

TCC892x ANDROID-4.4.2(KITKAT) RELEASE NOTE

TCC892x_Android 4.4(Kitkat)_v1.00E

Rev. 1.00

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Telechips

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Revision History

Date	Version	Description
2014-02-14	0.01	Android 4.4(Kitkat) Beta version release – v14.02_beta-tcc-android-4.4
2014-04-01	1.00	Android 4.4.2(Kitkat-mr1.1) Official version release – v14.04_tcc-android-4.4.2

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1 V14.04_tcc-android-4.4.2 Version Release

You can check below comments from each repository except hardware/telechips/tcc892x, hardware/telechips/dxb, device/telechips repositories. Please understand there may be some spelling mistakes and it can be found comments from GIT server, also.

- This release provide fundamental software platform to build Android solution with Telechips chipsets.
- This release supports the following Telechips devices
: TCC892x, TCC893x
- Components of this release are as follows.
 - ✓ Android 4.4.2 (Kitkat-mr1.1) release from Google
 - ✓ Android Linux Kernel 3.4.35
- Partition layout was changed from Android 4.4.2(Kitkat-mr1.1) version(Changed from MBR to GPT) as default.
So, firmware download method was also changed.

Please refer to "TCCxxx-Android-ALL-V1.0-Partition Layout Guide.pdf" in "vendor/telechips/documents/common" folder.

1.1 New Feature

In the v14.04_tcc-android-4.4.2 release version added new features, refer to the following description.

No	Function	Description
1	Storage	External storage such as SD card and USB memory stick is accessed through FUSE daemon. With this one, permission policy for accessing external storage is also modified. Detailed information is described at http://source.android.com/devices/tech/storage/index.html

1.2 Function Limitations

In the v14.04_tcc-android-4.4.2 release version, there are some function limitations.
And for more information, refer to the following description.

No	Function	Description
1	F/W Upgrade	FOTA – Update limitation from Jellybean to Kitkat. When a system is updated from Jellybean to Kitkat, update package including "bootloader.img" is not operated in Jellybean's recovery image. Because of this, to update system including "bootloader.img" between different android version(Jellybean-Kitkat), you must update bootloader independently after normal image(boot.img, system.img and recovery.img) is upgraded from Jellybean to Kitkat. Detailed guidance is described at "Chapter 8.4 Update System from Jellybean to Kitkat" of "TCCxxx_Android_Firmware_Upgrade_Guide-v1.7.pdf" document.
2	SELinux	SELinux(Security Enhanced Linux) is disabled. It will be supported in next release version.
3	HLS	In TCC omx video component, prepareForAdaptivePlayback functionality is yet to be supported.

1.3 Known Issues

In the v14.04_tcc-android-4.4.2 release version, there are some known issues.
And for more information, refer to the following description.

No	Function	Description
1	Gallery	In Gallery, Trim and Mute function is not supported yet.

1.4 Change History

The following items are main items which changed from this version.

1.4.1 System Part

- **File System**
 - ✓ Update Paragon NTFS file system (ufsd version 8.9)
- **SD/MMC**
 - ✓ Fix memory initialization update bug through FOTA
 - ✓ Fix card detection bug for SD card inserted in suspend mode
- **Recovery**
 - ✓ Fix SD card inserted with write-protected pin mount bug
- **External Storage**
 - ✓ Access method to external storage is modified to use FUSE daemon

1.4.2 Connectivity Part

- **Wi-Fi**
 - ✓ Add Broadcom AP6234 support
 - ✓ Update Broadcom drivers
 - ✓ Remove BCM4330 support
 - ✓ Remove Atheros support
- **Wi-Fi Display**
 - ✓ Fix bug for source / sink
 - ✓ Improve P2P connection

1.4.3 Multimedia Part

- **Streaming Playback**
 - ✓ Default RTSP player is changed from Stagefright to NuPlayer
 - ✓ Fix different Show/Hide reaction of webkit inline/fullscreen media controller from touch event.
 - ✓ Support inline/fullscreen view transition by Full-HD media.
 - ✓ Prevent html5 video from falling through suspend mode during the playback.
 - ✓ Add error-resilience code when rtsp media player get RTSP 461 error from server.
 - ✓ Fix the media player crash problem during preparing WMA media streaming when user pushes back/home key.

2 V14.02_beta-tcc-android-4.4 Version Release

You can check below comments from each repository except hardware/telechips/tcc892x, hardware/telechips/dxb, device/telechips repositories. Please understand there may be some spelling mistakes and it can be found comments from GIT server, also.

- This release provide fundamental software platform to build Android solution with Telechips chipsets.
- This release supports the following Telechips devices
: TCC892x, TCC893x
- Components of this release are as follows.
 - ✓ Android 4.4 (Kitkat) release from Google
 - ✓ Android Linux Kernel 3.4.35
- Partition layout was changed from Android 4.4(Kitkat) Beta version(Changed from MBR to GPT) as default. So, firmware download method was also changed.

Please refer to "TCCxxxx-Android-ALL-V1.0-Partition Layout Guide.pdf" in "vendor/telechips/documents/common" folder.

2.1 New Feature

In the v14.02_beta-tcc-android-4.4 release version added new features, refer to the following description.

No	Function	Description
1	F/W Upgrade	Support Android firmware upgrade.(Jellybean → Kitkat) (To upgrade firmware, You must use MBR instead of GPT. Because Jellybean use MBR partition layout)
2	File System	Support GPT Partition scheme
3	Camera	Support to HDMI output on Camera mode
4	Bluetooth	Available to BLE-capable devices
5	DVFS	Add clocktable function for supporting DVFS on CORE block at MID platform with TCC8935 and TCC8935s chipset.
6	Video	Support software VP9 codec of Google

2.2 Function Limitations

In the v14.02_beta-tcc-android-4.4 release version, there are some function limitations. And for more information, refer to the following description.

No	Function	Description
1	Display	Disable Fence sync function. It will be supported in next version.
2	F/W Upgrade	FOTA – Update limitation from Jellybean to Kitkat. When a system is updated from Jellybean to Kitkat, update package including “bootloader.img” is not operated in Jellybean’s recovery image. Because of this, to update system including “bootloader.img” between different android version(Jellybean-Kitkat), you must update bootloader independently after normal image(boot.img, system.img and recovery.img) is upgraded from Jellybean to Kitkat. Detailed guidance is described at “Chapter 8.4 Update System from Jellybean to Kitkat” of “TCCxxx_Android_Firmware_Upgrade_Guide-v1.6.pdf” document.
3	SELinux	SELinux(Security Enhanced Linux) is disabled. It will be supported in next release version.
4	KSM	KSM(Kernel Samepage Merging) is disabled. It will be supported in next release version.
5	Quickboot	This function is not yet supported.
6	HTML5	Inline/Fullscreen changeover would be failed over the video resolution 1440x1080.
7	Camera	Don't support to 720p REC. in TCC892x EVM board.

2.3 Known Issues

In the v14.02_beta-tcc-android-4.4 release version, there are some known issues. And for more information, refer to the following description.

No	Function	Description
1	Display	Popup dialog window have noise when system power off. Sometimes last framebuffer don't update when HDMI plug-in device vertical mode
2	Camera	Sometimes capture image is broken when using more bigger than 5M sensor.
3	System	System suspend/resume operation is a little unstable at TCC8930
4	HTML5	Inline playback has yet to block screen-timeout
5	Gallery	In Gallery, Trim and Mute function is not work normally.

2.4 Change History

The following items are main items which changed from this version.

<Note>

This release version is first release for Android 4.4(Kitkat)

- Update MALI r4p0_00rel0 for Android 4.4
- LCD panel of M805 board is changed to 1024x600 LVDS
- Partition layout is changed to GPT(GUID Partition Table) at Android 4.4(Kitkat).