

LimeBook --Z7/9

Introducing the revolutionary **new**
LimeBook netbook computer



This all new computer features **Freescale's** power-efficient **MPC5121e mobile GT processor** and the new **Linux-based LimeOS operating system** to create a new user-friendly computing experience.

This rugged, stylish netbook can run on ordinary rechargeable AA flashlight batteries!

Great in the field!

Weighs less than 2.5 lbs.

Embedded web-camera with **box-in-box image function**, **WiFi**, **ethernet**, **stereo-audio**, **VoIP**, all standard. **100/240-volt AC travel adapter** included.



SPECIFICATIONS

CPU: 1700MIPS Tri-Core Moc

(1700 MIPS = 1700 Million Instructions Per Second)

(Tri-Core = It has 3 core processors, one running at 400MHz, one at 200 MHz, and one at 100MHz)

Memory: 256MB~512MB DDRII

Storage: 8GB SSD/HDD

Battery: Li-Fe 3400 mAh. Optional AA rechargeable battery case available.

External: Memory card slot, microphone jack, headphone jack, VGA monitor output port, Ethernet cable port and two USB ports.

Size: 10x7x1.4 in. (252x186x3.5 mm)

Weight: 970g(Z7),990g(Z9)



FEATURES

All **LimePC** models come fully-loaded with multi-media, internet, and office-application software. The audio core of the **Freescale MPC5121e mobile GT processor** provides superb sound. You can download and read books from online libraries with **eBook**. It has the **Open Office** presentation wizard, a word processor and a spread sheet. It even includes Tux Math Command educational video games for kids. All these apps and more are ready to use right out of the box and easily accessible on the **LimeOS** display.



About the LimePC

REINVENTING COMPUTING

The **LimePC** will be the next era of personal computing. It is a way of interacting with devices that are personalized, connected, and simple to use. It is an brings in an era where people have all of their favourite activities and saved items with them, and where people are connected to each other, any way they choose. The **LimePC** devices, incorporated into the **LimeOS** operating system, and, our special **LimeConnect** secure personal profile technologies seamlessly work together to define and deliver your digital experience, in the way **you** want it.

THINK COMMUNITY

Your devices should know what you want to do, and the way you want it done. And, those devices should be able to talk to each other and connect among themselves in ways to make your life easier and more enjoyable. Today's leading **Web 2.0 technologies** shape the **LimePC** vision, and take the concept of "**connected**" to an entirely new level.

THINK SECURITY

The heart of the **LimePC** experience lies in perhaps the most dramatic new technology concept in today's marketplace. **LimeConnect** is our proprietary hardware-based, transport-agnostic secure

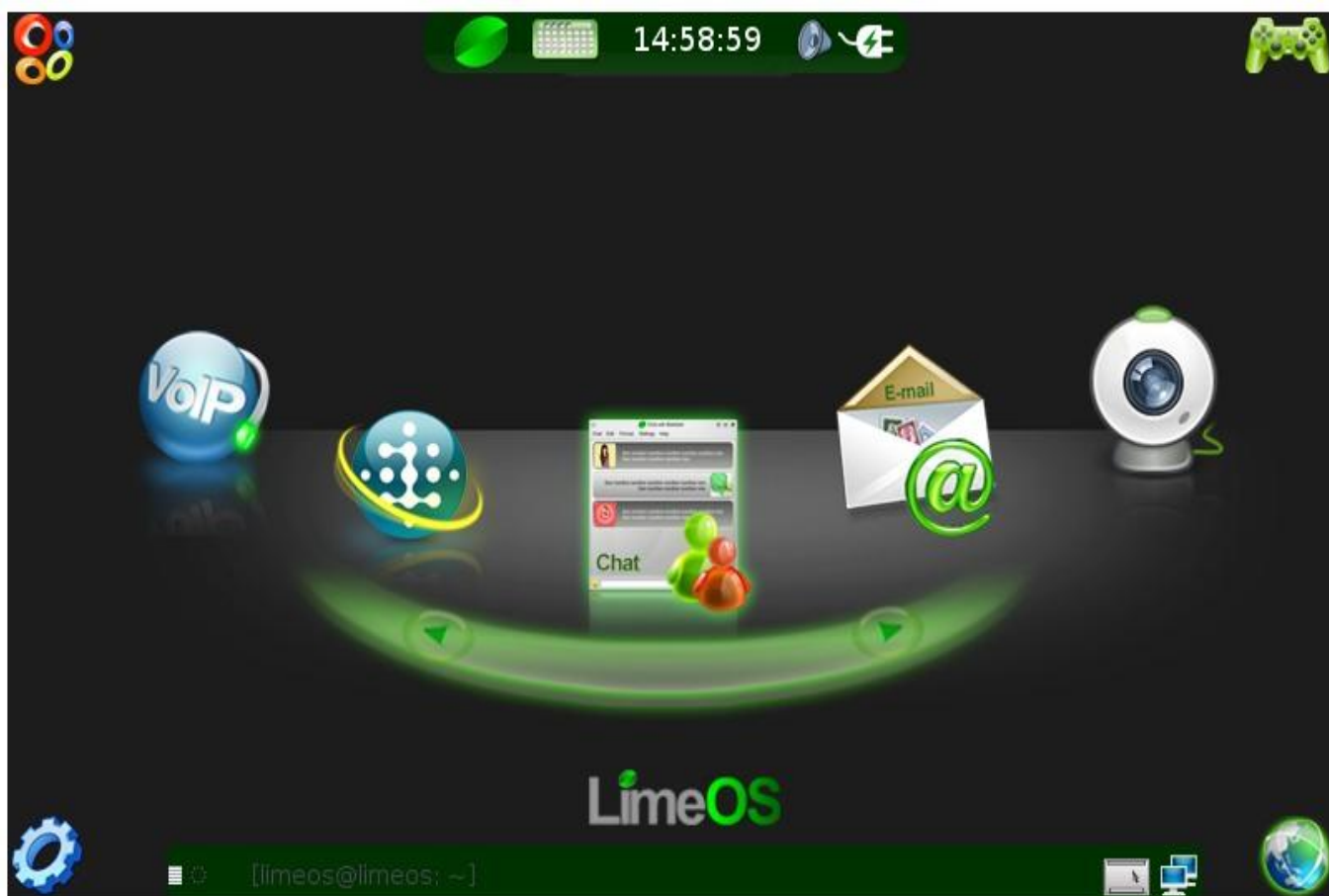
data delivery platform. It is a freely available tool to solve the complexities and incompatibilities that are hampering growth and adoption in today's consumer media markets. It is the simple, ubiquitous secure delivery means that has long been needed by the music, video, movie, web and digital services industries.

LOWER POWER



Due to its special hardware and software design the **LimePC** has one of the lowest power consumptions of any laptop in the world today!

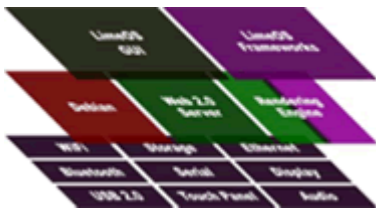
LimeOS is a new Operating System (OS) that will surprise you with its power-efficient performance. It will help you enjoy all the free services included in this product.



ABOUT LIMEFREE

The **limefree.org** project is an open source project sponsored by **LimePC**, with its mission to develop a complete PC system of software + hardware running on the **MPC-5121e PowerPC microprocessor**, the result is a completely open source software and hardware platform with no proprietary components to incur licensing fees or to impair deployment. The **Freescale MobileGT**

development system is available through **Freescale** developer channels or from the **Limefree.org** web site.



LimeFree is a complete **Linux-based** operating system, freely available with community based support. The **LimeFree** community is built on the ideas enshrined in the **Limefree Manifesto**: that software should be available free of charge, that software tools should be usable by people in their local language and despite any disabilities, and that people should have the freedom to customise and alter their

software in whatever way they see fit.



These freedoms make **LimeFree** fundamentally different from proprietary software: not only the tools you need available free of charge and thousands of developers around the world, have the right to modify and build upon your software until it works exactly the way you want to. Many people around the world execute this right. And you can expect many improvements with each new release of **LimeFree**.



ABOUT THE MANUFACTURER

The Manufacturer is, based in Beijing, and is engaged in the information and environmental industries.

Their businesses focus is on four industry segments: **computers**, **application information**, **digital television systems**, and **energy/environment**.

Majority owned by China's leading research university, Tsinghua University, and by the Chinese government, **This company is the #3 PC brand, #4 consumer electronics brand and #4 OEM/ODM manufacturing firm in China**, and employs 2,000 scientists, 1,500 engineers, and 7,000 additional employees working in 37 operating divisions and companies.

HARDWARE DETAILS

MODEL	Z9
CPU	Freescale 3-core 1400MIPS(PPC+RISC+RISC)
Chipset	MPC5121e
Display	8.9" WXGA, 1024X600
Hard Drive	8GB SSD
Main Memory	DDRII 512MB
Optical Drive	external USB interface, COMBO/DVD Super Multit (optional)
LAN	Built-in 10/100 Mbps LAN
WLAN	USB 802.11b/g(optional)
Card Reader	(SD/MMC)2 in 1 card reader
Expansion slot	N
Video Camera	1.3million pixel Video Camera(optional)
Bluetooth	2.0+ EDR (optional)
Power in	9V 3A DC
Touch pad	2-key-touchpad
Interface	2xUSB 2.0 ports 1x Microphone jack 1x Earphone jack 1xVGA output 1x DC-IN jack 1x RJ45 interface
Battery	3-cored intelligent lithium battery
Dimension	251(L)x185(W)x34(H)mm
Weight	0.99Kg (battery included)
OS	Lime OS & IOS

Description
CPU: Freescale 3-core 1400MIPS PPC+RISC+RISC
8.9" WXGA TFT(1024x600)/ Chipset:MPC5121e
DDRII 512MB/ 8GB SSD
10/100 Mbps LAN
(SD/MMC)2 in 1 card reader
1.3million pixel Video Camera
3-cored lithium-iron battery
251(D)x185(W)x34(H)mm /0.99Kg(battery included)

COST QUOTE

MOQ	FOB ANY CHINESE PORT (USD)	Sample Price (USD) (without freight)	Packing Dimension / Gross Weight
10000	\$148.00	\$178.00	340(L)x316(W)x80(H)mm/ 1.9Kg 3000sets/20" 6900sets/40" 8000sets/40"HC

For further information, please, contact Mr. D. Ken Stone on:

kenstone@yourchinatradingpartner.com

Please, take the time to review the articles overleaf.

From China with Freescale Power Architecture - The First NetBook with LimeOS

A new RISC Netbook was (finally) released at CES2009 The LimeBook from Tsinghua Tongfang (THTF, China) Co. Ltd., is an MPC5121e based Netbook. The [MPC5121e](#) from Freescale Semiconductor, which is a 32-bit Embedded Processors SoC, has an e300 core built on Power Architecture technology and is ideal for any embedded solution that requires sophisticated displays, graphics acceleration, rich user interfaces and network connectivity.



It is interesting to see that so many different architectures are competing in the same low-end computer market. Most of the mainstream microprocessors have presented already, x86, ARM, MIPS and power architecture. The retail price for LimeBook is 1599 RMB (about 230USD). It has 7~10 inch LCD (1024*600), 512MB DDR-II, 8GB flash disk, USB-OTG, web camera, WiFi and Bluetooth module. LimeBook can be available in MID style, which is named as LimeNote and only available at 99USD worldwide. THTF installed its LimeOS for this Netbook. Its source code and development tools are released as LimeFree, which is a Linux distribution (it looks like Ubuntu).

If you visit its website, you will find THTF is trying to setup an ecosystem for its Lime product lines, including all the Lime devices (mobile, PC, Note, Book, STB, and TV) as well as the related Web 2.0 services under a service mark of "i see u on".



After Apple switched its Mac PC to Intel, power architecture is losing its share in desktop. You can hardly find any well-known desktop product with power architecture. Power architecture is an open

architecture. Ironically, its clients are considering it as the most closest one. Apple (Mac), Sony (PS3), Nintendo (Wii & GameCube) and even Microsoft (Xbox 360) are making money from the power architecture, because these products (SoC) have no clone products at all. However power architecture is still popular in industrial, telecommunication, IT infrastructure, automotive and consumer video (STB). LimeBook offers an alternative way for the developers who are trying to build project natively. Of course, power architecture still have different ISAs, which means LimeBook is not used to support all ISAs.

Besides Lime website, you can download the complete [BSP \(board support package\) from Freescale support site](#), as well as many Linux distributions for Power PC from Yellow dog, Debian, Fedora, Ubuntu and OpenSUSE. By the way, don't forget Windows NT 3/4 and Macintosh. But still, Linux is our favorite 😊.

THTF is right, the non-x86 Netbook must be supported by a rich content and user software packages to win the market share. But, how to win the recognition from the market? THTF is not Apple anyway. And Apple does not run well in China as well, even it has strong content suppliers. Among ARM, MIPS and power architecture, ARM has more chances to win, since it is the factor standard for RISC market.

SOURCE: <http://digg.com/d1m296>

Freescale “motherboard-on-chip” processor powers LimePC’s Web 2.0-enabled ultra-mobile PCs

MPC5121e processor's triple-core architecture and rich peripheral set provide versatile, cost-effective platform for ultra-mobile PCs



LAS VEGAS (Consumer Electronics Show) – Jan. 7, 2008 – The personal computing world is going ultra mobile. And Web 2.0 applications and services are redefining the Internet. Freescale Semiconductor is addressing the convergence of these two trends with a highly integrated multi-core embedded computing platform adopted by LimePC's newly introduced line of ultra-mobile and affordable consumer PC products.

Imagine squeezing a PC motherboard with graphics and audio cards, PCI, Ethernet, SATA and USB into a device smaller than an iPod® Nano. Imagine no further. Freescale's MPC5121e mobileGT® processor is a “motherboard-on-a-chip” device designed to provide the embedded processing performance and on-chip peripherals and connectivity for ultra-mobile PC (UMPC) platforms. Operating within a 2W power envelope, the processor's highly integrated triple-core architecture virtually eliminates the need for bulky heat sinks and noisy fans required by traditional power-hungry, inefficient personal computing architectures.

“Freescale's mobileGT device built on Power Architecture™ technology provides the ideal system-on-chip processing platform needed to make full-function UMPCs, tablet PCs and small-profile laptops an affordable reality,” said John Wang, chief technical officer of Tsinghua Tongfang (THTF), the parent company of LimePC. “The processor's highly integrated multi-core architecture enabled THTF to develop state-of-the-art consumer personal computing products that embrace today's popular Web 2.0, wireless, community and multimedia technologies at an exceptionally affordable price.”

Freescale's MPC5121e processor powers LimePC's full line of affordable, compact computing products, including UMPCs, pad-style PCs with large touchpad LCD screens, notebook and desktop PCs, and mini-ITX developer kits. LimePC's consumer PC products will feature one or

more MPC5121e processors and a LimeOS and LimeSuite applications software bundle. Connectivity includes USB 2.0, 802.11g WiFi and Bluetooth 2.1 EDR wireless capabilities, as well as 10/100 Ethernet for desktops. Initially available in the China market, the LimePC products are planned to be available in the United States by the 2008 holiday season.

LimeOS is a full-screen HTML rendering environment or “desktop” that runs on top of an open source Debian Linux OS and server stack. LimeOS is designed from the ground up to embrace Web 2.0, multimedia, social and community activities. It leverages the underlying performance of the MPC5121e processor to deliver exceptional computing, wireless and mobile Internet capabilities at very affordable prices. To proliferate the combined LimeOS and Freescale mobileGT processor architecture, LimePC has launched the LimeFree open source community (www.limefree.org) for system developers.

“The MPC5121e processor is the right embedded processing platform at the right time for emerging UMPC designs like LimePC's innovative ultra-mobile offerings,” said Mike Bryars, manager of Freescale's infotainment, multimedia and telematics operation. “The MPC5121e processor continues to gain momentum in the consumer, industrial and automotive markets, and we expect to see it gain traction in non-traditional computing and mobile Internet device applications that require sophisticated graphics, multimedia and real-time audio processing in a cost-effective, power-efficient platform.”

About the MPC5121e processor

Built on Power Architecture technology, the MPC5121e processor is the latest member of Freescale's mobileGT processor family. Manufactured on Freescale's 90-nanometer low-power CMOS technology, the MPC5121e device is designed to deliver exceptional multimedia performance and feature-rich user interfaces within a low power envelope, without sacrificing flexibility and robustness.

The MPC5121e processor is built around an efficient triple-core architecture consisting of a Power Architecture core, a 3D-graphics processor core and a CD-quality audio processor core. The powerful 3D-graphics processor is engineered to provide a graphics pipeline capable of gaming-class 3D rendering while keeping the DRAM bandwidth requirements to a bare minimum. The triple-core MPC5121e architecture is designed to allow the costly distributed DRAM memory systems within a PC to be merged into a single shared DRAM memory system.

The MPC5121e device's 32-bit Truecolor display controller provides the multi-plane blending capabilities to drive a wide range of display resolutions including 720p (1280x720) and WXGA (1366x768). The on-chip audio core provides a flexible, efficient audio DSP/RISC architecture engineered to off-load the CPU from audio ripping, playback and sound enhancement processing such as MP3, WMA and Ogg Vorbis.

The processor's rich set of peripheral interfaces is engineered to reduce overall system cost. In addition to the traditional peripheral interfaces, the secure digital input output (SDIO) and serial interfaces provide the opportunity to leverage a host of low-cost wireless chipsets. Based on its high level of integration and exceptional price/performance, the mobileGT platform is designed to help drive down the cost of full-featured, Web 2.0-enabled personal computing to the \$300 threshold and below.

www.freescale.com/files/pr/mobileGT.html .

To learn more about LimePC products and the LimeFree initiative, visit www.limefree.org.

About Freescale Semiconductor

Freescale Semiconductor is a global leader in the design and manufacture of embedded semiconductors for the automotive, consumer, industrial, networking and wireless markets. The privately held company is based in Austin, Texas, and has design, research and development, manufacturing or sales operations in more than 30 countries. Freescale is one of the world's largest semiconductor companies with 2006 sales of \$6.4 billion (USD). www.freescale.com

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