

君正 **Linux** 系统资源指南

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北京君正集成电路有限公司
Ingenic Semiconductor Co. Ltd

君正 Linux 系统资源指南

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Release history

Date	Revision	Change
Feb. 2009	1.2	Add OpenMID.
Mar. 2008	1.1	Add mplayer and realplayer media format description.
Dec. 2007	1.0	First release.

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1 概述

Jz47XX 系列处理器是北京君正集成电路有限公司推出的高性能低功耗 32 位嵌入式处理器，主频 360MHz，支持 MMU，包括 16KB 的 I-Cache 和 16KB 的 D-Cache，同时还集成了大量的外围设备。在君正处理器平台上可以运行 Linux、WinCE 和 uCOS-II 等操作系统，适合用来开发个人数字助理（PDA）、便携媒体播放器（PMP）、卫星导航仪（GPS）、数码学习机/电子辞典、数码像框、电子书和智能手机等多媒体和通信设备。

北京君正提供完整的 Linux 2.6 系统支持，帮助用户在君正 Jz47XX 系列处理器平台上快速完成产品开发。为方便用户在产品的设计过程中快速检索 Linux 系统下的各种可用资源，本文将详细列出目前已支持的基于 Linux 开发的各种资源，包括编译工具链，引导程序，和 Linux 系统核心、设备驱动程序支持、文件系统等。

2 系统资源列表

Table 1 Toolchain

Features	说明
GCC 4.1.2 + GLIBC-2.6.1	编译器工具

Table 2 U-Boot Resource (Version 1.1.6)

Features	Status
Boot from NOR Flash	Support
Boot from NAND Flash	Support
NOR Flash driver	Support
NAND Flash driver	Support
Serial console and download	Support
Ethernet download	Support
LCD driver	Support
MMC/SD driver	Support
I2C driver	Support

Table 3 Linux Resource

Features	Linux 2.6
➤ Device Drivers	
Standard serial driver	Support
Ethernet MAC driver	Support
NOR flash driver	Support
SLC/MLC NAND flash driver	Support
NAND DMA and Two-Plane operation	Support
NAND Flash Translation Layer driver	
- Hardware ECC	Support
- Bad block management	Support
- Logical to physical address mapping	Support
- Wear leveling	Support
MMC/SD driver (support up to 32GB)	Support
LCD framebuffer driver (Parallel 16/18-bit, Serial 24-bit)	Support
Audio driver	
- OSS AC97 audio driver	Support

- OSS I2S audio driver - JZ4740 internal audio codec - AK4642 external audio codec	Support Support
- ALSA audio driver	Support
Camera sensor (CIM) driver	Support
Touchscreen driver - via JZ4740 internal SADC - via external AK4182 - via external UCB1400 codec - via external WM9712 codec	Support Support Support Support
Keypad driver	Support
USB host driver	Support
USB device driver	
- USB file storage gadget driver	Support
- USB serial gadget driver	Support
- USB ethernet gadget driver	Support
- USB RNDIS support	Support
I2C driver	Support
SPI driver	Support
JZ4740 On-Chip RTC driver	Support
External RTC driver (PCF8563)	Support
WIFI driver	
- Marvell WM8686 WIFI driver (SDIO & SPI mode)	Support
- Atheros AR6001X WIFI driver (SDIO mode)	Support
- Atheros ZD1211 WIFI driver (USB dongle)	Support
- VIA VT6656 WIFI driver (USB dongle)	Support
Bluetooth support	Support
MobileTV support (Afond AD1000)	Support
> File System	
EXT2/EXT3	Support
FAT16/FAT32	Support
JFFS/JFFS2	Support
YAFFS/YAFFS2	Support
UBIFS	Support
> Power Management	
CPU clock change	Support
IDLE mode	Support
SLEEP mode	Support
HIBERNATE mode	Support
Power off mode	Support
Advance Power Management (APM)	Support
> MPlayer	

H264	Support
MPEG2	Support
MPEG4	Support
FLV	Support
WMV	Support
XVID	Support
AVI	Support
MJPEG	Support
MP3, WMA, AAC etc.	Support
➤ Realplayer	
RM and RMVB	Support
➤ OpenMID Platform	
Firefox browser, Abiword, PDF reader, Pidgin etc. Based on X11/GTK+-2.0/Matchbox/XFCE4.	Support