IMAGE INSTALLATION GUIDE

AMOS-820

Android EVK v4.0.2

1.00-08112016-163100

Revision History

Version	Date	Remarks
1.00	8/11/2016	Initial release

Table of Contents

1. Introduction

This Image Installation Guide explains how to boot the Android EVK system image on the AMOS-820 system (Bare board: VAB-820 with NXP i.MX 6Quad Cortex-A9 processor) in order to begin evaluating the platform.

The AMOS-820 Android EVK v4.0.2 is developed based on the NXP android_l5.0.0_1.0.0-ga (Android 5.0 Lollipop) and it enables the hardware features of the AMOS-820 system.

1.1. Package Contents

Images_autoinstall_sd.zip: The Android EVK system image and installation script files.

VAB-820_Smart_ETK_Demo_v0.0.16.apk: The Smart ETK demo program.

1.2. Version Information and Supported Features

- U-Boot version: 2014.04
- Kernel version: 3.10.53
- Evaluation image: Android Lollipop 5.0
- Development based on NXP android_l5.0.0_1.0.0-ga (Android 5.0 Lollipop)
- Supports SPI with eMMC boot
- Supports HDMI display
- Supports HDMI audio output
- Supports CVBS
- Supports COM 1 DTE mode, and COM 2 as a debug port
- Supports two FlexCAN TX/RX
- Supports Gigabit Ethernet
- Supports Line-in, Line-out, and Mic-in
- Supports VNT9271 USB Wi-Fi dongle
- Supports EMIO-1541 miniPCIe Wi-Fi module
- Supports EMIO-2550 miniPCIe Mobile Broadband module
- Supports Smart ETK v0.0.16: Watchdog, GPIO, UART, and FlexCAN
- Support OTA (Over-the-Air technology)
- Support shutdown option in Quick Settings
- Support Ethernet configuration in Settings

2. Image Development

This section explains the setup requirements for booting from the SPI ROM with an eMMC.

2.1. Booting from the SPI ROM with an eMMC

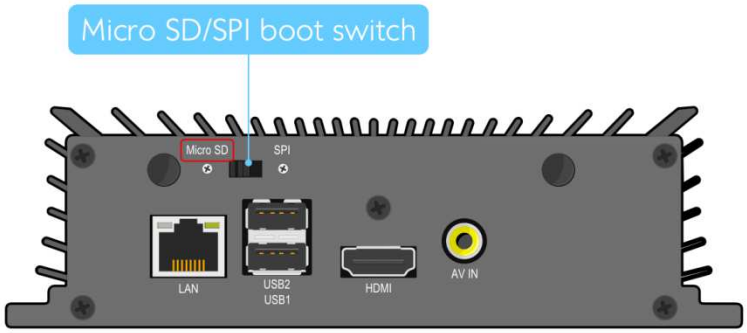
The **Images_autoinstall_sd.zip** includes the Android EVK system image and the installation scripts files.

The first step is to extract **Images_autoinstall_sd.zip** file to make the bootable Micro SD card. Insert a card into your Linux host machine and make sure it is not mounted. Open the terminal on your host machine, and run the script **mk_install_sd.sh** as shown below, replacing <device name> with the correct value for the card, for example "sdb".

Important: Make sure you are writing to the correct device or the host system environment could be damaged.

```
$ sudo ./mk_install_sd.sh /dev/<device name>
```

Next, on the AMOS-820, set the Micro SD/SPI boot switch to the Micro SD position as shown below.



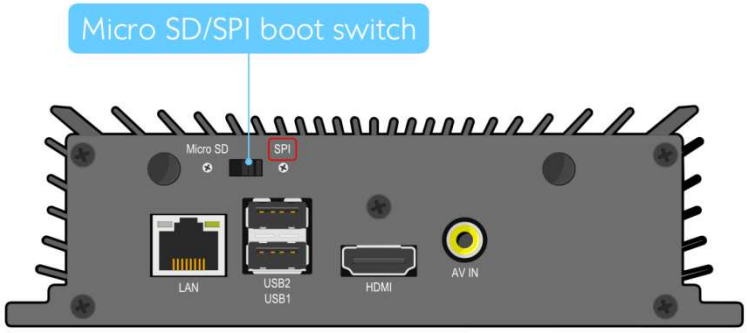
Micro SD/SPI boot switch diagram

Insert the prepared Micro SD card into the AMOS-820, connect an HDMI display, and power on the AMOS-820 to initiate the boot process. When the boot process is completed, you will see the command line of Linux environment.

To install the U-Boot and Android EVK image into SPI ROM and eMMC, use the following command:

```
$ ./fsl-eMMC-partition.sh -f imx6q /dev/mmcblk0
```

In order to boot from the SPI ROM make sure the Micro SD/SPI boot switch is set to SPI ROM boot.



Micro SD/SPI boot switch diagram

Next, power on the device to initiate the boot process. When the boot process is completed, you will see the Android desktop.

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