 4-bit interface
<b>Mass Storage</b>	Onboard Flash Disk up to 8GB 1 x S-ATA channel
<b>Audio</b>	HD Audio Interface
<b>Interface Buses</b>	I <sup>2</sup> C Bus LPC BUS for legacy peripherals SM Bus
<b>Power management signals</b>	
<b>Thermal cooling interface</b>	
<b>Operating temperature</b>	-20°C ÷ +80°C
<b>Power supply</b>	+5V <sub>DC</sub> ± 5%
<b>Dimensions</b>	70x70 mm (2.7559" x 2.7559")

## Quadmo747-Extreme



Industrial Temperature Range, -40°C ÷ +85°C Bill of Material specifically selected for Industrial Temperature Range	
<b>CPU</b>	Intel® Atom™ Z510PT@ 1,1GHz Intel® Atom™ Z520PT@ 1,33 GHz
<b>Chipset</b>	Intel® SCH US15WPT
<b>DRAM</b>	up to 1GB DDR2 400/533MHz
<b>CACHE</b>	512KB L2
<b>Graphic interface</b>	integrated Intel® GMA500 Graphic accelerator
<b>LVDS:</b>	Single Channel 18/24 Bit LVDS Transmitter
<b>SDVO interface</b>	
<b>PCI-e ports</b>	2 x PCI Express x1 ports
<b>USB</b>	8x USB 2.0 ports
<b>ETHERNET</b>	Gigabit Ethernet port
<b>SD I/O</b>	1 x 4-bit interface
<b>Mass Storage</b>	Onboard Flash Disk up to 8GB 1 x S-ATA channel
<b>Audio</b>	HD Audio Interface
<b>Interface Buses</b>	I <sup>2</sup> C Bus LPC BUS for legacy peripherals SM Bus
<b>Power management signals</b>	
<b>Thermal cooling interface</b>	
<b>Power supply</b>	+5V <sub>DC</sub> ± 5%
<b>Dimensions</b>	70x70 mm (2.7559" x 2.7559")

## Quadmo747-GSeries



<b>CPU</b>	AMD T40N, Dual Core @ 1.0 GHz, TDP 9W AMD T44R, Single Core @ 1.2 GHz, TDP 9W
<b>Controller Hub</b>	AMD A55E Controller Hub
<b>Memory</b>	up to 2GB LVDDR3-1066 soldered onboard
<b>Graphics</b>	integrated AMD GPU Radeon™ HD6250 with dual display support. DirectX® 11, OpenGL 3.2 / 2.1 supported
<b>Display:</b>	Single/Dual Channel 18/24 Bit LVDS Interface HDMI interface
<b>Resolutions:</b>	Up to 1400x1050 on LVDS Up to 1920x1200 on HDMI
<b>Mass Storage</b>	2 x external S-ATA channels SATA Flash Disk soldered on board, up to 32GB SD Memory Card interface
<b>USB</b>	8x USB 2.0 ports
<b>PCI-e ports</b>	2 x PCI Express x1 ports
<b>ETHERNET</b>	Gigabit Ethernet port
<b>Audio</b>	HD Audio Interface
<b>Interface Bus</b>	I <sup>2</sup> C Bus LPC BUS for legacy peripherals SM Bus
<b>Power supply</b>	+5V <sub>DC</sub> ± 5% and +5V <sub>SB</sub> (optional)
<b>Dimensions</b>	70x70 mm (2.7559" x 2.7559")

## Quadmo747-PNW



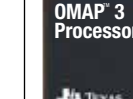
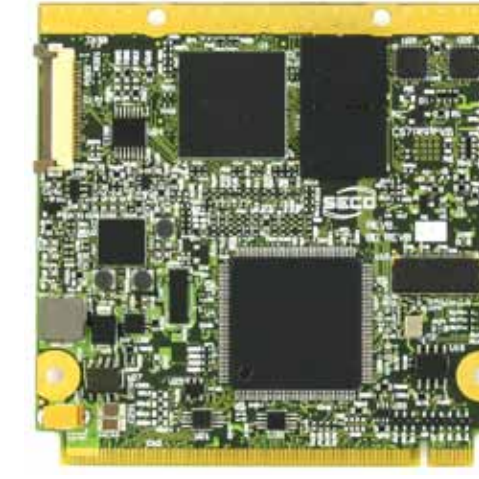
<b>CPU</b>	Intel® Atom™ D425 @1.8GHz, Single Core Intel® Atom™ D525 @1.8GHz, Dual Core Intel® Atom™ N455 @1.66GHz, Single Core, Low Power
<b>I/O Controller Hub</b>	Intel® 82801HBM (ICH8M)
<b>Memory</b>	up to 2GB DDR3-800 soldered onboard
<b>Graphics</b>	integrated Intel® 2D/3D GPU GMA3150 with dual display support (Clone and Extended Mode)
<b>Display:</b>	Single Channel 18/24 Bit LVDS Interface DVI/HDMI interface CRT interface
<b>Resolutions:</b>	Up to 2048x1536 @ 60Hz on CRT (with Dxxx CPU) Up to 1400x1050 @ 60Hz on CRT with N455 CPU Up to 1366x768 on LVDS Up to 1080p on DVI/HDMI
<b>Mass Storage</b>	3 x S-ATA channels
<b>USB</b>	8x USB 2.0 ports
<b>PCI-e ports</b>	4x PCI Express x1 ports
<b>ETHERNET</b>	Gigabit Ethernet port
<b>Audio</b>	HD Audio Interface
<b>Interface Bus</b>	I <sup>2</sup> C Bus LPC BUS for legacy peripherals SM Bus SPI interface
<b>Power supply</b>	+5V <sub>DC</sub> ± 5% and +5V <sub>SB</sub> (optional)
<b>Dimensions</b>	70x70 mm (2.7559" x 2.7559")

## Quadmo747-E6xx



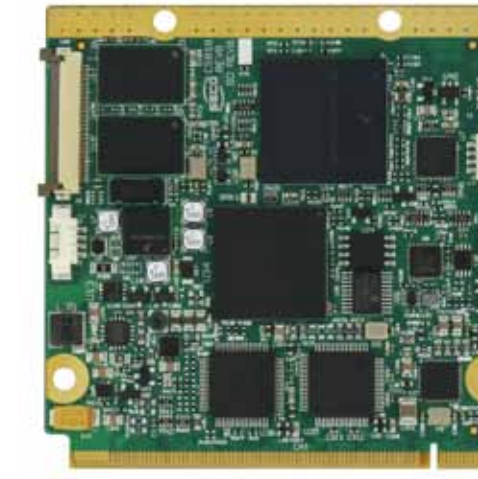
<b>CPU</b>	Intel® Atom™ E620/E620T @ 600MHz, 2.7W TDP Intel® Atom™ E640/E640T @ 1.0GHz 3.6W TDP Intel® Atom™ E660/E660T @ 1.3GHz 3.6W TDP Intel® Atom™ E680/E680T @ 1.6GHz 3.9W TDP
<b>Platform Controller Hub</b>	Intel® PCH EG20T
<b>Memory</b>	up to 2GB DDR2 onboard
<b>Graphic Interface</b>	integrated Intel® 2D and 3D graphic controller Dual independent display support MPEG2, MPEG4, H.264, DivX HW video decoding
<b>Display:</b>	LVDS Single Channel 18/24 Bit interface SDVO Interface Maximum resolution 1280x768 on LVDS Maximum resolution 1920x1080 on SDVO
<b>PCI Express</b>	3x PCI-E x1 lanes
<b>USB</b>	Up to 8 x USB 2.0 ports (one of them, configurable as USB client)
<b>Mass Storage</b>	Optional onboard SATA Flash Disk up to 32GB Up to 2 x S-ATA Channels 2 x Express Card interface
<b>ETHERNET</b>	Gigabit Ethernet interface
<b>Audio</b>	HD Audio Interface
<b>MMC / SDIO interface</b>	SD / MMC / SDIO interface
<b>Expansion Bus</b>	I <sup>2</sup> C, SM Bus, LPC, SPI
<b>FAN Management Interface</b>	
<b>Power management signals</b>	
<b>Power supply</b>	+5V <sub>DC</sub> AT/ATX mode
<b>Dimensions</b>	70x70 mm (2.76" x 2.76")

## Quadmo747-X/OMAP3



<b>Applications Processor</b>	Texas Instruments® OMAP™ 35xx Family: OMAP™ 3503 (Cortex™ A8 @600MHz core) OMAP™ 3515 (Cortex™ A8 @600MHz core + PowerVR SGX™ Graphics Accelerator) OMAP™ 3530 (Cortex™ A8 @720MHz core + PowerVR SGX™ Graphics Accelerator + 520MHz TMS30C64x™ DSP Core)
<b>Memory</b>	Mobile DDR 128 MB / 256MB onboard
<b>Flash Disk</b>	256 / 512MB
<b>LVDS:</b>	Single/Dual Channel 18/24 Bit
<b>ETHERNET</b>	10/100 Base-T interface
<b>USB</b>	1x USB OTG 2x USB 2.0 Host
<b>SERIAL PORTS</b>	2 x COM ports CAN interface
<b>MMC/HC MMC/SD/SDHC/SDIO interface</b>	
<b>Audio</b>	AC'97 / I <sup>2</sup> S Audio Interface
<b>Video Input Port / Camera Connector</b>	
<b>LPC Bus</b>	
<b>SM Bus</b>	
<b>SPI / One Wire interfaces</b>	
<b>I<sup>2</sup>C bus</b>	
<b>JTAG</b>	
<b>Dimensions</b>	70x70 mm
<b>Compliant to Qseven™ Specifications Rel.1.20</b>	

## Quadmo747-X/i.MX51



<b>Processor</b>	Freescale™ i.MX51 Family
<b>Memory</b>	Mobile DDR2 256 MB / 512MB onboard
<b>Flash Disk</b>	Up to 4GB
<b>LVDS:</b>	Single/Dual Channel 18/24 Bit
<b>DVI</b>	Single Link interface
<b>USB</b>	1x USB OTG 2x USB 2.0 Host
<b>SERIAL PORTS</b>	2 x COM ports CAN interface
<b>MMC/HC MMC/SD/SDHC/SDIO interface</b>	
<b>1 x µSD card slot onboard</b>	
<b>ETHERNET</b>	10/100 Base-T interface
<b>Audio</b>	AC97 Audio Interface
<b>LPC</b>	LPC BUS for legacy peripherals
<b>Video Input Port / Camera Connector</b>	
<b>SM Bus</b>	
<b>SPI / One Wire interfaces</b>	
<b>I<sup>2</sup>C bus</b>	
<b>JTAG</b>	
<b>Dimensions</b>	70x70 mm

# TECHNICAL SPECIFICATIONS

## Quadmo747-X/T20



**Qseven™ Standard Features**

<b>Processor</b>	NVIDIA® Tegra2® T20 w/ Dual ARM® CORTEX -A9 MPCore™ CPU, up to 1.0 GHz
<b>Memory</b>	up to 1GB DDR2 onboard
<b>Graphic Interface</b>	embedded NVIDIA® ULP GeForce® GPU Integrated High Definition Audio-Video Processor
<b>Display:</b>	LVDS Single/Dual Channel 18/24 Bit interface HDMI Interface
<b>PCI Express</b>	2x PCI-E x1 lanes
<b>USB</b>	Up to 7 x USB 2.0 ports
<b>Mass Storage</b>	On board IDE Flash Disk up to 16GB 2 x S-ATA Channels
<b>ETHERNET</b>	10/100 Mbps Ethernet Interface
<b>Audio</b>	AC'97 Audio Interface
<b>MMC / SDIO interface</b>	4 bit SD/MMC interface
<b>Expansion Bus</b>	I <sup>2</sup> C, SM Bus LPC
<b>Thermal Cooling Interface</b>	
<b>Power management signals</b>	
<b>Power supply</b>	+5V <sub>DC</sub> AT/ATX mode
<b>Power consumption</b>	TBD
<b>Dimensions</b>	70x70 mm (2.76" x 2.76")

**Quadmo747-X/T20 Specific Features**

<b>Video Input Port / Camera Connector</b>	
<b>SPI and One Wire Interface</b>	
<b>JTAG interface</b>	
<b>Serial ports</b>	2x RS-232 ports 1 x CAN port

## Quadmo747-X/OMAP4



<b>Applications Processor</b>	Texas Instruments® OMAP™ 4430@1GHz Texas Instruments® OMAP™ 4440@1.5GHz
<b>Memory</b>	up to 1GB
<b>Flash Disk Soldered on Board,</b>	up to 2GB
<b>Graphics:</b>	Integrated POWERVR™ SGX540 3D graphic core Integrated ISP and Multimedia Accelerator
<b>Graphical Outputs:</b>	LVDS Single/Dual Channel 18/24 Bit OMAP44x's native DSI interface alternative to LVDS second Channel's line HDMI (Full HD 1080p30 supported) CRT
<b>ETHERNET</b>	Able to drive up to 3 independent monitors 10/100 Base-T interface
<b>USB</b>	up to 6x USB2.0 ports
<b>SERIAL PORTS</b>	2 x COM ports CAN interface
<b>eMMC/SD interface</b>	
<b>Audio</b>	AC'97 / I <sup>2</sup> S Audio Interface
<b>LPC Bus</b>	
<b>SM Bus</b>	
<b>SPI interface</b>	
<b>I<sup>2</sup>C bus</b>	
<b>3 x PWM</b>	
<b>Power Management compliant to QSeven Standard Rel. 1.20</b>	
<b>Watch Dog Timer</b>	
<b>Camera Interface (CSI)</b>	
<b>Dimensions</b>	70x70 mm (2.76" x 2.76")

## Quadmo747-X/i.MX28



<b>Application Processor</b>	Freescale™ i.MX28 Family, with integrated 454MHz ARM926EJ-S core
<b>Memory</b>	Mobile DDR2 128 MB / 256MB onboard
<b>Flash Disk</b>	Up to 4GB
<b>LVDS:</b>	Single/Dual Channel 18/24 Bit
<b>USB</b>	1 x USB OTG Up to 4 x USB 2.0 Host
<b>SERIAL PORTS</b>	2 x COM ports CAN interface
<b>MMC/ SD/ SDIO interface</b>	
<b>1 x µSD card slot onboard</b>	
<b>ETHERNET</b>	10/100 Base-T interface
<b>Audio</b>	I <sup>2</sup> S Audio Interface
<b>LPC</b>	LPC BUS for legacy peripherals
<b>SM Bus</b>	
<b>SPI / One Wire interface</b>	
<b>I<sup>2</sup>C bus</b>	
<b>JTAG</b>	
<b>Dimensions</b>	70x70 mm

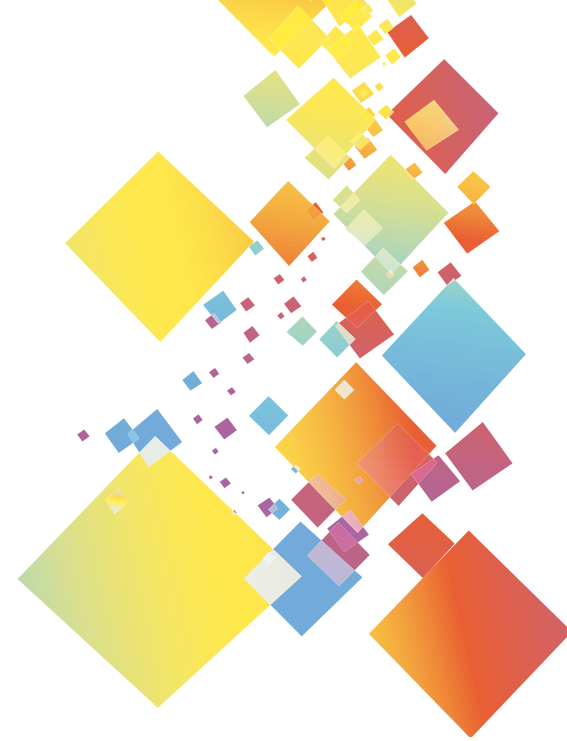
## Cross Platform DEVELOPMENT KIT CONTENTS



The Development kit contains the following material:

- Cross Platform Carrier Board
- LVDS Display (7" - 800x480 or 10" - 1024x768, at choice)
- 4-wire T/S, already assembled on LCD display
- LVDS to TTL 24-bit display converter
- TTL to RS-232 Transceiver board
- 19V<sub>DC</sub> Notebook Power Adapter, with Power Cords for connection to EU CEE 7/16, US NEMA 1-15, UK BS 1363A, JP JIS8303
- FFC cable for interconnection or Cross Platform Carrier Board and RISC QSeven™ module camera connector.
- USB 2.0 Plug "A" - Plug "mini B" for USB client connection
- Connection cables for adapter boards included in the kit
- Connection cable for LVDS display
- 4-Wire Touch Screen cable adapter

Since the Cross Platform can be used with any SECO Qseven CPU Module, the Development Kit DOESN'T CONTAIN any QSeven™ module, that have to be purchased separately.



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[www.seco.it](http://www.seco.it)

## X86-ARM CROSS PLATFORM

The first and the only one in the world



The Chameleon Philosophy

