

3

SSMP Multi-Loop

$$MC_{iteration} = 5 \cdot MC_{clock\ div} + MC_{post\ processing} + 2$$

$$= 5(11) + (18) + 2$$

$$MC_{iteration} = 75 MC \quad (\text{while alarm sounding})$$

$$\frac{1844}{75} \approx 25 = 24$$

$$1s\ delay \rightarrow 3686500 MC \approx \frac{3686500}{1844} \approx 2000$$

40 50
" " RZ
R1

4

$$\left[\frac{s}{\frac{s}{MC}} \right] = [MC]$$

$$t_{MC} = \left(\frac{2\pi}{MC} \right) \left(\frac{1s}{7.373 \cdot 10^6 Hz} \right) = 2.7126 \cdot 10^{-7} s/MC$$

$$t_d = t_{MC} \cdot x, \quad x = \frac{t_d}{t_{MC}}$$

500 Hz $\rightarrow \frac{1}{500} s = .002 s \rightarrow .0015 / \text{half period}$

1000 Hz $\rightarrow \frac{1}{1000} s = .001 s \rightarrow .0005 s / \text{half period}$

$x = \frac{.001}{2.7126 \cdot 10^{-7}} = 3686.5 MC \approx 3687 MC$

$x = \frac{.0005}{2.7126 \cdot 10^{-7}} = 1843.25 MC \approx 1844 MC$

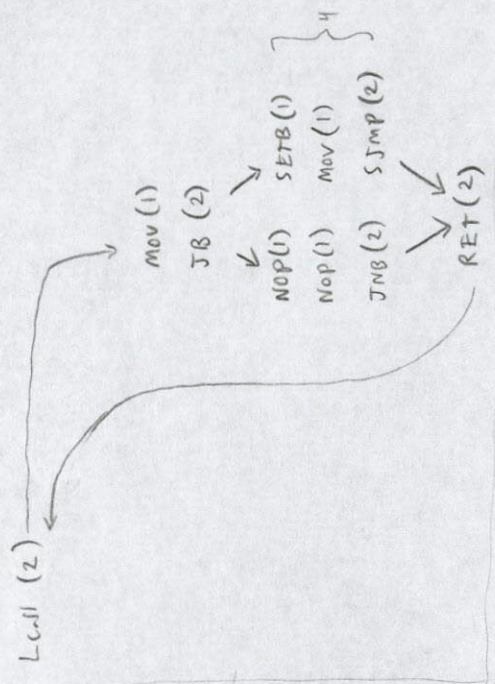
alarm duration

$$x = \frac{1}{2.7126 \cdot 10^{-7}} = 3686500 MC$$

1 Step by step

$$MC_{clock\ div} = \frac{2}{11} MC$$

2
1
2
4
+ 2
11



2

MC post

(post processing)

