

SPI SRAM Library

Generated by Doxygen 1.8.2

Sun Jan 6 2013 10:41:17

Contents

1	SRAM	1
2	Class Index	3
2.1	Class List	3
3	File Index	5
3.1	File List	5
4	Class Documentation	7
4.1	SRAM Class Reference	7
4.1.1	Detailed Description	7
4.1.2	Constructor & Destructor Documentation	7
4.1.2.1	SRAM	7
4.1.3	Member Function Documentation	7
4.1.3.1	getMode	8
4.1.3.2	read	8
4.1.3.3	setMode	8
4.1.3.4	write	8
5	File Documentation	9
5.1	SRAM.h File Reference	9
5.1.1	Initialisation	10
5.1.2	Detailed Description	10
5.2	SRAM_main.ino File Reference	11
5.2.1	Detailed Description	11
	Index	12

Chapter 1

SRAM

Library for 23K640 SPI [SRAM](#)

Microchip 23K640 is a SPI 64Kb = 8KB [SRAM](#)

Developed with [embedXcode](#)

Author

Rei VILO
embedXcode.weebly.com

Date

Jan 06, 2013

Version

102

Copyright

© Rei VILO, 2012
CC = BY NC SA

See Also

ReadMe.txt for references

- 23A640/23K640 64K SPI Bus Low-Power Serial [SRAM](#) Data Sheet
<http://ww1.microchip.com/downloads/en/DeviceDoc/22126E.pdf>
- Recommended Usage of Microchip 23X256/23X640 SPI Serial [SRAM](#) Devices
<http://ww1.microchip.com/downloads/en/AppNotes/01245C.pdf>

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

SRAM	
Class SRAM	7

Chapter 3

File Index

3.1 File List

Here is a list of all documented files with brief descriptions:

SRAM.h	Library header	9
SRAM_main.ino	Example sketch for 23K640 SPI SRAM library	11

Chapter 4

Class Documentation

4.1 SRAM Class Reference

Class [SRAM](#).

```
#include <SRAM.h>
```

Public Member Functions

- [SRAM](#) (uint8_t pinChipSelect)
Constructor.
- void [begin](#) ()
Initialisation.
- void [setMode](#) (uint8_t mode)
Set mode.
- uint8_t [getMode](#) ()
Get mode.
- void [write](#) (uint16_t address, uint8_t *data, uint16_t length)
Write length bytes from data to memory starting at address.
- void [read](#) (uint16_t address, uint8_t *data, uint16_t length)
Read length bytes from memory starting at address to data.

4.1.1 Detailed Description

Class [SRAM](#).

4.1.2 Constructor & Destructor Documentation

4.1.2.1 SRAM::SRAM (uint8_t pinChipSelect)

Constructor.

Parameters

<i>pinChipSelect</i>	pin for chip select
----------------------	---------------------

4.1.3 Member Function Documentation

4.1.3.1 `uint8_t SRAM::getMode ()`

Get mode.

Returns

byte, page or sequence mode

4.1.3.2 `void SRAM::read (uint16_t address, uint8_t * data, uint16_t length)`

Read length bytes from memory starting at address to data.

Parameters

<i>address</i>	uint16 address
<i>data</i>	data
<i>length</i>	length in bytes

4.1.3.3 `void SRAM::setMode (uint8_t mode)`

Set mode.

Parameters

<i>mode</i>	byte, page or sequence mode Initialisation
-------------	--

4.1.3.4 `void SRAM::write (uint16_t address, uint8_t * data, uint16_t length)`

Write length bytes from data to memory starting at address.

Parameters

<i>address</i>	uint16 address
<i>data</i>	data
<i>length</i>	length in bytes

The documentation for this class was generated from the following files:

- [SRAM.h](#)
- SRAM.cpp

Chapter 5

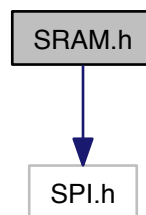
File Documentation

5.1 SRAM.h File Reference

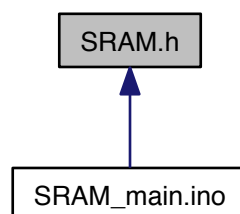
Library header.

```
#include "SPI.h"
```

Include dependency graph for SRAM.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [SRAM](#)
Class [SRAM](#).

Macros

Instruction Set

- #define [SRAM_READ](#) 0b00000011
Read data from memory array beginning at selected address.
- #define [SRAM_WRITE](#) 0b00000010
Write data to memory array beginning at selected address.
- #define [SRAM_READ_STATUS](#) 0b00000101
Read STATUS register.
- #define [SRAM_WRITE_STATUS](#) 0b00000001
Write STATUS register.

Status Register Instruction

5.1.1 Initialisation

- #define [SRAM_BYTE_MODE](#) 0b00000000
Byte mode (default operation)
- #define [SRAM_PAGE_MODE](#) 0b10000000
Page mode.
- #define [SRAM_SEQUENCE_MODE](#) 0b01000000
Sequential mode.
- #define [SRAM_RESERVED_MODE](#) 0b11000000
Reserved.
- #define [SRAM_HOLD_MODE](#) 0b00000001
Set this bit to DISABLE hold mode.

5.1.2 Detailed Description

Library header. Library for 23K640 SPI [SRAM](#)

Project chipKIT_SRAM

Developed with [embedXcode](#)

Author

Rei VILO
embedXcode.weebly.com

Date

Jan 06, 2013

Version

102

Copyright

© Rei VILO, 2012
CC = BY NC SA

See Also

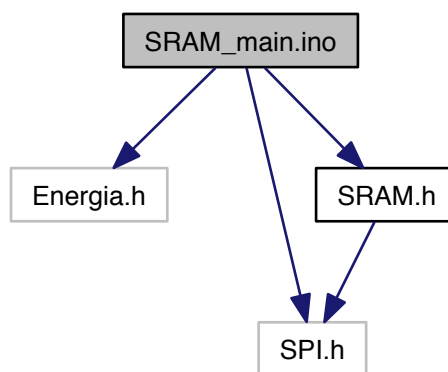
<https://github.com/energia/Energia/issues/164>
Rick Kimball

5.2 SRAM_main.ino File Reference

Example sketch for 23K640 SPI [SRAM](#) library.

```
#include "Energia.h"  
#include "SPI.h"  
#include "SRAM.h"
```

Include dependency graph for SRAM_main.ino:



Functions

- void **setup** (void)
- void **loop** (void)

Variables

- const uint16_t **MAX** = 130
- uint8_t **modulo** = 26
- char **buffer** [MAX]
- uint8_t **i** = 'A'

5.2.1 Detailed Description

Example sketch for 23K640 SPI [SRAM](#) library.

This example:

- prints 130 columns, saves them into the [SRAM](#),
- then reads them back from [SRAM](#) and prints them again.

Developed with [embedXcode](#)

Author

Rei VILO
embedXcode.weebly.com

Date

Jan 06, 2013

Version

102

Copyright

© Rei VILO, 2012
CC = BY NC SA

See Also

[ReadMe.txt](#) for references

Index

- getMode
 - SRAM, [7](#)
- read
 - SRAM, [8](#)
- SRAM, [7](#)
 - getMode, [7](#)
 - read, [8](#)
 - SRAM, [7](#)
 - setMode, [8](#)
 - SRAM, [7](#)
 - write, [8](#)
- SRAM.h, [9](#)
- SRAM_main.ino, [11](#)
- setMode
 - SRAM, [8](#)
- write
 - SRAM, [8](#)