

VciPiTargetWrapper

1) Functional Description

This hardware component is a VCI/PIBUS protocol converter for a VCI target. It behaves as a target on the PIBUS interface, and behaves as an initiator on the VCI interface. It can be used by a VCI target to interface a PIBUS based system on chip.

As a single FSM controls both the PIBUS and VCI interfaces, the maximum throughput is 2 cycles per 32bits words, even in case of a burst.

3) Component definition & usage

[source:trunk/soclib/soclib/module/network_component/vci_pi_target_wrapper/caba/metadata/vci_pi_target_wrapper.sd?](#)

See [SoclibCc/VciParameters](#)

```
Uses( 'vci_pi_target_wrapper', **vci_parameters )
```

3) CABA Implementation

CABA sources

- interface :
[source:trunk/soclib/soclib/module/network_component/vci_pi_target_wrapper/caba/source/include/vci_pi_target_wrapper.h](#)
- implementation :
[source:trunk/soclib/soclib/module/network_component/vci_pi_target_wrapper/caba/source/src/vci_pi_target_wrapper.c](#)

CABA Constructor parameters

```
VciPiTargetWrapper( sc_module_name name);    // Instance Name
```

CABA Ports

- sc_in<bool> **p_resetrn** : Global system reset
- sc_in<bool> **p_clk** : Global system clock
- sc_in<bool> **p_sel** : Target select (from the PIBUS controller)
- soclib::caba::VciInitiator<vci_param> **p_vci** : The VCI port
- soclib::caba::PibusTarget **p_pi** : The PIBUS port

4) TLM-T Implementation

There is no TLM-T implementation for this component.