8.4.1 Init Mode

This is the initial mode of operation upon powering up. This is a transitional mode that is entered once V_{CC} ≥ UV_{CC}. The device is in this mode for ≤ 350 µs as it determines the states of pin 7, PIN/nCS and pin 16, WKRQ/INH; see Figure 8-5 and Figure 8-6. The V_{CC} fault monitoring will be active to determine if there is a TSD, OV_{CC} or V_{CCSC} faults which takes approximately 2.5 ms. If one of these faults are detected, the device will perform as described in Section 8.3.22.5 and Section 8.3.22.9.1. If V_{CC} < UV_{CC}, The device will remain in Init mode until V_{CC} > UV_{CC}. If a fault takes place that keeps the device from determining the state of the pins, the device will default to pin control.

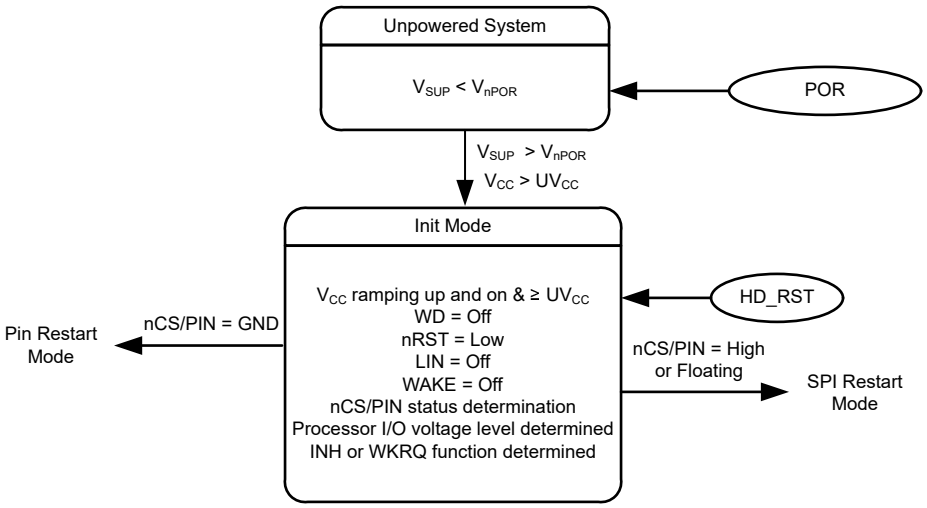

Figure 8-26. Init Mode

8.4.2 Normal Mode

In normal operational mode, the receiver and transmitter are active and the LIN transmission up to the LIN specified maximum of 20 kbps is supported. The receiver detects the data stream on the LIN bus and outputs it on RXD for the LIN controller. A recessive signal on the LIN bus is a digital high and a dominant signal on the LIN bus is a digital low. The driver transmits input data from TXD to the LIN bus. When entering normal mode, it takes t_{MODE_CHANGE} before data on RXD pin reflects the LIN bus. Normal mode can be entered from Fast mode and standby mode. See Figure 8-24 for the conditions necessary to enter normal mode when in pin control.

In SPI control mode, Normal mode is entered by SPI commands at register 8'h1D[7:6] = 10b. See Figure 8-25 for the conditions necessary to enter normal mode when in pin control.

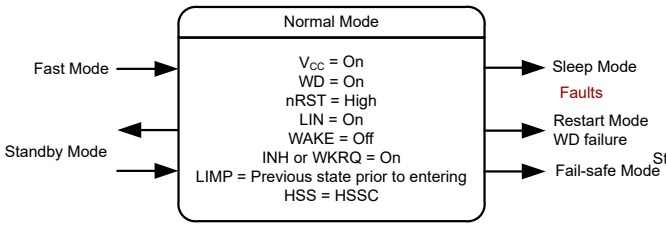

Figure 8-27. Normal Mode Pin Control

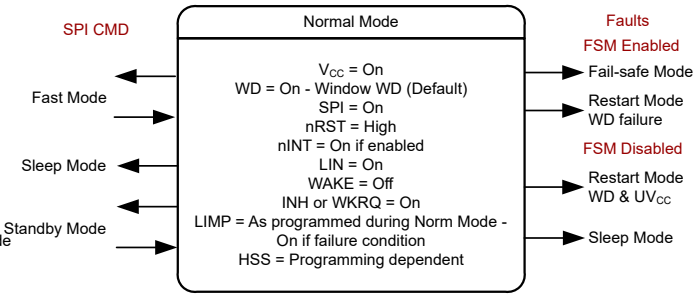

Figure 8-28. Normal Mode SPI Control