君正 Linux 系统资源指南

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1 概述

Jz4730 和 Jz4740 是北京君正推出的两款高性能低功耗的 MIPS 内核 32 位潜入式处理器,主频 350MHz,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 系统支持,帮助用户在君正 Jz 系列处理器平台上快速完成产品开发。为方便用户在产品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 3.3.1 + GLIBC-2.3.2	在 Linux 2.4 上使用
GCC 4.1.2 + GLIBC-2.3.2	在 Linux 2.4 上使用
GCC 4.1.2 + GLIBC-2.3.6	在 Linux 2.6 上使用

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



- JZ4740 internal audio codec - AK4642 external audio codec - AK4642 external audio codec - ALSA audio driver Camera sensor (CIM) driver Touchscreen driver - via JZ4740 internal SADC - via external AK4182 - via external JCB1400 codec - via external WM9712 codec - via external	- OSS I2S audio driver		
- AK4642 external audio codec - ALSA audio driver - Via JZ4740 internal SADC - Via external AK4182 - Via external AK4182 - Via external UCB1400 codec - Via external WM9712 codec - Via external Sapport - USB device driver - USB device driver - USB file storage gadget driver - USB gadget driver - USB serial gadget driver - USB ethernet gadget driver - USB proft - USB pr		Support	Support
- ALSA audio driver Camera sensor (CIM) driver Camera sensor (CIM) driver Support Support			
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	IDLE mode	Support	Support
HIBERNATE mode Support Support	SLEEP mode	Support	Support
	HIBERNATE mode	Support	Support
Power off mode Support Support	Power off mode	Support	Support
Advance Power Management (APM) Support Support	Advance Power Management (APM)	Support	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	