Figure 121: IFS timing detail

The TIFS duration starts after the last bit on air (at the PHYEND event), and elapses with the first bit being transmitted on air (just after READY event).

TIFS is only enforced if the shortcuts PHYEND to DISABLE and DISABLED to TXEN or PHYEND to DISABLE and DISABLED to RXEN are enabled. The short READY to START must also be enabled. In these configurations, TXEN or RXEN is automatically delayed to achieve the configured interframe spacing.

TIFS is qualified for use in IEEE 802.15.4 250kbps mode, Bluetooth Low Energy Long Range (125 kbps and 500 kbps) modes, and Bluetooth Low Energy 1 Mbps and 2 Mbps modes, using the Legacy ramp-up mode.

SHORTS and TIFS registers are not double-buffered and can be updated at any point before the last bit on air is received. The MODE register is double-buffered and sampled at the TXEN or RXEN task.

8.17.10 Device address match

The device address match feature is tailored for device filtering in Bluetooth Low Energy and similar implementations.

This feature enables on-the-fly device address matching while receiving a packet over-the-air. This feature only works in RX mode and when RADIO is configured for little endian, see PCNF1.ENDIAN for more information.

The device address match unit assumes that the first 48 bits of the payload are the device address and that bit number 6 in S0 is the TxAdd bit. See the *Bluetooth Core Specification* for more information about device addresses, TxAdd, and the device filtering procedure.

RADIO is able to listen for eight different device addresses at the same time. These addresses are specified in a DAB/DAP register pair, one pair per address, in addition to a TxAdd bit configured in the DACNF register. The DAB register specifies the 32 least significant bits of the device address, while the DAP register specifies the 16 most significant bits of the device address.

Each of the device addresses can be individually included or excluded from the matching mechanism. This is configured in the DACNF register.

NORDIC
SEMICONDUCTOR