





System Module

 Easy Setup  Registers

▼ Clock

8000000 


 Hz

FRC Oscillator 

 (8.0 MHz) Clock Source

▼ ☒ FRC Postscaler


4 MHz

1:2 

 Postscaler

▼ ☒ PLL Enable

32 MHz

8:1 

 Prescaler


32 MHz

 Fosc


16 MHz

 Fosc/2

Clock Output Pin Configuration

OSCO/CLKO/RA3 functions as CLKO (FOSC/2) 

☐ Use Secondary Oscillator (31 - 33) kHz

 ☐ Reference Oscillator Output

☒ Enable Clock Switching

☐ Enable Fail-Safe Monitor

Projects

Files

Resource Management [MCC] x

Tree View

Flat View

Project Resources

Generate




Import...

Export



▼ Libraries

   FatFs

► Foundation Services

   SD Card (SPI)

▼ Peripherals

   SPI2 [Foundation Services Library by Microchip Technology, Inc.]

▼ System

Interrupt Module

Pin Module

System Module

FatFs

 Easy Setup

Information Configuration

☒ Generate example/demo files


▼ Physical Driver Selection

Select the physical drivers used by the file system and the drive name/label associated with that physical driver. An example template driver is provided as a starting point for physical devices/drivers not supported inside of MCC.

Select a physical layer driver:

Example_Template_Driver

+ Insert Driver

Number	Label	Driver	Remove
0	DRVA	SD Card (SPI)	

SD Card (SPI)

 Easy Setup

SD-Card Settings

Pin Enable

☒ Enable Chip Select (CS)

☐ Enable Card Detect (CD)

☐ Enable Write Protect (WP)

Polarity

Active Low

Active High

Active High

SPI2

 Easy Setup

Hardware Settings

Default SPI Clock Frequency 400 kHz

Actual Clock Frequency 400.0 kHz

Interrupt Module

 Easy Setup

Interrupt Manager

Module	Interrupt	Description	IRQ Number	Enabled	Priority
SPI2	SPITXI	SPI2 - SPI2 Transfer Done	33	<input type="checkbox"/>	1
SPI2	SPII	SPI2E - SPI2 General	32	<input type="checkbox"/>	1
SPI2	SPIRXI	SPI2 - SPI2 Receive Done	59	<input type="checkbox"/>	1
Pin Module	CNI	CN - Change Notification Int...	19	<input type="checkbox"/>	1

Search Results		Output	Notifications		Notifications [MCC]					Pin Manager: Grid View ×																																	
Package:	TQFP44	▼	Pin No:	19	20	30	31	34	13	32	35	12	21	22	23	24	33	41	42	43	44	1	8	9	10	11	14	15	25	26	27	36	37	38	2	3	4	5					
				Port A ▼										Port B ▼															Port C ▼														
Module	Function	Direction	0	1	2	3	4	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	0	1	2	3	4	5	6	7	8	9						
Clock ▼	CLKI	input																																									
	CLKO	output																																									
	OSCI	input																																									
	OSCO	output																																									
	REFO	output																																									
	SCLKI	input																																									
	SOSCI	input																																									
SOSCO	output																																										
ICD ▼	PGCx	input																																									
	PGDx	input																																									
Pin Module ▼	GPIO	input																																									
	GPIO	output																																									
SD Card (SPI)	CS	output																																									
SPI2 ▼	SCK2OUT	output																																									
	SDI2	input																																									
	SDO2	output																																									

Pin Module

Easy Setup

Registers

Selected Package : TQFP44

Pin Name	Module	Function	Custom Name	Start High	Analog	Output	WPU	WPD	OD	IOC
RA4	Clock	SCLKI		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none
RB0	ICD	PGD1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none
RB1	ICD	PGC1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none
RB15	SPI2	SCK2OUT	SCK2OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none
RC0	SPI2	SDO2	SDO2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none
RC1	SPI2	SDI2	SDI2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none
RC6	SD Card (SPI)	CS	SDCard_CS	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	none

IMPORTANT note :

The microSD click board MUST be installed on the B click board socket to use SPI2

Once the project is generated, there will be many compilation errors because MCC expect to use only SPI1. As SPI1 is already used on the EXPLORER1632, it is needed to use SPI2

Therefore it is necessary to do the following to remove the compilation errors

A/ replace in ALL files spi1 by spi2

B/ Rename SDLOW_CONFIG by SDSLOW in spimaster.h file

C/ Rename SDFAST_CONFIG by SDFAST in spimaster.h file

Recompile. There should be no more compilation error

```
void FatFsDemo_Tasks(void)
{
    UINT actualLength;
    char data[] = "Hello World! PIC24FJ128GA204";
    if( SD_SPI_IsMediaPresent() == false)
    {
        return;
    }

    if (f_mount(&drive,"0:",1) == FR_OK)
    {
        if (f_open(&file, "HELLO.TXT", FA_WRITE | FA_CREATE_NEW ) == FR_OK)
        {
            f_write(&file, data, sizeof(data)-1, &actualLength );
            f_close(&file);
        }

        f_mount(0,"0:",0);
    }
}
```