MPC8308KIT Quick Start Guide

The MPC8308KIT is a two board system, one is processor board called as SOM featuring the PowerQUICC™ processor, MPC8308 and Memory interfaces. Other Board is called Carrier card which consist external world interfaces terminated on connector/Header.

This document will help user in quickly get familiar with external connections and making the MPC8308KIT setup.

1 MPC8308 SOM – Major Connectors' Details

Following **Figure 1** and **Figure 2** shows the Major Connector of the MPC8308 SOM card.

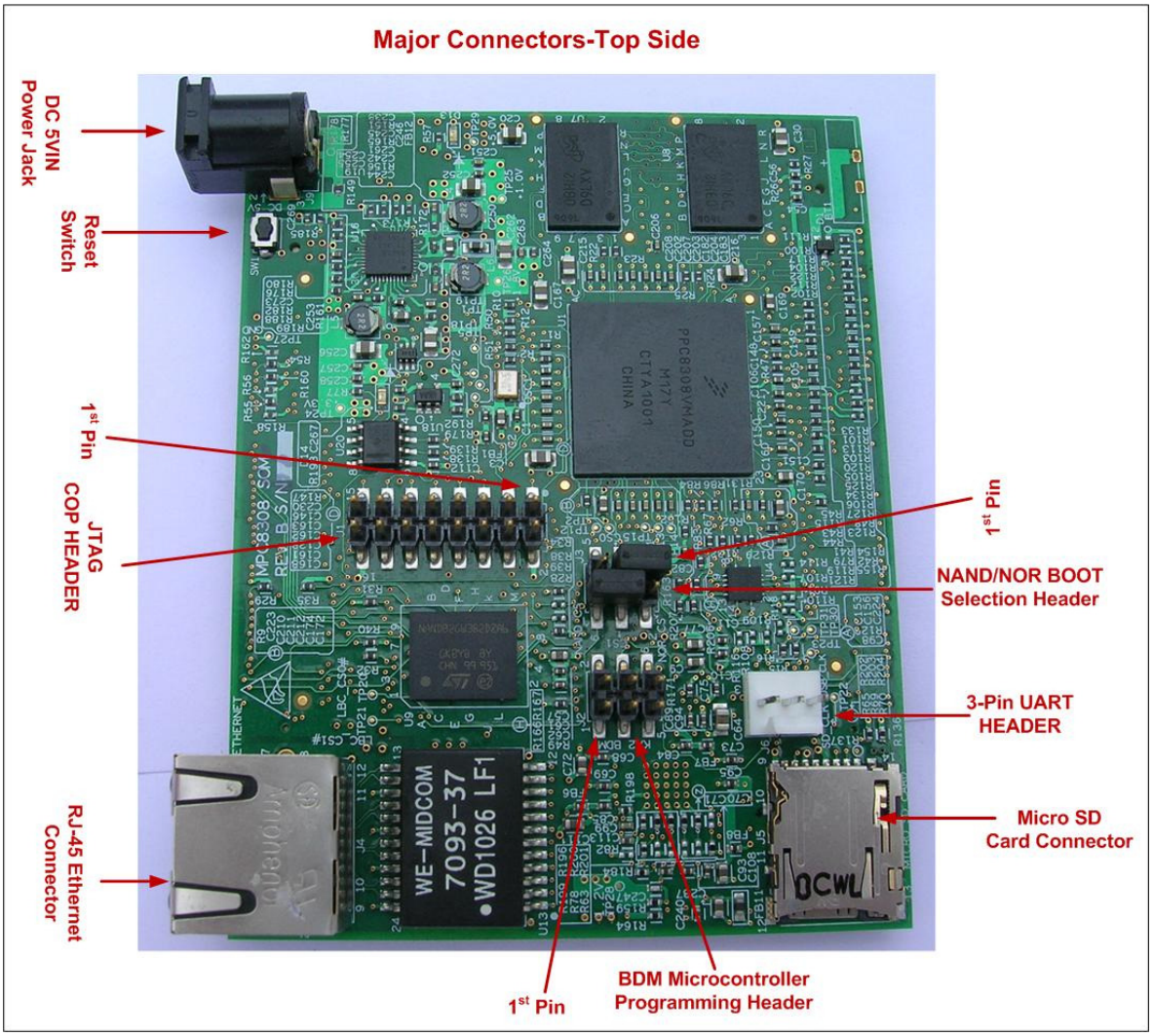

Figure 1 : Major connectors on TOP side of the MPC8308 SOM Card

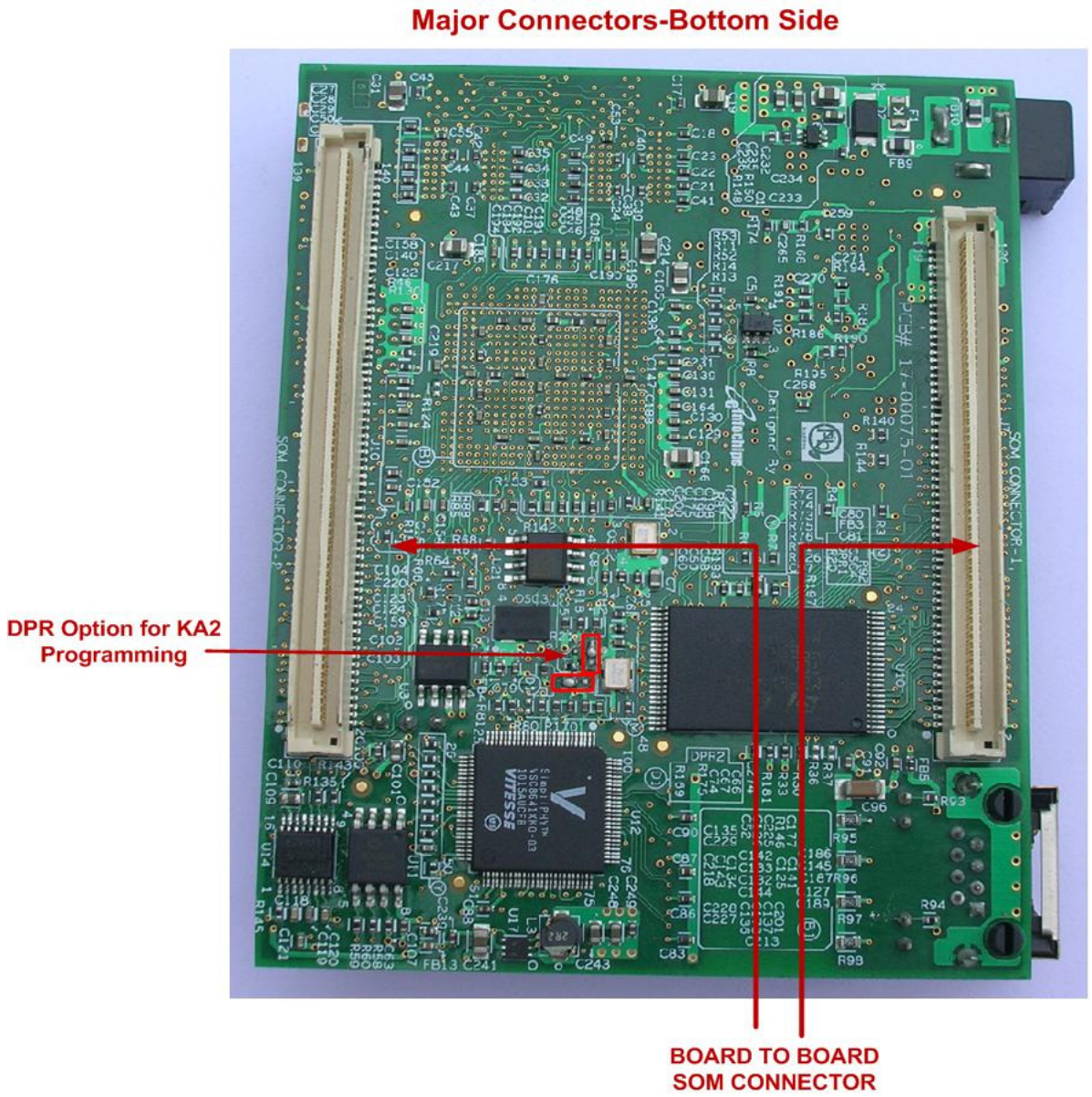

Figure 2 : Major connectors on Bottom side of the MPC8308 SOM Card

Following **Figure 3** show the Jumper settings on Header J3 for either NOR Boot Mode or NAND Boot Mode.

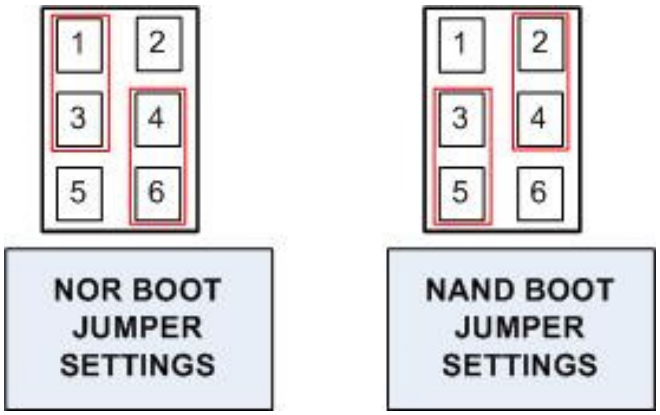

Figure 3: Major NOR & NAND Boot Mode Jumper Settings

Following **Figure 4** shows the options for configuring KA2 into RUN mode and PROGRAM mode.

Figure 4: KA2 Run and Program mode mounting options

DPR – *This is 3-pad component footprint to provide options to mount/short link jumper on 2 adjacent pads. By connecting two pads, one of the two options can be selected. The care should be taken that both the DPRs are configured for same option.*

Before power on the board please note following things

1. The on-board KA2 Microcontroller is already flashed with the microcontroller reset program, thus the microcontroller DPR1 and DPR2 pads should be shorted for “KA2 RUN MODE” option.

2 External Cable Connection for SOM standalone

To start using the SOM card in stand alone mode following external cable connection to make.

1. 5V DC power adapter
2. CAT5e cable for the network connectivity
3. UART connection for the debug console with the PC

Following **Figure 5** shows the external cable connectivity with MPC8308 SOM card.

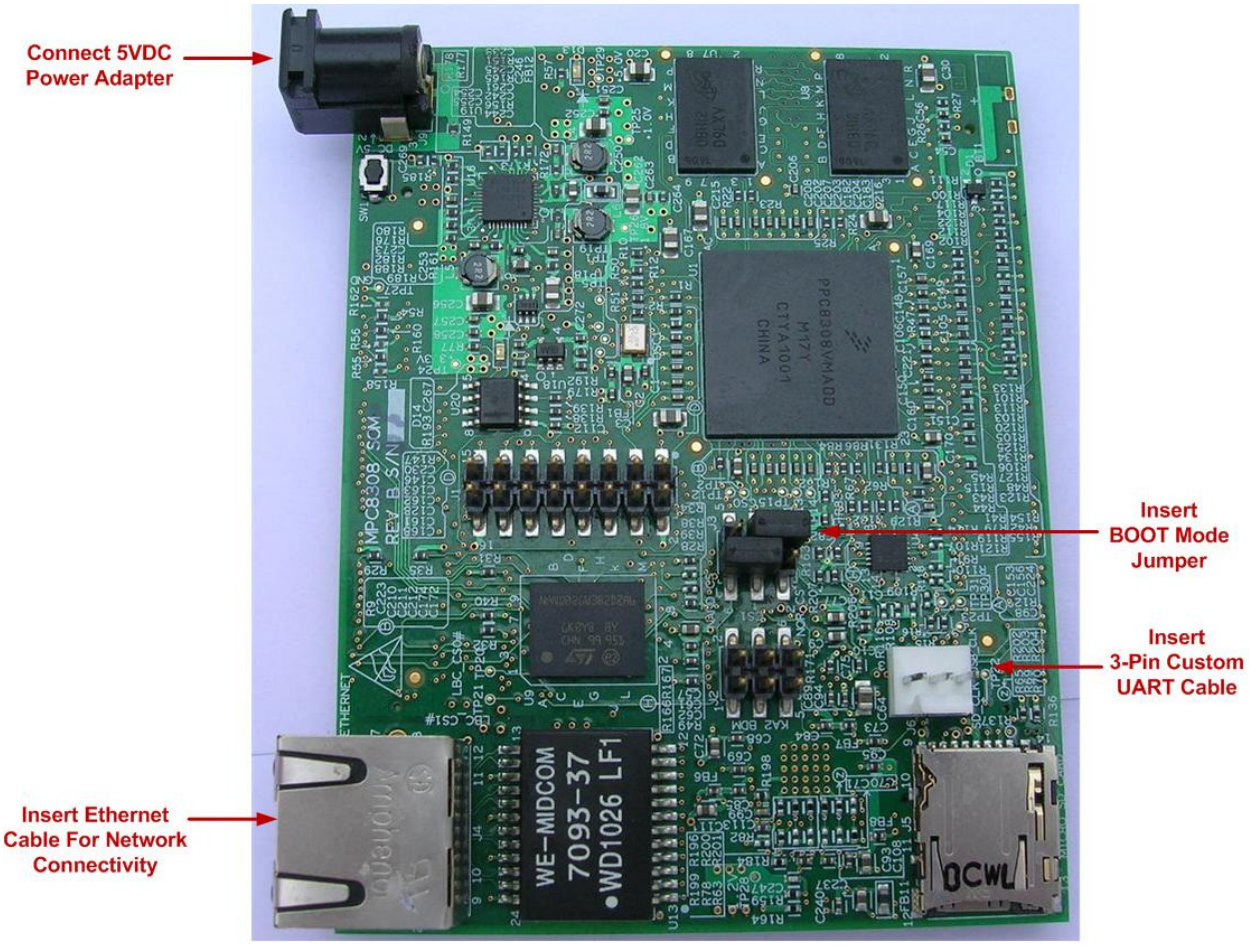

Figure 5 : External Cable Connection for the Stand alone SOM Boot Mode

All necessary cables are sent along with the MPC8308KIT.

Please note that, no need to connect External 5V Power Supply & UART cable when the SOM card is being used with the Carrier card. Refer to section 4 for the external cable connection for MPC8308KIT.

3 Major Connectors of the Carrier Card

Following **Figure 6** shows the Major Connector on carrier card applicable for MPC830X SOM.

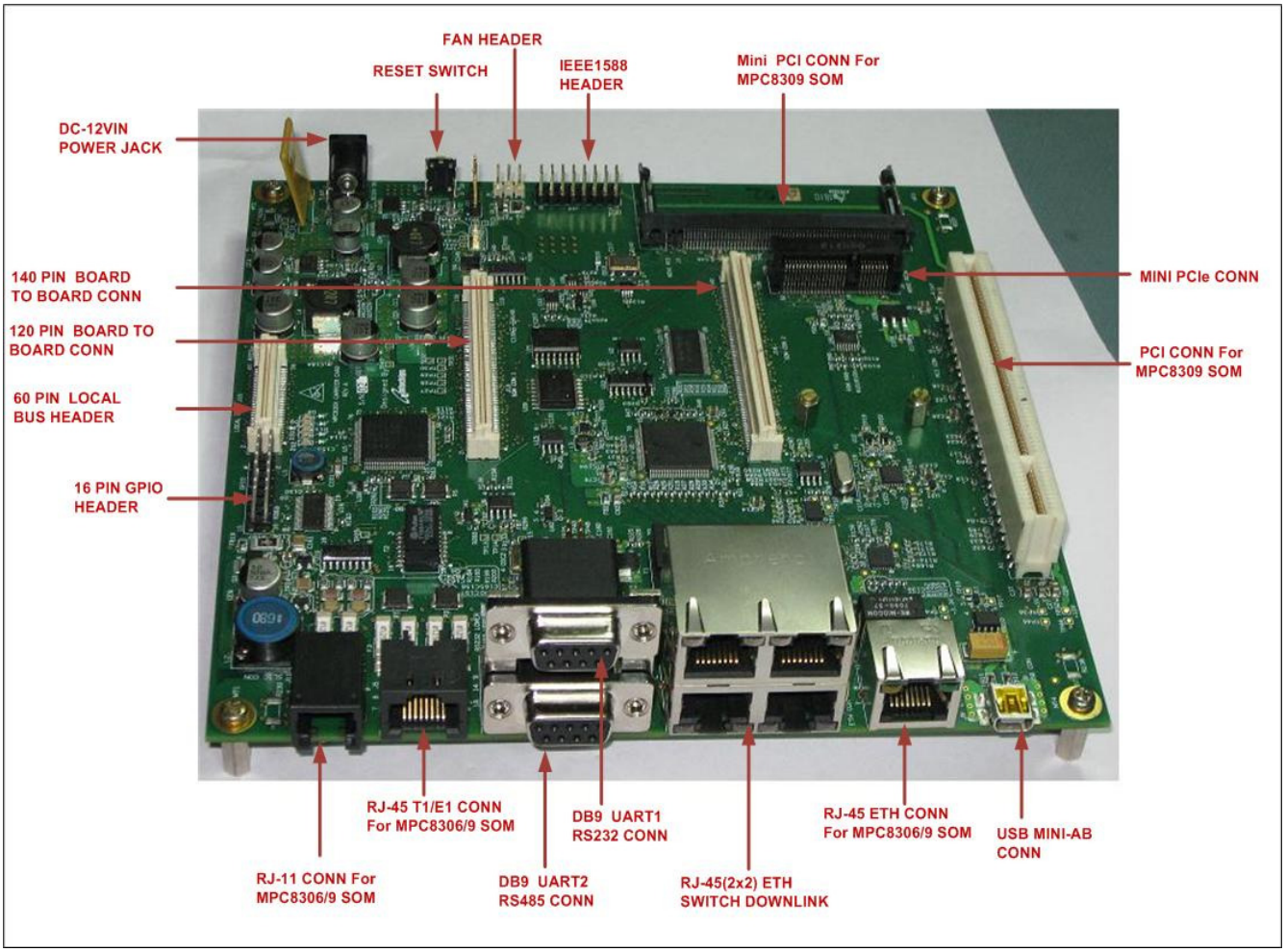

Figure 6 : Major connectors of carrier card for MPC830X SOM

Before power on the board please note following things

1. Plug MPC8308 SOM on carrier card.
2. Connect 12V Power adaptor to power jack.

Note: DC-5Vin power adaptor should be disconnected from SOM before plugging SOM on carrier card.

4 External Cable Connection for MPC8308KIT

To start using the MPC8308KIT, following external cable connections to make

1. 12V DC power adapter
2. Ethernet cable on Carrier/SOM card for Ethernet connectivity
3. UART connection for the debug console with the PC
4. USB device can be connected to mentioned connector(Optional)
5. Mini PCIe card insertion in mentioned connector(optional)

Following **Figure 7** shows the external cable connectivity with MPC8308KIT (SOM+Carrier) card

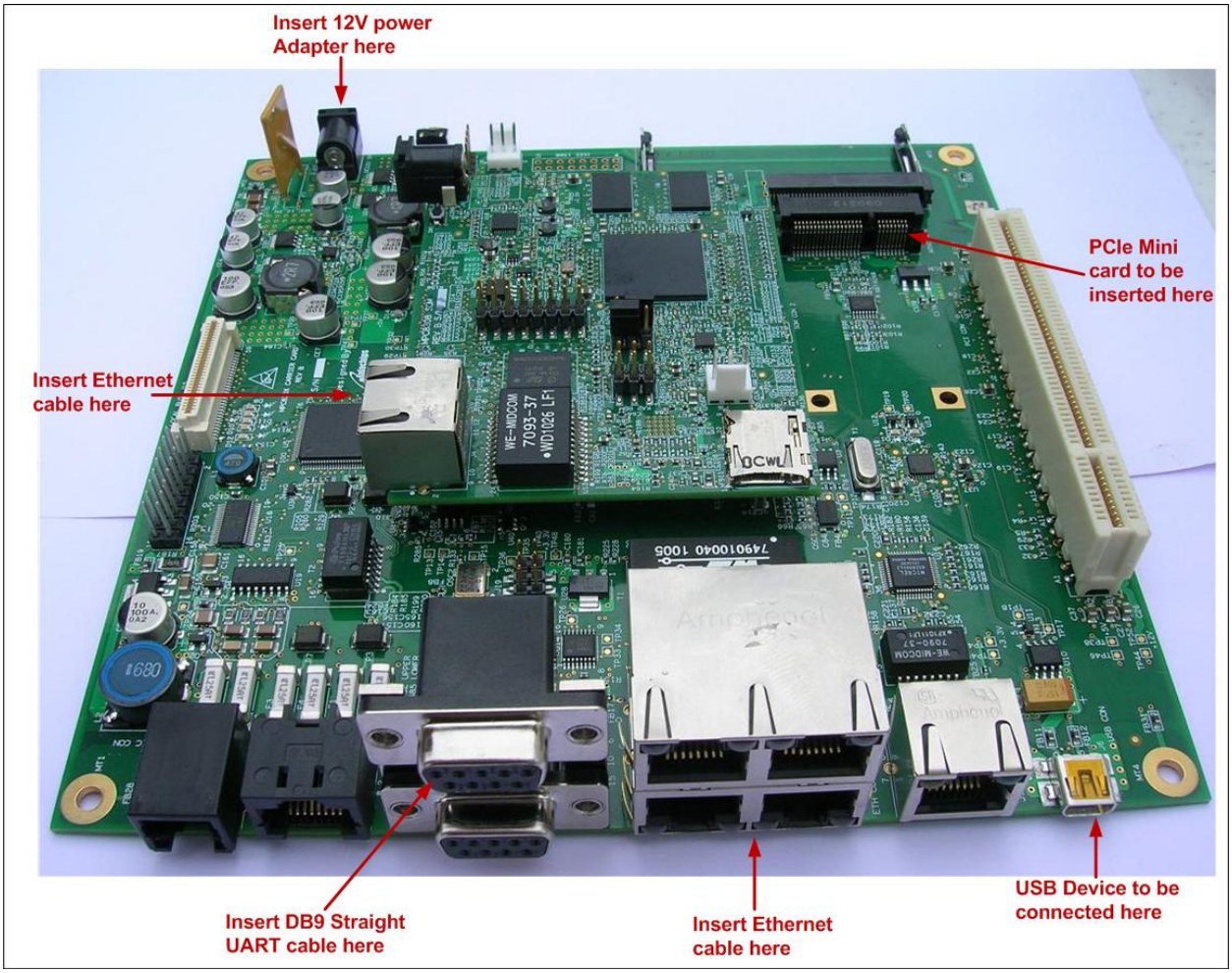

Figure 7: External connection for MPC8308KIT

Note: Ethernet connection on either SOM or carrier will be enough for MPC8308 Ethernet connectivity to external world

Ethernet connection on SOM is through eTSEC1 and on Carrier is through eTSEC2 of MPC8308. Other ports of switch downlink can be used for connecting more than one system/Network to MPC8308 SOM.

USB device, PCIe Mini Card and Ethernet cable connection to carrier card is optional one. These external connections can be done on need basis.