# 6.3 PPIB — PPI Bridge

PPIB connects tasks and events of peripherals in two different PPI systems in different power-domains.

A PPI system contains a number of peripherals that can communicate with each other by using tasks and events. This functionality is enabled by the DPPI peripheral. In a PPI system, the peripherals and DPPI are instantiated in the same APB bus.

The following figure shows a PPI system including a PPIB:

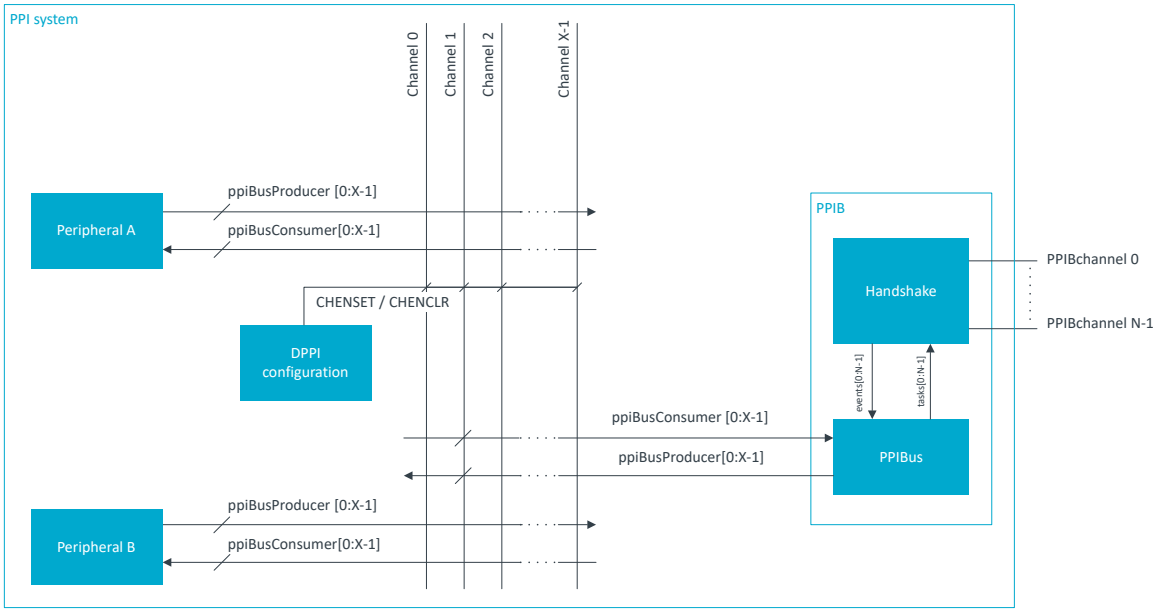


*Figure 27: PPI system with PPIB*

PPIB uses tasks and events like a standard peripheral, and connects to local DPPI channels via PPIBus. For more information on PPIBus module, see DPPI.

PPIB has a number of channels. Each PPIB channel connects to a single DPPI channel.

## 6.3.1 PPIB connections

A PPIB channel in one PPI system can be connected to a PPIB channel in another PPI system forming a PPIB connection.

A channel belonging to a PPIB instance in a PPI system is connected to a channel belonging to a PPIB instance in a different PPI system, creating a one-to-one PPIB connection between the two PPI systems. The connections are fixed and point-to-point, that is, a channel in a PPIB instance is connected only to a specific channel in another PPIB instance. For information on how the channels in the different PPIB instances are connected, see the Configuration table under the Registers section.

A PPIB channel can be configured as either source or sink. When configuring one side of the PPIB connection as source, the other side of the PPIB connection must be configured as sink, and viceversa. PPIB connections are unidirectional. Configuring both sides of a connection as source and sink at the same time will yield unexpected results.

On the source side of a PPIB connection, in order to send a (local) peripheral event to a different PPI system, the corresponding PPIB channel is configured as a consumer, subscribing to the same DPPI channel as the (local) peripheral publishes to, using the PPIB.SUBSCRIBE_SEND[n] register, with n the PPIB channel number.