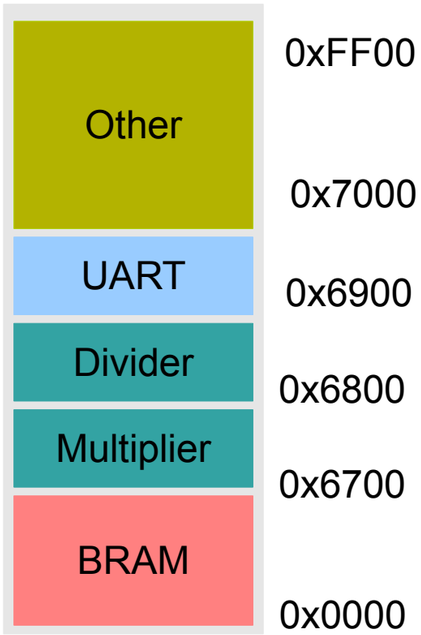


0xFF00

0x7000

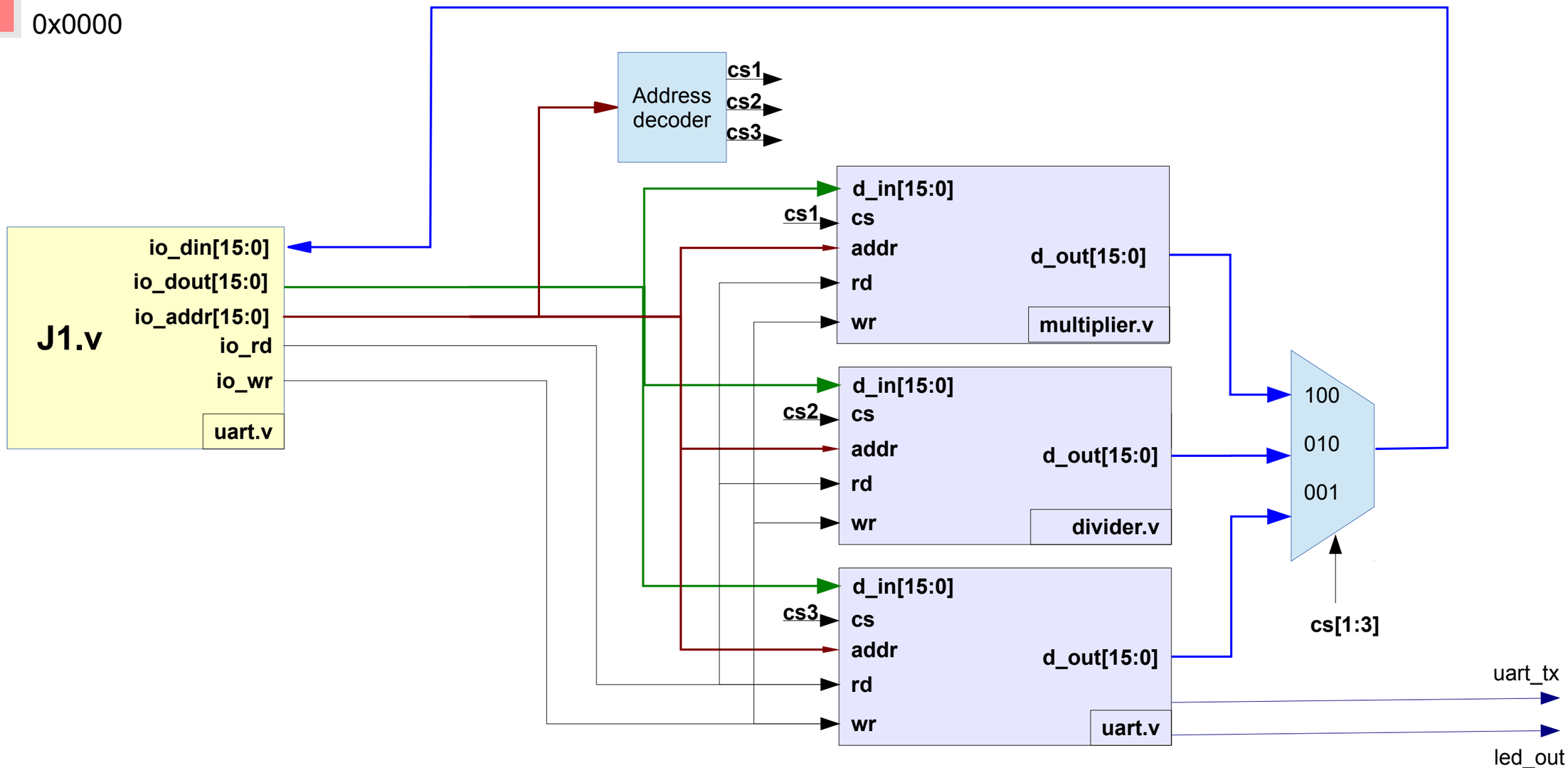
0x6900

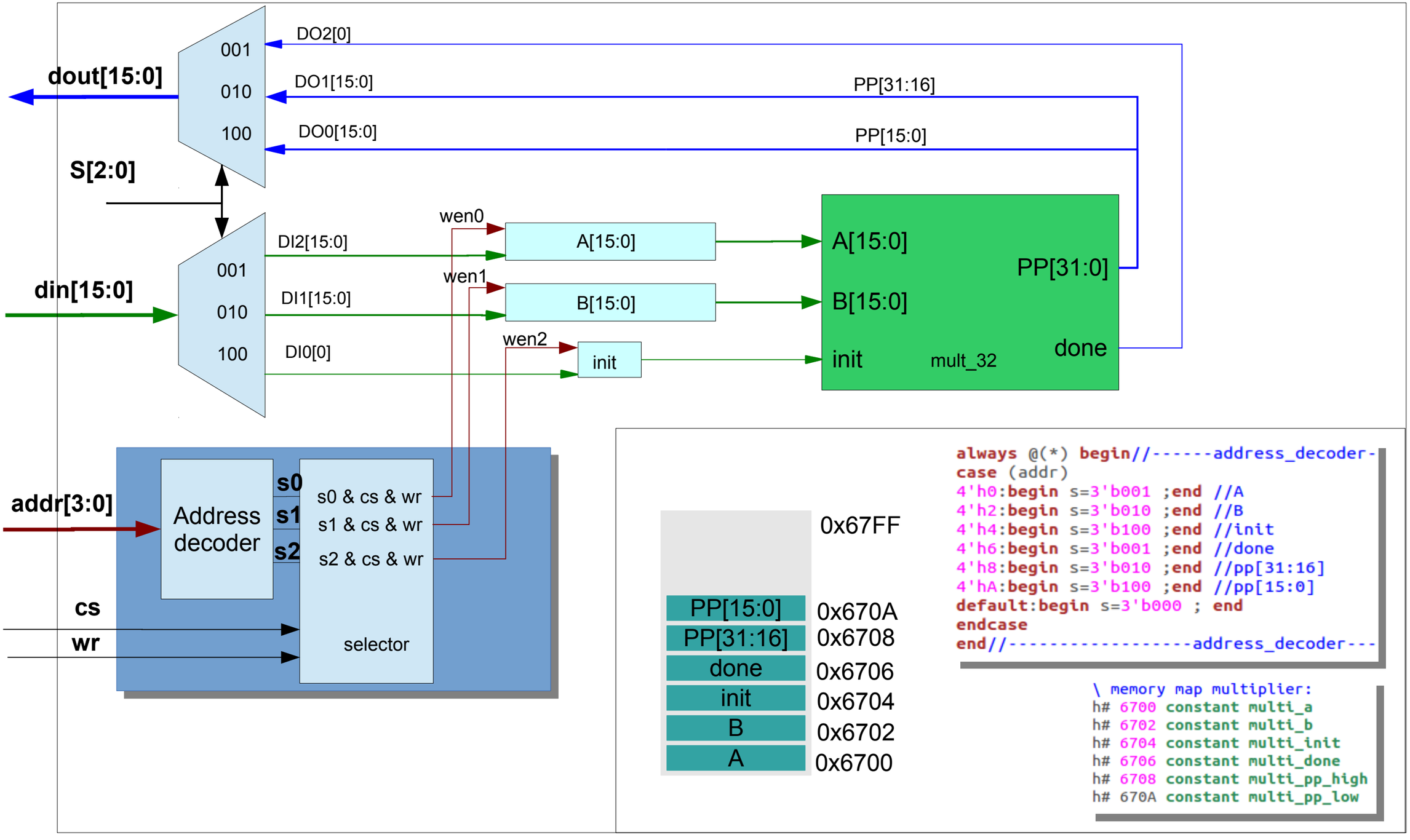
0x6800

0x6700

0x0000

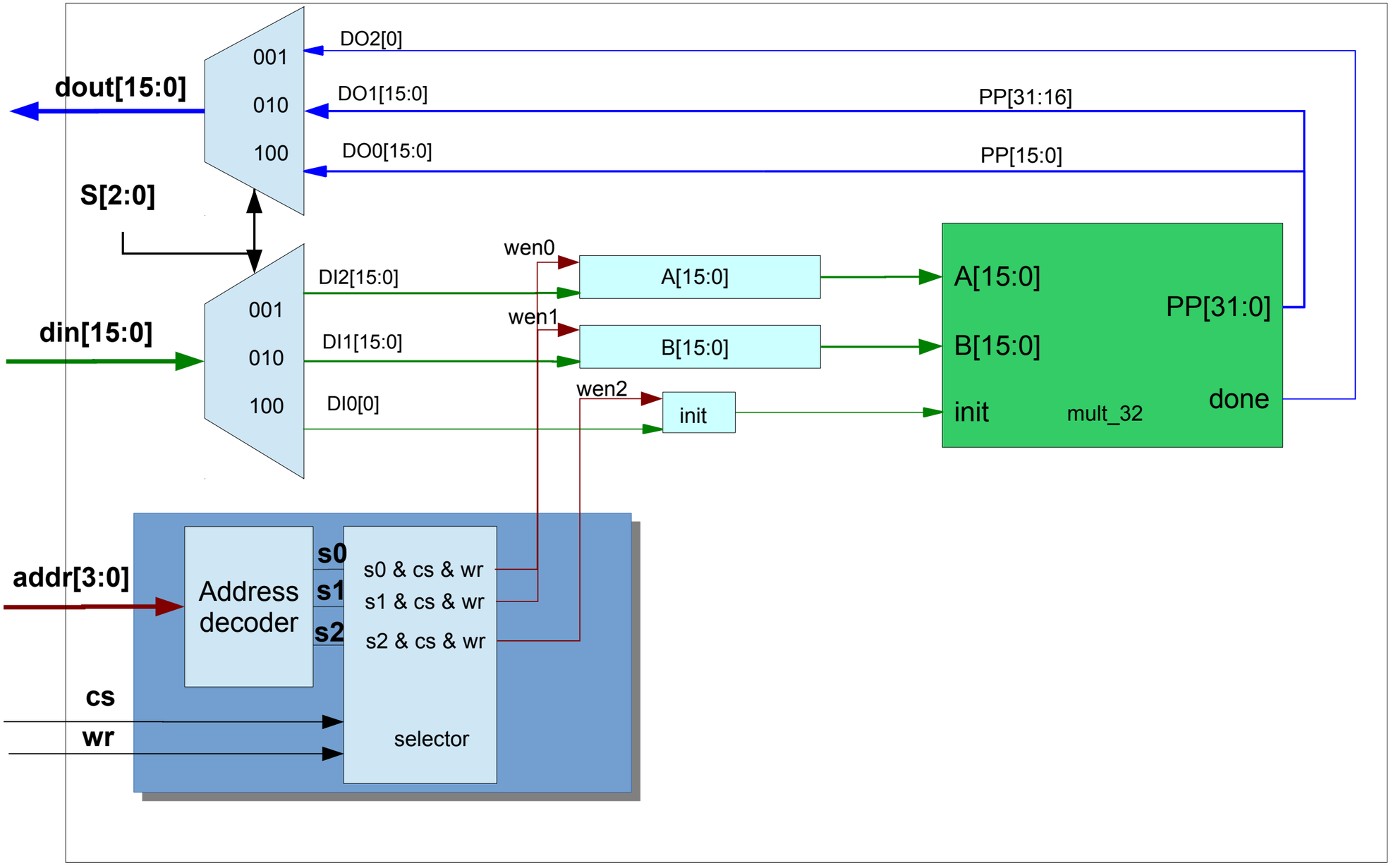
```
// ============== Chip_Select (Addres decoder) ============
always @*
begin
    case (j1_io_addr[15:8])   // direcciones - chip_select
      8'h67: cs= 3'b100;              //mult
      8'h68: cs= 3'b010;              //div
      8'h69: cs= 3'b001;              //uart
      default: cs= 3'b000;
    endcase
end
// ============== Chip_Select (Addres decoder) ============
```

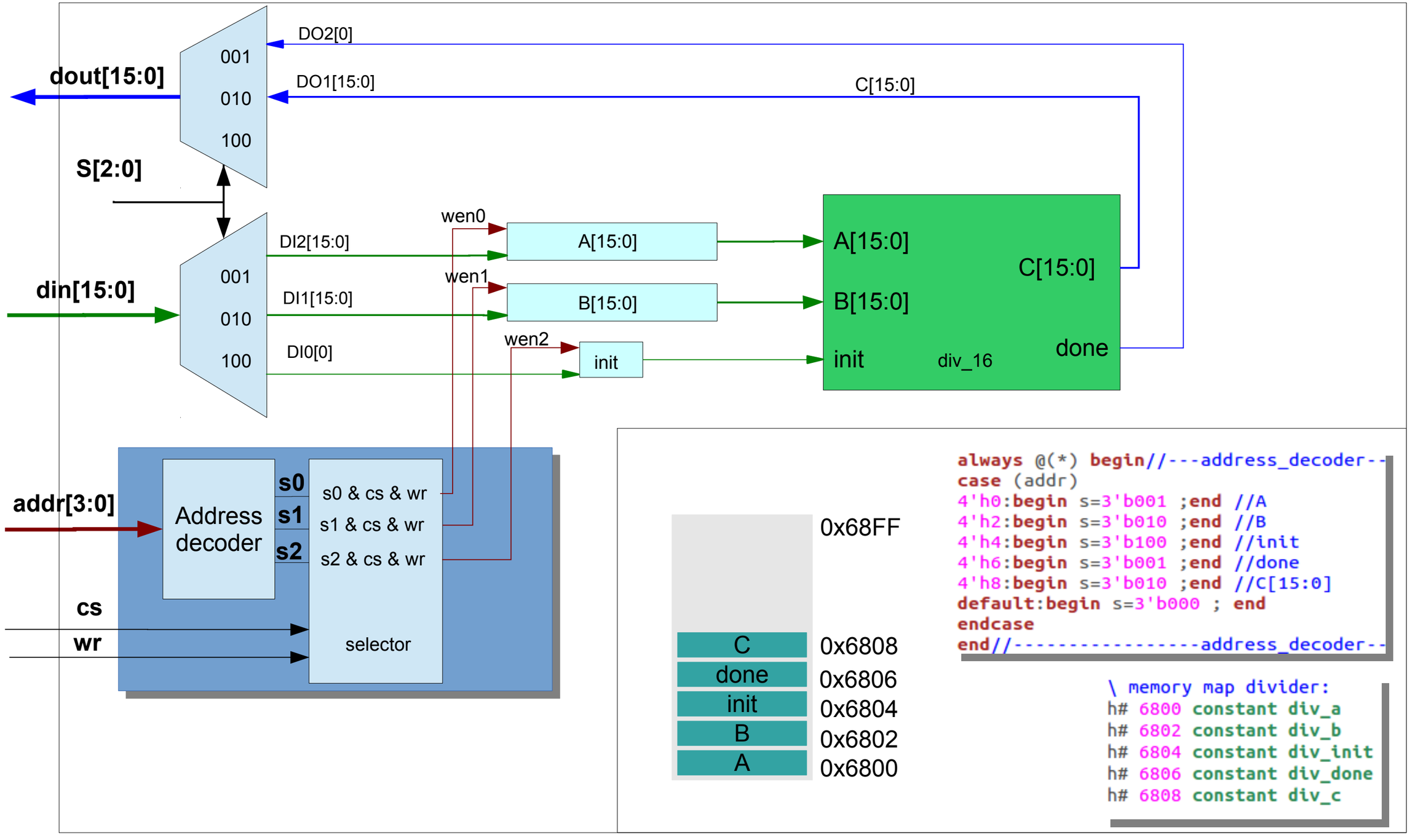





```
always @(*) begin//------address_decoder-
case (addr)
4'h0:begin s=3'b001 ;end //A
4'h2:begin s=3'b010 ;end //B
4'h4:begin s=3'b100 ;end //init
4'h6:begin s=3'b001 ;end //done
4'h8:begin s=3'b010 ;end //pp[31:16]
4'hA:begin s=3'b100 ;end //pp[15:0]
default:begin s=3'b000 ; end
endcase
end//------------------address_decoder---
```

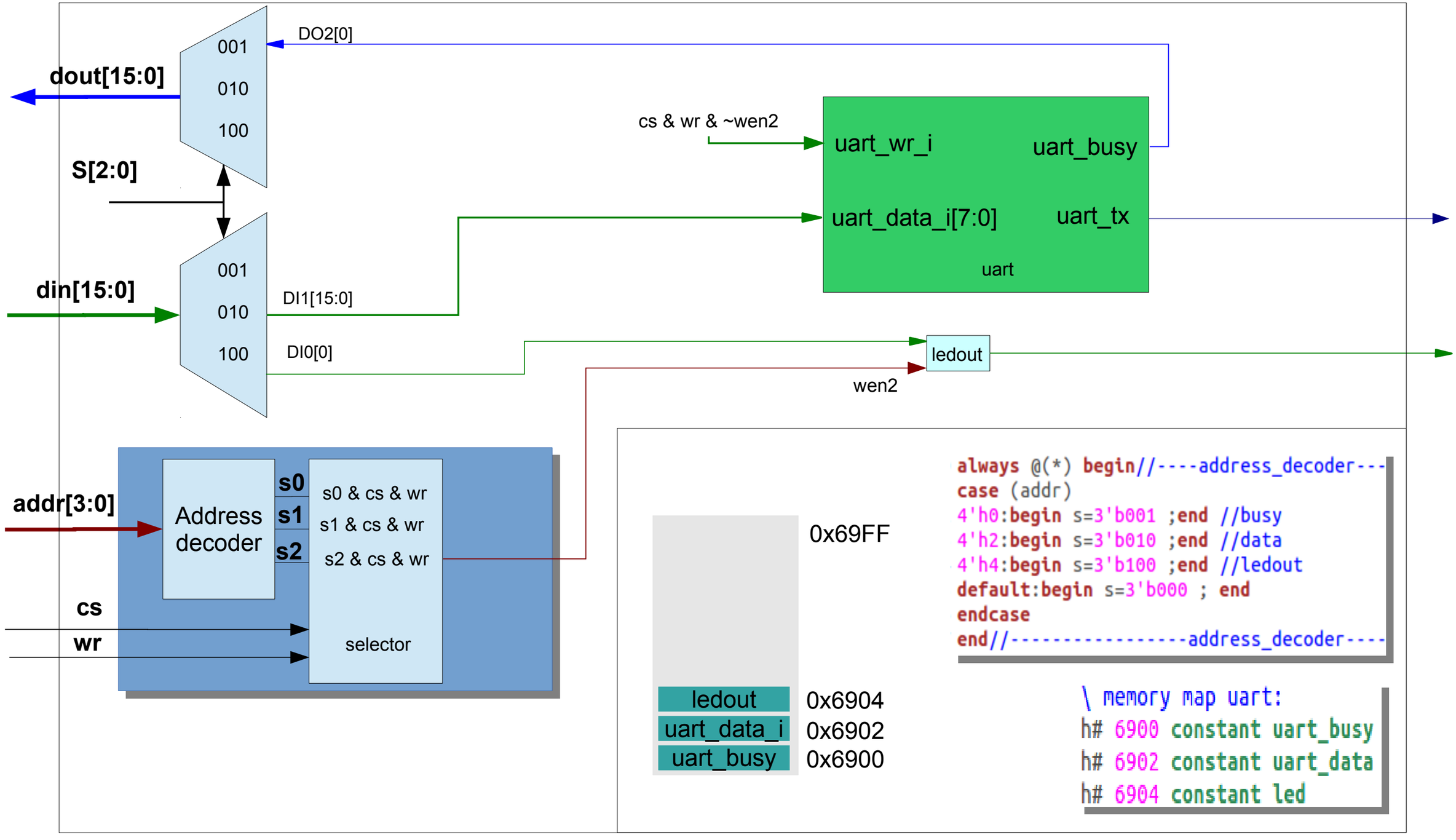
```
\ memory map multiplier:
h# 6700 constant multi_a
h# 6702 constant multi_b
h# 6704 constant multi_init
h# 6706 constant multi_done
h# 6708 constant multi_pp_high
h# 670A constant multi_pp_low
```


dout[15:0]
001
010
100
DO2[0]
DO1[15:0]
DO0[15:0]
PP[31:16]
PP[15:0]
S[2:0]
din[15:0]
001
010
100
DI2[15:0]
DI1[15:0]
DI0[0]
wen0
wen1
wen2
A[15:0]
B[15:0]
init
A[15:0]
B[15:0]
init
PP[31:0]
done
mult_32
addr[3:0]
Address
decoder
s0
s1
s2
s0 & cs & wr
s1 & cs & wr
s2 & cs & wr
cs
wr
selector




```
always @(*) begin//---address_decoder--
case (addr)
4'h0:begin s=3'b001 ;end //A
4'h2:begin s=3'b010 ;end //B
4'h4:begin s=3'b100 ;end //init
4'h6:begin s=3'b001 ;end //done
4'h8:begin s=3'b010 ;end //C[15:0]
default:begin s=3'b000 ; end
endcase
end//-----------------address_decoder--
```

```
\ memory map divider:
h# 6800 constant div_a
h# 6802 constant div_b
h# 6804 constant div_init
h# 6806 constant div_done
h# 6808 constant div_c
```



	0x69FF
ledout	0x6904
uart_data_i	0x6902
uart_busy	0x6900

```
always @(*) begin//----address_decoder---
case (addr)
4'h0:begin s=3'b001 ;end //busy
4'h2:begin s=3'b010 ;end //data
4'h4:begin s=3'b100 ;end //ledout
default:begin s=3'b000 ; end
endcase
end//----------------address_decoder----
```

```
\ memory map uart:
h# 6900 constant uart_busy
h# 6902 constant uart_data
h# 6904 constant led
```