

### Features

- EPIC-compatible SBC with dual core 1.66GHz Intel® Atom™ D510 processor
- Up to 2GB of DDR2 SODIMM system memory
- Optional 512MB to 2GB of on board SSD disk
- Optional 1MB of battery backed SRAM
- CompactFlash socket
- Supports simultaneous 18-bit LVDS and CRT video
- Full-featured I/O includes:
  - Two SATA channels
  - Eight USB 2.0 ports
  - Four serial RS-232/422/485 ports
  - Two 10/100/1000 Mbps Ethernet channels
  - 48 lines of GPIO; 24 support event sense
  - MiniPCIe and PC/104-Plus expansion connectors
  - WDT, RTC, LPT, status LEDs, and beeper
  - Hi-definition audio
- -40°C to +75°C temperature operation, with fan
- Runs Linux, Windows®, and other x86-compatible OS



### Product Description

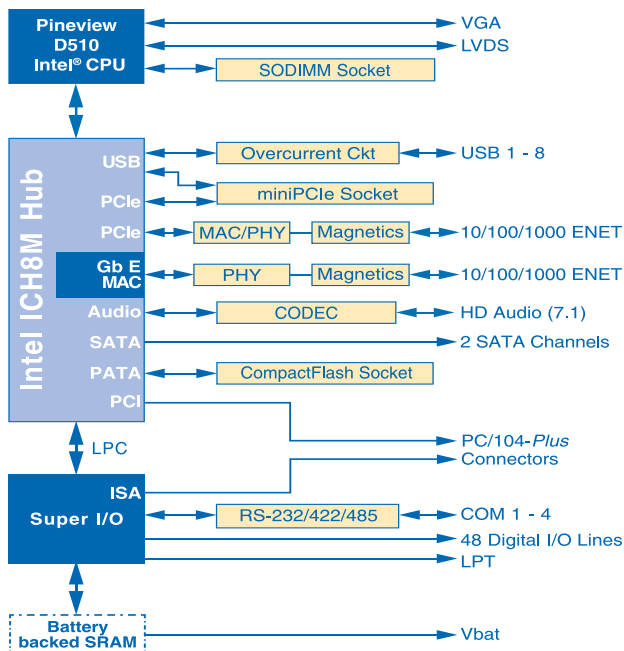
WinSystems' EPX-C380-D is an EPIC-compatible Single Board Computer (SBC) which uses Intel's Atom D510 dual core 1.66GHz processor paired with the ICH8M I/O controller hub.

This SBC is a full-featured unit with onboard I/O that supports CRT/LVDS video simultaneously, dual Gigabit Ethernet ports, eight USB 2.0 ports, four serial RS-232/422/485 COM channels, 48 digital I/O lines (24 with event sense), HD audio, watchdog timer, and LPT. Plus it has a PCIe MiniCard socket and PC/104-Plus connectors for additional I/O expansion.

The EPX-C380-D supports Linux, Windows, and other x86-compatible real-time operating systems. Drivers are available from the WinSystems' website.

Options include 512MB to 2GB of soldered-on flash SSD. Contact a WinSystems' Applications Engineer for details and custom OEM configurations.

This board replaces and is a performance upgrade to the EPX-855. It is well suited for high-performance industrial, medical, communications, and certain Mil/COTS applications.



EPX-C380-D Block Diagram

# EBX-C380-D - EPIC Dual Core D510 Single Board Computer

## Technical Specifications

### Processor

Intel Atom D510 dual core @ 1.66GHz

### Memory

1MB of L2 cache

SODIMM memory socket for up to 2GB of DD2

### Storage

Two SATA 2.0 channels

CompactFlash Type II memory socket

1MB soldered-on SRAM w/battery back up

Optional 512MB - 2GB of soldered-on flash SSD

### Display

VGA supports up to SXGA 1400 x 1050 @ 60Hz

LVDS supports 18-bit single channel up to 1366 x 768 or 1280 x 800

### Network Interface

One 1000 Mbps using the ICH8M internal LAN

One 1000 Mbps using the 82574 LAN controller

### On board I/O

Eight USB 2.0 ports with overcurrent protection

Four 16C550-compatible RS-232/422/485 serial channels with speeds up to 115.2kbps

48 lines of general purpose digital I/O

LPT interface with EPP support

Speaker output for beep tones

Status LEDs on Link, Activity, and Speed of both Ethernet controllers

High definition audio (7.1)

RTC with optional battery back up

Watchdog timer adjustable from 1 second to 255 minutes

### Expansion Bus

PC/104 and PC/104-Plus connectors

One miniPCIe connector

### Power

5V @

Typical	Maximum	Standby (S3)
2.8A	3.41A	268mA

### Software

Phoenix BIOS in SPI Flash device

Compatible with Linux, Windows, and most x86 operating systems as well as DOS

### Environmental

Operational from -40° to +75°C with fan

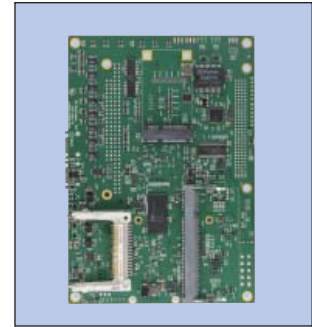
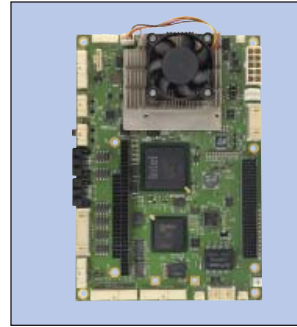
RoHS compliant

### Mechanical

Dimensions 4.5 x 6.5 inches (115 x 165 mm)

Weight 11.2 oz (317.6 gm)

PC Board thickness 0.078 inches



Front and Back Picture of EPX-C380-D2-1

## Ordering Information

### SBC

EPX-C380-D2-1 1.66GHz D510 SBC with 1MB SRAM and fan

### Cables

CBL-SET-380-2 EPX-C380-D cable and accessories set, includes:

ADP-IO-G-EBC0364 Breakout PCB, Dual RJ-45 and four USB

BAT-LTC-E-36-16-2 External 3.6V 1650 mAH battery with plug-in connector DC power harness

CBL-265-G-2-1.5 ENET cable with two connectors

CBL-ENET2-004-12 Serial I/O cable with four, DB9 connectors

CBL-SER4-002-12 4x USB ports with two, 8-pin 2mm connectors

CBL-USB4-002-12 Video cable with DB15 connector

### Optional Battery

BAT-LTC-E-36-16-2 External 3.6V, 1650 mAH

BAT-LTC-E-36-27-2 External 3.6V, 2700 mAH

### CompactFlash (CF)

CF-DC-A-xxG-I 1 - 16GB High Speed CF cards

CFLASH-G-xxx-I 128MB - 8GB CF cards

Please visit [www.IndustrialCompactFlash.com](http://www.IndustrialCompactFlash.com) for details

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