



Portwell's PQ7-M106 is designed with Intel® Atom™ processor E3800 series and qualified components for wide-temp support, -40°C to 85°C. The PQ7-M106 also features LVDS, dual-channel DDR3L, as well as eMMC soldered on board as a cost effective product solution.

## FEATURES

- Intel® Atom™ processor E3800 series
- Up to 8GB DDR3L-1333
- eMMC up to 64GB
- DisplayPort/HDMI and LVDS
- GbE, 2x SATA 3Gb/s, USB 3.0, 6x USB 2.0, 3x PCIe
- Extended operating temperature support, -40°C to 85°C

## ORDERING GUIDE

AB7-3031Z	(R).PQ7-M106-E3845-4G-8G. 4GB Dual-Channel DDR3L.8GB eMMC
Custom	(R).PQ7-M106-E3827-4G-8G. 4GB Dual-Channel DDR3L.8GB eMMC
Custom	(R).PQ7-M106-E3825-2G-4G. 2GB Single-Channel DDR3L.4GB eMMC
AB7-3038Z	(R).PQ7-M106-E3815-2G-4G. 2GB Single-Channel DDR3L.4GB eMMC
Custom	(R).PQ7-M106-E3805-2G-4G. 2GB Single-Channel DDR3L.4GB eMMC
B8308520	Heat Spreader

## GENERAL

<b>Processor</b>	<ul style="list-style-type: none"> <li>– Intel® Atom™ processor E3845, quad cores, 1.91GHz, L2 cache 2MB, 10W TDP</li> <li>– Intel® Atom™ processor E3827, dual cores, 1.75GHz, L2 cache 1MB, 8W TDP</li> <li>– Intel® Atom™ processor E3825, dual cores, 1.33GHz, L2 cache 1MB, 6W TDP</li> <li>– Intel® Atom™ processor E3815, single core, 1.46GHz, L2 cache 512KB, 5W TDP</li> <li>– Intel® Atom™ processor E3805, dual cores, 1.33GHz, L2 cache 1MB, 3W TDP</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>– Single-channel 2GB onboard DDR3L with 1333 MT/s (up to 4GB)</li> <li>– Dual-channel 4GB onboard DDR3L with 1333 MT/s (up to 8GB)</li> </ul>
<b>Graphics</b>	Intel® HD Graphics
<b>BIOS</b>	AMI
<b>Storage</b>	4/8GB eMMC 5.0 onboard flash (up to 64GB)
<b>Power</b>	5V DC ±5%
<b>Form Factor</b>	Qseven 70 x 70 mm (2.75" x 2.75")
<b>Environment</b>	<ul style="list-style-type: none"> <li>– Operating temperature: -40°C to 85°C (industrial)   0°C to 95°C (commercial)</li> <li>– Humidity: 5% to 95% non-condensing</li> </ul>
<b>OS Supported</b>	<ul style="list-style-type: none"> <li>– Microsoft® Windows 10</li> <li>– Microsoft® Windows 8.1</li> <li>– Microsoft® Windows Embedded 8.1 Industry</li> <li>– Microsoft® Windows 8</li> <li>– Microsoft® Windows 8 Embedded Standard</li> <li>– Microsoft® Windows 7 (no support for eMMC)</li> <li>– Microsoft® Windows 7 Embedded Compact (no support for eMMC)</li> <li>– Microsoft® Windows 7 Embedded Standard (no support for eMMC)</li> <li>– Linux</li> </ul>

## I/O INTERFACE

<b>Audio</b>	Intel® High Definition Audio
<b>Ethernet</b>	Intel® I210 Gigabit Ethernet controller
<b>PCIe</b>	3x PCIe x1
<b>USB</b>	6x USB 2.0 (optional 1x USB 3.0)
<b>SATA</b>	2x SATA
<b>SDIO</b>	1x SDIO
<b>LPC</b>	Support LPC interface
<b>Serial</b>	SPI bus, I²C bus

## DISPLAY

<b>DisplayPort</b>	DisplayPort version 1.1 up to 2560x1600
<b>HDMI</b>	HDMI 1.4a up to 1920x1200
<b>LVDS</b>	Dual-channel LVDS transmitter, support for flat panels with 2x24 bit data mapping up to 1920x1200@60Hz



\*All information provided is subject to change without notice. Last updated: Jun 29, 2017