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#ifndef _SD_H
#define _SD_H

#include "n32g45x.h" // Device header

extern SPI_InitType SPI_InitStructure;

//SD卡种类
#define Initialize_Failed 0x00
#define SD_Ver1_x_Standard_Capacitance 0x01
#define SD_Ver2_0_Standard_Capacitance 0x02
#define SD_Ver2_0_High_Capacitance 0x03
#define Invalid_Card 0x04

//(特殊模块)获取参数状态
#define Get_CIDCSD_Failed 0x00
#define Get_CIDCSD_Success 0x01
#define Get_Sector_Failed 0x00
#define Get_Sector_Success 0x01
#define Write_Sector_Failed 0x00
#define Write_Sector_Success 0x01

//CMD58参考系数
#define Valid_Voltage_Range 0x00FF8000
#define SD_V2_0_Standard_CCS 0x00000000
#define SD_V2_0_High_Capacity_CCS 0x40000000

uint8_t SD_Init(void);

uint8_t SD_GetCSD(uint8_t* CSD_Coefficients);

uint8_t SD_GetCID(uint8_t* CID_Coefficients);

uint8_t SD_GetData(uint8_t* Sector_Data, uint32_t Address);

uint8_t SD_WriteData(uint8_t* Data_In, uint32_t Address);

#endif

```