

MicroATOM

Intel® Atom™ Low Power PCI/104-Express Computer



The MicroATOM is a highly integrated single board computer on the PCI/104-Express stackable form factor. The MicroATOM is powered by a 4th Generation Intel® Atom™ processor and offers a range of expansion options ideal for building high performance, rugged embedded systems.



The MicroATOM is an industry standard PCI/104-Express form factor module and offers both PCI Express and traditional 32bit PCI interfaces. The MicroATOM has 2Gbytes of DDR3 SDRAM and an on-board 16Gbyte solid state eMMC Flash drive for application and data storage. Off board data storage can be achieved using the high speed SATA drive interface. Dual Gigabit Ethernet interfaces provide extensive connectivity options. A single miniPCIe slot completes the expansion options and allows wireless Ethernet or high speed mobile broadband to be easily added to an embedded system.

The MicroATOM has no built in display, ideal for use in deeply embedded, power constrained headless systems often found in IoT applications. This headless design allows easy use of external display modules eliminating possible conflicts.

The MicroATOM is supported by Windows and Linux.

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification

4th generation

Intel® Atom™

Processor

Proven rugged

PCI/104-Express

form factor

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@amp ltd.com
<http://www.amp ltd.com>

Advanced Micro Peripherals Inc
New York, NY10007, USA
Tel (+1) 212 951 7205
Fax (+1) 212 658 9073
sales@amp-usa.com
<http://www.amp-usa.com>



MicroATOM

Intel® Atom™ Low Power PCI/104-Express Computer



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

Features

4th generation Intel® Atom™ Processor
PCIe104, miniPCI-e, and PCI-104 expansion
Dual Gigabit Ethernet
4x USB2.0 port
Headless - no integrated graphics
Integrated audio controller
Compact and rugged PCI/104-Express form factor
Windows and Linux Support

Applications

Industrial Automation Controller
Portable Test Equipment
Mission computers
Backbone communication routers
Point-of-sale and Kiosk applications
Security, Transportation, Telematics
Embedded Internet/Intranet Appliance
Rugged Harsh Environment Applications

Size, Weight and
Power optimized for
demanding
Embedded / IoT
Applications

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@amp ltd.com
<http://www.amp ltd.com>

Advanced Micro Peripherals Inc
New York, NY10007, USA
Tel (+1) 212 951 7205
Fax (+1) 212 658 9073
sales@amp-usa.com
<http://www.amp-usa.com>



PC/104

Embedded PC Modules

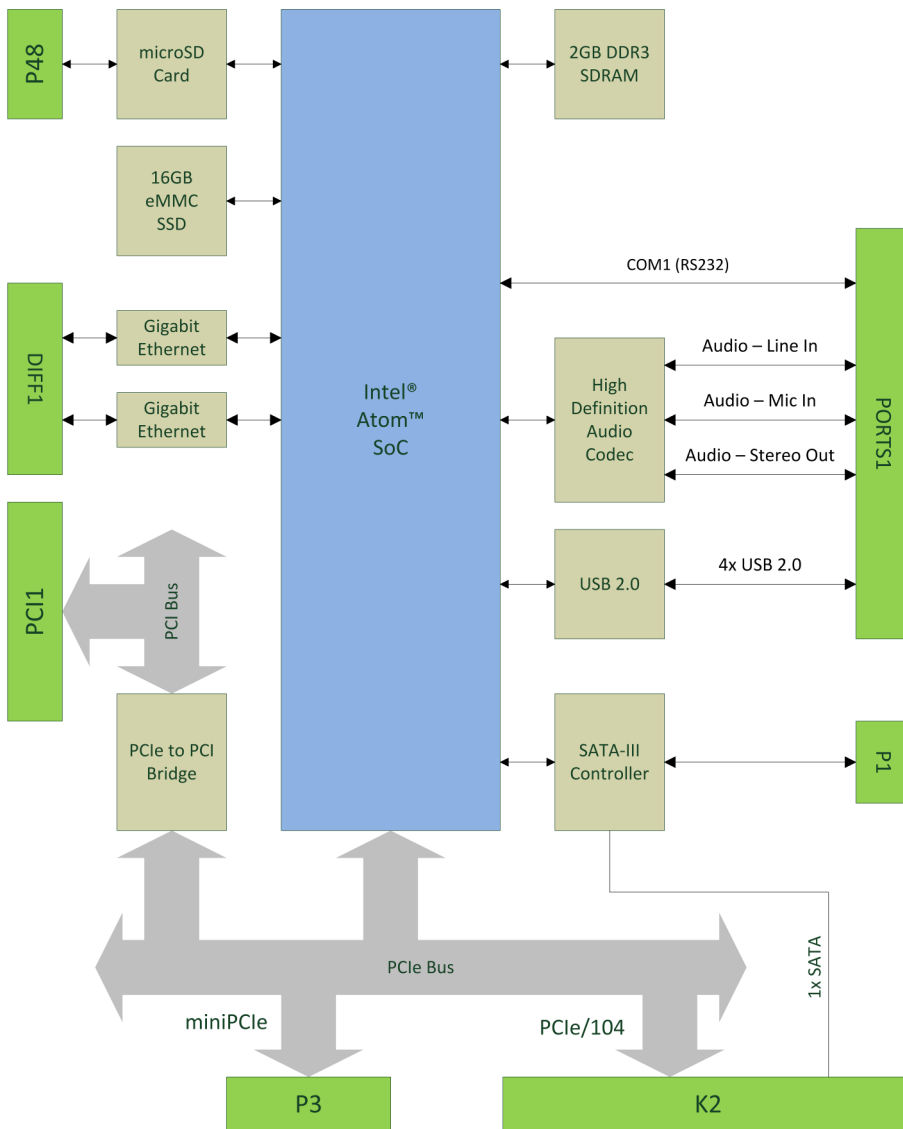
MicroATOM

Intel® Atom™ Low Power PCI/104-Express Computer



Advanced Micro Peripherals

THE EMBEDDED VIDEO EXPERTS



MicroATOM Function Diagram

Dual Gigabit Ethernet Ports

Support PCI-104, miniPCle, and PCIe/104 peripheral modules

Processor

4th generation E3800 series Intel® Atom™ Processor
 Dual Core, 1.33GHz
 1MB L2 Cache

Main Memory

Soldered 2GBytes DDR3L 1067MHz

Storage

On board soldered 16GB eMMC Flash
 1x standard SATA 3Gb/s

Network

2x Gigabit Ethernet
 10/100/1000 Auto-negotiation

Audio

Intel® HD Audio controller
 Stereo out, Stereo Line In, Stereo Mic In

Peripherals

4x USB 2.0
 1 x RS-232

miniPCI-Express Bus

1x miniPCI-e expansion slot

PCI/104-Express Bus

Stackable 156-pin PCIe bus connector
 Four PCI Express x1 Lanes Gen 2.0

PCI-104 Bus

133MB/sec bus bandwidth
 PCI-104 bus master/initiator
 Up to 4 Bus master add-on cards capable
 3.3V or 5V PCI bus signalling

Power

+5V Power Supply
 Power consumption of 12W

Physical

PCI/104-Express stackable card form factor.
 Standard 3.8" x 4.6"

Environmental

Operating temperature at 0°C to 60°C
 (-40°C to +85°C -EXT option)
 Relative humidity 5% to 95% non-condensing
 (optional conformal coating)

Software Support

Windows 7/8/10
 Linux

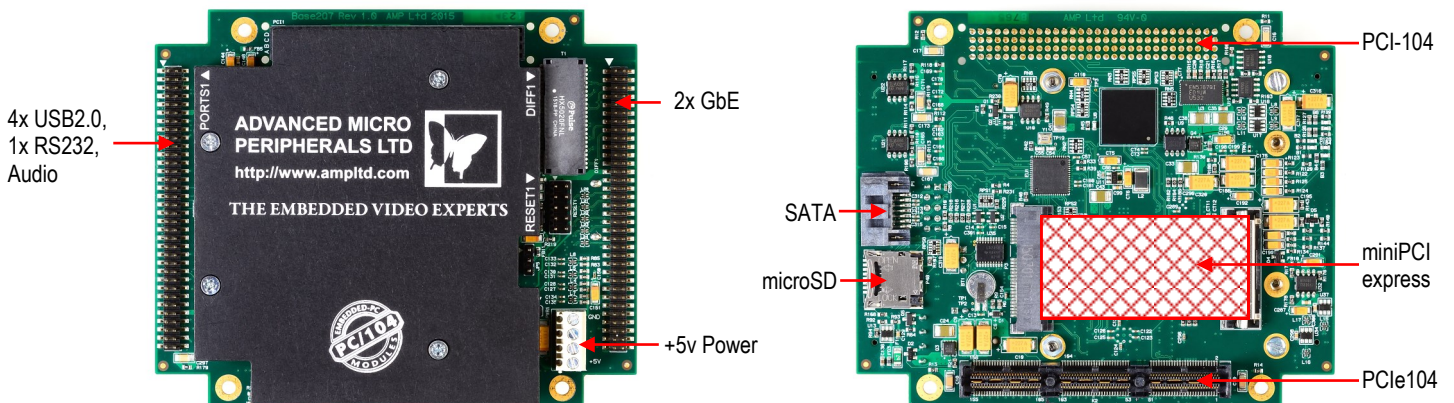
Ordering Information

MicroAtom-DC/16G

PCI/104-Express Intel® Atom™ SBC (0 to 60°C)

MicroAtom-DC/16G-Ext

PCI/104-Express Intel® Atom™ SBC (-40 to 85°C)



MicroATOM

