DrvSDCard APIs Specification

DrvSDCard APIs Specification

1. Functions

DrvSDCARD_GenCRC

Prototype

static uint32_t DrvSDCARD_GenCRC(uint32_t u32Data, uint32_t u32GenPoly, uint32_t u32Accum);

Description

This function is used to generate CRC value.

Parameter

uint32_t u32Data	Input Data	
uint32_t u32GenPoly	CRC7:0x1200	CRC16:0x1021
uint32_t u32Accum	CRC value	

Include

Driver/DrvSDCARD.h

Return Value

uint32_t u32Accum	CRC value

DrvSDCARD_SingleWrite

Prototype

static uint32_t DrvSDCARD_SingleWrite(uint32_t u32Data);

Description

This function is used to send data though SPI to general clock for SDCARD operation.

Parameter

UINT32 u32Data	Data to send

Include

Driver/ DrvSDCARD.h

Return Value

None

DrvSDCARD_MMCcmdExec

Prototype

uint32_t DrvSDCARD_MMCcmdExec (uint8_t nCmd, uint32_t nArg,uint8_t *pchar, uint32_t *response);

Description

This function is used to Send SDCARD CMD and Receive Response.

Parameter

uint8_t	nCmd	Set command register
uint32_t	nArg	Set command argument
uint8_t	*pchar	Get register and data
uint32_t	*response	Get response

Include

Driver/ DrvSDCARD.h

Return Value

TRUE	get response
FALSE	1.SD Card busy, 2.Card moved, 3.Timeout

DrvSDCARD_MMCflashInit

Prototype

void DrvSDCARD_MMCflashInit(void);

Description

This function is used to initialize the flash card.

Parameter

None

Include

Driver/ DrvSDCARD.h

Return Value

None

DrvSDCARD_Open

Prototype

void DrvALC_SetZeroCrossing(uint8_t u8ALCZC);

Description

This function is used to Open GPIO function and intial SDCARD.

Parameter

None

Include

Driver/ DrvSDCARD.h

Return Value

E_DRVSDCARD_INITIAL_FAIL	Intial SDCARD Failed
E_SUCCESS	Success

DrvSDCARD_Close

Prototype

void DrvSDCARD_Close(void);

Description

This function is used to close SDCARD

Parameter

None

Include

Driver/ DrvSDCARD.h

Return Value

None

DrvSDCARD_GetCardSize

Prototype

uint32_t DrvSDCARD_GetCardSize(uint32_t* pu32TotSecCnt) ;

Description

This function is used to get card size after SDCARD is opened.

Parameter

PUINT32 pu32TotSecCnt

Include

Driver/ DrvSDCARD.h

Return Value

TRUE	The size is already saved in arg1
FALSE	The size is zero

DrvSDCARD_GetLogicSector

Prototype

uint32_t DrvSDCARD_GetLogicSector(void);

Description

This function is used to get card total sector after SDCARD is opened.

Parameter

None

Include

Driver/ DrvSDCARD.h

Return Value

The Logic Sector size

DrvSDCARD_GetVersion

Prototype

uint32_t DrvSDCARD_GetVersion(void);

Description

This function is used to Get SD driver version.

Parameter

None

Include

Driver/ DrvSDCARD.h

Return Value

SDCARD Driver Version

31:24	23:16	15:8	7:0
00000000	MAJOR_NUM	MINOR_NUM	BUILD_NUM

DrvSDCARD_SpiRead

Prototype

void DrvSDCARD_SpiRead(uint32_t addr, uint32_t size, uint8_t* buffer);

Description

This function is used to Get data from SD card.

Parameter

uint32_t addr	Set start address for LBA
uint32_t size	Set data size (byte)
uint32_t buffer	Data buffer pointer read from SD card

Include

Driver/ DrvSDCARD.h

Return Value

None

DrvSDCARD_SpiWrite

Prototype

void DrvSDCARD_SpiWrite(uint32_t addr, uint32_t size, uint8_t* buffer);

Description

This function is used to store data into SD card.

Parameter

uint32_t addr	Set start address for LBA
uint32_t size	Set data size (byte)
uint32_t buffer	Data buffer pointer to be written to SD card

Include

Driver/ DrvSDCARD.h

Return Value

None