
RELEASE NOTES

Patch Code
for
TVP5154A ROM v2.0
Release Notes
Patch Code Version v2.02
(Friday, Jan 15, 2010)

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1. Introduction

This release is intended for the users of the TVP5154.

The release is based on the TVP5154, v2.00 ROM

2. Minimum System Requirements (when using TI EVM)

Hardware

- IBM PC with MS windows 98, 2000, or XP.
- Parallel cable
- TI EVM

Software

- WinVCC4 v4.41.
- WinVCC4 command file, P5154_0202.cmd
- Patch file for TI EVM, p5154_0202.hra
- Patch file for customer backend system, p5154_0202.c
- Patch Download Size: 522 Bytes

3. Device/Firmware Affected

Device	TVP5154
Firmware	04.00
WinVCC4	v4.41
Datasheet	TVP5154A preliminary.pdf

4. Fixes Implemented in this Release

- Fixed black/white line noise issue that occurred whenever the analog gain changed.
- Limited contrast setting to 207 to prevent wraparound of back-end digital gain.
- Fixed problem that required the brightness setting to be modified whenever the contrast setting is modified to restore the black level.

5. Changes to

Datasheet Features

None

Register Map

None

Pin Out and Pin List

None

Electrical Specifications

None

6. Errata in this patch release

- None

7. Instructions for Patch Code Download***TI EVM***

1. Power-on the board with TVP5154 device on it. Connect source to Input and Output to monitor
2. From WinVCC4 open P5154_0202.CMD file.
3. Load line 1
4. "TVP5154 ROM - Initialize for NTSC"
5. Now you should get good picture on monitor. There is no code loading here, just setups for TVP5154 & ADI7194.
6. Check the version number from property sheets on WinVCC4. You will see 04.00
7. Load line 2
8. " TVP5154 Load RAM Code p5154_0202.hra"
9. Now the patch code is downloaded & microprocessor is restarted. The decoder is running ROM + Patch RAM code.

Check the version number from the property sheets, you will see 02.02. You should see the changes in this patch now.

Customer System

Ensure the device used is a TVP5154 ROM v2.00.

1. Power on the board with TVP5154 ROM v2.00 device on it.
2. Start the TVP5154 without the patch code.

There are only 2 register writes to get the TVP5154 up and running. The user has to enable the outputs (register 0x03) and start the internal microprocessor (writing 0x00 into register 0x7F). There is no code loading here, this just setup the TVP5154 for normal operation.

Check the version number in registers 0x82 and 0x83. The values you will see are 0x02 and 0x00 respectively.

3. Load the code

There is password for patch ram download. After the password is set, it is a good idea to lock the device again, by writing 00 into that address. The password prevents undesirable writes into the device at startup due to power surges etc. The following code demonstrates the method for unlocking and then locking the device again.

**** Code starts here ****

a. Unlock the device

I2C subaddr	Data	
0x21,	0x51	//MSB data
0x22,	0x54	//LSB data
0x23,	0xFF	//Data address
0x24,	0x04	//Write command

b. Download real patch code P5154_0202.hra through 0x7E

c. Restart Microprocessor

Write into register 0x7F, data 0x00 // Restart TVP5154 microprocessor

d. Lock the device

I2C subaddr	Data	
0x21,	0x00	//MSB data
0x22,	0x00	//LSB data
0x23,	0xFF	//Data address
0x24,	0x04	//Write command

**** Code ends here ****

Now decoder should run ROM + Patch RAM code.

Check the version number in registers 0x82 and 0x83. The values you will see are 0x02 and 0x02 respectively.

You should see that the decoder now incorporates the fixes mentioned in the previous section.

4. If there is a H/W reset to the TVP5154 (active low pulse to pin-8), the original ROM code is restarted to run (patch code is disabled). To let patch code run without downloading the whole patch code again, please follow the following procedure.

Set the correct password by doing the 4 writes as mentioned above to unlock the device. Then write 0x05 to I2C address 0x10. Now the patch code is running. (Verify the

version number in registers 0x82 and 0x83. The values you will see are 0x02 and 0x02 respectively). Finally, lock the device as in the previous section.

8. Related Documentation

Description	File	Purpose
Patch version 2.02 Release Notes	ReleaseNotesforPatchv2.02.doc	This Document. Latest bugs, Updates and Installation.
5154 Data Sheet	TVP5154 Data Manual	Device Data Sheet. 5154 Detailed Data Sheet.