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Android™ Release Notes

Contents

1 Release Description

i.MX Android™ KK4.4.3_2.0.1 is the patch release for the KK4.4.3_2.0.0 general availability (GA) release on the i.MX 6Quad, i.MX 6Dual, i.MX 6DualLite, i.MX 6Solo, i.MX 6SoloLite, and i.MX 6SoloX application processors.

The i.MX Android KK4.4.3_2.0.1 release provides fixes for critical issues in the KK4.4.3_2.0.0 GA release. The release is based on the KK4.4.3_2.0.0 GA release.

2 Supported Hardware SoC/ Boards

- i.MX 6Quad SABRE-SD board and platform
- i.MX 6DualLite SABRE-SD platform
- i.MX 6Quad SABRE-AI board and platform
- i.MX 6DualLite SABRE-AI board and platform
- i.MX 6SoloLite EVK platform
- i.MX 6SoloX SABRE-SD board
- i.MX 6SoloX SABRE-AI board and platform

3 Release Package Contents

The KK4.4.3_2.0.1 release package includes the following software and documents:

Android source code patch	• android_KK4.4.3_2.0.1_core_source.tar.gz: i.MX-specific patches (apply to Google Android repo) to enable Android on i.MX-based boards. For example, Hardware Abstraction Layer implementation and hardware codec acceleration.
Documents	The following documents are included in android_KK4.4.3_2.0.1_docs.tar.gz • Android User's Guide: A detailed manual for this release package. • Android Release Notes: A document that introduces key updates and known issues in this release.
Prebuilt images	You can test Android with a prebuilt image on i.MX reference board before building any code: • android_KK4.4.3_2.0.1_core_image_6qsabresd.tar.gz: Prebuilt images with default Android features for the SABRE-SD board. • android_KK4.4.3_2.0.1_core_image_6qsabreauto.tar.gz: Prebuilt images with default Android features for the SABRE-AI board. • android_KK4.4.3_2.0.1_core_image_6slevk.tar.gz: Prebuilt images with default Android features for the 6SoloLite EVK platform. • android_KK4.4.3_2.0.1_core_image_6sxsabresd.tar.gz: Prebuilt images with default Android features for the i.MX 6SoloX SABRE-SD board. • android_KK4.4.3_2.0.1_core_image_6sxsabreauto.tar.gz: Prebuilt images with default Android features for the i.MX 6SoloX SABRE-AI board. • android_KK4.4.3_2.0.1_full_image_6qsabresd.tar.gz: Prebuilt images with Extended Multimedia features for the SABRE-SD board. For more information about the Extended Multimedia Feature Package, see Section 6. • android_KK4.4.3_2.0.1_full_image_6qsabreauto.tar.gz: Prebuilt images with Extended Multimedia features for the SABRE-AI board. For more information about the Extended Multimedia Feature Package, see Section 6. • android_KK4.4.3_2.0.1_full_image_6slevk.tar.gz: Prebuilt images with extended features for the i.MX 6SoloLite EVK board. The extended features include more multimedia format support. • android_KK4.4.3_2.0.1_full_image_6sxsabresd.tar.gz: Prebuilt images with extended features for the i.MX 6SoloX SABRE-SD board. The extended features include more multimedia format support. • android_KK4.4.3_2.0.1_full_image_6sxsabreauto.tar.gz: Prebuilt images with extended features for the i.MX 6SoloX SABRE-AI board. The extended features include more multimedia format support. All prebuilt images are in a separate package. See *Android™ Quick Start Guide* (AQSUG) and *Android™ User's Guide* (AUG) to understand which image should be used.

4 Change List

Compared to the KK4.4.3_2.0.0-ga release, this release has the following major changes:

- Upgraded the GPU version from 5.0.11p4 to 5.0.11p8.
- Fixed the issue of 0xbench benchmark 2D performance downgrade.
- Fixed the issue where the VPU is blocked in the BWB module in some use cases.
- Enabled ARM® Cortex®-A9 ARM Errata 845368 to fix data corruption for a corner case.

- Fixed the issue where Google Application (Science Journal) shows black rectangles when performing sliding operation.
- Fixed the issue of testVirtualDisplayRecycles CTS random failure.

5 Known Issues and Limitations

Read through all hardware-related reference material and ensure that the necessary hardware modifications are made before using the software.

Issue description	Remarks
Huawei EM770W 3G modem with China Mobile SIM card consumes too much power, which flashes the LVDS screen.	-
Battery level information is incorrect when charged in the MX6DQ/MX6DL SABRE-SD board and platform. 100%	To resolve this issue, add a fuel gauge in hardware.
The UI is in Landscape mode while the camera preview is in portrait mode on the SABRE-SD platform.	SABRE-SD platform issue. See "*i.MX Android Camera Issue on the SDP Board*" for more details.
PCIe does not support Hot Plug and Power Management.	PCIe Intel Wi-Fi source code is integrated into this release. However, PCIe is not enabled by default because the power management is not supported. See community.nxp.com/docs/DOC-94045 about the instructions to enable PCIe Wi-Fi.
L/R channel is swapped in the SABRE-AI board.	It is a hardware issue. Connect the red line to the white port and the white line to the red port.
The 3G modem cannot work if the BT in bootargs of the bootloader is enabled.	The I/O pin KEY_COL4 is either used by UART5 as UART RTS pin or by 3G modem as DISABLE pin.
The Google USB driver must be installed multiple times for the MTP, PTP, MTP&ADB, PTP&ADB, and ADB function settings.	Some Windows® XP OS environments may display MTP and PTP Windows OS even though PTP only is enabled in the device.
When Accessibility -> Magnification is enabled, several blue lines appear if sliding from bottom when playing a video.	Known issue, which is related to the DPI and should be an Android SystemUI or Gallery3D layout issue. The issue is resolved if setting DPI to 128 in init.freescale.rc, but we set DPI to 160 by default.
There is silence in the first few seconds for HDMI output when connecting the board to a TV set.	This issue is related to the TV set. Some TV sets have no issues while some TV sets have issues.
Bluetooth wireless technology cannot work simultaneously with Wi-Fi by using the AR6233X combo module from Silex.	This issue may be caused by: • The firmware needs to enable corresponding configurations to support the concurrent feature. • A wireless tool, btfilter, is needed to handle operating parameters to the Atheros WLAN driver when the co-located Bluetooth® radio enters or exits specific operating states. This mechanism provides most information to the WLAN device to optimize the WLAN performance and Bluetooth protection policies or mechanisms. This tool is intended for system designs where the WLAN and Bluetooth radios use hardware coexistence signaling between the devices. There is only the old version for this tool that is based on BlueZ and old Wi-Fi driver. Contact the Wi-Fi vendor to supply the new version tool to support it.
On the i.MX 6SoloX SABRE-AI board, the TVIN source cannot adjust to fit the preview of Camera when powering on the DVD player.	Still under debugging.

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