



Q7-974

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

x86 performance on a low-power module



HIGHLIGHTS

CPU Intel® Atom™ E3800 and Celeron® families of System-on-Chip	CONNECTIVITY 6x USB 2.0; 1x USB 3.0; 3x PCI-e x1
GRAPHICS Integrated Intel® HD Graphics controller	MEMORY up to 8GB Dual-Channel DDR3L 1333MHz

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



Biomedical/
Medical devices



HMI



Industrial
Automation and
Control



Measuring
Instruments

FEATURES

Processor	Intel® Atom™ E3845 , Quad Core @1.91GHz, 2MB Cache, 10W TDP Intel® Atom™ E3827 , Dual Core @1.75GHz, 1MB Cache, 8W TDP Intel® Atom™ E3826 , Dual Core @1.46GHz, 1MB Cache, 7W TDP Intel® Atom™ E3825 , Dual Core @1.33GHz, 1MB Cache, 6W TDP Intel® Atom™ E3815 , Single Core @1.46GHz, 512KB Cache, 5W TDP Intel® Celeron® J1900 , Quad Core @2.0GHz, 2MB Cache, 10W TDP Intel® Celeron® N2930 , Quad Core @1.83GHz, 2MB Cache, 7.5W TDP Intel® Celeron® N2807 , Dual Core @1.58GHz, 1MB Cache, 4.3W TDP	PCI-e 3 x PCI-e x1 lanes
Max Cores	4	Audio HD Audio interface
Max Thread	4	Serial Ports 1 x Serial port (TTL interface)
Memory	Soldered on-board DDR3L memory E3845, E3827, J1900, N2930: up to 8GB Dual-Channel DDR3L @ 1333MHz E3826: up to 8GB Dual-Channel DDR3L @ 1066MHz N2807: up to 4GB Single-Channel DDR3L @ 1333MHz E3825, E3815: up to 4GB Single-Channel DDR3L @ 1066MHz	I2C Bus LPC Bus SM Bus Thermal / FAN management SPI interface Power Management Signals
Graphics	Integrated Intel® HD Graphics 4000 series controller Dual independent display support HW decoding of H.264, MPEG2, MVC, VC1, VP8, MJPEG formats HW encoding of H.264, MPEG2 and MVC formats	Power Supply +5VDC ± 5%
Video Interfaces	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)	Operating System Microsoft® Windows 7 (32 / 64 bit) Microsoft® Windows 8 (32/64 bit) Microsoft® Windows 8.1 (32/64 bit) Microsoft® Windows 10 (32/64 bit) Microsoft® Windows 10 IoT Microsoft® Windows Embedded Standard 7 (32/64 bit) Microsoft® Windows Embedded Compact 7 Linux (32/64 bit) Yocto
Video Resolution	HDMI: Up to 1920x1080p@60Hz Display Port, eDP, CRT: Up to 2560x1600@60Hz Optional LVDS interface: Up to 1920x1200@60Hz	Operating Temperature* 0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Mass Storage	Up to 2 x external SATA channels SD interface Optional SATA Flash Drive soldered on-board	Dimensions 70 x 70 mm (2.76" x 2.76")
Networking	Gigabit Ethernet interface	
USB	1 x USB 3.0 Host port 6 x USB 2.0 Host ports (one shared with USB 3.0 interface)	

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

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BLOCK DIAGRAM

