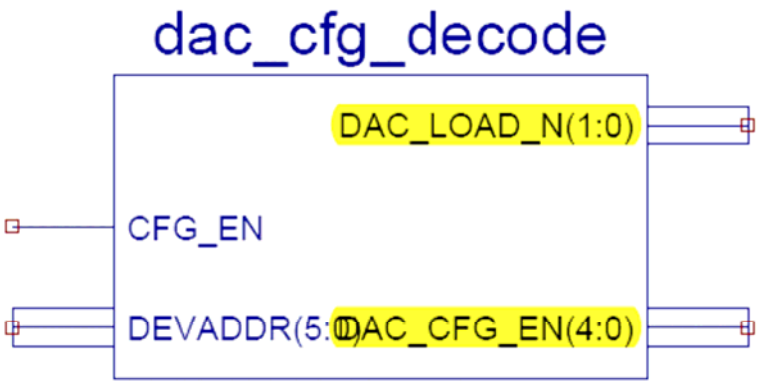
```
-----------------------------------------------------------------------
-- DESCRIPTION  : DECODES THE CONFIGURATION DEVICE ADDRESS FROM THE SERIAL
-- CONFIGURATION FRONT END. ENABLES THE INDIVIDUAL BIAS AND OFFSET DEVICES TO
-- RECEIVE SERIAL CONFIGURATION DATA.
-- THIS MODULE ALSO PROVIDES FOR THE DAC LOAD STROBE TO PULSE LOW AFTER
-- WRITING A VALUE TO A DAC.
-----------------------------------------------------------------------
-- IMPLEMENTATION NOTES :
-- DAC DEVICES USE:-
-- SERIAL FUNCT CODE "010".
-- SERIAL DEVADDR RANGE 0 => 3.
-- SERIAL MSG LENGTH IS 16.
-- |  ADDR  |  FILL  |    DATA VALUE    |
-- | 2 bits | 2 bits |      12 bits     |
-- MSBIT FIRST.
-----------------------------------------------------------------------
```




```
CFG_EN     : in  std_logic;
DEVADDR    : in  std_logic_vector(5 downto 0);
DAC_CFG_EN : out std_logic_vector(4 downto 0);
DAC_LOAD_N : out std_logic_vector(1 downto 0)

DAC_CFG_EN <= "11111" when (CFG_EN = '0')  else
           "11110" when (DEVADDR = "000000") else
           "11101" when (DEVADDR = "000001") else
           "11011" when (DEVADDR = "000010") else
           "10111" when (DEVADDR = "000011") else
           "01111" when (DEVADDR = "000100") else
           "11111";

DAC_LOAD_N(0) <= CFG_EN;
DAC_LOAD_N(1) <= CFG_EN;
```