

```
1: library std;
2: library ieee;
3: use ieee.std_logic_1164.all;
4:
5: entity Output_Enable is
6: port (
7:     in8      : in  std_logic_vector(7 downto 0);
8:     enable   : in  std_logic;
9:     out8     : out std_logic_vector(7 downto 0)
10: );
11: end Output_Enable;
12:
13: architecture structural of Output_Enable is
14:
15:     component tx
16:     port(
17:         sel      : in  std_logic;
18:         selnot   : in  std_logic;
19:         input    : in  std_logic;
20:         output   : out std_logic
21:     );
22:     end component;
23:
24:     component invX1
25:     port(
26:         in1      : in  std_logic;
27:         out1     : out std_logic
28:     );
29:     end component;
30:
31:     signal n_enable : std_logic;
32:
33:     for n_en : invX1 use entity work.invX1(structural);
34:     for tx0, tx1, tx2, tx3, tx4, tx5, tx6, tx7 : tx use entity work.tx(struct
ural);
35:
36: begin
37:
38:     n_en : invX1 port map(enable, n_enable);
39:     tx0  : tx   port map(enable, n_enable, in8(0), out8(0));
40:     tx1  : tx   port map(enable, n_enable, in8(1), out8(1));
41:     tx2  : tx   port map(enable, n_enable, in8(2), out8(2));
42:     tx3  : tx   port map(enable, n_enable, in8(3), out8(3));
43:     tx4  : tx   port map(enable, n_enable, in8(4), out8(4));
44:     tx5  : tx   port map(enable, n_enable, in8(5), out8(5));
45:     tx6  : tx   port map(enable, n_enable, in8(6), out8(6));
46:     tx7  : tx   port map(enable, n_enable, in8(7), out8(7));
47:
48: end structural;
```