OMAP35x EVM Linux PSP

Release Notes

Texas Instruments

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Mailing Address:

Texas Instruments,
Post Office Box 655303,
Dallas, Texas 75265

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Release Notes

This release notes provides important information that will assist you in using the OMAP35x EVM Linux PSP. This document contains product information and known issues that are specific to the Linux PSP for the OMAP35x EVM.

The PSP Package serves to provide a fundamental software platform for development, deployment and execution. This abstracts the functionality provided by the hardware. The product forms the basis for all application development on this platform.

Important

This release is based on open source Linux Kernel Version 2.6.29-rc3. (commit-id :c40ce00e32082c57070fdba39c7d7cba3228d440). It has been tested on the OMAP35x EVM (Rev C) with the ES2.1 (128MB RAM) and ES3.1 processor. This release has been additionally validated on the OMAP35x EVM2(Rev E) with ES3.1 processor.

Note

The linux-omap git does not include full support for Video/PM Subsystems. It was expected that most of the Video/PM functionality will be rolled into linux-omap git by the time PSP 02.01.00.xx release is made. Since the convergence is taking longer, this release package includes a series of patches on top of the 2.6.29-rc3 kernel baseline (reflection of work from pm branch, dss2 library, psp patches). Based on review and acceptance of these patches in the community, the current implementation can change in the future.

For the list of patches included in the release package, the following table summarizes the origin of the patches and their current state of acceptance in the community.

Video Display	linux-omap git supports only minimal fbdev driver (no V4L2 support). This release is based on the DSS2 library and frame buffer driver submitted by Tomi to the community (http://www.bat.org/~tomba/git/linux-omap-dss.git). The release includes enhancements/fixes to the DSS2 library and fbdev driver

	(support for rotation, wait_for_vsync, dvi, argb). Also included in the release is the V4L2 driver, built around the DSS2 library. All patches are under various stages of submission/review/ acceptance and can change in the future.
Video Capture	linux-omap git lacks support for the video capture driver. This release includes snapshot of work in progress (Nokia/TI). Patches for capture driver have been posted to the community and are under review.
Resizer Driver	linux-omap git lacks support for memory-to-memory resizer driver. RFC for the same has been posted to the community for feedback. This release includes a snapshot of current implementation for the resizer driver.
Audio Driver	This release includes patches (posted for community review) that add support for OMAP35x EVM under ASOC.
Power Management	Power management support is based on work from "pm" branch of linux-omap git (PM changes not on "master" branch yet). Patches from the pm branch are merged against the chosen kernel baseline and tested with other drivers. Further fixes/ enhancements included in the release package have been submitted back to the community.
USB	Includes patches that have submitted/accepted in the community (linux-usb git). These patches have been ported against the release baseline.

The release notes contain following sections:

- General Information

  - Related Documentation

  - Tool Chain Version used in this release

  - Limitations

- Driver Information

- Reporting Issues

1. General Information

The release package includes the following deliverables:

• Boot loader (U-Boot) sources

• Pre-built binary of U-Boot (u-boot.bin)

• Linux Kernel Sources (based on 2.6.29-rc3, commit: c40ce00e32082c57070fdba39c7d7cba3228d440)

• Pre-built Linux kernel image (uImage)

• Pre-built RAM disk image containing root file system (built using OpenEmbedded/Angstrom Distribution)

• Pre-built NFS mountable root file system (built using OpenEmbedded/Angstrom Distribution)

1.1. Related Documentation

In addition to these release notes, the release package includes the following documentation:

• User Guide

• Migration Guide

• Data Sheet

• Getting Started Document

1.2. Tool Chain Version Used In This Release

• Code Sourcery arm-2008q1

1.3. Limitations

2. Drivers

2.1. U-Boot Driver

This section provides an overview of the U-Boot driver.

The u-boot sources are based on the open source implementation of u-boot on u-boot-arm git omap3 branch (which has been merged with U-boot mainline). Future releases will be based of the u-boot mainline GIT.

The tree can be accessed at

u-boot-arm.git   [http://git.denx.de/?p=u-boot/u-boot-arm.git;a=shortlog;h=refs/heads/omap3]

2.1.1. Features

1. Based on U-boot commit id:

    cf6ec699a6dc21a538b039a0392cd38132072090 on Thu Nov 27

    with updates necessary to support OMAP35xx EVM.

2. Supports boot from Micron NAND, OneNAND, MMC, RAM disk and NFS.

3. Supports read, write and erase operations on Micron NAND and OneNAND.

4. Supports 128MB/256MB of DDR RAM.

5. Supports bad block management on OneNAND and Micron NAND.

6. Supports TFTP protocol to fetch binary images.

2.1.2. Known Issues and Limitations

1. Only the features required/used commonly with the OMAP3EVM have been validated.

2. OneNAND and NAND commands supported are taken from open-source. Some of these commands on OneNAND will change depending on how open source evolves.

3. `dhcp` command fails in certain setups.

4. `ls` command hangs the system

5. `reset` command hangs on U-Boot on OMAP3 EVM boards while booting from MMC card.

6. X-loader has been initialized for 256 MB DDR RAM. OMAP3 EVM with 128MB support will also work with this U-Boot release if the

correct amount of memory is passed through Linux through the environment variables. If memory specified to kernel is more than 128 MB, the system behaviour will be random.

7. `mmcinit` on OMAP3 EVM boards with PR785 power boards spits out the following harmless message.

`OMAP3_EVM # mmcinit`

I2C read: I/O error

I2C read: I/O error

The error message can be safely ignored.

2.2. Baseport

2.2.1. Features

1. Based on 2.6.29 kernel (commit:c40ce00e32082c57070fdba39c7d7cba3228d440) from the linux-omap git. The GIT can be accessed at linux-omap GIT. [http://git.kernel.org/?p=linux/kernel/git/tmlind/linux-omap-2.6.git;a=summary]

2.2.2. Known Issues and Limitations

1. On OneNAND EVMs reboot command doesn't work as expected in Linux prompt.

2. Supporting RTC on TWL4030 requires modifications to the OMAP3EVM. RTC is not supported in this release.

3. When all peripherals are exercised concurrently, system instability is observed occasionallay. Instances include audio overrun/underruns, inability to recover from system suspend/resume

2.3. Audio Driver

2.3.1. Features

1. Supports TWL4030 audio codec in ALSA SoC framework.

2. Supports audio in both mono and stereo modes.

3. Supports multiple sample rates for both playback and capture.

4. Supports simultaneous playback and record (full-duplex mode).

5. Supports start, stop, pause and resume feature.

6. Supports mixer interface for TWL4030 audio codec.

2.3.2. Known Issues and Limitations

1. Forward/Rewind APIs in the ALSA Library return zero.

2.4. OneNAND Driver

This sections provides an overview of the OneNAND driver.

2.4.1. Features

1. Supports JFFS2 file system.

2. Out of total 128MB, NAND has been divided into 5 partitions listed below:

   a. 512 KB Read only partition for X-Loader.

   b. 1792 KB Read-only partition for u-boot

   c. 256 KB Read-only partition for environment variables.

   d. 5 MB Read/Write partition for Linux.

   e. Remaining space is used for file system and others (Read/Write).

2.4.2. Known Issues and Limitations

1. OneNAND mount operation, read and write operations are slow on a filled flash.

2. OneNAND read and write operations are slow compared to earlier releases.

2.5. NAND Driver

This sections provides an overview of the NAND driver.

2.5.1. Features

1. Supports JFFS2 file system.

2. Out of total 128MB, NAND has been divided into 5 partitions listed below:

   a. 512 KB Read only partition for X-Loader.

   b. 1792 KB Read-only partition for u-boot

   c. 256 KB Read-only partition for environment variables.

   d. 5 MB Read/Write partition for Linux.

e. Remaining space is used for file system and others (Read/ Write).

2.5.2. Known Issues and Limitations

1. NAND mount operation, read and write operations are slow on a filled flash.

2. NAND read and write operations are slow compared to earlier releases.

2.6. USB Driver

This sections provides an overview of the USB driver.

2.6.1. Features

2.6.1.1. MUSB OTG : Slave mode

1. Supports data transfer in DMA and interrupt mode.

2. File backed storage driver with SD media as the storage medium.

3. CDC/RNDIS gadget.

2.6.1.2. MUSB OTG : Host Mode (MSC, HID, Audio, Video)

1. USB Host works fine in DMA and Interrupt mode(see known issues)

2. USB mouse and USB keyboard functionality.

3. USB MSC functionality.

4. USB Audio, Video has been tested with aplay and mplayer.

2.6.1.3. MUSB OTG : OTG Mode (HNP, SRP)

1. Device to Host role switching (HNP).

2. Request A-device for enabling Vbus (SRP).

2.6.1.4. EHCI Host: (MSC, HID, Audio, Video)

1. USB mouse and USB keyboard functionality via a high speed hub.

2. High speed USB MSC functionality.

3. USB Audio, Video has been tested with aplay and mplayer.

2.6.2. MUSB OTG: Known Issues and Limitations

1. Older revisions of EVM requires two modifications for USB to work properly:

a. Select the ISP1504 PHY.

b. Remove large surge suppressors in the D+ and D- lines.

2. There is a limitation in the power that is supplied by the charge pump of the ISP1504 PHY on OMAP3EVM-1 (<=Rev-E). If you notice VBUSERR messages in the system console, then connect a self powered USB hub and then attach the device to the hub.

   OMAP3EVM-2 (>=Rev-E) can support upto 500mA power and thus self powered hub is not required.

   USB Vbus is switched off whenever a device is disconnected and no other device is connected again within 1.1ms. If a device is to be connected after this then switch-on the Vbus and start the session using below command.

   $ echo "F" > /proc/driver/musb_hdrc

3. The driver fails to behave correctly with Power management enabled. To illustrate, when the system is forced to save its context in memory and suspend itself, the USB driver should save the driver context into memory and on resume the saved context should be used to re-initialize the USB controller hardware. This feature is still incomplete and hence it affects the suspend-resume functionality of the system. One may choose not to configure the USB driver into the Linux kernel and that should restore the normal suspend-resume functionality.

4. The driver fails to behave correctly with CONFIG_USB_SUSPEND option. The USB bus has its own power management scheme. The USB controller driver supports this feature but its current implementation is improper. To elaborate this, when a USB device connected to a hub is suspended, the controller suspends the top level hubs as well. This results in the hubs being non functional. The default PSP kernel comes with CONFIG_USB_SUSPEND disabled.

5. Rx throughput is very low compared to Tx throughput. Currently the driver always programs the DMA hardware in mode 0 for Rx. This means that for every USB wMaxPacketSize data the DMA hardware needs to be programmed. On the other hand the DMA hardware provides mode 1 where in a single programming of the DMA hardware a chain of wMaxPacketSize data packets can be transferred. The driver however correctly uses mode 1 when necessary for Tx DMA. Thus we see a discrepancy in throughput numbers for Mass Storage Class Host. Currently we are unable to use Mode-1 in Rx direction for Mass Storage class protocol due to unavailability of RqPktCount register in Mentor OTG v1.4.

6. Image flickering has been observed for 640*480 size image capture from Creative USB camera which uses high bandwidth isochronous transfer and with Logitech camera 640*480 image

capture fails.When audio is played in parallel to 640*480 size capture on Creative camera then audio quality is affected.

7. USB audio/video stress failure obsereved when both audio and video are run in parallel for one full day.

8. USB MSC failure is observed when both USB audio and MSC is run in parallel.

9. OTG Protocol Test (OPT) failure has been observed for MUSB as A-device but all the test case have passed for MUSB as B-device.The failed test cases for A-device are,

    •   A-device not sending b_hnp_enable

    •   B-OPT did not detect J-state on bus at sample time TWTRSTHS

    •   UUT did not connect in HNP sequence

    •   A-UUT Started Device Chirp

    •   B-OPT did not detect device chirp K in reset. Aborting test

    •   A-UUT continued resume

    •   Did not receive an SOF before suspend detected

10. Read performance drops when CPUIDLE is enabled.

11. Ping failure is observed in RNDIS driver when ping of 64K size is performed from EVM to Windows XP.This is known limitation with Windows XP.

2.6.3. EHCI: Known Issues and Limitations

1. Only high speed devices can be connected directly to EHCI port on Mistral daughter card. All low/full speed devices can be connected via a high speed hub to EHCI port.

2. Some of the OMAP35x silicon version 2.0 EVM returns invalid idcode from OMAP_TAP_IDCODE register which is inconsistent with manual.For such EVMs EHCI initialization fails due to wrong runtime silicon version and thus EHCI doesn't work.

    Initial bootlog for such board will show a message as "OMAP35x Unknown revision".One of such board return idcode as 0x0b7ae02f.

    To solve this issue please add "case 0:" in between line no 217 and 218 in file "arch/arm/mach-omap2/id.c".

3. On some EVMs, bus errors are reported when IO is initiated.

4. EHCI driver doesn't leverage the power saving features supported by the silicon as it doesn't enable/ disable usbhost clocks effectively while doing data transfer.

2.7. V4L2 and FBDEV Display Driver

This sections lists the features, limitations and issues in the V4L2 display driver and FBDEV display driver. V4L2 display driver controls both video pipelines of the DSS. FBDEV driver controls graphics pipeline of DSS

This release is based on the DSS2 library and basic Frame buffer driver submitted by Tomi to the open source community. On top of it we have added number of features and bug fixes like, rotation, wait_for_vsync, etc...

V4L2 driver is built on top of Tomi's DSS2 library with necessasry modification to the library to support number of features like, alpha blending, color keying etc...

Link to Tomi's Repository -
http://www.bat.org/~tomba/git/linux-omap-dss.git

2.7.1. Features

Pixel formats supported on video plane are YUV, UYVU, RGB565, RGB24P and RGB24 unpacked and ARGB on Video2.

1. Video pipelines controlled through V4L2 user interface. Graphic pipeline controlled through FBDEV user interface.

2. Supports LCD display interface at VGA resolution (480*640)

3. Supports TV display interface at NTSC and PAL resolutions (both S-Video and Composite out is supported)

4. Configuration of parameters such as height and width of display screen, bits-per-pixel etc.

5. Supports setting up of OSD window destinations (TV or LCD) through sysfs on FBDEV interface while compile time option for V4L2 interface for video window.

6. Supports driver allocated (mmaped) and user, memory buffer in V4L2 and only driver allocated buffers in FBDEV.

7. Supports rotation - 0, 90, 180 and 270 degrees.

8. Supports DVI interface with 720P and 480P resolutions. Compile time selectable resolutions of DVI.

9. Scaling is supported from 1/2X to 8X on video pipelines. Hardware supports scaling from 1/4x to 8x.

10. Wait for Vsync and Panning supported with FBDEV.

11. Alpha blending supported on video and graphics planes.

12. Source and destination color keying is supported through v4L2 ioctls.

2.7.2. Known limitations and features not supported

1. Mirroring not supported.

2. Sync Lost is observed when incorrect parameters are programmed on video and graphics pipeline.

3. For RGB888 rotation is not supported because of hardware limitation.

4. PAL resolution can be set maximum to 720 X 574 instead of 720 X 576 because of hardware limitation. It is mentioned in hardware errata.

5. Upscaling and downscaling with images more that 720X574 resolution is not supported because of dss functional clock frequency limitation.

6. Linking feature not supported on video pipelines.

7. Changing of modes in TV not supported.

8. Pixel clock for display is not coming exactly what is required. So frame rate will not be exact 60Fps but it will be very near to it. Since the pixel clock is not coming exact driver will throw some warning messages. But that can be ignored.

2.7.3. Known issues

1. SDOCM00053357: Flicker and color corruption observed on TV display

2. SDOCM00053359: Sharpness is reduced when image is up-scaled.

3. SDOCM00053360: On some EVMs that have a Micron Nand part, display quality is bad.

4. SDOCM00053361: Directing any of the pipeline to TV cuts image on top left corner by few pixels.

5. SDOCM00053362: Frame rate may fall below 60Hz when rotation enabled for V4L2 driver under heavy system load.

6. SDOCM00053364: down scaling is not supported beyond 1/2x.

7. SDOCM00056810: Video V4L2: V4L2 driver does not support modular build.

8. SDOCM00059300: Suspend/Resume is not supported when any of output is on TV (VENC).

This is mainly due to the hardware issue, VENC doesn't work properly after multiple enable/disable cycles.

2.8. Resizer Driver

This section provides an overview of the Resizer driver. The GIT baseline for this release doesnt support resizer driver for OMAP. Hence custom patches that provide Resizer support have been included as part of this release.

This release is based on the ISP-Camera library and Master Camera driver Patches submitted by Sakari and ISP-MMU code base submitted by Hiroshi.

Links to Sakari's and Hiroshi's Repository -

ISP-Camera -
http://git.gitorious.org/omap3camera/mainline.git

ISP-MMU -
http://git.gitorious.org/lk/mainline.git

Note

Please note that, the sandalone resizer and previewer driver is not part of the Sakari's patch-sets. We have forward ported Resizer standalone driver ontop of it.

2.8.1. Features

1. Resizes input frame stored in RAM and stores output frame in RAM.

2. Supports resizing from 1/4x to 4x.

3. Supports independent horizontal and vertical resizing.

4. Supports YUV422 packed data and Color Separate data.

5. Supports driver allocated and user provided buffers.

6. Supports Luminance Enhancement.

2.8.2. Known Issues and Limitations

1. Output image size cannot be more than 2047x2047.

2. SDOCM00053412: Blockiness and feathering effect (at edges) are observed with 4x scaling.

2.9. Capture Driver

This section provides overview of the V4L2 Capture driver for OMAP3

This release is based on the ISP-Camera library and Master Camera driver Patches submitted by Sakari and ISP-MMU code base submitted by Hiroshi.

Links to Sakari's and Hiroshi's Repository -

ISP-Camera -
http://git.gitorious.org/omap3camera/mainline.git

ISP-MMU -
http://git.gitorious.org/lk/mainline.git

2.9.1. Features

1. Supports OMAP3 Camera driver and TVP5146 decoder driver modules(built-in and as kernel modules)

2. Supports one software channel of capture and a corresponding device node (/dev/video0) is created.

3. Supports single I/O instance and multiple control instances.

4. Supports buffer access mechanism through memory mapping and user pointers.

5. Supports dynamic switching among input interfaces with some necessary restrictions wherever applicable.

6. Supports NTSC and PAL standards on Composite and S-Video interfaces.

7. Supports 8-bit BT.656 capture in UYVY and YUYV interleaved formats.

8. Supports standard V4L2 IOCTLs to get/set various control parameters like brightness, contrast, saturation, hue and auto gain control.

2.9.2. Known Constraints and Limitations

1. Dynamic switching of resolution and dynamic switching of interfaces is not supported when streaming is on.

2. Driver buffer addresses and pitch must be aligned to 32 byte boundary.

3. Cropping and scaling operations and their corresponding V4L2 IOCTLs are not supported.

4. Driver doesn't supports IO memory.

5. Both MMDC and OMAP3EVM-2 (>=Rev-E) does not work simultaneously, they are mutual exclusive from software point of view.

2.9.3. Known Issues

1. SDOCM00055260: In loopback sample application, the video displayed on the LCD has interlacing artifacts when viewing fast moving objects. This is because the input video is in interlaced mode @ 30 FPS while the LCD works in progressive mode @ 60 FPS. The frame rate conversion and de-interlacing is not done in the current sample application.

2. SDOCM00053374: Video quality issues observed with video test patterns.

3. SDOCM00053373: Field id is not coming proper on mass market daughter card. This results in flickering of image.

4. SDOCM00055567: VIDIOC_G_INPUT ioctl does not return active input on plug in plug out. It returns the previously detected input.

2.10. Ethernet Driver

2.10.1. Features

1. Supports operations at 10/100 Mbps.

2. Supports NFS.

3. Support for auto-negotiation

2.10.2. Known Issues and Limitations

1. Ping fails beyound packet size of 10,300 bytes

2. The performance numbers for Ethernet are low

3. Traffic flow freezes when the interface is brought down/up repeatedly under high traffic conditions. Issue seen when testing with IXIA traffic generator.

4. Under stress test, it is observed that the counter for erroneous packets is incremented.

5. When the interface is brought down/up multiple times, the driver sometimes does not recover.

6. Ethernet MAC address, set in uboot, gets overriden with a different MAC address when linux kernel boots up, if the uImage is flashed in NAND.

2.11. MMC/SD Driver

This sections provides an overview of the MMC/SD driver.

2.11.1. Features

1. Supports 1-bit and 4-bit modes.

2. Supports high-speed and high-capacity SD cards.

2.11.2. Known Issues and Limitations

1. SDIO functionality is not supported

2. Driver doesnt support detection of write-protection lock. All cards are mounted in rw mode.

3. MMC 8-bit mode has not been supported in mmc stack. Hence some MMC 8-bit card may not be enumerated.

4. MMC/SD cards should not be removed while the device is mounted. If the card is removed, data integrity cannot be guaranteed.

5. The throughput number for MMC/SD will be low if mounted with sync option.

6. Spurious interrupts warning messages are seen when MMC driver module is inserted.

7. Stability issues are seen with specific makes of MMC cards(transcend)

8. CRC errors may be reported under heavy IO operation(specifically on read operation) with ES2.1 Si revision.

2.12. Touch Screen Driver

This sections provides an overview of the Touch Screen driver.

2.12.1. Features

1. Touch screen (LS037V7DW01) is supported.

2.12.2. Known Issues and Limitations

1. None

2.13. Power Management

2.13.1. Features

This is list of features supported in this release:

1. Supports Dynamic Tick framework.

2. Supports the *cpuidle* framework with MPU and Core transition to RETENTION and OFF states. The *menu* governor is supported.

3. Basic implementation for *cpufreq*.

4. Support SmartReflex with automatic (hardware-controlled) mode of operation.

2.13.2. Known Issues and Limitations

1. Allow drivers and applications to limit the idle state that can be entered.

2. Support for SmartReflex with manual (software-controlled) mode of operation.

3. Some of the drivers do not leverage the power-saving features supported by the silicon.

   They need to enable/ disable corresponding clocks via `clk_enable()` and `clock_disable()` only when the clocks are *really* needed.

4. The *cpufreq* driver is not fully supported.

5. After the system is suspended, the resume operation does not succeed from the keypad and touchscreen.

6. Once the system enters OFF state, resume event from the keypad does not wake-up the system.

7. Resume event from the touchscreen does not wakeup the system.

8. When OFF mode is enabled and system is allowed to stay idle for long, virtual paging error is observed on the console. Sometimes, the system may not recover from this exception.

2.14. Root Filesystem

This sections provides an overview of the Root Filesystem.

The root filesystem binaries are built using Arago(based on OpenEmbedded)

2.14.1. Features

1. Includes ramdisk image

2. Includes NFS mountable filesystem

3. Supports for udev for initial population and dynamic updates to device nodes.

2.14.2. Known Issues and Limitations

1. telnet daemon is not automatically started

3. Fixed in this release

3.1. Baseport

	Fix - Exception while handling mem hole on ARM

3.2. USB

SDOCM00055519	USB RNDIS-NFS retries observed on insmod of USB RNDIS driver module
SDOCM00055520	USB CDC/RNDIS- The EVM does not sense the cable disconnect

3.3. Capture

SDOCM00057929	Open source application doesn't work with Capture driver

4. Summary of changes

This section provides a short summary of the patches that have been included in this release against the tag BASELINE.OMAPPSP.02.01.00.02.alpha.

> **Note**
>
> If any change spans across a specific driver and *mach* or *plat* directories, it is listed under the driver.

4.1. Video: Frame Buffer

- OMAPFB: fbdev timer was not handling 0 value

  [Commit: *7b68ec0*]

- New OMAP3EVM: Backlight support added

  [Commit: *32cc486*]

- DSS2: Timing parameters of LCD changed to get exact 60Hz framerate

  [Commit: *9552cd5*]

- DSS2 FBDEV: Panning supported with rotation on Framebuffer

  [Commit: *bd5d336*]

- DSS2: DVI 480P Timing parameters changed.

  [Commit: *2f9e0d6*]

- Fbdev timeout bug fixed.

  [Commit: *47e0729*]

- Suspend/Resume moved to DSS2 Library

  [Commit: *f1d35f7*]

- Suspend/Resume support added to FBDEV

  [Commit: *4b47dd9*]

- Fixed minor issue in FB timer resume path

  [Commit: *6fdb742*]

- Crash fixed in FBDEV power managent.

[Commit: *add99ed*]

- More Fixes to FBDEV power management.

  [Commit: *f08fb58*]

- Some more cleanup of PM support in V4L2 and FBDEV

  [Commit: *48d61f1*]

- Cleanup PM support implementation

  [Commit: *fa17e3a*]

- Power management support tested with both FBDEV and V4L2

  [Commit: *b003e0c*]

- Power Management working with FBDEV

  [Commit: *7b284b9*]

- 720x576@50Hz added to modeb.c file

  [Commit: *8251dfb*]

- Support of Power Management for FBDEV

  [Commit: *d65a448*]

- Issues with rotation fixed

  [Commit: *2967674*]

- SDOCM00053743: issues when setting rotation if rotation is not enabled fixed

  [Commit: *bc81581*]

- DOCM00053743: rotation with 720P issue fixed

  [Commit: *ce3428b*]

- SDOCM00053743: kernel crash/hang issue on wrong rotation value fixed

  [Commit: *7c1e5fa*]

- Cleaned up for warning massages

  [Commit: *22b445f*]

- Default buffer size increased to support 720P and panning

  [Commit: *fdb45f9*]

- SDOCM00054583: G_CMAP failure issue resolved

  [Commit: *58ac137*]

- Initialized global alpha to 255 in graphics driver

  [Commit: *1db5e2a*]

- Added WAIT_FOR_VSYNC custom ioctl in Frame buffer driver

  [Commit: *2ea0b45*]

- Alpha blending support for frame buffer driver

  [Commit: *cad8f30*]

- twl API moved to comile time macro

  [Commit: *44689f55*]

- defconfig updated for video

  [Commit: *dbb20c1*]

- backlight driver made worked with DSS2

  [Commit: *1b7bfa5*]

- Backlight driver for omap3evm

  [Commit: *31cc3a3*]

- Build TPS6235x based PR785 board support

  [Commit: *c0f964a*]

- Bug Solved: VRFB rotation not working on DVI output.

  [Commit: *a71c803*]

- DVI 720P and 480P support added

  [Commit: *21770fa*]

- old FBDEV made working

  [Commit: *7a84062*]

- file mode restored back

  [Commit: *f6192c0*]

- Merged Latest Tomi's changes

  [Commit: *fe019ca*]

- VRFB rotation at compile time supported

  [Commit: *b67d800*]

- Only made copmipled with Hariks changes

  [Commit: *cd7e95a*]

- OMAPFB: still more VRFB hacking

  [Commit: *f41b783*]

- OMAPFB: more VRFB hacks

  [Commit: *fb12d3e*]

- VRFB testing

  [Commit: *b3ab42b*]

- OMAPFB: remove debug print

  [Commit: *a9c684a*]

- OMAPFB: remove extra spaces

  [Commit: *3d986d9*]

- OMAPFB: fix GFX_SYNC to be compatible with DSS1

  [Commit: *0b74ee1*]

- OMAPFB: remove extra omapfb_setup_overlay call

  [Commit: *e647383*]

- DSS: OMAPFB: allocate fbmem only for fb0, or if spesified in vram arg

  [Commit: *78136af*]

- DSS: Hacked N810 support

  [Commit: *ce79be3*]

- DSS: Sharp LS037V7DW01 LCD Panel driver

  [Commit: *2306a11*]

- DSS: Add generic DVI panel

  [Commit: *9ad3522*]

- DSS: OMAPFB: fb driver for new display subsystem

  [Commit: *e319c0f*]

4.2. Video: V4L2

- OMAP3 ISP-Camera: Resizer-ISP race condition issue fixed.

  [Commit: *cac766e*]

- OMAP-Resizer: Null pointer referance after inserting multiple times

  [Commit: *bb83212*]

- SDOCM00057929: Open source application doesn't work with Capture driver

  [Commit: *8b1cfaf*]

- V4L2: Pixel format was selected wrong when two framebuffers were compiled.

  [Commit: *9c38c95*]

- V4L2: V4L2 was breaking when two framebuffer interfaces were selected

  [Commit: *2cf09ce*]

- V4L2: Added support to pass the physicall address to application

  [Commit: *65a2f1c*]

- V4L2: Added support for the static allocation of VRFB buffers.

  [Commit: *c8cee86*]

- V4L2 Display: Added query control for Background color.

  [Commit: *188f836*]

- omap34xxcam.c cleaned up

  [Commit: *4cf5a60*]

- Isp section mismatch warning fixed

  [Commit: *57ee66e*]

- Some more cleanup of PM support in V4L2 and FBDEV

  [Commit: *48d61f1*]

- Power management support tested with both FBDEV and V4L2

  [Commit: *b003e0c*]

- Power Management working with V4L2 Display

[Commit: *c64d2cc*]

- Color Keying added to V4L2 display driver

  [Commit: *cbdb9ca*]

- Bug Solved: V4L2 display driver crash

  [Commit: *f51f542*]

- bug solved: Rotation ioctl was not throwing error for RGB24 with rotation

  [Commit: *6f19a6b*]

- Bug Solved: SDOCM00054702 : Global Alpha value not read correctly.

  [Commit: *1457f65*]

- Minor Fixes in V4L2 driver

  [Commit: *902a791*]

- Get alpha blending support added in V4L2 driver

  [Commit: *fb498ca*]

- Alpha blending support for V4L2 driver

  [Commit: *00678cb*]

- Added src color keying support in V4L2 driver

  [Commit: *402044f*]

- Added Background color support to V4L2 driver

  [Commit: *ce5e855*]

- DSS2 library enabled from v4l2 driver

  [Commit: *1c5e802*]

- Resizer bug fixes on top of 1.0.2 release

  [Commit: *20d7913*]

- Resizer and Previewer driver added to commit

  [Commit: *3041daa*]

- Bug SDOCM00053650: fixed issue of g_input tied to CVBS

  [Commit: *0c13640*]

- Bug SDOCM00053646: YUYV support in Capture is broken

  [Commit: *6bfc386*]

- Camera Kconfig option changed from V4L2-DSS

  [Commit: *35ada0d*]

- OMAP3 ISP-Camera: Added BT656 support ontop of Nokia fixes

  [Commit: *6f181b9*]

- OMAP: CAM: Add OV3640 Sensor Driver

  [Commit: *8e97999*]

- omap34xxcam: Get rid of hw resources

  [Commit: *a20b52f*]

- omap34xxcam: Fix module author e-mail.

  [Commit: *d9d98ee*]

- omap34xxcam: Remove isp_buf_init().

  [Commit: *790aee2*]

- omap34xxcam: Power down slaves at streamoff unless videobuf_streamoff fails

  [Commit: *de42035*]

- omap34xxcam: do consult isp_vbq_setup().

  [Commit: *7712681*]

- omap34xxcam: Don't do ISP idle mode settings.

  [Commit: *42a8168*]

- omap34xxcam: Start ISP after sensor.

  [Commit: *8481f99*]

- omap34xxcam: isp updates

  [Commit: *22c6c40*]

- omap34xxcam: Requeue faulty buffers.

  [Commit: *7b35376*]

- omap34xxcam: Handle s_fmt from multiple sources properly.

  [Commit: *654556c*]

- omap34xxcam: Get format from the sensor in the beginning and configure ISP

  [Commit: *04790bd*]

- OMAP34XXCAM: Implement VIDIOC_ENUM_SLAVES

  [Commit: *2dc1347*]

- omap3isp: Add interface type ISP_NONE for preview / resizer only operation

  [Commit: *4e039e4*]

- OMAP3ISP: Core: Remove idle mode settings from mmu

  [Commit: *f73e07d*]

- OMAP3ISP: Core: MMU Small cleanup

  [Commit: *c2d8ff9*]

- OMAP3ISP: Core: Fix error checking for isp_addr in isp_vbq_prepare

  [Commit: *b1c8e09*]

- OMAP3ISP: Core: compile fix

  [Commit: *84df4dd*]

- OMAP3ISP: Core: Remove isp_get_xclk and make isp_*_ctx static

  [Commit: *1011351*]

- OMAP3ISP: Core: More cleanups

  [Commit: *c95c14c*]

- OMAP3ISP: Core: Move temporary buffer stuff to struct isp

  [Commit: *557867b*]

- OMAP3ISP: Core: Remove isp_configure_interface_bridge

  [Commit: *e036be0*]

- OMAP3ISP: Core: Remove isp_request_interface and dummy fields in struct isp

  [Commit: *d016f73*]

- OMAP3ISP: Core: Make isp_interface_config as part of struct isp.

  [Commit: *4fbbb1d*]

- OMAP3ISP: Core: Clean up temporary buffer workaround

[Commit: *d01e335*]

- OMAP3ISP: Core: Move clk_gets to isp_init

  [Commit: *680a9ae*]

- OMAP3ISP: Core: Do idle mode settings in the ISP driver.

  [Commit: *474d816*]

- OMAP3ISP: Core: Enable Preview Callback

  [Commit: *1dca7cc*]

- OMAP3ISP: Core: Fix isp_s_fmt_cap crop for raw capture

  [Commit: *f8faeb9*]

- OMAP3ISP: Core: Flush buffers also when queueing.

  [Commit: *9cbf03b*]

- OMAP3ISP: Core: Rewrite ISR and buff mgmt

  [Commit: *6b9c134*]

- OMAP3ISP: Core: Fix crop

  [Commit: *8a1af5f*]

- OMAP3ISP: SCM: Allow unloading the module without a crash.

  [Commit: *39c0887*]

- OMAP3ISP: SCM: WB coefficients update via h3a for color pattern(Gr-R B-Gb)

  [Commit: *43dab38*]

- OMAP3ISP: SCM: H3a Aewb first frame statistics fix

  [Commit: *850d5a5*]

- OMAP3ISP: SCM: Add configuration id counters

  [Commit: *8767185*]

- OMAP3ISP: Backend: Correct applying of RGB2RGB, RGB2YUV and WBAL

  [Commit: *2b1e33c*]

- OMAP3ISP: Backend: Always do workaround

  [Commit: *35a94f9*]

- OMAP3ISP: Backend: Resizer cleanup

  [Commit: *d4ee0df*]

- OMAP3ISP: Backend: Better preview default values

  [Commit: *55b93a3*]

- OMAP3ISP: Backend: Fix for default WB coeficients for pattern(Gr-R B-Gb)

  [Commit: *d953592*]

- OMAP3ISP: Backend: Use correct number of lines in preview

  [Commit: *6a0aff4*]

- OMAP3ISP: Frontend: Change default DC substraction value

  [Commit: *7785038*]

- OMAP3ISP: Frontend: Small cleanups.

  [Commit: *a7a3819*]

- OMAP3ISP: Frontend: Remaining Syncup with Nokia Code

  [Commit: *21b798e*]

- OMAP3ISP: Frontend: Fix output horizontal pixel count

  [Commit: *c0880fb*]

- OMAP3ISP: Frontend: Sensor pattern and VP fix for YUV capture

  [Commit: *38ad0f7*]

- OMAP3ISP: Frontend: fix colors (bayer phase) in raw capture

  [Commit: *7b4d1df*]

- OMAP3ISP: Frontend: fix ISPCCDC_SDOFST_FOFST clearing

  [Commit: *720dbae*]

- OMAP3ISP: Frontend: Now using video port for RAW capture

  [Commit: *fd43871*]

- OMAP3ISP: Frontend: Add API for CCDC SBL busy

  [Commit: *ae488aa*]

- OMAP3ISP: Gain Tables: Better cfa coefficient table

  [Commit: *65751ca*]

- OMAP3ISP: REGS: Add CCDC SBL status regs

  [Commit: *d61fe4c*]

- OMAP3ISP: REGS: Fix ISPCCDC_SDOFST_FOFST definition

  [Commit: *2030cb9*]

- OMAP: CAM: Add DW9710 Lens Driver

  [Commit: *bb55049*]

- OMAP: CAM: Add MT9P012 Sensor Driver

  [Commit: *53e2a69*]

- OMAP34XXCAM: Add driver

  [Commit: *c633dc2*]

- OMAP: CAM: Add ISP Core

  [Commit: *ec2ec3d*]

- OMAP: CAM: Add ISP CSI2 API

  [Commit: *4cd974e*]

- OMAP: CAM: Add ISP SCM

  [Commit: *c6302b2*]

- OMAP: CAM: Add ISP Back end

  [Commit: *85eb806*]

- OMAP: CAM: Add ISP Front end

  [Commit: *ceb971d*]

- OMAP: CAM: Add ISP gain tables

  [Commit: *6a8ea32*]

- OMAP: CAM: Add ISP user header and register defs

  [Commit: *048b955*]

- V4L: Int if: Dummy slave

  [Commit: *a23ac95*]

- Changed the compile time option to select LCD or TV manager

  [Commit: *1be6a67*]

- Bug Solved: Compile time option to select TV mode

[Commit: *11bb861*]

- Bug Solved: Get rotation not working for 90 and 270 degree.

  [Commit: *9fc89a9*]

- Changed V4L2 file operations according to 2.6.29

  [Commit: *05c5b69*]

- Kconfig option added to select overlay manager

  [Commit: *098c38f*]

- Minor Fixes to V4L2 driver

  [Commit: *e0d0c60*]

- V4L2 driver added Features - - Rotation support - Scaling support

  [Commit: *1b8d786*]

4.3. USB

- musb: Add print when gadget cable is disconnected

  [Commit: *0ac5015*]

- usb: Add USB support on new OMAP3EVM

  [Commit: *abfc5fc*]

- usb: Add EHCI (on MMDC) phy reset padconfig

  [Commit: *b03158e*]

- usb: ehci: fix EHCI MSC and VIDEO issue

  [Commit: *98aad5c*]

- usb: musb: disable ping token in status phase of control transfer

  [Commit: *dfe43b4*]

- usb: ehci: fix companion port ownership issue

  [Commit: *2f31de0*]

- usb: ehci: EHCI support on ES3.0

  [Commit: *454cb70*]

- usb: ehci: update for mistral daughter card

  [Commit: *44ba4fc*]

- usb: ehci: fix ehci issue when built as module

  [Commit: *43519f6*]

- usb: ehci: fix ehci rmmod issue

  [Commit: *65b267f*]

- usb: musb: remove auto selection of USB_SUSPEND with OTG

  [Commit: *1f87510*]

- usb: musb: add suspend proc entry for otg testing

  [Commit: *021c50e*]

- usb: musb: sdma for all the rx channels

  [Commit: *30e1580*]

- usb: musb: adding musb procfs file

  [Commit: *3d5380a*]

- usb: musb: fix vbuf off after disconnect

  [Commit: *b356ca1*]

- usb: musb: init musb->gadget_driver to null

  [Commit: *9e4c072*]

- usb: musb: fix module insert issue

  [Commit: *cd27cd8*]

- usb: musb: add back otg_get_transceiver

  [Commit: *954f471*]

- usb: musb: adding nop usb transceiver

  [Commit: *acbe7bf*]

- usb: musb: NAK timeout scheme on bulk reserved ep

  [Commit: *1fc18ad*]

- usb: musb: fix bug in musb_start_urb

  [Commit: *0cd8f6c*]

- usb: musb: adding high bandwidth support

  [Commit: *af1e017*]

- usb: musb: sergei's 8 patch set

[Commit: *e237ca5*]

- usb: Add USB support on new OMAP3EVM

  [Commit: *abfc5fc*]

- OMAP3: PM: Ensure MUSB block can idle when driver not loaded

  [Commit: *add0f82*]

- usb: musb: registering nop xceiv for musb

  [Commit: *098a12d*]

- usb: ehci: update for mistral daughter card

  [Commit: *44ba4fc*]

4.4. Audio

- Audio: Adding PM code in audio driver

  [Commit: *e933e81*]

- ASoC: OMAP3EVM: Use the twl4030_setup_data for headset pop-removal

  [Commit: *825108d*]

- ASoC: Fix build error in twl4030.c

  [Commit: *ea489bb*]

- ASoC: TWL4030: Check the interface format for 4 channel mode

  [Commit: *683d0b41*]

- ASoC: TWL4030: Use reg_cache in twl4030_init_chip

  [Commit: *063cde6*]

- ASoC: TWL4030: HandsfreeL/R mute DAPM switch

  [Commit: *6779da6*]

- ASoC: TWL4030: Add shadow register

  [Commit: *daea24f*]

- ASoC: OMAP: Add checking to detect bufferless pcms

  [Commit: *a51c09c*]

- ASoC: Provide core support for symmetric sample rates

[Commit: *1218a71*]

- ASoC: SDP4030: Use the twl4030_setup_data for headset pop-removal

[Commit: *497dfdb*]

- ASoC: SDP3430: Connect twl4030 voice DAI to McBSP3

[Commit: *30896cd*]

- ASoC: Add debug trace for bias level transitions

[Commit: *48b4585*]

- ASoC: Integrate bias management with DAPM power management

[Commit: *8b2c75d*]

- ASoC: Make DAPM sysfs entries non-optional

[Commit: *b916794*]

- ASoC: Split DAPM power checks from sequencing of power changes

[Commit: *3f1b4ea*]

- ASoC: Add power supply widget to DAPM

[Commit: *44f2ea6*]

- ASoC: Make the DAPM power check an operation on the widget

[Commit: *ca7375f*]

- ASoC: Factor out DAPM power checks for DACs and ADCs

[Commit: *f8ff669*]

- ASoC: Factor out generic widget power checks

[Commit: *1c0a5ef*]

- ASoC: Support DAPM events for DACs and ADCs

[Commit: *092226c*]

- ASoC: Factor out application of power for generic widgets

[Commit: *4cfaea1*]

- ASoC: Display return code when failing to add a DAPM kcontrol

[Commit: *62ccbca*]

- ASoC: TWL4030: Handsfree pop removal redesign

[Commit: *293a083*]

- ASoC: TWL4030: Differentiate the playback streams

[Commit: *dfa2c34*]

- ASoC: TWL4030: Add support for platform dependent configuration

[Commit: *d0bfa11*]

- ASoC: TWL4030: Move the Headset pop-attenuation code to PGA event

[Commit: *5a47a4d*]

- ASoC: TWL4030: Change DAPM routings and controls for DACs and PGAs

[Commit: *e71b2a0*]

- ASoC: TWL4030: Add control for selecting codec operation mode

[Commit: *0224d30*]

- ASoC: TWL4030: Fix Analog capture path for AUXR

[Commit: *2fad552*]

- ASoC: TWL4030: Enable/disable voice digital filters

[Commit: *2c7713f*]

- ASoC: TWL4030: change DAPM for analog microphone selection

[Commit: *91e94f8*]

- ASoC: TWL4030: Fix typo in twl4030_codec_mute function

[Commit: *dd88a5e*]

- ASoC: TWL4030: Add VIBRA output

[Commit: *ffd9fc7*]

- ASoC: TWL4030: Add voice digital loopback: sidetone

[Commit: *e95cbe3*]

- ASoC: TWL4030: Add VDL analog bypass

[Commit: *541888d*]

- ASoC: TWL4030: Add 4 channel TDM support

[Commit: *06dd54b*]

- ASoC: TWL4030: Add VDL path support

  [Commit: *a9c8bbc*]

- ASoC: TWL4030: Add support Voice DAI

  [Commit: *3aa7916*]

- ASoC: TWL4030: Fix for the constraint handling

  [Commit: *e27cf3a3*]

- Audio: Rebasing the sound/ folder from l-o tip

  [Commit: *192b0fd*]

- Audio: Adding PM code in audio driver

  [Commit: *a9f99d2*]

- Audio: ASOC: OMAP3 EVM support added.

  [Commit: *1a9bc18*]

- ASoC: OMAP: Initialize XCCR and RCCR registers in McBSP DAI driver

  [Commit: *3cc702b*]

- ALSA ASOC : Added OMAP3EVM support.

  [Commit: *6d9b567*]

4.5. OMAP3 Clock Management

- OMAP3 clock: use pr_debug() rather than pr_info() in some clock change code

  [Commit: *244b028*]

- OMAP: PM: Hook into PM counters

  [Commit: *07f211a*]

- OMAP2/3 clock: add clock abort-rate-change notifications

  [Commit: *de440a8*]

- OMAP2/3 clock: add clock prepare-rate-change notifications

  [Commit: *ce6d7a6*]

- OMAP2/3 clock: add clock pre-rate-change notification

  [Commit: *8e4a7de*]

- OMAP2/3 clock: add clk post-rate-change notifiers

  [Commit: *5c36550*]

- OMAP2/3 clock: store planned clock rates into temporary rate storage

  [Commit: *9f06298*]

- OMAP2/3: clockdomains: make virt_opp_clkdm available on 34xx also

  [Commit: *b2d36fc*]

- OMAP3: PM: D2D clockdomain supports SW supervised transitions

  [Commit: *eceb943*]

- OMAP: PM: Add closures to clkdm_for_each and pwrdm_for_each.

  [Commit: *5f63651*]

- OMAP: PM: Hook into PM counters

  [Commit: *07f211a*]

- OMAP: PM counter infrastructure.

  [Commit: *3a24f1c*]

- OMAP3: PM: Add D2D clocks and auto-idle setup to PRCM init

  [Commit: *c531482*]

- PM: OMAP3: Refreshed DVFS VDD1 control against latest clock fw

  [Commit: *4c26b3d*]

- OMAP3 SRF: Add virt clk nodes for VDD1/VDD2

  [Commit: *e3ec4f4*]

- Processing of bootarg 'mpurate' was broken

  [Commit: *840cefa*]

- Fix omap_getspeed.

  [Commit: *f0d89bd*]

- PM: OMAP3: Added support for possibly failing clk_set_rate to DVFS

  [Commit: *f48dc26*]

- OMAP3: PM: Fix linker error without CONFIG_PM option

  [Commit: *3223d6f*]

- OMAP3: Fix rate calculation bug in omap3_select_table_rate

  [Commit: *e82fb48*]

- OMAP3: Add support for DPLL3 divisor values higher than 2

  [Commit: *ead66a3*]

- OMAP3 clock/SDRC: program SDRC_MR register during SDRC clock change

  [Commit: *51b89fd*]

- OMAP3 clock: add a short delay when lowering CORE clk rate

  [Commit: *9d53c22*]

- OMAP3 clock: initialize SDRC timings at kernel start

  [Commit: *3453d9b*]

- OMAP3 clock: use pr_debug() rather than pr_info() in some clock change code

  [Commit: *244b028*]

- OMAP3 clock: only unlock SDRC DLL if SDRC clk < 83MHz

  [Commit: *5b17799*]

- PM: OMAP3: Refreshed DVFS VDD1 control against latest clock fw

  [Commit: *4c26b3d*]

- Save sram context after changing MPU, DSP or core clocks

  [Commit: *16ce68f*]

- OMAP3 SRF: Fix crash on non-3430SDP platforms with DVFS/CPUFreq

  [Commit: *c3983e6*]

- OMAP3 PM: CPUFreq driver for OMAP3

  [Commit: *78652c6*]

- OMAP3 SRF: Add virt clk nodes for VDD1/VDD2

  [Commit: *e3ec4f4*]

4.6. OMAP3 Power Management

- OMAP: PM debug: make powerdomains use PM-debug counters

  [Commit: *acb4acb*]

- OMAP: PM counter infrastructure.

  [Commit: *3a24f1c*]

- OMAP3: PM: per board prm timings

  [Commit: *27c2db4*]

- OMAP3: PM: Added DVFS OPP locking interface for VDD1 and VDD2

  [Commit: *bf6080c*]

- OMAP3: PM: Fixed VDD2 control to work from both sysfs and SRF API

  [Commit: *c1b9009*]

- PM: Added suspend target state control to debugfs for OMAP3

  [Commit: *7775b1b*]

- OMAP3 SRF: Fix crash on non-3430SDP platforms with DVFS/CPUFreq

  [Commit: *c3983e6*]

- OMAP3 SRF: Add VDD1/VDD2 rate tables for 3430SDP

  [Commit: *a6a347f*]

- OMAP2: PM: Fix omap2 build

  [Commit: *e5cfbaa*]

- OMAP3 PM: off-mode support for HS/EMU devices

  [Commit: *891a047*]

- OMAP3: PM: Fix cpu idle init sequencing

  [Commit: *e7cfddd*]

- OMAP3: PM: CPUidle: Enables state C4

  [Commit: *d636664*]

- OMAP: PM: sysfs interface for enabling voltage off in idle

  [Commit: *da514c1*]

- OMAP3: PM: allow runtime enable/disable of OFF mode

  [Commit: *3655ffa*]

- OMAP: PM debug: Add PRCM register dump support

  [Commit: *6e7715b*]

- OMAP: PM: Add pm-debug counters

  [Commit: *c73efca*]

- OMAP3: PM: idle: Remove fclk check for idle loop

  [Commit: *86f7cb1*]

- OMAP3: PM: Fixed glitches in GPIO outputs during off-mode transitions

  [Commit: *6fc710b*]

- OMAP3: PM: Update voltage levels for OPP1/2 on VDD1/2

  [Commit: *278cddf*]

- OMAP3: PM: minor cleanup of PRM register definitions

  [Commit: *b7e918a*]

- OMAP3: PM: per board prm timings

  [Commit: *27c2db4*]

- OMAP3: Fixed crash bug with serial + suspend

  [Commit: *58228f1*]

- OMAP3: PM: fix compile warning when !CONFIG_SUSPEND

  [Commit: *34f45d5*]

- OMAP3: GPIO: disable GPIO debounce clocks on idle

  [Commit: *5e1458c*]

- OMAP2/3: GPIO: generalize prepare for idle

  [Commit: *389dea2*]

- OMAP3: PM: Don't scale voltage in C1 state

  [Commit: *05b6c17*]

- PM debug: Fix problems with PM timers

  [Commit: *a76b4e0*]

- OMAP3: PM: Add D2D clocks and auto-idle setup to PRCM init

  [Commit: *c531482*]

- OMAP3: PM: fix bug where UART0 and 1 were not resuming from idle

  [Commit: *f83b62b*]

- OMAP3: PM: Prevented DVFS state switches when enabling off-mode

  [Commit: *57e6f43*]

- OMAP3: GPIO fixes for off-mode

  [Commit: *94c0639*]

- OMAP3: PM: MPU and CORE should stay awake if there is CAM domain ACTIVE

  [Commit: *feb8492*]

- PM OMAP3: Change omap3_save_secure_ram to be called only during init

  [Commit: *ad4e941*]

- OMAP3: PM: Prevent PER from going OFF when CORE is going INA

  [Commit: *975a3f2*]

- OMAP2/3: PM: system_rev -> omap_rev()

  [Commit: *cad608c*]

- PM: Added suspend target state control to debugfs for OMAP3

  [Commit: *7775b1b*]

- OMAP3: PM: Do not build suspend code if SUSPEND is not enabled

  [Commit: *12075c8*]

- PM: Changed secure RAM storage size from 0x8000 to 0x803F

  [Commit: *15c3245*]

- OMAP3: PM: decouple PER and CORE context save and restore

  [Commit: *05f2f84*]

- OMAP3: PM: Fix wrong sequence in suspend.

  [Commit: *1e6d221*]

- OMAP: SRF: Fixes to shared resource framework (Ver.3)

  [Commit: *315ec79*]

- OMAP3: PM: Use pwrdm_set_next_pwrst instead of set_pwrdm_state in idle loop

  [Commit: *4b79e74*]

- OMAP3: PM: Enable SDRAM auto-refresh during sleep

[Commit: *a233f8e*]

- OMAP3 PM: off-mode support for HS/EMU devices

  [Commit: *891a047*]

- OMAP3: PM: Fix cpu idle init sequencing

  [Commit: *e7cfddd*]

- OMAP3: PM: CPUidle: Enables state C4

  [Commit: *d636664*]

- OMAP3: PM: CPUidle: Basic support for C1-C2

  [Commit: *02afae2*]

- OMAP: PM: DMA context save / restore

  [Commit: *aa3946e*]

- OMAP: PM: sysfs interface for enabling voltage off in idle

  [Commit: *da514c1*]

- OMAP3: PM: allow runtime enable/disable of OFF mode

  [Commit: *3655ffa*]

- OMAP3: PM: CORE domain off-mode support

  [Commit: *e8456c4*]

- OMAP3: PM: MPU off-mode support

  [Commit: *0c875bb*]

- OMAP3: PM: Restore MMU table entry

  [Commit: *649b6bc*]

- OMAP3: PM: handle PER/NEON/CORE in idle

  [Commit: *1e93bf7*]

- OMAP3: PM: SRAM restore function

  [Commit: *55f49b7*]

- OMAP: PM: Add closures to clkdm_for_each and pwrdm_for_each.

  [Commit: *5f63651*]

- OMAP: PM: Hook into PM counters

[Commit: *07f211a*]

- OMAP3: PM: Save and restore also CM_CLKSEL1_PLL_IVA2

  [Commit: *ef03c11*]

- PM: Added three PLL registers to the PRCM context save

  [Commit: *a5e3ac7*]

- OMAP3: PM: PRCM context save/restore

  [Commit: *1d37779*]

- OMAP3: PM: PRCM context save/restore

  [Commit: *1d37779*]

- OMAP3: PM: minor cleanup of PRM register definitions

  [Commit: *b7e918a*]

- OMAP3: PM: Wait for SDRC ready iso a blind delay

  [Commit: *bd84cd2*]

- OMAP3: PM: SDRC auto-refresh workaround for off-mode

  [Commit: *49c92d0*]

- OMAP3 PM: off-mode support for HS/EMU devices

  [Commit: *891a047*]

- OMAP3: PM: MPU off-mode support

  [Commit: *0c875bb*]

4.7. Generic OMAP3 related

- New OMAP3EVM: Used T2.GPIO.8 pin instead of GPIO62 for Vid-Dec

  [Commit: *d83b6ba*]

- MMDC removal error fixed

  [Commit: *daf7d7c*]

- Transition to C2 via omap3_idle_bm_check()

  [Commit: *733b122*]

- PM: cpuidle - fix compile warnings

  [Commit: *ca6f975*]

- PM : cpuidle - Update statistics for correct state

  [Commit: *970ed00*]

- OMAP3: PM: CPUidle; Start C-state definitions from base 0

  [Commit: *7b7aaee*]

- OMAP3: PM: CPUidle: Add new lower-latency C1 state

  [Commit: *feab27f*]

- PM: Fix compile warnings with !CONFIG_OMAP_PM_SRF

  [Commit: *20631aa*]

- OMAP3: PM: Fix INTC context save/restore

  [Commit: *371683b*]

- Fix compilation issues when CONFIG_PM_SRF is enabled

  [Commit: *9c8125fb*]

- Fix for compilation issue for NAND built as module.

  [Commit: *9f84eec*]

- PM: cpuidle - Revert temporary changes

  [Commit: *ab2a4ac*]

- PM: Fix compile error with CPU Idle enabled

  [Commit: *6ba26e0*]

- Interdependancy between ISP and Camera removed

  [Commit: *2f89689*]

- MMDC patch made it work with new ISP Camera+Nokia fixes

  [Commit: *a69df1e*]

- OMAP3EVM Multi-Media Daughter Card Support

  [Commit: *57fa4d2*]

- OMAP3430SDP: CAM: Add wait_hs_vs field in isp if config

  [Commit: *26a2ff7*]

- OMAP34XX: CAM: Add OV3640 Sensor Support

  [Commit: *07c32c3*]

- OMAP3430SDP: MT9P012: Get rid of vdint[01]_timing

[Commit: *2b94656*]

- OMAP34XX: CAM: Add Sensors Support

  [Commit: *5bb7bf7*]

- Signed-off-by: Tomi Valkeinen <tomi.valkeinen@nokia.com> DSS: Support for OMAP3 SDP board

  [Commit: *5f8f32a*]

- DSS: support for Beagle Board

  [Commit: *d40f1b2*]

- Add support for OMAP35x processors

  [Commit: *5007c11*]

- OMAP3: PM: add common OPP definitions and use them on Beagle

  [Commit: *c29b334*]

- PM: OMAP3: Removed a couple of unused variables from DVFS code

  [Commit: *983ecea*]

- OMAP3: PM: Enable VDD2 OPP1

  [Commit: *6368c7d*]

- OMAP3 SRAM: convert SRAM code to use macros rather than magic numbers

  [Commit: *75b9b0f*]

- OMAP3 SRAM: add more comments on the SRAM code

  [Commit: *942bbe5*]

- OMAP3 clock: remove wait for DPLL3 M2 clock to stabilize

  [Commit: *d79dc5e*]

- OMAP3 SRAM: renumber registers to make space for argument passing

  [Commit: *f8c9cc9*]

- OMAP3 SDRC: initialize SDRC_POWER at boot

  [Commit: *9589523*]

- OMAP3 SDRC: Add 166MHz, 83MHz SDRC settings for the BeagleBoard

[Commit: *8137fd5*]

- OMAP3 SRAM: clear the SDRC PWRENA bit during SDRC frequency change

  [Commit: *e617ab2*]

- OMAP3 clock: add interconnect barriers to CORE DPLL M2 change

  [Commit: *4904706*]

- OMAP3 SRAM: add ARM barriers to omap3_sram_configure_core_dpll

  [Commit: *c4d536e*]

- OMAP3: PM: Scale VDD2 OPP for VDD1 OPP3 and higher

  [Commit: *36e5e5c*]

- OMAP3:PM: Update SSI omapdev record

  [Commit: *45b2aef*]

- OMAP3 SRF: Adds sysfs control for VDD1/VDD2 OPP's

  [Commit: *d90c099*]

- OMAP3 SRF: Adds OPP/Freq res's in SRF

  [Commit: *a9875f4*]

- OMAP3 SRF: omap3 srf driver

  [Commit: *920822a*]

- OMAP3 SRF: MPU/CORE/PD latency modeling

  [Commit: *507ba67*]

- OMAP: PM: Implement get_last_off_on_transaction_id()

  [Commit: *de9e39a*]

- OMAP3: PM: CPUidle: restrict C-states on UART activity

  [Commit: *3c09208*]

- OMAP3: PM: CPUidle: obey enable_off_mode flag

  [Commit: *43629d2*]

- OMAP3: PM: CPUidle: Safe-state on bm-activity

  [Commit: *f9c5193*]

- OMAP3: PM: CPUidle: Enables C3 and C5

  [Commit: *b8217dc*]

- OMAP: PM debug: do not print out status for meta powerdomains (dpll*)

  [Commit: *ba7f54f*]

- OMAP3xxx omapdev: add OMAP3xxx omapdev records

  [Commit: *324636c*]

- OMAP243x omapdev: add OMAP243x omapdev records

  [Commit: *2c5d1a6*]

- OMAP242x omapdev: add OMAP242x omapdev records

  [Commit: *414135a*]

4.8. Board Specific

- omap: rewrite omap3evm_board_rev() method

  [Commit: *d30f997*]

- New OMAP3EVM: Kconfig option added for selection between SVIDEO and CVBS

  [Commit: *aa8f4a2*]

- New OMAP3EVM: Video Decoder(TVP5146) support added

  [Commit: *c8694d4*]

- usb: Add USB support on new OMAP3EVM

  [Commit: *abfc5fc*]

- New OMAP3EVM: Backlight support added

  [Commit: *32cc486*]

- OMAP35x : Migrate to smsc911x ethernet driver for OMAP3EVM

  [Commit: *2d20919*]

- Power management support tested with both FBDEV and V4L2

  [Commit: *b003e0c*]

- Power Management working with V4L2 Display

  [Commit: *c64d2cc*]

- Power Management working with FBDEV

  [Commit: *7b284b9*]

- OMAP3: PM: CPUfreq support for OMAP3EVM board

  [Commit: *b9fc3e9*]

- twl API moved to comile time macro

  [Commit: *44689f55*]

- backlight driver made worked with DSS2

  [Commit: *1b7bfa5*]

- Fix the MMC/SD hotplug issue

  [Commit: *26c6344*]

- Build TPS6235x based PR785 board support

  [Commit: *c0f964a*]

- Bug solved: Colors not coming proper on DVI output

  [Commit: *2262d03*]

- old FBDEV made working

  [Commit: *7a84062*]

- Minor Fixes to V4L2 driver

  [Commit: *e0d0c60*]

- V4L2 driver added Features - - Rotation support - Scaling support

  [Commit: *1b8d786*]

- DSS: Support for OMAP3 EVM board

  [Commit: *75bf5d1*]

- Board specific updates

  [Commit: *b59f1b9*]

- OMAP3 SRF: Add VDD1/VDD2 rate tables for 3430SDP

  [Commit: *a6a347f*]

5. Reporting Issues

To report issues in this release, send an email to software support [mailto:softwaresupport@ti.com] describing the issue.