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LIBRARY Common;
USE Common.CommonLib.all;

ARCHITECTURE RTL OF freqDivider IS

    signal count: unsigned(requiredBitNb(divideValue)-1 downto 0);

BEGIN

    countEndlessly: process(reset, clock)
    begin
        if reset = '1' then
            count <= (others => '0');
        elsif rising_edge(clock) then
            if count = 0 then
                count <= to_unsigned(divideValue-1, count'length);
            else
                count <= count-1 ;
            end if;
        end if;
    end process countEndlessly;

    enable <= '1' after delay when count = 0
        else '0' after delay;

END ARCHITECTURE RTL;

```