

# Android™ Quick Start Guide

## Contents

## 1 Overview

This document guides you through the processes of downloading and running this release package. It only explains how to download and run the default release image with default configuration. For details on using the release package, see the *Android™ User's Guide* (AUG) included in this release package.

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## 2 Hardware Requirements

The hardware requirements for using this release package are as follows:

Supported system-on-chips (SoCs):

- i.MX 8QuadMax

Supported boards:

- i.MX 8QuadMax Validation Board and Platform

## 3 Working with the i.MX 8QuadMax Validation Board



### 3.1 Board hardware

The figure below shows the different components of the i.MX 8QuadMax Validation board.

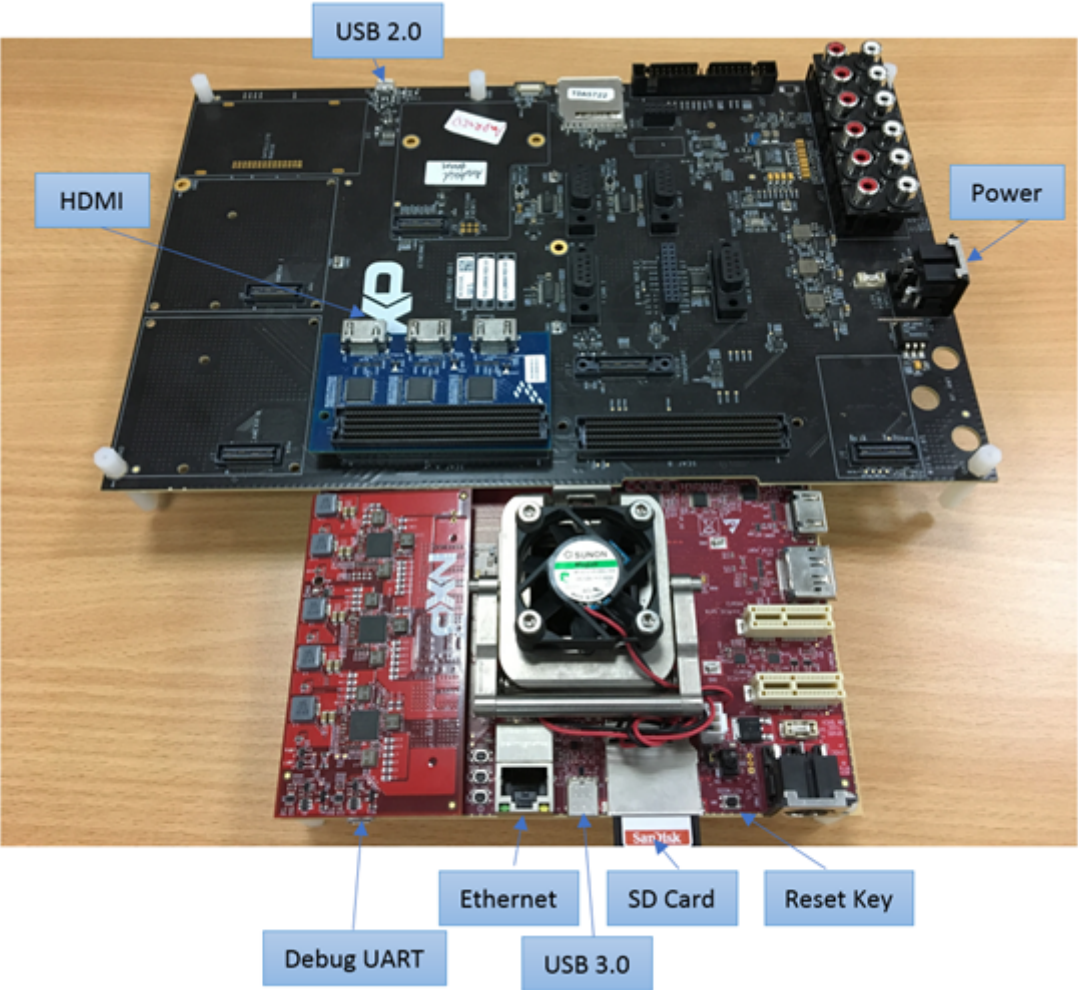


Figure 1. i.MX 8QuadMax Validation board

### 3.2 Board images

The table below describes the location in the board partitions of the software images in android\_O8.0.0\_1.1.0\_8QM-PRC1\_image\_8qmarm2.tar.gz.

Table 1. Board images

Image name	Download target
u-boot-imx8qm.imx	33 KB offset of SD card.
partition-table.img	Program to the first 17 KB, and then back up to last 17 KB of the SD card. GPT (GUID Partition Table) for 16 GB SD card.

Table continues on the next page...

**Table 1. Board images (continued)**

partition-table-7GB.img	Program to the first 17 KB, and then back up to last 17 KB of the SD card. GPT (GUID Partition Table) for 8 GB SD card.
partition-table-28GB.img	Program to the first 17 KB, and then back up to last 17 KB of the SD card. GPT (GUID Partition Table) for 32 GB SD card.
boot-imx8qm.img	boot_a and boot_b partitions.
vbmata-imx8qm.img	vbmata_a and vbmata_b partitions
system.img	system_a and system_b partitions.
vendor.img	vendor_a and vendor_b partitions.

### 3.3 Flashing board images

Flashing images through MFGTool is not supported so far. Use the following command to flash images to the SD card.

```
sudo ./fsl-sdcard-partition.sh -f imx8qm /dev/sdX
```

#### NOTE

Here, X is the disk index from 'a' to 'z'. It may be different on each computer running Linux OS.

- If the SD card is 8 GB, use "sudo fsl-sdcard-partition.sh -f imx8qm -c 7 /dev/sdX" to flash images.
- If the SD card is 16 GB, use "sudo fsl-sdcard-partition.sh -f imx8qm /dev/sdX" to flash images.
- If the SD card is 32 GB, use "sudo fsl-sdcard-partition.sh -f imx8qm -c 28 /dev/sdX" to flash images.

fsl-sdcard-partition.sh is included in android\_O8.0.0\_1.1.0\_8QM-PRC1\_tools.tar.gz.

### 3.4 Booting with single display: HDMI display

After downloading the images, you can plug the SD card into the SD slot on board and power on to boot the board.

In the U-Boot prompt, set the U-Boot environment variables as shown below:

```
U-Boot > setenv bootcmd boota mmc1
U-Boot > setenv bootargs console=ttyLP0,115200 earlycon=lpuart32,0x5a060000,115200,115200
init=/init video=imxdpufb1:off video=imxdpufb2:off video=imxdpufb3:off video=imxdpufb4:off
androidboot.console=ttyLP0 consoleblank=0 androidboot.hardware=freescale cma=800M
U-Boot > saveenv
```

With the settings above, the Android platform does not start the shell console. It enables the default Android selinux and dm\_verity security features, which restrict users to change the system and detect the system's information. To avoid this, "androidboot.selinux=permissive" and "androidboot.dm\_verity=disabled" need to be appended to the U-Boot's bootargs. Boot environment variables are as follows:

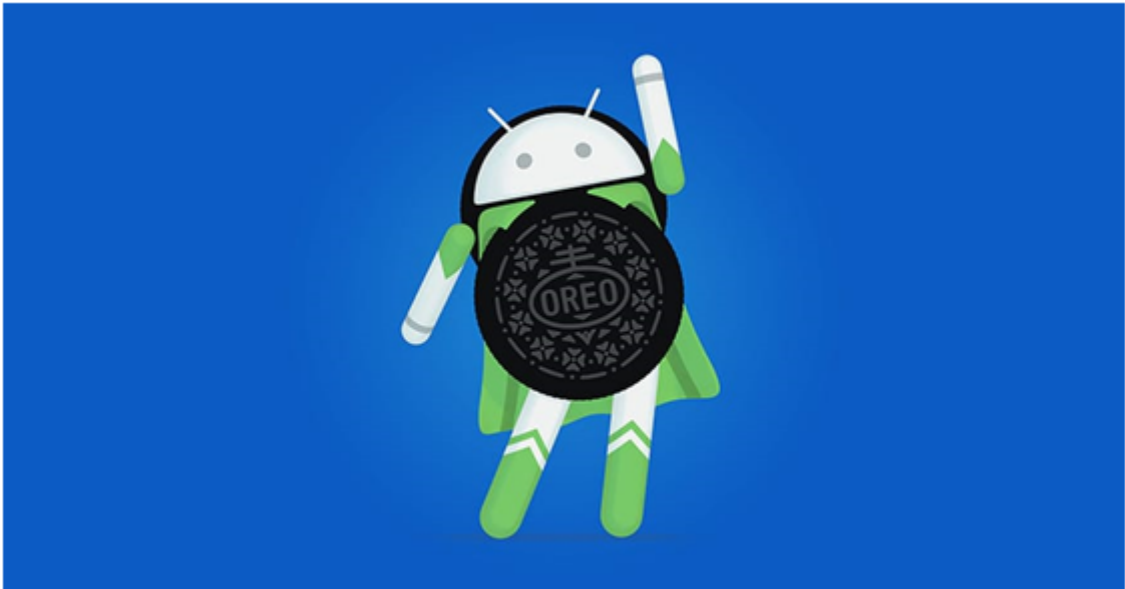
```
U-Boot > setenv bootcmd boota mmc1
U-Boot > setenv bootargs console=ttyLP0,115200 earlycon=lpuart32,0x5a060000,115200,115200
init=/init video=imxdpufb1:off video=imxdpufb2:off video=imxdpufb3:off video=imxdpufb4:off
androidboot.selinux=permissive androidboot.dm_verity=disabled
```

**Revision History**

```
androidboot.console=ttyLP0 consoleblank=0 androidboot.hardware=freescale cma=800M
androidboot.selinux=permissive androidboot.dm_verity=disabled
U-Boot > saveenv
```

**3.5 Board reboot**

After you have completed download and setup, reboot the board and wait for the Android platform to boot up.



**Figure 2. Android Oreo image**

**4 Revision History**

**Table 2. Revision history**

Revision number	Date	Substantive changes
O8.0.0_1.1.0_8QM-EAR	10/2017	Initial release
O8.0.0_1.1.0_8QM-PRC1	12/2017	i.MX 8QuadMax PRC1 release

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