



Mobile and Embedded Operating System

# Android Mobile Operating System for i.MX Applications Processor Platforms



## Overview

Android is a free, open source and fully customizable mobile platform based on the Linux® kernel. Android offers a full vertical software stack: an operating system, middleware and key applications. It also contains a rich set of APIs that allows third-party developers to develop great applications. Freescale now supports Android with a board support package (BSP) that is ready to be adapted to select i.MX platforms. The i.MX51 multimedia applications processor running Android is an excellent platform for building a high-performance, low-power and cost-effective mobile device that successfully passes the Android Compatibility Test Suite (CTS). The reference hardware, images, source patches and documentation are available now for the i.MX51 Evaluation Kit (EVK) at [www.freescale.com/imxandroid](http://www.freescale.com/imxandroid).

Freescale enables our customers with integrated hardware/software solutions to realize faster time to market, and the Android platform provides a compelling and innovative end user experience to support this effort. Using a layered approach with the right selection of components to interface into the Android stack results in a more complete and ready solution. Customers will be able to directly develop applications on this integrated solution or easily modify their own drivers based on Freescale's i.MX Android BSP.

## Target Processor Architecture

Freescale's i.MX51 applications processor is based on the ARM Cortex™-A8 core. The i.MX51 is a high-performance, full-featured System-on-Chip (SoC) that supports multimedia acceleration, connectivity, security, expansion buses and low power.

## Features

- Optimized Android solution with accelerated multimedia codecs and graphics
- Based on the latest stable Android kernel/release
- Common code base across Freescale i.MX SoCs to greatly reduce porting effort to next-generation i.MX processors
- Source patches for selected drivers
- Documentation (Reference Manual, User's Guide, Release Notes)

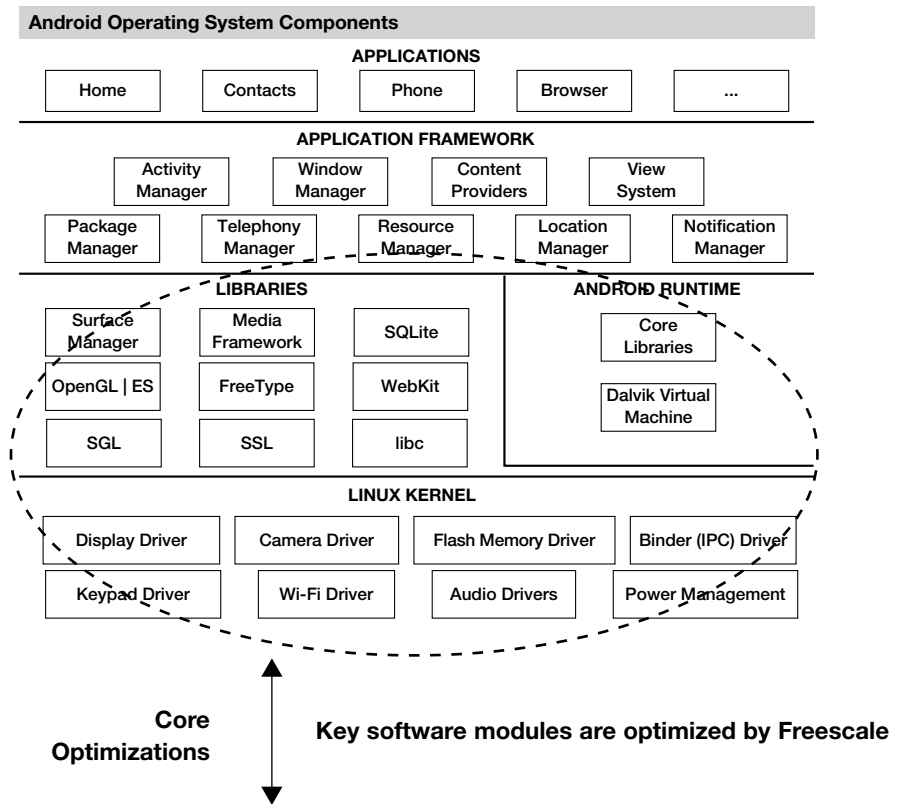


## Benefits

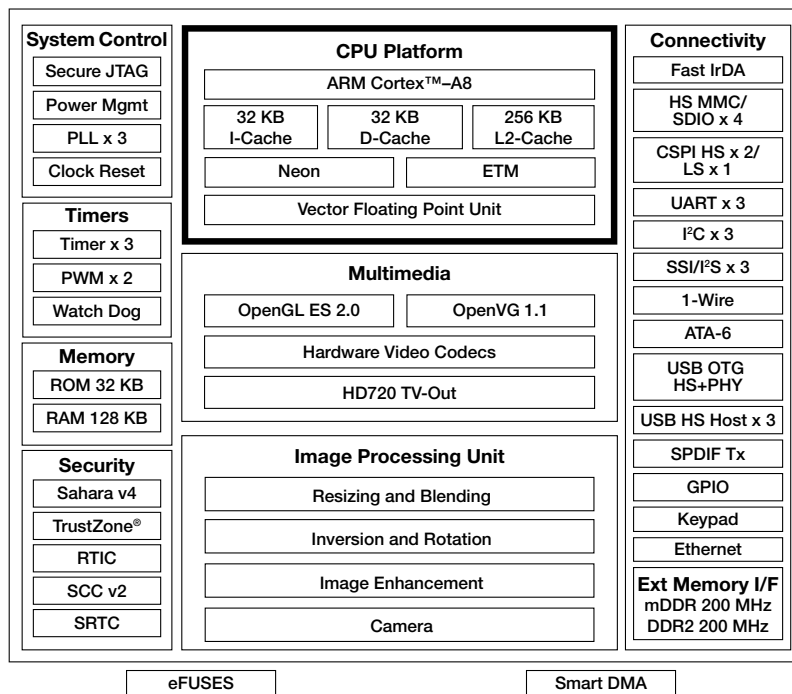
- High performance and low power operation
- Optimized multimedia codecs in the Android framework include:
  - ARM7™ optimization
  - Hardware encode and decode acceleration using the video processing unit (VPU)
- Graphics hardware acceleration
  - 2-D graphics for UI rendering
  - OpenGL® ES 2.0 for 3-D applications
- Latest Android kernel/release
- Specific extensions for the i.MX platform
- Extensive test cases for BSP and multimedia codecs

## Open Handset Alliance™

Freescale is a proud member of the Open Handset Alliance—a group of mobile and technology leaders responsible for the creation and proliferation of Android and an open mobile ecosystem. Freescale contributes kernel code and drivers via the Android Open Source Project.



## i.MX515 Applications Processor



## Learn More:

For current information about Freescale products and documentation, please visit [www.freescale.com/imx](http://www.freescale.com/imx).