

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

PPM-C407

Intel® Atom™ E3800 PC/104-Plus
Single Board Computer with Digital I/O

Features

Performance for Industrial IoT Applications

- Intel® Atom™ E3800 PC/104-Plus Processor
- Up to 4 GB Soldered Down DDR3-L System RAM
- Time Coordinated Computing
- Precision Time Measurement

Rugged Design for Demanding Environments

- -40°C to +85°C Operating Temperature Range
- PC/104-Plus Small Form Factor
- Shock and Vibration Tested

Fast Graphics at High Resolutions

- Intel® Gen7 Graphics Engine
- Multiple Displays Supported
- Full-HD and 3D Graphics Acceleration

Secure and Trusted Data

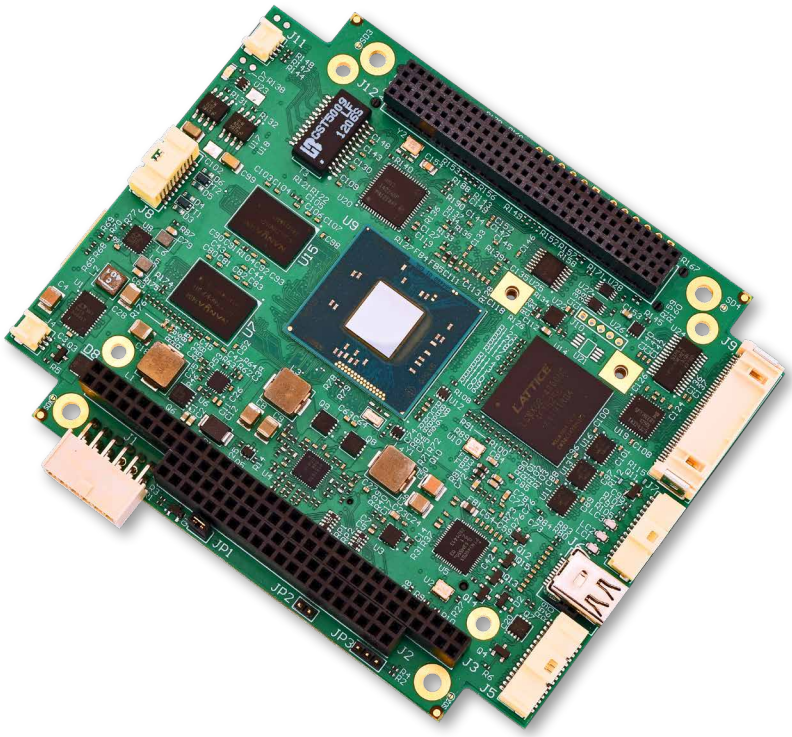
- Intel Security Engine
- Cryptographic Acceleration

Connectivity and I/O for Embedded Systems

- Ethernet
- 4x USB 2.0
- 24 GPIO with Event Sense
- Four Serial Ports

Expansion Options

- PC/104-Plus (PC/104 and PCI-104)
- MiniPCIe/mSATA Socket



Product Description

The PPM-C407 from WINSYSTEMS utilizes the E3800 family of Atom™ processors from Intel® to provide low power and high performance in the versatile PC/104-Plus form factor. Designed for harsh environments and reliability, the design includes soldered RAM for added shock and vibration resistance with operating temperature ranges available from -40°C to +85°C.

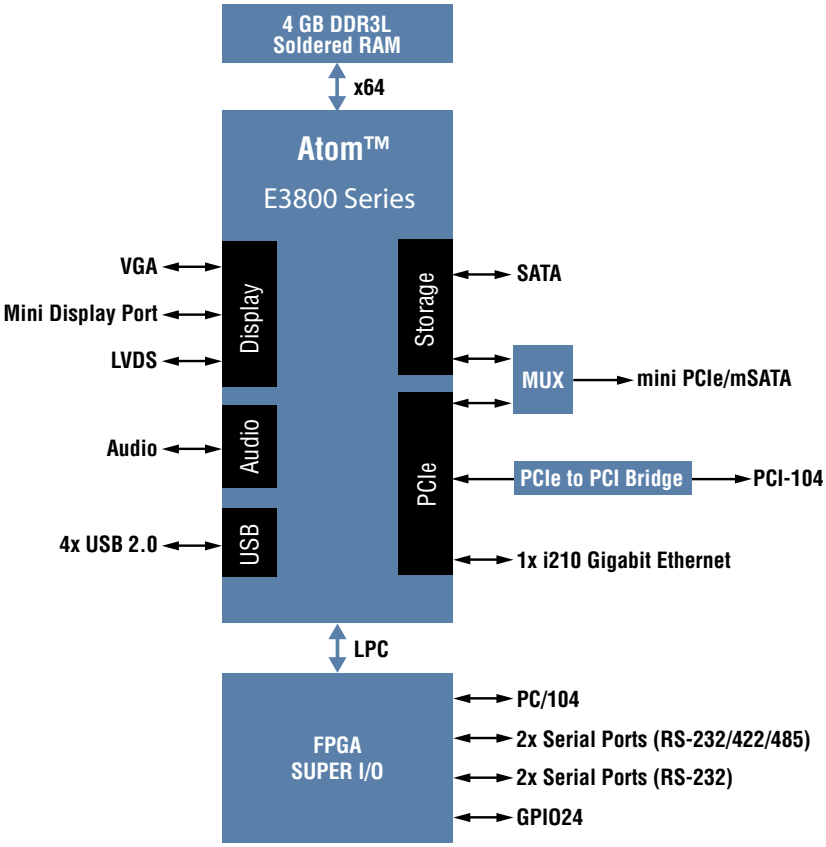
WINSYSTEMS is offering the PPM-C407 in multi-core options to fit a variety of application requirements. Scalable performance allows choices between single, dual or quad-core processing. Each processor option is available with 2G or 4G of soldered DDR3 memory and optional stack-through PC/104-Plus connectors.

This single board computer is a full-featured embedded system with a variety of onboard I/O options. Three display interfaces (MiniDisplayPort, VGA, and LVDS) support up to two independent displays along with stereo audio. Communication interfaces include Gigabit Ethernet, four USB 2.0 ports, two serial RS-232/422/485 channels and two serial RS-232 channels. 24 digital I/O lines with event sense can be programmed individually for input, output or interrupt driven applications. For additional flexibility, the I/O lines can be paired with external isolation and relay modules.

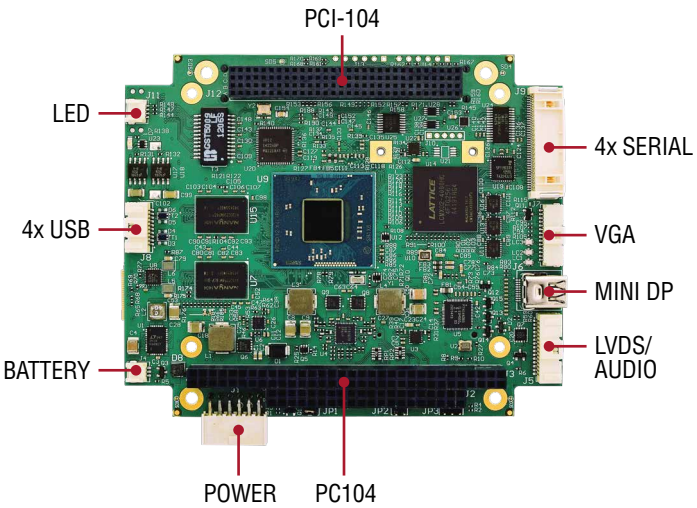
Linux, Windows and other x86 operating systems can be booted from the SATA, mSATA, or USB interfaces, providing flexible data storage options.

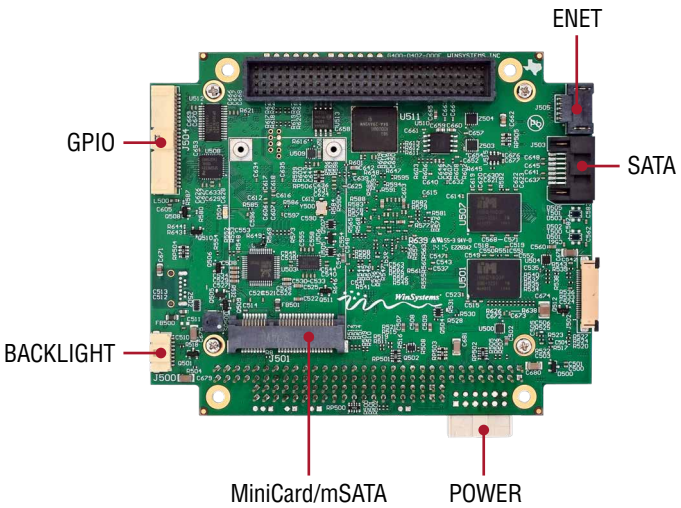
Drivers are available from the WINSYSTEMS website.

Block Diagram



Connectors





PPM-C407

Technical Specifications

PROCESSOR	**Intel® Atom™ E3815** Single-Core 1.46GHz, 512K cache (MOQ req.)	**Intel® Atom™ E3825** Dual-Core 1.33GHz, 1MB cache	**Intel® Atom™ E3845** Quad-Core 1.91GHz, 2 MB cache
MEMORY	• 2GB DDR3L Soldered RAM • 4GB DDR3L Soldered RAM		
STORAGE	• SATA 2.0 channel • mSATA socket (Shared with miniPCIe)		
DISPLAY	• Intel® Gen7 Graphics • Up to Two Simultaneous Active Displays – VGA up to 2560x1536 – LVDS 18 or 24bpp – DisplayPort Version 1.1		
NETWORK INTERFACE	• One Intel® i210 Gigabit Ethernet port with surge suppression		
ONBOARD I/O	• Four USB 2.0 ports with surge protection • Two 16C550-compatible RS-232/422/485 serial channels with speeds up to 500Kbps • Two 16C550-compatible RS-232 serial channels with speeds up to 250Kbps • 24 lines of general purpose digital I/O (5V tolerant) • Speaker output for beep tones • Status LEDs for Ethernet, 3.3V Stand-By, and one software controlled • Stereo audio output, mic, and line input • Realtime clock with optional battery back up • Watchdog timer adjustable from 1 second to 255 minutes		
EXPANSION BUS	• PC/104-Plus Expansion (includes PC/104 and PCI-104) • MiniPCIe Expansion slot (shared with mSATA)		
POWER	• +5V DC required (Power consumption estimates are for the PPM-C407 only and exclude any external devices)		
SOFTWARE	• UEFI compliant BIOS in SPI Flash Device • Compatible with Linux, Windows, and other x86 operating systems		
ENVIROHMENTAL	• -40°C to +85°C Operational temperature • RoHS-compliant		
MECHANICAL	Dimensions - 4.55 x 4.02 x 0.513 inches (115.57 x 102.11 x 13.03 mm)		

Order Information

SBC PART NUMBER	**PPM-C407-3815 Single-Core options** ***Build-to-Order***	**PPM-C407-3825-2-0** PC/104-Plus SBC E3825 2G with heat spreader **PPM-C407-3825-2-1** PC/104-Plus SBC E3825 2G with heatsink **PPM-C407-3825-4-0** PC/104-Plus SBC E3825 4G with heat spreader **PPM-C407-3825-4-1** PC/104-Plus SBC E3825 4G with heatsink	**PPM-C407-3845-2-0** PC/104-Plus SBC E3845 2G with heat spreader **PPM-C407-3845-2-1** PC/104-Plus SBC E3845 2G with heatsink **PPM-C407-3845-4-0** PC/104-Plus SBC E3845 4G with heat spreader **PPM-C407-3845-4-1** PC/104-Plus SBC E3845 4G with heatsink

Expansion and Customization Options

WINSYSTEMS provides additional cables, expansion cards, power supplies, and solid state drives to complete your embedded computing solution including data acquisition, communications, location, and other features via PCIe/104 and M.2 interfaces. Our Application Engineers are available to guide you through product selection and customized options.

Contact an Application Engineer or visit our website for more information.

WINSYSTEMS®

WINSYSTEMS reserves the right to make changes to products and/or documentation without further notification. Product names of other companies may be trademarks of their respective companies.

WINSYSTEMS, INC. | 2890 112th Street, Grand Prairie, Texas 75050 | 817-274-7553 | info@winsystems.com | www.winsystems.com

©2020 WINSYSTEMS, INC. All rights reserved.

Rev. 201112

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP