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MZQ5FK

Mini-project1

## Deliverable – 2

b. Change the value of **TEST\_PERIOD** to get a timer frequency of 20 Hz. Show your calculations.

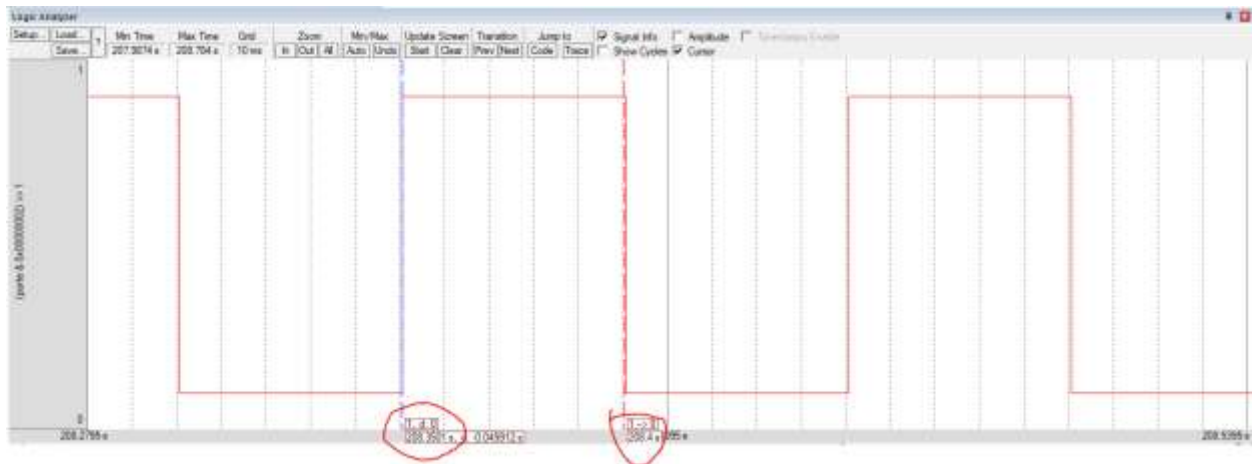
$$\frac{\text{bus frequency}}{\text{timer frequency}} = \frac{\text{reload value}}{1}$$

Bus frequency = 80,000, 000 = 80MHz

Timer frequency = 20 Hz

$$\frac{80,000,000}{20} = \frac{\text{reload value}}{1}$$

**TEST\_PERIOD** = 4,000,000



From the image above the reference points are 208.35secs and 208.4secs

To verify

$$\text{Period} = 208.4\text{secs} - 208.35\text{secs} = 0.05\text{secs}$$

$$\text{Frequency} = 1/\text{period} = 1/0.05\text{secs} = 20\text{Hz}$$