

```

//*****
//
// File Name      : "DOGM16W_A_SERCOM1.c"
// Title         : DOGM16W_A_SERCOM1.c
// Date          : 4/8/2020
// Version       : 1.0
// Target MCU    : SAML21J18B
// Target Hardware ; DOG LCD
// Author        : Brandon Cheung, Ishabul Haque
// DESCRIPTION
// Contains function and variable definitions used to initialize and perform
// SPI communication between the MCU and DOG LCD.
//
// Warnings      :
// Restrictions   : none
// Algorithms     : none
// References    :
//
// Revision History : Initial version
//
//
//*****

#include <stdio.h>
#include "saml21j18b.h"

#define freq 2000000

extern unsigned char* ARRAY_PORT_PINCFG0 = (unsigned char*)&REG_PORT_PINCFG0;
extern unsigned char* ARRAY_PORT_PMUX0 = (unsigned char*)&REG_PORT_PMUX0;

extern char dsp_buff_1[17], dsp_buff_2[17], dsp_buff_3[17];

extern void delay_30us (void) {
    int clock_factor = freq/1000000;           //delay loop from i=0 to i<6 is 30us long at 1 MHz.
    for (int i = 0; i < clock_factor+3; i++) { //loop end value is adjusted based on frequency macro constant.
        __asm("nop");
    }
}

```