8.4.3 Fast Mode

Fast mode removes the slope control for the LIN transmitter allowing the LIN bus to support data rates up to 200 kbps. Fast mode is also the system software programing mode and debug mode. The watchdog is active but only indicates a WD failure and does not cause any resets or mode changes. Fast mode can be entered in either SPI or pin control modes. In SPI mode it is entered from normal or standby modes. In pin mode, it can be entered from standby mode. To enter fast mode from standby, the EN pin must be high with a high-low-high pulse on the TXD pin of duration t_{FMTXD} takes place prior to t_{FM_CHANGE} timing out, see Figure 8-31. In pin control mode, to leave fast mode the enable pin and TXD pins are used. If TXD pin is high and the EN pin is pulsed from high too low too high for t_{FM_CHANGE}, the device enters standby mode, see Figure 8-32. If the EN pin is pulsed high too low too high with the pulse being < t_{FM_CHANGE}, the device enters normal mode, see Figure 8-33.
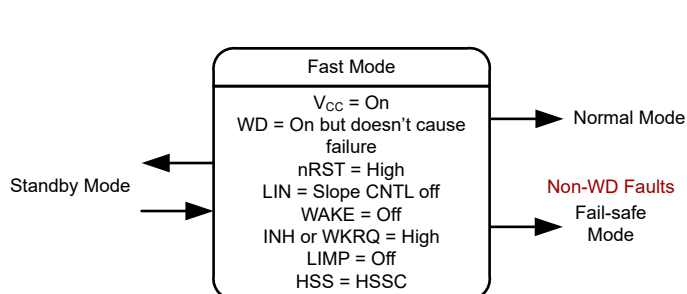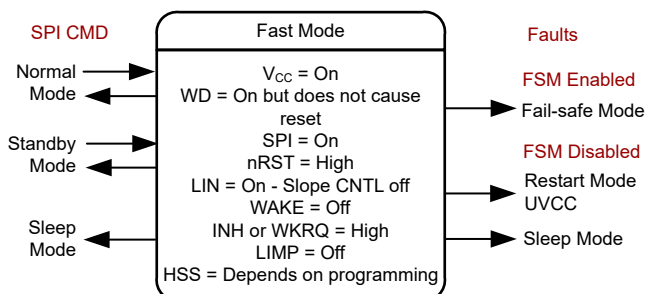
Figure 8-29. Fast Mode Pin Control
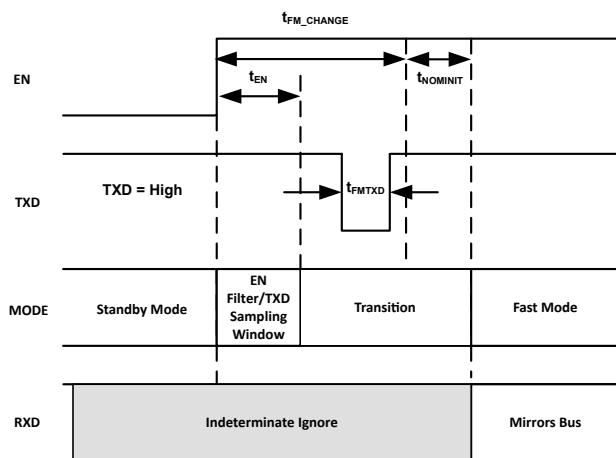
Figure 8-30. Fast Mode SPI Control

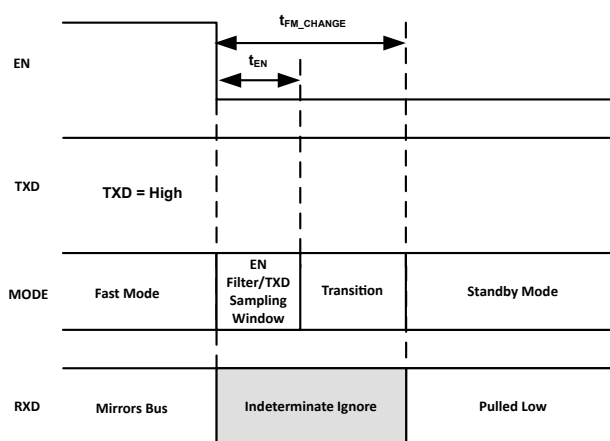**Figure 8-31. Entering Fast Mode from Standby Mode**
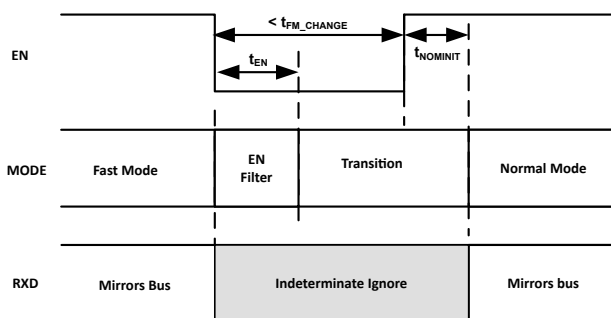
Figure 8-32. Exiting Fast Mode to Standby Mode

Figure 8-33. Exiting Fast Mode to Normal Mode