

i.MX Android

Release Note

R14 Beta

June 11, 2012

Release Description

The i.MX Android R14-Beta Release is the first Freescale Android 4.0 Ice Cream Sandwich (ICS) release on i.MX53. The release includes all necessary code, binaries, documents, and tools to assist developers in constructing, building and running Android 4.0 on i.MX53 SMD hardware board. Prebuilt images are also included for a quick trial on the Freescale i.MX53 SMD.

R14-Beta release is based on PDK release ER4.1 kernel and Ice Cream Sandwich 4.0.4 (tag "android-4.0.4_r1.1") of Google Android repository. Except for some proprietary modules/libraries from third parties and Freescale proprietary CODECs, the release is provided as source files.

Features

- Android Ice Cream Sandwich (4.0.4) with Linux 3.0.15 kernel
- i.MX53 SMD (MCIMX53SMD) Board support
- Multiple boot source – eMMC, external SD, and NFS support
- USB 2.0 Host and USB 2.0 Device
- Storage on internal eMMC and external SD using UMS, MTP, and PTP
- USB Keyboard, USB Mouse, and USB Tethering
- Single UI display on Multi-touch LVDS Panel with Brightness control
- Secondary display using HDMI output with UI replication on TV/Monitor
- WiFi Connectivity – Direct and AP modes
- 10/100 Ethernet Connectivity
- Bluetooth Connectivity with A2DP
- Single Front Camera/Camcorder with 720P recording
- Sensors – GPS, Accelerometer, Light, and Magnetometer
- Power Management – Battery status, DVFS, and Suspend/Resume
- System Recovery
- Multi-format Video decode and encode
- Multi-format Audio decode and encode with presentation on speaker or audio jack
- HTML5 Video support
- Tools – MFG Tool, ADB (Linux/Windows), DDMS, GDB 7.2

Partial Features

The following features are operational; however, there are no commitments to an operational level.

- Huawei EM770W and Infineon Amazon1 3G modem support
- SIP support
- Android Market Adobe Flash Player 11.1 for ICS

Supported HW SoC/Board

- i.MX53 SMD rev B/C/D board

Full functional test

What's in this release

The R14-Beta release package includes the following software packages and documents:

Prebuilt Images	<p>You can trial Android on Freescale reference development board i.MX53 SMD before building any code. See document "i.MX Android R14-Beta Quick Start".</p> <p>Located in images/imx53_smd</p>
Android Source Code Patch	<p>All Freescale i.MX specific patches (applied to Google Android Release tag) to enable Android on i.MX based boards.</p> <p>Located in code/r14-beta.tar.gz</p>
Script	<p>Script help user to apply Freescale i.MX source code patch to Android Release repository tree downloaded from Google git repository.</p> <ul style="list-style-type: none">• and_patch.sh in code/r14-beta.tar.gz
Documents	<p>The following documents are included in this release, under doc/:</p> <ul style="list-style-type: none">• i.MX Android R14-Beta Quick Start• i.MX Android R14-Beta User Guide• i.MX Android R14-Beta Release Note• i.MX Android R14-Beta Advanced User Guide• i.MX Android R14-Beta FAQ
Tools	<ul style="list-style-type: none">• MFG Tool• USB tethering windows .inf driver configure file: tetherxp.inf <p>Located in tool/</p>

Known Issues

ID	CATEGORY	DESCRIPTION	PROBABILITY
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ENGR175876	MULTIMEDIA/VIDEO	GIF/PNGDec: The thumbnail is wrong on Gallery. It display a part of picture, not all picture.	100.00%
ENGR175930	MULTIMEDIA/VIDEO	Gallery: No thumbnail of Udisk video files in Gallery in the first 10 seconds. Generating thumbnail is very slow.	100.00%
ENGR175945	CONNECTIVITY/USB	MTP: Copying files will be interrupted if playing video at the same time.	100.00%
ENGR176691	MULTIMEDIA/CAMERA	Camera: Picture taken with QVGA setting is dark.	100.00%
ENGR176947	CONNECTIVITY/WIFI	Wifi: Cannot turn on wifi, need to reboot.	10.00%
ENGR209719	CONNECTIVITY/WIFI	Wi-Fi: WiFi wouldn't connect automatically after reboot with low possibility.	10.00%
ENGR210136	UI/DISPLAY	Dual display: System enter early suspend and LVDS screen becomes black if plug out HDMI cable.	100.00%
ENGR210146	POWER/SUSPEND/RESUME	3G: System cannot be waken up from suspend by call in.	100.00%
ENGR210659	MULTIMEDIA/CAMERA	Camcorder: Playback exit if seek to later than 1:50:00 for a recorded 2:15:00 video. Same as 6Q.	100.00%
ENGR210859	STORAGE	Storage: Space is not released if record a audio/video to sd card full and then delete this file.	100.00%
ENGR210900	CONNECTIVITY/WIFI	WiFi hotspot: WPA PSK is not valid when WiFi hotspot is enabled. Same as 6Q.	100.00%
ENGR210941	MULTIMEDIA/VIDEO	Gallery: The thumbnail of video files on sdcard is exsited, after delete the video files. It is still exist at userdata.	100.00%
ENGR211774	CONNECTIVITY/WIFI, MULTIMEDIA/VIDEO	Wifi/HTTP Streaming: Wifi cannot connect after play stream 2 hours in Qiyi, Supplicant not running.	100.00%
ENGR211775	MULTIMEDIA/IMAGE, UI/DISPLAY	Wallpaper/BMP,GIF: The wave drawing of wallpaper will turn very fast when playing music track.	100.00%
ENGR213606	APPLICATION	VPN: Cannot connect to VPN successfully, both on i.MX53 and 6Q.	100.00%
ENGR210533	APPLICATION	NFS: eMMC Data partition is mounted when boot from NFS. This not happed on 6Q or Gingerbread.	100.00%
ENGR210987	UI/DISPLAY	Glbenchmark swapbuffer test cannot reach the Vsync limited condition iMX53	100.00%

ENGR213370	GENERAL/RECOVERY	Factory reset cannot work if insert a external SD card.	100.00%
ENGR213390	UI/DISPLAY	Unlock key: Sometimes unlock key cannot be displayed after power on or reboot unless touch the screen.	10.00%
ENGR213391	MULTIMEDIA/VIDEO	FLVDec: Video mosaic after seek, when play 1 FLV stream.	100.00%
ENGR213530	INTERNET/FLASH	Browser will exit when load tudou.com and fatal error with print in console.	10%
ENGR213533	INTERNET/FLASH	Flash: Left side of video is cut and video is jitter for some videos on tudou.com.	100%
ENGR213535	INTERNET/FLASH	Flash: Browser screen is corrupt with purple or green blocks after play some flash and then reboot.	30%
ENGR213586	POWER/SUSPEND/RESUME	Suspend&Resume: System always can't wake up from suspend state after set the screen lock to none.	80.00%
ENGR213611	UI/DISPLAY	HDMI: Cannot display wallpaper for HDMI 1080P single display.	100.00%
ENGR213915	MULTIMEDIA/VIDEO	MJPEGDec: The color YUV of video is wrong when play a MJPEG YUV422 stream.	100.00%
ENGR213915	UI/DISPLAY	UI: Screen is black for about 2-3 seconds when boot with live wallpaper.	100.00%