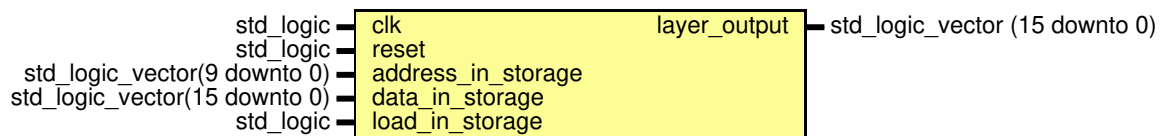


# Perceptron Storage

- **File:** storage.vhdl
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- **Version:** 0.1
- **Date:** 31.05.2021

## Diagram



## Description

This module implement the storage of 1024 16Bit Values and output them on each clock iteration.

## Generics and ports

**Table 1.1 Generics**

**Table 1.2 Ports**

Port name	Direction	Type	Description
clk	in	std_logic	clock for iteration over storage values
reset	in	std_logic	reset to set default values
address_in_storage	in	std_logic_vector(9 downto 0)	address where the value have to be stored
data_in_storage	in	std_logic_vector(15 downto 0)	actual data which have to be stored
load_in_storage	in	std_logic	trigger the storage
layer_output	out	std_logic_vector (15 downto 0)	output to the first layer

## Signals, constants and types

### Signals

Name	Type	Description
stored_value	arr_1024_times_16	

### Types

Name	Type	Description
arr_1024_times_16		the one dimensional array of stored values

## Processes

- **behaviour:** ( *load\_in\_storage*, *clk*, *reset* )

