

**design.**

The next  
generation of  
Internet  
infrastructure.

**develop.**

Your products  
based on our  
platform.

**deploy.**

Your solution  
faster.

## Embedded Planet Products

### Computing Engines

Embedded Planet provides PC/104 form factor computing solutions for Motorola PowerPC 823, 823e, 850, 855, 860, 8255 and 8260 as well as the IBM PowerPC 405GP. Each computing engine includes Embedded Planet's PlanetCore, which provides firmware for burning flash, booting the target operating system, setup, utilities and diagnostics of the hardware. Power supply and all necessary cables are included. We also offer Board Development Kits which combine our computing engines with the Breakout Board, expansion guidelines which detail how to use the bus connections to the PowerPC processor and three months of technical support.

### Planets

Start evaluating your project today with one of our Planet solutions for Wind River VxWorks, Monta Vista Hard Hat Linux or your RTOS of choice. These solutions from Embedded Planet provide developers with an easy to use software development system. The Planet includes: Computing engine, I/O module, RTOS image and Board Support Package (BSP), PlanetCore software for loading, setup, and diagnostics, hardware expansion guidelines and three months of technical support

### Software

Our software packages allow the embedded software engineer to start development or porting of their application quickly.

- VxWorks BSP for the CLLF 860 or the LITE 823e or 850 computing engines includes source files for: serial, Ethernet (10BaseT and 100BaseTX) and NVRAM. The CD also includes pre-built images and complete instructions.
- LINUX Image and BSP for the CLLF 860 or the LITE 823e or 850 computing engines include source and binary drivers for: serial, Ethernet (10BaseT and 100BaseTX) and PCMCIA. The CD also includes pre-built images and complete instructions.

### IO Modules

All IO modules are compatible with the RPX BUS.

- Epson Graphics Card includes: The Epson SED1386 video controller and talks directly to the CPM of the PowerQUICC processor.
- HIOX Multimedia Card includes: audio, video, touch screen, serial, and I/O features.
- Breakout Board: allows direct access to all PowerPC pinouts for probe and custom access.

### Technical Support

Embedded Planet provides industry leading technical support via our PlanetTrack system. PlanetTrack allows direct access to Embedded Planet technical support engineers to provide complete solution support.

### Integration/Customization

The computing engines are designed to accommodate most of the variants of 8xx and 82xx designs and provide physical I/O for the built in peripherals. All computing engines can be licensed for fast integration into your product or design. Customization of computing engines to incorporate your I/O requirements is available as well as manufacturing at your facility. Extended temperature testing available.

### Contact Embedded Planet

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*Software and hardware working together,  
helping build the growing Internet Infrastructure.*



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## Computing Engines

Function	RPXC (DW) <sup>1</sup>	CLLF (BW)	CLCC (BW)	RPXL (CW)	LITE (DW)	LICC (AW)	EP8260
Processor	MPC860	MPC860	MPC860	MPC850 or MPC823	MPC850 or MPC823	MPC850 or MPC823	8260 or 8255
DRAM	8, 16, 32, 64 128MB per bank (single or dual bank)	16MB	16MB	4, 16MB	16, 32, 64MB	4, 16MB	Main: 32, 64 128MB Local: 16, 32 64MB
FLASH	4, 8, 16MB	4, 8, 16MB	4, 8, 16MB	4, 8, 16MB	4, 8, 16MB	4, 8, 16MB	4, 8, 16, 32MB
NVRAM	0, 32, 128, 512KB RTC	0, 32, 128, 512KB RTC	None	0, 32, 128, 512KB	0, 32, 128, 512KB RTC	None	0, 32, 128, 512KB RTC
100BaseTX <sup>2</sup> / 10BaseT	MII: RJ-45	MII: RJ-45	MII: RJ-45	None	None	None	MII via FCC3: RJ-45
10BaseT	SCC1: 10BaseT ETH RJ-45	SCC1: 10BaseT ETH RJ-45	SCC1: 10BaseT ETH Firewire (_E version board only)	SCC2: 10BaseT ETH RJ-45	SCC2: 10BaseT ETH RJ-45	SCC1: 10BaseT ETH Firewire (_E version board only)	None
Monitor port	SMC1: 3-wire RS-232 MON RJ-45	SMC1: 3-wire RS-232 MON RJ-45	SMC1: 3-wire RS-232 MON 2x5 header	SMC1: 3-wire RS-232 MON RJ-45	SMC1: 3-wire RS-232 MON RJ-45	SMC1: 3-wire RS-232 MON 2x5 header	SMC1 or SMC2: 3-wire RS-232 MON 2x5 header
Serial EEPROM	I2C	I2C	I2C	I2C	I2C	I2C	I2C
Serial temperature	I2C	I2C	I2C	I2C	I2C	I2C	I2C
PCMCIA	Dual slot Type I, II, or III	Single slot Type I, II, or III	Single slot Type I, II, or III (_P version board only)	Single slot Type I, II, or III	Single slot Type I, II, or III	Single slot Type I, II, or III (_P version board only)	Single slot Type I, II, or III (no DMA)
USB	None	None	None	Type A or Type B	Type A or Type B	None	None
Mechanical dimensions	EBX 146.0x203.2mm (5.750x8.000in.)	PC104 90.2x95.9mm (3.550x3.775in.)	Credit Card 54.0x85.7mm (2.125x3.375in.)	PC104 90.2x95.9mm (3.550x3.775in.)	PC104 90.2x95.9mm (3.550x3.775in.)	Credit Card 54.0x85.7mm (2.125x3.375in.)	PC104 90.2x95.9mm (3.550x3.775in.)
LEDs	4 user programmable	2 user programmable	2 user programmable	2 user programmable	2 user programmable	2 user programmable	3 user programmable
Bus expansion <sup>3</sup>	P1	P1	P1	P1	P1	P1	P1 <sup>4</sup>
I/O expansion <sup>3</sup>	P2	P2	P2	P2	P2	P2	P2 <sup>4</sup>
Debug port	BDM	BDM	BDM	BDM	BDM	BDM	COP
TAP port	JTAG	JTAG	JTAG	JTAG	JTAG	JTAG	JTAG
Power	5 VDC (optional 3.3 VDC); single source						
Dipswitch	4-position; read via status register						

NOTES: 1. PCI - PC104+ (North Bridge via QSPAN); ISA - PC104 (South Bridge via Winbond). 2. Processor dependent. 3. The expansion connectors allow for daughter cards supporting such functions as USB, Fast Ethernet, CAN, ARCNET, xDSL, PCI via PC104+, etc. 4. 8255 or 8260 processor bus and CPM bus support.