

PLUTO

ETX FORM-FACTOR EMBEDDED COMPUTER WITH PC/104-PLUS EXPANSION



- ETX CPU core provides price/performance flexibility, reduces costs, and protects against product obsolescence
- Choice of 1.6GHz Intel Atom or 1.66GHz Intel Core Duo LV CPUs
- I/O connectors for a wide range of I/O devices:
 - CRT, LVDS, and TV video output
 - Dual 10/100Mbps Ethernet LANs
 - IDE, SATA, and floppy drives
 - Quad USB 2.0, quad serial, and PS/2
- On-board CompactFlash socket
- Expands via stackable PC/104-Plus (ISA & PCI) modules

DESCRIPTION

Pluto is a high performance, highly integrated board-level embedded computer matching the footprint of the popular ETX computer-on-module (COM) standard.

Pluto's CPU core consists of an ETX CPU module mounted on its bottom side, an approach that improves thermal management and increases the space for I/O functions and connectors. This innovative design has enabled Pluto to integrate additional serial and Ethernet controllers, a complete set of peripheral interface header connectors, and a PC/104-Plus expansion stack location – all within the compact ETX footprint.

Pluto is offered in a range of models that vary according to the choice of ETX CPU module and on-board SO-DIMM SDRAM capacity. It can be used either as a highly integrated embedded component, or as a platform for application development and reference designs.

Pluto's baseboard includes connectors and interfaces for keyboard, mouse, USB, serial, parallel, Ethernet, audio, various mass storage devices. It supports the connection of a wide variety of displays, including CRTs, LVDS-interfaced flat panels, and televisions. Power is supplied by means of a robust six-pin terminal block.

OPERATING SYSTEM SUPPORT

Pluto supports operation under Windows XP and Linux 2.6. Contact Diamond for information regarding support for other operating systems.

Processor	Choice of 1.6GHz Intel® Atom or 1.66GHz Intel Core Duo LV CPUs
Memory	200-pin SO-DIMM socket Supports up to 2GB DDR2 SDRAM
Graphics	VGA CRT interface LVDS flat panel interface LCD backlight control TV output port
Audio	AC'97 audio CODEC; mic in, line in/out
Mass Storage	1 IDE port; supports two devices 2 SATA ports; support one device each
Ethernet	2 10/100Mbps ports
Keyboard/Mouse	PS/2 keyboard/mouse ports (USB keyboard/mouse also supported)
USB	4 USB 2.0 ports
Parallel/Floppy	Parallel/floppy port (shared interface)
Serial Ports	1 port configurable for RS-232/422/485 3 ports RS-232 only
Digital I/O	8 input and 8 output lines
Solid State Disk	Socket for Type I/II CompactFlash
Other	SMBus, I ² C, IrDA serial interfaces; PC speaker interface; watchdog timer
Expansion	PC/104-Plus (ISA + PCI) module socket
Supply Voltage	+5V DC required; +12V DC input option for powering peripherals requiring it
Operating Temp.	Atom CPU version: -20°C to +70°C Other CPU versions: -40°C to +85°C
Form-factor	ETX footprint (4.5 x 3.7 inches)

PLUTO ACCESSORIES

Cable Kit

The Pluto Cable Kit provides cables for nearly all of the I/O features on Pluto. All cables are also available separately.

Development Kits

Pluto quick-start development kits provide everything needed for rapid application development, including:

- Pluto boardset with selected ETX CPU module, 1GB SDRAM, and preinstalled heat-spreader or heat-sink
- Cable kit
- Complete support software and documentation

ORDERING INFORMATION

Part Number	Description
PLT-N270-1G	Pluto with 1.6GHz Atom CPU, 1GB SDRAM, and heat-spreader
DK-PN270	Pluto N270 Development Kit: includes PLT-N270-1G, C-PLT-KIT, Pluto documentation and software CD
PLT-945CDL-1G	Pluto with 1.66GHz Core Duo LV CPU, 1GB SDRAM, and heat-sink
DK-P945CDL	Pluto 945CDL Development Kit: includes PLT-945CDL-1G, C-PLT-KIT, Pluto documentation and software CD
C-PLT-KIT	Pluto Cable Kit

Visit Diamond's website for an updated list of models (CPU, speed, SDRAM) currently offered.