

11.18 SPIM Electrical specification

11.18.1 Timing specifications

Symbol	Description	Min.	Typ.	Max.	Units
f_{SPIM}	Bit rates for SPIM ⁸			8	Mbps
$f_{SPIM,HS}$	Bit rates for high-speed SPIM instances ⁹			32 ¹⁰	Mbps
$t_{SPIM,START}$	Time from START task to transmission started		1		μ s
$t_{SPIM,CSCK}$	SCK period	31.25			ns
$t_{SPIM,RSCK,LD}$	SCK rise time, standard drive ¹¹				$t_{RF,25pF}$
$t_{SPIM,RSCK,HD}$	SCK rise time, high drive ¹¹				$t_{HRF,25pF}$
$t_{SPIM,FSCK,LD}$	SCK fall time, standard drive ¹¹				$t_{RF,25pF}$
$t_{SPIM,FSCK,HD}$	SCK fall time, high drive ¹¹				$t_{HRF,25pF}$
$t_{SPIM,WHSCK}$	SCK high time ¹¹	$(t_{CSCK}/2) - t_{RSCK} - 1.5$ ns			
$t_{SPIM,WLSCK}$	SCK low time ¹¹	$(t_{CSCK}/2) - t_{FSCK} - 1.5$ ns			

⁸ High bit rates may require GPIOs to be set as High Drive or Extra High Drive, see GPIO chapter for more details.

⁹ High bit rates may require GPIOs to be set as High Drive or Extra High Drive, see GPIO chapter for more details.

¹⁰ For SPIM00 using GPIO port P2.

¹¹ At 25pF load, including GPIO pin capacitance, see GPIO spec.