

RTL Hardware Design Using VHDL Answers to Select Problems

DANIEL DUGGAN

September 17, 2025

This document has answers to some questions contained in chapter 3 of the book RTL Hardware Design Using VHDL by Pong P. Chu. [1].

A 3.1

```
1  library ieee;  
2  use ieee.std_logic_1664.all;  
3  use ieee.numeric_std.all;  
4  
5  entity mem_cir is  
6  port (  
7    addr : in std_logic_vector(11 downto 0);  
8    wr_n : in std_logic;  
9    oe_n : out std_logic;  
10   data : inout std_logic_vector(8 downto 0)  
11 );
```

References

- [1] P. P. Chu, *RTL Hardware Design Using VHDL: Coding for Efficiency, Portability, and Scalability*. Hoboken, NJ: Wiley-Interscience, 2006.