

11.19 SPIS Electrical specification

11.19.1 SPIS slave interface electrical specifications

Symbol	Description	Min.	Typ.	Max.	Units
f_{SPIS}	Bit rates for SPI ¹²			8 ¹³	Mbps
$t_{\text{SPIS,START}}$	Time from RELEASE task to receive/transmit (CSN active)		1		μs

11.19.2 Serial Peripheral Interface Slave (SPIS) timing specifications

Symbol	Description	Min.	Typ.	Max.	Units
$t_{\text{SPIS,CSCIN}}$	SCK input period	125			ns
$t_{\text{SPIS,RFSCIN}}$	SCK input rise/fall time			30	ns
$t_{\text{SPIS,WHSCKIN}}$	SCK input high time	30			ns
$t_{\text{SPIS,WLSCKIN}}$	SCK input low time	30			ns
$t_{\text{SPIS,SUCSN}}$	CSN to CLK setup time	1000 ¹⁴			ns
$t_{\text{SPIS,HCSN}}$	CLK to CSN hold time	1000			ns
$t_{\text{SPIS,ASA}}$	CSN to SDO driven		70		ns
$t_{\text{SPIS,ASO}}$	CSN to SDO valid ¹⁵		1000		ns
$t_{\text{SPIS,DISSO}}$	CSN to SDO disabled ¹⁵		70		ns
$t_{\text{SPIS,CWH}}$	CSN inactive time	300			ns

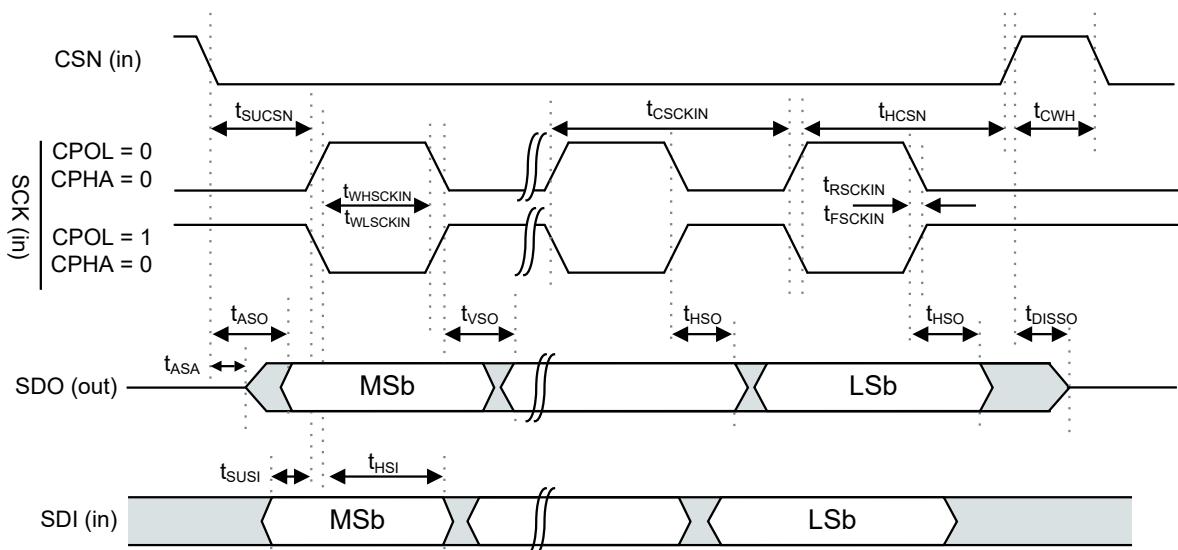


Figure 196: SPIS timing diagram, CPHA = 0

¹² High bit rates may require GPIOs to be set as High Drive, see GPIO chapter for more details.

¹³ The actual maximum data rate depends on the master's CLK to SDO and SDI setup and hold timings.

¹⁴ Excluding any start-up delay for the high frequency clock in low power mode.

¹⁵ At 25pF load, including GPIO capacitance, see GPIO spec.