Symbol	Type	Description
ENABLE	Register	TWIS enabled via the ENABLE register.
PREPARETX	Task	The TASKS_PREPARETX task was triggered.
STOP	Task	The TASKS_STOP task was triggered.
PREPARERX	Task	The TASKS_PREPARERX task was triggered.
STOPPED	Event	The EVENTS_STOPPED event was generated.
DMA.RX.READY	Event	The EVENTS_DMA.RX.READY event was generated.
DMA.TX.READY	Event	The EVENTS_DMA.TX.READY event was generated.
TX prepared	Internal	Internal flag indicating that a TASKS_PREPARETX task was triggered.
RX prepared	Internal	Internal flag indicating that a TASKS_PREPARERX task was triggered.
Unprepare TX	Internal	Clears the TX prepared flag until the next TASKS_PREPARETX task.
Unprepare RX	Internal	Clears the RX prepared flag until the next TASKS_PREPARERX task.
Stop condition	TWI protocol	A TWI stop condition was detected.
Restart condition	TWI protocol	A TWI restart condition was detected.

Table 66: TWI slave state machine symbols

TWIS supports clock stretching. In order to use this feature, the controller must also support clock stretching for the feature to execute properly. TWIS operates in a low-power mode while waiting for the TWI controller to initiate a transfer. As long as TWIS is not addressed, it will remain in this mode.

For TWIS to run correctly, PSEL.SCL, PSEL.SDA, CONFIG, and the ADDRESS[n] registers must be configured, the SCL and SDA lines must both be high, before enabling TWIS through the ENABLE register. Similarly, changing these settings must be performed while TWIS is disabled. Failing to do so may result in unpredictable behavior.

8.24.2 Shared resources

The TWIS peripheral shares registers and other resources with peripherals that have the same ID as TWIS. Before TWIS can be configured and used, all peripherals that have the same ID as TWIS must be disabled.

Disabling a peripheral with the same ID as TWIS will not reset any shared TWIS registers. Configure all TWIS registers to ensure they operate correctly.

See the Instantiation table in Instantiation on page 216 for details on peripherals and their IDs.

8.24.3 EasyDMA

TWIS implements EasyDMA for accessing RAM without CPU involvement.

TWIS implements the EasyDMA channels found in the following table.

Channel	Type	Register Cluster
TXD	READER	TXD
RXD	WRITER	RXD

Table 67: TWIS EasyDMA Channels