

EPC-7510

Product Brief

Product Brief V1

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Specification

System

CPU Support	Socket 479, Intel Pentium M CPU up to 2.0GHz
Chipset	Intel 915GM + ICH6-M (FSB: 533/400MHz)
Memory Support	1x DDR2/533 200pin SO-DIMM, Max up to 1GB
Video Controller	Built-in Intel 915GM, share system memory
Power Supply	DC 16V ~ 36V input, ATX 100W output, fanless type
System Weight	1.6 kg
Dimension (WxHxD)	216 x 56.9 x 175.2 mm (with 2.5" HDD) 216 x 89.8 x 175.2 mm (with 3.5" HDD)
Certificate	CE, FCC

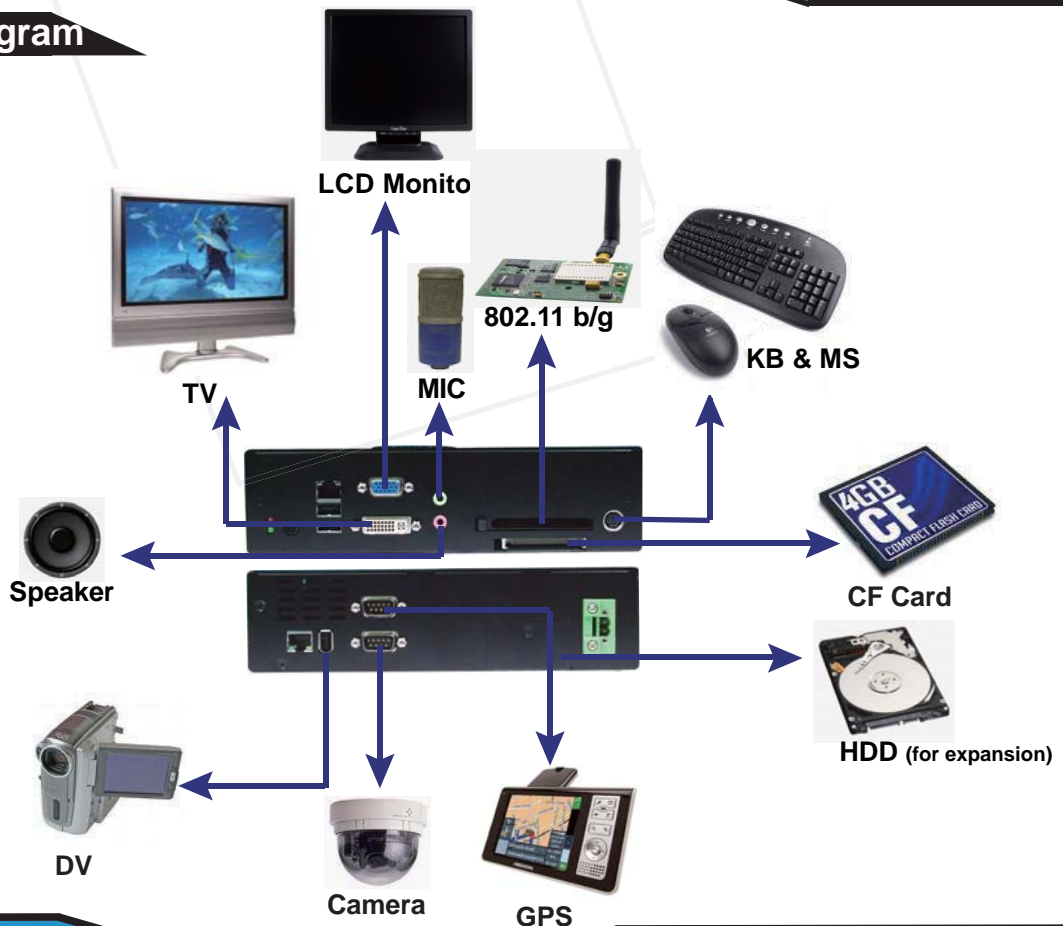
I/O Ports

USB	2 x USB 2.0
Serial Ports	2 x COM ports
Keyboard/ Mouse	1 x PS/2 ports
Audio	1 x Mic, Line-out
LAN	1x10/100Mbps , 1x10/100/1000Mbps
VGA	CRT+DVI(DB15)
LED	Power on-off, HDD
CF	IDE interface CF slot
PCMICA	1
1394	1 x 1394

Environment

Operating Temp.	CF (-10~60 degree), 2.5"HDD (0~45 degree)
Storage Temp.	-20 ~ 60 degree
Humidity	20% ~ 90%
Anti-Vibration	MIL-STD-810F
Shock level during operation	50G, IEC 60068-2-27, 11ms duration.

Application Diagram



EPC-7510

Expandable Multi Function Embedded PC

Product Description

Features

EPC-7510 utilizes Intel Pentium / Celeron M low voltage processors paired with low power consumption Intel 915GM chipsets and DDR2 RAM. It will effectively lower the amount of generated heat and meet the power conservation requirements. At the same time, a new level of storage performance is supported by the SATA hard drive interface and will provide 150MB/S high-speed data bandwidth with hot-pluggable features. For the graphical interface, the Intel built-in GMA900 (Intel Graphic Media Accelerator 900) is capable of the latest HD digital multimedia entertainment. For system "Expandability", EPC-7510 features the latest generation of high bandwidth PCI-E interface with an innovative secure back plane expansion slot. This will enable the user to easily install expansion modules with great flexibility.

Silent Operation

EPC-7510 features a powerful and rigid compact system ,by using the Intel high- performance and low-power consumption Pentium M /Celeron M CPU which can delivery the most best system performance.

All-in-one Cable-less Design

EPC-7510 is an all-in-one wireless design that integrates all I/O ports into the PCB to avoid extraneous messy I/O cables causing installation difficulties and system instability.

Dual/triple independent Display

EPC-7510 utilizes the highly efficient Intel 915GM chipset along with the Chrontel CH7307/CH7308B. In addition to the powerful graphical engine provided by the GMA900 chipset, it also features both the VGA/LVDS and VGA/DVI dual display modes. System expansion modules can also be used to add external PCIe/PCI discrete video cards for up to 3 simultaneous displays. For HD (High Definition) displays, the Chrontel CH7308B chip supports 18 or 24-bit single/dual channel LVDS to directly support the 1920x1080p HDTV display quality. This is the ideal choice for KIOSKS and Digital Signage applications.

USB DOC Support

USB DOC is a specialized solution for the industrial grade USB interfaces DOC (Disk On Chip). Storage capacities can reach up to 2GB for the installation of real time operating system (RTOS) and application program (AP). The onboard Flash RAM modules also provide a unique shockproof design to ensure a stable system operation even under the harshest conditions.



USB DOC

General purpose I/O

General Purpose Input Output (GPIO) is commonly used for switch controls or status monitoring functions. EPC-7510 provides 1 set of 8-bit programmable GPIO ports to adapt to their I/O applications.

Lockable Serial ATA connector

Serial ATA is an all-new serial interface that is faster and more reliable than the Parallel ATA bus. The Serial ATA cables and connectors have also been improved to eliminate the pins of the PATA bus that are easier to plug-in and align.



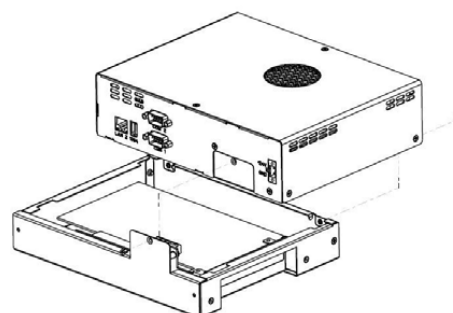
SATA

Industrial PCI104 Expansion Interface

The PCI104 interface provides a 32-bit industrial grade expansion interface that is highly shockproof and reliable. It is especially applicable in high-vibration environments such as vehicle transportations and machinery equipment. EPC-7510 provides a PCI104 built-in interface that does not require extra expansion modules.

Powerful PCIe x1 Expansion Module

PCI-Express x1 is a next generation I/O interface standard that provides 500MB/sec of data bandwidth for high-speed I/O applications. EPC-7510 provides a single PCIe x1 expansion slot, which may be used with various high-speed external cards such as the IEEE1394, SCSI, SATA, VGA, and H264 hardware decoders



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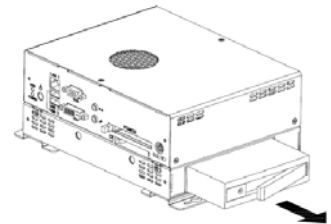
Product Description

Flexible 1/2/3 Slot PCI Expansion Module

PCI interface is a 32-bit expansion interface that provides 133MB/s of data bandwidth. The interface satisfies various I/O requirements, and it is commonly used in all sorts of industrial applications. EPC-7510 provides 1/2/3 PCI slots for PCI expansion cards that feature a unique back plane and flexible assembly design that can be accessed without replacing the original external case.

Removable SATA HDD Expansion Module

EPC-7510 provides hot-pluggable 3.5" SATA HDD expansion modules for multimedia files. The expansion module can be installed with hot-pluggable 500GB SATA hard drives. The user can easily perform data maintenance and back tasks without interrupting the system operation.



Removable SATA HDD

Embedded OS support

EPC-7510 provides a powerful x86 hardware platform that features an Intel IEGD Driver and IEGD VGA BIOS for a reliable system platform. The embedded operating system supports Microsoft XP embedded and WinCE BSP (Board Support Package). The system is highly software compatible because it incorporates Microsoft embedded operating systems with a complete set of drivers and application software. This can greatly reduce system development cost and the time-to-market for the products. The small footprint of the embedded OS images can be directly installed into the USB DOM or CF cards that feature powerful and fast startup times and damage prevention mechanisms. This will form an ideal embedded system package for our clients.

Anti-Shock and Vibration Design

EPC-7510 takes into consideration the anti shock and vibration design requirements for transportation and mechanical equipment tolerances, and has been specially designed for such purposes. Unnecessary cables are reduced and connectors, such as the SATA interface, are designed to be lockable as prevention measures. Shock sensitive devices such as the hard drive are designed according to anti-shock and anti-vibration requirements, and the entire system structure has been certified by MIL and IEC anti-shock testing standards to ensure system stability.



Anti-Shock and Vibration Design

Application

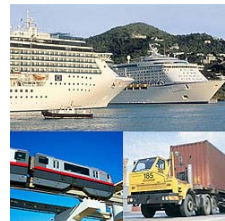
Due to its high performance, compact size, sturdy structure, and excellent anti-shock design, EPC-7510 is applicable to various automation application fields including Industrial Automation, Machine Automation, Transportation Application, Digital Video Surveillance, Gaming Machine, and Digital Signage etc.



Web DVR



Digital Signage



Transportation



Home Automation



Gaming Machine

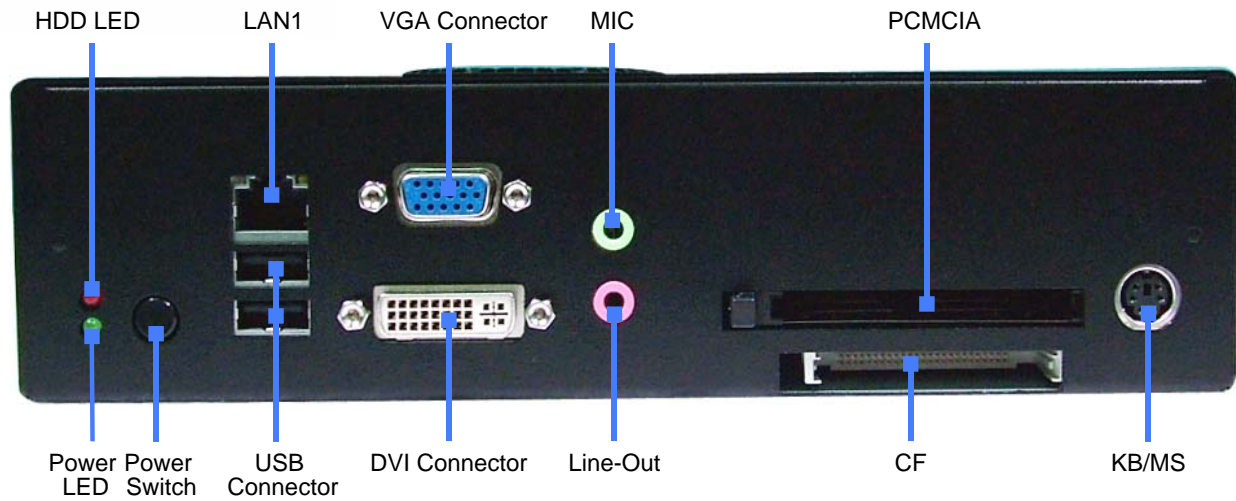


KIOSK

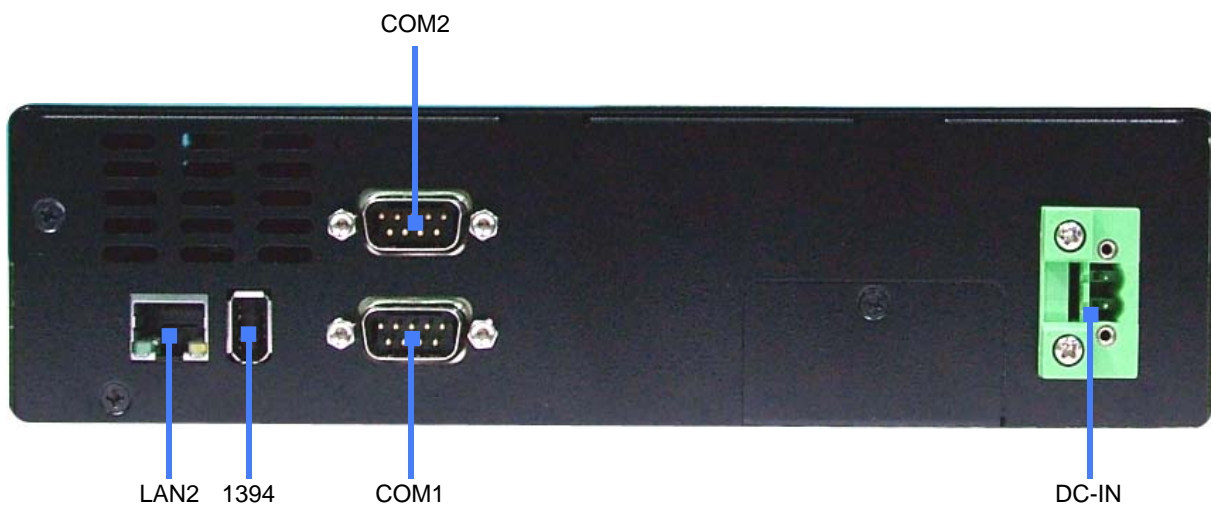
EPC-7510

Expandable Multi Function Embedded PC

Front View



Rear View

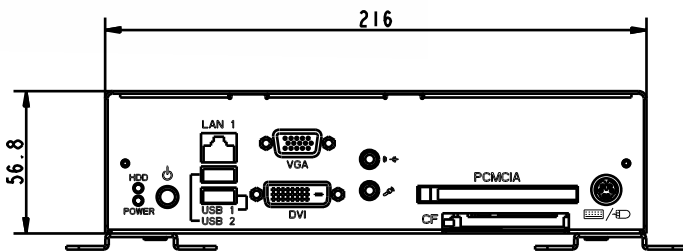


EPC-7510

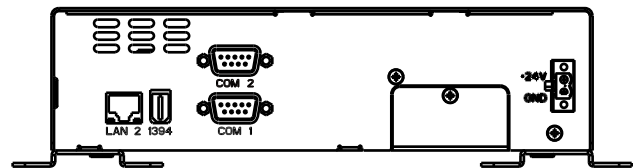
Expandable Multi Function Embedded PC

Mechanical Drawing

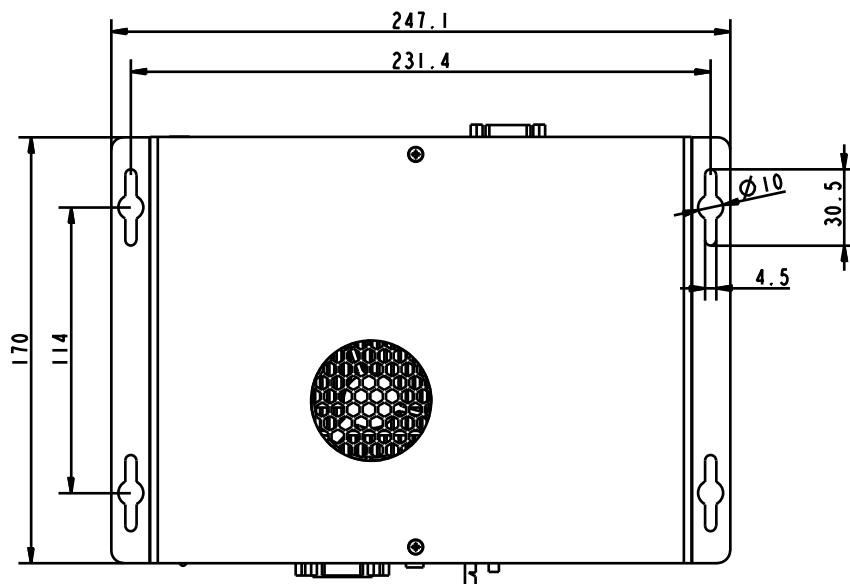
Front View:



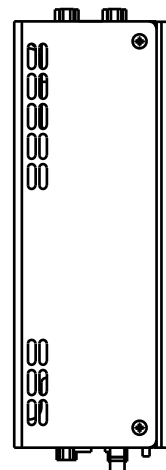
Rear View:



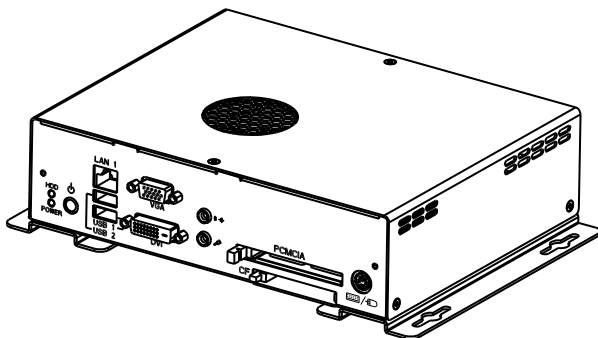
Top View:



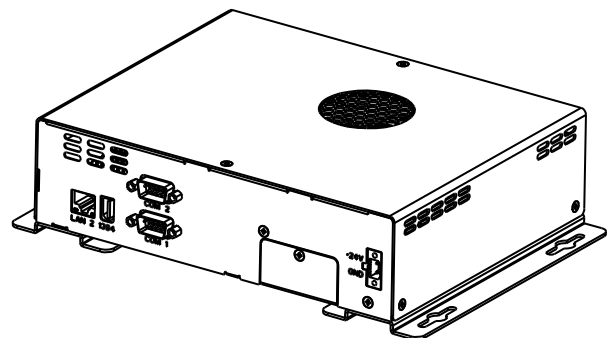
Side View:



Quarter View:



Front



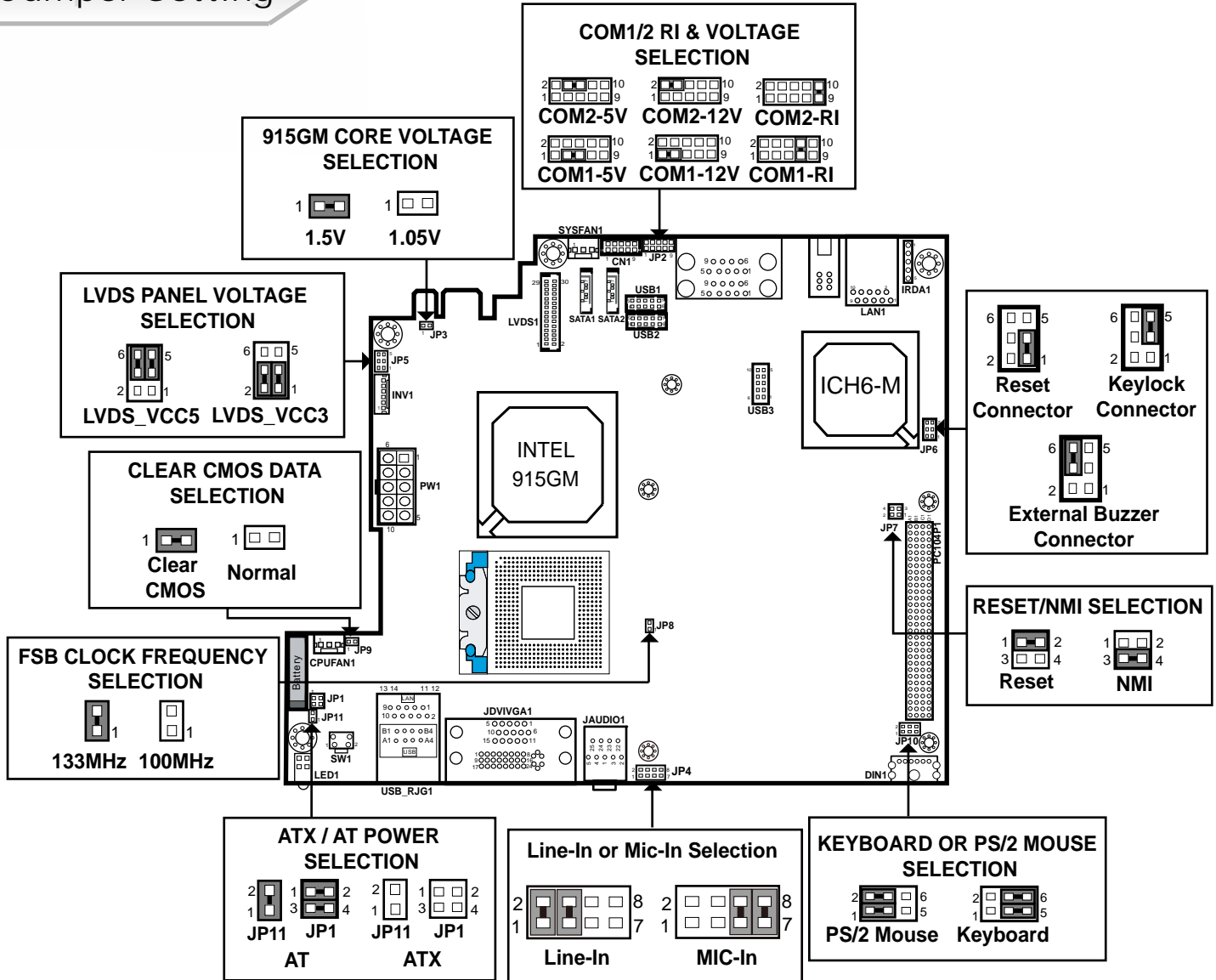
Rear

Unit:mm

EPC-7510

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Jumper Setting



Ordering Information

Order No.	Description
EPC7510-AB	Socket 479 + 1 x VGA + 1 x DVI + 1 x PCMCIA + 1 x 1394a + 100W ATX DC power + phoenix type 2-pin power connector (black)
EPC-7510-BB	Socket 479 Pentium M + 1 x PCMCIA + 1 x 1394a + 1 x VGA/LVDS + 100W ATX power + Rackmount kit (barebone/black)
EPC-7510-C-AB	Celeron M ULV 1GHz w/o L2 cache CPU + VGA + 100W ATX power + Rackmount kit (barebone/black)
EPC7510LF-S1-KIT	1 x PCIe expansion module (backplane + chassis)
EPC7510LF-S2-KIT	1 x PCI expansion module (backplane + chassis)
EPC7510LF-S3-KIT	2 x PCI expansion module (backplane + chassis)
EPC7510LF-S4-KIT	3 x PCI expansion module (backplane + chassis)
EPC7510LF-3.5HDD-KIT	Hot-plug removable 3.5" SATA HD expansion module.
52-002-05120001	24VDC power adapter output with 2-pin phoenix type connector

* CPU, AT power, SDRAM, HDD are available as optional items.