

TCC893X STB Android SDK Release Note

TCC893X-STB-Android 4.4.2(Kitkat-mr1.1)-V1.00E-Release Note

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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
2014-04-03	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/tcc893x, 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 chipsets
 - ✓ TCC892x
 - ✓ TCC893x
- Components of this release are the followings.
 - ✓ 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 (MBR→GPT). So firmware download method was also changed. Please refer to "TCCxxx-Android-ALL-V1.0-Partition Layout Guide.pdf" in "vendor/telechips/documents/common/pdf/" folder or "STB Quick Start Guide" in "vendor/telechips/documents/tcc893x/pdf".

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	Video Player	Video playback halts in case that 2x speed is selected during playing video by using another speed.

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/tcc893x, hardware/telechips/dxb and device/telechips repositories. Please understand there may be some spelling mistakes and it can be found comments from GIT server, also.

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- Partition layout was changed from Android 4.4 (Kitkat) version (MBR→GPT). So firmware download method was also changed. Please refer to "TCCxxx-Android-ALL-V1.0-Partition Layout Guide.pdf" in "vendor/telechips/documents/common/pdf/" folder or "STB Quick Start Guide" in "vendor/telechips/documents/tcc893x/pdf".

2.1 New Features

Refer to the following description to check the added features in v14.02_beta-tcc-android-4.4 release version.

No	Function	Description
1	F/W Upgrade	Support Android firmware upgrade (Jellybean → Kitkat) MBR partition should be used instead of GPT for this
2	File System	Support GPT partition scheme
3	Bluetooth	Available to BLE-capable devices
4	Video	Supports software VP9

2.2 Function Limitations

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

No	Function	Description
1	Display	Disable Fence sync function. It will be supported in next release version.

2	F/W Upgrade	FOTA-Update limitation from Jellybean to Kitkat. When system is updated from Jellybean to Kitkat, update-package including "bootloader.img" is not operated in Jellybean's recovery image. Because of this, you must update bootloader independently after normal images (boot.img, system.img and recovery.img) are 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.
4	KSM	KSM (Kernel Samepage Merging) is disabled.
5	Quickboot	This function is not yet supported.
6	HTML5	The changeover between in-line and full-screen video would be failed over the video resolution 1440x1080.
7	Splash Image	It is not supported in beta release version.

2.3 Known Issues

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

No	Function	Description
1	HTML5	Inline playback has yet to block screen-timeout.
2	Screen Mode	There is black screen problem when screen mode is changed during playing interlaced video.

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
- Partition layout is changed to GPT (GUID Partition Table) at Android 4.4 (Kitkat).