```
`timescale 1ns / 1ps
//////////////////////////////////////////////////////////////////////////////////
// Company:
// Engineer:
//
// Create Date: 04/13/2022 06:40:43 PM
// Design Name:
// Module Name: Incrementer
// Project Name:
// Target Devices:
// Tool Versions:
// Description:
//
// Dependencies:
//
// Revision:
// Revision 0.01 - File Created
// Additional Comments:
//
//////////////////////////////////////////////////////////////////////////////////


module Incrementer(
  input [7:0] a,
  input [1:0] b,
  output [7:0] s

    );
    wire [7:0] K;

    Fulladder a0 ( .Aa(a[0]), .Bb(b[0]), .Cin(1'b0), .sum(s[0]), .carry(K[0]));
    Fulladder a1 ( .Aa(a[1]), .Bb(b[1]), .Cin(K[0]), .sum(s[1]), .carry(K[1]));
    Fulladder a2 ( .Aa(a[2]), .Bb(1'b0), .Cin(K[1]), .sum(s[2]), .carry(K[2]));
    Fulladder a3 ( .Aa(a[3]), .Bb(1'b0), .Cin(K[2]), .sum(s[3]), .carry(K[3]));
    Fulladder a4 ( .Aa(a[4]), .Bb(1'b0), .Cin(K[3]), .sum(s[4]), .carry(K[4]));
    Fulladder a5 ( .Aa(a[5]), .Bb(1'b0), .Cin(K[4]), .sum(s[5]), .carry(K[5]));
    Fulladder a6 ( .Aa(a[6]), .Bb(1'b0), .Cin(K[5]), .sum(s[6]), .carry(K[6]));
    Fulladder a7 ( .Aa(a[7]), .Bb(1'b0), .Cin(K[6]), .sum(s[7]), .carry(K[7]));


endmodule
```