MA8608
USB 2.0 High Speed 4-port hub controller

Description

The MA8608 is a high performance solution for USB 2.0 High Speed 4-port hub controller with fully compliant with Universal Serial Bus Specification 2.0. The controller inherits advanced serial interface technology to consume the least power when 4 DS (downstream) ports function simultaneously.

The MA8608 is an innovation that integrates function to comply with USB-IF "Battery Charging Specification Revision 1.2", which supports fast charging function for portable devices. This feature turns MA8608 into a USB Charging Hub for "Universal Charging Solution", (UCS) compliant battery based portable devices, promoted by GSMA. The dedicate port in MA8608 can handle the charging request when B.C. compliant portable device is detected on the downstream port. And, after the handshake has been completed, MA8608 allows portable devices to draw up to 900mA (High speed); 1.5A (Low/Full speed) from charging downstream ports (CDP) or 1.5A from dedicated charging port (DCP). The MA8608 also support APPLE iPad fast charging mode.

MA8608 adapt Single Transaction Translator (STT) and Ganged power management to achieve cost effective purpose. Users can also implement multiple Hub configuration options through external EEPROM.

MA8608 supports QFN24 package targets at mainstream stand along 4 ports Hub market.

Features

USB 2.0 Hub

- Compliant with USB Specification Revision 2.0
  - ✓ Upstream Port supports high-speed (480MHz) and full-speed (12MHz) traffic
  - ✓ Configurable 4/3/2 downstream ports support high-speed, full-speed, and low-speed
  - ✓ Backward compatible to USB Specification Revision 1.1
- Compliant with USB Battery Charging Specification Revision 1.2

Prolific Technology Inc.
7F, No.48, Sec.3, Nan Kang Rd., Taipei, Taiwan 115, ROC
Tel: 886-2-2654-6363 Fax: 886-2-2654-6161
E-mail: sales@prolific.com.tw
http://www.prolific.com.tw

- Support Apple resistor mode for fast charging
- Integrated Fast 8051 microprocessor
- 12Mhz Oscillator clock input
- Integrated upstream 1.5KΩ pull-up downstream 15KΩ pull-down resisters
- Single Transaction Translator (Single TT)
- Ganged Power Control and Global Over Current detection for downstream ports
- Leading small power consumption USB2.0 Hub
- On chip 5V to 3.3V/1.2V regulator
- Automatic re-enumeration for switching between self-powered and bus-powered modes
- External EEPROM interface for customized information storage
  - ✓ Customized VID, PID
  - ✓ Number of downstream port
  - ✓ Product ID
  - ✓ Serial number
- Two LED port indicator mode
  - ✓ 4 Downstream port LED (enable green) and one Active/Suspend LED(Red)
  - ✓ One joint Downstream port LED for 4 ports (enable green) and one Active/Suspend LED(Red)

Package

QFN24

Prolific Technology Inc.
7F, No.48, Sec.3, Nan Kang Rd., Taipei, Taiwan 115, ROC
Tel: 886-2-2654-6363 Fax: 886-2-2654-6161
E-mail: sales@prolific.com.tw
http://www.prolific.com.tw