

CNT_EPP_TB

```
library ieee;  
use ieee.std_logic_1164.all;
```

```
entity cnt_epp_tb is  
end entity cnt_epp_tb;
```

```
architecture cnt_epp of cnt_epp_tb is
```

```
    component cnt_epp is
```

```
        port (  
            CLK      : in std_logic;  
            RST      : in std_logic;  
            ASTRB    : in std_logic;  
            DSTRB    : in std_logic;  
            DATA     : inout std_logic_vector(7 downto 0);  
            PWRITE    : in std_logic;  
            PWAIT    : out std_logic;  
            DATO_RD   : in std_logic_vector(7 downto 0);  
            CE_RD     : out std_logic;  
            DIR       : out std_logic_vector (7 downto 0);  
            DIR_VLD   : out std_logic;  
            DATO      : out std_logic_vector (7 downto 0);  
            DATO_VLD  : out std_logic);  
    end component;
```

```
    component epp_device is
```

```
        port (  
            DATA : inout std_logic_vector(7 downto 0);  
            PWRITE : out  std_logic;  
            DSTRB  : out  std_logic;  
            ASTRB  : out  std_logic;  
            PWAIT  : in   std_logic);  
    end component;
```

```
    signal CLK_i   : std_logic := '0';  
    signal RST_i   : std_logic := '1';  
    signal ASTRB_i : std_logic := '1';  
    signal DSTRB_i : std_logic := '1';  
    signal DATA_io : std_logic_vector(7 downto 0);  
    signal PWRITE_i : std_logic := '1';  
    signal PWAIT_o  : std_logic;  
    signal DATO_RD_i : std_logic_vector(7 downto 0) := (others => '0');  
    signal CE_RD_o   : std_logic;  
    signal DIR_o     : std_logic_vector(7 downto 0) := (others => '0');  
    signal DIR_VLD_o : std_logic;  
    signal DATO_o    : std_logic_vector (7 downto 0);  
    signal DATO_VLD_o : std_logic;
```

```
begin -- architecture cnt_epp
```

```
    DUT: entity work.cnt_epp
```

```

port map (
  CLK    => CLK_i,
  RST    => RST_i,
  ASTRB  => ASTRB_i,
  DSTRB  => DSTRB_i,
  DATA  => DATA_io,
  PWRITE => PWRITE_i,
  PWAIT  => PWAIT_o,
  DATO_RD => DATO_RD_i,
  CE_RD  => CE_RD_o,
  DIR    => DIR_o,
  DIR_VLD => DIR_VLD_o,
  DATO   => DATO_o,
  DATO_VLD => DATO_VLD_o);

```

epp: entity work.epp_device

```

port map (
  DATA  => DATA_io,
  PWRITE => PWRITE_i,
  DSTRB  => DSTRB_i,
  ASTRB  => ASTRB_i,
  PWAIT  => PWAIT_o);

```

```

CLK_i <= not CLK_i after 5 ns;
RST_i <= '1', '0' after 25 ns;
DATO_RD_i <= x"33" after 6250 ns, x"00" after 7250 ns;

```

```

end architecture cnt_epp;

```