

PQ7- M105IT

Transportation and traffic management systems are deeply embedded in our daily lives (eg. Fleet management, signal and control, vehicle entertainment, etc.). And it is critical that these devices withstand the environmental conditions of temperature, humidity and vibration



Qseven® module based on Intel® Atom™ E640T/ E660T/ E680T platform with DDR2 SDRAM, four PCI Express lanes, 24bit LVDS, SDVO, CAN bus, NANDrive

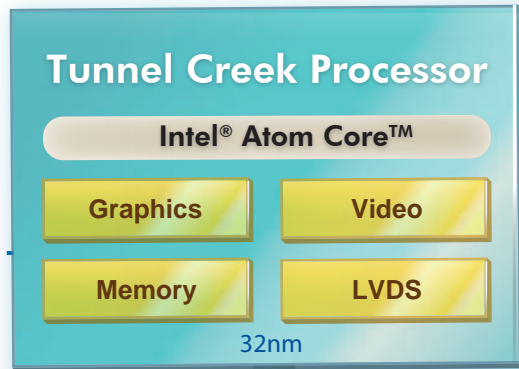
Portwell's PQ7-M105IT is designed with Intel® ultra low power E600 series CPU and EG20T IOH. It features less than 5W power consumption, -40 to +80 degree Celsius resistance, PCI express interface which supports GPS /GPRS /Wireless /Bluetooth devices and SDIO for cost efficient SD/Micro SD storage. Furthermore, the board is compliant with the vibration standard MIL-STD-810F and Method 514.5C with three axes of 5Hz to 500 Hz for maximum duration. The vibration spectrum exceeds 26rms (root mean squared). Portwell's Qseven® also passes function tests with standing 20G of shock for 11ms in 3 axes/6 face direction. The Qseven® is the most suitable and reliable solution for your transportation application development.

FEATURES

- Atom™ ultra low power CPU (E640T/ E660T/ E680T) and IOH (EG20T) total TDP is under 5W fan-less application
- Full Hardware acceleration of H.264, MPEG2/4, VC1 and WMV9 supported
- On board 512MB DDR2 supported up to 2GB
- 3x PCIe 2.0 x1 lanes supported
- CAN Bus interface supported
- SATA Solid State Drive, onboard (optional)

ORDERING GUIDE

AB1-3628	PQ7-M105IT-0600-0512 (commercial) with MOQ
AB1-3629	PQ7-M105IT-1000-1024 (industrial) with MOQ
AB1-3630	PQ7-M105IT-1600-1024 (industrial)
AB1-3722	PQ7-M105IT-1600-2048 (industrial) with MOQ
B8304300	(GP).Heat Spreader. 70x62x8mm for PQ7-M105IT



2500 MHz PCI-E



Qseven® 2.0 MXMII Connector

PCI EXPRESS
3x PCIe 2.0 x1



LVDS



DDI

Codec



HD Audio

LPC



1x SATA II
1x NAND Drive



7x USB 2.0

SPI

CAN

Processor Core

- ◆ Tunnel Creek Core™ (32nm)
E680T, E660T, E640T Uni-core SKUs
- ◆ 512KB Shared Last Level Cache

Highlights

- ◆ Integrated Memory Controller: 1 Channels of Native DDR2 support
- ◆ Integrated Native PCI-E Gen 1 supports 4x1 configurations

Memory

- ◆ DDR2 800 MT/s
- ◆ 1 Memory Channel
- ◆ 6.4GB/s Peak Memory Bandwidth

Platform Thermal Design Power

CPU	E680T 4.5W	E660T 3.6W	E640T 3.6W
PCH	EG20TW 1.55W	EG20TW 1.55W	EG20TW 1.55W
Watt	6.05W	5.15W	5.15W