



Q7-974

Qseven® standard module with the Intel® Atom™ E3800 and Celeron® families ("Bay Trail") SoC

x86 performance on a low-power module

Moon Island platform -
Intel IoT gateway solution



HIGHLIGHTS

- SATA Flash Drive soldered on-board
- Security enhancement and content protection
- Available in Industrial temperature range
- Integrated 64-bit memory controller
- Low power solution



Windows 8.1

Windows 10

Windows IoT



Windows Embedded Standard 8



Linux

yocto PROJECT

MAIN FIELDS OF APPLICATION



HMI



Industrial Automation
and Control



Biomedical/
Medical devices



Measuring
Instruments

FEATURES

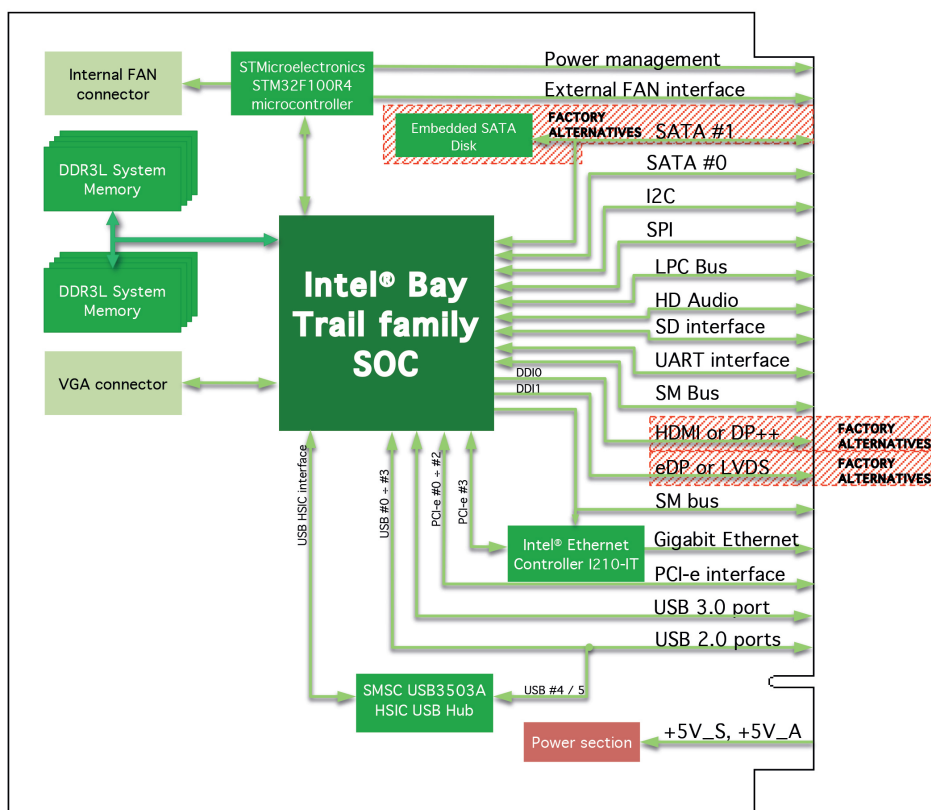
Processor	Intel® Atom™ E3845 , Quad Core @1.91GHz, 2MB Cache, 10W TDP	PCI-e	3 x PCI-e x1 lanes
	Intel® Atom™ E3827 , Dual Core @1.75GHz, 1MB Cache, 8W TDP	Audio	HD Audio interface
Max Cores	Intel® Atom™ E3826 , Dual Core @1.46GHz, 1MB Cache, 7W TDP	Serial Ports	1 x Serial port (TTL interface)
	Intel® Atom™ E3825 , Dual Core @1.33GHz, 1MB Cache, 6W TDP	Other Interfaces	I2C Bus LPC Bus SM Bus Thermal / FAN management SPI interface Power Management Signals
Max Thread	Intel® Atom™ E3815 , Single Core @1.46GHz, 512KB Cache, 5W TDP	Power Supply	+5Vdc ± 5%
Memory	Intel® Celeron® J1900 , Quad Core @2.0GHz, 2MB Cache, 10W TDP	Operating System	Microsoft® Windows 7 (32 / 64 bit)
	Intel® Celeron® N2930 , Quad Core @1.83GHz, 2MB Cache, 7.5W TDP		Microsoft® Windows 8.1 (32 / 64 bit)
Graphics	Intel® Celeron® N2807 , Dual Core @1.58GHz, 1MB Cache, 4.3W TDP		Microsoft® Windows 10 (32 / 64 bit)
	Soldered on-board DDR3L memory		Microsoft® Windows 10 IoT
Video Interfaces	E3845, E3827, J1900, N2930: up to 8GB Dual-Channel DDR3L @ 1333MHz		Microsoft® Windows Embedded Standard 7 (32 / 64 bit)
	E3826: up to 8GB Dual-Channel DDR3L @ 1066MHz		Microsoft® Windows Embedded Standard 8 (32 / 64 bit)
Video Resolution	N2807: up to 4GB Single-Channel DDR3L @ 1333MHz		Microsoft® Windows Embedded Compact 7
	E3825, E3815: up to 4GB Single-Channel DDR3L @ 1066MHz		Linux (32 / 64 bit)
Mass Storage	Integrated Intel® HD Graphics 4000 series controller	Operating Temperature*	Yocto
	Dual independent display support		0°C ÷ +60°C (Commercial version)
Networking	HW decoding of H.264, MPEG2, MVC, VC1, VP8, MJPEG formats		-40°C ÷ +85°C (Industrial version)
	HW encoding of H.264, MPEG2 and MVC formats	Dimensions	70 x 70 mm (2.76" x 2.76")
USB	HDMI or Multimode Display Port interface		
	Embedded Display Port or 18 / 24 bit dual channel LVDS interface		
	Additional VGA interface (optional external adapter is required)		
	HDMI: Up to 1920x1080p@60Hz		
	Display Port, eDP, CRT: Up to 2560x1600@60Hz		
	Optional LVDS interface: Up to 1920x1200@60Hz		
	Up to 2 x external SATA channels		
	SD interface		
	Optional SATA Flash Drive soldered on-board		

*Measured at any point of the heatspreader/heatsink during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system.

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BLOCK DIAGRAM



ORDERING INFORMATION

PN*	DESCRIPTION
Q974-2810-2100-C0	Q7 w / Bay Trail-D J1900 @2.00 GHz QC - RAM DDR3L 8GB - LVDS - HDMI - Com. Temp
Q974-3110-2100-I0	Q7 w / Bay Trail-I E3815 @1.46 GHz SC - RAM DDR3L 1GB - LVDS - HDMI - Ind. Temp
Q974-5410-2100-I0	Q7 w / Bay Trail-I E3826 @1.46 GHz DC - RAM DDR3L 2GB - LVDS - HDMI - Ind. Temp
Q974-5650-2100-C0	Q7 w / Bay Trail-I E3826 @1.46 GHz DC - RAM DDR3L 4GB - SSD 32GB - LVDS - HDMI - Com. Temp
Q974-6430-1200-C0	Q7 w / Bay Trail-I E3827 @1.75 GHz DC - RAM DDR3L 2GB - SSD 8GB - eDP - DP++ - Com. Temp
Q974-7640-2100-I0	Q7 w / Bay Trail-I E3845 @1.91 GHz QC - RAM DDR3L 4GB - SSD 16GB - LVDS - HDMI - Ind. Temp
Q974-8310-2100-C0	Q7 w / Bay Trail-M N2807 @1.58 GHz DC - RAM DDR3L 2GB - LVDS - HDMI - Com. Temp
Q974-9610-2100-C0	Q7 w / Bay Trail-M N2930 @1.83 GHz QC - RAM DDR3L 4GB - LVDS - HDMI - Com. Temp

*Additional configurations may be available. Please inquire for more information.

ACCESSORIES

PN	DESCRIPTION
QA42-0000-1111-I0	Carrier Board for Qseven® rel. 2.0 Compliant modules on 3.5" Form factor - DisplayPort - 2nd Ethernet Port - LVDS - Debug Port
QA42-0000-2111-I0	Carrier Board for Qseven® rel. 2.0 Compliant modules on 3.5" Form factor - HDMI - 2nd Ethernet Port - LVDS - Debug Port
QA42-0000-1121-I0	Carrier Board for Qseven® rel. 2.0 Compliant modules on 3.5" Form factor - DisplayPort - 2nd Ethernet Port - eDP - Debug Port
QA42-0000-2121-I0	Carrier Board for Qseven® rel. 2.0 Compliant modules on 3.5" Form factor - HDMI - 2nd Ethernet Port - eDP - Debug Port
QA30-Q7XDK-0000	Qseven® Cross Platform Development Kit 2.0
QA42-Q7XSK-1000	Q7 - Cross Platform Starter Kit 2.0 - DP++ - eDP
QA42-Q7XSK-1100	Q7 - Cross Platform Starter Kit 2.0 - DP++ - LVDS, 7" touch display included
QA42-Q7XSK-2000	Q7 - Cross Platform Starter Kit 2.0 - HDMI - eDP
QA42-Q7XSK-2100	Q7 - Cross Platform Starter Kit 2.0 - HDMI - LVDS, 7" touch display included
QA36-DISS-1-PK	Q7-974 & Q7-A36 Heat Spreader (PASSIVE)
QA36-DISS-3-PK	Q7-974 & Q7-A36 Heat Sink (ACTIVE)
M908	VGA Adapter module

