

```
1  library ieee ;
2  use ieee.std_logic_1164.all;
3
4  entity Comparador_8Bits is
5      port (eA8,eB8: in std_logic_vector(7 downto 0);
6            AeqB8,AltB8,AgtB8: out std_logic);
7  end Comparador_8Bits;
8
9  architecture ckt of Comparador_8Bits is
10
11      component Comparador_4Bits is
12          port (eA,eB: in std_logic_vector(3 downto 0);
13                gt,lt,eq: in std_logic;
14                AeqB,AltB,AgtB: out std_logic);
15      end component;
16
17      signal saida_gt,saida_lt,saida_eq: std_logic_vector(1 downto 0);
18  begin
19      Comp1:Comparador_4Bits port map(
20          gt => '0',
21          lt => '0',
22          eq => '1',
23          eA(3 downto 0) => eA8(7 downto 4),
24          eB(3 downto 0) => eB8(7 downto 4),
25          AeqB => saida_eq(1),
26          AgtB => saida_gt(1),
27          AltB => saida_lt(1));
28
29      Comp2: Comparador_4Bits port map(
30          gt => saida_gt(1),
31          lt => saida_lt(1),
32          eq => saida_eq(1),
33          eA(3 downto 0) => eA8(3 downto 0),
34          eB(3 downto 0) => eB8(3 downto 0),
35          AeqB => saida_eq(0),
36          AgtB => saida_gt(0),
37          AltB => saida_lt(0));
38
39      AeqB8 <= saida_eq(0);
40      AltB8 <= saida_lt(0);
41      AgtB8 <= saida_gt(0);
42
43  end ckt;
```