SPI Kullanımı

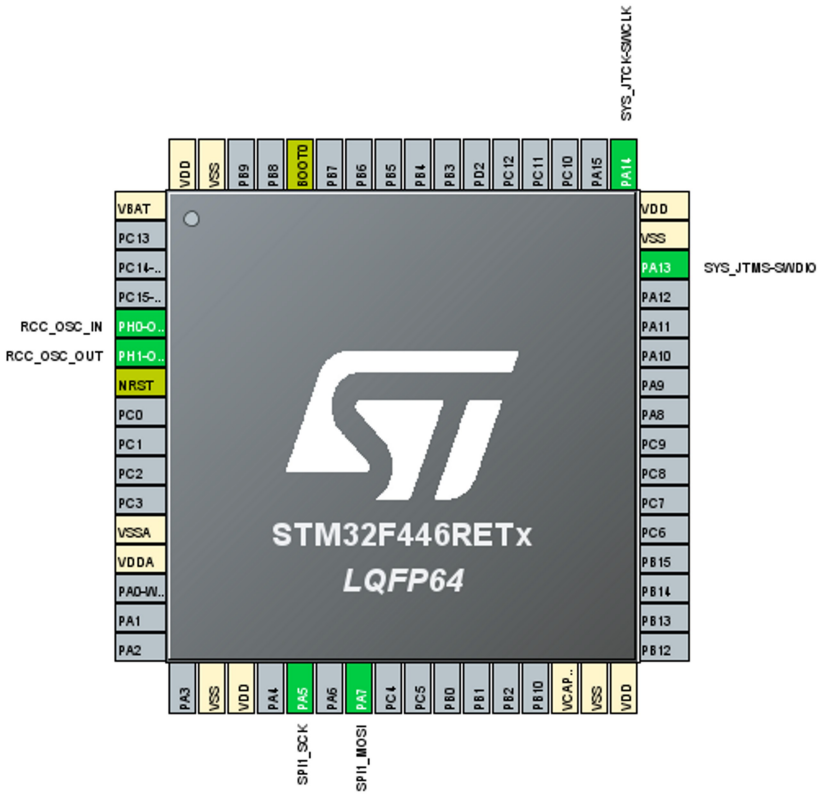
14 Mayıs 2022 Cumartesi 11:49

SPI Kullanımı

- HAL

Master

Konfigürasyon Kısmı



Pin ...	Signal on Pin	GPIO o...	GPIO m...	GPIO ...	Maximu...	User ...	Modif...
PA5	SPI1_SCK	n/a	Alternat...	No pul...	Very Hi...		☐
PA7	SPI1_MOSI	n/a	Alternat...	No pul...	Very Hi...		☐

Mode: Transmit Only Master

Hardware NSS Signal: Disable

Basic Parameters

Frame Format	Motorola
Data Size	8 Bits
First Bit	MSB First

Clock Parameters

Prescaler (for Baud Rate.	2
Baud Rate	8.0 MBits/s
Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

Advanced Parameters

CRC Calculation	Disabled
NSS Signal Type	Software

Kod Kısmı

```c
/* USER CODE BEGIN 0 */
uint8_t TxBuffer[1] = {0};
/* USER CODE END 0 */
```

```c
  /* USER CODE BEGIN 2 */
  int i=0;
  /* USER CODE END 2 */
```

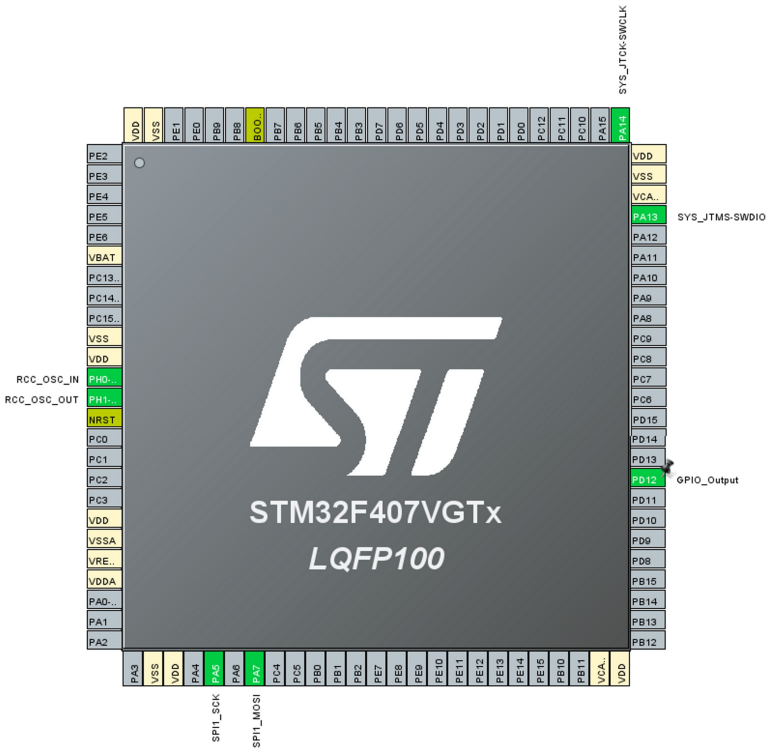
```c
  while (1)
  {
    /* USER CODE END WHILE */

    /* USER CODE BEGIN 3 */
      for(i= 0; i< 50; i++){
          TxBuffer[0] = i;

          HAL_SPI_Transmit (&hspi1, TxBuffer, sizeof(TxBuffer), 1000);
          HAL_Delay(1000);
      }
  }
  /* USER CODE END 3 */
}
```

Slave

Konfigürasyon Kısmı



Pin ...	Signal o...	GPIO ou...	GPIO m...	GPIO P...	Maximu...	User La...	Modified
PD12	n/a	Low	Output P...	No pull-u...	Low		☐

Pin ...	Signal on Pin	GPIO ou...	GPIO m...	GPIO P...	Maximu...	User ...	Modif...
PA5	SPI1_SCK	n/a	Alternat...	No pull-u...	Very High		☐
PA7	SPI1_MOSI	n/a	Alternat...	No pull-u...	Very High		☐

Mode: Receive Only Slave

Hardware NSS Signal: Disable

Basic Parameters

Frame Format	Motorola
Data Size	8 Bits
First Bit	MSB First

Clock Parameters

Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

Advanced Parameters

CRC Calculation	Disabled
NSS Signal Type	Software

Kod Kısmı

```
/* USER CODE BEGIN PV */
 uint8_t RxBuffer[1];
/* USER CODE END PV */
```

```
  while (1)
  {
    /* USER CODE END WHILE */

    /* USER CODE BEGIN 3 */
      HAL_SPI_Receive (&hspi1, RxBuffer, sizeof(RxBuffer), 1000);

      if (RxBuffer[0] == 3)
      {
          HAL_GPIO_WritePin(GPIOD, GPIO_PIN_12, GPIO_PIN_SET);
      }
      else{
          HAL_GPIO_WritePin(GPIOD, GPIO_PIN_12, GPIO_PIN_RESET);
      }
      HAL_Delay(1000);
  }
  /* USER CODE END 3 */
}
```