Demo Set-up

The SW MC56F84000_PWM_Complementary_Fault sets up the PWMA SM0 module in complementary mode and uses external Fault signal (GPIOD5, K2) to shut down PAM0A and PWM0B. In Normal condition PWMs will be running in complementary mode and whenever there is low pulse at Fault pin PWMA_0A and PWMB_0B will shut down and it will require Power on cycle to start again. It is targeted at MC56F84789 and its derivatives.

H/W Setup

The h/w consists of:

1. MAPS-MC56F84000 populated with MC56F84789 device

2. USB cable connected to MAPS OSBDM connector

3. 5V Power supply

Before the demo starts, the HW with OSBDM link needs to be set-up.

Application SW

The demo s/w is located in a folder MC56F84000_PWM_Complementary_Fault. The s/w was designed using CodeWarrior CW10.x.

Development Tools

In order to compile run, load and flash the demo the following s/w is necessary to:

1. Install CodeWarrior_CW_MCU_v10.x and Run the CodeWarrior

2. Drag and drop <MC56F84000_PWM_Complementary_Fault\.project> into the opened CodeWarrior CW10.x

3. Clean(if the project is the first time run in your workspace) and Build the application code target MC56F84789_Internal_PFlash_SDM

4. Connect a USB cable between the PC host and the mbed USB port (CN7 on the MAPS-56F84000 board).

5. Running/debugging loading the code:

   a. Run As -> Debug Configuration

   b. Set the configuration for debug as download for SDM module.

6. Click Debug

7. Start

Running the demo

The following steps are necessary:

1. Connect Power Supply

2. Program the application s/w into the MAPS_84000 board (If the application s/w is not programmed into the MAPS_84000 board, go to section Application SW).

PWM_ SM0 with Push-pull configuration center aligned PWM signals are available on the pins

1. PWMA_0B – pin68

2. PWMA_0A – pin69