

TinyLX2

Ultra Low Power PCI/104 Computer



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The TinyLX2 is a highly integrated, low-power Pentium-class embedded based on the 500MHz AMD Geode LX800 CPU. The board is an industry standard 3.7in x 4.0in PCI/104 form factor and provides a standard 32-bit PCI expansion bus. The board also features a miniPCI Type III socket as an ideal way of adding functionality to space constrained systems.



The TinyLX2 features an integrated 4GB Solid State Disk (SSD) in addition to standard peripheral controllers for disks, keyboard, mouse, serial and USB ports. The TinyLX2 also features a fast 10/100MBit Ethernet Controller for efficient LAN communications.

The integrated display controller supports a wide range of display resolutions and is capable of simultaneously driving both analog VGA and TTL digital flat panel TFT displays.

The TinyLX2 also features an integrated audio codec offering stereo input and outputs.

PRELIMINARY INFORMATION (Rev 1.00)

Subject to change without notification

Low power,
reliable
and
rugged
passively cooled
design

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The TinyLX2 is 100% compatible with Windows-XP/CE/XP-Embedded, Linux and a wide range of embedded RTOS including VxWorks and QNX.



Applications

Industrial Automation

Portable Test Equipment

Medical Instrumentation

Mobile Entertainment Systems

Point-of-sale and Kiosk applications

Security, Transportation, Telematics

Embedded Internet/Intranet Appliance

Windows, Linux, QNX, VxWorks Support

Rugged Harsh Environment Applications

High Resolution

VGA,

and

TTL Flat Panel

Display

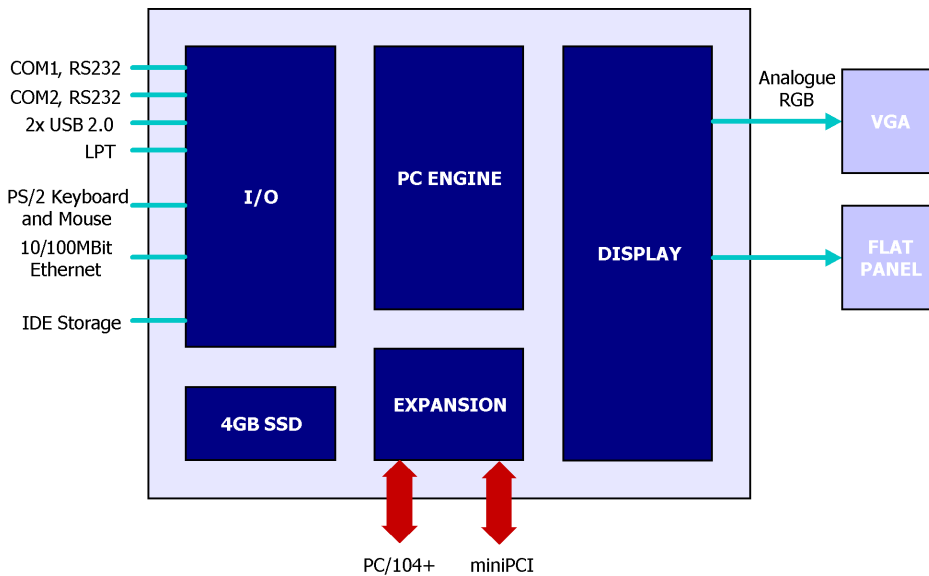
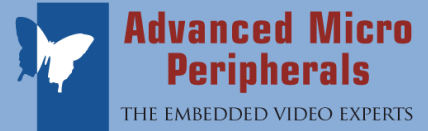
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TinyLX2 Block Diagram

Features

- AMD Geode LX800 Processor @ 500MHz
- Integrated 4GB Solid State Disk (SSD)
- High Resolution CRT and TFT support
- IDE and USB 2.0 ports
- 10/100Mbit Ethernet
- PCI/104 Expansion
- 1x miniPCI Type III Socket
- 100% PC-AT Compatible
- 512-1024 MBytes DDR SDRAM
- Single +5V low power operation
- Passive Cooling
- UK designed and manufactured

Integrated
industrial
Solid State Disk
(SSD)
for tough
environments

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Processor

AMD Geode LX800 x86 CPU at 500Mhz
Host Bus at 133MHz
64KBytes L1 cache, 64KBytes L2 cache
X86 instruction set

Memory

512 or 1024MBytes DDR SDRAM
512KBytes FlashROM (for BIOS)

Storage

4GByte Solid State Disk
Supports Ultra DMA Hard Disk and CDROM drive
Supports external CompactFlash (using T7Flash)

Graphics

High performance Graphics Controller (CRT, TFT)
Up to 254Mbytes display buffer
CRT and Flat Panel resolution up to 1600 x 1200
TTL Flat Panel Interface
Double-headed Display capability

USB

2 on-board USB 2.0 ports
PCI bus-mastering USB Hub Controller
Fully compliant with OHCI/EHCI standard
Software programmable watchdog timer

Networking

10/100MBit PCI Ethernet Controller

Audio

Integrated sound card with stereo audio input and output.

Peripherals

2 RS232 serial port with FIFO at 230.4Kbaud
Supports PS/2 Keyboard and Mouse

Power Management

ACPI compliant

Expansion

Stackable embedded 32-bit PC/104-Plus PCI bus
1x miniPCI Type III slot
3.3V/5V PCI signalling (on PC/104-Plus)

Physical

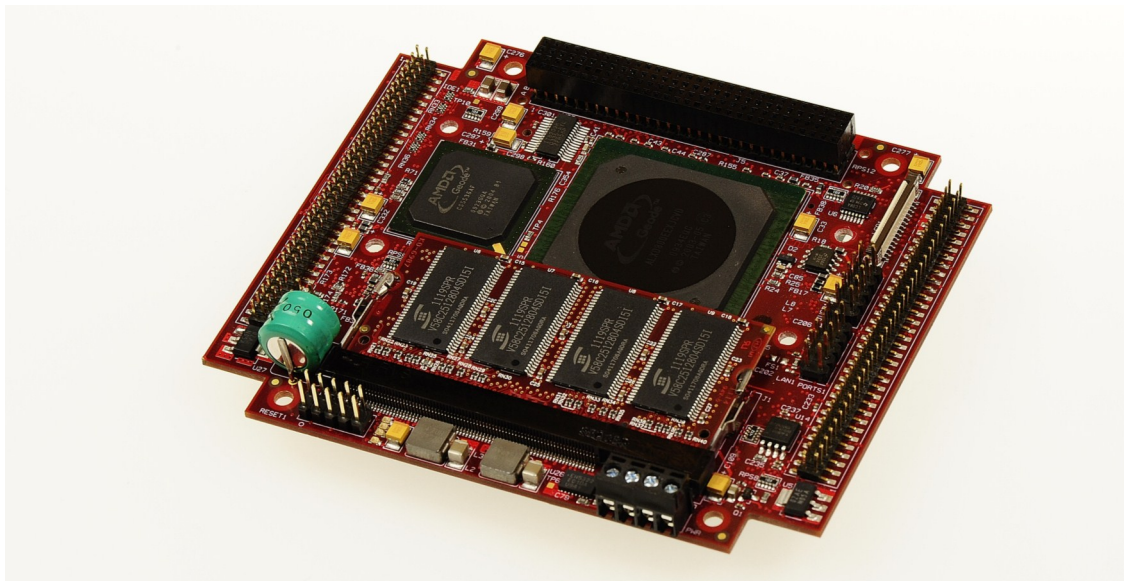
3.6in x 3.8in PCI/104 format
Passive cooling
Temperature 0 to 60°C
Power consumption 7.5W (Max) 4.5W (Typical)
Rel. humidity 5% to 95% non-condensing
Single +5V DC regulated power supply
MTBF Greater than 125,000 Hours MIL-HDBK-217 at 25°C

Ordering Information

TinyLX2-512/4G	TinyLX2, 512MBytes RAM, 4GBytes SSD
TinyLX2-1024/4G	TinyLX2, 1GBytes RAM, 4GBytes SSD

Related Products

Cable-TLX	Cable set for attaching peripherals to the TinyLX2
Bridge2000	PC/104-Plus bridge board
LANswitch	5-port Ethernet Switch for PC/104+



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