

## Thank you for choosing the MitySOM-5CSx Family Development Kit from Critical Link.

This Quick Start Guide walks through the initial steps of setting up your MitySOM-5CSx Family Development Kit. The development kit baseboard is compatible with all MitySOM-5CSE and MitySOM-5CSX modules. A Linux Operating System is pre-loaded onto the SD card and will boot automatically upon power-up. In addition to this guide, a series of start-up videos are available on YouTube (search for “MitySOM-5CSx”) or on our support site at <https://support.criticallink.com/redmine/projects/5csxbase/wiki/Videos>.

### The MitySOM-5CSx Family Development Kit contains the following:

#### Provided Hardware:

- MitySOM-5CSx baseboard with:
  - MitySOM-5CSx System on Module (SoM)
  - 10/100/1000 Networking
  - (1) Full HSMC Expansion Connector
  - (1) Partial HSMC Expansion Connector
  - Dual CAN Interfaces
  - PCI-e x4 Connector
  - USB 2.0 OTG Port
  - SATA Expansion Connector
- USB Mini-B Cable (Console serial port)
- Ethernet cable
- AC/DC 24V power supply
- SD Card pre-loaded with Linux Operating System
- USB Drive
  - Virtual Machine Image
    - 3<sup>rd</sup> Party Development software
      - DS-5 Altera Edition (Trial)
      - Quartus II Web Edition
      - Altera SoC Embedded Design Suite (Trial)
    - Sample Filesystem
    - U-boot and Linux kernel source code

#### Printed Documents:

- MitySOM-5CSx Development Kit Quick Start Guide (this document)

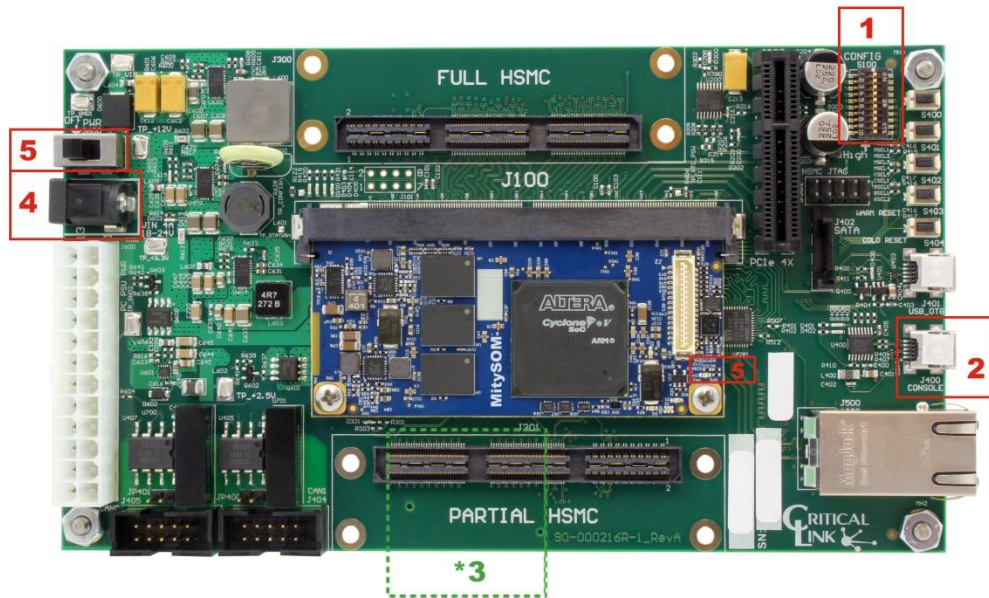
#### Software and documentation:

- Virtual Machine setup guide – readme.pdf (on USB drive)
- Virtual Machine Image (on USB Drive)

#### Design Documentation Available from Critical Link

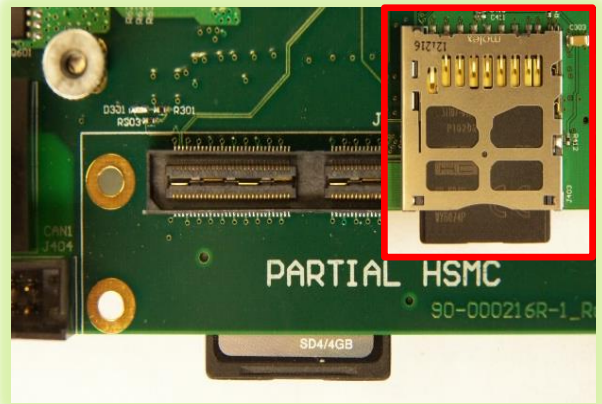
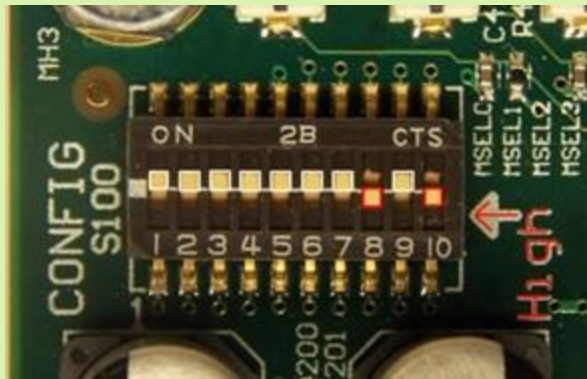
- MitySOM-5CSx Development Kit Data Sheet
- MitySOM-5CSx Development Kit Schematics
- MitySOM-5CSx Development Kit Bill of Materials
- MitySOM-5CSx Development Kit Gerber Files

## Default Setup (Boot from SD card)

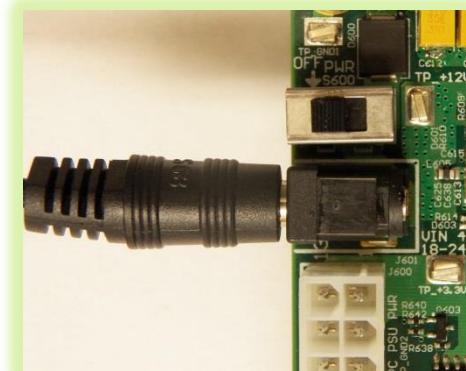
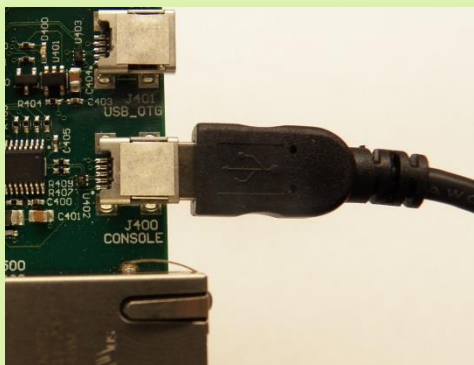


**\*3:** SD Card is on the bottom side of the board

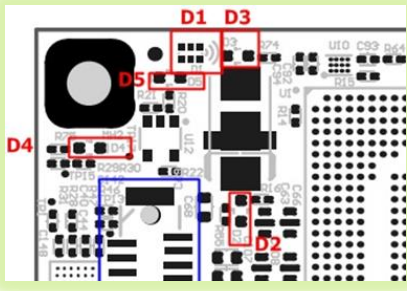
- 1) Verify that the CONFIG dip-switches are set as shown. Labeled 1 to 10 High/Low = 0 0 0 0 0 0 1 0 1.
- 2) Connect the supplied Mini USB cable to J400 "Console" and then to your PC. Your Windows PC should automatically install the driver for the USB-UART. Configure your PC serial port application utilizing the new COM port as: 115,200 baud rate, 8 data bits, no parity, 1 stop bit and no flow control.
- 3) Make sure that the SD card has been inserted fully into the SD card slot on the bottom side of the board, J403.
- 4) Ensure that the power switch, S600, is in the "Off" position. Connect the 24V power input to J601.



- 2) Connect the supplied Mini USB cable to J400 "Console" and then to your PC. Your Windows PC should automatically install the driver for the USB-UART. Configure your PC serial port application utilizing the new COM port as: 115,200 baud rate, 8 data bits, no parity, 1 stop bit and no flow control.



- 5) Move the power switch, S600, to the “On” position.  
At this time the module should boot from the SD card.  
Note: LED D4 on the MitySOM module should light and stay lit once power is applied.



- 6) Real Time Clock (RTC) – The baseboard features a switch, labelled “Battery Switch”, which disconnects the RTC backup battery. If you wish to utilize the RTC please move this switch to the “on” position. This switch is located near the RJ45 connector, J500.



- 7) On the serial port you should see boot messages appearing and after approximately 15 seconds there should be a “mitsom-5csx” prompt shown.

```

creating NFS state directory: done
NFS daemon support not enabled in kernel
Starting system log daemon...0
Starting kernel log daemon...0
Starting Lighttpd web Server: lighttpd.
Starting crond: OK
Stopping Bootlog daemon: bootlogd.

Poky (Yocto Project Reference Distro) 1.5.1 mitysom-5csx
/dev/ttyS0
mitsom-5csx login:

```

- 8) The login information is as follows:
  - a. Login/username is “root”
  - b. There is NO password
- 9) The SD card includes scripts that can easily be run out of the box from the serial port within Linux. The scripts can utilize the tri-color LED on the module and provide the current power consumption of the module. Specific details can be found on the wiki at [https://support.criticallink.com/redmine/projects/5csxbase/wiki/Included\\_Examples\\_and\\_Scripts](https://support.criticallink.com/redmine/projects/5csxbase/wiki/Included_Examples_and_Scripts)

- 10) To prepare your Development Environment on your PC; insert the provided USB thumb drive into it. Follow the instructions outlined in the “readme.pdf” document on the USB to setup the Linux Virtual Machine Development Environment.



- 11) The login information is as follows for the Linux virtual machine:
  - a. Login/username is “user”
  - b. Password is “user”
- 12) Once the Linux Virtual Machine has booted a webpage will be shown that contains further details on what is contained within the VM.
- 13) For design documentation please visit our MitySOM-5CSx module and development kit Wiki and Forum pages:
  - a. MitySOM-5CSx Family Wiki - <http://support.criticallink.com/redmine/projects/mityarm-5cs/wiki>
  - b. Development Kit Wiki - <https://support.criticallink.com/redmine/projects/5csxbase/wiki>
  - c. MitySOM-5CSx Family Forums - <https://support.criticallink.com/redmine/projects/mityarm-5cs/boards>

**Thank you!**



For more details visit  
[www.criticallink.com](http://www.criticallink.com)



## MitySOM-5CSx Family Development Kit

### Quick Start Guide

