

```
1: library STD;
2: library IEEE;
3: use IEEE.std_logic_1164.all;
4:
5: entity Decoder_Test is
6:
7: end Decoder_Test;
8:
9: architecture test of Decoder_Test is
10:
11:     component Decoder
12:     port(
13:         Mem_Add :    in  std_logic_vector(4 downto 0);
14:         Col_En  :    out std_logic_vector(3 downto 0);
15:         Row_En  :    out std_logic_vector(7 downto 0)
16:     );
17: end component;
18:
19: signal Mem_Add :    std_logic_vector(4 downto 0);
20: signal Col_En  :    std_logic_vector(3 downto 0);
21: signal Row_En  :    std_logic_vector(7 downto 0);
22:
23: for pm :    Decoder use entity work.Decoder(structural);
24:
25: begin
26:
27:     pm :    Decoder port map(Mem_Add, Col_En, Row_En);
28:
29:     p :    process
30:     begin
31:         Mem_Add <= "00000";
32:         wait for 5 ns;
33:         Mem_Add <= "00001";
34:         wait for 5 ns;
35:         Mem_Add <= "10011";
36:         wait for 5 ns;
37:         wait;
38:     end process;
39: end test;
```