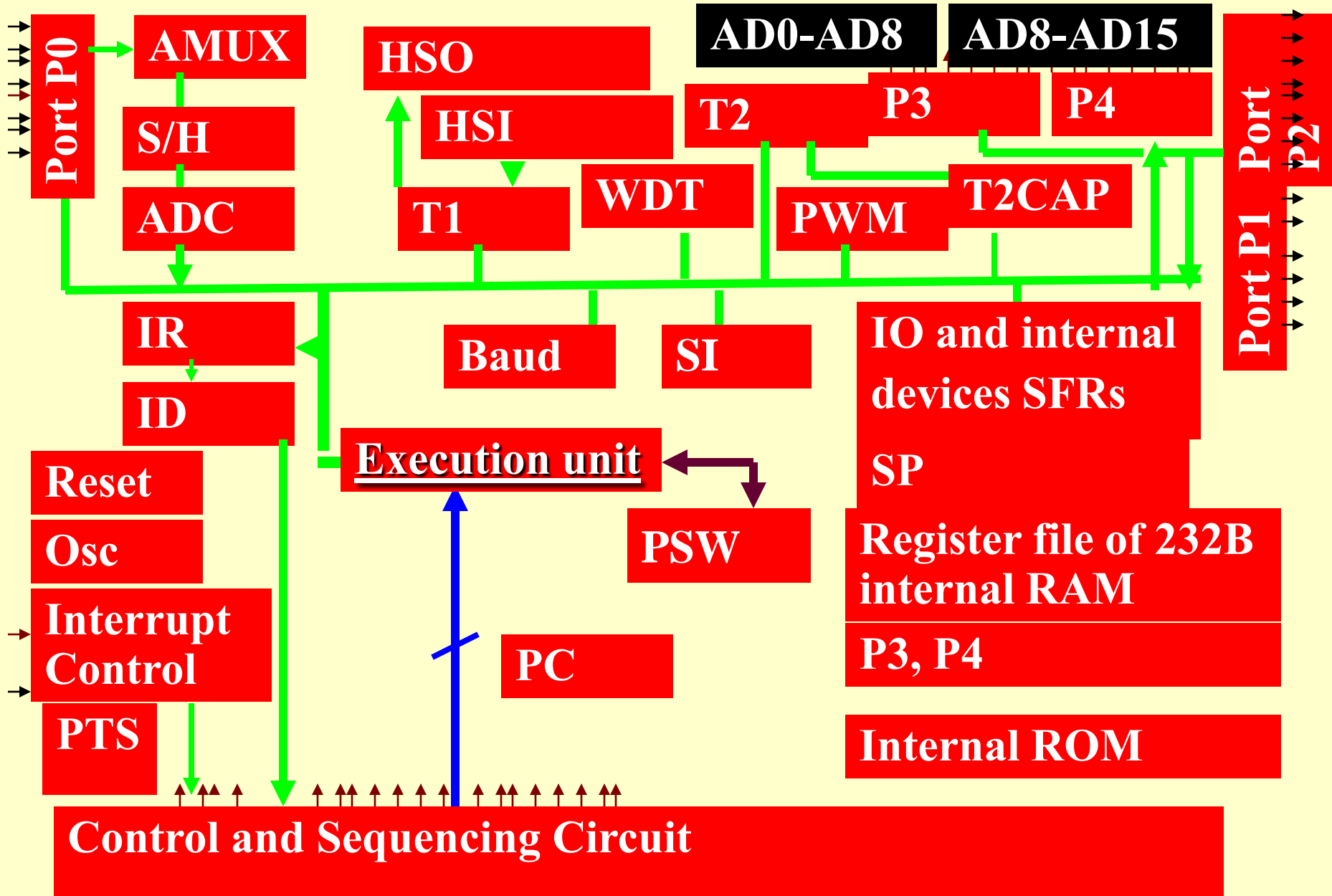


Chapter 14

80x96 Family Microcontrollers



Lesson 08 Part e

PWM

Three PWMs (Pulse width Modulators) 80196

- **A PWM action is obtained by writing pW at an 8-bit PW_Control SFR**

**8 -
bits**

PWM_Control
SFR

PWM Enable
output at P2.5

pW 8-bits at 17H

bit IOC1.0 at 16H

**= 0 disable;
= 1 enable**

pW= 0 then for period = 48 μ s output = 0; pW =
n, then for $(n/255) \times 48 \mu$ s, output = 1 and $[(225-$
 $n)/255] \times 48 \mu$ s, output = 0; $n \leq 255$. Assume 16
MHz XTAL

Port P2.3 Pin PWM0

P2.7	IO
P2.6	IO
P2.5	PWM0
P2.4	IO or T2CLK
P2.3	IO or T2RST
P2.2	IO or EXINT
P2.1	IO or TxD or Clock
P1.0	IO or RxD or Data

Option 4

Port P1.4 and PWM.3 pins PWM1 and PWM2 Address – 0FH

P1.7	IO
P1.6	IO
P1.5	IO
P1.4	→ PWM1
P1.3	→ PWM2
P1.2	IO
P1.1	IO
P1.0	IO

Option 2

Summary

We learnt

- **Three PWMs in 80196**
- **PWM_Control**
- **IOC1.0**

End of Lesson 8 Part e on PWM