

TABLE 2. Timing formulas and parameters for a source synchronous bus.

$$\mathbf{Tsu_mrg} = [(Tco_dqs,min - Tco_dq,max) + (Tflt_dqs,min - Tflt_dq,max) + Tdly - Tsu,min] \quad \mathbf{EQ. 3}$$

$$\mathbf{Thld_mrg} = [(Tco_dq,min - Tco_dqs,max) + (Tflt_dq,min - Tflt_dqs,max) + Tdly - Thld,min] \quad \mathbf{EQ. 4}$$

With timing parameters as defined below:

Tsu_mrg = Setup timing margin.

Thld_mrg = Hold timing margin.

Tco_dq,max = Driver's data output valid delay (max).

Tco_dq,min = Driver's data output valid delay (min).

Tco_dqs,max = Clock-to-output delay of strobe flip-flop (max).

Tco_dqs,min = Clock-to-output delay of strobe flip-flop (min).

Tsu,min = Receiver's input setup requirement (min).

Thld,min = Receiver's input hold requirement (min).

Tdly = Delay between data and strobe clocking.

Tflt_dq,max = Data signal flight time (max).

Tflt_dqs,max = Strobe signal flight time (max).

Tflt_dq,min = Data signal flight time (min).

Tflt_dqs,min = Strobe signal flight time (min).