基于 CH317Q 的 USB 长线传输设计及应用

许小兰,李 灏

(西安微电子技术研究所,陕西 西安 710054)

摘 要: 传统的 USB 鼠标、键盘传输线长度不到两米,不能满足远距离人机交互操作的需求.为解决 USB 信号传输距离短的问题,本文提出了一种基于 USB 延长器控制芯片的方案. 该方案可满足 100 m 的 USB 长线传输距离,已经在某型测控计算机中使用,经检验系统运行稳定可靠.

关键词: USB; 长线传输; CH317Q

Design and Application of USB Long-haul

Transmission Based on CH317

XU Xiao-lan, LI Hao

(Xi' an Microelectronics Technology Institute, Xi' an 710054, China)

Abstract: The length of the traditional USB mouse and keyboard transmission lines is less than two meters, which can not meet the needs of long-distance data acquisition and transmission. In order to solve the short distance problem of USB signal transmission, this paper proposes a scheme based on USB extender control chip. The program can meet the 100-meter USB long-distance transmission distance, has been used in a type of measurement and control computer, the test system is stable and reliable.

Key words: USB; Long-term transmission; CH317Q 作者简介:

许小兰 女,(1994-),硕士研究生.研究方向为嵌入式计算机系统应用. E-mail:13227818958@163.com.

李 灏 男,(1978-),研究员,硕士生导师.研究方向为嵌入式计算机系统应用.