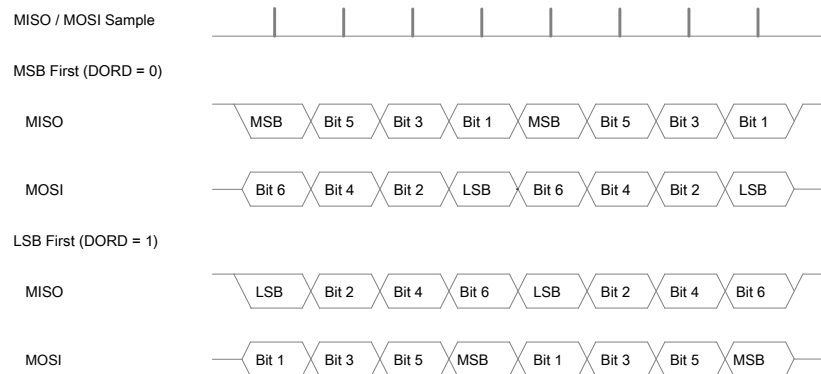<p align="center">CPHA for "1" Time SPI Data transmission mode</p>

Wire mode, MISO with MISO Are used as the input of the host, the time still data transmission mode decision data sampling, the sampling fashion as shown

below:

<p align="center">Host mode DUAL for "1" Time SPI Data sampling mode</p>

SPSS Pin Function

When configured as the selection signal from the slave machine SPSS Always as an input pin. when SPSS Pin remains low, SPI The interface is activated, MISO

Pin an output (software configuration corresponding port), the other pins are inputs. when SPSS

When the pin is held high, SPI Module is reset, and no longer receives data. SPSS Pin for packet / byte synchronous useful can synchronizing the bit

counter and the master clock generator unit. when SPSS When pulled, SPI Slave reset immediately send and receive logic, and the shift register discards

incomplete data.

When configured as host, user software can decide SPSS Pin direction. If the SPSS Configured as an output, it can be driving machine SPSS Pin. If the SPSS

Configured as an input, it must be kept high to ensure the normal operation of the host. When configured as a host and SPSS An input pin, the external circuit

down SPSS Pin, SPI Another module will be considered as a host to choose their own and begin to transfer data from the machine. To avoid bus contention,

SPI The module performs an operation of:

1. Located cleared SPCR Register MSTR Bits, is converted to the slave, whereby MOSI with SPCK Becomes an input;

2. Set located SPSR Register SPIF Bit, if the interrupt enabled will generate SPI Interrupted. Therefore, interrupt handling SPI Host data transfer, and there SPSS

When the possibility is pulled low, the interrupt service routine should check MSTR Bit is set "1" . If they are cleared, the software shall set it to re-enable SPI Host

mode.

SPI initialization

Before the first of the communication SPI Initialized. The initialization process normally includes a host operating selection from the setting data transmission

mode, select the bit rate, and the direction of each pin control. Wherein the host and the direction from the pin-up operation control varies, as shown in the

following table:

<p align="center">Direction control pin</p>

Pin	Direction in a Host mode	Direction from the slave mode
MOSI	User-defined software	Entry
MISO	Entry	User-defined software
SPCK	User-defined software	Entry
SPSS	User-defined software	Entry