

i.MX 6 Linux 3.0.101_4.1.1 Patch Release Notes

Contents

1 Overview

This patch release is based on the i.MX 6 Linux 3.0.35_4.1.0 release. The purposes of this patch release are as follows:

- To fix the BSP multimedia GPU bugs
- To upgrade the Linux kernel to v3.0.101
- To upgrade the multimedia library
- To upgrade the GPU driver and library to 4.6.9p13

1	Overview	1
2	Release Contents	2
3	Package and Patch Description	3
4	Applying Patches.....	5

2 Release Contents

The table below describes the contents of this release.

Table 1 Release Contents

Name	Description
Packages & Patches	Contains the packages and patches included in this release, described in the Package & Patch Description.
Documentation	Contains the following document: <i>i.MX 6 Linux 3.0.101_4.1.1 Patch Release Notes</i> : This document.

3 Package and Patch Description

The table below describes the packages and patches included in this release.

Table 2 Package and Patch Description

Name	Description
linux-3.0.101.tar.bz2	Linux kernel 3.0.101 package
linux-3.0.101-imx_4.1.1.bz2	Freescale BSP patch based on Linux kernel 3.0.101
u-boot-v2009.08-imx_3.0.101_4.1.1.tar.bz2	Freescale U-Boot patch based on u-boot-v2009.08
gpu-viv-bin-mx6q-3.0.101-4.1.1.tar.gz	GPU library version 4.6.9p13+bug fix for i.MX 6Dual and i.MX 6Quad
gpu-viv-bin-mx6s-3.0.101-4.1.1.tar.gz	GPU library version 4.6.9p13+bug fix for i.MX 6Solo
gpu-viv-wl-bin-mx6q-3.0.101-4.1.1.tar.gz	GPU library version 4.6.9p13+bug fix for i.MX 6Dual and i.MX 6Quad (Wayland backend)
gpu-viv-wl-bin-mx6s-3.0.101-4.1.1.tar.gz	GPU library version 4.6.9p13+bug fix for i.MX 6Solo (Wayland backend)
libfslcodec-3.0.11.tar.gz	Freescale codec version 3.0.11
libfslparser-3.0.11.tar.gz	Freescale parser version 3.0.11
libfslvpwrap-1.0.46.tar.gz	Freescale VPU wrapper library version 1.0.46
firmware-imx-3.0.101-4.1.1.tar.gz	Freescale firmware package which updates VPU firmware
gst-fsl-plugins-3.0.11.tar.gz	Freescale gstreamer plugins version 3.0.11
imx-vpu-lib-3.0.101-4.1.1.tar.gz	Freescale VPU library version 5.4.23
ltib_dist_lfs-5.1.patch	Patch for LTIB build system folder at Ltib/dist/lfs-5.1
ltib_config_platform_imx.patch	Patch for LTIB build system folder at Ltib/config/platform
gst-fsl-plugins-3.0.11-configure.patch	Patch for gst-fsl-plugins-3.0.11 package
glib2-2.12.1-atomic.patch	Patch for glib2-2.12.1.1 package

Table 3 Some BSP hot fixes in linux-3.0.101-imx_4.1.1.bz2

Patch name
ENGR00331050 [imx6qdl] Fix the workaround for ERR005778
ENGR00331423 USB: host: Use non-bufferable memory allocation for DMA
ENGR00329306 USB: gadget: imx: Disable stream mode
ENGR00320182 [iMX6DQ/iMX6DL] Fix bug in DLL off mode code in DDR3 frequency change procedure
ENGR00325794 [#1087] Fix video memory mutex sharing issue
ENGR00300876 [#ccc] Fix flicker issue in GAL2D compositor
ENGR00315583 [#1209] Fix random data corruption in GPU memory
ENGR00316182: [imx6x] Fix bugs in clock and cpufreq code.
ENGR00306992-2 gpu:gpu2d may cause a bus hang in some corner cases
ENGR00308899 [#1087] Enhanced GPU database protection

Patch name
ENGR00309915 [#1087] Enhanced video memory mutex
ENGR00306397 [#1118] Use BUG_ON to check if GPU clock is off
ENGR00306257 [#1027] Fix system hang up issue caused by GPU
ENGR00301078-3 regulator: pfuze100: Add pfuze200 support at regulator driver level
ENGR00267929: [MX6SL] Add DDR3 support for i.MX 6SoloLite
ENGR00278350 GPU: Vivante 4.6.9p13 kernel part integration

Table 4 U-Boot hot fixes in u-boot-v2009.08-imx_3.0.101_4.1.1.tar.bz2

Patch name
ENGR00329930-2 MMC: Fix debounce problem in the tuning algorithm
ENGR00329930-1 USDHC/ESDHC: Fix incorrect pad setting for SDR 104
ENGR00303101: NAND cannot boot for automotive board
ENGR00293946 SD:ESDHC/USDHC Fix command timeout after UHS-I tuning error
ENGR00293946 SD:ESDHC/USDHC Fix command timeout after UHS-I tuning error

4 Applying Patches

To apply the patches, perform the following steps:

1. Install the i.MX 6 Linux 3.0.35_4.1.0 release by following the instructions provided in the *i.MX 6 Linux 3.0.35_4.1.0 Release User Guide*.
2. Copy the following packages to host /opt/freescale/pkgs:
 - firmware-imx-3.0.101-4.1.1.tar.gz
 - imx-vpu-lib-3.0.101-4.1.1.tar.gz
 - libfslcodec-3.0.11.tar.gz
 - libfslparser-3.0.11.tar.gz
 - libfslvpuwrap-1.0.46.tar.gz
 - gst-fsl-plugins-3.0.11.tar.gz
 - gst-fsl-plugins-3.0.11-configure.patch
 - glib2-2.12.1-atomic.patch
 - gpu-viv-bin-mx6q-3.0.101-4.1.1.tar.gz
 - gpu-viv-bin-mx6s-3.0.101-4.1.1.tar.gz
 - gpu-viv-wl-bin-mx6q-3.0.101-4.1.1.tar.gz
 - gpu-viv-wl-bin-mx6s-3.0.101-4.1.1.tar.gz
 - linux-3.0.101.tar.bz2 linux-3.0.101-imx_4.1.1.bz2
 - u-boot-v2009.08-imx_3.0.101_4.1.1.tar.bz2
3. In Ltib_installed/config/platform/imx, execute the following command:

```
patch -p1 -i ltib_config_platform_imx.patch
```
4. In Ltib_installed/dist, execute the following command:

```
patch -p1 -i ltib_dist_lfs-5.1.patch
```

Build Linux 3.0.101_4.1.1 by following the user's guides in the i.MX 6 Linux 3.0.35_4.1.0 release. You need to choose the kernel version as Linux 3.0.101-imx by running the `./ltib -config` command.

How to Reach Us:

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