S3031B

APPLICATION NOTE

Nibble Mode Timing Characteristics

S3031B Transceiver Nibble Mode Setup and Hold

The S3031B has the following timing characteristics on the Nibble input and output pins:

Table 1. Receiver Timing Characteristics

Symbol	Description	Min	Max	Units
	POCLK Duty Cycle	40	60	%
TP_{MIN}, tP_{MAX}	POCLK Low to POUT[4:0] Valid Prop Delay	-2.5	3.5	ns
t_{SPOUT}	POUT[3:0] Set-up time relative to POCLK rise	8.0		ns
t_{HPOUT}	POUT[3:0] Hold time relataive to POCLK rise	9.0		ns

Note: Above limits assume 25.72 ns POCLK period (38.88 MHz).

Figure 1. Receiver Output Timing

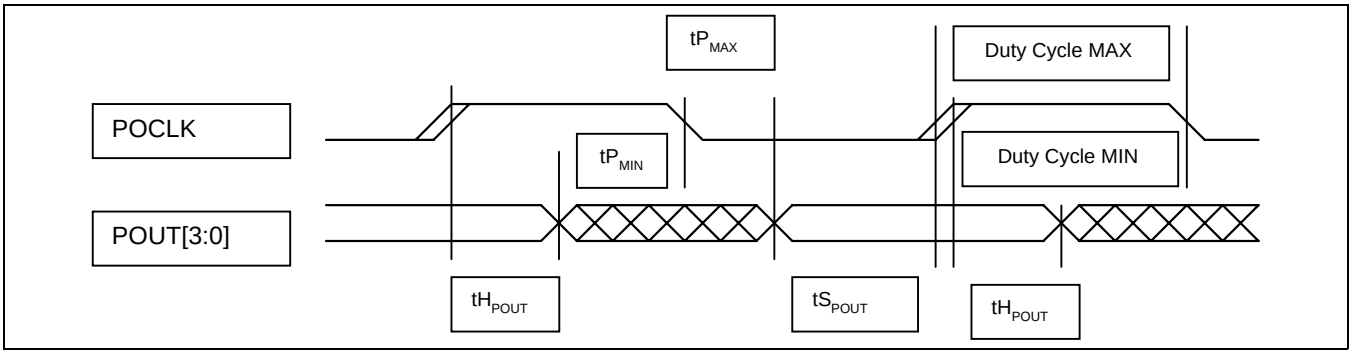
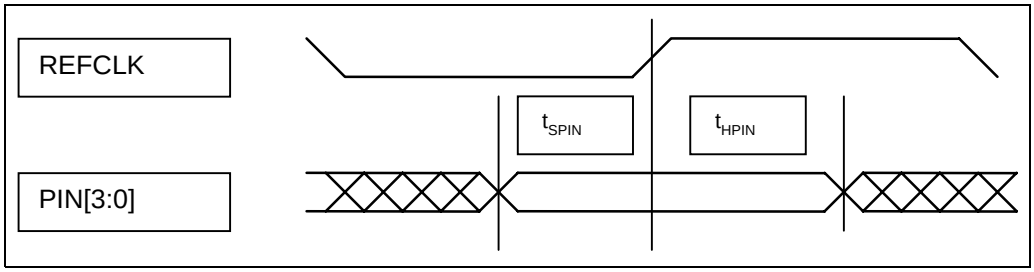


Table 2. Transmitter Timing Characteristics

Symbol	Description	Min	Max	Units
t_{SPIN}	PIN[3:0] Set-up time relative to REFCLK rise	1.5		ns
t_{HPIN}	PIN[3:0] Hold time relative to REFCLK rise	2.0		ns

Figure 2. Transmitter Input Timing



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