19.8421BCD码十进制加法计数器

LIBRARY IEEE;

USE IEEE.STD\_ LOGIC\_ 1164.ALL;

USE IEEE.STD\_ LOGIC\_ UNSIGNED.ALL;

ENTITY COUNT IS

PORT(

CLK,CLEAR:IN STD\_ LOGIC;

Q:OUT STD\_ LOGIC\_ \_VECTOR(3 DOWNTO 0));

END COUNT;

ARCHITECTURE count\_arch of COUNT IS

SIGNAL Q\_ TEMP:STD\_ LOGIC\_ VECTOR(3 DOWNTO O);

BEGIN

PROCESS(CLK,CLEAR)

BEGIN

IF (CLEAR='O') THEN

Q\_ TEMP<="1111";

ELSIF (CLK'EVENT AND CLK='1') THEN

Q\_ TEMP<=Q\_ TEMP-1;

END IF;

END PROCESS;

Q<=Q\_ TEMP;

END count\_arch;