

VirtualDspinArray

1) Functional Description

This hardware component is a VCI compliant ring, implemented as a combinational daisy-chain and well suited for FPGA implementations. It contains two independent rings for VCI commands and VCI responses. It is composed of an two-dimensionnal array of [VirtualDspinRouter](#).

2) Component definition & usage

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

3) CABA implementation

CABA sources

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

CABA Constructor parameters

```
VirtualDspinArray( sc_module_name insname,           // instance name
                  const soclib::common::MappingTable &mt, // mapping table
                  const soclib::common::IntTab &ringid,  // global subsystem index
                  const int &wrapper_fifo_depth,        // wrapper fifo depth
                  int nb_attached_initiator,             // number of VCI initiators
                  int nb_attached_target);               // number of VCI targets
```

CABA ports

- `sc_in<bool> p_clk;` *Global system clock*
- `sc_in<bool> p_resetn;` *Global system reset*
- `soclib::caba::VciInitiator<vci_param>* p_to_target;` *Ports to VCI targets*
- `soclib::caba::VciTarget<vci_param> * p_to_initiator;` *Ports to VCI initiators*

4) TLMT implementation

The TLM-T implementation is not available yet.