DEMOAX9S12 QUICK START GUIDE

Introduction and Default Settings

The DEMOAX9S12 supports application development and debug of the MC9S12P128, MC9S12XEP100, and MC9S12XS128 MCUs on a single, low-cost board. The supported MCUs target generic automotive applications requiring CAN or LIN/J2602 communications. This guide will show how to quickly connect the board to a host PC and execute a demonstration application preloaded into FLASH memory. The figure below shows default jumper positions for the DEMOAX9S12.

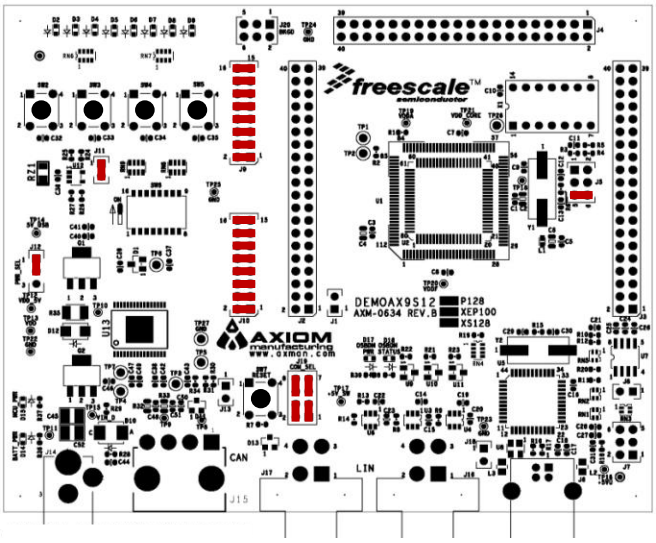

Figure 1: DEMOAX9S12 Default Option Settings

Integrated OSBDM

The DEMOAX9S12 board integrates the Open-Source BDM (OSBDM) to support application development and debug. The OSBDM may also be used to apply power to the target module further simplifying development and debug.

CAN and LIN functionality is not supported when powered from the OSBDM. To utilize CAN or LIN functionality, apply +12VDC to +27VDC at connector J14. Connector J14 is a 2.0mm, center-positive barrel jack.

Install CodeWarrior Development Studio

Before connecting the DEMOAX9S12 to the host PC, download and install the CodeWarrior Tool Suite. Code-Warrior for HCS12(X) Microcontrollers may be downloaded from the Freescale web site at www.freescale.com.

NOTE:
Install CodeWarrior Development Studio before connecting the target board to the host PC. Otherwise, the necessary USB drivers will not be available and the host PC will not recognize the board.

To Launch the Demo Program:

The DEMOAX9S12 ships with a demonstration program preloaded into on-chip FLASH memory. The demonstration program exercises various board peripherals.

1. Verify the option jumpers are set in default positions. Refer to Figure 1 above.
2. Connect a USB cable between an open USB port on the host PC and the USB, connector on the target board. Follow the on-screen instructions to install the necessary USB drivers. **NOTE:** CodeWarrior for S12 must be installed before connecting the DEMOAX9S12.
3. Press SW2 then move each position of SW6 ON then OFF. The associated LED will turn ON when the appropriate SW6 position is in the ON position.
4. Press SW3. Covering and uncovering photo-transistor at RZ1 will cause LEDs D2 – D9 to turn ON and OFF as a scale.
5. Press SW4. LEDs D2 – D9 will display a right-to-left pattern. Press SW4 to halt this pattern.
6. Press SW5. LEDs D2 – D9 will display a left-to-right pattern. Press SW5 to halt this pattern.

The Quick Start CodeWarrior Project and other documentation may be downloaded from the Axiom Manufacturing web site at www.axman.com/support.

Troubleshooting

If the demonstration application fails to function as indicated above, please follow the steps below before contacting Freescale Semiconductors. Please refer to the Technical Information Card (TIC) card included in the TWR-S12G128 kit for contact information.

- Ensure the option jumpers are set to default positions. Refer to Figure 1 above. Specifically, ensure the PWR_SEL option jumper is set correctly.
- Ensure the MCU_PWR LED (D15) is on.
- Ensure CodeWarrior is installed.
- Using Windows Device Manager, ensure the OSBDM enumerated properly

If the above Troubleshooting Tips fail to correct the problem, please contact Freescale Semiconductors for further assistance. Refer to the Technical Information Card (TIC) included in the kit for contact information. Assistance may also be found by contacting Axiom Manufacturing at support@axman.com.