TVP5147M1 RAM Release Notes

Contents

Tables:

1. Introduction

The TVP5147M1 has embedded video decoding firmware revision v07.00.00 in the device on-chip ROM. The TVP5147M1 device has a limited embedded RAM space which allows patch firmware code download possible. The patch can be used in improving decoder performance or fixing known decoder firmware bugs.

This document discusses the hardware and firmware issues related to the TVP5147M1 and fixes made by the patch v07.03.01. The discussions also include performance improvement made by the patch, the differences between the patch and the TVP5147M1 data manual.

2. Device & Firmware Affected

The information provided below is related only to the following device and firmware. Additional devices and firmware releases will have their own release notes.

Table 1. Device & Firmware Affected

Device	TVP5147M1
Firmware	v07.03.01
Patch Size	3,512 bytes
Datasheet	SLES140G.pdf

3. Device Related Issues

The following are the known firmware issues in the TVP5147M1 ROM v7.00 device. Additional issues will be added to the list as they are discovered.

- The TVP5147M1 ROM does not support continuous writing to register 0x07 peaking gain bits to control image sharpness. This causes flashing on screen.

  In this patch register 0x98 bits [1:0] is provided to control peaking gain in four steps as it can be found in Rom code register 0x07 bits [3:2].

  Caution: By using v07.01 patch, register 0x07 bits [3:2] peaking gain shall not have the functionality stated in the data sheet. Only this functionality is transferred to register 0x98 bits [1:0] without flashing effect.

- The TVP5147M1 ROM supports standard ITU-R BT.601 timing (NTSC: 27MHz, PAL: 27MHz); however, some video surveillance applications require use of non-standard timing to provide 720 active pixels per line (NTSC: 27.5MHz, PAL: 27.75MHz). This patch provides the ability to support 720 active pixels per line by writing 1 to bit 7 of register 0x33.

- Changed default setting for VBUS register 0xA00014 from 0x15 to 0x14 to support industrial temperature range devices.

4. Related Documentation

The following is the currently available related documentation.

Table 2. Related Documentation

Description	File	Purpose
Patch download app note	SLEA092A_TVP5147M1_Patch.pdf	Application note

IMPORTANT NOTICE