

Blue Screen

Application Note ANBS1.00.05 [Issued date April 10, 2009]

Change of SD CS pin

Since April 2009, BlueScreen was sold with new version of PCB. There is only one change, the chip select of SD card. **From old version, it's at P2.6 and new version it's at P0.16.** There is no error or bad performance with old version, in fact, this change caused by our mistake. We apologize for this inconvenience caused by the change.





In order to support both versions, we recommend (and we change the code for newer example) users to do modifications below. It's correct that change the pin declaration is enough but in the future, when new example is downloaded and compiled, some errors will occur.

1. add pin declaration in [hw_blue_screen.h](#)

```
#define SD_CS2_DPRT      FIO0DIR  
#define SD_CS2_PRTS     FIO0SET  
#define SD_CS2_PRTC     FIO0CLR  
#define SD_CS2_PIN      16
```

2. add some code in [lpc2000_spi.c](#)

```
void if_spiInit(hwInterface *iface)  
{  
    unsigned char i;  
    unsigned short buf[20];  
  
    SPIMasterEnable(SD_SPI,SPI_RIS_FIRST,SPI_SAM_FIRST,250,0,0,SD_SPI_WIDTH - 1);  
  
    for (i=0;i<20;i++)  
        buf[i] = 0xFFFF;  
  
    Setb(SD_CS_PRTS,SD_CS_PIN);  
    Setb(SD_CS2_PRTS,SD_CS2_PIN);  
    Orb(SD_CS_DPRT,SD_CS_PIN);  
    Orb(SD_CS2_DPRT,SD_CS2_PIN);  
    //set SD_CS pin as output  
    //set SD_CS pin as output
```

```
        SPIMasterTransfer(SD_SPI,20,buf);
    }

    uint8 if_spiSend(hwInterface *iface, uint8 outgoing)
    {
        unsigned char buf[1];
        buf[0] = outgoing;
        Clrb(SD_CS_PRTC,SD_CS_PIN);
        Clrb(SD_CS2_PRTC,SD_CS2_PIN);
        SPIMasterTransfer2(SD_SPI,1,buf);
        Setb(SD_CS_PRTS,SD_CS_PIN);
        Setb(SD_CS2_PRTS,SD_CS2_PIN);
        return (buf[0]);
    }
}
```