Cross power-domain use

Select P2 pins can be used for some serial interfaces in the peripheral domain — SPIM, SPIS, and UARTE when the device is in Constant Latency sub-power mode. This is not the most power-efficient way of connecting these serial interfaces, but adds flexibility when designing a circuit board. When setting up the peripheral's PSEL register for cross-domain connections, it must be connected only to the corresponding function listed in the pin assignments table for that package. For example, the peripheral's PSEL.SCK register must use the P2 SCK pin from the pin assignment table. The pin assignments table shows which pins can be configured for cross power-domain connections.

For more information about Constant Latency sub-power mode, see Sub-power modes on page 67.

10.1.2 Clock pins

The device has dedicated clock pins.

Some peripherals have clock signals. Dedicated clock pins have been optimized to ensure correct timing relationship between clock and data signals for these peripherals. See the following table for which peripheral signals must use clock pins. The pin assignment table identifies clock pins.

Clock pins can also be used as regular I/O data pins.

The peripheral data signal must be configured to use pins close to the clock pin. This ensures that the internal paths from the peripheral to the pin have the same delay, so that the data and clock signals reach the pins at the same time.

For high-speed signals, the printed circuit board (PCB) layout must use short PCB traces of identical length. This makes sure any delays are kept to a minimum, with close to identical delay on the clock and data path.

The following table shows which peripheral signals must use clock pins.