

Migrating the USB97C224 to the USB2224

1 Introduction

The USB2224 is an enhanced version of the USB97C224 that will allow migration to enhanced formats in the future. This note describes the considerations for replacing the USB97C224 in existing designs with the USB2224.

1.1 Overview

The USB2224 is virtually identical to the USB97C224. It shares exactly the same pinout and has virtually all the functions of the USB97C224. In addition, the production ROM versions of the USB2224 offer enhanced MS compatibility, improved CF Ultra card performance, improved re-mapping times for SM cards resulting in smoother operation of video playback with software players, and includes power management code for embedded notebook applications.

One minor difference between the USB2224 and the USB97C224 MAY require a board level change in some customer configurations of the USB97C224.

1.2 SD Card Detect Switch

The existing USB97C224 code makes provision for two means of SD card detection: polling or mechanical switch. This is selected by the appropriate setting of an attribute bit (either in VID/PID EEPROM or external code memory Flash). However, in the USB2224, this option is no longer available and the SD Card Detect switch function MUST be used for proper operation.

Note, that it IS possible to continue to use USB97C224 code on the USB2224 (USB2224 is backward code compatible to the USB97C224), running it from external memory, and still have the polling SD detection option available.

In order to use the internal ROM of the USB 2223, GPIO5 MUST be used as SD Card detect switch input as shown below:

GPIO	DIRECTION	FUNCTION
GPIO5	Input	SD Card Detect, active low (HS LED is not available)



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