



AX221 SD/MMC Card Reader Controller



High Performance 8-bit RISC MCU

- 8-bit RISC MCU running at up to 60MIPS
- 8051 instruction set compatibility
- 1.5KB on-chip SRAM
- 12KB Mask ROM
- 5 vectored interrupt controller. Two-level programmable priority

Secure Digital (SD) and MultiMediaCard (MMC)

- Support SD specification v1.0, v1.1, v2.0
- Support MMC specification v3.x, v4.0, v4.2, v4.3
- x1, x4, x8 data transmission
- Automatic CRC7 and CRC16 generation and verification
- Dedicated DMA channels for CMD and DATA
- Support clock rate up to 48MHz

Universal Serial Bus (USB)

- USB specification v2.0 compliant
- USB Storage Class specification v1.0 compliant
- Support 2 endpoints:
 - EP0 (64bytes)
 - EP1 IN/OUT (512bytes, double buffer)

Other Peripherals

- 12MHz Crystal Oscillator
- 2 LED driver IO
- One 16-bit timer with watchdog capability
- Power-on reset
- Low voltage detector
- On-chip regulator for 5V to 3.3V conversion
- On-chip regulator for 3.3V to 1.8V conversion
- On-chip power switch for output 3.3V

Packages

- COB
- 24-pin SSOP
- 28-pin SSOP



高性能 8 位微处理器

- 高速 8 位精简指令集架构, 可达 60MIPS
- 兼容 8051 指令集
- 1.5K 字节的高速内置 SRAM
- 12K 字节的 Mask ROM
- 5 个中断入口的中断控制器, 支持两级中断优先级

SD/MMC 记忆卡

- 支持 SD 卡 v1.0、v1.1、v2.0
- 支持 MMC 卡 v3.x、v4.0、v4.2、v4.3
- 支持 1 位、4 位、8 位资料线模式
- 全自动 CRC7、CRC16 计算及校对
- 特设 CMD 及 DATA 的 DMA 通道
- 输出时钟达 48MHz

USB

- 高速 USB2.0
- 兼容 USB 大容量设备 1.0
- 支持 2 个端点
 - 端点 0 (64 字节)
 - 端点 1 IN/OUT (512 字节, 双缓冲区)

其他外设

- 12MHz 晶体振荡器
- 2 LED 驱动 IO
- 1 个 16 位定时器 (另具看门狗功能)
- 上电复位电路
- 低电压检测电路
- 5V 到 3.3V 的电压整流器及 3.3V 到 1.8V 的电压整流器
- 片上 3.3V 输出开关

封装

- COB
- 24 管脚 SSOP
- 28 管脚 SSOP

AppoTech Limited

Address : Unit 110-111, 1/F, IC Development Centre,
No.6, Science Park West Ave.,
Hong Kong Science Park,
Shatin, N.T., Hong Kong

Telephone : (852) 2607 4090

Fax : (852) 2607 4096

www.appotech.com