

## MA8627

### USB 2.0 High Speed 3-Port Hub with SD Reader Controller

The MA8627 is a high performance solution for USB 2.0 High Speed 3-port hub with SD card controller which is fully compliant with Universal Serial Bus Specification 2.0. The controller inherits advanced serial interface technology to consume the least power when 3 DS (downstream) ports function simultaneously.

The MA8627 is an innovation that integrates function to combine USB 2.0 Hub and SD card reader. The reader complies with SD, SDHC, SDXC and MMC card specification. With single IC, MA8627 provides system solution targeting the multi-media set top box for multiple USB ports and reader application.

MA8627 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.

## Features

### USB 2.0 Hub

- Compliant with USB Specification Revision 2.0
  - Upstream Port supports high-speed (480MHz) and full-speed (12MHz) traffic
  - Configurable 3/2 downstream ports support high-speed, full-speed, and low-speed
  - Backward compatible to USB Specification Revision 1.1
- 12Mhz Oscillator clock input
- Integrated upstream  $1.5K\Omega$  pull-up downstream  $15K\Omega$  pull-down resistors
- Single Transaction Translator (Single TT)
- Ganged Power Control and Global Over Current detection for downstream ports
- Leading small power consumption USB2.0 Hub
- Integrated Fast 8051 microprocessor
- 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
  - 3 Downstream port LED (enable green) and one Active/Suspend LED(Red)
  - One joint Downstream port LED for 3 ports (enable green) and one Active/Suspend LED(Red)

## USB 2.0 SD Card Reader

- USB Device Class Definition for Mass Storage , Bulk-Transport v1.0
- Single LUN support for SD/MMC card
  - Support MMC 4.0/4.1/4.2 (4 bit & 8bit), RS-MMC, MMC-Mobile
  - Support Secure Digital Card (SD) specification v1.0/v1.1/v2.0/v3.0 UHS-1 for SDR50 & SDR104
  - Support SD/MMC High Speed , SDR50, SDR104 Mode
- Integrated Fast 8051 microprocessor
- On chip 5V to 3.3V/1.2V regulator

**Package** : LQFP-48

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