PQ7-M106IL-E

Qseven module by Qseven 2.0 based on Intel® Atom™ E3800 series platform with DDR3L SDRAM, 24bit LVDS, DP, SDIO, and USB3.0

DDR3L 1066/1333 SDRAM

Intel I210

Intel® Atom™ E3800 Series

DDR3L 1066/1333 SDRAM

Embedded Controller
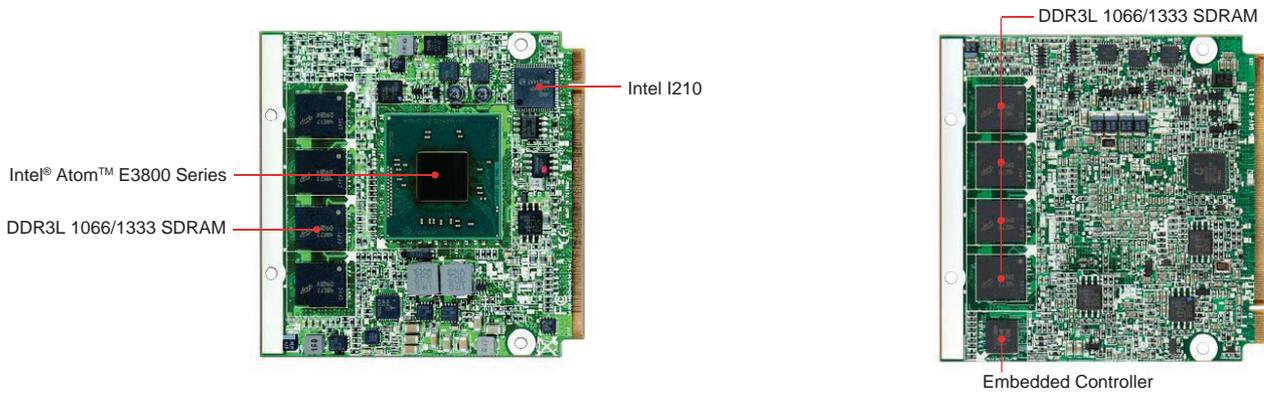
Powrtwell's PQ7-M106IL-E is designed with Intel® new Atom™ generation E3800 series processor. PQ7-M106IL-E features low power consumption than previous Atom platform, and 2GB to 8GB memory support.

It also supports an extended -40°C to 85°C resistance relies on qualified industrial-grade components. PCI Express interface can support expansion devices, such as GPS/ GPRS/Wireless/ Bluetooth/Graphic, etc.; also SDIO signal assists extra storage requirement. USB3.0 is new support different from previous Qseven design as more and more customers requires faster data transfer. PQ7-M106IL-E is the exact solution for various automation or equipment application.

FEATURES

- Intel Atom™ Bay Trail SoC E3800 series processor with industrial support

- On Board DDR3L DRAM and up to 8GB

- Three PCI Express lanes

- Support one USB 3.0, six USB 2.0

ORDERING GUIDE

AB1-3A80	PQ7-M106IL-E3845-4G(industrial) with MOQ
AB1-3C03	PQ7-M106IL-E3845-2G(industrial)
AB1-3C02	PQ7-M106IL-E3827-2G(industrial)
AB1-XXXX	PQ7-M106IL-E3825-2G(industrial) with MOQ
AB1-3C04	PQ7-M106IL-E3815-2G(industrial)
AB1-XXXX	PQ7-M106IL-N2930-8G(commercial) with MOQ
AB1-XXXX	PQ7-M106IL-N2807-8G(commercial) with MOQ

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GENERAL

Processor	- Intel® Atom™ processor E3800 family, 22nm process technology - Cache up to 2MB (for Quad Core) - DPM (Defect Per Million devices) <50 - Support Intel® VT-x techology
BIOS	- Phoenix EFI BIOS
Memory	- Support up to 8GB DDR3L 1066/1333 SDRAM
Storage Devices	- SATA 3.0 Gb/s x2 with AHCI support - Secure Digital I/O(SDIO) x1 with Revsion 1.1
Watchdog Timer	- Programmable by Embedded Controller
Ethernet	Intel® I210 Gigabit LAN x 1
Audio	Intel® High Definition Audio (2x channels delivering 192-kHz 32-bit, and 8x channels delivering 96-kHz 32-bit)
Expansion Interface	- 3x PCI Express x1 Gen2 (5 GT/s) (optional to 4) - LPC Interface - 6 x USB 2.0 - 1 x USB 3.0 - SPI Interface up to 50 MHz - SM Bus interface - UART interface - I2C interface
Hardware Monitoring	- EMC1402 CPU and System Temperature
Power Requirement	- Typical: 5VCC, 5VSB, VBAT
Dimension	70mm(L) x 70mm(W), 2.7"(L) x 2.7"(W), PCB: 10 layers
Environment	- Operation Temperature: -40~85 °C - Storage Temperature: -40~85 °C
MTBF	- Relative Humidity: 5~90% Over 120,000 hours at 40 Degree Celsius

DISPLAY

Graphic Controller	Intel® HD Graphics 4600 supports DirectX*11, OCL 1.2, OGL 3.2 Video decode hardware acceleration supports for H.264, MPEG2, MVC, VC-1, WMV9 and VP8 formats
Display Interface	- Up to Two 24 bit LVDS/eDP resolution up to 1920x1200 @60Hz - One DP (Display port) resolution up to 2560x1600