

PLUTO ETX SBCs



ETX SBCs with Interchangeable CPUs,
dual Ethernet, and PC/104-Plus expansion



Price/Performance Advantage

Pluto integrates an I/O application layer, COM layer, and thermal layer into a compact, ETX form-factor single board computer. Pluto offers a configurable ETX COM CPU core that allows you to match a Pluto SBC to the precise price/performance needs of your application.

Pluto's ETX-based design provides you with access to the latest CPU and I/O technology, while protecting your investment from CPU obsolescence via plug compatible ETX CPU modules.

Rugged Design

Pluto SBCs feature an operating temperature of -40°C to +85°C, rugged DDR3 SDRAM, and a high tolerance for shock and vibration, making it an ideal choice for vehicle, outdoor and harsh environment applications.

The processor is located on the bottom side with a conduction cooling heat spreader to efficiently transfer the heat away from the SBC.

Software Support

Pluto runs Linux, Windows® XP and Windows Embedded Standard. All OS drivers are shipped with the product.

CPU FEATURES

- ◆ Interchangeable ETX CPU core module provides price/performance flexibility and protects against product obsolescence
- ◆ Choice of CPUs:
 - 1.91GHz Intel Atom E3845 quad core
 - 1.65GHz AMD Fusion G-T56N
 - 1.0GHz AMD Fusion G-T40N
- ◆ Supports up to 8GB DDR3 SO-DIMM SDRAM

I/O FEATURES

- ◆ 2 10/100Mbps Ethernet
- ◆ 4 USB 2.0 ports
- ◆ 2 SATA ports
- ◆ 1 IDE port
- ◆ Floppy port
- ◆ 1 RS-232/422/485 port
- ◆ 3 RS-232 ports
- ◆ LVDS LCD support
- ◆ VGA output
- ◆ TV video output
- ◆ AC'97 audio
- ◆ PS/2 keyboard & mouse
- ◆ Watchdog timer
- ◆ On-board CompactFlash socket
- ◆ PC/104-Plus expansion (ISA + PCI)

GENERAL

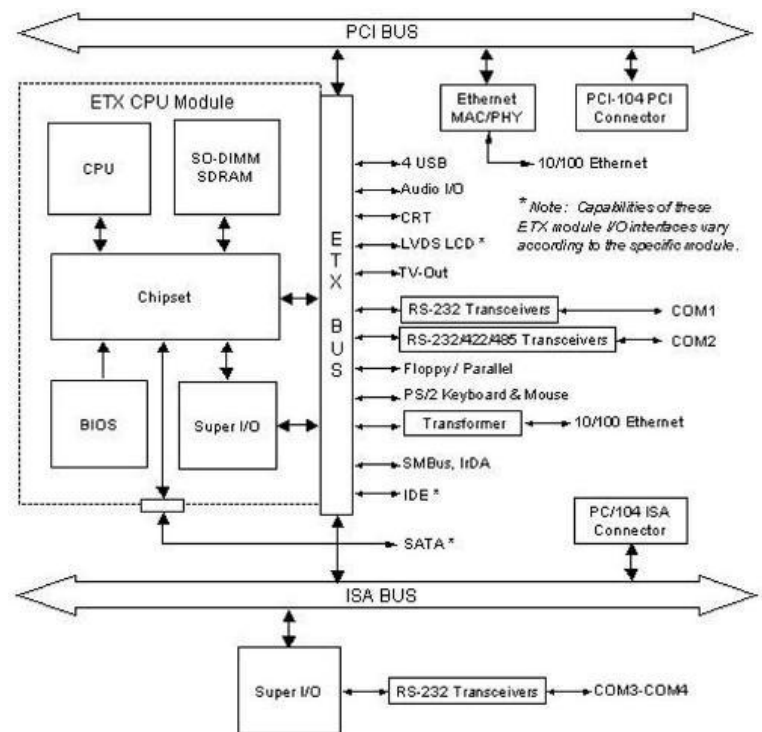
- ◆ ETX COM mounted on the bottom improves thermal management and increases space for I/O functions and connectors on top
- ◆ +5VDC power input
- ◆ ETX form factor (4.5" x 3.7")
- ◆ -40°C to +85°C or -20°F to +71°F operating temperature (model dependent)

Specifications

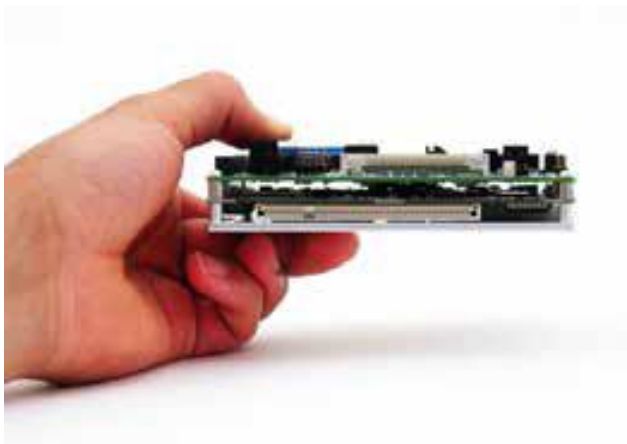
Processor	1.91GHz Intel Atom E3845 quad core, 1.65GHz AMD Fusion G-T56N or 1.0GHz AMD Fusion G-T40N CPU
Cooling	Heat spreader
Memory	Supports up to 8GB DDR3 SO-DIMM SDRAM
BIOS	UEFI or Insyde BIOS, model dependent
Display	LVDS LCD VGA CRT TV output SDVO interface
USB ports	4 USB 2.0
Serial ports	1 RS-232/422/485 port (COM 2) 3 RS-232 ports (COM 1, 3, & 4)
Networking	1 10/100Base-T Ethernet from ETX CPU 1 10/100Base-T Ethernet from Realtek 8103EL on baseboard
Mass storage	2 SATA ports support 1 device each 1 IDE port supports 2 IDE devices including CompactFlash IDE Type II socket
Keyboard/Mouse	PS/2
Parallel/Floppy	Shared parallel and floppy interfaces
Audio	AC'97 audio CODEC; mic in, line in/out
Watchdog timer	Non-maskable interrupt or reset modes
Digital I/O	8 lines
Other I/O	SMBus, IrDA interface
I/O expansion	PC/104-Plus (ISA + PCI) interface
Input power	+5VDC +/-5%
Power consumption	PLT-E3845-xG: 14.7W typical PLT-E3825-xG: 11.8W typical PLT-T40N-xG: 11W typical PLT-T56N-xG: 16.1W typical
Operating temp	-20°C to +71°C (-4°F to +160°F) or -40°C to +85°C (-40°F to +185°F) model dependent
Operating humidity	0-90% non-condensing
Shock & Vibration	MIL-STD-202G compatible
Dimensions	4.5" x 3.7" x 1.1" (114mm x 95mm x 28mm)
Weight	11.5 oz (328g) with heatspreader
RoHS	Compliant

Ordering Information

PLT-E3845XT-8G	Pluto SBC, 1.91GHz Intel E3845 quad core CPU, 8GB SO-DIMM SDRAM, -40°C to +85°C
PLT-E3845XT-4G	Pluto SBC, 1.91GHz Intel E3845 quad core CPU, 4GB SO-DIMM SDRAM, -40°C to +85°C
PLT-T56N-4G	Pluto SBC, 1.65GHz AMD Fusion G-T56N CPU, 4GB SO-DIMM SDRAM, -20°C to +71°C
PLT-T56N-2G	Pluto SBC, 1.65GHz AMD Fusion G-T56N CPU, 2GB SO-DIMM SDRAM, -20°C to +71°C
PLT-T40N-4G	Pluto SBC, 1.0GHz AMD Fusion G-T40N CPU, 4GB SO-DIMM SDRAM, -20°C to +71°C
PLT-T40N-2G	Pluto SBC, 1.0GHz AMD Fusion G-T40N CPU, 2GB SO-DIMM SDRAM, -20°C to +71°C
C-PLT-KIT	Pluto Cable Kit for most on-board I/O



Pluto SBC block diagram



Pluto is a compact, highly-integrated SBC that can be used in a wide variety of embedded computing applications