For more information:
www.ti.com/am438xevm

Texas Instruments

AM438x Evaluation Module Quick Start Guide

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Welcome to the AM438x Electronic Point of Sale (EPOS) Evaluation Module (EVM) Quick Start Guide. This guide is designed to help you through the initial setup of the EVM. This EVM allows you to experience the advanced security features of the AM438x Cortex®-A9 processor and peripherals within a Linux® plus TI-RTOS environment. The AM438x EVM contains the following:

Hardware

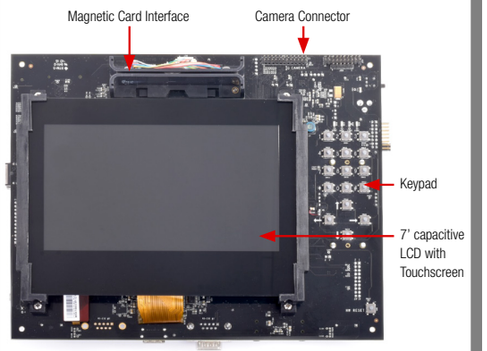
- Sitara™ AM438x Cortex-A9 processor
- TPS65218 power management I/C
- 7” capacitive touch LCD
- 1GB LPDDR2
- Camera module
- On board NAND and QSPI-NOR flash
- Tamper daughter card
- Magnetic card and smart card readers

Printed Documents

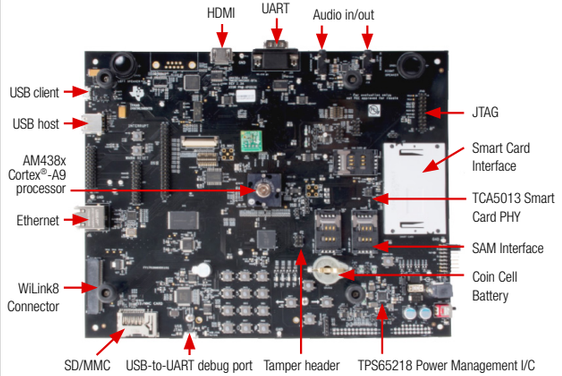
- AM438x EVM Quick Start Guide (this document)

Miscellaneous

- Blank 16GB µSD card with adapter
- UART serial cable
- Ethernet cable
- Micro USB 2.0 cable

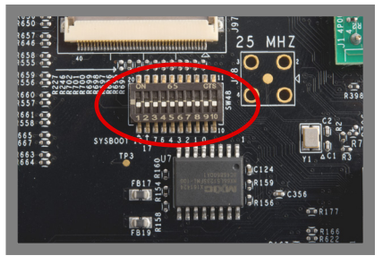


AM438x EVM top side



AM438x EVM bottom side

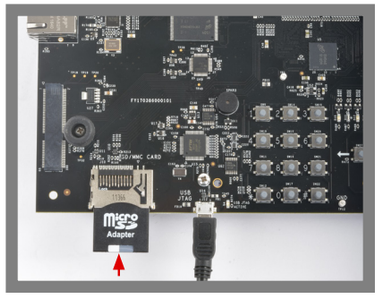
Default setup (OS boot from micro SD card)



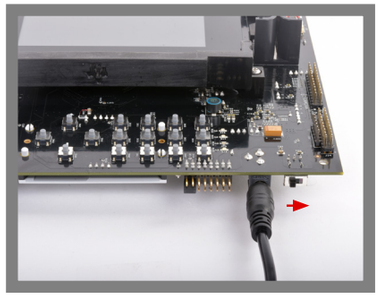
1 Verify all the SYSBOOT switches are set as shown (all OFF). The switches are on the back of the EVM.

2 For Linux development, connect the supplied USB cable to the USB connector as shown and the other end to a PC. See Section “Linux Software Development Kit.”

3 For Linux development, connect the supplied Ethernet cable to the RJ-45 jack on the EVM and the other end to an Internet-enabled router or Ethernet switch. See Section “Linux Software Development Kit.”

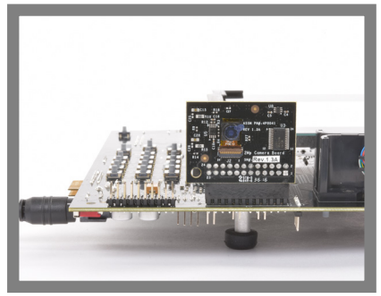


4 Prepare a Linux µSD card after downloading the software from www.ti.com/mysecuresoftware and following the instructions in the Processor SDK-EPOS Quick Start Guide. Insert the µSD card into the AM438x EVM as shown.



5 Connect a power supply (not included) to the power jack on the EVM as shown. Turn on the EVM by sliding power switch SW3 to the right position as shown.

Note: *When powering the AM438x EVM, use a power supply with output voltage of +5VDC, positive center pin, and output current max 3.0 Amp, as well as the applicable regional product regulatory/safety certification requirements applicable to your region.*



6 Plug in the camera board (included) as shown. This is only necessary if you plan to run camera application demos.

7 You are now ready to explore the Linux® demos which include various example applications. Click on any icon to start the demo and click “exit” (if available) to quit the demo.

8 To prepare your workstation for software development, power off the kit, remove the micro SD card; insert it into the included SD card adapter (if applicable); and insert it into your PC. If your PC does not include an SD slot, USB SD card adapters are readily available. Follow the instructions below.

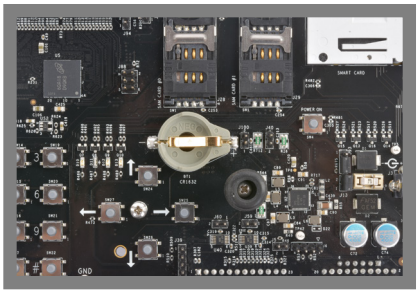
Linux Software Development Kit

Prepare a µSD card after downloading the software from www.ti.com/myseсuresoftware. From a Linux host PC, insert the Linux µSD card into the PC, and from the START HERE folder, run setup.htm. If you need help on setting up a Linux Host PC, please visit www.ti.com/startyourlinux.

Connect the supplied USB cable to the micro USB connector on the AM438x EVM and plug the other end to your PC *(see step 2 above)*. Connect the supplied Ethernet cable to the RJ-45 jack on the AM438x EVM. Connect the other end of the cable to an Internet- enabled router or Ethernet switch *(see step 3 above)*.

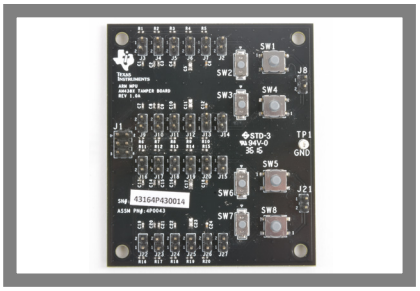
Advanced functionality

The following steps are necessary for testing advanced functionality. For details on how to exercise this functionality refer to the “AM438x EVM User Guide” and “Processor SDK-EPOS User Guide” downloadable from www.ti.com/myseсuresoftware.



1 This EVM comes with a coin battery holder. A coin battery is not necessary for normal operation of the EVM. A coin battery (not included) can be inserted for testing ultra-low power (tamper-only) mode.

** **Note:** This EVM is designed for optional use with a removable CR1632 UL recognized lithium battery (not supplied). Always use a CR1632VP Energizer 3V Lithium coin cell battery (http://data.energizer.com/PDFs/cr1632.pdf) or similar CR1632 UL recognized battery with Nominal Voltage 3.0 Volts, Capacity 130mAh, and Discharge Rate 190µA.*



2 This EVM comes with a tamper daughter card which can be used to exercise tamper functionality of the AM438x processor. It needs to be wired to the AM438x EVM. Refer to the “AM438x EVM User Guide.”

In accordance with the requirements of Article 33(1) of the European REACH regulation, this is to inform you that one of the components in this EVM contains Lead di(acetate) CAS #6080-56-4 /EINICS 206-104-4 at <0.3%. For safety and health related information, refer to the safety data sheet.

For more information on AM438x processors, including:

- User Guide
- Software
- How To’s
- Design Files

Please visit www.ti.com/am438x and www.ti.com/am438xevm
For support, use the Processors Security Support forum at https://e2eprivate.ti.com/

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