

CNT_DAC_TB

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

entity cnt_dac_tb is
end entity cnt_dac_tb;

architecture for_dac_tb of cnt_dac_tb is

    signal CLK    : std_logic := '1';
    signal RST    : std_logic;
    signal DATO1   : std_logic_vector(7 downto 0);
    signal DATO2   : std_logic_vector(7 downto 0);
    signal DATO_OK : std_logic;
    signal SYNC    : std_logic;
    signal SCLK    : std_logic;
    signal D1      : std_logic;
    signal D2      : std_logic;

begin -- architecture for_dac_tb

    DUT : entity work.cnt_dac
        port map (
            CLK    => CLK,
            RST    => RST,
            DATO1  => DATO1,
            DATO2  => DATO2,
            DATO_OK => DATO_OK,
            SYNC   => SYNC,
            SCLK   => SCLK,
            D1     => D1,
            D2     => D2);

    T1 : entity work.DAC121S101
        port map (
            SYNC => SYNC,
            SCLK => SCLK,
            DIN  => D1);

    T2 : entity work.DAC121S101
        port map (
            SYNC => SYNC,
            SCLK => SCLK,
            DIN  => D2);

    -- clock generation
    Clk <= not Clk after 5 ns;
    rst <= '1', '0' after 50 ns;
    DATO1 <= x"00", x"A5" after 100 ns;
    DATO2 <= x"00", x"5A" after 120 ns;
    DATO_OK <= '0', '1' after 200 ns, '0' after 220 ns;
end architecture for_dac_tb;
```