

## tsb.vhd

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-- Author: Roger Grayson  
-- Date: Mar, 2003  
-- Purpose:generic tri state buffer  
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library IEEE;  
use IEEE.STD_LOGIC_1164.all;  
  
entity tsb is  
    generic(N: integer :=32);  
    port(    d: in std_logic_vector(N-1 downto 0);  
          ctl: in std_logic;  
          q: out std_logic_vector(N-1 downto 0));  
end tsb;  
  
architecture behavior of tsb is  
begin  
    process(ctl,d)  
    begin  
        case ctl is  
            when '1' => q <= d;  
            when others => q <= (others => '0');  
        end case;  
    end process;  
end behavior;
```